

1 VINYL SQUARE

THE OLD VINYL FACTORY

Joseph
Homes.

THE OLD
VINYL FACTORY

CANEPARO
ASSOCIATES

TRANSPORT ASSESSMENT

NOVEMBER 2019



JH Veneer Limited

1 Vinyl Square, Hayes

Transport Assessment

November 2019

Caneparo Associates Limited
21 Little Portland Street
London W1W 8BT
Tel: 020 3617 8200

www.caneparoassociates.com

Registered in England: 9930032

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1 INTRODUCTION

1.1 Caneparo Associates has been appointed by JH Veneer Limited ('the Applicant') to provide traffic and transport advice in relation to the proposed redevelopment of 1 Vinyl Square, Blyth Road, Hayes ('the Site'), located within the London Borough of Hillingdon (LBH).

1.2 The existing Site comprises a vacant brownfield site, and forms part of the wider site, 'The Old Vinyl Factory' (TOVF), which has outline planning permission for the delivery of residential and commercial development. The majority of TOVF plots have been developed, however the ability to submit a reserved matter application for 1 Vinyl Square has lapsed.

1.3 The proposed development for which this Transport Assessment has been written, seeks the:

"Full planning permission for the redevelopment of the site to provide a mixed-use development comprising residential dwellings (C3 Use Class) and commercial floorspace (flexible A1/A2/A3/A5/B1 Use Class), car parking, cycle parking and associated landscaping"

Healthy Streets Approach & Vision Zero

1.4 Transport for London (TfL) has adopted the Healthy Streets Approach (2017) to improve air quality, reduce congestion and help people lead a more active and healthier lifestyle. The Healthy Streets Approach puts people and their health at the centre of planning and therefore, this Transport Assessment has sought to align the key transport planning proposals towards people first. This has been done in conjunction with Vision Zero, as set out in the Mayor's Transport Strategy, which aims to remove all deaths and serious injuries from London's transport network by 2041.

1.5 The proposed development seeks to prioritise pedestrians and cyclists above the private vehicle, with car parking restraint, provision of cycle parking in accordance with draft London Plan standards, and land uses that complement the wider TOVF public realm strategy.

1.6 Overall, the proposals lead to a design whereby car dominance is reduced and pedestrian conflict is minimised offering a more attractive, accessible area for residents, employees, visitors and the local community.

Transport Assessment Structure

- 1.7 This Transport Assessment has been prepared following a detailed Site visit as well as pre-application advice received from LBH and Transport for London (TfL). It has been prepared in line with local policy as well as TfL's new guidance regarding Transport Assessments, to examine the effects of the proposals on people as well as the local transport network. In particular, it considers whether the proposals are convenient for people of all abilities to walk, cycle and use public transport, as well as exploring the requirements for servicing the development.
- 1.8 In addition to this Transport Assessment, a Draft Residential Travel Plan (FTP), Draft Delivery & Servicing Plan (DSP), and Outline Construction Logistics Plan (CLP) accompany the application; these have been prepared to fully consider and manage the potential transport and highways effects of the proposed development.
- 1.9 The remainder of this report is structured as follows:
- Section 2 reviews the relevant transport planning policy;
 - Section 3 describes the existing and proposed Site and surroundings;
 - Section 4 details the Site accessibility and presents the Active Travel Audit;
 - Section 5 describes the effects of the development;
 - Section 6 outlines the construction phasing;
 - Section 7 presents mitigation measures; and
 - Section 8 provides a summary and conclusion.

2 TRANSPORT POLICY CONTEXT

2.1 This section summarises the key transport policies at a national, regional and local level that are relevant to this proposal, including:

- National Planning Policy Framework (2019)
- The Adopted London Plan (2016)
- The Draft London Plan (2019)
- The Mayor's Transport Strategy (2018)
- Hillingdon Local Plan – Part 1 (2012)
- Draft Hillingdon Local Plan – Part 2 (2015)

National Transport Policy

National Planning Policy Framework (February 2019)

2.2 The National Planning Policy Framework (NPPF) was published in February 2019 and sets out the Government's planning policies for England and how these are expected to be applied.

2.3 Chapter 9 – 'Promoting Sustainable Transport' sets out central government national transport policy, with Paragraph 102 setting out that *"Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:*

- a) The potential impacts of development on transport networks can be addressed;*
- b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;*
- c) opportunities to promote walking, cycling and public transport use are identified and pursued;*
- d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and*
- e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes and contribute to making high quality places."*

2.4 A summary of the pertinent proposed policy directions taken from Chapter 9 (Promoting Sustainable Transport) is summarised below.

"108. In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

- a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
- b) safe and suitable access to the site can be achieved for all users; and*
- c) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.*

109. Development should only be prevented or refused on highways grounds if the residual cumulative impacts on the road network or road safety would be severe.

110. Within this context, applications for development should:

- a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*
- b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*
- c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
- d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and*
- e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations."*

Regional Transport Policy

The London Plan (March 2016)

2.5 The London Plan (March 2016) is a Spatial Development Strategy which sets out the framework for the development of London over the next 20-25 years. Policy 6.1 sets out a number of strategic aims, including:

- a) encouraging patterns and modes of development that reduce the need to travel, especially by car;*
- b) seeking to improve the capacity and accessibility of public transport, walking and cycling, particularly in areas of greatest demand;*
- c) supporting measures that encourage shifts to more sustainable modes and appropriate demand management; and*
- d) promoting walking by ensuring an improved urban realm."*

The Draft New London Plan (Consolidated Changes Version, July 2019)

2.6 Though currently in draft format, the new London Plan still forms a material consideration in planning decisions and, as such, is included within this report. Six core 'good growth' policies are identified and states the following with regards to transport:

"Policy GG2 Making the best use of land – Point E: Plan for good local walking, cycling and public transport connections to support a strategic target of 80 per cent of all journeys using sustainable travel, enabling car-free lifestyles that allow an efficient use of land, as well as using new and enhanced public transport links to unlock growth.

Policy GG3 Creating a healthy city – Point B: Promote more active and healthy lives for all Londoners and enable them to make healthy choices.

Policy GG3 Creating a healthy city – Point C: Use the Healthy Streets Approach to prioritise health in all planning decisions."

2.7 Policy T4 – Assessing and mitigating transport impacts provides the following advice:

B. "When required in accordance with national or local guidance, transport assessments / statements should be submitted with development proposals to ensure that impacts on the capacity of the transport network (including impacts on pedestrians and the cycle network), at the local, network-wide and strategic level, are fully assessed. Transport assessments should focus on embedding the Healthy Streets Approach within, and in the vicinity of, new development. Travel Plans, Parking Design and Management Plans, Construction Logistics Plans and Delivery and Servicing Plans will be required in accordance with relevant Transport for London guidance."

2.8 Table 10.3 of the Draft New London Plan sets out the relevant residential car parking standards and is included at **Table 2.1**. As the development will be recognised as having a PTAL rating of 4 upon the completion of Crossrail, the standards for this category has also been included below.

Table 2.1: Car Parking Maximum Standards (Residential)	
Location	Maximum Parking Provision
Outer London PTAL 3	Up to 0.75 spaces per unit
Outer London PTAL 4	Up to 0.5 spaces per unit

2.9 In addition to the above, Hayes is recognised as an Opportunity Area on the new Crossrail route. Table 10.3 of the Draft New London Plan sets out that Outer London Opportunity Areas should provide up to 0.5 parking spaces per dwelling. As such, regardless of recognising the higher PTAL rating, the location of the proposals within the Opportunity Area leans towards a reduced car parking provision.

2.10 In regard to cycle parking, **Table 2.2** below sets out the draft cycle parking minimum standards relevant to the proposed development. Cycle parking for A2-A5 uses have been listed in reference to the flexible commercial space element of the proposals, given they are the most onerous cycle parking standards applicable to the space.

Table 2.2: Cycle Parking Minimum Standards		
Use Class	Long-stay	Short-stay
C3 Dwellings	1 space per studio or 1 person 1 bedroom dwelling, 1.5 spaces per 2 person 1 bedroom dwelling, and 2 spaces per all other dwellings	1 space per 40 units
A2 – A5 Café/Restaurant	From a threshold of 100sqm: 1 space per 175sqm	From a threshold of 100sqm: 1 space per 40 sqm (Rest of London)

Mayor's Transport Strategy (March 2018)

- 2.11 The Mayor's Transport Strategy was published in March 2018 and sets out a range of policies and proposals aimed at creating Healthy Streets and healthy people with the aim for 80 per cent of trips in London to be made on foot, by cycle or using public transport by 2041.
- 2.12 The Mayor's Transport Strategy vision states:
- i. *"The central aim of this strategy – the Mayor's Vision – is to create a future London that is not only home to more people, but is a better place for all those people to live in.*
 - ii. *The success of London's future transport system relies upon reducing London's dependency on cars in favour of increased walking, cycling and public transport use."*
- 2.13 Central to this vision are the following three transport aims:
1. *"By 2041, for all Londoners to do at least the 20 minutes of active travel they need to stay healthy each day.*
 2. *For no one to be killed in or by a London bus by 2030, and for deaths and serious injuries from all road collisions to be eliminated from the streets by 2041.*
 3. *To reduce freight traffic in the central London morning peak by 10 per cent on current levels by 2026, and to reduce total London traffic by 10-15 per cent by 2041".*

Development Management Policy

Hillingdon Local Plan - Part 1 (2012)

- 2.14 The Hillingdon Local Plan Part 1 was adopted in 2012, with Part 2 to be prepared to follow. The Local Plan Part 1 conveys the transport policies set out to promote sustainable transport with an overall aim of reducing private car dependency and improving overall quality of life.
- 2.15 The Borough has set out objectives in order to meet the aims mentioned above;
- *'SO12: Reduce the reliance of the use of the car by promoting safe and sustainable forms of transport, such as improved walking and cycling routes and encouraging travel plans.'*

2.16 Policy T1 encourages developments to provide access to public transport facilities and provide good cycle and walking provision. Policy T1 will be achieved by:

- *'Improve access to local services and facilities, including health, education, employment and training, local shopping, community, culture, sport and leisure facilities, especially for those without a car and for those in more remote parts of the borough through well planned routes and integrated public transport;*
- *Improve facilities at bus and underground / rail interchanges to promote sustainable growth in Uxbridge, Heathrow, the Hayes / West Drayton corridor and accessibility in other towns;*
- *Improve public transport services between the north and the south of the borough to ensure easier access between residential areas such as Northwood and South Ruislip, Hillingdon Hospital, Brunel University, Stockley Park and Heathrow Airport; and*
- *Promote efficient use of public transport and particular, the enhancement of Underground services to Uxbridge and faster services to Central London'.*

2.17 Policy T5: Crossrail – identifies that *'the Council will seek planning contributions from appropriate commercial development towards the provision of the Crossrail project in accordance with the requirements of the London Plan'.*

Hillingdon Draft Local Plan Part 2, Development Management Policies (2015)

2.18 Hillingdon's Local Plan Part 2 includes an amended version of the Part 1 section, and was produced in October 2015. The Draft Local Plan Part 2 was submitted to the Secretary of State in May 2018 for examination in public and is up for adoption in early 2020. It is therefore at an advanced stage and is a material consideration in decision making. The relevant policies are considered below.

2.19 Policy DMT 1 highlights that the *'development proposal will be required to meet the transport needs of the development and address its transport impacts in a sustainable manner. In order for developments to be acceptable they are required to:*

- i. *be accessible by public transport, walking and cycling either from the catchment area that is likely to draw its employees, customers or visitors from and / or services and facilities necessary to support the development;*
- ii. *maximise safe, convenient and inclusive accessibility to, and from within developments for pedestrians, cyclists and public transport users;*
- iii. *provide equal access for all people, including inclusive access for disabled people;*
- iv. *Adequately address delivery, servicing and drop-off requirements; and*
- v. *Have no significance adverse transport or associated air quality and noise impacts on the local and wider environment, particularly on the strategic road network.'*

2.20 Policy DMT 5: Pedestrian and Cyclists – The development proposals need to ensure that safe access for pedestrians and cyclists is provided for on-site by including:

- i. *'The retention and, where appropriate, enhancement of any existing pedestrian and cycle routes;*
- ii. *the provision of a high quality and safe public realm or interface with the public realm, which facilitates convenient and direct access to the site for pedestrian and cyclists;*
- iii. *the provision of well signposted, attractive pedestrian and cycle routes separated from vehicular traffic where possible; and*
- iv. *the provision of cycle parking and changing facilities in accordance with Appendix A C, Table 1 or, in agreement with Council.'*

2.21 **Table 2.3** below sets out LBH's maximum car parking standards and minimum cycle parking standards for residential developments.

Table 2.3: Car and Cycle Parking Standards (Residential)	
Car Parking Maximum Standards	Cycle Parking Minimum Standards
3 - 4 or more bedrooms - 2 spaces per unit	1 space per studio, 1 or 2 bed unit.
1 – 2 bedrooms - 1.5 - 1 spaces per unit	2 spaces per 3 or more bed unit.
Studio - 1 space per 2 units	
<i>(a) Proposals must also accommodate visitor's car parking on-site additional to the above</i>	
<i>(b) Car parks must be allocated to dwellings.</i>	

Policy Summary

- 2.22 Planning policy at all levels advocates locating new developments in areas which are easily accessible by sustainable travel. The proposed development is located in an area with a PTAL rating of 3, which will be improved to a PTAL of 4 following the introduction of Crossrail services at Hayes and Harlington station. The Site's location is also accessible to a number of cycle routes and within comfortable walking distance of a range of public transport services.
- 2.23 The proposed development complies with policy standards at all levels, with cycle parking provided in-line with draft London Plan standards, car parking provided in line with London Plan and LBH maximum parking standards, and servicing activity safely and suitably accommodated.
- 2.24 The development will implement mitigation measures to ensure the development does not have an adverse impact on the local area and operates efficiently and as planned. These are detailed in Section 7 and include the provision of a Draft Residential Travel Plan, Draft Delivery and Servicing Plan and Outline Construction Logistics Plan.

3 SITE AND SURROUNDINGS

3.1 This Section provides a description of the existing and proposed transport conditions of the Site.

Site Location

3.2 The Site is located on Blyth Road approximately 650m west of Hayes & Harlington Railway Station and 200m east of the roundabout junction with Dawley Road, Betam Road, and Kestrel Way. The location of the Site is shown within **Figure 3.1** below.



Figure 3.1: Site Location Plan

3.3 The Site forms part of the wider TOVF masterplan site and currently comprises a vacant brownfield site, which is bound by the Global Academy UTC education centre and proposed 'Vinyl Square' (public realm) to the east, a multi-storey car park and office buildings to the south, a car park to the west and Blyth Road to the north.

- 3.4 The surrounding area comprises of a mixture of residential, commercial and office uses situated along Blyth Road. The Site is situated approximately 550m from Station Road, which provides a variety of amenities such as shops, restaurants, services and leisure facilities leading into Hayes Town Centre to the north.

Local Highway Network

Blyth Road

- 3.5 Blyth Road operates in an east-west direction between Clayton Road at its eastern end and the Dawley Road roundabout junction to the west. Blyth Road is two-way between Trevor Road and Dawley Road, while the eastern section between Trevor Road and Clayton Road is one-way westbound only.
- 3.6 The easternmost one-way section of Blyth Road is located within Controlled Parking Zone (CPZ) HY1, which restricts use of spaces to permit holders only during the hours 09:00 – 22:00. To the west, unrestricted parking is located on both sides of the road, including adjacent to the Global Academy building.
- 3.7 The western section of Blyth Road between Trevor Road and Dawley Road is subject to a combination of single and double yellow lines which prohibit waiting Monday-Saturday during the hours 08:00-18:30.
- 3.8 'Pay & Display' parking bays are located in the vicinity of the junction with Clayton Road, which are operational Monday-Saturday 09:00-17:00.

TOVF Estate Roads

- 3.9 The estate roads associated with the wider TOVF masterplan plots surrounding the Site have largely been built; these roads remain within the ownership of U+I, however have been built to adoptable standards.
- 3.10 These roads include an internal access road along the southern boundary of the site, where a loading bay is located to serve the Site and the nearby Cabinet Building. In addition, the access road at the Site's western boundary has been largely built out, however is not currently in use and the original access to the surrounding parking is retained.

Existing Site

- 3.11 The existing Site comprises a vacant brownfield site, and forms part of the wider TOVF, which has outline planning permission for the delivery of residential and commercial development. The Site also includes the surface level car parking to the west of the vacant brownfield site, provided under the wider The Veneer Store detailed permission.
- 3.12 An internal access road for the wider TOVF passes along the southern boundary of the site, where a loading bay is located to serve the Site and the nearby Cabinet Building; this loading bay has been constructed as part of the wider TOVF road network.
- 3.13 The land immediately to the east forms 'Vinyl Square', a public realm space that will be provided as part of the TOVF wider public realm strategy. The square will be delivered independently of the Site, and its design has been taken into account with the design proposal discussed herein.
- 3.14 Several phases of the wider TOVF site have been built out, including the Boiler House and Material Store buildings to the east on Blyth Road. To the west is the Veneer Store site, which will accommodate multi-story and surface level car parking. The Site is currently vacant and secured by a hoarding.

Proposed Development

- 3.15 The proposals seek the development of the Site to provide an 11 storey residential led development, comprising 134 homes and 395sqm (GIA) of flexible commercial space (flexible A1/A2/A3/A5/B1 use class), with associated car and cycle parking. A copy of the Architect's Ground Floor Layout Plan is included at **Appendix A**, as well as a Site Plan which shows the associated car parking.
- 3.16 The residential element of the development will provide the following mix of homes:
- 11 x studio homes;
 - 41 x 1-bed homes;
 - 60 x 2-bed homes; and,
 - 22 x 3-bed homes.
- 3.17 The following sub-headings provide further details as to what will be delivered at the proposed development.

Access

- 3.18 A number of the proposed homes will be accessible directly from the street on the northern and western façades of the building. Residents will access the remaining homes via the lobby on the western façade or via the northeast corner of the building, adjacent to Vinyl Square; both entrances give access to lifts to all floors of the building.
- 3.19 The main commercial access will be from the eastern façade, which will open on to the public square (Vinyl Square). Additional doors will be provided to the back of house area via the southern façade, allowing convenient access to the adjacent loading bay.
- 3.20 Vehicle access to the development will be taken primarily from Blyth Road, via the access road provided as part of the final highway works brought forward through the TOVF masterplan. The new access road has been largely constructed and will replace the existing access from Blyth Road, located circa 10m to the west. This road will provide access to the car parking proposed to serve the Site.

Car Parking

- 3.21 Residential car parking will be provided at a ratio of 0.5 spaces per home, with 62 car parking spaces provided within the adjacent Veneer Store surface level car park and 5 disabled spaces provided immediately to the south of the proposed building (67 spaces in total).
- 3.22 This level of car parking provision is supported by the Opportunity Area status of the Sites' location, as well as the future PTAL rating, which will increase to PTAL 4 following the introduction of Crossrail services, as discussed further within the Accessibility section of this report. The disabled parking on-site equates to provision for 3% of homes, in accordance with Draft London Plan car parking standards. No car parking will be provided for the commercial use.
- 3.23 Electric Vehicle Charging Points (EVCP) will be provided in accordance with draft London Plan standards, i.e. 14 'active' spaces comprising 20% of total parking provision, with the remaining 80% to be provided as 'passive' spaces. This exceeds the requirement of the adopted London Plan, which seeks 20% passive provision of EVCP.
- 3.24 In addition, 2 motorcycle parking spaces will be provided adjacent to the disabled parking spaces to the south of the development.

Cycle Parking

- 3.25 Cycle parking will be provided to draft London Plan standards for both the residential and flexible commercial uses on-site. Short-stay cycle parking will be provided in accordance with draft London Plan standards and will be located on-site adjacent to Blyth Road to the northeast of the development.
- 3.26 Access to the residential cycle store will be directly from the street to the south of the Site with cyclists only required to travel through one set of doors to gain access. Commercial long-stay cycle parking will be provided within the demise of the unit.
- 3.27 In addition, a cycle repair hub will be provided directly adjacent to the cycle store at ground floor, and will include a cycle stand, tools and bike pump. The repair hub is provided with the intention of removing barriers to cycle use and keeping cyclists on the road.

Servicing

- 3.28 A loading bay is currently provided adjacent to the southwest side of the building to accommodate deliveries and servicing associated with the development. The proposal includes for the re-provision of a loading bay of the same size to the southeast of the building to facilitate the provision of 5 disabled parking bays and 2 motorcycle parking bays, as shown in the Architect's ground floor plan at **Appendix A**.

Refuse Storage and Collection

- 3.29 Residential waste storage will be located at ground floor within two dedicated areas provided adjacent the northern frontage (17 containers) and western frontage (5 containers). The stores are located within 10 metres of the on-street collection locations, i.e. Blyth Road and the access road to the west of the building. The Site Management Team will attend the site on a weekly basis to rotate the containers, to ensure that residents have access to empty containers. The location of the refuse stores enables refuse collection operatives to collect waste directly from the stores and take the Eurobins to the awaiting refuse collection vehicles.
- 3.30 Commercial waste storage will be allocated within the demise of the commercial floor area, with collection undertaken by private waste contractor as necessary.

4 ACCESSIBILITY AND ACTIVE TRAVEL AUDIT

- 4.1 The Healthy Streets approach is set out as part of the Mayor's Transport Strategy (2018) and puts human health and experience at the centre of planning. The aims of the strategy are to encourage all Londoners to do at least 20 minutes of active travel each day by 2041. To this end TfL has defined 20-minute walking and cycling distances as an Active Travel Zone (ATZ).
- 4.2 An assessment of the accessibility of the Site by both active modes of travel and public transport has been undertaken, as well as an Active Travel Audit for the key routes in the locality, based on TfL's adopted Healthy Streets Transport Assessment guidance.

Accessibility by Active Modes

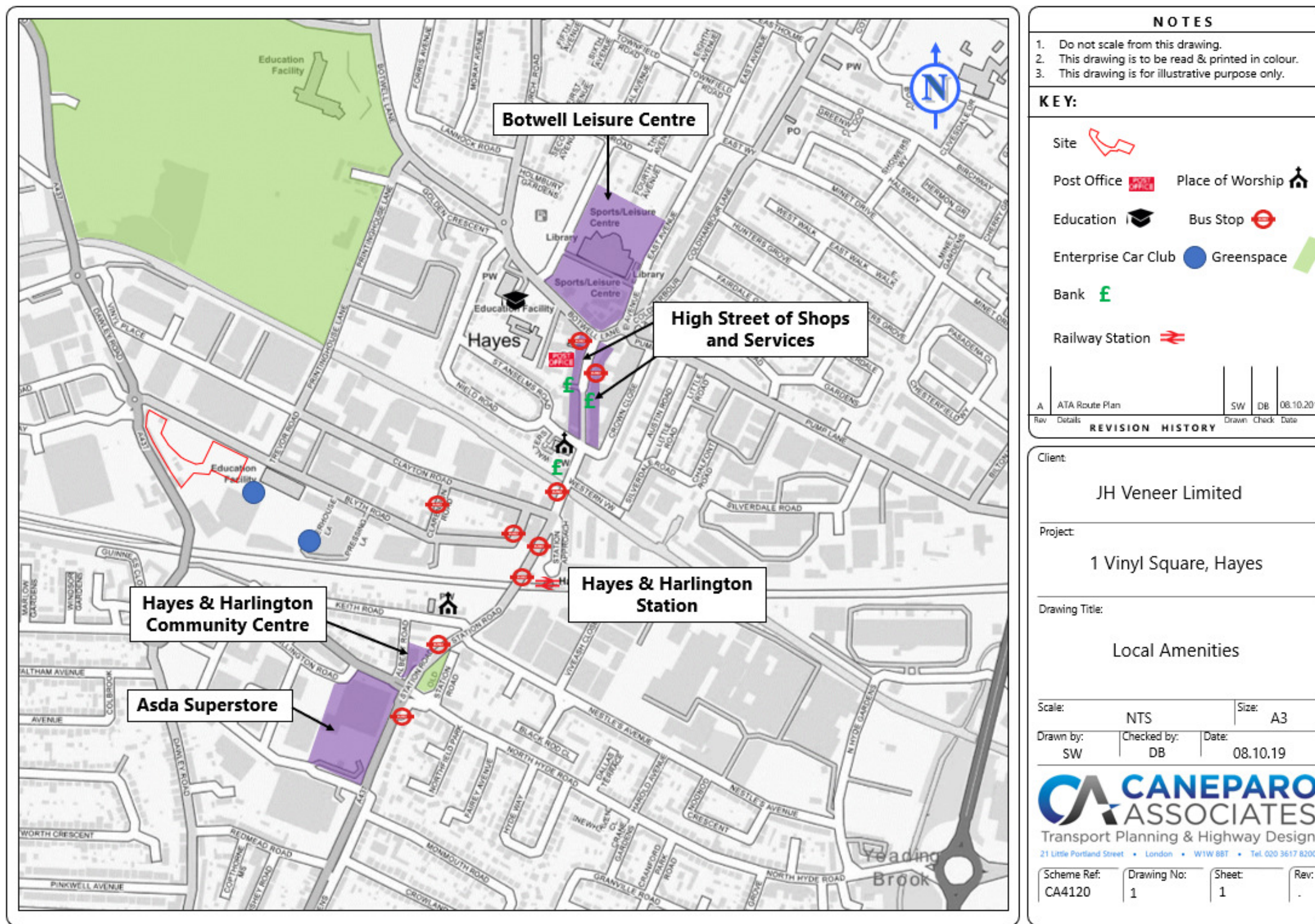
Access by Foot

- 4.3 A person's willingness to walk is dependent on many factors, including access to a car, safety, road congestion, weather, gradients, parking, health, direction of route, and purpose of journey.
- 4.4 Chartered Institution of Highways and Transportation (CIHT) guidance suggests that 80 per cent of trips under 1 mile (1.6km) are undertaken on foot (*Planning for Walking*, April 2015) while TfL's Healthy Streets approach aims to have all Londoners undertake 20 minutes of active travel each day.
- 4.5 **Table 4.1** identifies and provides details of approximate distances between the Site and local amenities, within a reasonable walking distance of the Site, assuming an average walk speed of 80 metres per minute, while **Figure 4.1** shows the location of local public transport opportunities as well as local amenities.

Table 4.1: Approximate Distances to Local Amenities			
Amenity	Location	Distance (metres)	Approximate Walking Time
Public Transport Opportunities			
Blyth Road Bus Stop	Dawley Road	300m	4 minutes
Hayes & Harlington Bus Stop L	Station Road	635m	8 minutes
Hayes & Harlington Station	Station Road	650m	8 minutes
Facilities and Amenities			
Global Academy	Blyth Road	110m	1-2 minutes
Tesco Express	Station Approach	700m	9 minutes
Bank	Station Road	750m	9 minutes
Medical Centre	Station Road	850m	11 minutes
Botwell Leisure Centre	East Avenue	1,200m	15 minutes

- 4.6 The walking environment in the vicinity of the Site is of a good standard, with wide footways present adjacent to the Site along Blyth Road and along expected walking routes. Some of the footways are temporarily suspended or in poor condition, however this is to be improved by the wider development programme which is currently occurring along Blyth Road.
- 4.7 There is a pedestrian step-free underpass from Blyth Road which provides access to Hayes & Harlington Station and Station Approach. Additionally, the underpass provides stepped access to Station Road where a variety of bus services are provided at Stops L and E, located directly outside Hayes & Harlington Station.

Figure 4.1 Active Travel Zone Accessibility & Amenities



Access by Cycling

- 4.8 Guidance on cycling can be found in 'Cycle Friendly Infrastructure' published by the CIHT. This guidance highlights previous research by the DfT that three quarters of all journeys are less than 5 miles (8km), of which 60% are undertaken by private cars.
- 4.9 The guidelines highlight that there is a '*substantial potential*' for substituting cycling for driving for distances up to 5 miles.
- 4.10 **Figure 4.2** indicates the Active Travel Zone for the Site based on a 20-minute cycle distance. In addition, cycling has the potential to replace driving for distances up to 5 miles (8 kilometres) which would include areas such as West Drayton, Harmondsworth, Hillingdon, Southall and Harlington.

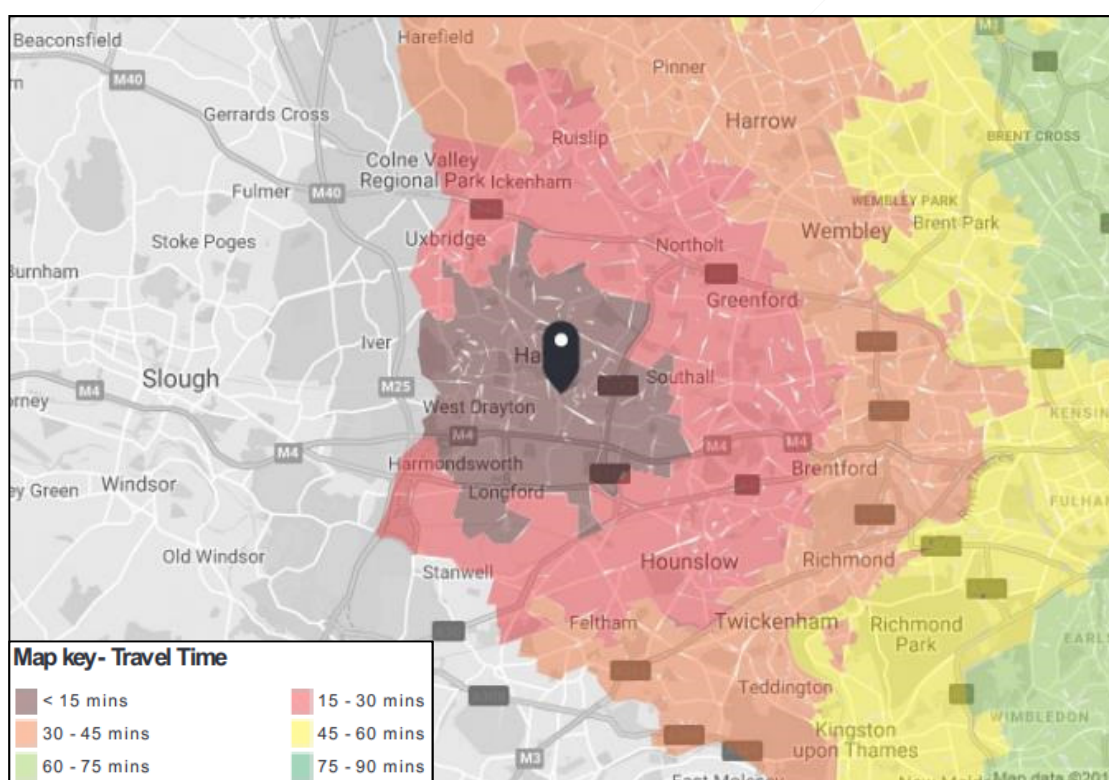


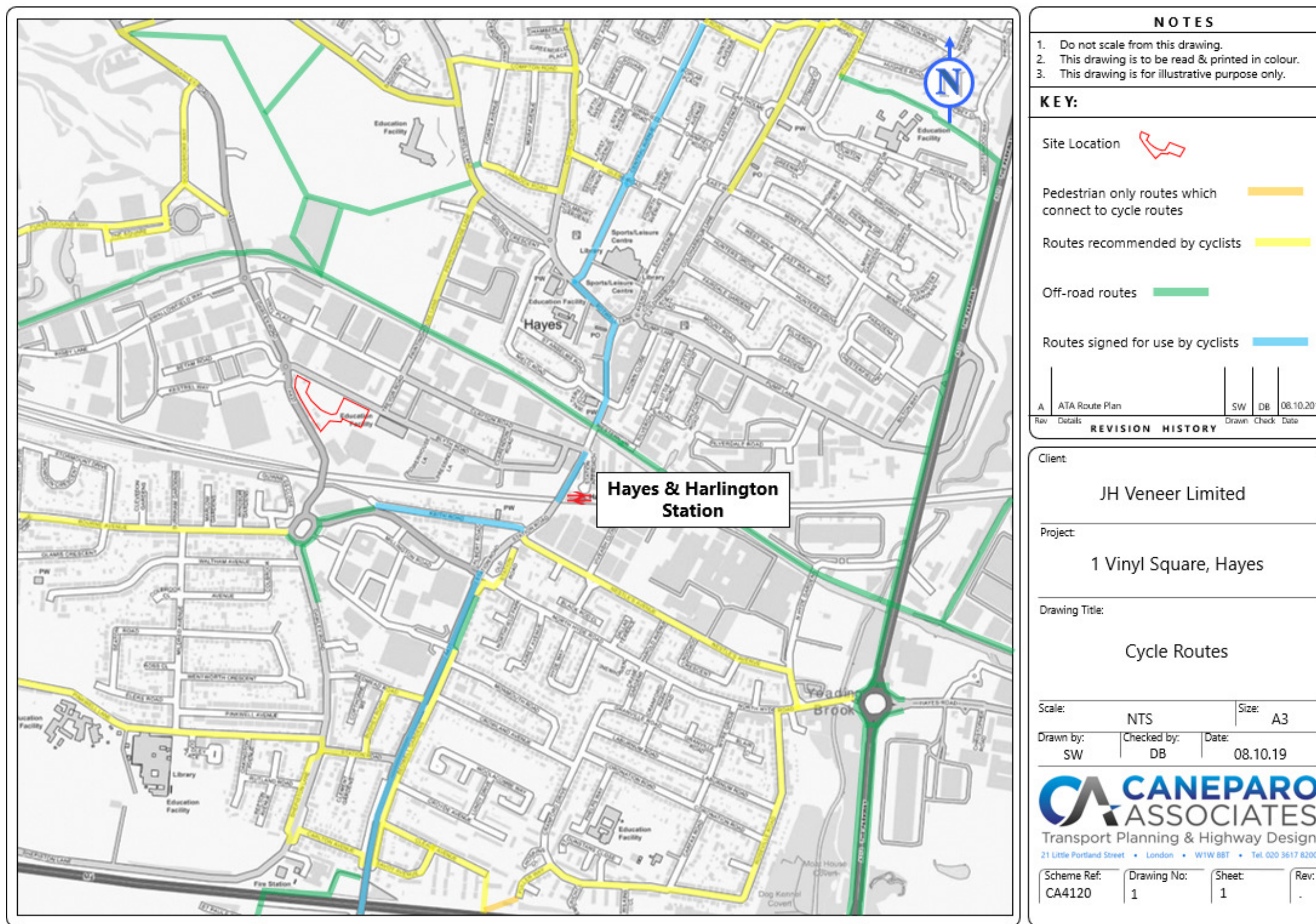
Figure 4.2: Active Travel Zone (Cycling) (Source: TfL)

- 4.11 There are several local roads which have been designated by TfL as roads which are appropriate for use by cyclists. Roads are allocated into different categories based on the degree of cycle provision and a rating of cycle friendliness.

- 4.12 Nearby '*routes signed or marked for use by cyclists*' include parts of Station Road and Keith Road. There are '*quieter roads that have been recommended by other cyclists*' which are located on Printing House Lane, Nestles Avenue and Old Station Road. The Site is surrounded by a number of '*off-road routes*' which operate along the Grand Union Canal, providing access in the west towards West Drayton and east towards the A312 The Parkway. In addition, the Grand Union Canal is currently being upgraded to be a Quietway between West Drayton and Paddington, expected to be completed by 2021.



Figure 4.3: Active Travel Zone Cycle Routes



Accessibility by Public Transport

- 4.13 The Site is well served by public transport with convenient access to National Rail and bus services.

Bus Services

- 4.14 There are numerous regular bus services that operate in the vicinity of the Site, with the closest bus stop located 300m west of the Site on Dawley Road and additional bus stops located 635m east on Station Road, which offer a wider variety of services.
- 4.15 **Table 4.2** summarises the services and frequencies of buses available within a short walking distance from the Site. A copy of the local TfL Bus Spider Map is included at **Appendix B**.

Table 4.2 Bus Service Summary				
Route Number	Route	Frequency (in minutes)		
		Weekdays	Saturday	Sunday
350	Heathrow Terminal 5 / Fairey Corner	20	20	20
U4	Uxbridge Stn / Prologis Park	9 - 11	9 - 12	15 - 16
E6	Bulls Bridge Tesco / Greenford Stn	11 - 14	12 - 13	15 - 16
U5	York Road / Blyth Road	10 - 14	12	20
90	Browells Lane / Northolt Stn	9 - 12	11 - 12	15 - 16
H98	School Road / Wood End Green Road	8 - 11	-	-
195	Brentford County Court / Romney Road	11 - 13	11 - 14	15 - 16
140	Heathrow Central Bus Stn / Long Elmes	5 - 8	6 - 10	8 - 13

- 4.16 The number 696 and 698 school buses run from Hayes and Harlington Station Monday – Friday with the first bus at 07:11am and last bus at 07:14am. In addition, bus services are expected to operate to Ruislip from December 2019.

Rail Services

- 4.17 Hayes & Harlington Rail Station is located 650m to the east of the Site on Station Road and provides access to national rail services offering 15 services an hour to the following destinations: London Paddington, Reading, Heathrow and Didcot Parkway.

- 4.18 The Site will benefit from the addition of Crossrail services in the future at Hayes and Harlington Station, which will provide 10 services an hour enabling access to destinations such as Heathrow, Reading, central and southeast London, and Essex. Services are expected to begin as early as October 2020 and no later than March 2021.

Public Transport Accessibility Level

- 4.19 Public Transport Accessibility Levels (PTAL) are a theoretical measure of the accessibility of a given point to the public transport network, considering walking time and service availability. The method is essentially a way of measuring the density of the public transport network at a particular point.
- 4.20 The PTAL is categorised in six levels, 1 to 6 where 6 represents a high level of accessibility and 1 a low level of accessibility. The PTAL levels 1 and 6 are further subdivided into 'a' and 'b' levels, with level 'a' indicating the location is rated towards the lower end of the PTAL category and 'b' towards the higher end.
- 4.21 The Site has a PTAL of 2 according to the WebPTAL website, however the 100m grid-based methodology of measuring walking distance for the PTAL calculation fails to take account of a range of bus services that are accessible from the High Street, within the walking threshold of 640 metres.
- 4.22 A manual calculation has been undertaken to review the PTAL rating of the Site taking into account the specific walking distances to rail and bus services, and confirmed that the existing PTAL rating of the Site is 3 'moderate'. A further manual calculation has confirmed that, following the future introduction of Elizabeth Line (Crossrail) services, the Site will achieve a PTAL rating of 4 'good'. A note setting out the basis of the manual PTAL calculation is included at **Appendix C**.

Car Clubs

- 4.23 The Site benefits from being within walking distance of two car club bays, both operated by Enterprise Car Club and located within TOVF masterplan area. TOVF site-wide Car Park Management Plan includes an allocation of a further two car club spaces within the Veneer Store surface level car park to the west of the Site. A total of four car club spaces will therefore be available as part of the wider TOVF development, which can be used by residents of the Site.

Active Travel Audit

- 4.24 The Active Travel Audit route is highlighted in **Figure 4.4** below, which aligns with the Healthy Streets Approach. The areas included are deemed the most appropriate / shortest routes to / from the development, Hayes and Harlington Station, Hayes Town Centre and the Asda Superstore.
- 4.25 The audit was undertaken on Wednesday 2nd October 2019, between the hours of 09:00 – 12:00 by two auditors. The audit has been undertaken in accordance with the Healthy Streets Approach utilising the '*Guide to the Healthy Streets Indicators – Delivering the Healthy Streets Approach*' (November 2017) and '*Healthy Streets Check for Designers*' (April 2019).
- 4.26 This Active Travel Audit has been undertaken in line with the new Active Travel Zone (ATZ) requirements from TfL. ATZs are the areas surrounding development sites that users are expected to walk and cycle to access services, points of interests, and transport nodes. Photos have been taken at least every 150m along the main identified routes.

Healthy Streets Approach

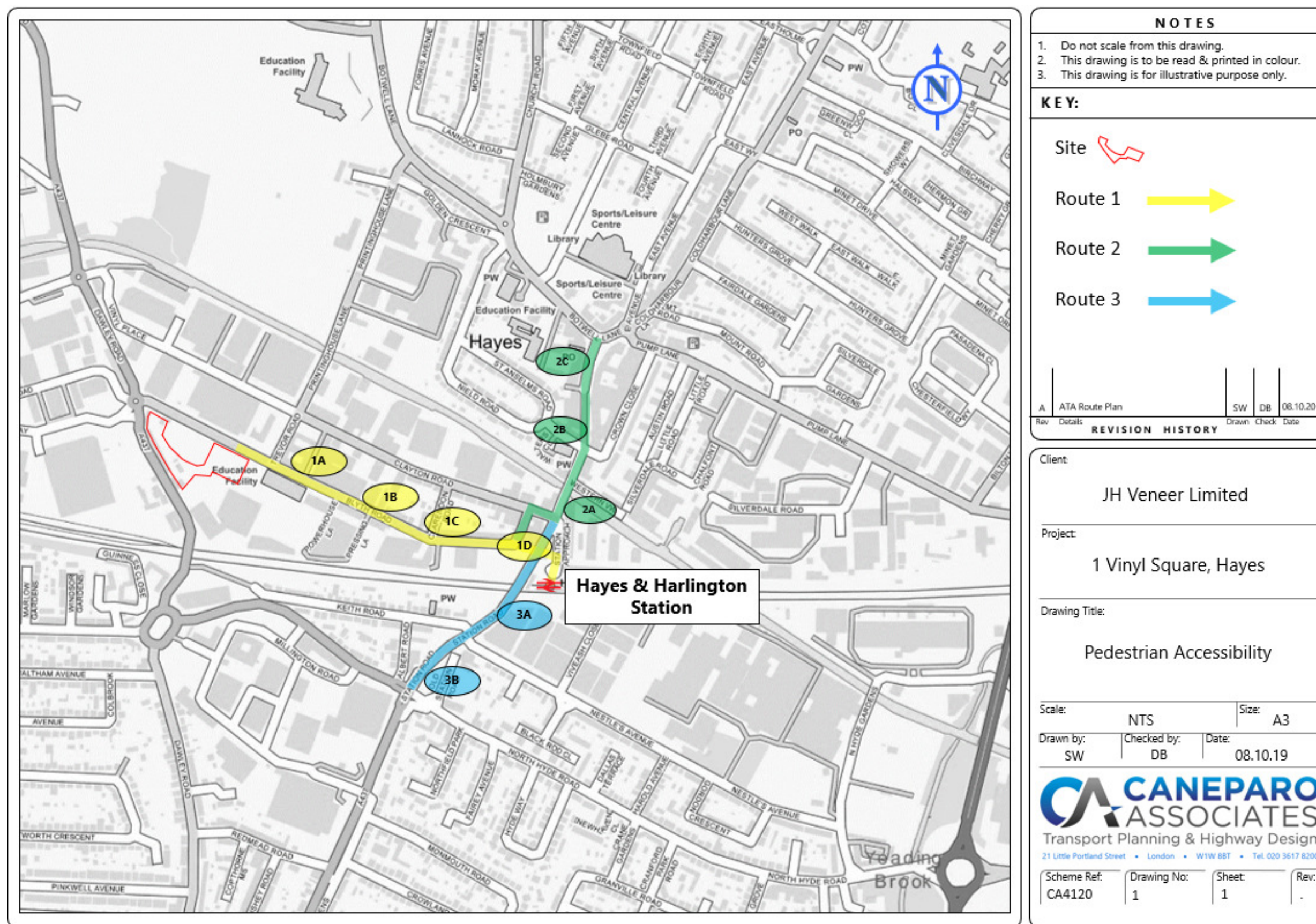
- 4.27 The Healthy Streets Approach to assessing the local environment has now been adopted by TfL and the Mayor of London as the principal means of evaluating the local area with the aim of reducing car use and helping Londoners to walk, cycle and use public transport more.
- 4.28 The approach is based on 10 indicators of what forms a Healthy Street with a particular focus on the experience of people using streets, as detailed within the '*Guide to the Healthy Streets Indicators – Delivering the Healthy Streets Approach, November 2017*' document. The indicators, which provide initial starting points for discussions around the quality of the pedestrian environment, are illustrated within the Health Streets Indicator Wheel at **Figure 4.5** below.



Figure 4.5 – Healthy Streets Indicator Wheel

- 4.29 It is recognised that not all of the sections within the Healthy Streets Approach are necessarily relevant to each individual street, but in conjunction, form a holistic approach to street appraisal. Section 5 of this report assesses how the proposed development provides improvements to the pedestrian environment against the 10 Healthy Streets indicators.

Figure 4.4: Active Travel Routes



Vision Zero

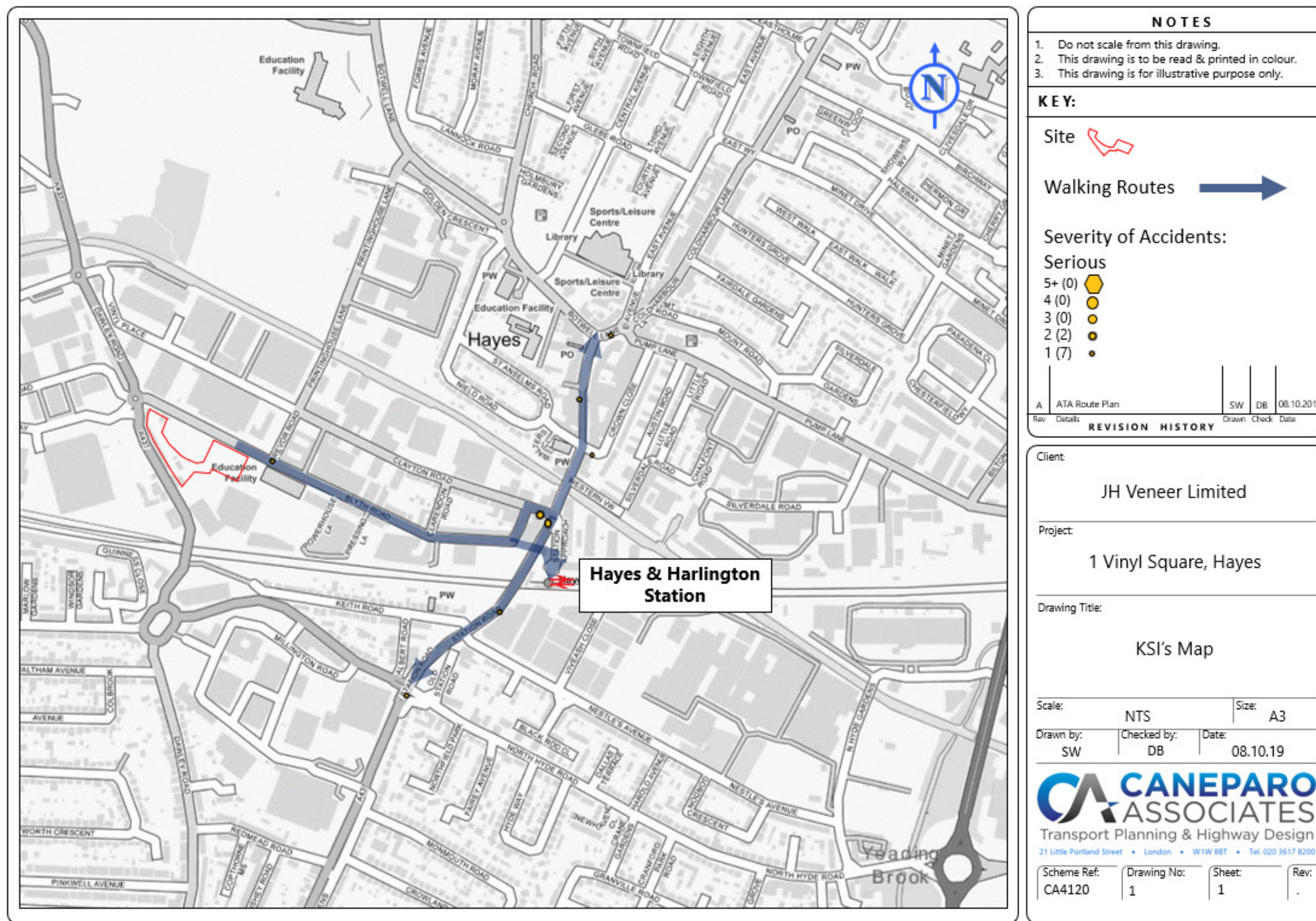
4.30 TfL's Vision Zero sets out the Mayor's goal, that by 2041, all deaths and serious injuries will be eliminated from London's transport network. An aim of the Vision Zero Action Plan is for Safe Streets: designing an environment that is forgiving of mistakes by transforming junctions, which see the majority of collisions, and ensuring safety is at the forefront of all design schemes.

4.31 **Figure 4.6** below, details the audit area in conjunction with the latest accident data (Killed or Seriously Injured – KSI) along the routes assessed for the last 5 years. For the purposes of this assessment, an accident cluster is classified as a location in which 2 or more KSI accidents were recorded. A summary of the key accidents recorded is provided below:

- A total of 38 accidents occurred along these routes where 9 were recorded as serious, and none involved a fatality. With regards to vulnerable road users, a total of 34 accidents involved pedestrians and 5 accidents involved cyclists. A cluster of 2 accidents occurred at the junction between Station Road / Clayton Road / Station Approach. The remaining incidents are scattered along different intervals of the walking routes where no significant clustering of serious accidents have occurred.
- Of the accidents that involved pedestrians, 6 were recorded as serious and all took place at different locations along Station Road. A total of two accidents occurred at the junction between Station Road / Clayton Road, which both involved vehicle / pedestrian conflict and was a consequence of careless driving and failing to look properly. At the junction between Station Road / Station Approach it was recorded that a pedestrian / vehicle conflict occurred as a result of the driver illegally turning and failing to look properly. The fourth serious accident was recorded at the junction with Station Road / North Hyde Road which was a consequence of the driver being ill / having a disability. The remaining two serious accidents occurred at the junction with Station Road / Crown Close and Station Road / Keith Road which were both a result of the driver failing to judge the speed of the pedestrian and not looking properly.

- The remaining three serious accidents were recorded as vehicle collisions. The first vehicle accident occurred at the junction between Crown Close / Station Road which was the result of a bus going ahead of the bend. The second serious vehicle accident took place at the junction between Coldharbour Lane / Pump Lane where a passenger was injured due to reckless driving. The final vehicle accident occurred at the junction between Trevor Road / Blyth Road where the driver was impaired by drugs and driving recklessly.
- A total of 5 incidents occurred involving cyclists which were all slight in severity. Three of the cyclist incidents occurred at the junction between Station Road / Station Approach which were all a consequence of drivers failing to look properly and not respecting cyclists on the road. A cyclists and vehicle collision occurred at the junction between Station Road / Nestles Avenue which was a result of reckless driving. The final cyclist incident occurred at the junction between Station Road / Clayton Road which was a consequence of disobeying give way signs and driving in a hurry.

Figure 4.6: Routes to Identified Key Locations Including Accident Data (KSI's)



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The Review Process

- 4.32 To align with the Healthy Streets and Active Travel Zone Transport Assessment Guidance, each route has been assessed. A thorough assessment of the 'worst' part of each journey is then undertaken using the Healthy Streets indicators as the structure, including a description of aspects that could improve the active travel experience and environment in the location. The Active Travel Audit concludes with a list of recommendations which could be implemented in the locality to meet the Healthy Streets indicators.

Step-Free Route to/from Hayes and Harlington Station

- 4.33 Pedestrian access to the development from Hayes and Harlington Station is achieved via Blyth Road, which provides sufficient footway widths on either side of the carriageway (circa 2m). During the audit, sections of the southern footway were temporarily suspended as part of the wider redevelopment of The Old Vinyl Factory. The current construction works along Blyth Road, as well as the proposed development will bring forward improvements to the adjacent footway along this route, improving pedestrian, cyclist and public transport users travel.
- 4.34 The worst section, identified at **Figure 4.7** below (Photograph 1A), is at the internal access road junction between the eastern boundary of Vinyl Square and the Global Academy building. The overall maintenance of this location is poor with uneven and broken paving which lacks sufficient drop kerbing for vulnerable pedestrian users, as a result of the hoarding around the development site. Photograph 1A has been assessed against the Healthy Streets Indicators in **Table 4.3** below.

Table 4.3: Healthy Streets Indicators for Photograph 1A: Crossover access between the Site and Global Academy		
Healthy Streets Indicator	Observations	Area for Improvements
Pedestrians from all walks of life	Limited tactile paving on either side of the crossover making it difficult for visually impaired pedestrians to notice there is a crossover. Additionally, uneven and broken paving along the footpath.	Provide additional/wider tactile paving and improve the quality of the footway for all types of pedestrians.
Easy to cross	The crossing is long and has small crossing points	Provide wider tactile paving or a central refuge.
Shade and shelter	The surrounding buildings provide shade, with shelter provided from surrounding buildings.	No need for improvement.
Places to stop and rest	There are no places to stop and rest along the footway however there are benches located at Hayes and Harlington Station and within TOVF masterplan area.	No need for improvement.
Not too noisy	Consistent noise due to construction occurring along Blyth Road.	This is only temporary while construction is underway, once complete the noise level will be significantly reduced.
People choose to walk, cycle and use public transport	There are no dedicated cycle lanes along Blyth Road, though short connections to off road cycle routes and routes signed and marked by cyclists. Public transport and pedestrians are well catered for within the vicinity.	The future aspirations to reduce vehicle numbers on local roads will make cycling a more appealing mode of transport.
People feel safe	The location is a relatively busy area where natural surveillance is high.	The development will provide active frontage / increased footfall = further natural surveillance.
Things to see and do	Blyth Road lacks facilities, however, is only a short distance away from the shops and services along Station Road and within the TOVF masterplan area.	The development will provide flexible commercial space, improving the amenities in the locality.
People feel relaxed	Poor footway maintenance and the busy environment can make travel stressful.	Improvement to the footway paving will enable smoother travel for pedestrians.
Clean air	Blyth Road is a fairly busy street resulting in airborne emissions within the surrounding area.	A reduction in the reliance of the private vehicle is required, in line with the Mayors Transport Strategy and TfL aspirations.

Step-Free Route to/from Hayes Town Centre

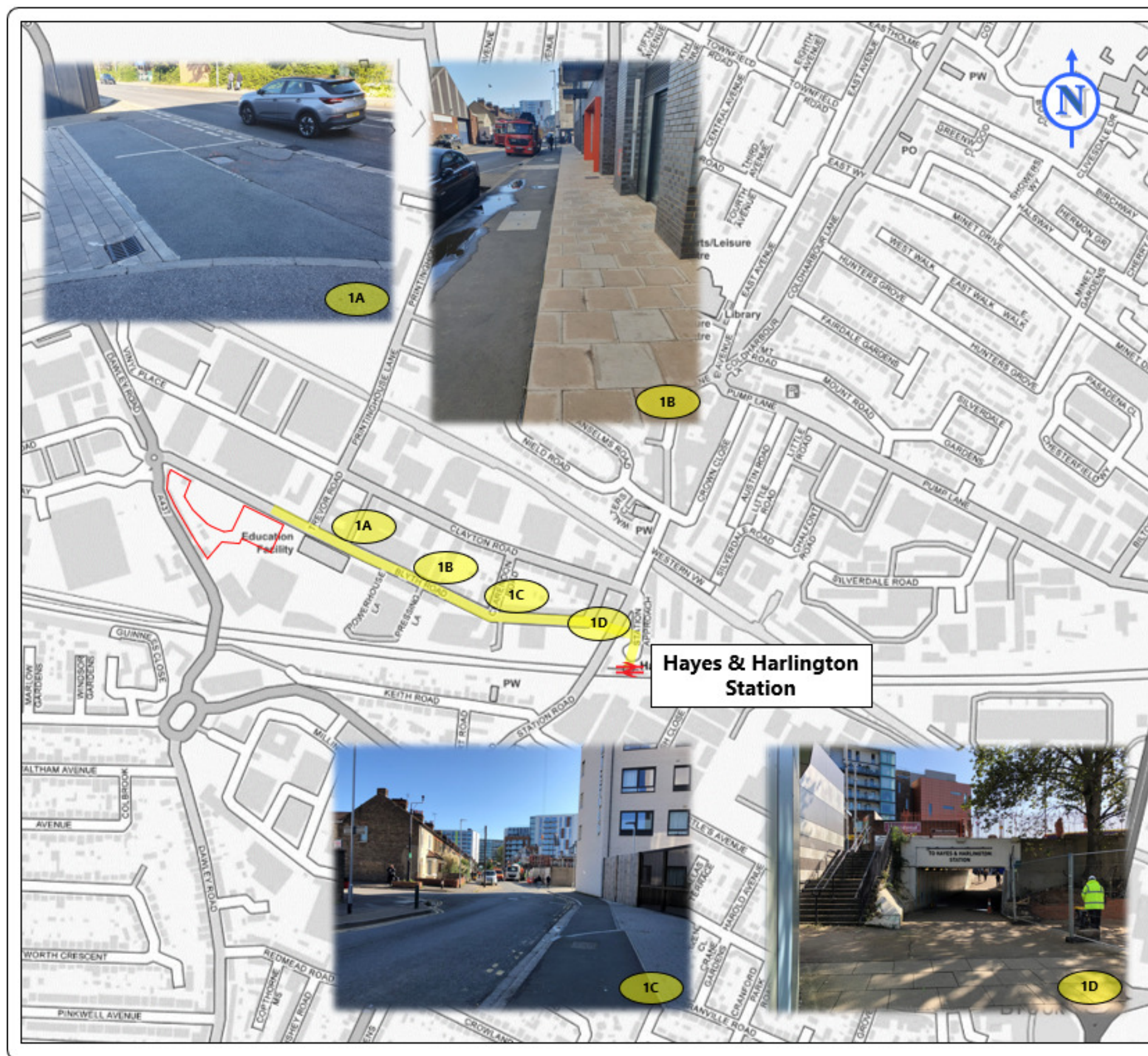
- 4.35 The pedestrian route between the development and Hayes Town Centre provides a variety of pedestrian crossing facilities. This route which travels along Station Road has recently been redeveloped to provide vehicle access along the entire stretch of the high-street, as well as providing cycle lanes along the High Street. Sufficient footway widths are provided for along this route (circa 2m). However, there is a section of the footpath which is very narrow where pedestrians have to walk through the court yard of the Church, as can be seen in Photograph 2B.

4.36 Cyclists are well provided for on this route, with cycle lanes operating in both directions along Station Road, running parallel to the footways. Pedestrians were often seen ignoring cycle lanes which is evident within Photograph 2C, causing potential conflict between pedestrian and cyclist users.

4.37 The worst section of the route is identified in **Figure 4.8** below (Photograph 2C) which is located at Station Road where shop signage and litter bins reduce the effective width of the footway, resulting in pedestrians utilising the cycle lane to walk along the road. The overall maintenance of this location is good, however rubbish bags did litter the footpath during the audit, further reducing the width of the footpath. A further assessment of Photograph 2C has been outlined below in **Table 4.4**.

Table 4.4: Healthy Streets Indicators for Photograph 2C		
Healthy Streets Indicator	Observations	Area for Improvements
Pedestrians from all walks of life	The footway width is restricted by the presence of shop signage and a litter bin, reducing the width to potentially prevent wheelchair users travelling along the route without using the cycle lane.	The route should be clear of shop signage and bins should be presented and collected in a timely manner to prevent blockages.
Easy to cross	Numerous crossings are present near the section of footway.	No need for improvement.
Shade and shelter	Buildings and bus shelters offer shade and shelter.	No need for improvement.
Places to stop and rest	There are benches located along Station Road.	No need for improvement.
Not too noisy	Noisy location with lots of passing traffic.	Reduction in traffic to reduce noise pollution.
People choose to walk, cycle and use public transport	There are dedicated cycle lanes which promote cycling but the footway widths are poor in places where street clutter is prevalent.	Encourage pedestrians to remain on the footway to avoid conflict with cyclists in the cycle lanes and remove street clutter.
People feel safe	The location is a busy area where natural surveillance is high.	Removal of street clutter will reduce potential for conflict with cyclists.
Things to see and do	The route features a range of amenities from shops, services and a leisure centre.	No need for improvement.
People feel relaxed	Busy environment due to traffic and high pedestrian population within the area.	Reduce the number of vehicles travelling along the route to make the pedestrian environment more relaxed.
Clean air	Station Road is a busy London street resulting in airborne emissions within the surrounding area.	A reduction in the reliance of the private vehicle is required, in line with the Mayors Transport Strategy and TfL aspirations.

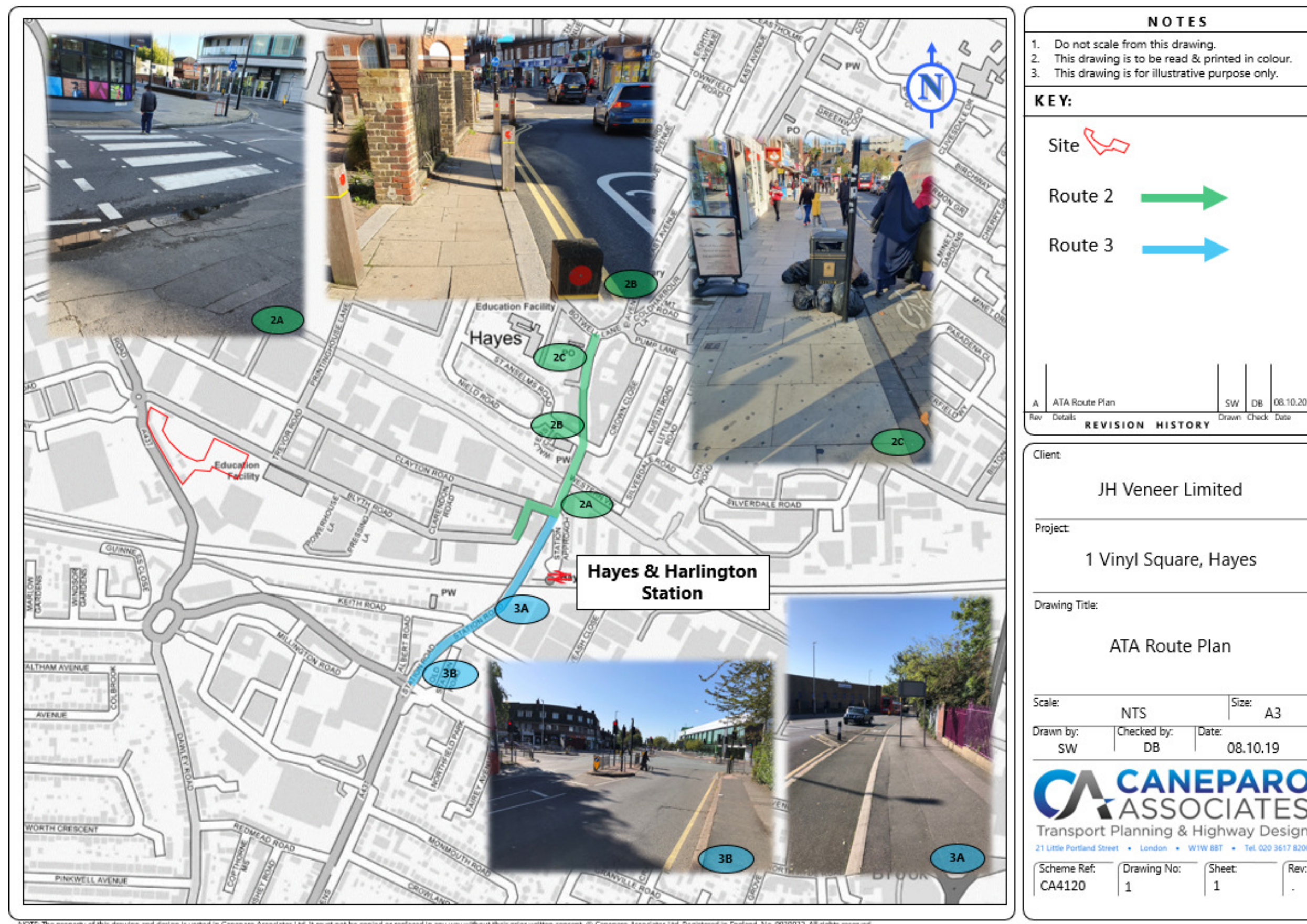
Figure 4.7: Photographic Record of the Route from the Site to Hayes and Harlington Station



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NOTES													
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2. This drawing is to be read & printed in colour.													
3. This drawing is for illustrative purpose only.													
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Figure 4.8: Photographic Record of the Route from the Site to Hayes Town Centre and Asda Superstore



Step-Free Route to/from Asda Superstore

- 4.38 The pedestrian route between the Asda Superstore and the development displays elements of a good pedestrian environment with regular formal and informal crossings enabling access between either side of the carriageway. Some of the crossings display poor quality paving with broken or uneven surfaces. The route experiences a sharp incline and gradual decline to cross the rail lines which may prove challenging for mobility impaired users. Cyclists are well provided for with cycle lanes operating along Station Road on either side of the carriageway, providing direct access between Asda Superstore and the development.
- 4.39 The worst performing section of the route is displayed in **Figure 4.8** above (Photograph 3A) which was taken at the decline approaching the informal crossing while passing over the railway bridge. The footway is currently interrupted by road signage which has reduced the width of the footway. As a result, pedestrians may feel encouraged to use the cycle lane which could cause potential conflict between cyclists and pedestrians. Photograph 3A has been assessed against the Healthy Streets Indicators in **Table 4.5** below.

Table 4.5: Healthy Streets Indicators for Photograph 3A: Asda Superstore		
Healthy Streets Indicator	Observations	Areas for Improvements
Pedestrians from all walks of life	Uneven and damaged paving at crossing points.	Restore and repair paving at formal and informal crossing points.
Easy to cross	Plenty of crossings along the route, although mostly in poor condition with broken and uneven paving.	Improve the paving of the crossing for all pedestrian users.
Shade and shelter	The surrounding buildings act as a method of shade along this route. Shelter can be achieved via the bus shelters.	No need for improvement.
Places to stop and rest	Public benches are located on the eastern side of Station Road where there is an element of greenspace.	No need for improvement.
Not too noisy	Noise present due to the busy nature of the environment, with lots of passing traffic.	Reduction in traffic to reduce noise pollution.
People choose to walk, cycle and use public transport	Cycle lanes are provided next to the footpath, preventing cyclists conflict with road users due to the road's busy nature.	Reduction in traffic to make the environment safer for pedestrians and cyclists.
People feel safe	The location is a busy area where natural surveillance is high.	No need for improvement.
Things to see and do	Shop facilities located next to the station and recreational spaces south of Station Road at the junction with the North Hyde Road.	No need for improvement.

Table 4.5: Healthy Streets Indicators for Photograph 3A: Asda Superstore

Healthy Streets Indicator	Observations	Areas for Improvements
People feel relaxed	Poor footway maintenance and the busy environment can reduce journey ambience.	Improvement to the footway will enable a smoother journey for pedestrians and could achieve a reduction in traffic.
Clean air	High traffic flows likely to cause high emissions within the area.	A reduction in the reliance of the private vehicle is required, in line with the Mayors Transport Strategy. More trees would benefit this location.

Summary, Recommendations and Conclusions

Summary

4.40 An Active Travel Audit was undertaken in line with the Healthy Streets Approach utilising the 'Guide to the Healthy Streets Indicators – Delivering the Healthy Streets Approach' (November, 2017) and Healthy Streets Check for Designers (April 2019). The Active Travel Audit included routes to / from Hayes and Harlington Station, Hayes Town Centre and the Asda Superstore.

4.41 The worst performing locations were identified as being:

- Uneven paving and long crossing along Blyth Road close to the development;
- Narrow footway due to street clutter on Station Road; and
- Conflicting road sign obstructing the footway and poorly maintained crossings along Station Road towards the Asda.

Recommendations

4.42 As part of the Healthy Streets Approach and new TfL Transport Assessment guidance, a number of recommendations for improvements to the local transport network have been identified, which would facilitate an environment that encourages walking and cycling.

- Improved footways and tactile paving with sufficient raised tables / drop kerbs.
- Removal of street clutter and management of waste presentation and collection / the removal of street signage to improve access by pushchair / wheelchair users.

4.43 The above recommendations are considered to improve the pedestrian / cyclist environment and would contribute towards an area in which walking, cycling or public transport would be preferred over the private vehicle.

4.44 It is noted that some of the above recommendations may be addressed through the Council's programme of highway maintenance or through adjacent and off-site highway improvements associated with other developments along these routes.

4.45 It is acknowledged that the public realm works at Vinyl Square will include the improvement to the adjacent section of Blyth Road, which may include for the crossing point improvements referred to above (as per location 1A). It is also noted that the proposed development will contribute towards promoting walking, cycling and public transport by providing an improved public realm surrounding the building, including enhancements to the Blyth Road frontage and footway, in line with the wider masterplan public realm strategy.

Conclusion

4.46 In conclusion, the Active Travel Audit has identified that level, good quality footway provision is the largest barrier to active travel between the development and local public transport and amenities mentioned previously.

4.47 The overall results of the Active Travel Audit indicate that the pedestrian environment within the vicinity of the Site was generally positive overall, and that with minor physical measures, the key routes can be made more accessible for all pedestrians and cyclists. Improvements to the Blyth Road frontage and footway proposed as part of the development and neighbouring Vinyl Square site will improve the public realm.

5 EFFECTS OF DEVELOPMENT

- 5.1 The following sections discuss the potential effects of the proposed development on the surrounding transport network with regard to trip generation, car and cycle parking, and servicing and waste strategies.

Trip Generation Assessment

TOVF Masterplan Development Quantum

- 5.2 The TOVF masterplan included an illustrative scheme for the Site of 88 homes and two ground floor commercial units, in a building of up to 11 storeys. The total quantum of residential allowed for within the masterplan consent was up to 510 homes, therefore the current proposal at 134 homes equates to an uplift of 46 homes over and above the illustrative masterplan level for this plot.
- 5.3 Notwithstanding the above, reserved matters consents for other TOVF plots have secured increased homes compared to the illustrative levels within the masterplan. **Table 5.1** below summarises the total provision of homes against the illustrative masterplan figures.

Table 5.1: Summary of Illustrative Masterplan vs Approved Residential Quantum			
Masterplan Plot	Illustrative in Masterplan	Approved	Increase from Masterplan
Boiler House	34	54	20
Material Store	159	189	30
Machine Store	60	81 (of which 20 outside masterplan)	21
Assembly Building	150	181	31
<i>Veneer Building</i>	<i>88</i>	-	
Totals	491	485 from approved masterplan	+ 102 homes

- 5.4 It is observed that when the level of approved residential (485 homes) is compared to the illustrative masterplan total (up to 510 homes), the remaining quantum of residential is 25 homes. The principle and effects of these 25 homes has therefore been assessed and agreed as acceptable as part of the masterplan consent, therefore this Transport Assessment assesses the additional residential over and above the remaining allocation within the masterplan, i.e. 109 homes (134 – 25 = 109 homes).

Methodology

- 5.5 The trip generation for the proposed development has been calculated using the industry standard TRICS database which provides comparable survey information for land uses akin to the proposed development. Sites have been selected from TRICS that are comparable in terms of location, accessibility and parking provision.
- 5.6 The trip rates established from the selected sites have been applied to the additional 109 homes over the TOVF consented masterplan quantum (as discussed above), to calculate the resultant number of person trips i.e. trips across all modes of travel; these have been calculated utilising both modal splits from the TRICS database and 2011 Census data for the method of travel to work.
- 5.7 This assessment considers the trip generation during the weekday peak hours of 08:00 – 09:00 (AM Peak) and 17:00 – 18:00 (PM Peak). This approach is in accordance with best practice to reflect the times at which demand on the transport network is typically greatest.
- 5.8 It is expected that the vast majority of trips for the flexible commercial space will be linked with other trips by local residents and employees in the surrounding area. As such, it is expected that the flexible commercial use will not generate a significant level of wholly new trips on the local highway or public transport networks, therefore it has not been included within this trip generation assessment.

Proposed Residential Use

- 5.9 A multi-modal trip generation has been carried out using TRICS, the industry standard tool used to estimate trip generation by new developments. Sites have been identified within TRICS based upon size, location and access to public transport. The total person trip rates and trip generation for the proposed development is presented in **Table 5.2**. The full TRICS output is included at **Appendix D**.

Table 5.2: TRICS Person Trip Rates and Trip Generation – Proposed C3 use (109 Homes)						
Time Period	Total Person Trip Rates			Total Person Trips		
	In	Out	Total	In	Out	Total
AM Peak (08:00-09:00)	0.062	0.464	0.526	7	51	57
PM Peak (17:00-18:00)	0.258	0.123	0.381	28	13	42

- 5.10 **Table 5.2** indicates that the additional residential homes could generate up to 57 two-way trips in the AM peak and 42 two-way trips in the PM peak.

Modal Split

- 5.11 The 2011 Census data for the Super Output Middle Layer: Hillingdon 027, in which the Site is located, has been examined to establish the method of journey to work for residents in the area. This Census modal split has been applied to the trip generation in **Table 5.2** and is summarised in **Table 5.3** below.

Table 5.3: Residential Trip Generation by Mode							
Mode	Split	AM Peak			PM Peak		
		In	Out	2-Way	In	Out	2-Way
Car Driver	49.9%	3	25	28	14	6	21
Car Passenger	3.4%	0	2	2	1	0	1
Taxi	0.2%	0	0	0	0	0	0
Motorcycle	0.5%	0	0	0	0	0	0
Bus	22.9%	2	12	13	6	3	10
Underground	6.9%	0	4	4	2	1	3
Rail	7.3%	1	4	4	2	1	3
Walking	7.4%	1	4	4	2	1	3
Cycling	1.5%	0	1	1	0	0	1
Total	100%	7	51	57	28	13	42

- 5.12 **Table 5.3** indicates that the majority of trips would be undertaken by car, with 28 two-way car driver trips during the AM Peak and 21 two-way during the PM Peak. Public transport accounts for 21 two-way trips during the AM Peak and 16 two-way trips during the PM Peak.
- 5.13 It is not expected that this number of peak hour trips will have a material impact on the local highway or public transport network, given the Site is located in an area with good access to public transport and amenities, as well as being located a short distance from major trunk roads, including the M4.

Car Parking

Car Parking Provision

- 5.14 Car parking will be provided at a ratio of 0.5 spaces per home (67 spaces) within the Veneer Store surface level car park and to the south of the building. This level of car parking provision is supported by the future PTAL rating of the Site, which will increase to PTAL 4 following the introduction of Crossrail services (discussed further within the Accessibility section of this report). The provision of 0.5 spaces per home is in line with the new Draft London Plan maximum car parking standards for residential developments in outer London PTAL 4 locations and Opportunity Areas.
- 5.15 In addition, this level of provision follows that approved for the Boiler House and Material Store buildings following the implementation of the Alternative Car Park Management Plan, which was allowed at appeal. This required the level of residential parking provision to be tied to the level of homes sold with a parking space. A report was submitted to LBH Planning, as required by the appeal decision, which confirms that the sale of homes for these combined sites was a total of 122 parking spaces for the 243 homes, thus equating to a ratio of 0.5 spaces per home.
- 5.16 The proposed parking provision includes 5 disabled accessible spaces adjacent the southern side of the development. This equates to a provision for 3% of homes, in accordance with Draft London Plan car parking standards.
- 5.17 Should there be the demand for greater disabled spaces, the applicant will seek the conversion of standard spaces within the Veneer Store surface level car park up to 10% of homes, as required by the Draft London Plan. A plan at **Appendix E** shows how the additional 7% (9 disabled spaces) could be provided up to 10% of homes (14 disabled spaces).
- 5.18 No car parking will be provided for the flexible commercial space.
- 5.19 Electric Vehicle Charging Points (EVCP) will be provided in accordance with draft London Plan standards, i.e. 14 'active' spaces comprising 20% of total parking provision, with the remaining 80% to be provided as 'passive' spaces. This exceeds the requirement of the adopted London Plan, which seeks 20% passive provision of EVCP.

5.20 In addition, a total of 2 motorcycle parking spaces will be provided adjacent to the disabled parking spaces at the south side of the development. LBH standards seek the provision of 1 motorcycle parking space for every 20 car parking spaces, which would require the provision of 3-4 motorcycle spaces. A review of 2011 Census method of travel data identifies that 0.5% of residents travel to work by motorcycle, which equates to 0.7 motorcycle spaces for 134 homes. The provision of 2 motorcycle spaces is therefore considered to be robust and strikes a balance between anticipated usage and LBH policy standards.

Veneer Store Car Park Optimisation

5.21 The provision of 67 residential parking spaces for the development has been achieved through the optimisation of the car parking spaces within the Veneer Store surface level car park as well as provision of spaces at the southern boundary of the Site.

5.22 The optimisations are as follows:

- 5 disabled bays relocated to the southern side of the development, to create 5 new disabled bays;
- The relocated 5 disabled bays are converted to standard bays, thus achieving 8 standard bays, an uplift of 8 standard spaces when considering the disabled spaces are relocated to the south of the Site;
- Parking spaces within the southern aisle have been reconfigured to 2.4 metres width, thus availing the provision of 1 additional space; and
- Parking spaces within the westernmost aisle and parking island reconfigured to 2.4 metres width, thus availing the provision of 2 additional spaces.

5.23 Plans showing the consented Veneer Store car parking layout and the proposed optimised layout are included at **Appendix F**. The proposed optimisation will result in a minimal impact on the consented landscaping strategy within the Veneer Store surface level car park and any affected trees can be relocated within the landscaped area.

5.24 The Site is also well located to take advantage of the 2 No. car club spaces that have been earmarked for provision within the adjacent Veneer Store surface level car park as part of the TOVF site-wide Car Park Management Plan.

Cycle Parking

- 5.25 As outlined within Section 3 of this report, cycle parking will be provided to draft London Plan standards, with 238 spaces provided for residents as a mix of two-tier (222 spaces) and Sheffield stands (16 spaces), of which, 6 Sheffield stand spaces will be provided as larger spaces suitable for use by accessible cycles. Access to the residential cycle store will be directly from the street to the south of the Site with cyclists only required to travel through one set of doors to gain access.
- 5.26 In addition, a cycle repair hub will be provided directly adjacent to the cycle store at ground floor, and will include a cycle stand, tools and bike pump. The repair hub is provided with the intention of removing barriers to cycle use and keeping cyclists on the road.
- 5.27 Commercial long-stay cycle parking will be provided within the demise of the unit.
- 5.28 A total of 16 short-stay cycle parking spaces will be provided, in accordance with draft London Plan standards, and will be located on-site adjacent to Blyth Road at the northeast of the development, in the form of 8 Sheffield stands.
- 5.29 Within the wider TOVF site, provision of 10 Santander cycle hire docking stands have resolution for approval as part of the Powerhouse proposals.

Servicing

Servicing Arrangement

- 5.30 As described within Section 3 of this report, a loading bay is currently provided adjacent to the southwest side of the building to accommodate deliveries and servicing associated with the development. The proposal includes for the re-provision of this loading bay for one of the same size to the southeast of the building to facilitate the provision of 5 disabled parking bays, as can be seen in the Architect's ground floor plan at **Appendix A**.
- 5.31 The loading bay will be 14m in length and have a 3m width, facilitating use by large vehicles, as shown within the swept path analysis included at **Appendix G**, which shows a 3.5t panel van, a 7.5t box van and an 11m pantechicon removals van all safely using the loading bay.

Servicing Movements

Residential Use

- 5.32 Deliveries to the residential element of the site will be provided by a mix of vehicles including small and transit vans for internet home shopping up to box vans for furniture deliveries. Delivery items will be transported from the delivery vehicles to the main residential lobby, within which storage for post is incorporated.
- 5.33 To estimate the number of future servicing movements for the residential element of the development, the TRICS database has been reviewed for similar scale residential developments which include servicing vehicle trip rates. The sites chosen include:
- BT-03-C-01 – Privately Owned Homes – Park Royal, Brent (170 dwellings);
 - BT-03-D-01 – Affordable/Local Authority Homes – Dollis Hill, Brent (160 dwellings); and,
 - HG-03-D-03 – Affordable/Local Authority Homes – Wood Green, Haringey (90 dwellings).
- 5.34 The number of servicing trips undertaken by vehicles has been determined by taking an average of the three sites above. The average assumes 0.094 daily servicing vehicles per residential home, which will generate in the region of 13 deliveries per day.
- 5.35 Typically, the average duration of stay would be less than 10 minutes, with some vehicles departing in less time and a small proportion needing to stay for longer.

Flexible Commercial Use (A1/A2/A3/A5/B1 Use)

- 5.36 The use of the flexible commercial space is not yet known, with the space proposed to be for use by A1/A2/A3/A5/B1 uses.
- 5.37 The City of London provide estimates for A1-A5 and B1 servicing activity within their loading bay reckoner, which estimates that A1-A5 use class generates 1.35 deliveries per 100sqm of space and B1 space generates 0.22 deliveries per 100sqm. While the Site is not within the City of London, this servicing estimate is considered to be suitable in providing a robust assessment of potential daily servicing activity to the flexible commercial space.
- 5.38 Based on the flexible commercial element of the proposals being either A1/A2/A3/A5/B1 uses, the space will generate between 1-6 deliveries per day.

- 5.39 Given the average duration of stay, it is reasonable to conclude that the loading bay, with capacity for 2 small/medium vehicles at a time, will be able to comfortably accommodate the developments' demand for 13-19 deliveries per day.

Refuse Collection

- 5.40 Waste containers for the residential use will be provided in accordance with adopted LBH standards, as follows:

- Studio / one bedroom - Projected Weekly Waste & Recycling per household - 140 litres;
- Two bedroom - Projected Weekly Waste & Recycling per household - 170 litres; and
- Three bedroom - Projected Weekly Waste & Recycling per household - 240 litres.

- 5.41 Residential waste storage will be located at ground floor within two dedicated areas provided adjacent the northern frontage (17 containers) and western frontage (5 containers). The stores are located within 10 metres of the on-street collection locations, i.e. Blyth Road and the access road to the west of the building. A Site Management Team will attend the site on a weekly basis to rotate the containers, to ensure that residents have access to empty containers. The location of the refuse stores enables refuse collection operatives to collect waste directly from the stores and take the Eurobins to the awaiting refuse collection vehicles.

- 5.42 Commercial waste storage will be provided at the commercial back of house area, with space for 3 containers. Commercial refuse will be collected from the loading bay at the site by a private waste contractor as necessary.

Healthy Streets Indicators

- 5.43 The Healthy Streets approach seeks to inform design, management and use of public spaces in order to place people and people's health at the forefront of development decisions. The following assessment is based on the document '*Guide to the Healthy Streets Indicators – Delivering the Healthy Streets Approach*' (TfL, November 2017).

- 5.44 The Healthy Streets Approach to assessing the local environment has now been adopted by TfL and the Mayor of London as the principle means of evaluating the area with an aim to help Londoners use cars less, and walk, cycle and use public transport more.

5.45 The Healthy Streets Approach incorporates 10 Indicators for which the Proposed Development has been assessed against. **Table 5.4** below summarises each Health Streets Indicator and how the proposed development is beneficial to the pedestrian environment.

Table 5.4: Healthy Streets Indicators for Proposed Development	
Healthy Streets Indicator	Proposed Development Provision
Pedestrians from all walks of life – London's streets should be welcoming places for everyone to walk, spend time in and engage in community life	The development will provide widened pedestrian space as it connects with the existing Blyth Road footpath adjacent to the Site, as well as the pedestrian footpaths and public realm space provided to the east and south of the Site as part of TOVF masterplan.
Easy to cross – Making streets easier to cross is important to encourage more walking and to connect communities. People prefer direct routes and being able to cross streets at their convenience. Physical barriers and fast moving or heavy traffic can make streets difficult to cross.	Pedestrian permeability to the south, east and west of the Site is excellent, with pedestrian movements prioritised throughout TOVF masterplan. Pedestrians are also able to cross Blyth Road adjacent to the Site at the dropped kerb crossing, featuring a central refuge.
Shade and shelter – Providing shade and shelter from high winds, heavy rain and direct sun enables everybody to use our streets, whatever the weather.	The proposals are located adjacent to public realm space which will include trees for shelter. The development also includes covered space at the entrance to the residential element of the development, providing some level of shelter.
Places to stop and rest – A lack of resting places can limit mobility for certain groups of people. Ensuring there are places to stop and rest benefits everyone, including local businesses, as people will be more willing to visit, spend time in, or meet other people on our streets.	The public realm space to the east of the development, as well as the wider TOVF masterplan, provides seating for use by future development users and the local community.
Not too noisy – Reducing the noise impacts of motor traffic will directly benefit health, improve the ambience of street environments and encourage active travel and human interaction.	Reduced levels of car parking have been provided at the development, as well as high levels of electric vehicle charging spaces and cycle parking in line with draft new London Plan standards, promoting the use of active and sustainable modes of transport, as well as electric vehicles. This will in turn, reduce noise pollution generated by vehicles.
People choose to walk, cycle and use public transport - Walking and cycling are the healthiest and most sustainable ways to travel, either for whole trips or as part of longer journeys on public transport. A successful transport system encourages and enables more people to walk and cycle more often. This will only happen if we reduce the volume and dominance of motor traffic and improve the experience of being on our streets.	The proposed development will provide cycle parking in line with new Draft London Plan standards, as well as the provision of a cycle repair hub. This provision is to be located at ground floor level, which will highlight the prevalence and suitability of cycles as a mode of transport. In addition, pedestrians are well provided for within TOVF masterplan area and the development is located within short walk of Hayes & Harlington Station, all working to promote a move away from private car travel.
People feel safe – The whole community should feel comfortable and safe on our streets at all times. People should not feel worried about road danger or experience threats to their personal safety.	TOVF masterplan area provides community and public realm space which acts to improve the feeling of safety in the local area. In addition, the development will benefit from passive overlooking by neighbouring developments.
Things to see and do – People are more likely to use our streets when their journey is interesting and stimulating, with attractive views, buildings, planting and street art and where other people are using the	The Site is located close to local amenities and development users will have a range of services and day-to-day facilities which they will be able to walk and cycle to.

Table 5.4: Healthy Streets Indicators for Proposed Development	
Healthy Streets Indicator	Proposed Development Provision
street. They will be less dependent on cars if the shops and services they need are within short distances so they do not need to drive to get to them.	The attractiveness of undertaking these journeys by foot and cycle is enhanced by TOVF masterplan area public space.
People feel relaxed – A wider range of people will choose to walk or cycle if our streets are not dominated by motorised traffic, and if pavements and cycle paths are not overcrowded, dirty, cluttered or in disrepair.	Pedestrian and cyclist access to the Site is central to the design of the development and the wider area, particularly with the provision of public realm space to the east of the development and throughout TOVF masterplan area.
Clean air – Improving air quality delivers benefits for everyone and reduces unfair health inequalities.	The proposed development seeks to move residents away from reliance on private car for trips to and from their homes. This is to be achieved by providing cycle parking in line with new Draft London Plan standards and an excellent pedestrian environment. In addition, the development will provide a high level of electric vehicle charging points at parking spaces, promoting electric vehicles where private car use is unavoidable.

6 CONSTRUCTION PHASING

- 6.1 This section provides details on the anticipated construction programme and phasing, as well as initial estimations of construction vehicle types and vehicle movements.
- 6.2 It should be noted that a Contractor has not been appointed at this stage of the project, therefore the details below will be subject to confirmation through a Construction Management Plan at the appropriate time.

Construction Traffic Management

Programme

- 6.3 Construction is expected to commence in spring 2020 and take up to 24 months with the building completed in spring 2022. This is subject to the receipt of planning permission and associated clearance of planning conditions and obligations prior to commencement on-site.

Phasing

- 6.4 The programme for construction works will be made available once a contractor has been appointed. In the meantime, it is envisaged that the key construction phasing elements will comprise the following:

- Enabling Works
- Sub-Structure Works;
- Frame and Envelope Superstructure Works;
- Fit Out; and
- Landscaping.

Construction Vehicle Dimensions

- 6.5 There are no anticipated restrictions to the size of heavy good vehicles servicing the Site, particularly owing to the available space within the proposed on-street pit lane and access to the strategic highway network. Numerous types of vehicles will be used to bring materials to and from the Site. The main vehicle types are expected to include:

- Articulated Lorries – up to 16.5m length, 2.55m width
- Rigid Tippers – up to 12m length, 2.5m width;
- Mobile Crane - 12.3m length, 2.4m width mobile crane;
- Concrete Lorries - 8.3m length, 2.5m width;
- Low-Loader / Flatbed Lorries - 10m length, 2.5m width; and
- 7.5T Box / Luton / Panel Vans – up to 8m length.

Construction Logistics Plan

- 6.6 To further reduce the effects of construction vehicles on the local highway network, the Applicant has prepared an Outline Construction Logistics Plan (CLP) as part of the planning application submission. This includes further details on the management of construction traffic and the measures that will be implemented to reduce construction vehicle impacts on the local transport network.



7 MITIGATION MEASURES & PLANNING OBLIGATIONS

7.1 This section provides details of the proposed mitigation measures, which will be implemented to reduce the transport effects of the proposed development on the surrounding transport network, both during the construction and operational phases. All measures are put forward for further discussion with the Highway Authorities.

7.2 A range of measures are embedded within the scheme design, as discussed within Section 3, including car and cycle parking and servicing space. The additional mitigation measures, some of which have been identified as a result of the assessment within this report, are summarised below.

Delivery & Servicing Plan

7.3 In order to ensure that the impact of deliveries and servicing associated with the development is minimised, a Draft Delivery & Servicing Plan (DSP) has been prepared. It is envisaged a Full DSP will be secured by way of a legal agreement or planning condition.

7.4 The primary objectives of the DSP are to manage deliveries and servicing to, from and within the premises in order to ensure that servicing activity is undertaken successfully and without conflict between vehicles and/or pedestrians.

7.5 The purpose of the DSP will be to mitigate the potential impacts of servicing and waste collection activity associated with the development. The key aims and objectives of the DSP are:

- To minimise disruption to the local roads and Strategic Road Network (SRN).
- To ensure that deliveries are continuously and effectively managed.
- To manage deliveries effectively to avoid peaking of deliveries and departures that may have a detrimental impact on the local highway network.
- To manage the number / volume of delivery vehicle movements during the AM and PM peak periods.

Residential Travel Plan

- 7.6 A Draft Residential Travel Plan (RTP) has been produced and will be submitted as part of this application. The primary objective of Travel Plans is to set out a long-term strategy to facilitate and encourage modes of travel to the Site by means other than the private car, which reflects current central Government policy.
- 7.7 The initiatives and measures that form part of the Travel Plan will be a mixture of 'hard' and 'soft' measures. The 'hard' measures include the provision of facilities such as safe and secure cycle parking and cycle repair hub facilities. The 'soft' measures include initiatives such as Welcome Packs for residents, identifying cycle training courses, and providing information on public transport services.
- 7.8 It is expected that a final RTP will be secured via a condition of the planning permission. The Draft RTP sets out the measures, initiatives and monitoring which will inform the production of the final RTP.

Construction Logistics Plan

- 7.9 To reduce the potential effects of construction vehicles on the local highway network, the Applicant has prepared an Outline Construction Logistics Plan (CLP) as part of the planning application submission. The CLP includes further information on the construction programme, along with detailing the types, numbers and management of construction vehicles, construction vehicle access and routeing arrangements, and measures to ensure pedestrian, cyclist and vulnerable road user safety during construction hours.

8 SUMMARY AND CONCLUSION

Summary

- 8.1 Caneparo Associates has been appointed by JH Veneer Limited ('The Applicant') to provide traffic and transport advice in relation to the proposed redevelopment of 1 Vinyl Square, Blyth Road, Hayes ('the Site'), located within the London Borough of Hillingdon (LBH).
- 8.2 The existing Site comprises a vacant brownfield site, and forms part of the wider site, 'The Old Vinyl Factory' (TOVF), which has outline planning permission for the delivery of residential and commercial development.
- 8.3 The proposed development for which this Transport Assessment has been written, seeks the:
- "Full planning permission for the redevelopment of the site to provide a mixed-use development comprising residential dwellings (C3 Use Class) and commercial floorspace (flexible A1/A2/A3/A5/B1 Use Class), car parking, cycle parking and associated landscaping"*
- 8.4 The Site is located on Blyth Road approximately 650m west of Hayes & Harlington Railway Station and 200m east of the roundabout junction with Dawley Road, Betam Road, and Kestrel Way.
- 8.5 Walking and cycling links in the vicinity of the Site are good to excellent, with cycle lanes/routes, wide and well-lit footways, and pedestrian crossings present in the vicinity of the Site. Furthermore, there is a range of local amenities within a short distance of the Site, ensuring a range of day-to-day facilities can be easily reached by walking and cycling.
- 8.6 The multi-modal trip generation has determined that the scheme will result in a minor increase in trips by car and public transport when compared to the outline planning permission for the Site as part of TOVF masterplan. It is however, not considered that the development will result in a material impact on the surrounding public transport or highway networks.
- 8.7 The development seeks to promote a move away from private car use by providing a car parking provision in line with new Draft London Plan standards for PTAL 4 outer London sites and Outer London Opportunity Areas, of up to 0.5 spaces per unit.

- 8.8 The scheme will provide 67 spaces in total, of which 20% of the spaces will be delivered as active charging points and the remaining 80% passive charging points, promoting the use of electric vehicles where private car travel is unavoidable.
- 8.9 There is a real opportunity to shift travel towards active modes of travel at the development, as it is recognised within the Active Travel Assessment that the local footpaths and cycling provisions are of a generally high quality. Active travel modes be promoted through the implementation of dedicated Residential Travel Plan and provision of high quality cycle parking with repair hub.

Conclusion

- 8.10 In conclusion, it is considered that the development proposal is appropriate for the location and is in accordance with relevant adopted national, regional and local policy guidance. An assessment of the effects of the development identifies that it will not result in a material impact on the local transport network.
- 8.11 It therefore meets the test of the NPPF and paragraph 109, which states that: *“Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe”*.
- 8.12 In light of the above, it is concluded that the development should not be prevented or refused on transport grounds.

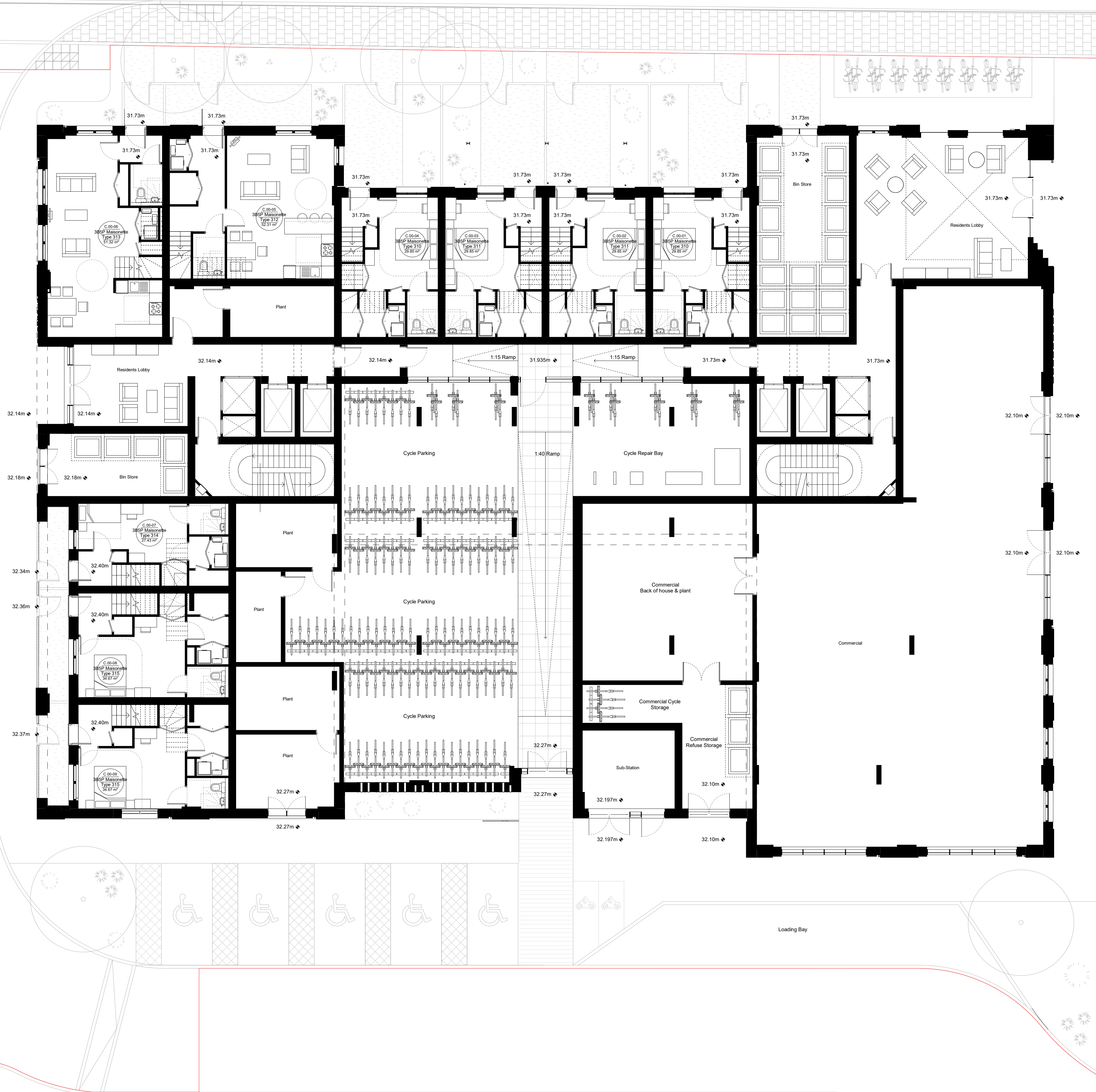
Appendix A



Notes

Drawings to be scaled for planning purposes only.
Internal furniture layouts are for illustrative purposes only.
All contractors must visit the site and be responsible for taking and checking dimensions.
All construction information should be taken from figured dimensions only.
Any discrepancies between drawings, specifications and site conditions must be brought to the attention of the supervising officer.
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P1 17.11.19 Issued For Planning. BM DCS

Rev	Date	Description	Drawn	Chkd
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Drawing Status

For Planning

Client

**Joseph
Homes.**



JTP Studios, Unit 5
The Rum Warehouse
Pennington Street
London, E1W 2AP
+44 (0) 20 7017 1780
www.jtp.co.uk

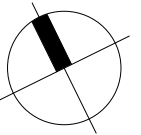
Project
**1 Vinyl Square, Old Vinyl
Factory**

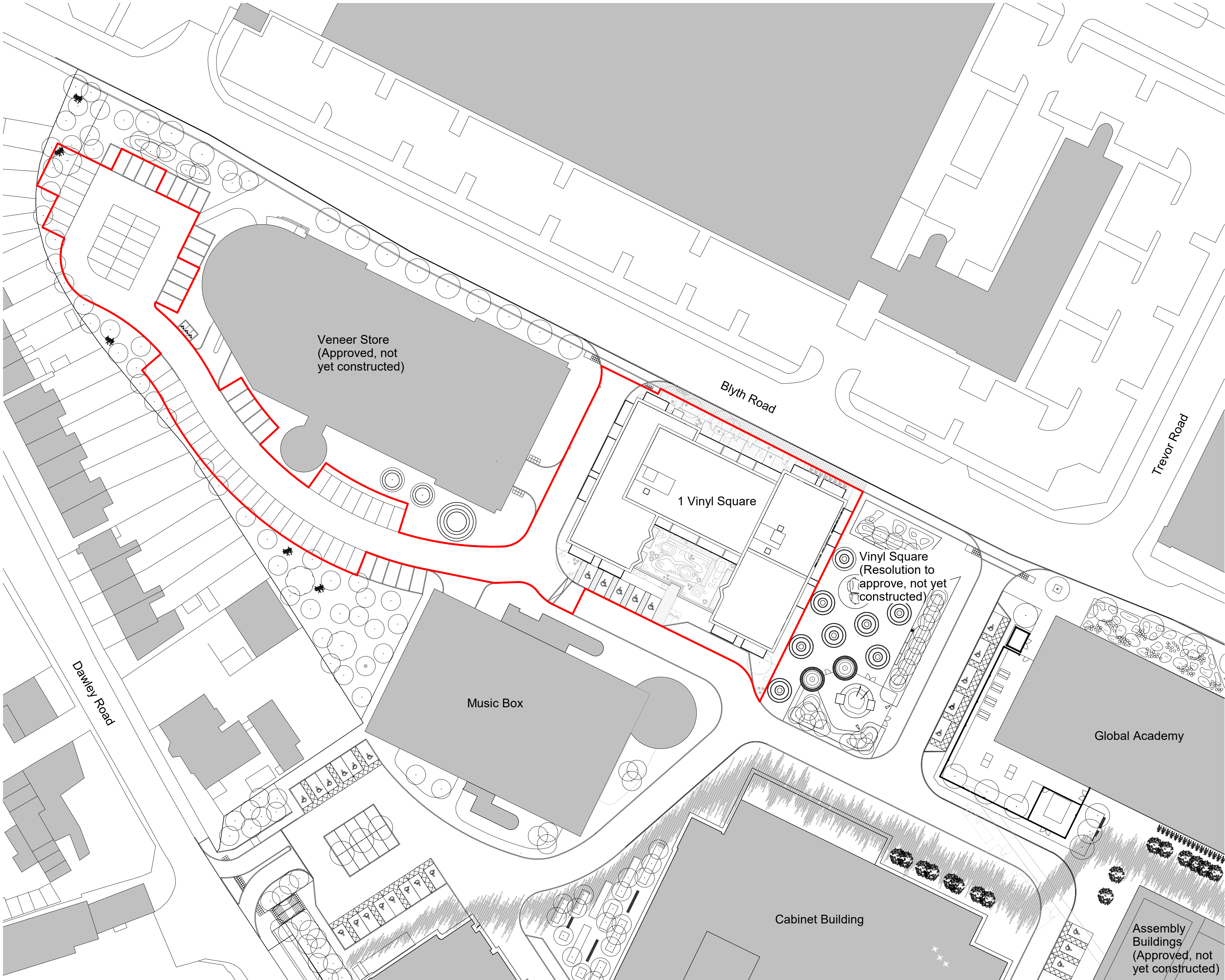
Drawing Title
**General Arrangement
Ground Floor Plan**

Scale @A1 1 : 100 Job Ref. 01659

Drawing No. 01659-JTP-PL-000 Revision P1

Scale Bar
0 1 2 3 4 5 m





Notes

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Application Boundary

P1 17.11.19 Issued For Planning.				BM	DCS
Rev	Date	Description	Drawn	Chkd	
Drawing Status					
For Planning					

Client

Joseph
Homes.

itp JTP Studios, Unit 5
The Rum Warehouse
Pennington Street
London, E1W 2AP
+44 (0) 20 7017 1780
www.itp.co.uk

Project
1 Vinyl Square, Old Vinyl
Factory

Drawing Title

Proposed Site Plan

Scale @A2 1 : 500 Job Ref 01659

Drawing No 01659-JTP-SL-002 Revision P1

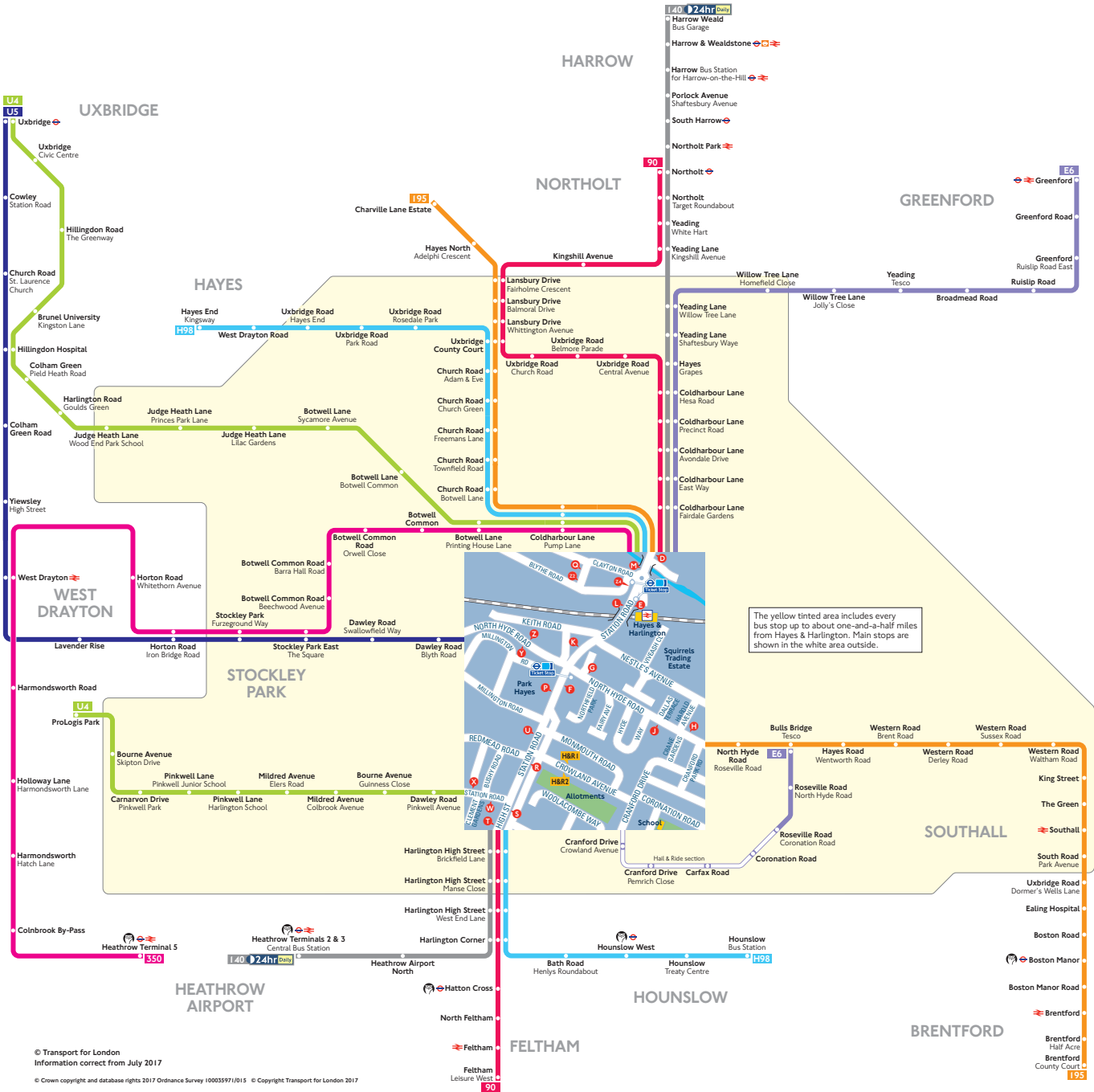
Scale Bar 0 5 10 15 m



Appendix B



Buses from Hayes & Harlington



Route finder

Bus route	Towards	Bus stops
90	Feltham	E F R S
	Northolt	K L M P T U
140 24hr Daily	Harrow Weald	K L M P T U
	Heathrow Terminals 2 & 3	E F R S
195	Brentford	E G H
	Charville Lane Estate	J K L M
350	Heathrow Terminal 5	P K L M
E6	Bulls Bridge	E F H&R1
	Greenford	K L M P U H&R2
H98	Hayes End	K L M P T U
	Hounslow	E F R S
U4	Hayes ProLogis Park	E F R W
	Uxbridge	K L M P U X
U5	Uxbridge	E O Y

Other buses

Bus route	Towards	Bus stops
696	Bourne Avenue	E F R W
School journey	Bishop Ramsey School	K L M P U X

Key

- Connections with London Underground
- Connections with London Overground
- Connections with National Rail
- Tube station with 24-hour service Friday and Saturday nights

Route E6 operates as Hail & Ride on the sections of roads marked H&R1 and H&R2 on the map. Buses stop at any safe point along the road. There are no bus stops at these locations, but please indicate clearly to the driver when you wish to board or alight.

Ways to pay

- Use your contactless debit or credit card. It's the same fare as Oyster and there is no need to top up.
- Top up your Oyster pay as you go credit or buy Travelcards and bus & tram passes at around 4,000 shops across London.
- Sign up for an online account to top up online and see your travel history and spending.

Appendix C



From: Caneparo Associates
To: LB Hillingdon / Transport for London
Job Title: Vinyl Square, Hayes
Job No: 2019-4120
File Ref: N01-TJ-Transport Note (190828)
Date: August 2019

Subject: **PTAL: Vinyl Square, Hayes**

Introduction

1. Caneparo Associates has been appointed by Joseph Homes to provide transport planning input in relation to the proposals for the development of 1 Vinyl Square, Blyth Road, Hayes ('the Site'). The proposals relate to the redevelopment of the Site to provide residential dwellings, flexible commercial floorspace, car and cycle parking and associated landscaping. The proposed building will front Vinyl Square (public realm) immediately to the east.
2. This note has been prepared in order to detail the findings from a manual PTAL rating undertaken for the Site, which provides a more accurate figure than the standard database.

PTAL Rating

3. TfL's WebCat planning tool identifies the Site which will accommodate the proposed building to have a PTAL rating of 2. Vinyl Square scores a PTAL rating of 4. Therefore, the proposed residential units are currently shown to have poor accessibility to public transport if the database is accurate.
4. The reason for the significant reduction in the PTAL rating across the Site is due to the bus services located outside of Hayes & Harlington Station falling just outside the 640m acceptable walking distance for bus services.
5. The accuracy of TfL's PTAL map is limited to within 100 sqm blocks. Therefore, given that the PTAL changes from 4 to 2 across the Site, this shows that the Site's ratings are taken from 100m apart, it is therefore likely that the PTAL rating for the Site may not be fully accurate. A copy of the Site's current PTAL report is provided at **Appendix TN A**.

Manual PTAL Calculation

6. The walking distance was measured manually from the centre of the proposed building and along the footway of Blyth Road towards Hayes & Harlington Station. The measurement then took into account the pedestrian walkway from Blyth Road to Station Road. This is located just south of Trident House and where Blyth Road changes from an east to west orientation to north to south. From there, the remaining distance was measured to the bus stops outside of Hayes & Harlington Station. An image of this measured route is included at **Appendix TN B**.
7. The total walking distance was measured at 634.67m, which would mean that the proposed residential units are within PTAL's acceptable walking distance of 640m to the bus stop facilities.
8. The bus services operating from outside Hayes & Harlington Station were then included within a manual PTAL calculation for the Site which raised the PTAL rating from 2 to 3 with the existing situation. Further to this, utilising the 2021 PTAL forecast incorporates the Elizabeth Line which is expected to commence services from 2021/22. This further raises the PTAL rating of the Site from 3 to 4. Indicating that, once the Elizabeth Line is operating, the Site will have good accessibility to public transport.
9. A copy of both the current manual PTAL calculation and the 2021 PTAL calculation including the additional bus services is included in **Appendix TN C**.
10. Residents would be able to access the nearby town centres of Harrow, Greenford, Southall, Brentford, Hounslow, Feltham, West Drayton and Uxbridge by bus as well as reach Bond Street in 20 minutes or Liverpool Street in 27 minutes via the forthcoming Elizabeth Line from Hayes & Harlington station.

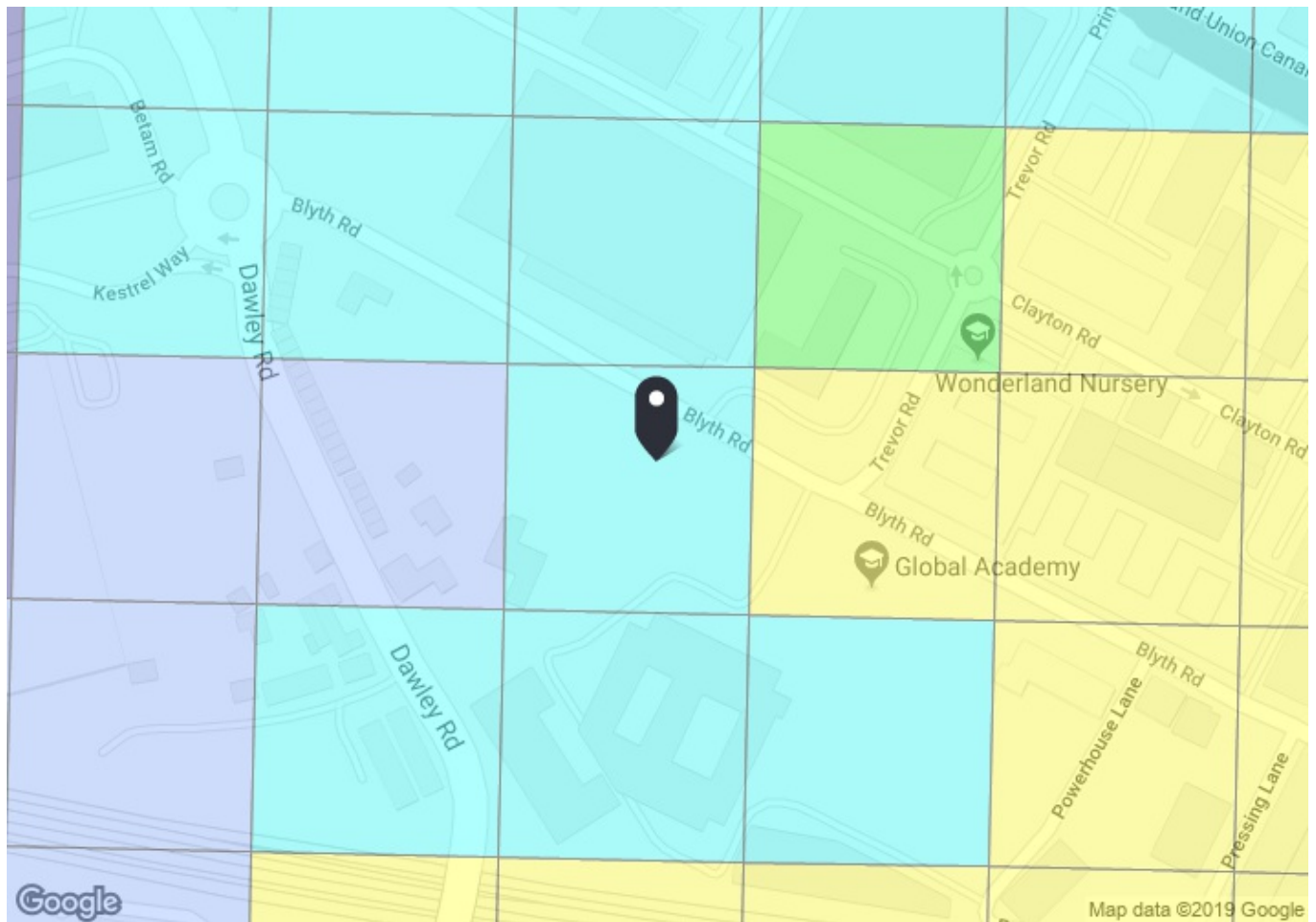
Car Parking

11. Residential parking standards within the draft New London Plan set a maximum parking provision of 0.5 spaces per unit in outer London locations with a PTAL rating of 4. Further to this, the draft New London Plan also states that a maximum provision of 0.5 spaces per unit is required for residential developments within outer London Opportunity Areas. The Site is within Heathrow's Opportunity Area and any provision of parking should therefore reflect the future vision of the area.

Summary

12. In summary, it has been demonstrated that the Site currently has a PTAL rating of 3 which is set to increase to 4 once the Elizabeth Line begins operation. Given the good accessibility of the Site, along with measures such as cycle parking including an on-site 'Cycle Hub' and access to a number of Car Club vehicles within the wider Old Vinyl Factory masterplan site, it is considered that a maximum parking provision of 0.5 spaces per unit is appropriate for this scheme; and indeed our view is that the development could support a lower provision than this maximum standard.

Appendix TN A



PTAL output for Base Year 2

243 Blyth Rd, Hayes UB3 1RY, UK
Easting: 509158, Northing: 179655

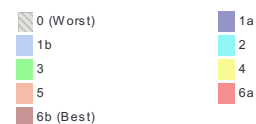
Grid Cell: 76166

Report generated: 27/02/2019

Calculation Parameters

Day of Week	M-F
Time Period	AM Peak
Walk Speed	4.8 kph
Bus Node Max. Walk Access Time (mins)	8
Bus Reliability Factor	2.0
LU Station Max. Walk Access Time (mins)	12
LU Reliability Factor	0.75
National Rail Station Max. Walk Access Time (mins)	12
National Rail Reliability Factor	0.75

Map key - PTAL



Map layers

 PTAL (cell size: 100m)

Calculation data

Mode	Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
Bus	DAWLEY ROAD BLYTH ROAD	350	327.85	5	4.1	8	12.1	2.48	1	2.48
Rail	Hayes & Harlington	'PADTON-HTRWAPT 2T18'	700.35	2	8.75	15.75	24.5	1.22	1	1.22
Rail	Hayes & Harlington	'HTRWAPT-PADTON 2Y14'	700.35	2	8.75	15.75	24.5	1.22	0.5	0.61
Rail	Hayes & Harlington	'PADTON-OXFD 2N14'	700.35	0.33	8.75	91.66	100.41	0.3	0.5	0.15
Rail	Hayes & Harlington	'PADTON-OXFD 2N16'	700.35	0.33	8.75	91.66	100.41	0.3	0.5	0.15
Rail	Hayes & Harlington	'PADTON-OXFD 2N18'	700.35	0.33	8.75	91.66	100.41	0.3	0.5	0.15
Rail	Hayes & Harlington	'PADTON-OXFD 2N22'	700.35	0.67	8.75	45.53	54.28	0.55	0.5	0.28
Rail	Hayes & Harlington	'PADTON-OXFD 2N24'	700.35	0.33	8.75	91.66	100.41	0.3	0.5	0.15
Rail	Hayes & Harlington	'RDNGSTN-PADTON 2P09'	700.35	0.33	8.75	91.66	100.41	0.3	0.5	0.15
Rail	Hayes & Harlington	'OXFD-PADTON 2P11'	700.35	0.33	8.75	91.66	100.41	0.3	0.5	0.15
Rail	Hayes & Harlington	'RDNGSTN-PADTON 2P12'	700.35	0.33	8.75	91.66	100.41	0.3	0.5	0.15
Rail	Hayes & Harlington	'RDNGSTN-PADTON 2P14'	700.35	1.33	8.75	23.31	32.06	0.94	0.5	0.47
Rail	Hayes & Harlington	'RDNGSTN-PADTON 2P17'	700.35	0.33	8.75	91.66	100.41	0.3	0.5	0.15
Rail	Hayes & Harlington	'OXFD-PADTON 2P18'	700.35	0.33	8.75	91.66	100.41	0.3	0.5	0.15
Rail	Hayes & Harlington	'BNBR-PADTON 2P20'	700.35	0.33	8.75	91.66	100.41	0.3	0.5	0.15
Rail	Hayes & Harlington	'SLOUGH-PADTON 2P25'	700.35	0.33	8.75	91.66	100.41	0.3	0.5	0.15
Rail	Hayes & Harlington	'SLOUGH-PADTON 2P32'	700.35	0.33	8.75	91.66	100.41	0.3	0.5	0.15
Rail	Hayes & Harlington	'PADTON-RDNGSTN 2R13'	700.35	1.67	8.75	18.71	27.47	1.09	0.5	0.55
Rail	Hayes & Harlington	'PADTON-RDNGSTN 2R19'	700.35	0.33	8.75	91.66	100.41	0.3	0.5	0.15
Rail	Hayes & Harlington	'PADTON-TWYFORD 2R21'	700.35	0.33	8.75	91.66	100.41	0.3	0.5	0.15
Total Grid Cell AI:										7.71

Appendix TN B



Measure distance

Click on the map to add to your path

Total distance: 634.67 m (2,082.25 ft)

Appendix TN C

Manual PTAL Calculation - Existing March 2019

Mode Bus (Green) and Rail (Yellow)	Route	Frequency (mins)	Frequency (Services per Hour)	Walk Distance (metres)	Scheduled Wait Time (mins)	Walk Time (mins)	Access Time (mins)	EDF	Weight	Accessibility Index
E6	Greenford Station - Bulls Bridge Tesco	10.0	6.00	634.67	5.0	7.93	14.9	2.01	0.50	1.00
U5	York Road - Blyth Road	12.0	5.00	634.67	6.0	7.93	15.9	1.88	0.50	0.94
90	Northolt Station - Springwest Academy	10.0	6.00	634.67	5.0	7.9	14.9	2.01	0.50	1.00
H98	School Road - Wood End Green Road	8.0	7.50	634.67	4.0	7.9	13.9	2.15	0.50	1.08
195	Romney Road - Brentford County Court	12.0	5.00	634.67	6.0	7.9	15.9	1.88	0.50	0.94
140	Heathrow Central Bus Station - Long Elme	7.1	8.50	634.67	3.5	7.9	13.5	2.23	0.50	1.11
U4	Prologis Park - Belmont Road	8.0	7.50	634.67	4.0	7.9	13.9	2.15	0.50	1.08
350	Millington Road - Heathrow T5	12.0	5.00	257.28	6.0	3.2	11.2	2.67	1.00	2.67
Rail	PAD - HTRW 2T18	30.0	2.00	700.35	15.0	8.8	25.8	1.16	1.00	1.16
Rail	HTRW - PAD 2Y14	30.0	2.00	700.35	15.0	8.8	25.8	1.16	0.50	0.58
Rail	PAD - OXFD 2N14	181.8	0.33	700.35	90.9	8.8	101.7	0.30	0.50	0.15
Rail	PAD - OXFD 2N16	181.8	0.33	700.35	90.9	8.8	101.7	0.30	0.50	0.15
Rail	PAD - OXFD 2N18	181.8	0.33	700.35	90.9	8.8	101.7	0.30	0.50	0.15
Rail	PAD - OXFD 2N22	89.6	0.67	700.35	44.8	8.8	55.5	0.54	0.50	0.27
Rail	PAD - OXFD 2N24	181.8	0.33	700.35	90.9	8.8	101.7	0.30	0.50	0.15
Rail	RDNGSTN - PAD 2P09	181.8	0.33	700.35	90.9	8.8	101.7	0.30	0.50	0.15
Rail	OXFD - PAD 2P11	181.8	0.33	700.35	90.9	8.8	101.7	0.30	0.50	0.15
Rail	RDNGSTN - PAD 2P12	181.8	0.33	700.35	90.9	8.8	101.7	0.30	0.50	0.15
Rail	RDNGSTN - PAD 2P14	45.1	1.33	700.35	22.6	8.8	33.3	0.90	0.50	0.45
Rail	RDNGSTN - PAD 2P17	181.8	0.33	700.35	90.9	8.8	101.7	0.30	0.50	0.15
Rail	OXFD - PAD 2P18	181.8	0.33	700.35	90.9	8.8	101.7	0.30	0.50	0.15
Rail	BNBR - PAD 2P20	181.8	0.33	700.35	90.9	8.8	101.7	0.30	0.50	0.15
Rail	SLOUGH - PAD 2P25	181.8	0.33	700.35	90.9	8.8	101.7	0.30	0.50	0.15
Rail	SLOUGH - PAD 2P32	181.8	0.33	700.35	90.9	8.8	101.7	0.30	0.50	0.15
Rail	PAD - RDNGSTN 2R13	35.9	1.67	700.35	18.0	8.8	28.7	1.04	0.50	0.52
Rail	PAD - RDNGSTN 2R19	181.8	0.33	700.35	90.9	8.8	101.7	0.30	0.50	0.15
Rail	PAD - TWYFORD 2R21	181.8	0.33	700.35	90.9	8.8	101.7	0.30	0.50	0.15

Calculation Parameters:

Assumes Average Walking Speed of 4.8 km/h (80 m/min)

Reliability factor k = 2 for Bus, 0.75 for Rail

Access Time = Scheduled Wait Time + Walk Time + k

EDF = Equivalent Doorstop Frequency = 30/Access Time

AI = Accessibility Indices

Total AI =	14.89
PTAL =	3

Public Transport Accessibility Levels

PTAL	AI	Description
1a (low)	>0.01-2.50	Very poor
1b	>2.51-5.00	Very poor
2	>5.01-10.00	Poor
3	>10.01-15.00	Moderate
4	>15.01-20.00	Good
5	>20.01-25.00	Very Good
6a	>25.01-40.00	Excellent
6b	>40.01	Excellent

Source of Methodology:

Measuring Public Transport Accessibility Levels, Transport for London (February 2003 & April 2010)

Manual PTAL Calculation - December 2019 with Crossrail

Mode Bus (Green) and Rail (Yellow)	Route	Frequency (mins)	Frequency (Services per Hour)	Walk Distance (metres)	Scheduled Wait Time (mins)	Walk Time (mins)	Access Time (mins)	EDF	Weight	Accessibility Index
E6	Greenford Station - Bulls Bridge Tesco	10.0	6.00	634.67	5.0	7.93	14.9	2.01	0.50	1.00
U5	York Road - Blyth Road	12.0	5.00	634.67	6.0	7.93	15.9	1.88	0.50	0.94
90	Northolt Station - Springwest Academy	10.0	6.00	634.67	5.0	7.9	14.9	2.01	0.50	1.00
H98	School Road - Wood End Green Road	8.0	7.50	634.67	4.0	7.9	13.9	2.15	0.50	1.08
195	Romney Road - Brentford County Court	12.0	5.00	634.67	6.0	7.9	15.9	1.88	0.50	0.94
140	Heathrow Central Bus Station - Long Elme	7.1	8.50	634.67	3.5	7.9	13.5	2.23	0.50	1.11
U4	Prologis Park - Belmont Road	8.0	7.50	634.67	4.0	7.9	13.9	2.15	0.50	1.08
350	Millington Road - Heathrow T5	12.0	5.00	257.28	6.0	3.2	11.2	2.67	1.00	2.67
Rail	'ABBEYW-HTRW4 '	18.0	3.33	700.35	9.0	8.8	19.8	1.52	1.00	1.52
Rail	'SHENFLD-RDNGSTN '	30.0	2.00	700.35	15.0	8.8	25.8	1.16	0.50	0.58
Rail	'MDNHEAD-SHENFLD '	45.1	1.33	700.35	22.6	8.8	33.3	0.90	0.50	0.45
Rail	'HTRW4-SHENFLD '	60.0	1.00	700.35	30.0	8.8	40.8	0.74	0.50	0.37
Rail	'ABBEYW-MDNHEAD '	89.6	0.67	700.35	44.8	8.8	55.5	0.54	0.50	0.27
Rail	'WDRAYTN-ABBEYW '	45.1	1.33	700.35	22.6	8.8	33.3	0.90	0.50	0.45
Rail	'WDRAYTN-SHENFLD '	89.6	0.67	700.35	44.8	8.8	55.5	0.54	0.50	0.27
Rail	'RDNGSTN-ABBEYW '	181.8	0.33	700.35	90.9	8.8	101.7	0.30	0.50	0.15
Rail	'HTRW4-WWARSL '	181.8	0.33	700.35	90.9	8.8	101.7	0.30	0.50	0.15
Rail	'RDNGSTN-PADTON 2P11 '	30.0	2.00	700.35	15.0	8.8	25.8	1.16	0.50	0.58
Rail	'PADTON-RDNGSTN 2R13 '	30.0	2.00	700.35	15.0	8.8	25.8	1.16	0.55	0.64

Calculation Parameters:

Assumes Average Walking Speed of 4.8 km/h (80 m/min)

Reliability factor k = 2 for Bus, 0.75 for Rail

Access Time = Scheduled Wait Time + Walk Time + k

EDF = Equivalent Doorstop Frequency = 30/Access Time

AI = Accessibility Indices

Source of Methodology:

Measuring Public Transport Accessibility Levels, Transport for London (February 2003 & April 2010)

Total AI = 15.26

PTAL = 4

Public Transport Accessibility Levels

PTAL	AI	Description
1a (low)	>0.01-2.50	Very poor
1b	>2.51-5.00	Very poor
2	>5.01-10.00	Poor
3	>10.01-15.00	Moderate
4	>15.01-20.00	Good
5	>20.01-25.00	Very Good
6a	>25.01-40.00	Excellent
6b	>40.01	Excellent

Appendix D



Calculation Reference: AUDIT-358901-191002-1048

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : C - FLATS PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE

Selected regions and areas:

01	GREATER LONDON	
	HG HARINGEY	1 days
	HO HOUNSLOW	2 days
	IS ISLINGTON	1 days

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

Secondary Filtering selection:

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

Parameter:	Number of dwellings
Actual Range:	86 to 255 (units:)
Range Selected by User:	9 to 493 (units:)

Parking Spaces Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/08 to 21/06/19

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

Selected survey days:

Tuesday	2 days
Wednesday	1 days
Thursday	1 days

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

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	1
Edge of Town Centre	1
Neighbourhood Centre (PPS6 Local Centre)	2

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

Selected Location Sub Categories:

Development Zone	1
Residential Zone	2
Built-Up Zone	1

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

Secondary Filtering selection:

Use Class:

C3	4 days
----	--------

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Secondary Filtering selection (Cont.):

Population within 1 mile:

25,001 to 50,000	3 days
100,001 or More	1 days

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

Population within 5 miles:

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

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	3 days

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

Travel Plan:

Yes	3 days
No	1 days

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

PTAL Rating:

3 Moderate	2 days
5 Very Good	2 days

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

LIST OF SITES relevant to selection parameters

1	HG-03-C-01 BREAM CLOSE TOTTENHAM HALE	BLOCKS OF FLATS		HARINGEY
	Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total Number of dwellings: 255 Survey date: TUESDAY 18/06/19 Survey Type: MANUAL			
2	HO-03-C-02 HIGH STREET BRENTFORD	BLOCK OF FLATS		HOUNSLOW
	Town Centre Built-Up Zone Total Number of dwellings: 86 Survey date: WEDNESDAY 03/09/14 Survey Type: MANUAL			
3	HO-03-C-04 LONDON ROAD ISLEWORTH	BLOCKS OF FLATS		HOUNSLOW
	Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total Number of dwellings: 203 Survey date: TUESDAY 03/07/18 Survey Type: MANUAL			
4	IS-03-C-07 CITY ROAD ISLINGTON	BLOCK OF FLATS		ISLINGTON
	Edge of Town Centre Development Zone Total Number of dwellings: 185 Survey date: THURSDAY 06/06/19 Survey Type: MANUAL			

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
BE-03-C-01	.
BT-03-C-01	.
BT-03-C-02	.
HG-03-C-02	.
HM-03-C-01	.
KN-03-C-03	.
NH-03-C-01	.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	182	0.045	4	182	0.281	4	182	0.326
08:00 - 09:00	4	182	0.062	4	182	0.464	4	182	0.526
09:00 - 10:00	4	182	0.108	4	182	0.218	4	182	0.326
10:00 - 11:00	4	182	0.095	4	182	0.162	4	182	0.257
11:00 - 12:00	4	182	0.114	4	182	0.125	4	182	0.239
12:00 - 13:00	4	182	0.110	4	182	0.140	4	182	0.250
13:00 - 14:00	4	182	0.111	4	182	0.104	4	182	0.215
14:00 - 15:00	4	182	0.091	4	182	0.118	4	182	0.209
15:00 - 16:00	4	182	0.178	4	182	0.167	4	182	0.345
16:00 - 17:00	4	182	0.217	4	182	0.160	4	182	0.377
17:00 - 18:00	4	182	0.258	4	182	0.123	4	182	0.381
18:00 - 19:00	4	182	0.412	4	182	0.137	4	182	0.549
19:00 - 20:00	2	194	0.265	2	194	0.142	2	194	0.407
20:00 - 21:00	2	194	0.183	2	194	0.101	2	194	0.284
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		2.249			2.442				4.691

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

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

Appendix E





NOTES

- 1. Do not scale from this drawing.
- 2. This drawing to be read & printed in colour.
- 3. This drawing is for illustrative purposes only.

KEY:

PROPOSED DEVELOPMENT = 134 RESIDENTIAL HOMES

14 DISABLED PARKING SPACES (EQUIVALENT TO 10% OF HOMES)

A	Amended red line boundary.	RB	DB	19.11.2019
Rev	Details	REVISION HISTORY		
Status:		☐ Preliminary	☐ For Approval	☐ For Construction
		☒ For Information	☐ For Tender	☐ As Built
		Drawn	Checked	Date

Client:
Joseph Homes

Project:
1 Vinyl Square, Hayes

Drawing Title:
Proposed Parking Layout Plan with 10% Disabled Parking Provision

Scale: 1:500m Size: A3

Drawn by: RB Checked by: SMcC Date: 11.10.2019

CANEPARO ASSOCIATES
Transport Planning & Highway Design
21 Little Portland Street • London • W1W 8BT • Tel. 020 3617 8200

Scheme Ref: 4120 Drawing No: 005 Sheet: 1 of 1 Rev: A

Appendix F



Notes

Drawings to be scaled for planning purposes only. All contractors must visit the site and be responsible for taking and checking dimensions. All construction information should be taken from figured dimensions only. Any discrepancies between drawings, specifications and site conditions must be brought to the attention of the supervising officer. This drawing & the works depicted are the copyright of JTP.

This drawing is prepared for the specific project stage in the Drawing Status section below and it is not intended to be used for any other purpose. Whilst all reasonable efforts are used to ensure drawings are accurate, JTP accept no liability for any reliance placed on, or use made of, this plan by anyone for purposes other than those stated in the Drawing Status below.

 Application Boundary

P1 17.11.19 Issued For Planning.			BM	DCS
Rev	Date	Description	Drawn	Chkd
Drawing Status				
For Planning				
Client				

Client

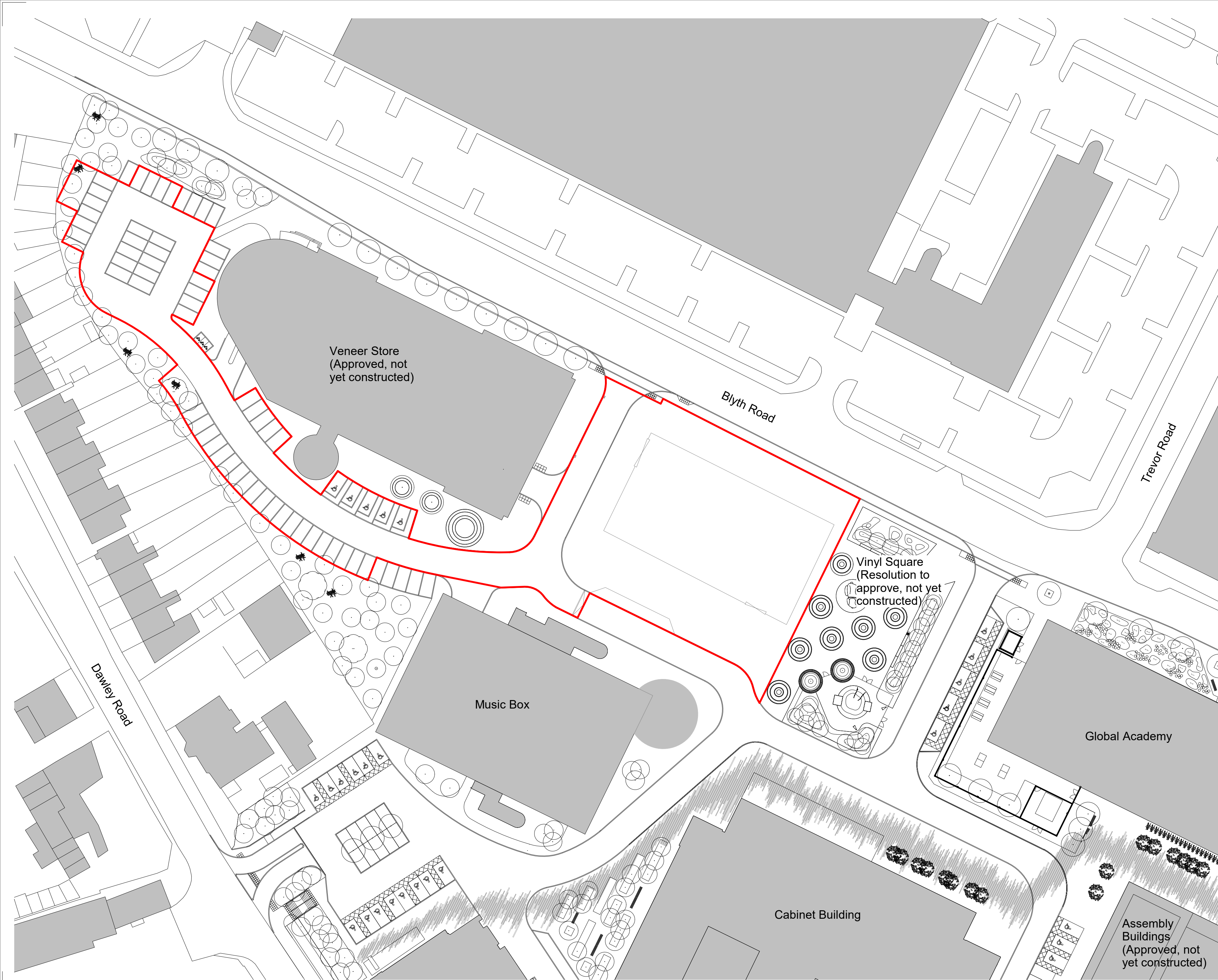
Joseph Homes.

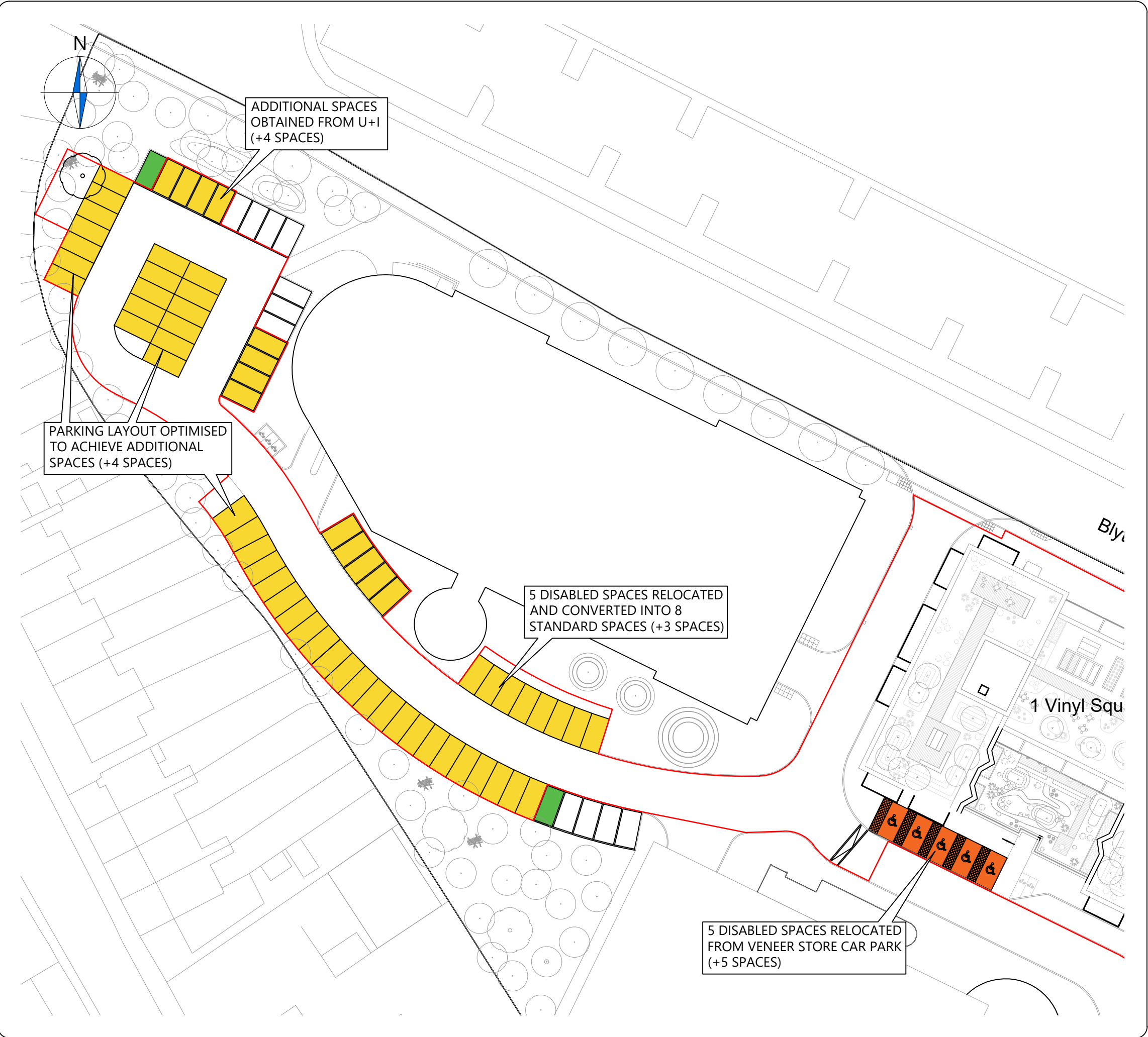


Project

1 Vinyl Square, Old Vinyl Factory

Drawing Title		
Existing Site Plan		
Scale @A2	1 : 500	Job Ref. 01659
Drawing No 01659-JTP-SL-003 Revision: P1		
Scale Bar		
0 5 10 15 m		





NOTES

- 1. Do not scale from this drawing.
- 2. This drawing to be read & printed in colour.
- 3. This drawing is for illustrative purposes only.

KEY:

	62 SURFACE PARKING SPACES OBTAINED FROM U+I
	5 DISABLED PARKING SPACES ON-SITE
	2 CAR CLUB PARKING SPACES (TO BE DELIVERED BY VENEER STORE SCHEME)

B	Amended red line boundary.	RB	DB	19.11.2019
A	Amended bays.	RB	SMcC	25.10.2019
Rev	Details	REVISION HISTORY		
Status:		☐ Preliminary	☐ For Approval	☐ For Construction
		☒ For Information	☐ For Tender	☐ As Built
		Drawn	Checked	Date

Client:

Joseph Homes

Project:

1 Vinyl Square, Hayes

Drawing Title:

Proposed Parking Layout Plan

Scale:

1:500m

Size:

A3

Drawn by:

RB

Checked by:

SMcC

Date:

11.10.2019

CANEPARO ASSOCIATES

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Scheme Ref:

4120

Drawing No:

003

Sheet :

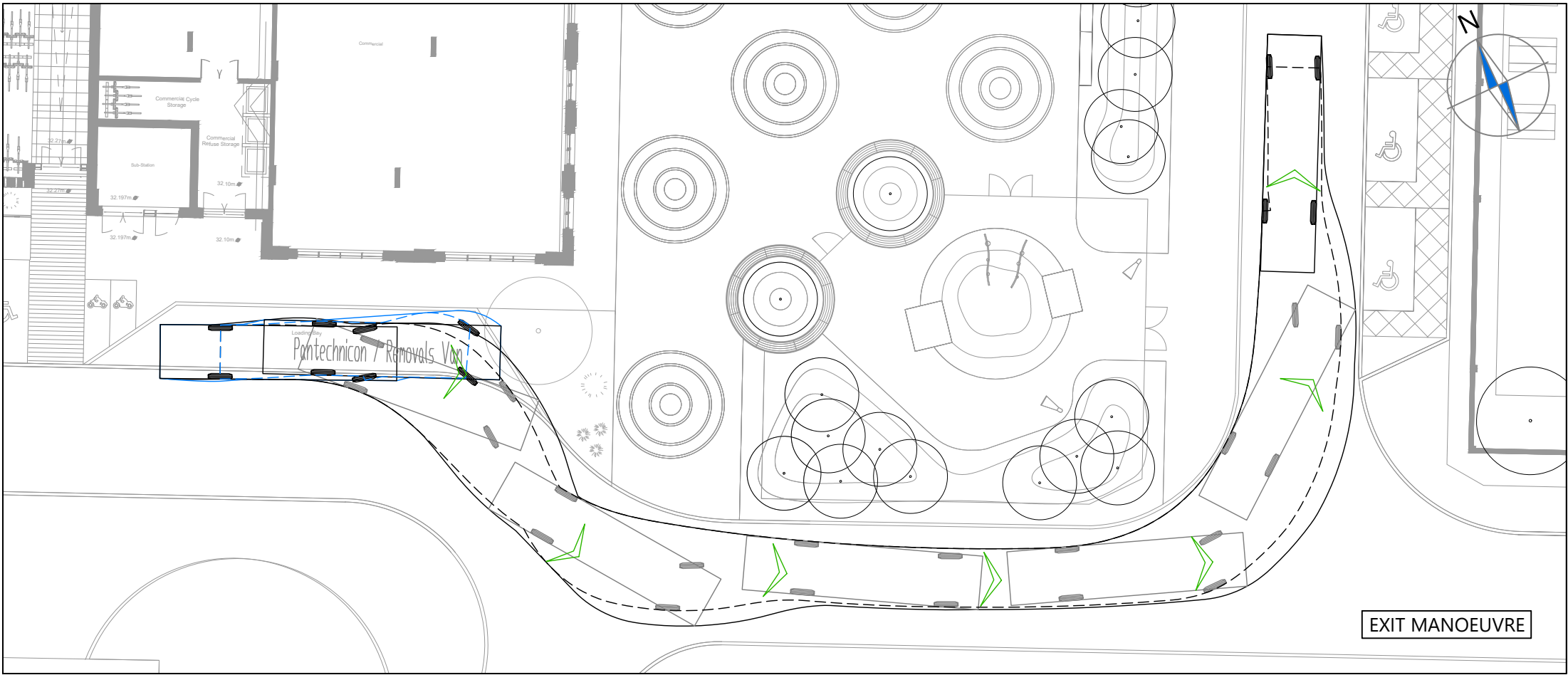
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Rev:

B

Appendix G

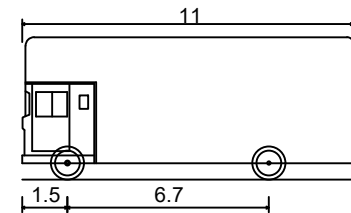




NOTES

1. Do not scale from this drawing.
2. This drawing to be read & printed in colour.
3. This drawing is for illustrative purposes only.

PANTECHNICON



Pantechon / Removals Van	11.000m
Overall Length	2.500m
Overall Width	4.730m
Overall Body Height	0.541m
Min Body Ground Clearance	2.500m
Track Width	6.00s
Lock to lock time	12.200m
Kerb to Kerb Turning Radius	

FORWARD MOVEMENTS ARE SHOWN
IN BLACK (*design speed - 5kph*)

REVERSE MOVEMENTS ARE SHOWN
IN BLUE (*design speed - 2.5kph*)

B	Revised scheme layout.	RB	SMcC	16.10.2019
A	Revised scheme layout.	HE	SMcC	23.09.2019

Rev	Details	REVISION HISTORY			Drawn	Checked	Date
Status:	☐ Preliminary	☐ For Approval	☐ For Construction				
	☒ For Information	☐ For Tender	☐ As Built				

Client: JH Veneer Limited

Project: 1 Vinyl Square, Hayes

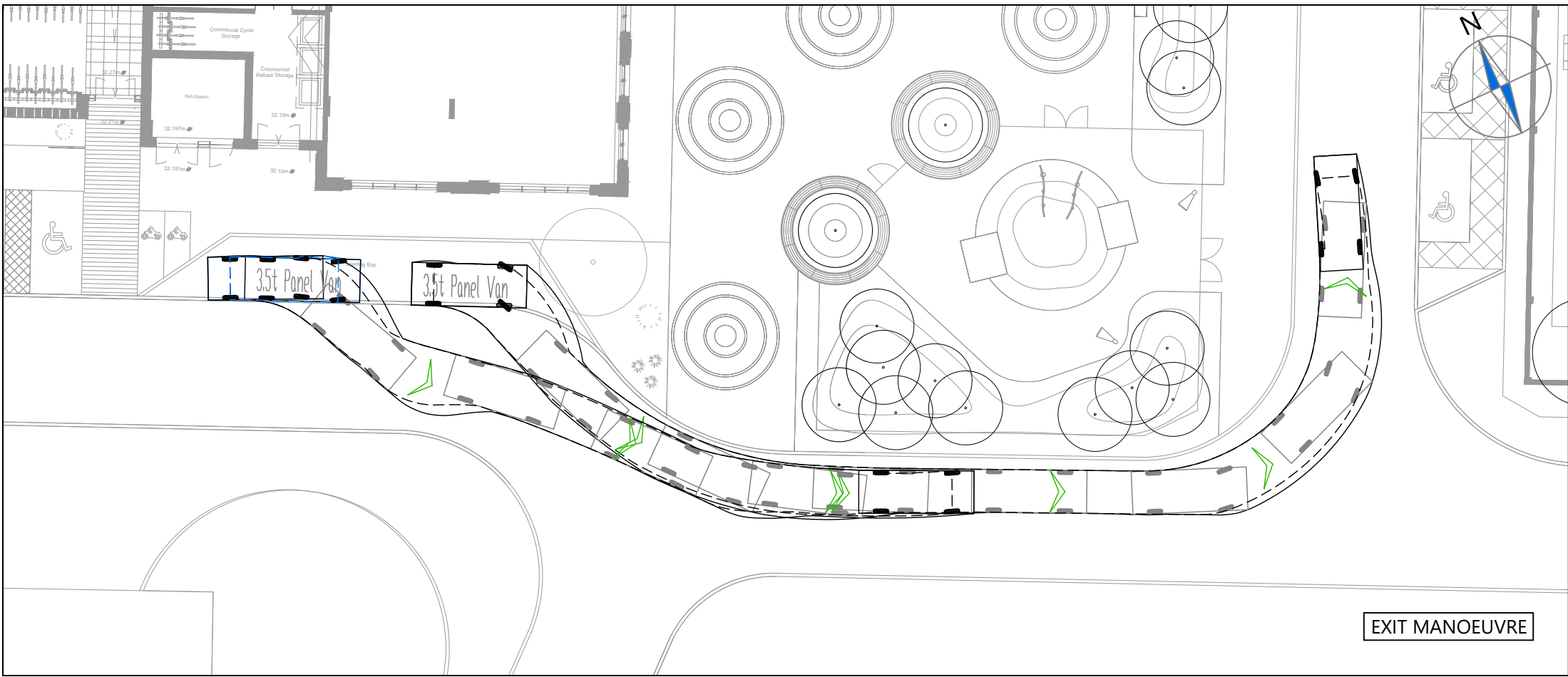
Drawing Title: Swept Path Analysis using an 11m Pantechon

Scale: 1:250 Size: A3

Drawn by: RB Checked by: SMcC Date: 06.09.2019

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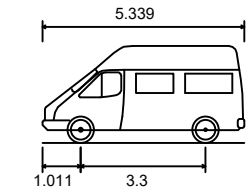
Scheme Ref:	Drawing No:	Sheet :	Rev:
4120	TR001	1 of 3	B



NOTES

1. Do not scale from this drawing.
2. This drawing to be read & printed in colour.
3. This drawing is for illustrative purposes only.

3.5T PANEL VAN



Overall Length	5.339m
Overall Width	1.986m
Overall Body Height	2.565m
Min Body Ground Clearance	0.338m
Track Width	1.986m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	6.400m

FORWARD MOVEMENTS ARE SHOWN IN BLACK (*design speed - 5kph*)

REVERSE MOVEMENTS ARE SHOWN IN BLUE (*design speed - 2.5kph*)

B	Revised scheme layout.	RB	SMcC	16.10.2019
A	Revised scheme layout.	HE	SMcC	23.09.2019

Rev	Details	Drawn	Checked	Date
-----	---------	-------	---------	------

REVISION HISTORY

Status: ☐ Preliminary ☐ For Approval ☐ For Construction ☒ For Information ☐ For Tender ☐ As Built

Client: JH Veneer Limited

Project: 1 Vinyl Square, Hayes

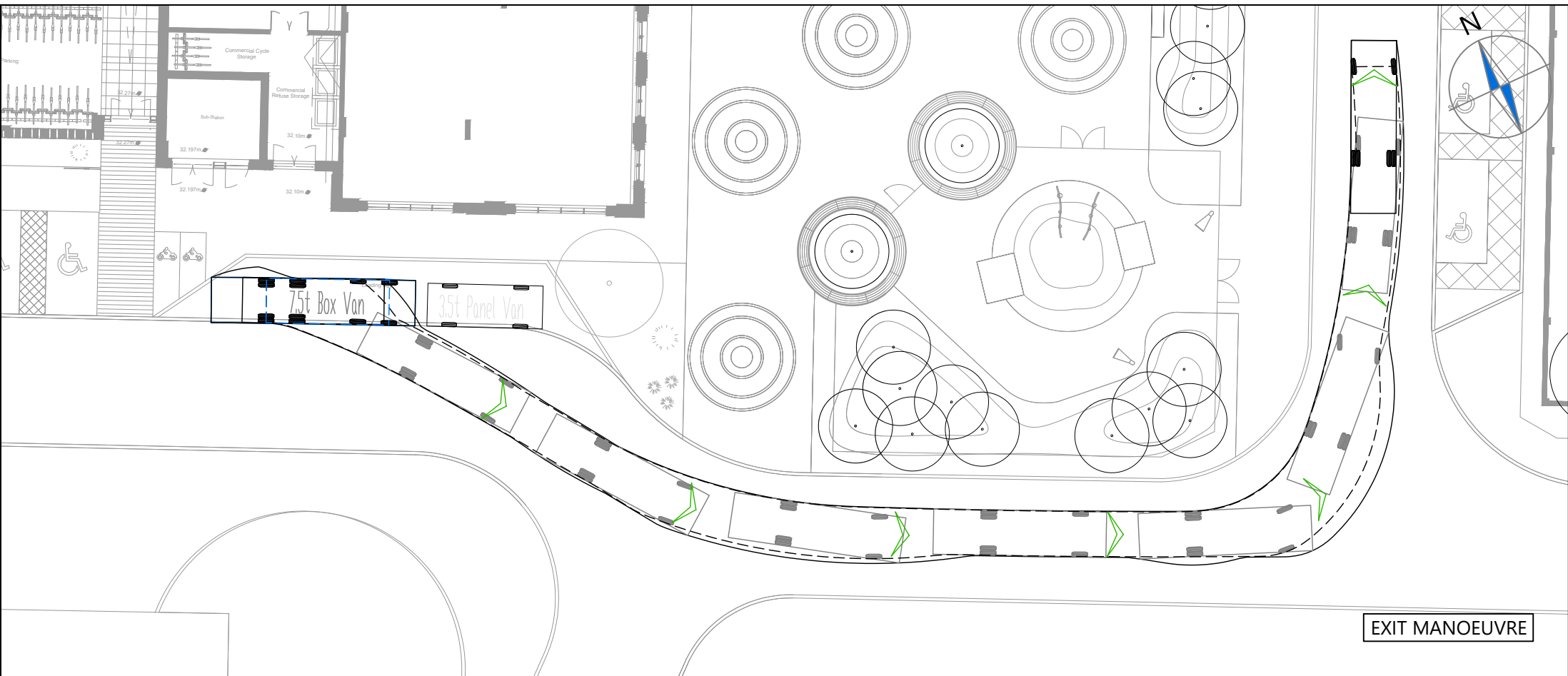
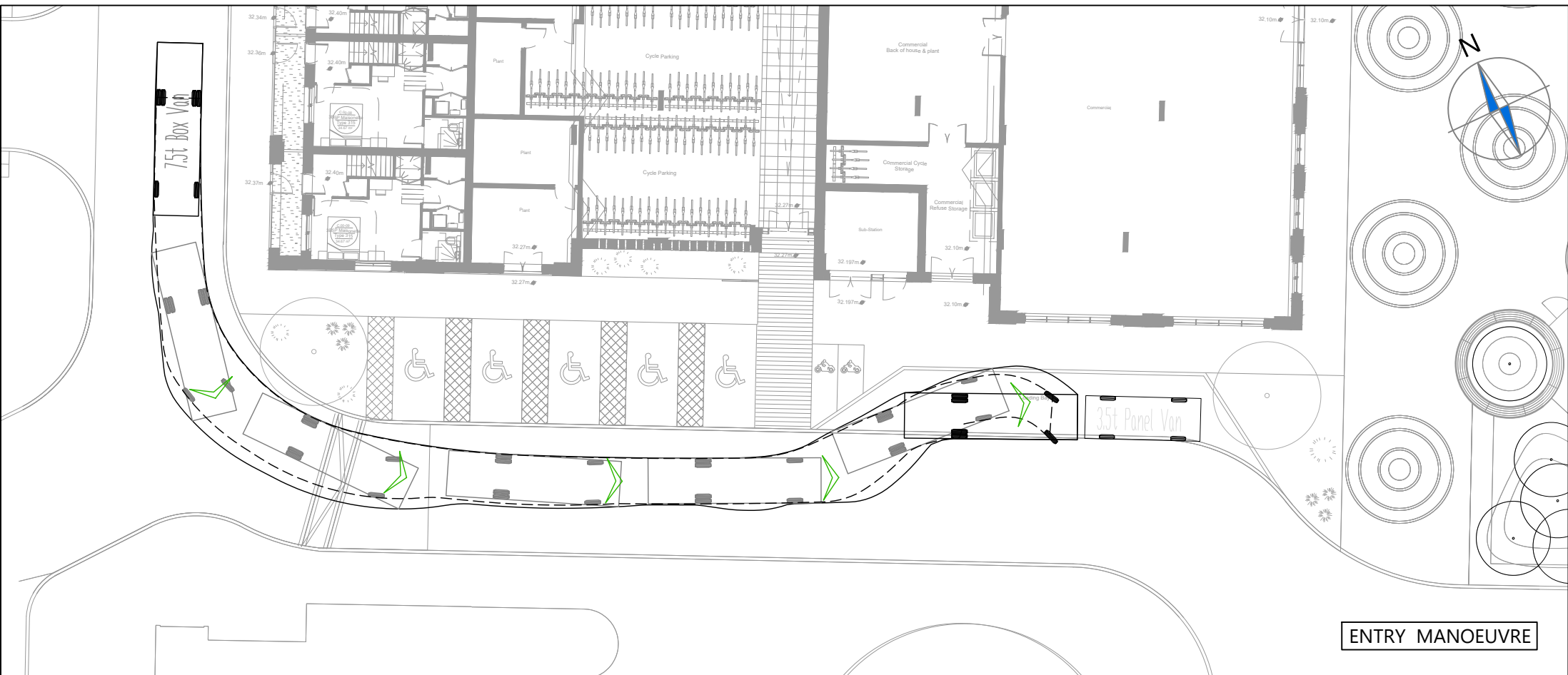
Drawing Title: Swept Path Analysis using a 3.5T Panel Van

Scale: 1:250 Size: A3

Drawn by: RB Checked by: SMcC Date: 06.09.2019

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Transport Planning & Highway Design
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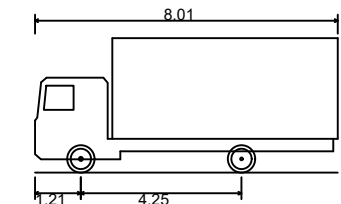
Scheme Ref:	Drawing No:	Sheet :	Rev:
4120	TR001	2 of 3	B



NOTES

1. Do not scale from this drawing.
2. This drawing to be read & printed in colour.
3. This drawing is for illustrative purposes only.

7.5T BOX VAN



Overall Length	8.010m
Overall Width	2.100m
Overall Body Height	3.556m
Min Body Ground Clearance	0.351m
Track Width	2.064m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	7.400m



FORWARD MOVEMENTS ARE SHOWN
IN BLACK (*design speed - 5kph*)



REVERSE MOVEMENTS ARE SHOWN
IN BLUE (*design speed - 2.5kph*)

B	Revised scheme layout.	RB	SMcC	16.10.2019
A	Revised scheme layout.	HE	SMcC	23.09.2019

Rev	Details	REVISION HISTORY			Drawn	Checked	Date
Status:	☐ Preliminary ☐ For Approval ☐ For Construction ☒ For Information ☐ For Tender ☐ As Built						

Client: JH Veneer Limited

Project: 1 Vinyl Square, Hayes

Drawing Title: Swept Path Analysis using a 7.5t Box Van

Scale: 1:250 Size: A3

Drawn by: RB Checked by: SMcC Date: 06.09.2019

CANEPARO ASSOCIATES
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