



ttp consulting
transport planning specialists

106 Hampstead Road, Camden

Transport Statement

December 2020

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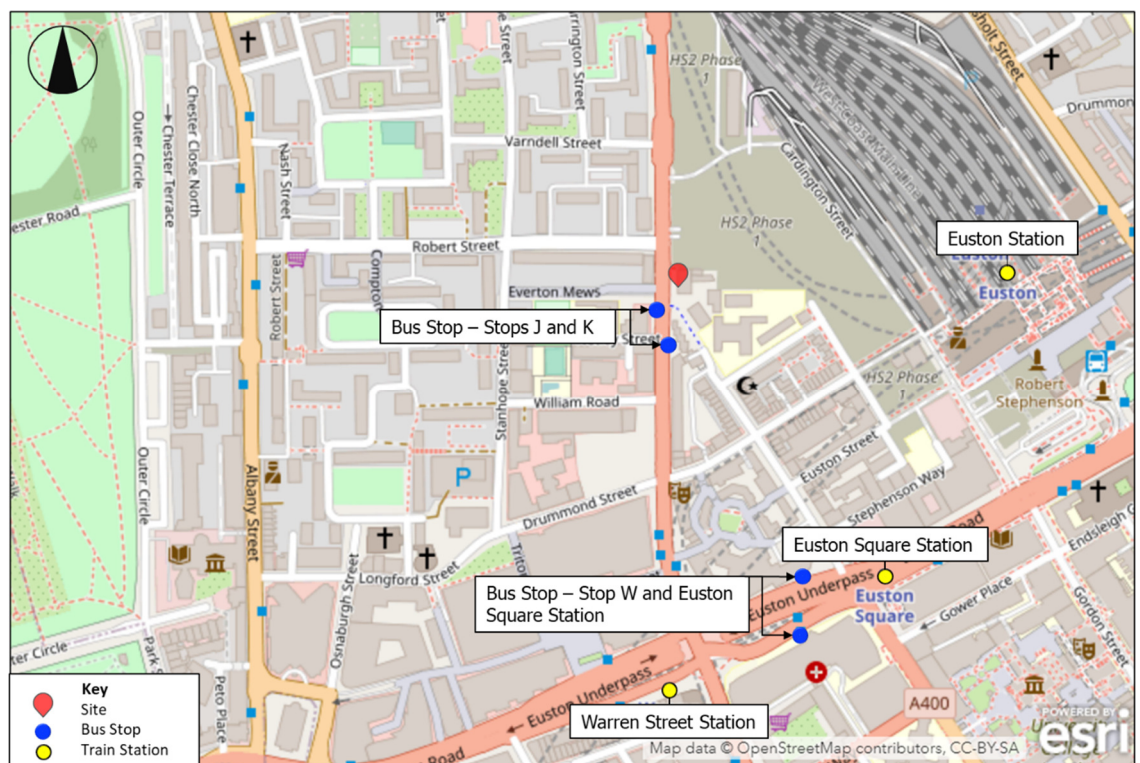
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1 INTRODUCTION

- 1.1 TTP Consulting has been appointed to provide transport and traffic advice in relation to the permitted development proposals for 2 new 1-bed units on top of the existing office and residential building at 106 Hampstead Road, in the London Borough of Camden (LBC).
- 1.2 The site is located on the east side of Hampstead Road, in a highly accessible, Central London location. It achieves a Public Transport Accessibility Level (PTAL) rating of 6b, the highest score possible, as a result of being located within a short walking distance of numerous bus routes and rail and underground services associated with Warren Street, Euston and Euston Square. The site location is shown at **Figure 1.1**.

Figure 1.1 – Site Location Plan



- 1.3 This application seeks permitted development rights to allow for the provision of 2 x 1-bed units above the existing office and residential building. No car parking is proposed, and the units would be subject to a permit-free agreement, preventing residents from obtaining permits to parking on the streets surrounding the site.
- 1.4 'Class AB' of Schedule 2 of the Town and Country Planning (General Permitted Development) (England) (Amendment) (No. 2) Order 2020 came into force in on the 31st August 2020.
- 1.5 The legislation for Class AB (new dwellinghouses on terrace buildings in commercial or mixed use) includes permitted development for:

"AB.—(1) Development consisting of works for the construction of new dwellinghouses immediately above the topmost storey on a terrace building"

1.6 Under the conditions it states:

"AB.2 - (1) Where any development under Class AB is proposed, the development is permitted subject to the condition that before beginning the development, the developer must apply to the local planning authority for prior approval as to:

(a) Transport and highways impacts of the development

and the provisions of paragraph B (prior approval) of this Part apply in relation to that application"

1.7 In relation to highways matters, paragraph B refers to the following:

"(5) Where the application relates to prior approval as to transport and highways impacts of the development, on receipt of the application where in the opinion of the local planning authority the development is likely to result in a material increase or a material change in the character of traffic in the vicinity of the site, the local planning authority must consult—

(a) where the increase or change relates to traffic entering or leaving a trunk road, the highway authority for the trunk road;

(b) the local highway authority, where the increase or change relates to traffic entering or leaving a classified road or proposed highway, except where the local planning authority is the local highway authority; and

(c) the operator of the network which includes or consists of the railway in question, and the Secretary of State for Transport, where the increase or change relates to traffic using a level crossing over a railway.

(15) The local planning authority must, when determining an application:

(a) take into account any representations made to them as a result of any consultation under sub-paragraph (5), (6), (7), or (10) and any notice given under sub-paragraph (12);

(b) have read to the National Planning Policy Framework issues by the Ministry of Housing, Communities and Local Government in February 2019, so far as relevant to the subject matter of the prior approval, as if the application were a planning application"

1.8 In summary, the acceptability of the proposals relies on the definition of what is material and what impact arises from the proposals.

1.9 The remainder of the report is structured as follows:

- Section 2 describes the existing situation;
- Section 3 sets out the relevant national, regional and local policy;
- Section 4 details the proposals and considers the effect of the development; and
- Section 5 summarises and concludes.

2 EXISTING CONDITIONS

The Site and Surrounding Area

- 2.1 The existing building provides circa 138 square metres (sqm) of office floorspace at ground and lower ground floor level, and 2 x 2-bed residential units across first and second floor level. Separate pedestrian access is provided from Hampstead Road for both uses whilst all associated vehicle activity is undertaken on-street.
- 2.2 The surrounding area provides a mix of uses with numerous local amenities within a walking distance of the site.

Local Highway Network

- 2.3 The site fronts onto Hampstead Road (A400) which forms part of the Transport for London (TfL) road network. To the south, Hampstead Road connects with Tottenham Court Road and Euston Road (A501) which forms part of the Inner London Ring Road, whilst to the north, it connects with Camden High Street.
- 2.4 Outside the site, Hampstead Road is two-way with a single lane of traffic in each direction. The frontage is subject to white zig zag markings associated with the signalised crossing point immediately north. South of the zig zag markings, there is a short section of double red lines and a marked bay that allows loading for 20 minutes and parking for blue badge holders for 3 hours, between the hours of 8am – 7pm, Monday to Saturday. Another marked bay is located on the west side of the carriageway. To the north of the zig zag markings there is a central reservation and a right turning lane serving access into Robert Street.

Accessibility

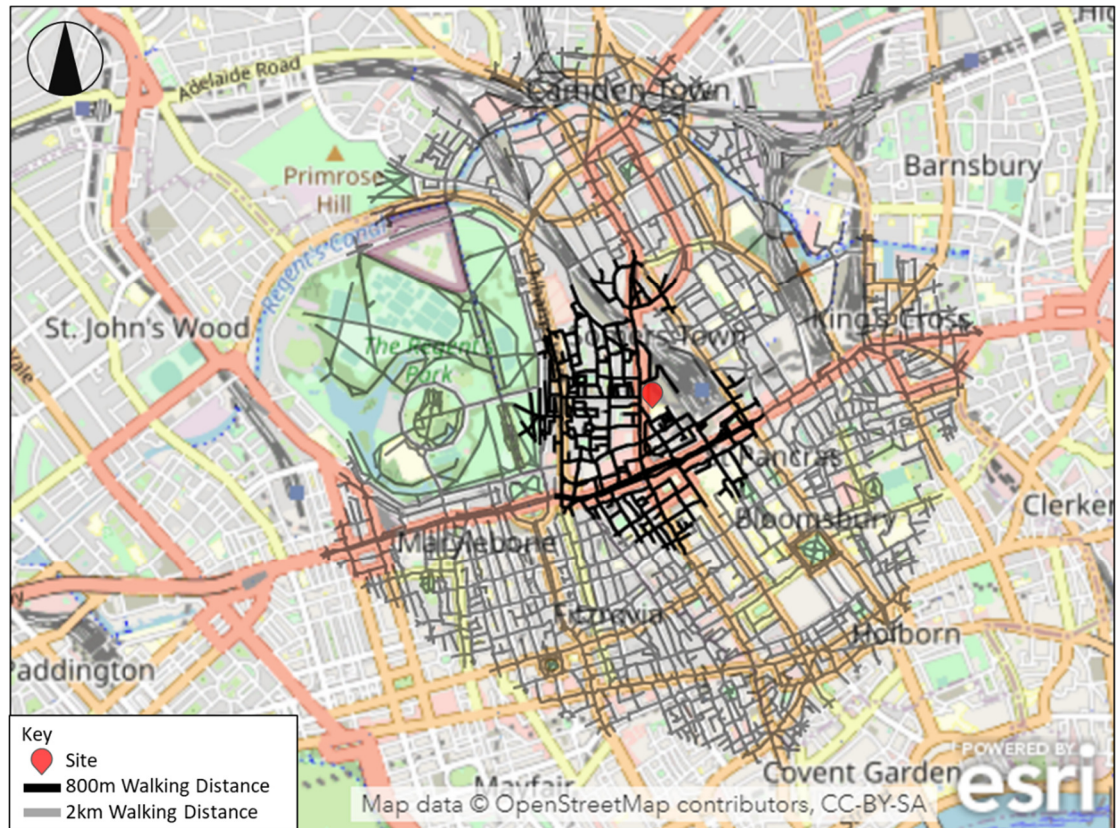
- 2.5 The site is accessible by a variety of modes of transport with a large number of amenities within a reasonable walking distance of the site. The following paragraphs summarise the site's accessibility by non-car modes.

Walking

- 2.6 Like much of London the site benefits from being within a short walking distance of public transport opportunities, local facilities and amenities as well as residential areas. Roughly half of all walking journeys in London are part of longer public transport journeys, for example walking to or from the bus stop or tube / train station, whilst a third of car journeys are within a 25-minute (2km) walk, suggesting there are real opportunities for active modes to replace the car.

- 2.7 **Figure 2.1** provides details of an 800m (10-minute) and 2km (25-minute) catchment zone surrounding the site. The map shows that several retail and employment areas that could be accessed on foot including King's Cross, Camden Fitzrovia, Marylebone and Bloomsbury.

Figure 2.1 – Walking Isochrone Map

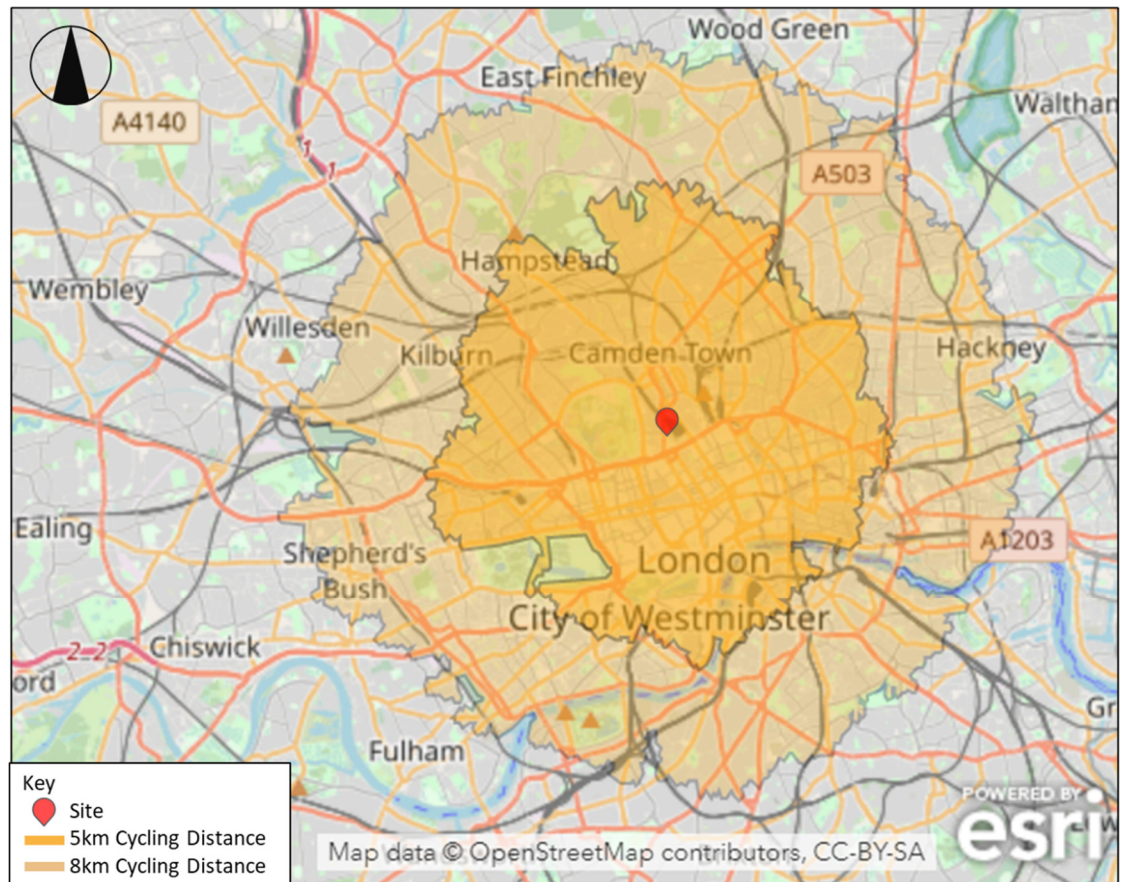


- 2.8 The walking environment in the vicinity of the site is of a good standard with wide footways provided on both sides of the carriageway, connecting the site to the wider pedestrian routes that serve public transport facilities and local amenities.
- 2.9 A crossing point across Hampstead Road is provided immediately north of the site. The crossing point is signal controlled with green-man push-button facilities, and served by dropped kerbs, tactile paving and a pedestrian island.

Cycling

- 2.10 It is generally accepted that cycling is a sustainable mode of travel for journeys up to 8km in length, although in London, longer journeys are commonplace. **Figure 2.2** shows a 5km and 8km cycling catchment from the site. The map shows that the majority of central London can be reached within a 5km cycle of the site, whilst areas such as Hampstead, Kensington, Shepherd's Bush, Hackney and Kennington are located within an 8km cycle of the site.

Figure 2.2 – Cycling Isochrone Map



- 2.11 TfL's Journey Planner tool allows for cycle route planning dependent on the difficulty of the route, being fast, moderate or easy. From the site the following destinations can be reached within various journey times:
- Euston (1 minutes / 1 minutes / 2 minutes);
 - Kings Cross/ St Pancras (7 minutes / 11 minutes / 13 minutes);
 - Paddington (10 minutes / 13 minutes / 18 minutes); and
 - Waterloo (11 minutes / 15 minutes / 20 minutes).
- 2.12 Hampstead Road provides a bus lane south of the site which accommodates cyclists travelling in a southbound direction. In addition, a marked cycle lane is provided north of the site servicing cyclists travelling north. Cycle parking stands are also provided outside of the site on the footway, whilst more are provided outside the neighbouring building. In total, there are 10 stands in the immediate vicinity.
- 2.13 There are two Santander docking stations located within 450m distance of the site. This includes stations on Albany Street to the west and Drummond Street to the southeast. These provide 27 and 28 bikes respectively. Bike hangar storage facilities are also located on Robert Street and other locations close to Warren Street and Mornington Crescent.

Public Transport Accessibility

- 2.14 Public Transport Accessibility Levels (PTALs) are a theoretical measure of the accessibility of a given point to the public transport network, considering walk access time and service availability. The method is essentially a way of measuring the density of the public transport network at a particular point. The scale has a range of 0 (worst) to 6b (best), with 6b demonstrating high level of accessibility.
- 2.15 The site has a PTAL level of '6b', demonstrating that it has the best level of accessibility to public transport. The PTAL report is included at **Appendix A**.

By Bus

- 2.16 The closest bus stops, stops 'J' and 'K', are located approximately 70m south of the site on Hampstead Road. Both stops provide shelter, seating and timetable information as well as access to 7 bus routes. **Table 2.1** provides a summary of the local bus routes. A copy of Transport for London's bus route spider map is also included at **Appendix B**.

Table 2.1 – Summary of Local Bus Services					
Bus Stop	No.	Destination	Frequency (every 'x' minutes)		
			Mon-Fri	Saturday	Sunday
Stops 'J' And 'K'	24	Grosvenor Road – Royal Free Hospital	8 - 12	9 - 12	11 - 14
	27	Hammersmith Station – Chalk Farm/ Morrison's	6 - 8	7 - 10	11 - 12
	29	Lordship Lane – Trafalgar Square/ Charring Cross Station	6 - 8	6 - 9	6 - 9
	134	North Finchley Bus Station – University College Hospital/ Euston Road	6 - 10	6 - 10	9 - 10
	N27	Hammersmith Bus Station – Chalk Farm/ Morrison's	30	30	30
	N29	Little Park Gardens – Trafalgar Square/ Charring Cross Station	9 - 12	9 - 11	9 - 12
	N279	Waltham Cross Bus Station – Trafalgar Square/ Charring Cross Station	19 - 20	18 - 20	19 - 20

By Underground/Rail

- 2.17 Warren Street Station is located approximately 400m to the south of the site. The station is served by Northern Line services between Edgware and Morden, and High Barnet. The station also provides access to Victoria Line services between Brixton and Walthamstow Central.
- 2.18 Euston Square Station is located approximately 510m south east of the site. It is served by Metropolitan line services between Aldgate and Uxbridge, Watford, Amersham and Chesham. Hammersmith and City Line services are also provided between Hammersmith and Barking whilst Circle Line services are available between Hammersmith and Edgware Road.
- 2.19 Euston Station provides access to the wider UK rail network and is located approximately 580 metres east of the site. Euston is served by Avanti West Coast, North Western Rail and London Overground trains providing access to places such Birmingham, Northampton, Liverpool, Manchester and Edinburgh.

3 POLICY

National Policy

- 3.1 The revised National Planning Policy Framework was most recently updated in June 2019 setting out the Government's planning policies for England and how these are expected to be applied.
- 3.2 When considering the transport effects of a development, NPPF 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."*
- 3.3 Paragraph 109 advises that:
- "Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."*
- 3.4 Paragraph 110 states that:
- "Within this context, applications for development should:*
- a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*
 - b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*
 - c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
 - d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and*
 - e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations."*

Regional Policy

London Plan

- 3.5 The London Plan is a Spatial Development Strategy which sets out the framework for the development of London over a period of 20-25 years and was published in March 2016.
- 3.6 With regards to maximum car parking standards the London Plan advises that residential developments with 1-2 bedrooms should provide less than 1 car parking space per unit. Table 6.3 of the London Plan summarises the minimum cycle standards for different land uses. The relevant minimum cycle parking standards are set out in **Table 3.1**.

Table 3.1 – Cycle Parking Current London Plan Minimum Standards		
Use Class	Long-stay	Short-stay
C3 (Residential)	1 space per 1 bed unit 2 spaces per 2+ bed unit	1 space per 40 units

Intend to Publish London Plan

- 3.7 The Intend to Publish London Plan (December 2019) has been recommended for further review and revision by the Secretary of State (March 2020). The current 2016 plan is still the adopted Development Plan; however, the Intend to Publish London Plan is a consideration in planning decisions. The document strives to promote a healthier and more active London with improving air quality and reducing car parking provision at the forefront of the plan.
- 3.8 Policy T5, 'Cycling', suggests that barriers to cycling can be removed and that a healthy environment in which people choose to cycle can be created through appropriate levels of cycle parking which are fit for purpose, secure and well-located. The cycle parking standards as set out in Table 10.2 of The Intend to Publish London Plan are summarised in **Table 3.2**.

Table 3.2 – Minimum Cycle Parking Standards		
Use Class	Long-stay	Short-stay
C3 Dwellings (all)	1 space studio or 1 person 1-bedroom dwelling 1.5 spaces per 2-person 1-bedroom dwelling 2 spaces per all other dwellings	5 to 40 dwellings: 2 spaces Thereafter: 1 space per 40 dwellings

- 3.9 Policy T6 'Car Parking' suggests that car parking should be restricted in line with levels of existing future public transport accessibility and connectivity. The maximum car parking standards are set out in Policy T6.1 Residential parking, and these should be applied to development proposals and used to set local stands within development plans. The maximum car parking standards are set out in table 10.3 of the Intend to Publish London Plan, with the relevant standards set out in **Table 3.3**:

Table 3.3 – Maximum Residential Parking Standards	
Location	Maximum parking provision
Central Activities Zone Inner London Opportunity Areas Metropolitan and Major Town Centres All areas of PTAL 5 – 6	Car free

Local Policy

Camden Local Plan

- 3.10 The Local Plan was adopted by the Council on the 3rd July 2017 and has replaced the Core Strategy and Camden Development Policies documents as the basis for planning decisions and future development in the borough.
- 3.11 Chapter 10 provides details on the transport policy objectives for the borough including:
- *Policy T1 - Prioritising walking, cycling and public transport;*
 - *Policy T2 - Parking and car-free development;*
 - *Policy T3 - Transport infrastructure; and*
 - *Policy T4 - Sustainable movement of goods and materials.*
- 3.12 With regards to cycle parking the document states that developments should provide for accessible, secure cycle parking facilities exceeding minimum standards outlined within the London Plan.
- 3.13 For car parking, the document states that the Council will limit the availability of parking and require all new developments in the borough to be car-free.
- 3.14 For servicing, only developments over 2,500sqm which are likely to generate significant movements of goods or material are expected to provide on-site loading facilities.
- 3.15 Further guidance on transport matters is set out within Camden's Supplementary Guidance, with the adopted document currently being amended.

Policy Summary

- 3.16 Transport policy at all levels advocates locating new developments in areas that are accessible by public transport, walking and cycling or which can be made accessible by these modes and that the level of parking provided at sites in such locations should be reduced.
- 3.17 It is evident that the site is in a sustainable location, being accessible by a choice of travel modes, and a car-free development is also considered suitable in transport policy terms.

4 DEVELOPMENT PROPOSAL AND EFFECTS

- 4.1 This section of the Transport Statement sets out details of the proposals, and transport implications with regards to trip generation, access, car parking, cycle parking, waste storage, waste collection and deliveries.

Proposal Overview

- 4.2 The proposal seeks to provide 2 new residential units above the existing office and residential building, under permitted development rights. The units will be car-free and subject to a permit-free agreement, hence prohibiting future residents from obtaining a parking permit to park on the streets surrounding the site. Waste will be stored internally with bags put out on the street on collection days, whilst delivery and servicing activity will take place on-street in a similar manner to the arrangements for the existing building.

Access

- 4.3 There are no proposed changes to the existing access arrangements from Hampstead Road that currently serve the site. Pedestrian access to the new residential units will be via a reconfigured staircase within the building. There is no associated vehicular access.

Parking

- 4.4 The new units will be car-free and subject to a permit-free agreement, hence prohibiting future residents from obtaining a parking permit to park on the streets surrounding the site. This is appropriate given the site has excellent accessibility and can be secured by condition.
- 4.5 Dedicated cycle parking storage facilities will not be provided internally for residents due to the access constraints associated with the building. Residents may however still choose to store their bike within each individual flat. Alternatively, there is potential for residents to request for new bike hangar locations close to the site, however, ultimately this would have to be requested by any future occupier as part of a separate process. Any visitor parking demand could be served by the existing facilities located outside the site.
- 4.6 Whilst this proposal for additional residential flats under the prior approval process is unable to provide dedicated cycle storage due to the existing access constraints, ownership and access to a cycle is still possible via the provision of bike hangars and docking stations. Furthermore, it is considered that the location and accessibility of the site still contributes to future residents being able to live a car-free lifestyle, utilising alternative modes such as walking or public transport. As such, there is no impact in this regard.

Trip Generation

- 4.7 The proposed development will provide 2 new units each with occupancy for 1 person. The number of extra trips generated is therefore expected to be minimal with typically 2 departures in the morning peak and 2 arrivals in the evening peak.
- 4.8 The residential units will be car-free and subject to a permit-free agreement. Furthermore, the site achieves a PTAL of 6b and benefits from being within walking distance of several National Rail, London Underground and London Overground services as well as being within a 60m walk of numerous bus routes. All trips are therefore expected to be undertaken by non-car modes.
- 4.9 Based on the above, the additional activity generated by the development is unlikely to have a material impact on public transport services or the local road network.

Delivery and Servicing Activity

Deliveries

- 4.10 Deliveries to the residential units will take place on-street within existing loading bays located south of the site, similar to the delivery arrangements for the existing office and residential units.
- 4.11 The 2 additional units are expected to generate no more than 1 delivery per day, comprising of letters / parcels, supermarket deliveries or deliveries of household goods or goods purchased online. Most of these will be undertaken by light goods vehicles such as Luton or Transit style vans with many already travelling in the area in any event as part of their schedule of multiple drop-offs. The anticipated level of additional vehicle activity is considered negligible and not expected to impact the operation of the local road network.

Waste Storage and Collection

- 4.12 Residents will store waste internally within each unit and then place bags on-street at set times on the day of collection. Refuse would be collected by the Council with vehicles stopping on-street outside of the site as per the arrangement for the existing residential units. There will be no increase in associated vehicle movements.

5 SUMMARY AND CONCLUSION

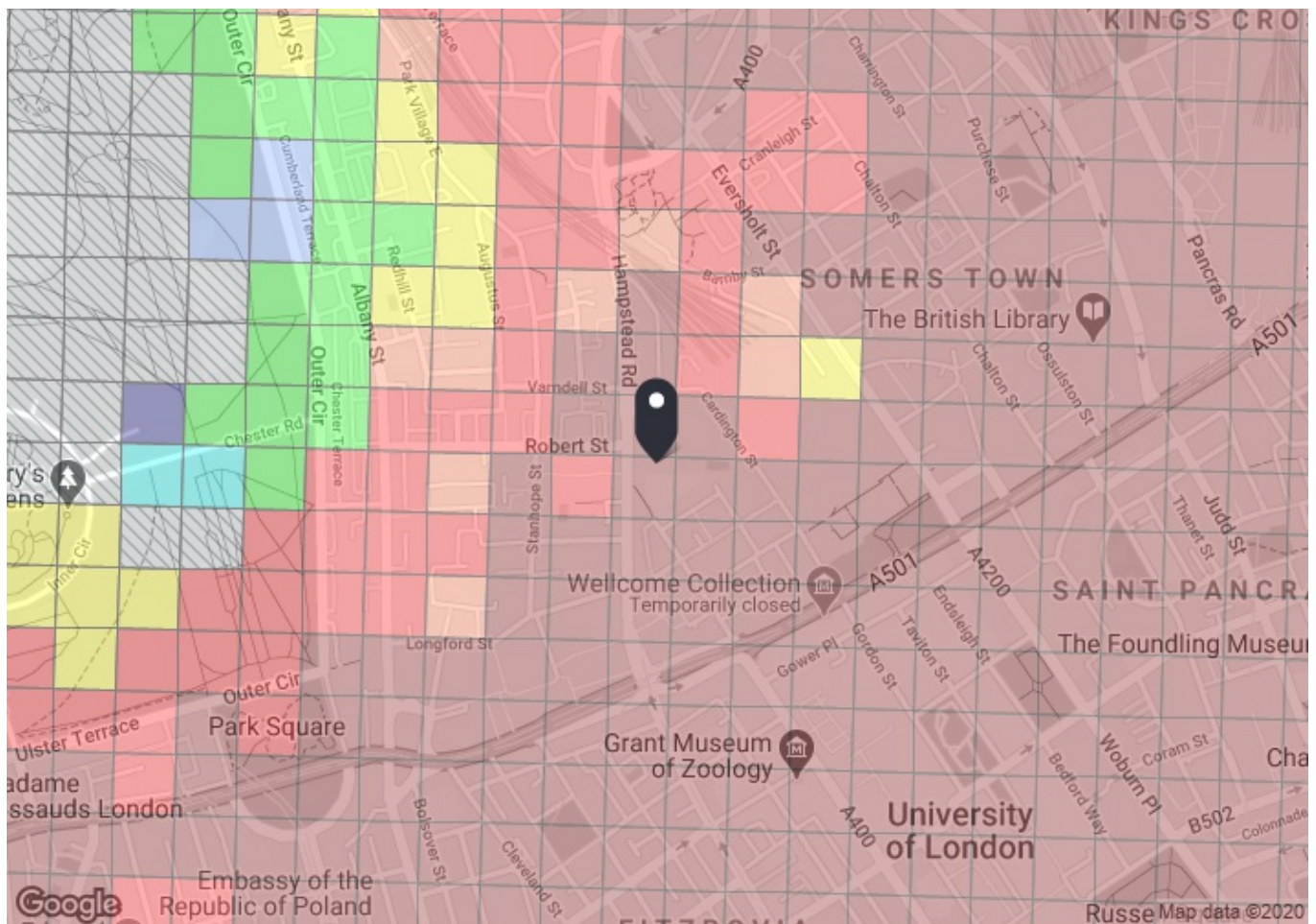
Summary

- 5.1 The applicant is seeking to provide 2 new residential units at 106 Hampstead Road under Permitted Development Rights which give prior approval for new dwellinghouses on terrace buildings in commercial or mixed use.
- 5.2 The proposal has been assessed and can be summarised as follows:
- The building is located within an area of excellent accessibility, close to numerous facilities and public transport services. As such, the majority of trips associated with the site will be undertaken by sustainable modes;
 - The additional trips associated with the new residential units will not lead a detrimental impact to public transport services or the operation of the local road network;
 - The development will be car-free and residents will be subject to a permit-free agreement;
 - There are no proposed changes to the access arrangements that currently serve the site;
 - Whilst dedicated cycle parking will not be provided for residents, ownership and access to bikes is still feasible; and
 - All deliveries and refuse collections will be undertaken in a similar manner to the existing arrangements with a negligible increase in movements.

Conclusion

- 5.3 In light of the above, we conclude that the proposals will not result in an unacceptable impact on the operation of the local highway and transportation network. Furthermore, in accordance with NPPF paragraph 109, the residual cumulative impacts of the development are not considered severe, and, as such, the proposal should not be prevented or refused on transport grounds.

Appendix A



PTAL output for Base Year 6b

NW1 2LS
London NW1 2LS, UK
Easting: 529269, Northing: 182679

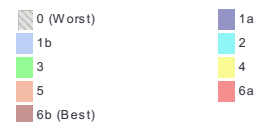
Grid Cell: 91438

Report generated: 08/12/2020

Calculation Parameters

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

Map key - PTAL



Map layers

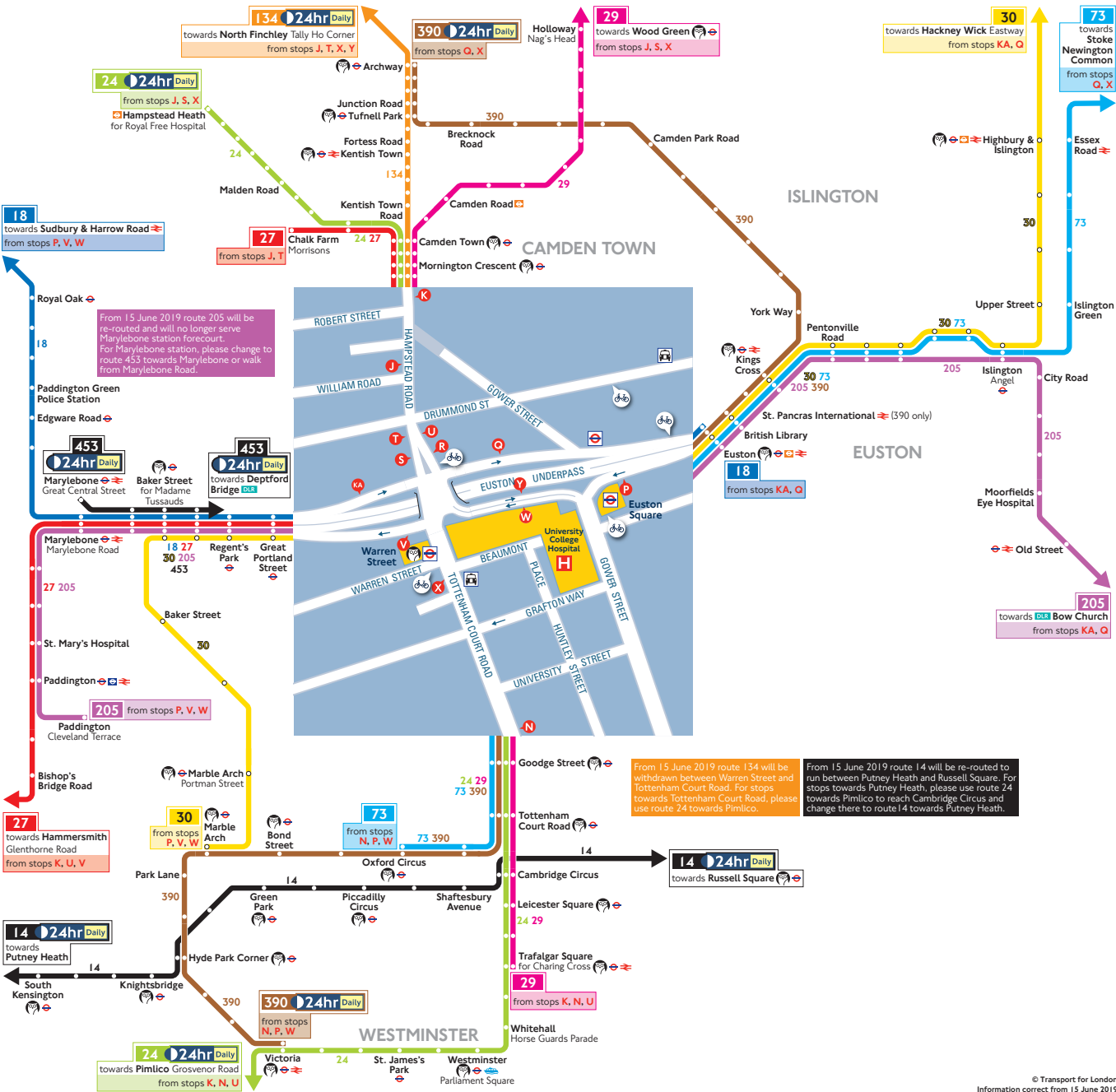
 PTAL (cell size: 100m)

Calculation data

Mode	Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
Bus	WARREN STREET STATION	10	376.83	4.5	4.71	8.67	13.38	2.24	0.5	1.12
Bus	WARREN STREET STATION	390	376.83	8	4.71	5.75	10.46	2.87	0.5	1.43
Bus	WARREN STREET STATION	30	376.83	7.5	4.71	6	10.71	2.8	0.5	1.4
Bus	WARREN STREET STATION	73	376.83	18	4.71	3.67	8.38	3.58	0.5	1.79
Bus	WARREN STREET STATION	18	376.83	17	4.71	3.76	8.48	3.54	0.5	1.77
Bus	WARREN STREET STATION	14	376.83	13	4.71	4.31	9.02	3.33	0.5	1.66
Bus	WARREN STREET STATION	205	376.83	8	4.71	5.75	10.46	2.87	0.5	1.43
Bus	NATIONAL TEMPERANCE HOSP	24	34.59	10	0.43	5	5.43	5.52	0.5	2.76
Bus	NATIONAL TEMPERANCE HOSP	134	34.59	12	0.43	4.5	4.93	6.08	0.5	3.04
Bus	NATIONAL TEMPERANCE HOSP	29	34.59	15	0.43	4	4.43	6.77	1	6.77
Bus	NATIONAL TEMPERANCE HOSP	88	34.59	9	0.43	5.33	5.77	5.2	0.5	2.6
Bus	NATIONAL TEMPERANCE HOSP	27	34.59	8	0.43	5.75	6.18	4.85	0.5	2.43
Bus	ALBANY ST CHESTER GATE	C2	489.09	8	6.11	5.75	11.86	2.53	0.5	1.26
LUL	Great Portland Street	'Edgware-Hammersmith '	782.25	6	9.78	5.75	15.53	1.93	0.5	0.97
LUL	Warren Street	'Morden-Edgware '	366.18	4.67	4.58	7.17	11.75	2.55	0.5	1.28
LUL	Warren Street	'HighBarnet-Morden '	366.18	0.33	4.58	91.66	96.24	0.31	0.5	0.16
LUL	Warren Street	'Kennington-Edgware '	366.18	14.67	4.58	2.79	7.37	4.07	0.5	2.03
LUL	Warren Street	'HighBarnet-Kenningt '	366.18	5.33	4.58	6.38	10.96	2.74	0.5	1.37
LUL	Warren Street	'MillHill-Morden '	366.18	1.67	4.58	18.71	23.29	1.29	0.5	0.64
LUL	Warren Street	'MillHillE-Kenningt '	366.18	1.67	4.58	18.71	23.29	1.29	0.5	0.64
LUL	Warren Street	'Brixton-WalthamstowC'	366.18	15.67	4.58	2.66	7.24	4.14	1	4.14
LUL	Warren Street	'SevenSisters-Brixton'	366.18	11.67	4.58	3.32	7.9	3.8	0.5	1.9
LUL	Euston Square	'Barking-Hammersmith '	515.72	6.34	6.45	5.48	11.93	2.52	0.5	1.26
LUL	Euston Square	'Hammersmith-Plaistow'	515.72	1	6.45	30.75	37.2	0.81	0.5	0.4
LUL	Euston Square	'Aldgate-AmerFast '	515.72	1	6.45	30.75	37.2	0.81	0.5	0.4
LUL	Euston Square	'Ches-AldgateFast '	515.72	2	6.45	15.75	22.2	1.35	0.5	0.68
LUL	Euston Square	'Ald-UxbridgeSlow'	515.72	4.33	6.45	7.68	14.12	2.12	0.5	1.06
LUL	Euston Square	'Watford-AldSfast '	515.72	3.67	6.45	8.92	15.37	1.95	0.5	0.98
LUL	Euston Square	'Aldg-WatfordSlow'	515.72	3.67	6.45	8.92	15.37	1.95	0.5	0.98
LUL	Euston Square	'Ald-HarrowHill '	515.72	1.33	6.45	23.31	29.75	1.01	0.5	0.5
Rail	Euston	'BLTCHLY-EUSTON 2B04 '	868.6	0.33	10.86	91.66	102.52	0.29	0.5	0.15
Rail	Euston	'WATFDJ-EUSTON 2J06 '	868.6	0.67	10.86	45.53	56.38	0.53	0.5	0.27
Rail	Euston	'EUSTON-MKNSCEN 2K21 '	868.6	0.33	10.86	91.66	102.52	0.29	0.5	0.15
Rail	Euston	'EUSTON-TRING 2T11 '	868.6	0.67	10.86	45.53	56.38	0.53	0.5	0.27
Rail	Euston	'EUSTON-TRING 2T19 '	868.6	1.33	10.86	23.31	34.16	0.88	0.5	0.44
Rail	Euston	'MKNSCEN-EUSTON 2W01 '	868.6	0.67	10.86	45.53	56.38	0.53	0.5	0.27
Rail	Euston	'TRING-EUSTON 2W02 '	868.6	1	10.86	30.75	41.61	0.72	0.5	0.36
Rail	Euston	'TRING-EUSTON 2W26 '	868.6	0.33	10.86	91.66	102.52	0.29	0.5	0.15
Rail	Euston	'BLTCHLY-EUSTON 2W57 '	868.6	0.33	10.86	91.66	102.52	0.29	0.5	0.15
Rail	Euston	'RUGBY-EUSTON 2W59 '	868.6	0.33	10.86	91.66	102.52	0.29	0.5	0.15
Rail	Euston	'TRING-EUSTON 2W63 '	868.6	0.33	10.86	91.66	102.52	0.29	0.5	0.15
Rail	Euston	'MKNSCEN-EUSTON 2W93 '	868.6	0.33	10.86	91.66	102.52	0.29	0.5	0.15
Rail	Euston	'WATFJDC-EUSTON 2C06 '	868.6	2.67	10.86	11.99	22.84	1.31	0.5	0.66
Rail	Euston	'EUSTON-WATFJDC 2D86 '	868.6	3	10.86	10.75	21.61	1.39	1	1.39
LUL	Euston	'Edgware-Morden '	868.6	9	10.86	4.08	14.94	2.01	0.5	1
LUL	Euston	'Morden-HighBarnet '	868.6	14.67	10.86	2.79	13.65	2.2	0.5	1.1
LUL	Euston	'Morden-MillHillE '	868.6	4	10.86	8.25	19.11	1.57	0.5	0.79
Total Grid Cell AI:										56.47

Appendix B

Buses from Euston Square and Warren Street



How to use this map

- Find your destination on the map
- See the coloured lines on the map for the bus routes that go to your destination
- Check the map (at the end of each coloured line) for the bus stops to catch your bus from
- Use the central map to find the nearest bus stop for your route
- Look for the bus stop letters at the top of the stop (see example for stop A to the right)

Key

	Connections with London Underground
	Connections with London Overground
	Connections with TFL Rail
	Connections with National Rail
	Connections with DLR
	Connections with river boats
	Cycle hire docking station
	Taxi rank
	Tube/London Overground station with 24-hour service Friday and Saturday nights

Ways to pay

- Use contactless (card or device). It's the same fare as Oyster pay as you go and you don't need to top up
- Download the free TfL app to top up or buy a ticket anytime, anywhere, or visit tfl.gov.uk/oyster. Alternatively, find your nearest Oyster Ticket Stop at tfl.gov.uk/ticketstopfinder or visit your nearest TfL station
- The Hopper fare offers you unlimited pay as you go Bus and Tram journeys within one hour for £1.50. Always use the same card or device to touch in
- If you fail to show on demand a ticket, validated smartcard or other travel authority valid for the whole of your journey you may be liable for a penalty fare or prosecuted.