PULSAR

Client:

Mr Mundae

Project:

47 Hanover Circle, Hayes

Transport Statement

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1 INTRODUCTION

1.1 Mr Mundae has commissioned Pulsar to prepare a Transport Statement in support of a planning application for development at 47 Hanover Circle, Hayes.

Background/Overview

1.2 The site is located on the western side of Hanover Circle, within the administrative boundaries of the London Borough of Hillingdon (LBH) as the Local Planning Authority and the Local Highway Authority.

1.3 The existing site consists of a semi-detached property. Two parking spaces are provided on-site to the east of the dwelling that can be accessed from Hanover Circle.

1.4 A planning application was submitted to LBH in September 2024 for the Change of use from Use Class C3 (Dwellinghouse) to an eight-bedroom House in Multiple Occupation (HMO) (Use Class Sui Generis). This application was refused in November 2024. Included in the reasons for refusal was the following:

The proposal has failed to demonstrate that sufficient off-street parking and secure cycle storage would be provided, as required by the local parking standard for the proposed occupancy level. The proposal has the potential to lead to undue on-street parking displacement to the detriment of parking capacity and safety on the local public highway, contrary to Local Plan: Part 2 Development Management Plan (2020) – Policies DMT 1, DMT 2 & DMT 6 (Appendix C) and Policy T4, T5 and T6 of the London Plan (2021).

1.5 The proposed development outlined below represents a smaller scheme in terms of the number of bedrooms, whilst otherwise similar in proposals. This Transport Statement has been prepared to support the updated scheme, with due regard to the Reason for Refusal noted above.

Proposed Development

1.6 The development proposals consist of converting the existing property into a five-bedroom House of Multiple Occupation (HMO). The site will retain the existing 2 off-street car parking spaces. There will also be 4 cycle parking spaces provided to the east of the building. The proposed layout is shown on the architect's plans in **Appendix A**.

Transport Statement Structure

1.7 The Transport Statement is structured as follows:

- **Section 2: Existing Conditions** – A review of travel and transport conditions at the site and surrounding area.
- **Section 3: Policy Review** – A review of relevant national, regional and local transport and land use planning policy.
- **Section 4: The Proposed Development** – A description of the proposed development with an emphasis on proposed transport infrastructure.
- **Section 5: Trip Generation** – A review of the likely number of trips to be generated by the proposed development.
- **Section 6**: **Travel Planning Measures** – An outline of the travel planning measures proposed to support sustainable travel patterns.
- **Section 7: Summary & Conclusions** – A review of key issues and conclusions raised in the report.

2 EXISTING CONDITIONS

2.1 This section describes existing conditions at the site in relation to transport.

Site Location

2.2 The site is located on the western side of Hanover Circle, to the north of Hayes town centre, at 47 Hanover Circle, Hayes, UB3 2TJ. **Figure 1** shows the site location plan, and **Figure 2** gives the strategic site location in relation to the surrounding area.

Figure 1 Site Location Plan

Accessibility

2.3 This section provides information on access to and from the site by sustainable modes of transport.

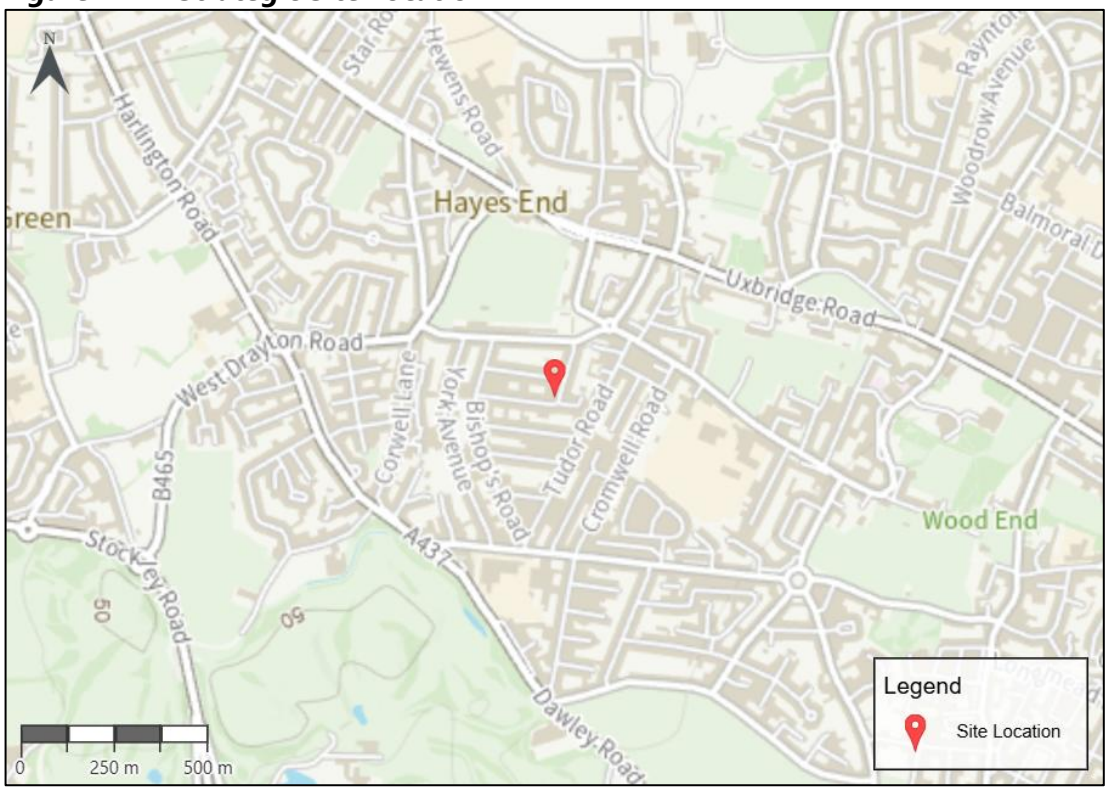
Walking & Cycling

2.4 Government research previously included within Planning Policy Guidance 13: Transport, states that:

Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under two kilometres.

2.5 Whilst PPG13 has now been superseded, the research underpinning the above is still considered relevant. A 2km walk would be expected to take 25 minutes on average.

Figure 2 Strategic Site Location



2.6 Similarly, the Chartered Institution of Highways and Transportation (CIHT) published 'Planning for Walking' in 2015. This states that across Britain, 80% of journeys shorter than 1 mile are made wholly on foot and for journeys between 1 and 2 miles, 26% are made on foot.

2.7 In the National Travel Survey 2022, 83% of journeys shorter than 1 mile were made wholly on foot, a level which as reported in the CIHT document 'Planning for Walking' (2015) has hardly changed in the past thirty years indicating that if destinations are within a mile, it is highly likely that walking will be the preferred trip.

2.8 'Planning for Walking' (2015) suggests that the main reason for the decline in walking journeys is the fall in the total number of journeys shorter than 1 mile because fewer journeys that people make are able to be accomplished on foot. For walking trips between 1 and 5 miles the proportion of walking trips drops to 21% in the 2022 NTS.

2.9 The topography in the area is generally flat which is good for walking and cycling activity.

2.10 There are footways on both sides of Hanover Circle, that are equipped with dropped kerbs to aid safe pedestrian movement for the mobility and sight impaired.

2.11 In terms of cycling, The CIHT guidance "Planning for Cycling" notes that cycling should be considered a potential mode for trips up to 5 miles (8km). Therefore, areas including North Hillingdon, Cowley and Yeading.

2.12 **Figure 3** shows the Walking Isochrones for the site and **Figure 4** shows the Cycling Catchment Plan.

Figure 3 Walking Isochrone

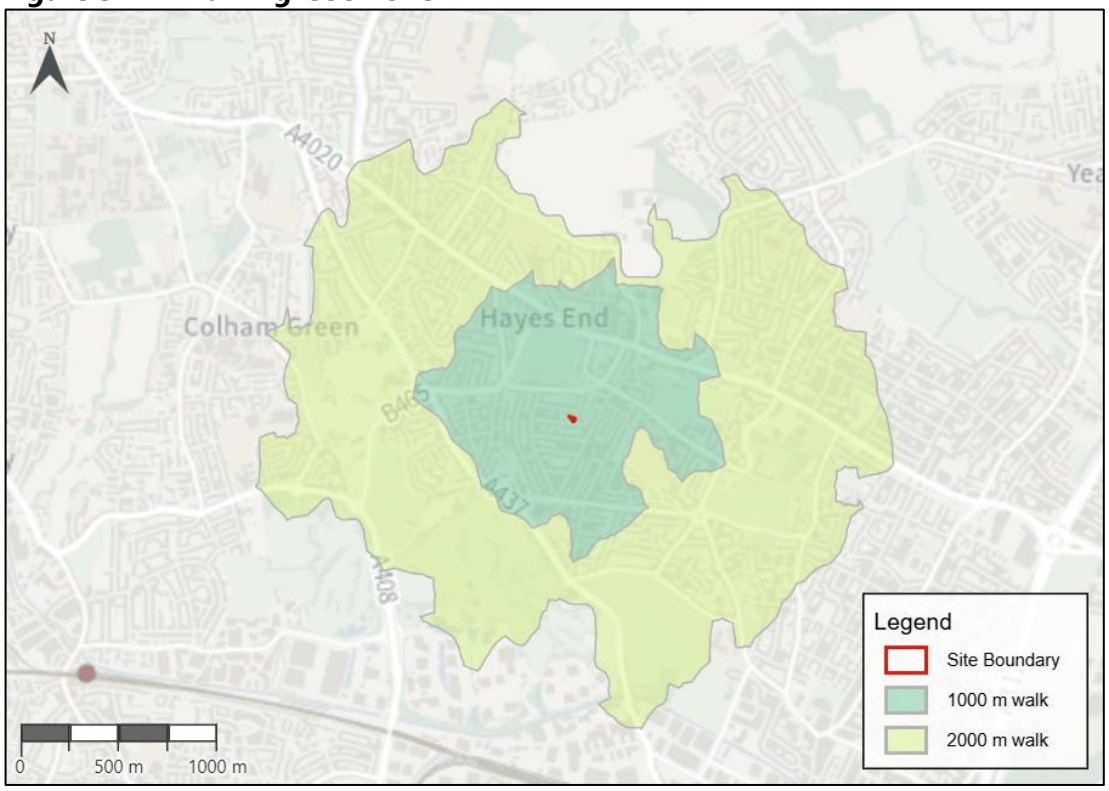
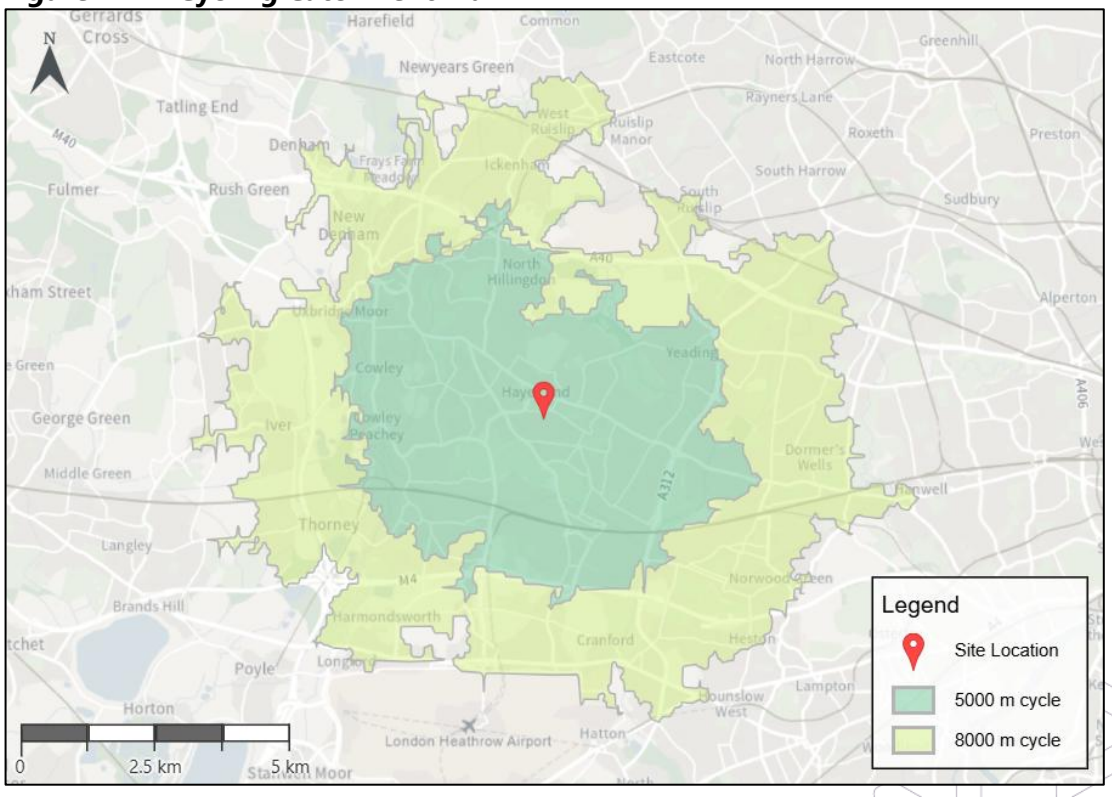


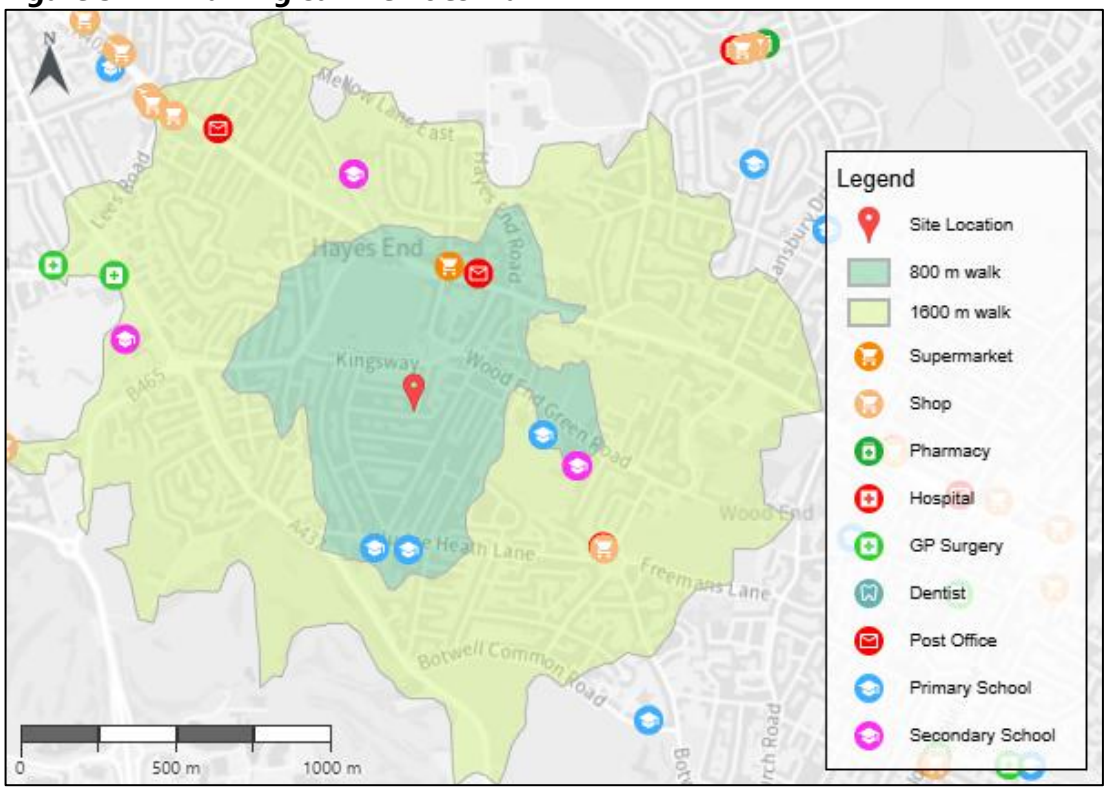
Figure 4 Cycling Catchment Plan



Local Amenities and Facilities

2.13 As noted above, there are a number of facilities and amenities available within a close proximity of the site. **Figure 5** and **Table 2.1** outline a selection of these facilities and amenities that are within a 2km (approximately 15-minute) walking distance.

Figure 5 Walking & Amenities Plan



Local Bus Services

2.14 The closest bus stops to the site are located on Kingsway, approximately 190m northeast of the site. The H98 bus service is accessible from this bus stop. These stops are marked by a bus flag, with sheltered seating provided for the eastbound stop.

2.15 Additionally, bus stops are provided on Uxbridge Road, approximately 500m (westbound) and 550m (eastbound) to the north of the site, which offers additional access to the 278 and 427 bus routes. Both stops are provided with laybys and sheltered seating, with the eastbound stop accessible via the signalised crossing at Morgans Lane.

2.16 Further east on Uxbridge Road, approximately 600m (westbound) and 640m (eastbound) to the northeast of the site, the SL8 bus service is accessible, which forms part of the TfL Superloop, which is a network of 10 express bus routes which connect key outer London town centres and transport hubs. These services do not stop at every stop they pass, providing express services for residents to destinations such as

Uxbridge, Ealing Broadway, Acton Central, Shepherds Bush and White City, with onward connections to other Superloop services available.

2.17 The U7 bus service is also accessible from stops on West Drayton Road, approximately 640m northwest of the site. These stops are also marked by bus flags, with the southbound stop provided with sheltered seating.

2.18 Further information on the accessible bus services is provided in **Table 2.1**, whilst bus stop locations are indicated in **Figure 5**.

Table 2.1 Accessible Bus Services: Typical Frequencies

No.	Route	Week	Sat	Sun
H98	Hayes End – Hayes & Harlington Station – Hounslow	10	10	12
278	Ruislip – West Ruislip Station – Hillingdon Station – Hayes End – Hayes & Harlington Station – Heathrow Airport	15	15	20
427	Uxbridge – Hillingdon – Hayes End – Hayes – Southall	8	8	10
SL8	Uxbridge – Hayes End – Hayes – Southall – Ealing Hospital – Ealing Broadway – Acton – Shepherds Bush – White City Bus Station	10	10	12
U7	Hayes – Yeading – Hillingdon – Uxbridge	30	30	30

Figure 5 Bus Stop Plan

Rail Services

2.19 The closest station to the site is Hayes & Harlington, located approximately 3.1 km from the site. This corresponds to an approximate 37-minute walk or an 11-minute cycle, and is also accessible via a number of the bus routes indicated above. Hayes & Harlington is served by the Elizabeth Line, offering regular westbound services towards Reading and Heathrow Terminals 4 and 5, and eastbound services to Abbey Wood and Shenfield. This station had step-free access to all platforms, waiting rooms, toilets and ticket machines.

PTAL

2.20 PTAL is a theoretical measure of the accessibility of a given point to the surrounding public transport network, taking into account walk access time and service availability. The method used is essentially a way of measuring the density of the public transport network at a particular point.

2.21 The PTAL measure, reflects:

- The walking distance from the point of interest to the public transport access points;
- The reliability of the service modes available;
- The number of services available within the catchment; and
- The level of service at the public transport access points – i.e. average waiting time.

2.22 According to TfL's Webcat software, the site has a public transport accessibility level (PTAL) rating of 2 on a scale of 1 (very poor) to 6 (excellent). However, it should be acknowledged that the calculation report does not take into account all of the bus services outlined above, including the recently introduced TfL Superloop services which have greatly increased bus accessibility in the area.

Local Highway Network

2.23 Hanover Circle is a single carriageway road accommodating traffic in both directions in a largely north-south and east-west alignment, operating a 20mph speed limit. Hanover Circle links with Kingsway to the north, and Bishops Road to the west.

2.24 Vehicle access to the site is achievable via a dropped kerb access from the west of Hanover Circle, as is the arrangement for the majority of properties along Hanover Circle. **Photo 1** below shows the site to the west and looks north along Hanover Circle.

2.25 To the south of Hanover Circle, between Midnight – 8 am and 6.30 pm and Midnight no waiting for goods vehicles more than 5 tonnes and buses is permitted.

Photo 1 Looking North along Hanover Circle

Local Car Ownership

2.26 2021 Census data (for the Hillingdon 024 middle super output area) was referenced to understand local car ownership levels with the results given below:

- Zero cars – 24%
- 1 car – 44%
- 2 or more cars – 32%

2.27 According to Census data, 68% of all household types in the area have one or fewer cars.

2.28 There is a difference between levels of ownership of flatted units and houses. This is demonstrated in **Table 2.2**.

Table 2.2 Car Ownership by Household Type

Number of Cars per Household	House	Flat
Zero	19%	36%
One	42%	48%
Two or More	39%	16%
Total	100%	100%

2.29 The data demonstrates that flatted households in the area are less likely to own a vehicle or have more than one vehicle for the household. Only 64% of flatted units will own one or more vehicles compared to 81% of houses.

2.30 The data above equates to an average of approximately 1.28 cars per house and 0.83 cars per flatted household.

Parking Survey

2.31 Noting the Reason for Refusal of the previous application, it was considered necessary to conduct an on-street car parking survey to review the existing and potential on-street parking stress in the vicinity of the site.

2.32 The car parking survey was undertaken in the vicinity of the site using the widely accepted Lambeth methodology, as agreed in discussions with LBE. The surveys were undertaken in the early hours of Tuesday 25th and Wednesday 26th March 2025 by an independent 3rd party survey company. The survey encompassed an area within (approximately) a 200m walk from the site. It, therefore, included the following roads:

- Hanover Circle;
- Kingsway;
- Cavalier Gardens; and
- Saxony Parade.

2.33 The raw survey data output is included in **Appendix B** and the summary results are included in **Table 2.3** below. The survey company noted that there were 151 on-street spaces in the surveyed area.

Table 2.3 Summary of Overnight Parking Survey Results

Date	Vehicles Parked	Vacant Observed Spaces	Parking Stress
25/03/2025	107	35	75.4%
26/03/2025	105	36	74.5%

2.34 The overnight results showed that the existing parking stress within the survey area was approximately 75% at its peak. Furthermore, there were at least 35 observed parking spaces available in the vicinity of the site on both surveyed nights.

2.35 It is widely considered that parking stress is considered 'high' when it exceeds 85%. The above therefore shows that there is sufficient parking capacity on-street in the vicinity of the site to cater for some potential overspill car parking. A total of 14 additional cars would need to be parked in the surrounding streets on the peak night before parking stress is considered to be 'high'.

3 POLICY REVIEW

Introduction

3.1 This section of the report considers the current and emerging planning policy guidance at national, regional and local level.

National Policy

National Planning Policy Framework (NPPF)

3.2 The revised NPPF was updated in December 2024 and sets out the Government's planning policies for England and how these are expected to be applied.

3.3 The NPPF, at paragraphs 10 and 11, states that "*the purpose of the planning system is to contribute to the achievement of sustainable development*" and "*at the heart of the Framework is a* ***presumption in favour of sustainable development***".

3.4 Section 9 deals with promoting sustainable transport. Paragraph 109 states that

Transport issues should be considered from the earliest stages of plan-making and development proposals, using a vision-led approach to identify transport solutions that deliver well-designed, sustainable and popular places.

3.5 Paragraph 109 also notes that plan-making and development proposals should involve the following:

a) making transport considerations an important part of early engagement with local communities;

b) ensuring patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places;

c) understanding and addressing the potential impacts of development on transport networks;

d) realising opportunities from existing or proposed transport infrastructure, and changing transport technology and usage – for example in relation to the scale, location or density of development that can be accommodated;

e) identifying and pursuing opportunities to promote walking, cycling and public transport use; and

f) identifying, assessing and taking into account the environmental impacts of traffic and transport infrastructure – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains.

3.6 Paragraph 110 states that the planning system should actively manage patterns of growth in support of the above objectives, whilst paragraph 115 states that in assessing specific applications for development, the following should be ensured:

a) sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;

b) safe and suitable access to the site can be achieved for all users;

c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and

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

3.7 Paragraph 116 goes on to state:

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.

3.8 The NPPF states at paragraph 118 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.

National Planning Practice Guidance (NPPG), 2014

3.9 On 6 March 2014 the Department for Communities and Local Government (DCLG) launched the National Planning Practice Guidance web-based resource. One section relates specifically to Transport and is titled 'Travel Plans, Transport Assessments and Statements in decision-taking' and this provides the overarching principles of Travel Plans, Transport Assessments and Statements.

3.10 The guidance explains the role of Transport Assessments and Statements as:

"ways of assessing the potential transport impacts of developments (and they may propose mitigation measures to promote sustainable development. Where that mitigation relates to matters that can be addressed by management measures, the mitigation may inform the preparation of Travel Plans)".

3.11 The guidance demonstrates that Transport Assessments and Statements and Travel Plans can positively contribute in the following ways:

- *"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."*

Regional Policy

The London Plan 2021

3.1 The London Plan is a broad plan to shape the way London develops over the next 20-25 years. Following an extensive consultation process, an Examination in Public (EIP), and comments from the Secretary of State, the London Plan was published and adopted in March 2021.

3.2 A key objective of the new London Plan is to enable "Good Growth", i.e. delivering a more socially integrated and sustainable city.

3.3 Policy GG2 "Making Best Use of Land" supports use of brownfield land and sites that are well connected by public transport and promotes the utilisation of small sites.

where local amenities are within walking and cycling distance, and public transport options are available for longer distance trips, supporting good health, allowing strong communities to develop, and boosting the success of local businesses.

Making the best use of land means directing growth towards the most accessible and well-connected places, making the most efficient use of the existing and future public transport, walking and cycling networks.

All options for using the city's land more effectively will need to be explored as London's growth continues, including the redevelopment of brownfield sites and the intensification of existing places

3.4 Specific transport related policies are dealt with in Chapter 10 of the London Plan. There is a focus on reducing car dependency and promoting a significant shift towards active modes of travel and public transport use.

3.5 Policy T1 "Strategic approach to transport" states:

A. Development Plans and development proposals should support and facilitate:

1. The delivery of the Mayor's strategic target of 80 per cent of all trips in London to be made by foot, cycle or public transport by 2041

2. The proposed transport schemes set out in Table 4.1

B. All development should make the most effective use of land, reflecting its connectivity and accessibility by existing and future public transport, walking and cycling routes, and ensure that any impacts on London's transport networks and supporting infrastructure are mitigated.

3.6 Policy T2 "Healthy Streets" is seeking a pattern of land use that facilitate shorter, regular trips by walking or cycling. This is in line with the Mayor's Transport Strategy to deliver infrastructure and public realm to increase levels of walking, cycling and public transport use.

3.7 Policy T4 "Assessing and mitigating transport impacts" notes that Transport Assessments should be submitted with development proposals to ensure that any impacts on the capacity of the transport network are fully assessed.

3.8 Policy T6 "Car Parking" notes that car parking "*should be restricted in line with existing and future public transport accessibility and connectivity*" and that car-free development should be the starting point for all development proposals in places where there is (or will be) high levels of public transport.

Local Policy

LBH Local Plan: Part 1 Strategic Policies (adopted November 2012)

3.9 The Strategic Policies document was developed to lay out the planning vision and strategy for Hillingdon, through to 2026.

3.10 Part of the vision set out for LBH is 'Improved environment and infrastructure is supporting healthier living and helping the borough to mitigate and adapt to climate change'. This vision is supported by Strategic Objective SO12: 'Reduce the reliance on the use of the car by promoting safe and sustainable forms of transport, such as improved walking and cycling routes and encouraging travel plans'.

LBH Local Plan: Part 2 Development Management Policies (adopted January 2020)

3.11 The Development Management Policies document's purpose is to provide details policies which form the basis of Council's decisions on individual planning applications.

3.12 On the requirement for Transport Statements, the document states:

Development proposals will be required to undertake a satisfactory Transport Assessment and Travel Plan if they meet or exceed the appropriate thresholds. All major developments[11] that fall below these thresholds will be required to produce a satisfactory Transport Statement and Local Level Travel Plan. All these plans should demonstrate how any potential impacts will be mitigated and how such measures will be implemented.

3.13 It is noted that proposals should meet transport requirements of the development and are required to:

i) be accessible by public transport, walking and cycling either from the catchment area that it is likely to draw its employees, customers or visitors from and/or the services and facilities necessary to support the development;

ii) maximise safe, convenient and inclusive accessibility to, and from within developments for pedestrians, cyclists and public transport users;

iii) provide equal access for all people, including inclusive access for disabled people;

iv) adequately address delivery, servicing and drop-off requirements; and

v) have no significant adverse transport or associated air quality and noise impacts on the local and wider environment, particularly on the strategic road network.

3.14 Appendix A of the documents includes Hillingdon's Parking Standards. In terms of HMOs, the standards specify one parking space per 2 occupants, for HMOs with up to six intended occupants. It goes on to state that for HMOs over six intended occupants, car parking requirements will be assessed through a transport appraisal and travel plan.

Summary

3.15 The focus of transport and land use planning policy is on the development of sustainable travel measures and the encouragement of development proposals which widen the accessibility of sustainable travel to site attendees and the wider community. Further information is provided later in this report which details the transport infrastructure proposed for the site.

4 THE PROPOSED DEVELOPMENT

4.1 The development proposals consist of the conversion of the existing property into a five-bedroom House of Multiple Occupation (HMO). The two existing parking spaces will be maintained. There will also be 4 cycle parking spaces provided to the east of the building, as shown on the Architect's Layout in **Appendix A** of this report.

4.2 The units within the HMO will be as follows:

- 3 x 2-person bedroom
- 2 x 1-person bedroom

4.3 The maximum total number of occupants is therefore expected to be eight persons.

Access Arrangements

4.4 Pedestrian and vehicular access to the site will be maintained from Hanover Circle via the existing driveway, from the crossover.

4.5 This access is at grade to enable mobility by all users including those using pushchairs and the mobility impaired.

Servicing and Deliveries

4.6 It is expected that the proposed development will be typically serviced by refuse vehicles, home food and non-food deliveries and infrequent maintenance. Given the modest scale of the proposals, delivery and servicing demand is expected to be low.

4.7 Refuse collection is proposed to take place as per the existing arrangement from the kerbside of Hanover Circle. A formal bin store is proposed adjacent to the eastern side of the building. Operatives will be able to access the site via the site access and will be able to transport bins from the bin store adjacent to the property to the kerbside, dispose, and return.

Parking

Car Parking

4.8 The proposed development will maintain the existing 2 car parking spaces to serve the development proposals. No additional off-street parking spaces will be provided.

4.9 It is acknowledged that the previous Reason for Refusal noted that the previous application failed to demonstrate that sufficient off-street parking would be provided, and that it has the potential to lead to undue on-street parking displacement and stress.

4.10 Section 2 outlined a parking survey that was undertaken recently, utilising the widely accepted Lambeth methodology. The results of this showed that parking stress in the

vicinity of the site was, at its peak, approximately 75%. These results allow an assessment of the potential overspill car parking from the development.

4.11 Car ownership levels in the local area were also reviewed in Section 2, which noted the houses in the area have on average 1.28 vehicles per unit, whilst flatted units have on average 0.83 vehicles per unit. Whilst a bedroom of a HMO is likely to be closer aligned to a flatted unit (and probably less onerous in terms of car ownership), for a robust assessment, a maximum demand of one vehicle per bedroom has been assigned to the assessment below. This is also in excess of the local car ownership for a flat (as per the 2021 census data).

4.12 As noted above, five bedrooms are proposed at the development, whilst two car parking spaces are to be maintained on site. Therefore, it is considered possible that three cars could be parked on the surrounding streets.

4.13 **Table 4.1** outlines the parking stress in the vicinity of the site, should three cars be overspilled from the development.

Table 4.1 Proposed Car Parking Stress

Scenario	Vehicles Parked	Vacant Observed Spaces	Parking Stress
Current	107	35	75.4%
Proposed	110	32	77.5%

4.14 Table 4.1 shows that, even in the unlikely scenario that three vehicles from the development are parked on the local streets, the parking stress will be considerably lower than the 'high' parking stress threshold of 85%.

Cycle Parking

4.15 The proposed development will incorporate a total of eight cycle parking spaces. The proposed provision of cycle parking meets the cycle parking standards set out in the London Plan and is therefore considered appropriate. All long-stay cycle parking at the development will be covered, secure and safely accessible.

5 TRIP ASSESSMENT

5.1 This section considers the likely number of trips associated with the development proposals with consideration of any existing permitted vehicle trips associated with the existing site use. A net impact assessment has been created at the end of this section is assess the forecast impact in line with policies.

Existing Trip Generation

5.2 In order to understand the number of trips generated by the current site, currently used as a single occupancy dwellinghouse, the TRICS database has been interrogated to give an estimated vehicle trip rate at the site. The parameters used are as follows:

- 03 Residential – A, Houses Privately Owned;
- Greater London sites;
- Sites between 9 – 32 units;
- January 2016 to September 2022 surveys;
- Tuesday and Wednesday surveys; and
- Edge of Town centre and Neighbourhood Centre sites.

5.3 The parameters above provided trip rates based on 4 similar sites. The vehicle trip rates, and corresponding vehicle trip generation are outlined in **Table 5.1** below, whilst the full TRICS output is attached to this report within **Appendix C**.

Table 5.1 Existing Trip Rates & Trip Generation: Total Vehicles

Period	Trip Rates			Existing Trip Generation (1 unit)		
	In	Out	Total	In	Out	Total
08:00 – 09:00	0.28	0.378	0.658	<1	<1	1*
17:00 – 18:00	0.305	0.171	0.476	<1	<1	<1
07:00 – 19:00	3.293	3.294	6.587	3	3	7*

*Discrepancies due to rounding errors

5.4 Applying the above trip rates, the existing office is estimated to generate approximately 1 two-way vehicle trips during 08:00 to 09:00 and less than 1 two-way person trips during 17:00 to 18:00. The existing property is estimated to generate 7 two-way vehicle trips daily (07:00-19:00).

Proposed Trip Generation

5.5 In order to understand the number of trips anticipated at the proposed development, the TRICS database has been interrogated to give an estimated vehicle trip rate at the site for privately owned flats. It should be acknowledged that a HMO bedroom is likely to generate considerably less trips than a flatted residential unit, therefore the review of flatted developments to calculate a trip rate should be considered an over-estimation.

5.6 The TRICS parameters used were as follows:

- 03 Residential – C, Flats Privately Owned;
- Greater London sites;
- Sites between 14 and 33 units;
- January 2016 to October 2022 surveys;
- Tuesday to Friday surveys; and
- Edge of Town, Suburban area and Neighbourhood Centre sites.

5.7 The parameters above provided trip rates based on 6 similar sites. The vehicle trip rates, and corresponding vehicle trip generation are outlined in **Table 5.2** below, whilst the full TRICS output is attached to this report within **Appendix C**.

Table 5.2 Residential Trip Rates & Trip Generation: Total Vehicles

Period	Trip Rates			Proposed Trip Generation (5 units)		
	In	Out	Total	In	Out	Total
08:00 – 09:00	0.134	0.275	0.409	1	1	2
17:00 – 18:00	0.225	0.127	0.352	1	1	2
Daily Total	1.843	1.855	3.698	9	9	18

5.8 The proposed development is expected to generate 2 two-way vehicle trips during 08:00 to 09:00 and 2 two-way vehicle trips during 17:00 to 18:00. This will have an insignificant impact on the transport network. Notwithstanding this, this is considered to be an overestimation for the HMO development.

Net Trip Generation and Impact

5.9 Using the trip information from **Table 5.1** and **5.2**, the net impact of the development proposals based on the number of vehicle trips has been calculated as set out in **Table 5.3**.

Table 5.3 Net Trip Generation: All Modes

Period	Net Trip Generation		
	In	Out	Total
08:00 – 09:00	+1	+1	+1*
17:00 – 18:00	+1	+1	+2
07:00 – 19:00	+6	+6	+11*

*Discrepancies due to rounding errors

5.10 The information in **Table 5.3** above indicates that the conversion of the existing single occupancy dwellinghouse into 'flats' will result in an increase of 11 two-way vehicle trips over a daily period (07:00 – 19:00). As noted above, the flatted unit TRICS exercise is likely to represent higher trips than a HMO bedroom, therefore the net increase in trips is likely to be lower than this in reality.

6 TRAVEL PLANNING MEASURES

6.1 It is acknowledged that the Hillingdon Local Plan: Part 2 Development Management Policies document (2020) suggests that a HMO with more than six occupants should be supported by a "transport appraisal and travel plan". As noted above, the proposed HMO could have a maximum of eight occupants, albeit only five bedrooms are proposed. However, given the modest scale of the proposals, it is suggested that travel planning measures are incorporated as part of the Transport Statement, without the need for formal travel planning targets, objectives or monitoring.

6.2 Given the scale of development, it is not considered appropriate for a Travel Plan Coordinator to be appointed. Therefore, all measures proposed will be provided from the outset, with limited ongoing measures at the development.

6.3 The following measures are proposed to be delivered ahead of or on occupation of the HMO bedrooms:

- Provision of cycle parking that is covered, secure and safely accessible;
- Provision of a welcome pack incorporating travel information, such as cycle routes and bus timetables posted in communal areas; and
- Provision of initial promotional material, such as Walk to Work Day, Cycle to Work Scheme or Change 4 Life leaflets;

6.4 As outlined in Section 2, there are opportunities for prospective residents to travel by sustainable modes from the site.

7 SUMMARY & CONCLUSIONS

7.1 Mr Mundae has commissioned Pulsar to prepare a Transport Statement to support a planning application for the change of use for a single family home to a HMO with five bedrooms. The site is located at 47 Hanover Circle, Hayes, UB3 2TJ, within the London Borough of Hillingdon.

7.2 This Transport Statement has considered the transport planning aspects of the proposed development through the assessment of the sustainability of the site and its impact on the local transport network in accordance with local and national polices.

7.3 The proposed scheme involves a HMO with five bedrooms. The two existing off-street car parking spaces are proposed to be maintained, with four cycle parking spaces provided for residents.

7.4 Residents and visitors will be encouraged to undertake active travel owing to the site's location close to local bus services, offering connections to destinations including Ealing, Acton, Hillingdon and Hayes. Hayes & Harlington Station is accessible from the site by bus or via an 11-minute cycle, offering access to the Elizabeth Line.

7.5 A trip generation assessment has been undertaken, which shows that the net impact of the proposed development, when considering the existing permitted vehicle trips associated with the site is expected to be low, and could comfortably be accommodated on the existing road network.

7.6 A parking survey, utilising the widely accepted Lambeth methodology, was undertaken which shows the site would not result in a 'high' level of on-street parking stress in the vicinity of the site, even when applying a robust estimate of car ownership at the site.

7.7 Given the above, the site is expected to have a minimal impact on the public highway network and from a transport perspective meets the tests of the NPPF namely to ensure:

- 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;
- 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; and
- The proposals do not lead to an unacceptable impact on highway safety, and the residual cumulative impact of the development is not severe, taking into account all reasonable future scenarios.

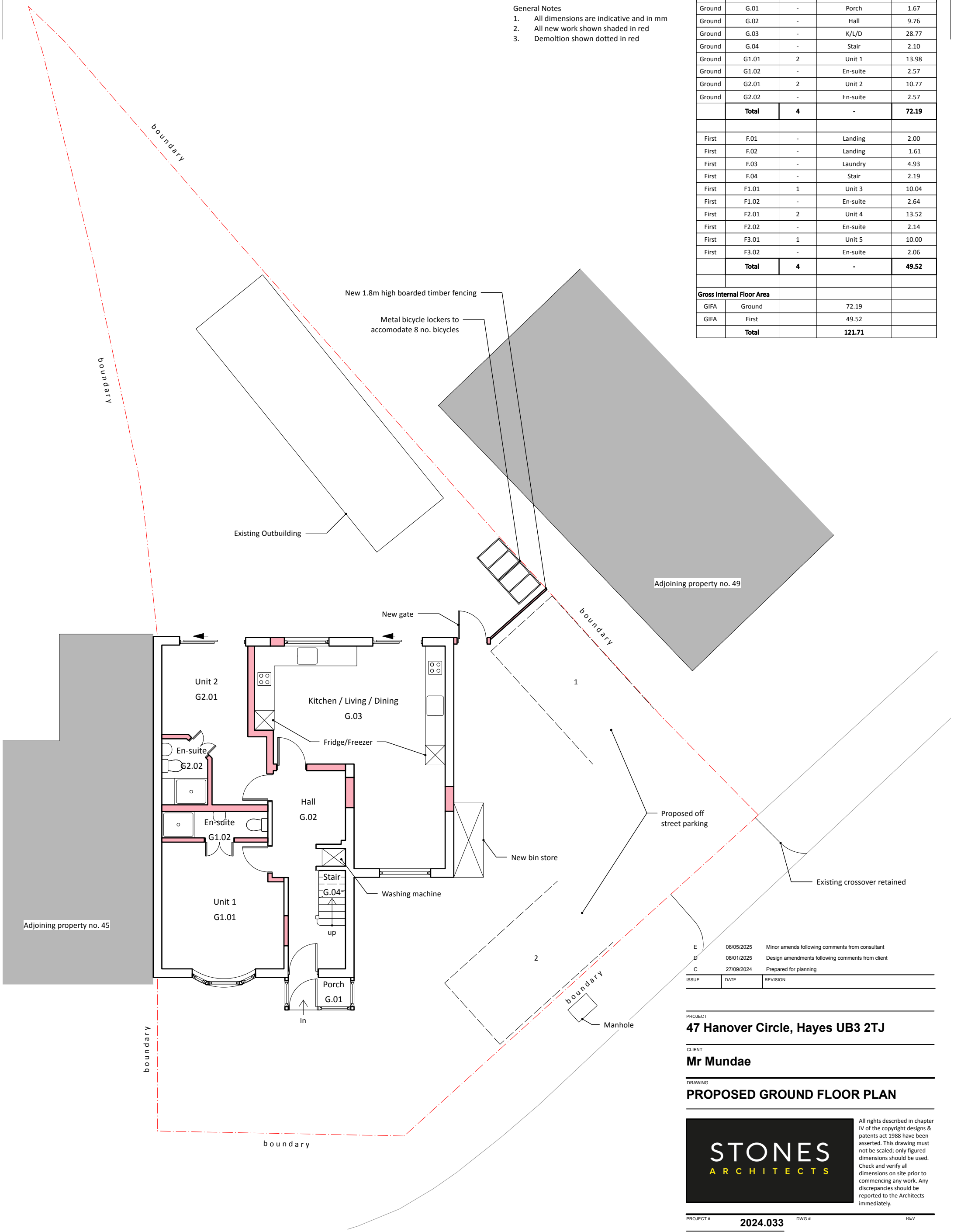
7.8 In conclusion, the site is expected to have a minimal impact on the public highway network and from a transport perspective meets the tests of the NPPF and local policy. On the basis of the above, the proposed development should not be prevented on transport and highway grounds.

APPENDIX A – ARCHITECT'S LAYOUT

General Notes

1. All dimensions are indicative and in mm
2. All new work shown shaded in red
3. Demoltion shown dotted in red

Floor	Room number	Occupants	Room name	Area/m2
Ground	G.01	-	Porch	1.67
Ground	G.02	-	Hall	9.76
Ground	G.03	-	K/L/D	28.77
Ground	G.04	-	Stair	2.10
Ground	G1.01	2	Unit 1	13.98
Ground	G1.02	-	En-suite	2.57
Ground	G2.01	2	Unit 2	10.77
Ground	G2.02	-	En-suite	2.57
	Total	**4**	**-**	**72.19**
First	F.01	-	Landing	2.00
First	F.02	-	Landing	1.61
First	F.03	-	Laundry	4.93
First	F.04	-	Stair	2.19
First	F1.01	1	Unit 3	10.04
First	F1.02	-	En-suite	2.64
First	F2.01	2	Unit 4	13.52
First	F2.02	-	En-suite	2.14
First	F3.01	1	Unit 5	10.00
First	F3.02	-	En-suite	2.06
	Total	**4**	**-**	**49.52**
Gross Internal Floor Area				
GIFA	Ground		72.19	
GIFA	First		49.52	
	Total		**121.71**	



0.0 1.0 2.0 3.0 4.0 5.0 m

N

ISSUE	DATE	REVISION
E	06/05/2025	Minor amends following comments from consultant
D	08/01/2025	Design amendments following comments from client
C	27/09/2024	Prepared for planning

PROJECT

47 Hanover Circle, Hayes UB3 2TJ

CLIENT

Mr Mundae

DRAWING

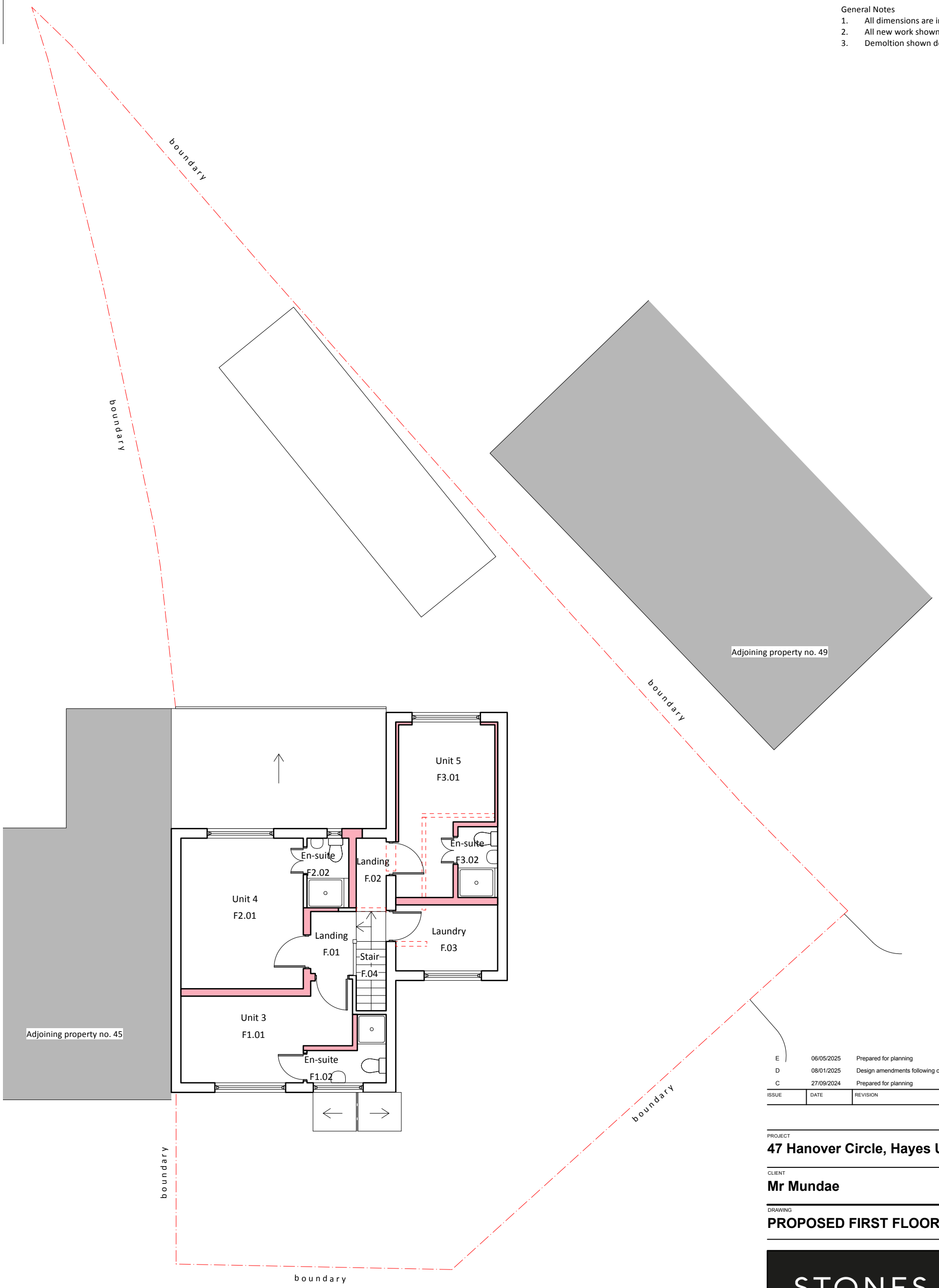
PROPOSED GROUND FLOOR PLAN

STONES ARCHITECTS

PROJECT #	2024.033	DWG #	REV
DATE	06/05/2025	C01-E	
SCALE	1:100		
DRAWN	S.W.	CHKD	J.C.

Stones Architects Ltd
50 Coldharbour Lane Hayes Middlesex UB3 3EP
t 020 8969 0000 **e** mail@stonesarchitects.co.uk **w** stonesarchitects.co.uk

General Notes
1. All dimensions are indicative and in mm
2. All new work shown shaded in red
3. Demoltion shown dotted in red



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N

ISSUE	DATE	REVISION
E	06/05/2025	Prepared for planning
D	08/01/2025	Design amendments following comments from client
C	27/09/2024	Prepared for planning

PROJECT
47 Hanover Circle, Hayes UB3 2TJ

CLIENT
Mr Mundae

DRAWING
PROPOSED FIRST FLOOR PLAN

STONES ARCHITECTS

PROJECT #	DWG #	REV
2024.033	C02-E	
DATE	06/05/2025	
SCALE	1:100	
DRAWN S.W.	CHKD J.C.	

Stones Architects Ltd
50 Coldharbour Lane Hayes Middlesex UB3 3EP
t 020 8969 0000 **e** mail@stonesarchitects.co.uk **w** stonesarchitects.co.uk

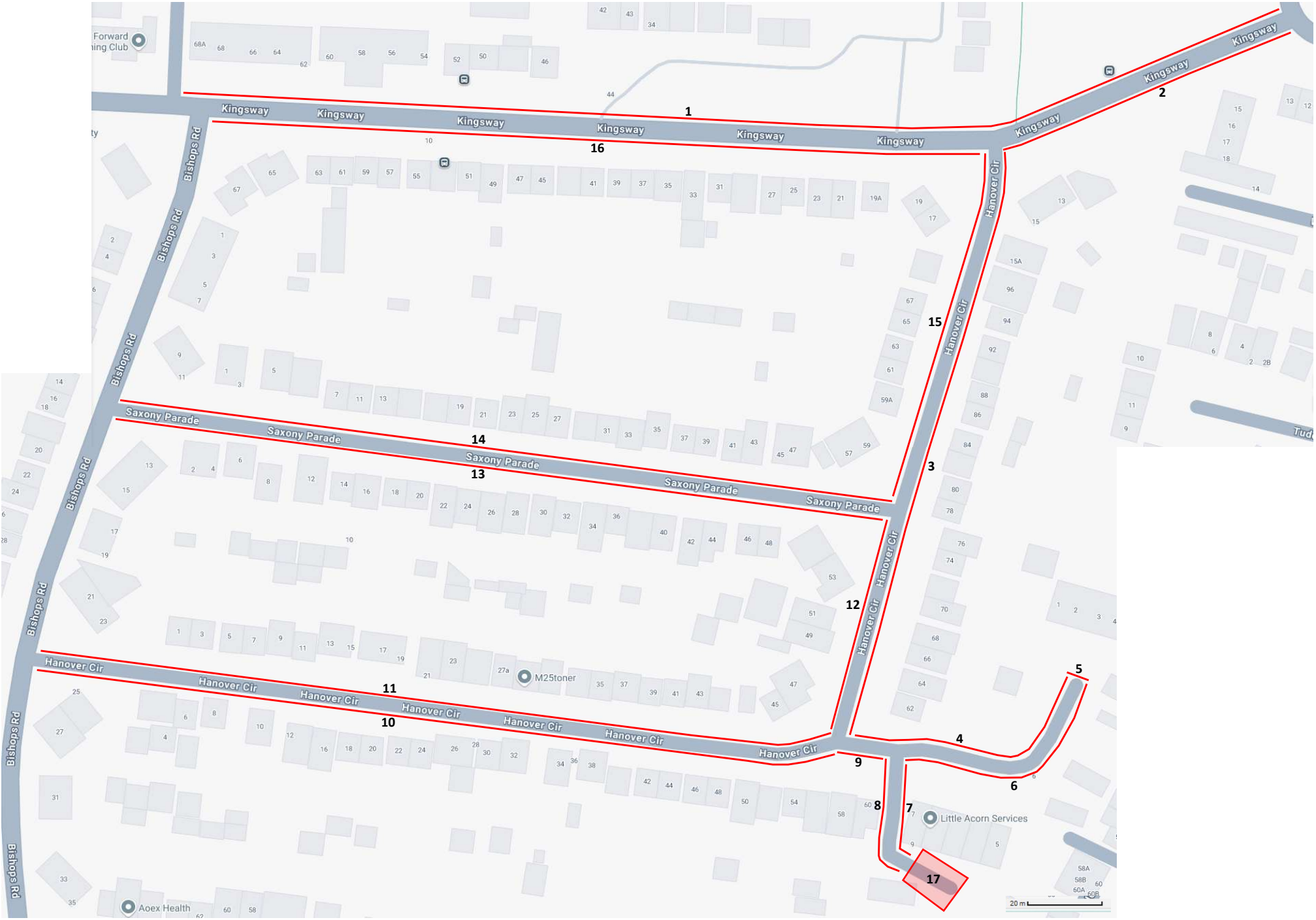
APPENDIX B – PARKING SURVEY RESULTS

K&M TRAFFIC SURVEYS

DATE : 25th & 26th MARCH 2025

DAY : TUESDAY & WEDNESDAY

LOCATION : HANOVER CIRCLE, HAYES.



K&M TRAFFIC SURVEYS

DATE : 25th & 26th MARCH 2025

DAY : TUESDAY & WEDNESDAY

LOCATION : HANOVER CIRCLE, HAYES.

K&M TRAFFIC SURVEYS

DATE : 25th & 26th MARCH 2025

DAY : TUESDAY & WEDNESDAY

LOCATION : HANOVER CIRCLE, HAYES.

EXAMPLE OF UNRESTRICTED PARKING WHERE RESIDENTIAL OWNERS HAVE KNOCKED DOWN A WALL TO ALLOW VEHICLES TO PARK ON THE FRONT GARDEN WITHOUT HAVING A DROPPED KERB IN PLACE.

THE KERBSIDE SPACE ON THIS OCCASSION HAS NOT BEEN DEEMED TO BE USUABLE SPACE DUE TO BLOCKING IN VEHICLES PARKED ON FRONT GARDENS

K&M TRAFFIC SURVEYS

DATE : 25th & 26th MARCH 2025

DAY : TUESDAY & WEDNESDAY

LOCATION : HANOVER CIRCLE, HAYES.

TUESDAY 25th MARCH 2025

TIME : 05:00

KEY:

- = DOUBLE YELLOW LINE
- = DROPPED KERB
- = ACCESS
- = TURNING AREA
- = GARAGES
- = BUS STOP
- = TOO NARROW UNRESTRICTED
- = WOULD NOT PARK UNRESTRICTED
- = VEHICLES OPTING TO PARK 1/2 ON PATH AND 1/2 ON ROAD UNRESTRICTED
- = UNRESTRICTED BUT VEHICLES OPTING TO PARK ON THEIR DRIVES AND GARDENS
- = NOSE IN UNRESTRICTED PARKING BAY
- BLANK = UNRESTRICTED

KEY

- = CAR PARKED
- = OBSERVED SPACE
- = PARKED ON DROPPED KERB
- = PARKED ON YELLOW LINES
- = PARKED IN DISABLED BAY
- = SPACE IN DISABLED BAY
- = CAR PARKED (WHERE HOUSE KNOCKED DOWN FRONT WALL)
- = NOSE IN PARKED
- = NOSE IN SPACE

K&M TRAFFIC SURVEYS

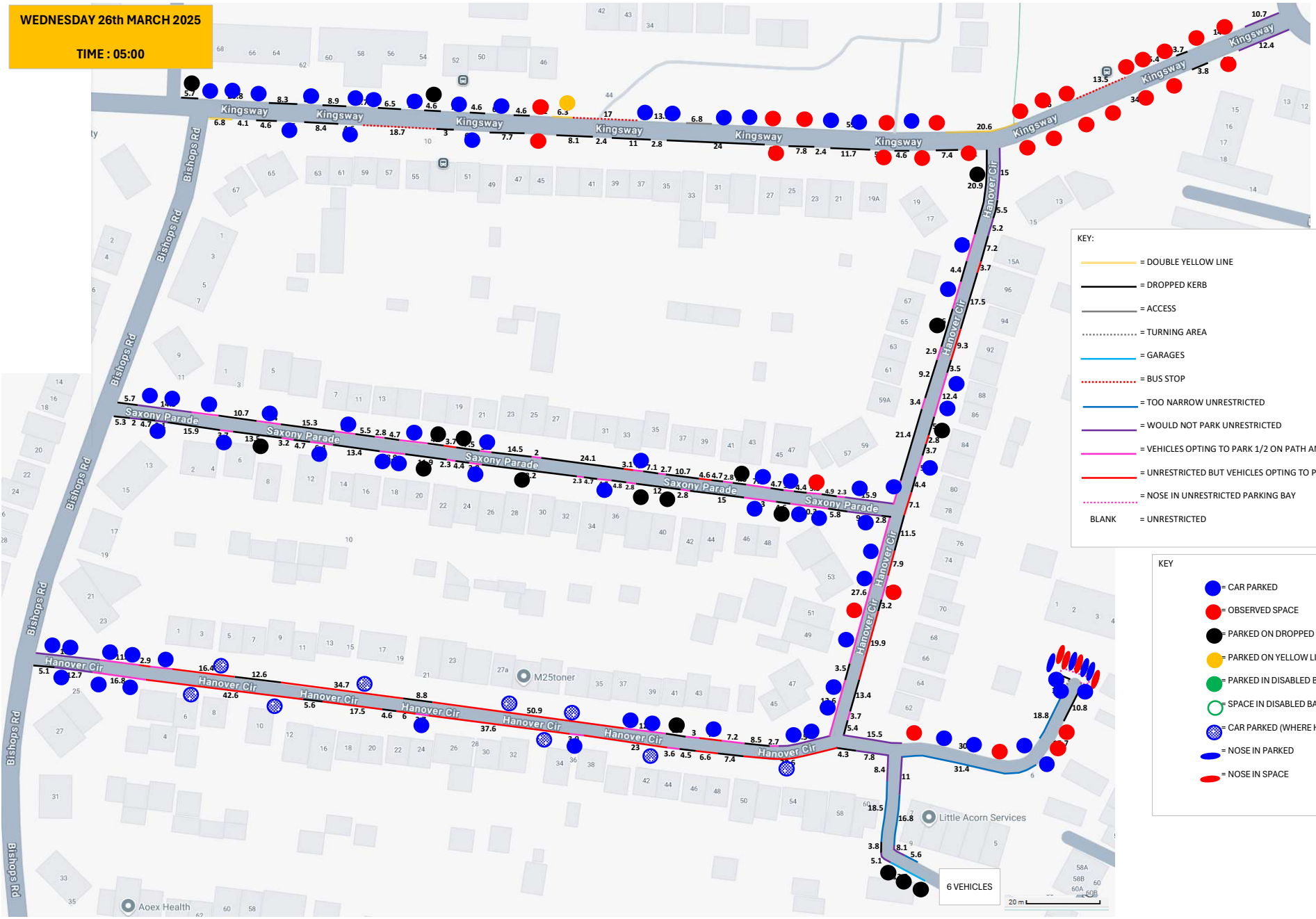
DATE : 25th & 26th MARCH 2025

DAY : TUESDAY & WEDNESDAY

LOCATION : HANOVER CIRCLE, HAYES.

WEDNESDAY 26th MARCH 2025

TIME : 05:00



KEY:

- = DOUBLE YELLOW LINE
- = DROPPED KERB
- = ACCESS
- = TURNING AREA
- = GARAGES
- = BUS STOP
- = TOO NARROW UNRESTRICTED
- = WOULD NOT PARK UNRESTRICTED
- = VEHICLES OPTING TO PARK 1/2 ON PATH AND 1/2 ON ROAD UNRESTRICTED
- = UNRESTRICTED BUT VEHICLES OPTING TO PARK ON THEIR DRIVES AND GARDENS
- = NOSE IN UNRESTRICTED PARKING BAY
- BLANK = UNRESTRICTED

KEY

- = CAR PARKED
- = OBSERVED SPACE
- = PARKED ON DROPPED KERB
- = PARKED ON YELLOW LINES
- = PARKED IN DISABLED BAY
- = SPACE IN DISABLED BAY
- = CAR PARKED (WHERE HOUSE KNOCKED DOWN FRONT WALL)
- = NOSE IN PARKED
- = NOSE IN SPACE

K&M TRAFFIC SURVEYS

DATE : 25th & 26th MARCH 2025

DAY : TUESDAY & WEDNESDAY

LOCATION : HANOVER CIRCLE, HAYES.

					TUESDAY 25th MARCH 2025 TIME : 05:00			WEDNESDAY 26th MARCH 2025 TIME : 05:00		
ROAD NAME	ZONE	RESTRICTION	METRES	5 METRES = 1 SPACE	PARKED	OBSERVED SPACES	%RESTRICTION STRESS	PARKED	OBSERVED SPACES	%RESTRICTION STRESS
KINGSWAY	1	DROPPED KERB	46.9		2			1		
		UNRESTRICTED	181	31	16	12	57.1%	16	13	55.2%
		DOUBLE YELLOW LINE	26.9		1			1		
		BUS STOP	30.5							
		ACCESS	6.8							
		WOULD NOT PARK UNRESTRICTED	10.7							
	2	WOULD NOT PARK UNRESTRICTED	12.4							
		UNRESTRICTED	40.5	7	0	7	0.0%	0	7	0.0%
		DROPPED KERB	3.8							
HANOVER CIRCLE	3	WOULD NOT PARK UNRESTRICTED	20.2							
		DROPPED KERB	81					1		
		UNRESTRICTED BUT VEHICLES OPTING TO PARK ON THEIR DRIVES AND GARDENS	50.7	6	1	0	100.0%	0	0	0.0%
		VEHICLES OPTING TO PARK 1/2 ON PATH AND 1/2 ON ROAD UNRESTRICTED	28.1	4	3	1	75.0%	3	1	75.0%
CAVALIER GARDENS	4	WOULD NOT PARK UNRESTRICTED	15.5							
		UNRESTRICTED	30.4	6	4	1	80.0%	3	2	60.0%
		TOO NARROW UNRESTRICTED	18.8							
		TURNING AREA	10					2		
		DROPPED KERB	4.8							
	5	NOSE IN UNRESTRICTED PARKING BAY	20.1	8	3	5	37.5%	4	4	50.0%
	6	TURNING AREA	2.6		1			1		
		DROPPED KERB	10.8							
		UNRESTRICTED	15.7	3	1	2	33.3%	1	2	33.3%
		TOO NARROW UNRESTRICTED	31.4							
	7	WOULD NOT PARK UNRESTRICTED	19.1							
		TOO NARROW UNRESTRICTED	22.4							
	8	GARAGES	13.5		2			3		
		WOULD NOT PARK UNRESTRICTED	13.5							
		DROPPED KERB	3.8							
		TOO NARROW UNRESTRICTED	18.5							
	9	WOULD NOT PARK UNRESTRICTED	7.8							
		DROPPED KERB	4.3							
HANOVER CIRCLE	10	UNRESTRICTED BUT VEHICLES OPTING TO PARK ON THEIR DRIVES AND GARDENS	160.9	29	6	0	100.0%	5	0	100.0%
		DROPPED KERB	27.2							
		VEHICLES OPTING TO PARK 1/2 ON PATH AND 1/2 ON ROAD UNRESTRICTED	28	3	4	1	80.0%	4	0	100.0%
		WOULD NOT PARK UNRESTRICTED	12.7		1			1		
	11	WOULD NOT PARK UNRESTRICTED	34.7		4			4		
		VEHICLES OPTING TO PARK 1/2 ON PATH AND 1/2 ON ROAD UNRESTRICTED	43.7	6	6	0	100.0%	6	0	100.0%
		UNRESTRICTED BUT VEHICLES OPTING TO PARK ON THEIR DRIVES AND GARDENS	111.9	20	3	0	100.0%	4	0	100.0%
		DROPPED KERB	35.2					1		
	12	VEHICLES OPTING TO PARK 1/2 ON PATH AND 1/2 ON ROAD UNRESTRICTED	40.2	7	4	2	66.7%	5	1	83.3%
		DROPPED KERB	3.5							
SAXONY PARADE	13	DROPPED KERB	151.7		7			6		
		WOULD NOT PARK UNRESTRICTED	14.9		2			2		
		VEHICLES OPTING TO PARK 1/2 ON PATH AND 1/2 ON ROAD UNRESTRICTED	60.5	5	9	0	100.0%	9	0	100.0%
	14	DROPPED KERB	133.8		2			3		
		WOULD NOT PARK UNRESTRICTED	30.2		4			3		
		VEHICLES OPTING TO PARK 1/2 ON PATH AND 1/2 ON ROAD UNRESTRICTED	65.8	6	10	0	100.0%	8	1	88.9%
		UNRESTRICTED BUT VEHICLES OPTING TO PARK ON THEIR DRIVES AND GARDENS	11.4		1					
HANOVER CIRCLE	15	VEHICLES OPTING TO PARK 1/2 ON PATH AND 1/2 ON ROAD UNRESTRICTED	27.7	3	3	0	100.0%	3	0	100.0%
		DROPPED KERB	65.5		3			2		
KINGSWAY	16	UNRESTRICTED	60.9	7	4	4	50.0%	3	5	37.5%
		DROPPED KERB	98.3							
		BUS STOP	18.7							
		DOUBLE YELLOW LINE	6.8							
SEE MAP	17	RESIDENTS ONLY			4			6		

APPENDIX C – TRICS OUTPUTS

Pulsar Transport Planning Underwood Row London Licence No: 805401

Calculation Reference: AUDIT-805401-250424-0424

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

01	GREATER LONDON		
	BN	BARNET	1 days
	EN	ENFIELD	2 days
	HG	HARINGEY	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
Actual Range: 9 to 32 (units:)
Range Selected by User: 9 to 40 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/16 to 14/09/22

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

Selected survey days:

Tuesday	2 days
Wednesday	2 days

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

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town	2
Neighbourhood Centre (PPS6 Local Centre)	2

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

Selected Location Sub Categories:

Residential Zone	3
High Street	1

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

Inclusion of Servicing Vehicles Counts:

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

Secondary Filtering selection:

Use Class:

C3	4 days

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

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

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

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

Population within 5 miles:

250,001 to 500,000	1 days
500,001 or More	3 days

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

Car ownership within 5 miles:

0.6 to 1.0	4 days

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

Travel Plan:

Yes	1 days
No	3 days

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

PTAL Rating:

1a (Low) Very poor	1 days
1b Very poor	1 days
2 Poor	1 days
4 Good	1 days

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

LIST OF SITES relevant to selection parameters

1 BN-03-A-02 MIXED HOUSES BARNET
SWEETS WAY
WHETSTONE

Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 21
Survey date: TUESDAY *03/07/18* *Survey Type: MANUAL*

2 EN-03-A-01 TERRACED & SEMI-DETACHED ENFIELD
BOLLINGBROKE PARK
COCKFOSTERS

Edge of Town
Residential Zone
Total No of Dwellings: 32
Survey date: WEDNESDAY *24/11/21* *Survey Type: MANUAL*

3 EN-03-A-02 DETACHED HOUSES ENFIELD
DUCHY ROAD
HADLEY WOOD

Edge of Town
Residential Zone
Total No of Dwellings: 9
Survey date: WEDNESDAY *14/09/22* *Survey Type: MANUAL*

4 HG-03-A-01 DETACHED & SEMI-DETACHED HARINGEY
LAWRENCE ROAD
TOTTENHAM
WEST GREEN
Neighbourhood Centre (PPS6 Local Centre)
High Street
Total No of Dwellings: 20
Survey date: TUESDAY *05/11/19* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	21	0.122	4	21	0.244	4	21	0.366
08:00 - 09:00	4	21	0.280	4	21	0.378	4	21	0.658
09:00 - 10:00	4	21	0.171	4	21	0.171	4	21	0.342
10:00 - 11:00	4	21	0.244	4	21	0.244	4	21	0.488
11:00 - 12:00	4	21	0.159	4	21	0.171	4	21	0.330
12:00 - 13:00	4	21	0.207	4	21	0.171	4	21	0.378
13:00 - 14:00	4	21	0.232	4	21	0.232	4	21	0.464
14:00 - 15:00	4	21	0.232	4	21	0.244	4	21	0.476
15:00 - 16:00	4	21	0.293	4	21	0.232	4	21	0.525
16:00 - 17:00	4	21	0.122	4	21	0.195	4	21	0.317
17:00 - 18:00	4	21	0.305	4	21	0.171	4	21	0.476
18:00 - 19:00	4	21	0.378	4	21	0.366	4	21	0.744
19:00 - 20:00	4	21	0.280	4	21	0.207	4	21	0.487
20:00 - 21:00	4	21	0.268	4	21	0.268	4	21	0.536
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.293			3.294			6.587

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

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

Parameter summary

Trip rate parameter range selected:	9 - 32 (units:)
Survey date date range:	01/01/16 - 14/09/22
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

Pulsar Transport Planning Underwood Row London Licence No: 805401

Calculation Reference: AUDIT-805401-250424-0410

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : C - FLATS PRIVATELY OWNED
TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	BM	BROMLEY	2 days
	BN	BARNET	1 days
	EN	ENFIELD	1 days
	HO	HOUNSLOW	1 days
	WF	WALTHAM FOREST	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
Actual Range: 14 to 33 (units:)
Range Selected by User: 6 to 40 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/16 to 18/10/23

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

Selected survey days:

Tuesday	1 days
Wednesday	2 days
Thursday	1 days
Friday	2 days

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

Selected survey types:

Manual count	6 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	1
Neighbourhood Centre (PPS6 Local Centre)	2

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

Selected Location Sub Categories:

Residential Zone	5
No Sub Category	1

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	3 days - Selected
Servicing vehicles Excluded	3 days - Selected

Secondary Filtering selection:

Use Class:

C3	6 days

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

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

20,001 to 25,000	1 days
25,001 to 50,000	4 days
50,001 to 100,000	1 days

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

Population within 5 miles:

500,001 or More	6 days

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

Car ownership within 5 miles:

0.6 to 1.0	6 days

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

Travel Plan:

No	6 days

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

PTAL Rating:

No PTAL Present	1 days
1b Very poor	2 days
2 Poor	1 days
3 Moderate	2 days

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

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

LIST OF SITES relevant to selection parameters

1 BM-03-C-02 BLOCK OF FLATS BROMLEY
ORCHARD ROAD
BROMLEY

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 20
Survey date: TUESDAY *17/10/23* *Survey Type: MANUAL*

2 BM-03-C-03 BLOCKS OF FLATS BROMLEY
ORCHARD ROAD
BROMLEY

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 26
Survey date: WEDNESDAY *18/10/23* *Survey Type: MANUAL*

3 BN-03-C-01 FLATS IN HOUSES BARNET
VICTORIA ROAD
NEW BARNET

Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 33
Survey date: THURSDAY *09/06/22* *Survey Type: MANUAL*

4 EN-03-C-03 BLOCKS OF FLATS ENFIELD
NORTH CIRCULAR ROAD
PALMERS GREEN

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 27
Survey date: WEDNESDAY *08/11/17* *Survey Type: MANUAL*

5 HO-03-C-05 BLOCK OF FLATS HOUNSLOW
PARK LANE
HOUNSLOW
CRANFORD
Edge of Town
Residential Zone
Total No of Dwellings: 14
Survey date: FRIDAY *06/03/20* *Survey Type: MANUAL*

6 WF-03-C-03 FLATS & TERRACED HOUSES WALTHAM FOREST
FOREST ROAD
WALTHAMSTOW

Neighbourhood Centre (PPS6 Local Centre)
No Sub Category
Total No of Dwellings: 22
Survey date: FRIDAY *21/05/21* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	22	0.000	1	22	0.000	1	22	0.000
07:00 - 08:00	6	24	0.035	6	24	0.176	6	24	0.211
08:00 - 09:00	6	24	0.134	6	24	0.275	6	24	0.409
09:00 - 10:00	6	24	0.155	6	24	0.183	6	24	0.338
10:00 - 11:00	6	24	0.120	6	24	0.162	6	24	0.282
11:00 - 12:00	6	24	0.155	6	24	0.148	6	24	0.303
12:00 - 13:00	6	24	0.148	6	24	0.127	6	24	0.275
13:00 - 14:00	6	24	0.120	6	24	0.092	6	24	0.212
14:00 - 15:00	6	24	0.120	6	24	0.113	6	24	0.233
15:00 - 16:00	6	24	0.148	6	24	0.134	6	24	0.282
16:00 - 17:00	6	24	0.148	6	24	0.106	6	24	0.254
17:00 - 18:00	6	24	0.225	6	24	0.127	6	24	0.352
18:00 - 19:00	6	24	0.106	6	24	0.056	6	24	0.162
19:00 - 20:00	5	22	0.156	5	22	0.110	5	22	0.266
20:00 - 21:00	5	22	0.073	5	22	0.046	5	22	0.119
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.843			1.855			3.698

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

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

Parameter summary

Trip rate parameter range selected:	14 - 33 (units:)
Survey date date range:	01/01/16 - 18/10/23
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

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