



**New Homes on
Regent's Park Estate**

SD2 Transport Assessment

May 2015



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Regents Park Estate

Transport Assessment

For



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1.0 EXECUTIVE SUMMARY

- 1.1. The London Borough of Camden (LBC) has commissioned CampbellReith, as part of the Tibbalds multi-disciplinary team to provide transportation and highway advice in support of the development proposals for the Regents Park Estate. In addition to providing transport and highway advice, our commission also includes the preparation of the Transport Assessment to support the Detailed Planning Application.
- 1.2. The Regents Park Estate is located within the south western area of the London Borough of Camden to the north of Euston Road and is a large housing estate which was mostly developed in the 1950s and 1960s. The estate is bounded to the west by Albany Street, to the north by the Euston railway cutting. Hampstead Road forms the eastern boundary of the estate with commercial properties that front onto Euston Road forming the southern boundary.
- 1.3. The main access roads within the estate are Robert Street and Vardell Street, which run on an east-west axis, and Stanhope Street, Redhill Street and Augustus Street that run on a north-south axis
- 1.4. A good pedestrian footway network is provided through the core of the estate.
- 1.5. The Regents Park Estate is well located with respect to accessibility to both public transport and local services and facilities that are used on a day to day basis, such as shopping, education and employment. All areas of the estate have a Public Transport Accessibility Level (PTAL) of 6b, which is categorised as 'excellent'.
- 1.6. Bus stops that are within easy walking distance are located on Albany Street, Hampstead Road and Euston Road. These bus stops provide residents with access to 14 services. 5 underground stations are also within easy walking distance of the estate providing access to the Northern, Victoria, Bakerloo, Circle, Metropolitan and Hammersmith and City lines.
- 1.7. The development proposals for the Regents Park Estate have been brought about as a consequence of the HS2 proposal for constructing a High Speed rail connection from London Euston station. The HS2 proposal includes a set of very extensive works and serious changes to the road and access provision for the area. As a result of the proposal three hi-rise buildings and some other residential units will be affected.
- 1.8. The development proposed as part of this application will take place on 8 individual sites within the estate in order to provide a total of 116 residential units together with some commercial and community use space, and landscaping. The residential units will aim at replacing a proportion of the units lost to HS2 development proposal.
- 1.9. In accordance with Policy DP18 of the Local Development Framework, other than two newly created disabled bays, no additional parking provision will be made within the estate for the new development. New residents of the development will not be permitted to apply for a Residents Parking Permit.
- 1.10. There is a dedicate cycle lane in place on Hampstead Road. Other than this cycle lane the estate does not have direct access to any other cycle lanes. The local roads of Stanhope Street, Drummond Street, Varndell Street are classified as 'Quieter Roads that have been recommended by other cyclists' on the Central London Cycling Guide and Local Cycling Guide 14.

- 1.11. The local road network is made up of both strategic roads in the form of the A501 Euston Road and A400 Hampstead Road and secondary roads such as Robert Street and Vardell Street.
- 1.12. Surveys using Automatic Traffic Counters (ATCs) have been undertaken on the local road network in order to establish the existing peak hour and daily two-way traffic flows and vehicle speeds.
- 1.13. The most recent five year road accident records for the surrounding road network have been analysed and indicate that 64 personal injury collisions have occurred on the network within the study area. 54 of the accidents were classified as slight with the remaining 8 classified as serious; there are no records of any fatal accidents within the study area.
- 1.14. In order to determine the likely multi-modal trip generation for the development proposal, reference has been made to the TRICS database. Using the trip rates extracted from the TRICS database the proposed development is expected to generate 565 and 459 people trips and 0 vehicle trips during the AM and PM peak hours respectively.
- 1.15. With the development providing no additional parking and generating minimal vehicle movements on the local road network, no junction capacity analysis was considered necessary or undertaken.
- 1.16. In order to facilitate the development it will be necessary to implement one or more Traffic Regulation Orders.
- 1.17. The overall conclusion of the Transport Assessment is that the development proposal meets the policy objectives at national, regional and local levels without the need for any off-site mitigation works to provide capacity enhancements for any mode of transport. Therefore it is the conclusion of this report that there is no reason why the planning application should be declined on highway or transport grounds.

2.0 INTRODUCTION

- 2.1. CampbellReith has been commissioned by the London Borough of Camden to provide transportation and highway advice with respect to their development proposals for the Regents Park Estate, Euston. In addition to providing transport and highway advice, our commission also includes the preparation of a Transport Assessment (TA) to support the planning application.
- 2.2. The area of the Regents Park Estate that is the subject of this Transport Assessment and the planning application is bounded to the east by Hampstead Road, to the west by Albany Street and to the north by Granby Terrace. Drummond Street and Longford Street form the southern boundary of the site. The extent of the estate and the area covered by the planning application are shown on Figure 1 which accompanies this Transport Assessment report.
- 2.3. The development proposals, forming this planning application, for the Regents Park Estate have been brought about as a consequence of the HS2 proposal for constructing a High Speed Rail connection from London Euston Station. The HS2 proposal includes a set of very extensive works and serious changes to the road and access provision for the area.
- 2.4. The HS2 proposal, if permitted, will enlarge the Euston Station and will create a wider low level rail track running out of the station to the north-west alongside the existing rail tracks. The wider track corridor will require the existing lower level track placement to be extended. As a result of the extension a number of properties within the Regent's Park estate will be affected. The HS2 proposal require the demolition of three currently occupied Hi-Rise buildings located on the north part of the estate, as well as some of the units in nearby blocks. In total a loss of 160 residential units are predicted as a direct impact of the HS2 proposal.
- 2.5. As the widened low level rail tracks will have an impact on Hampstead Road (A400), another part of the HS2 proposal will include the extension of the Hampstead Road rail bridge to allow additional width and height clearance for the tracks and trains; this requires the vertical alignment of Hampstead Road to be increased in order to meet the level of new bridge. The elevation of Hampstead Road is likely stretch from the Robert Street junction and is likely to create a raised road surface that will be over 2 metres above the existing road level along the frontage of remaining residential blocks within the Regent's Park Estate that front onto Hampstead Road. This indirect impact of HS2 proposal will result in loss for 4 further residential units.
- 2.6. All the proposed HS2 works, as well as any works relating to the demolition of any residential units, along with associated parking do not form part of this planning application and are considered under the HS2 responsibility. While it is acknowledged that at the time of this planning application being submitted the HS2 proposal is still under consideration and it is not a permitted development, London Borough of Camden, being responsible for the 164 residential units being directly and indirectly affected by the proposal has a responsibility to ensure that current residents of those units are cared for.
- 2.7. Therefore this planning application is for the creation of 116 replacement units, which, were the HS2 proposal to be taken forward, will be used to house and resettled residents from the affected units. In addition to this proposal 70 replacement units will be provided on Netley Estate (not part of this application) to satisfy the need for replacement housing within LBC.

- 2.8. The development proposal for the replacement units within the Regent's Park Estate has been designed to take account of the highway works associated with the HS2 proposals, as well as future improvements relating to the general accessibility of the station and the site.
- 2.9. As the HS2 development is currently not a permitted development and it is likely, but not certain that it will be permitted; the proposed replacement housing scheme will need to also be considered from the perspective where they will be constructed prior to or regardless of the HS2 scheme going forward and the existing units remaining in place. This unlikely situation is taken into consideration further within this assessment. However the main consideration of this Transport Assessment will remain focused on the replacement scenario.
- 2.10. This Transport Assessment has been undertaken in accordance with and reference to the following guidance and best practice documents:
- Transport for London – Transport Assessment best Practice and Guidance Document;
 - The web-based Planning Practice Guidance;
 - Manual for Streets; and
 - National Planning Policy Framework.
- 2.11. The structure and scope of this Transport Assessment has been discussed and formally agreed with the highway officers of the London Borough of Camden.
- 2.12. This report sets out the findings of the Transport Assessment and is subdivided into 11 Chapters, of which this introduction forms the second chapter: the other chapters being:
- Chapter 1: Executive summary;
 - Chapter 2: Introduction;
 - Chapter 3: Approach to the transport Assessment;
 - Chapter 4: The relevant national, regional and local transport policies;
 - Chapter 5: Existing situation;
 - Chapter 6: Description of the development proposals;
 - Chapter 7: Trip generation and distribution;
 - Chapter 8: Residual Impacts;
 - Chapter 9: Mitigation measures
 - Chapter 10: Sustainability and access to local facilities; and
 - Chapter 11: Summary and conclusions

3.0 APPROACH TO THE TRANSPORT ASSESSMENT

3.1. Transport Assessments are required to consider a development proposal in relation to all transport modes and its ability to reduce the reliance on the private car and offer a choice in transport. This Transport Assessment has been written with reference to Transport for London's "Transport assessment best practice Guidance document" and the recently superseded "Guidance on Transport Assessment" published by the Departments for Transport Communities and Local Government, as well as the current web-based Planning Practice Guidance resource. In preparing the Transport Assessment the following considerations are considered relevant:

- Reducing the need to travel, especially by private car;
- The accessibility of the location;
- Environmental impact of travel from the development;
- Managing access to the highway network; and
- Measures that may assist in influencing travel behaviour.

3.2. With these considerations in mind the Transport Assessment has considered each of the key modes of transport that will be used by residents travelling to and from the development within the Regents Park Estate. The key elements of the approach to the assessment of each mode of travel are briefly described below.

Walking and cycling

3.3. A qualitative assessment has been undertaken of the walking and cycling facilities available and the impact, if any the development proposals will have on these facilities.

Public transport

3.4. The accessibility to and the availability of public transport to the residents of the proposed development has been assessed. This assessment has been used to identify any deficiencies in the public transport provision, and any benefits the development can bring in terms of improved quality and enhanced viability of local public transport.

Vehicular impact

3.5. The key highway links and junctions on the local highway network that the development proposal may have an impact upon have been identified and agreed with the highway officers of LB Camden as the local Highway Authority and Transport for London as the strategic Highway Authority.

Road Safety

3.6. A full audit of the personal injury collisions that have occurred on the on the local road network within the study area , over the most recent five year period has been undertaken. This audit has been used to identify accident patterns and to determine whether the traffic associated with the development will have a detrimental impact upon road safety.

4.0 THE RELEVANT PLANNING AND TRANSPORT POLICIES

4.0.1 This section of the Transport Assessment sets out the current and relevant planning and transport policies at national, regional and local level that would be applied to the proposed development

4.1. National Planning and Transport Policies

4.1.1. The national planning and transport policies and guidance that are relevant to the transport elements of the development proposal are set out in the following documents:

- National Planning Policy Framework (NPPF): and
- The National Planning Practice Guidance.

4.1.2. The general aim of these documents is to encourage a more sustainable approach to transport that reduces the negative impacts associated with the private car and single occupancy journeys. The policies aim to balance the transport system in favour of sustainable transport modes and give people a choice about how they travel. This is supported by the web-based Planning Practice Guidance

4.1.3. The NPPF requires development to take account of:

- Opportunities for sustainable modes depending upon the nature and location of the site, to reduce the need for major transport infrastructure;
- Provision for safe and sustainable access for all people; and
- Improvements that can be undertaken within the transport network that cost effectively limit the significant impact of the development.

4.1.4. At the heart of the NPPF is a presumption in favour of sustainable development. With respect to transport, its core principles state that planning should actively manage patterns of growth to make the fullest use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable. The NPPF also has a presumption in favour of development where the impact is not 'severe' and states at paragraph 32; *"development should only be prevented or refused on transport grounds where the residual impacts of the developments are severe"*.

4.2. Regional Policy

4.2.1. Regional policy with regard to transport and movement is set out in Chapter 6 of the London Plan 2015. The strategy behind the policies within the London Plan is to reduce dependency on car travel and to actively encourage walking and cycling. The policies within the Plan that aim to bring about these objectives and have a direct bearing on the proposed residential development are Policy 6.9, Policy 6.10 and Policy 6.13

Policy 6.9: Cycling

Development should:

- (a) *Provide secure, integrated, convenient and accessible cycle parking facilities in line with the minimum standards out in Table 6.3 (of the Plan) and the guidance set out in the London Cycle Design Standards (or subsequent revisions)*

- (b) Provide on-site changing facilities and showers for cyclists*
- (c) Contribute positively to an integrated cycling network for London by providing infrastructure that is safe, comfortable, attractive, coherent, direct and adaptable and in line with the guidance set out in the London Cycle Design Standards (or subsequent revisions)*
- (d) Provide links to existing and planned infrastructure projects including Cycle Superhighways, Quietways, the Central London Grid and the 'mini-Hollands'*
- (e) Facilitate the Mayor's cycle hire scheme through the provision of land and/or planning obligations where relevant, to ensure the provision of sufficient capacity.*

Policy C.10: Walking

Development proposals should ensure high quality pedestrian environments and emphasise the quality of the pedestrian and street space by referring to Transport for London's Pedestrian Design Guidance.

Policy C.13: Parking

The maximum standards set out in Table 6.2 in the parking addendum to this chapter should be the basis for considering planning applications (also Policy 2.8).

In addition, development must:

- (a) Ensure that 1 in 5 spaces (both active and passive) provide an electrical charging point to encourage the uptake of electric vehicles*
- (b) Provide parking for disabled people in line with Table 6.2*
- (c) Meet the minimum cycle parking standards set out in Table 6.3*
- (d) Provide the needs of businesses for delivery and servicing*

4.3. Local Policy

- 4.3.1. Local Transport and planning policies against which development within the London Borough of Camden is assessed are set out in the Local Development Framework: Camden Development Policies 2010 -2025. The relevant policies being:

Policy DP16: Transport implications of development; which states:

The Council will seek to ensure that development is properly integrated with the transport network and is supported by adequate walking, cycling and public transport links. We will resist development that fails to assess and address any need for:

- a) Movement to, from and within the site, including links to existing transport networks. We will expect proposals to make appropriate connections to highways and street spaces, in accordance with Camden's road hierarchy, and to public transport networks.*
- b) Additional transport capacity off-site (such as improved infrastructure and services) where existing or committed capacity cannot meet the additional need generated by the development. Where appropriate, the Council will expect proposals to provide information to indicate the likely impacts of the development and the steps that will be taken to mitigate those impacts, for example using transport assessments and travel plans;*
- c) Safe pick up, drop off and waiting areas for taxis, private cars and coaches, where this activity is likely to be associated with the development.*

Policy DP17: Walking, cycling and public transport

The Council will promote walking, cycling and public transport use. Development should make suitable provision for pedestrians, cyclists and public transport and, where appropriate, will also be required to provide for interchanging between different modes of transport. Provision may include;

- (a) Convenient, safe and well-signalled routes including footways and cycleways designed to appropriate widths;*
- (b) Other features associated with pedestrian and cycle access to the development, where needed, for example seating for pedestrians, signage, high quality cycle parking, workplace showers and lockers;*
- (c) Safe road crossings when needed;*
- (d) Bus stops, shelters passenger seating and waiting areas, signage and timetable information.*

The Council will resist development that would be dependent on travel by private motor vehicles.

Policy DP18: parking standards and limiting the availability of car parking

The Council will seek to ensure that developments provide the minimum necessary car parking provision. The Council will expect development to be car free in the Central London Area, the town centres of Camden Town, Finchley Road, Swiss cottage, Kentish Town, Kilburn High Road and West Hampstead, and other areas within Controlled Parking Zones that are easily accessible by public transport.

Development should comply with the Council's parking standards, as set out in Appendix 2 to this document. Where the Council accepts the need for car parking provision, development should not exceed the maximum standard for the area in which it is located (excluding spaces designated for disabled people. Development in areas of on-street parking stress should be 'car capped'.

For car free and capped developments, the Council will:

- (a) Limit on-street car parking to;*
 - Spaces designated for disabled people;*
 - Any operational or servicing needs; and*
 - Spaces designated for the occupiers of development specified as car capped:*
- (b) Not issue on-street parking permits; and*
- (c) Use a legal agreement to ensure that future occupants are aware they are not entitled to on-street parking permits*

Development will also be expected to meet the Council's minimum standards for cycle parking set out in Appendix 2.

The Council will:

- (d) Strongly encourage contributions to car club and pool car share schemes in place of private parking in new developments across the borough; and*

- (e) *Seek the provision of electric charging points as part of any car parking provision.*

Policy DP19: Managing the impact of parking

The council will seek to ensure that the creation of additional car parking spaces will not have negative impacts on parking, highways or the environment, and will encourage the removal of surplus car parking spaces. We will resist development that would:

- (a) *Harm highway safety, or hinder pedestrian movement;*
- (b) *Provide inadequate sightlines for vehicles leaving the site;*
- (c) *Add to on-street parking demand where on-street parking spaces cannot meet existing demand, or otherwise harm existing on-street parking conditions;*
- (d) *Require detrimental amendment to existing or proposed Controlled Parking Zones;*
- (e) *Create a shortfall of parking provision in terms of the Council's Parking standards for bicycles, people with disabilities, service vehicles, coaches and taxis;*
- (f) *Create a shortfall of public car parking or residents' parking;*
- (g) *Create, or add to, an area of car parking that has a harmful visual effect;*

The Council will require off-street parking to:

- (h) *Preserve a building's setting and the character of the surrounding area;*
- (i) *Preserve any means of enclosure, trees or other features of a forecourt or garden that makes a significant contribution to the visual appearance to the area; and*
- (j) *Provide adequate soft landscaping, permeable surfaces, boundary treatments and other treatments to offset adverse visual impacts and increases in surface run-off.*

The Council will only permit public off-street parking where it is supported by a transport assessment and is shown to meet a need that cannot be met by public transport. The Council will expect new public off-street parking to be subject to a legal agreement to control the layout of the parking spaces, the nature of the users and the pricing structure. We will also seek a legal agreement to secure removal of parking spaces in response to any improvement to public transport capacity in the area.

Where parking is created or reallocated, Camden will encourage the allocation of spaces for low emission vehicles, car clubs, pool cars, cycle hire and parking, and electric vehicle charging equipment.

DP21: Development connecting to the highway network.

The Council will expect developments connecting to the highway network to:

- (a) *Ensure the use of the most appropriate roads by each form of transport and purpose of journey, in accordance with Camden's road hierarchy;*
- (b) *Avoid direct vehicular access to the Transport for London Network (TLRN) and other major roads; and*
- (c) *Avoid the use of local roads by through traffic.*

The Council will expect works affecting highways to

- (d) Avoid disruption to the highway network and its function, particularly use of appropriate routes by emergency vehicles;*
- (e) Avoid harm to on-street parking conditions or require detrimental amendment to Controlled Parking Zones;*
- (f) Ensure adequate sightlines for vehicles leaving the site;*
- (g) Address the needs of wheelchair users and other people with mobility difficulties' people with sight impairments, children, elderly people and other vulnerable users;*
- (h) Avoiding causing harm to highway safety or hinder pedestrian movement and avoid unnecessary street clutter;*
- (i) Contribute to the creation of high quality streets and public spaces; and*
- (j) Repair any construction damage to transport infrastructure or landscaping and reinstate all affected transport network links and road and footway surfaces following development.*

Where development will be connected to the highway network, the Council will require all new public highways to be constructed to a standard that it considers to be appropriate for adoption, and expect the routes to be adopted, owned and managed by the relevant Highway Authority.

5.0 EXISTING CONDITIONS

5.0.1 This section of the Transport Assessment describes the existing baseline conditions on the local transport network.

5.1. The existing Site

5.1.1. The Regents Park Estate is located within the south western part of the Borough of Camden to the north of Euston Road and is a large housing estate which was mostly developed in the 1950s and 1960s. It consists of a variety of building typologies including towers, tall slab blocks and some low rise development. The Estate is bounded to the west by Albany Street and Regent's Park and to the north by the Euston railway cutting. Hampstead Road forms the eastern boundary of the site, with office and commercial buildings that front onto Euston Road forming the estates southern boundary.

5.1.2. The principle access roads within the estate are, Robert Street and Varndell Street, which run on an east – west axis, and Stanhope Street, Redhill Street and Augustus Street that run north to south. In addition there are there significant areas of open space within the estate. A good pedestrian network is provided through the core of the estate.

5.2. The surrounding land uses

5.2.1. The Estate is located within a mixed use area of Central London. To the east and south of the estate are commercial properties with small retail units and further residential development bordering the estate to the west and north.

5.3. Public transport

5.3.1. The Regents park Estate is well served by the public transport network with the majority of the areas within the estate having a PTAL rating of either 6a or 6b which is categorised as excellent. Due to its size the Regent's Park Estate has some areas located on the outside corner of the estate, which fall into PTAL category of 5 and 4 at the lowest, which are categorised as very good and good, respectively.

5.3.2. The estate is highly accessible to the London Bus network, with bus stops located on Albany Street, Hampstead Road and Euston Road being approximately 216, 279 and 590 metres waking distance from the centre of the estate. These bus stops provide residents with access to 14 services that allow them to travel to destinations throughout Central London. During the weekday peak hours there are typically 64 buses an hour in each direction stopping at these stops.

5.3.3. In addition to the bus network the Regent's Park Estate is also within easy walking distance of 5 underground stations, which are Great Portland Street (731 metres), Euston Square (751 metres), Mornington Crescent (833 metres), Regents Park (891 metres) and Warren Street (891 metres). These stations give residents of the estate access to the Northern, Victoria, Bakerloo, Circle, Metropolitan, and Hammersmith and City lines.

5.3.4. The estate also has access to the national rail network via Euston Station which is located approximately between 430 and 898 metres walking distance to the east of the estate.

5.3.5. A summary of the bus and underground services, destinations and frequencies is set out in Tables 5.1 and 5.2 below.

Table 5.1: Existing bus services, destinations and frequencies

Service Number	Route	Daytime frequency	Evening Frequency
Bus service			
C2	Grosvenor Gardens-Hyde Park Corner-Green Park-Berkeley Square-New Bond Street-Oxford Circus-Portland Place- Albany Street-Regent's Park-Camden-Kentish Town-Parliament Hill Fields	Every 6 to 10 minutes	Every 6 to 10 minutes
18	Euston-Great Portland Street-Regents Park-Harley Street-Baker Street-Paddington Green-Royal Oak-Kilburn Lane-North Circular Road-Sudbury and Harrow Road Station	Every 2 to 6 minutes	Every 5 to 8 minutes
24	South End Green-St Dominic's Priory-Chalk Farm-Camden Town-Mornington Crescent-Robert Street-Warren Street-UCH-Tottenham Court Road-Leicester Square-Trafalgar Square-Parliament Square- Westminster-Victoria-St Georges Square-Grosvenor Road SW1.	Every 4 to 8 minutes	Every 8 to 12 minutes
27	Chiswick-Hammersmith-Kensington Olympia-High Street Kensington –Notting Hill Gate-Queensway-Paddington Station-Marylebone Station-Baker Street-Regent's Park-Roberts Street-Camden Town- Chalk Farm	Every 6 to 10 minutes	Every 11 to 12 minutes
29	Lordship Lane-Turnpike Lane Station-Harringay Green-Finsbury Park-Holloway Road-Caledonian Road-Camden park-Camden Town-Mornington Crescent-Warren Street Station-UCH-Great Russell Street-Tottenham Court Road-Leicester Square-Trafalgar Square.	Every 3-7 minutes	Every 3 to 7 minutes
30	Marble Arch-Baker Street-Regent's Park Station-Warren Street Station-Euston-British Library-Kings Cross St Pancras-Angel Station- Islington Town Hall-Highbury grove-Hackney Downs Station-Hackney Wick	Every 7 to 10 minutes	Every 8 to 12 minutes
88	Clapham-Tate Library-Vauxhall-Tate Britain-Westminster Abbey-Parliament Square-Horse Guards Parade-Trafalgar Square-Oxford Circus-Great Portland Street-Robert Street-Mornington Crescent-Camden Town-Camden Gardens	Every 5 to 9 minutes	Every 8 to 12 minutes
134	Tottenham Court Road-Robert Street-Mornington Crescent-Camden Town-Kentish Town-Tufnell Park-Archway Station-Highgate Station-Muswell hill-North Circular Road-Tally Ho Corner	Every 3 to 7 minutes	Every 6 to 10 minutes
205	Bow Church-Aldgate-Liverpool Street Station-Shoreditch High Street- Old Street Station-Angel Islington-Kings Cross St Pancras-Euston-Warren Street Station-Great Portland Street Station-Regent's Park Station-Baker Street-Marylebone Station-Edgware Road-Paddington Station-Cleveland Terrace	Every 5 to 8 minutes	Every 7 to 12 minutes
N29	Little Park Gardens-Haringay Green Lanes-Finsbury Park-Holloway Road-Caledonian Road-Camden Town Station-Robert Street-Warren Street Station-UCH-Great Russell Street Tottenham Court Road-Leicester Square-Trafalgar Square	-	1 to 5 am every 7 to 8 minutes
N205	Cleveland Terrace-Euston-Kings Cross St Pancras-Angel Islington-Old Street Station-Shoreditch-Liverpool Street Station-The East London Mosque-Whitechapel-Stepney Green-Mile End Station-Drapers Field	-	1 to 5 am every half hour

Table 5.2; Existing underground services, destinations and frequencies

Station	Line	Route	Daytime frequency	Evening frequency
Underground service				
Great Portland Street	Circle	Edgware Road- to Aldgate Circle	Every 6 minutes	Every 6 minutes
	Metropolitan	Aldgate-Harrow-on-the-Hill-Aldgate-Amersham-Aldgate-Watford	Every 6 to 10 minutes	Every 6 to 10 minutes
	Hammersmith and City	Barking-Liverpool Street-Euston-Paddington-Hammersmith	Every 6 minutes	Every 6 minutes
Euston Square	Circle	Edgware Road- to Aldgate Circle	Every 6 minutes	Every 6 minutes
	Metropolitan	Aldgate-Harrow-on-the-Hill-Aldgate-Amersham-Aldgate-Watford	Every 6 to 10 minutes	Every 6 to 10 minutes
	Hammersmith and City	Barking-Liverpool Street-Euston-Paddington-Hammersmith	Every 6 minutes	Every 6 minutes
Warren Street	Northern	Kennington-Edgware (Charing X branch) Kennington-High Barnet (Charing X branch)	Every 8 to 11 minutes	Every 8 to 11 minutes
	Victoria	Brixton –Stanmore Brixton-Willesden green	Every 6 minutes	Every 6 minutes
Mornington Crescent	Northern Line	Kennington-Edgware Kennington-High Barnet (Charing Cross Branch)	Every 8 to 11 minutes	Every 8 to 11 minutes
Regents Park	Bakerloo	Elephant and Castle-Harrow and Wealdstone Elephant and Castle-Queens park	Every 3 to 7 minutes	Every 3 to 7 minutes

5.4. Cycle network

5.4.1. There is a dedicated cycle lane in place on the Hampstead Road the lane is mostly incorporated into the bus lane however some sections of separated cycle lane are also available. Other than this cycle lane, the estate does not have direct access to any other cycle lanes. The local roads of Stanhope Street, Drummond Street, Varndell Street and the northern section of Hampstead Road are classified as 'Quieter Roads that have been recommended by other cyclists' on the Central London Cycling Guide and Local Cycling Guide 14.

5.4.2. There is a Cycle Hire Docking Station on Hampstead Road, located to the north of Varndell Street.

5.5. Pedestrian network

5.5.1. The Regent's Park Estate is surrounded by a well-developed pedestrian network with all streets and roads providing footways on one or both sides of their carriageways. The existing network provides easy access to all local facilities, transport nodes, schools and places of interest. The majority of footways within and in the surrounding vicinity of the estate are in reasonable condition.

5.5.2. Signal controlled pedestrian crossing facilities are in place at the Hampstead Road/Cardington Street signal controlled junction. In addition a signal controlled pedestrian crossings are also provided on Hampstead Road north and south of the junction.

5.5.3. A signal controlled crossing is also provided on Albany Street opposite Troutbeck building, as well as at the junction with Robert Street. In addition there are pedestrian facilities at the signal controlled junction of Robert Street and Stanhope Street.

5.6. **The local road network**

5.6.1. In the vicinity of the Regent's Park Estate, the following adopted local roads are considered relevant when considering the impact, if any, the development proposal may have on the operation of the network:

- The A400 Hampstead Road;
- The A4201 Albany Street;
- Robert Street;
- Stanhope Street;
- Varndell Street;
- Redhill Street; and
- William Road.

5.6.2. The A400 Hampstead Road

Hampstead Road, from its junction with the A500 Euston Road, is a wide two-way single carriageway road having an approximate width of 12.0 metres. 3.5 metre wide footways are provided on both sides of the carriageway. The A400 Hampstead Road forms part of the Transport for London Strategic Road Network and is a designated 'Red Route' and as a consequence no parking or waiting on the highway is allowed at any time. Hampstead road is subject to a 30-mph speed limit.

5.6.3. The A4201 Albany Street

The A 4201 Albany Street is also a wide two-way single carriageway road which for the majority of its length has a carriageway width of approximately 9.25 metres. Over the section of Albany Street between the former Cape of Good Hope public house and the junction with Robert Street, the carriageway widens to an approximate width of 12.8 metres in order to facilitate a southbound bus lane and a limited amount of on-street parking. 3.5 metre wide footways are provided on both sides of the carriageway for the full length of the road.

5.6.4. For the majority of its length, Albany Street is fronted by residential properties together with a small number of local shops. The length of Albany Street adjacent to the Regent's Park Estate is subject to a 20-mph speed limit. Parking restrictions in the form of single yellow lines are in place on both sides of the carriageway.

5.6.5. Robert Street

5.6.6. Robert Street provides an east – west connection between Hampstead Road and Albany Street and is a two-way single carriageway road having a carriageway width of 9.25 metres. 2.5 metre wide footways are provided on both sides of the carriageway. Pay at metre parking bays are

provided on the southern side of carriageway, and residents parking bays are provided on the northern side of the carriageway over sections of Robert Street.

- 5.6.7. Traffic calming in the form of road humps is in place along the length of Roberts Street in order to help in force the 20-mph speed limit that is in place. A Zebra pedestrian crossing is provided at the western end of Robert Street and signalised pedestrian facilities are incorporated within the Robert Street/Stanhope Street signal controlled junction.

5.6.8. Stanhope Street

Stanhope Street runs north to south through the estate and is bisected by Robert Street. To the north of Robert Street, Stanhope Street is a two-way single carriageway road having an approximate width of 7.3 metres with 2.5 metre wide footways provided on both sides of the carriageway. Traffic calming measures, in the form of road humps are in place over this section of Stanhope Street. A combination of pay and display and resident parking permit bays are provided at intervals along the eastern side of the carriageway. Between the designated parking bays and on the western side of the carriageway parking restrictions in the form of single yellow lines are in place.

- 5.6.9. To the south of Roberts Street Stanhope Street remains a two-way single carriageway road having an approximate width of 6.7 metres with 3.0 metre wide footways provided on both sides of the carriageway. Traffic calming measures in the form of road humps are also in place over this section of Stanhope Street. A combination of resident permit and pay and display parking bays are provided on the western side of the carriageway with single yellow lines parking restrictions in place on the eastern side of the carriageway. Both sections of Stanhope Street are subject to a 20-mph speed limit.

5.6.10. Varndell Street

Varndell Street provides an east-west connection between Hampstead Road and Cumberland Market and is a two-way single carriageway road having an approximate width of 7.0 metres, with 1.8 metre wide footways provided on both sides of the carriageway. Resident permit parking bays are provided at intermittent intervals on both sides of the Varndell Street. Traffic calming measures in the form of road humps are in place along the length of Varndell Street in order to assist in enforcing the 20-mph speed limit that is in place.

5.6.11. Redhill Street

Redhill Street operates as a minor internal access road within the estate and is a two-way single carriageway road having an approximate width of 8.5 metres. Footways of approximately 2.5 metres width are provided on both sides of the carriageway. Residents permit parking is also permitted in designated bays that are provided at regular intervals on both sides of the carriageway. Redhill Street is subject to a 30-mph speed limit.

5.6.12. William Road

William Road is also a two-way single carriageway road with a carriageway width of approximately 7.0 metres with a 2.0 metre wide footway provided on the southern side of the carriageway and a 3.0 metre wide footway provided on the northern side of the carriageway. A motorcycle parking bay is provided on the southern side of the carriageway approximately 40 metres east of the junction with Stanhope Street. All other sections of William Road are subject

to parking restrictions in the form of single yellow lines. William Road is subject to a 20-mph speed limit.

5.6.13. In order to establish the existing traffic flows on the local road network, Automatic Traffic Counters (ATCs) were put in place at the following locations:

- A400 Hampstead Road just south of the railway bridge;
- A400 Hampstead Road south of William Road;
- William Road;
- Robert Street, to the west of Hampstead Road;
- Robert Street, to the east of Albany Street
- Varnfell Street;
- Stanhope Street, immediately south of Granby Terrace;
- Stanhope Street, immediately north of Longford Street;
- Longford Street;
- Laxton Place;
- Augustus Street;
- Redhill Street;
- Albany Street, south of Redhill Street; and
- Albany Street, to the north of Longford Street.

5.6.14. The counters were in place for a period of 7 days from the 26th September to 2nd October 2014. Table 5.3 provides a summary of the recorded two-way flows. The full data from the ATCs is included in Appendix 1 to this report.

Table 5.3: Summary of the recorded peak hour and daily two-way traffic flows.

Road	Recorded two-way traffic flows		
	Peak Hour		Daily weekday average
	0800 -0900	1700-1730	
Hampstead Road (northern end)	1093	1637	24388
Hampstead Road (southern end)	1154	1394	22194
William Road	137	111	1717
Robert Street (eastern end)	451	361	5437
Robert Street (western end)	369	386	5010
Varnfell Street	52	104	798
Stanhope Street (northern end)	181	155	2134
Stanhope Street (southern end)	303	222	3199
Longford Street	504	864	6394
Augustus Street	58	43	601
Laxton Place	41	51	508
Redhill Street	77	54	717

Albany Street (northern end)	777	801	13232
Albany Street (southern end)	934	989	15782

5.7. **Road Safety**

5.7.1. An audit of the personal injury road collision data has been undertaken for the local road network set out in paragraph 5.6.1 above for the most recent 3 year period. The audit has revealed that over the 36 month period to the end of December 2014, a total of 64 personal injury collisions have occurred on the network that forms the study area for this Transport Assessment. Of these 64 collisions, 56 were classified as slight and 8 were classified as serious. No fatal incidents were recorded in the study area; however some fatal incidents took place at the Euston Road/Hampstead Road junction.

5.7.2. Further analysis of the data indicates that of the 64 recorded collisions 7 occurred at junctions. Table 5.4 provides a summary of the recorded collisions.

Table 5.4: Summary of the recorded personal injury collisions – 2009 to 2013

Personal Injury Collisions at Junctions			
Junction	Severity		
	Slight	Serious	Fatal
Hampstead Road/Drummond Street	2	1	-
Hampstead Road/Cardington Street	2	-	-
Hampstead Road/Robert Street	1	1	-
Hampstead Road/Netley Street	-	-	-
Personal Injury Collisions on Links			
Link	Severity		
	Slight	Serious	Fatal
Hampstead Road	40	3	-
Robert Street	1	1	-
Varndell Street	-	-	-
Stanhope Street	1	-	-
Albany Street	8	2	-
Redhill Street	1	-	-

5.7.3. The accident cause analysis shows that majority of the incidents were as a result of careless driving behaviour or the poor execution of manoeuvres. Also speed, aggressive driving and bad judgment had a major influence on the collisions. There is no data indicating any design faults in the local highway network within the study area. Full accident report data is included in Appendix 2 to this report.

6.0 THE PROPOSED DEVELOPMENT

- 6.1. The development proposals for the Regents Park Estate have been brought about as a consequence of the HS2 proposals and the need to provide replacement dwellings within the estate. The proposed HS2 works will require the demolition of three currently occupied high-rise buildings incorporating approximately 160 residential units and some areas surrounding them, as well as 19 estate parking permit spaces (including two disabled users' spaces) and 4 estate garages. A further 4 occupied residential units will be affected by the HS2 proposal, bringing the total loss to 164 residential units as a result of HS2 proposal works. It has to be noted that none of the HS2 related works form part of this application, however the HS2 proposal had strong influence on the proposed development design and solutions forming this application.
- 6.2. 70 replacement residential units are being replaced elsewhere within the borough, which do not form part of this application, leaving the need for the proposal to fill in the gap in housing needs. The proposed development was designed to take into account the HS2 proposal, especially the highway works related to it. It should also be-noted that no part of the proposal in this application is in any way directly reliant on the HS2 scheme being permitted and constructed.
- 6.3. The proposed development will take place on 8 individual sites within the estate and provide a total of 116 residential units within new 3 to 11 storey blocks. The proposed schedule of accommodation is attached in Appendix 3 to this report. The proposal will also include some replacement commercial and community use space.
- 6.4. Vehicular and pedestrian access to each of the development sites will be gained from the existing adopted local road network. Currently some of the development sites are used for car parking, which will be removed and utilised for the sites. The Regent's Park Estate has an overall underutilised provision of estate parking provided throughout. A detailed parking analysis is included in chapter 8 of this report.
- 6.5. In accordance with Policy DP18 of the Local Development Framework, no additional parking provision will be made within the estate for the new development. The only newly created parking spaces will be the re-provision of two estate parking permit bays for disabled occupants of the wheelchair accessible units. The two wheelchair accessible units that need to be relocating as a result of HS2 proposal will be located at the St Bedes Mews and Former One Stop Shop sites.
- 6.6. In addition to the residential elements of the development proposal, as part of the local amenity provision, significant landscaping and public realm improvement are being proposed in the form of a combination of hard and soft landscaping features. As part of the proposal it is also planned to improve cycle parking opportunities through the estate, creating a more cyclist friendly environment for all residents and visitors.
- 6.7. The proposed replacement sites will focus around currently underused space within the estate. Some of the sites will replace existing open spaces, while the other buildings will replace existing parking courts and areas.
- 6.8. Below is a brief description of proposed general works for each of the development sites.

6.8.1. Cape of Good Hope

The proposal includes the demolition of Cape of Good Hope public house/café bar, its forecourt and estate parking spaces. The development will remove 16 estate parking permit spaces and will remove a road loop, currently used for service vehicles.

The proposed development will incorporate a new building with 15 residential units located at the southern end of Troutbeck building. The landscaping around the building will provide a new turning area for any service and refuse collection vehicles, to ensure that current service arrangements for existing building will remain unaffected in the area. Appendix 4 at the end of this document includes a full swept path analysis of the proposed arrangements.

The new service arrangements will include a bin store location at the back of the building (along the exiting route of the refuse vehicle), where the refuse can be collected with ease.

6.8.2. Dick Collins Hall

The proposed new building will incorporate 11 residential units and will replace the existing community hall (which will be replaced on Robert Street Car Park site) by the Rothay building. The new building will incorporate some improvements to the landscape and streetscape of the nearby area. The refuse bin store will be located near the Rothay refuse store, which will effectively be served in the same manner as the existing building.

6.8.3. Former One Stop Shop

The proposed building will be located on the existing grassed area and it will incorporate 24 residential units, including one wheelchair accessible replacement unit. The site will also include a small commercial space for an A1/A3 land use class. The refuse stores in the new building are proposed near the south-west corner of the building, which will allow servicing directly from the kerbside.

The building surroundings will include an improved landscape, as well as a single disabled user estate parking space, allocated to the replaced wheelchair unit within the building.

The proposed commercial unit servicing is likely to be from the Robert Street, where the refuse collection will be taking place, along a proposed single yellow line.

6.8.4. Newlands Plot

Similarly to the One Stop Shop, the Newlands plot proposed replacement units building will be placed on existing open space. The new building will incorporate 32 residential units and a small commercial (expected to be A1/A3 land use class) unit at the ground floor.

The servicing and delivery for the building is proposed to be undertaken from Varndell Street, with the refuse stores being located in the south-west corner of the proposed building.

The HS2 development related changes will require the train tracks leading to Euston Station to be widened. This in turn will require the Hampstead Road Bridge to be extended. The extension of the road bridge will have an impact on Hampstead Road, as a consequence of the road levels being raised in order to meet the new, extended bridge. HS2's planned works indicate that the elevated road levels will commence close to the junction with Robert Street. The predicted road level at the Varndell Street junction is at over two metres above the existing road level, rising to approximately 3 metres at the northern end of the development site. The elevation of

Hampstead Road will require Traffic Regulation orders to be implemented on Varndell Street in order to prohibit vehicular access to the raised Hampstead Road.

As part of this planning application it is proposed to precede the HS2 proposal and introduce a TRO to the end of Varndell Street, which will stop motor vehicle movement into the Hampstead Road. The changes in the new cul-de-sac area will also include removal of one pay and display on-road parking bay (which was agreed in principle with the LBC parking services) and the relocation of the on-street parking spaces to the other side of the road, as well as some changes to the waiting restrictions to allow single yellow line loading.

6.8.5. Robert Street Car Park

The proposal for this site is to remove the existing car park incorporating 40 estate permit car parking spaces, and the construction of a new building incorporating 13 residential units and the replacement community hall.

The proposal will also include some landscape improvements to the nearby area, including the resurfacing of the existing refuse access to the Grisedale refuse store. The service access will be maintained as a shared use space, which will be much more user friendly than the existing estate road.

The refuse collection from the new building is proposed to be combined with the Patterdale refuse collection, which takes place on the estate link road located between the existing building and the Car Park.

6.8.6. St Bedes Mews

The proposal will create a new building incorporating 3 residential units, including one replacement wheelchair unit. The proposal will remove a small parking area next to St. Bedes Hall, which will result in the loss of seven Estate Parking Permit spaces.

The new building will be enhanced by landscaping, also one disabled user estate parking bay will be re-provided on the site in order to provide parking assigned to the proposed wheelchair unit.

The refuse store will be accessible from the parking court, which is the route used for the existing refuse collection services for Troutbeck building.

6.8.7. Varndell Street Corner

The proposed building will be constructed on the existing grassed area and will incorporate 8 residential units. The proposed development will provide improved landscape of the area, as well as dropped kerb access to allow kerbside refuse collection for the building.

6.8.8. Victory Pub

The proposed development will replace the existing Victory Pub site, which currently has 10 private parking spaces and a beer garden facing Albany Street. The proposed building is expected to incorporate 10 residential units and a commercial unit (predicted A1/A3/A4 land use class). The proposed refuse collection would be undertaken from Nash Street, as per the existing arrangements.

The landscape proposal include the widening of the public footway between Rothay and Thirlmere buildings, by reducing the garden area of Thirlmere, and the creation of a raised

pedestrian crossing connecting the footway along the north of Victory Pub site and the widen footway.

The proposal will also incorporate a new raised beer garden wrapping around the north and west side of the building.

The existing public highway boundary currently wraps around the existing pub building nearly a incorporating, what it seems to be the pubs private parking areas, the rear service yard and front beer garden. It is therefore proposed to stop-up areas of the Public Highway Land, which will be included within the footprint of the new building.

- 6.9. The layout of the proposed development with highlighted highway works is shown on the drawing included in Appendix 5 to this report.
- 6.10. Cycle parking for the residential units will be provided in secured and weather tide locations within the new buildings. In addition the landscape improvements will include some visitor cycle parking stands located near the new development sites. The total cycle parking will be provided at a level of 162 secured spaces for residents/staff and 92 spaces for visitors, what is considered in accordance with the LBC and London Plan policies.
- 6.11. No formal motorcycle parking is proposed as part of the works, however, as currently within the estate there are some areas, on and off street where motorcycle parking is permitted and can be achieved. The improved landscape design will include a number of opportunities for informal motorcycle parking. Also there are two formal on-street parking bays located within the estate. They are both used by residents and visitors; however a number of parking spaces are still available throughout the day.
- 6.12. As mentioned previously, it is the intention that the 116 proposed units will incorporate the 94 re-located units and 22 new or additional units. The parking provision for the relocated residents will be re-provided on the same basis as existing. However any new/additional residential units and all commercial/community use floorspace is provided as car free. This approach was agreed with LBC strategic planning officers during pre-application process.
- 6.13. It has to be noted that this planning application will be independent of the HS2 proposal, and potentially if the HS2 proposal is not permitted could become a proposal for 116 new residential units. In this were to be the case then the proposal will apply the above assumption of an entirely car free development for any new units, which would then be all of proposed units. This unlikely scenario's impact is analysed in the chapters below.

7.0 TRIP GENERATION

7.0.1 The TRICS database has been interrogated to determine the likely multi-modal residential trip rates that should be applied to the development proposal. In the absence of the TRICS survey data reference was made to the TRAVL survey database, available via the TRICS organisation.

7.1. Residential trip rates obtained from the TRICS database

7.1.1. The site selection criteria used to determine the trip rates from the TRICS database are based upon the following criteria:

- Land use 03 – Residential – D – Affordable/Local Authority Flats;
- Greater London;
- Weekday surveys
- Surveys undertaken between 01/01/08 to 26/06/14
- Multi-modal;
- Sites located in Edge of Town Centre or in Suburban Area.

7.1.2. The TRICS database has 3 sites that meet these criteria resulting in 3 days of surveys; the resulting trip rates for the AM and PM peak hours and whole day are summarised in Tables 7.1. The full TRICS output can be found at Appendix 6 of this Transport Assessment.

Table 7.1: Summary of multi-modal all people trip rates

Period	Trip Rate In	Trip Rate Out	Trip Rate Total
AM Peak (8:00-09:00)	0.204	0.989	1.193
PM Peak (16:00-17:00)	0.733	0.389	1.122
All Day (07:00-19:00)	4.284	4.309	8.593

7.1.3. The CENSUS 2011 travel to work data for super output area E02000188 in Camden (Table WD703EW) has been used to determine the modal split distribution. Table 7.2 shows the proposed modal split. The full Census outputs are attached in Appendix 7 to this report. As any new/additional residential units will be proposed on a entirely car free basis the modal split was adjusted to represent that fact.

Table 7.2: Proposed modal split

Mode	Modal Split	Adjusted Modal Split
Total People	100%	100%
Underground	33.18%	36.67%
Train	38.44%	42.49%
Bus	9.87%	10.91%
Taxi	0.22%	0.24%
Motorcycle	0.70%	0.78%
Car/Van Driver	9.03%	
Car/Van Passenger	0.50%	
Bicycle	3.55%	3.92%
Walking	4.51%	4.99%

7.1.4. As the proposed development of 116 residential units, replaces 94 units out of 164 units removed as a result of the HS2 proposals, the proposed predicted trips in Tables 7.3 are shown for the new/additional 22 residential units proposed across the sites. The remaining trips are considered to be existing trips on the wider transport network.

Table 7.3: Summary of multi-modal trip rates for 22 new residential units

Mode	AM (8:00-9:00)			PM (16:00-17:00)			All Day (7:00-19:00)		
	Arrivals:	Departures:	Total:	Arrivals:	Departures:	Total:	Arrivals:	Departures:	Total:
Total People	4	22	26	16	9	25	94	95	189
Underground	2	8	10	6	3	9	35	35	70
Train	2	9	11	7	4	11	40	40	80
Bus	0	2	2	2	1	3	10	10	20
Taxi	0	0	0	0	0	0	0	0	0
Motorcycle	0	0	0	0	0	0	1	1	2
Bicycle	0	1	1	1	0	1	4	4	8
Walking	0	1	1	1	0	1	5	5	10

7.1.5. The results from the TRICS database and summarised in Tables 7.3 clearly indicate that vehicle based trips are unlikely to be the most common mode of transport, which is what would be expected given that the development site has excellent accessibility to the public transport network and any new units are proposed on a car free basis.

7.1.6. As mentioned in previous chapter, the proposed development will be implemented during the determination period of HS2 proposal. Therefore for the robustness of the assessment a scenario is considered where the HS2 proposal will not be implemented, which would mean that all 116 proposed units will be new residential units to the Regent's Park Estate and no blocks would be demolished.

7.1.7. In this case all of the 116 residential units would be treated as new units, they would be put forward as an entirely car free proposal. It would be expected that any new residents will not be able to apply for any parking permits within the Estate, which would be secured by a section 106 agreement and the lease agreements. The predicted multi-modal trip generation is presented in Table 7.4 below.

Table 7.4: Summary of multi-modal trip rates for all 116 units

Mode	AM (8:00-9:00)			PM (16:00-17:00)			All Day (7:00-19:00)		
	Arrivals:	Departures:	Total:	Arrivals:	Departures:	Total:	Arrivals:	Departures:	Total:
Total People	24	115	139	85	45	130	497	500	997
Underground	9	42	51	31	17	48	182	183	365
Train	10	49	59	36	19	55	211	212	423
Bus	3	13	16	9	5	14	54	55	109
Taxi	0	0	0	0	0	0	1	1	2
Motorcycle	0	1	1	1	0	1	4	4	8
Bicycle	1	4	5	3	2	5	19	20	39
Walking	1	6	7	4	2	6	25	25	50

7.2. Commercial trip rates obtained from the TRAVL database

- 7.2.1. A TRAVL database search was undertaken to establish the multi-modal trip rates for both the existing and proposed commercial/retail units within the A1/A3/A4 class use. Sites were chosen, which are located within Inner and Central London with a PTAL score of 4 and above, as well as no parking provision.
- 7.2.2. The TRAVL database has shown that trips relative to an A3 land use are likely to produce more traffic than sites related to an A1 and A4 class use, therefore the cafe/restaurant related surveys would represent a more robust assessment of any new future trips.
- 7.2.3. Table 7.5 shows the predicted trip rates during the peak times and the entire day. A list of the chosen TRAVL sites can be found in Appendix 8 of this report.

Table 7.5: Summary of Commercial trip rates per 100 sqm.

Time Period	All People Trip Rate	All People Trip Rate	All People Trip Rate	Vehicular Trip Rate	Vehicular Trip Rate	Vehicular Trip Rate
	In	Out	Total	In	Out	Total
AM	61.466	60.466	121.932	2.923	2.030	4.953
PM	19.586	30.146	49.732	0.984	1.560	2.544
Entire Day	659.299	669.945	1329.243	17.089	15.456	32.545

- 7.2.4. Table 7.6 shows the predicted number of trips during the peak times and the entire day relating to the new A1/A3/A4 use space (total of 442 sqm).

Table 7.6: Possible new commercial trips

Time Period	All People Trips	All People Trips	All People Trips	Vehicular Trips	Vehicular Trips	Vehicular Trips
	In	Out	Total	In	Out	Total
AM	272	267	539	13	9	22
PM	87	133	220	4	7	11
Entire Day	2914	2961	5875	76	68	144

7.3. Existing Pub Trip Rates obtained from TRICS

- 7.3.1. As both pubs are currently operating the TRICS database was interrogated to estimate potential number of trips relating to Cape of Good Hope and The Victory Pub sites.
- 7.3.2. The site selection criteria used to determine the trip rates from the TRICS database are based upon the following criteria:
- Land use 01 – Commercial – c – Pub/Restaurant;
 - Greater London;
 - Weekday surveys
 - Surveys undertaken between 01/01/08 to 26/06/14
 - Multi-modal;
 - Sites located in Town Centre or in Neighbourhood Centre.
- 7.3.3. The TRICS database has 2 sites that meet these criteria resulting in 2 days of surveys; the resulting trip rates for the PM peak hours and whole day are summarised in Table 7.7. The full

TRICS output can be found at Appendix 6 of this Transport Assessment. The total area of existing pubs floorspace is approximately 310 sqm in total.

Table 7.6: Pub relater trips and rates

Trip Rates per 100 sqm						
Time Period	All People Trip Rate In	All People Trip Rate Out	All People Trip Rate Total	Vehicular Trip Rate In	Vehicular Trip Rate Out	Vehicular Trip Rate Total
PM	18	9.727	27.727	0.636	0.636	1.272
Entire Day	84.817	84.453	169.27	4.183	4.184	8.367
Trips						
Time Period	All People Trips In	All People Trips Out	All People Trips Total	Vehicular Trips In	Vehicular Trips Out	Vehicular Trips Total
PM	56	30	86	2	2	4
Entire Day	263	262	525	13	13	26

8.0 RESIDUAL IMPACTS

- 8.0.1 The proposed development on the Regents Park Estate is expected to generate in the region of 26 and 25 new people trips during the AM and PM peaks as set in in Table 7.3.
- 8.0.2 The modal split also show that walking, cycling and public transport trips comprise of over 98% of all trips during the peak periods.
- 8.0.3 The proposed replaced community hall is predicted not to generate any new movements, while the new commercial A1/A3/A4 land use floorspace is predicted to generate up to 539 and 220 all people trips during the peak times.
- 8.0.2 The existing Victory and Cape of Good Hope Pubs are producing low trip numbers during the morning peak, and approximately 86 all people trips during the afternoon peak times.

8.1. Public transport

- 8.1.1. A course assessment of the public transport capacity shows that the development proposal is not expected to absorb a significant amount of the public transport capacity.
- 8.1.2. With their being 65 buses in an hour available within easy walking distance of the development sites; and assuming that each bus can accommodate 50 passengers, then the bus network has a capacity of 6,500 passengers an hour. In addition, given that there are also 49 underground services an hour in each direction available to the residents of the development, (10 trains on the Circle, Hammersmith and City and Victoria lines, 8 trains on the Bakerloo Line, 6 on the Metropolitan Line and 5 on the Northern Line). Assuming that a Metropolitan Line train has a capacity of 1,003 passengers a Central line train has a capacity of 892 passengers, the Circle and Hammersmith and City Line trains have a capacity of 865 passengers, a Northern Line train a has a capacity of 665 passengers, a Bakerloo Line train a capacity of 730 passengers and a victoria Line train a capacity of 864' then the combined underground services available to residents have a capacity of 49,920 passengers in each direction.
- 8.1.3. If it is assumed that all of the walking trips also used public transport then the 24 combined new public transport trips in the AM and PM peaks represent just 0.05% of the available capacity.
- 8.1.4. Accordingly it is reasonable to conclude that the development proposal will have minimal impact upon the capacity of the public transport network.

8.2. Cycling

- 8.2.1. The predicted level of cycling trips is low and through the Travel Plan an increase in cycle usage will be sought. To support an increase in the use of cycles and thereby further comply with cycling polices and the objectives of the London Plan a number of initiatives could be implemented to raise the profile of cycling within the estate. These measures could include:
- Providing residents with maps showing cycle routes, cycle parking and the Barclays London Cycle hire station locations;
 - Educating people about the BikeBudi network (Part of the LiftShare scheme);
 - Educating residents about the health benefits of cycling; and
 - Educating residents about promoting the Cycle Super Highway.

8.3. **Pedestrians**

- 8.3.1. Pedestrian connectivity has been discussed previously in the context of access to local services and the public transport network. As the pedestrian network is very well developed within the site's vicinity and number of pedestrian crossing facilities is provided it is considered that any new walking trips will not have impact on the network.
- 8.3.2. The Regent's Park Estate is currently quite permeable for pedestrians via a network of public highway footways, as well as estate footways meandering under and around the buildings and interconnecting with each other.

8.4. **Highway residual impact.**

- 8.4.1. In accordance with Policy DP18 of the local development Framework the proposed development will be a car free development with no additional car parking being provided and new residents not being permitted to apply for 'Resident Parking Permits' on or off public highway. The resettled residents will maintain their existing rights.
- 8.4.2. With the proposed development generating a marginal number of new vehicle movements on the local road network during the entire day, with minimal generation during the peak times, no junction capacity analysis is considered necessary or indeed carried out.
- 8.4.3. Although the proposed development in traffic terms is considered to have minimal impact upon the operation of the local road network, in order to accommodate elements of the proposals it will be necessary to promote Traffic Regulation Orders and a Stopping-Up Order. Any Stopping-Up Order will be promoted under Section 247 of the Town and Country Planning Act 1990.
- 8.4.4. It is predicted that the Traffic regulation Orders will include some minor changes in the parking restrictions on the local roads, removal of one pay and display parking space, moving of some pay and display parking spaces and the prohibition of motor vehicle movements over the section of Varndell Street, in the vicinity of the Newlands site.
- 8.4.5. The Stopping-Up order is predicted to be required for The Victory Pub Site, which according to the LBC provided Public Highway Land Boundary Plan has parts of the Public Highway within the proposed building footprint. The proposed Stopping-Up order will be limited to the area required for building and its access provisions only.

8.5. **Estate parking impact.**

- 8.5.1. As the proposed replacement housing is to be located on areas of the existing parking provision it is expected that some re-provision of existing estate parking will be made.
- 8.5.2. The existing parking provision across the Regent's Park Estate is 518 parking opportunities, which are divided into 444 Estate Parking Permit Parking spaces (in undercroft and open air car parks), as well as 74 garages. All of the above are available to all of the residents of the estate under the Camden Estate Parking Permit Scheme. The parking spaces and garages are let to users in return for a fee. The parking spaces are leased on a first come/first served basis with the exception of priority needs, e.g. disability. If no spaces are available it is common to have a waiting list for available spaces.
- 8.5.3. The proposals include building on a small proportion of the existing estate parking spaces, some of which are let to residents. Based on data provide by LBC, it is clear that the existing parking provision has been underutilised for a number of years. The data reaching back five years

reveals that in 2011 382 spaces were let out. This number fluctuated slightly with there being 358, 333, 333 and 356 lets respectively in the years 2012 to 2015. In general terms the amount of let spaces is quite stable through the estate.

- 8.5.4. As a result of the HS2 development 19 car parking spaces and 4 garages will be removed. The let parking spaces are proposed to be relocated within the proximity of the new replacement units and leased as part of the existing stock of available spaces. It has to be noted that this loss in Estate parking is not part of this planning applications, however the HS2 proposal is taken into account for the overall impact for the robustness of the overall assessment.
- 8.5.5. As a result of the development another 63 spaces will be removed from across the estate. However as part of the proposal two disabled parking spaces will be replaced, bringing the total amount of estate parking spaces removed to 80. All those calculations excluded the 10 private spaces on Victory Pub Site, as the spaces are not available via LBC controlled Let and will be lost as a result of the development at no cost to the overall estate parking provision.
- 8.5.6. Any let parking spaces from the car park affected by the replacement housing development will also be relocated to the nearest possible parking location. All the lease relocation will be handled by LBC dedicated team and in consultation with lessees.
- 8.5.7. As a result of the development the overall parking pressure across the estate parking permit spaces is expected to increase from 69% to 81%. Such an increase in parking pressure is considered reasonable and the remaining available 82 parking spaces are expected to easily match the expected fluctuation in parking permit numbers. Appendix 9 shows the parking strategy drawings for car parking across estate.
- 8.5.8. The proposal to reduce the parking provision across the estate is also considered to be in line with LBC and TfL policies, as well as national guidelines on reducing the parking provision within developments with high public transport accessibility.
- 8.6. **On-Street parking impact.**
- 8.6.1. The on-street parking is also available throughout the estate. The CA-G controlled parking zone parking spaces are mixed with blue badge holder spaces, car club spaces and Pay & Display spaces.
- 8.6.2. The proposal will have a marginal impact on the on street parking provision within the estate. The entire proposal included in this planning application will seek only to remove or possible replace outside of the estate, one Pay and Display parking bay (located on Varndell Street). The loss of the Pay & Display bay was discussed with LBC parking services during the pre-application process and it was approved in principle.
- 8.6.3. The remaining parking spaces will remain unaffected by the proposals. It has to be noted that as a result of HS2 proposals there will be some changes to public highway network and on-street parking arrangements (which do not form part of this planning application), however as this application proposal have nearly no impact on the on-street parking provision it was concluded that detailed assessment of the HS2 changes is not necessary, as they will have no impact on the proposal.
- 8.7. **Alternative development impact.**
- 8.7.1. Previous chapters have outlined the HS2 proposal and its impact on this planning application. To provide a most robust assessment and alternative assumption was made that the proposed

HS2 works will not be implemented and the 164 units affected by them will remain occupied and in place. This scenario would include proposed 116 units being introduced to the Regent's Park Estate on a car free basis. Table 7.4 in previous chapter shows the predicted trip generation for such scenario.

- 8.7.2. Similar to the HS2 implementation scenario, in this case the road traffic impact would be marginal, as only vehicle movements generated by the development will related to servicing and deliveries.
- 8.7.3. As the 116 units are predicted to generate 133 and 134 public transport trips during morning and afternoon peak times, respectively, this would equate to 0.27% of public transport capacity within the area. Such increase in demand is not considered significant and is predicted no to have any impact.
- 8.7.4. The alternative scenario would include the 19 parking spaces and 4 garages, proposed to be removed by HS2 works. This would mean that a loss of 57 parking spaces would be experienced as a result of this proposal, which in turn would change the parking pressure within the estate parking permit spaces from current 69% to just nearly 78%.
- 8.7.5. No other transport impacts would be considered to be different to scenario assessed above. The extent of the impacts and the predicted traffic generation for the development will give a marginal impact and will aim at promoting more sustainable travel within area od inner London.
- 8.8. **Construction Traffic.**
- 8.8.1. With any proposed development, there will be time when the construction traffic will be required to make its way to and from the sites. As the majority of the sites will be developed in similar time and most likely by the same contractors it is reasonable to expect that some deliveries and trips will be interlinked between the sites.
- 8.8.2. The proposed development construction traffic will be supported and ruled by the Construction Logistics Plan, which will be expected to be produced when the contractor appointment will be confirmed. The CLP will be produced in line with the Transport for London guidelines and is expected to include measures like driver training, usage of cyclist friendly vehicles and FORS membership of the contractor.
- 8.8.3. It is also predicted that during the construction period some temporary roadway, footway and parking closures will be required. It will be aimed to keep those to minimum and shut only the necessary areas for safe and efficient construction. The general arrangements for temporary closures were discussed during the pre-application process and were approved in principle, however the details of each restrictions required for each site will need to be confirmed by contractor and individually approved by the LBC.
- 8.8.4. As some of the works can overlap with HS2 proposed work package, the appointed contractor will be in discussion with the HS2 contractors undertaking the works, to ensure minimal impact to the road network. The general access challenges were also discussed during the pre-application process and assurances were made that a dedicated LBC officer will be coordinating all the communication between different works taking place at the same time.

9.0 HIGHWAY WORKS

- 9.1. In order to facilitate the development it will be necessary to undertake some minor highway works on a number of the streets within the estate; the works being as follows:

Albany Street

- Public realm works to the footway adjacent to the former Cape of Good Hope public house; and
- Public realm works to the footway adjacent to the Victory public house.

Redhill Street

- Public realm works to the footway adjacent to the Regents Park Residents Association building.

Roberts Street

- Public realm works to the footway adjacent to the site of the residents car park located between the Derwent and Rydal House blocks.

Varndell Street

- Public realm works to the footway adjacent to the current open space at the junction with Stanhope Street.

- 9.2. In addition to the above minor works to the highway, there will also be a need to promote few Traffic Regulation Orders. Appendix 5 includes a set of indicative drawing of the anticipated highway works. There is also a need to instigate a Stopping-Up Order, which will be required for Victory Pub development site.

- 9.3. All Public Highway works will be subject to Section 278 works, and are expected to be completed by LBC or their appointed contractor.

10.0 SUSTAINABILITY AND ACCESS TO LOCAL FACILITIES

- 10.1. The Regents Park Estate and the development proposals in particular are well located in terms of public transport accessibility with a PTAL rating of between 4 to 6b; Residents of the development will have access to 5 Underground Stations and 6 bus stops all of which are within easy walking distance of all the proposed development sites.
- 10.2. The 5, 10 and 15 minute walking and cycling isochrones are shown on Figures 2 and 3 respectively. They show that a vast area of inner London can be easily accessed via a short walking or cycling trip.
- 10.3. In addition to the site's close proximity to the public transport network, the development is also located within easy walking distance of medical, educational, retail leisure and community facilities. Table 10.1 summaries the facilities and their distance from the centre of the Regents Park Estate. The location of these facilities is shown on Figure 4 of this report.

Table 10.1: Accessibility to local facilities

Service	Distance (m)	Within Walking Distance*
<i>Healthcare</i>		
Doctor (Regents Park and Ampthill practice)	122	Yes
Doctor(Camden health improvement practice)	195	Yes
Dentist (Arrow Dental practice)	82	Yes
Dentist (Confident dental Practice)	259	Yes
Pharmacy (green light pharmacy, Hampstead Rd)	445	Yes
<i>Education and childcare</i>		
Netley Primary School Stanhope Street	100	Yes
Christ Church of England Primary School	243	Yes
Regents Park childcare centre Augustus street		Yes
<i>Retail</i>		
Post office (Albany Street)	261	Yes
Supermarket	181	Yes
Convenience store (9)	240 - 491	Yes
Bank (2)	392 - 446	Yes
<i>Leisure</i>		
Library (Regents park library)	100	Yes
Sports and fitness centres (2)	304 - 323	Yes
Restaurants and cafés (22)	162 - 497	Yes

- 10.4. Table 10.1 clearly demonstrates that the development sites have excellent accessibility to a wide range of services all of which are within comfortable walking distance.
- 10.5. The accessibility of the development to public transport services and local amenities that are regularly used on a daily basis ensures that residents of the new development do not have to rely on the use of the private car for most journeys. Therefore it is reasonable to conclude that residents will be able to maximise their use of sustainable modes of transport.

11.0 SUMMARY AND CONCLUSIONS

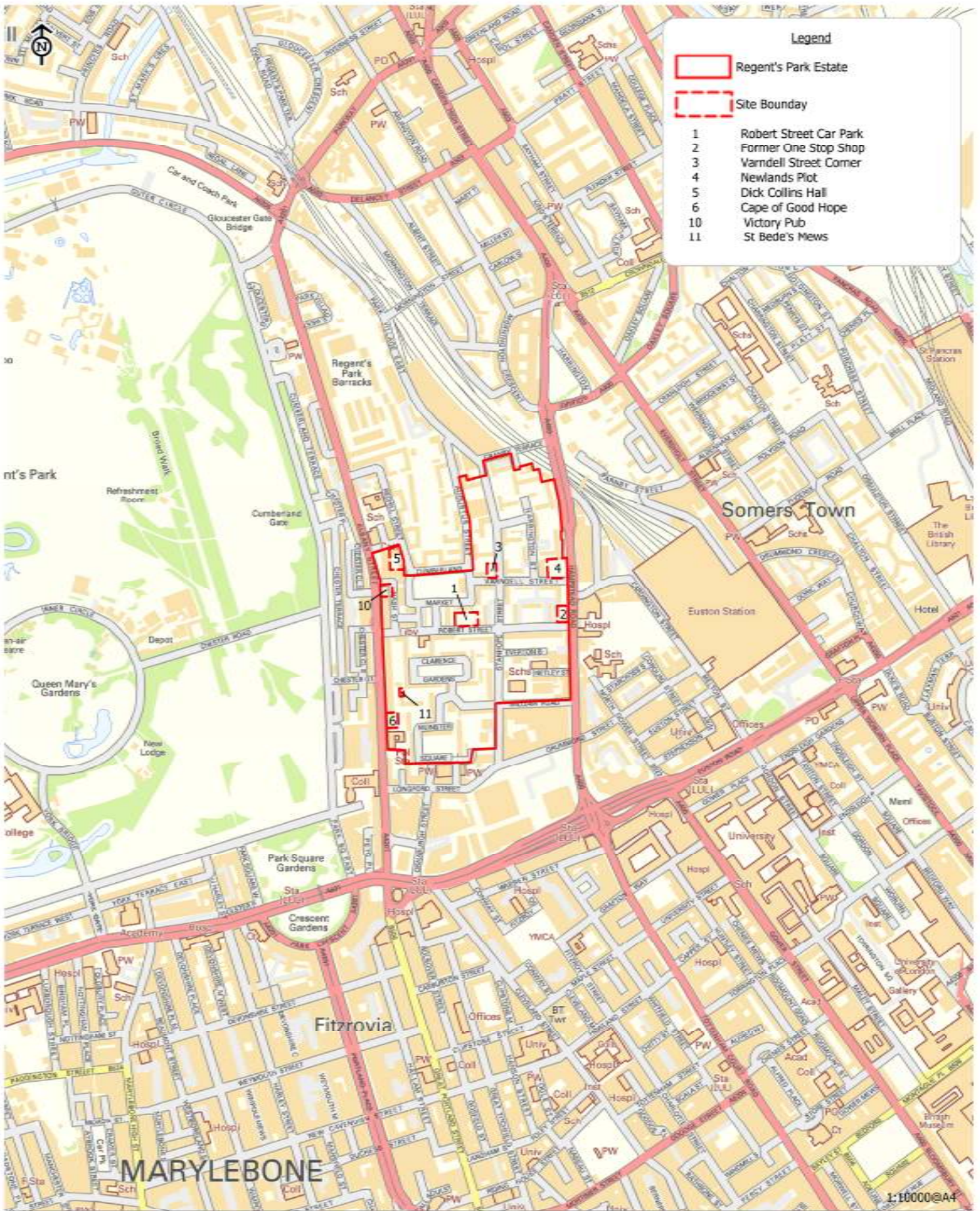
Summary

- 11.1. This Transport assessment has assessed the likely impacts the proposed development on the Regents park estate may have upon the local transport network, and the findings are briefly summarised below.
- 11.2. The development sites have excellent accessibility to the public transport network and local facilities and amenities. The development sites have a PTAL rating of 6b, which is classified as excellent.
- 11.3. The development proposal in accordance with the policies contained within the LB Camden Development Framework will not be providing any additional general off-street parking. In addition, any new residents will not be permitted to apply for resident parking permits. However, additional disabled parking will be provided in accordance with the LB Camden requirements.
- 11.4. With the development not providing any additional parking provision, as confirmed by an interrogation of the TRICS database, the level of vehicle trips is greatly suppressed. Based on the trip rates obtained from the TRICS database the development proposal is expected to generate just x vehicle movement during the AM peak and x vehicle movements during the PM peak. As a consequence there will be a minimal increase in the number of vehicle trips added to the local road network, therefore it was deemed unnecessary to undertake any junction capacity analysis.
- 11.5. The development proposal is likely to generate 565 and 459 people trips during the AM and PM peak hours respectively.
- 11.6. The public transport network in the vicinity of the development sites has been assessed to have a capacity in the order of 49,920 passengers an hour and the most robust assessment of the development is predicted to use approximately 0.2% of the available capacity. Therefore the public transport is considered to be able to accommodate the additional demand without the need for any additional capacity to be provided.
- 11.7. In order to facilitate the development proposal it will be necessary to implement a Traffic Regulation Orders.
- 11.8. Refuse and recycling collections will be undertaken by LB Camden as part of their normal services. A swept path analysis has been undertaken that demonstrates that the refuse vehicle can access the development satisfactorily.

Overall Conclusions

- 11.9. Therefore, it is the overall conclusion that this Transport assessment that there is nothing about the transportation effects of impacts arising from the development proposals that should be used as grounds for refusal of the planning application.

Figures



Regents Park Estate

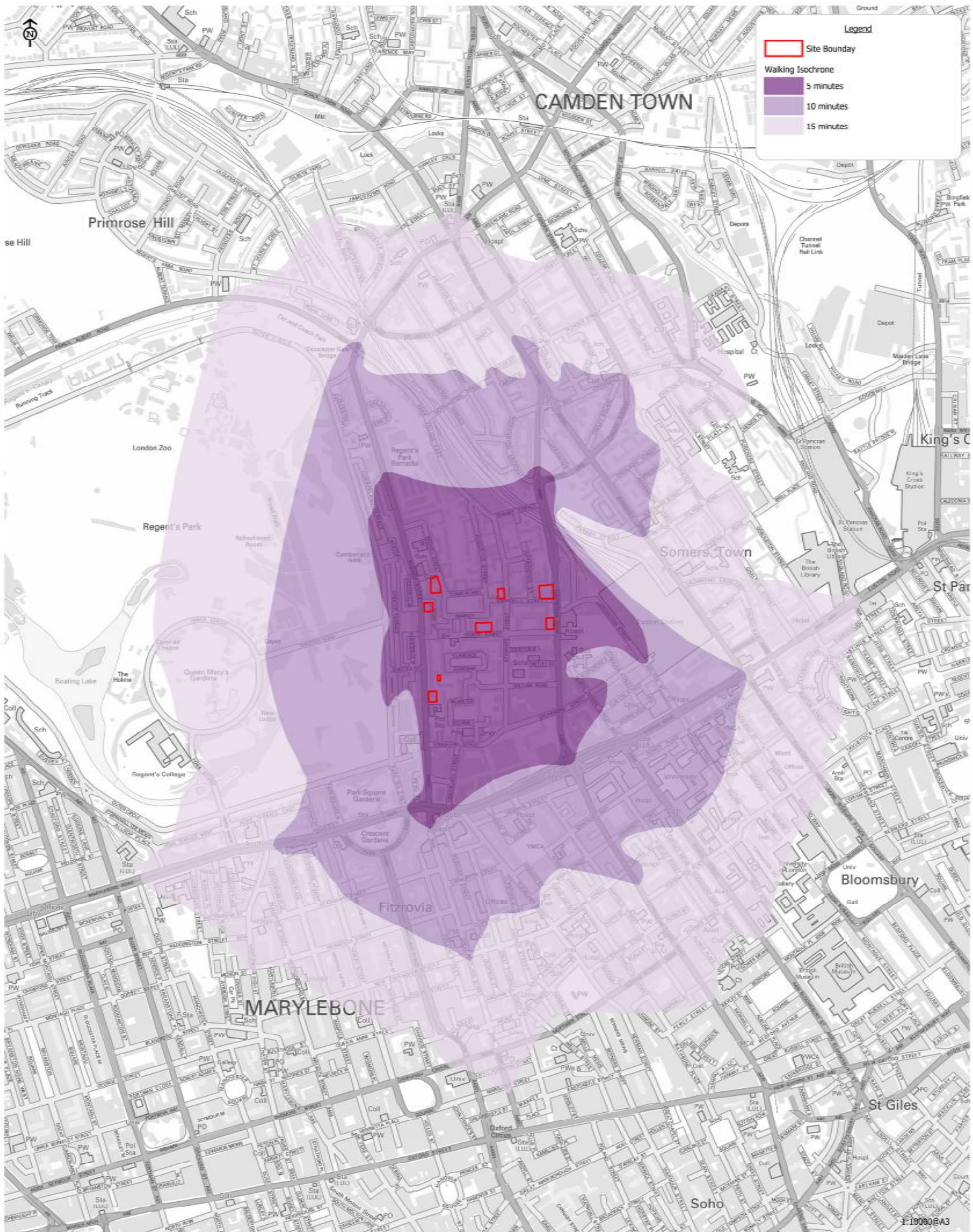
Client: Camden

Figure 1:
Site Location

Scale: 1:10000@A4
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 Job Number: 11775
 Drawn by - Checked by: RC - MJ
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Regents Park Estate
 Client: Camden

Figure 2:
 Walking Isochrone

Scale: 1:10000@A3
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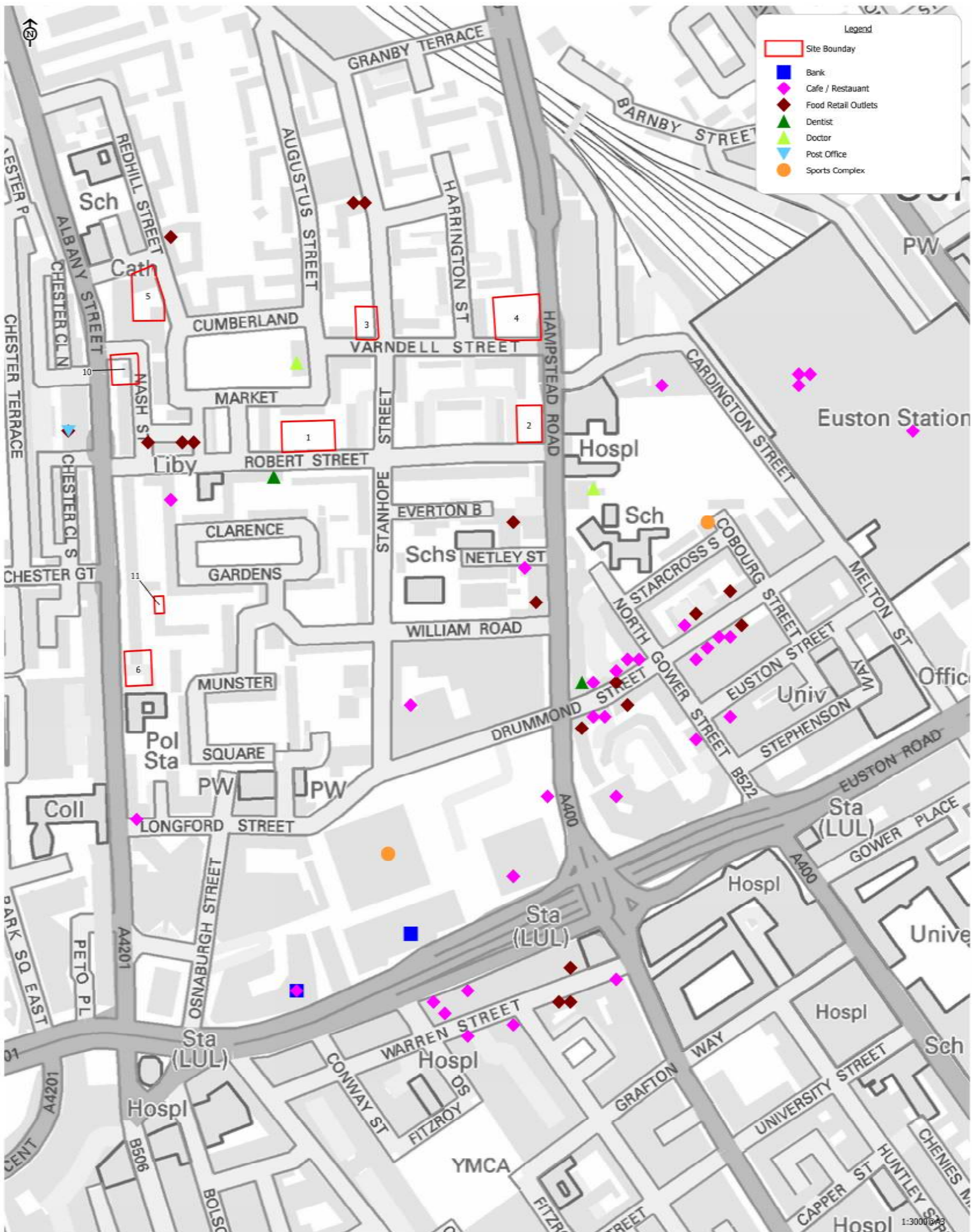


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 Client: Camden

Figure 3:
 Cycling Isochrone

Scale: 1:30000@A3
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Figure 4:
 Local Amenities

Scale: 1:3000@A3
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