NORTHWOOD AND PINNER COTTAGE HOSPITAL
PINNER ROAD
HA6 1DE

Transport Assessment

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1 INTRODUCTION

Introduction

1.1 RPS Consulting Services Ltd has been instructed by NHS Property Services and NHS Hillingdon CCG to provide transport planning advice with respect to the proposed redevelopment of the Northwood and Pinner NHS sites. The two adjacent sites are referred to as Northwood Cottage Hospital and Northwood Health Centre, and are in Northwood, London. The site is located within the London Borough of Hillingdon (LBH).

1.2 This Transport Assessment (TA) has been prepared following pre-application discussions with the LBH planning and highways officers, to agree the scope of the transport assessments.

Site Description

1.3 The redevelopment site is in Northwood, London and includes two adjacent plots of land referred to as Northwood Cottage Hospital and Northwood Health Centre.

1.4 The Northwood Cottage Hospital site is predominantly vacant but partly occupied by London Ambulance Services. The site is accessed from the south via Pinner Road with existing two vehicle access points provided. A zebra crossing is located between the two vehicle access points allowing a safe crossing point across Pinner Road.

1.5 The Northwood Health Centre site is a fully operational health facility providing primary and community care. Vehicle access to the site is provided from Neal Close to the north of the site, which links to Pinner Road via Addison Way and Acre Way.

1.6 The site location plan is shown at **Appendix A**.

Development Proposals

1.7 The development proposals involve the refurbishment and extension of the existing Cottage Hospital to provide a state-of-the-art health centre.

1.8 This will be a replacement for the existing Northwood Health Centre with the existing Ambulance centre located on the hospital site ceasing to exist.

1.9 A residential development in the form of two 4-storey buildings comprising 70 units is also proposed. Block A will be located at the Northwood Cottage Hospital site and comprise 32 units and Block B will be located at the Northwood Health Centre site and comprise 38 units.

1.10 The full description of development is:

"Partial demolition, refurbishment and extension of the existing Cottage Hospital to provide a state of the art health centre and the comprehensive redevelopment of the remaining Site to provide residential (use class C3) accommodation and ancillary works including car parking, cycle parking, landscaping and associated works (phased)."

1.11 Details on the proposed vehicle and pedestrian access points, car, and cycle parking provision, refuse and delivery strategy are outlined in **Section 5**.

1.12 The proposed development plans is attached at **Appendix B**.

Report Structure

1.13 This Transport Assessment has been prepared in line with the central Government 'Planning Practice Guidance' and is structured as follows:

- **Section 2 –** Review of the Existing Site and Surrounding Highway Network;
- **Section 3 –** Accessibility Assessment;
- **Section 4 –** Transport Policy;
- **Section 5 –** Details of the Proposed Development;
- **Section 6 –** Delivery and Servicing Strategy;
- **Section 7 –** Trip Generation;
- **Section 8 –** Assessment of the Development Impact;
- **Section 9 –** Proposed Mitigation; and
- **Section 10 –** Summary and Conclusions.

2 EXISTING SITE AND SURROUNDING TRANSPORT NETWORK

Site Description and Location

2.1 The site is in Northwood, London and includes two adjacent plots of land referred to as Northwood Cottage Hospital and Northwood Health Centre.

2.2 The Northwood Cottage Hospital site is predominantly vacant but partly occupied by London Ambulance Services. The site is accessed from the south via Pinner Road with two vehicle access points provided. A zebra crossing is located between the two-vehicle access points and links the northern and southern sides of Pinner Road. The floor area of the former Northwood Cottage hospital is 2023.7 m^2 GIA.

2.3 The Northwood Health Centre site is a fully operational health facility providing primary and community care. Vehicle access to the site is provided from Neal Close to the north of the site, which links to Pinner Road via Addison Way and Acre Way. The floor area of the existing Northwood Health Centre is 960.9 m^2 GIA. The Northwood Health Centre is served by 30 parking spaces (including 2 blue badge bays). The Northwood Cottage Hospital site is served by 15 parking spaces.

2.4 A site location plan is attached at **Appendix A**.

Existing Site Operation

2.5 The existing Northwood Health Centre has capacity for 17 FTE and 4 PTE staff members, which comprise of the following:

- 4 FTE Doctors;
- 11 FTE Admin;
- 1 PTE Nurse;
- 1 FTE Health Care Assistant;
- 1 PTE Community Practitioner;
- 1 PTE Methadone Nurse;
- 1 PTE Counsellor; and
- 1 FTE Community Matron.

2.6 The existing Northwood Health Centre operates Monday-Friday from 07:30 to 18:30 and serves a total of 7,300 patients in the local area.

Highway Network

Pinner Road (A404)

2.7 Pinner Road (A404), which forms of the southern boundary to the Northwood Cottage Hospital site, is a single carriageway subject to a 30mph speed limit. Single Yellow Lines are present across the road, within proximity of the existing vehicle access junction. A zebra crossing is located directly between the two existing vehicle access points to the site and footways and street lighting are provided on both sides of the road.

Neal Close

2.8 Neal Close is a single carriageway road subject to a 30mph speed limit, and no parking restrictions are present on either side of the road. Neal Close provides access to the Northwood Health Centre site. Neal Close links to Acre Way and Addison Way to the west which provides access to Pinner Road (A404). Footway and street lighting are provided on both sides of the road.

Juniper Court

2.9 Juniper Close is accessed from Neal Close and leads to a residential car park with parking restricted to residents of the residential block located to the east of Juniper Close. This then leads to the gated parking area located at the north of the Northwood Cottage Hospital site. The public highway extends for the full extent of Juniper Close and no footway is provided on either side of the road.

Parking Restrictions

2.10 Single Yellow Lines (SYLs) are present within the vicinity of the site access on Pinner Road (A404), which restricts parking to within certain times. Parking is restricted on Pinner Road (A404) Monday to Saturday, 08:00-18:30.

2.11 No parking restrictions are present on Addison Way, Acre Way or Neal Close.

2.12 A plan detailed the existing local highway network and parking restrictions is included at **Appendix C**.

Existing Traffic Surveys

2.13 Traffic flows and vehicle speeds within the vicinity of the development site has been obtained by an Automatic Traffic Count (ATC) survey, from Monday 3rd February to Tuesday 11th February 2020, on Pinner Road (A404) within proximity to the existing site access.

2.14 Manual Classified Counts (MCC) traffic surveys were carried out on Saturday 8th February and Monday 10th February 2020 at the vehicular access points to the site from Pinner Road (A404) and Neal Close. This information has been used to ascertain the trip generation and parking occupancy of the existing site.

2.15 Pedestrian counts were on Saturday 8th February and Monday 10th February 2020 at three pedestrian access points to the application site.

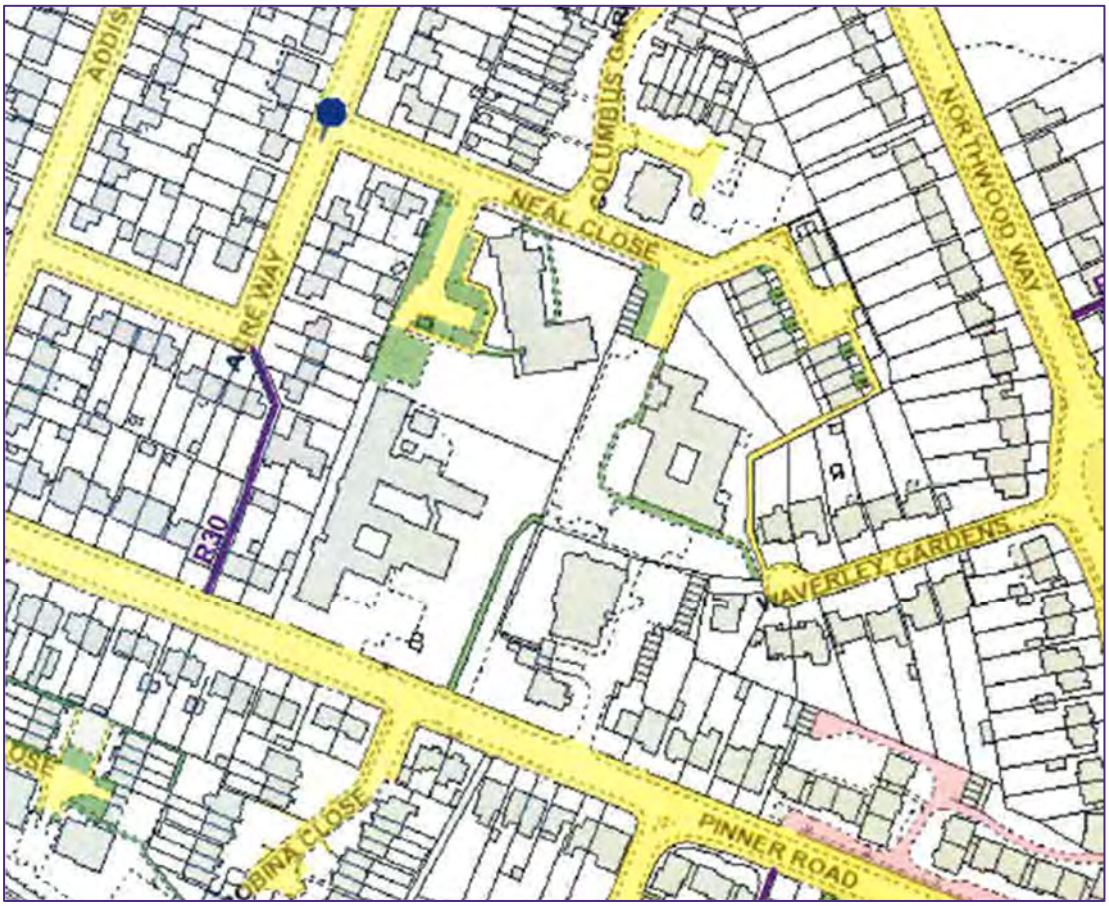
2.16 A copy of the survey data is provided at **Appendix D**.

Extent of Public Highway

2.17 Details of the extent of public highway within the vicinity of the site is provided at **Figure 1**. Please note that access via public highway is possible from both Neal Close and Pinner Road.

2.18 Overall, the site can be accessed by both vehicles and pedestrians from Pinner Road and Neal Close (2 locations) In addition pedestrian access is also from Waverley Gardens.

Figure 1: Extent of Public Highway



Road Safety Review

2.19 Personal Injury Accident (PIA) data has been obtained from Transport for London (TfL) for the most recent three-year period (March 2016 – March 2019). The collision study area and data are provided at **Appendix E**.

2.20 During the three-year period, a total of 19 injury accidents were recorded within the study area, of which 15 were classed as slight, 4 as serious and none as fatal.

2.21 The first serious accident occurred on Pinner Road (A404) within proximity to the junction with Robina Close. The accident involved a collision between an elderly pedestrian and a minibus. The pedestrian slipped over as the minibus pulled into the nearby bus stop. No contributory factors have been outlined.

2.22 The second serious accident occurred on Rickmansworth Road (A404) within proximity to the junction with High Street. The accident involved a collision between a taxi and motorcycle, with the motorcycle colliding into the taxi as the taxi attempted to turn right from Rickmansworth Road (A404) to High Street. The accident has been put down to the motorcyclist failing to judge the other person's path or speed.

2.23 The third serious accident occurred on Pinner Road (A404) within proximity to the junction with Waller Drive. The accident involved a collision between a pedestrian and a Light Goods Vehicle (LGV). The pedestrian was crossing from the south to north side of Pinner Road (A404) and was looking in the opposite direction at the point that the LGV collided with him. The accident has been put down to the pedestrian failing to look properly and failing to judge others path or speed. It is noted that the weather conditions included either rain, sleet, snow, or fog and has been included as a contributory factor.

2.24 The fourth serious accident occurred on Pinner Road (A404) near to the junction with Joel Street. The accident involved a collision between an LGV and motorcycle. The LGV was undertaking a U-turn manoeuvre and collided with a motorcycle as it was continuing ahead on Pinner Road (A404). The accident has been put down to the LGV driver failing to signal or providing a misleading signal and failing to judge other persons path or speed, and down to the motorcycle failing to judge other persons path or speed.

2.25 A cluster of one serious accident (second described serious accident) and four slight accidents occurred on Pinner Road / Rickmansworth Road (A404) within proximity to the junction with High Street. None of the accident were attributable to factors related to the design of the highway network.

2.26 A cluster of one serious accident (fourth described serious accident) and two slight accidents occurred on Pinner Road (A404) at the arm with the roundabout junction between Pinner Road (A404) / Joel Street / Northwood Way / Potter Street. None of the accident were attributable to factors related to the design of the highway network.

2.27 No other serious accidents were recorded in the study area.

2.28 The PIA review has concluded that the accidents recorded on the local highway network are attributable to factors unrelated to the design of the highway network. Overall, it is considered that the existing safety records indicates that there is a good level of safety on the local highway network due to the low and infrequent number of incidents over the assessed three-year period.

3 ACCESSIBILITY ASSESSMENT

3.1 The site is in a sustainable location and is accessible by all modes of transport, including London Bus and London Underground services all located within walking distance of the site. The site is also accessible via foot and cycle.

Public Transport Accessibility Level (PTAL)

3.2 Public Transport Accessibility Level (PTAL) provides a useful guide as to the accessibility of an area. PTAL scores range from 1 to 6b, where 6b is the highest score and 1 is the lowest. TfL's WebCAT tool calculates a PTAL rating of between 1b and 2, which represents a 'Poor' level of accessibility to public transport.

3.3 However, it should be noted that both sites are located within walking distance to local public transport services. Northwood Hills London Underground Station which is served by the Metropolitan line is located within a 600m (7.5 minute) walk from both sites. The sites are also only a short walk to bus stops located on Pinner Road immediately adjacent the site which provide access to local bus services including routes 282 and H11.

3.4 The full PTAL report is attached in **Appendix F**.

TIM Mapping and Wider Connectivity

3.5 PTAL is a good starting point for an assessment of public transport, however it is now recognised that this is only one of the methods to assess a site's accessibility to public transport. PTAL does not account for pedestrian and cycle facilities within the vicinity of a site, nor does it assess the connectivity to other transport modes through multiple journeys. Therefore, a better representation of the level of wider connectivity nearby the site can be provided by TIM Mapping.

3.6 TIM Mapping is a tool available on TfL's WebCAT connectivity toolkit website, which measures how far a person can travel in any given journey time using various modes including walk time. The output reports and maps for the site are included at **Appendix F**.

3.7 The TIM Mapping output shows that the site can be accessed and conversely is accessible to many key destinations in under 60 minutes total journey time including Pinner, Harrow, Stanmore, Ruislip, Uxbridge, Wembley, Brent Park, and a number of Central London locations such as Paddington, Mayfair and Marylebone. These destinations include retail and employment and are all accessible by public transport within a reasonable travel time.

Public Transport

Bus

3.8 PTAL guidance considers that people are willing to walk up to eight minutes to access bus stop infrastructure. Thus, TfL consider that bus stops within 640m of a development (80 metres x 8 minutes) are accessible. The site is accessible by London bus services, with various routes available within a short walking distance.

3.9 The closest bus stops to the site are located on Pinner Road (A404) within 200 metres from the centre of the application site but immediately adjacent the proposed vehicle access onto Pinner Road.

3.10 Northwood Health Centre Bus Stop G (westbound) is located on the north side of Pinner Road (A404), approximately 70 metres from the site centre. Northwood Health Centre Bus Stop H (eastbound) is located on the south side of Pinner Road (A404), approximately 200 metres from the site. Both bus stops provide access to bus routes 282 and H11.

3.11 Additional bus stops are located on Northwood Way within 270 metres from the centre of the application site. Stanley Road Bus Stop J (northbound) is located on the west side of Northwood Way, approximately 220 metres from the site centre. Stanley Road Bus Stop K (southbound) is located on the east side of Northwood Way, approximately 270 metres from the site centre. Both bus stops provide access to bus route to H13.

3.12 **Table 3.1** summarises the route and frequencies of the bus services from the local bus stops.

Table 3.1: Bus Services and Frequencies

Service	Route	Frequency (Buses per Hour)			
		AM Peak	PM Peak	Sat	Sun
Northwood Health Centre Bus Stop G (westbound), Pinner Road (A404)					
282	Hanwell - Northwood	6	5	5	4
H11	Harrow - Northwood	4	4	4	4
Northwood Health Centre Stop H (eastbound), Pinner Road (A404)					
282	Northwood - Hanwell	5	5	5	4
H11	Northwood - Harrow	4	4	4	3
Stanley Road Bus Stop J (northbound), Northwood Way					
H13	Northwood Hills – Ruislip Common	3	3	4	3
Stanley Road Bus Stop K (southbound), Northwood Way					
H13	Ruislip Common - Northwood Hills	3	3	4	3

Source: TfL (August 2020)

3.13 **Table 3.1** shows that three day-time bus services are available within 300 metres walking distance of the site. During the morning peak hour there is a minimum combined frequency of 25 buses per hour and during the evening peak hour there is a combined frequency of 24 buses per hour, at the nearby bus stops.

3.14 The bus spider map for the local area showing the bus routes in the local area is attached at **Appendix G**.

London Underground

3.15 Northwood Hills Underground Station is located within approximately 600 metres from both sites and provides access to the Metropolitan Line. The Metropolitan Line provides fast and frequent services to key Central London destinations including Baker Street, Kings Cross St Pancras International, Farringdon, Liverpool Street and Aldgate. Other key destinations that the Metropolitan Line serves includes Watford, Amersham, and Uxbridge.

Pedestrian and Cycle Network

Pedestrian Infrastructure

3.16 The main pedestrian access to the site is available from the existing pedestrian entrances located on Pinner Road, Neal Close and Waverly.

3.17 The pedestrian footway from the site provides a good connection to the three local bus stops. Formal pedestrian crossing facilities are provided with dropped kerb and tactile paving at various locations including a Zebra Crossing in front of the site on Pinner Road.

3.18 The existing pedestrian environment surrounding the site provides good connections to local facilities and amenities and is deemed to be sufficient to serve the proposed development site.

Cycle Infrastructure

3.19 Cycle routes around the sites are illustrated within Local Cycling Guide 3 produced by TfL. An extract of Local Cycling Guide 3 is provided at **Appendix H**. The TfL cycle guides assign a coloured code to different types of cycle lane infrastructure, these are:

- **Dark Blue:** Cycle superhighways;
- **Light Blue:** Route signed for cyclists that may be on a mixture of quiet and busier roads;
- **Purple:** Quietways;
- **Yellow:** Other roads that may have been recommended by cyclists;
- **Orange:** Pedestrian-only route which connects cycling sections where cyclists must dismount; and
- **Green:** Routes through parks, along canal towpaths or off-carriageway for walking and cycling.

3.20 Several recommended cycle routes are within easy access of the site, including along Hilliard Road, Potter Street and Joel Street. These routes connect to further ‘yellow’ routes throughout the local area.

Accessibility to Local Facilities

3.21 Current transport planning policy seeks to locate new developments in areas where there is a choice of transport modes to local facilities, particularly where people can travel by sustainable modes.

3.22 Manual for Streets (Paragraph 4.4.1) states the following:

"Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes (up to about 800m) walking distance of residential areas which residents may access comfortably on foot."

3.23 Furthermore, Local Transport Note 1/04a (Department for Transport, 2004), considers acceptable walking and cycling distances at Paragraph 3.10.3, stating:

"There are limits to the distances generally considered acceptable for utility walking and cycling. The mean average length for walking journeys is approximately 1km (0.6 miles), and for cycling, it is 4km (2.4 miles), although journeys up to three times these distances are not uncommon for regular commuters. The distances people are prepared to walk or cycle depend on their fitness and physical ability, journey purpose, settlement size, and walking/cycling conditions. Useful guidance on desirable, acceptable and preferred maximum walking distances for different purposes is included in Tables 3.2 and 3.3 of Providing for Journeys on Foot, IHT (2000)."

3.24 The Institute of Highways & Transport (IHT) guidance, *Guidance for Providing Journeys on Foot (2000)* states in paragraph 3.32 and Table 3.2 that the preferred maximum walking distance to local facilities and services is circa two kilometres. The distances for various land uses, are set out in **Table 3.2**.

Table 3.2: Acceptable Walking Distances (metres)

Definition	Town Centres	Commuting / School	Elsewhere
Desirable	200m	500m	400m
Acceptable	400m	1,000m	800m
Preferred Maximum	800m	2,000m	1,200m

Source: Providing for Journeys on Foot (IHT 2000)

3.25 It is evident from **Table 3.2** that walking offers a great potential to replace short car trips, particularly, but not exclusively, for trips less than 2 kilometres.

3.26 **Table 3.3** identifies the walking and cycling distance and time to local facilities and amenities measured from the centre of the proposed development. This table is not meant to provide an exhaustive list but rather an example of distances and travel time to local facilities and amenities band demonstrates the sustainable nature of the development site.

Table 3.3: Walking and Cycling Distances to Local Facilities

Facility	Distance from Vehicle Access to Pinner Road (A404)	Appropriate Journey Time (minutes)	
		Walking	Cycling
Educational Facilities			
Northwood School	500m	6	3
Heathrow Aviation Engineering ATC	500m	6	3
Happy Tree Academy (Nursery)	600m	8	3
Hillside Junior School	850m	11	4
Harlyn Primary School	1.3km	16	7
Food Stores			
Northwood Food & Wine Off-Licence	450m	6	2
Tesco Esso Express	800m	10	4
Tesco Superstore	1.6km	20	8
Waitrose Supermarket	1.6km	20	8
Medical Facilities			
Northwood Hills Dental Practice	80m	1	<1
Northwood Medical Centre (Acre Surgery)	100m	1	1
Carter Chemist and Consulting Rooms	800m	10	4
Miscellaneous Facilities			
Northwood Hills Library	350m	4	2
The Locker Room (Sports Bar)	500m	6	3
Emmanuel Church	750m	9	4
Northwood Post Office	1.5km	19	8
Recreational Facilities			
Northwood Tennis Courts and Bowling Club	500m	6	3
Hogs Back Open Space	800m	10	4
Northwood Football and Cricket Club	850m	11	4
Haste Hill Public Golf Course	1km	13	5
Public Transport			
Northwood Health Centre Bus Stops, Pinner Road (A404)	100m	1	1
Stanley Road Bus Stop, Northwood Way	300m	4	2
Northwood Hills Underground Station	600m	8	3

3.27 **Table 3.3** demonstrates that a range of key facilities located nearby the site are accessible by foot or cycle. Furthermore, it demonstrates how well placed the development site is in proximity to public transport services. The above shows that the site is sustainable in transport terms and these facilities and public transport services will reduce the need for future residents, visitors and staff to travel by car.

Summary

3.28 This section has demonstrated that the proposed development site is in a sustainable location, accessible by modes of transport, including a number of bus and London Underground services located within a reasonable walking distance of the site. The site has been outlined to have a PTAL ranging between 1b and 2, however it has been demonstrated from the TIM Mapping tool that the site is highly accessible to several key destinations within a 60-minute travelling time.

3.29 The site is located within 600 metres of Northwood Hills London Underground Station, which is served by the Metropolitan Line. This Underground Station provides a link to key destinations across London. It has been demonstrated that there are a range of local community, education, health, and retail facilities in the vicinity of the site.

3.30 Two bus stops are located within 300 metres walking distance of the site and are served by the bus routes; 282, H11 and H13.

3.31 The site is in a location that provides access to several modes of travel and will encourage future residents, staff, and visitors of the site to travel by sustainable modes in compliance with national and local policy objectives.

3.32 It has been shown that there is a good provision of walk and cycle infrastructure located nearby the site, which provides links to several key destinations.

4 TRANSPORT POLICY

4.1 This section summarises the relevant national and local transport policy against which the development proposals have been considered.

National Policy

National Planning Policy Framework (February 2019)

4.2 National policy in relation to the transport planning of developments is set out in the National Planning Policy Framework (NPPF) (February 2019). Section 9 "Providing Sustainable Transport – considering development proposals".

4.3 Paragraph 108 states that:

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

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

4.4 Paragraph 109 states that:

"Development should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety or residual cumulative impacts on the road network would be severe."

4.5 Paragraph 111 states that:

"All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed."

4.6 With regard to parking, Paragraph 105 of the NPPF states that:

"If setting local parking standards for residential and non-residential development, policies should take into account:

- The accessibility of the development;
- The type, mix and use of the development;
- The availability of and opportunities for Public Transport;
- Low car ownership levels; and
- The need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles."

4.7 Paragraph 106 states that:

"Maximum parking standards for residential and non-residential development should only be set where there is a clear and compelling justification that they are necessary for managing the local road network, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with Chapter 11 of this Framework). In town centres, local authorities should seek to improve the quality of parking so that it is convenient, safe, and secure, alongside measures to promote accessibility for pedestrians and cyclists."

Planning Practice Guidance (NPPG) 'Travel Plans, Transport Assessments and Statements in Decision-Taking' (March 2014)

4.8 The National Planning Policy Guidance (PPG) was updated in March 2014. The *Planning Practice Guidance - Travel Plans, Transport Assessments and Statements in Decision-Taking* provides a concise report on the use and importance of Transport Assessments / Statements and Travel Plans. Regarding whether to provide a Transport Assessment, Transport Statement or no assessment, the guidance states that local planning authorities, developers, relevant transport authorities, and neighbourhood planning organisations should agree what evaluation is needed in each instance.

4.9 The guidance states that Transport Assessments / Statements and Travel Plans can positively contribute to encouraging sustainable travel, lessening traffic generation and its detrimental impacts and reducing carbon emissions and climate impact. In doing so they can create accessible, connected, inclusive communities with improved road safety, health, and quality of life.

4.10 The guidance states that Transport Assessments / Statements and Travel Plans should be proportionate to the size and scope of the proposed development, be tailored to local circumstances and be established at the earliest practicable possible stage of a development proposal.

Regional Policy and Guidance

4.11 The regional strategy with respect to land use and transport is articulated in statutory policy documents prepared by planning and highway authorities which, for this development, comprise:

- London Plan (March 2021);
- Healthy Streets – Transport Assessments (2019);
- London Cycling Design Standards (LCDS 2016);
- Mayor's Transport Strategy (MTS) for London (May 2018);
- Transport Assessment Best Practice Guidance, Transport for London (web version); and
- Travel Planning Guidance, Transport for London (November 2013).

The London Plan (March 2021)

4.12 In March 2021 the Mayor published the new London Plan. The new London Plan covers the period 2019 to 2041 and provides a long-term view of London's development to inform decision making. It In terms of transport, the London Plan promotes sustainability across Greater London with less car parking, more cycle parking and greater flexibility on accessible parking.

4.13 Policy T1 Strategic Approach to Transport states:

"Development Plans should support, and development proposals should facilitate:

a. The delivery of the Mayor's strategic target of 80 per cent of all trips in London to be made by foot, cycle, or public transport by 2041; and
   - The proposed transport schemes set out in Table 10.1.
b. All development should make the most effective use of land, reflecting its connectivity and accessibility by existing and future public transport, walking, and cycling routes, and ensure that any impacts on London's transport networks and supporting infrastructure are mitigated."

4.14 Policy T2 Healthy Streets:

- "Development proposals and Development Plans should deliver patterns of land use that facilitate residents making shorter, regular trips by walking or cycling.
- Development Plans should:
  - Promote and demonstrate the application of the Mayor's Healthy Streets Approach to: improve health and reduce health inequalities; reduce car dominance, ownership and use, road danger, severance, vehicle emissions and noise; increase walking, cycling and public transport use; improve street safety, comfort, convenience and amenity; and support these outcomes through sensitively designed freight facilities.
  - Identify opportunities to improve the balance of space given to people to dwell, walk, cycle, and travel on public transport and in essential vehicles, so space is used more efficiently, and streets are greener and more pleasant.
  - In Opportunity Areas and other growth areas, new and improved walking, cycling and public transport networks should be planned at an early stage, with delivery phased appropriately to support mode shift towards active travel and public transport. Designs for new or enhanced streets must demonstrate how they deliver against the ten Healthy Streets Indicators.
- Development proposals should:
  - Demonstrate how they will deliver improvements that support the ten Healthy Streets Indicators in line with Transport for London guidance.
  - Reduce the dominance of vehicles on London's streets whether stationary or moving.
  - Be permeable by foot and cycle and connect to local walking and cycling networks as well as public transport."

4.15 Policy T3 Transport capacity, connectivity, and safeguarding notes the following:

"Development Plans should appropriately safeguard the schemes outlined in Table 10.1. Development proposals should provide adequate protection for and/or suitable mitigation to allow

the relevant schemes outlined in Table 10.1 to come forward. Those that do not, or which otherwise seek to remove vital transport functions or prevent necessary expansion of these, without suitable alternative provision being made to the satisfaction of transport authorities and service providers, should be refused."

4.16 Policy T4 Assessing and mitigating transport impacts asserts that:

- "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 having regard to Transport for London guidance;
- Where appropriate, mitigation, either through direct provision of public transport, walking and cycling facilities and highways improvements or through financial contributions, will be required to address any adverse transport impacts that are identified;
- Where the ability to absorb increased travel demand through active travel modes has been exhausted, existing public transport capacity is insufficient to allow for the travel generated by proposed developments, and no firm plans, and funding exist for an increase in capacity to cater for the increased demand, planning permission may be contingent on the provision of necessary public transport and active travel infrastructure;
- The cumulative impacts of development on public transport and the road network capacity including walking and cycling, as well as associated effects on public health, should be considered and mitigated;
- Development proposals should not increase road danger."

4.17 Policy T5 Cycle Parking states that development proposals should help remove barriers to cycling and create a healthy environment in which people choose to cycle. This will be achieved through the provision of appropriate levels of cycle parking, which should be fit for purpose, secure and well-located. Developments should provide cycle parking at least in accordance with the minimum standards set out in Table 10.2 and Figure 10.2 and should be designed and laid out in accordance with the London Cycling Design Standards.

4.18 **Table 4.1** sets out the minimum cycle parking standards for a residential development.

Table 4.1 Minimum Cycle Parking Standards (London Plan)

Use Class	Long-Stay	Short Stay
C3-C4 Dwellings (all)	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	5 to 40 dwellings: 2 spaces; Thereafter: 1 space per 40 dwellings
D1 Health Centre	1 space per 5 FTE staff	1 space per 3 FTE staff

Source: London Plan (March 2021)

4.19 Long-stay cycle parking should be suitable for long-stay parking in terms of location, security and protection from the elements and inclement weather, ideally in a sheltered cycle store.

4.20 Regarding short-stay cycle parking, it is stated that provision must be convenient and readily accessible, having step-free access and located nearby the main residential entrance wherever possible.

4.21 Policy T6 Car Parking states that:

- "Car parking should be restricted in line with levels of existing and future public transport accessibility and connectivity.
- Car-free development should be the starting point for all development proposals in places that are (or are planned to be) well-connected by public transport, with developments elsewhere designed to provide the minimum necessary parking ('car-lite'). Car-free development has no general parking but should still provide disabled persons parking in line with part D of this policy.
- An absence of local on-street parking controls should not be a barrier to new development, and boroughs should look to implement these controls wherever necessary to allow existing residents to maintain safe and efficient use of their streets.
- The maximum car parking standards set out in Policy T6.1 Residential parking to Policy T6.5 Non-residential disabled persons parking should be applied to development proposals and used to set local standards within Development Plans.
- Appropriate disabled persons parking for Blue Badge holders should be provided as set out in Policy T6.1 Residential parking to Policy T6.5 Non-residential disabled persons parking.
- Where provided, each motorcycle parking space should count towards the maximum for car parking spaces at all use classes.
- Adequate provision should be made for efficient deliveries and servicing and emergency access.
- A Parking Design and Management Plan should be submitted alongside all applications which include car parking provision, indicating how the car parking will be designed and

managed, with reference to Transport for London guidance on parking management and parking design.

- Boroughs that have adopted or wish to adopt more restrictive general or operational parking policies are supported, including borough-wide or other area-based car-free policies. Outer London boroughs wishing to adopt minimum residential parking standards through a Development Plan Document (within the maximum standards set out in Policy T6.1 Residential parking) must only do so for parts of London that are PTAL 0-1. Inner London boroughs should not adopt minimum standards. Minimum standards are not appropriate for non-residential use classes in any part of London.
- Where sites are redeveloped, parking provision should reflect the current approach and not be re-provided at previous levels where this exceeds the standards set out in this policy…"

4.22 The maximum car parking standards outlined in the London Plan and pertinent to residential use are summarised below in **Table 4.2**.

Table 4.2: Maximum Car Parking Standards (London Plan 2021)

Use Class	Long-Stay
Central Activities Zone (CAZ) Inner London Opportunity Areas Metropolitan and Major Town Centres All areas of PTAL 5-6 Inner London PTAL 4	Car-free
Inner London PTAL 3	Up to 0.25 spaces per unit
Inner London PTAL 2	Up to 0.5 spaces per unit
Inner London PTAL 0-1	Up to 0.75 spaces per unit

Source: London Plan (2021)

4.23 About disabled parking, the London Plan states that:

"Disabled person parking should be provided for new residential developments. Residential development proposals delivering ten or more units must as a minimum:

- Ensure that at least one designated space disabled person parking bay per dwelling for three percent of dwellings is available from the outset;
- Demonstrate on plan as part of the Car Parking Design and Management Plan how the remaining bays to a total of one per ten percent of dwellings can be requested and provided when required as designated disabled parking in the future. If disabled parking provision is not sufficient, spaces should be provided when needed either upon first occupation of the development or in the future."

4.24 About Electric Vehicle Charging Points (EVCPs), the London Plan states that:

"All residential car parking spaces must provide infrastructure for electric or Ultra-Low Emission vehicles. At least 20 percent of spaces should have active charging facilities, with passive provision for all remaining spaces."

London Cycling Design Standards (LCDS 2016)

4.25 This document sets out the recommendations for the appropriate provision of cycle parking and best practice for parking arrangements:

- Minimum height clearance of 2.6m recommended for two-tier cycle parking;
- 2.5 aisle width within cycle store for two-tier cycle parking;
- 1m spacing between Sheffield Stands;
- An external door width to cycle stores of 2m;
- 5% of all spaces should accommodate larger cycles, which can be provided by Sheffield Stands; and
- Doors into cycle stores should open inwards or slide.

Mayor's Transport Strategy (MTS) for London (March 2018)

4.26 The MTS was published in March 2018 after a detailed public consultation. The document sets out the policies and proposals to reshape transport in London over the next two decades.

4.27 Central to the new strategy is the 'Healthy Streets Approach', which seeks to prioritise human health and experience in planning the city, and thus change London's transport mix so the city works better for everyone. As such, the key themes of the strategy are:

"Healthy Streets and healthy people- Creating streets and street networks that encourage walking, cycling and public transport use will reduce car dependency and the health problems it creates.
A good public transport experience- Public transport is the most efficient way for people to travel over distances that are too long to walk or cycle, and a shift from private car to public transport could dramatically reduce the number of vehicles on London's streets.
New homes and jobs- More people than ever want to live and work in London. Planning the city around walking, cycling and public transport use will unlock growth in new areas and ensure that London grows in a way that benefits everyone."

Transport Assessment Best Practice Guidance, Transport for London (web version)

4.28 TfL published this document in 2014 to provide guidance on the preparation and production of Transport Assessments to support proposed developments. The TS for the development proposals will be prepared in line with TfL's TA Best Practice Guidance.

Travel Planning Guidance, Transport for London (November 2013)

4.29 This document provides guidance on the Travel Plan requirement thresholds by land use. The Travel Plan thresholds are summarised in **Table 4.3**.

Table 4.3: Travel Plan Requirements (Travel Planning Guidance, Transport for London November 2013)

Land Use	Travel Plan Statement	Full Travel Plan
C3 Residential	Between 50 and 80 units	Equal or more than 80 units
D1 Hospital / Health Centre	Between 20 and 50 staff	Equal or more than 50 staff

4.30 It is outlined that a Framework Travel Plan is required if one or more elements of the proposed development exceed the thresholds.

Local Planning Policy and Guidance

4.31 The local planning policy and guidance documents that are pertinent to this development include the following:

- Hillingdon Local Plan: Part 1 – Strategic Policies (November 2012);
- Hillingdon Local Plan: Part 2 – Development Management Policies (January 2020);
- Hillingdon Local Plan: Accessible Hillingdon Supplementary Planning Document (September 2017); and
- London Borough of Hillingdon: Local Implementation Plan (April 2011).

Hillingdon Local Plan: Part 1 – Strategic Policies (November 2012)

4.32 The Hillingdon Local Plan (Part 1 – Strategic Policies) was adopted in November 2012. The document is the key strategic planning document for Hillingdon and will support the delivery of the spatial elements of the Sustainable Community Strategy. While the document includes broad policies for steering and shaping development, it does not set out guidelines for decisions about planning applications (this is done through the Hillingdon Local Plan: Part 2 – Development Management Policies) and nor does it allocate specific sites (this is done through the Hillingdon Local Plan: Part 2 – Site Specific Allocations document and Policies Map).

Hillingdon Local Plan: Part 2 – Development Management Policies (January 2012)

4.33 This document sets out detailed policies that form the basis of the Council's decisions on individual planning applications. The following policies outlined in the document are summarised below that are pertinent to the development proposals and transport matters.

4.34 Policy DMT 1: Managing Transport Impacts, states the following:

A) "Development proposals 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 it is likely to draw its employees, customers, or visitors from and/or the services and facilities necessary to support the development;
   ii. Maximise safe, convenient, and inclusive accessibility to, and from within developments for developments for pedestrians, cyclists, and public transport users;
   iii. Provide equal access for all people, including inclusive access for disabled people;
   iv. Adequately address delivery, servicing, and drop-off requirements; and
   v. Have no significant adverse transport or associated air quality and noise impacts on the local and wider environment. Particularly on the strategic road network.

B) Development proposals will be required to undertake a satisfactory Transport Assessment and Travel Plan if they meet or exceed the appropriate thresholds. All major developments that fall below these thresholds will be required to produce a satisfactory Transport Statement

and Local Level Travel Plan. All these plans should demonstrate how any potential impacts will be mitigated and how such measures will be implemented."

4.35 Policy DMT 2: Highways Impacts, states the following:

"Development proposals must ensure that:

a. Safe and efficient vehicular access to the highway network is provided to the Council's standards;
b. They do not contribute to the deterioration of air quality, noise or local amenity or safety of all road users and residents;
c. Safe, secure, and convenient access and facilities for cyclists and pedestrian are satisfactory accommodated in the design of highway and traffic management schemes;
d. Impacts on local amenity and congestion are minimised by routing through traffic by the most direct means to the strategic road network, avoiding local distributor and access roads; and
e. There are suitable mitigation measures to address any traffic impacts in terms of capacity and functions of existing and committed roads, including along roads or through junctions which are at capacity."

4.36 Policy DMT 5: Pedestrians and Cyclists, states the following:

a. Development proposals will be required to ensure that safe, direct, and inclusive access for pedestrians and cyclists is provided on the site connecting it to the wider network, 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 C, Table 1 or, in agreement with Council.
a. Development proposals located next to or along the Blue-Ribbon Network will be required to enhance and facilitate inclusive, safe, and secure pedestrian and cycle access to the network. Development proposals, by virtue of their design, will be required to complement and enhance local amenity and include passive surveillance to the network."

4.37 Policy DMT 6: Vehicle Parking, states the following:

a. Development proposals must comply with the parking standards outlined in Appendix C, Table 1, to facilitate sustainable development and address issues relating to congestion and amenity. The Council may agree to vary these requirements when:
    i. The variance would not lead to a deleterious impact on street parking provision, congestion, or local amenity; and/or
    ii. A transport appraisal and travel plan has been approved and parking provision is in accordance with its recommendations.

a. All car parks provided for new development will be required to contain conveniently located reserved spaces for wheelchair users and those with restricted mobility in accordance with the Council's Accessible Hillingdon SPD."

4.38 With respect to servicing and loading arrangements, the following is outlined in Appendix C:

a. "sufficient space for the standing and manoeuvring of all goods and service vehicles likely to serve the development at any one time is essential
b. The following minimum dimensions should be accommodated for service vehicles:
   - For smaller stores, town centre uses, hotels and residential institutions: 2.5m x 12m.
c. Development layouts should allow all vehicles to load/unload and enter and leave the site in a forward gear."

4.39 **Table 4.4** below summarises the information provided on car and cycle parking standards taken from Appendix C.

Table 4.4: Maximum Car and Minimum Cycle Parking Standards (Hillingdon Local Plan: Part 2 – Development Management Policies, January 2012)

Use Class	Maximum Car Parking Space Requirement	Minimum Cycle Parking Space Requirement
C3 Residential Flats	3 or more bedrooms: 2 spaces per unit 1-2 bedrooms: 1-1.5 spaces per unit Studio: 1 space per 2 units a) Proposals must also accommodate visitor's car parking on-site additional to the above; and Car parks must be allocated to dwellings.	a) 1 per studio, 1 or 2 bed unit; and b) 2 per 3 or more bed unit.
D1 Hospital / Health Centre	Additional provision to be made for emergency vehicle parking, loading, and unloading. Car parking on an individual basis using a transport assessment and a travel plan.	1 per 5 staff and 1 per 10 visitors

Hillingdon Local Plan: Accessible Hillingdon Supplementary Planning Document (September 2017)

4.40 Various design guidelines with respect to accessible parking and vehicles are outlined within this Supplementary Planning Document.

London Borough of Hillingdon: Local Implementation Plan (April 2011)

4.41 The Local Implementation Plan (LIP) is the Council's transport plan, detailing its transport objectives and programme to support the delivery of the Mayor's Transport Strategy (MTS) within Hillingdon.

Design Guidance

4.42 The following guidance will be followed for the site access and internal site layout:

- Manual for Streets (2007) and Manual for Streets 2 (2010).

Summary

4.43 In terms of planning policy, national and local transport planning policy requires new development to be located where a range of facilities and services can be accessed by a number of modes of transport including walking, cycling and public transport, so as to minimise the number and length of car journeys. In addition, safe and sustainable access to the site should be achieved for all people.

4.44 It is considered that the site conforms to the local and central government planning policies in terms of suitable location that is accessible to local facilities and modes other than the private car. This report also demonstrates that safe and suitable access can be provided.

5 PROPOSED DEVELOPMENT

Introduction

5.1 This section of the report describes the development proposals in terms of land use, access arrangements for all modes, car and cycle parking provision, and servicing and refuse collection.

Development Proposals

5.2 The description of the development proposal is as follows:

"Partial demolition, refurbishment and extension of the existing Cottage Hospital to provide a state of the art health centre and the comprehensive redevelopment of the remaining Site to provide residential (use class C3) accommodation and ancillary works including car parking, cycle parking, landscaping and associated works (phased)."

5.3 The development proposals involve the provision of a new healthcare hub measuring approximately 1,473m^2 located at the Northwood Cottage Hospital site.

5.4 A residential development in the form of two 4-storey buildings comprising 70 units is also proposed. Block A will be located at the Northwood Cottage Hospital site and comprise 32 units and Block B will be located at the Northwood Health Centre site and comprise 38 units.

5.5 The proposed development plans are attached at **Appendix B**. The existing Highway Layout plan on Pinner Road with the proposed development plan is shown at **Appendix I**.

Pedestrian and Cycle Access

5.6 Pedestrian and cycle access to the proposed healthcare hub and residential Block A at the Northwood Cottage Hospital site will remain as per the existing situation from the north side of Pinner Road, whilst a new access from Juniper Court will also be provided.

5.7 Pedestrian and cycle access to the proposed residential Block A will be from Pinner Road, Juniper Court and from Block B which will be connected. Block B will be connected with Block A as well as having pedestrian and cycle access from Waverley Gardens and Neal Close.

5.8 In addition to the above an improved pedestrian and cycle link will also be included to link both Block A & B to Pinner Road

5.9 The ground floor plan, including the location of the pedestrian entrances and bike stores, is illustrated the proposed development plans at **Appendix B**.

Vehicle Access

Healthcare Hub

5.10 Vehicle access to the proposed healthcare hub will be provided from two locations.

5.11 Visitor vehicle access will be taken from the existing access points located on the northern site of Pinner Road (A404) and will be from the main vehicle access at the centre of the car park. This access will be for two-way vehicles and will be used by all visitors to the health centre.

5.12 Staff vehicle access to the dedicated staff car park will be taken from the southern side of Neal Close, via the access road Juniper Close.

5.13 Refuse/service vehicles for the health centre will access the site from Pinner Road via the controlled secondary vehicle access and exist from the main vehicle access. In addition, refuse vehicles will also need to access the rear staff only car park from Juniper Close. During refuse collection some staff car parking spaces will need to be empty but given this will be a commercial refuse contractor and not a local authority collection then the health centre would be able to manage refuse collection times when there are only minimal staff members on site.

5.14 The route shown that runs adjacent and to the west of the proposed healthcare hub will be used as an emergency access only.

5.15 Whilst to proposed healthcare car park access will have more movements to/from Pinner Road than existing this access strategy has been in place since the extant hospital has been in use and has historically been used by more vehicle across a day than at present. There are no significant accident issues near to the site access and based on the proposed use it is considered appropriate in highways terms.

Residential

5.16 Vehicle access to the two proposed residential blocks will be provided from two locations.

5.17 Vehicle access will be taken from the existing access points located on the northern side of Pinner Road (A404) and from the southern side of Neal Close.

5.18 Vehicle access to the proposed residential Block B at the Northwood Healthcare Centre site will be taken from the existing access point located on the southern side of Neal Close. Residential Blocks A & B will both be served by 69 parking spaces including 7 blue badge parking spaces. Most of the residential parking spaces (63 standard and 4 blue badge spaces will be in the parking areas to the west and south of Block B. The remaining 3 blue badge spaces will be located to the south west of Block A and accessed via Pinner Road. These three spaces are located here in order to provide blue badge parking in close proximity to Block A. These spaces will be clearly marking as residents only blue badge parking bays.

5.19 Refuse and deliveries will access the site via Neal Close and turnaround within the site to ensure all vehicle enter and exist the site in forward gear.

Car Parking Provision

5.20 A total of 121 car parking spaces will be provided for the development and the location of the car parking spaces across the site is shown in the proposed layout plan attached at **Appendix B**.

5.21 As referenced in the Hillingdon Local Plan: Part 2 – Development Management Policies (January 2012), there is a requirement to provide 1 motorcycle / scooter parking space per 20 parking spaces for both healthcare hub and residential uses.

5.22 A total of eight motorcycle / scooter parking spaces will be provided across the site; two to the south of residential block B, two to the north of residential block A, two to the west of the healthcare hub, and two to the east of the healthcare hub. The location of the scooter parking spaces is shown in the proposed layout plan and proposed car parking plan attached at **Appendix B**.

Healthcare Hub

5.23 It is proposed that a total of 52 car parking spaces will be provided for the healthcare hub; of which 33 will be accessed via Pinner Road (A404) and 19 via Juniper Close. Of the 52 car parking spaces, five will be designated as blue badge holder days and three will be accessed via Pinner Road (A404) and two via Juniper Close.

5.24 It is proposed that the 19-space car park would be predominantly for staff parking with the main car park, accessed from Pinner Road, for patients and visitors as this would be the most recognisable car park for first time visitors.

Residential

5.25 It is proposed that a total of 69 car parking spaces will be provided for the residential element of the development; of which 66 will be accessed via Neal Close and 3 via Pinner Road (A404). Of the 69 car parking spaces, seven will be designated as blue badge holder bays, with four accessible via Neal Close and three via Pinner Road (A404).

5.26 The car parking provision is 1 space below a car parking ratio of 1 space per residential unit. It is not possible to provide one car parking spaces per presential unit due to the constraints of the site and important landscaping considerations to provide 1 space per unit. Notwithstanding this the site is in a location that provides access to several modes of travel including London Underground, bus and cycle and will encourage future residents to travel by sustainable modes in compliance with national and local policy objectives.

5.27 In addition, the 2011 Census data has been reviewed for the Northwood Hills ward that covers the site to determine the existing car ownership levels. It identifies that 19% of households do not own a car. In addition, the local ward contains predominately houses which will have higher levels of car ownership than the proposed apartments. On this basis the proposed parking ratio of 1 space per 0.98 dwellings is considered appropriate to serve the proposed residential dwellings.

Cycle Parking Provision

5.28 Cycle parking for the proposed development will be compliant with the minimum standards outlined in the Hillingdon Local Plan: Part 2 – Development Management Policies (January 2012) for the residential use, and compliant with the London Plan (2021) for the healthcare hub use. This is in agreement with the LBH Highways as part of the pre-application scoping discussions.

Residential

5.29 The minimum required number of cycle parking spaces for the residential development is outlined in **Table 5.1**.

Table 5.1: Minimum Required Number of Long-stay Cycle Parking Spaces (Hillingdon Local Plan: Part 2 – DM Policies, January 2012)

Unit Mix	Number of Units	Minimum Required Number of Long-stay Cycle Parking Spaces
1 bedroom, 1 person	3	3
1 bedroom, 2 person	28	28
2-bedroom, 3 person	13	13
2-bedroom, 4 person	21	21
3-bedroom, 5 person	5	10
Total	**70**	**75**

5.30 A total of 109 long-stay secure, covered, and accessible cycle parking spaces will be provided on-site for the residential Block A and B. 2 cycle parking spaces will be for visitors for an overall total of 111 cycle parking spaces.

5.31 Block A will have 49 long stay cycle parking spaces with 42 two tier and 3 spaces as Sheffield Stand parking.

5.32 Block B will have 60 two tier parking spaces with 54 two tier and 6 spaces as Sheffield Stand parking.

5.33 The quantum of cycle parking spaces is above the minimum requirement of 36 spaces and therefore accords with the Hillingdon Local Plan: Part 2 – Development Management Policies (January 2012) guidance.

5.34 The location and layout of the cycle parking spaces for the residential use of the development is illustrated in the development plans attached at **Appendix B**.

Healthcare Hub

5.35 It is assumed that all the 21 staff members are FTE to provide the maximum number of cycle parking spaces. The minimum cycle parking standards outlined in the London Plan (2021) state that 1 long-stay cycle parking space should be provided per 5 FTE staff and 1 short-stay cycle parking space should be provided per 3 FTE staff.

5.36 Based on the capacity for 21 FTE staff, the minimum requirement of cycle parking spaces would be 4 long-stay and 7 short-stay cycle parking spaces.

5.37 The development proposals include for the provision of 20 cycle parking spaces for the healthcare hub, comprised of both long and short-stay spaces and 10 spaces will have 'Sheffield' stands capable of accommodating large, adapted cycles. The quantum of cycle parking spaces is above the minimum requirement and therefore accords with the now adopted London Plan guidance.

5.38 The location and layout of the long and short-stay cycle parking spaces for the healthcare hub use of the development is illustrated in the development plans attached at **Appendix B**.

5.39 Staff will also have lockers, showers and changing facilities available to help encourage staff to cycle to work.

Motorcycle Parking

5.40 Overall, there will be 8 motorcycle parking spaces provided across the site. These will be allocated as 2 spaces for health care staff, 2 spaces for health care visitors and 4 presential spaces.

Mobility Scooter and Pram Parking

5.41 There will be 2 mobility scooter parking spaces and 3 pram spaces available at the main entrance to the Healthcare Hub.

5.42 In addition, there will be 2 mobility scooter parking spaces provided near the cycle parking store at the rea of the Block B residential block.

6 DELIVERY AND SERVICING STRATEGY

6.1 This section provides a delivery and serving framework to ensure that freight vehicle activity to and from the development site works effectively. This will include relevant policy in relation to delivery and servicing, the objectives of the delivery and servicing framework, number of servicing and delivery trips and the strategy for the development site.

Policy

Delivery and Servicing Plans: Making Freight Work for You

6.2 The TfL document 'Delivery and Servicing Plans: Making Freight Work for You' provides guidance on preparing and implementing DSPs (Delivery and Servicing Plans). The document states that DSPs can benefit any site that receives deliveries and servicing activity and will specifically help sites to:

"Proactively manage deliveries to reduce the number of delivery and servicing trips, particularly in the morning peak
Identify and promote areas where safe and legal loading can take place
Select delivery companies who can demonstrate their commitment to following best practice – for example, the Freight Operator Recognition Scheme (FORS)."

London Plan (March 2021)

6.3 Policy T7 of the London Plan (March 2021) states the following regarding delivery and servicing at developments:

"G .Development proposals should facilitate safe, clean, and efficient deliveries and servicing. Provision of adequate space for servicing, storage and deliveries should be made off-street, with on-street loading bays only used where this is not possible.
H. Developments should be designed and managed so that deliveries can be received outside of peak hours and in the evening or night-time. Appropriate facilities are required to minimise additional freight trips arising from missed deliveries and thus facilitate efficient online retailing."

6.4 The review of the above policy indicates that the development proposals should be sustainable, seeking to reduce potential impacts of servicing and deliveries on the local highway network.

Objectives

6.5 The objectives of this delivery and servicing strategy framework is to support a sustainable and well managed development with regards to deliveries and servicing. The following objectives are proposed:

- Demonstrate that goods and services can be delivered, and waste removed, in a safe and efficient manner; and
- Reduce the impact of freight activity on the local highway network and the environment.

Delivery and Servicing Trips

6.6 The proposed healthcare hub is a re-provision of the existing Northwood Health Centre. On this basis the servicing and delivery trips will already be on the local transport network surrounding the site. No increase in serving and delivering trips is anticipated to be associated with the healthcare hub. The only new trips will be associated with the proposed residential element of the development.

6.7 The residential delivery and servicing trips are detailed in Section 7 and replicated in **Table 6.1** below:

Table 6.1: Proposed Servicing Trips

Servicing Trip Generation per Dwelling	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)			Daily (07:00-19:00)		
	Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way
LGVs	0	0	0	1	1	2	12	11	23
OGVs	0	0	0	0	0	0	2	2	4

6.8 A total of 27 daily servicing and delivery trips are forecast for the residential use of the proposed development. The servicing and delivery trips will mostly consist of small to medium sized vans relating to deliveries, with a small number of larger vehicles collecting the general and recycling waste.

Proposed Delivery, Servicing & Refuse Collection Strategy

6.9 Access to the development site for deliveries and service vehicles will predominantly include the following:

- Post and online deliveries;
- Refuse collection vehicles; and
- Occasional maintenance vehicles.

6.10 There will also be the occasional removals vehicles when people move into / out of the residential dwellings. This will be most notable when the development is first occupied; after which these will be infrequent movements.

6.11 It is proposed that servicing and waste collection will be undertaken from within the site, clear of the public highway.

6.12 Servicing and waste collection vehicles for the healthcare hub, will utilise the vehicle access points from the northern side of Pinner Road (A404) and stop outside the building. As shown in the swept path drawing in **Appendix J**, the servicing and waste vehicle can safely manoeuvre and access the site in forward gear.

6.13 Servicing and waste collection for the residential use of the development, will utilise the vehicle access point from the southern side of Neal Close and stop outside the bin stores located on the

ground floor of Blocks A and B. The vehicle will stop at a location so that refuse and recycling bins will not need to be transported more than 10m from the bin store to the vehicle. As shown in the swept path drawing in **Appendix J** , the servicing and waste vehicle can safely manoeuvre and access the site in forward gear.

6.14 It is anticipated that the refuse collection for the residential site would occur in conjunction with the local refuse collection for the area, therefore not creating any additional movements.

6.15 It should be noted that general post and most supermarket deliveries will already be on the local highway network as part of an existing journey are unlikely to be new trips.

6.16 Due to the nature of the proposed use and its location, it is expected most of deliveries will be by small or transit type vans, with limited need for the use of larger goods vehicles. These delivery vehicles will be accommodated within the car park and can utilise the drop-off points adjacent to the healthcare hub and blocks A and B of the residential development. Delivery vehicles will be able to enter and exit the site in forward gear.

6.17 Maintenance vehicles would report to the Facilities Management on arrival and would be directed to the most appropriate location for them to undertake the required maintenance and to minimise any impact on the pedestrian, cycle, and vehicle movements within the site.

6.18 The development proposals provide for a suitable and safe waste collection strategy that minimises impacts on the local highway network. Furthermore, servicing and delivery trips will mostly consist of small to medium sized vans relating to deliveries; with a small number of larger vehicles collecting the general and recycling waste, which will minimise the impacts on the local road network.

Measures to Reduce Impact of Deliveries

6.19 The following measures will help reduce deliveries to the site:

First Time Deliveries

6.20 Provision will be made for first time deliveries to the residential development. Facilities management will enable parcels to be safely stored onsite in the residential lobbies rather than returned to distributions depots or the post office; this will reduce the need for return visits.

Hours of Delivery

6.21 There are no legal highway constraints or physical constraints within the site limiting the hours of delivery. From a highway capacity perspective, it would therefore be best practice to allow deliveries throughout the day rather than compressing deliveries into a shortened timeframe in order to minimise the number of vehicle movements during any given hour. Overnight deliveries will not be permitted for reasons of residential amenity. Deliveries outside of the local peak traffic hours will be encouraged to minimise impacts.

Consolidation

6.22 The Healthcare Hub will implement the following measures to help with the consolidation of deliveries:

- Coordinate the types, numbers of delivery vehicles accessing the site (to minimise the number of vehicles on-site and impacts);
  - Seek to reduce the likelihood of different suppliers being used for the same products; and
  - Aim to reduce the likelihood of numerous orders being made to the same company.

6.23 Residents will be advised of the importance of consolidating deliveries (such as supermarket deliveries with their neighbours for residents) and how this can develop cost savings. This can be coordinated through Facilities Management.

6.24 The above measures will help minimise the impact of deliveries on the local highway network and reduce the potential for congestion at the site.

Summary

6.25 The delivery and servicing requirements can be safely accommodated at the site and will have a negligible impact on the local highway network.

7 TRIP GENERATION

7.1 This section considers the trip generation of the existing site and proposed development to assess the net change in person and vehicle trips.

Existing Trip Generation

7.2 The existing site is in Northwood, London and includes two adjacent plots of land referred to as Northwood Cottage Hospital and Northwood Health Centre.

7.3 The Northwood Cottage Hospital site is predominantly vacant but partly occupied by London Ambulance Services. The site is accessed from the south via Pinner Road (A404) with two vehicle access points provided.

7.4 The Northwood Health Centre site is a fully operational health facility providing primary and community care. Vehicle access to the site is provided from Neal Close to the north of the site.

7.5 The traffic survey data (summarised in **Section 2**) will be used to form the basis of one method of the existing trip generation assessment. The Manual Classified Counts (MCC) traffic surveys were carried out on Saturday 8th February and Monday 10th February 2020 at the vehicular access points to the site from Pinner Road (A404) and Neal Close. The AM and PM peak periods of arrivals and departures have been obtained from weekday survey date to form the existing trip generation assessment.

7.6 An alternative method, utilising the TRICS database for similar surveyed sites, has also been used for the existing trip generation to provide a comparison. This was requested by LBH as part of the pre-application scoping discussions to sense check to the traffic survey data.

Northwood Cottage Hospital (Site 1) – London Ambulance Services Occupation

7.7 An MCC survey has been undertaken on Monday 10th February 2020 (07:00-19:00) at the two vehicle access points on the northern side of Pinner Road (A4040), which provides vehicular access to the Northwood Cottage Hospital site. This information allows the calculation of the total vehicle arrival and departure trips during the morning and evening peak hour and across the daily period (07:00-19:00) and is summarised in **Table 7.1**.

Table 7.1: Existing Vehicle Trip Generation (Northwood Cottage Hospital Site)

	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)			Daily (07:00-19:00)		
	Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way
Vehicle Trips	2	1	3	2	0	2	24	20	44

7.8 **Table 7.1** demonstrates that the existing Northwood Cottage Hospital site generates 3 two-way vehicle trips in the morning peak hour, 2 two-way vehicle trips in the evening peak hour, and 44 two-way vehicle trips over the daily period.

Northwood Health Centre (Site 2)

7.9 An MCC survey has been undertaken on Monday 10th February 2020 (07:00-19:00) at the vehicle access point on the southern side of Neal Close, which provides vehicular access to the Northwood Health Centre site. Pedestrian count surveys have also been undertaken on Monday 10th February 2020 (07:00-19:00) at three pedestrian access points to the site. This information allows the calculation of the total vehicle and pedestrian arrival and departure trips during the morning and evening peak hour and across the daily period (07:00-19:00) and is summarised in **Table 7.2**.

Table 7.2: Existing Vehicle and Person Trip Generation (Northwood Health Centre site)

	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)			Daily (07:00-19:00)		
	Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way
Vehicle Trips	41	13	54	11	16	27	287	286	573
Pedestrian Trips	27	24	51	7	9	16	221	211	432

7.10 **Table 7.2** demonstrates that the existing Northwood Health Centre site generates 54 two-way vehicle trips in the morning peak hour, 27 two-way vehicle trips in the evening peak hour, and 573 two-way vehicle trips over the daily period. In terms of pedestrian trips; Northwood Health Centre generates 51 two-way pedestrian trips in the morning peak hour, 16 two-way pedestrian trips in the evening peak hour, and 432 two-way pedestrian trips over the daily period.

Total Existing Trip Generation

7.11 The total trips associated with the existing site uses are detailed in **Table 7.3** below.

Table 7.3: Total Existing Vehicular Trip Generation

		AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)			Daily (07:00-19:00)		
		Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way
Northwood Cottage Hospital	Vehicle Trips	2	1	3	2	0	2	24	20	44
	Pedestrian Trips	0	0	0	0	0	0	0	0	0
Northwood Health Centres	Vehicle Trips	41	13	54	11	16	27	287	286	573
	Pedestrian Trips	27	24	51	7	9	16	221	211	432
Total	Vehicle Trips	43	14	57	13	16	29	311	306	617
	Pedestrian Trips	27	24	51	7	9	16	221	211	432

7.12 **Table 7.3** demonstrates that the existing site generates 57 two-way vehicle trips in the morning peak hour and 29 two-way vehicle trips in the evening peak.

TRICS Comparison

7.13 A review of the TRICS database identifies only one Greater London site is available and the details are provided below in **Table 7.4**.

Table 7.4: TRICS Medical Centre Site

Survey Date	Survey Code	Site Location	Type	GFA	Doctors and Employees	Parking	PTAL
12/11/13	WH-05-G-01	Wandsworth, SW18 4DD	Medical Centre	2,709sqm	8 Doctors & 27 Employees	7	4

7.14 The Wandsworth site is in a PTAL 4 area and benefits from greater accessibility to public transport and is also provided with significantly reduced parking provision compared to the Northwood Health Centre.

7.15 Therefore, the use of the TRICS database would generate significantly lower vehicle trips compared to those survey and detailed in **Table 7.2.** On this basis, the use of the TRICS database has been discounted and a first principles approach using the surveyed movements will be used for the purposes of this assessment.

Proposed Trip Generation

Healthcare Hub

7.16 The existing Northwood Health Centre comprises 960.9m2 GEA. The development proposal will see the existing health centre demolished and replaced with a new healthcare hub measuring approximately 1,473m2 GIA located at the Northwood Cottage Hospital Site.

7.17 To provide a trip analysis assessment, the vehicle and person trips associated to the MCC survey for the existing Northwood Health Centre (Table 6.2) have been increased on a pro-rata basis from the existing to proposed floor space (1,473 / 960.9 = 1.533).

7.18 It should be noted that trips are unlikely to increase on a pro-rata basis as the healthcare hub will provide improved facilities to serve the existing local catchment. This is also demonstrated by the small uplift from 17 FTE existing staff to 21 FTE staff to serve the proposed healthcare hub. Therefore, the trip generation assessment, based on a prorated floor area increase is considered to be overly robust.

7.19 The proposed vehicle and person trips associated with the proposed healthcare hub are outlined below.

Table 7.5: Health Care Hub Proposed Trip Generation

	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)			Daily (07:00-19:00)		
	Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way
Vehicle Trips	63	20	83	17	25	41	440	438	878
Pedestrian Trips	41	37	78	11	14	25	339	323	662

7.20 **Table 7.5** demonstrates that the proposed healthcare hub generates 83 two-way vehicle trips in the morning peak hour, 41 two-way vehicle trips in the evening peak hour, and 878 two-way vehicle trips over the daily period.

7.21 In terms of pedestrian trips; the proposed use generates 78 two-way pedestrian trips in the morning peak hour, 25 two-way pedestrian trips in the evening peak hour, and 662 two-way pedestrian trips over the daily period.

7.22 It is proposed that a total of 52 car parking spaces will be provided for the healthcare hub; of which 33 will be access via Pinner Road (A404) and will be used by patients and 19 via Juniper Close for staff. On this basis most vehicle movements will be via Pinner Road with only staff access via Juniper Close.

Residential

7.23 The total person trip rates for the proposed 70 residential units have been established based on similar surveyed sites within the TRICS database. More specifically, the trip generation rates have been derived based on private residential flats within Greater London. The following comparable sites have been selected as contained in **Table 7.6**.

Table 7.6: Summary of TRICS Sites (Private Residential Flats)

Site	Survey Date	Survey Code	Site Location	Type	Number of Dwellings	Parking	PTAL
1	19/09/18	BE-03-C-01	Bexleyheath, DA6 8AE	Block of Flats	79	84	3
2	08/11/17	EN-03-C-03	Palmers Green, N13 6BW	Block of Flats	18	18	2
3	01/10/14	HG-03-C-02	Wood Green, N22 8JU	Block of Flats	30	25	4
4	03/09/14	HO-03-C-02	Brentford, TW8 0AS	Block of Flats	86	64	3
5	18/11/16	HO-03-C-03	Brentford, TW8 8FF	Block of Flats	150	106	2
6	11/07/16	KI-03-C-03	Surbiton, KT6 4DJ	Block of Flats	20	25	2
7	14/11/13	NH-03-C-01	Stratford, E15 4PD	Block of Flats	12	16	3

7.24 The total person trip rates and trip generation for a weekday morning and evening peak hour and daily trip rates (07:00-19:00) are set out in **Table 7.7**. The trip rates have been applied to the proposed number of residential units, to calculate the total person arrival and departure trip generation for the time periods. A full copy of the TRICS report is included in **Appendix K.**

Table 7.7: Person Trip Rate and Generation (Private Residential Flats, 70 Dwellings)

	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)			Daily (07:00-19:00)		
	Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way
Trip Rate (per dwelling)	0.175	0.572	0.747	0.448	0.273	0.721	3.569	3.634	7.203
Person Trips	12	40	52	31	19	50	250	254	504

7.25 **Table 7.7** demonstrates that the proposed residential development will generate 52 two-way person trips in the morning peak hour, 19 two-way person trips in the evening peak hour, and 504 two-way person trips over the daily period.

7.26 The 2011 Travel to Work Census has been examined to identify the travel patterns of the resident population travelling to work from the Northwood Hills ward. This data provides a breakdown of people's mode of travel to and from their place of employment at that time. The journey to work modal split is summarised in **Table 7.8**.

Table 7.8: Residential Modal Split

Mode	Baseline Modal Split (%)
Underground, metro, light rail, tram	27.8%
Train	3.9%
Bus, minibus, or coach	5.6%
Taxi	0.4%
Motorcycle, scooter or moped	0.7%
Driving a car or van	51.6%
Passenger in a car or van	2.7%
Bicycle	1.1%
On foot	5.6%
Other method of travel to work	0.5%
Total	**100%**

7.27 The person trip rates for the proposed residential development have been split across the modal split outlined in **Table 7.8**. The resultant number of trips per mode, during the morning and evening peak hours and daily period is summarised in **Table 7.9** below.

Table 7.9: Multi-Modal Trip Generation (Private Residential Flats, 70 Dwellings)

Mode	Modal Split (%)	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)			Daily (07:00-19:00)		
		Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way
Underground, metro, light rail, tram	27.8%	4	11	15	9	5	14	69	71	140
Train	3.9%	0	2	2	1	1	2	10	10	20
Bus, minibus, or coach	5.6%	1	2	3	2	1	3	14	14	28
Taxi	0.4%	0	0	0	0	0	0	1	1	2
Motorcycle, scooter or moped	0.7%	0	0	0	0	0	0	2	2	4
Driving a car or van	51.6%	6	21	27	16	10	26	129	131	260
Passenger in a car or van	2.7%	0	1	1	1	1	1	7	7	14
Bicycle	1.1%	0	1	1	0	0	1	3	3	6
On foot	5.6%	1	2	3	2	1	3	14	14	28
Other method of travel to work	0.5%	0	0	0	0	0	0	1	1	2
Total	**100%**	**12**	**40**	**52**	**31**	**19**	**50**	**250**	**254**	**504**

7.28 It is proposed that a total of 69 car parking spaces will be provided for the residential element of the development; of which three will be accessed via Pinner Road (A404) and 66 via Neal Close. By applying a proportional split based on the number of car parking spaces, it can be assumed that 4% of vehicle arrivals will use the car park at Pinner Road (A404) and 96% will use Neal Close.

Pinner Road (A404)

7.29 In the morning peak hour, it is predicted that one two-way vehicle movement will be associated with the Pinner Road (A404) vehicle access.

7.30 In the evening peak hour, it is predicted that one two-way vehicle movements will be associated with the Pinner Road (A404) vehicle access.

Neal Close

7.31 In the morning peak hour, it is predicted that 26 two-way vehicle movements will be associated with the Neal Close vehicle access.

7.32 In the evening peak hour, it is predicted that 25 two-way vehicle movements will be associated with the Neal Close vehicle access.

Total Proposed Trip Generation

7.33 The total proposed multi-modal trip generation for the proposed residential and healthcare hub use is outlined in **Table 7.10**.

Table 7.10: Total Proposed Trip Generation

Mode	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)			Daily (07:00-19:00)		
	Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way
Underground, metro, light rail, tram	4	11	15	9	5	14	69	71	140
Train	0	2	2	1	1	2	10	10	20
Bus, minibus, or coach	1	2	3	2	1	3	14	14	28
Taxi	0	0	0	0	0	0	1	1	2
Motorcycle, scooter or moped	0	0	0	0	0	0	2	2	4
Driving a car or van	69	41	110	33	34	67	569	570	1139
Passenger in a car or van	0	1	1	1	1	1	7	7	14
Bicycle	0	1	1	0	0	1	3	3	6
On foot	42	39	81	12	15	27	353	338	691
Other method of travel to work	0	0	0	0	0	0	1	1	2
Total	**117**	**97**	**213**	**59**	**57**	**116**	**1028**	**1016**	**2045**

Net Change in Trip Generation

7.34 The net change in multi-modal trip generation is outlined in **Table 7.11**.

Table 7.11: Net Change in Trip Generation

Mode	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)			Daily (07:00-19:00)		
	Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way
Underground, metro, light rail, tram	4	11	15	9	5	14	69	71	140
Train	0	2	2	1	1	2	10	10	20
Bus, minibus, or coach	1	2	3	2	1	3	14	14	28
Taxi	0	0	0	0	0	0	1	1	2
Motorcycle, scooter or moped	0	0	0	0	0	0	2	2	4
Driving a car or van	26	27	53	20	18	38	258	264	522
Passenger in a car or van	0	1	1	1	1	1	7	7	14
Bicycle	0	1	1	0	0	1	3	3	6
On foot	15	15	30	5	6	11	132	127	259
Other method of travel to work	0	0	0	0	0	0	1	1	2
Total	**47**	**59**	**105**	**39**	**32**	**71**	**496**	**499**	**996**

7.35 Details on the impact of the net change in multi-modal trip generation are provided in **Section 8**.

Proposed Servicing Trips

Healthcare Hub

7.36 The proposed healthcare hub is a re-provision of the existing Northwood Health Centre, with an increase in floorspace of 512.1m2, and on this basis the servicing and delivery trips will already be on the local transport network surrounding the site. No increase in servicing and delivery trips is anticipated to be associated with the proposed healthcare hub.

7.37 On this basis, only the proposed residential development will generate new delivery and servicing trips, and this is outlined below.

Residential

7.38 The forecast servicing and delivery trip rates (for Other Goods Vehicles (OGVs) and Light Goods Vehicles (LGVs)) associated with the residential use have been extracted from the TRICS database. A full copy of the TRICS report is included in **Appendix K**.

7.39 The weekday servicing trip rates per dwelling for private residential flats is set out in **Table 7.12**.

Table 7.12: Servicing Trip Rates (Private Residential Flats)

Servicing Trip Rates per Dwelling	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)			Daily (07:00-19:00)		
	Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way	Arr.	Dep..	Two-Way
LGVs	0.003	0.003	0.006	0.015	0.013	0.1028	0.165	0.154	0.319
OGVs	0	0	0	0.003	0.003	0.006	0.027	0.026	0.053

7.40 The servicing trip rates for LGVs and OGVs in **Table 7.12** have been applied to the proposed development unit mix of 70 private residential units, to ascertain the forecast number of LGV and OGV movements in the AM and PM peak period, and also over the daily period. **Table 7.13** shows the servicing trip generation for the proposed residential units.

Table 7.13: Proposed Servicing Trips

Servicing Trip Generation per Dwelling	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)			Daily (07:00-19:00)		
	Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way
LGVs	0	0	0	1	1	2	12	11	23
OGVs	0	0	0	0	0	0	2	2	4

7.41 A total of 27 daily servicing and delivery trips are forecast for the residential use of the proposed development. The servicing and delivery trips will mostly consist of small to medium sized vans relating to deliveries, with a small number of larger vehicles collecting the general and recycling waste.

7.42 Further details about the impacts of the servicing and delivery vehicles are provided in **Section 8** of this report.

8 IMPACT ASSESSMENT

Introduction

8.1 This section of the report sets out the impact the proposed development is forecast to have on walking, cycling, public transport and the local highway network.

Walking and Cycling Impacts

8.2 The forecast number of walk and cycle trips associated with the proposed development are shown in **Table 8.1**.

Table 8.1: Net Change in Walk and Cycle Trips

Mode	AM Peak Hour		PM Peak Hour		Daily	
	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.
Walk	15	15	5	6	132	127
Cycle	0	1	0	0	3	3
Total	**15**	**16**	**5**	**6**	**135**	**130**

8.3 **Table 8.1** shows that the proposed development is expected to generate an additional 31 walking and cycling trips in the morning peak hour and 11 walking and cycling trips in the evening peak hour.

8.4 The pedestrian and cycling infrastructure currently in place are considered appropriate to accommodate the forecast number of movements by walking and cycling.

Public Transport Impacts

8.5 **Table 8.2** presents the forecast increase in public transport trips associated with the proposed development for the morning and evening peak hours.

Table 8.2: Net Change in Public Transport Trips

Mode	AM Peak Hour		PM Peak Hour		Daily	
	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.
Underground	4	11	9	5	69	71
Rail	0	2	1	1	10	10
Bus	1	2	2	1	14	14
Total	**5**	**15**	**12**	**7**	**93**	**95**

8.6 As illustrated in **Table 8.2**, a total of 20 additional passengers during the morning peak and 19 passengers on the evening peak are forecast to travel by public transport.

8.7 As described in **Section 3**, the site is accessible by bus services 282, H11 and H13 stopping at nearby bus stops within 300 metres walking distance of the site. Northwood Health Centre Bus Stop G (westbound) and H (eastbound) are located on Pinner Road (A404) approximately within 100 metres of the site. Stanley Road Bus Stop K (southbound) is located on Northwood Way within 300 metres of the site. During the morning peak hour, there is a combined frequency of 22 buses per hour at the three bus stops. During the evening peak hour, there is a combined frequency of 21 buses per hour at the three bus stops. It is considered three additional bus passengers in both the morning and evening peak hour can be accommodated on the existing level of bus services.

8.8 Northwood Hills Underground Station is located approximately 600 metres from the site and provides access to the Metropolitan Line. It is considered that the existing underground services from Northwood Hills Underground Station will be able to accommodate the additional 15 underground passengers in the morning peak hour and 14 underground passengers in the evening peak hour.

Local Highway Impacts

8.9 The trip generation analysis shows that the proposed development is forecast to generate 53 two-way vehicle movement in the morning and 38 two-way vehicle movements in the evening peak hours.

8.10 However, the analysis makes no allow for the historic Northwood Cottage Hospital use of the site, which previously generated traffic levels above the predicted net impact. The trip generation methodology for the healthcare hub is also robust and it is unlikely that the trips will increase on a pro-rata basis. The healthcare hub will provide improved facilities to serve the existing local catchment. This is also demonstrated by the small uplift from 17 FTE existing staff to 21 FTE staff to serve the proposed healthcare hub. The assessment is therefore considered to be overly robust.

8.11 The development traffic will also be distributed across three access junctions; Pinner Road (A404), Juniper Close and Neal Close. It is considered that this would cause a negligible impact on the operation of the local highway network.

Parking Impacts

8.12 The proposal is to provide a total of 52 car parking spaces for the healthcare hub and 69 car parking spaces for the two residential blocks. A total of 121 car parking spaces for the development.

8.13 Of the healthcare hub car parking spaces, 33 will be accessed via Pinner Road (A404) and 19 via Juniper Close. Of the residential car parking spaces, 66 will be accessed via Neal Close and 3 via Pinner Road (A404). The predicted vehicle generation for the proposed healthcare hub and residential use (**Section 6**) demonstrates that in the morning and evening peak hours, the respective car parks for each use do not reach full occupancy and are therefore not residually impacted.

8.14 The location of the development site offers great opportunities to maximise travel by sustainable modes, minimise car travel and minimise the parking impacts based on the following:

- The location of the site to local bus stops and Northwood Hills Underground Station, in addition to the proximity of the site to local community, education, health, retail and recreational facilities and services as shown in **Section 3**;
- The site is also highly accessible on foot and by cycle; and
- The proposed cycle parking exceeds the minimum requirements set out within the Hillingdon Local Plan: Part 2 – Development Management Policies (January 2012) for the residential use and London Plan (2021) for healthcare use.

Servicing and Delivery Vehicle Impacts

8.15 **Section 5** and **6** of this TS covers the servicing and delivery arrangement for the proposed development. The proposals include waste storage (recycling and non-recycling) facilities which are conveniently located for both the residential and healthcare hub uses, within close proximity to the bin store entrance so that bins can be easily manoeuvred within 10 metres to the refuse vehicle on collection days.

8.16 Servicing and waste collection vehicles for the healthcare hub, will utilise the vehicle access points from the northern side of Pinner Road (A404) and stop outside the building. As shown in the swept path drawing in **Appendix I**, the servicing and waste vehicle can safely manoeuvre and access the site in forward gear.

8.17 Servicing and waste collection for the residential use of the development, will utilise the vehicle access point from the southern side of Neal Close and stop outside the bin stores located on the ground floor of Blocks A and B. The vehicle will stop at a location so that refuse and recycling bins will not need to be transported more than 10m from the bin store to the vehicle. As shown in the swept path drawing in **Appendix I**, the servicing and waste vehicle can safely manoeuvre and access the site in forward gear.

8.18 Over the daily period, 27 additional servicing trips are forecast to be generated by the proposed development. It is considered that the proposed number of additional refuse and delivery vehicles will have a negligible impact on the local highway network.

9 MITIGATION

Introduction

9.1 This section of the Transport Assessment sets out the measures proposed to minimise any transport impacts associated with the proposed development.

Framework Travel Plan

9.2 A separate Framework Travel Plan (FTP) will be submitted as part of this planning application and separate Residential and Workplace Travel Plans will be prepared prior to occupation in accordance with TfL's Travel Planning Guidance.

9.3 The FTP will be prepared in accordance with TfL's web-based guidance for Travel Plans. A Travel Plan is a long-term strategy, adopted by an occupier, with the objective of reducing private car use in favour of more sustainable modes of travel. This will be achieved in the FTP by:

- Increasing awareness to the advantages and potential for travel by more environmentally friendly modes of transport;
- The introduction of various measures that will facilitate travel by non-car modes of transport;
- The setting of mode share targets to reflect a reduction in car use;
- The monitoring of these targets as well as the operation of the Travel Plan itself; and
- Identification of a package of appropriate measures which will be implemented to promote sustainable travel to reduce car dependency amongst future residents, visitors, and staff, and to identify monitoring and reporting protocol.

9.4 The developer is committed to the implementation of appropriate measures included within the FTP and will appoint a Travel Plan Co-ordinator (TPC) to carry out the commitment.

9.5 An agreed mechanism between LBH and the TPC will be in place to ensure that the travel plan continuously develops; therefore, the plan will be regularly monitored, reviewed, and revised.

Cycle Parking Provision

Residential

9.6 A total of 111 long-stay secure, covered, and accessible cycle parking spaces will be provided on-site for the residential Block A and B. A 50/60 split will be provided between Blocks A and B, based on the number of residential units provided in each Block.

9.7 The quantum of cycle parking spaces is above the minimum requirement and therefore accords with the Hillingdon Local Plan: Part 2 – Development Management Policies (January 2012) guidance. The level of provision has also been accepted by the LBH Highways.

9.8 The location and layout of the cycle parking spaces for the residential use of the development is illustrated in the development plans attached at **Appendix B**.

Healthcare Hub

9.9 It is assumed that all the 21 staff members are FTE to provide the maximum number of cycle parking spaces. The minimum cycle parking standards outlined in the London Plan (2021) state that 1 long-stay cycle parking space should be provided per 5 FTE staff and 1 short-stay cycle parking space should be provided per 3 FTE staff.

9.10 Based on the capacity for 21 FTE staff, the minimum requirement of cycle parking spaces would be 4 long-stay and 7 short-stay cycle parking spaces.

9.11 The development proposals include for the provision of 20 cycle parking spaces for the healthcare hub, comprised of both long and short-stay spaces and 10 spaces will have 'Sheffield' stands capable of accommodating large, adapted cycles. The quantum of cycle parking spaces is above the minimum requirement and therefore accords with the London Plan (2021) guidance.

9.12 Lockers, showers and changing facilities will be provided for staff.

9.13 The location and layout of the cycle parking spaces for the healthcare hub use of the development is illustrated in the development plans attached at **Appendix B**.

10 SUMMARY AND CONCLUSION

10.1 This Transport Assessment (TA) has been prepared to support the proposed redevelopment of Northwood and Pinner Cottage Hospital, Pinner Road, HA6 1DE.The redevelopment site is in Northwood, London and includes two adjacent plots of land referred to as Northwood Cottage Hospital and Northwood Health Centre. The site is located within the London Borough of Hillingdon (LBH).

10.2 The Northwood Cottage Hospital site is predominantly vacant but partly occupied by London Ambulance Services. The site is accessed from the south via Pinner Road with two vehicle access points provided. A zebra crossing is located between the two vehicle access points allowing a safe crossing point across Pinner Road.

10.3 The Northwood Health Centre site is a fully operational health facility providing primary and community care. Vehicle access to the site is provided from Neal Close to the north of the site, which links to Pinner Road via Addison Way and Acre Way.

10.4 The development proposals involve the provision of a new healthcare hub measuring approximately 1,473m^2 at the Northwood Cottage Hospital site. A residential development in the form of two 4-storey buildings comprising circa 70 units is also proposed. Block A will be located at the Northwood Cottage Hospital site and comprise 32 units and Block B will be located at the Northwood Health Centre site and comprise 38 units.

10.5 A total of 111 long-stay secure, covered, and accessible cycle parking spaces will be provided on-site for the residential Block A and B. A 50/60 split will be provided between Blocks A and B, based on the number of residential units provided in each Block. The development proposals include for the provision of 20 cycle parking spaces for the healthcare hub, comprised of both long and short-stay spaces.

10.6 The application site is accessible to several local facilities and public transport services. The site has been outlined to have a PTAL ranging between 1b and 2, however it has been demonstrated from the TIM Mapping tool that the site is highly accessible to several key destinations within a 60-minute travelling time.

10.7 The site is located within 600 metres of Northwood Hills Underground Station, which is served by the Metropolitan Line. This Underground Station provides a link to key destinations across London. It has been demonstrated that there are a range of local community, education, health, and retail facilities in the vicinity of the site.

10.8 Two bus stops are located within 300 metres walking distance of the site and are served by the bus routes; 282, H11 and H13. During the morning peak hour there is a minimum combined frequency of 25 buses per hour and during the evening peak hour there is a combined frequency of 24 buses per hour, at the nearby bus stops.

10.9 It has been shown that there is a good provision of walk and cycle infrastructure located nearby the site, which provides links to several key destinations.

10.10 Traffic survey data has been used to form the basis of the existing trip generation assessment. Manual Classified Counts (MCC) traffic surveys were carried out on Saturday 8th February and Monday 10th February 2020 at the vehicular access points to the site from Pinner Road (A404) and Neal Close. The proposed trip generation assessment has considered both the residential

and healthcare hub uses of the development. A net change in multi-modal trip generation has been calculated.

10.11 A distribution of the vehicle trips generated by the development from the different access points has been calculated and assessed within the trip generation assessment.

10.12 It has been concluded that the trip generation associated to walk, cycle, public transport, private car modes and servicing and delivery vehicles will not have a material impact on the local transport network.

10.13 To minimise any transport impacts associated with the proposed development, the applicant will provide above the minimum requirement of cycle parking spaces, as outlined in the within the Hillingdon Local Plan: Part 2 – Development Management Policies (January 2012) for residential use and London Plan (2021) for the healthcare use. A separate Travel Plan (TP) will also be submitted as part of the planning application in accordance with TfL Travel Planning Guidance (2013).

10.14 To conclude, this TA demonstrates that the proposed development will provide safe and suitable access to the development and the residual cumulative impact of the development is not severe. Furthermore, there will be several sustainable travel options to the development, which will benefit the site. As such, there is no transport reason why the development should not be permitted.

Appendices

Appendix A – Site Location Plan

NOTES

1. This drawing has been prepared in accordance with the scope of RPS's appointment with its client and is subject to the terms and conditions of that appointment. RPS accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided.
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Rev	Description	By	CB	Date

MAKING COMPLEX EASY

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Client NHS Property Services Ltd

Project Northwood & Pinner NHS

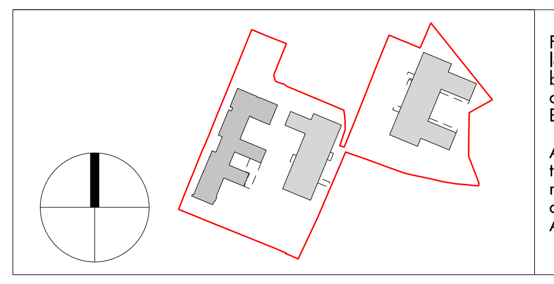
Title Site Location Plan

Status	Drawn By	PM/Checked by
INFORMATION	BD	JC
Project Number	Scale @ A3	Date Created
JNY10245	NTS	11.03.2021
RPS Drawing/Figure Number		Rev
JNY10245-14		-

rpsgroup.com

Drawing Ref: P:\JNY10245 - Northwood & Pinner NHS\Highways\Drawings\JNY10245-14 Site Location Plan.dwg

Appendix B – Proposed Development Plan



Figured dimensions are in millimetres unless noted otherwise. All dimensions and levels shall be verified on site before proceeding with works. Detailed site survey to be carried out to verify positions and level relationships with site features and ordnance survey. The Architect must be notified of any discrepancy.
Boundaries are indicative only and are to be verified by others.

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A&M JOB NO: 17115_05

NHS - NORTHWOOD AND PINNER, LONDON
PROPOSED LEVEL 00 SITEWIDE PLAN
PLANNING
17115_05_00_07_100

SCALE 1:250 @A1 1:500@A3

P1
Revision

ADDISON WAY

ACRE WAY

NEAL CLOSE

NORTHWOOD WAY

JUNIPER COURT

BLOCK B

Drop off

BLOCK A

HEALTH-CENTRE

Drop off

Drop off

SOVEREIGN COURT

WAVERLEY GARDENS

PINNER ROAD

JASMIN CLOSE

ROBINA CLOSE

KEY:

GATE

PEDESTRIAN ACCESS

RESIDENTIAL ENTRANCE

HEALTHCARE ENTRANCE

VEHICULAR ACCESS

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NHS - NORTHWOOD AND PINNER, LONDON

PROPOSED SITEWIDE ACCESS AND ROUTES PLANNING

17115_05_00_07_051

SCALE 1:500 @A1 1:1000@A3

P1

Revision

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PROPOSED SITEWIDE REFUSE STRATEGY PLANNING

17115_05_00_07_054

SCALE 1:500 @A1 1:1000@A3

P1
Revision

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PROPOSED SITEWIDE PARKING STRATEGY
PLANNING
17115_05_00_07_053

SCALE 1:500 @A1 1:1000@A3

P1
Revision