



Land Adjacent to Windhover Roundabout
Bursledon

Transport Assessment

For

Wates Developments Ltd

Document Control Sheet

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Bursledon

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Contents

1.0	Introduction	1
2.0	Planning Policy Context.....	3
3.0	Site Characteristics	9
4.0	Development Proposals.....	15
5.0	Trip Generation.....	18
6.0	Traffic Impact	22
7.0	Mitigation Measures	35
8.0	Summary and Conclusion.....	37

Appendices

A	Pre-application Responses
B	Walking, Cycling and Horse Riding Assessment and Review
C	Proposed Site Layout
D	A3024 Bursledon Road Access Arrangements
E	A27 West End Road Access Arrangements
F	Stage 1 Road Safety Audit and Designers Response
G	B2 Use Indicative Parking Plan
H	Swept Path Analysis
I	TRICS Output – Commercial Warehousing
J	TRICS Output – Industrial Unit
K	TRICS Output – Parcel Distribution Centre
L	Traffic Flow Diagrams
M	Census Travel to Work Data
N	Junctions 9 ARCADY Output – Windhover Roundabout
O	Linsig Output – A3024 Bursledon Road Corridor Baseline
P	Linsig Output – A3024 Bursledon Road Corridor with Development
Q	Linsig Output – A3024 Bursledon Road Corridor with Development – Mitigation Scenario
R	Junctions 9 ARCADY Output – M27 Junction 8 Roundabout
S	Highway Mitigation Drawings

1.0 Introduction

Overview

- 1.1 This Transport Assessment (TA) has been prepared by Motion on behalf of Wates Developments Ltd to accompany a pre-application submission for land adjacent to Windhover roundabout, Bursledon to Eastleigh Borough Council.
- 1.2 The development proposal for warehouse development (Use Classes B2 and B8 applied flexibly) of up to 200,000ft² (GIA), together with ancillary offices (Use Class E(g)(i)) and other ancillary building and structures, parking, servicing and manoeuvring areas, landscaping and sustainable drainage features.
- 1.3 The development is proposed on the Cranbury site, which is a parcel of land located to the north of the Windhover Roundabout between the A27 West End Road and the A3024 Bursledon Road.
- 1.4 The site is situated within the administrative boundary of Eastleigh Borough Council (EBC), with Hampshire County Council (HCC) as the local highway authority.

Document Purpose

- 1.5 This TA identifies the sustainable transport strategy of the proposed development and to assess the implications of additional travel movements on the local highway and transport networks alongside compliance with relevant national and local policy guidance.
- 1.6 The TA evaluates the existing conditions of the site in relation to the local highway and transport networks and demonstrates how the proposed development is anticipated to integrate with these.
- 1.7 This report has been prepared with the following objectives:
 - ▶ To provide a summary of the relevant national and local transport related planning policy;
 - ▶ To outline and review the existing sustainable travel credentials of the development site and the surrounding area;
 - ▶ To review the development proposal, including the pedestrian, cyclist and vehicular access arrangements and proposed layout of the site;
 - ▶ To use the TRICS database to forecast travel demand for future site operations;
 - ▶ To undertake detailed a junction capacity modelling exercise to assess the impact of the development on the operation of the local highway and transport networks during the weekday morning and evening peak periods; and
 - ▶ To identify measures to mitigate the impact of the development proposals on the local highway network.
- 1.8 In addition to this TA, a Framework Travel Plan (FTP) has been prepared as a standalone document to accompany this pre-application enquiry and should be reviewed in conjunction with this TA.
- 1.9 Pre-application discussions have been held with National Highways (NH) and HCC. These comments are included at **Appendix A** and have been taken into account in the preparation of this document as required.
- 1.10 Additional pre-application comments were provided by NH who were consulted by EBC during the formal planning pre-application for the scheme. These comments have been taken into account in this Transport Assessment, with the NH comments also included at **Appendix A**.

Report Structure

1.11 Following this introduction, the TA considers the following:

- ▶ Section 2 reviews the relevant national and local transport-related planning policies applicable to the proposed development;
- ▶ Section 3 details the baseline conditions relevant to the site, including the site accessibility characteristics on foot, by cycle and public transport alongside the operational and safety characteristics of the surrounding highway network;
- ▶ Section 4 provides an overview of the development proposals, including the proposed access arrangement, parking provision and servicing arrangements;
- ▶ Section 5 assesses the trip generation of the proposed development and the impact of the development on the local highway and transport network; and
- ▶ Section 6 details the assessment methodology applied to assess the impact of the development on the highway network along with junction capacity analysis of the local junctions in the vicinity of the application site; and
- ▶ Section 7 provides a summary and conclusion of the findings presented in this TA.

2.0 Planning Policy Context

Overview

- 2.1 This section details the transport aspects of adopted national and local policies relevant to the development proposal that have informed the preparation of this TA.

National Policy

National Planning Policy Framework (NPPF)

- 2.2 The latest version of the National Planning Policy Framework (NPPF) was published in December 2024 which sets out the government's planning policies for England and how these are expected to be applied.
- 2.3 The NPPF presumes in favour of sustainable development and is a material consideration in planning decisions. Section 9 focuses on 'Promoting Sustainable Transport' which aims to *"actively manage patterns of growth... focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes"*.
- 2.4 Paragraph 115 acknowledges that when assessing specific applications for development, it should be ensured that:
- ▶ *"sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;*
 - ▶ *safe and suitable access to the site can be achieved for all users;*
 - ▶ *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*
 - ▶ *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."*
- 2.5 Paragraph 116 states:
- "Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios."*
- 2.6 Paragraph 117 outlines that applications for development should:
- ▶ *"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;*
 - ▶ *address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*
 - ▶ *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;*
 - ▶ *allow for the efficient delivery of goods, and access by service and emergency vehicles; and,*
 - ▶ *be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations."*

- 2.7 Paragraph 118 states that *"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"*.
- 2.8 Annex 2 of the NPPF defines sustainable transport modes as, *"any efficient, safe and accessible means of transport with overall low impact on the environment, including walking and cycling, ultra-low and zero emission vehicles, car sharing and public transport"*.

Draft National Planning Policy Framework

- 2.9 On 16th December 2025, a draft version of the NPPF was published, setting out the Government's revised planning policies for England. While not yet formally adopted, the policies contained within the revised NPPF illustrate the direction of travel at a national level.
- 2.10 Chapter 15 of the draft NPPF considers the promotion of sustainable transport, with the chapter summary stating:
- "The objective of the policies in this chapter is to ensure that transport considerations are taken fully into account in the preparation of development plans and the evolution and assessment of development proposals; using a vision-led approach to embed the role that transport infrastructure and choices can play in creating well-designed, sustainable, inclusive and popular places."*
- 2.11 As part of the draft NPPF, several transport-related policies have been updated, most notably under Policy TR6: Assessing Transport Impacts. Paragraph 1 of Policy TR6 states:
- "Development proposals that are likely to generate significant amounts of movement should be supported by:*
- A transport statement or transport assessment (depending on the extent and significance of the transport issues involved), proportionate to the nature and scale of the development, so that the likely impacts of the proposal for transport can be assessed and monitored..."*
- 2.12 In addition, Paragraph 3 of Policy TR6 states:
- "All development proposals should be capable of proceeding without having a severe adverse impact on the transport network (in terms of capacity and congestion, including cumulative impacts), or an unacceptable impact on highway safety, taking into account any mitigation measures proposed as well as any wider network improvements."*
- 2.13 Further to the above, Policy TR3: Locating Development in Sustainable Locations states:
- "So that development is located where it can support sustainable patterns of movement, enable good accessibility for different users and make the most of existing and proposed transport infrastructure, development proposals should reflect the following principles, taking into account the vision for the site, the type of development and its location:*
- a. Development proposals which could generate a significant amount of movement, in the context of the area within which they would be situated, should be in locations that are, or can be made sustainable, by limiting the need to travel and offering a genuine choice of transport modes for residents and users, unless the nature of the use makes this impractical;*
- b. Opportunities should be taken to utilise existing or proposed transport infrastructure in optimising the amount or density of development which can be accommodated in different locations, especially where this can support more walking, wheeling, cycling and public transport use;*
- c. The environmental impacts of traffic and transport infrastructure should be identified, assessed and taken into account – including taking opportunities to avoid or mitigate any adverse environmental effects, and to secure net environmental gains such as reductions in air pollution;*

d. In rural areas, opportunities to improve wheeling, cycling and public transport and enhance the connectivity of an area should be taken where they exist and can be supported by the development proposed.

2. The Connectivity Tool (Connectivity Tool - GOV.UK) should be used alongside other relevant evidence in assessing the connectivity of particular locations proposed for development."

- 2.14 Capacity, congestion and safety impacts are not identified explicitly as reasons for refusal and instead must, in combination with other impacts, substantially outweigh the benefits of development proposals in order to justify a refusal.

National Planning Practice Guidance (NPPG)

- 2.15 The National Planning Practice Guidance (NPPG) supplements the NPPF and provides detailed advice with regards to transport assessments and statements, as well as travel planning. The guidance states that these documents *"are all ways of assessing and mitigating the negative transport impacts of development in order to promote sustainable development. They are required for all developments which generate significant amounts of movement."*
- 2.16 This continues to state that Travel Plans *"are long-term management strategies for integrating proposals for sustainable travel into the planning process."* This continues to state that *"Travel Plans should where possible, be considered in parallel to development proposals and readily integrated into the design and occupation of the new site rather than retrofitted after occupation."*
- 2.17 Transport Assessments *"primarily focus on evaluating the potential transport impacts of a development proposal"* and *"can be used to establish whether the residential transport impacts of a proposed development are likely to be "severe", which may be a reason for refusal, in accordance with the National Planning Policy Framework"*.
- 2.18 Travel Plans, Transport Assessments and Statements can positively contribute to:
- ▶ *"encouraging sustainable travel;*
 - ▶ *Lessening traffic generation and its detrimental impacts;*
 - ▶ *Reducing carbon emissions and climate impacts;*
 - ▶ *Creating accessible, connected, inclusive communities;*
 - ▶ *Improving health outcomes and quality of life;*
 - ▶ *Improving road safety; and*
 - ▶ *Reducing the need for new development to increase existing road capacity or provide new roads."*
- 2.19 The guidance explains that the following key principals should be taken into account when preparing Transport Assessments:
- ▶ *Proportionate to the size and scope of the proposed development to which they relate and build on the existing information wherever possible;*
 - ▶ *Established at the earliest practicable possible stage of a development proposal;*
 - ▶ *Be tailored to particular local circumstances;*
 - ▶ *Be brought forward through collaborative working between local planning authority/transport authority, transport operators, rail network operators, Highways Agency [now National Highways] where there may be implications for the strategic road network and other relevant bodies."*

DfT Circular 01/2022

- 2.20 DfT Circular 01/2022 relates to the 'strategic road network and the delivery of sustainable development' and seeks to promote sustainable development where impacting on the National Highways strategic road network. This states that *"new development should be facilitating a reduction in the need to travel by private car and focused on locations that are or can be made sustainable"*.
- 2.21 Paragraph 42 relates to engaging with decision taking and states that:
- "Local planning authorities and development promoters are encouraged to identify any potential impacts on the SRN that may result from development proposals and discuss them with the company at the earliest opportunity. In the first instance, new developments should give priority to walking, wheeling and cycle movements and facilitate access to high-quality public transport where possible."*
- 2.22 Paragraph 44 relates to Travel Plans and states:
- "Travel plans are an effective means of incentivising the use of sustainable modes of transport. Where these are required, development promoters must put forward clear targets and commitments to manage down the traffic impact of development and maximise the accessibility of and within sites by walking, wheeling, cycling, public transport and shared travel. Targets for achieving a modal shift to sustainable transport will need to be subject to sustained monitoring and management by an appointed travel plan coordinator."*
- 2.23 Paragraph 49 relates to Transport Assessments and states:
- "A transport assessment for consideration by the company must also consider existing and forecast levels of traffic on the SRN, alongside any additional trips from committed developments that would impact on the same sections (link or junction) as the proposed development. Assumptions underpinning projected levels of traffic should be clearly stated to avoid the default factoring up of baseline traffic. The scenario(s) to be assessed, which depending on the development and local circumstances may include sensitivity testing, should be agreed with the company; where a scenario with particularly high or low growth is proposed, this should be supported by appropriate evidence. Planned improvements to the SRN or local road network should also be considered in any assessment where there is a high degree of certainty that this will be delivered"*
- 2.24 Paragraph 50 states:
- "An opening year assessment to include trips generated by the proposed development, forecasted growth and committed development shall be carried out to establish the residual transport impacts of a proposed development."*

Local Policy

Eastleigh Borough Council Local Plan 2016 – 2036

- 2.25 Planning policies for the district are contained within the Eastleigh Borough Council Local Plan (2016-2036), which was adopted in April 2022. The following policies are relevant to transport.
- 2.26 Strategic Policy S11 considers transport infrastructure, stating:
- "The Council will work with the highway authorities, Solent Transport, transport operators, funding bodies and developers to minimise transport emissions, pollution and congestion by:*
- a) ensuring new developments:*
 - i i. encourage walking, cycling and the use of public transport; and*
 - ii ii. minimise congestion and support safety on the highway network;*

as informed by appropriate transport assessments; and

b) safeguarding the routes and securing the funding to deliver new and improved transport infrastructure..."

2.27 Policy DM13 relates to the general development criteria for transport, stating:

"All new development must have safe and convenient access to the highway network and make provision for access to, and by, other transport modes including public transport and cycle and pedestrian routes as appropriate. Access arrangements to the highway network must:

- c) meet national and local guidance and standards with all highway improvements meeting the standard required to be adopted by the Highway Authority;*
- d) not cause or increase danger to road users or have a significant detrimental impact on the operation or safety of the highway network; and*
- e) be provided without unacceptable environmental impact.*

All new development will be assessed to establish whether it should contribute to off-site improvements to transport infrastructure in accordance with Hampshire County Council's Transport Contributions Policy, to the extent that these are necessitated by the development and proportionate to the scale of development.

Development proposals that will generate vehicle movements likely to have an adverse impact on traffic conditions beyond the immediate vicinity of the development site must be subject to Transport Assessment and will be required to incorporate and implement mitigation measures such as:

- a) provision of/contribution towards on and off-site highway improvements such as junction improvements and potentially new road links*
- b) on-site pedestrian, cycle and public transport infrastructure*
- c) contributions towards relevant off-site sustainable transport infrastructure, public rights of way and service improvements where appropriate*
- d) on-site measures aimed at increasing uptake of non-car travel options (e.g. Travel Plans) to reduce car use.*

New development intended to serve or accommodate large numbers of people will only be permitted in locations that as well as having adequate road access, or will have as a result of the development, are or can be served by means of transport other than the private car, including bus, train, cycle and pedestrian access."

2.28 Policy DM14 considers parking, stating:

"For out-of-centre development proposals, parking needs will be assessed based on the impacts of the development on neighbouring town, district or local centre or a neighbourhood parade."

2.29 Policy DM14 refers to the Council's Residential Parking Standards SPD, though it is noted that no standard for non-residential parking standards is referenced within the 2016 to 2036 Local Plan. The previous Local Plan iteration applied the parking standards contained within the 'Hampshire Parking: Strategy and Standards' document (2001) prepared by HCC and withdrawn by HCC in 2013.

Eastleigh Borough Council Parking Standards SPD (September 2025)

2.30 The Eastleigh Borough Council Parking Standards Supplementary Planning Document (SPD) provides parking standards and guidance for residential and non-residential development in the district.

- 2.31 Table 4 of the SPD details the non-residential car and cycle parking standards, with the standards relevant to the proposed development summarised in Table 2.1.

Type/Use	Car Parking Standard	Operational Parking		Cycle Parking Standard	
		Loading Areas (inc. deliveries and drop off)	Vehicle Parking (inc. pool cars and service vehicles)	Long Stay	Short Stay
B2 General Industrial	1 space per 45m ²	1 space	To be decided on a site-by-site basis	1 space per 8 staff	1 space per 500m ²
B8 Warehouse	1 space per 80m ²	1 space	To be decided on a site-by-site basis	1 space per 10 staff	1 space per 600m ²
B8 Distribution Centre	1 space per 100m ²	To be decided on a site-by-site basis	1 space per 500m ²	1 space per 10 staff	1 space per 600m ²

Table 2.1: SPD Non-Residential Parking Standards

- 2.32 It should be noted that, in the supporting text for Table 4 within the SPD, it is stated that *"figures provided in the table should be viewed as the expected standard, however as noted above each development will be considered on an individual basis taking account of local circumstances."*

Eastleigh Local Cycling and Walking Infrastructure Plan

- 2.33 The Eastleigh Local Cycling and Walking Infrastructure Plan (LCWIP) was prepared by HCC to note existing and potential walking and cycling routes in the borough.
- 2.34 In the vicinity of the site, two routes are noted:
- ▶ Route 270 – Hightown to Bursledon; and
 - ▶ Route 338 – West End to Hamble.
- 2.35 Route 270 routes along the western side of the Bursledon Road carriageway and continues across the Windhover Roundabout junction to follow the A27 Providence Hill. The LCWIP notes that there is scope to provide a segregated cycle track along Bursledon Road between the Botley Road and Windhover Roundabout junctions.
- 2.36 Route 338 routes down the A27 West End Road and down Hamble Lane in the vicinity of the site. The LCWIP notes that *"there is considerable existing infrastructure for cyclists and pedestrians along this section of route 338"*. Notwithstanding this, the LCWIP notes that segregated cycle tracks could be provided between the Windhover Roundabout and the Tesco Roundabout by reallocating space from the central verge.

Summary

- 2.37 National and local planning policy encourages new developments to be located in areas that provide opportunities to travel using sustainable modes such as walking, cycling and public transport.

3.0 Site Characteristics

Site Location

- 3.1 The site is located on land north of the Windhover Roundabout to the north-west of Bursledon. The site is situated to the southeast of Hightown and east of Sholing, approximately 6.0km east of Southampton city centre.
- 3.2 The Windhover Roundabout is a five-arm roundabout junction, with the A27 forming the northern and south-eastern arms, the A3024 forming the eastern and north-western arms and the A3025 Hamble Lane forming the south-western arm.
- 3.3 The northern arm, the A27 West End Road, continues north around the western and northern extents of Southampton, providing a route towards suburban areas such as West End and Swaythling, whilst the south-eastern arm, the A27 Providence Hill, continues towards Sarisbury, Titchfield and Fareham.
- 3.4 Approximately 350 metres east of the Windhover Roundabout, the eastern arm of the junction, the A3024 Bert Betts Way, provides a link to the M27 Junction 8 and onward towards Hedge End along Dodwell Lane. The M27 continues north to provide access towards Hedge End, Southampton and the M3 and onwards to the west as the A31 towards Ringwood. To the south-east, the M27 continues towards Fareham and Portsmouth and continues east as the A27 towards Chichester.
- 3.5 The north-western arm of the Windhover Roundabout, the A3024 Bursledon Road, continues through Hightown, Thornhill and Bitterne into Southampton, whilst the south-western arm, the A3025 Hamble Lane, provides a route south towards Hamble, with the A3025 then continuing west through Old Netley and onwards to Southampton city centre via the Itchen toll bridge.
- 3.6 To the northwest of the site along the A3024 Bursledon Road, a signal junction between Botley Road and the A3024 is provided. Botley Road routes southwest to form a mini-roundabout junction with the A3025. The A3024 continues northwest towards Bitterne.
- 3.7 The location of the site in the context of the local highway network is illustrated in Figure 3.1.

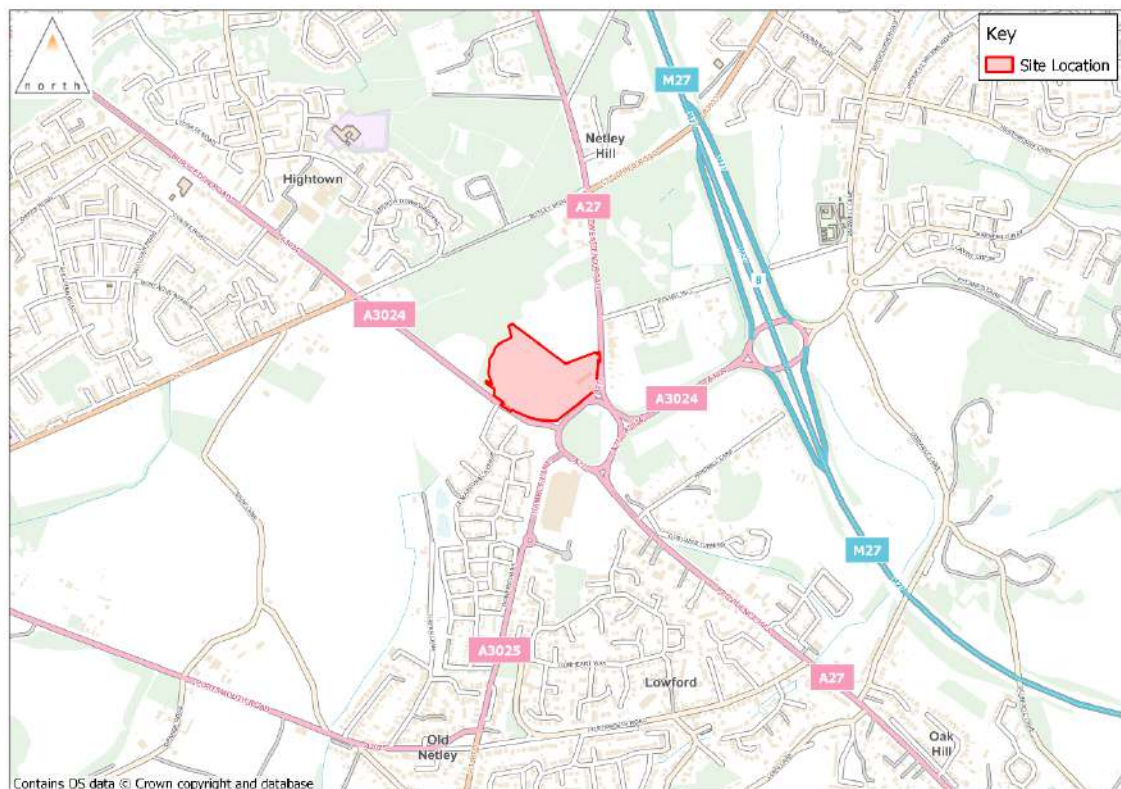


Figure 3.1: Site Location

Accessibility by Active Travel Modes

Accessibility on Foot

- 3.8 Continuous lit footways are provided along the southern and eastern boundaries of the site.
- 3.9 Signalised pedestrian crossings are provided on the south-eastern A3024 arm and Le Marechal Avenue arm of the A3024/Le Marechal Avenue junction, facilitating safe pedestrian movement between the site and footways to the south of the A3024 carriageway.
- 3.10 Footways continue north-west adjacent to the A3024 northbound carriageway to the A3024/Botley Road signalised junction, where signalised pedestrian crossings are provided across the eastern and northern arms, linked via a pedestrian refuge island.
- 3.11 From this junction, footways continue to link to nearby residential areas, including to the west adjacent to Botley Road towards Sholing and north adjacent to the A3024 through Hightown and towards Thornhill.
- 3.12 Lit footways also continue to the south of the A3024/Le Marechal Avenue junction. The footway continues south to a staggered pedestrian crossing provided over the A3025 Hamble Lane, which benefits from dropped kerbs and tactile paving.
- 3.13 Footways continue south adjacent to the A3025 southbound carriageway to the Tesco access roundabout junction, where a pedestrian refuge island crossing is provided across the eastern arm. Footways continue east then north through the Tesco car park, facilitating safe pedestrian access between the site and nearest supermarket, which also contains additional amenities including ATM, pharmacy and postal facilities.
- 3.14 To the south, footways continue adjacent to the A3025 southbound carriageway, providing links between the site, the nearest frequently served bus stops and residential areas within Bursledon.

Walking, Cycling, Horse Riding Assessment and Review

- 3.15 A Walking, Cycling and Horse Riding Assessment and Review (WCHAR) has been undertaken in accordance with HCC Policy TG19. This is a standalone document but has also been included at **Appendix B** for ease of reference.

Accessibility by Cycle

- 3.16 In the vicinity of the site, a shared footway/cycleway is provided adjacent to the northbound carriageway of the A3024 Bursledon Road carriageway, accessed via a shared pedestrian and cycle signalised crossing immediately south of the site.
- 3.17 The shared footway/cycleway continues north-west adjacent to the A3024 northbound carriageway to the A3024/Botley Road signalised junction, where a cycle crossing is provided across the centre of the crossing to facilitate safe cycle crossing at the junction.
- 3.18 The shared footway/cycleway then continues north of this junction on the A3024 adjacent to the southbound carriageway and forms part of Southampton Cycle Network (SCN) Route 3. SCN3 continues north to facilitate safe cycle access between the site and local residential areas within Southampton, including Hightown, Thornhill and Bitterne.
- 3.19 A shared footway/cycleway is also provided around the south of the Windhover Roundabout and continues south adjacent to the A27 northbound carriageway, providing a link towards residential areas to the north of Bursledon.

Accessibility via Public Transport

Accessibility by Bus

- 3.20 The closest bus stops to the site served frequently by local bus routes are located on Jurd Way, situated approximately 840 metres and 920 metres walk to the south of the site for northbound and southbound services respectively. Both stops are provided with a pole, flag, timetable information, shelter and seating.
- 3.21 The bus services operating from these stops are summarised in Table 3.1 below, including the bus route and service frequency.

Service	Route	Frequency (no. buses per hour)		
		Mon-Fri	Sat	Sun
X4	Southampton Central – West Quay – Woolston Bridge – Sholing – Old Netley – Lowford – Bursledon Station – Sarisbury – Locks Heath – Titchfield Common – Fareham Station – Wallington – Portchester – Paulsgrove – Portsea – Portsmouth The Hard Interchange	1-2 per hour	1 per hour	1 per hour
X5	Southampton Central – West Quay – Woolston Bridge – Sholing – Old Netley – Lowford – Bursledon Station – Sarisbury – Warsash – Locks Heath – Titchfield Common – Titchfield – Fareham Station – Wallington – Portchester – Paulsgrove – Portsea – Portsmouth The Hard Interchange	1-2 per hour	1 per hour	1 per hour

Table 3.1: Local Bus Services

- 3.22 It should be noted that whilst some bus stops are located closer to the site, including at the Tesco foodstore approximately 420 metres walk from the site, these stops are served infrequently by scheduled local bus routes.

Accessibility by Rail

- 3.23 Bursledon railway station is situated approximately 2.0km to the south of the site, accessible within approximately 25-minutes walk and 7-minutes cycle.
- 3.24 The station, operated by South Western Railway, is situated on the Portsmouth to Southampton Line. Typically, hourly services operate between Southampton Central and Portsmouth Harbour. Services to the west serve Hamble, Netley, Sholing, Woolston, Bitterne, St Denys and Southampton Central, with services east towards Swanwick, Fareham, Portchester, Cosham, Hilsea, Fratton, Portsmouth & Southsea and Portsmouth Harbour.

Local Highway Network

- 3.25 The site is ideally located close to the strategic road network, with the M27 Junction 8 accessed via the A3024 Bert Betts Way.
- 3.26 The A3024 Bert Betts Way is a dual carriageway road subject to a national speed limit, reducing to 40 miles per hour on the approach to the Windhover Roundabout junction.
- 3.27 Hamble Lane is also a dual carriageway road, which switches to single carriageway operation to the south of the Tesco roundabout junction. Hamble Lane is subject to a 40 miles per hour speed limit.
- 3.28 The A27 West End Road, the A27 Providence Hill and the A3024 Bursledon Road are all single carriageway roads subject to 40 miles per hour speed limits.

Personal Injury Collision (PIC) Analysis

- 3.29 Collision data for the most recent five-year period has been obtained from Hampshire Constabulary. This includes collisions up to 31st August 2024 and includes data for the study area used within the junction assessment of this report, namely Bursledon Road including the signal junction and approaches to the Bursledon Road/Botley Road junction, the Windhover Roundabout and all approaches and the approaches to the M27 Junction 89 roundabout.
- 3.30 The collision data utilises personal injury collision (PIC) data, therefore only recorded those which have resulted in personal injury. Within the five year period, 67 collisions were recorded on the network, of which 59 resulted in slight injury and the remaining eight in serious injury.
- 3.31 Overall collisions are recorded across the network, with collisions located both at junctions and along links within the network. Along the site frontages, no collisions are located along the A27 West End Road and three collisions occurred along Bursledon Road along the site frontage. Six collisions occurred at the Botley Road/Bursledon Road signal junction, with a further two collisions at the Botley Road/Shop Lane junction.
- 3.32 At the Windhover Roundabout, seven collisions occurred on the A3024 Bert Betts Way approach to the junction, two at the A27 West End Road approach to the junction, one at the A27 Providence Hill approach and four at the Hamble Lane approach to the junction. A further five collisions occurred along Bert Betts Way between the two roundabout junctions, with three on approach to the M27 Junction 8 roundabout. At this junction, seven collisions occurred on the Dodwell Lane approach, with 20 collisions occurring at the M27 slip roads and roundabout approach.
- 3.33 In terms of vulnerable road users, motorcycles were involved in 12 collisions across the network, with one collision involving each of a cyclist and a pedestrian.
- 3.34 Table 3.2 summarises the main collision causation factors listed within the collision data.

Causation Factor	Number of Collisions
Failed to Look Properly	16
Following too Close	7
Failed to Judge Other Persons Path or Speed	3
Impaired by Drugs (illicit or medicinal)	2
Careless/Reckless/In a Hurry	2
Disability or Illness, Mental or Physical	2
Sudden Braking	2
Loss of Control	2
Road Layout (e.g. bend, hill etc.)	2
Distraction Outside Vehicle	2
Vehicle in Course of Crime	1
Poor Turn or Manoeuvre	1
Travelling too Fast for Conditions	1
Exceeding Speed Limit	1
Animal or Object in Carriageway	1
Dazzling Sun	1
No Cause Provided	21

Table 3.2: Collision Causation Factors

3.35 The serious collisions occurred as follows:

- ▶ At the A3024 arm of the M27 Junction 8 roundabout, a car has started to move into the roundabout before sharply braking to give way to an oncoming vehicle and resulting in the car being hit from behind. This collision occurred on a dry road surface in daylight hours and resulted in serious injury to the driver of the second vehicle. This was attributed to failed to judge other persons path or speed (by both drivers), following too close (for the driver which hit the car in front), sudden braking and inexperienced of learner driver (both for the driver of the car which was hit);
- ▶ On the M27, circa 350 metres southeast of Junction 8, a car merging onto the slip road has slowed resulting in another car taking evasive action. This car has collided with a motorcycle which in turn has collided with another car. This collision occurred during darkness hours, with street lighting, on a dry road surface and was attributed to sudden braking by the car taking evasive action. This resulted in serious injury to the motorcyclist;
- ▶ On the A3024 Bert Betts Way approach to the Windhover Roundabout, a motorcycle has lost control exiting the roundabout and collided with the central barrier. This occurred during darkness hours with street lighting on a dry road surface and was attributed to loss of control;
- ▶ On the M27, circa 480 metres northwest of Junction 8, a motorcycle has failed to stop in time and collided with the rear of a car. This occurred during daylight hours on a dry road surface and was attributed to exceeding the speed limit, resulting in serious injury to the motorcyclist;
- ▶ At the M27 Junction 8 roundabout junction, a motorcyclist travelling east along the A3024 has pulled into lane 1 to allow a police vehicle to pass entering the roundabout. The motorcycle has lost control and collided with the kerb, resulting in serious injury to the rider. This occurred during daylight hours on a dry road surface and was attributed to loss of control;

- ▶ At the A3024 Bert Betts Way approach to Windhover Roundabout, a motorcycle has struck an object in the carriageway, resulting in the rider falling and colliding with the central reservation. This occurred during darkness hours, with street lighting present, on a dry road surface and was attributed to animal or object in the carriageway;
 - ▶ On Botley Road, approximately 50 metres south of the signal junction with Bursledon Road, a cyclist has entered the carriageway and collided with a southbound car. This occurred during daylight hours on a dry road surface and was attributed to failed to look properly by the cyclist; and
 - ▶ On the A3024 Bert Betts Way, approximately 100 metres south of the M27 junction, a northbound car failed to stop and collided with the rear of a van. This occurred during daylight hours on a dry road surface and was attributed to distraction outside vehicle and failed to look properly by the car driver.
- 3.36 Whilst a number of the above serious injuries involve vulnerable road users, these collisions are spread across the network and typically involve human error. Of these, two collisions are caused by losing control, either avoiding police cars or when traversing a bend in the road, alongside one involving a collision with an object on the carriageway. Further collisions involve going into the rear of other vehicles, or being caught by vehicles taking avoiding action. It is therefore considered that the above collisions do not demonstrate any specific collision traits or clusters which would warrant further analysis.
- 3.37 Along Bursledon Road, the collisions occurred as follows:
- ▶ A vehicle travelling northeast in stationary traffic has commenced a U-turn manoeuvre and collided with a motorcycle filtering past the stationary queue, causing a collision. This resulted in slight injury to the motorcyclist, with the collision occurring on a wet road surface during hours of darkness with no street lighting. This collision was attributed to failed to look properly and failed to judge other persons path or speed by both drivers. This collision occurred prior to the construction of the Le Marechal Avenue signal junction and is noted to occur close to the entrance to the Kestrel Park development;
 - ▶ Approximately 230 metres north of the Windhover Roundabout, a four car shunt collision has occurred during daylight hours on a dry road surface. This was attributed to following too close by the first vehicle involved, and resulted in slight injuries; and
 - ▶ On the A3024 north-westbound, close to the junction with Vosper Lane (assumed to mean the Le Marechal Avenue junction), a car driver has had a coughing fit and collided with the rear of a vehicle in front, which in turn collided with the vehicle in front. This occurred during daylight hours on a wet road surface and was attributed to illness or disability, mental or physical (very likely) and careless/reckless/in a hurry (possible).
- 3.38 Generally, the types of collisions which have occurred on the study network are typical of an urban network where low-speed collisions resulting in slight injuries and collisions involving vulnerable road users do occur. It is considered that the development proposals would not result in an increase in either the number or severity of accidents on the local highway network.

Summary

- 3.39 The above section has identified that the location of the site provides a realistic choice in travel modes to cater for a number of daily journeys, therefore reducing potential future staff reliance on the private car. As a result, the site reflects the requirements of the NPPF and local policy by ensuring that patterns of growth to make the fullest possible use of public transport, walking and cycling, and focuses development in locations which are sustainable.
- 3.40 Analysis of local collision data does not identify any collision cluster or common causation factors caused by the local highway network. In line with the NPPF, it is considered that there are no unacceptable highway safety impacts in the area which could be exacerbated by the development.

4.0 Development Proposals

Development Quantum

- 4.1 The development proposal for warehouse development (Use Classes B2 and B8 applied flexibly) of up to 200,000ft² (GIA), together with ancillary offices (Use Class E(g)(i)) and other ancillary building and structures, parking, servicing and manoeuvring areas, landscaping and sustainable drainage features.
- 4.2 The indicative site layout is included at **Appendix C**.

Access Arrangements

- 4.3 The development provides access onto the A3024 Bursledon Road and onto the A27 West End Road, with the site layout designed to prevent vehicles from being able to route between access points internally.

A3024 Bursledon Road Access

- 4.4 The A3024 Bursledon Road access is provided in the form of a fourth arm at the Le Marechal Avenue/A3024 Bursledon Road signal junction. This is provided as an offset staggered junction to allow for non-hooking right turning to occur from the A3024.
- 4.5 Assessment of the operation of this junction is provided within the traffic modelling at **Section 6** of this report. The assessment work undertaken of the overall network demonstrates that two access points into the site would be required in capacity terms based on the volume of traffic predicted to use each access in the peak hours. This analysis assumes operational HGV movements would utilise the Bursledon Road access, with staff commuting journeys making use of both accesses to access the provided parking areas.
- 4.6 The A3024 Bursledon Road access junction is included at **Appendix D**.

A27 West End Road Access

- 4.7 A second access is provided onto the A27 West End Road in the form of a priority junction. This formalises an existing gated access into the development site in this location.
- 4.8 A27 West End Road is subject to a speed limit of 40 miles per hour. As such, visibility requirements of 2.4 by 120 metres should be provided in line with the Design Manual for Roads and Bridges (DMRB). This is shown on the access plan included at **Appendix E**. To the south, the proximity of the Windhover Roundabout junction results in the 120 metre visibility splay crossing a significant portion of the development site and removing vegetation along the boundary. In view of this, a one-step below visibility splay of 90 metres is also provided, ensuring users of the access can maximise the visibility from the roundabout exit alongside retaining vegetation along the frontage.
- 4.9 The access has been designed to accommodate the movements of articulated HGVs, which would enter the site and manoeuvre in the designated loading area within the site.
- 4.10 During pre-application discussions with HCC, the form of this access was discussed, however the modelling assessment undertaken within **Section 6** of this report indicates that traffic queues would not extend to the access junction and therefore, a priority junction is considered a suitable access form in this location.

Pedestrian and Cycle Access

- 4.11 Pedestrian and cycle access into each site parcel is provided alongside the vehicular accesses into the site. These link to the existing foot and cycle network, with a signalised crossing provided across the A3024 to link to the existing shared foot/cycle network along the southern side of the A3024 carriageway. This includes a 3m foot/cycle connection linking to the crossing over Bursledon Road from the Bursledon Road access point to link the development to the existing cycle route on the southern side of the Bursledon Road carriageway.

Road Safety Audit

- 4.12 An independent Stage 1 Road Safety Audit has been undertaken of the proposed site access junctions and off-site highway improvements and is included at **Appendix F**.
- 4.13 Comments raised within the audit have been addressed within a Designer's Response, also included at **Appendix F**.

Parking and Loading Provision

Car Parking

- 4.14 The potential parking layouts for the site have been based on the Eastleigh Borough Council Parking Standards Supplementary Planning Document (September 2025).
- 4.15 Although the proposed development seeks a flexible B2/B8 use, the indicative site layout sets out a commercial warehousing/distribution type use. It is therefore considered appropriate to apply the B8 distribution centre parking standards to 16,795 square metre floorspace on the illustrated layout. This would provide a parking provision of 168 spaces, with 175 spaces identified on the current layout.
- 4.16 Parking is a reserved matter for the development, with the above demonstrating that the layout can provide a parking provision in line with the emerging guidance for the development quantum provided on site.
- 4.17 Should a B2 use come forward, the 16,795 square metres floorspace illustrated would equate to a parking provision of 373 spaces. Should this type of use come forward, it is likely that the number of loading bays for each unit would be reduced which would allow for these areas to be converted to additional car parking to bring the development in line with the parking standard for a B2 use. An example parking arrangement that would meet these requirements is included at **Appendix G**.

Loading Provision

- 4.18 Each site has been designed to allow for operation of HGVs within the loading bay layouts, to accommodate operational movements associated with each unit. HGV access for both units will be via the signal junction with the A3024 Bursledon Road.
- 4.19 The two units are each provided within HGV parking spaces alongside dock gates into the buildings. Whilst the layout would be a reserved matter, the current layout provides an illustration of what could be accommodated on site.
- 4.20 One unit is provided with eight dock gates and two level access doors for loading purposes. This is accompanied by 11 parking spaces for HGVs. The second unit is provided with 12 dock gates and two level access doors, with six HGV parking spaces.
- 4.21 Vehicle tracking of a HGV utilising each access point, alongside an indicative manoeuvre within the two loading areas, is included at **Appendix H**.

Cycle Parking

- 4.22 Cycle parking will be provided on site for each of the two units. This will be in the form of covered, secure cycle parking areas which will be conveniently located for employees at each site.
- 4.23 Cycle parking will be provided in accordance with the emerging cycle parking standards, which would require 28 spaces across the site based on a B8 distribution centre use for short stay parking and one space per 10 staff for long stay parking.

Servicing Arrangements

- 4.24 Bins will be stored in dedicated bin store locations which can be accessed by refuse vehicles for collection. Refuse collection arrangements will ensure that refuse vehicles are able to successfully manoeuvre within the site layout to enter and exit the site in a forward gear.

5.0 Trip Generation

- 5.1 This section sets out the trip generation associated with the proposed development during the identified highway peak hours of 07:00 – 08:00 for the weekday morning peak and 17:00 – 18:00 for the weekday evening peak. These peak hours supersede the assumed peak hours provided during pre-application discussions.

Proposed Warehousing Site Use

- 5.2 This pre-application submission seeks feedback on for two industrial units comprising up to 18,580 square metres of Class B2/B8/E (200,000 ft²). Given the indicative site layout, it is considered that the most likely occupier for the industrial units would be a warehousing use.
- 5.3 To assess the impact of a warehousing use, the TRICS database has been interrogated using the category '02 Employment: F – Warehousing (Commercial)' has been used for sites located in England (excluding Greater London) between 4,000 and 15,000 square metres. Sites in edge of town or suburban area locations have been selected for the purposes of the assessment.
- 5.4 The warehousing category overall includes sites such as supermarket distribution centres, reflecting the large units proposed on the sites with multiple HGV loading docks as shown in the indicative masterplan for the site.
- 5.5 Given the shape of the site, alongside the layout providing two large unit on each side of the site, TRICS sites up to 15,000 square metres have been selected to provide comparable outputs to each of the proposed units on the masterplan.
- 5.6 The TRICS outputs are included for reference at [Appendix I](#), with Table 5.1 providing the vehicular, LGV and OGV trip rates and trips, based on the up to 18,580 square metres of floorspace.

	Weekday Morning Peak (07:00 – 08:00)		Weekday Evening Peak (17:00 – 18:00)		Daily Movements (05:00 – 21:00)	
	Arr	Dep	Arr	Dep	Arr	Dep
Vehicular Trip Rate	0.301	0.178	0.163	0.265	3.302	3.106
Vehicular Trips	56	33	30	49	614	577
LGV Trip Rate	0.046	0.035	0.020	0.026	0.468	0.464
LGV Trips	9	7	4	5	87	86
OGV Trip Rate	0.056	0.095	0.098	0.063	1.084	1.172
OGV Trips	10	18	18	12	201	218

Table 5.1: Warehousing Vehicular Trip Rates and Trips

- 5.7 The above table indicates that the development could generate 89 two-way vehicular trips in the weekday morning peak hour, of which 28 could be HGV trips and 16 LGV trips, and 79 two-way vehicular trips in the weekday evening peak hour, of which 30 could be HGV trips and nine LGV trips. Across a typical weekday, the development could generate 1,191 two-way vehicular trips, of which 419 could be HGV trips and 173 LGV trips.

Multi-modal Trip Generation

- 5.8 To provide an indication of the total person trips that could occur for commuting purposes, the Census data for 'Workplace and Usual Residence by Method of Travel to Work' has been obtained for workers in the E33042112 workplace zone, in which the site is located (2011 output).

- 5.9 Given the operational movements occurring by HGV and LGV, as identified in Table 5.1 above, these have been removed prior to calculating the total person trips and identifying trips by alternative modes of travel. Table 5.2 summarises the Census modal split of travel alongside the multi-modal commuting breakdown associated with the development.

Mode of Travel	Census Modal Split	Weekday Morning Peak (07:00 – 08:00)		Weekday Evening Peak (17:00 – 18:00)	
		Arr	Dep	Arr	Dep
Train	0.8%	0	0	0	0
Bus	6.3%	3	1	1	3
Motorcycle	1.7%	1	0	0	1
Car Driver	68.6%	37	8	8	32
Car Passenger	8.8%	5	1	1	4
Bicycle	3.8%	2	0	0	2
On foot	10.0%	5	1	1	5
TOTAL	100.0%	54	12	12	47

Table 5.2: Census Multi-modal Trips

- 5.10 The above table indicates that the development could attract six two-way pedestrian trips in each weekday peak hour. It is noted that public transport trips would also travel on foot from the development site to the access point to the public transport network (i.e. bus stop or train station). This would add an additional four pedestrian movements from the site in each peak hour. Car passenger is also a typical mode of travel, with six two-way trips in the morning peak hour and five two-way trips in the evening peak hour.

Vision and Validate Assessment

- 5.11 Latest industry guidance seeks to apply the principles of Vision and Validate to assess potential reduced impacts associated with development through the uptake of sustainable modes of travel. This approach is consistent with the aims of DfT Circular 01/2022 which addresses impact on the National Highways network and targets reductions in vehicular trips generated by developments.
- 5.12 With the development providing an industrial use, operational trips will occur regardless of mode of travel utilised by staff to access the site. In view of this, measures to encourage sustainable travel would be focused on staff trips to and from the site. Table 5.3 summarises a 10% reduction in car driver modal split, with this difference distributed evenly across the remaining modes of travel.

Mode of Travel	Target Modal Split	Weekday Morning Peak (07:00 – 08:00)		Weekday Evening Peak (17:00 – 18:00)	
		Arr	Dep	Arr	Dep
Train	1.1%	1	0	0	1
Bus	8.3%	4	1	1	4
Motorcycle	2.2%	1	0	0	1
Car Driver	58.6%	32	7	7	28
Car Passenger	11.6%	6	1	1	5
Bicycle	5.0%	3	1	1	2
On foot	13.2%	7	2	2	6
TOTAL	100.0%	54	12	12	47

Table 5.3: Vision and Validate Trip Calculation

- 5.13 The above table indicates that with a 10% reduction in car driver commuting trips, non-operational vehicle trips would reduce to 39 two-way movements in the weekday morning peak hour and 35 two-way movements in the weekday evening peak hour.

Potential B2 Trip Generation

- 5.14 Within their pre-application feedback, NH have requested an assessment of the trip generating potential of a B2 use class operating from the site. To this end, the TRICS database has been interrogated for the category '02 Employment: C – Industrial Unit'. Given the proposed site layout, this is considered to reflect the most suitable comparator to the development site, where two units could be occupied by B2 or B8 use class operators.
- 5.15 This analysis has utilised sites subject to a vehicular survey and between 4,000 and 15,000 square metres gross floor area in England (excluding Greater London). The peak hour trip rates are provided in Table 5.4, with trips calculated based on the 18,580 square metre gross floor area of the B2/B8 floorspace. The TRICS output is included at [Appendix J](#). These trip rates were presented to HCC as part of the pre-application undertaken for the site to identify potential trip generation of a B2 scheme.

	Weekday Morning Peak (07:00 – 08:00)		Weekday Evening Peak (17:00 – 18:00)		Daily Movements (05:00 – 21:00)	
	Arr	Dep	Arr	Dep	Arr	Dep
Vehicular Trip Rate	0.382	0.033	0.009	0.155	1.621	1.382
Vehicular Trips	71	6	2	29	301	257
LGV Trip Rate	0.036	0.012	0.000	0.006	0.316	0.273
LGV Trips	7	2	0	1	59	51
OGV Trip Rate	0.018	0.012	0.000	0.000	0.105	0.087
OGV Trips	3	2	0	0	20	16

Table 5.4: Potential B2 Trip Rates (per 100sqm) and Trips

- 5.16 The above table indicates that a B2 use could generate 77 two-way vehicular trips in the weekday morning peak hour, of which nine could be LGVs and five could be HGVs, and 31 two-way vehicular trips in the weekday evening peak hour, of which one could be an LGV movement. Across a typical weekday, a B2 use could generate 558 two-way vehicular trips, of which 110 could be LGV and 36 could be HGV trips.

- 5.17 The trip generation presented within Table 5.4 is lower than that assessed within the warehousing assessment in Table 5.1. It is acknowledged that the number of inbound movements is higher in the B2 trip assessment, however given the lower overall trip generation within this scenario this has not been assessed further. Accordingly, a B8 warehousing use will form the basis of assessment within this TA.

Parcel Distribution Centre Sensitivity Test

- 5.18 Within their pre-application responses, both NH and HCC have requested an assessment of the site operation as a parcel distribution centre site use, reflecting the most onerous occupation of the site in terms of vehicular trip potential.
- 5.19 Given the masterplan layout of the site, it is not considered that this is a likely occupation of the site, therefore this use has been assessed as a sensitivity test and forms the basis of the traffic impact assessment at **Section 6**.
- 5.20 Within their pre-application response, HCC identified an operator specific data set available for a site within Havant. Reviewing this site, this is occupied by Amazon and was subject to operator specific traffic surveys. Given the proposed development is would be a speculative application, it is considered that the TRICS database provides a more realistic assessment of a parcel distribution centre use.
- 5.21 Since the pre-application discussions were undertaken with HCC, the parcel distribution centre category has been updated with new surveys and therefore a revised TRICS output has been obtained from TRICS version 7.11.4.
- 5.22 Part of the rationale HCC provided for considering the Havant operator specific trip rates was due to limited number of sites above 5,000 square metres in the TRICS surveyed dataset. A subsequent review indicates that 2 surveys are present in the database above 5,000 square metres, which have been surveyed in 2021 and 2023. Given the increase in parcel distribution associated with the COVID-19 pandemic, this is therefore considered to provide a robust assessment of the potential parcel distribution centre use.
- 5.23 The TRICS output for the '02 Employment: G – Parcel Distribution Centres' category is included at **Appendix K**, with Table 5.5 summarising the vehicular trip rates and trips, based on the up to 18,580 square metres of floorspace at the site.

	Weekday Morning Peak (07:00 – 08:00)		Weekday Evening Peak (17:00 – 18:00)	
	Arr	Dep	Arr	Dep
Vehicular Trip Rate	0.491	0.773	0.412	0.634
Vehicular Trips	91	144	77	118
OGV Trip Rate	0.12	0.231	0.097	0.12
OGV Trips	22	43	18	22
LGV Trip Rate	0.074	0.176	0.162	0.102
LGV Trips	14	33	30	19

Table 5.5: Sensitivity Test Trip Rates (per 100sqm) and Trips

- 5.24 The above table indicates that a parcel distribution centre use could generate 235 two-way vehicular trips in the weekday morning peak hour, of which 65 could be HGV and 47 could be LGV movements. In the weekday evening peak hour, a parcel distribution centre could generate 195 two-way vehicular trips, with 40 two-way HGV movements and 49 two-way LGV movements.
- 5.25 In light of the HCC and NH pre-application comments, the trips presented within Table 5.5 will be used for the purposes of assessing the traffic impact of the development in **Section 6**.

6.0 Traffic Impact

- 6.1 This section of the TA identifies the impact of the development on the local highway network, including development traffic distribution and assignment and the resultant impact on the capacity of the surrounding road network.

Traffic Survey Scope

- 6.2 To provide a baseline assessment of traffic flows on the network, a series of manual classified turning count surveys were undertaken at a number of surrounding junctions on the network. These surveys were undertaken on Tuesday 12th November 2024, between the hours of 07:00 – 10:00 for the weekday morning peak and 16:00 – 19:00 for the weekday evening peak. In addition to the manual counts, saturation flows and signal timings were recorded of the traffic signal junctions on the network and queue surveys were undertaken on all arms of the network. Due to the extensive data collected, this is not included as an appendix but is available upon request.
- 6.3 Unfortunately, a collision was recorded on the local highway network along Hamble Lane in the weekday morning peak hour, which resulted in excessive queuing being recorded across the network, including queuing back along the M27 in each direction. Local news outlets also note the extent of queuing as a result of this collision and can be identified at the following link: <https://www.dailyecho.co.uk/news/24717440.m27-traffic-crash-causes-long-tailbacks-near-hamble/>
- 6.4 As a result of the above, traffic surveys for the weekday morning peak hour were repeated on Tuesday 18th March 2025 between the hours of 07:00 and 10:00.
- 6.5 The surveys include the following junctions:
- ▶ Botley Road/A3024 Bursledon Road signalised junction;
 - ▶ Le Marechal Avenue/A3024 Bursledon Road signalised junction;
 - ▶ Windhover Roundabout; and
 - ▶ M27/Dodwell Lane/A3024 Bert Betts Way roundabout junction.
- 6.6 The peak hours from the surveys were identified as 07:00 – 08:00 for the weekday morning peak hour and 17:00 – 18:00 for the weekday evening peak hour.
- 6.7 The baseline turning counts are included on the network flow diagrams included at **Appendix L**.

Committed Development

- 6.8 Hamble Airfield Quarry (application number CS/22/92277) has been granted approval at planning appeal and therefore will be included within the traffic impact assessment. The application was accompanied by a Transport Assessment indicating that 26 HGV movements and 10 car movements are anticipated in the weekday morning peak hour, with staff departing in the evening peak hour with up to 20 car movements. In the absence of any distribution data, it is assumed these traffic flows route to/from the M27 and are evenly distributed between east and westbound traffic.
- 6.9 A review of the Eastleigh and Southampton city planning portals has not further significant development sites with planning permission for inclusion as committed developments within this assessment.

Background Traffic Growth

- 6.10 Background traffic growth is accounted for through the application of a growth rate extracted from TEMPro. TEMPro is a computer programme used to interrogate the National Trip End Model (NTEM), which is developed and published by the Department for Transport (DfT) for the express purpose of forecasting changes in travel demand up to 2061.

- 6.11 It can produce forecasts for a wide range of geographies from the national level down to Census Middle-layer Super Output Areas (MSOAs). In this case a growth forecast has been produced at the Eastleigh 013 MSA level to reflect the size of the study area.
- 6.12 The NTEM draws on a wide range of data sources to give a more complete understanding of changing travel demand. Amongst others, data sources used in the model include:
- ▶ The 2011 Census;
 - ▶ Population projections produced by the Office for National Statistics;
 - ▶ Dwelling projections, based on Local Plans and annual monitoring reports;
 - ▶ Employment projections from the UK Commission for Employment and Skills;
 - ▶ Distribution of employment and workers by region based the labour force survey;
 - ▶ The National Car Ownership Model; and,
 - ▶ The National Travel Survey.

- 6.13 The TEMPro 'Core' and 'Behaviour Change' scenario growth rates for car drivers are detailed below in Table 6.1.

Scenario	Weekday Morning Peak Hour Growth Factor	Weekday Evening Peak Hour Growth Factor
Core	1.0700	1.0744
Behaviour Change	1.0347	1.0224

Table 6.1: TEMPro Growth Factors

- 6.14 When considering the above, it is important to note that TEMPro and the NTEM forecast changes in total demand for travel and do not consider delay or network capacity. It therefore tends to overestimate increases in traffic in practice. By way of comparison, DfT count point 36039, located on the A3024 Bert Betts Way, saw an increase in daily traffic flow of just 5.5% between the year 2000 and 2023, a period of 23 years. This increase is equivalent to 0.24% annual growth. Or approximately a third of the 0.744% forecast annually in the 'Core' scenario PM peak.
- 6.15 It is also important to consider the potential impact of changes in travel behaviour. While the 'Core' scenario is typically used as a default, it must be noted that this represents a 'business as usual' approach. Indeed, the release notes (Appendix E) are clear that the 'Core' scenario is representative of a range of policy options and behaviours that will lead to a failure to achieve the government's Net Zero commitment. In contrast, the 'Behaviour Change' uses the same base demand data while considering:
- ▶ Increased flexible working;
 - ▶ A reduction in driving licence holding amongst the younger population; and;
 - ▶ Changes in trip rates arising from the above.
- 6.16 Considered in a context where HCC have declared a climate emergency and the LTP targets a 10% modal shift in away from the private car, it is inappropriate to build infrastructure that will support a level of vehicular activity that will result in a failure to meet local and national policy commitments.
- 6.17 The 'Behaviour Change' growth rates are therefore used in this assessment.

Assessment Scenarios

- 6.18 The following scenarios are assessed within the junction capacity assessment below:

- ▶ 2025 Baseline – Weekday Morning Peak Hour;
- ▶ 2024 Baseline – Weekday Evening Peak Hour;
- ▶ 2031 Baseline (including TEMPro growth and Hamble Airfield Quarry traffic) – Weekday Morning Peak Hour;
- ▶ 2031 Baseline (including TEMPro growth and Hamble Airfield Quarry traffic) – Weekday Evening Peak Hour;
- ▶ 2031 plus Development (warehousing use traffic flows) – Weekday Morning Peak Hour;
- ▶ 2031 plus Development (warehousing use traffic flows) – Weekday Evening Peak Hour;
- ▶ 2031 plus Development Sensitivity Test (parcel distribution centre traffic flows) – Weekday Morning Peak Hour; and
- ▶ 2031 plus Development Sensitivity Test (parcel distribution centre sensitivity test traffic flows) – Weekday Evening Peak Hour.

Vehicular Trip Distribution

- 6.19 The traffic flow diagrams at **Appendix L** demonstrate the predicted development traffic flows based for the predicted warehousing use of the site alongside the parcel distribution centre sensitivity test.
- 6.20 Vehicular traffic for both uses is distributed on the network based on 2011 Census travel to work data, with the Census output and predicted routeing included at **Appendix M**. The 2021 Census data is not considered suitable for these purposes given the Covid-19 restrictions in place at the time of the Census, where workers were instructed to work from home unless essential.
- 6.21 Within their response, NH have requested that operational movements are subject to an alternative traffic distribution, to reflect the likely direction of travel of these movements. For HGV trips, these are assumed to route to and from the M27 Junction 8 and are distributed evenly between north-westbound and south-eastbound movements. This has been applied to both the warehousing and parcel distribution centre scenarios. All HGV traffic routes to the A3024 Bursledon Road access.
- 6.22 For LGV trips in the parcel distribution centre scenario. A first principles distribution has been undertaken to reflect the likely destinations of properties and businesses that can be accessed in each location.
- 6.23 Table 6.2 provides the traffic distribution of vehicle trips by network exit point.

Route	Commuter Trips	LGV Trips	HGV Trips
M27 South-east	14.6%	20%	50%
M27 North-west	27.4%	15%	50%
A27 South-east	8.7%	15%	0%
A27 North-west	14.8%	10%	0%
A3024 Bursledon Road	11.8%	25%	0%
A3025 Hamble Lane	13.8%	5%	0%
Dodwell Lane	8.8%	10%	0%

Table 6.2: Traffic Distribution Proportions

- 6.24 Traffic to each development access has been assigned proportionally based on the quantum of development in terms of floorspace on the site layout. For the eastern unit, non-HGV traffic has been distributed proportionally based on the level of car parking provided from each access point, noting the

34 spaces accessed from Bursledon Road and 69 via West End Road. This routes 38.2% of traffic to the A27 access and 61.8% of traffic to the A3024 junction.

Junction Capacity Modelling

- 6.25 This section sets out the detailed assessment of the baseline operation of the highway network and the impact of the proposed development traffic on the network.

A3024 Corridor/Windhover Roundabout Network

- 6.26 HCC requested in their pre-application response a linked Linsig junction between the A3024/Le Marechal Avenue and Windhover Roundabout junction signalised arms. Given the partial signalisation of the roundabout, the full roundabout has been assessed within the Linsig software.
- 6.27 As the Botley Road/A3024 Bursledon Road junction is also signalised and there are no junctions on the A3024 between these routes, it is considered appropriate to provide a network Linsig operation of the A3024 corridor.
- 6.28 To demonstrate the impacts of the site access junctions, the A27 West End Road access junction has also been incorporated into the Linsig network in the with development scenario assessment.
- 6.29 The baseline junction model has been prepared using the existing network layout (i.e. without the site access arms included on the network), using the saturation flows and average signal timings recorded during the traffic surveys. Traffic flows have been entered into the model as turning counts, with the Linsig estimate matrix tool used to assign baseline traffic around the network.
- 6.30 For the give way arms of the Windhover Roundabout junction, the geometries have been measured and input into a Junctions 9 ARCADY model to identify the appropriate intercept and maximum flows which have been input into the Linsig model in place of the suggested roundabout entry defaults. The Junctions 9 ARCADY output is included at **Appendix N**.
- 6.31 To calibrate the models, a review of the queue survey data has been undertaken for the 2025 weekday morning peak hour survey the 2024 weekday evening peak hour surveys. This has resulted in intercept corrections being applied to the A27 Providence Hill arm in the weekday morning peak hour, to increase and reduce the observed queuing within the model to provide a more representative assessment of the prevailing conditions during the traffic surveys.
- 6.32 In the weekday evening peak hour, corrections have been applied to the A3024 Bert Betts Way arm and the two A27 arms of the junction. The results of the model are considered to reflect the network operation recorded within the traffic surveys.
- 6.33 Table 6.3 provides the baseline Linsig junction operation, with the Linsig outputs included at **Appendix O**.

Arm	2025 Baseline – Weekday Morning Peak		2024 Baseline – Weekday Evening Peak	
	DoS (%)	MMQ (PCU)	DoS (%)	MMQ (PCU)
A3024 Bursledon Road/Botley Road Junction				
A3024 Bursledon Road (W)	57.8%	17.7	66.7%	23.6
Botley Road (N)	96.8%	9.3	29.0%	2.6
A3024 Bursledon Road (E)	63.3%	17.5	71.3%	21.0
Botley Road (S)	116.8%	45.2	95.8%	21.8
A3024 Bursledon Road/Le Marechal Avenue Junction				
A3024 Bursledon Road (W)	80.0%	21.6	64.9%	15.0
A3024 Bursledon Road (E)	59.3%	12.0	72.1%	19.2
Le Marechal Avenue	84.4%	6.5	30.3%	1.4
Windhover Roundabout				
A3024 Bursledon Road	85.9%	12.2	56.3%	6.4
	80.8%	11.5	53.0%	6.2
A3024 Circulation Stopline	68.9%	3.8	62.3%	2.8
	62.9%	3.0	54.9%	0.7
A3025 Hamble Lane	116.5%	61.9	88.5%	12.8
	116.4%	59.3	85.0%	11.1
Hamble Lane Circulation Stopline	48.1%	0.5	43.1%	0.4
	42.2%	5.3	47.1%	7.1
	50.8%	6.2	38.5%	4.0
A27 West End Road	87.7%	9.2	100.4%	26.5
	87.7%		98.1%	
A3024 Bert Betts Way	81.9%	6.7	105.8%	54.3
	70.8%	4.3	106.3%	55.4
A27 Providence Hill	101.4%	29.4	112.5%	28.7
	101.4%		82.3%	

Table 6.3: A3024 Corridor Baseline Linsig Outputs

- 6.34 The above table indicates that the Windhover Roundabout junction operates at capacity in the baseline situation along the Hamble Lane and A27 Providence Hill arms in the weekday morning peak hour and with the A27 West End Road, A3024 Bert Betts Way and A27 Providence Hill arms of the junction in the weekday evening peak hour as shown by the degree of saturation values in excess of 100%.
- 6.35 To identify the impact of the proposed development, the baseline Linsig network has been run with an additional fourth arm at the Le Marechal Avenue/A3024 Bursledon Road junction and a give way junction onto the A27 West End Road. The calibration factors have remained unchanged from the baseline model set up.
- 6.36 The 2031 baseline and with development (warehousing) modelling scenarios are summarised in Table 6.4 for the weekday morning peak hour, with the weekday evening peak hour modelling scenarios summarised in Table 6.5, with the Linsig outputs included at **Appendix P**. The sensitivity test (parcel distribution centre) modelling scenarios are summarised in Table 6.6, with the Linsig outputs also included at **Appendix P**. Where appropriate, signal timings have been optimised at existing junctions to improve performance where the degree of saturation was above 100% in the baseline scenario.

Arm	2031 Baseline – Weekday Morning Peak		2031 with Development – Weekday Morning Peak	
	DoS (%)	MMQ (PCU)	DoS (%)	MMQ (PCU)
A3024 Bursledon Road/Botley Road Junction				
A3024 Bursledon Road (W)	59.7%	18.6	67.0%	21.9
Botley Road (N)	100.4%	10.5	91.2%	8.3
A3024 Bursledon Road (E)	64.3%	18.1	70.6%	21.7
Botley Road (S)	120.9%	51.8	89.9%	19.1
A3024 Bursledon Road/Le Marechal Avenue Junction				
A3024 Bursledon Road (W)	82.2%	22.8	94.7%	40.0
A3024 Bursledon Road (E)	60.2%	12.4	69.6%	17.8
Le Marechal Avenue	86.8%	7.0	97.3%	10.4
Site Access	-	-	37.9%	1.7
Windhover Roundabout				
A3024 Bursledon Road	87.4%	12.9	82.4%	12.6
	83.3%	12.3	74.6%	11.3
A3024 Circulation Stopline	67.5%	3.6	87.9%	9.7
	61.1%	2.7	80.4%	5.7
A3025 Hamble Lane	123.0%	79.9	88.5%	15.2
	122.8%	76.4	88.4%	15.5
Hamble Lane Circulation Stopline	52.2%	0.5	51.5%	0.5
	42.6%	5.3	52.5%	7.6
	50.2%	5.9	61.4%	9.1
A27 West End Road	92.6%	11.4	136.6%	89.1
	92.6%		136.6%	
A3024 Bert Betts Way	91.2%	11.3	91.4%	13.4
	72.6%	5.2	77.1%	6.4
A27 Providence Hill	122.6%	80.2	123.0%	81.6
	122.6%		123.0%	
A27/Site Access Junction				
A27 West End Road (W)	26.1%	0.2	27.0%	0.2
A27 West End Road (E)	44.2%	0.4	49.1%	0.5
Site Access	-	-	1.9%	0.0

Table 6.4: A3024 Corridor 2031 Baseline and With Development (Warehousing) Weekday Morning Peak Hour Linsig Outputs

Arm	2031 Baseline – Weekday Evening Peak		2031 with Development – Weekday Evening Peak	
	DoS (%)	MMQ (PCU)	DoS (%)	MMQ (PCU)
A3024 Bursledon Road/Botley Road Junction				
A3024 Bursledon Road (W)	68.3%	24.4	71.8%	26.0
Botley Road (N)	29.0%	2.6	29.0%	2.6
A3024 Bursledon Road (E)	72.6%	22.1	72.5%	21.9
Botley Road (S)	97.8%	23.5	87.9%	18.9
A3024 Bursledon Road/Le Marechal Avenue Junction				
A3024 Bursledon Road (W)	66.4%	15.7	88.3%	29.3
A3024 Bursledon Road (E)	73.4%	19.8	85.5%	26.0
Le Marechal Avenue	30.3%	1.4	24.6%	1.4
Site Access	-	-	46.5%	2.2
Windhover Roundabout				
A3024 Bursledon Road	57.5%	6.5	60.5%	7.1
	54.2%	6.3	57.3%	6.8
A3024 Circulation Stopline	62.8%	2.9	64.1%	2.8
	57.4%	0.8	56.3%	0.7
A3025 Hamble Lane	91.6%	14.5	86.6%	12.4
	89.2%	12.7	84.0%	11.2
Hamble Lane Circulation Stopline	43.2%	2.0	40.1%	0.3
	43.4%	6.3	43.5%	6.4
	43.4%	4.9	44.5%	5.2
A27 West End Road	106.4%	41.8	117.1%	67.4
	103.4%		108.3%	
A3024 Bert Betts Way	107.8%	59.9	126.3%	98.8
	105.9%	55.8	116.0%	83.3
A27 Providence Hill	112.4%	29.0	107.2%	28.6
	85.4%		94.6%	
A27/Site Access Junction				
A27 West End Road (W)	38.3%	0.3	38.6%	0.3
A27 West End Road (E)	23.7%	0.2	23.4%	0.2
Site Access	-	-	5.9%	0.0

Table 6.5: A3024 Corridor 2031 Baseline and With Development (Warehousing) Weekday Evening Peak Hour Linsig Outputs

Arm	2031 Sensitivity Test – Weekday Morning Peak		2031 Sensitivity Test – Weekday Evening Peak	
	DoS (%)	MMQ (PCU)	DoS (%)	MMQ (PCU)
A3024 Bursledon Road/Botley Road Junction				
A3024 Bursledon Road (W)	68.2%	22.1	72.8%	26.6
Botley Road (N)	83.6%	7.1	29.0%	2.6
A3024 Bursledon Road (E)	71.5%	22.3	71.5%	21.3
Botley Road (S)	89.9%	19.1	87.9%	18.9
A3024 Bursledon Road/Le Marechal Avenue Junction				
A3024 Bursledon Road (W)	99.0%	49.3	89.1%	30.1
A3024 Bursledon Road (E)	139.8%	32.4	84.3%	25.5
Le Marechal Avenue	97.3%	10.4	24.6%	1.4
Site Access	94.6%	9.6	94.8%	7.9
Windhover Roundabout				
A3024 Bursledon Road	89.9%	15.9	64.2%	7.8
	86.9%	15.1	60.7%	7.4
A3024 Circulation Stopline	85.4%	9.4	65.5%	2.8
	76.0%	4.1	56.3%	0.7
A3025 Hamble Lane	89.2%	15.6	86.8%	12.5
	88.0%	15.2	84.3%	11.3
Hamble Lane Circulation Stopline	52.2%	0.5	40.2%	0.3
	55.1%	8.4	43.9%	6.5
	61.4%	9.2	43.5%	5.2
A27 West End Road	157.8%	119.3	127.3%	93.4
	157.8%		116.7%	
A3024 Bert Betts Way	92.9%	16.9	124.7%	95.8
	81.4%	8.1	120.3%	96.1
A27 Providence Hill	132.4%	104.4	109.6%	28.8
	132.4%		98.8%	
A27/Site Access Junction				
A27 West End Road (W)	27.4%	0.2	39.1%	0.3
A27 West End Road (E)	49.4%	0.5	24.5%	0.2
Site Access	13.6%	0.1	12.1%	0.1

Table 6.5: A3024 Corridor Sensitivity Test (Parcel Distribution Centre) Linsig Outputs

- 6.37 The above tables indicates that, with the Windhover Roundabout operating above capacity on some arms in the baseline scenario, development traffic would simply add to existing queueing on these links. In view of this, it is considered appropriate to provide mitigation to the network to accommodate the development.
- 6.38 The mitigation involves signalisation of the A27 West End Road and A3024 Bert Betts Way arms of the roundabout, alongside the circulatory carriageway adjacent to these arms. In addition to this, a third circulatory lane between the A3024 Bursledon Road arm and the A3024 Bert Betts Way arm is put forward, replicating the arrangement within the cancelled National Highways Junction 8 improvement scheme. Further details on the mitigation scheme proposals are included at [Section 7](#) of this report.

- 6.39 The Linsig outputs for the junction mitigation scheme layout are included at **Appendix Q**, with Table 6.6 summarising the results of the mitigation scenarios. Table 6.7 summarises the results of the sensitivity test scenario with the mitigation scheme, with the Linsig outputs also included at **Appendix Q**.

Arm	2031 Mitigation with Development – Weekday Morning Peak		2031 Mitigation with Development – Weekday Evening Peak	
	DoS (%)	MMQ (PCU)	DoS (%)	MMQ (PCU)
A3024 Bursledon Road/Botley Road Junction				
A3024 Bursledon Road (W)	68.5%	22.5	72.6%	26.5
Botley Road (N)	83.6%	7.1	29.0%	2.6
A3024 Bursledon Road (E)	75.0%	24.3	85.9%	33.1
Botley Road (S)	87.4%	18.3	85.6%	18.3
A3024 Bursledon Road/Le Marechal Avenue Junction				
A3024 Bursledon Road (W)	94.7%	40.0	88.3%	29.3
A3024 Bursledon Road (E)	44.4%	8.5	48.2%	10.6
Le Marechal Avenue	97.3%	10.4	21.5%	1.2
Site Access	37.9%	1.7	25.0%	1.1
Windhover Roundabout				
A3024 Bursledon Road	90.0%	15.2	42.0%	3.7
	83.5%	13.0	72.3%	9.7
A3024 Circulation Stopline	87.0%	10.8	71.6%	5.2
	74.1%	5.0	68.0%	3.4
A3025 Hamble Lane	89.8%	15.9	87.6%	13.7
	87.1%	14.9	72.1%	8.8
Hamble Lane Circulation Stopline	52.8%	0.6	45.6%	2.6
	63.2%	11.8	58.7%	9.4
	59.5%	8.2	59.4%	10.8
A27 West End Road	88.9%	9.4	77.4%	9.5
	88.9%		77.4%	
A3024 Bert Betts Way	87.1%	17.7	84.2%	13.0
	70.4%	11.8	88.8%	15.1
A27 Providence Hill	82.6%	7.7	89.8%	6.8
	74.2%		7208%	
A27 West End Road Circulation Stopline	51.9%	5.9	29.0%	4.1
	49.2%	7.8	65.3%	6.8
	77.3%	23.4	74.2%	20.6
A3024 Bert Betts Way Circulation Stopline	70.3%	7.7	41.5%	5.5
	10.3%	0.7	55.6%	5.6
A27/Site Access Junction				
A27 West End Road (W)	27.0%	0.2	38.6%	0.3
A27 West End Road (E)	50.5%	0.5	28.3%	0.2
Site Access	1.9%	0.0	13.6%	0.1

Table 6.6: A3024 Corridor With Development (Warehousing) and Mitigation Linsig Outputs

Arm	2031 Mitigation Sensitivity Test – Weekday Morning Peak		2031 Mitigation Sensitivity Test – Weekday Evening Peak	
	DoS (%)	MMQ (PCU)	DoS (%)	MMQ (PCU)
A3024 Bursledon Road/Botley Road Junction				
A3024 Bursledon Road (W)	69.0%	22.7	71.2%	26.0
Botley Road (N)	83.6%	7.1	32.8%	2.7
A3024 Bursledon Road (E)	76.5%	25.4	84.4%	32.2
Botley Road (S)	87.4%	18.3	87.9%	18.9
A3024 Bursledon Road/Le Marechal Avenue Junction				
A3024 Bursledon Road (W)	99.0%	49.3	89.1%	30.1
A3024 Bursledon Road (E)	96.7%	19.7	50.6%	10.9
Le Marechal Avenue	97.3%	10.4	21.5%	1.2
Site Access	94.6%	9.6	46.5%	2.2
Windhover Roundabout				
A3024 Bursledon Road	94.8%	17.6	44.1%	4.1
	93.5%	16.8	74.0%	10.1
A3024 Circulation Stopline	89.4%	10.7	72.6%	6.3
	75.1%	5.7	70.1%	3.7
A3025 Hamble Lane	85.8%	13.8	86.6%	13.1
	72.0%	9.9	73.6%	9.2
Hamble Lane Circulation Stopline	53.6%	0.6	46.1%	3.2
	65.9%	9.8	56.6%	7.6
	77.1%	11.2	64.8%	11.9
A27 West End Road	87.7%	8.6	81.1%	10.9
	87.7%		81.1%	
A3024 Bert Betts Way	88.2%	16.7	80.8%	12.3
	75.9%	12.0	88.1%	15.1
A27 Providence Hill	76.9%	7.4	85.7%	8.0
	78.7%		88.2%	
A27 West End Road Circulation Stopline	52.7%	7.1	30.3%	4.5
	54.0%	8.6	64.5%	7.8
	80.8%	23.3	77.4%	20.4
A3024 Bert Betts Way Circulation Stopline	74.3%	7.3	43.2%	6.3
	11.3%	0.7	58.9%	5.6
A27/Site Access Junction				
A27 West End Road (W)	27.4%	0.2	39.5%	0.3
A27 West End Road (E)	51.3%	0.5	29.7%	0.2
Site Access	14.0%	0.1	27.5%	0.2

Table 6.7: A3024 Corridor Sensitivity Test (Parcel Distribution Centre) and Mitigation Linsig Outputs

- 6.40 The above tables indicates that the signalisation of the Windhover Roundabout arms would increase the capacity of the junction and reduce queuing observed along the approach arms, as more vehicles are able to clear the stopline each cycle, rather than waiting for gaps in existing traffic.

- 6.41 Across the network, whilst there is still a level of congestion around the network, all arms are forecast to operate within capacity, with predicted queuing able to be accommodated on each link of the network without impacting the next junction along the network.
- 6.42 The predicted queue on the A27 West End Road arm would be reduced through the signalisation, with the queuing recorded not reaching the site access junction. There are therefore considered to be no issues associated with the form of the priority access junction into the site.
- 6.43 It is therefore concluded that the development impact would not be severe on the operation of the network with mitigation provided.

M27 Junction 8

- 6.44 To assess the impacts on the M27 junction 8 roundabout, the Junctions 9 ARCADY modelling software has been used. Given the grade separated nature of this junction layout, this has been modelled as a large roundabout junction with the circulatory flow estimated from the surveyed traffic data.
- 6.45 Table 6.8 provides the baseline scenario results summary, with the detailed Junctions 9 output included at [Appendix R](#).

Arm	2025 Baseline – Weekday Morning Peak		2024 Baseline – Weekday Evening Peak	
	RFC	Maximum End Segment Queue (Veh)	RFC	Maximum End Segment Queue (Veh)
M27 Northwest	0.55	1.2	0.58	1.4
Dodwell Lane	0.87	5.9	0.51	1.0
M27 Southeast	0.61	1.6	0.58	1.4
A3024 Bert Betts Way	0.75	2.9	0.67	2.0

Table 6.8: M27 Junction 8 Roundabout Baseline ARCADY Results Summary

- 6.46 The above table indicates that the junction currently operates within capacity in both assessed scenarios.
- 6.47 Tables 6.9 and 6.10 summarise the results of the 2031 baseline and with development scenarios for the weekday morning and evening peak hours respectively, with Table 6.11 summarising the results of the with development sensitivity test scenarios.

Arm	2031 Baseline – Weekday Morning Peak		2031 with Development – Weekday Morning Peak	
	RFC	Maximum End Segment Queue (Veh)	RFC	Maximum End Segment Queue (Veh)
M27 Northwest	0.60	1.5	0.62	1.6
Dodwell Lane	0.93	10.2	0.97	14.5
M27 Southeast	0.67	2.0	0.69	2.2
A3024 Bert Betts Way	0.78	3.5	0.79	3.8

Table 6.9: M27 Junction 8 Roundabout 2031 Baseline and with Development (Warehousing) Weekday Morning Peak Hour ARCADY Results Summary

Arm	2031 Baseline – Weekday Evening Peak		2031 with Development – Weekday Evening Peak	
	RFC	Maximum End Segment Queue (Veh)	RFC	Maximum End Segment Queue (Veh)
M27 Northwest	0.60	1.5	0.63	1.7
Dodwell Lane	0.52	1.1	0.54	1.1
M27 Southeast	0.60	1.5	0.63	1.7
A3024 Bert Betts Way	0.69	2.2	0.71	2.5

Table 6.10: M27 Junction 8 Roundabout 2031 Baseline and with Development (Warehousing) Weekday Evening Peak Hour ARCADY Results Summary

Arm	2031 Sensitivity Test – Weekday Morning Peak		2031 Sensitivity Test – Weekday Evening Peak	
	RFC	Maximum End Segment Queue (Veh)	RFC	Maximum End Segment Queue (Veh)
M27 Northwest	0.67	2.0	0.65	1.8
Dodwell Lane	1.07	37.0	0.55	1.2
M27 Southeast	0.71	2.4	0.64	1.8
A3024 Bert Betts Way	0.84	5.1	0.74	2.8

Table 6.10: M27 Junction 8 Roundabout with Development (Parcel Distribution Centre) ARCADY Results Summary

- 6.48 The above demonstrates that the junction can accommodate the with development traffic flows whilst remaining within theoretical capacity of the junction.
- 6.49 Within the sensitivity test scenario, the junction is forecast to operate above theoretical capacity on the Dodwell Lane arm in the weekday morning peak hour. The sensitivity test scenario results in an increase in RFC of 0.14, with an increase in queuing of 27 vehicles, however it is noted that queuing increases almost exponentially in the Junctions 9 software upon reaching the junction theoretical capacity. It is noted that the M27 arms of the junction are forecast to operate with minimal impact, with a maximum increase in RFC of 0.07 on the M27 northwest arm in the weekday morning peak hour though remaining well within the theoretical capacity of this arm.

Summary

- 6.50 This section has demonstrated that the proposed traffic generated by the development can be accommodated on the network with suitable mitigation measures put forward. In view of this, there are not considered to be any highway capacity issues raised by the proposed development on the local highway network.

7.0 Mitigation Measures

- 7.1 This section of the TA sets out the proposed package of mitigation measures that the developer will commit to in order to reduce the transport impact of the development proposals.

Travel Plan

- 7.2 A Framework Travel Plan (FTP) is included as a standalone document in the pre-application submission documents and sets out the principles for a full Travel Plan once the site is built.
- 7.3 The purpose of a Travel Plan is to encourage a change in travel patterns, and the main aim of the Plan is to minimise the number of private car trips from the outset in favour of the use of sustainable and active modes of travel, including public transport and walk and cycle trips, thus reflecting Government policy in respect of transport.
- 7.4 The FTP strategy is to provide information and incentives to future employees prior to the commencement of their employment at the site.
- 7.5 The initiatives and measures are a mixture of 'hard' and 'soft' measures. The 'hard' measures include the provision of facilities such as safe and secure cycle parking whilst the 'soft' measures are things such as promotion of sustainable transport modes.
- 7.6 The Travel Plan will be finalised and agreed prior to the occupation of the development via an appropriately worded planning condition.

Highway Improvements

- 7.7 The traffic modelling results provided at [Section 6](#) indicate that the Windhover Roundabout network experiences some degree of capacity constraint and is operating above theoretical capacity on some arms during the weekday highway network peak hours. Given the development impact on the network, mitigation measures have been identified to accommodate the development traffic on the network.
- 7.8 At the Windhover Roundabout, a series of improvements were put forward as part of the NH Junction 8 improvement scheme, though this scheme has subsequently been cancelled. Some of these improvements have been identified as beneficial for the purposes of mitigating the development impact, including the third circulatory carriageway lane from the A3024 Bursledon Road arm to the A3024 Bert Betts Way arm.
- 7.9 The only change put forward from the National Highways scheme is to the lane assignment, with the NH scheme requiring vehicles heading to Hamble to switch lanes between the A27 and A3024 exits based on the lane markings on the NH plan. For simplicity, this has been replaced with two lanes between the A3024 and A27 for the M27, with the third lane routing to the A27 and Hamble. Between the A27 and A3024 Bert Betts Way arms, the two M27 lanes would route along the A3024, with the circulatory lanes splitting into an A27 and Hamble/A3024 Bursledon Road lane.
- 7.10 In addition to the extra lane and markings, signalisation is put forward for the A27 West End Road and A3024 Bert Betts Way arms of the junction. This would increase the number of vehicles able to clear each stopline, as vehicles would no longer have to wait to give way to oncoming vehicles. The modelling indicates this would reduce queueing on both the A3024 and A27 approaches, whilst ensuring the circulatory carriageway queueing would not block back to the preceding junction stopline.
- 7.11 Along the A3024 Bursledon Road, additional lanes are included between the Le Marechal Avenue/A3024 junction and the Windhover Roundabout stopline, to provide additional stacking distance for vehicles along this link.
- 7.12 In addition to the above, a slight change to signal timings is proposed to the Botley Road junction, which can operate within capacity with signal timing optimisations.

- 7.13 The above design changes are included at **Appendix S**, with these also forming part of the Stage 1 Road Safety Audit and Designers Response at **Appendix F**.

8.0 Summary and Conclusion

Summary

- 8.1 This Transport Assessment (TA) has been prepared by Motion on behalf of Wates Developments Ltd to accompany a pre-application submission for land adjacent to Windhover roundabout, Bursledon to Eastleigh Borough Council.
- 8.2 The development proposal for warehouse development (Use Classes B2 and B8 applied flexibly) of up to 200,000ft² (GIA), together with ancillary offices (Use Class E(g)(i)) and other ancillary building and structures, parking, servicing and manoeuvring areas, landscaping and sustainable drainage features.
- 8.3 This Transport Assessment has identified the following:
- ▶ The site is located in a sustainable location that provides prospective employees on the site with a realistic choice of travel modes other than the private car. The site is located within 2 kilometres of Bursledon railway station, with the site served by walking and cycling routes towards Southampton and Bursledon. Bus services are also accessible to the south of the site;
 - ▶ Vehicular access will be taken onto the A3024 Bursledon Road, in the form of a fourth arm at the Le Marechal Avenue/A3024 junction, and onto the A27 West End Road, in the form of a priority junction. The site plan seeks to keep the two units separate with no vehicular through route through the site;
 - ▶ Car and Cycle parking will be provided in accordance with EBC guidance;
 - ▶ The site is predicted to generate up to 89 two-way vehicular trips in the weekday morning peak hour and 79 two-way vehicular trips in the weekday evening peak hour. Across a typical weekday, 1,191 two-way vehicular trips could be generated. A sensitivity test has also been conducted to assess the impacts of a parcel distribution centre use at the site. This would result in an increase in trip generation to 235 two-way vehicle movements in the weekday morning peak hour and 195 two-way vehicle movements in the weekday evening peak hour;
 - ▶ Junction capacity modelling indicates that Windhover Roundabout currently operates at, or approaching, capacity on some arms. As such, with the inclusion of development traffic, increases in queuing are noted due to the inability of additional vehicles to clear the give way lines of the junction. In view of this, mitigation measures have been identified and subject to capacity modelling. This demonstrates that the development traffic can be accommodated on the network without any arm of the junction operating above capacity, providing a net benefit compared to the existing situation in the opening year of the development, assumed to be 2031; and
 - ▶ A Framework Travel Plan has been prepared to promote the use of sustainable and active travel modes to all employees at the site.

Conclusion

- 8.4 In view of the above, the development is considered to be acceptable in transport terms and accords with relevant national and local planning policies. This report demonstrates that the proposed development will not have a severe impact on the local highway network. Therefore, there are considered to be no transport related reasons why the development should not be granted planning permission.

Appendix A

Pre-application Responses



Mark Fitzgerald
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The Castle
Winchester, Hampshire SO23 8UL
Telephone 0300 555 1375
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Enquiries to	Emily Burnet	My reference	6/3/9/326
Direct Line	0370 779 7543	Your reference	
Date	13 th December 2023	Email	Emily.Burnet@hants.gov.uk

Dear Mark,

Pre-application Advice – Land North of Windhover Roundabout

The scoping note reviewed is the “Transport Assessment Scoping Note dated 28th July 2023” produced by Motion.

A pre-application meeting between Motion and the Highway Authority was held on 27th September to discuss the scoping note. At the meeting it was noted that additional work was needed concerning the trip rates identified for the site and therefore Motion would provide an additional trip generation technical note which the HA would review as part of this preapplication response. The “Trip Generation Technical Note – 6 October 2023” has also been reviewed.

The proposed site is located to the north of Windover Roundabout, Bursledon and fronts the A3024 Bursledon Road and A27 West End Road. The site is currently largely undeveloped with a number of agricultural buildings present. The site currently has gated access points off the A27 West End Road and onto the Windhover Roundabout.

Development Quantum

The proposed development comprises

- Four warehouse units for B2/ B8 use – 8,938sqm (11,920sqm including office space mezzanine)
- 2520sqm car showroom
- 218sqm drive-thru unit

Director of Hampshire 2050
Gary Westbrook

Clarification is required whether the proposed B8 use will include a parcel distribution centre, which will have implications on trip generation and parking for the site.

Sections of the Transport Assessment

Policy Context

The proposed documents for review include the National Planning Policy Framework, Planning Practice Guidance webpages, Eastleigh Borough Council Local Plan 2016 – 2036 (April 2022), and Eastleigh Borough Council Parking Standards SPD – Consultation Draft 2023. Consideration should also be given to Local Transport Plan 3, the emerging Local Transport Plan 4, EBC refuse standards, and Hampshire County Council Technical Guidance Notes. Consideration should also be given to LTP 1/20 and Eastleigh Borough Council LCWIP for any cycle improvements brought forward.

M27 Junction 8, Windhover Roundabout and A3024

The applicant should be made aware that Highways England in Partnership with Hampshire County Council and Southampton City Council, are consulting on a proposed scheme to improve the route into Southampton from Junction 8 of the M27. The proposals seek to address current issues and constraints along the corridor to reduce congestion on local roads particularly at pinch points, improve journey times and support more journeys by bus, walking and cycling. Following a decision from the secretary of State not to approve National Highway's application for Compulsory Purchase Orders and Side Road Order powers, National Highways are reviewing the detailed contents and advice from the Inspector to determine how to proceed. The latest on the proposals is available via the below link: [M27 Southampton junction 8 - National Highways](#)

Existing Conditions

The Highway Authority require a Walking, Cycling and Horse-Riding Assessment Report (WCHAR) to be undertaken as part of the Transport Assessment for the site. This should consider the pedestrian and cycle facilities within the vicinity of the proposed development and to/ from key origin/ destinations. The report should identify any deficiencies in the network and identify where improvements are needed which should be designed in accordance with LTN1/20 and HCC Technical Guidance note 10.

Public Transport accessibility should include distance to local bus stops, bus stop facilities, together with timetable information including frequency of service and locations served by the buses calling near to the site.

The Transport Assessment for the site proposals will need to include a personal injury accident analysis of the most recent 5 years of accident data.

This should be obtained from Hampshire Constabulary (collision.records@hampshire.pnn.police.uk). The use of Crashmap data is not accepted for use in Transport Assessments within Hampshire. The Highway Authority note that the assessment should include all junctions to be

assessed as part of the Transport Assessment including the Windhover Roundabout and the roads served by the site accesses.

Development Proposals

Access Arrangements

The development proposes two vehicular accesses into the site.

The main access will be in the form of a fourth arm added onto the A3024 West End Road/ Le Marechal Avenue Signalised junction. The design includes a dedicated right turn lane for vehicles accessing the site and two lanes for exiting vehicles. A staggered pedestrian crossing facility is provide across the site access arm.

A second access is to be proposed onto the A27 to the east of the site, which will be in the form of a simple priority junction.

The main and secondary access are to be connected via a spine road through the site.

The Highways Authority provides comments on these aspects below:

The Main Access

Bursledon Road is at times a highly congested corridor between Southampton and M27 Junction 8. While the Le Marechal junction is already signalised including a new arm would have a significant impact on Bursledon Road. The addition of a fourth arm to the junction could have wider ranging impacts on the road network beyond Bursledon Road and the access junction itself. The following comments relate not just to the Le Marechal Avenue junction but the surrounding junctions and network.

The Masterplan drawing illustrates a new arm to the Bursledon Road/ Le Marechal Ave which lands to the northwest of the existing Le Marechal Ave approach whereas the concept junction design drawing illustrates the access landing to the south-east. It will be necessary for the junction to land to the south-east of the existing access, as demonstrated in the junction design drawing, to facilitate a layout where right turning traffic from both Bursledon Road approaches may run opposed to each other. This is a critical design element which will have masterplan implications on land use allocations.

The junction currently operates an indicative arrow for southbound Bursledon Road traffic turning right into Le Marechal Avenue. With the addition of the opposing right turn movement this would need to become a fully signalled right turn. In turn this would require localised widening and a new centre island on Bursledon Road for the right turn signal.

In order to provide sufficient capacity and to provide network resilience as a consequence of the fourth arm and development traffic, thorough consideration should be given to providing another lane to the Bursledon Road southbound approach which continues towards Windhover roundabout. This would provide room for the Windhover roundabout approach queue to

stack without impacting on the Le Marechal Avenue junction. Two ahead lanes should also be thoroughly considered on the Bursledon Road southbound approach to the Le Marechal Avenue junction to mitigate the increased delay resulting from the additional signal stage. It should be possible to deliver these measures to tie in with the future Windhover roundabout scheme at the intersection of the existing kerb, such that either scheme could deliver an improvement without dependence on the other.

Similar to the comment above, thorough consideration should be given to providing two ahead lanes on the Bursledon Road northbound exit from Windhover roundabout through the Le Marechal Avenue junction. This mitigation would provide space for traffic to queue without increasing the impact on Windhover roundabout. The two Bursledon Road northbound lanes? would merge on northern-western exit of the signal junction.

The Secondary Access (A27)

The HA note that the emerging LTP4 Policy DM2 only supports requests for new accesses where the strategic flow of traffic is prioritised and not compromised, and when all reasonable options has been considered. Although the Highway Authority note that there is an existing access in this location, the primary question is whether a secondary access is needed or whether the proposed development could be served solely from a single access. The TA will need to demonstrate that both accesses are needed, and all options have been considered. If a secondary access is shown to be needed, then consideration should be given to the following:

The junction design refers to 2.4m x 120m visibility splays being achievable based on the posted speed limit along the A27. However, the HCC Technical Guidance Note 3 requires visibility splays to be based on surveyed speeds taken at the approximate ends of the 'Y' distance visibility splays from the access. The HA note there are existing trees within the proposed visibility of the junction.

HCC will require the access design to meet the requirements of [TG15 Trees, Landscape and Ecology](#), with supplied documents meeting the submission requirements as documented in section 4. Should the trees be shown to be located in the visibility splays and require removal, they will attract compensation in the form of CAVAT in line with TG15 and HCC's [Road Agreement Policy for the Protection of Highways Trees affected by New Development](#), this will usually be agreed as part of the S278 process.

If HGVs are to use the access a ghost island right turn should be considered to remove right turners from mainline flow or consideration should be given to providing a roundabout. It may be necessary to investigate the signalisation of the West End Road/site access road junction should queueing back from Windhover roundabout be identified. Each of these options would not be without its difficulties given the numerous private driveways on the east side.

Given the future maintenance burden, signalisation should only be progressed if it's demonstrated as necessary.

The proposals include the removal of an existing layby although this was likely installed as a service provision, potentially for a utility and therefore would require further consideration prior the removal being considered acceptable

Consideration should be given to facilitating pedestrians and cycles crossing close to this access point given the crossing point is some distance from the existing facilities.

It is not clear whether the developer has considered the 'old' adjoining taper on Peewit Hill Junction and whether alterations are proposed.

The HA will require a Stage One Road Safety Audit with designers response and auditor sign off to accompany the Transport Assessment for each of the access designs.

Site Layout

There is concern that the access road through the site may be used as a cut through by drivers between Bursledon Road and West End Road (and vice versa) to avoid navigating Windhover roundabout. This would increase traffic flows using the Bursledon Road/Le Marechal Avenue signal junction and in turn increase delays on Bursledon Road. It is recommended having physical severance of the site access road within the site to prevent end to end vehicle journeys. A suggestion would be to have all the car showroom traffic and some of the two B2/B8 units exiting onto West End Road. However, the balance of the traffic access split would depend on the impact on both the West End Road and Bursledon Road junctions.

The entrance and exit for the proposed drive-thru should be located away from the signal junction in order to allow room for the signal junction to operate successfully. The access should be moved away from the main site access road to avoid access issues into and out of the facility conflicting with the signal junction and in turn with Bursledon Road. It is suggested that the drive-thru is only accessed from the site road which directly feeds the car showroom plot.

It would be recommended to undertake early consideration of the cycle provision particularly with regards to LTN 1/20 and the possibility of providing segregated facilities both through the site and on road adjacent to Windhover roundabout. This will influence the choice of crossing facilities provided at the Le Marechal Avenue signal junction.

The bus stops shown on the drawings are currently not in use. Consideration should be given to buses that serve the site currently including timetable information and details of the closest local bus stop facilities that are in use.

Parking provision

The HA note that car and cycle parking provision is a matter for Eastleigh Borough Council to comment on as the parking authority, to ensure the level of car and cycle parking accords with their standards. However, it should be demonstrated that adequate parking is provided to prevent vehicles parking indiscriminately on the highway to the detriment of highway safety, whilst also avoiding over generous parking that could lead to an overdependency on car use in favour of more sustainable modes.

The scoping note refers to the development providing parking at a rate of 1 space per 90 meters for the employment uses, which results in a parking provision slightly below the emerging standards. The HA requires parking accumulation assessments to be provided for each of the proposed uses on site to demonstrate adequate numbers of parking spaces are being provided on site. This should be based on a worst case in terms of trip and parking generation for each proposed used.

Consideration should be given to how and when the site will be serviced and that adequate servicing and parking bays are provided.

Service Arrangements

Servicing is to be undertaken on site. The scoping note makes reference to each B2/B8 unit being designed to accommodate the movements of a 16.5m articulated vehicle. This should be demonstrated through swept path analysis of the proposed site access and the vehicle turning within the site. Similarly the servicing arrangements of the car showroom and drive-thru should be tracked also, along with timings of both of these. For other drive-thru sites across the county the HA have required 16.5m articulated lorry to be tracked, which is the maximum sized vehicle understood to service McDonalds restaurants and drive-thru's.

Trip Generation

The HA requires the Transport Assessment considers the network peak determined through survey information collected and also the development peak where the two do not coincide with each other.

Due to the site containing a drive-thru unit and potentially a B8 parcel distribution centre the HA request that a weekend peak also be considered.

Existing Site

It is noted that the trip generation for the existing site is anticipated to be low and therefore will not be a consideration in the Transport Assessment for the proposed site. This is considered a robust approach.

Proposed B2/B8 floorspaces

The trip rates extracted from TRICS and presented in section 2.1 of the Trip Generation Technical Note are considered acceptable for use for the B2 industrial use for the site. For each of the proposed uses the person/ vehicular

mode split will be dependent on accessibility of the proposed site by sustainable modes, which will need to be supported by a review of pedestrian, cycle and public transport facilities within the TA and demonstration the split is realistic for local conditions.

A person and vehicular trip rate has been identified for commercial warehousing which is considered acceptable for use in the assessment. The agreed typical network peak hour trip rates and trip generations for the respective uses are included in the table below:

	AM peak (08:00-09:00)			PM peak (17:00-18:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
B2 – Industrial Trips (section 2.1)						
Vehicular trip rate	0.428	0.202	0.630	0.245	0.414	0.659
Vehicular trips	51	24	75	29	49	78
LGV trips	15	11	26	4	6	10
HGV trips	3	2	5	1	2	3
B8 – commercial warehousing trips (section 2.9)						
Vehicular trip rate	0.320	0.061	0.381	0.015	0.473	0.488
Vehicular trips	38	7	45	13	2	15
LGV trips	5	4	9	7	0	7
HGV trips	5	4	9	0	5	5

The above table shows that the B2 industrial vehicular trip generation results in a higher overall trip generation compared to B8 – commercial warehousing during the network peak hour, these findings are summarised in Section 2.12 of the technical note.

It is noted that the commercial warehousing use results in slightly higher trip generation during the development peak with 67 arrivals and 30 departures between 06:00-07:00 compared to the industrial use with 39 arrivals and 43 departures between 13:00-14:00. Depending on the findings of the traffic surveys and when the local network peak is shown to occur the HA reserve the right for this higher commercial warehousing trip generation to be modelled.

Sensitivity Test – Parcel Distribution Centre

The HA advised the transport consultant at the pre-application meeting that B8 specific trip rates should be identified which should present a worst case scenario in terms of trip generation for the site. A worst case in terms of trip generator for B8 is anticipated to be a last mile parcel distribution centre unless this is prevented through planning condition or similar to restrict the use.

The Trip Generation Technical Note suggests that, due to the shape of the site and the location of the main access, the site is unlikely to come forward as a parcel distribution centre. Although the HA take this comment on board, unless the site has a planning obligation or similar preventing the use then a worst case in terms of trip generation should be assessed.

TRICS has limited sites available for parcel distribution centres as noted in the Trip Generation Technical Note these range in size from 750 to 6500 sqm and 15,000 to 24,000 sqm. The proposed site comprises 8,938sqm (11,920sqm including office space mezzanine).

The document 'understanding the UK Freight Transport System' refers to medium and large-scale distribution centres over 5,000sqm. However, the TRICS analysis uses a mix of large and smaller sites in the selection due to the limited number available.

The note refers to employees at these sites typically using their own vans, however the Highways Authority know of instances where this is not the case and employees drive their own vehicle to the site and swap over to the 'work' van to carrying out their deliveries etc.

The HA have very few comparable 'last mile' distribution sites, however, 32 New Lane, Havant (APP/21/00200) the end user was known and were able to provide identified trip rates. These trip rates are much higher than those referred to in the Trip Generation Technical Note and more in keeping with the larger TRICS sites. Therefore, the trip assessment should be revisited and this alternative trip generation applied to provide reassurances to the HA that the assessment presented is robust.

Proposed car showroom

The use of the vehicular trip rates in table 3.2 are considered appropriate in this instance for the purposes of this application.

Proposed Drive Thru unit

The proposed trip rates for the drive thru and coffee shop use are consistent with TRICs selections, however surveys of McDonalds sites within the County and elsewhere across the Country can be higher than presented here. It would be recommended to survey an existing McDonalds similar to the one proposed at this development to identify trip generation, parking turnover, drive-thru queue lengths and servicing timings.

It is acknowledged that the Drive Thru is likely to present a worst case in terms of blocking back and potential interference with the network, however the drive thru coffee shop may have implications for the site junction depending on the capacity of the junction and the outcomes of the McDonalds survey. Therefore a sensitivity test of the site access junction(s) may be required to demonstrate there is adequate capacity.

Consideration should be given to anticipated queue lengths and it would be recommended to survey an existing facility to demonstrate associated queues to provide the HA with reassurance that these will not extend on the highway network.

Total Trip Generation

The total trip generation is not agreed at this stage; The Parcel Distribution Centre and drive thru requires further work.

Traffic Impacts

Traffic Distribution and Assignment

The proposed distribution and assignment of trips has been based on Census 2011 data, which is acceptable in principle to the HA, however we require the spreadsheet detailing the distribution and route choices identified be provided in order for this to be checked.

Trip Types

It is accepted that all trip to the proposed employment uses will be new trips and are therefore treated as such within the assessment.

The Highway Authority agree that a proportion of trips associated with the proposed development would be secondary trips (pass-by, diverted, linked trips). The HA require further evidence through surveys and justification for the proposed level of primary vs secondary trips associated with the proposed drive thru and therefore are unable to agree to the 80% of secondary trips proposed at this stage without further evidence. The HA note that a McDonalds at Easton Lane in Winchester (22/00230/FUL) located just south of Junction 9 of the M3 next to a large Tesco's store. As part of the Transport Assessment they undertook surveys which identified a higher trip rate than presented within TRICS and 43% additional (new trips) to the McDonalds restaurant. The HA require a similar assessment for the proposed drive-thru for this site utilising appropriately located McDonalds as comparators.

Scope of Assessment

The HA are unable to comment further on the development impacts at this stage as further information is required.

The HA note following our earlier recommendation for the road through the site to be split to prevent through trips will result in trips from the development routing through the Windhover Roundabout, which will need to be modelled in any event. The applicant should contact National Highways to understand whether they require Junction 8 of the M27 to be modelled.

As a general rule of thumb the HA would recommend that junctions that the proposed development results in 30 two-way trips or more during either the network or development peaks should be considered further and may need to be modelled utilising appropriate software. However, the HA reserve the right for further junctions to be assessed where the proposed development is

forecast to result in few than 30 additional trips passing through, particularly those that experience existing congestion issues.

Traffic Surveys

In addition to the proposed surveys it is recommended to include:

- a) Turning counts at the Botley Road/ Bursledon Road signal junction. This junction lies within Southampton City Council's responsibility and while it sits outside of the County Council's area its operation has a direct impact on traffic conditions along Bursledon Road and consequently at the two signalised junctions at Le Marechal Avenue and Windhover roundabout.
- b) Queue surveys on all approaches to all surveyed junctions throughout each modelled period (for example 5-minute intervals recording maximum queue length within each time interval).

Detailed queue surveys along A3024 Bursledon Road either side of the existing Le Marechal Avenue signal junction. These are required to determine the frequency and duration of queues back from Windhover roundabout and from the Botley Road/ Bursledon Road signal junctions. These should be completed for each modelled period. The findings should be reflected in the junction modelling.

Assessment years

Paragraph 5.12 refers to the use of TEMPRO to identify suitable growth factors for each road category. TAG Unit M4 (Department for Transport) paragraph 9.1.5 refers to TEMPRO version 8.0 not having the functionality required to combine NTEM data with NTM trip ends. The recently released TEMPRO 8.1 does include this functionality and therefore the growth factors should be extracted from this version utilising Core Scenario and NTM growth calculations function.

The use of Eastleigh 013 MSOA to establish the TEMPRO growth is considered to be reasonable.

Committed development sites

The applicant should contact the Local Planning Authority to determine whether there are any committed development sites which need to be considered as part of the Transport Assessment for this site.

Junction modelling

It is agreed that the site accesses and the Windhover Roundabout will need to be modelled as part of the Transport Assessment for the site.

A Linsig model should be built which includes both the Le Marechal Avenue junction and the existing signalised junctions at Windhover roundabout (Bursledon Road and Hamble Lane arms). This is to understand and determine

the interaction along Bursledon Road due to the short distance between the junctions.

The development proposals and modelling will need to be considered both with and without the future Windhover roundabout scheme. No conflicts have been identified based on concept plans submitted.

Modelling of the A27 West End Road entry on to Windhover roundabout should be included to understand the impact of queuing on the site access road on this road.

Travel Plan

A Travel Plan will be required for each of the uses on the site given the scales of the proposed development. Travel Plan guidance is available via our website [Travel plans | Hampshire County Council \(hants.gov.uk\)](https://hants.gov.uk/travel-plans). We require a monitoring fee and a cash deposit/ bond to be secured through S106 should planning be granted.

Summary

Specific points have been raised above with regards the key information submitted at this stage. The highway authority will require a comprehensive Transport Assessment and Travel Plan to support any planning application for the proposed development.

I trust that the above is clear but do not hesitate to contact Emily Burnet if you wish to discuss this further.

Yours sincerely,

Gemma McCart
Team Leader – Highways Development Planning

Mark Fitzgerald

Subject: RE: 24207 RE: NH/24/08475 Pre-application enquiry - Windhover Roundabout, Hampshire (near J8 of M27)

From:
Sent: 16 December 2024 12:43
To:
Cc:
Subject: 24207 RE: NH/24/08475 Pre-application enquiry - Windhover Roundabout, Hampshire (near J8 of M27) [Filed 27 Jan 2025 08:54]

Hello Mark

Thank you for forwarding your Trip Generation Technical Note, HCC’s response and plans of the previous (‘Bursledon Page 7’) and current (‘276504-XX-ZZ-DR-A-SK007 Proposed Footprint’) site layouts. National Highways’ comments on the first, including comments relating to HCC’s response and the current site layout as relevant, follow below.

Importantly, National Highways will require the full assessment of M27 Junction 8 as well as a review of the off and on slips in both directions to confirm that the additional traffic generated by the proposed development will not create or aggravate safety issues.

Kind Regards

Patrick

.....

<i>Trip Generation Technical Note, Land North of Windhover Roundabout, Bursledon Road/West End Road, Bursledon, 19 November 2024</i>		
Section	Text/tables/figures	NH Comments

2.0 Parcel Distribution Centre Sensitivity Test	Trip Rates	2.1	<i>It is noted that a parcel distribution centre use could come forward within a B2/B8 Use Class. However, given the shape of the site and the layout of the emerging layout for the scheme which does not provide any dedicated van storage, it is unlikely that a parcel distribution centre operator would utilise the site.</i>	1	The 72 spaces adjacent Unit 1 and 107 spaces adjacent Unit 2 on '276504-XX-ZZ-DR-A-SK007 Proposed Footprint.pdf' could facilitate parcel distribution use.
		Table 2.1	<i>Parcel Distribution Centre (Multi-modal) Trip Rates and Trips</i>	2	National Highways estimates that the vehicular trip generation is 1.9 times more in the AM peak hour and 2.4 times more in the PM peak hour than that previously calculated. In pcu terms, the trip generation is 1.7 times more in the AM peak hour and 2.1 times more in the PM peak hour. National Highways notes and endorses HCC's requirement that a higher set of rates be used (see 'Pre-application Advice – Land North of Windhover Roundabout' (letter), HCC, 13 December 2024). HCC's comments concerning drive-thru trip rates, should development proposals change or revert, are also endorsed.
		2.6	<i>The above indicates the development site could generate 148 two-way total person trips in the weekday morning peak hour, of which 145 could be vehicular with 50 two-way LGV movements and 34 two-way HGV movements. In the weekday evening peak hour, the development could generate 190 two-way total person trips, of which 186 could be vehicular, with 39 two-way LGV movements and 14 two-way HGV movements. During the development peak hour, 211 two-way total person trips could be generated, of which 159 could be vehicular, with 47 two-way LGV trips and 38 two-way HGV trips.</i>		
	Traffic Distribution	2.11	<i>The above updated traffic distribution would result in changes to the predicted traffic flows around nearby junctions. Table 2.3 summarises the trip breakdown at each junction in the weekday peak hours based on the commuter, LGV and HGV distributions above.</i>	3	National Highways assumes that the commuter distribution continues to be as presented in the Transport Assessment Scoping Note.
		Table 2.3	<i>Junction Impact – PDC Use</i>	4	Two-way flows through M27 J8 of 104 vehicles in the AM peak hour and 130 vehicles in the PM peak hour require traffic surveys at and traffic modelling of M27 J8.

3.0 Summary	3.2	<i>This Note has provided an additional review the parcel distribution centre category within the TRICS database to identify a worst case scenario of the development site operation. It is considered that this would form a sensitivity test within the Transport Assessment to accompany the planning application submission.</i>	5	Parcel distribution trip generation results in traffic flow increases at M27 J8 that require traffic surveys at and traffic modelling of M27 J8.
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Patrick Blake, Area 3 Spatial Planner

From:

Sent: 06 December 2024 15:50

To:

Cc:

Subject: RE: NH/24/08475 Pre-application enquiry - Windhover Roundabout, Hampshire (near J8 of M27)

Good afternoon Patrick,

Thank you for your comments below and apologies for the delay in coming back to you. We've pulled together the attached Note relating to a PDC use of the site to address a number of the comments provided below.

In terms of including HCC in the process, we've had pre-application discussions with them separately on the scheme, for which I attach their response. This discussion was held regarding a slightly different scheme layout, which included smaller industrial uses and added a drive-thru unit and car showroom, as shown on the attachment 'Bursledon Page 7', though it is considered the key elements of their response would be included within any TA accompanying the planning submission. As their views regarding the potential for development of the site are set out within the attached, we assume this would allow the meeting to occur without them present.

The scheme has subsequently been updated into the '276504-XX-ZZ-DR-A-SK007 Proposed Footprint' layout which focusses on larger warehousing type units. It is on the basis of the suggested parking layouts for these units which suggests the PDC type use would be unlikely to occupy these units without changes to the building footprints etc, as no space is provided on the sites to accommodate vans being stored on the sites.

If you are able to suggest potential meeting dates following review of the above information, that would be appreciated.

Many thanks,

Mark Fitzgerald | Principal Transport Planner

motion | Quadrant House, Broad Street Mall, Reading, RG1 7QE

t 0118 467 4498 | m 07901 160454 | e mfitzgerald@motion.co.uk | w www.motion.co.uk

LinkedIn | X

From:

Sent: 13 November 2024 13:30

To:

Cc:

Subject: NH/24/08475 Pre-application enquiry - Windhover Roundabout, Hampshire (near J8 of M27)

Dear Mark

Thank you for your email of Wednesday 23 October 2024 requesting pre-application advice from National Highways on your Transport Assessment Scoping Note for the proposed development to the north of Windhover Roundabout, Bursledon.

National Highways has been appointed by the Secretary of State for Transport as a strategic highway company under the provisions of the Infrastructure Act 2015 and is the highway authority, traffic authority and street authority for the Strategic Road Network (SRN). The SRN is a critical national asset and as such National Highways works to ensure that it operates and is managed in the public interest, both in respect of current activities and needs as well as in providing effective stewardship of its long-term operation and integrity. In the case of this development proposal, our interest is in the M27 particularly Junction 8.

We have reviewed the supplied information. B8 use includes parcel distribution as a potential use. A parcel distribution 'worst case' test might therefore be required in addition to the assessment proposed in your scoping note. In advance of a meeting, please estimate the potential impact using parcel distribution trip rates, trip generations and trip distributions so that National Highways can finalise its advice. A meeting can follow our review of this information. It is essential that Hampshire CC, as the local highway authority is also at the meeting. We have good availability over the next couple of weeks, can I suggest anytime on 22, 25 or 29 November?

Comments on the scoping note generally follow below for your information.

Kind Regards

Patrick

Patrick Blake, Area 3 Spatial Planner

Land North of Windhover Roundabout, Bursledon Road/West End Road, Bursledon, Transport Assessment Scoping Note, For Wates Developments Ltd, 23/10/2024

Section			NH Comments	
1.0 Introduction	Development Quantum	1.5	1	B8 use includes parcel distribution as a potential use. A parcel distribution 'worst case' test might therefore be required in addition to any other tests.
2.0 Sections of the Transport Assessment	Existing Conditions	2.3	2	Depending on the amount of development traffic expected at M27 J8 (inclusive of a parcel distribution as an outcome), collision data may be needed for M27 J8 too (including the off and on -slips).
	Trip Generation	2.7	3	B8 use includes parcel distribution as a potential use. A parcel distribution 'worst case' test might therefore be required in addition to any other tests.
	Traffic Impacts	2.8	4	M27 J8 might need assessment too. If that is the case, the assessment must include all traffic travelling through M27 J8 by movement with maximum queue lengths provided for the (i) M27 J8 off-slips and (ii) M27 J8 circulatory sections.
3.0 Development Proposals	Development Quantum	3.1	5	B8 use includes parcel distribution as a potential use. A parcel distribution 'worst case' test might therefore be required in addition to any other tests.
4.0 Trip Generation	Proposed B2/B8 Floorspace	4.4	6	B8 use includes parcel distribution as a potential use. Parcel distribution generates more non-employee trips than other storage/distribution types. A parcel distribution 'worst case' test might therefore be required in addition to any other tests.
		Table 4.1	7	
		4.5	8	
5.0 Traffic Impact	Traffic Distribution and Assignment	5.1	9	It is one thing to use census data to derive employee distributions, it is quite another to assume the same distributions for all of the trips generated by the proposed development (LGV and HGV trips account for 57% and 48% of the AM and PM peak hour trips respectively in Table 4.1). LGV and HGV distributions, inclusive of parcel distribution activity, might very well reflect journey to work distributions but must be estimated in their own right.
	Scope of Assessment	5.3	11	It might be better to say 'the development impact will be greatest on the M27 East, with an increase of 20 vehicles two-way in the weekday morning peak hour and 21 vehicles two-way in the weekday evening peak hour'.
		5.6	12	As noted above, B8 use includes parcel distribution as a potential use which generates more non-employee trips than other storage/distribution types. A parcel distribution 'worst case' test
		5.7	13	

		5.8	14	might therefore be required in addition to any other tests. The need for traffic surveys and traffic modelling at M27 J8 can only be confirmed after parcel distribution trip rates, trip generations and trip distributions are supplied.
	Assessment Years	5.9	15	Should M27 J8 require assessment, National Highways will only expect (see DfT's ' <i>Strategic road network and the delivery of sustainable development</i> ', Updated 23 December 2022, paragraph 50) an ' <i>opening year assessment includ[ing] trips generated by the proposed development, forecasted growth and committed development ... to establish the residual transport impacts of a proposed development. For multi-phase developments, additional assessments shall be provided based on the opening of each phase.</i> '

From:

Sent: 23 October 2024 13:43

To:

Cc:

Subject: Pre-application enquiry - Windhover Roundabout, Hampshire (near J8 of M27)

Good afternoon,

We are looking to obtain pre-application advice in relation to a forthcoming development on land adjacent to Windhover Roundabout, Bursledon, near junction 8 of the M27. We've prepared a Transport Assessment Scoping Note, attached for reference, and I also attach a site location plan for ease of reference.

The scheme is still being drafted, though at this stage the indicative proposal is for two B2/B8 units comprising circa 17,800 square metres of floorspace including ancillary office at mezzanine level. Access is proposed onto both the A3024 and A27 (one access per unit), with indicative designs appended to the attached note.

Ideally, we would seek a pre-application meeting, therefore if you are able to advise on your availability we can get this pencilled in.

If you have any comments or queries, please do not hesitate to get in touch.

Many thanks,

Mark Fitzgerald | Principal Transport Planner

motion | Quadrant House, Broad Street Mall, Reading, RG1 7QE

t 0118 467 4498 | m 07901 160454 | e mfitzgerald@motion.co.uk | w www.motion.co.uk

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Land Adjacent to Windhover Roundabout, Transport Assessment, Bursledon, 21/10/2025

Section			Relevant text, tables, figures, etc.	NH response		Status
2.0 Planning Policy Context	National Policy		NA	1	DfT Circular 01/2022 is referenced in section 5 of the TA (paragraph 5.11 under 'Vision and Validate Assessment') but is not mentioned in section 2 of the TA. It should have been mentioned under 'National Policy'.	Observation
4.0 Development Proposals	Parking and Loading Provision	4.17	Should a B2 use come forward, the 16,795 square metres floorspace illustrated would equate to a parking provision of 373 spaces. Should this type of use come forward, it is likely that the number of loading bays for each unit would be reduced which would allow for these areas to be converted to additional car parking to bring the development in line with the parking standard for a B2 use.	2	What are the trip generation implications of B2 use?	Question
5.0 Trip Generation	Proposed Warehousing Site Use	5.6	The TRICS outputs are included for reference at Appendix H, with Table 5.1 providing the vehicular, LGV and OGV trip rates and trips, based on the up to 18,580 square metres of floorspace.	3	Table 5.1 does not present LGV trip rates and trips except as part of the overall vehicular trip rates.	Observation
		Table 5.1	Warehousing Vehicular Trip Rates and Trips	4	The weekday morning park hour trip rates in Table 5.1 are different to the rates in the Transport Assessment Scoping Note of 23/10/2024 (30% higher inbound and 3% lower outbound). The weekday evening peak hour trip rates are identical to the rates in the Transport Assessment Scoping Note of 23/10/2024.	Observation
	Multi-modal Trip Generation	5.8	To provide an indication of the total person trips that could occur for commuting purposes, the Census data for 'Workplace and Usual Residence by Method of Travel to Work' has been obtained for workers in the E33042112 workplace zone, in which the site is located (2011 output).	5	The LGV element of the trip generation is assumed to form part of the commuter (employee) element of the site. Is that intended?	Question
		5.9	Given the operational movements occurring by HGV, as identified in Table 5.1 above, these have been removed prior to calculating the total person trips and identifying trips by alternative modes of travel. Table 5.2 summarises the Census modal split of travel alongside the multi-modal commuting breakdown associated with the development.			
		Table 5.2	Census Multi-modal Trips			
		5.10	The above table indicates that the development could attract nine two-way pedestrian trips in the weekday morning peak hour and seven two-way pedestrian trips in the weekday evening peak hour. Car passenger is also a typical mode of travel, with eight two-way trips in the morning peak hour and six two-way trips in the evening peak hour.			
	Vision and Validate Assessment	5.12	With the development providing an industrial use, operational trips will occur regardless of mode of travel utilised by staff to access the site. In view of this, measures to encourage sustainable travel would be focused on staff trips to and from the site. Table 5.3 summarises a 10% reduction in car driver modal split, with this difference distributed evenly across the remaining modes of travel.	6	Table 5.1 of the Framework Travel Plan ('Indicative Travel Plan Aim Target') specifies a '10% decrease in single occupancy vehicle trips' by Year 5. It is not known whether the Vision and Validate assumption in the TA is intended to reflect the mode shift ambitions specified in the Framework Travel Plan. However, a 10% reduction in car driver modal split is not the same as a '10% decrease in single occupancy vehicle trips'.	Observation
		Table 5.3	Vision and Validate Trip Calculation	7	Table 5.3. indicates a 15% reduction in Car drive trips rather than a 10% reduction in Car driver trips.	Observation
		5.13	The above table indicates that with a 10% reduction in commuting trips, non-operational vehicle trips would reduce to 52 two-way movements in the weekday morning peak hour and 42 two-way movements in the weekday evening peak hour.	8	Surely this should say 'Car driver commuting trips' rather than simply 'commuting trips'?	Question
	Parcel Distribution Centre Sensitivity Test	Table 5.4	Sensitivity Test Trip Rates (per 100sqm) and Trips	9	The trip rates in Table 5.4 are identical to the rates in the Trip Generation Technical Note of 19/11/2024.	Observation
6.0 Traffic Impact	Assessment Scenarios	6.10	It is noted that the Hamble Airfield Quarry application (reference HCC/202) identified within their Transport Assessment that traffic flows in the area have remained relatively stable across the past 20 years. Therefore no allowance for TEMPro growth factors was made within the assessment of the Windhover Roundabout junction. This approach was accepted by HCC Highways in their review of the application. It is considered that this position has not altered and therefore no allowance for TEMPro growth has been made in this assessment.	10	The assumed approach was not revealed in previous pre-app engagement. Indeed, the Transport Assessment Scoping Note of 23/10/2024 proposed TEMPro growths of 1.0674 and 1.0650 between 2024 and 2030 for the weekday AM and PM peaks respectively (see Table 5.1: TEMPro Growth Factors in the Transport Assessment Scoping Note). The absence of an opening year assessment is not acceptable for the assessment of M27 J8 at the very least and probably also Windhover Roundabout unless there is	Substantive issue

		6.11	The following scenarios are assessed within the junction capacity assessment below: „ 2025 Baseline – Weekday Morning Peak Hour; „ 2024 Baseline – Weekday Evening Peak Hour; „ 2025 plus Development (warehousing use traffic flows) – weekday morning peak hour; and „ 2024 plus Development (warehousing use traffic flows) – weekday evening peak hour. „ 2022 plus Development Sensitivity Test (parcel distribution centre traffic flows) – weekday morning peak hour; and „ 2024 plus Development Sensitivity Test (parcel distribution centre sensitivity test traffic flows) – weekday evening peak hour.		indisputable proof that traffic flows (i) have remained relatively stable across the past 20 years in the area inclusive of M27 J8 and (ii) won't change into the future especially at M27 J8. DfT Circular 01/2022 was referred to in previous pre-app input. It requires an 'opening year assessment includ[ing] trips generated by the proposed development, forecasted growth and committed development ... to establish the residual transport impacts of a proposed development. For multi-phase developments, additional assessments shall be provided based on the opening of each phase.' The mitigation proposed for Windhover Roundabout is also of a scale that demands future year modelling.	
		6.12	It is therefore considered appropriate to consider the development impact on the network in the baseline assessment years.			
	Vehicular Trip Distribution	Table 6.1	Traffic Distribution Proportions	11	Application of the distributions in Table 6.1 to the trip generation in Table 5.4 ('Sensitivity Test Trip Rates (per 100sqm) and Trips') results in 149 two-way vehicular trips and 237 two-way pcu trips through M27 J8 in the morning peak hour and 116 vehicular two-way trips and 170 two-way pcu trips through M27 J8 in the evening peak hour. The vehicular impact at M27 J8 is 43% greater in the morning peak hour and 11% lower in the evening peak hour than the impact estimated with the information supplied in the Trip Generation Technical Note of 19/11/2024.	Observation
	Junction Capacity Modelling	Table 6.2	A3024 Corridor Baseline Linsig Outputs Windhover Roundabout: A3024 Bert Betts Way 2025 AM DoS (%): 81.9% & 70.8% 2025 AM MMQ: (PCU) 6.7 & 4.3 2024 PM DoS (%): 105.8% & 106.3% 2024 MMQ (PCU): 54.3 & 55.4	12	Although none of the mean maximum queue estimates on the A3024 Bert Betts Way approach to Windhover Roundabout exceed the stacking capacity of A3024 Bert Betts Way (an estimated 140 pcus) the DoSs would concern National Highways.	Observation
		Table 6.3	A3024 Corridor With Development (Warehousing) Linsig Outputs Windhover Roundabout: A3024 Bert Betts Way 2025 AM DoS (%): 84.5% & 77.3% 2025 AM MMQ: (PCU) 8.1 & 5.9 2024 PM DoS (%): 123.5% & 113.8% 2024 MMQ (PCU): 91.5 & 77.0			
		Table 6.4	A3024 Corridor Sensitivity Test (Parcel Distribution Centre) Linsig Outputs Windhover Roundabout: A3024 Bert Betts Way 2025 AM DoS (%): 83.1% & 80.8% 2025 AM MMQ: (PCU) 7.8 & 7.5 2024 PM DoS (%): 122.3% & 118.5% 2024 MMQ (PCU): 89.1 & 90.2			
		Tables 6.4 & 6.5		13	Why do Tables 6.4 and 6.5 have a 2022 AM peak hour?	Question
		6.32	The mitigation involves signalisation of the A27 West End Road and A3024 Bert Betts Way arms of the roundabout, alongside the circulatory carriageway adjacent to these arms. In addition to this, a third circulatory lane between the A3024 Bursledon Road arm and the A3024 Bert Betts Way arm is put forward, replicating the arrangement within the National Highways Junction 8 improvement scheme. Further details on the mitigation scheme proposals are included at Section 7 of this report.	14	Without explicitly stating the fact, paragraph 6.32 appears to correctly assume that the National Highways' M27 J8 Southampton scheme has been cancelled (see https://nationalhighways.co.uk/our-roads/south-east/m27-southampton-junction-8/).	Observation
		Table 6.7	M27 Junction 8 Roundabout Baseline ARCADY Results Summary	15	Is nature of the queue statistics in these tables is not specified. It should be clearly specified as average queue or average maximum queue.	Observation
		Table 6.8	M27 Junction 8 Roundabout with Development (Warehousing) ARCADY Results Summary			
		Table 6.9	M27 Junction 8 Roundabout with Development (Parcel Distribution Centre) ARCADY Results Summary			
		General		16	Please forward copies of all models to National Highways.	Request
7.0 Mitigation Measures	Highway Improvements	7.7	The traffic modelling results provided at Section 6 indicate that the Windhover Roundabout network experiences some degree of capacity constraint and is operating above theoretical capacity on some arms during the weekday highway network peak hours. Given the development impact on the network, mitigation measures have been identified to accommodate the development traffic on the network.	17	Without explicitly stating the fact, paragraphs 7.7 to 7.11 appear to correctly assume that the National Highways' M27 J8 Southampton scheme has been cancelled (see https://nationalhighways.co.uk/our-roads/south-east/m27-southampton-junction-8/).	Observation
		7.8	At the Windhover Roundabout, a series of improvements were put forward as part of the NH Junction 8 improvement scheme. Some of these improvements have been identified as beneficial for the purposes of mitigating the development impact, including the third circulatory carriageway lane from the A3024 Bursledon Road arm to the A3024 Bert Betts Way arm.			

		7.9	<i>The only change put forward from the National Highways scheme is to the lane assignment, with the NH scheme requiring vehicles heading to Hamble to switch lanes between the A27 and A3024 exits based on the lane markings on the NH plan. For simplicity, this has been replaced with two lanes between the A3024 and A27 for the M27, with the third lane routing to the A27 and Hamble. Between the A27 and A3024 Bert Betts Way arms, the two M27 lanes would route along the A3024, with the circulatory lanes splitting into an A27 and Hamble/A3024 Bursledon Road lane.</i>			
		7.10	<i>In addition to the extra lane and markings, signalisation is put forward for the A27 West End Road and A3024 Bert Betts Way arms of the junction. This would increase the number of vehicles able to clear each stopline, as vehicles would no longer have to wait to give way to oncoming vehicles. The modelling indicates this would reduce queueing on both the A3024 and A27 approaches, whilst ensuring the circulatory carriageway queueing would not block back to the preceding junction stopline.</i>			
		7.11	<i>Along the A3024 Bursledon Road, additional lanes are included between the Le Marechal Avenue/A3024 junction and the Windhover Roundabout stopline, to provide additional stacking distance for vehicles along this link.</i>			
		7.12	<i>In addition to the above, a slight change to signal timings is proposed to the Botley Road junction, which can operate within capacity with signal timing optimisations.</i>			
		7.13	<i>The above design changes are included at Appendix Q, with these also forming part of the Stage 1 Road Safety Audit and Designers Response at Appendix F.</i>			
		General		18	National Highways cannot comment on the proposed mitigation without reviewing the models used to assess it and also seeing an opening year assessment at the very least.	Substantive issue
8.0 Summary and Conclusion	Summary	8.3	<i>This Transport Assessment has identified the following: „ Junction capacity modelling indicates that Windhover Roundabout currently operates at, or approaching, capacity on some arms. As such, with the inclusion of development traffic, increases in queueing are noted due to the inability of additional vehicles to clear the give way lines of the junction. In view of this, mitigation measures have been identified and subject to capacity modelling. This demonstrates that the development traffic can be accommodated on the network without any arm of the junction operating above capacity, providing a net benefit compared to the existing situation; and ...</i>	19	The model results presented in Table 6.2 show the two approach lanes on the A3024 Bert Betts Way approach to Windhover Roundabout operating above capacity in the PM peak hour (105.8% & 106.3%).	Observation

Land Adjacent to Windhover Roundabout, Framework Travel Plan, Bursledon, 21/10/2025

Section			Relevant text, tables, figures, etc.	NH response		Status
7.0 Measures	Cycling	7.7	<i>To increase an awareness and involvement in cycling by site users, the measures detailed below could be implemented: „ Provision of cycle maps: Cycle maps can be made available to employees through 'Induction Packs' and other methods e.g. information boards; „ Provide details of local independent bicycle businesses offering repair services; „ Promoting cycle training: Details of local cycle training providers can be made available to employees. „ Cycle to Work: Occupiers could adopt a 'Cycle to Work' scheme for employees at the site (e.g. cyclescheme.co.uk). 'Cycle to Work' operates as an employee benefit scheme that will save individuals 25 – 39% on a bike and accessories. The scheme involves employees making payments for a bike of their choice via tax effective payments made from their salary by employers.</i>	1	There is no reference to safe and convenient cycle or scooter parking or storage on site. Paragraph 4.22 of the TA says, 'Cycle parking will be provided on site for each of the two units. This will be in the form of covered, secure cycle parking areas which will be conveniently located for employees at each site.' It might be worth stating the same in the FTP.	Observation
		7.8	<i>The benefits of the use of E-bikes and E-scooters, subject to these being made legal for use on public roads, will be promoted to all users as part of on-going marketing efforts of the development.</i>			

Appendix B

Walking, Cycling and Horse Riding Assessment and Review

Land North of Windhover Roundabout, Bursledon

Walking, Cycling and Horse-Riding Assessment Report

Job No: Whburs/1803014

CONTENTS

1. Scheme Details	3
1.1. SCHEME CLIENT / DEVELOPER	3
1.2. LEAD ASSESSOR	3
1.3. OTHER ASSESSMENT TEAM MEMBERS	3
1.4. DESIGN TEAM LEADER	3
1.5. SCHEME LOCATION AND DESCRIPTION OF HIGHWAY WORKS	4
1.6. WCHAR STUDY AREA	4
2. WCHAR Assessment.....	5
2.1. ASSESSMENT OF WALKING, CYCLING AND HORSE-RIDING POLICIES AND STRATEGIES.....	5
2.2. COLLISION DATA.....	5
2.3. MULTI-MODAL TRANSPORT SERVICES AND INTERCHANGE INFORMATION	6
2.4. TRIP GENERATORS	6
2.5. SITE VISITS	6
2.6. LIAISON WITH KEY STAKEHOLDERS	6
2.7. EXISTING PEDESTRIAN, CYCLIST AND EQUESTRIAN FACILITIES	7
2.8. WALKING, CYCLING AND HORSE-RIDING SURVEY DATA (LARGE SCHEMES ONLY).....	9
2.9. LIAISON WITH LOCAL USER GROUPS AND WIDER PUBLIC (LARGE SCHEMES ONLY).....	9
3. User Opportunities	10
3.1. GENERAL.....	10
3.2. STRATEGIC OPPORTUNITIES	10
3.3. WALKING SPECIFIC OPPORTUNITIES.....	10
3.4. CYCLING SPECIFIC OPPORTUNITIES	11
3.5. HORSE-RIDING SPECIFIC OPPORTUNITIES	12
4. Walking, Cycling and Horse-Riding Assessment Team Statement.....	13

1. Scheme Details

1.1. Scheme Client / Developer

Name:
Organisation: Wates Developments Ltd
Email:
Tel:

1.2. Lead Assessor

Name: Julian Smith
Organisation: Motion
Email: Jsmith@motion.co.uk
Tel: 01483 531300

1.3. Other Assessment Team Members

Name: N/a
Organisation:
Email:
Tel:

Name: N/a
Organisation:
Email:
Tel:

1.4. Design Team Leader

Name: Mark Fitzgerald
Organisation: Motion
Email: Mfitzgerald@motion.co.uk
Tel: 0118 467 4498

1.5. Scheme Location and Description of Highway Works

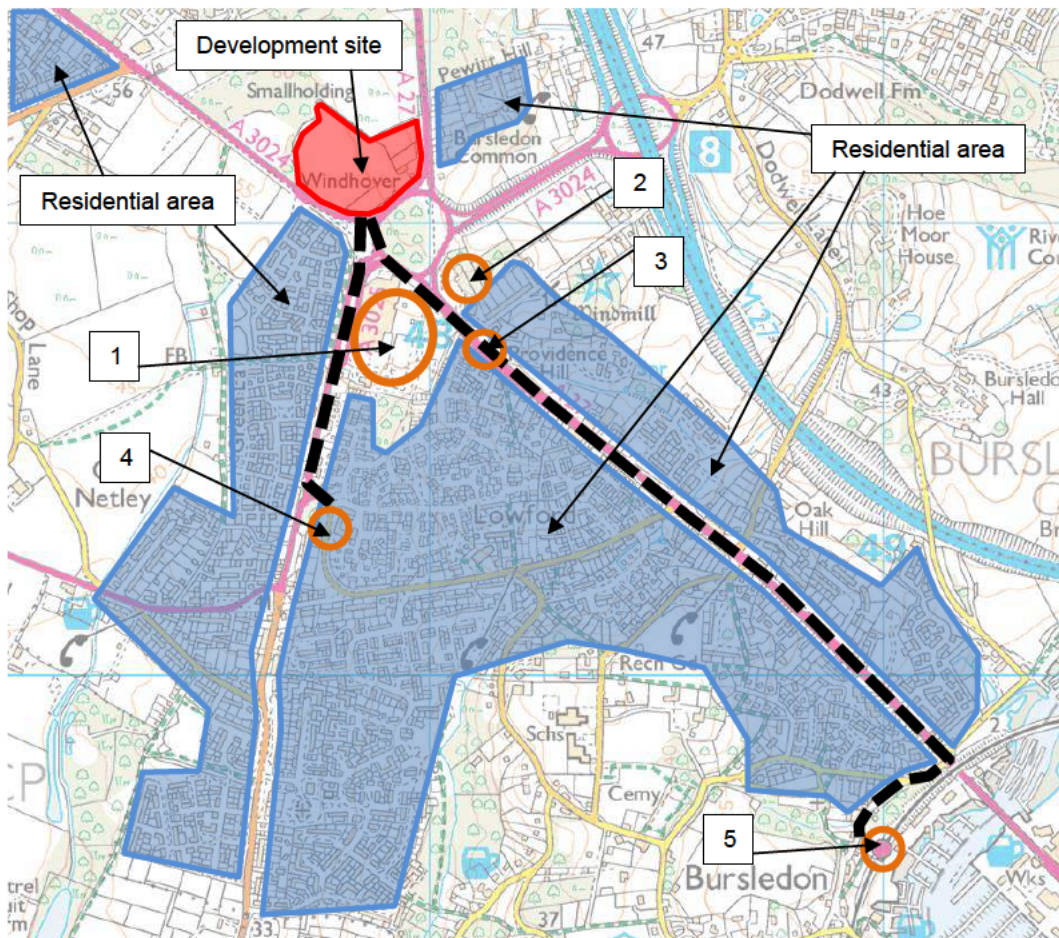
The development site is located on land north of Windhover roundabout (Cranbury site) and between Bursledon Road and West End Road, Bursledon, Hants, SO31 8BN. The proposed development comprises an outline planning application (all matters reserved except for access) for warehouse development (Use Classes B2 and B8 applied flexibly) of up to 200,000ft² (GIA), together with ancillary offices (Use Class E(g)(i)) and other ancillary building and structures, parking, servicing and manoeuvring areas, landscaping and sustainable drainage features.

The development will be provided with two access points, one onto the A3024 Bursledon Road (north western arm of the roundabout) with the second access via the A27 West End Road (northern arm of the roundabout).

1.6. WCHAR Study Area

The proposed development is an employment site and therefore is considered to be a large scheme. It is anticipated that walking and cycling trips associated with the site are likely to be to and from nearby residential areas, as well as travel interchange facilities i.e. nearby bus stops and railway station. It is also anticipated that there will be walking and cycling trips to nearby food outlets and convenience stores. It is not anticipated that any equestrian trips will be associated with the proposed development.

The lead assessor has reviewed the area surrounding the development site and considers the locations and routes shown in the plan below to be a suitable study area for this WCHAR.



2. WCHAR Assessment

2.1. Assessment of walking, cycling and horse-riding policies and strategies

Reference has been made to the Eastleigh Local Walking and Cycling Infrastructure Plan, published 2022 by Hampshire County Council. The LCWIP proposed cycle networks listed below are relevant to this WCHAR study:

- Route 270.1 Hightown – Windhover roundabout
- Route 270.2 Providence Hill – Bridge Road (A27)
- Route 338.2 Kanes Hill roundabout – Windhover roundabout
- Route 338.3 Windhover roundabout – Hamble
- Route 339.4 Dodwell Lane – Hamble Lane

2.2. Collision data

Personal Injury Collision (PIC) information has been obtained from the Crashmap database for the latest available five-year period (2019 to 2023). This indicates that 46 PICs occurred within the WCHAR study area.

Six of those PICs involved a cyclist, of which four resulted in slight injuries and two resulted in serious injuries. One of the PICs involved a pedestrian, resulting in slight injuries. There were no PICs involving equestrians. A further breakdown by area is provided below.

Collisions in the vicinity of the Windhover roundabout:

Total 19 PICs (17 slight / 2 serious), none involving peds / cycles.

Collisions on the A27 Providence Hill / Oak Hill / Bridge Road (excluding those near the Windhover roundabout listed above):

Total 22 PICs (15 slight / 7 serious), 5 involving cyclists (4 slight / 1 serious), 1 involving a pedestrian (1 slight):

- Monday 3rd October 2022, a cyclist was side swiped by a car whilst cycling on the carriageway on Providence Hill. The PIC occurred in dry conditions during hours of daylight, resulting in slight injuries to the cyclist.
- Tuesday 22nd January 2019, a pedestrian was struck whilst crossing Dodwell Lane. The PIC occurred in dry conditions during hours of daylight, resulting in slight injuries to the pedestrian.
- Friday 26th July 2019, a cyclist struck the rear of a slowing or stopped van, whilst cycling on the carriageway on Bridge Road (near to Bridge Close). The PIC occurred in dry conditions during hours of daylight, resulting in serious injuries to the cyclist.
- Wednesday 29th May 2019, a cyclist was struck by a right turning car at the junction of Old Bridge House Road. The PIC occurred in dry conditions during hours of daylight, resulting in slight injuries to the cyclist.
- Thursday 11th July 2019, a cyclist collided with a left turning car whilst cycling on the carriageway at the junction with Cleverley Rise. The PIC occurred in dry conditions during hours of daylight, resulting in slight injuries to the cyclist.
- Thursday 5th January 2023, a PIC occurred involving only a cyclist on Bridge Road (north of Cleverley Rise). The PIC occurred in wet/damp conditions during hours of daylight, resulting in slight injuries to the cyclist.

Tesco Roundabout

Total 1 collision (serious), None involving peds / cycles.

Hamble Lane

Total 4 collisions (3 slight / 1 serious), 1 collision involving a cyclist (serious):

- Wednesday 29th September 2021, a cyclist was side swiped by a car whilst cycling on the carriageway. The PIC occurred in dry conditions during hours of daylight, resulting in serious injuries to the cyclist.

The PIC data does not identify any specific clusters of PICs involving pedestrians and cyclists; however, it does show that several PICs have occurred on A27 Providence Hill / Bridge Road, indicating that improvements on this route are likely to be particularly beneficial in terms of road safety.

2.3. Multi-modal transport services and interchange information

The nearest bus stops to the development site are located on:

- A27 Providence Hill (bus service X15)
- Tesco store entrance, off A3025 Hamble Lane (bus service 49H)
- Jurd Way (bus services X4 and X5)

The nearest railway station to the site is Bursledon station, providing access to services towards Portsmouth and Southampton.

2.4. Trip generators

A list of the key trip generators within the study area and the associated desire lines are listed below:

1. Supermarket (Tesco), with bus stop
2. Pub / restaurant
3. Providence Hill bus stops
4. Jurd Way bus stops
5. Bursledon railway station
6. Various residential areas near to the site

These trip generators are identified in the plan under section 1.6 above.

2.5. Site Visits

The lead assessor carried out a site visit between the hours of 11am and 1:30pm on Thursday the 20th of February 2025.

Traffic flows on the A3024, A3025 and A27 were high, whereas pedestrian and cycle movements were relatively low. Highway works were underway on the A27 Providence Hill / Oak Hill / Bridge Road at the time of the site visit, with associated traffic management in place. There was a road closure at Long Lane and several short sections of footway closures in place along the A27 with associated temporary crossing points.

It was noted that standard of provision for pedestrians varied throughout the study area, with many of the crossing points lacking tactile paving, and some footway widths not meeting current standards.

The pedestrian facilities around the Windhover Roundabout were found to be poor, with pedestrians needing to cross a busy circulatory carriageway.

Cycle facilities were generally lacking throughout the study area, with shared routes of insufficient width and an isolated section of on-carriageway cycle lane. The exception to this finding was the shared footway / cycleway provision on the A3024 Bursledon Road (to the northwest of the Windhover roundabout) which appeared to be of a good standard and included a Toucan crossing.

No equestrian facilities were seen during the site visit.

Further details of the site findings are provided in section 2.7 below.

2.6. Liaison with key stakeholders

The design organisation has consulted Hampshire County Council's Highways Development Planning team and requested pre-application advice. A response has been provided by

HCC. Subsequent consultations with the public and key stakeholders will be conducted through the planning consultation process.

2.7. Existing pedestrian, cyclist and equestrian facilities

A description of the site observations within the study area is provided below.

Windhover Roundabout

The Windhover Roundabout is a large irregularly shaped five arm roundabout. It has an approximate inscribed circle diameter of 180 to 200 metres and is signalised on two arms. It provides a link to junction 8 of the M27 and carries high volumes of fast moving traffic. The existing facilities for pedestrians, cyclists and equestrians consist of the following:

Northern arm - A27 West End Road:

- A lit, two way, single carriageway 40mph road with footways on both sides. It has no existing cycle or equestrian facilities.
- The eastern footway terminates at the roundabout, with a dropped kerb crossing point providing a pedestrian link to the splitter island.
- The splitter island has a dropped kerb crossing point providing a pedestrian link across the circulatory carriageway to the main central island of the roundabout, which in turn links via another dropped kerb crossing point to the A27 (southeastern arm) splitter island.
- The western footway continues around the perimeter of the roundabout, leading into the A3024 (western arm).

Eastern arm - A3024 Bert Betts Way:

- A lit, two lane national speed limit dual carriageway with vehicle restraint barriers present at the sides of the carriageways.
- It has no pedestrian, cycle or equestrian facilities.

Southeastern arm - A27 Providence Hill:

- A lit, single lane dual carriageway (reverting to single carriageway 140 metres from the roundabout). The road is lit and subject to a 40mph speed limit.
- It has a footway on the eastern side which terminates at the roundabout, and a shared footway / cycleway on the western side (of substandard width), which continues around the perimeter of the roundabout, leading into the A3025 (south western arm).
- Dropped kerb crossing points are provided at the splitter island, linking the eastern and western footways. There is also a dropped kerb crossing point across the circulatory carriageway, providing a pedestrian link between the splitter island and the main central island (as noted above under the description of the northern arm (A27 West End Road)).
- It has no existing equestrian facilities.

South western arm - A3025 Hamble Lane:

- A lit, two lane 40mph dual carriageway, with shared footway / cycleway on the eastern side (which reverts to a footway, with 'cyclists dismount' sign). On the western side there is no footway parallel to the road; however, there is a footpath link to the A3024 (western arm).
- Dropped kerb crossing points are provided across the splitter / central reservation, linking the eastern footway to the footpath on the western side.
- There are no other cycle or equestrian facilities.

Western arm - A3024 Bursledon Road:

- A lit, two way, single carriageway 40mph road with a footway on both the northern side. On the southern side, there is a footpath set back from the carriageway, linking to a crossing point at the south western arm (A3025 Hamble Lane) as described above.

- There is a dropped kerb crossing point on this arm, located approximately 60 metres from the roundabout, with tactile paving and pedestrian refuge.
- The southern pedestrian route becomes a shared footway / cycleway at a point approximately 120 metres from the roundabout. This shared route continues towards the northwest along the A3024 (towards residential areas indicated on the plan under section 1.6).
- At approximately 150 metres from the roundabout, there is three arm signalised junction (the third arm of which is Le Marechal Avenue, a residential road). There is a toucan crossing across the A3024 at this junction, albeit that the shared facility terminates on the northern side and reverts to a footway.
- There are no equestrian facilities.

WCHAR Route Windhover Roundabout to the Railway Station

This route provides access to (i) Tesco supermarket (pedestrian access off Providence Hill), (ii) pub / restaurant (Miller and Carter), (iii) bus stops (X15 service) and (iv) Bursledon railway station. It also directly abuts residential areas as shown on the plan under section 1.6.

A27 Providence Hill / Bridge Road:

As noted above, the A27 route south of the Windhover roundabout consists of a lit, single lane dual carriageway, reverting to single carriageway 140 metres from the roundabout. It is a busy road linking Bursledon with Fareham to the southeast.

- The road is lit and subject to a 40mph speed limit.
- On the western side, the northernmost section of footway (approximate length 300 to 350 metres) is signed as a shared footway / cycleway. As noted in the section above, it is of substandard width, and links into the south western arm (A3025 Hamble Lane), where it reverts back to pedestrian footway.
- There is a 270 metre long section of on-carriageway northbound cycle lane at the southern end of this route, between the junctions of Yachtsman Close and Old Bridge House Road.
- The remainder of the route consists of footways on both sides of the road with varying widths of grass verge.
- There are several pedestrian crossing points with refuges at intervals along the road.
- Several of the priority junctions along this section of the A27 incorporate wide merge / diverge tapers. In addition there are sections of wide carriageway.
- There are no equestrian facilities

Church Lane and Station Road:

- Both are lit single carriageway 30mph roads.
- There are no pedestrian, cycle or equestrian facilities; however, traffic volume and speed appeared to be sufficiently low that pedestrians and cyclists were comfortable using the carriageway.
- It was noted that pedestrians have walked along the northern verge on Church Lane, forming an informal pedestrian path.

WCHAR Route Windhover Roundabout to Jurd Way bus stops

This route provides access to (i) Tesco supermarket main entrance, (ii) bus stop (at Tesco entrance, service 49H (iii) and (iv) bus stops at Jurd Way (services X4 and X5). It also directly abuts residential areas as shown on the plan under section 1.6.

A 3025 Hamble Lane:

As noted above, the A3025 route south of the Windhover roundabout consists of a lit, two lane 40mph dual carriageway.

- It has a continuous footway on the eastern side of the road. On the western side there is an isolated section of footway which links to the residential area to the west of Hamble Lane. There are no cycle or equestrian facilities.

- Approximately 250 metres south of the Windhover roundabout is a small three arm roundabout forming the entrance to the Tesco store. It has pedestrian dropped kerb crossing points on the eastern arm (Tesco entrance) and the southern arm (continuation of Hamble Lane). There is also a link to the residential area to the west of Hamble Lane at this location.
- Further south, the footway continues on the eastern side of Hamble Lane to a three arm roundabout at Lionheart Way. It has pedestrian dropped kerb crossing points on the eastern arm (Lionheart Way) and the southern arm (continuation of Hamble Lane). There is also a link to the residential area to the west of Hamble Lane at this location.
- It was noted during the site visit that the residential area to the west of Hamble Lane offers a continuous pedestrian route parallel to Hamble Lane consisting of very lightly trafficked residential roads linked by short sections of unbound footpath, and an unbound Public Right of Way alongside the residential roads.
- It was also noted that there is a short public path linking Hamble Lane (south of the dental / medical centre) to Woolwich Close, providing a pedestrian link to the residential area to the east of Hamble Lane.
- There are no equestrian facilities.

2.8. Walking, cycling and horse-riding survey data (Large schemes only)

Survey data has not been made available to the Lead Assessor. However, it is understood that the development would generate 9-12 two-way walking trips and four cycling trips in each of the weekday peak hours.

2.9. Liaison with local user groups and wider public (Large schemes only)

Reference has been made to the local LCWIP, a process which captures the feedback from local residents and user groups. The design organisation has consulted the highways team at Hampshire County Council. The scheme will also go through a planning consultation, involving public and stakeholder consultation.

3. User Opportunities

The opportunities highlighted below are deemed to be relevant to the highway scheme/works and should be considered by the design team leader throughout the progression of the highway scheme design in addition to any further opportunities that may arise through the ongoing development of the design.

3.1. General

A number of improvements have been identified for pedestrians and cyclists, which are outlined in the sections below.

3.2. Strategic Opportunities

LCWIP route 270 – There is an opportunity to improve cycling facilities on the A27 Providence Hill / Oak Hill / Bridge Road, from Church Lane junction, up the A27 and across the Windhover roundabout, to link to improvements already implemented on the A3024 Bursledon Road.

The Eastleigh LCWIP makes reference to the Windhover roundabout scheme; however, it is understood that this scheme has since been cancelled. It is also understood that Hampshire County Council may be intending to implement pedestrian and cycle improvements on Hamble Lane; however, no detail of any HCC schemes in the area have been made available.

3.3. Walking Specific Opportunities

There is an opportunity to improve the pedestrian facilities at the Windhover roundabout. Given the high traffic flows on the roundabout, the route across the central island should be removed, with suitable alternatives provided that accommodate pedestrians and cyclists. During the site visit, it was noted that existing site constraints and topography are likely to preclude pedestrian / cycle facilities on the eastern arm (A3024 Bert Betts Way), therefore the preferred options should focus on improvements on the Hamble Lane arm, with a link across Bursledon Road to connect to the proposed development.

Opportunities identified:

- It is noted that the Bursledon Road and Hamble Lane arms of the roundabout are both signalised, which may provide an opportunity to add pedestrian / cycle crossing facilities at those stop lines.

If feasibility is an issue, alternative improvements to be considered would consist of:

- Improvements at the existing Hamble Lane crossing points consisting of (i) upgraded approaches to accommodate pedestrians and cyclists, (ii) increased crossing status and conspicuity in the form of parallel crossings (combined pedestrian and cycle zebra crossings) with associated markings / beacons.
- Similarly, the existing crossing point with refuge island on the Bursledon Road arm should be upgraded.

Other improvements to be considered in the vicinity of the Windhover roundabout are to (i) improve the crossing points on the Providence Hill approach to the Windhover roundabout, (ii) improve the link from the footpath at the southwestern corner of the roundabout to the residential area and Public Right of Way to the west of Hamble Lane, and (iii) to provide a new crossing facility on the northern arm (A27 West End Road).

On the A27 Providence Hill / Oak Hill / Bridge Road route there are several minor road crossings that should be improved with dropped kerbs and tactile paving, in particular at Portsmouth Road, Dodwell Lane and Old Bridge House Road.

Whilst Church Lane is a lightly trafficked road, it may be beneficial to provide a short section of footway along the northern verge on Church Lane, providing somewhere for pedestrians to step out of the carriageway if necessary.

The dropped kerb crossing point at the Tesco access would benefit from tactile paving being added to the dropped kerbs. Similarly the crossing points at Lionheart Way would benefit from tactile paving being added to the dropped kerbs.

3.4. Cycling Specific Opportunities

The LCWIP proposed cycle networks listed below are relevant to this WCHAR study:

Route 270.1 Hightown – Windhover roundabout

- *270.1.1 There is scope to provide a segregated cycle track along Bursledon Road between Botley Road and Windhover roundabout.*

As noted in the sections above, a cycle facility has been implemented on the southern side of Bursledon Road. However, there is an opportunity to continue the shared footway / cycleway in the southeasterly direction to link to the Windhover roundabout, linked to option 270.1.2 below.

- *270.1.2 There is a proposed major scheme for Windhover roundabout that will improve conditions for pedestrians and cyclists at the junction. This will provide a link between Bursledon Road and Providence Hill.*

The Windhover roundabout scheme mentioned in the LCWIP has since been cancelled. Therefore the opportunity remains to provide some pedestrian and cycle improvements at this junction, specifically a continuation of the Bursledon Road cycle facility across the Hamble Lane arm to Providence Hill.

As noted in the pedestrian improvements section above, opportunities identified consist of:

- It is noted that the Bursledon Road and Hamble Lane arms of the roundabout are both signalised, which may provide an opportunity to add pedestrian / cycle crossing facilities at those stop lines.

If feasibility is an issue, alternative improvements to be considered would consist of:

- Improvements at the existing Hamble Lane crossing points consisting of (i) upgraded approaches to accommodate pedestrians and cyclists, (ii) increased crossing status and conspicuity in the form of parallel crossings (combined pedestrian and cycle zebra crossings) with associated markings / beacons.
- Similarly, the existing crossing point with refuge island on the Bursledon Road arm should be upgraded.

At the Bursledon Road site frontage, the northern footway should be upgraded to a shared footway / cycleway.

Route 270.2 Providence Hill – Bridge Road (A27)

- *270.2.1 There is sufficient space to provide a segregated cycle track for the majority of the route along Providence Hill and Bridge Road, if existing road space is reallocated. There is a width constraint at the railway bridge southeast of Church Lane. Priority for cyclists at side road junctions should be considered and existing uncontrolled crossings should be considered for conversion to controlled crossings.*

Based on the WCHAR site visit observations, it is noted that the Providence Hill / Oak Hill / Bridge Road route has wide sections of carriageway, as well as grass verge alongside the footways for the majority of its length. Therefore consideration should be given to providing a cycle track on this route in accordance with the LCWIP option. If feasibility is an issue, alternative improvements to be considered should include footway widening to upgrade the footways to shared footway / cycleways. Additional measures to could include upgrading the pedestrian refuge crossing points to accommodate cycles, providing cycle priority junctions at the minor roads on this route, combined with the removal of the large junction tapers that are present on several of the priority junctions, which in their current form encourage higher traffic speeds on the A27.

Route 338.2 Kanes Hill roundabout – Windhover roundabout

338.2.2 There is a proposed major scheme for Windhover roundabout that will improve conditions for pedestrians and cyclists at the junction. This will provide a link between Westend Road and Hamble Lane.

As noted above, the Windhover roundabout scheme mentioned in the LCWIP has since been cancelled. Therefore the opportunity remains to provide some pedestrian and cycle improvements at this junction. With regard to LCWIP option 338.2.2, there is an opportunity to provide (i) a new crossing facility on the northern arm (A27 West End Road) and (ii) a new shared footway / cycleway around the southern site frontage, continuing on from the suggested shared footway / cycleway on the northwestern arm (A3024 Bursledon Road). It may be appropriate for the shared footway / cycleway to continue a short distance northwards on the eastern side of West End Road (where there are currently verges beside the footway) to provide improved pedestrian / cycle access to the nearby dwellings.

Route 338.3 Windhover roundabout – Hamble

338.3.1 Between Windhover roundabout and the Tesco roundabout there is space to provide a segregated cycle track by reallocating space from the central verge.

Consideration should be given to providing a cycle track on this route in accordance with the LCWIP option. If feasibility is an issue, it may be feasible to widen the footway on the eastern side of the road (subject to land ownership adjacent to the Tesco site) to form a shared footway / cycleway. Alternative options to achieve improved cycle facilities on the Hamble Lane corridor would be to investigate (i) to upgrading the PRow on the western side of Hamble Lane to accommodate cycles, or (ii) directing cycles through the residential roads and connecting paths to the west of Hamble Lane. These latter options would require an improved link to the Windhover roundabout to the north, and new pedestrian / cycle crossing facilities at the Tesco roundabout and the Lionheart Way roundabout).

338.3.2 Between Tesco roundabout and the toucan crossing at Lowford Hill, there is little scope to provide a segregated cycle track without significant land purchase, but it is unlikely that this route could be made suitable for mixed traffic due to high traffic levels and the important nature of this road.

Site observations concur with section 338.3.2 of the LCWIP. However, it was noted that there is a short public pedestrian path linking Hamble Lane (south of the dental / medical centre) to Woolwich Close. Whilst the width of this link does not meet current guidance for cycle use (it is approximately 2.4 metres wide), the length is relatively short at approximately 25 metres; therefore consideration could be given to whether cycles could safely use this link, allowing convenient cycle access to the residential area to the east of Hamble Lane.

Route 339.4 Dodwell Lane – Hamble Lane

339.4.2 A controlled crossing with cycle links is required on the A27 to connect Blundell Lane with Church Lane.

Whilst this LCWIP route 339.4 is not aligned with the routes that are the focus of this WCHAR, this specific option does potentially coincide with connecting a cycle facility on the eastern side of the A27 Bridge Road with Church Lane and therefore should be considered as a route improvement.

3.5. Horse-Riding Specific Opportunities

No specific equestrian opportunities have been identified in the WCHAR.

4. Walking, Cycling and Horse-Riding Assessment Team Statement

Lead Assessor

As Lead Assessor, I confirm that this walking, cycling and horse-riding assessment report has been compiled in accordance with HCC Technical Guidance Note TG19.

Name & Title:	Julian Smith
Title/Position:	Associate Director
Organisation:	Motion
Signature:	
Date:	

Scheme Client Team Leader

As the Scheme Client Team Leader, I confirm that the assessment has been undertaken at the appropriate stage of the highway scheme development.

I confirm that in my professional opinion the appointed Lead Assessor has the appropriate experience for the role making reference to the expected competencies contained in GG 142.

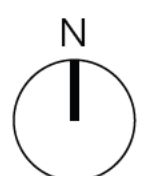
Name & Title:	
Title/Position:	
Organisation:	
Signature:	
Date:	

Appendix C

Proposed Site Layout



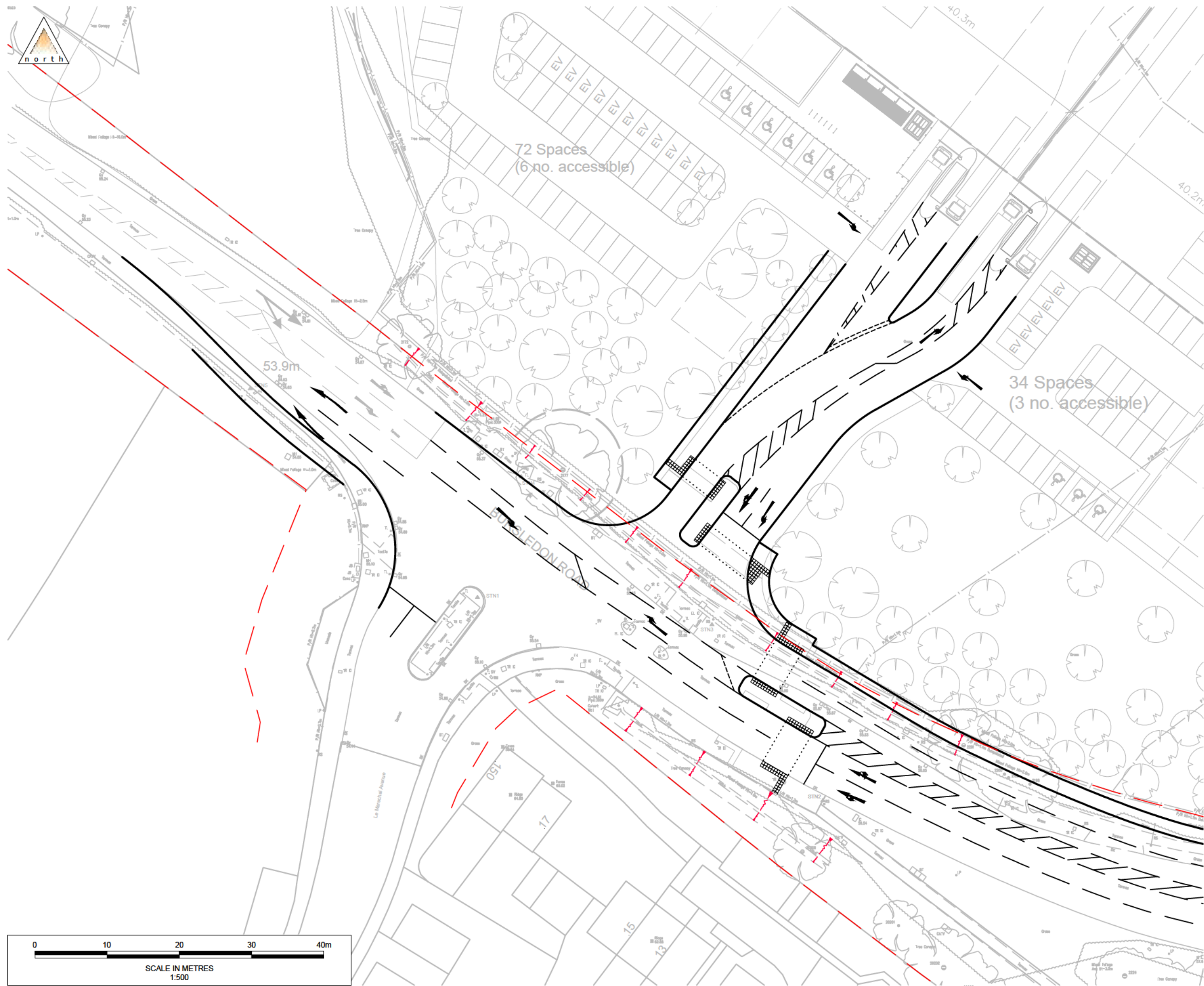
D 19/06/2025 Lighten retaining wall appearance to client request. JH
 C 10/06/2025 Footpath/cycleway width updated. JH
 B 20/05/2025 Layout frozen. Unit footprints, layout & accesses amended in line with updated levels. JH
 A Retaining structures updated to accommodate footprints & drainage. JH



Appendix D

A3024 Bursledon Road Access Arrangements

C:\Users\mifzgeral\Documents\Drawings\1803014 01D-06C.dwg



Notes

1. All levels and dimensions to be checked on site before any work commences. All dimensions in metres unless stated otherwise.
2. This drawing is based on survey information supplied by the client, and Motion cannot guarantee the accuracy of the data provided.
3. This drawing is based on OS mapping and Motion cannot guarantee the accuracy of the data.

D	Updated per RSA1 Comments	MF	JNR	JNR	12/06/2025
C	Updated Site Layout	MF	JNR	JNR	22/05/2025
B	Updated Site Layout	MF	CM	JNR	02/05/2025
A	Updated Site Layout	MF	JNR	JNR	04/04/2025
-	First Issue	MF	JNR	JNR	26/02/2025
Rev.	Description	Drm	Chk	App	Date

Drawing Status:

FOR PLANNING
NOT FOR CONSTRUCTION

motion

Guildford - Reading - London
www.motion.co.uk

Client:

Wates Developments Ltd

Project:

Cranbury Site, Bursledon Road,
Bursledon

Title:

Bursledon Road Site Access

Scale: 1:500 (@ A3)

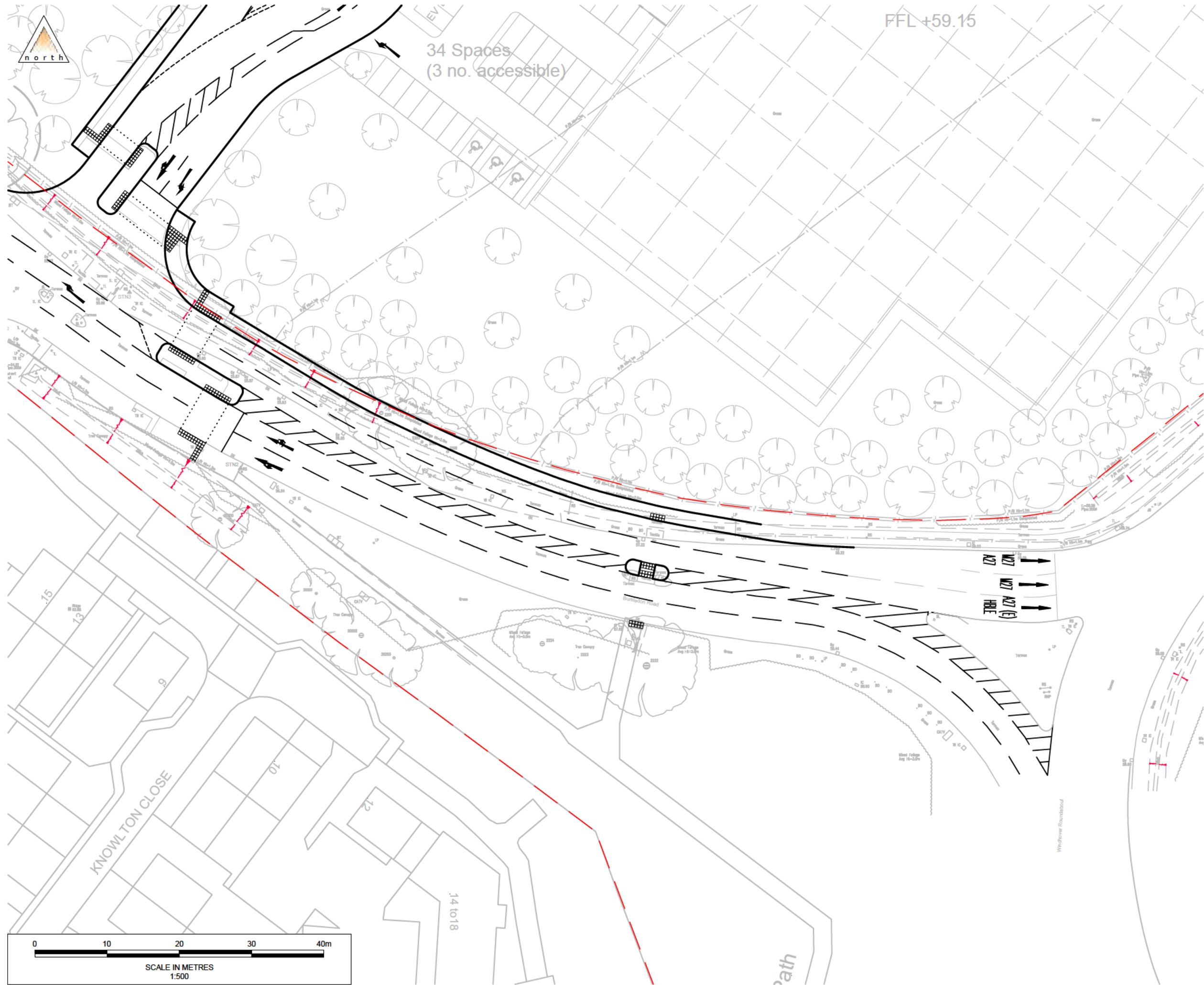
Drawing:

1803014-02

Revision:

D

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Notes

1. All levels and dimensions to be checked on site before any work commences. All dimensions in metres unless stated otherwise.
2. This drawing is based on survey information supplied by the client, and Motion cannot guarantee the accuracy of the data provided.
3. This drawing is based on OS mapping and Motion cannot guarantee the accuracy of the data.

C	Updated per RSA1 Comments	MF	JNR	JNR	12/06/2025
B	Updated Site Layout	MF	JNR	JNR	22/05/2025
A	Updated Site Layout	MF	JNR	JNR	04/04/2025
-	First Issue	MF	JNR	JNR	26/02/2025
Rev.	Description	Drn	Chk	App	Date

Drawing Status:

FOR PLANNING
NOT FOR CONSTRUCTION

motion

Guildford - Reading - London
www.motion.co.uk

Client:

Wates Developments Ltd

Project:

Cranbury Site, Bursledon Road,
Bursledon

Title:

Bursledon Road Carriageway Widening

Scale: 1:500 (@ A3)

Drawing:

1803014-03

Revision:

C

Appendix E

A27 West End Road Access Arrangements

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2.4 x 120 metre
visibility splay

68.3m

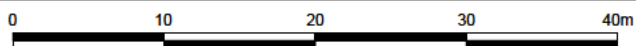
spaces
(accessible)

Chartwell
Cottage

ice

2.4 x 90 metre
visibility splay

2.4 x 120 metre
visibility splay



SCALE IN METRES
1:500

Notes

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3. This drawing is based on OS mapping and Motion cannot guarantee the accuracy of the data.

C	Updated per RSA1 Comments	MF	JNR	JNR	12/06/2025
B	Updated Site Layout	MF	JNR	JNR	22/05/2025
A	Updated Site Layout	MF	JNR	JNR	04/04/2025
-	First Issue	MF	JNR	JNR	26/02/2025
Rev.	Description	Drn	Chk	App	Date

Drawing Status:

FOR PLANNING
NOT FOR CONSTRUCTION

motion

Guildford - Reading - London
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Client:

Wates Developments Ltd

Project:

Cranbury Site, Bursledon Road,
Bursledon

Title:

West End Road Site Access

Scale: 1:500 (@ A3)

Drawing:

1803014-04

Revision:

C

Appendix F

Stage 1 Road Safety Audit and Designers Response

CRANBURY SITE, BURSLEDON ROAD, BURSLEDON

Proposed Highway Works

Stage 1 Road Safety Audit

Overseeing Organisation: Hampshire County Council

May 2025



Road Safety Engineering

Project: Cranbury Site, Bursledon Road, Bursledon
Proposed Highway Works

Document: Stage 1 Road Safety Audit

Design Organisation: Motion

Overseeing Organisation: Hampshire County Council

Client: Wates Developments Ltd

Gateway RSE ref: WP/SG/2502-05 RSA1 v1.0

Issue date: 30th May 2025

Status: Final v1.0

Authorised by: WP

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CONTENTS

1	Introduction	1
2	Problems Identified by this Road Safety Audit	3
3	Audit Team Statement	7

Appendices

Appendix A:	Items Considered by this RSA
Appendix B:	Location Plan(s)

1 INTRODUCTION

- 1.1 This report describes a Stage 1 Road Safety Audit (RSA) of proposed highway works at Bursledon, within the Borough of Eastleigh and the County of Hampshire. The audit brief, provided by Mark Fitzgerald of Motion and dated 21st May 2025, describes the scheme as;

‘up to 200,000 square foot (18,581 square metres) new floorspace, including 182,000 square foot of warehouse space and circa 10,000 square foot of ancillary office space. The development is proposed on the Cranbury site, which is a parcel of land located to the north of the Windhover Roundabout between the A27 West End Road and the A3024 Bursledon Road’. The highway proposals are;

- *Circulatory lane realignment on north side of Windhover Roundabout*
- *Signalising of West End Road and Burt Betts Way at Windhover Roundabout*
- *Proposed site access on west side of A27 West End Road*
- *New access arm at existing signalised junction on A3024 Bursledon Road*
- *Carriageway widening on north side of Bursledon Road between new access and Windhover Roundabout*

- 1.2 A3024 Bursledon Road and A27 West End Road are both 2-lane single carriageway roads running broadly west to east and north to south respectively. Both are lit with footways and are subject to a 40mph speed limit. There are shared facilities around the Le Marechal Avenue junction. To the south, Windhover Roundabout links the two at a large five-arm signalised gyratory.

- 1.3 This Road Safety Audit Team comprised Wendy Palmer and Steve Giles. The Audit consisted of a desktop study and a site visit, which was carried out between 12.30pm and 1.30pm on Wednesday 28th May 2025, when the weather was fine and the road surface dry. Traffic flows were moderate and no congestion was observed, whilst some pedestrian and cyclist movements occurred.

- 1.4 The terms of reference for this RSA are as described in the Design Manual for Roads and Bridges (DMRB) document GG119. The Audit Team is independent of the project design team and has not been involved in the design process in any other capacity. The audit considers only the potential road safety implications of the scheme and has not verified compliance of the design with any other criteria.

- 1.5 The Audit Team has not been made aware of any Departures from Standard. Whilst reference may be made to design standards, this report is not intended to provide a design check.

- 1.6 Recommendations are aimed at addressing the identified potential road safety problems. However, there may be other acceptable ways to overcome a problem, considering wider constraints and opportunities; the Auditors would be pleased to discuss such alternative solutions as appropriate. The recommendations contained herein do not absolve the Designers of their responsibilities.

Collision Data

- 1.7 Personal Injury Collision (PIC) information was obtained from Hampshire Police Authority for the latest available five-year period (September 2019 to August 2024). It indicates that five PICs occurred at or close to the proposed works, as follows:

- 31/12/2019 at 18.41hrs in dark and wet conditions, car u-turns in front of motorcycle on A3024 near Le Marechal Avenue, resulting in one slight severity casualty.
- 04/10/2020 at 17.05hrs in wet and light conditions, a car lost control on the northwestern section of Windhover Roundabout resulting in one slight severity casualty.
- 27/10/2021 at 16.16hrs in dry and light conditions, nose to tail collision between two cars on A27 West End Road at Windhover Roundabout, resulting in one slight severity casualty.
- 10/02/2022 at 16.20hrs in dry and light conditions, three vehicle nose to tail collision on southeast bound approach to Le Marechal Avenue, resulting in one slight severity casualty.
- 24/08/2023 at 09.05hrs in dry and light conditions, nose to tail collision between two cars on A27 West End Road at Windhover Roundabout, resulting in one slight severity casualty.

Previous Road Safety Audit(s)

- 1.8 The Audit Team is not aware of any previous RSA having been undertaken of this scheme.

2 PROBLEMS IDENTIFIED BY THIS ROAD SAFETY AUDIT

General Matters

2.1 Problem

Inadequate swept path analysis may result in side swipe collisions or pedestrians being struck by turning vehicles.

Location: throughout scheme

Vehicle swept path analysis has not been provided. Reduced lane widths may cause vehicles to overrun the adjacent lanes and kerbs, resulting in side swipe collisions or pedestrians being struck by turning vehicles.

Recommendation

Vehicle swept path analysis should be carried out for the junctions and roundabout circulatory carriageway with kerblines adjustments made as required.

2.2 Problem

Lack of drainage may result in loss of control collisions

Location: throughout scheme

Drainage proposals have not been provided. The circulatory carriageway appears to fall towards the roundabout island which may lead to surface water collecting in the carriageway, resulting in loss of control collisions.

Recommendation

Drainage proposals should be made at detailed design stage.

2.3 Problem

Overgrown vegetation may lead to late lane changes and vehicles failing to stop at the signals

Location: Roundabout island

When the kerb is realigned to provide the additional circulatory lane, the dense and overgrown vegetation on the roundabout island may restrict visibility to the new traffic signal heads and relocated signs leading to late lane changes and vehicles failing to stop at the signals.

Recommendation

Vegetation on the approaches to the signals and signs should be removed.

2.4 Problem

Removal of VRS may result in loss of control collisions

Location: Circulatory carriageway at Burt Betts Way junction

A maintenance vehicle bay is proposed in advance of the new signals at the Burt Betts Way junction. The audit team noted a length of VRS at this location which would have to be relocated/ realigned to provide the bay.

Recommendation

An assessment of the VRS at this location should be made, or the bay should be relocated.

Local Alignment

2.5 The Audit Team raises no concerns in respect of local alignment.

Junctions

2.6 The Audit Team raises no concerns in respect of junctions.

Walking, Cycling and Horse Riding

2.7 Problem

Full height kerbs may result in pedestrian trips and falls

Location: New access onto West End Road

West End Road has footways running along its length on both sides. The proposals indicate a footway to the south of the access but no connection to the north side. This may result in trips and falls when pedestrians cross to a full height kerb.

Further to this, no connection is provided from the eastern side of West End Road for pedestrians accessing the development, which may also result in trips and falls when pedestrians cross between full height kerbs.

Recommendation

Dropped kerbs and tactile paving should be provided to tie the access in with the surrounding pedestrian network.

2.8 Problem

Lack of cycle facilities may result in collisions

Location: Throughout scheme

An existing shared facility is provided on the southwest side of Bursledon Road from Le Marechal Avenue northwards and the existing southbound arrangement is for cyclists to use the main carriageway, leaving the carriageway in front of the southbound stopline joining a short section of shared route which terminates at the bus stop. No further provision has been made for cyclists accessing the development and the audit team is concerned that the proposed layouts do not provide adequate facilities for cyclists, which may lead to collisions.

Recommendation

Cycle facilities to/from the development should be provided, particularly for cyclists approaching from the south.

2.9 Problem

Lack of pedestrian refuge may result in pedestrians being struck

Location: Bursledon Road between new access and Windhover Roundabout

The pedestrian refuge island on Bursledon Road is not indicated on the proposals. The carriageway widening on this section would give pedestrians four traffic lanes to cross with no refuge and may result in pedestrians waiting within the hatched area and being struck by a passing vehicle.

Recommendation

The southern section of footway and crossing point should be closed or the refuge islands retained.

2.10 Problem

Stagger alignment may result in pedestrian collisions

Location: Bursledon Road new signalised crossings

The proposed staggered islands on Bursledon Road and the new access are incorrectly rotated. Staggered crossings are generally aligned to encourage pedestrians to observe approaching traffic while walking towards the crossing, reducing the likelihood of them stepping into the path of a moving vehicle.

Recommendation

The stagger should be reversed to encourage pedestrians to walk towards the approaching traffic.

2.11 Problem

Stagger gap may result in pedestrian collisions

Location: Bursledon Road new signalised crossings

The gap on the staggered island on Bursledon Road is short which may result in pedestrians crossing in one movement and being struck by a passing vehicle.

Recommendation

The staggered crossings and should have 3m between crossings.

Road Signs, Carriageway Markings and Lighting

2.12 Problem

Relocated ADS may result in loss of control collisions

Location: Bursledon Road northeast side between new access and Windhover Roundabout

A large advance direction sign (ADS) is located within the new carriageway width on Bursledon Road southeast bound. It is not clear whether the sign can be relocated within the highway boundary with adequate horizontal clearance from the new kerb alignment, which may result in vehicle strikes and loss of control collisions.

Recommendation

Adequate horizontal clearance should be provided for the relocated ADS.

2.13 Problem

Large ADS at access may cause turning collisions

Location: West End Road, south of new access

A large advance direction sign (ADS) is located to the south of the proposed access on West End Road. The access is to be used by HGVs and it is not clear whether HGV drivers would have unrestricted visibility to the south, due to the sign which may lead to turning collisions, particularly with two wheeled vehicles.

Recommendation

Visibility, including vertical, should be assessed and the sign relocated if necessary.

3 AUDIT TEAM STATEMENT

- 3.1 We certify that this Road Safety Audit has been carried out in accordance with DMRB document GG119.

Audit Team Leader

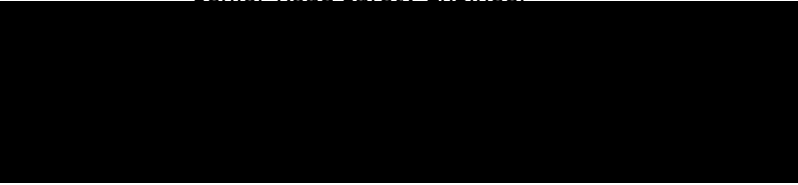
Wendy Palmer
MCIHT, MSoRSA, FIHE, HE Cert Comp
Senior Road Safety Engineer



Date: 29th May 2025

Audit Team Member(s)

Steve Giles
BEng (Hons), IEng, FIHE, MCIHT, MICE, CMILT, MSoRSA, HE Cert Comp
Senior Road Safety Engineer



Date: 29th May 2025

APPENDIX A

Items Considered by this RSA

Items Considered by this Road Safety Audit

Document ref.	Rev.	Originator	Title
1803014-01	C	Motion	Highway Works Overview
1803014-02	C	Motion	Bursledon Road Site Access
1803014-03	B	Motion	Bursledon Road Carriageway Widening
1803014-04	B	Motion	West End Road Site Access
1803014-05	B	Motion	Windhover Roundabout Mitigation, A27 West End Road Signalisation
1803014-06	B	Motion	Windhover Roundabout Mitigation, A3024 Bert Betts Way Signalisation

Additional/background information provided to the Audit Team

- Audit Brief email dated 21/05/2025 (Motion)
- Transport Assessment (working issue, 2025-02-28)
- PIC plot and listings (Hampshire Police)

APPENDIX B

Location Plan(s)



ROAD SAFETY AUDIT RESPONSE REPORT

Project Details

Project: Cranbury Site, Bursledon Road, Bursledon
 Proposed Highway Works
 GRSE Ref: WP/SG/2502-05 RSA1 v1.0
 Status: Final v1.0
 Issue date: 30th May 2025
 Design Organisation: Motion
 Overseeing Organisation: Hampshire County Council
 Client: Wates Developments Ltd

Authorisation

Prepared by:
 Name: Mark Fitzgerald
 Position: Associate
 Organisation: Motion

Approved by:
 Name: John Russell
 Position: Director
 Organisation: Motion
 Signed:

Key Personnel

Overseeing Organisation:	[NAME], [TITLE] Hampshire County Council
RSA Team:	Wendy Palmer, Senior Road Safety Engineer, Gateway RSE
	Steve Giles, Senior Road Safety Engineer, Gateway RSE
Design Organisation:	Mark Fitzgerald, Associate, Motion
	John Russell, Director, Motion

RSA Decision Log				
Item No.	RSA Recommendation	Design Organisation Response	Overseeing Organisation Comments	Agreed RSA Action
2.1	Vehicle swept path analysis should be carried out for the junctions and roundabout circulatory carriageway with kerblines adjustments made as required.	Noted, vehicles swept paths have been undertaken at the site accesses to demonstrate vehicles can successfully access the site. For the roundabout, road markings will be subject to detailed design and will include the provision of swept path analysis to demonstrate the suitability of the detailed improvement scheme.		
2.2	Drainage proposals should be made at detailed design stage.	Noted, drainage to be considered at detailed design.		
2.3	Vegetation on the approaches to the signals and signs should be removed.	Noted, vegetation to be cut back on the approaches to signals.		
2.4	An assessment of the VRS at this location should be made, or the bay should be relocated.	Noted, the bay has been relocated into the centre island of the roundabout. This is shown in updated drawing 1803014-06-C.		
2.7	Dropped kerbs and tactile paving should be provided to tie the access in with the surrounding pedestrian network.	Noted, tactile paving is incorporated into the access design. This is shown in updated drawing 1803014-04-C.		
2.8	Cycle facilities to/from the development should be provided, particularly for cyclists approaching from the south.	Noted, drawing 1803014-02-D has been updated to incorporate a 3m foot/cycle link into the development site.		
2.9	The southern section of footway and crossing point should be closed or the refuge islands retained.	Noted, the refuge island has been retained in the new centre of the carriageway. This is shown in updated drawing 1803014-03-C.		

RSA Decision Log				
Item No.	RSA Recommendation	Design Organisation Response	Overseeing Organisation Comments	Agreed RSA Action
2.10	The stagger should be reversed to encourage pedestrians to walk towards the approaching traffic.	Noted, the Bursledon Road crossing has been updated to encourage pedestrians to walk into traffic in drawing 1803014-02-D. For the site access arm, this design replicates the existing crossing over Le Marechal Avenue which has operated with no collisions involving the crossing facility since becoming operational. The stagger can be further reviewed at detailed design if required.		
2.11	The staggered crossings should have 3m between crossings.	Noted, the crossing has been updated in drawing 1803014-02-D.		
2.12	Adequate horizontal clearance should be provided for the relocated ADS.	Noted, the location of the signage approaching the roundabout will be considered at the detailed design stage.		
2.13	Visibility, including vertical, should be assessed and the sign relocated if necessary.	Noted, the potential to relocate the sign adjacent to the footway can be considered at the detailed design stage.		

Design Organisation Statement:

On behalf of the design organisation, I certify that:

The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation.

.....

Name: Mark Fitzgerald

Organisation: Motion

Position: Associate

Date: 12/06/2025

Overseeing Organisation Statement:

On behalf of the overseeing organisation, I certify that:

The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Design Organisation.

The agreed RSA actions will be progressed.

.....

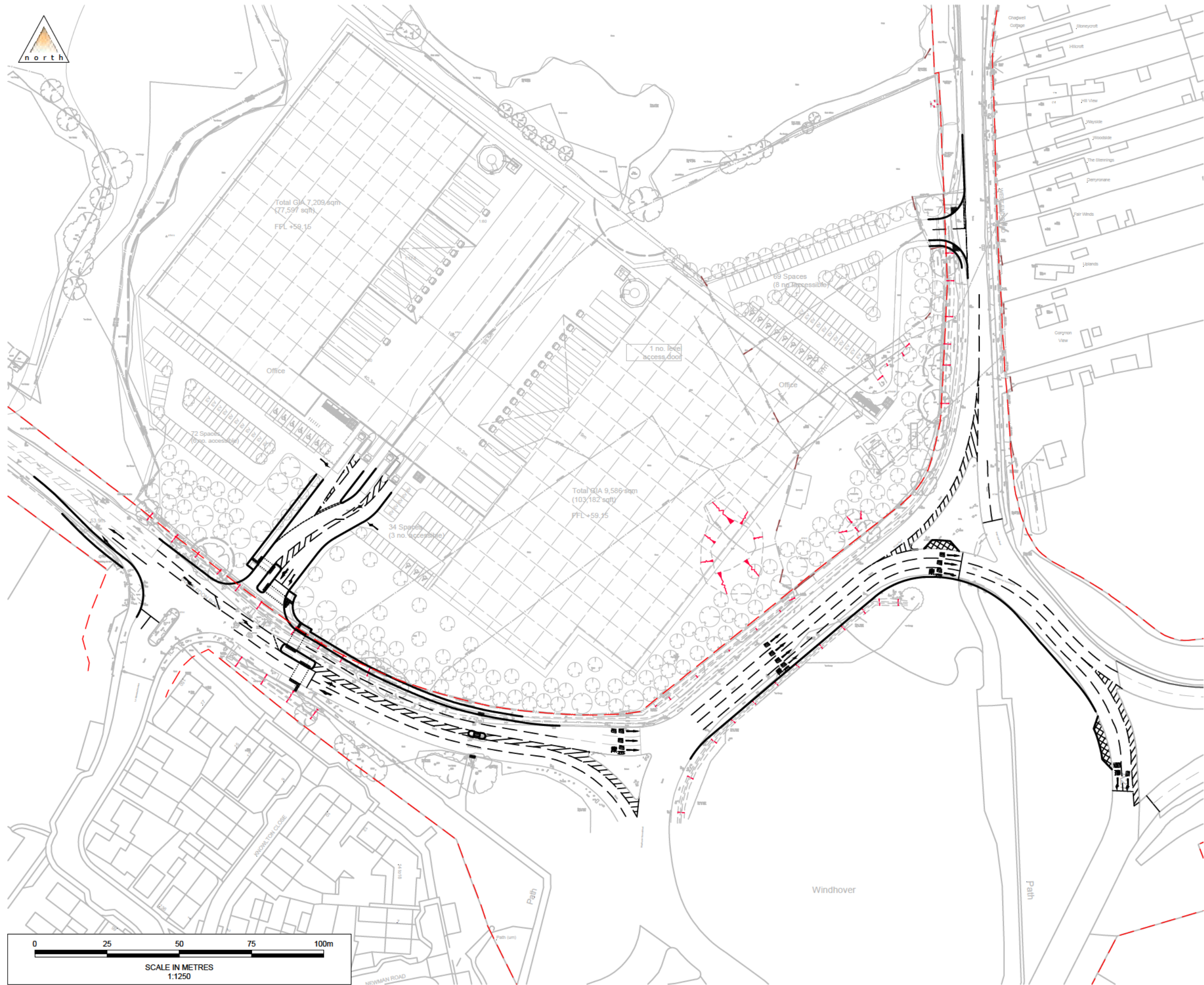
Name: [NAME]

Organisation: Hampshire County Council

Position: [TITLE]

Date: [DATE]

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Notes

1. All levels and dimensions to be checked on site before any work commences. All dimensions in metres unless stated otherwise.
2. This drawing is based on survey information supplied by the client, and Motion cannot guarantee the accuracy of the data provided.
3. This drawing is based on OS mapping and Motion cannot guarantee the accuracy of the data.

D	Updated per RSA1 Comments	MF	JNR	JNR	12/06/2025
C	Updated Site Layout	MF	JNR	JNR	22/05/2025
B	Updated Site Layout	MF	JNR	JNR	04/04/2025
A	Updated Site Access	MF	PB	PB	10/03/2025
-	First Issue	MF	JNR	JNR	26/02/2025
Rev.	Description	Drn	Chk	App	Date

Drawing Status:

FOR PLANNING
NOT FOR CONSTRUCTION

motion

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www.motion.co.uk

Client:

Wates Developments Ltd

Project:

Cranbury Site, Bursledon Road,
Bursledon

Title:

Highway Works Overview

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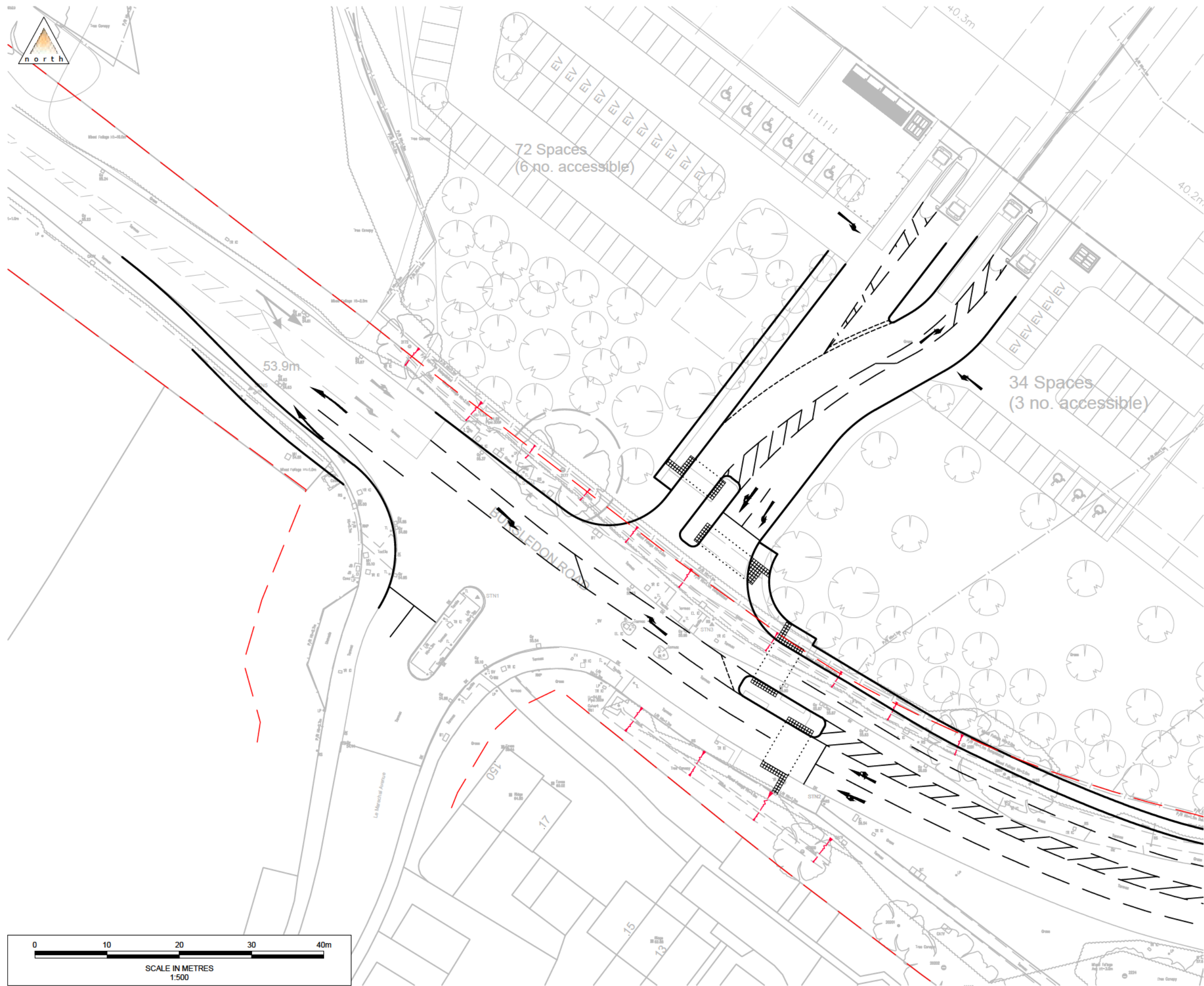
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1803014-01

Revision:

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Notes

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D	Updated per RSA1 Comments	MF	JNR	JNR	12/06/2025
C	Updated Site Layout	MF	JNR	JNR	22/05/2025
B	Updated Site Layout	MF	CM	JNR	02/05/2025
A	Updated Site Layout	MF	JNR	JNR	04/04/2025
-	First Issue	MF	JNR	JNR	26/02/2025
Rev.	Description	Drn	Chk	App	Date

Drawing Status:

FOR PLANNING
NOT FOR CONSTRUCTION

motion

Guildford - Reading - London
www.motion.co.uk

Client:

Wates Developments Ltd

Project:

Cranbury Site, Bursledon Road,
Bursledon

Title:

Bursledon Road Site Access

Scale: 1:500 (@ A3)

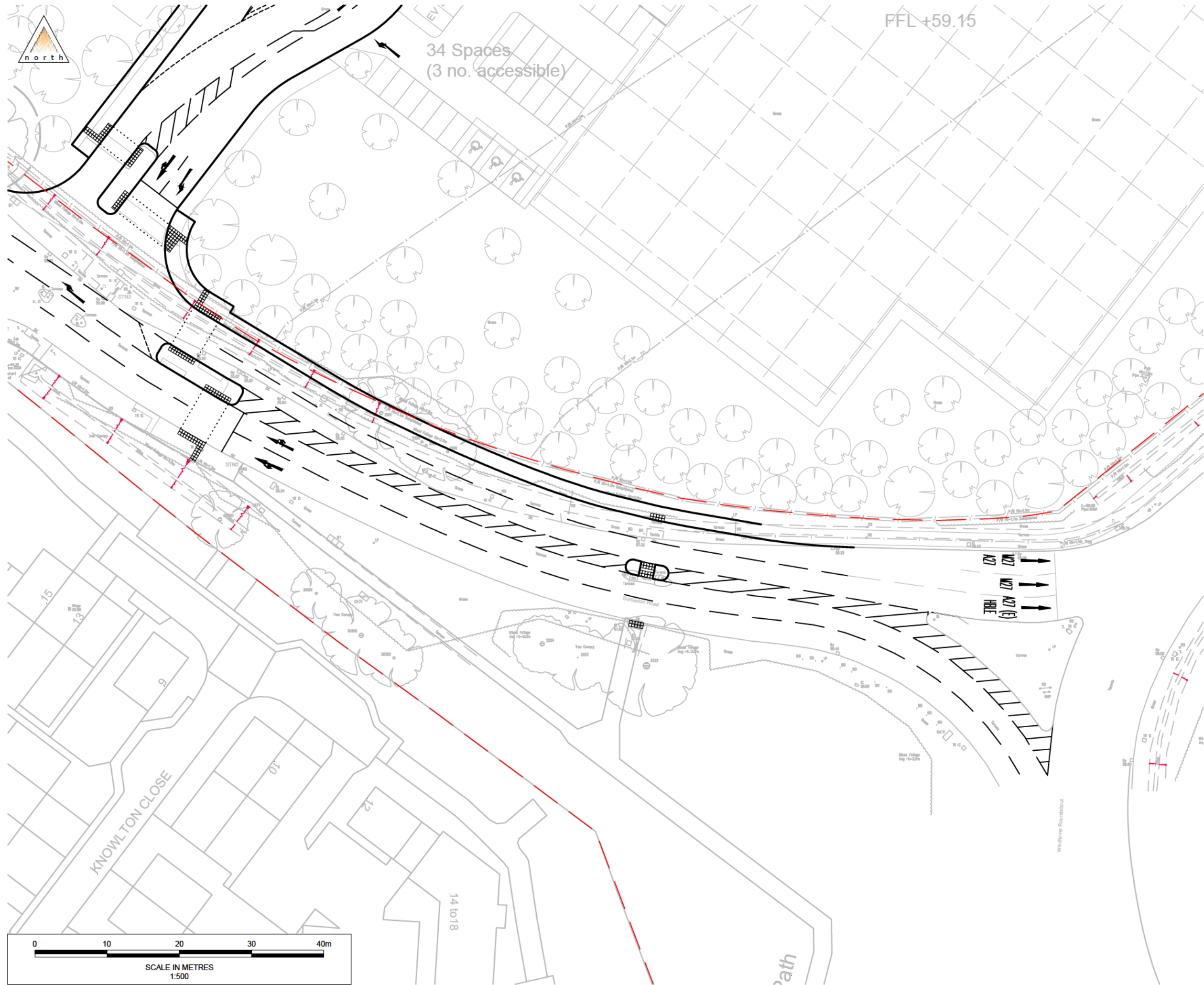
Drawing:

1803014-02

Revision:

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Notes

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B	Updated Site Layout	MF	JNR	JNR	22/05/2025
A	Updated Site Layout	MF	JNR	JNR	04/04/2025
-	First Issue	MF	JNR	JNR	26/02/2025
Rev.	Description	Drn	Chk	App	Date

Drawing Status:

FOR PLANNING
NOT FOR CONSTRUCTION

motion

Guildford - Reading - London
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Client:

Wates Developments Ltd

Project:

Cranbury Site, Bursledon Road,
Bursledon

Title:

Bursledon Road Carriageway Widening

Scale: 1:500 (@ A3)

Drawing:

1803014-03

Revision:

C

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- Notes
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B	Updated Site Layout	MF	JNR	JNR	22/05/2025
A	Updated Site Layout	MF	JNR	JNR	04/04/2025
-	First Issue	MF	JNR	JNR	26/02/2025
Rev.	Description	Drn	Chk	App	Date

Drawing Status:

FOR PLANNING
NOT FOR CONSTRUCTION



Client:
Wates Developments Ltd

Project:
Cranbury Site, Bursledon Road, Bursledon

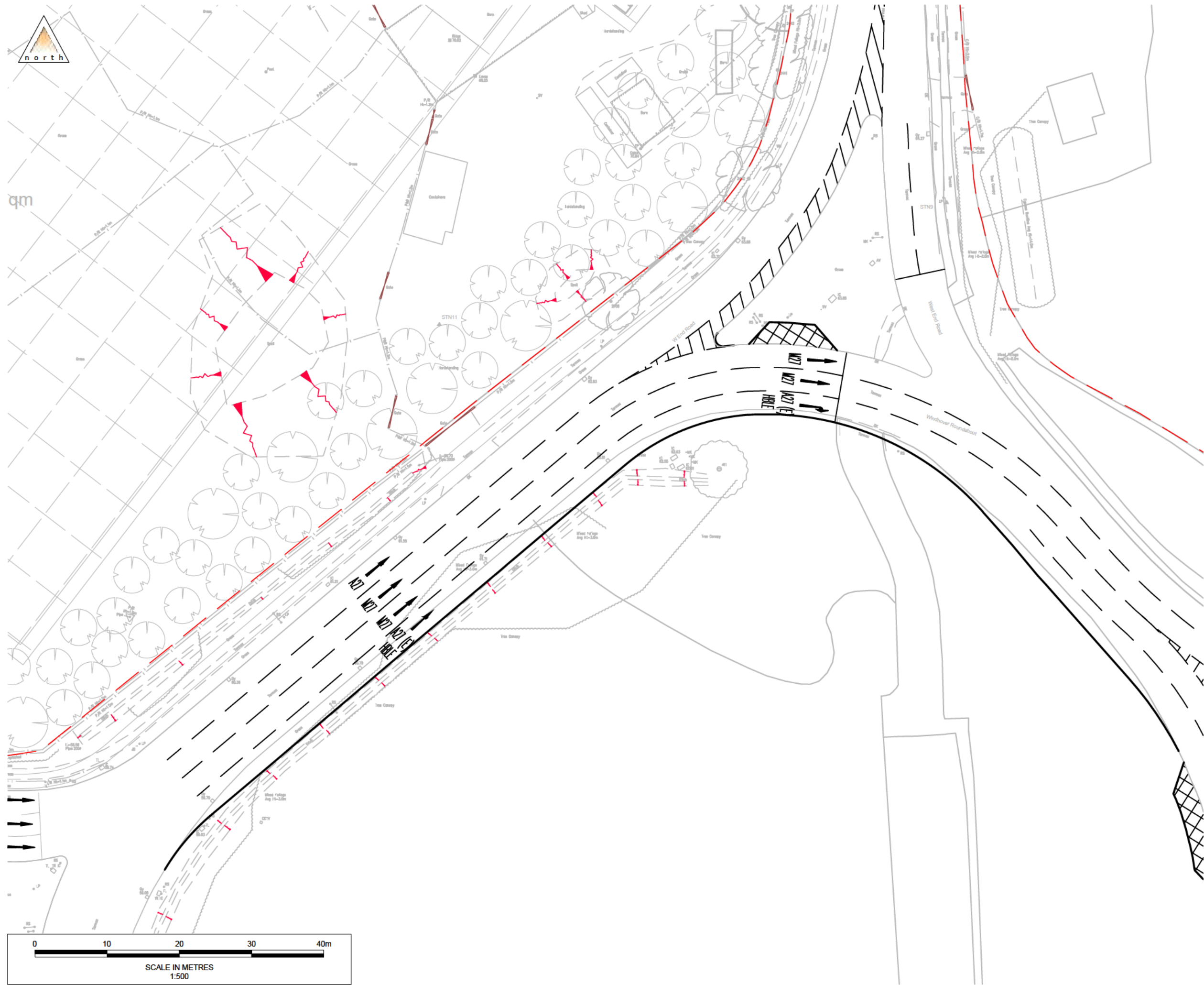
Title:
West End Road Site Access

Scale: 1:500 (@ A3)

Drawing:
1803014-04

Revision:
C

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Notes

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B	Updated Site Layout	MF	JNR	JNR	22/05/2025
A	Updated Site Layout	MF	JNR	JNR	04/04/2025
-	First Issue	MF	JNR	JNR	26/02/2025
Rev.	Description	Drn	Chk	App	Date

Drawing Status:

FOR PLANNING
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motion

Guildford - Reading - London
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Client:

Wates Developments Ltd

Project:

Cranbury Site, Bursledon Road,
Bursledon

Title:

Windhover Roundabout Mitigation
A27 West End Road Signalisation

Scale: 1:500 (@ A3)

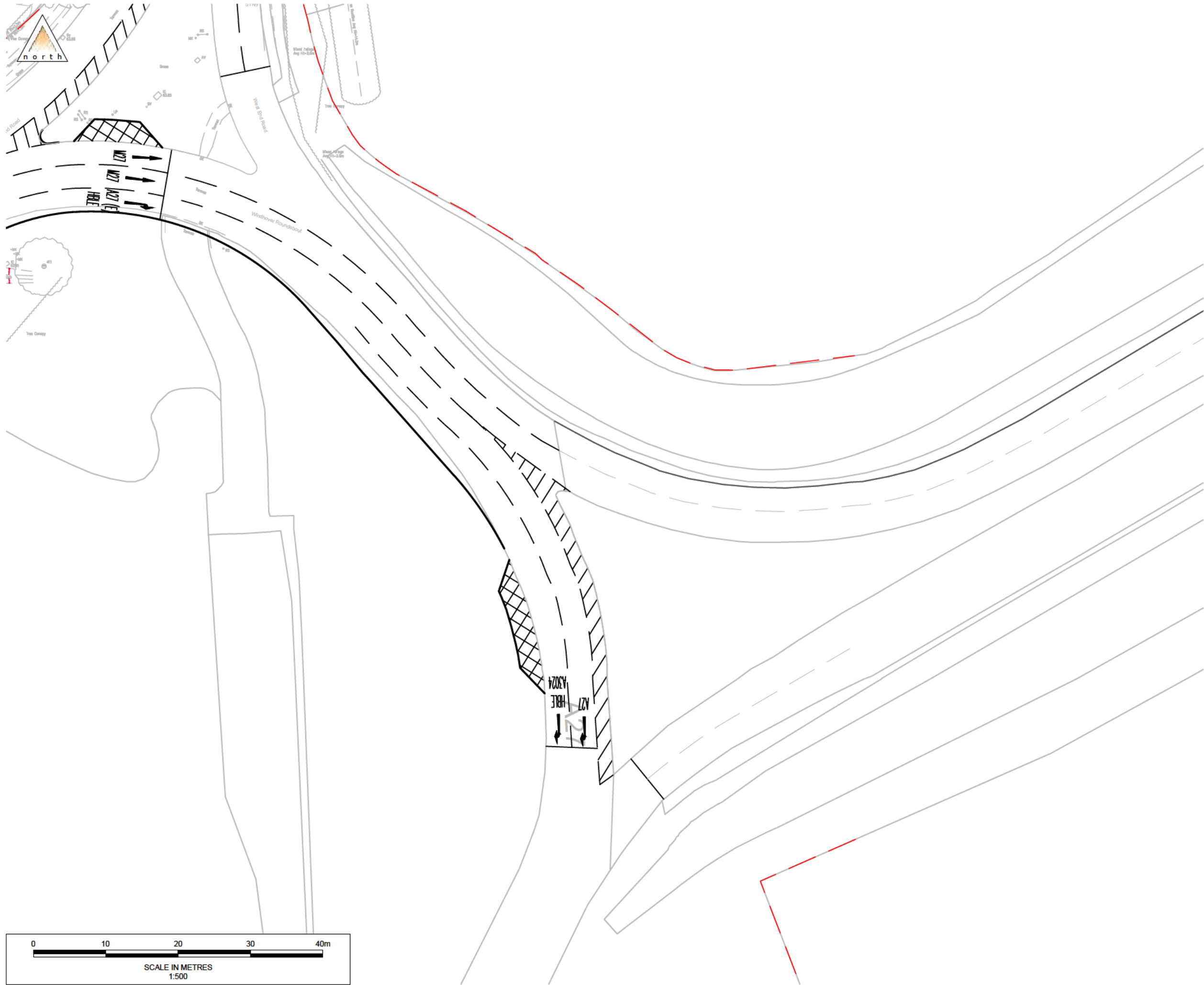
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Revision:

C

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- Notes
1. All levels and dimensions to be checked on site before any work commences. All dimensions in metres unless stated otherwise.
 2. This drawing is based on survey information supplied by the client, and Motion cannot guarantee the accuracy of the data provided.
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C	Updated per RSA1 Comments	MF	JNR	JNR	12/06/2025
B	Updated Site Layout	MF	JNR	JNR	22/05/2025
A	Added Highway Boundary	MF	JNR	JNR	04/04/2025
-	First Issue	MF	JNR	JNR	26/02/2025
Rev.	Description	Drn	Chk	App	Date

Drawing Status:

FOR PLANNING
NOT FOR CONSTRUCTION



Client:

Wates Developments Ltd

Project:

Cranbury Site, Bursledon Road, Bursledon

Title:

Windhover Roundabout Mitigation A3024 Bert Betts Way Signalisation

Scale: 1:500 (@ A3)

Drawing: **1803014-06** Revision: **C**