JEREMY DOUCH – APPENDICES TO PROOF OF EVIDENCE

The Network Rail (Old Oak Common Great Western Mainline Track Access) Order

Appendices to Proof of Evidence

CONTENTS

JD1

Temporary and Permanent Road Rail Access Point, Horn Lane, Acton

Transport Statement

Network Rail

Project number: 60711740

13 October 2023

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Quality information

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Table of Contents

Figures

Tables

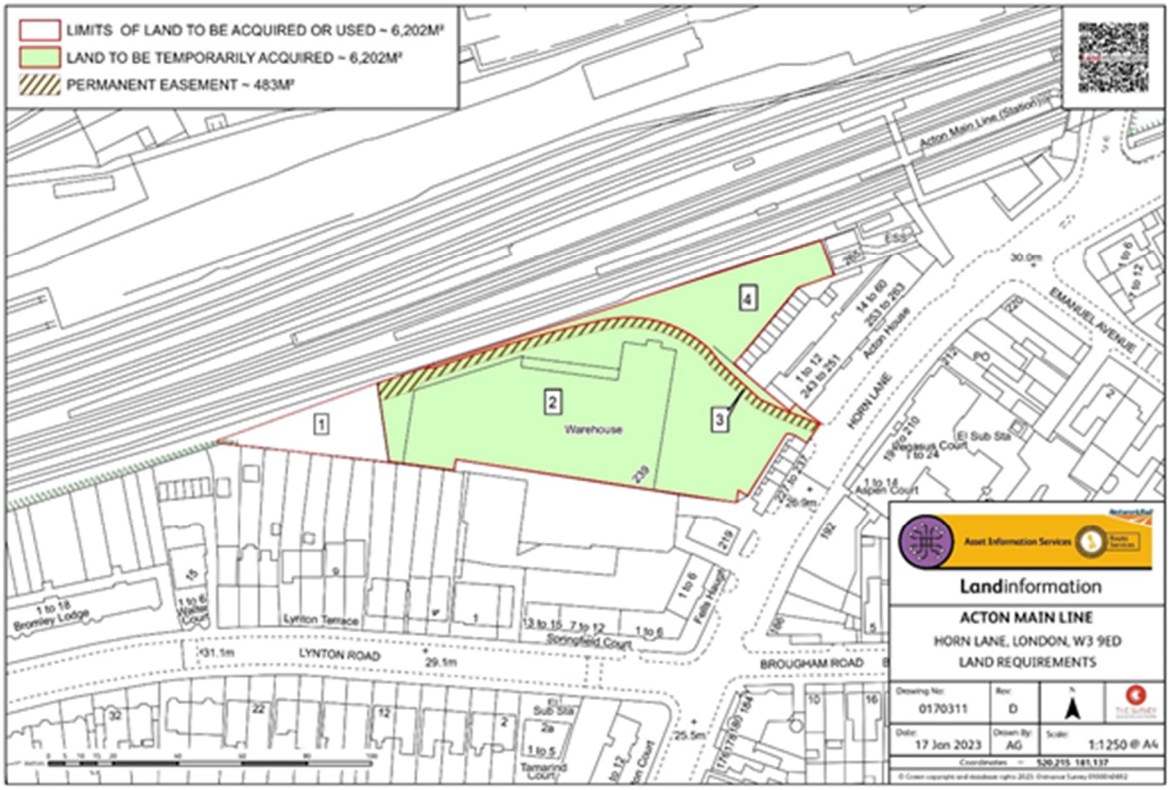
1. Introduction

1.1 AECOM was appointed by Network Rail to prepare a Transport Statement to inform a temporary planning application to utilise an existing builders' merchant depot to provide Network Rail with:

- A temporary Road Rail Access Point (RRAP) onto the Great Western Main Line (GWML) railway to enable the delivery of Old Oak Common station; and
- Permanent Road Rail Vehicle (RRV) access onto the GWML railway to enable future maintenance of the railway and the Old Oak Common station.

1.2 The site is located at 239 Horn Lane, Acton, London W3 9ED ('the Site'). The detail of land and rights to be acquired by Network Rail are shown in Figure 1.

Figure 1 – Land and Rights of Acquisition



Source: Network Rail

1.3 Under the Transport and Works Act (1992), Network Rail is seeking:

- Powers in connection with a temporary RRV access via a RRAP onto the GWML by use of the land marked as Plots 2, 3 and 4 shown in Figure 1;
- Powers in connection with the use of Plots 2 and 4 as a temporary works compound for use in connection with the temporary RRAP; and
- To secure a permanent right of access to the permanent RRAP located at Plot 1 shown in Figure 1 and accessed through Plot 3.

1.4 The proposals are to provide a temporary and a permanent RRAP that will allow plant, equipment and personnel to access the existing GWML railway. The temporary RRAP is required to allow construction work on the new HS2 Phase One Old Oak Common station and emergency maintenance works up to 2030. The permanent RRAP is required to enable future maintenance of the GWML more generally.

1.5 The proposals include a 5,500sqm compound which will include retaining and utilising the existing building on Plot 2 to support operations (such as welfare facilities, office and storage).

1.6 This Transport Statement sets out the impact of the proposed temporary and permanent use of the Site on the local highway network by comparing the traffic generated by the proposed and existing uses. It also considers the cumulative impact of the construction and operational phases of a proposed mixed-use re-development whilst Network Rail have possession of Plots 2-4.

2. Site Location and Background

Site Location

2.1 The Site is bounded to the north by the GWML railway, to the east by residential and commercial properties and the A4000 Horn Lane, and to the southwest by other residential properties. Part of the Site, comprised of Plots 2-4 ('the Premises'), is currently occupied by a Jewson's builders' merchant. Plot 1 is currently not occupied, and comprises a vegetated area.

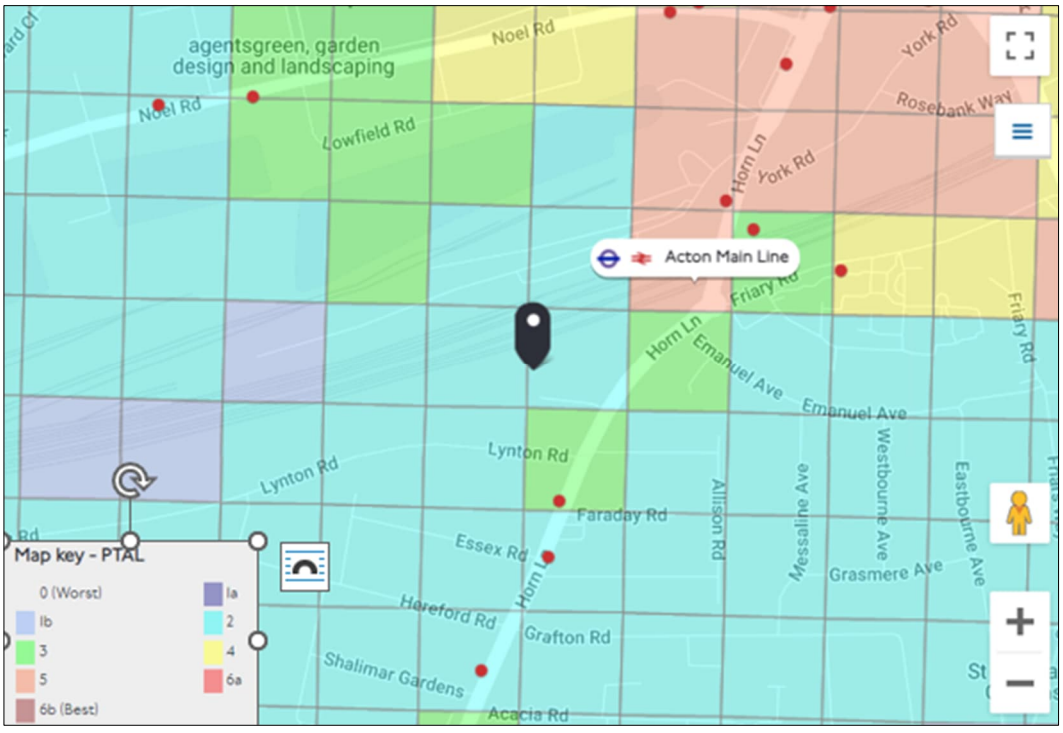
2.2 Vehicle access to the Premises is from the A4000 Horn Lane via a T-junction. The A4000 Horn Lane connects Acton in the south with North Acton in the north. Adjacent to the Site, the A4000 Horn Lane is a single carriageway road varying in width between 7-10m, allowing for some on-street parallel parking in places, and with a 20mph speed limit. It is managed and maintained by the Local Highway Authority, the London Borough of Ealing. There are wide footways along the length of the A4000 Horn Lane, although there is no footway provision from Horn Lane to the Premises.

2.3 The Site abuts the GWML which runs between London Paddington and Bristol Temple Meads and can also provide access to the Old Oak Common station located 1.2km to the east of the Site.

Site Accessibility

2.4 The Site has a Public Transport Accessibility Level (PTAL) of 2, as shown in Figure 2. It should be noted that the PTAL obtained from TfL's WebCAT tool is based on access to public transport during the weekday AM and PM peak periods, whereas the proposed use of the Site will predominantly involve travel to and from the Site late on Saturday night and early on Sunday or Monday morning, when public transport services are less frequent.

Figure 2 – Site PTAL



Source: TfL WebCAT tool (2021 (Forecast); report date 10/10/2023)

2.5 The Site is in close proximity to the following cycleways, although none directly pass the Site:

- Local cycleway 41 – located 700m to the south of the Site;
- Local cycleway 39 – located 800m to the south of the Site;
- Regional cycleway 34 – located 1km to the north of the Site; and

- Local cycleway 40 – located 1.3km to the north-west of the Site.

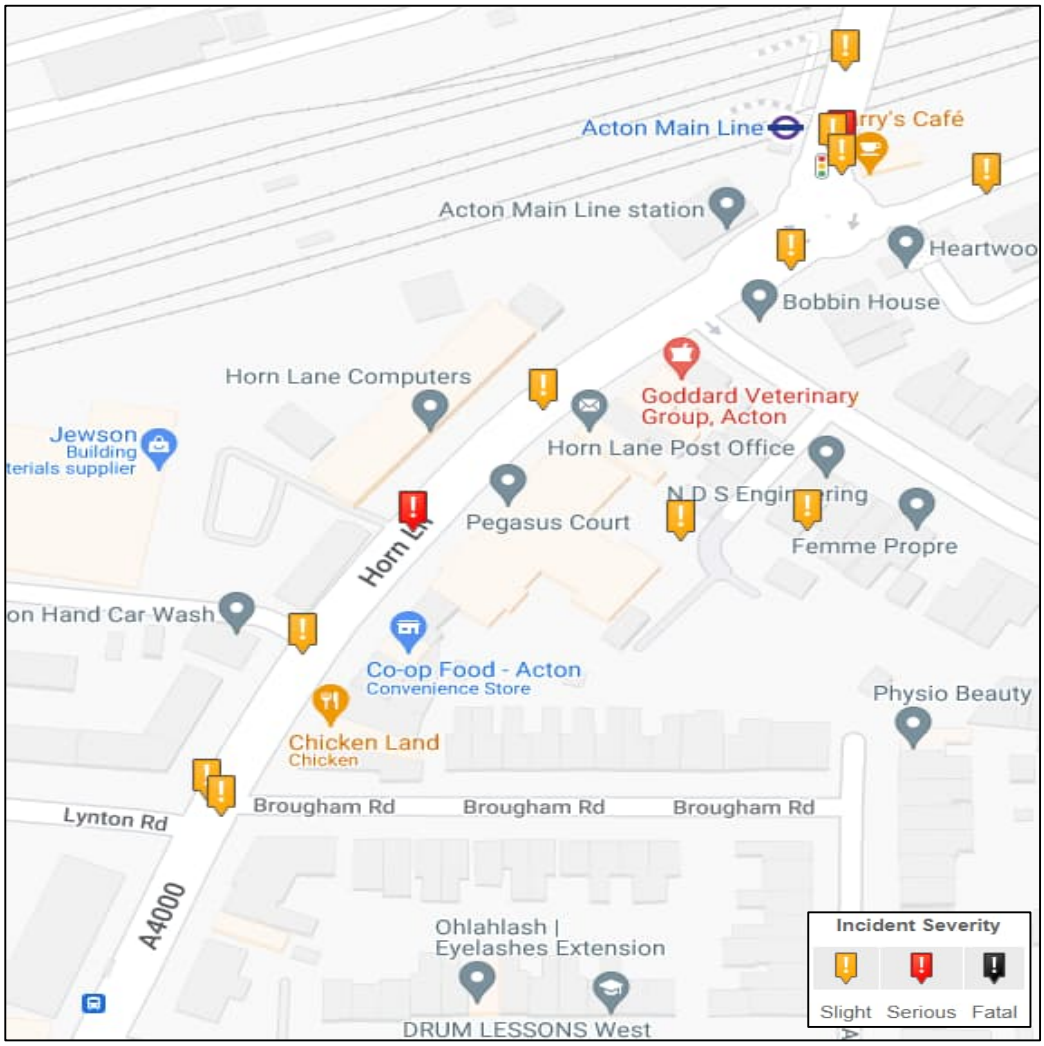
2.6 Acton Main Line station is situated approximately 100m north-east of the Site and is served by the Elizabeth Line with trains every 15 minutes in each direction between Abbey Wood and Heathrow Terminal 4.

2.7 The closest London Underground station to the Site is North Acton, approximately 1.1km to the north, or a 15-minute walk. North Acton is served by the Central Line. Ealing Common station is approximately 1.9km to the west of the Site and is served by the District and Piccadilly lines.

2.8 Bus routes 266 (Acton - Brent Cross), 440 (Turnham Green - Wembley) and N266 (Hammersmith - Brent Cross) run along Horn Lane. The closest bus stop to the Site is approximately 130m to the south of the Site.

2.9 Road collision data for the section of Horn Lane in vicinity of the Site for the most recent five years' available (2017-2021) is shown in Figure 3.

Figure 3 – Collision Study Area



Source: Crashmap.co.uk

2.10 A total of six collisions were recorded within 150m of the Site access on Horn Lane. One was classified as a serious collision with the remaining five classified as slight. There were no fatal collisions that occurred in vicinity of the Site during this time period and no clusters of collisions were identified.

Proposed Site Re-development

2.11 A full planning application (ref: 22/5069/FUL) was submitted by the freehold owner of the Premises, Bellaview Properties Ltd and Builder Dept Ltd, to the London Borough of Ealing for the following mixed-use scheme:

"Construction of a building ranging in height from 6 to 15 storeys, to provide builders merchants (Use Class Sui Generis) at ground and first floor level, and 185 self-contained residential units (Use Class C3) and associated amenity space above; hard and soft landscaping works; provision of car and cycle parking; works to provide means of access for both pedestrians and vehicles from Horn Lane and all other works incidental to the development. (Following demolition of existing builders merchants)"

(Planning Application).

2.12 A resolution to grant planning permission to the Planning Application was passed on 19 July 2023, subject to completion of a legal agreement. The resolution also recommends that the final decision is delegated to the Head of Development Management, following consultation with the Chair of Planning Committee to ensure that any land use planning considerations identified by the Health and Safety Executive have been adequately addressed.

2.13 The Planning Application included a Transport Assessment (TA) prepared by Velocity Transport Planning Limited (Velocity) ('*227-239 Horn Lane, Acton Transport Assessment'*; dated November 2022) which states that the development is due to be occupied by Q2 2025 and identifies the impacts of the development on the local transport networks.

2.14 A Transport Assessment Addendum (TAA) prepared by Velocity (*'227-239 Horn Lane, Acton Transport Assessment Addendum Technical Note'*; dated May 2023) was also submitted as part of the Planning Application and identifies the impacts of minor changes to the submitted scheme. The minor changes relate to a change in the mix of residential unit types (noting the overall number of units is unchanged) and a minor reduction in the floor space (approximately 40sqm) of the builders' merchants.

2.15 In addition, Velocity also prepared an Outline Construction Logistics Plan (*'227-239 Horn Lane, Acton Outline Construction Logistics Plan'*; dated November 2022) (CLP) and a Draft Delivery and Servicing Plan (*'227-239 Horn Lane, Acton Draft Delivery and Servicing Plan'*; dated November 2022) (DSP) along with the Planning Application.

2.16 The TA includes results of an Automatic Traffic Count (ATC) undertaken at the Premises' access in December 2021, and the survey data has been referenced in the following sections to compare trip generation for the current and proposed uses of the Premises.

3. Trip Generation

Existing Trip Generation – Velocity December 2021 Survey

3.1 The Premises is currently occupied by a Jewson's builders' merchants. Opening hours are Monday to Friday 06:30-17:00hrs and Saturday 08:00-12:00hrs. The builders' merchants is closed on Sundays.

3.2 As part of the Planning Application for the proposed mixed-use scheme submitted by Bellaview Properties Ltd and Builder Depot ltd, an ATC survey was undertaken at the Site access for seven consecutive days in December 2021. The exact dates of the survey are not stated in the TA.

3.3 The results of the ATC are summarised in Table 1.

Table 1 – Existing Site Trip Generation – December 2021

Mode	AM Peak Hour (08:00-09:00hrs)			PM Peak Hour (17:00-18:00hrs)			Total Daily Two-way Trips
	Arrivals	Departures	Two-Way	Arrivals	Departures	Two-Way	
Motorcycles	0	1	1	0	0	0	6
Car/LGV	10	10	20	1	2	3	144
HGV	3	2	5	0	0	0	8
Total	**13**	**13**	**25**	**1**	**2**	**3**	**158**

Source: Table 5-6 of the mixed-use scheme TA

3.4 The mixed-use scheme TA prepared by Velocity also provides the following summary of vehicle movements at the Site access:

- *948 two-way movements were recorded over the week;*
- *Average of 158 two-way movements per day (78 inbound and 81 outbound); and*
- *Average of 8 two-way HGV movements per day.*

Existing Trip Generation – AECOM November 2022 Survey

3.5 A report was prepared by AECOM ('*Jewson CPO Support – Traffic Assessment*'; dated November 2022) which presents the results of a traffic survey of the type and volume of vehicle movements generated by the existing use of the Premises. A copy of the report is provided in Appendix A.

3.6 Manual Classified Counts (MCCs) were undertaken at the Horn Lane / Site access junction on Wednesday 2nd November 2022 between 07:00-10:00hrs to cover the weekday network morning peak period, and between 16:00-18:00hrs on the same day for the evening peak period. This identified the following vehicle movements by mode:

Table 2 – Existing Site Trip Generation – November 2022

Mode	AM Peak Period (07:00-10:00hrs)			PM Peak Period (16:00-18:00hrs)		
	Arrivals	Departures	Two-Way	Arrivals	Departures	Two-Way
Motorcycle	0	0	0	1	1	2
Car	7	6	13	4	10	14
LGV	12	15	27	3	2	5
HGV	2	5	7	0	0	0
Cycle	0	0	0	0	0	0
Total	**21**	**26**	**47**	**8**	**13**	**21**

3.7 The results show that during the 5-hour period of the survey there were 68 two-way vehicle movements, or an average of approximately 14 two-way vehicle movements per hour. Based on a 10.5 hour day (weekday opening hours are 06:30 to 17:00hrs). This equates to a daily total of approximately 145 two-way trips, which is consistent with the average daily total obtained from the Velocity 2021 survey (158) undertaken in December 2021 (Table 1).

3.8 A total of 7 two-way HGV movements were recorded over the 5 hours of the survey, the majority occurring in the AM peak period, which is also consistent with the results of the 2021 survey. This equates to a daily total of approximately 19 two-way HGV movements, equating to 13% of total movements. This is slightly higher than the 8 two-way HGV movements, equating to 5% of total movements recorded in the Velocity 2021 survey, however gives a sense of validation to both datasets given the small margin.

3.9 AECOM's survey data has also been analysed to determine the vehicle movements during the weekday AM and PM peak hours:

Table 3 – Existing Peak Hour Movements – November 2022

Mode	AM Peak Hour (08:00-09:00hrs)			PM Peak Hour (17:00-18:00hrs)		
	Arrivals	Departures	Two-Way	Arrivals	Departures	Two-Way
Motorbike	0	0	0	1	1	2
Car	4	2	6	1	4	5
LGV	5	2	7	1	1	2
HGV	0	2	2	0	0	0
Cycle	0	1	1	0	0	0
Total	**9**	**7**	**16**	**3**	**6**	**9**

3.10 The results demonstrate that the Site currently generates 15 two-way vehicle trips (i.e. excluding cycles) in the AM peak hour and 9 two-way vehicle trips in the PM peak hour.

Road Rail Access Trip Generation

Temporary RRAP – Weekend Possession

3.11 It is anticipated that the temporary RRAP will provide access to the Mains tracks of the GWML and will typically be used on alternate weekends. There may be periods where the RRAP will be used on consecutive weekends but this is likely to be sporadic.

3.12 The following vehicle movements are anticipated for a weekend rail possession:

- 5 low loaders carrying 10 Road Rail Vehicles (RRV) per weekend (each low loader can carry 2 RRVs), likely to drop-off the RRVs on Friday or Saturday with vehicles arriving and departing during the daytime and return to pick-up the RRVs on Monday with vehicles arriving and departing during the daytime;
- 2 lorry / flatbed deliveries to bring materials, anticipated to arrive / depart weekend daytime;
- 8 vans / cars per shift (3 shifts in a 29-hour possession period), forecast to arrive in the hour before the shift starts and depart in the hour after the shift ends; and
- 8 minibuses per shift (3 shifts in a 29-hour possession period), likely to arrive in the hour before the shift starts and depart in the hour after the shift ends.

3.13 In summary, during a weekend possession there is forecast to be the following two-way vehicle movements:

Table 4 – Temporary RRAP - Weekend Possession Vehicle Movements

Mode	Weekend (Friday – Monday)		
	Arrivals	Departures	Two-Way
HGV	12	12	24
Car/Minibus	48	48	96
Total	**60**	**60**	**120**

3.14 During temporary weekend possessions the maximum number of HGV movements per day (12 two-way movements is similar to that recorded in the December 2021 survey (8 two-way movements). Over a week, there would be a significant reduction when compared to the current use in both total vehicle movements (from 948 to 120) and total HGV movements (from 48 to 24).

3.15 The 5 low loaders are anticipated to drop-off RRVs on Friday or Saturday during the daytime and return to pick-up the RRVs on Monday daytime and are therefore likely to arrive and depart outside the network AM and PM peak hours. This will be managed through the Traffic Management Plan (see chapter 5 for further details). Staff arrivals and departures will occur from late Saturday night to early Monday morning, and therefore during quieter periods on the highway network and avoiding the weekday network peaks.

3.16 Based on the above, the impact on the highway network is considered to be negligible during temporary weekend rail possessions.

Temporary RRAP – Midweek Possession

3.17 It is envisaged that the temporary RRAP may occasionally be used for midweek night-time track access. In these instances, it is unlikely that any HGV / flatbed deliveries will be required, but the works will typically generate the following vehicle movements:

- 6 vans / cars per shift, likely to arrive in the hour before the shift starts and depart in the hour after the shift ends; and
- 3 minibuses per shift, anticipated to arrive in the hour before the shift starts and depart in the hour after the shift ends.

3.18 In summary, during a midweek possession there is forecast to be the following two-way vehicle movements:

Table 5 – Temporary RRAP - Midweek Possession Vehicle Movements

Mode	Weekday		
	Arrivals	Departures	Two-Way
HGV	0	0	0
Car/Minibus	9	9	18
Total	**9**	**9**	**18**

3.19 Staff arrivals and departures are likely to occur on separate days and outside the network AM and PM peak hours and occur infrequently. Therefore, the impact of midweek possessions on the highway network is considered to be negligible.

Temporary RRAP – Midweek Non-Possession

3.20 There may be occasions during the week when possession of the railway will not be required but general compound activities will take place. This would typically generate:

- 5 cars; and
- 1 HGV, likely to arrive/depart outside the network peak hours.

3.21 In summary, during a midweek non-possession there would be the following two-way vehicle movements:

Table 6 – Temporary RRAP - Midweek Non-Possession Vehicle Movements

Mode	Weekday		
	Arrivals	**Departures**	**Two-Way**
HGV	1	1	2
Car/Minibus	5	5	10
Total	**6**	**6**	**12**

3.22 The impact on the highway network of the level of traffic generated by midweek non-possessions is considered to be negligible.

Permanent Use

3.23 The proposals seek to retain access through the Premises to Plot 1 which will provide access to the railway for future maintenance. This will be for occasional use only, with vehicle movements likely to occur outside the network peak hours. It is not possible to set out the vehicle type and number of movements given the infrequent use and nature of maintenance works required, however it is anticipated that this will be minimal. Therefore, the impact of permanent use on the highway network is considered to be negligible.

4. Impact Analysis

RRAP Impacts

4.1 Based on the survey data at the Site, the current use of the Premises generates approximately 150 two-way vehicle movements a day and over 900 two-way vehicle movements a week. In the November 2022 survey, an average of 15 and 9 two-way vehicle movements were recorded in the weekday AM and PM peak hours respectively.

4.2 The proposed use as a temporary RRAP will only be operational at the weekend with occasional midweek night-time use. For a weekend possession, approximately 110 two-way movements would be generated, of which 14 two-way movements would be HGVs. Very few (if any) of these trips are anticipated to occur during the weekday AM and PM peak hours. Weekend possessions are expected to occur on alternate weekends.

4.3 Overall, the proposed change of use from a builders' merchant to a construction compound required for the temporary RRAP would result in a significant reduction in weekly vehicle movements, particularly during the weekday AM and PM peak periods. Therefore, the proposed use would have a net beneficial impact on the operation of the local highway network.

4.4 In terms of future use of Plot 1 for a permanent RRAP, given the infrequent nature of the proposed use and nature of the maintenance works required, it is not possible to confirm the number of vehicle movements likely to be generated. However, the vehicle movements are expected to occur outside the network peak hours and therefore the impact of the permanent RRAP on the highway network is considered to be negligible.

4.5 In addition to the above, vehicle tracking of a low loader has been undertaken by the South Rail Systems Alliance (formed of Network Rail, Colas and AECOM), which demonstrates the largest anticipated vehicle is able to manoeuvre in and out of the access as well as within the Site. The vehicle tracking is provided within Appendix B.

Cumulative Impacts

4.6 At the date of this Statement, discussions are ongoing between Network Rail and Bellaview Properties Ltd, regarding the potential to reach agreement whereby the construction of the proposed mixed-use development can proceed in parallel with the use of the Premises for the temporary RRAP and compound. This section identifies the potential impacts during two scenarios:

- Firstly when demolition and construction works for the Bellaview Scheme would be ongoing (between 2023-2025); and
- Secondly when the proposed mixed-use development would be operational (2026 onwards).

Temporary RRAP use and Construction of the Mixed-Use Development

4.7 The CLP submitted with the Planning Application for the mixed-use development estimates an overall 18-month construction programme that would start in Q4 2023 and end in Q2 2025. Construction working hours would be limited to Monday to Friday 08:00-18:00hrs and Saturday 08:00-13:00hrs with no working on Sundays, bank holidays or public holidays. The number of vehicles anticipated to be required during the construction period is not included in the CLP. However, the CLP sets out a framework for managing construction traffic, with a detailed CLP to be secured via a planning condition and to be approved by the planning authority prior to commencement of work on the Premises.

4.8 The RRAP possessions would typically take place on alternate weekends from midnight on Saturday to early on Monday morning. There may also be occasional midweek possessions which take place from midnight to early the following morning. Most vehicles would be likely to arrive before and depart after the possession period with few vehicle movements likely to occur during the daytime.

4.9 The majority of the trips generated by the temporary RRAP and construction of the mixed-use development would therefore not coincide. Whilst there may be a few vehicle movements associated with both the RRAP and construction of the mixed-use development occurring simultaneously on weekdays, this would be likely

to occur (if at all) outside the network peak hours and the impact on the local highway is expected to be negligible.

Temporary RRAP use and Operational Phase of Mixed-Use Development

4.10 The TA submitted with the Planning Application states that occupation will occur in Q2 2025, while RRAP possession is expected to continue to the end of 2029.

4.11 The anticipated trip generation of the mixed-use development is set out in Table 7 (extracted from the TA).

Table 7 – Mixed-Use Development Total Trip Generation

Land Use	Mode	AM Peak Hour (08:00-09:00hrs)			PM Peak Hour (17:00-18:00hrs)			Total Daily Two-Way Trips
		Arr	Dep	Two-Way	Arr	Dep	Two-Way	
Builders Merchant	Car/LGV	14	14	29	1	3	4	207
	HGV	4	3	7	0	0	0	11
Residential	Car Driver	0	0	0	0	0	0	0
	Car Passenger	0	1	1	1	0	1	14
Residential Servicing	Car/LGV	1	1	2	1	1	2	24
	HGV	0	0	0	0	0	0	2
Total		**19**	**19**	**39**	**3**	**4**	**7**	**258**

Source: Summary of Tables 5-12, 5-13 and 5-14 in TA submitted with mixed-use scheme planning application

4.12 Assuming the builders' merchant opening times are the same as the current use, this would be operational Monday to Friday 06:30-17:00hrs and Saturday 08:00-12:00hrs. The residential development is proposed to be car-free with only six blue badge bays and therefore there would be limited vehicle trips associated with this use, as shown in Table 7.

4.13 The RRAP possessions would typically take place on alternate weekends from midnight on Saturday to early hours on Monday morning. There may also be occasional midweek possessions which take place from midnight weekday to early hours of weekday morning. Most vehicles would be likely to arrive before and depart after the possession period with few trip movements likely to occur within the daytime.

4.14 Whilst there may be a few vehicle movements associated with both RRAP and Bellaview operation occurring simultaneously during weekday daytimes, the impact of this is considered to be limited and occur outside of network peak hours and therefore to be negligible.

5. Management of Traffic

5.1 It is anticipated that a Traffic Management Plan (TMP) will be secured by means of a planning condition attached to any planning permission for use as a temporary RRAP use The TMP will be submitted to and approved by the Local Planning Authority prior to commencement of any works on-Site.

5.2 The TMP will set out measures to manage vehicle movements to minimise impacts on local residents and businesses and on the wider highway network, and is likely to include the following information:

- Operating hours;
- Proposed routing of HGVs and management of their movement into and out of the site by a qualified and certificated banksman;
- Access arrangements and arrival/departure times of HGVs (to minimise the impact on the surrounding highway network);
- Travel initiatives for site staff;
- Parking provision for site staff;
- Engagement with local residents and businesses; and
- Contact details of the Project Manager and Site Supervisor responsible for on-site works.

6. Summary & Conclusion

6.1 AECOM was appointed by Network Rail to prepare a Transport Statement to inform a temporary planning application to provide Network Rail with:

- A temporary RRAP onto the GWML railway to enable the delivery of Old Oak Common station; and
- Permanent RRV access onto the GWML railway to enable future maintenance of the railway and the Old Oak Common station.

6.2 The proposals are to provide a temporary and a permanent RRAP that will allow plant, equipment and personnel to access the existing GWML railway. The temporary RRAP is required to allow construction work on the new Old Oak Common station and emergency maintenance works up to 2030. The permanent RRAP is required to enable future maintenance of the GWML more generally. The proposals include a 5,500sqm compound which will include retaining and utilising the existing building on site to support operations (such as welfare facilities, office and storage).

6.3 This Transport Statement has demonstrated that the impacts of the proposed temporary and permanent use of the Site by Network Rail on the local highway network is considered to be negligible as it is anticipated to result in a significant reduction in weekly vehicle movements when compared to the existing use of the Site.

6.4 A full planning application for re-development of the Premises was submitted by Bellaview Properties Ltd and Builder Dept Ltd and is pending determination at the date of this Transport Statement.

6.5 Discussions are ongoing with Bellaview Properties Ltd to seek an agreement whereby the proposed re-development of the Premises by Bellaview can proceed in parallel with use of the Site for a temporary and permanent RRAP by Network Rail. The cumulative impact of this on the highway network has been assessed and is considered negligible.

6.6 It is proposed that vehicle movements associated with the RRAP will be managed through a Traffic Management Plan, to be secured by way of a planning condition attached to any planning permission.

Appendix A – Jewson CPO Support Report

Jewson CPO Support

Traffic Assessment

Project number: 60679687

14 November 2022

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Quality information

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Project Title:	–Jewson CPO support		
Site Address:	239 Horn Ln, London W3 9ED		
Project Start Date:	01 November 2022	**Project End Date**	2022/11/04

1. Project Description

Network Rail (NR) have approached the South Rail Systems Alliance (SRSA) to provide support on an application for a Compulsory Purchase Order (CPO). In order to support the application, a Transport Statement is required which includes a traffic assessment to identify the type and volume of vehicles attracted and generated by Jewson Yard (239 Horn Lane, Acton, London, W3 9ED). A map showing the location of Jewsons Yard (the Site) is shown in Figure 1.

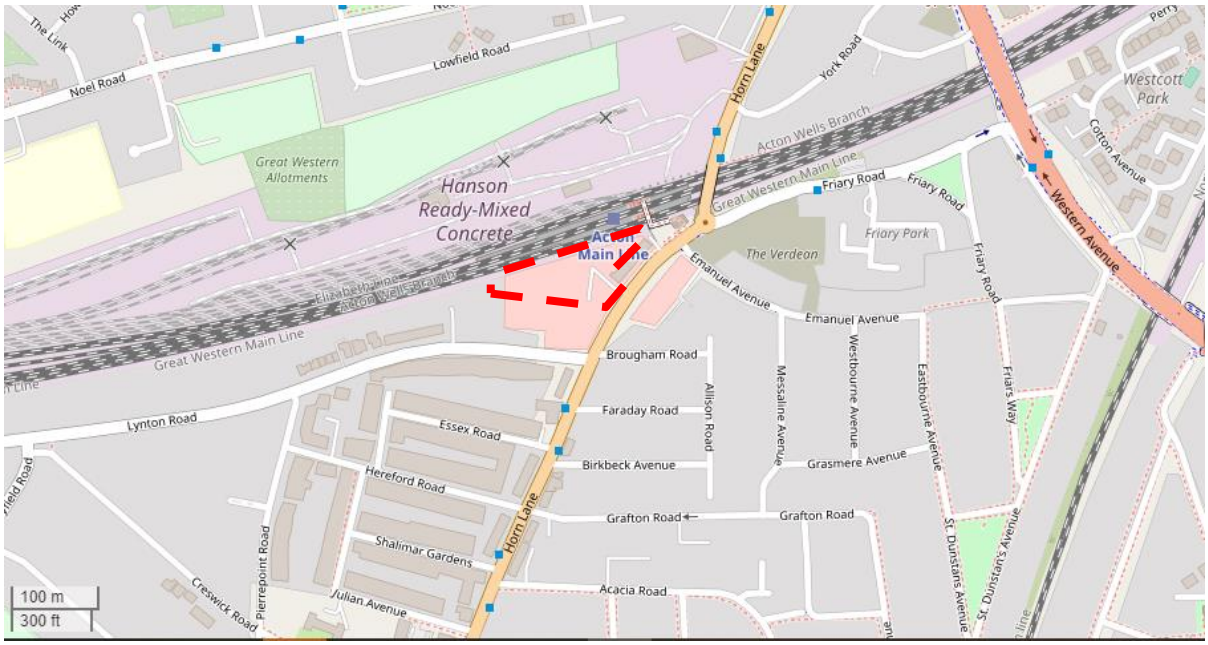


Figure 1 - Site location (Extracted from OpenStreetMap)

2. Methodology of Work

Manual Classified Counts (MCC) was undertaken at the junction of Horn Lane / access road to the Site (See Figure 1). The counts provide turning flows of the junction on 2nd of November 2022 (Wednesday) during 07.00 – 10.00 and 16.00 – 18.00 which was agreed with NR. Given that there is no available existing data or future forecast, only the survey data is presented in this report.

3. Summary of results

The survey results during morning peak and afternoon/evening peak periods are summarised in Table 1 and Table 2 respectively. The survey data in every 15-min interval can be found in Appendix A.

Table 1- Morning Peak Period (07:00-10:00)

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	0	0	0	0
Car	2	4	2	5	13
LGV	6	9	8	4	27
HGV	4	1	2	0	7
Cycle	0	0	0	0	0
Total	12	14	12	9	47

During the morning peak period, 47 vehicles were observed in total comprising of 57.4% LGVs, 27.7% private vehicles and 14.9% HGVs. The average flow was 16 vehicles / hour. Flows of total-in and total-out were similar during the site operating hours (i.e. 06:00-17:00). No motorbike and cycle were recorded.

Table 2 – Evening Peak Period (16:00-18:00)

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	1	0	1	2
Car	2	8	3	1	14
LGV	0	2	1	2	5
HGV	0	0	0	0	0
Cycle	0	0	0	0	0
Total	2	11	4	4	21

During the evening peak period, there were 21 vehicles entering / exiting the site in total which was less than the total vehicles observed in the morning peak period. Note that there was an hour less in the evening survey period than the morning peak period and the Site was closed for business after 17:00.

Amongst the total flows, there were 66.7% of private vehicles, 23.8% of LGVs and 9.5% of motorbikes. The average flow was 11 vehicles/ hour. In term of trips of attraction and generation, there were much more numbers of private vehicles left the site than entering the site. No HGV and cycle were recorded.

Appendix A – Survey Data in 15-min Intervals

Morning peak period (07:00-10:00)

07:00-07:15

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	0	0	0	0
Car	0	1	1	0	2
LGV	0	0	0	0	0
HGV	2	0	0	0	2
Cycle	0	0	0	0	0

07:15-07:30

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	0	0	0	0
Car	0	1	0	1	2
LGV	0	1	0	0	1
HGV	1	1	0	0	2
Cycle	0	0	0	0	0

07:30-07:45

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	0	0	0	0
Car	0	0	0	0	0
LGV	0	0	0	0	0
HGV	1	0	0	0	1
Cycle	0	0	0	0	0

07:45-08:00

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	0	0	0	0
Car	0	0	0	0	0
LGV	0	0	1	0	1
HGV	0	0	0	0	0
Cycle	0	0	0	0	0

08:00-8:15

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	0	0	0	0
Car	1	0	0	0	1
LGV	1	0	0	0	1
HGV	0	0	0	0	0
Cycle	0	0	0	0	0

08:15-08:30

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	0	0	0	0
Car	0	0	0	1	1
LGV	0	0	2	0	2
HGV	0	0	0	0	0
Cycle	0	0	0	0	0

08:30-08:45

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	0	0	0	0
Car	0	0	0	1	1
LGV	0	2	0	0	2
HGV	0	0	0	0	0
Cycle	1	0	0	1	2

08:45-09:00

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	0	0	0	0
Car	1	0	1	1	3
LGV	0	1	2	1	4
HGV	0	0	0	0	0
Cycle	0	0	0	0	0

09:00-09:15

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	0	0	0	0
Car	0	1	0	0	1
LGV	2	0	3	1	6
HGV	0	0	0	0	0
Cycle	0	0	0	0	0

09:15-09:30

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	0	0	0	0
Car	0	0	0	0	0
LGV	0	1	0	0	1
HGV	0	0	0	0	0
Cycle	0	0	0	0	0

09:30-09:45

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	0	0	0	0
Car	0	1	0	0	1
LGV	2	2	0	1	5
HGV	0	0	2	0	2
Cycle	0	0	0	0	0

09:45-10:00

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	0	0	0	0
Car	0	0	0	1	1
LGV	1	2	0	1	4
HGV	0	0	0	0	0
Cycle	0	0	0	0	0

Afternoon/evening peak period (16:00-18:00)
16:00-16:15

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	0	0	0	0
Car	0	2	1	0	3
LGV	0	0	0	0	0
HGV	0	0	0	0	0
Cycle	0	0	0	0	0

16:15-16:30

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	0	0	0	0
Car	0	1	1	0	2
LGV	0	0	1	1	2
HGV	0	0	0	0	0
Cycle	0	0	0	0	0

16:30-16:45

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	0	0	0	0
Car	0	2	1	0	3
LGV	0	1	0	0	1
HGV	0	0	0	0	0
Cycle	0	0	0	0	0

16:45-17:00

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	0	0	0	0
Car	0	1	0	0	1
LGV	0	0	0	0	0
HGV	0	0	0	0	0
Cycle	0	0	0	0	0

17:00-17:15

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	0	0	0	0
Car	1	0	0	0	1
LGV	0	0	0	0	0
HGV	0	0	0	0	0
Cycle	0	0	0	0	0

17:15-17:30

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	0	0	0	0
Car	1	1	0	1	3
LGV	0	0	0	0	0
HGV	0	0	0	0	0
Cycle	0	0	0	0	0

17:30-17:45

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	1	0	1	2
Car	0	0	0	0	0
LGV	0	0	0	0	0
HGV	0	0	0	0	0
Cycle	0	0	0	0	0

17:45-18:00

Turning Movements / Vehicle type	Right turn out	Left turn out	Right turn in	Left turn in	Total
Motorbike	0	0	0	0	0
Car	0	1	0	0	1
LGV	0	1	0	1	2
HGV	0	0	0	0	0
Cycle	0	0	0	0	0

aecom.com

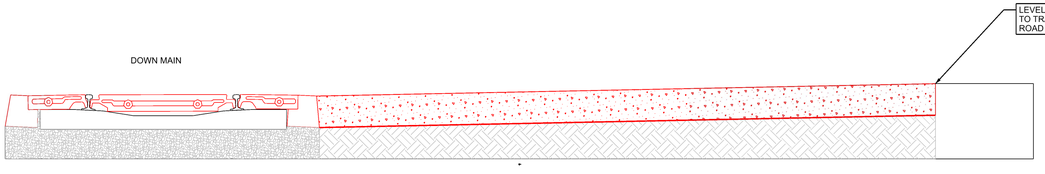
Appendix B – Vehicle Tracking

Drawing Number
176215-SRS-P2R-MLN1-DRG-ECV-601001

NEW J07/01A OLE STRUCTURE
TO READING
UP RELIEF
DOWN RELIEF
UP MAIN
DOWN MAIN
PERMANENT LOCATION OF JEWSONS RRAP
J07/01 OLE STRUCTURE
J06/19 OLE STRUCTURE
EXISTING OLE PORTAL
A TWO TRACK TEMPORARY RRAP IS TO BE PROVIDED TO THE UP AND DOWN MAIN. RRAP TO BE DESIGNED TO AVOID CLASHES WITH EXISTING LINESIDE EQUIPMENT AND ACTON STATION PLATFORMS
PROPOSED ARCMO BARRIER TO BE INSTALLED, PROTECTING THE EXISTING TRACKSIDE EQUIPMENT
AREA OF EXISTING COMPOUND TO BE MODIFIED TO PROVIDE SAFE ACCESS SLOPE TO RAILWAY LEVEL
MAGENTA VEHICLE TRACKING REPRESENTS ACCESS TO THE PERMANENT RRAP LOCATION
RED VEHICLE TRACKING REPRESENTS VEHICLE ACCESS TO THE TEMPORARY COMPOUND FOR USE OF THE TEMPORARY RRAP
EXISTING OLE PORTAL
FROM PADDINGTON
10000
10800
15747
12796
1000
13190
AREA 1(APPROX 1181m²) TO BE RETAINED FOR PERMANENT RRAP AND MAINTENANCE COMPOUND
AREA 2B - EXISTING OUTDOOR AREA (APPROX 5578m²) ADJACENT RAILWAY TO BE REMAINED CLEAR OF OBSTRUCTIONS FOR ACCESS TO TEMPORARY RRAP.
AREA 2A - EXISTING BUILDING (APPROX 2661m²) TO BE USED AS OFFICES AND INDOOR STORAGE
AREA 2C - EXISTING JEWSONS OUTDOOR COMPOUND (APPROX 3522m²) TO BE USED FOR OUTDOOR STORAGE AND PARKING
EXISTING BOUNDARY WITH RESIDENTIAL FLATS
EXISTING ACCESS FROM HORN LANE
Warehouse
Lynton Terrace
Acton House
SECTION A-A

GENERAL ARRANGEMENT
1:250

PHOTO 1 -
VIEW OF POSITION OF TEMPORARY RRAP FROM ACTON MAIN LINE STATION



SECTION A-A THROUGH JEWSONS TEMPORARY RRAP
1:25

0 5 10 15 20 25m
SCALE 1:250

Legend/Notes

1. ALL DIMENSIONS IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE TO XRAIL09 DATUM WHICH IS 100.000m BELOW ORDNANCE (NEWLYN) LEVEL DATUM.
3. DO NOT SCALE FROM THIS DRAWING.
4. THIS DRAWING IS BASED ON THE FOLLOWING ARCADIS RAIL SYSTEMS MODELS;
   - 152270-25067-P2R-MLN1-MOD-ETR-400310 (TRACK ALIGNMENT)
   - 152270-25067-P2R-MLN1-MOD-ETR-400500 (DRAINAGE)

Colour Key:
- AREA 1 - PERMANENT ROAD RAIL ACCESS POINT
- AREA 2A - TEMPORARY ROAD RAIL ACCESS POINT - EXISTING JEWSON INDUSTRIAL UNIT
- AREA 2B - TEMPORARY ROAD RAIL ACCESS POINT
- AREA 2C - TEMPORARY ROAD RAIL ACCESS POINT - EXISTING JEWSON OUTDOOR STORAGE

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
P01.1	11/10/22	First Issue	HP		

Status: Initial Status WIP
Suitability: S0

NetworkRail

Authorised		Signed: Electronically Signed	Date

Contractor(s): South Rail Systems Alliance

Location: PADDINGTON-BRISTOL-PENZANCE

Type: CAD Drawing	Sub-type: General Arrangement
Role: Civil Engineer	Sub-Role: General
Zone: Paddington to Reading	
Phasing: Proposed	Project Stage: PACE 1 ES3

Region: Western and Wales

Contract No.: 176215

Contract Title: OOC Early Works Package A

Drawing Title:
OOC Early Works Package A
Scheme 6 Asset 1
Jewsons RRAP
General Arrangement Option 1

Designed	K.Stratton-Taylor	Signed: Electronically Signed	Date: 11/10/22
Drawn	H.Powell	Signed: Electronically Signed	Date: 11/10/22
Checked		Signed: Electronically Signed	Date
Approved		Signed: Electronically Signed	Date

Scale(s): As Shown	ELR & Mileage: 0 to 35.1716
Alternative Reference	Sheet: 1 of 2
Drawing Number: 176215-SRS-P2R-MLN1-DRG-ECV-601001	Revision: P01.1

Sheet Size A1+1 594 x 1051

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JD2

227-239 HORN LANE, ACTON

TRANSPORT ASSESSMENT

PROJECT NO. 21/135 DOC NO. D002

DATE: NOVEMBER 2022

VERSION: 1.2

CLIENT: BELLAVIEW PROPERTIES LTD AND BUILDER DEPOT LTD

Velocity Transport Planning Ltd

www.velocity-tp.com

VELOCITY
Transport Planning

DOCUMENT CONTROL SHEET

Document Reference

Project Title	227-239 Horn Lane, Acton
Document Title	Transport Assessment
Project Number	21/135
Document Number	D002
Revision No.	1.2
Document Date	NOVEMBER 2022

Document Review

	Name	Date completed
Prepared By	PM/EN	November 2022
Reviewed By	MP	
Authorised By	MP	

Notes

The document reference number, revision number and date are given on the footer of each page

TABLE OF CONTENTS

FIGURES

TABLES

APPENDICES

1 INTRODUCTION

1.1 APPOINTMENT

1.1.1 This Transport Assessment has been prepared by Velocity Transport Planning on behalf of Bellaview Properties Ltd and Builder Depot Ltd (the Applicants) in support of an application for full planning permission for the redevelopment of 227-239 Horn Lane, Acton, London, W3 9ED (hereafter referred to as 'the Site').

1.1.2 The planning application seeks planning permission for the following development:

> *Demolition of the existing builders' merchants (Sui Generis) and construction of a part-15, 11, 7, and 6-storey building to provide replacement builders' merchants (Sui Generis) at ground floor level, new residential dwellings and associated amenity space at first-floor level and above; hard and soft landscaping works; provision of car and cycle parking; works to provide means of access for both pedestrians and vehicles from Horn Lane and all other works incidental to the development.*

1.1.3 The Site is located on Horn Lane in the London Borough of Ealing, near Acton Main Line station to the north. the Site is currently characterised by low-scale warehouse buildings with a small retail element fronting Horn Lane.

1.1.4 The Proposed Development will provide a replacement builders' merchants at ground floor level, with 185 new homes provided at the upper levels, including a communal residents' garden at the podium level. Car parking would be limited to customer parking for the builders' merchants and blue-badge parking only for the residents. A servicing area for the builders' merchants is also provided. The height of the proposed residential blocks would vary, stepping up to a maximum of 80m AOD (53m above ground level), equivalent to 15 storeys.

1.1.5 This Transport Assessment provides a detailed overview of the Proposed Development and an assessment of it in relation to transport and sustainable travel and how the proposals have been developed in relation to current planning policy and requirements.

1.1.6 Alongside this TA, the following reports will be submitted:

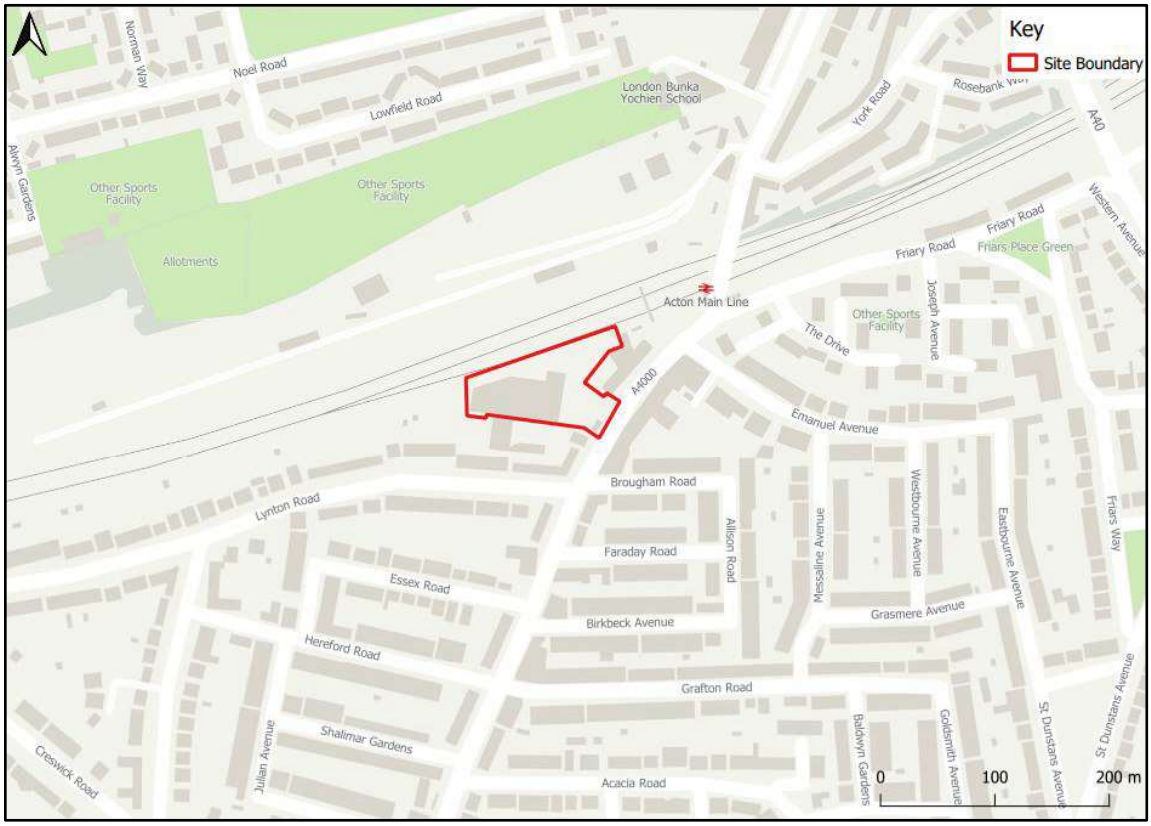
- Draft Framework Travel Plan (TP);
- Draft Delivery & Servicing Plan (DSP);
- Operational Waste Management Strategy;
- Site Waste Management Plan; and
- Outline Construction Logistics Plan (CLP).

1.2 SITE LOCATION

1.2.1 The application Site is southwest of Acton Main Line station and accessed from the A4000 Horn Lane. The Site is bound by railway lines to the north, commercial and residential properties to the southwest and northeast and Horn Lane (A4000) to the southeast.

1.2.2 **Figure 1-1** shows the location of the Site and its surrounding network.

Figure 1-1: Site location and local context



1.3 EXISTING SITE USE

1.3.1 The application Site currently comprises three small retail units associated with the builders' merchant fronting Horn Lane and a builders' merchants Site to the rear, which is leased to Jewson (sui generis land use). The total Site area is 0.64ha (6,400 sqm), with the Jewson warehouse occupying 2,650sqm (GEA) floor space. The remaining area comprises outdoor yard space and a vehicle access route for the adjacent National Rail line and proposed compound. Network Rail has access rights through the Site for maintaining and servicing the rail line; however, it is understood that this takes place infrequently.

1.4 PROPOSED DEVELOPMENT

1.4.1 The proposal seeks to retain the builder's merchants on-Site and provide new residential development comprising 185 flatted units (the 'Proposed Development'). The development description is provided below, while the accommodation schedule is shown in **Table 1-1** below.

> *Demolition of the existing builders' merchants (Sui Generis) and construction of a part-15, 11, 7, and 6-storey building to provide replacement builders' merchants (Sui Generis) at ground floor level, new residential dwellings and associated amenity space at first-floor level and above; hard and soft landscaping works; provision of car and cycle parking; works to provide means of access for both pedestrians and vehicles from Horn Lane and all other works incidental to the development.*

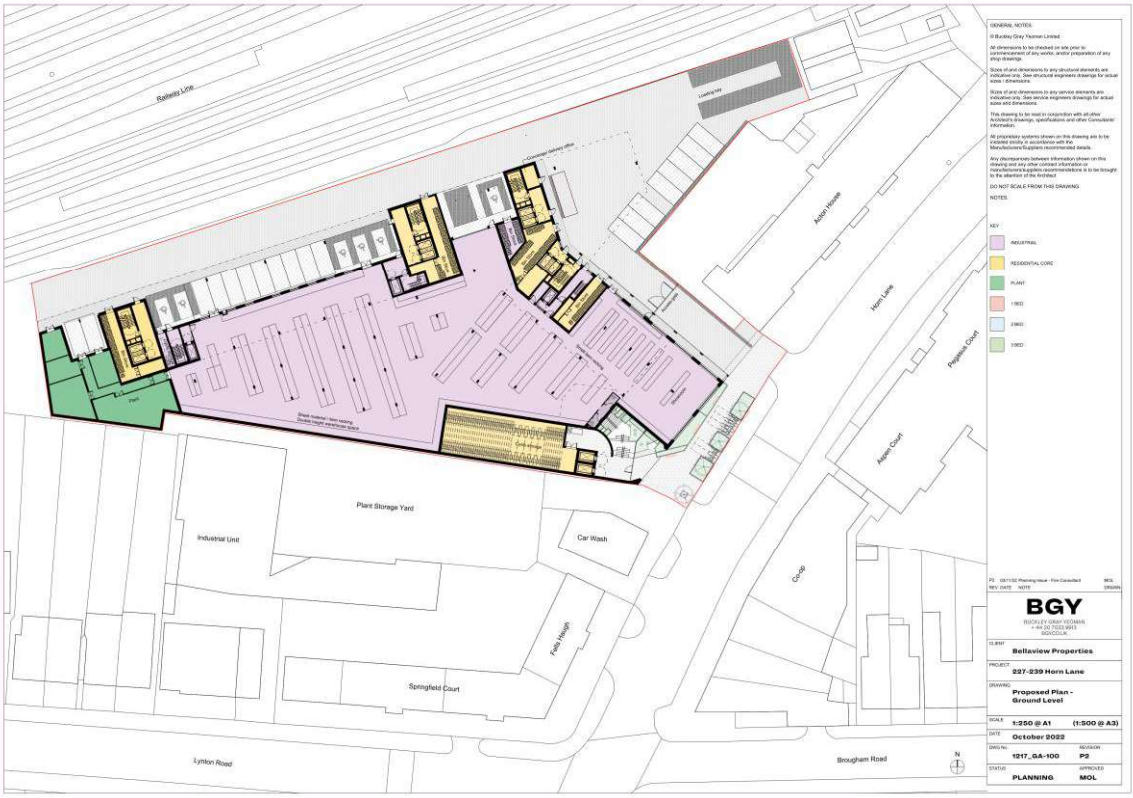
Table 1-1: Proposed Accommodation Schedule

	RESIDENTIAL				BUILDERS' MERCHANT (GIA / GEA)
UNIT SIZE	**1-BED**	**2-BED**	**3-BED**	**TOTAL**	
UNIT TOTAL	86	89	20	**185**	3,735 / 4,316 SQM
UNIT MIX BASED ON HABITABLE ROOMS	35%	49%	16%	**100%**	-

1.4.2 In addition, the development will provide an improved footway in front of the Site, as well as appropriate car parking, cycle parking and servicing facilities in line with London Plan requirements, as discussed later in this document.

1.4.3 **Figure 1-2** below shows the proposed Site layout. Existing and proposed Site layout drawings for the scheme are also provided in **Appendix A**.

Figure 1-2: Proposed Site Layout Plan



WHY IS THE DEVELOPMENT PROPOSED?

1.4.4 The London Plan (March 2021) target for LBE is to deliver 2,157 new homes per year, which is set to accommodate the borough's forecast increase in population to 424,682 by 2050. Therefore, the proposed residential redevelopment will help to address the London Plan and the Mayor's requirements for new homes in the borough.

1.4.5 New London Architecture's Borough Report (2021)[1] outlines that LBE contains a large part of London's biggest builders' merchant area, Park Royal, which supports around 1,700 businesses with 43,100 employees across a range of sectors, including food manufacturing, logistics, film and prop houses, and transport. The Elizabeth Line, which includes five new stations in LBE, will further strengthen transport connectivity across the borough.

1.4.6 Part of the Site is also allocated in LBE's Site Allocations Development Plan Document (DPD). The Site (ACT6) is allocated for commercial, residential or student accommodation land uses. The proposal to retain the builder's merchant element and provide residential above would be supported under the allocation. It is noted that the proximity to Acton Main Line Station would support a low car/car-free scheme on the Site.

1.4.7 The proposed redevelopment has been designed based on the Healthy Streets approach and follows the transport principles of Good Growth (set out in the Mayor's Transport Strategy). Namely, the proposed redevelopment:

- provides good access to public transport and amenities given its proximity to Acton Town Centre;
- encourages people to choose to walk and cycle;
- is car-free except for Blue Badge space and parking for operational uses of the builders' merchant Site element, therefore encouraging carbon-free travel;
- is inclusive and accessible, and
- has a strategy for efficient delivery and servicing.

1.5 WHEN WILL THE PROPOSED DEVELOPMENT BE OPERATIONAL?

1.5.1 A strategy will be developed which sets out the proposals in relation to the construction of the development. The overall strategy is to:

- Ensure the smooth progression of the development;
- Ensure that disruption to the local area is minimised; and
- Ensure the integrated and coherent delivery of development and associated infrastructure.

1.5.2 The Proposed Development is expected to come forward over 18 months. Demolition is anticipated to commence in quarter four (Q4) 2023, construction is to be completed, and the Proposed Development is to be occupied by Q2 2025.

1.6 TRANSPORT DESIGN AND PLANNING PROCESS

1.6.1 This TA has been prepared in accordance with the requirements of the National Planning Policy Framework and Transport for London's Transport Assessment Guidance and is supported by a Framework Travel Plan, Delivery & Servicing Plan, Operational Waste Management Strategy, Site Waste Management Plan and Outline Construction Logistics Plan.

[1] https://nla.london/index.php/members/london-borough-of-ealing

1.6.2 The design development of the proposals has evolved through collaboration with architects and landscape architects, ensuring safe access for pedestrians and cyclists, high-quality cycle parking provisions and new active frontages to facilitate access to the Site.

1.6.3 Prior to the submission of this TA, discussions were held with the highway officers at LBE, for which a Transport Scoping note was submitted. Liaison with TfL was also undertaken to discuss the acceptability of the proposal due to the scheme being GLA-referable.

1.6.4 An Active Travel Zone (ATZ) assessment has been undertaken in line with the Healthy Streets TA requirements. The assessment identifies key journeys within the ATZ surrounding the Site for pedestrians and cyclists and assesses each route against eight of the ten Healthy Street criteria.

1.7 STRATEGIC POLICY DELIVERY

NATIONAL PLANNING POLICY FRAMEWORK (2021)

1.7.1 The National Planning Policy Framework (NPPF) was adopted in July 2018 and revised in July 2021. It sets out the Government's planning policies for England. At its heart, the NPPF sets out a presumption in favour of sustainable development (Paragraph 11).

1.7.2 The NPPF promotes sustainable transport and notes that transport issues should be considered at the earliest stages of development proposals.

1.7.3 Chapter 9 of the NPPF sets out the requirements for promoting sustainable transport, advising that significant development should be focused on locations that are or can be made sustainable by limiting the need to travel and offering a genuine choice of transport modes. The NPPF advises that planning policies should support an appropriate mix of uses across an area and within larger-scale Sites, to minimise the number and length of journeys needed for employment, shopping, leisure, education and other activities. Paragraphs 104, 106, 107 and 112 are of particularly relevance.

1.7.4 This TA has been produced pursuant to paragraph 113 of the NPPF, which requires that all developments that will generate significant amounts of movement be supported by a TA so that the likely impacts of the proposal can be assessed.

1.7.5 The Proposed Development supports the NPPF through the following:

- The Site is located in an area with excellent public transport access;
- Promoting sustainable transport by providing attractive new pedestrian spaces, a 'car-free' approach to car parking and high-quality cycle parking requirements to help maximise alternative modes of transport;
- Not having significant adverse impacts on the transport network or highways safety;
- This TA demonstrates that efficient delivery of goods has been considered through the provision of dedicated loading/unloading off the street;
- The planning application is supported by a TP, demonstrating compliance with Paragraph 113 of the NPPF. The TP aims to mitigate the increase in person trips generated by the Site and encourage sustainable travel in line with or exceeding the Mayor's transport strategy target of 80% of all trips in London to be made on foot, by cycle or using public transport by 2041.

MAYOR'S TRANSPORT STRATEGY (2018)

1.7.6 The Mayor's Transport Strategy (MTS) was published in March 2018 and sets out the Mayor's policies and proposals to reshape transport in London over the next 25 years. The central aim of the MTS is for 80% of all trips in London to be made on foot, by cycle or using public transport by 2041.

1.7.7 Three key themes are at the heart of the strategy:

1. Healthy Streets and healthy people

The MTS promotes a new Healthy Streets approach to reduce car dependency and increase active, efficient and sustainable travel. Streets environments should be designed to encourage walking and cycling to assist Londoners with staying healthy.

2. A good public transport experience

For longer trips, public transport is the most efficient way for people to travel and should be attractive to facilitate a mode shift away from car use. Improvements to the public transport network are outlined, including new infrastructure.

3. New homes and jobs

1.7.8 The MTS sets out Good Growth principles for the delivery of new homes and jobs that use transport. Transport has a role to play in delivering growth that satisfies the following principles:

- Good access to public transport
- High-density, mixed-use developments
- People choose to walk and cycle
- Car-free and car-lite places
- Inclusive, accessible design
- Carbon-free travel
- Efficient freight

1.7.9 The Proposed Development would deliver the transport principles of Good Growth through:

- Providing high-density residential development in an appropriate location. The Outer London location provides many local facilities and amenities, which will mean shorter journeys to key destinations and further encourage travel by foot and car-free lifestyles;
- Its location to public transport;
- Facilities that will encourage walking and cycling, such as landscaped access and cycle parking;
- A 'car-free' approach, except for operational and Blue Badge parking, can encourage a switch to carbon-free travel modes such are walking and cycling; and
- Inclusive and accessible design enables access for everyone travelling to and from the development.

LONDON PLAN (MARCH 2021)

1.7.10 The London Plan is part of the statutory development plan and aims to ensure that London's transport is easy, safe, and convenient for everyone and actively encourages more walking and cycling.

1.7.11 Many points in the London Plan support the principle of connectivity in London. For instance, in Chapter 1: Planning London's Future – Good Growth, under the heading 'Building strong and inclusive communities, Paragraph 1.1.4. states:

> '*Delivering good quality, affordable homes, better public transport connectivity, accessible and welcoming public space, a range of workspaces in accessible locations built forms that work with local heritage and identity, and social, physical and environmental infrastructure that meets London's diverse needs is essential if London is to maintain and develop strong and inclusive communities.*'

1.7.12 The Proposed Development has been reviewed against the policies of the London Plan 2021 and shown in **Table 1-2.**

Table 1-2: The London Plan Compliance

POLICY	REQUIREMENTS	DEVELOPMENT CONTEXT
T1	Development proposals should target 80% of all trips in London to be made by foot, cycle, or public transport by 2041. 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.	. The Site is well located in respect of the local and strategic cycle network, and it is expected that the routes will be used daily by residents for regular journeys.
T2	Policy T2 relates to 'Healthy Streets' and seeks development that delivers patterns of land use that facilitate residents making shorter, regular trips by walking or cycling. The Healthy Streets Approach recognises the importance of promoting and facilitating active modes of travel by making developments permeable and highly connected by foot and cycle, with reduced vehicle dominance.	The Proposed Development is car-free with the exception of three Blue Badge parking spaces (i.e., 3%) and operational parking spaces for the builders' merchant element. Limiting parking is one of the most effective ways to encourage sustainable travel throughout the lifespan of the development
T3	Policy T3 states that development proposals should provide adequate protection for transport schemes, not remove vital transport functions or limit their necessary expansion without suitable alternative provisions. Proposals should also support capacity, connectivity and other improvements to the bus network, ensuring it can operate efficiently.	The Proposed Development is set back from the road kerb line and maintains a buffer between the Site and the adjacent National Rail line to provide space for future transport schemes.
T4 (A)	Development proposals should reflect and be integrated with current and planned transport access, capacity and connectivity.	The development is situated 100m south of Acton Main Line station, providing Site users with excellent access to the Elizabeth Line. The Elizabeth Line services provide a high transport capacity and connectivity to Central London and further afield.
T4 (B)	Transport Assessments are required to assess impacts on the capacity of the transport network at the local, network-wide and strategic levels. Transport Assessments should focus on embedding the Healthy Streets Approach.	The transport strategy focuses on the Healthy Streets Approach.

POLICY	REQUIREMENTS	DEVELOPMENT CONTEXT
		Impacts on the transport network at different levels have been assessed in this TA.
T4 (C)	Where adverse transport impacts are identified, appropriate mitigation will be required, either through the direct provision of public transport, walking and cycling facilities and highway improvements or through financial contributions.	At the local scale, improvements to the access junction and visibility splays are being made by enhancing the Site boundaries. No adverse impacts are identified on the transport network.
T4 (D)	In instances with limited ability to absorb increased travel demand through active travel modes and existing public transport capacity is insufficient with no plans for increased capacity, planning permission will be contingent on the provision of transport infrastructure.	There is significant potential for active travel at and around the Site, and the proposed redevelopment will help facilitate this through the provision of secure cycle parking available to residents and employees. There are a large number of existing public transport options in proximity to the Site with the capacity to absorb the proposed person trips.
T4 (F)	Development proposals should not increase road danger.	The development is unlikely to increase vehicular movements associated with the existing Site. The existing access location is also being retained and improved. There is no history of KSI accidents.
T5	Policy T5 states that development should encourage cycling and provide new cycle parking standards. Cycle parking and cycle parking areas should allow easy access and provide facilities for disabled cyclists. In places of employment, supporting facilities are recommended.	Secure cycle parking is proposed with dedicated spaces and facilities for larger cycle spaces.
T6	Car-free development should be the starting point for all development proposals in places that are (or are planned to be) well-connected by public transport.	The Proposed Development will be car-free with the exception of 3% of Blue Badge spaces and operational parking.
T7	Development proposals should facilitate sustainable deliveries and servicing, including providing adequate space for servicing, storage, and deliveries off-street. Construction Logistics Plans and Delivery and Servicing Plans will be required and should be developed in accordance with Transport for London guidance and in a way which reflects the scale and complexities of developments. Developments should be designed and managed so deliveries can be received outside peak hours and in the evening or nighttime. Appropriate facilities are required to minimise additional freight trips arising from missed deliveries and thus facilitate efficient online retailing.	All servicing, loading and unloading will be undertaken from within the Site. This TA is accompanied by an Outline Construction Logistics Plan and Delivery and Servicing Plan. The development has been designed with the ability to receive deliveries outside of hours deliveries. Facilities will be in place to accept deliveries and therefore reduce the amount of missed deliveries.

1.7.13 How the Proposed Development delivers and complies with local planning policy (i.e. the LBE Local Plan) is set out later in **Section 6**.

DOCUMENT STRUCTURE

1.7.14 The remainder of this Healthy Streets TA is structured as follows:

- **Section 2** - considers the users of the development and their common methods of travel;
- **Section 3** - outlines the existing and proposed connectivity of the Site;
- **Section 4** – summarises the outcome of the Active Travel Zone assessment;
- **Section 5** – outlines the baseline London wide network and provides information on the proposed use of the wider transport networks;
- **Section 6** – reviews the scheme in the context of the borough in which the Site is situated;
- **Section 7** – provides an Outline Construction Logistics Plan for the Site; and
- **Section 8** – provides the conclusion of this Transport Assessment.

2 TRANSPORT PLANNING FOR PEOPLE

2.1 INTRODUCTION

2.1.1 This section will seek to identify who the development is, when they will travel, and why. It will utilise TfL's Transport Classification of Londoners (TCoL) data[2] to identify the type of people that the development is for. The London Travel Demand Surveys have been used to understand why people travel, and this links to the proposed trip generation to identify the number of people that will travel, how they will travel and when.

2.1.2 The following data sources will be used to inform this section:

- TfL's TCoL demographic segments (for the residential occupiers);
- TRICS database to establish the forecast trip generation; and
- 2011 Census' Location of usual residence and place of work by method of travel to work' data (residential).

2.2 LONDON BOROUGH OF EALING TCOL

2.2.1 TCoL is a multi-modal segmentation tool developed by TfL that has been designed to categorise Londoners based on their travel choices and motivations for making those decisions.

2.2.2 The TCoL provides information about the existing demographic segment proportions at borough level, and **Figure 2-1** shows the TCoL's identified nine high-level tier demographic segments.

[2] https://content.tfl.gov.uk/transport-classification-of-londoners-presenting-the-segments.pdf

Figure 2-1: TCoL Demographic Segments

2.2.3 **Table 2-1** shows the demographic segment proportions present within LBE.

Table 2-1: LBE Existing Demographic Segment Proportions

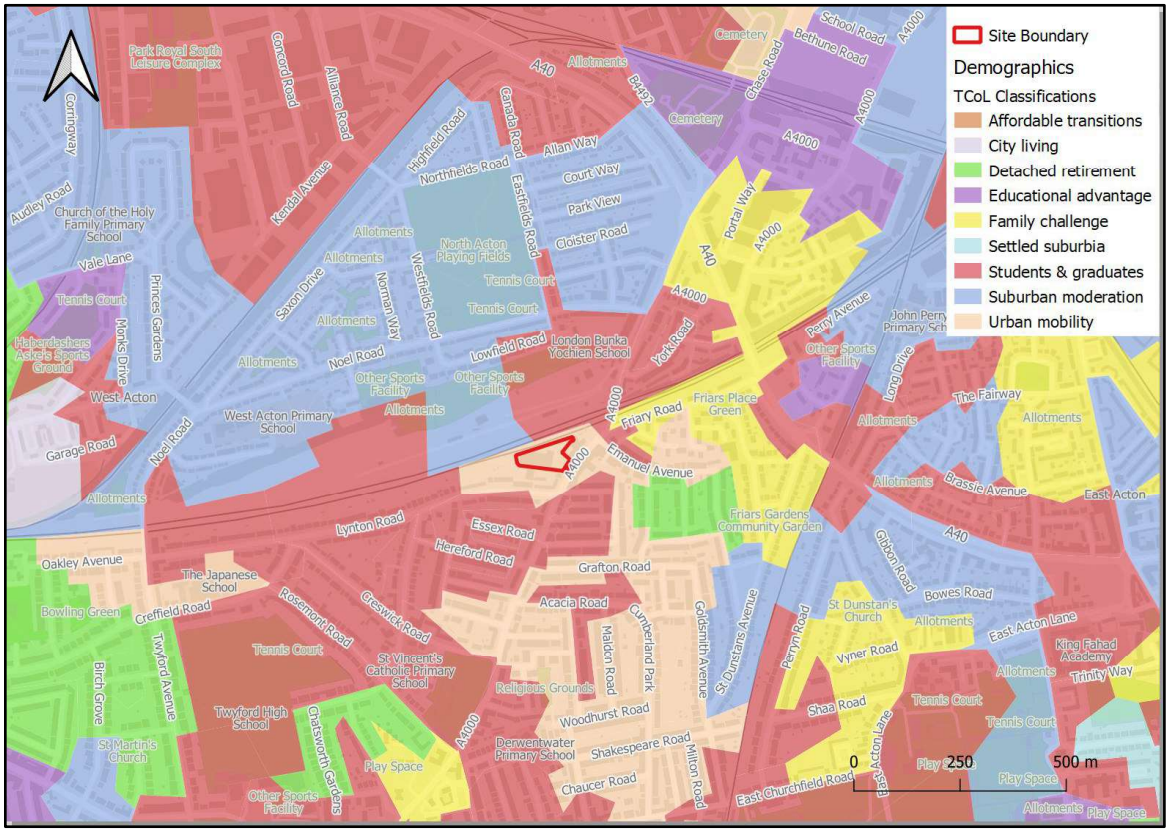
AFFORDABLE TRANSITIONS	CITY LIVING	DETACHED RETIREMENT	EDUCATIONAL ADVANTAGE	FAMILY CHALLENGE	SETTLED SUBURBIA	STUDENTS & GRADUATES	SUBURBAN MODERATION	URBAN MOBILITY
1%	3%	16%	2%	15%	23%	13%	19%	8%

2.2.4 **Table 2-1** shows that Ealing has a mixture of demographics, with 86% of the population being split relatively evenly between 5 segments: Settled Suburbia (23%), Suburban Moderation (19%), Detached Retirement (16%), Family Challenge (15%) and Students & Graduates (13%).

2.2.5 TCoL also provides further information in the form of mapping, indicating the areas in which certain demographic segments are most prevalent. The demographic segment mapping allows for a further understanding of more local demographics.

2.2.6 **Figure 2-2** indicates the demographic segments that currently occupy the area surrounding the Site. It shows that the Site is located within the Urban Mobility demographic segment.

Figure 2-2: TCoL Demographic Segments – Ealing



2.3 HOW WILL PEOPLE TRAVEL?

2.3.1 The predicted mode share for both the residential and builders' merchant elements of the Proposed Development will be estimated using "Method of Travel to Work" data for the local area from the 2011 Census, adjusted where necessary to reflect the parking provision proposed.

2.3.2 The travel behaviour of future customers of the builders' merchant is difficult to predict because most customers make irregular, 'one-off' visits or pass-by trips. The nature of the builders' merchant is such that some customers may need to travel by vehicle to transport building materials; however, the accessibility of the Site to public transport routes will maximise the potential number of non-vehicle journeys.

2.3.3 A full analysis of the existing and proposed travel demand is provided in **Section 5**.

2.4 WHERE WILL PEOPLE TRAVEL?

RESIDENTS

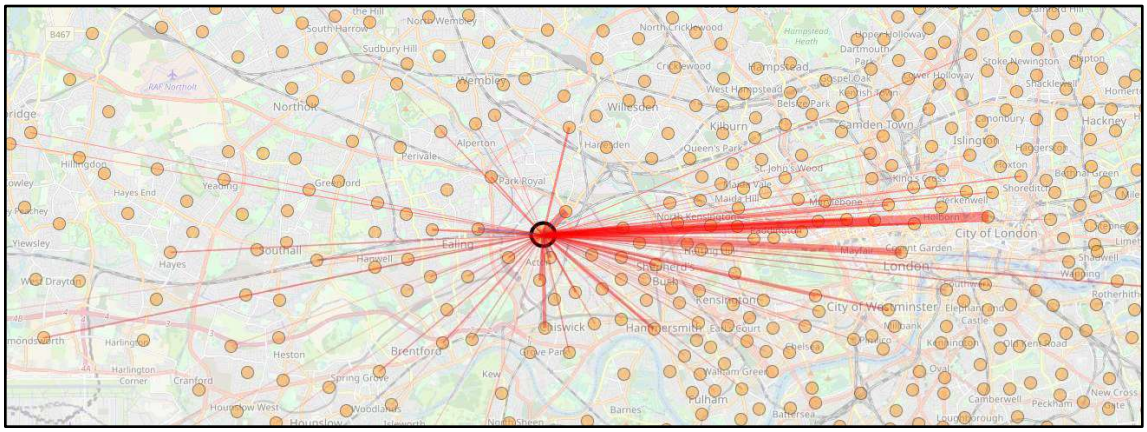
2.4.1 Data from the 2011 Census table 'WU03EW – *Location of usual residence and place of work by method of travel to work (MSOA level)*' will be used to understand the likely destinations where prospective residents will travel for work.

2.4.2 It is acknowledged that the 2011 Census data does not consider new developments/business and employment hubs that have come forward at this time and may further influence travel destinations.

2.4.3 In addition to commuting, residents will also generate trips for other purposes. Given that travel to work will be a regular journey among most residents, it is considered a suitable representation of the residential element's travel demand.

2.4.4 **Figure 2-3** is an extract from Data Shine[3], an interactive map providing an origin-destination matrix of where people commute to and shows that most departing trips will have destinations within Central London or West London. This is based on the 2011 Census data described earlier.

Figure 2-3: Travel Destinations from Ealing 021



Red lines – Journeys leaving from MSOA Ealing 015 for work

BUILDERS' MERCHANT STAFF AND CUSTOMERS

2.4.5 To understand the areas of residence for the prospective builders' merchant staff, data from the 2011 Census table '*Location of usual residence and place of work by travel to work (MSOA level)*' data will be analysed.

2.4.6 It is noted that it is the Builder's Depot's policy to employ local people at their Sites. Therefore the eventual journeys taken to the Site by staff may be shorter than forecast in this assessment, with a higher proportion of journeys made on foot or by bicycle. The assessment will therefore demonstrate a worst-case scenario.

2.4.7 Forecasting the origins of future customers of the builders' merchant is difficult due to many customers making irregular 'one-off' visits and pass-by trips; however, due to the nature of the goods sold at the builders' merchants, most will likely travel to the Site from within Ealing or from the surrounding boroughs.

[3] https://commute.datashine.org.uk/#mode=allflows&direction=both&msoa=undefined&zoom=12.0&lon=-0.1500&lat=51.5200

2.5 WHEN WILL PEOPLE TRAVEL AND WHY?

RESIDENTS

2.5.1 Whilst the TCoL provides a high-level projection of the likely demographic and associated travel characteristics of each classification mentioned above, it is expected that the new residents of the Proposed Development will have similar travel patterns and travel modes to the current residents in the area.

2.5.2 Data from the 'London Travel Demand Survey' (LTDS)[4] has been analysed to indicate when and why future residents may travel. Surveyed journeys to and from Outer London boroughs have been reviewed to determine the origins, destinations and travel patterns of people living in the Proposed Development.

2.5.3 **Figure 2-4** shows the typical inbound and outbound trips for Outer London residents across 24 hours. Most outbound trips occur in the morning, and most inbound trips occur after 15:00. The busiest times are from 08:00 to 09:00 and 15:00 to 16:00.

Figure 2-4: Outer London Trips by Start Time (Weekday) – Residents

2.5.4 The LTDS data has been used to identify the journey purpose of residents during peak times, as shown in **Table 2-2**.

[4] https://tfl.gov.uk/corporate/publications-and-reports/travel-in-london-reports

2.5.5 Almost half of all trips by residents in the morning peak hour are expected to be education trips. During the evening, peak hours are associated with travel from work and shopping and personal business. Furthermore, trips for education and travel to work purposes make up most of all trips in both peaks.

Table 2-2: Outer London Journey Purpose (LTDS 13)

JOURNEY PURPOSE	AM PEAK (0800-0900)		PM PEAK (1700-1800)	
Commuting	29.2%	32.6%	39.6%	44.2%
Business	3.4%		4.6%	
Education	29.8%	49.9%	5.3%	7.3%
Escort education	20.1%		2.0%	
Shopping	3.2%	3.2%	11.0%	11.0%
Other work, other escort and personal business	10.5%	10.5%	16.3%	16.3%
Visiting friends/entertainment/sport	2.5%	2.5%	17.2%	17.2%
Holiday / Day trip / Other	1.4%	1.4%	4.0%	4.0%

BUILDERS' MERCHANT

2.5.6 The operating hours of the builders' merchant (sui generis) are expected to remain as existing (06:30 to 17:00 on weekdays and 08:00 to 12:00 on Saturdays). Based on traffic survey data, customer trips to the existing Site are spread out relatively evenly across these opening times, with a slight peak period between 08:00 and 09:00 on weekday mornings. Trips to the builders' merchant following the Site's redevelopment are expected to reflect these travel patterns.

2.6 SUMMARY

2.6.1 TCoL data for LBE aligns with the nature of the Proposed Development, with the predominant demographic group being the low-car and high-public transport users. The anticipated demographic segments for each unit mix also indicate that residents are more susceptible to influencing or changing travel behaviour.

3 SITE & SURROUNDINGS

3.1 INTRODUCTION

3.1.1 This section describes the transport conditions before and after the Proposed Development is operational. It considers the Site itself and its immediate surroundings.

3.2 SURROUNDING LAND USES

3.2.1 The immediate surrounding area of the Site is predominantly residential, with mixed-use commercial and residential buildings on either side and oppoSite the Site, as shown in **Figure 3-1**.

Figure 3-1: the Site within the local context

3.3 ACCESS ARRANGMENTS

EXISTING

PEDESTRIAN AND CYCLIST ACCESS

3.3.1 Pedestrian and cycle access to the Site is currently provided from Horn Lane. The access is shared with Acton House to the northeast of the Site and is used by all vehicles accessing the Site. The existing access is shown in **Figure 3-2** below.

Figure 3-2: Existing Site access

Walking Network

3.3.2 The National Travel Survey[5] notes that walking is the most frequent travel mode used for short-distance trips (within one mile / 1.6km). Therefore, infrastructure that supports efficient travel on foot is of great importance in promoting sustainable and active travel. It is also noted that almost all trips are at some point a walking trip, which often forms the start/end mode for any linked public transport trips.

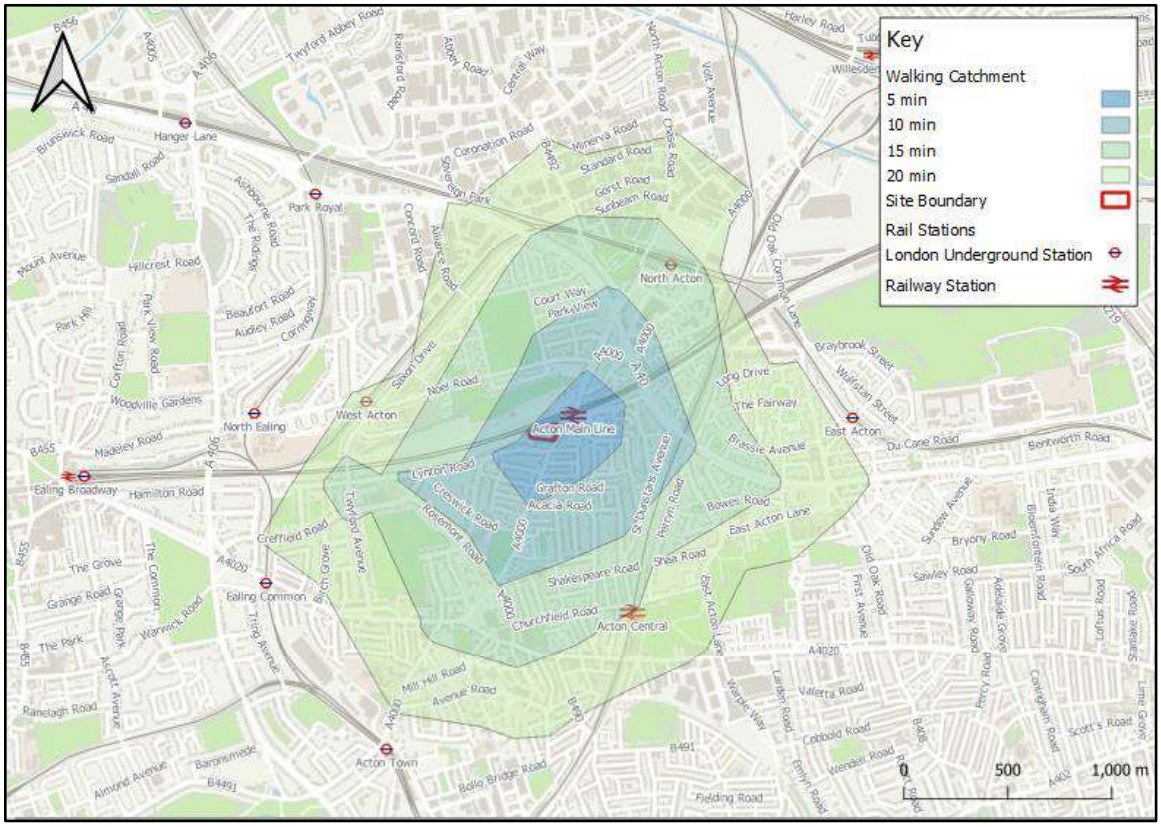
3.3.3 The nearest pedestrian crossing is a zebra in front of the Site on Horn Lane.

3.3.4 **Figure 3-3** shows the 1.6km / 20-minute pedestrian isochrone and illustrates that various public transport nodes can be easily accessed on foot, including Acton Main Line, Acton Central, West Acton and North Acton Stations, all within a short walk of the Site.

3.3.5 There is an established network of footways and crossings catering for pedestrian movement throughout the local area.

[5] https://www.gov.uk/government/statistics/national-travel-survey-2021/national-travel-survey-2021-mode-share-journey-lengths-and-public-transport-use

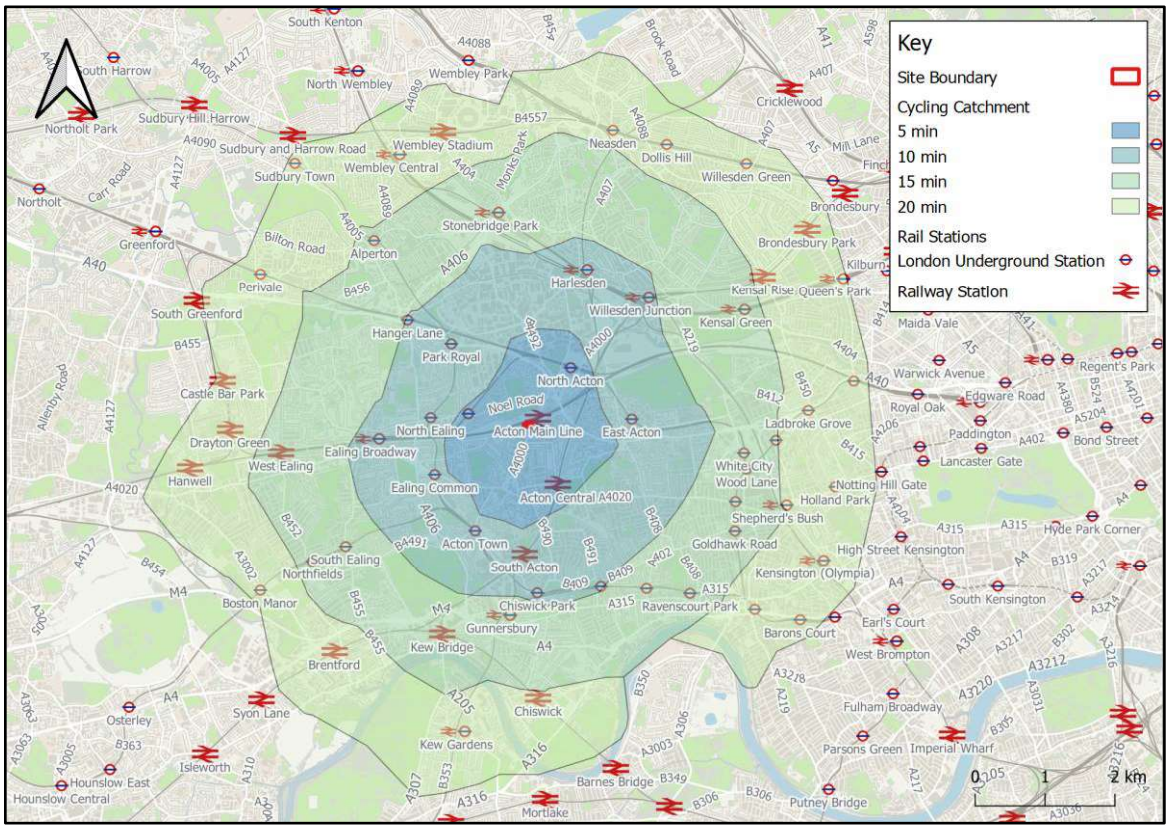
Figure 3-3:Walking catchments - 5-, 10-, 15-, 20-minute



Cycling Network

3.3.6 Cycling has the potential to substitute for short car trips, particularly those less than five kilometres in length; however, many people will cycle longer distances**. Figure 3-4** below shows 5, 10, 15 and 20-minute cycle catchments from the Site.

Figure 3-4: Cycle catchments – 5-, 10-, 15-, and 20-minute



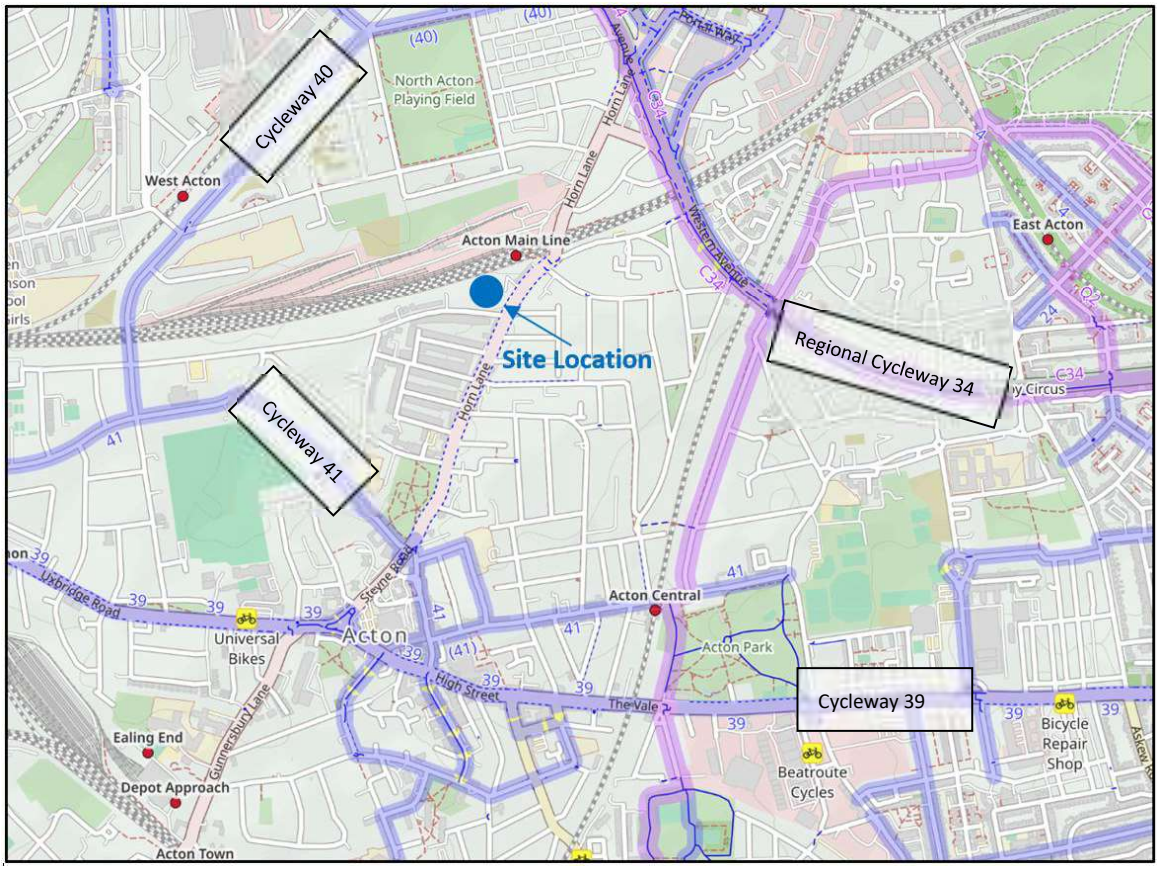
3.3.7 The development is conveniently located in terms of cycle accessibility, with several facilities and amenities accessible using the network of cycle routes in the vicinity of the Site, including stations and a number of green spaces.

3.3.8 Local on-street cycleways provide links throughout the surrounding area and to London-wide cycle routes. The Site is within proximity of three local and one regional cycleway;

- Local Cycleway 41: Located 700m south of the Site
- Local Cycleway 39: Located 800m south of the Site
- Local Cycleway 40: Located 1.3km north-west of the Site
- Regional Cycleway 34 (C34): Located 1km north of the Site

3.3.9 **Figure 3-5** below illustrates the locations of the cycleways relative to the Site.

Figure 3-5: Location of Cycleways in Site Vicinity



Source: Openstreetmap

VEHICULAR ACCESS

3.3.10 The vehicular access is also from Horn Lane; vehicles currently share the same access point as pedestrians and cyclists, and vehicle access to Acton House is also provided. The existing access is shown earlier in this section in **Figure 3-2**.

PROPOSED

PEDESTRIAN AND CYCLIST ACCESS

3.3.11 Pedestrian access to the Site will be taken via a new pedestrian and cycle access which provides access to the residents' gardens. A secondary delineated route from the public highway to the proposed building cores at ground level will also be provided. This has been designed to provide a safe demarcated area for pedestrians while still achieving the operational requirements of the Site.

3.3.12 In most cases, cycle access to the Site will be taken via the proposed cycle store, conveniently situated in the southeast part of the building and accessed approximately 25m southwest of the vehicular access. Cyclists will typically have no reason to use the internal Site road or vehicular access, reducing opportunities for conflicts with vehicles associated with the builders' merchant element of the Site. The delineated area for pedestrians adjacent to the internal Site road will also offer a demarcated area which could be used for walking cycles into the residential cores at ground level if needed.

VEHICLE ACCESS

3.3.13 The vehicle access to the development Site will be retained in the same location on Horn Lane. The access is proposed to be widened to reduce the possibility of vehicles waiting to access the development as they do now, which has the potential to disrupt traffic flow on Horn Lane. The access will accommodate two-way vehicles, access for Acton House, and access for Network Rail will be retained.

3.4 PUBLIC REALM

EXISTING

3.4.1 There is currently very little public realm on Site due to its use as a builders' merchant. It is noted, however, that a customer car park is present for members of the public coming to the existing builders' merchant.

PROPOSED

3.4.2 The development will provide an attractive new residents area suitable for the proposed residential element of the scheme, as well as appropriate car parking, cycle parking and servicing facilities in line with London Plan requirements. The new residential access is proposed to be set back from the existing retail building line to increase the pedestrian and public realm space adjacent to the scheme. A new raised table or 'Copenhagen-style' crossing over the vehicular crossover from Horn Lane will also be provided, providing pedestrian priority and increasing road safety.

3.5 CYCLE PARKING

EXISTING

3.5.1 No secure cycle parking is provided within the Site currently. It is noted that intermittent public cycle parking is provided outside retail units along Horn Lane, which may be being used.

PROPOSED

3.5.2 Cycle parking will be provided in line with London Plan standards as in **Table 3-1**. Based on the initial development quantum, the proposed cycle parking provision is set out in **Table 3-2**.

Table 3-1: London Plan Cycle Parking Standards

LAND USE	CYCLE PARKING STANDARDS	
	Long-Stay	Short-Stay
B2-B8 general builders' merchant, storage or distribution	1 space per 500sqm	1 space per 1000sqm
C3 residential dwellings	1 space per studio or 1 person 1 bedroom dwelling 1.5 spaces per 2 person 1 bedroom dwelling 2 spaces per all other dwellings	5 to 40 dwellings: 2 spaces Thereafter: 1 space per 40 dwellings

Table 3-2: Proposed Cycle Parking Provision

DEVELOPMENT	QUANTUM (SQM / UNITS)	LONG-STAY SPACES	SHORT-STAY SPACES
B2-B8 general builders' merchant, storage or distribution	4,250	9	5
Studio / 1 bed 1 person	0	0	6
1 bed 2 person	86	129	
2 bed+	99	198	
Total		**336**	**11**

3.5.3 Based on the current development quantum, 336 long-stay and eleven short-stay cycle parking spaces will be provided.

3.5.4 Long-stay cycle parking for the residential element will be provided in a secure cycle store conveniently located close to the side of the building fronting Horn Lane. The cycle parking provision will be accommodated over two levels (ground and mezzanine (accessed via lifts)) and will comprise:

- 80% of spaces are in the form of two-tier cycle parking racks;
- 15% of spaces in the form of Sheffield stands; and
- 5% of spaces as Sheffield stands with increased space for people with non-standard bicycles such as cargo bikes, hand cycles and tandems.

3.5.4 Short-stay cycle parking will be provided within the public realm in the form of Sheffield stands.

3.5.5 Electric bicycle charging points will also be provided in the long-stay cycle store.

3.5.6 Access to the dedicated cycle store will be controlled by RFID cards/fobs or similar and monitored by CCTV. Additional facilities such as maintenance stations could be provided, making the cycle parking more attractive.

3.5.7 The potential to provide cargo bike parking associated with the builders' merchant element will also be explored by the Applicants. This would provide a sustainable freight option for short journeys and reduce vehicle trips associated with the Site.

3.6 CAR PARKING

EXISTING

3.6.1 There are currently 16 parking spaces provided on the Site within the central courtyard for use by the builders' merchant's customers.

PROPOSED

3.6.2 Car parking will be provided per London Plan standards in **Table 3-3**.

3.6.3 It is noted that the supporting information for the Site's allocation (ACT6) suggests a lower car parking provision or even a car-free scheme would be considered acceptable for this Site, given its proximity to Acton Main Line Station.

Table 3-3: London Plan Car Parking Standards

LAND USE	LOCATION	NUMBER OF BEDS	MAXIMUM PARKING PROVISION
Residential	Outer London PTAL 2-3	1-2	0.75 spaces per dwelling
	Outer London PTAL 2-3	3+	Up to 1 space per dwelling
Sui Generis			Case by case

3.6.4 The Site is located in an area with a PTAL of 3, which is explained in Chapter 5. Based on the London Plan car parking standards, the residential element of the Site could provide up to 144 car parking spaces, but due to the proximity of the Acton Main Line station and the Site Allocation, a car-free scheme is proposed, with no standard parking and Blue Badge parking for 3% of units (equating to six spaces) from the outset.

3.6.5 It is currently proposed to provide 19 car parking spaces for the builders' merchant on Site, comprising a reprovision of 16 spaces for customers and three spaces to be used by the operational vehicles associated with the builders' merchant. Operational vehicles currently have to park at the rear of the Site, which is being rationalised as part of the proposal. Providing dedicated parking facilities for these vehicles will result in a more managed and efficient Site operation.

3.6.6 The provision meets the occupier's operational requirements based on their experience at the Site.

3.6.7 A proportion of the on-Site parking bays would therefore be larger to accommodate transit-type vehicles. There will be no staff parking on Site, with employees likely using public transport or travelling on foot or by bike.

3.6.8 All parking spaces will be provided with electric vehicle charging infrastructure, with the three disabled person parking spaces and 20% of the builders' merchant parking spaces having active provision and the remaining 80% having passive provision.

3.7 DELIVERIES AND SERVICING

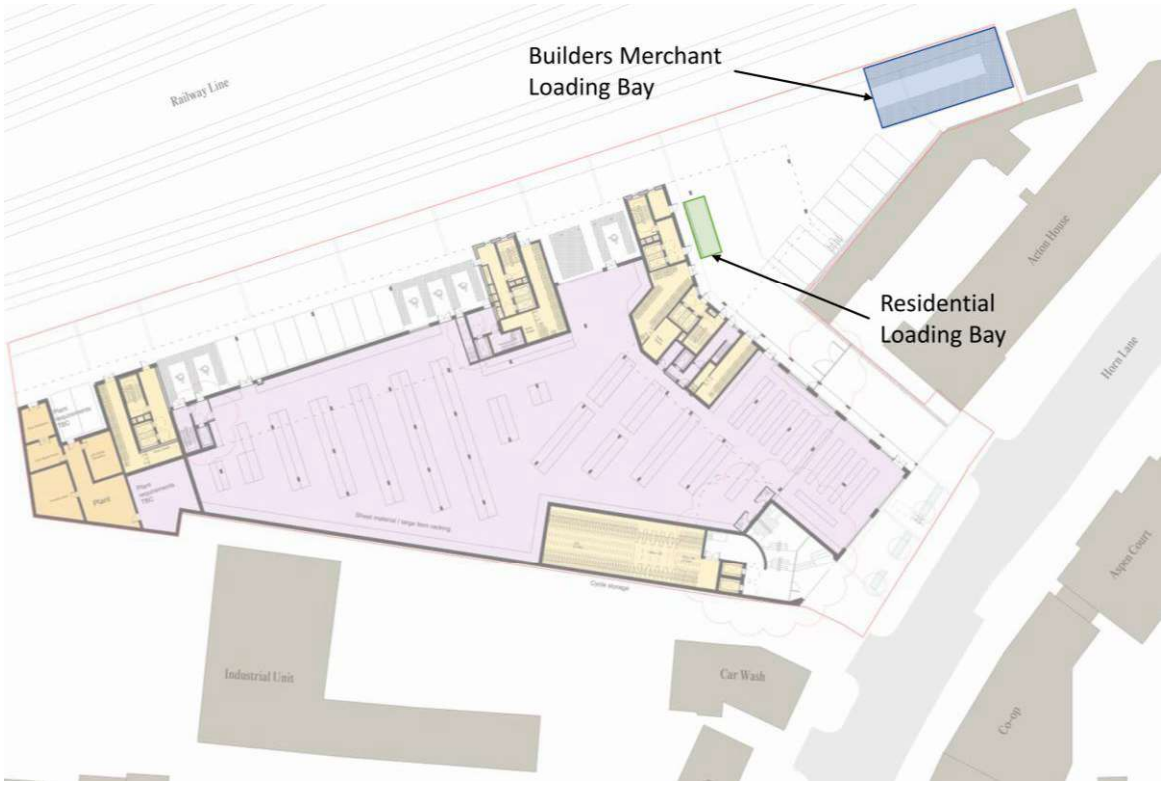
EXISTING

3.7.1 Servicing for the Site currently occurs within the Site boundary in the northeasternmost area. All vehicle types are able to access and egress the Site in a forward gear.

PROPOSED

3.7.2 All servicing will take place within the Site. A dedicated loading bay to accommodate up to 16.5m long articulated vehicles is proposed, which serves the builders' merchant element. A separate smaller loading bay for deliveries to the residential element is also proposed. These are shown in **Figure 3-6**.

Figure 3-6 Proposed Loading Bay Locations



3.7.3 Access for Network Rail to service the adjacent rail line and compound will be maintained at all times.

3.7.4 A DSP has been produced to accompany this TA, which provides more details on the proposed strategy for the Site.

3.8 WASTE MANAGEMENT

3.8.1 The principles of waste storage, presentation and collection for the Proposed Development are set out in a separate Operational Waste Management Strategy report produced to accompany the planning submission. The principles have been designed in accordance with the relevant LBE guidance.

3.8.2 LBE will collect each residential waste stream weekly from within the Proposed Development, with the Refuse Collection Vehicle (RCV) entering and exiting in a forward gear. The RCV will be positioned within 10m of the bins on the nominated collection day, as per LBE guidance.

3.8.3 Commercial waste will be stored separately from residential waste and will be the occupier's responsibility. The commercial tenants will be responsible for arranging their waste collection through a suitable commercial waste management contractor.

4 ACTIVE TRAVEL ZONE ASSESSMENT

4.1 INTRODUCTION

4.1.1 This Active Travel Zone (ATZ) Assessment has been carried out in line with the new TfL Transport Assessment guidance, which came into effect on 1 April 2019 and aims to show how the Proposed Development supports Vision Zero and the Healthy Streets policies.

4.1.2 The ATZ assessment has been prepared using the 'ATZ assessment instructions' obtained from TfL's Transport Assessments webpage: (https://tfl.gov.uk/info-for/urban-planning-and-construction/transport-assessment-guide/transport-assessments).

4.1.3 There are four parts to the ATZ assessment process, which are as follows:

1. **Map One:** The ATZ and all potential key active travel destinations;
2. **Map Two:** Neighbourhood safety and the most important journeys with supporting text, including a Vision Zero analysis and safety improvement ideas;
3. **Map Three:** ATZ Neighbourhood healthy characteristics check, including text on severance, deficiency, local change, development, and
4. **Neighbourhood Photo Survey:** ATZ neighbourhood key routes check based on the Healthy Streets indicators.

4.1.4 The ATZ maps 1, 2 and 3 and the full ATZ assessment are contained within **APPENDIX C** of this report.

4.2 ACTIVE TRAVEL ZONE

4.2.1 This Active Travel Zone (ATZ) Assessment examined how people of all abilities will make key journeys within the Proposed Development's ATZ.

4.2.2 The key journeys and key destinations were:

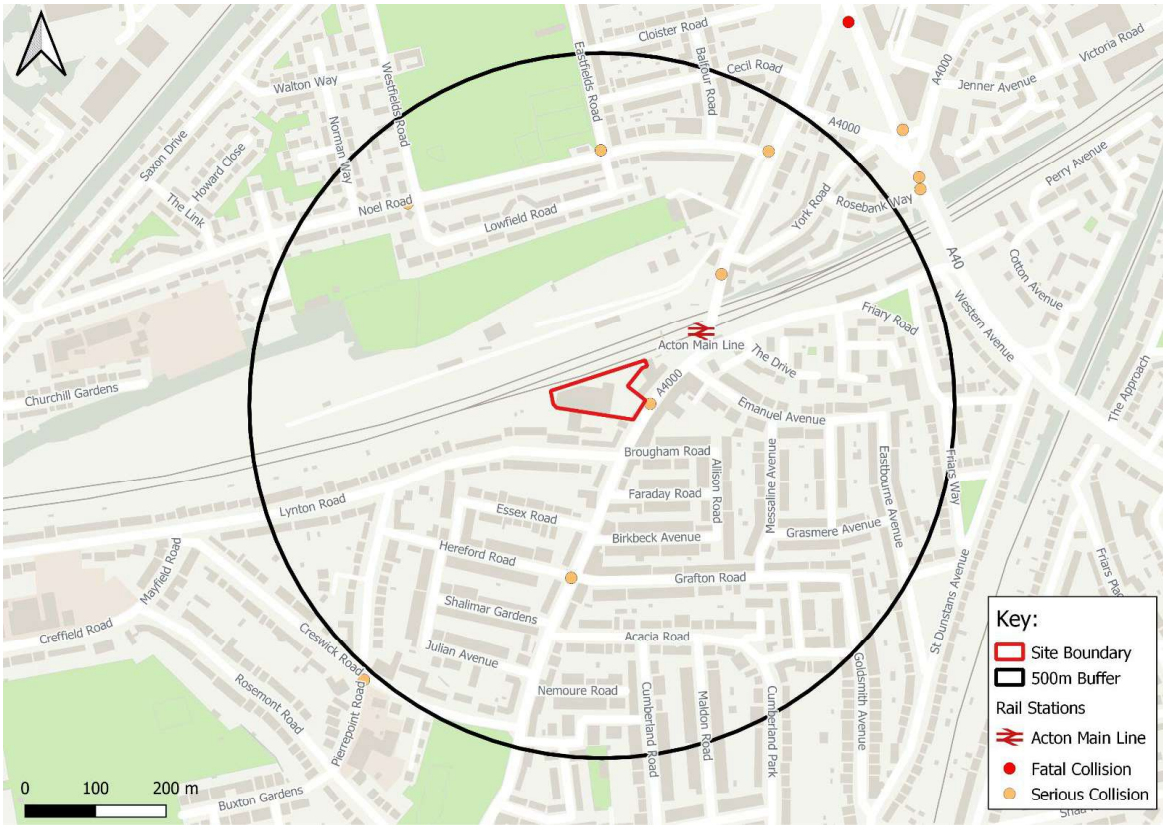
- **Key Journey 1**: North Acton Station/Sainsbury's via Acton Main Line Station
- **Key Journey 2**: West Acton Primary School/St Gabriel's Parish Church
- **Key Journey 3:** St Vincent's Roman Catholic School/Horn's Lane Doctor Surgery
- **Key Journey 4**: The Oaks Shopping Centre
- **Key Journey 5**: Derwentwater Primary School
- **Key Journey 6**: Twyford Secondary School

4.2.3 As a part of this assessment, a Vision Zero analysis was undertaken concerning clusters of Killed or Seriously Injured (KSI) road traffic casualties within a 500m study area radius of the Site. The results are shown in **Table 4-1**, while the locations of the collisions which caused these casualties are shown in **Figure 4-1**.

Table 4-1: Local Collision Summary

SEVERITY	2019	2020	2021	TOTAL
Fatal	0	0	0	**0**
Serious	3	2	1	**6**
Total	**3**	**2**	**1**	**6**

Figure 4-1: Personal Injury Accident Map (2019-2021)



4.2.4 A total of six collisions occurred within the study area between 2019 and 2021, which resulted in casualties receiving serious injuries. No fatal accidents were recorded in the three years. Of the six collisions, three involved pedestrians and 1 involved a pedal cyclist. It is noted that one collision occurred in the immediate vicinity of the Site, while another incident occurred just north of Acton Main Line station. Analysis of these incidents has concluded that they were likely to be due to human error rather than deficiencies in the local highway network. No safety improvement ideas have therefore been developed.

4.2.5 Further analysis of the collisions within the study area is provided in **APPENDIX C.**

4.3 RECOMMENDATION SUMMARY

4.3.1 The neighbourhood photo survey identified a 'worst' point along each key route, assessed against the Healthy Streets criteria.

4.3.2 The recommendations developed from this ATZ assessment are as follows:

ROUTE 1: NORTH ACTON STATION/SAINSBURY'S VIA ACTON MAIN LINE STATION

- Additional crossing points across Horn Lane (potentially using pedestrian refuse islands).
- Tactile paving at crossovers relating to the builders' merchant Sites.
- Investigate opportunities to provide greater protection for cyclists across the A40 / Horn Lane junction.
- Additional facilities for commuters, such as mobile coffee shops, could be considered along the route to provide improved facilities.
- Benches could be introduced in front of Acton Main Line station.
- Traffic calming measures or a reduced speed limit could be provided to reduce the traffic speed in the area.
- Require builders' merchant areas to implement wheel washing before leaving Sites and regular hosing down Site entrances.
- Seating under trees could be introduced in the vicinity of North Acton station.

ROUTE 2: WEST ACTON PRIMARY SCHOOL/ST GABRIEL'S PARISH CHURCH

- Provision of tactile paving where missing at the pedestrian crossing on Noel Road.
- Inclusion of benches in front of St Gabriel's Parish Church.

ROUTE 3: ST VINCENT'S ROMAN CATHOLIC SCHOOL/HORN LANE DOCTOR SURGERY

- Provide signage to indicate the presence of cyclists along Horn Lane and/or advisory cycle lanes.
- Cut back vegetation along Creswick Road.
- Investigate potential areas of reduced speed limits along Horn Lane to reduce traffic noise.
- No need for improvement as Springfield gardens park can be accessed from Creswick Road.

ROUTE 4: THE OAKS SHOPPING CENTRE

- Inclusion of tactile paving at refuge island crossings.
- Provision of additional benches on Churchfield Road.
- Provision of more or larger bins on Horn Lane and reduction of street clutter.
- Investigate the potential for a low emissions zone around Churchfield Road and increase street trees to improve local air quality.

ROUTE 5: DERWENTWATER PRIMARY SCHOOL

- Provision of tactile paving across Cumberland Road near the school.
- Identify opportunities for a mix of land uses along the southern section of Horn Lane.
- Provide additional benches along the route.
- Better maintain the street trees along Cumberland Road to fix footpath issues.
- Provide benches sheltered by trees along the route.

ROUTE 6: TWYFORD SECONDARY SCHOOL

- Identify the potential to widen pinch points along the footpath on Uxbridge Road to improve safety levels.
- Enforce out-of-hours servicing by developments along the route to ensure cycle routes are accessible.
- Provision of sheltered benches on Uxbridge Road and Horn Lane.

4.3.3 It is not expected that the Applicant will need to contribute to or implement improvements that are identified through the ATZ assessment.

4.3.4 Improvements identified in this assessment should be investigated further and, if deemed appropriate, secured through a suitable channel such as through CIL contributions / or an S106 agreement (subject to the standard legal tests as to whether they are necessary, relevant, enforceable, precise and reasonable).

4.4 SUMMARY

4.4.1 This Active Travel Zone (ATZ) Assessment has examined how people of all abilities will make key journeys within the Proposed Development's ATZ.

4.4.2 Six ATZ routes were chosen and evaluated, with improvements suggested in line with Healthy Streets' characteristics.

5 LONDON-WIDE NETWORK

5.1 INTRODUCTION

5.1.1 This section of the TA evaluates the effects the proposal is expected to have on London's transport network, including how many people are forecast to travel and their anticipated travel modes/behaviours.

5.2 PUBLIC TRANSPORT ACCESSIBILITY LEVEL

5.2.1 PTAL is used to assess the connectivity of a Site to the public transport network considering the access time and frequency of services. It considers rail stations within a 12-minute walk (960m) of the Site and bus stops within an eight-minute walk (640m) and is undertaken using the AM peak hour operating patterns of public transport services. An Access Index (AI) score is calculated to define a PTAL score.

5.2.2 TfL's online WebCAT tool shows the Site AI is 10.77 indicating a PTAL of 3 (average). The Site is approximately 100m south of Acton Main Line station which provides fast Elizabeth Line services to London, Heathrow and Reading and has a PTAL score of 5 ('very good'). From late Autumn 2022, Services from Reading, Heathrow and Shenfield will be increased.

5.2.3 The current WebCAT PTAL output is summarised in **Figure 5-1**.

Figure 5-1: PTAL Map

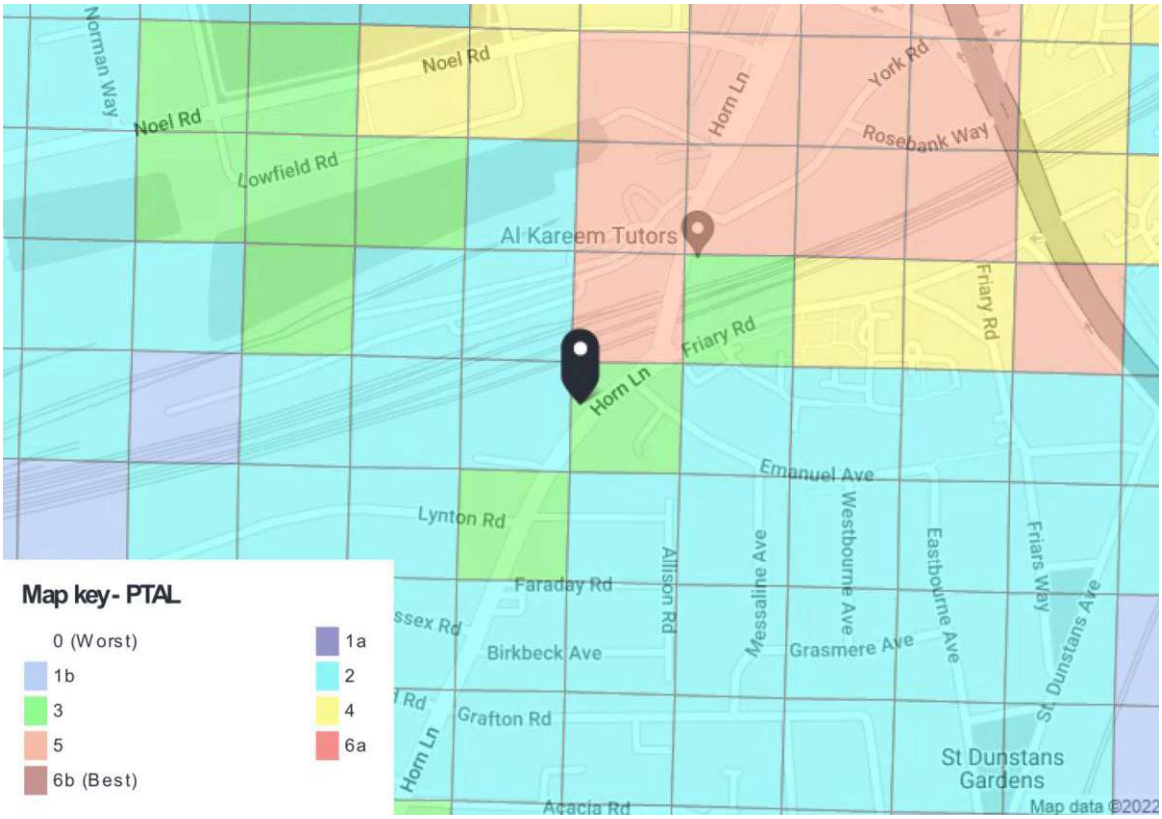


Table 5-1: Summary of PTAL

MODE	STOP	ROUTE	DISTANCE (M)	FREQUENCY (VPH*)	WALK TIME (MINS)	AI
Bus	Acton Main Line Station	266	157.33	7.76	1.97	3.83
Bus	Western Avenue Friary Road	95	470.19	5.18	5.88	1.1
Bus	Acton Main Line Station	260	157.33	5.18	1.97	1.54
Bus	Noel Road Balfour Road	440	484.70	4.18	6.06	0.98
Rail	Acton Main Line	Heathrow – Shenfield	107.09	1.33	1.34	0.63
Rail	Acton Main Line	Abbey Wood – Heathrow	107.09	3.33	1.34	2.7
Total Grid Cell AI: 10.77						
PTAL: 3						

*Vehicles per hour

LOCAL BUS NETWORK

5.2.4 There are numerous bus stops within the vicinity of the Site, the closest of which are north and south of the Site on Horn Lane and Friary Road to the northeast.

5.2.5 The location of the local bus stops and routes can be seen in **Figure 5-2**, whilst **Table 5-2** provides a breakdown of the local bus routes and their frequencies.

Figure 5-2: Local Bus Stops & Routes Location

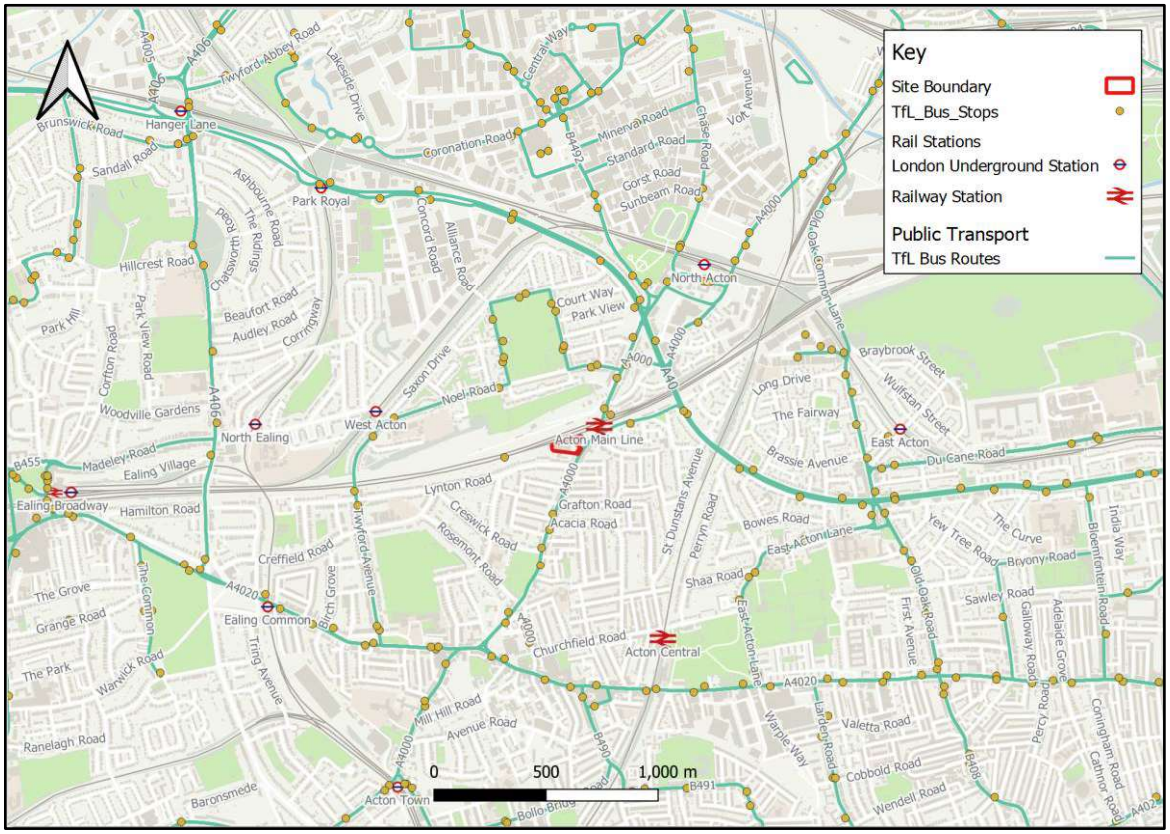


Table 5-2: Local Bus Stops, Services and Frequencies per hour

SERVICE NO.	BUS STOP	ROUTE	PEAK HOUR FREQUENCY	
			AM	PM
95	Western Avenue Friary Road	Southall Broadway – South Greenford Station – Hanger Lane Station – Park Royal Station – Shepherds Bush Green	5	5
218	St Gabriel's Church	Hammersmith Bus Station – Acton Central Station – West Acton – Court Way – North Acton Station	6	6
260	Friary Road / Joseph Avenue	White City Bus Station – Shepperd's Bush – Acton Main Line Station – Harlesden – Willesden – Golders Green	5	5
266	Faraday Road	Brent Cross Shopping Centre – Cricklewood Bus Garage – Willesden Green Station – Willesden Bus Garage – Harlesden Police Station – Willesden Junction Station – North Acton Station – Acton Main Line Station – Acton Old Town Hall	8	8
460		North Finchley – Finchley Central Station – Childs Way – Golders Green Station – Finchley Road – Cricklewood Broadway – Willesden Green Station - Willesden Bus Garage	5	5
440	Acton Main Line Station	First Way – Wembley Stadium Station – Stonebridge Park Station – Central Middlesex Hospital – Acton Main Line Station – Acton Old Town Hall - Gunnersbury Station - Turnham Green Church	4	4

5.2.6 **Table 5-2** shows 33 services in each AM and PM peak hours.

LONDON UNDERGROUND

5.2.7 West Acton, Ealing Common and North Acton stations are the nearest underground stations. The closest of the three is North Acton station which is 1.1km north of the Site (a 15-minute walk) and served by the Central Line. West Acton station is located 1.6km (20-minute) west of the Site and is also served by the Central Line. Ealing Common is located 1.9km (24-minute walk) west of the Site and is served by the District and Piccadilly lines.

5.2.8 The service provision is summarised in **Table 5-3** below.

Table 5-3: Underground Services and Frequencies

STATION	LINE	DIRECTION	PEAK HOUR FREQUENCY (SERVICES PER HOUR)	
			AM	PM
North Acton	Central	Eastbound	10	10
		Westbound	10	10
Ealing Common	District	Eastbound	6	7
		Westbound	11	6
	Piccadilly	Eastbound	12	9
		Westbound	9	8
West Acton	Central	Eastbound	10	10
		Westbound	10	10

LONDON OVERGROUND

5.2.9 London Overground services are provided from Acton Central station, located 1.3km (15-minute walk) southeast of the Site. The service is summarised in **Table 5-4.**

Table 5-4: Overground Service Frequency

STATION	LINE	DIRECTION	PEAK HOUR FREQUENCY (SERVICES PER HOUR)	
			AM	PM
Acton Central	Overground	Northbound	5	5
		Westbound	5	5

NATIONAL RAIL

5.2.10 The closest railway station to the Site is Acton Main Line Station, located approximately 100m north of the Site. Acton Main Line Station has recently been rebuilt as part of the Crossrail project and now features step-free access for pedestrians. Ealing Broadway station is located 2.1km (35-minute walk) west of the Site and is served by the Great Western Railway (GWR) line. The service provision is summarised in **Table 5-5.**

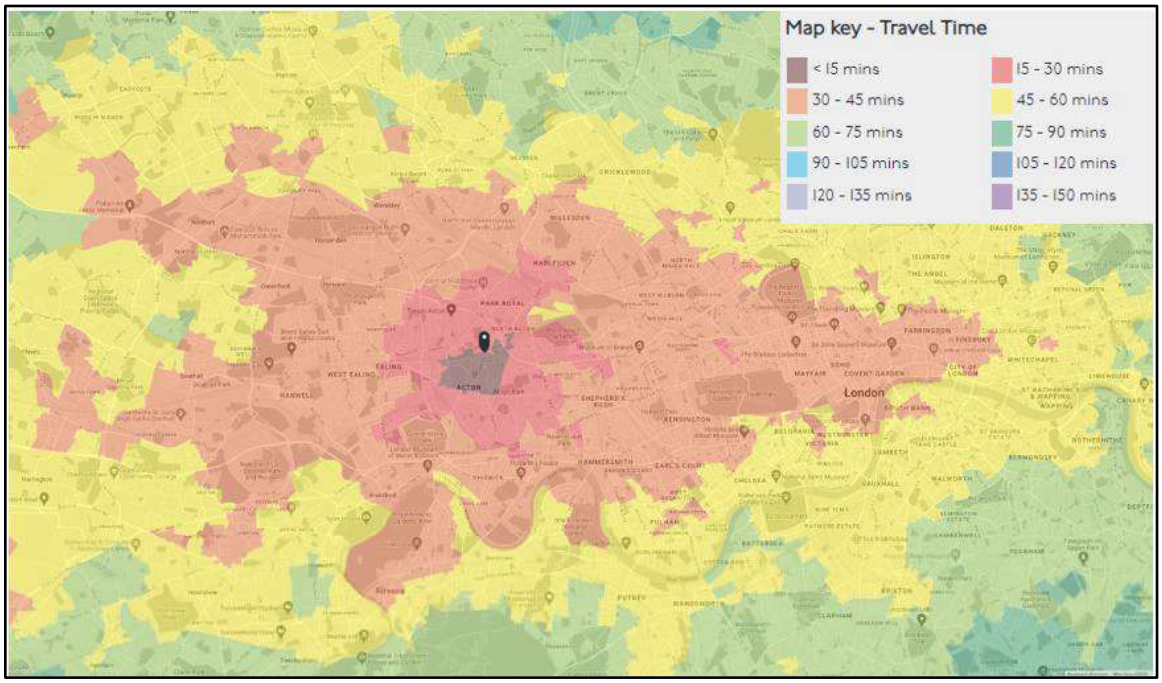
Table 5-5: Rail Service Frequency

STATION	LINE	DIRECTION	PEAK HOUR FREQUENCY (SERVICES PER HOUR)	
			AM	PM
Acton Main Line	Elizabeth	Eastbound	4	4
		Westbound	4	4
Ealing Broadway	GWR	Eastbound	5	5
		Westbound	4	6

5.3 PUBLIC TRANSPORT TIME MAPPING

5.3.1 Time Mapping (TIM) is a tool developed by TfL within their WebCAT suite of tools to assess connectivity in terms of travel times, taking into account public transport service ranges and interchange opportunities. Time Mapping for the Site, travelling by public transport during the AM peak, is presented in **Figure 5-3**.

Figure 5-3: TIM Mapping



5.3.2 **Figure 5-3** shows that significant employment opportunities in West London can be accessed within 30 to 45 minutes, and most of central London can be accessed in 45 to 60 minutes.

5.4 TRAVEL DEMAND

5.4.1 This section compares estimations of the Site's existing and forecast trip generations to understand how travel demand will change due to the Proposed Development.

EXISTING TRIP GENERATION

5.4.2 As a builder's merchant, the Site is currently used by employees and customers. The current occupier (Jewson) has a policy for employing staff who live locally to the Site, so journeys to work by staff are likely to be short, with some made on foot or by bike. Trips by customers are likely to comprise a mix of 'new' trips or trips that already exist on the network.

5.4.3 To understand the existing trip generation of the Site, an Automatic Traffic Count (ATC) survey was undertaken for seven days in December 2021. The survey recorded all vehicle trips entering and departing via the Site access from Horn Lane. The seven-day survey has been analysed and is summarised for the traditional network peak hours in **Table 5-6** below. This data will likely include a mixture of customers and operational traffic associated with the Site.

Table 5-6 Existing Site Trip Generation

VEHICLE TYPE	AM PEAK HOUR (08:00-09:00)			PM PEAK HOUR (17:00-18:00)			TOTAL DAILY TWO-WAY TRIPS
	ARRIVALS	DEPARTURES	TOTAL	ARRIVALS	DEPARTURES	TOTAL	
CARS / LIGHT GOODS VEHICLE (LGV)	10	10	20	1	2	3	**144**
MOTORCYCLES	0	1	1	0	0	0	**6**
HEAVY GOODS VEHICLE (HGV)	3	2	5	0	0	0	**8**
Total	**13**	**13**	**26**	**1**	**2**	**3**	**158**

5.4.4 Analysis of the surveys has identified the following points which summarise the Site's vehicle demand in its current capacity:

- 948 two-way movements in total over a week (Site closed on Sunday);
- Average of 158 two-way movements per day (78 inbound and 81 outbound);
- Average of 22 two-way vehicle movements in the peak hour;
- Cars and LGVs make up 92% of the vehicles entering and exiting the Site;
- Motorcycles make up 3% of the total vehicles, and
- 5% of the vehicles accessing the Site are HGVs.

EMPLOYEE MODE SHARE

5.4.5 To understand how existing staff are likely to travel to the Site, an indicative modal split has been established using 2011 Census Travel to Work data for workplaces in the Middle Super Output Area (MSOA) where the Site falls (Ealing 015).

Table 5-7: Estimated Existing Workplace Modal Split

MODE	MODAL SPLIT
Underground, metro, light rail or tram	19%
Train	9%
Bus, minibus or coach	13%
Taxi	0%
Motorcycle, scooter or moped	2%
Driving a car or van	48%
Passengers in a car or van	3%
Bicycle	3%
On foot	4%
Other methods of travel to work	0%
Total	**100%***

*possible rounding errors

5.4.6 The result is summarised in **Table 5-7** and is not deemed to be reflective of the current situation at the builders' merchants due to the policy of employing local people. Therefore **Table 5-8** shows the adjusted model splits for existing employees.

Table 5-8: Adjusted Existing Workplace Modal Split

MODE	MODAL SPLIT
Underground, metro, light rail or tram	41%
Train	19%
Bus, minibus or coach	28%
Taxi	0%
Motorcycle, scooter or moped	2%
Driving a car or van	0%
Passengers in a car or van	3%
Bicycle	3%
On foot	4%
Other methods of travel to work	0%
Total	**100%**

5.4.7 The builders' merchant currently employs 50 staff, including full and part-time, with circa 10 – 15 on-Site at any one time, and this number is not expected to increase with the Proposed Development.

PROPOSED RESIDENTIAL TRIP GENERATION

5.4.8 The TRICS database has been used to identify trip rates from surveys of similar developments to the Proposed Development.

5.4.9 Survey Sites were selected based on the following criteria:

- **Land use category**: 03- Residential;
- **Sub- Land use category**: Flats privately owned
- **Regions**: Greater London Sites only
- **PTAL**: 2 to 5;
- **Parking ratio:** less than 1.00 vehicles per dwelling
- **Surveys undertaken during Covid lockdowns -** Excluded; and
- **Survey date:** from 2014 to 2021

5.4.10 A total of six Sites were selected and are summarised in **Table 5-9.**

Table 5-9: TRICS Sites - Residential

REFERENCE	LOCATION	SURVEY YEAR	DWELLINGS	PTAL	PARKING RATIO (SPACES/DWELL)
HG-03-C-02	High Road, Wood Green	2014	30	4	0.833
HO-03-C-02	High Street, Brentford	2014	86	3	0.744

REFERENCE	LOCATION	SURVEY YEAR	DWELLINGS	PTAL	PARKING RATIO (SPACES/DWELL)
HO-03-C-03	Commerce Road, Brentford	2016	150	2	0.707
HO-03-C-04	London Road, Isleworth	2018	203	3	0.700
HO-03-C-05	Park Lane, Hounslow	2020	14	2	0.857
HV-03-C-02	Waterloo Road, Romford	2016	493	2	0.499

5.4.11 The trip rates generated using the Sites listed above are shown below in **Table 5-10**.

Table 5-10: Person Trip Rates

MODE	ARRIVALS	DEPARTURES	TOTAL
07:00-08:00	0.064	0.296	**0.36**
08:00-09:00	0.079	0.424	**0.503**
09:00-10:00	0.111	0.142	**0.253**
10:00-11:00	0.077	0.128	**0.205**
11:00-12:00	0.105	0.134	**0.239**
12:00-13:00	0.119	0.114	**0.233**
13:00-14:00	0.114	0.125	**0.239**
14:00-15:00	0.105	0.124	**0.229**
15:00-16:00	0.214	0.139	**0.353**
16:00-17:00	0.242	0.132	**0.374**
17:00-18:00	0.316	0.138	**0.454**
18:00-19:00	0.343	0.145	**0.488**
Daily	**2.388**	**2.316**	**4.704**

RESIDENT MODE SHARE

5.4.12 While the TRICS Sites are comparable in terms of PTAL, the selected Sites located within different boroughs may not accurately reflect the realistic modal split of the Proposed Development. The person trip rates from the TRICS analysis have therefore been disaggregated based on '*Method of travel to work'* data from the 2011 Census for the 'Ealing 015' Middle Super Output Area (MSOA), which encompasses the Site.

5.4.13 This modal split was adjusted to reflect the car-free nature of the scheme by removing the 'Car Driver' proportion and redistributing it onto other modes as described below:

- To reflect the accessibility of the Site to the Elizabeth Line at Acton Main Line station (which would not have been represented in the 2011 Census data and is likely to be a factor taken into consideration by future residents choosing to live at this Site) 50% of the 'car driver' trips have been distributed onto the 'Train' mode.
- The remaining 50% has been distributed to the other modes in line with the existing proportions (with 'car driver' and 'train' modes excluded).

5.4.14 The original and adjusted modal split of journeys to work is presented in **Table 5-11.**

Table 5-11: Forecast Resident Modal Split

MODE	COUNT (EALING 015)	PER CENT (EALING 015)	ADJUSTED %
Underground, metro, light rail or tram	1567	41%	47%
Train	291	8%	18%
Bus, minibus or coach	491	13%	15%
Taxi	5	0%	0%
Motorcycle, scooter or moped	53	1%	2%
Driving a car or van	811	21%	0%
Passengers in a car or van	52	1%	2%
Bicycle	156	4%	5%
On foot	391	10%	12%
Other methods of travel to work	12	0%	0%
Total	**3,289**	**100%***	**100%***

*possible rounding errors

5.4.15 The resulting proposed residential travel demand by all modes is shown in **Table 5-12.**

Table 5-12: Proposed Residential Travel Demand

MODE	MODAL SPLIT	AM PEAK HOUR (08:00-09:00)			PM PEAK HOUR (17:00-18:00)			DAILY		
185 units		**ARR**	**DEP**	**TOTAL**	**ARR**	**DEP**	**TOTAL**	**ARR**	**DEP**	**TOTAL**
Underground, metro, light rail or tram	47%	7	37	**44**	27	12	**39**	208	201	**409**
Train	18%	3	14	**17**	11	5	**15**	80	78	**158**
Bus, minibus or coach	15%	2	12	**14**	9	4	**12**	65	63	**128**
Taxi	0%	0	0	**0**	0	0	**0**	1	1	**1**
Motorcycle, scooter or moped	2%	0	1	**1**	1	0	**1**	7	7	**14**
Driving a car or van	0%	0	0	**0**	0	0	**0**	0	0	**0**
Passengers in a car or van	2%	0	1	**1**	1	0	**1**	7	7	**14**
Bicycle	5%	1	4	**4**	3	1	**4**	21	20	**41**
On foot	12%	2	9	**11**	7	3	**10**	52	50	**102**

MODE	MODAL SPLIT	AM PEAK HOUR (08:00-09:00)			PM PEAK HOUR (17:00-18:00)			DAILY		
Other methods of travel to work	0%	0	0	**0**	0	0	**0**	2	2	**3**
Total	**100%**	**15**	**78**	**93**	**58**	**26**	**84**	**442**	**428**	**870**

5.4.16 The residential element of the proposed scheme will comprise 185 units, and **Table 5-12** shows that the TRICS analysis forecasts a total of 93 all-mode two-way trips generated by the Site during the AM peak hour and 84 in the PM peak hour. With the estimated modal split applied, the residential element is estimated to generate 44 and 39 two-way trips via London Underground in the AM and PM peak hours, respectively, with lower levels of trips by other modes.

BUILDERS' MERCHANT TRIP GENERATION

5.4.17 Staff numbers are expected to be retained at their current level, so no additional trips will be associated with employees at the builders' merchants. The on-Site surveys have been used to calculate the vehicle trip rate for the builders' merchant and applied to the proposed floor areas minus the ancillary uses, as shown in **Table 5-13.**

Table 5-13 Proposed builders' merchant Trip Generation

VEHICLE TYPE	AM PEAK HOUR (08:00-09:00)			PM PEAK HOUR (17:00-18:00)			TOTAL DAILY TWO-WAY TRIPS
	ARRIVALS	DEPARTURES	TOTAL	ARRIVALS	DEPARTURES	TOTAL	
CARS / LGV	14	14	29	1	3	4	207
MOTORCYCLES	0	1	1	0	0	0	9
HGV	4	3	7	0	0	0	11
Total	**19**	**19**	**37**	**1**	**3**	**4**	**227**

5.5 DELIVERY AND SERVICING TRIPS

5.5.1 The servicing requirements of the builders' merchant element of the Site are expected to remain as existing. Whilst it was not possible to isolate the vehicles associated with servicing from the ATC survey described in **Table 5-6**, this would likely amount to approximately 5% of the overall daily trip generation (7-8 trips per day).

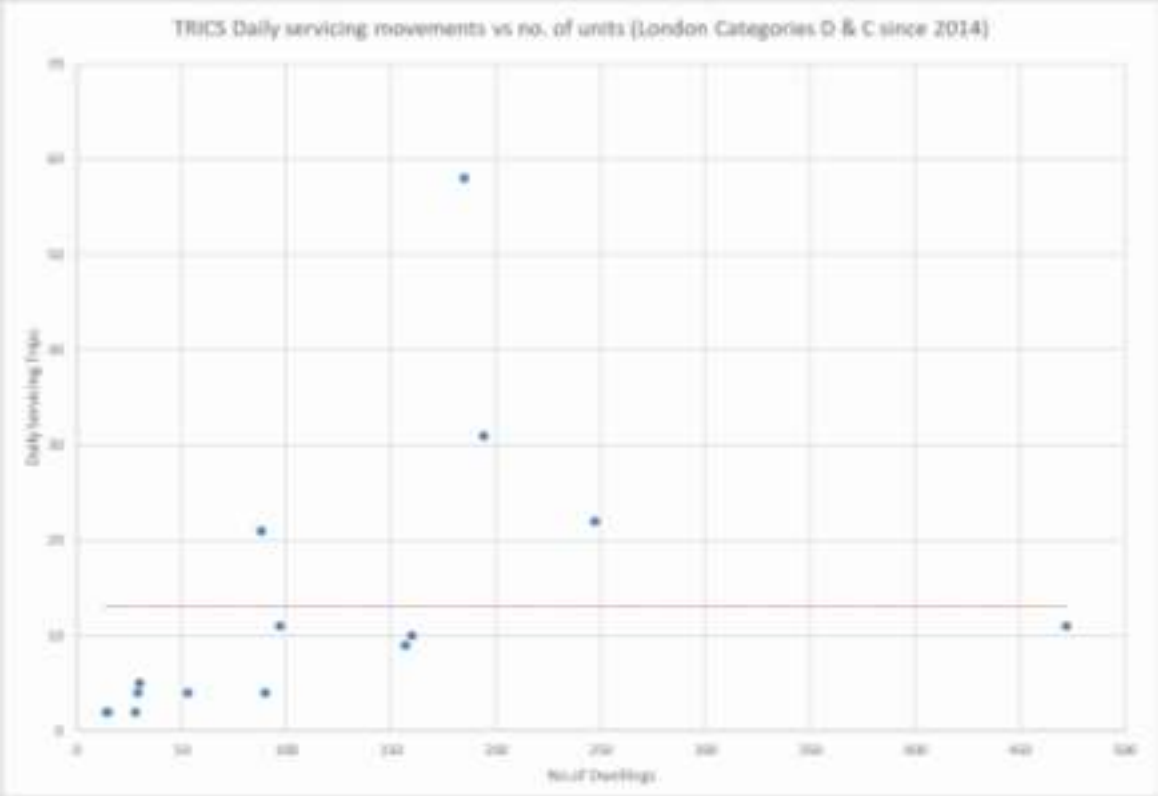
5.5.2 Delivery and servicing demand have been forecasted using survey data from the comparison Sites in the TRICS database, which were identified for the trip generation exercise earlier in this section.

5.5.3 Surveys have been selected based on the following**.**

- **Land uses:**
  - Affordable/Local Authority Flats
  - Private Flats
- **Survey date**: Latest 7 years
- **Location**: Greater London
- **PTAL**: 3 to 6; and

- **Survey date:** from 2014 to 2021

5.5.4 A total of sixteen Sites were selected as relevant and comparable to the Proposed Development ranging from 10 dwellings to 472 dwellings.

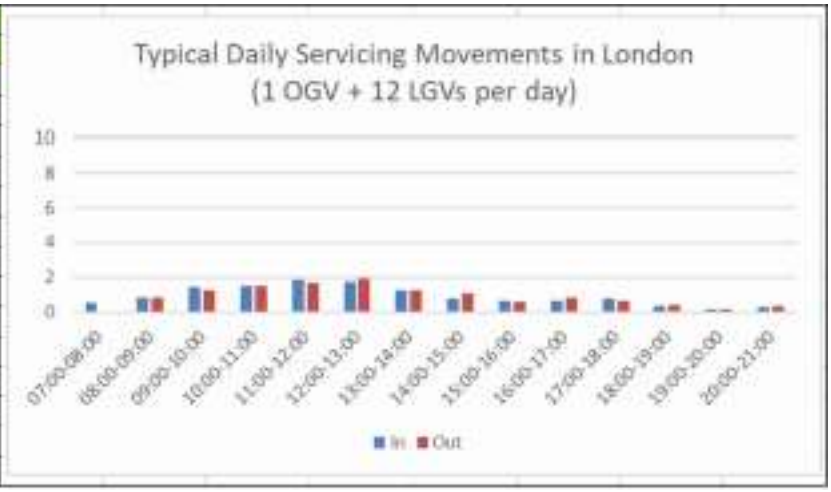


5.5.5 This spread of data in the scatter graph demonstrates no relationship between the number of residential units and the number of service trips. Instead, the surveys showed that residential developments generate, on average (mean, median and mode), 13 delivery trips a day, irrespective of development size.

5.5.6 This is entirely logical given that the vast majority of regular delivery and servicing trips are undertaken by a handful of operators (The post office, DPD, Amazon, DHL, etc.), and they organise their deliveries so that they only make one trip to an area per day rather than multiple trips.

5.5.7 The resultant average trips and the daily arrival and departure profile are presented below.

Time	Delivery Trips	
	In	Out
07:00-08:00	1	0
08:00-09:00	1	1
09:00-10:00	1	1
10:00-11:00	2	2
11:00-12:00	2	2
12:00-13:00	2	2
13:00-14:00	1	1
14:00-15:00	1	1
15:00-16:00	1	1
16:00-17:00	1	1
17:00-18:00	1	1
18:00-19:00	0	0
19:00-20:00	0	0
20:00-21:00	0	0



5.5.8 The servicing and delivery trip forecast in **Table 5-14** shows that two trips are expected in the morning peak hour, and two trips are expected in the evening peak hour.

Table 5-14: Forecast peak hour delivery and servicing trips

MODE	AM PEAK HOUR (0800-0900)			PM PEAK HOUR (1700-1800)			DAILY (0700-1900)		
	In	Out	Total	In	Out	Total	In	Out	Total
LGV	1	1	2	1	1	2	12	12	24
HGV	0	0	0	0	0	0	1	1	2
Total	**1**	**1**	**2**	**1**	**1**	**2**	**13**	**13**	**26**

5.5.9 The vast majority (around 85%) of servicing vehicles will be LGVs (i.e., 3.5t transit style vans or smaller), with around 15% being box vans that are 8-10m in length and the weekly refuse collection vehicle.

5.5.10 A DSP has been submitted with this application, providing measures to minimise the impacts of this servicing activity. Key elements of the DSP include:

- All servicing will take place within the Site. As such, the servicing activity generated by the development will not take place on the wider highway network.
- Refuse collection will either occur daily, twice weekly or weekly, and the overall daily trips are likely to be low overall.
- The interaction between the residential vehicles and the vehicles associated with the builder's merchant will be minimised through the design of the parking and manoeuvring areas. Builder's merchant deliveries to the Site and forklift manoeuvres will also be managed to reduce any potential conflicts.

5.6 COMMITTED DEVELOPMENTS

5.6.1 No committed developments have been considered as part of the travel demand analysis due to the scale of the Proposed Development and its low vehicle trip generation being unlikely to have significant cumulative impacts on the local transport networks.

5.7 NET TRIP GENERATION

5.7.1 The net vehicle trip generation associated with the Proposed Development is shown in **Table 5-15.** The main change in trips generated by the Proposed Development will relate to the residential element of the scheme (i.e. the data shown in **Table 5-12** and **Table 5-14**).

5.8 ASSESSMENT OF LONDON-WIDE NETWORK IMPACT

VEHICLE TRIPS

5.8.1 The residential element of the scheme is car-free and is only expected to generate vehicle trips by servicing, delivery vehicles, and Blue Badge holders. The builders' merchant will generate trips by operational vehicles, waste, servicing and delivery vehicles. The number of additional vehicle trips in the peak periods generated as a result of the scheme is therefore demonstrated in **Table 5-15** below (based on **Table 5-12, Table 5-13** and **Table 5-14**).

Table 5-15 Increase in Vehicle Trips Associated with the Proposed Development

TRIP PURPOSE	MODE	AM PEAK HOUR (08:00-09:00)			PM PEAK HOUR (17:00-18:00)		
		ARRIVALS	DEPARTURES	TOTAL	ARRIVALS	DEPARTURES	TOTAL
Builders' Merchant	Car/LGV	4	4	**8**	0	1	**1**
	HGV	1	1	**2**	0	0	
Resident Travel	Car Driver	0	0	**0**	0	0	**0**
	Passengers in a car or van	0	1	**1**	1	0	**1**
Resident Servicing	HGVs	0	0	**0**	1	0	**1**
	LGVs	0	0	**1**	2	2	**4**
	Total	**5**	**6**	**12**	**4**	**3**	**7**

5.8.2 As shown above, the Proposed Development would result in an increase of twelve two-way vehicle trips in the AM peak period and seven two-way vehicle trips in the PM peak period.

5.8.3 On this basis, it is considered that the impact of the Site on the highway network and Site access will be negligible. Given this level of trips, the Site access is unlikely to have capacity issues, so modelling of the Proposed Development's impact on the junction has not been undertaken.

PUBLIC TRANSPORT TRIPS

BUS TRIPS

5.8.4 Due to the Proposed Development, there is expected to be an increase of 14 and 12 two-way bus trips during the AM and PM peak hours. Within 640m of the Site, there are 28 bus services which serve the Site in each of the AM and PM peak hours. It is therefore concluded that the local bus services can accommodate the uplift in trips associated with the Proposed Development without having a material impact.

LONDON UNDERGROUND / RAIL TRIPS

5.8.5 The Proposed Development is expected to generate an additional 44 and 39 trips during the AM and PM peak periods by London Underground and an additional 17 and 15 trips during these peak periods by rail. The Elizabeth Line services from Acton Main Line Station, Central and District line services from North Acton station, and Piccadilly line services from Ealing Common provide frequent and high-capacity connections to a wide range of destinations across London. Given the high capacities of train carriages, the scale of the forecast uplift in the peak periods is likely to have a negligible impact on the level of service of these modes.

ACTIVE TRAVEL TRIPS

PEDESTRIAN TRIPS

5.8.6 The Proposed Development is expected to generate 11 and 10 trips made primarily on foot during the AM and PM peak periods. These can be expected due to the car-free nature of the residential element of the scheme, and the Site's accessibility to local amenities, supporting the attractiveness of trips being taken by foot.

CYCLE TRIPS

5.8.7 The Proposed Development is expected to generate an additional four and four-cycle trips in the AM and PM peak periods, which will be further encouraged with the provision of high-quality long-stay and short-stay cycle parking and the Site's proximity to existing local cycleways.

5.9 MANAGEMENT STRATEGIES AND DESIGN SOLUTIONS

5.9.1 Several management plans will be implemented to ensure the Proposed Development encourages sustainable travel and operates efficiently. A suitably worded planning condition or obligation is expected to secure these plans.

5.9.2 The residential element of the Proposed Development will be car-free. This, combined with implementing a Travel Plan, will minimise unnecessary car use of the Site once occupied.

FRAMEWORK TRAVEL PLAN

5.9.3 As part of this application, a TP has been prepared in accordance with TfL and the Department for Transport guidance, which sets out a range of preliminary management strategies and measures to support and encourage sustainable travel.

5.9.4 Any TP's overall aim/objective should be to minimise the impact of travel on the local and wider environment and promote sustainable travel choices, such as walking, cycling and public transport.

5.9.5 The TP identifies the requirement for specific travel plans to be developed upon occupation of the Site.

DRAFT DELIVERY & SERVICING PLAN

5.9.6 A Draft DSP will be prepared, setting out a management strategy to ensure the Site can be serviced efficiently and safely.

5.9.7 A DSP has been produced to support the planning application as a standalone document to manage refuse, delivery and service vehicle arrangements and overall accessibility. While it is recognised this will be a live document that will need to be adapted over the life of the development, the DSP sets out a range of management strategies and measures to ensure the Site can be readily serviced efficiently and safely without inconveniencing others.

OUTLINE CONSTRUCTION LOGISTICS PLAN

5.9.8 Ahead of demolition and construction, a contractor will be appointed who will ensure that a full CLP is prepared to satisfy planning conditions to secure its production prior to the commencement of any works. This will be prepared in accordance with TfL Construction Logistics Plan Guidance.

5.9.9 The document will also address the mode of travel, and parking arrangements, of construction staff, including measures to encourage car sharing to reduce traffic and parking impacts. Additional measures will be included to encourage construction staff to travel by public transport, walk or cycle, where practical.

5.9.10 The detailed CLP will provide the necessary vehicle swept path drawings to confirm the safe Site access/egress and manoeuvrability within the Site for demolition and construction by various vehicle types, including any abnormal loads.

6 LBE LOCAL BOROUGH ANALYSIS

6.1 INTRODUCTION

6.1.1 This section sets out how the development delivers local planning policy and specific local issues such as on-street parking and the operation of the local road network.

6.1 LOCAL POLICY DELIVERY

6.1.1 The statutory development plan for the London Borough of Ealing consists of the following:

- The London Plan;
- The London Borough of Ealing Local Plan.

6.1.2 The Local Plan sets out the Council's vision and a planning framework for the future development of the Borough, addressing needs and opportunities in relation to housing, the economy, community facilities and infrastructure. It also acts as a basis for safeguarding the environment, adapting to climate change and securing good design. It is a critical tool in guiding decisions about individual development proposals. It (together with any neighbourhood plans that have been brought into force) is the starting point for considering whether applications can be approved.

6.1.3 In addition to the Local Plan, the following planning policy and guidance documents are material considerations in the determination of the application:

- The National Planning Policy Framework (NPPF); and
- The National Planning Policy Guidance (NPPG);

EALING'S DEVELOPMENT STRATEGY, 2026

6.1.4 This document, adopted in 2012, sets out Ealing Council's vision and policies for future development within the borough. Policy 1.1 'Spatial Vision for Ealing' looks to support sustainable, safe and convenient transport networks to and through Ealing that, in particular, improve north-south transport links, promote healthy travel and reduce the need to travel. The 'vehicle-free' principle promoted as part of the Development shall support these aspirations.

6.1.5 Policy 1.1 also seeks to capitalise on and create opportunities for Crossrail and High Speed 2 (HS2), working closely with Crossrail and HS2 organisations to ensure the benefits to the borough are maximised. The Development may benefit in the long-term from the investments.

6.1.6 Another important point mentioned in this document is the need to support higher densities in areas of good public transport accessibility. This is relevant to the Proposed Development, which, although it has an 'average' PTAL rating, is located very close to Acton Main Line station and is increasing population density to 185 dwellings.

6.1.7 Policy 2.2 'Revitalise Acton Town Centre' aims to make provision for improved public transport, pedestrian and cycling, and urban realm enhancements, including improvement of pedestrian and cycle access.

6.1.8 Policy 2.4: 'Regenerate the Acton Main Line station area' discusses permitting modifications to Acton Main Line station to cater for Crossrail services and provide additional station capacity and improved passenger facilities. This will improve connectivity for residents of the Development. The improvements to Acton Mainline Station were completed in March 2021.

6.1.9 Policy 6.1: 'Physical Infrastructure' outlines the Infrastructure Delivery Plan that identifies the infrastructure improvements required to support planned development within the borough to 2026. With regards to transport, the plan seeks to identify and promote local and strategic transport improvements to increase connectivity between areas of development and within the borough, including enhancing north-south and orbital links as well as east-west, radial journeys.

EALING COUNCIL TRANSPORT STRATEGY, 2019

6.1.10 The Council's vision outlined in the Transport Strategy is 'to improve streets and transport infrastructure to reduce dependency on cars to prioritise active, efficient and sustainable travel modes, making Ealing a healthier, cleaner, safer and more accessible place for all'.

6.1.11 There are three main transport objectives which will set the transport policies for the Borough:

1. Mode Shift – reducing the dependency on the motorised vehicle by moving trips, particularly the shorter ones, to active travel using more sustainable modes (walking, cycling and public transport) through behaviour change.
2. Reducing the environmental footprint of transport – particularly improving the Borough's air quality by encouraging the use of active travel modes and using the cleanest engines and fuels.
3. Improving road safety – making the Borough roads as safe as possible, particularly for those modes perceived to be more vulnerable, i.e., walking and cycling.

6.1.12 There are significant overlaps between how these objectives can be delivered; for example, by walking or cycling, the environmental impact of a trip will be significantly lower; by providing segregated cycle lanes, cycling becomes safer, which is likely to increase the number of cyclists and thus provide mode shift. At the same time, it is recognised that not every trip can be made by sustainable modes; therefore, it is important to significantly reduce pollution caused by essential motorised vehicle trips as well.

6.2 SUMMARY

6.2.1 Effective transport policies help to promote sustainable travel, encourage more active lifestyles, and help with improving the health and well-being of current and future occupiers. The relevant policy documents summarised the above-set standards for developments to adhere to, such as the London Plan, which stipulates the cycle parking, car parking, disabled parking, and electric vehicle parking requirements for London. The Development will adhere to the national, regional, and local policies and shall support the achievement of sustainable development outcomes.

6.2.2 In accordance with the London Plan, the residential element of the Proposed Development will be car-free except for six Blue Badge car parking spaces, which equates to 3%.

6.2.3 Long-stay cycle parking provision will include 336 spaces as agreed with LBE and TfL during pre-application discussions and in line with London Plan requirements.

6.3 CONTROLLED PARKING ZONES (CPZ)

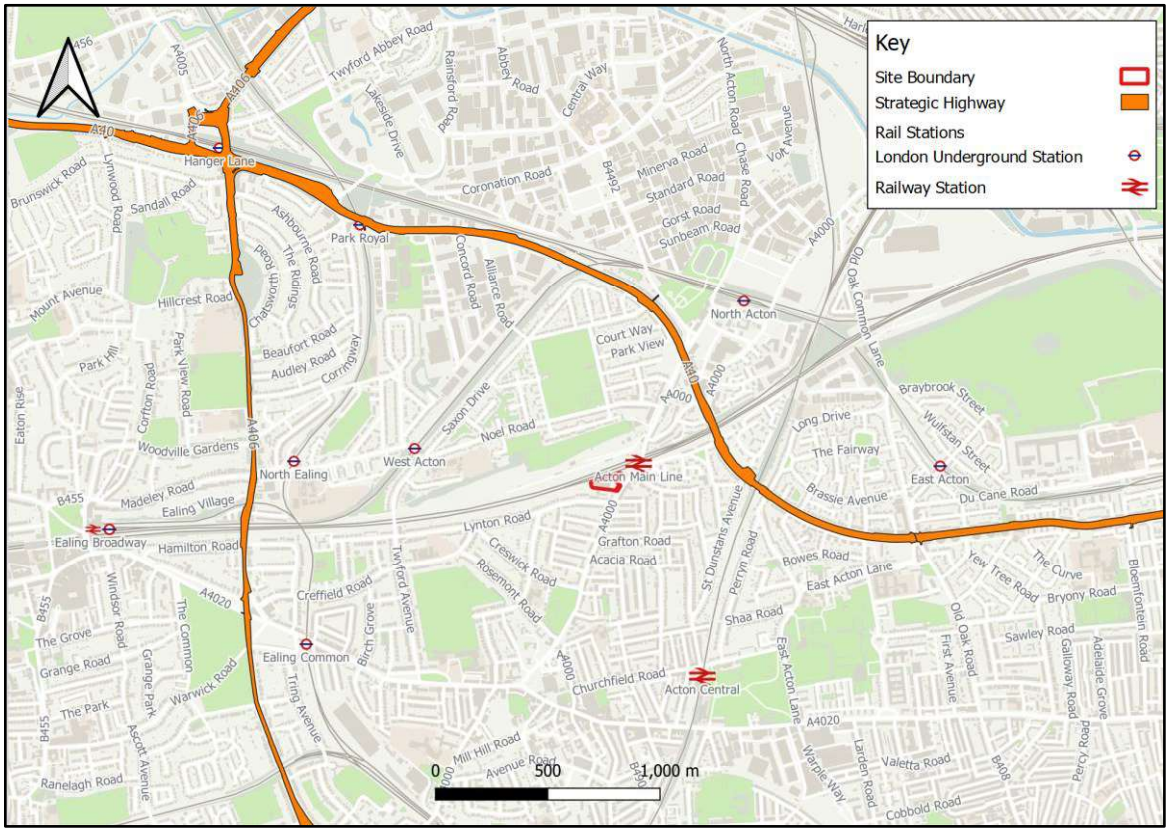
6.3.1 The roads surrounding the Site are covered by either double yellow lines or restricted parking. The CPZs surrounding the Site are shown in **Figure 6-1** below.

Figure 6-1: Local CPZ Map

6.4 STRATEGIC HIGHWAY NETWORK

6.4.1 The Site is considered well-connected in terms of the strategic highway network, as Horn Lane northeast of the Site forms part of the A4000, which connects directly to the A40 north of the Site, as seen in **Figure 6-2** below.

Figure 6-2:Strategic Highway Network



6.5 CAR CLUB

6.5.1 All car club vehicles within proximity of the Site are shown in **Figure 6-3.**

6.5.2 Car Club cars provide a convenient alternative to privately-owned vehicles because car club members only pay for what they use. Therefore, they do not have to worry about tax, insurance, parking permits, servicing, or repairs. Research has also shown that just one car club vehicle can reduce as many as 20 private cars.

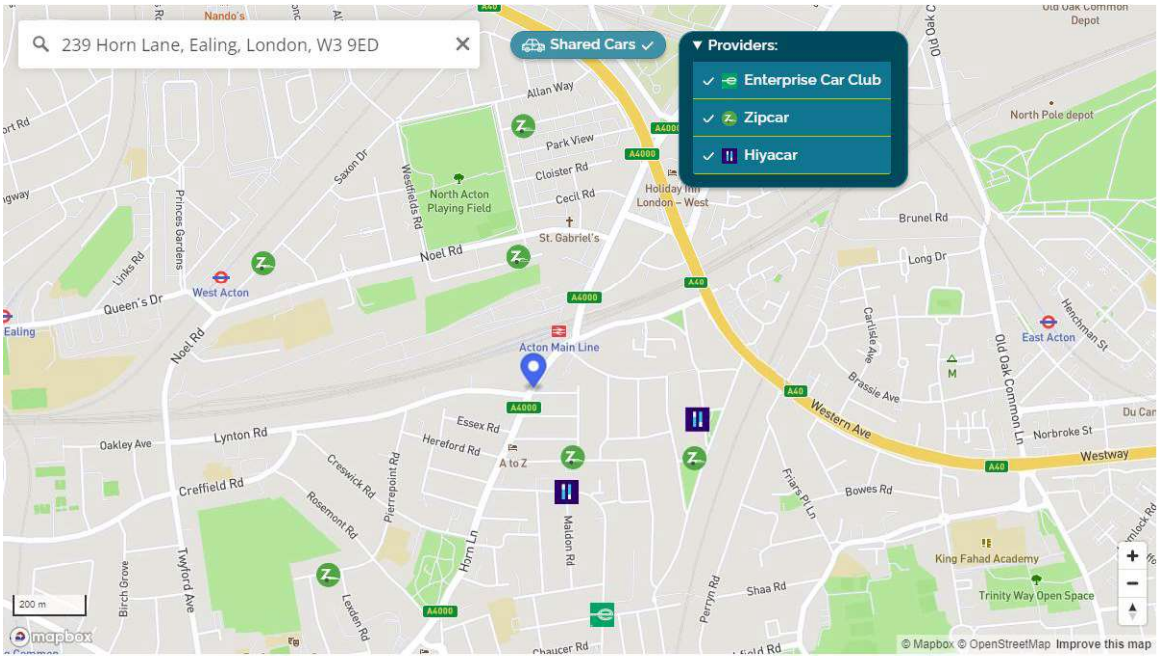
Figure 6-3: Car Club locations

6.5.3 The nearest car club parking spaces to the Site are located at:

- Grafton Road (Zipcar);
- Acacia Road (Hiyacar); and
- Lowfield Road (Zipcar).

6.5.4 The car club vehicles in the vicinity of the Site are shown in **Figure 6-4** below.

Figure 6-4 Local Car Clubs Map



Source: https://www.como.org.uk/shared-cars/existing-schemes-and-operators

6.5.5 Convenient access to a car club facility will encourage lower levels of car ownership. Evidence supporting this assumption is summarised below:

- **Carplus (2014) Annual Survey: London (p. 25):**

  The percentage of new joiners reporting owning no car before joining a car club was 58 per cent, and after joining the car club was 73 per cent - indicating the potential for a 26% reduction in car ownership relative to conditions that might otherwise prevail.

- **TfL (2014) Parking and Car Club Potential Users and Use, Systra (p. 2):**

  Research on London license holders identified that household car ownership is not reviewed regularly. When it is, reasons include life events, such as moving to a new house or having a baby and external impacts, such as changing parking policy or age/functionality of the car owned. This highlights that the Proposed Development is well placed to maximise the benefits of a car club as all occupiers will initially be moving home.

- **Zip Car, A Transport Solution (2017 Viability Assessment provided for another London residential development):**

  A Zip Car-provided car club car takes an average of 10-15 privately owned vehicles off the roads of the UK because members often sell (or don't replace) a car when they join. There are a number of Zip Car services located within a 20–30-minute walk of the Site.

6.6 SUMMARY

6.6.1 The Proposed Development delivers local transport planning policy. It is suitably located and designed to maximise the potential for sustainable travel and minimise impacts on the local transport networks through appropriate access, car and cycle parking and servicing and waste strategies.

6.6.2 To protect local on-street parking amenities, prospective residents and tenants of the Proposed Development would be prohibited from obtaining on-street permits in the CPZ, which is expected to be secured through the s106 or similar.

7 CONSTRUCTION LOGISTICS PLAN

7.1 INTRODUCTION

7.1.1 This section of the Healthy Streets TA sets out the Outline Construction Logistics Plan (CLP) to support the planning application. It summarises the key transport-related matters during the construction works of the proposed redevelopment proposals.

7.1.2 A detailed CLP would be prepared before construction and implemented and monitored throughout the construction programme.

7.1.3 An appropriate planning condition would secure the requirement for a detailed CLP, which will be prepared following TfL's Construction Logistics Planning Guidance (the 'Guidance') before the commencement of demolition and construction.

7.2 CONSTRUCTION LOGISTICS POLICY

7.2.1 Relevant local and regional planning policies and guidance have been reviewed to provide context for deliveries and servicing concerning the development proposal.

LONDON PLAN (2021)

7.2.2 The London Plan is part of the statutory development plan and aims to ensure that London's transport is easy, safe, and convenient for everyone and actively encourages more walking and cycling.

7.2.3 Policy T7, 'Freight and Servicing', states that Construction Logistics and Delivery and Servicing Plans will be required and should be developed in accordance with Transport for London guidance and in a way that reflects the scale and complexities of developments.

TFL CONSTRUCTION LOGISTICS PLAN GUIDANCE

7.2.4 TfL issued the Guidance to ensure that CLPs of high quality are produced to minimise the impact of construction logistics on the road network.

7.2.5 The Guidance focuses on reducing the impact of construction in terms of the following:

- environmental impact: lower vehicle emissions and noise levels;
- road risk: improving the safety of road users;
- congestion: reduced vehicle trips, particularly in peak periods, and
- cost: efficient working practices and reduced deliveries.

7.2.6 CLPs provide a framework for understanding and managing construction vehicle activity into and out of the Proposed Development and should detail:

- the amount of construction traffic generated;
- the routes the construction vehicles will use and consideration of local impacts;
- the impact on relevant community considerations, and
- any traffic management that will be in place.

7.2.7 An outline CLP accompanies the planning application and gives the planning authority an overview of the expected logistics activity during the construction programme. A detailed CLP is submitted to a planning authority pursuant to and in the discharge of a condition imposed on the planning permission. It provides the planning authority with the logistics activity expected during the construction programme.

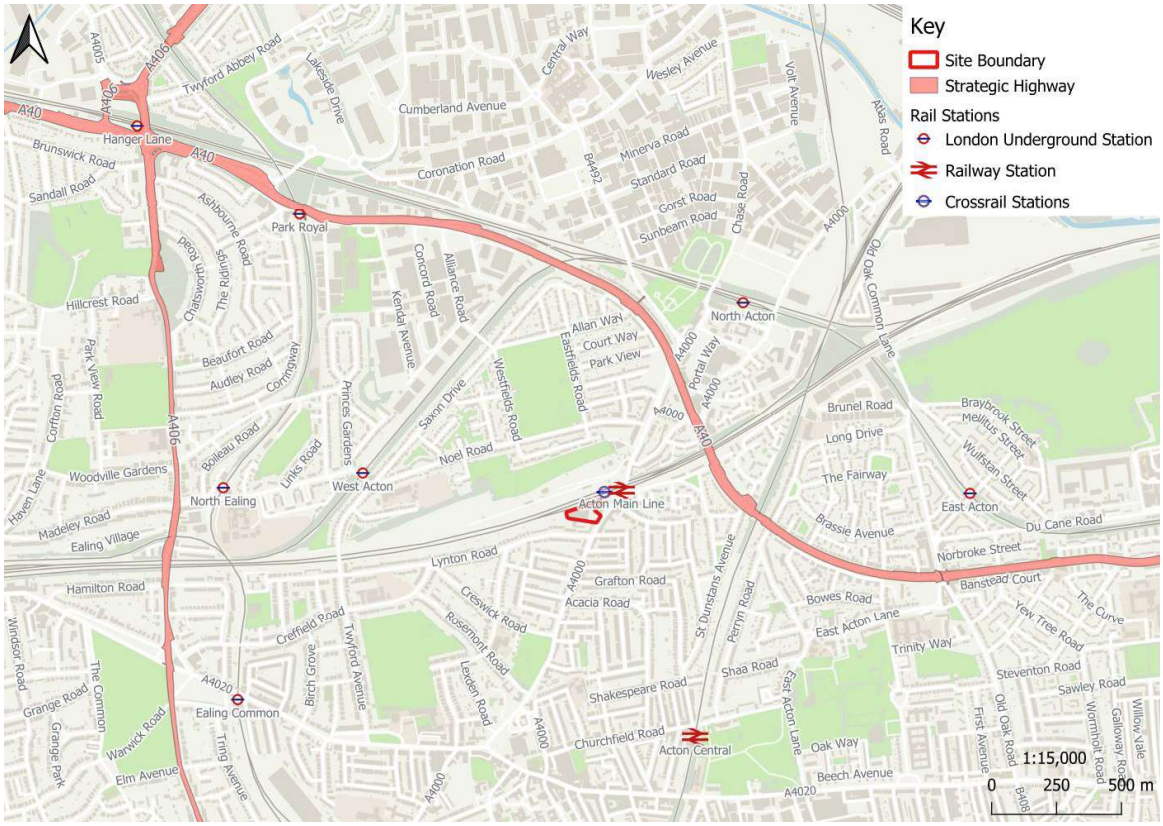
7.2.8 The Guidance suggests a range of measures and strategies that should be considered to reduce the impact of construction on the local environment.

CONTEXT PLANS

7.2.9 **Figure 7-1** shows the location of the Proposed Development in a regional context, including:

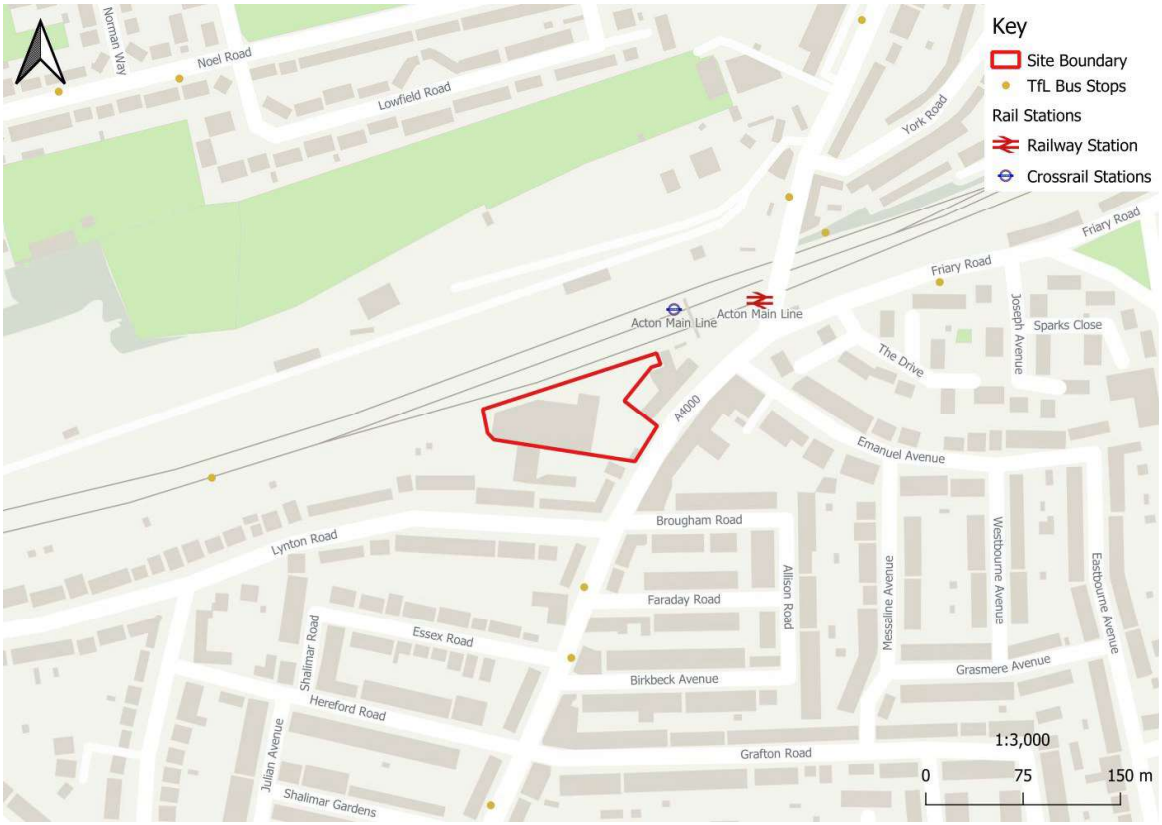
- Strategic roads that are likely to be used to access the Site; and
- Community considerations (i.e., stations and greenspace).

Figure 7-1: Site location within a regional context



7.2.10 **Figure 7-2** shows the Site's location in a local context, showing the Site's immediate local highway network.

Figure 7-2: Site located in the context of the local transport network



7.3 OBJECTIVES

7.3.1 The overall objectives of the CLP are to:

- **Lower emissions**;
- **Enhance safety** – improve vehicle and road users' safety; and
- **Reduce congestion** – reduce trips overall, especially in peak periods.

7.3.2 To support the realisation of these objectives, several sub-objectives are provided:

- Encourage construction workers to travel to the Site by non-car modes;
- Promote smarter operations that reduce the need for construction travel or that reduce or eliminate trips in peak periods;
- Encourage the use of greener vehicles and sustainable freight modes;
- Manage the ongoing development and delivery of the CLP with construction contractors;
- Communicate Site delivery and servicing facilities to workers and suppliers, and
- Avoid queueing and disrupting the traffic along the surrounding roads.

7.4 CONSTRUCTION PROGRAMME

7.4.1 Planning for construction is understandably at a preliminary stage and may be subject to review and modification during detailed construction planning. For this reason, the following information is based on reasonable assumptions and the collective experience of the consulting team with similar residential and commercial projects.

7.4.2 The detailed construction programme for each phase will be provided within the Detailed CLP.

7.5 SITE LOGISTICS

7.5.1 The efficient management of the Site logistics will be vital to the project's success. A key logistics strategy for a construction project is to ensure that the products and materials arrive on-Site at the time and in the required quantities.

7.5.2 The contractors will ensure that the necessary pre-planning is undertaken and that the quality of the communication between those planning the project and those supplying the products and materials is maintained throughout the project.

7.6 VEHICLE ROUTING

7.6.1 The contractor will use designated construction traffic routes for deliveries to the Site, waste removal, etc.

7.6.2 Access routes to and from the Site to be used by HGVs will be agreed upon with LBE before the initiation of the construction programme via the detailed CLP to minimise disruption to the road and pedestrian network. The strategic road network will be used as far as possible to reach each Site.

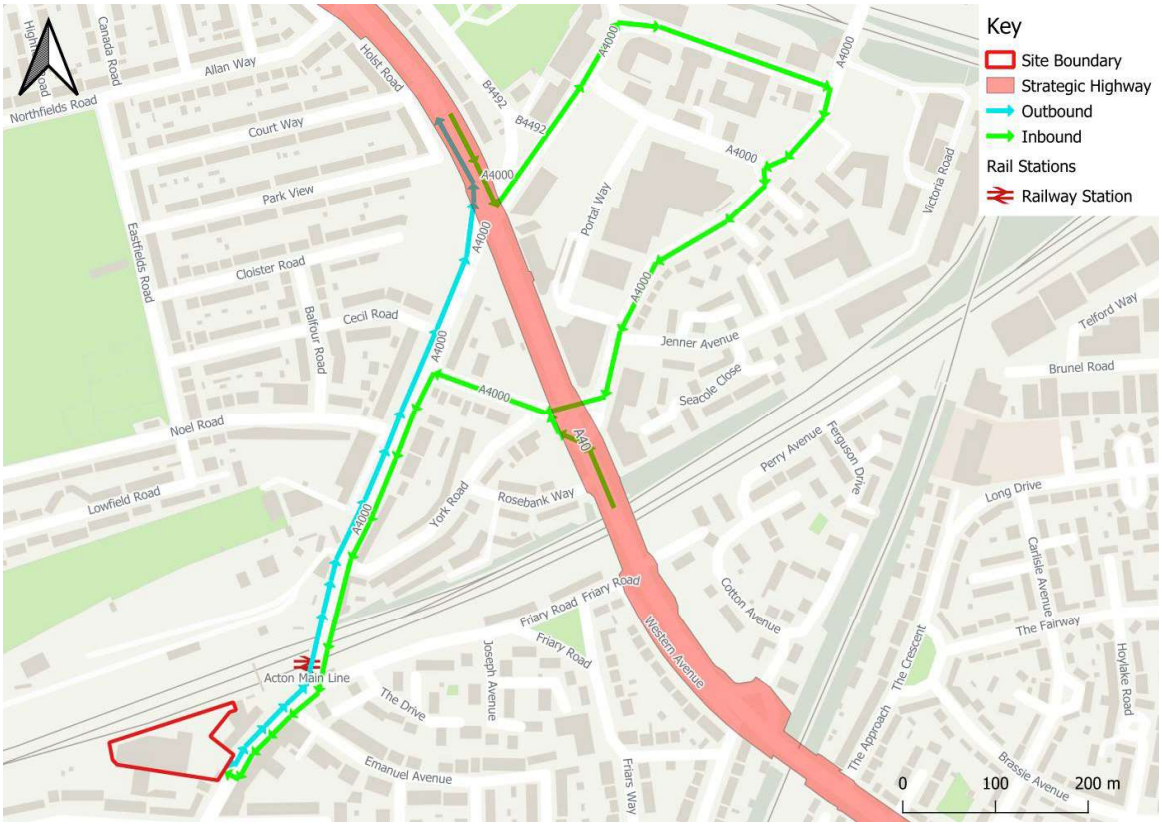
7.6.3 During all phases, access to the Site will be from Horn Lane.

7.6.4 It is anticipated that the primary routes for construction traffic will use the A40 and Horn Lane

7.6.5 All delivery vehicles to the Site will be informed by the contractor once appointed of the access strategy and requested to follow these routes (rather than other local residential roads) depending on the direction in which the respective deliveries originate.

7.6.6 **Figure 7-3** shows the proposed vehicle routing.

Figure 7-3: Proposed construction vehicle routes



7.6.7 Once the contractor is appointed, further opportunities to maximise vehicle access to the construction Site will be investigated to reduce the construction programme and mitigate associated impacts.

7.6.8 These will be included within the submitted detailed Construction Environmental Management Plan and/or the Construction Traffic Management Plan, which is expected to be secured by a planning condition.

7.7 DELIVERY AND BOOKING SCHEDULING

7.7.1 A web-based Delivery Management System (DMS) could be used to manage and control (where possible) all deliveries to the Site. This will be made available to LBE for information and to assist in monitoring in conjunction with other developments within the area.

7.7.2 The DMS would enable the contractor to:

- Manage deliveries to avoid time-critical peak periods for the network, such as a route to and from work times;
- Optimise productivity and reduce labour downtime;
- Minimise or eliminate waste and associated vehicle movements;
- Facilitate health and safety management on-Site;
- Minimise the impact of Site traffic and carbon dioxide emissions;
- Improve quality control and audit trails;
- Demonstrate CSR and maintain community relations;
- Increase agility and faster contingency responses;

- Develop sustainability in the logistics process; and
- Demonstrate to all local stakeholders that delivery congestion management assessments have been carried out.

7.7.3 The purpose of this measure will be to ensure multiple construction vehicles do not arrive at the same time and to minimise any occurrence of vehicles needing to wait locally on the highway.

7.7.4 Booking availability will be determined by unloading space availability and activities on-Site and managed carefully to minimise impacts on the local transport network. A daily delivery schedule will be maintained, and unauthorised deliveries will be turned away until the approved procedure has been followed.

7.7.5 To minimise the likelihood of congestion during the construction period, strict monitoring and control of vehicles entering and egressing the Site will be implemented. Construction deliveries will be carefully planned, with delivery times agreed upon with each subcontractor and supplier using a booking system. Delivery schedules will be produced to look at the profiles of up-and-coming deliveries, regulate deliveries, and avoid any potential queueing.

7.7.6 Deliveries will be made 'just in time to minimise the amount of space required on-Site for construction materials. Hard copies of daily delivery schedules will be displayed at prominent locations within the Site and issued to drivers and any other materials handling equipment operators, all of whom need to be in constant communication with one another. All radio users will be trained on correct radio procedures and protocols.

7.8 SITE ACCESS

7.8.1 The proposed logistics plan for the Site incorporates the following key features:

- Products and materials will be delivered to the Site by vehicle and unloaded within the Site boundary. Marshals will strictly control any movements through the access, and short-term temporary barriers will be erected to safeguard pedestrians where required; and
- Access and egress are to be controlled by banksman.

CONSTRUCTION VEHICLES

7.8.2 The main access for construction vehicles will be managed to easily accommodate all vehicles expected to access the Site.

7.8.3 To facilitate the construction of the development, a qualified banksman will be on hand to ensure the safe access and egress of construction vehicles. As set out within the Health and Safety Executive (HSE) guidance, the traffic marshal directing vehicle movements will be trained and authorised.

7.8.4 Trained traffic marshals will be responsible for facilitating unloading/loading goods to the Site/from the correct offloading zone and storage areas to ensure safe unloading practices.

PERSONNEL ACCESS

7.8.5 Given the accessible location of the Site, most operatives are anticipated to arrive by public transport. No operative parking will be permitted or encouraged.

7.8.6 Pedestrian access to the Site will always be segregated from vehicle traffic, with clear signage to maintain the Site's safety and the public.

7.8.7 Once the contractor is appointed, further opportunities to maximise access to the construction Site will be investigated to reduce the construction programme and mitigate associated impacts.

7.8.8 These will be included within the submitted detailed Construction Environmental Management Plan and/or the Construction Traffic Management Plan, which is expected to be secured by a planning condition.

7.9 STRATEGIES TO REDUCE CONSTRUCTION IMPACTS

7.9.1 A few strategies and measures are planned to reduce the impacts of construction and construction traffic on the local area. The planned measures can be categorised as follows:

- Committed - measures that will be implemented as part of the CLP;
- Proposed - measures that are feasible and likely to be implemented. Once a contractor is appointed, these measures will be studied further and confirmed within the detailed CLP, and
- Considered - measures that are unlikely to be implemented or feasible but could be investigated or become relevant in the future.

7.9.2 **Table 7-1** summarises the planned measures for constructing the Proposed Development based on the checklist provided in TfL's CLP guidance.

Table 7-1: Construction planned measures

PLANNED MEASURES	COMMITTED	PROPOSED	CONSIDERED
MEASURES INFLUENCING CONSTRUCTION VEHICLES AND DELIVERIES			
Safety and environmental standards and programmes	X		
Adherence to designated routes	X		
Delivery scheduling	X		
Re-timing for out-of-peak deliveries		X	
Re-timing for out-of-hours deliveries		X	
Use of holding areas and vehicle call-off areas			X
Use of logistics and consolidation centres			X
Vehicle Choice		x	
MEASURES TO ENCOURAGE SUSTAINABLE FREIGHT			
Freight by water			X
Freight by rail			X
MATERIAL PROCUREMENT MEAURES			
Design for manufacture and assembly and off-Site manufacture			X
Re-use of material on the Site		X	
Smart procurement		X	
OTHER MEASURES			
Collaboration with other Sites in the area			X
Implement a staff Travel Plan	X		

7.9.3 The Construction Logistics and Community Safety (CLOCS) standard will be signed up to, ensuring that the construction contractor (as well as suppliers and sub-contractors) follow safe practices in managing their operations, vehicles, drivers and construction Sites.

7.9.4 All construction vehicle operators will be required to be accredited in line with the Fleet Operator Recognition Scheme (FORS). FORS accreditation confirms that a fleet operator can demonstrate that appropriate systems and policies exist to ensure drivers are suitably fit, qualified and licenced to operate vehicles that are properly maintained, equipped and insured. It is a mechanism by which adherence to the CLOCS standard can be assured and monitored.

VEHICLE CLEANING

7.9.5 To prevent the contamination of local roads, a proprietary wheel wash system and a jet wash will be in place inside the Site. A traffic marshal will then check each vehicle for cleanliness before allowing the vehicle to leave the Site. Additionally, working practices will be selected to minimise the release of dust, for example, through water suppression during cutting operations.

STAFF TRAVEL PLAN

7.9.6 A staff Travel Plan will be prepared by the contractor as part of the detailed CLP to encourage the use of sustainable modes considering the good level of public transport accessibility. Car parking for construction workers will be restricted. Staff cycle parking facilities will be provided.

WASTE

7.9.7 A designated waste area will be established, consisting of a fenced area where a waste skip can be stored, such as plasterboard, timber, metal and general waste. Waste will only be removed by licensed carriers, where waste transfer notes and consignment notes will be obtained and held for 2 and 3 years, respectively.

7.9.8 Records of all waste removed from the Site, including waste from landfills and recycled waste, will be held on-Site. Due to the method of controlling the waste, it is not envisaged that any noise pollution will be caused during the loading of skips, etc.

HOURS OF WORK

7.9.9 It is anticipated that the core working hours for construction will be as set out as follows:

- 08:00 – 18:00 hours on weekdays;
- 08:00 – 13:00 hours Saturdays; and
- Working on Sundays/Public Holidays will be subject to reasonable notice.

7.9.10 All work outside these hours will be subject to prior agreement and/or reasonable notice given to LBE and their Environmental Health Officer. These hours will be strictly adhered to unless or in the event of:

- An emergency demands the continuation of work on the grounds of safety;
- Fitting out works are being carried out within the containment of the building envelope; or
- Completion of an operation that would otherwise cause greater interference with the environment/general public if left unfinished.

7.9.11 Once appointed, the contractor will investigate the opportunity to collaborate with other local construction Sites.

ABNORMAL LOADS

7.9.12 Any abnormal loads will be planned, and the route and methodology will be agreed upon with the highway's authority.

RAIL AND WATER TRANSPORT FREIGHT

7.9.13 The use of water mode to transport freight is unlikely to be practical given the Site location, and there will be limited muck-away material to remove. The use of rail as a mode of transport will be considered. Off-Site manufacture will be investigated and proposed where practical. Once appointed, the contractor will develop a plan to maximise smart procurement.

7.10 CONSTRUCTION CONSOLIDATION CENTRES

7.10.1 The Directory of London Construction Consolidation Centres (CCCs) provides information to the construction industry and planning authorities to help locate CCCs that can improve the overall resource efficiency of a construction project in London.

7.10.2 CCCs are appropriately located distribution facilities where multiple bulk material deliveries are stored and transported to construction Sites.

7.10.3 By using CCCs, developers, contractors, local authorities, and society can achieve benefits, including:

- Reduced construction and delivery costs;
- Increased security of supplies, reducing the likelihood of project over-run;
- Reducing the environmental impact of development Sites as part of an overall logistics strategy to gain planning permission and comply with the Guidance; and
- Improved safety.

7.10.4 All CCCs included are FORS accredited. Third-party logistics companies that don't operate their own fleet have met a requirement to provide services to fleets at a minimum of FORS bronze. Many centres exceed minimum mandatory safety requirements and are compliant with CLOCS.

7.10.5 The function of the CCCs is such that:

- Deliveries of materials are made to the CCC from suppliers;
- Materials are checked to ensure they are as specified and damage-free;
- Materials are held in the CCC, and stock is called-off when required and then picked and packed into consolidated loads, and
- Vehicles can then be utilised for reverse logistics operations, with waste, damaged goods, pallets and stillages taken back to the CCC on the return route.

7.11 IMPLEMENTATION, MONITORING AND UPDATING

IMPLEMENTING

7.11.1 In the first instance, the outline CLP will be issued to LBE for review as part of the planning application. The local community will be consulted to identify any concerns about construction activity and traffic. An appropriate planning condition/obligation would secure the requirement for a detailed CLP to be submitted and approved before the Proposed Development's commencement. The principal contractor would prepare the detailed CLP.

7.11.2 The principal contractor will be responsible for implementing the CLP. It is expected that a Contractor and Driver Handbook would be used to distribute information which makes sure that all contractors are aware of their obligations.

7.11.3 The key measures identified to manage and control the impacts of construction traffic and travel by staff are expected to be:

- Commitment to meet CLOCS / FORS accreditation;
- Use of delivery scheduling system;
- Designated construction traffic routes ensuring all HGVs use appropriate strategic roads, and
- Travel Plan for construction staff.

MONITORING

7.11.4 A coordinator will be appointed to undertake the day-to-day management of the CLP and will be the first point of contact for dealing with any Site issues. The CLP will be regularly monitored.

7.11.5 Data sharing is a key principle for construction's success and continuous improvement. A list of items will be agreed upon, and specific data will be disseminated. This is expected to include the following:

- Compliance
    - FORS compliance
    - Routing compliance
- Data from the delivery scheduling system and the recorded log of vehicle movements to the Site:
    - Vehicle type and size
    - Duration on Site
- Safety issues, including any injuries or near misses
- Breaches and complaints
- Staff travel survey

7.11.6 The contractor will review opportunities to maximise footway widths throughout the construction programme.

UPDATING

7.11.7 The outline CLP will be developed into a detailed CLP once a contractor is appointed and following the grant of any planning permission.

7.11.8 Once the contractor is appointed, further opportunities to maximise vehicle access/egress of the construction Site will be investigated to reduce the construction programme and mitigate associated impacts. These will be included within the submitted detailed Construction Environmental Management Plan and/or the Construction Traffic Management Plan, which is expected to be secured by a planning condition.

7.11.9 The detailed CLP will be prepared following consultation with LBE and will require the approval of the highway authority. This will ensure that all construction activities on the Site accord with relevant policy requirements.

7.11.10 After the detailed CLP is submitted and approved, the CLP will be an evolving document to account for any changes to the construction strategy and incorporate monitoring results and any consequent changes. It will be reviewed internally every month and/or at any time there is a significant change in the construction process. This will ensure that the document remains relative to the realities of the Site at any point in time.

7.11.11 The CLP will be kept on-Site and updated by the Principal Contractor in consultation with the highway authority.

8 SUMMARY AND CONCLUSIONS

8.1.1 This TA has been prepared to support a mixed-use development proposal at 227-239 Horn Lane in Acton, West London.

8.1.2 The proposal seeks to re-provide a new modern builder's merchant on-Site for continued builders' merchant/employment activity and provide new residential development comprising 185 flatted units.

8.1.3 The Proposed Development trip generation has been forecast and related to the capacity of the transport network. The builders' merchant element of the Site will remain largely the same, whilst the residential aspect will be car-free. As such, the effect on the local highway network is considered negligible as very few additional vehicles will be added to the network due to the development, mostly servicing and delivery vehicles.

8.1.4 The impact of the Proposed Development on public transport is negligible as there are several public transport options within walking vicinity of the Site. Local public transport services provide significant capacity to easily accommodate the Proposed Development public transport trips with negligible impacts.

8.1.5 The Proposed Development is suitably located and designed to maximise the potential for sustainable travel and minimise impacts on the local transport networks through appropriate access, public realm, parking and servicing strategies. The Proposed Development is, therefore, sustainable and appropriate in principle.

8.1.6 A Framework TP, Draft DSP, and an Outline CLP have been prepared to encourage sustainable travel modes and ensure that the Proposed Development operates efficiently.

8.1.7 Following TfL's Healthy Streets Transport Assessment Guidance, **Table 8-1** summarises the conclusions of this Healthy Streets TA.

Table 8-1 Key Transport Assessment Conclusions

TA SECTION	KEY TRANSPORT IMPACTS / ISSUES	SOLUTIONS / MECHANISMS / RECOMMENDATIONS
Site & Surroundings	Access to the Site from Horn Lane may present safety risks if pedestrian trip generation increases.	Raised / Copenhagen-style crossing on Horn Lane and a delineated pedestrian route from the Site access to the ground-level building cores are proposed
Site & Surroundings	The existing Site has no cycle parking provision	The Proposed Development includes 336 long-stay and eleven short-stay parking spaces to the London Plan standards.
Site & Surroundings	Additional development can increase demand for parking on and off-Site	The residential development is proposed to be car-free except for Blue Badge parking. The builders' merchant element will provide operational parking only. It is proposed that new residents will not be eligible for permits to park in the CPZ (S106)

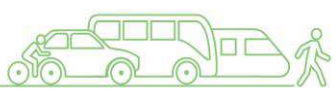
TA SECTION	KEY TRANSPORT IMPACTS / ISSUES	SOLUTIONS / MECHANISMS / RECOMMENDATIONS
Site & Surroundings	The proposed use of the Site will generate servicing and delivery trips for both the builders' merchant and residential elements	The Proposed Development will accommodate all servicing and delivery trips on Site. Dedicated loading bays for the builders' merchant and residential elements are proposed. This TA is accompanied by a DSP.
London Wide Network	The development will generate new trips on the transport network, particularly the public transport network considering it will be car-free.	A detailed review of how and where people will travel has been undertaken, and the impacts of the development on the London-wide network is expected to be negligible. The proposed development is located in an area with good access to public transport routes and high-frequency services, which can accommodate the forecast development trips without perceptible impact.
	Vehicle Trips	The Proposed Development will result in an increase of two two-way vehicle trips in the AM peak period and six two-way vehicle trips in the PM peak period. This level of trips would have a negligible impact on the local highway network.
Site & Surroundings & ATZ Assessment	There are several instances where tactile paving is not present along walking routes from the Site, presenting safety issues.	The recommendation is to introduce tactile paving at locations identified by ATZ assessment.
Construction	Full details of the construction methodology are not currently available	Full CLP is to be secured by a planning condition.

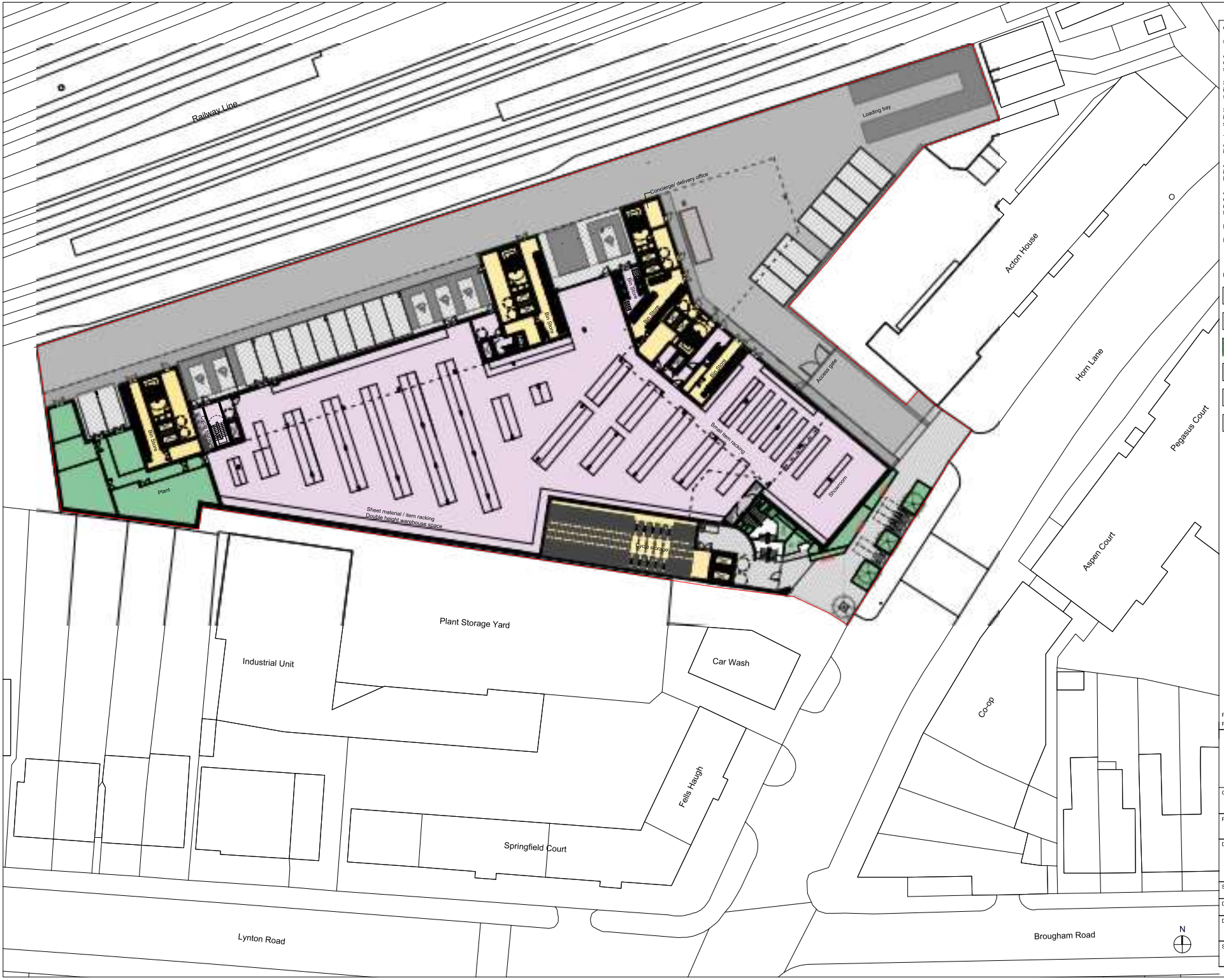
8.1.8 The TA has thoroughly reviewed the proposal's existing conditions and associated transport impacts. It has demonstrated that the Proposed Development will have a negligible transport impact and contribute to the Site's improved connectivity, resulting in wider transport benefits.

8.1.9 The TA has also thoroughly considered the proposals in the context of current and emerging planning policy and demonstrates compliance. In many cases, the exceedance of policy requirements has been met.

APPENDIX A

PROPOSED DEVELOPMENT PLANS





GENERAL NOTES.

All dimensions to be checked on site prior to commencement of any works, and/or preparation of any shop drawings.

Sizes of and dimensions to any structural elements are indicative only. See structural engineers drawings for actual sizes / dimensions.

Sizes of and dimensions to any service elements are indicative only. See service engineers drawings for actual sizes and dimensions.

This drawing to be read in conjunction with all other Architect's drawings, specifications and other Consultants' information.

All proprietary systems shown on this drawing are to be installed strictly in accordance with the Manufacturers/Suppliers recommended details.

Any discrepancies between information shown on this drawing and any other contract information or manufacturers/suppliers recommendations is to be brought to the attention of the Architect

DO NOT SCALE FROM THIS DRAWING.

NOTES.

KEY

- INDUSTRIAL
- RESIDENTIAL CORE
- PLANT
- 1 BED
- 2 BED
- 3 BED

REV.	DATE	NOTE	DRAWN
P2	03/11/22	Planning Issue - Fire Consultant	MOL

BGY
BUCKLEY GRAY YEOMAN
+ 44 20 7033 9913
BGY.CO.UK

CLIENT
Bellaview Properties

PROJECT
227-239 Horn Lane

DRAWING
Proposed Plan - Ground Level

SCALE
1:250 @ A1 **(1:500 @ A3)**

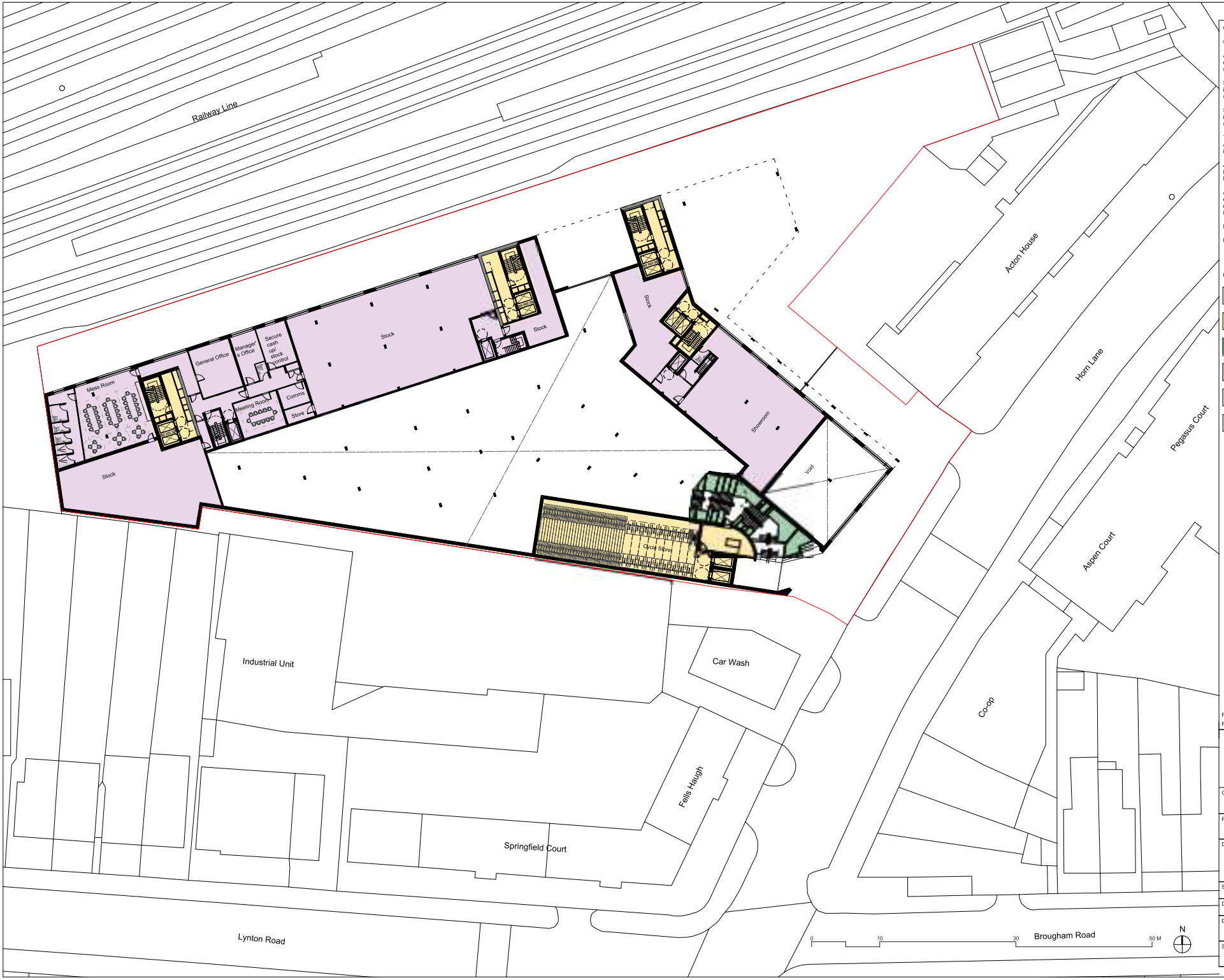
DATE
October 2022

DWG No.
1217_GA-100

REVISION
P2

STATUS
PLANNING

APPROVED
MOL



GENERAL NOTES.

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Sizes of and dimensions to any structural elements are indicative only. See structural engineers drawings for actual sizes / dimensions.

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- INDUSTRIAL
- RESIDENTIAL CORE
- PLANT
- 1 BED
- 2 BED
- 3 BED

REV.	DATE	NOTE	DRAWN
P2	03/11/22	Planning Issue - Fire Consultant	MOL

BGY
BUCKLEY GRAY YEOMAN
+ 44 20 7033 9913
BGY.CO.UK

CLIENT
Bellaview Properties

PROJECT
227-239 Horn Lane

DRAWING
Proposed Plan - Mezzanine

SCALE **1:250 @ A1** **(1:500 @ A3)**

DATE **October 2022**

DWG No. **1217_GA-101**

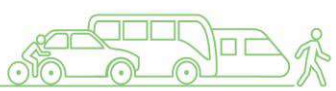
REVISION **P2**

STATUS **PLANNING**

APPROVED **MOL**

APPENDIX B

SWEPT PATH ANALYSIS DRAWINGS



FTA Design Articulated Vehicle (1998)

Overall Length	16.480m
Overall Width	2.550m
Overall Body Height	3.870m
Min Body Ground Clearance	0.515m
Max Track Width	2.470m
Lock to lock time	3.00s
Kerb to Kerb Turning Radius	6.550m

Rev	Date	Description	Drn	Chk	App
D	03.11.22	REVISED LAYOUT & TRACKING	MP	MP	MP
C	16.08.22	REVISED LAYOUT & TRACKING	GSF	MP	MP
B	14.06.22	REVISED LAYOUT & TRACKING	EP	MP	MP
A	10.03.22	FIRST ISSUE	EP	MP	MP

Notes:

1. DO NOT SCALE FROM THIS DRAWING.
2. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
3. THIS DRAWING IS TO BE PRINTED IN COLOUR.
4. THIS DRAWING HAS BEEN ISSUED FOR INFORMATION PURPOSES AND MUST NOT BE USED FOR CONSTRUCTION.

VELOCITY
Transport Planning

Drawing Status: S2 - FOR INFORMATION

Client: BELLAVIEW PROPERTIES LTD.

Architect: BUCKLEY GRAY YEOMAN

Project Title: 239 HORN LANE

Drawing Title: PROPOSED SITE LAYOUT
SWEPT PATH ANALYSIS
16.5M ARTICULATED VEHICLE

Scale @ A3	Date	Designed/Drawn	Checked	Approved
1:500	10.03.22	EP	MP	MP

Project Ref	Drawing Number	Rev
21-135	21-135-SP-001	D

Drawing file: 21-135-SP-001-006-D - Swept Path Analysis.dwg Date: Nov 03, 2022 - 7:53pm

Rev	Date	Description	Drn	Chk	App
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C	16.08.22	REVISED LAYOUT & TRACKING	GSF	MP	MP
B	14.06.22	REVISED LAYOUT & TRACKING	EP	MP	MP
A	10.03.22	FIRST ISSUE	EP	MP	MP

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VELOCITY
Transport Planning

Drawing Status: S2 - FOR INFORMATION

Client: BELLAVIEW PROPERTIES LTD.

Architect: BUCKLEY GRAY YEOMAN

Project Title: 239 HORN LANE

Drawing Title: PROPOSED SITE LAYOUT
SWEPT PATH ANALYSIS
10M RIGID VEHICLE

Scale @ A3	Date	Designed/Drawn	Checked	Approved
1:500	10.03.22	EP	MP	MP

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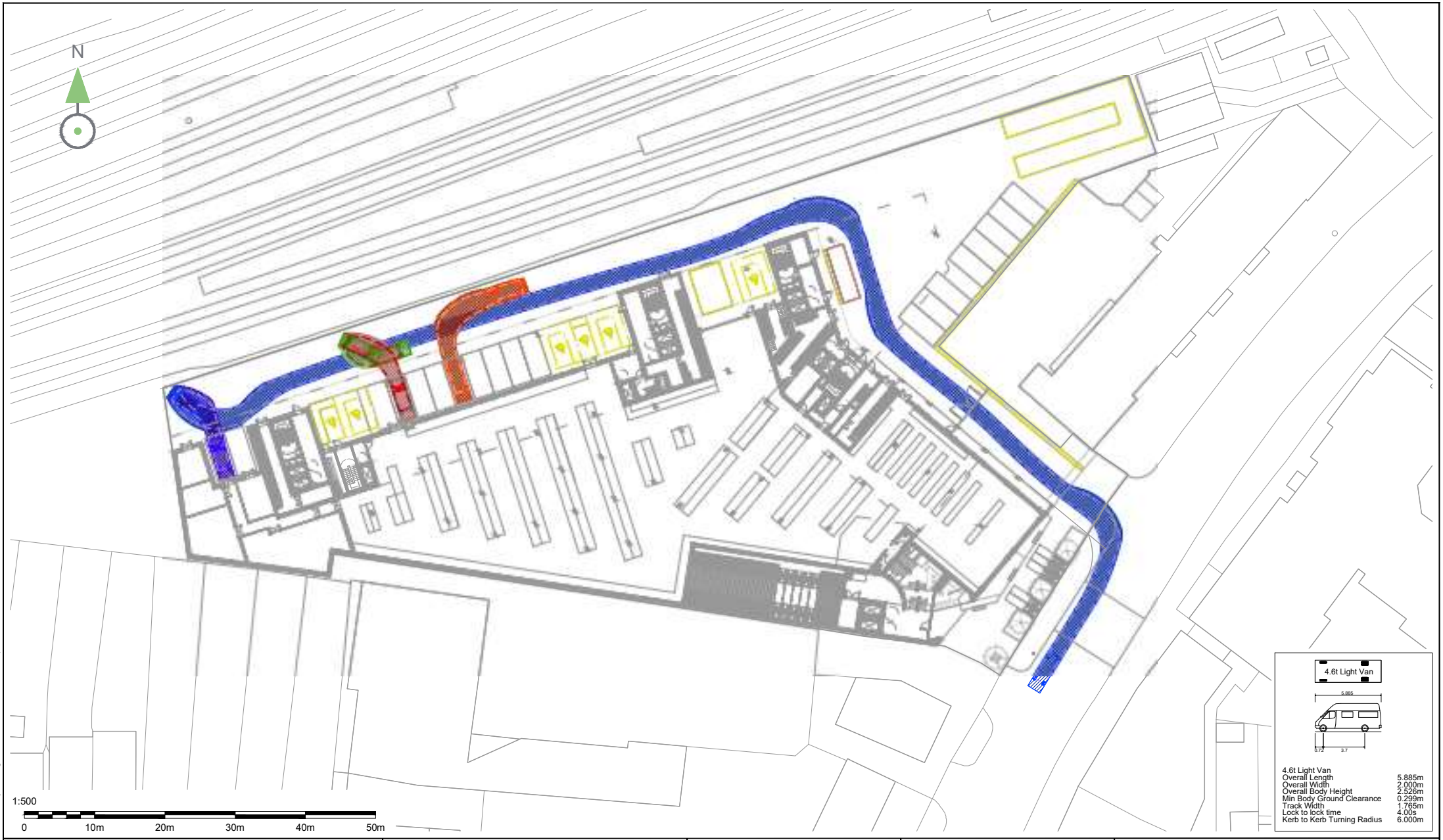

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B	14.06.22	REVISED LAYOUT & TRACKING	EP	MP	MP
A	10.03.22	FIRST ISSUE	EP	MP	MP

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VELOCITY
Transport Planning

Drawing Status: S2 - FOR INFORMATION

Client: BELLAVIEW PROPERTIES LTD.

Architect: BUCKLEY GRAY YEOMAN

Project Title: 239 HORN LANE

Drawing Title: PROPOSED SITE LAYOUT
SWEPT PATH ANALYSIS
4.6t LIGHT VAN

Scale @ A3	Date	Designed/Drawn	Checked	Approved
1:500	10.03.22	EP	MP	MP

Project Ref	Drawing Number	Rev
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Drawing file: 21-135-SP-001-006-D - Swept Path Analysis.dwg Date: Nov 03, 2022 - 7:54pm

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B	14.06.22	REVISED LAYOUT & TRACKING	EP	MP	MP
A	10.03.22	FIRST ISSUE	EP	MP	MP

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VELOCITY
Transport Planning

Drawing Status: S2 - FOR INFORMATION

Client: BELLAVIEW PROPERTIES LTD.

Architect: BUCKLEY GRAY YEOMAN

Project Title: 239 HORN LANE

Drawing Title: PROPOSED SITE LAYOUT
SWEPT PATH ANALYSIS
LARGE CAR

Scale @ A3	Date	Designed/Drawn	Checked	Approved
1:500	10.03.22	EP	MP	MP

Project Ref	Drawing Number	Rev
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Drawing file: 21-135-SP-001-006-D - Swept Path Analysis.dwg Date: Nov 03, 2022 - 7:54pm

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VELOCITY
Transport Planning

Drawing Status: S2 - FOR INFORMATION

Client: BELLAVIEW PROPERTIES LTD.

Architect: BUCKLEY GRAY YEOMAN

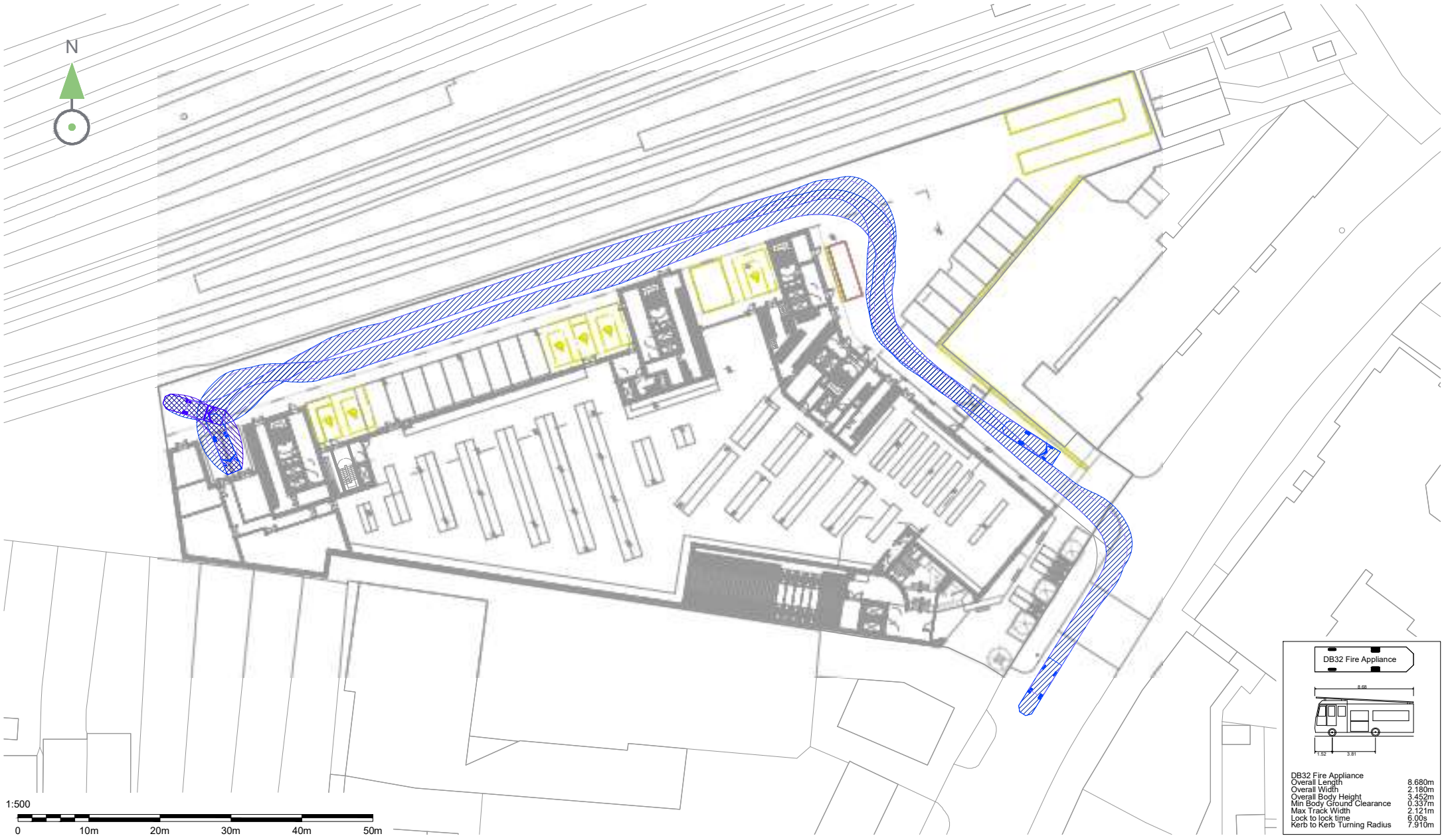
Project Title: 239 HORN LANE

Drawing Title: PROPOSED SITE LAYOUT
SWEPT PATH ANALYSIS
REFUSE VEHICLE

Scale @ A3	Date	Designed/Drawn	Checked	Approved
1:500	10.03.22	EP	MP	MP

Project Ref	Drawing Number	Rev
21-135	21-135-SP-005	D

Drawing file: 21-135-SP-001-006-D - Swept Path Analysis.dwg Date: Nov 03, 2022 - 7:55pm



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VELOCITY
Transport Planning

Drawing Status: S2 - FOR INFORMATION

Client: BELLAVIEW PROPERTIES LTD.

Architect: BUCKLEY GRAY YEOMAN

Project Title: 239 HORN LANE

Drawing Title: PROPOSED SITE LAYOUT
SWEPT PATH ANALYSIS
FIRE APPLIANCE

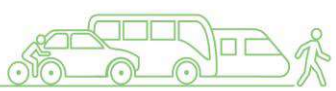
Scale @ A3	Date	Designed/Drawn	Checked	Approved
1:500	14.03.22	EP	MP	MP

Project Ref	Drawing Number	Rev
21-135	21-135-SP-006	D

Drawing file: 21-135-SP-001-006-D - Swept Path Analysis.dwg Date: Nov 03, 2022 - 7:55pm

APPENDIX C

ATZ ASSESSMENT



1 ACTIVE TRAVEL ZONE ASSESSMENT

1.1 INTRODUCTION

1.1.1 This Active Travel Zone (ATZ) Assessment has been carried out in line with the TfL Transport Assessment guidance, which came into effect on April 1st 2019 and aims to show how the Proposed Development supports Vision Zero and the Healthy Streets policies.

1.1.2 The ATZ assessment has been prepared using the 'ATZ assessment instructions' obtained from TfL's Transport Assessments webpage: (https://tfl.gov.uk/info-for/urban-planning-and-construction/transport-assessment-guide/transport-assessments).

1.1.3 There are four parts to the ATZ assessment process, which are as follows:

1. **Map One:** The ATZ and all potential key active travel destinations;
2. **Map Two:** Neighbourhood safety and the most important journeys with supporting text, including a vision zero analysis and safety improvement ideas;
3. **Map Three:** ATZ Neighbourhood healthy characteristics check, including text on severance, deficiency, local change, development, and
4. **Neighbourhood Photo Survey:** ATZ neighbourhood key routes check based on the Healthy Streets indicators.

1.1 NEIGHBOURHOOD PHOTO SURVEY

1.1.1 The neighbourhood photo survey site visit was carried out on June 21st 2022.

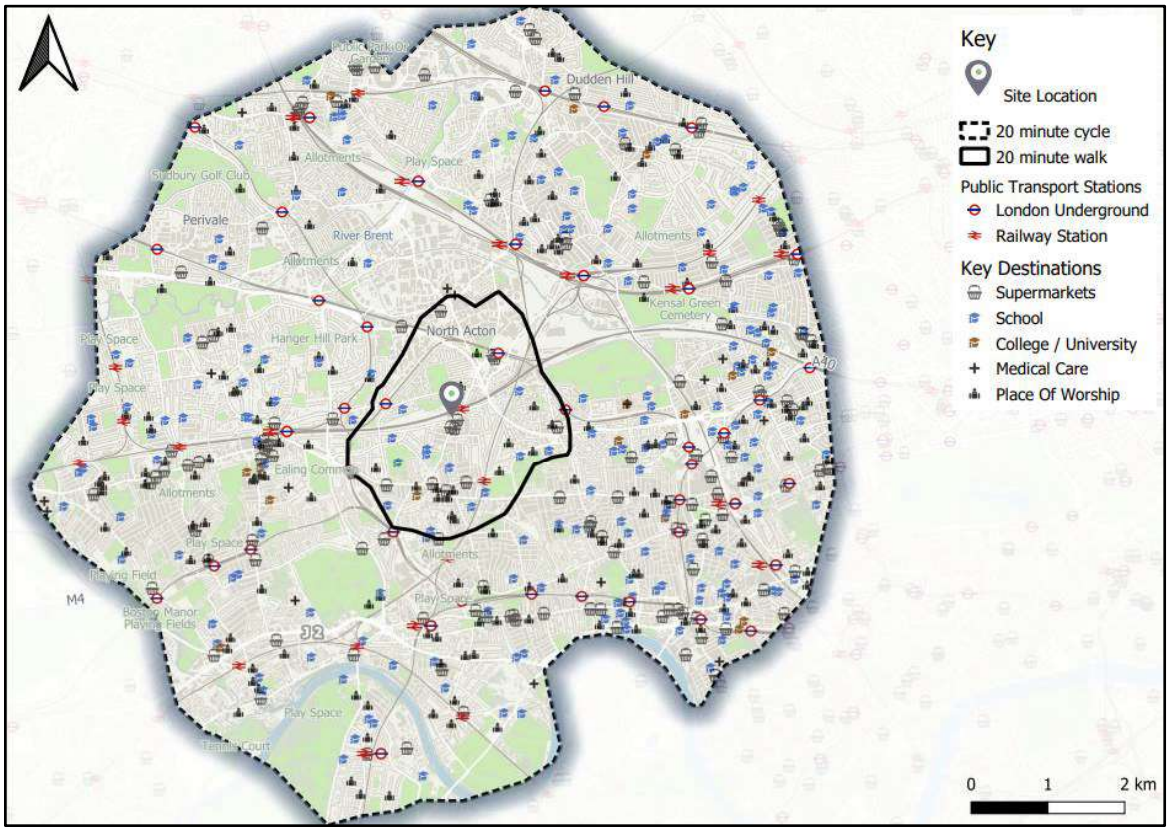
1.1.2 Throughout the site visit, consideration was given to how pedestrians and cyclists may feel about travelling via the key routes during evening hours when daylight is significantly reduced. Lighting columns are provided at regular intervals on most routes covered by the ATZ.

1.2 MAP ONE - ATZ & ALL POTENTIAL KEY ACTIVE TRAVEL DESTINATIONS

1.2.1 Map One, shown in **Figure 1-1,** displays all the key destinations within a 20-minute cycle catchment of the Site. These destinations include:

- Public transport stations and stops;
- London's current and future strategic cycle network;
- Town centres;
- Parks/greenspace;
- Supermarkets;
- Pharmacies and Medical centres;
- Schools / Colleges / Universities; and
- Places of worship.

Figure 1-1: ATZ Map One



1.2.2 **Figure 1-1** shows that large parts of Ealing could be walked or cycled to from the Site. Many key destinations, facilities and amenities for future residents and employees are within a 20-minute cycle. These include transport nodes (bus and rail), greenspaces, education facilities, the existing and proposed cycle network, shopping, medical facilities and places for leisure and worship.

1.2.3 **Table 1-1** assesses the key destinations for the prospective residents and employees by the expected frequency of use (i.e., high-priority destinations are expected to be used by site users daily).

Table 1-1: Key Travel Destinations by Priority

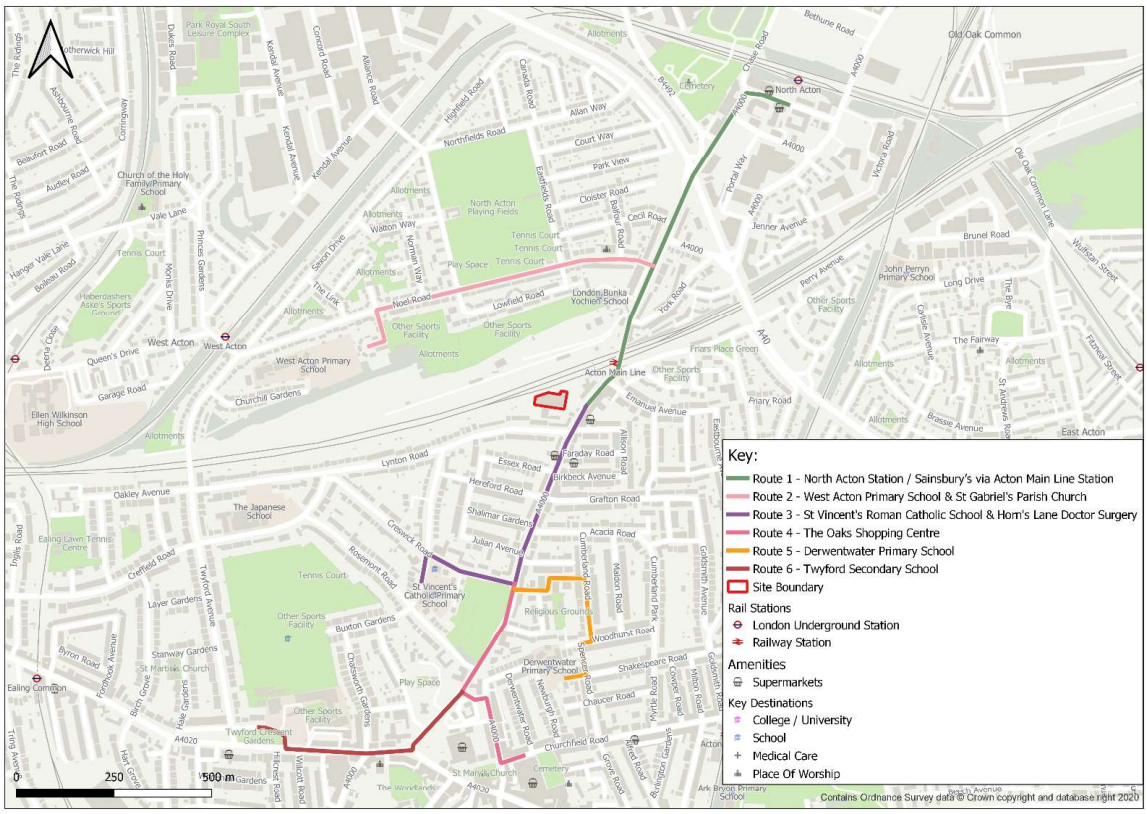
KEY DESTINATION	PRIORITY	JUSTIFICATION
Railway Stations / Bus Stops	High	High usage of bus, rail and London Underground is expected for residents and employees travelling to/from the Proposed Development, given the Site's proximity to North Acton and Acton Main Line stations and several bus stops.
Schools	High	There is the potential for many school-aged children to live on-site. The nearest primary, secondary and higher education facilities have therefore been included as key destinations.
Supermarkets / Retail Units	High	All residents will require frequent access to shops to serve their daily needs. Given the lack of parking on Site, some residents will walk or cycle to local supermarkets while others will likely have shopping delivered.
Medical Centre	Medium	Whilst an important amenity to have nearby, most people generally do not need to go to a medical care facility daily, and people who require medical care are less likely to be able to walk and cycle to this care.
Places of Worship (PoW)	Low	The religious beliefs of future occupants are unknown, and for most residents, their local PoW will not usually be a daily destination.

1.3 MAP TWO - ATZ NEIGHBOURHOOD SAFETY & MOST IMPORTANT JOURNEYS

1.3.1 Map Two, shown in **Figure 1-2,** identifies likely walking routes to key destinations within the ATZ using the prioritisation set out in **Table 1-1**. The destinations have been grouped into the following six routes:

- Key Journey 1: North Acton Station/Sainsbury's via Acton Main Line Station
- Key Journey 2: West Acton Primary School/St Gabriel's Parish Church
- Key Journey 3: St Vincent's Roman Catholic School/Horn Lane Doctor Surgery
- Key Journey 4: The Oaks Shopping Centre
- Key Journey 5: Derwentwater Primary School
- Key Journey 6: Twyford Secondary School

Figure 1-2: ATZ Map Two

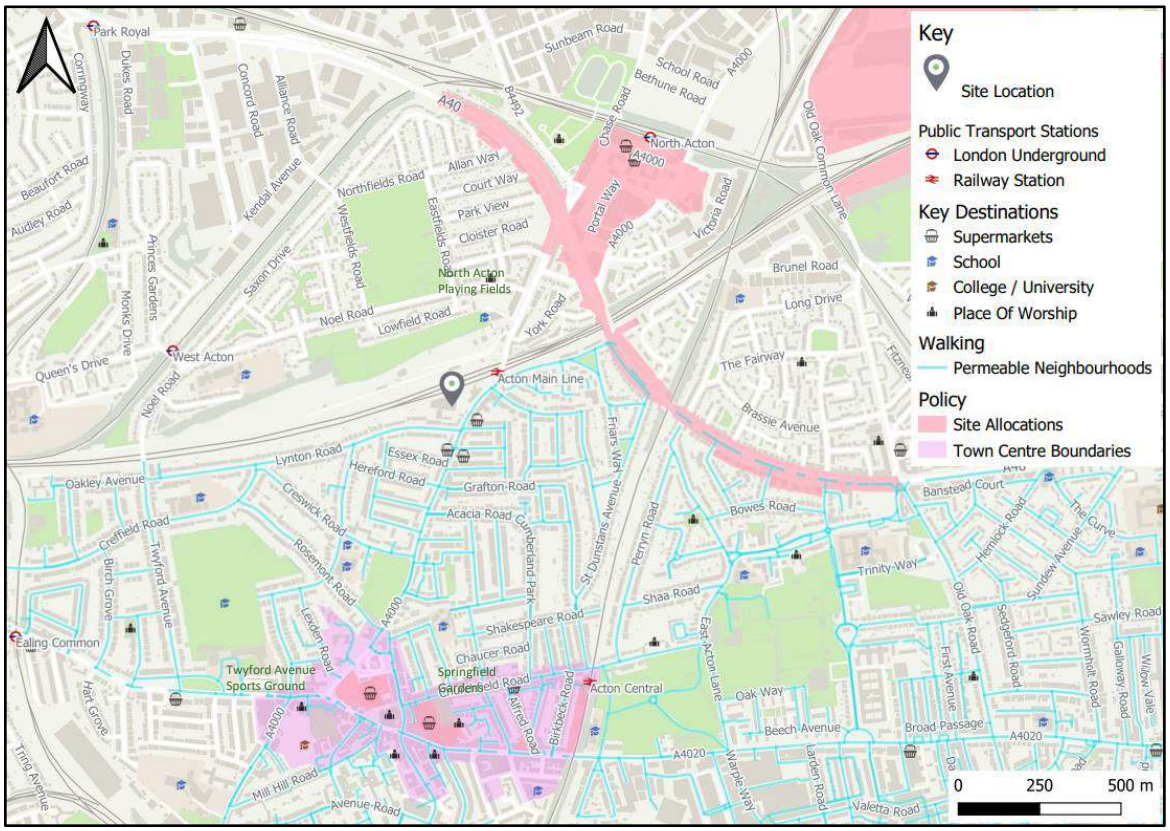


1.4 MAP THREE – HEALTHY STREETS CHARACTERISTICS

1.4.1 Map Three, shown in **Figure 1-3** highlights the characteristics of a typical healthy neighbourhood that are present within the ATZ, including:

- Street density;
- Public transport, and
- Green spaces;

Figure 1-3: ATZ Map Three



STREET DENSITY

1.4.2 The London permeable neighbourhood network layer (light blue coloured, provided by TfL) suggests that the area around the Site has good permeability to the south. Despite what's shown on the layer, the area to the north is permeable to pedestrians by crossing the railway bridge near Acton Main Line station. The North Circular, connecting with Horn Lane further north, could restrict permeability for pedestrian and cyclist movement.

PUBLIC TRANSPORT

1.4.3 The Site benefits from proximity to several public transport stations and stops. In particular, Acton Main Line is situated 100m north of the Site. Many bus stops within a short walk provide access to other London Underground and Overground services and direct links to Central London.

GREEN SPACES

The figure demonstrates that the Site is situated in proximity to a good provision of green spaces, which includes North Acton Playing Fields (play spaces, tennis courts, cricket pitch), Springfield Gardens (play spaces), Twyford Avenue Sports Ground (sports pitches) and Acton Cemetery (green spaces).

1.5 SUMMARY

1.5.1 A summary of the ATZ assessment is presented in **Table 1-2** below.

Table 1-2: ATZ Assessment Recommendation Summary

REF	ROUTE	RECOMMENDATIONS
1	North Acton Station / Sainsbury's via Acton Main Line Station	• Additional crossing points across Horn Lane (potentially using pedestrian refuse islands). • Tactile paving at crossovers relating to the industrial sites. • Investigate opportunities to provide greater protection for cyclists across the A40 / Horn Lane junction. • Additional facilities for commuters, such as mobile coffee shops, could be considered along the route to provide improved facilities. • Benches could be introduced in front of Acton Main Line station. • Traffic calming measures or a reduced speed limit could be provided to reduce the traffic speed in the area. • Require industrial areas to implement wheel washing before leaving sites and regular hosing down site entrances. • Seating under trees could be introduced in the vicinity of North Acton station.
2	West Acton Primary School/St Gabriel's Parish Church	• Provision of tactile paving where missing at the pedestrian crossing on Noel Road. • Inclusion of benches in front of St Gabriel's Parish Church.
3	St Vincent's Roman Catholic School/Horn Lane Doctor Surgery	• Provide signage to indicate the presence of cyclists along Horn Lane and/or advisory cycle lanes. • Cut back vegetation along Creswick Road. • Investigate potential areas of reduced speed limits along Horn Lane to reduce traffic noise. • No need for improvement as Springfield gardens park can be accessed from Creswick Road.
4	The Oaks Shopping Centre	• Inclusion of tactile paving at refuge island crossings. • Provision of additional benches on Churchfield Road. • Provision of more or larger bins on Horn Lane and reduction of street clutter. • Investigate the potential for a low emissions zone around Churchfield Road and increase street trees to improve local air quality.
5	Derwentwater Primary School	• Provision of tactile paving across Cumberland Road near the school. • Identify opportunities for a mix of land uses along the southern section of Horn Lane. • Provide additional benches along the route. • Better maintain the street trees along Cumberland Road to fix footpath issues.

REF	ROUTE	RECOMMENDATIONS
		• Provide benches sheltered by trees along the route.
6	Twyford Secondary School	• Identify the potential to widen pinch points along the footpath on Uxbridge Road to improve safety levels. • Enforce out-of-hours servicing by developments along the route to ensure cycle routes are accessible. • Provision of sheltered benches on Uxbridge Road and Horn Lane.

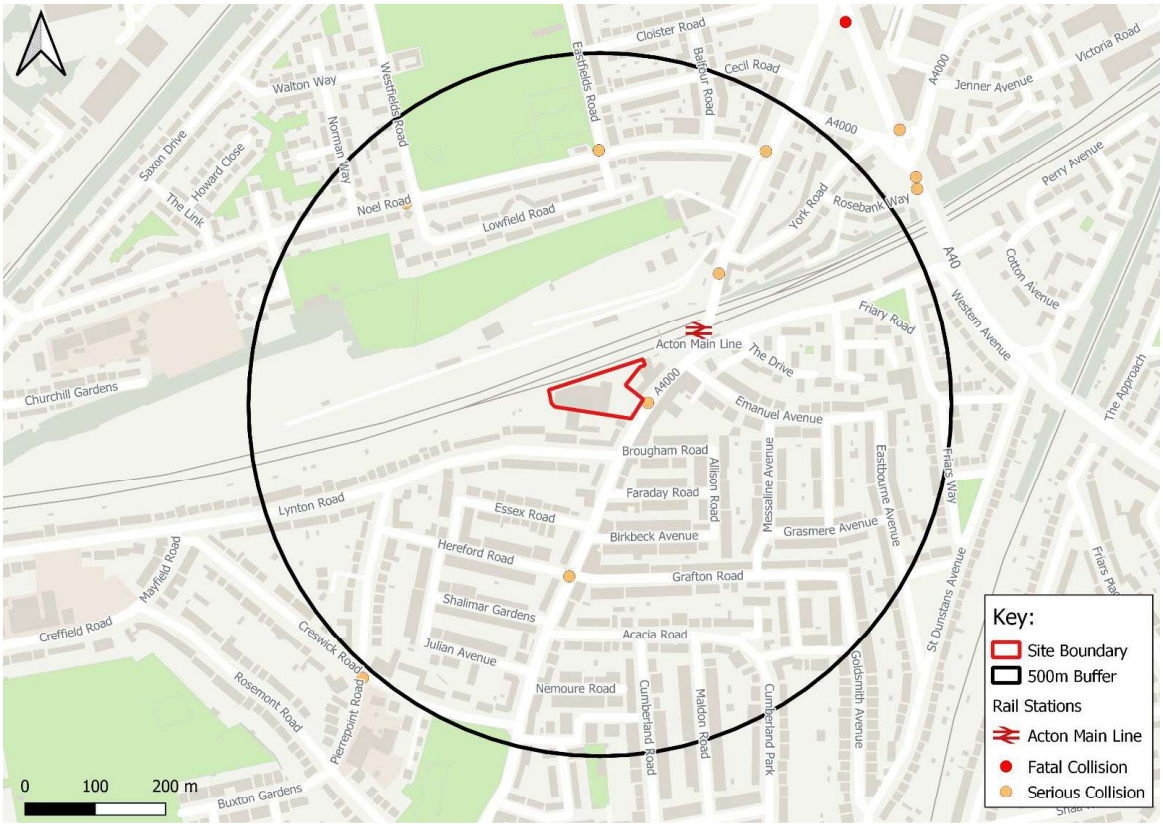
1.6 VISION ZERO

1.6.1 In accordance with the Mayor's Transport Strategy and Vision Zero approach, a review of Killed or Serious Incident (KSI) data for the latest three-year period, 2019 – 2021, has been undertaken for a 500m radius of the Site. The results are shown in **Table 1-3** and **Figure 1-4** below.

Table 1-3: Local Collision Summary

SEVERITY	2019	2020	2021	TOTAL
Fatal	0	0	0	**0**
Serious	3	2	1	**6**
Total	**3**	**2**	**1**	**6**

Figure 1-4: Personal Injury Accident Map (2019-2021)



1.6.2 A total of six collisions occurred within the study area between 2019 and 2021, which resulted in casualties receiving serious injuries. No fatal accidents were recorded in the three-year period. Of the six collisions, three involved pedestrians and 1 involved a pedal cyclist.

1.6.3 It is noted that one collision occurred in the immediate vicinity of the Site, while another incident occurred just north of Acton Main Line station. The data reports for these collisions have been analysed to understand the reasons for the incidents. This has been described below:

COLLISION 2020010286600 (OUTSIDE THE SITE ON HORN LANE)

1.6.4 This incident occurred on Saturday, December 26th, 2020, at 7 pm when road conditions were dry and light conditions were reported as "Darkness – Street lights present and lit". A car was proceeding normally along the carriageway before colliding with a male in the carriageway, crossing elsewhere within 50 meters of the zebra crossing.

1.6.5 Based on the description above, it is considered that this collision was likely to be due to human error. The road speed is already 20mph in this area, and a zebra crossing is in front of the Site. No safety improvement ideas have therefore been developed.

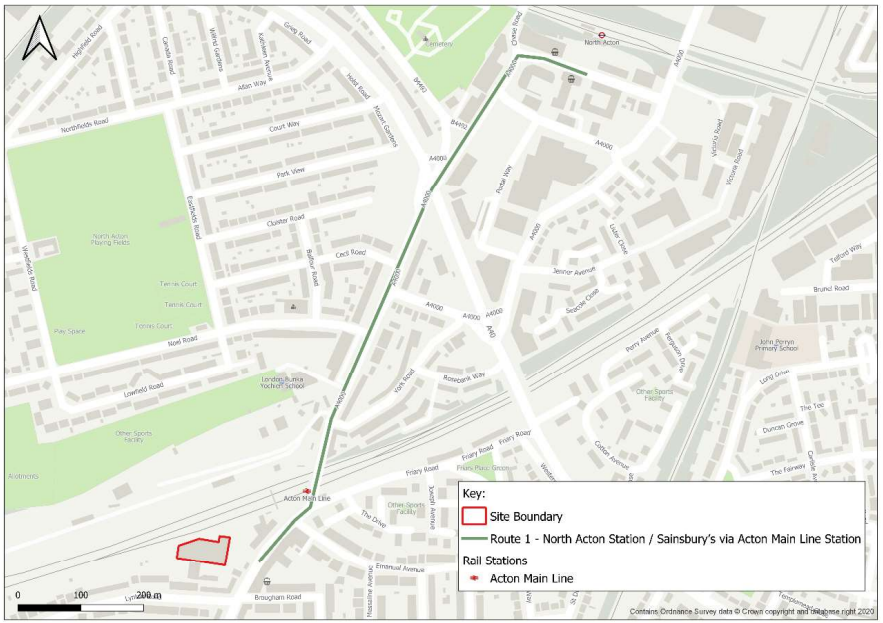
COLLISION 2019010169712 (NORTH OF ACTON MAIN LINE STATION ON HORN LANE)

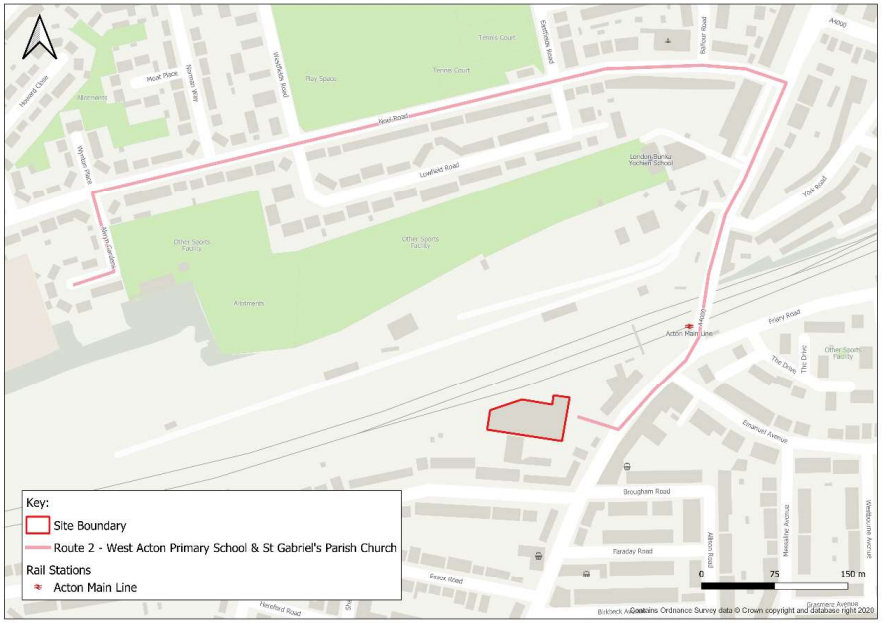
1.6.6 This incident occurred on Sunday, March 17th, 2019, at 10:28 pm when road conditions were dry and light conditions were reported as "Darkness: streetlights present and lit". A motorcycle was proceeding normally along the carriageway when it collided with a car performing a U-turn.

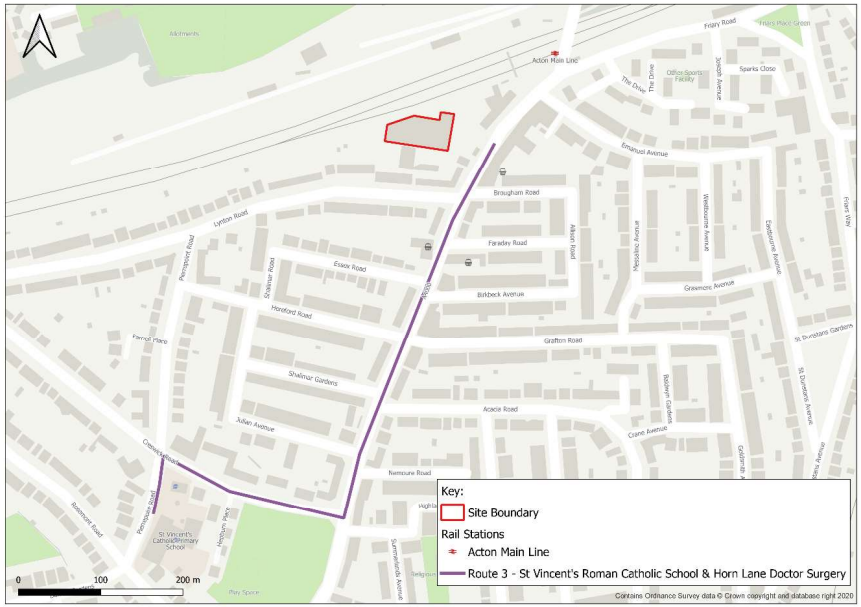
1.6.7 Based on the description above, it is considered that this collision was likely to be due to human error. Whilst the collision occurred at night, Horn Lane is well-lit by streetlamps in the surrounding area. No safety improvement ideas have therefore been developed.

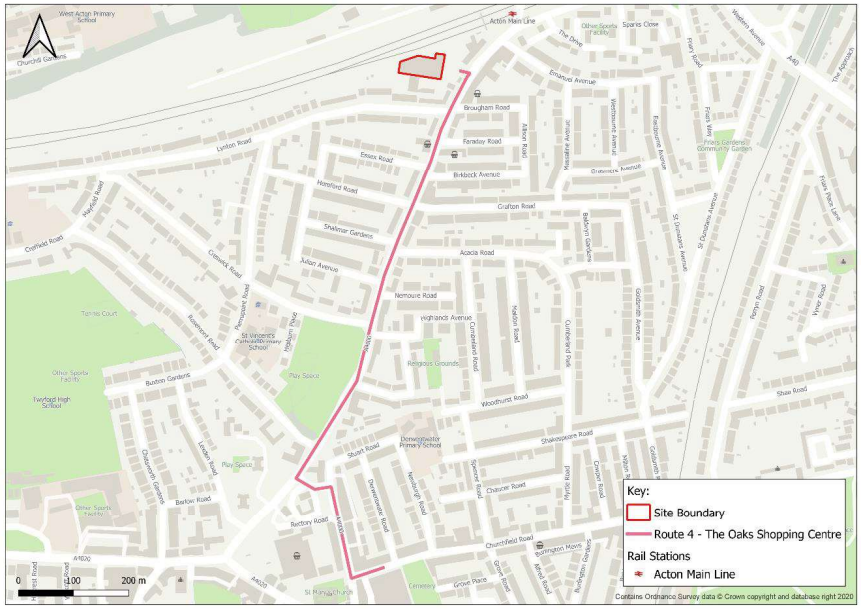
APPENDIX A

ATZ ASSESSMENT

Key Journey 1 – North Acton Station / Sainsbury's via Acton Main Line Station	INDICATOR	INDICATOR MET	DESCRIPTION	IMPROVEMENT
The worst part of this route is north of Acton Main Line station, where tactile paving is missing at vehicle crossovers, and industrial traffic dust is likely to cause poor air quality. There are also stretches of Horn Lane which don't have crossings which could reduce the route's attractiveness.   **Photo of the worst part of the route.** **Dusty site access and missing tactile paving on Horn Lane.**	Easy to cross	Yes	Signalised crossings are present at the larger junctions, such as across the A40 Western Avenue and in the approach of North Acton Station. However, there are stretches of Horn Lane that don't have crossings, which may reduce the route's attractiveness. Tactile paving is also missing across some vehicle crossovers along the route.	Provision of additional crossing points across Horn Lane (potentially using pedestrian refuge islands) and tactile paving at crossovers relating to the industrial sites where they are currently not provided to improve the experience for visually impaired pedestrians.
	People feel safe	Yes	The mixed-use nature of the area means commercial properties overlook the route during the day and residential properties in the evening. There are also wide footpaths along both sides of the carriageway, and the bridge over the railway lines has high kerbs between the footpath and the road, increasing perceptions of safety. Cyclists can also cycle in the bus lane heading north, and advanced stop lines are present at the junction with the A40.	Investigate opportunities to provide greater protection for cyclists across the A40 / Horn Lane junction.
	Things to see and do	Yes	Parts of Horn Lane lack things to see and do due to the nature of the surrounding land uses, although some retail units and street trees are present. There is a café near Acton Main Line station, however.	Additional facilities for commuters, such as mobile coffee shops, could be considered along the route to provide improved facilities.
	Places to stop and rest	No	There are no opportunities to stop and rest along the route.	Benches could be introduced in front of Acton Main Line station.
	People feel relaxed	No	The nature of the road means that traffic levels are relatively high, including heavy vehicles turning into industrial sites. There are some new developments along the route, such as Acton Main Line station, which has attractive pedestrian environments.	No area for improvement
	Not too noisy	No	Horn Lane is a busy road with a lot of construction traffic, thus creating a lot of noise.	Traffic calming measures or a reduced speed limit could be provided to reduce the traffic speed in the area.
	Clean air	No	Dust is carried from the industrial areas and vehicles onto the main highway and footway.	Require industrial areas to implement wheel washing before leaving sites and regular hosing down site entrances.
	Shade and shelter	Partly	There is a lack of shelter along parts of the route, although street trees provide some shade.	Seating under trees could be introduced in the vicinity of North Acton station, given it is likely to see a high level of pedestrian traffic.

Key Journey 2 – West Acton Primary School/St Gabriel's Parish Church	INDICATOR	INDICATOR MET	DESCRIPTION	IMPROVEMENT
This route is considered to be of good quality overall, but the worst part is where road crossings and vehicle crossovers lack tactile paving, such as on Noel Road, which reduces safety levels for visually impaired people.   **Photo of the worst part of the route.** **Missing tactile paving on Horn Lane.**	Easy to cross	Yes	Signalised crossing provided on Horn Lane. Pedestrian refuge islands are also present across Noel Road.	Provision of tactile paving where missing at the pedestrian crossing on Noel Road to improve the experience for the visually impaired pedestrians.
	People feel safe	Yes	Noel Road is within a school zone; thus, a reduced speed limit is in effect. Alongside this, Noel Road features numerous speed bumps to further reduce vehicle speeds.	No need for improvement
	Things to see and do	Yes	North Acton Playing fields are located on Noel Road, which provides leisure space and tennis courts. The road is also lined with trees, enhancing the environment for pedestrians. St Gabriel's Parish Church will also create an active environment at times.	It is considered that there is no area for improvement given the presence of the leisure facilities along the route.
	Places to stop and rest	Yes	Benches are present within the park.	Inclusion of benches in front of St Gabriel's Parish Church.
	People feel relaxed	Yes	Speed calming measures are present, which improve comfort and perceptions of safety along the route. Residential properties also overlook the route, which is generally well-maintained.	No need for improvement
	Not too noisy	Yes	Noel Road is lined with residential properties and does not experience high vehicle traffic.	No need for improvement
	Clean air	Yes	Noel Road and Horn Lane are part of a low emissions zone – drivers must turn off their engines when waiting and parked. A 20mph speed limit is in effect, which reduces vehicle emissions.	No need for improvement
	Shade and shelter	Yes	There is a sheltered bus stop on Noel Road, and shaded seating is provided within the park.	No need for improvement

Key Journey 3 – St Vincent's Roman Catholic School/Horn Lane Doctor Surgery	INDICATOR	INDICATOR MET	DESCRIPTION	IMPROVEMENT
This route is considered sufficient overall; however, there is a limited provision of cycle facilities along Horn Lane, which could be improved by providing signage and/or advisory cycle lanes. Creswick Road has overgrown vegetation in some parts, which reduces effective footpath width and should be trimmed back.   **Photo of the worst part of the route.** **Vegetation along Chiswick Road reducing footpath widths**	Easy to cross	Yes	Signalised and zebra crossings are provided on Horn Lane.	No need for improvement
	People feel safe	Partly	There are limited cycle facilities along Horn Lane, which could be improved, although the speed limit is 20mph. There are, however, streetlamps along both Creswick Road and Horn Lane.	Provide signage to indicate the presence of cyclists along Horn Lane and/or advisory cycle lanes.
	Things to see and do	Yes	A park, Springfield Gardens, is located off Creswick Road along the route. The road is also lined with trees, enhancing the pedestrian environment.	No need for improvement.
	Places to stop and rest	Yes	Benches are present within and outside Springfield Gardens and at some of the bus stops along Horn Lane.	No need for improvement.
	People feel relaxed	Partly	In effect, speed calming measures reduce the likelihood of pedestrian-vehicle collisions. The area is well-overlooked by residential properties. Heavy vehicles frequently use Horn Lane, which reduces comfort levels, and vegetation along Creswick Road reduces footpath width in some places.	Cut back vegetation along Creswick Road to facilitate journeys on foot.
	Not too noisy	No	Horn Lane has a high volume of traffic, of which some are heavy vehicles associated with the nearby industrial sites.	Investigate potential areas of reduced speed limits along Horn Lane to reduce traffic noise.
	Clean air	Yes	Horn Lane is a low emissions zone – drivers are required to turn off the engines when waiting or parked. A 20mph speed limit is in effect, thus reducing vehicle emissions.	No need for improvement
	Shade and shelter	No	Limited amounts of shade and shelter are provided by the overlooking buildings on the the route, however, sheltered bus stops can be found on Horn Lane.	The inclusion of street benches with trees overlooking to provide shade would significantly improve this area of the route.

Key Journey 4 – The Oaks Shopping Centre	INDICATOR	INDICATOR MET	DESCRIPTION	IMPROVEMENT
This route is generally of good quality for pedestrians and cyclists; however, increased general maintenance and upkeep of this route are needed, including the provision of more litter bins and the reduction of street clutter.   **Photo of the worst part of the route.** **Street clutter along the southern section of Horn Lane.**	Easy to cross	Yes	Signalised crossings are provided on Horn Lane, whilst the more southern sections generally have uncontrolled crossings with tactile paving.	Inclusion of tactile paving at refuge island crossings to improve the experience for the visually impaired pedestrians.
	People feel safe	Yes	Wide footpaths that commercial stores well overlook. Lots of pedestrians in the area. There is also a section of Horn Lane, which is pedestrian and cycle only, providing a more direct route than vehicles can take.	No need for improvement
	Things to see and do	Yes	Horn Lane features many high street stores and 'The Oaks' shopping centre. Roads in the area are lined with street trees.	No need for improvement
	Places to stop and rest	Partly	There are no benches or seating areas on Churchfield Road itself; however, benches are provided in the graveyard (St Mary's Burial Ground) on the route and in front of the Morrisons opposite Churchfield Road.	Provision of additional benches on Churchfield Road.
	People feel relaxed	Partly	In effect, speed calming measures reduce the likelihood of a pedestrian-vehicle collision. Rubbish and street clutter (e.g. A-frame signs outside shops) were present along the southern section of Horn Lane and Churchfield Road, reducing comfort levels.	Provision of more or larger bins on Horn Lane and reduce street clutter.
	Not too noisy	No	Noise generators include traffic and retail developments along Churchfield Road.	No area for improvement
	Clean air	No	Horn Lane carries high traffic levels, including heavy vehicles, which causes local air quality to be low. Churchfield Road and the southern sections of Horn Lane have 20mph speed limits.	Investigate the potential for a low emissions zone around Churchfield Road and implement increased street trees to improve local air quality.
	Shade and shelter	No	There are sheltered bus stops on Horn Lane and street trees that will provide shade.	No need for improvement.

Key Journey 5 – Derwentwater Primary School	INDICATOR	INDICATOR MET	DESCRIPTION	IMPROVEMENT
This route lacks things to see and do except for supermarkets near the Site on Horn Lane, and whilst the environment in the vicinity of Derwentwater Primary School is attractive to pedestrians due to the surrounding residential streets, some of the roads do not have tactile paving which may make access difficult for some users.   **Photo of the worst part of the route.** **Missing tactile paving across Cumberland Road at the junction with Woodhurst Road.**	Easy to cross	Yes	The vast majority of the crossings on this route feature both tactile paving and dropped kerbs thus helping to create an environment conducive to pedestrian travel.	Provision of tactile paving across Cumberland Road near the school to improve the experience for visually impaired pedestrians.
	People feel safe	Yes	Wide footpaths that are well overlooked by residential homes. The route experiences a good level of footfall	No need for improvement
	Things to see and do	No	Street trees line all the roads on this route; however, no amenities besides the supermarkets on Horn Lane are present.	Identify opportunities for a mix of land uses along the southern section of Horn Lane and parklets on the residential streets in the south of this route.
	Places to stop and rest	Yes	Some benches are present on Horn Lane.	Provide additional benches along the route.
	People feel relaxed	Yes	Speed calming measures reduce the likelihood of a pedestrian-vehicle collision. Clearly outlined signalled junctions make pedestrian crossing easy. Tree roots along Cumberland Road have uplifted the footpath in some parts.	Better maintain the street trees along Cumberland Road to fix footpath issues.
	Not too noisy	No	Traffic noise along the Horn Lane section of the route can be unpleasant for pedestrians; however, the remaining sections are on quieter residential roads.	No area for improvement
	Clean air	Yes	Several roads along this route are residential and do not have high traffic volumes.	No need for improvement
	Shade and shelter	No	There is no shade or shelter provided along the route.	The inclusion of street benches with trees overlooking to provide shade would significantly improve this area of the route.

Key Journey 6 – Twyford Secondary School	INDICATOR	INDICATOR MET	DESCRIPTION	IMPROVEMENT
This route carries a high volume of vehicular traffic; however, footpaths are generally sufficient. Uxbridge Road is narrow in some areas, meaning potential conflict could arise during high pedestrian traffic. This could lead to road safety issues, with pedestrians being forced into the road to pass. Blocking of the off-road cycle route on Uxbridge Road by delivery vehicles was also observed during the site visit.	Easy to cross	Yes	Signalised crossings are provided on Horn Lane as well as Uxbridge Road.	No need for improvement
	People feel safe	Yes	Wide footpaths along much of the route; however, Uxbridge Road has sections with narrow widths. Speed calming measures are present on Horn Lane and Steyne Road (speed humps and a 20mph speed limit). The route is generally car-dominated, however, due to it following major roads.	Identify the potential to widen pinch points along the footpath on Uxbridge Road to improve safety levels.
	Things to see and do	Yes	Acton town centre is located along Uxbridge Road; thus, there are numerous retail units in the area.	No need for improvement
	Places to stop and rest	Yes	Benches are present on Horn Lane as well as outside pubs on Uxbridge Road.	Providing more street benches would be useful given that it sees high levels of pedestrian traffic.
	People feel relaxed	Partly	Many pedestrians are present in the area Marked signalised crossings make crossing roads easy. Service vehicles stopping on Uxbridge Road associated with local developments were observed blocking the cycle lane.	Enforce out-of-hours servicing by developments along the route to ensure cycle routes are accessible.
	Not too noisy	No	Traffic noise along Uxbridge Road and the southern section of Horn Lane can be unpleasant for pedestrians.	It is considered that there is no area for improvement on Uxbridge Road due to it being a a primary route through Acton, the road will always have high vehicle traffic levels.
	Clean air	Partly	Speed calming measures affect Horn Lane and Steyne Road; however, Uxbridge Road carries high traffic volumes and is on several bus routes.	No area for improvement
	Shade and shelter	Partly	Sheltered bus stops are on the route; however, no standalone seating is provided.	The provision of sheltered benches on Uxbridge Road and Horn Lane would improve the attractiveness of this area for pedestrians.

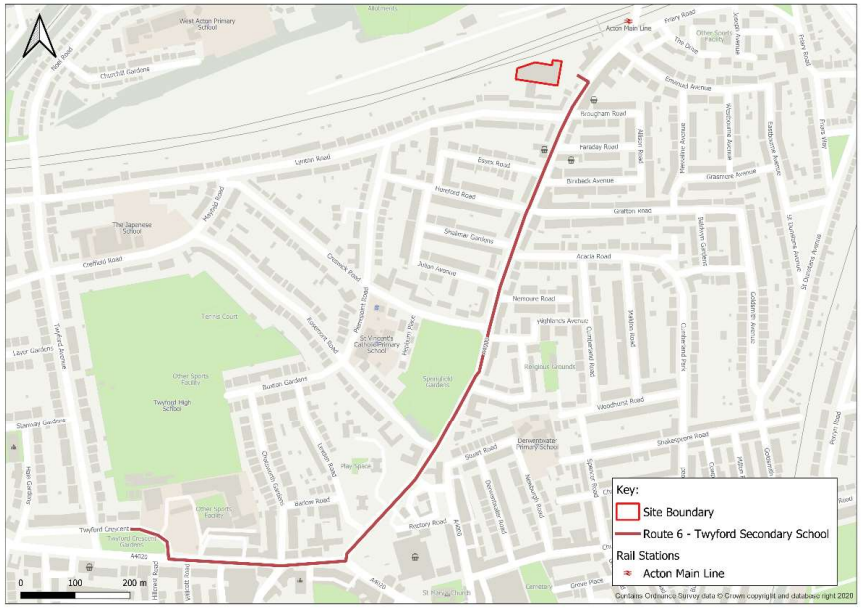


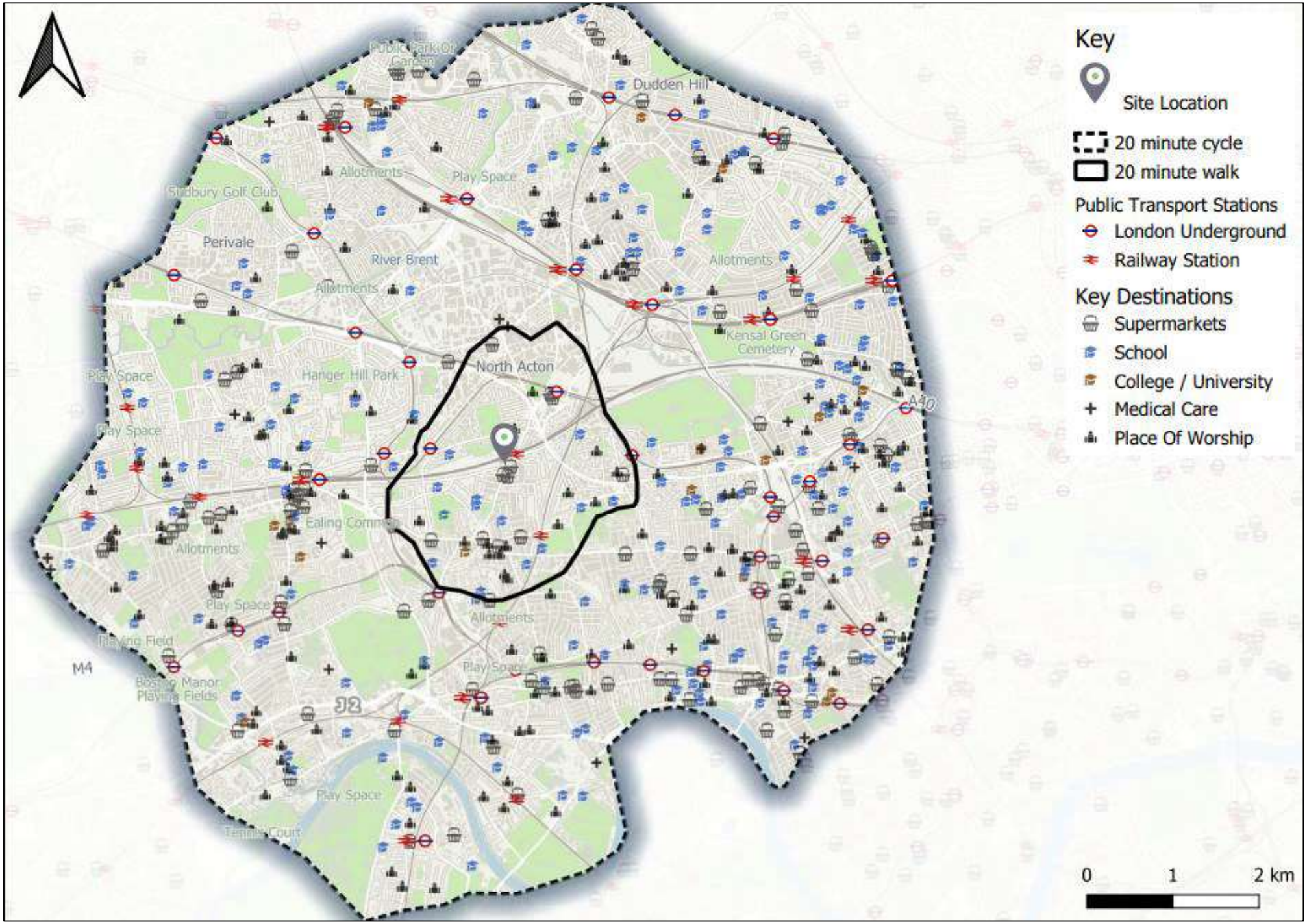
Photo of the worst part of the route.

Missing tactile paving across Cumberland Road at the junction with Woodhurst Road.

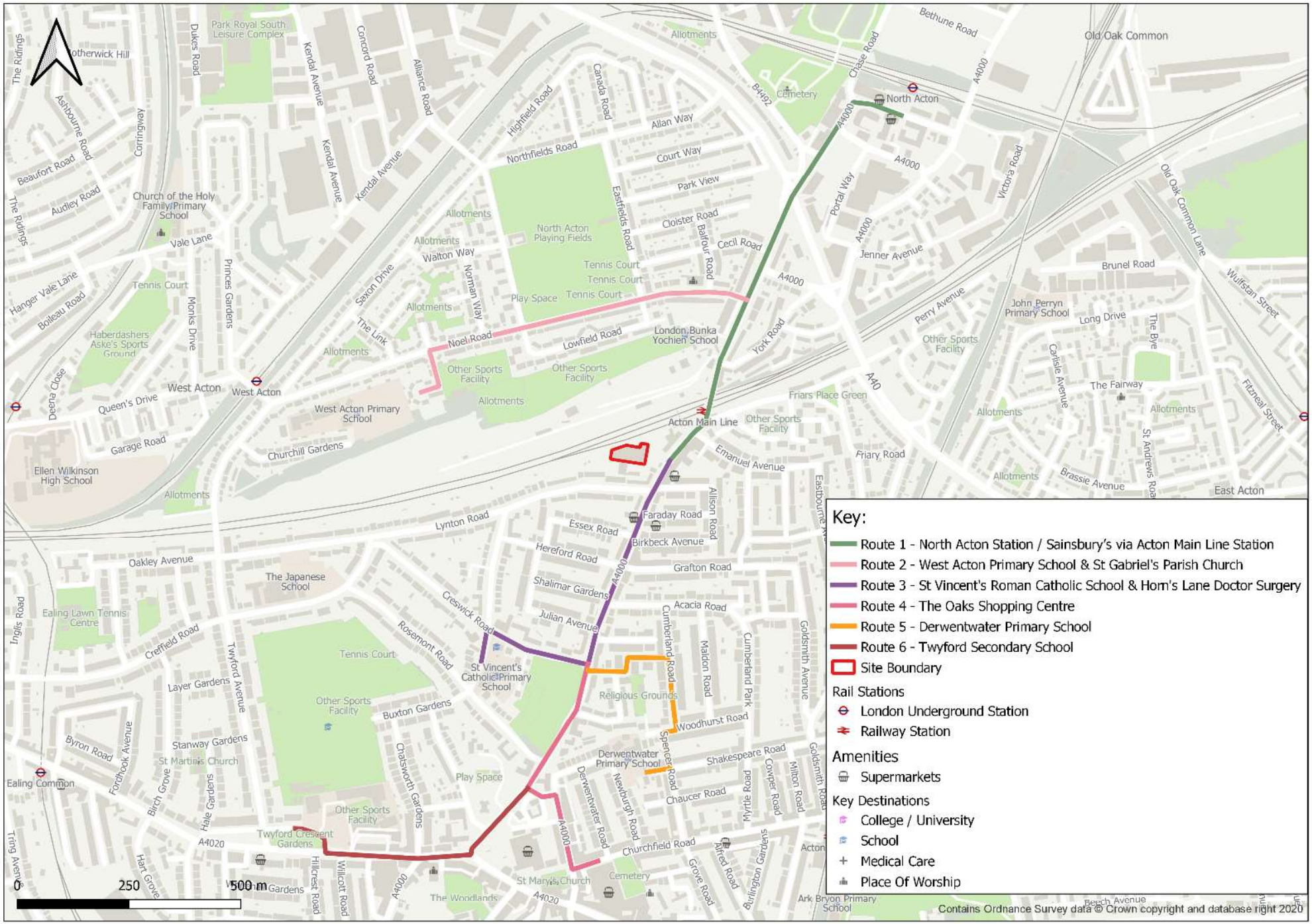
APPENDIX B

ATZ MAPS

ATZ MAP ONE


Key
Site Location
20 minute cycle
20 minute walk
Public Transport Stations
London Underground
Railway Station
Key Destinations
Supermarkets
School
College / University
Medical Care
Place Of Worship
0
1
2 km
North Acton
Dudden Hill
Perivale
River Brent
Hanger Hill Park
Kensal Green Cemetery
Sudbury Golf Club
Ealing Common
Boston Manor Playing Fields
Tennis Court
M4
A40
J2
Allotments
Play Space

ATZ MAP TWO


Key:
Route 1 - North Acton Station / Sainsbury's via Acton Main Line Station
Route 2 - West Acton Primary School & St Gabriel's Parish Church
Route 3 - St Vincent's Roman Catholic School & Horn's Lane Doctor Surgery
Route 4 - The Oaks Shopping Centre
Route 5 - Derwentwater Primary School
Route 6 - Twyford Secondary School
Site Boundary
Rail Stations
London Underground Station
Railway Station
Amenities
Supermarkets
Key Destinations
College / University
School
Medical Care
Place Of Worship
0
250
500 m
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ATZ MAP THREE