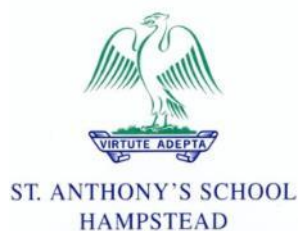


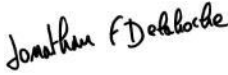


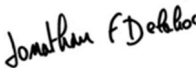




1 - 3 ARKWRIGHT ROAD, HAMPSTEAD, LONDON
Transport Assessment

July 2015



Quality Management

Issue/revision	Issue 1	Revision 1	Revision 2	Revision 3
Remarks				
Date	18/12/2014	17/07/2015		
Prepared by	J Delahoche	J Cox		
Signature				
Checked by	S Moody	J Delahoche		
Signature				
Authorised by	N Poulton	N Poulton		
Signature				
Project number	7000384	7000384		
Report number	1			
File reference	P:\70000384 - 3 Arkwright Road\C Documents\Reports\Transport Assessment July 2015\150716 - Transport Assessment - 3 Arkwright Rd - DRAFT.docx			

1 - 3 ARKWRIGHT ROAD, HAMPSTEAD, LONDON

Transport Assessment

July 2015

Client

St Anthony's School,
90, Fitzjohn's Avenue,
Hampstead,
London,
NW3 6NP



Consultant

WSP UK
70 Chancery Lane
London
WC2A 1AF
UK

www.wspgroup.co.uk

Registered Address

WSP UK Limited
01383511
WSP House, 70 Chancery Lane, London, WC2A 1AF

WSP Contacts

A Norcutt
N Poulton
J Delahoche

Table of Contents

1	Introduction	3
2	Policy Overview	6
3	Proposed Development	9
4	Existing Conditions	20
5	Current Travel Patterns.....	29
6	Traffic Generation	32
7	Impact on Local Infrastructure & Mitigation	38

DRAWINGS

WSP | PB Drawing 0384/SK/011A Proposed On-Street Road Marking Alterations, Arkwright Rd

APPENDIX

- Appendix A – Site Layout Plan
- Appendix B – Summary of Accident Data

1 Introduction

1.1 Appointment

- 1.1.1 WSP | Parsons Brinckerhoff (WSP | PB) has been appointed by Alpha Plus Group Limited, the parent company of St Anthony's Preparatory School, to provide transport consultancy services in support of a planning application for St Anthony's expansion from 1 Arkwright Road into 3 Arkwright Road, Hampstead, London.
- 1.1.2 This Transport Assessment has been prepared and produced in accordance with guidance set out in Department Communities and Local Government (DCLG) document 'Travel Plans, Transport Assessments and Statements in Decision-taking', superseding 'Guidance on Transport Assessments' (GTA), March 2007.
- 1.1.3 Further guidance has been obtained from Transport Assessment best practice guidance document, TfL 2006 and CPG7 – Transport, Camden Planning Guidance.
- 1.1.4 We consider that this Transport Assessment provides sufficiently robust analysis to allow Transport for London (TfL) and the London Borough of Camden (LBC) to make informed decisions on the planning application.

1.2 Background to Alpha Plus Group

- 1.2.1 Alpha Plus Group (APG) creates high quality centres of educational excellence such as Primary Schools, Secondary Schools and Colleges.
- 1.2.2 APG own and manage 19 schools and colleges in the UK predominately in the South East.
- 1.2.3 They have a firm commitment to sustainability throughout their portfolio with a particular emphasis on encouraging sustainable travel to and from their schools.
- 1.2.4 WSP has successfully worked with APG in the past to provide effective school transport strategies and assist with school travel planning, across Alpha Plus Groups school portfolio, to reduce car travel at many schools.

1.3 St. Anthony's School

- 1.3.1 St. Anthony's is an academic Independent Association of Preparatory Schools (IAPS) for boys between the ages of 4 – 13 years.
- 1.3.2 St. Anthony's currently provides high quality education to 295 pupils across two buildings:
 - 90 Fitzjohn's Avenue – Junior House, and
 - 1 Arkwright Road – Senior House.

1.4 Proposed Development

- 1.4.1 St Anthony's is the only all boys Roman Catholic Preparatory school in North London. It was established in Fitzjohns Ave, Hampstead more than half a century ago with its gates opening up to pupils in 1952. The school has its roots firmly in Hampstead with approximately 80% of its pupils living within a 3 mile radius of the school, and half within a two mile radius.

- 1.4.2 Following extensive research the school has identified that there is a significant need for additional school places in the Hampstead area and the London Borough of Camden, especially those seeking a Catholic education. There are also more than 7,000 new homes being planned for Camden in the next five years, which also adds to the demand for school places.
- 1.4.3 In 2013, St. Anthony's purchased 3 Arkwright Road, a vacant residential property adjacent to 1 Arkwright Road, with the intention of expanding the school into this property. This proposed development will enable the school to meet the demand for new school places without the disruption of building an entirely new facility.
- 1.4.4 The additional building will facilitate one extra class per year group from Reception to Year 6. This will result in the school being able to gradually offer up to an additional 140 school places at 3 Arkwright Road. The proposals incorporate the creation of a new Dining Hall facility which will alleviate the need for pupils to cross the busy Fitzjohn's Avenue for lunch and assemblies.
- 1.4.5 The proposals incorporate the operation of a new Park and Ride (P&R) facility at the nearby O2 Centre car park on Finchley road. The School already encourages a sustainable ethos and works hard to encourage parents to travel to the school using sustainable methods of travel. However for parents who have no other options but to drive, the P&R scheme will mean that parents can still drive part of the way to school but will be required to safely drop-off their children at the O2 Centre, from where their children will then be transported the remaining distance to the school via mini buses, under the care of qualified and trained school staff.
- 1.4.6 The P&R will have the benefit to reducing congestion on local roads close to the School and specifically on Arkwright Road, making the local highway network a safer place for residents and pupils.
- 1.4.7 Parents of all new pupils starting at the new school building, will not be allowed to drive to the school and to drop / pick off their children on Arkwright Road. Thus if a parent needs to drive to the School they will be required to use the P&R scheme. This will be enforced through parent contracts for new starters at the new school building and through staff enforcement.
- 1.4.8 Existing families, who currently drive their children to the school will also be encouraged to use the Scheme and will be strongly discouraged from dropping on Arkwright Road, via the no-drop zone. If families already have a child at the school, should their sibling then join as a new starter to the school, they will be required to sign a parent contract to use the P&R.
- 1.4.9 Full details of the P&R scheme are detailed fully later in this report (Chapter 3)

1.5 Site Location

- 1.5.1 As shown on **Figure 1**, the site is located within the London Borough of Camden, within 550m of the A41 Finchley Road and within walking distance of Hampstead High Street. It is located in a mixed urban quarter which is predominately residential. There is also an existing school, several public houses, a major hospital and an array of small businesses in the local area.

Figure 1 Site Location



1.6 Report Structure

1.6.1 The remainder of the Transport Assessment (TA) is presented in the following sections:

- Section 2: Provides an overview of national and local policies in relation to the development proposals;
- Section 3: Identifies the development proposals;
- Section 4: Provides an overview of existing conditions in the site area, specifically public transport facilities, road traffic conditions and current mode choice of residents;
- Section 5: Provides details of the current school's travel demand;
- Section 6: Details the expected trip generation and mode share resulting from the development proposals;
- Section 7: Provides an impact assessment for the development and conclusion;

2 Policy Overview

2.1 Introduction

- 2.1.1 The transport aspects of the development proposals have been assessed against the relevant national, regional and local transport policy guidance. These have been reviewed in turn and are set out below.

2.2 National Planning Policy Framework

- 2.2.1 The National Planning Policy Framework (NPPF) was adopted in March 2012. The NPPF replaces existing national planning policy guidance and statements, such as PPG13 and PPS3, with a single more concise document. The NPPF aims to enable local people and their relevant Councils to produce their own distinctive local and neighbourhood plans, which reflect the needs and priorities of their communities.
- 2.2.2 The NPPF embraces a presumption in favour of sustainable development which should be delivered with three main dimensions: economic; social and environmental.
- 2.2.3 With regard to transport, the NPPF sets aims for a transport system balanced in favour of sustainable transport modes, in order to give people a real choice about how they travel. It also encourages solutions which support reductions in greenhouse gas emissions and reduce congestion.
- 2.2.4 Relating to facilitating economic growth Paragraph 32 of NPPF sets out that:
- *“All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:*
 - *The opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure.*
 - *Safe and suitable access to the site can be achieved for all people; and*
 - *Improvements can be undertaken within the transport network that cost effectively limits the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.”*
- 2.2.5 The NPPF sets out that those developments that generate significant movement should be located where the need to travel will be minimised and the use of sustainable transport modes can be maximised. Developments should be located and designed where practical to:
- 2.2.6 Accommodate the efficient delivery of goods and supplies;
- Give priority to pedestrian and cycle movements and have access to high quality public transport facilities;
 - Create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;
 - Incorporate facilities for charging plug-in and other ultra-low emission vehicles; and
 - Consider the needs of people with disabilities by all modes of transport.

- 2.2.7 Travel Plans are considered a key tool in achieving the above, and should be provided where developments generate significant amounts of movement.

2.3 London Plan 2011

- 2.3.1 The replacement London Plan was adopted in July 2011 and replaces the former London Plan (2004). The London Plan sets out to ensure that London's transport is easy, safe and convenient for everyone and encourages cycling, walking and use of electric vehicles.
- 2.3.2 The London Plan states that London should be a city where it is easy, safe and convenient for everyone to access jobs, opportunities and facilities, with an efficient and effective transport system which actively encourages more walking and cycling and makes better use of the Thames.
- 2.3.3 The Mayor recognises that transport plays a fundamental role in addressing the whole range of his spatial planning, environmental, economic and social policy priorities. It is critical to the efficient functioning and quality of life of London and its inhabitants. It also has major effects – positive and negative – on places, especially around interchanges and in town centres and on the environment, both within the city itself and more widely.
- 2.3.4 Policy 6.1 stresses the importance of closer integration of transport and development and hopes to encourage this by (inter alia):
- Encouraging patterns of development that reduce the need to travel, especially by car;
 - Seeking to improve the capacity and accessibility of public transport, walking and cycling, particularly in areas of greatest demand;
 - Supporting development that generates high levels of trips only at locations with high levels of public transport accessibility, either currently or via committed, funded improvements;
 - Improving interchange between different forms of transport, particularly around major rail and Underground stations, especially where this will enhance connectivity in outer London;
 - Facilitating the efficient distribution of freight whilst minimising its impacts on the transport network;
 - Supporting measures that encourage shifts to more sustainable modes and appropriate demand management;
 - Promoting greater use of low carbon technology so that CO₂ and other contributors to global warming are reduced;
 - Promoting walking by ensuring an improved urban realm; and
 - Seeking to ensure that all parts of the public transport network can be used safely, easily and with dignity by all Londoners, including by securing step-free access where this is appropriate and practicable.
- 2.3.5 Policy 6.3, regarding the effects of development on transport capacity, stresses that new developments that will give rise to significant numbers of new trips should be located where there is already good public transport accessibility with capacity adequate to support the additional demand. Phasing development, the use of travel plans and addressing freight issues may all help reduce the impact of the development.

2.4 London Borough of Camden's Local Development Framework and Core Strategy (2010-2025)

2.4.1 The Core Strategy document is the central element of the London Borough of Camden's (LBC) Local Development Framework (LDF). The Core Strategy sets out strategy and planning policies for the Borough for the 2010 to 2025 period.

2.4.2 The Core Strategy document identifies the vision for the Borough as:

- A sustainable Camden that adapts to a growing population;
- A strong Camden economy that includes everyone;
- A connected Camden community where people lead active, healthy lives;
- A safe Camden that is a vibrant part of our world city.

2.4.3 A series of objectives have been developed to support the vision LB Camden. Relevant transport objectives are summarised below:

Table 2-1 LDB Core Strategy Strategic Objectives

Objectives	Core Strategy Policies
To reduce congestion and pollution in the borough by encouraging more walking and cycling and less motor traffic, and to support and promote new and improved transport links, at King's Cross, St Pancras, Euston, Tottenham Court Road, West Hampstead and elsewhere.	CS2, CS3, CS11, CS16
To reduce the environmental impact of transport in the borough and make Camden a better place to walk and cycle.	CS11, CS16

2.4.4 Whilst Policy CS2 and CS3 relates to growth within highly accessible areas, such as King's Cross, Euston or Tottenham Court Road for example, Policy CS11 relates to the promotion of sustainable method of transport within the Borough.

2.4.5 Policy CS11 – Promoting sustainable and efficient travel, confirms that the Borough will promote sustainable methods of transport, such as facilities for cyclists and pedestrians, and work with TfL to improve bus services.

2.4.6 Furthermore, through Policy CS11 the Borough confirms that it intends to tackle congestion and address environmental impact of travelling by:

- *“j) Expand the availability of car clubs and pool cars as an alternative to the private car;*
- *k) Minimise provision for private parking in new developments, in particular through:*
 - *car free developments in the borough's most accessible locations and*
 - *car capped developments;*
- *l) Restrict new public parking and promote the re-use of existing car parks, where appropriate;*
- *m) Promote the use of low emission vehicles, including through the provision of electric charging points; and*
- *n) Ensure that growth and development has regard to Camden's road hierarchy and does not cause harm to the management of the road network.”*

3 Proposed Development

3.1 Current School Profile

3.1.1 St. Anthony's School is an academic preparatory school for boys between the ages of 4 and 13. The total number of pupils currently registered at the school is 295.

3.1.2 Currently there are 152 pupils in the Junior School (90 Fitzjohn's Avenue) and 143 pupils in the Senior School (1 Arkwright Road). The maximum numbers of pupils the School can accommodate, in accordance to the Department for Education (DfE) standards, is 310 pupils.

3.1.3 The school is open from 08:15 until 18:00 for pupils and from 07:15 until 20:00 for staff.

3.1.4 Existing School Opening Times are:

■ School site opening time	07:15
■ School site closing time	20:00
■ Breakfast club start time (if applicable)	n/a
■ Student's official school start time	08:30

3.1.5 Existing leaving time of the pupils is as follow:

■ Reception	15:15
■ Juniors	15:30
■ Seniors	16:00
■ After School Clubs (e.g. music...)	18:00

Staff / Workforce

3.1.6 The School currently employs 60 full-time and part-time staff, these are broken down below. It is to be noted that the catering staff have shift patterns that are outside the school peak travel periods.

- Full time-teachers: 28
- Part time teachers: 9
- Teaching assistants: 10
- Office staff: 4
- Premises staff: 2
- Catering staff: 7

3.2 Existing School Operation

3.2.1 As noted the School operates two buildings, 1 Arkwright Road, located at approximately 80m west of Fitzjohn's Avenue junction, and 90 Fitzjohn's Avenue located directly opposite Arkwright Road at the traffic signal junction.

Current School Access

3.2.2 At Arkwright Road / Fitzjohn's Avenue a signal controlled junction is provided with controlled pedestrian crossing on all 3 arms. Pedestrian guardrails are provided along Fitzjohn's Avenue between the two pedestrian crossing points.

- 3.2.3 90 Fitzjohn's Avenue is a large Edwardian/Georgian House, where the main access door, a large porch entrance, is located at the house frontage.
- 3.2.4 The pedestrian access to 90 Fitzjohn's Avenue is located to the east of the junction. The pedestrian access then leads to the building porch entrance, next to the existing car parking located within the buildings forecourt, or to a gateway which leads to the rear of the school.
- 3.2.5 Vehicular access to the School car park is located to the west of the junction. The access is a simple crossover, provided with dropped kerbs. The access point is restricted in width and allows only one vehicle entering or leaving the School at any one time. The access is shared with a third party property located to the north of the site.
- 3.2.6 1 Arkwright Road is another large Edwardian/Georgian era house. The main access to the building is located approximately 80m west of Fitzjohn's Avenue junction. The entrance is provided via stairs up to the front door of the building.
- 3.2.7 There are several cross overs along the property frontage, one of which is located on a raised table and provides access to the School's playground. Another cross over leads to a single parking space to the southwest of the property.

Parking

- 3.2.8 Currently the school provides 8 staff car parking spaces and 1 visitor space. One of these spaces is available at 1 Arkwright Road, accessed via a vehicle crossover. The rest of the spaces are located on 90 Fitzjohn's Avenue forecourt car parking. The school has a policy that no new staff are offered car parking and hence, as senior staff members leave, car parking is reduced.
- 3.2.9 The School also provides 6 cycle racks and scooter parking facilities located at 90 Fitzjohn's Avenue.

Mini Bus Service

- 3.2.10 St. Anthony's runs a Home to School bus service from Highgate Village. The Service is operated by Brent Community Transport.
- 3.2.11 In the morning, the bus arrives at the junction of Southwood Lane and Highgate High Street at 7:45 and departs at 8:00, arriving at St Anthony School at 8:30. For the reverse journey in the afternoon, the bus arrives at 16:00 at the School and departs at 16:15, arriving in Highgate at approximately 16:50.

Servicing

- 3.2.12 On average there are around 7 deliveries per day to the School. Most deliveries occur within the School forecourt for 90 Fitzjohn's Avenue, occasionally larger vehicle park on the pay and display along Fitzjohn's Avenue.
- 3.2.13 Refuse/Recycling collections are provided on a weekly basis by the London Borough of Camden Council, from the highway.

Sports and Dining Facilities

- 3.2.14 1 Arkwright Road does not currently offer pupils a dining hall. Senior pupils studying within this building are therefore required to travel to No. 90 Fitzjohn's Avenue on at least a daily basis for lunchtime and school assemblies, sports etc. Such trips require crossing the signal controlled junction of Arkwright Road/ Fitzjohn's Road which lies between the two school buildings.
- 3.2.15 The School has identified, that as a result of these required pupil movements, each week there are approximately 2,122 pupil crossings at the pedestrian crossing on the junction of Arkwright Road and Fitzjohn's Avenue.

3.3 Proposed Development

- 3.3.1 The development proposals seek to improve and expand St Anthony's Preparatory School. In 2013, St. Anthony's purchased 3 Arkwright Road, a vacant residential property adjacent to 1 Arkwright Road, with the intention of expanding the school into this property.
- 3.3.2 The additional building will facilitate one extra class per year group from Reception to Year 6. This will result in the school being able to gradually offer up to an additional 140 school places at 3 Arkwright Road, across 7 new classrooms. All necessary support ancillary and administration facilities will be located in the building. 3 Arkwright Road will be self-contained with dining facilities located on the ground floor and the kitchen located on the lower ground for use by both existing and new pupils located in 1 and 3 Arkwright Road. Access to the building is retained from Arkwright Road.
- 3.3.3 The proposals incorporate the operation of a new Park and Ride (P&R) facility at the nearby O2 Centre car park on Finchley road. The School already encourages a sustainable ethos and works hard to encourage parents to travel to the school using sustainable methods of travel. However for parents who have no other options but to drive, the P&R scheme will mean that parents can still drive part of the way to school but will be required to safely drop-off their children at the O2 Centre, from where their children will then be transported the remaining distance to the school via mini buses, under the care of qualified and trained school staff.
- 3.3.4 The P&R will have the benefit to reducing congestion on local roads close to the School and specifically on Arkwright Road, making the local highway network a safer place for residents and pupils.
- 3.3.5 Full details of the development proposal are summarised below:
- Creation of seven new classrooms, enabling the school to expand to offer up to an additional 140 school places;
 - The creation of a new Dining Hall facility to accommodate the school at the enlarged Arkwright Road site, thus alleviating the need to cross the busy road several times a day;
 - Operation of a new Park and Ride (P&R) facility at the nearby O2 Centre car park on Finchley road, which all parents of the new school building will be required to use, should they wish to drop/pickup their children by car;
 - Reorganisation of the street scape fronting 3 Arkwright right, including the relocation of a residents parking bay slightly further south-west on the road, and the closing of redundant crossovers to create a single yellow line for additional mini bus loading on Arkwright Road;
 - New outdoor play space in the long and secluded rear garden at No 3 Arkwright Road;
 - 24 covered and secure cycle spaces and additional scooter parking.

- 3.3.6 The site location for 1 and 3 Arkwright road is shown below:

Figure 2 Site Location



- 3.3.7 The development proposals will result in an internal redevelopment and a two storey rear extension to create the following proposed floor areas within 3 Arkwright Road

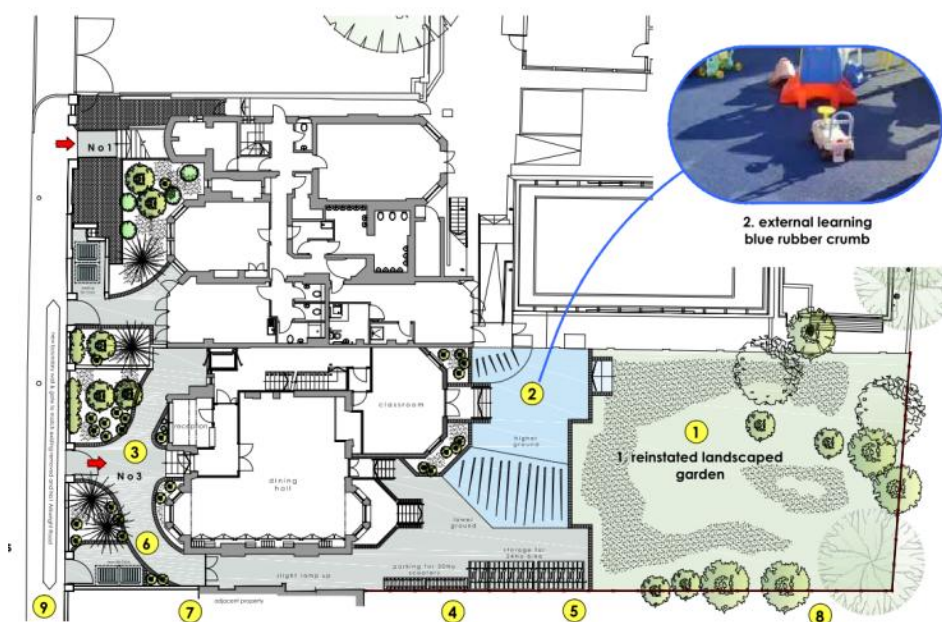
Table 3-1 Changes in Gross Internal Floor Areas (m2)

	Existing Gross Internal Floor Area (m2)	Proposed Gross Internal Floor Area (m2)
Basement	89	145
Ground	121	162
First	112	156
Second	111	117
TOTAL	368	580

Detailed Site Layout

- 3.3.8 The proposed development layout, prepared by the RPA Group is shown in **Figure 3** below and included within Appendix A.
- 3.3.9 The development will provide a new learning area and reinstated garden located to the rear of the building (Numbers 1 & 2 on the plan), improve the access to the building (3) and provide a new scooter storage area (4) and covered bike storage (5) for 24 bikes. The bin store will be located at the front of the building (6). The boundary with the adjacent property (5 Arkwright Road) will be reinforced to secure the School with a new access gate and acoustic fencing (7 & 8).
- 3.3.10 The existing front access to 1 Arkwright Road and the proposed access to 3 Arkwright Road are shown on **Figure 3**. The proposed changes at the front of these buildings will result in the removal of three vehicle crossovers, one outside No 1 and two outside No 3 Arkwright Road. These will be replaced at the front site boundary with a low wall and planting.
- 3.3.11 The new catering and dining hall facilities at 3 Arkwright Road will reduce the need for pupils to travel between Arkwright Road and Fitzjohn's Avenue. The School anticipates that these proposals will equate to a 78% reduction in the number of crossings undertaken by pupils (across Fitzjohn's Avenue), greatly increasing pupil safety.

Figure 3 Proposed Development Layout (Source: RPA Group)



Servicing

- 3.3.12 The proposals will not significantly increase deliveries already occurring at the School. However, the creation of kitchen facilities will result in some deliveries which now need to be dropped at the front of No 1 and 3 Arkwright Road.
- 3.3.13 It is proposed that this will be achieved using the proposed introduction of single yellow lining outside 3 Arkwright Road or through the use of the existing bus bay (outside of the bus bay operational hours) located adjacent to 1 Arkwright Road. The bus bay is in operation between 08:00-09:00 and 15:00-17:00 Mondays to Fridays and delivery vehicles will only seek to use this space outside these hours.

Anticipated Staff/Pupil Numbers

- 3.3.14 Comparing the existing pupil / staff ratio with the proposed increase in student numbers results in the following estimation of additional staff, as shown in **Table 3-2** below:

Table 3-2 Additional Staff & Pupil Numbers

	Current Pupils / Staff Numbers	Proposed Additional Pupils/ Staff Numbers
Pupils	295	140
Teachers	37	18
Assistants	10	5
Office Staff	4	2
Premises Staff	2	1
Catering Staff	7	3

- 3.3.15 As previously noted, catering and caretaker staff shift patterns are generally outside normal school peak periods.
- 3.3.16 Based on current ratios of pupils to staff, it is therefore anticipated that the number of staff will increase by approximately 29, of which 18 are teacher (full and part-time) and 5 are teaching assistants.
- 3.3.17 The above will provide the base of a robust assessment, potentially overestimating the number of part-time staff and office staff, as some positions will be covered by existing employees based in the existing school buildings.

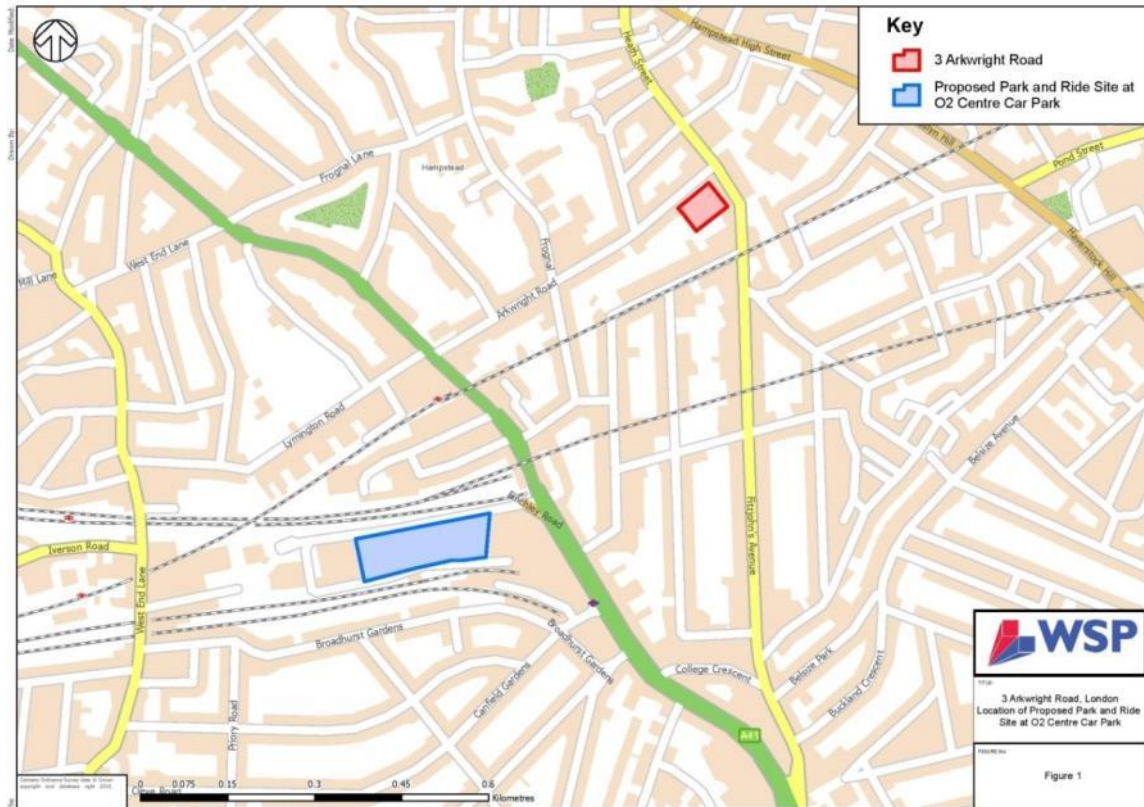
Sustainably Meeting Demand for Independent School Education:

- 3.3.18 Research undertaken by MTM Consulting identifies suppressed demand for independent school places within the local area, particularly for Catholic school places. Catholic schools as a whole, within 15 minutes of the proposed site, are identified as being over capacity (105% in 2013 according to Edubase figures). This suggests there is an increasing demand for Catholic independent schools within the catchment and it is felt that incorporating such an offering within the expansion of an existing and established Catholic boys school (in combination with a remote P&R operation) would result in markedly less traffic impact than a new independent Catholic school in the local area.

3.4 Park and Ride Operation

- 3.4.1 The development proposals incorporate the proposed operation of a new School Park and Ride (P&R) facility at the nearby O2 Centre car park on Finchley road (located at approximately 750m to the southeast of St Anthony's School). Figure 4 below shows the location of the proposed School Park & Ride location in relation to the School buildings on Arkwright Road.

Figure 4 School Park & Ride Site Location



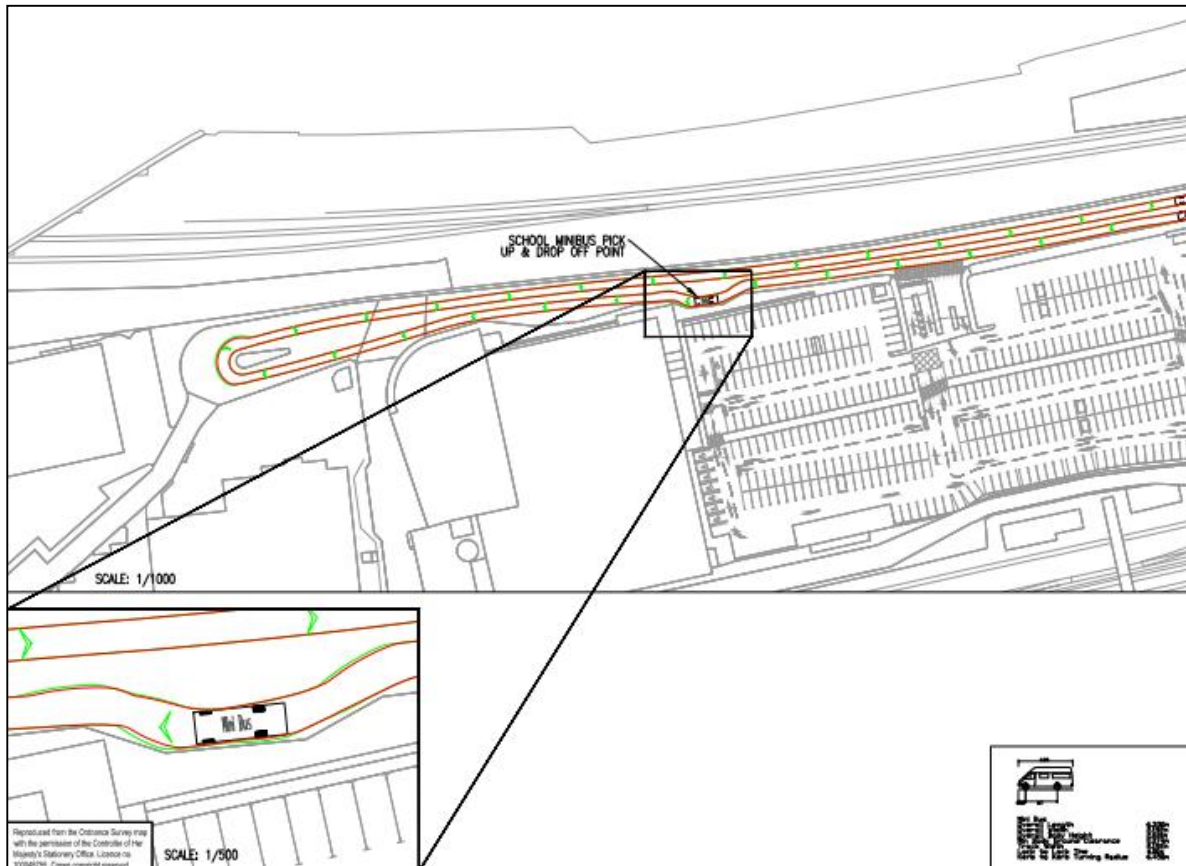
- 3.4.2 The School already encourages a sustainable ethos and works hard to encourage parents to travel to the school using sustainable methods of travel. However for parents who have no other option but to drive, the P&R scheme will mean that parents can still drive part of the way to school but will be required to safely drop-off their children at the O2 Centre, from where their children will then be transported the remaining distance to the school via mini buses, under the care of qualified and trained school staff.
- 3.4.3 Agreement has been officially reached with the O2 Centre Car Park operator (LandSec Securities) to use the car parking as a Park and Ride Site for the school during the morning and afternoon peak school drop/off pick up periods, when the car park is generally quiet and has ample capacity.
- 3.4.4 Parents will be able to park within the O2 Centre Car Park at no charge for 15 minutes on each visit. Should they overstay this time, due to mini bus arrival delays, school staff supervising the park and ride operation will be able to issue parents with prepaid 2 hour parking permits so that there is no perceived disincentive for parents to use the facility.

- 3.4.5 The car park is accessed via Blackburn Road, which in turns links to A41 Finchley Road. During week days the O2 Centre opening hours are summarised below:
- Monday to Thursday 06:00 - 00:30
 - Friday 06:00 - 01:00
- 3.4.6 The car park currently serves the following key stores who's weekday opening hours are summarised below:
- Homebase - Monday to Friday 08:00 - 21:00
 - Sainsbury's - Monday to Friday 08:00 - 00:00
 - Vue Cinema – Monday to Friday showings from 11:00-22:00
- 3.4.7 It is proposed that mini buses will make use of the 'pick-up point' bay located on Blackburn Road, which borders the Car Park. Should the pick-up bay be occupied for any reason the mini bus will enter the car park and park on the Homebase side of the car park. **Figure 5** shows an image of the on-street pick-up point on Blackburn Road and **Figure 6** shows tracking of the mini bus using the bay and turning at the end of Blackburn Road in order to re-access the A41 Finchley Road.
- 3.4.8 The mini buses used will have up to 17/18 seats such as the Ford Transit (460) or Fiat Ducato 440, for example.

Figure 5 Existing 'Pick Up Point' on Blackburn Road



Figure 6 Tracking of mini bus using 'Pick Up Point' on Blackburn Road



AM Peak Operation

- 3.4.9 To enable boarding to occur as quickly and efficiently as possible, parents will be asked to be at the car park between 7:45 and 7:55 in the morning, where a member of school staff will be waiting to supervise and enable easy loading of the mini bus on arrival. The mini bus will arrive at 8:00 and once filled will then undertake the short journey and arrive ahead of the school start time of 08:30. Once there is more than one mini bus in operation, as the scheme expands, bus arrivals will be staggered by 5 minutes so as to manage the use of the 'pick up point' bay. It is estimated that 2 mini buses could be located within the pick-up bay at any one time.

PM Peak Operation

- 3.4.10 The schools leaving time during the afternoon is staggered based on pupils' year age, and the after school clubs they participate in. The leaving times are as follows:
- | | |
|--------------------------------------|-------|
| ■ Reception | 15:15 |
| ■ Juniors | 15:30 |
| ■ Seniors | 16:00 |
| ■ After School Clubs (e.g. music...) | 18:00 |
- 3.4.11 It is therefore proposed to be a minibus rotation in the afternoon, with buses leaving at 15:30, 15:45 and 16:15. An extra minibus rotation will be undertaken at 18:15 after the afterschool clubs.

- 3.4.12 Bus services will arrive at the O2 car park and children will be dropped at the 'pick-up point' bay, with supervising staff members, to enable the bus to then leave for a return run. Staff members will then monitor children until they are picked up by their parent/guardian. Any children not picked up by their parents will be transported back to the school on the next mini arrival bus and the parent informed.

Proposed Rules and Policies

- 3.4.13 The following rules and policies will be set in place by the school to ensure pupil safety while using the P&R scheme. This list is not exhaustive and the School has entire discretion to modify or add elements to it. These rules will be clearly explained and issued to the parents prior to use of the service.

3.4.14 AM Drop off:

- Pupils must arrive in advance of the minibus departure time (minimum of 5 minutes before schedule times).
- Pupils will be required to wait in their cars with parents / carers.
- When walking within the car park, pupils must always use footway and designated crossing points wherever possible and be under parent or school staff supervision.
- Pupils will wait for the mini bus to arrive and for staff (in high visibility) to have exited the vehicle before approaching with their parents for pick up.

3.4.15 PM Pick up:

- Parents must arrive in advance of the minibus arrival time (minimum of 5 minutes before schedule times).
- A member of staff will be stationed at the car park (in high visibility) to enable supervision of pupils as they exist the mini bus.
- Pupils must be promptly met by their parents / carers upon drop off at the O2 Centre in the afternoon.
- If parents / carers are do not collect children dropped off at the O2 Centre and cannot be contacted they will be returned to the school on the last minibus run, whereupon parents will be contacted for notification.

3.4.16 Entering / leaving the minibus:

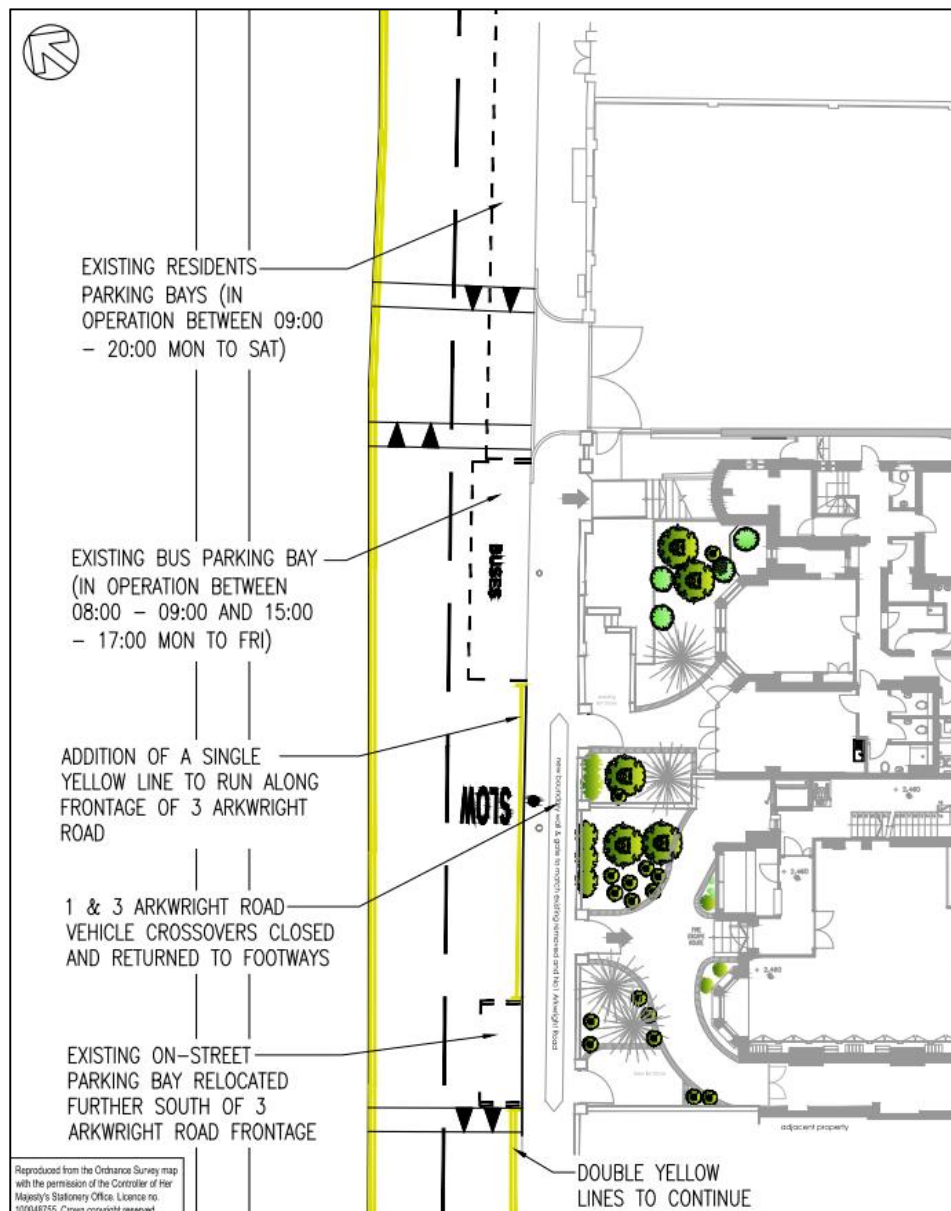
- Pupils will be required to show a current bus pass / school ID card to be allowed within the minibus.
- The driver may assign pupils seats.
- The pupils will be required to enter the bus in an orderly manner as directed by the bus driver/school staff and the parents / carers will wait until their children are seated on the bus before leaving the car park.
- Pupils will remain seated at all time and await the instructions of the driver/school staff before being able to leave the bus for any reason.

P&R Operation at Arkwright Road

- 3.4.17 Mini buses leaving the O2 centre will travel via the A41 & B511 to arrive on Arkwright road from the Fitzjohn's Avenue (B511) junction, enabling the bus to be on the correct side of the road to use the existing bus bay located outside 1 Arkwright Road. Currently the frontage of 3 Arkwright Road has a number of cross overs related to existing highway access for 1 and 3 Arkwright Road. Unusually an existing resident's bay is located in the middle of these access points. Due to the vehicle accesses no longer being needed, the cross overs will be removed (improving pedestrian safety) and it is proposed that the residents bay is shifted south so that a new single yellow line marking can be placed on the highway.

- 3.4.18 These small highway marking amendments will help tidy up the current streetscape and also improve the ability of the exiting bus bay, by creating an additional loading area for mini buses to use (for example, if a secondary mini bus arrives when the first is already in the bus parking bay). These proposed changes to highway markings are shown in **Figure 7** below shows the proposal and is attached to this report in the appendices (Drawing 0384/SK/011A).
- 3.4.19 The use of the bus bay between multiple mini buses will be carefully managed by staff during the operating hours of the P&R.
- 3.4.20 In addition, to ensure the bus parking bay and single yellow line remain free for mini bus use, the school will implement a 'no pick-ups/drop-offs' zone on the eastern side of Arkwright Road (western side already enforced through double yellow lines). This 'no drop zone' will be actively managed by staff members standing outside the school, who will move parents on that attempt to 'pick-up/drop-off' and also by naming and shaming any offenders in school circulars. Parents who wish to pick up/drop off their children by car will be directed to use the P&R facility.

Figure 7 Proposed on-Street Road Marking Alterations to Frontage of 3 Arkwright Road



Requirements of Use

- 3.4.21 Parents of all pupils starting at the new school building will not be allowed to drive to the school and to drop / pick off their children on Arkwright Road. Thus if a parent needs to drive to the School they will be required to use the P&R scheme. This will be enforced through parent contracts for new starters at the new school and through staff enforcement of a no drop zone on Arkwright Road.
- 3.4.22 Existing families, who currently drive their children to the school will also be encouraged to use the Scheme and will be strongly discouraged from dropping on Arkwright Road, via the no-drop zone. If families already have a child at the school, and should their sibling then join as a new starter of the school, they will be required to sign a parent contract to use the P&R, should they wish to drop their children by car.
- 3.4.23 The P&R will have the benefit of reducing congestion on local roads close to the School and specifically on Arkwright Road, making the local highway network a safer place for residents and pupils.

4 Existing Conditions

4.1 Introduction

- 4.1.1 This section of the Transport Assessment provides a review of existing conditions at the proposed site including, pedestrian, cycle and public transport facilities around the site. This will help to determine the site's level of accessibility and how the site currently performs, operationally, in transport and access terms.

4.2 Highway Network

- 4.2.1 The proposed development at 3 Arkwright Road is located close to the junction of Fitzjohn's Ave and Arkwright Road, to the south of Hampstead village centre. The area is primarily residential but with some institutional land uses associated with other schools in the area.
- 4.2.2 Arkwright Road is a two-way single carriageway road, which links the B511 Fitzjohn's Avenue to the A41 Finchley Road. Arkwright Road runs east to west connecting Hampstead with West Hampstead. The A41 Finchley Road runs southeast to northwest which links into the M1 to the north and a number of urban areas such as Watford and Hemel Hempstead.
- 4.2.3 The B511 is a local distributor road which connects Hampstead Village and the A502, at a signal controlled junction, approximately 450m north of the site. The B511 also connects to the A41, to the southeast near Swiss Cottage Tube Station. The junction B511 with Arkwright Road is also signal controlled.
- 4.2.4 An Automatic Traffic Count (ATC) was undertaken on Arkwright Road, opposite 3 Arkwright Road, between the 28th November 2014 and 11th December 2014. The survey data is summarised in **Table 4-1** below, relative to an average weekday in the school peak transport period.
- 4.2.5 In the summary below some of the survey data has had to be omitted as the ATC failed on a few days of the survey and did not record all vehicle movements. The excluded data is from 01-12-2014 to 05-12-2014 in the Eastbound direction only and on 08-12-2014 (between 00:00 and 11:00) in Eastbound and Westbound directions.

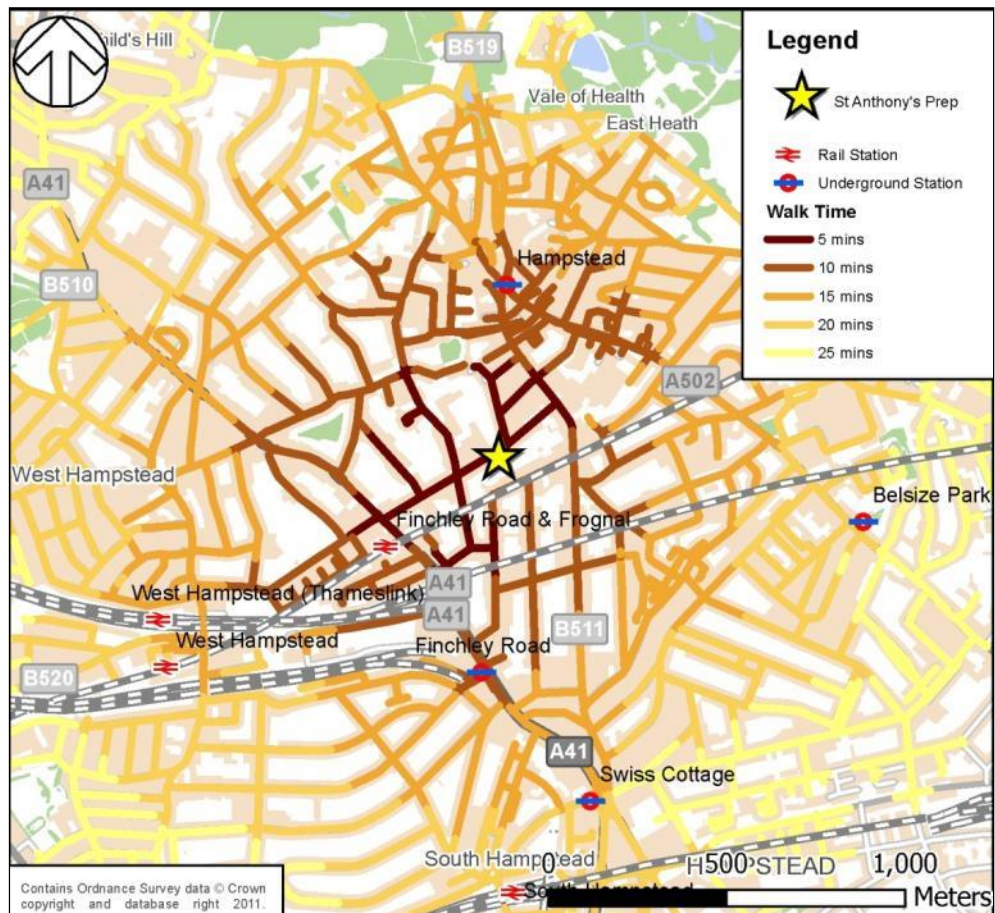
Table 4-1 Average Observed Weekday Traffic Flow on Arkwright Road (Vehicles)

Average Weekday Traffic Flows	Eastbound	Westbound	2-Way
0700-0800	255	148	417
0800-0900	213	223	470
0900-1000	273	232	542
1500-1600	148	216	396
1600-1700	150	320	490
1700-1800	150	301	458
DAILY	3152	4107	7260

4.3 Pedestrian Network

- 4.3.1 DfT research has identified that walking is a prominent mode of travel at the local level and has the potential to replace car trips for journeys less than 2km in length.
- 4.3.2 A 800m walking catchment includes many of the retail and business areas of Hampstead as well as many of the residential areas within the vicinity of the school. A 2km catchment includes Golders Green to the north, Gospel Oak to the east, St Johns Wood to the south, and Kilburn to the west. An isochrones plan identifying the 2km walking catchment around the school is included in **Figure 8**.

Figure 8 2km Walking Isochrones



- 4.3.3 Hampstead, West Hampstead and Finchley Road railway stations can all be reached within a 10 minute walk of the school, with Swiss Cottage, Belsize Park and South Hampstead all being located within a 20 minute walk of the school.
- 4.3.4 The pedestrian facilities in the vicinity of the school are of a good quality. Arkwright Road has footways on both sides of the carriageway and these are well lit. There are 'School' signs along Arkwright Road reminding drivers that school children will be present, safety is reinforced by 'slow' road markings and the presence of speed bumps to limit speed. A formalised zebra crossing is present at the junction of Arkwright Road and Frognal to ensure that children can cross safely, and this is shown in **Figure 9** below.

Figure 9 Arkwright Road Zebra Crossing



- 4.3.5 The B511 Fitzjohn's Avenue has footways present on both sides of the carriageway, which are in good condition and well lit, and there is a formalised pelican (pedestrian light controlled) crossing at the junction of the B511 Fitzjohn's Avenue and Arkwright Road to ensure that children can cross safely (as shown in **Figure 10** below).

Figure 10 Fitzjohn's Avenue/Arkwright Road Signal controlled Crossing



- 4.3.6 Furthermore, wide footways are present on both sides of the carriageway along the A41 Finchley Road, which are in good condition and well lit. A formalised pelican (pedestrian light controlled) crossing is present at the junction of the A41 Finchley Road and Arkwright Road to ensure that children can cross safely and have safe access to the bus stops present on the A41 Finchley Road (see **Figure 11** below).

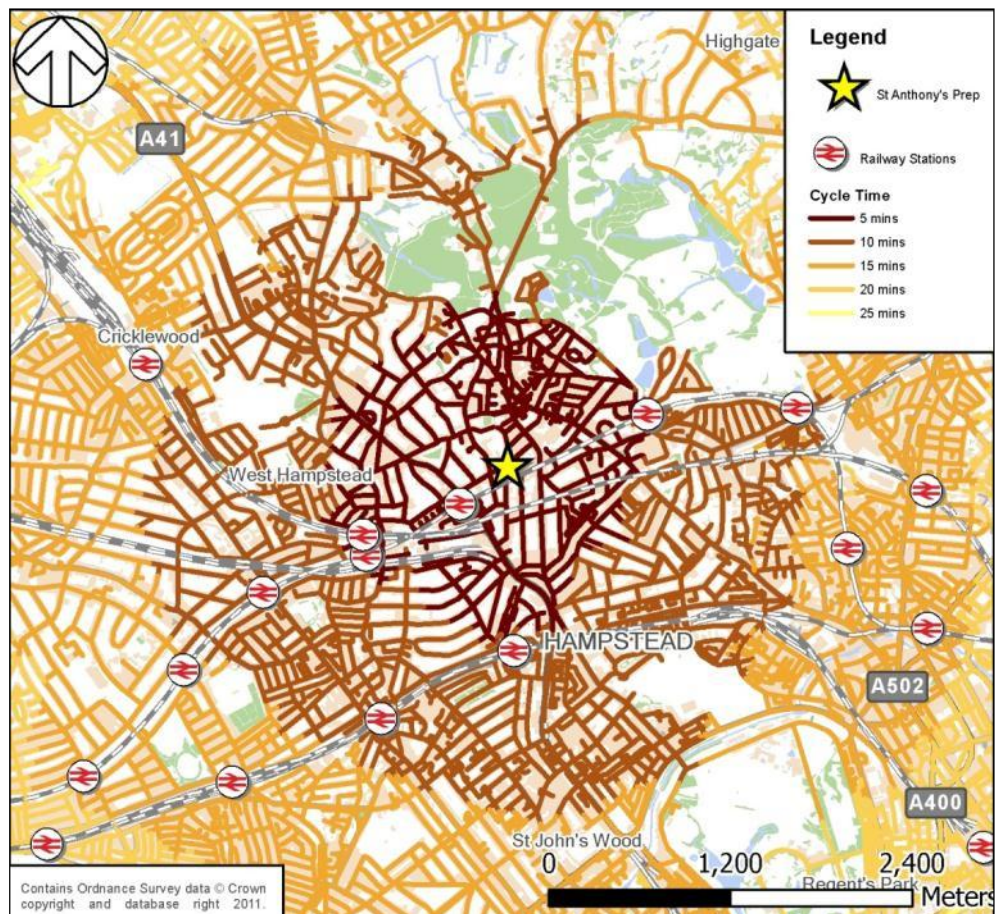
Figure 11 A41 Finchley Road /Arkwright Road Signal controlled Crossing



4.4 Existing Cycling Facilities

- 4.4.1 DfT research has indicated that cycling also has the potential to replace short car journeys under 5km, and form part of a longer journey by public transport. It is considered that a significant distance can be covered by bicycle and that large areas around the school are accessible by this mode of transport.
- 4.4.2 A 5km catchment includes Finchley Central to the north, Finsbury Park to the east, Bayswater to the south, and Neasden to the west. An isochrones plan identifying the 5km cycling catchment around the school is included in **Figure 12**.

Figure 12 5km Cycling Isochrones



- 4.4.3 Arkwright Road is signed on London Cycle Map "Local Cycling Guide 7" as being a route signed or marked for use of cyclists on a mixture of quiet or busier roads. The school also benefits from being located close to a number of recommended and signposted cycle routes.

4.5 Public Transport Accessibility Level

- 4.5.1 The proposed site is located in an area of excellent accessibility for public transport. The Public Transport Accessibility Level (PTAL) for the site has been assessed as having a PTAL value of 6a which equates to an 'excellent' level of accessibility.

4.6 Buses

4.6.1 3 Arkwright Road is located within close proximity to a number of bus services, with the nearest bus stops to the site being located on Fitzjohn's Avenue and the A41 Finchley Road.

4.6.2 **Table 4-2** shows the services that are available within a short distance of the site together with a summary of the frequency of services available.

Table 4-2 Bus Services and Frequencies within the vicinity of 3 Arkwright Road

Service Number	Route Summary	Frequency
13	Golders Green Station – Langland Gardens – Finchley Road and Frognal Station – Finchley Road – Swiss Cottage – Piccadilly Circus – Aldwych	5-8 minutes
46	Lancaster Gate – Belsize Lane – St Mary's School - Lyndhurst Road/Akenside Road – Heath Street – Hampstead Station – Kings Cross Station – High Holborn – St Bartholomew's Hospital	9-12 minutes
82	North Finchley Bus Station – Golders Green – Langland Gardens – Finchley Road and Frognal Station – Baker Street – Marble Arch – Victoria Bus Station	5-9 minutes
113	Edgware – Langland Gardens – Finchley Road and Frognal Station – Finchley Road – St Johns Wood – Baker Street – Marble Arch	8-11 minutes
187	Central Middlesex Hospital – Kensal Rise – Warwick Avenue – St Johns Wood – Swiss Cottage – Finchley Road – 02 Centre	9-12 minutes
268	Golders Green – Hampstead Station – Belsize Village – Buckland Crescent – College Crescent – Finchley Road – 02 Centre	10-13 minutes
603	Swiss Cottage – Belsize Lane – St Mary's School - Lyndhurst Road/Akenside Road – Fitzjohns Avenue – Hampstead Station – East Finchley Station – Princes Avenue	4 per day

Source: Transport for London (July 2015)

4.7 Underground

4.7.1 The nearest underground station to 3 Arkwright Road is Hampstead Tube Station which is approximately 430m to the north-west of the site via the B511 Fitzjohn's Avenue / Heath Street, making it within easy walking distance for teachers, staff, parents and pupils. The Northern Line can be accessed at Hampstead Station, and provides frequent services throughout the day between Edgware and Morden via Central London.

4.7.2 **Table 4-3** provides a summary of the weekday service information for Hampstead Underground Station.

Table 4-3 London Underground Services Operation from Hampstead Station

Weekday Service Information			
Direction	First Train	Last Train	Peak Service Freq
Northbound	06:06	00:56	2 – 5 minutes
Southbound	05:38	00:17	2 – 5 minutes

Source: Transport for London (July 2015)

4.8 Existing Rail Services

4.8.1 The nearest railway station to the 3 Arkwright Road is Finchley Road and Frognal Station which is approximately 580m to the south-west of the site via Arkwright Road, and the A41 Finchley Road, making it within easy walking distance for teachers, staff, parents and pupils. From Finchley Road and Frognal there are direct trains to a number of destinations including Hampstead Heath, Highbury and Islington, West Hampstead and Stratford. The station is served by London Overground, and there is car and cycle parking, along with bus services within close proximity.

4.8.2 **Table 4-4** provides a summary of the number of weekday peak period services to the main destinations from Finchley Road and Frognal Station.

Table 4-4 Rail Services from Finchley Road and Frognal Station

Route / Destinations	Weekday Frequency of Services (Number of Trains)	
	Morning Peak – 08:00 – 09:00	Evening Peak – 17:00 – 18:00
Hampstead Heath	8	8
Highbury and Islington	8	8
Gospel Oak	8	8
Stratford	8	8
West Hampstead	9	8
Willesden Junction	9	8

Source: Transport for London (July 2015)

4.9 Parking

4.9.1 There are a number of restrictions placed on parking around the site and these are enforced by the use of Controlled Parking Zones (CPZ's).

4.9.2 Arkwright Road lies in two CPZ's. The southern section of Arkwright Road, between Frognal and the A41 Finchley Road, lies within the CPZ of CA-H(c) Frognal and has the following restrictions:

- Permit holders only between Monday and Saturday between 09:00-19:00 with no charge on Pay and Display after 18:00

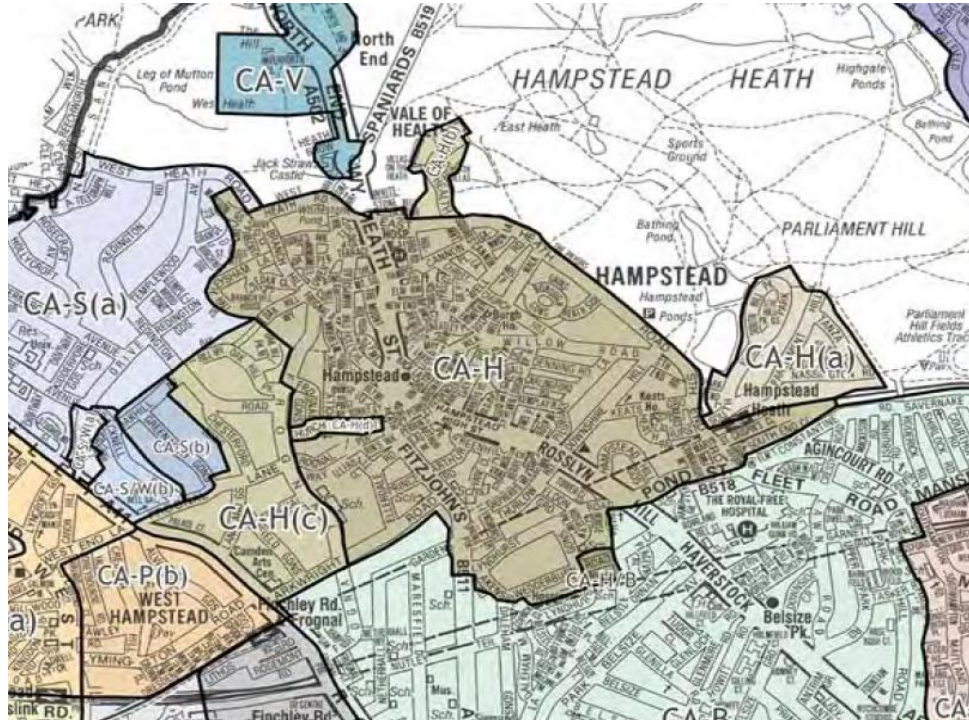
4.9.3 The northern section of Arkwright Road, between Frognal and the B511 Fitzjohn's Avenue, lies within the CPZ of CA-H(b) Hampstead Town Centre and Vale Heath and has the following restrictions:

- Permit holders only from Monday to Saturday between 09:00 – 20:00 with no charge on Pay and Display after 18:00.

4.9.4 In addition, Fitzjohn's Avenue lies within the CPZ of CA-H(b), and the A41 Finchley Road lies with the CPZ of CA-H(c), both with the relevant parking restrictions mentioned above.

4.9.5 **Figure 13** below shows the CPZ's within the vicinity of St Anthony's School.

Figure 13 Controlled Parking Zones within the vicinity of St Anthony's School



4.10 Loading Bays

4.10.1 There is currently a parking bay located adjacent to No.1 Arkwright Road allocated for the parking of buses with the following restrictions:

- Bus Parking for 30 minutes only between Monday and Friday between 08:00-09:00 and 15:00-17:00 with no return within 30 minutes, and no waiting between Monday and Saturday between 09:00-15:00

4.10.2 There is also currently a restriction outside No.3 Arkwright Road which states that the waiting by goods vehicles over the maximum weight of 5 tonnes, and buses is prohibited between 18:30 and 08:00.

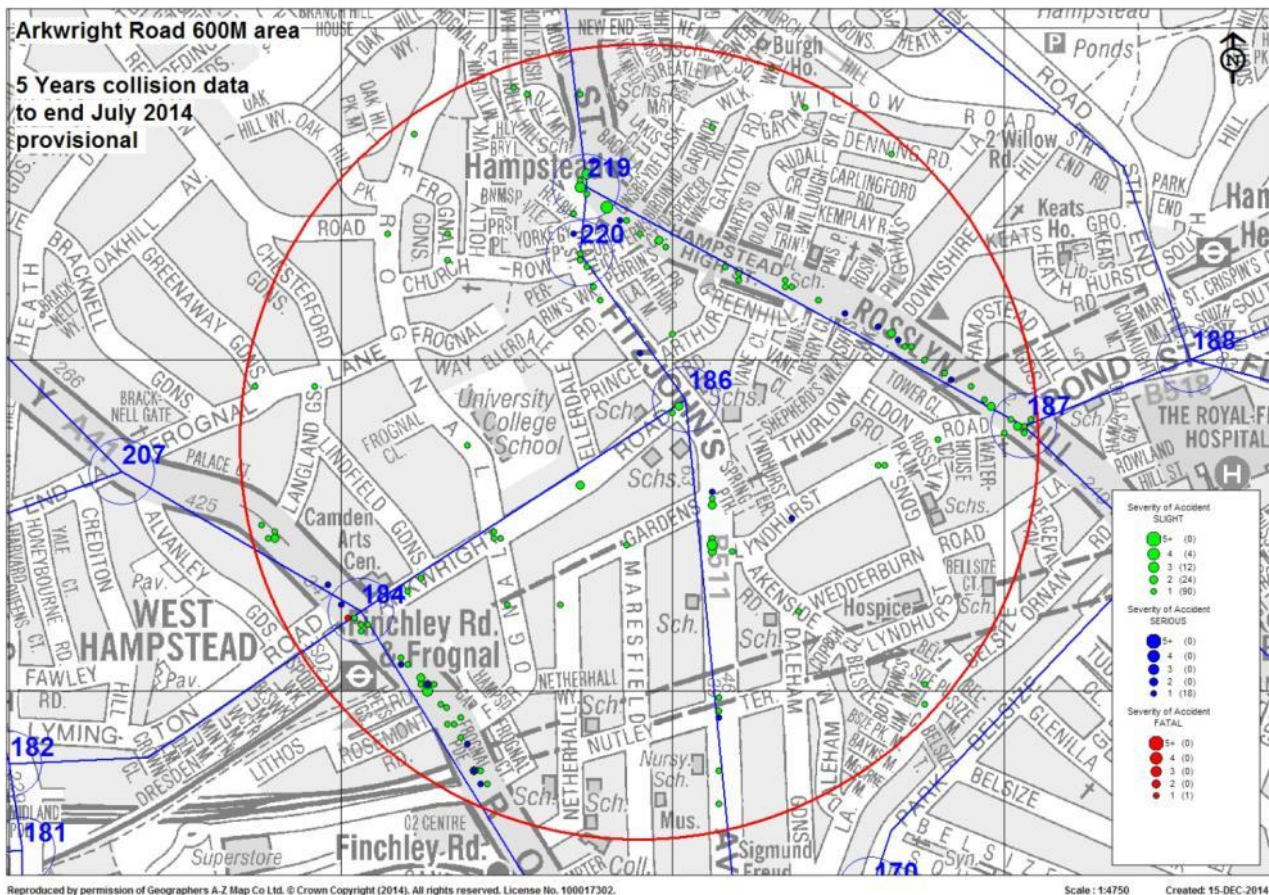
4.11 Road Traffic Accident Data Analysis

4.11.1 Road traffic accident data has been obtained from Transport for London for the last available 5 year period 11/08/09 – 21/07/14. The accident data can be found in **Appendix B** of this report. The data includes all accidents within a 600m radius of Arkwright Road's junction with B511 Fitzjohn's Avenue.

4.11.2 A total of 165 Personal Injury Accidents (PIAs) occurred during the past 5 years, comprising 1 fatal accident, 19 serious accidents and 145 slight accidents. The PIAs are summarised within a Table shown in **Appendix C**. Statistical accident information broken down by mode of transport are summarised below in **Table 4-5** together with a plot of accidents.

Table 4-5 Accidents per Mode of Transport

Mode of Travel	Number of Casualties			
	Slight	Serious	Fatal	Sum
Pedestrian	34	8	0	42
Pedal Cycle	24	3	0	27
Powered 2-wheeler	35	4	1	40
Car	40	1	0	41
Taxi	4	1	0	5
Bus or Coach	4	2	0	6
Goods Vehicle	3	0	0	3
Other Vehicle	1	0	0	1
Sum	145	19	1	165



Under 18 year old Casualties

- 4.11.3 During the past five years eleven under 18 year old casualties have been recorded within the survey area. Two casualties were involved in the same accident in 2011, when two children aged 7 and 10 ran out between parked cars in front of a moving vehicle resulting in both being slightly injured. The accident occurred on Arkwright Road just south of Lindfield Garden.
- 4.11.4 The vast majority of the accidents involving under 18's were caused by the under 18 running out in front of a moving vehicle. One accident involved a 5 year old being slightly injured when a driver

forgot to put their handbrake on and the vehicle rolled into an unattended, parked vehicle containing the 5 year old. Another, similar, accident occurred but this time the rolling vehicle collided directly with a pedestrian resulting in serious injuries. This was the only serious accident involving an under 18 year old.

Arkwright Road Accidents

- 4.11.5 There were a total of seven accidents of Arkwright Road, all of slight severity, including one accident involving an under 18 year old (as mentioned above).
- 4.11.6 Two cars collided when one ignored a stop sign at a junction resulting in one driver being slightly injured (Frognal Junction). Another two cars collided at the end of Arkwright Road when a vehicle pulled out into the path of another.
- 4.11.7 A motorcyclist lost control when a car passed too close, resulting in slight injuries to the rider.
- 4.11.8 Along Arkwright Road, a car pulled off from a parked position, failing to see an oncoming motorcycle and colliding with them causing slight injury to the rider.
- 4.11.9 A cyclist was hit from behind by another vehicle when slowing down to approach a junction, again causing slight injury.
- 4.11.10 The final recorded accident, to occur on Arkwright Road, was caused by a goods vehicle's driver's foot slipping off the brake, colliding with a stationary vehicle and pushing it into another stationary vehicle which then pushed both into another stationary vehicle.

Other Casualties

- 4.11.11 The one fatal accident to occur in the five year period came at the junction of Finchley Road / Lymington Road. Only three accidents occurred at this junction, and out of these three one was slight.
- 4.11.12 Finchley Road has the highest number of accidents which can be explained by the higher volume of traffic being carried by this road.
- 4.11.13 Most of the PIAs occurred due to people's error and poor judgement of the road conditions and/or the speed and path of another vehicle.
- 4.11.14 One serious and three slight accidents occurred at the junction of Fitzjohn's Avenue / Netherhall Gardens, accounting for two serious and four slight injuries. The accidents in question involved a car and a pedestrian and a motorcycle and a pedal cycle.
- 4.11.15 Two accidents involving pedestrians, and one involving two motorcycles, occurred at the junction of Hampstead High Street with Perrin's Lane. All were of slight severity.
- 4.11.16 In summary, when viewed in the context of the residential nature of the area surrounding the proposed school site, and the associated high levels of pedestrian and cycle movements, it can be concluded that the number of accidents involving pedestrians and pedal cyclists is not considered to be significant. It should be noted that all of the streets within the study area have excellent pavement and street lighting provision.

5 Current Travel Patterns

5.1 Introduction

- 5.1.1 This section of the report reviews the current travel characteristics of staff and pupils to and from the existing St Anthony's Preparatory School. This has been used as an equivalent for the proposed future trip generation.
- 5.1.2 It is anticipated that proposed travel behaviour will, prior to further intervention, follow similar patterns to the existing school travel to/from St Anthony's.
- 5.1.3 Current staff and pupil 'travel to school' mode share information and postcode data was obtained from the school and has been used to analyse the current travel characteristics, as set out below.

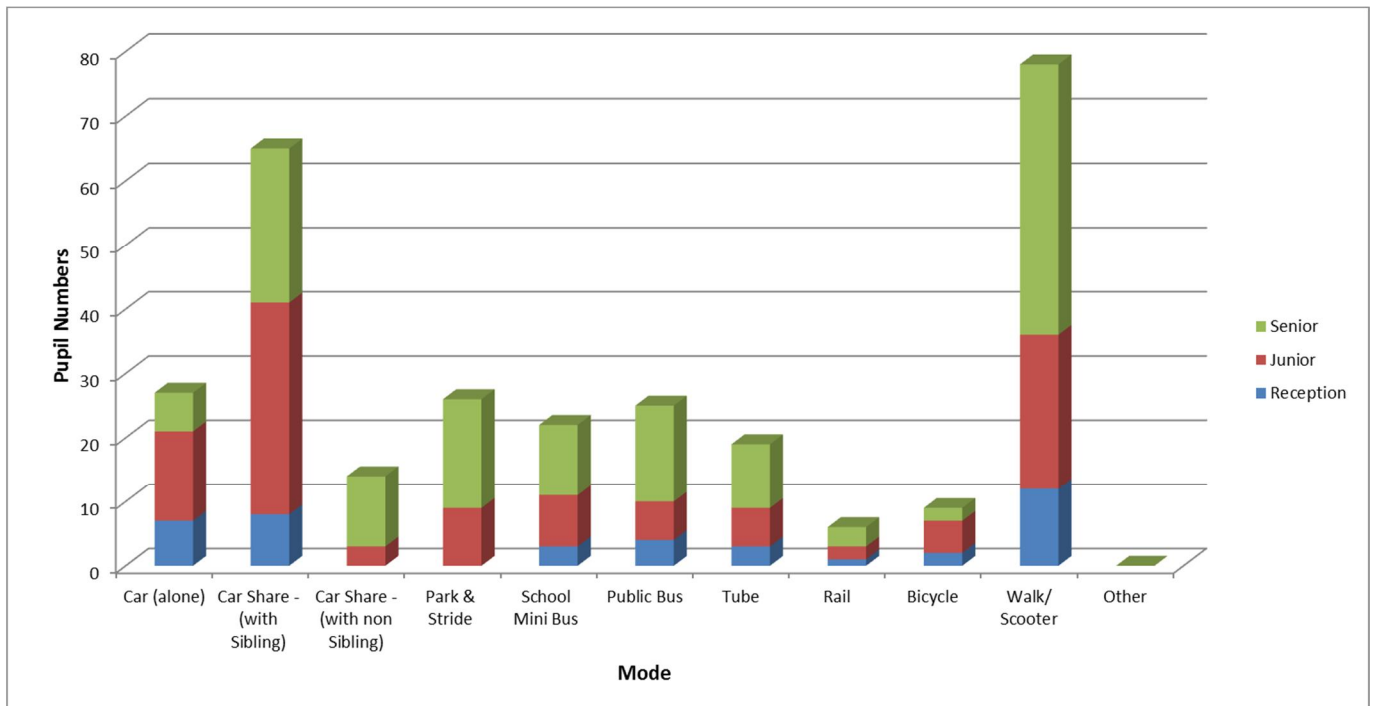
5.2 Current Pupils Travel Characteristics

- 5.2.1 In order to understand how pupils travel to the School, a "hands up" survey was undertaken in September 2014. Each class was asked to simply reply how they currently travel and what would be their favourite mode of transport if available.
- 5.2.2 These surveys followed the same methodology used within the TfL STARTS Travel Plan Accreditation guidance. The surveys have been broken down between Reception, Junior and Senior houses for transparency. For their own records the school have looked to use these survey records, by pupil, to assist with identifying who could potentially benefit from an expansion of the schools existing mini bus network.
- 5.2.3 **Table 5-1** and **Figure 14** below summarise the results of the September 2014 "Hands Up" travel survey.

Table 5-1 2014/2015 Pupils "Hands Up" Travel Survey

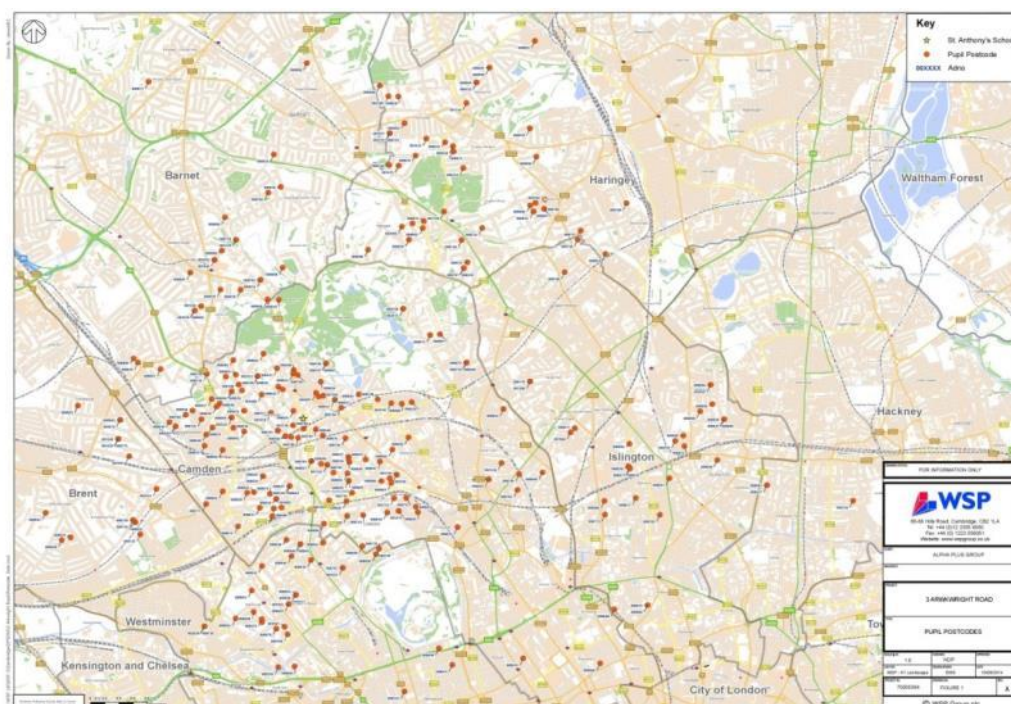
2014/2015 Results	Car (alone)	Car Share (with sibling)	Car Share (with non-Sibling)	Park & Stride	School Mini Bus	Public Bus	Tube	Rail	Bicycle	Walk/ Scooter	Other
Reception	7	8	0	0	3	4	3	1	2	12	0
	18%	20%	0%	0%	8%	10%	8%	3%	5%	30%	0%
Junior	14	33	3	9	8	6	6	2	5	24	0
	13%	30%	3%	8%	8%	8%	5%	2%	5%	13%	9%
Senior	6	24	11	17	11	15	10	3	2	42	0
	4%	17%	8%	12%	8%	11%	7%	2%	1%	30%	0%
Total	27	65	14	26	22	25	19	6	9	78	0
	9%	22%	5%	9%	8%	9%	7%	2%	3%	27%	0%

Figure 14 Travel to School Survey Results 2014/2015



- 5.2.4 The above 2014/2015 survey shows that of the 291 pupils surveyed (from a total of 295) only 27 (9%) currently travel to and from the school by car alone.
- 5.2.5 The highest mode share for the 2014/2015 pupils is walking/scooting (27%) with a further 22% of pupils' car sharing with their sibling to/from the school.
- 5.2.6 Current pupils' post codes have been provided and an analysis has been undertaken in order to assess the feasibility of travel modes to the School. The results indicate that approximately 80% of the schools current pupils live within a 3 mile radius of the school, and 50% live within a two mile radius. An example of the post code analysis results are displayed in **Figure 15**.

Figure 15 Pupil Home Post Code Locations



5.3 Current Staff Travel Characteristics

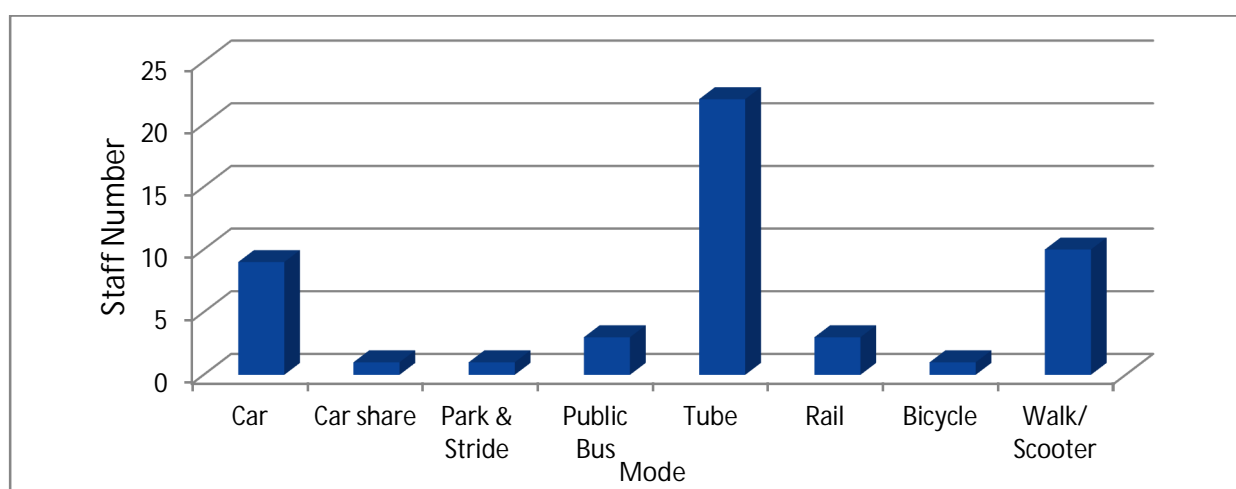
5.3.1 The results of the 2014/2015 staff travel surveys are shown below, relative to the 49 staff surveyed.

5.3.2 **Table 5-2** and **Figure 16** below summarise the results of the September 2014 “Hands Up” travel survey.

Table 5-2 2014/2015 Staff Travel Survey

2014/2015	Car	Car Passenger	Bicycle	Motorbike	Walk	Bus	Tube	Train
Staff	9	1	1	0	10	3	22	3
%	18%	2%	2%	0%	20%	6%	44%	6%

Figure 16 Staff Travel Survey Results 2014/2015 (49 staff surveyed)



5.3.3 The above 2014/15 surveys shows that for the 50 staff members surveyed, only 9 staff members (18%) currently drive to work on a regular basis. The majority of staff travel by sustainable modes such as tube (44%), walk (20%) and bus or rail (6% / 6%).

6 Traffic Generation

6.1 Introduction

- 6.1.1 The School currently provides education to 295 students, of which more than 250 live locally (within 3 miles of the site).
- 6.1.2 The following bullet points set out some key features of the travel patterns to the school:
- Most students live locally with 250 out of 294 living within 3 miles of the School.
 - The implementation of the Schools current TfL STARS Travel Plan (recently submitted to TfL for Silver Accreditation) encourages staff and parents to choose sustainable methods of traveling to the School, such as school mini bus or public transport.
 - New Travel Plan measures put in place this year include initiatives such as Walk Once a Week (WoW), online promotion of the schools mini bus service, updated travel information packs for parents on the school's website and increased promotion of cycle training.
 - A new P&R scheme and associated no drop zone on Arkwright Road will be implemented as part of the development proposals. This is anticipated to remove all potential car traffic growth related to the new develop, from Arkwright Road, and help create a net reduction in local school traffic through also targeting existing pupils.

6.2 Traffic Generation

- 6.2.1 Based on the most recent surveys a forecast of trip generation (prior to further mitigation) has been undertaken. Generation is based on proposals to expand the school by a total of 140 pupils and up to 29 staff (achieved through a gradual growth of one form per year over a 7 year period).
- 6.2.2 To estimate the total number of trips, by mode, generated by the development proposals, the existing travel characteristics identified within the 2014/2015 survey have been used to establish trip rates for staff and pupils respectively.
- 6.2.3 The resulting estimate of total trip generation from the proposed increase in pupils (prior to further mitigation) is presented below in **Table 6-1**.

Table 6-1 Proposed Pupils Estimated Multi Modal Trip Generation

Future Generation	Car (alone)	Car Share (with sibling)	Car Share (with non-Sibling)	Park & Stride	School Mini Bus	Public Bus	Tube	Rail	Bicycle	Walk/ Scooter	Other
Pupils (140)	13	31	7	13	11	12	7	5	5	38	0
%	9%	22%	5%	9%	8%	9%	7%	2%	3%	27%	0%

- 6.2.4 The above estimates in new pupil trip generation identify that of the 140 additional pupils, only 13 are anticipated to travel alone by car 31 would car share with siblings, 7 would car share with non-siblings and 13 would park & stride. St Anthony's School will promote the P&R scheme to all these families in particular (through parent contracts to use the service if traveling by car and a no-drop zone being established Arkwright Road) and thus it is estimated that at full occupation of the school building, potentially 64 pupils would be using the P&R site, equating to up to 46% of all new pupils using the P&R facility.

- 6.2.5 Assuming a completed development by September 2016, **Table 6-2** summarises the expected additional pupils' intake. The School will welcome the first 20 additional pupils into the Reception class in September 2016, then in September 2017, these pupils would move up to 'Year 1' and their reception places will be filled, resulting in a total of 40 new students. This will continue year on year until Year 6 in 2022. At this point in time, and going forward, the full addition of 140 pupils would be accommodated at the school.
- 6.2.6 Therefore, assuming the proposed development opened in September 2016, the full development impact would occur in 2022. The expected P&R scheme demand is expected to progressively increase year on year, following the School pupil's initial opening, as demonstrated in **Table 6-2**.

Table 6-2 Expected Pupils Uptake and Required Minibus Fleet

Future Generation / Development Phasing		Total Pupils Dropped at P&R	Minibus Fleet to transport pupils
Year	Pupils No		
2016	20	9	1
2017	40	19	2
2018	60	26	2
2019	80	36	3
2020	100	45	3
2021	120	54	4
2022	140	64	4

- 6.2.7 Giving a break-down of this additional generation by expected growth, by year of expansion, identifies manageable and achievable expected mode shares and growth of the P&R service. These mode splits will be further enhanced by new Travel Plan measures which will seek to continue to decrease and off-set car trips to more sustainable modes.
- 6.2.8 Assuming the proposed development opened in September 2016, the full development impact would occur in 2022, leaving 7 years to increase travel plan measures, 'bed in' the P&R operation and suitably adapt/refine the schools Travel Plan to mitigate the schools expansion. **Table 6-3** summarises the expected additional pupils mode share with the P&R scheme in operation, relative to mode of arrival at Arkwright Road.

6.2.9 **Table 6-3 Multi Modal Trip Generation from School Expansion**

Future Generation / Development Phasing		Park & Ride	School Mini Bus	Public Bus	Tube	Rail	Bicycle	Walk/ Scooter
Year	Pupils No							
2016	20	9	2	2	1	0	1	5
2017	40	19	3	4	3	1	1	11
2018	60	26	5	5	4	1	2	16
2019	80	36	6	7	6	2	2	22
2020	100	45	8	9	7	2	3	27
2021	120	54	10	11	8	3	4	32

2022	140	64	11	12	7	5	5	38
------	-----	----	----	----	---	---	---	----

- 6.2.10 The P&R scheme would start by using one minibus from September 2016. The minibus fleet is then anticipated to increase to around 4 vehicles by 2022.
- 6.2.11 Based the requirement for all new pupils, who are being dropped by car, to use the P&R scheme (as part of the development proposals) it is therefore anticipated that only 4 additional vehicle (mini bus) trips would occur in the AM and PM school drop-off and pick up periods, on Arkwright Road, as a result of the proposals.
- 6.2.12 In addition to the new school pupils using the P&R it is also expected that existing pupils will also make use of the service and all new pupils joining the School from September 2016 will be expected to make use of the P&R service if parents wish to drop their children by car, in combination with a school enforced 'no-drop' zone on Arkwright road. This shift of existing pupils to the P&R service will easily offset the additional mini bus movements on Arkwright Road and should lead to an overall net reduction in school traffic on Arkwright Road as a result of the development proposals and associated P&R operation.
- 6.2.13 As an example of the modal shift from existing pupils, it is proposed that the new school building has the potential to enable girls to join the school for the very first time. Currently, 84 pupils have a brother at the school (representing 30% of the total school population) and it is anticipated that in the opening year of the new form, incorporating a 20 pupil intake within a year, as many as 70% could be siblings of pupils already at the school (based on St Anthony's current junior school records). This means that in addition to the 9 new pupils already estimated to be using the P&R service in the opening year (see Table 6-2) we could also expect at least another 6 pupils (9 x 70%) to also use the P&R in the opening year (2016), who would otherwise be dropped by car outside the school. In total this could therefore result in a potential net reduction (in relation to the current situation) of 5 car trips to and from the school site in the opening year (6 car trips minus the additional mini bus trip in each peak period).
- 6.2.14 In relation to the development proposals increase in staff numbers, due to no additional car parking being provided onsite, new staff members will be expected to travel to/from the school via sustainable modes and therefore no additional car trips are expected to be generated from increases in staff numbers. This is entirely appropriate given the PTAL 6a rating of sustainability for the school site.
- 6.2.15 Based on this principle, the following trip generation by mode is anticipated by new staff (informed by current mode shares).

6.2.16 **Table 6-4 Future Staff Estimated Multi Modal Trip Generation**

Future Generation	Car	Car Passenger	Bicycle	Motorbike	Walk	Bus	Tube	Train
Staff (29)	0	1	1	0	7	2	16	2

- 6.2.17 Overall the development proposals, at full build out, are anticipated to generate only 4 additional vehicle (mini bus) trips on Arkwright Road, within the AM and PM school drop-off and pick up periods. These trip will themselves be offset by a reduction in existing pupil car trips on Arkwright Road, as these pupils start to use the P&R service, resulting in a net reduction in school vehicle trips on Arkwright Road as a result of the proposals, enforcement measures and associated P&R service.

6.3 Current School Travel Plan

- 6.3.1 St Anthony's Prep has the ability to strongly influence mode share through engagement and involvement of pupils and parents with the schools Travel Plan. The school's Travel Plan for 2014/2015 has set out to implement a number of new measures which have enabled the School to apply for Silver TfL STARS Accreditation this year (building on its current Bronze accreditation). A selection of these measures is set out below and in many cases have been implemented through engagement and collaboration with LBC's School Travel Plan Officer (Lorraine Hinds), as part of the TfL accreditation process.

Current Key Travel Plan Initiatives

- 6.3.2 The school helps maintain pupil interest in the School Travel Plan by holding a sustainable travel week which is repeated annually. Presentations in assemblies focus on viable sustainable travel, road safety and the introduction of new travel plan measures. This is being run in conjunction with offering road safety and cycle training classes throughout the year in conjunction with LBC.
- 6.3.3 The current travel pack for parents on the school's website has been updated (viewable at www.stanthonysprep.org.uk/Parents/TravelPlanning/) and has been heavily promoted to parents. In addition details of the current mini bus service have been added to the school's website to enable easier sign up of the service by parents. The school has continued to update its website to provide a 'one stop shop' for sustainable travel and School Travel Plan events or initiatives occurring at the school or within Camden more widely.
- 6.3.4 The school is continuing to promote walking to/from school for those within reasonable walking distance, and implementation of 'park and stride' for those living further away. This has been enhanced through the promotion of Walk on a Wednesday (WOW). The school had previously operated WOW independently but is now integrated with LBC's scheme to benefit from the official advertising material and incentives. The school is also supporting Walk to School Week in May and the National Walk to School Month in October.
- 6.3.5 There has been renewed promotion of the school's mini bus service to seek to increase take-up, targeted at those students who live too far from the school to walk or cycle. This has commenced through the provision of additional information on the school's website. The school is currently in the process of engaging with parents to identify demand for an additional private mini bus service which will cover additional locations to the schools existing scheme, increasing the catchment area for the service.
- 6.3.6 The school is consulting with parents through induction meetings to seek to overcome any barriers that are stopping pupils travelling to and from school in a sustainable way. The school is also continuing to working pro-actively with other schools in the local area to address any traffic and safety issues that come about.

6.4 Development Proposals - Transport Impact Mitigation

- 6.4.1 The proposed expansion and reconfiguration of St Anthony's presents the opportunity to commit to a legally binding School Travel Plan (secured under S106) with enforceable targets and mitigation measures which will apply not only to the proposed school extension but also the existing school site as a whole. This therefore offers the opportunity to help address any existing school travel issues within the immediate highway network, particularly through the P&R scheme, providing a delivery platform for promoting and enhancing alternative sustainable travel options and travel management initiatives to parents, pupils and staff.

- 6.4.2 With a legally binding Travel Plan in place, if School Travel Plan targets are not reached then penalties on the school can be legally enforced and could potentially limit planned growth until target mode shares are met. In this way the school will seek to provide assurance that its school traffic will be successfully managed by its Travel Plan and achieve reductions in car mode share.
- 6.4.3 In line with these proposals, the School will look to manage any transport impact through a two part strategy. First and foremost, the school's strategy is to further reduce pupils travelling to the school by car, through its Travel Plan, and secondly to then implement the P&R scheme to directly reduce traffic congestion experienced in the local area. As part of the expansion proposals, the first goal to reduce car mode share will be achieved through the following additional Travel Plan measures.

Gold TfL STARS Accreditation:

- 6.4.4 As part of the development proposals the school will (and has already been) implementing increasingly higher Travel Plan targets and new additional Travel Plan measures (which will be secured through the S106 agreement) so that car mode share continues to decrease with current and future pupils. The school has already achieved a Bronze level of TfL accreditation, has applied for Silver Accreditation this year, and will seek to provide further reassurance to LBC that it will increase its Travel Plan targets and measures through a S106 commitment to achieve Gold TfL Travel Plan Accreditation. Evidence of this approach can be seen at Chepstow House School and Wetherby Prep (both also run by Alpha Plus Group) which have both achieved Gold accreditation as part of their lease agreements.

Parental Agreement to Travel Sustainably:

- 6.4.5 As part of the school's Strategic Management Plan parents of new pupils joining the school will be asked to sign up to an agreement to not drop-off/pick-up on Arkwright Road and to use the Park and Ride scheme if they wish to drive their children to school. This will be rolled out to all new pupils joining both the existing and new forms. Use of a parent agreement has been successfully used at Wetherby Preparatory School (another Alpha Plus School), where its planning consent is based on a no-drop zone being maintained in the local residential square the school backs onto. Its mini bus scheme has therefore become the main mode of travel for pupils achieving a car mode share reduction of 20%.

Increased Cycle Parking Spaces:

- 6.4.6 The 3 Arkwright Road development proposals provide the opportunity to significantly increase cycle parking at the rear of 3 Arkwright Road, which meets the preferred travel aspirations of pupils at the school. The school currently provides 6 cycle racks and a micro scooter parking area. The development proposals will provide an additional 24 covered and secure cycle parking spaces (22 long stay and 2 short stay) as well as a number of scooter stands. The cycle parking will be located at the rear of 3 Arkwright Road, in a covered shelter, viewable from multiple rear class rooms and accessed via a lockable side gate. The cycle storage is secure and convenient and therefore in-keeping with Camden Planning Guidance (CPG) 7.
- 6.4.7 The cycle parking will be offered in combination with a school wide program of cycle training and road safety awareness (in combination with cycle safety programmes offered by LBC). In this regard LBC's Cycling Officer Ben Knowles has already visited the school to deliver a school assembly on cycling.

Increased School Mini Bus Use:

- 6.4.8 The school will continue to heavily promote its mini bus service by increasing the bus routes and catchment area offered by the service. The promotion and development of a mini bus network has worked well at other Alpha Plus Schools, including Wetherby Preparatory School which currently achieves an impressive 55% pupil mode share by school mini bus.

Breakfast Club and After School Classes:

- 6.4.9 Currently, St Anthony's Prep School and the neighbouring Devonshire House School (located opposite) operate very similar opening times in the AM peak which increases the potential for traffic congestion along Arkwright Road. As part of the development proposals a new dining hall at 3 Arkwright Road will enable the school to offer a breakfast club, enabling the school to accept pupils from 7.30am. There is already parent demand for this service and the local roads are considerably quieter at this time. Similarly the new hall would also enable additional after school clubs which would enable an extended school pick up period.

Improved Road Safety:

- 6.4.10 As indicated above, the expansion and redevelopment of 3 Arkwright Road will enable dining and kitchen facilities to be installed within both buildings (90 Fitzjohn's Ave & 3 Arkwright Road), as well as enabling assemblies to be held on both sides of the road. This greatly reduces the need for children to cross the road, lessening trips from 2,122, to only 478 a week. This 78% reduction in road crossings will significantly improve road safety for pupils and will reduce the use of the crossing, which in turn could assist in improving traffic flow through the Arkwright Road / Fitzjohn Ave junction.

Park & Ride & No Drop Zone

- 6.4.11 Parents of all pupils starting at the new school building will not be allowed to drive to the school and to drop / pick off their children on Arkwright Road. Thus if a parent needs to drive to the School they will be required to use the P&R scheme. This will be enforced through parent contracts for new starters at the new school and through staff enforcement of a no drop zone on Arkwright Road.
- 6.4.12 Existing families, who currently drive their children to the school will also be encouraged to use the Scheme and will be strongly discouraged from dropping on Arkwright Road, via the no drop zone. If families already have a child at the school, and should their sibling then join as a new starter, they will be required to sign a parent contract to use the P&R, should they wish to drop their children by car.
- 6.4.13 The P&R will have the benefit of reducing congestion on local roads close to the School and specifically on Arkwright Road, making the local highway network a safer place for residents and pupils.

7 Impact on Local Infrastructure & Mitigation

7.1 Highway Impact

- 7.1.1 The school expansion, at 140 pupils, is currently forecasted to generate 13 additional car alone trips and 38 car sharers (31 with siblings and 7 non-siblings) based on the schools current mode share. As a worst case scenario, should only two student's car share in each vehicle together, this would result in an additional 19 vehicles being generated by car sharers. In relation to school employees, future teachers and staff will not be provided with a parking space within the School grounds, therefore an increase in staff will not result in additional car trips on Arkwright Road.
- 7.1.2 Based on the above, it is estimated that, at current mode shares, an additional 32 vehicles (13 car alone and 19 car sharers) would be created as a result of the development expansion, when at full capacity.
- 7.1.3 The P&R service being offered by the school will remove these car trips from Arkwright road and relocate them to the A41, in order to reach the P&R location at the O2 centre. Dft sourced data of Average Annual Daily Flow (AADF) figures for the A41 Finchley Road indicates around 42,000 car trips a day. It is therefore felt that an additional 32 car trips on this strategic part of the road network, within each peak, is negligible and will therefore have no adverse impact on the highway. This is particularly the case given the P&R use of the O2 Centre car park is outside of peak retail hours of the Centre.
- 7.1.4 In addition, the School is dedicated to promoting sustainable transport and, as part of a S106 agreement, is willing to commit to achieving TfL Travel Plan Gold Accreditation. Achieving TfL Travel Plan Gold Accreditation would mean that the School must have achieved at least a six percent decrease in car use or have 90 per cent of pupils travelling sustainably.

7.2 Impact on Public Transport

- 7.2.1 As previously noted, the site is very well located in terms of public transport availability, scoring 6a 'Excellent' on TfL's PTAL scale.
- 7.2.2 The development is expected to directly generate (from pupils and staff) an additional 14 movements linked to bus services, 23 movements using the tube and 7 using rail services.
- 7.2.3 In order to obtain gold accreditation, further public transport demand, in excess of these figures can be expected. However, given the very large number of frequent and reliable bus services are accessible from the site, within walking distance; it is considered that the additional demand will have a minimal impact. The high frequency of buses will mean that pupil accumulation at bus stops will be minimal.
- 7.2.4 Similarly, travel by tube or rail are possible and within walking distance from the School. Frequent and reliable services will be able to adequately cater for any additional trips from the School.

7.3 Impact on Cycle Networks

- 7.3.1 The School is forecasted to generate 6 bicycle trips. This number is based upon existing travel patterns for the School. It is expected that the cycle mode share could be significantly higher compared to the site potential, and upon obtaining TfL Gold Accreditation further cycle trips could be expected.

- 7.3.2 Cyclists will come from different locations and use several radial routes to access the school. It is expected that the local cycle network would adequately cope with this additional flow of cyclist.

7.4 Impact on Pedestrian Networks

- 7.4.1 The school is forecasted to generate an additional 45 walking trips.
- 7.4.2 The pupil post code analysis demonstrates that 80% of pupils live within a 3 mile radius around the School with 50% located within a 2 mile distance of the school.
- 7.4.3 Hampstead Tube Station is located to the north, Finchley Road & Frognal Rail Station is located to the southwest. Swiss Cottage Tube Station is located to the south. Here again the School is located centrally and is surrounded by Public Transport Facilities.
- 7.4.4 Therefore, given the distribution of pupil origin locations, and wide choice of public transport access points, pedestrian trips generated by the schools expansion should be relatively evenly spread within the local area. Pedestrian facilities, as noted within this report are of good quality locally to the school.
- 7.4.5 The staggered School leaving times and morning breakfast club will assist in spreading the impacts of pedestrian movements on the local network.
- 7.4.6 The potential increase in pedestrian movements generated the schools aim to achieve TfL Travel Plan Gold Accreditation should be adequately catered for by the local pedestrian network.
- 7.4.7 The proposed development will also provide additional school facilities which will reduce the number of pupil crossings of Fitzjohns Avenue during the school day. Previously pupils had to travel to 90 Fitzjohn's Avenue from 1 Arkwright road to use the dining hall. This meant crossing the junction of Fitzjohn's Avenue / Arkwright Road on a regular basis. With the proposals in place pupils will no longer need to travel between the two building on a regular basis (due to dining halls on both sides of the road) which will significantly reduce the risk of injury and accidents at the junction as well as improving junction operation and capacity.

7.5 Summary of Mitigation Measures

- 7.5.1 The School is dedicated to implementing an ethos of sustainable travel. The School has already achieved a STARS Bronze Accreditation and has recently submitted for Silver Accreditation, which demonstrates its Travel Plan commitment. However, in order to reduce its impact on the local highway network and its environmental impact the School is aiming to gain TfL's STARS Gold Accreditation within the next few years.
- 7.5.2 In order to achieve this, the School is willing to implement an increasing range of Travel Plan measures that will continue to encourage parents, pupils and staff to undertake more sustainable journeys to the School. Current and future sustainable measures have been highlighted above in Section 6.3, which relates to the current Travel Plan, and Section 6.4 which identifies proposals to mitigate the impact of the development and achieve TfL STARS Gold Accreditation.
- 7.5.3 It has been demonstrated within this assessment that the proposed development, in combination with Travel Plan measures and the P&R scheme, is likely to have a positive impact on the existing local highway network compared to the current situation, and, as a minimum will result in nil detriment to traffic generation on Arkwright Road.

- 7.5.4 In accordance to the National Planning Policy Framework (NPPF), “*Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development **are severe**.*” This report, and the Schools strong commitment towards sustainable methods of travel, clearly demonstrates that impacts will not be severe and is in-fact likely to have a positive impact on the local traffic situation on Arkwright Road, through committed use of the P&R scheme.
- 7.5.5 Based on the information provided in this Transport Statement (TS) we believe it has been demonstrated that the development proposals will have no adverse impact on the local highway network and it is respectfully suggested that there is no discernible reason why, in transport terms, the proposed development should not be permitted.

Drawings



EXISTING RESIDENTS
PARKING BAYS (IN
OPERATION BETWEEN 09:00
– 20:00 MON TO SAT)

EXISTING BUS PARKING BAY
(IN OPERATION BETWEEN
08:00 – 09:00 AND 15:00
– 17:00 MON TO FRI)

ADDITION OF A SINGLE
YELLOW LINE TO RUN ALONG
FRONTAGE OF 3 ARKWRIGHT
ROAD

1 & 3 ARKWRIGHT ROAD
VEHICLE CROSSOVERS CLOSED
AND RETURNED TO FOOTWAYS

EXISTING ON-STREET
PARKING BAY RELOCATED
FURTHER SOUTH OF 3
ARKWRIGHT ROAD FRONTAGE

BUSES

MOTS

new boundary wall & gate to match existing removed and No 1 Arkwright Road

DOUBLE YELLOW
LINES TO CONTINUE

adjacent property

FIRE
ESCAPE
ROUTE

New Bin Store

existing
Bin Store

DO NOT SCALE

THIS DRAWING CONFINES ITSELF TO PRESENTING THE
ARRANGEMENT FOR CHANGES TO ON-STREET HIGHWAY
MARKINGS. FOR DETAILS OF THE INTERNAL SITE LAYOUT
REFER TO ARCHITECTS PLANS.

A	16/07/15	GW	FIRST ISSUE	NP	NP
REV	DATE	BY	DESCRIPTION	CHK	APD

DRAWING STATUS:
FOR INFORMATION ONLY



66-68 Hills Road, Cambridge CB2 1LA
Tel: +44 (0)1223 558 050 Fax: +44 (0)1223 558 051
<http://www.wspgroup.com>

CLIENT:
ALPHA PLUS GROUP

ARCHITECT:
RPA GROUP

PROJECT:
3 ARKWRIGHT ROAD, CAMDEN, LONDON

TITLE:
PROPOSED ON-STREET CHANGES TO HIGHWAY
MARKINGS

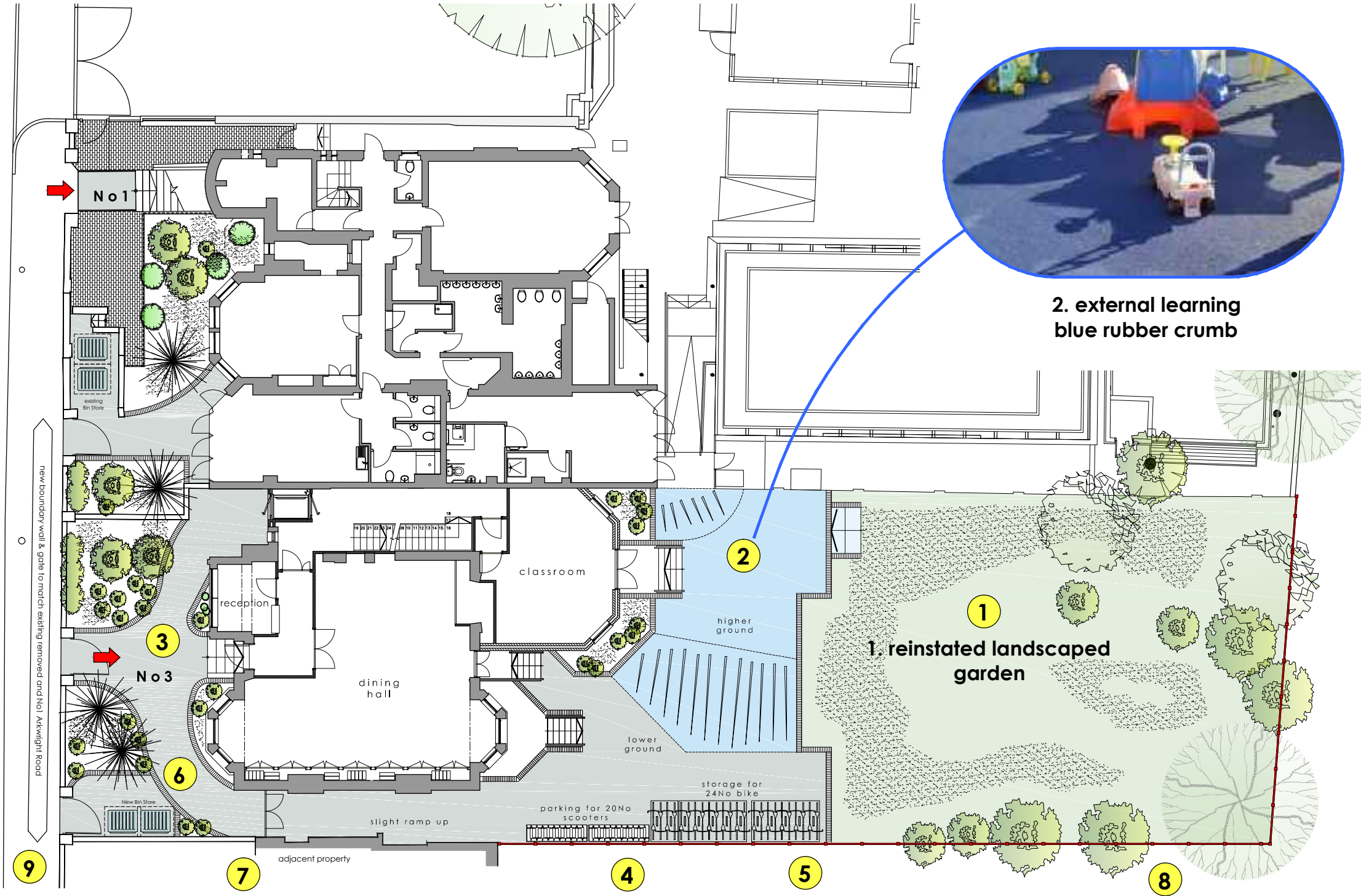
SCALE @ A3: 1:200	CHECKED: N. POULTON	APPROVED: N. POULTON
CAD FILE: 0384-SK-011A	DESIGN-DRAWN: GW	DATE: July 2015
PROJECT No: 70000384	DRAWING No: 0384-SK-011A	REV: A

© WSP Group Ltd

Appendix A. Site Layout Plan

Legend

- 1. **existing garden**
reinstate existing landscaped garden
- 2. **external learning**
rubber crumb finished
- 3. **pavements & access**
tarmac finished pavements, side access and bike storage area
- 4. **scooter parking**
storage rack for 20No scooters
- 5. **cycle store**
hardwood timber framed surround cycle store for 24No bikes
- 6. **bin store**
hardwood timber bin store surround with lockable doors
- 7. **access gate**
timber access gate, with timber side panels
- 8. **acoustic fencing**
new timber acoustic fencing between No3 & No5 Arkwright Road
- 9. **extended boundary wall & gate**
to match existing boundary wall and gate to match No 1 Arkwright Road



3. pavements & access



9. boundary wall & gate



7. access gate



6. bin store



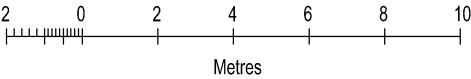
4. scooter parking



5. cycle store



8. acoustic fence



rev	date	description	dm	chk
B	16.07.15	CYCLE STORAGE AMENDED	JCH	dp
A	08.01.15	BIN STORAGE AMENDED	JCH	dp
	18.12.14	CREATED & ISSUED	JCH	dp



project
1 & 3 Arkwright Road
Hampstead
London
NW3

drawing title
Proposed
Landscaping

drawn by JCH	date Dec '14	checked dp
job no. 2001309	drawing no. A1000	revision B

scale
1:100 @ A1 or 1:200 @ A3

Appendix B. Road Injury Accident Data

Personal Injury Accidents (PIAs)

Accident Ref	Junction/Link	Severity			Vulnerable Road Users			Under 18 Year Old Casualty
		Slight	Serious	Fatal	Peds	Pedal Cyclists	Motor Cyclists	
0114EK40583	FINCHLEY ROAD J/W LITHOS ROAD	1	0	0	0	0	1	0
0114EK40631	FINCHLEY ROAD J/W BLACKBURN ROAD	1	0	0	0	1	0	0
0114EK40567	FITZJOHN'S AVENUE J/W LYNDHURST ROAD	1	0	0	0	1	0	0
0114EK40519	NFL- FROGNAL 76M N OF J/W FROGNAL GARDENS	2	0	0	1	1	0	0
0114EK40503	NFL- FITZJON'S AVENUE 142M S OF J/W NUTLEY TERRACE	1	0	0	0	0	0	0
0114EK40468	ROSSLYN HILL J/W MULBERRY CLOSE	1	0	0	1	0	0	0
0114EK40469	NFL- WELL WALK 52M NE OF J/W NEW END SQUARE	1	0	0	1	0	0	0
0114EK40451	FINCHLEY ROAD 40M SE OF J/W ROSEMONT ROAD	1	0	0	0	0	0	0
0114EK40386	NFL- FINCHLEY ROAD 37M NW OF J/W LITHOS ROAD	1	0	0	0	0	0	0
0114EK40325	ARKWRIGHT ROAD J/W FROGBAL	1	0	0	0	0	1	0
0114EK40285	HEATH STREET J/W HAMPSTEAD HIGH STREET	1	0	0	0	0	1	0
0114EK40178	FITZJOHN'S AVENUE J/W NUTLEY TERRACE	1	0	0	0	0	1	1
0114EK40058	FINCHLEY ROAD J/W BLACKBURN ROAD	1	0	0	0	1	0	0
0114EK40059	NFL- FINCHLEY ROAD J/.W ARKWRIGHT ROAD	1	0	0	0	0	0	0
0114EK40034	NFL- FROGAL RISE J/W HAMPSTEAD GROVE	1	0	0	0	0	0	0
0114EK40032	HEATH STREET J/W CHURCH ROW	1	0	0	0	0	1	0
0114EK40220	FRITZJOHN'S AVENUE J/W PRINCE ARTHUR ROAD	2	0	0	0	0	2	0
0113EK40810	FITZJOHN'S AVE 97M NUTLEY TERRACE	1	0	0	0	0	1	0
0113EK40799	HEATH ST J/W ORIEL COURT	1	0	0	1	0	0	0
0113EK40788	NFL HEATH ST J/W HOLLY BUSH VALE	1	0	0	0	0	0	0
0113EK40827	NFL LYNDHURST RD J/W LYNDHURST GARDENS	1	0	0	0	0	0	0

Accident Ref	Junction/Link	Serverity			Vulnerable Road Users			Under 18 Year Old Casualty
		Slight	Serious	Fatal	Peds	Pedal Cyclists	Motor Cyclists	
0113EK40706	FINCHLEY ROAD 50M NW OF LITHOS ROAD	0	1	0	1	0	0	0
0113EK40633	FINCHLEY ROAD 39M S OF FROGNAL	0	1	0	0	1	0	0
0113EK40637	FINCHLEY ROAD J/W LITHOS ROAD	0	1	0	0	0	1	0
0113EK40544	ROSSLYN HILL J/W SHEPHERD'S WALK	0	1	0	0	0	0	0
0113EK40537	ROSSLYN HILL J/W LYNDHURST RD	1	0	0	0	0	0	0
0113EK40500	FITZJOHN'S AVENUE J/W AKENSIDE ROAD	1	0	0	0	1	0	0
0113EK40486	FINCHLEY ROAD J/W LANGLAND GARDENS	1	0	0	0	0	1	0
0113EK40371	ROSSLYN HILL J/W LYNDHURST ROAD	1	0	0	0	0	0	0
0113EK40368	HAMPSTEAD HIGH STREET J/W WILLOUGHBY ROAD	1	0	0	0	0	1	0
0113EK40370	FITZJOHN'S AVENUE J/W ARKWRIGHT ROAD	1	0	0	1	0	0	0
0113EK40352	LYNDHURST ROAD J/W LYNDHURST GARDENS	1	0	0	0	0	1	0
0113EK40443	HEATH STREET J/W PERRINS LANE	1	0	0	0	0	0	0
0113EK40263	HAMPSTEAD HIGH STREET J/W SPENCER WALK	1	0	0	0	1	0	0
0113EK40239	FITZJOHN'S AVENUE J/W LYNDHURST ROAD	1	0	0	0	1	0	0
0113EK40271	ROSSLYN HILL 45M NW OF HAMPSTEAD HILL GARDENS	1	0	0	0	1	0	0
0113EK40130	FINCHLEY RD J/W LITHOS RD	1	0	0	0	0	1	0
0113EK40084	ROSSLYN HILL J/W DOWNSHIRE HILL	1	0	0	0	0	0	0
0113EK40098	ROSSLYN HILL 24M SE OF DOWNSHIRE HILL	1	0	0	1	0	0	0
0113EK40064	FROGNAL RISE J/W MOUNT VERNON	1	0	0	0	1	0	1
0113EK40060	ROSSLYN HILL J/W THURLOW ROAD	1	0	0	0	0	0	0
0113EK40026	HEATH ST J/W HAMPSTEAD HIGH ST	1	0	0	0	0	1	0
0112EK40664	LYNDHURST ROAD J/W ROSSLYN HILL	1	0	0	0	0	0	0
0112EK40707	N.F.L FINCHLEY ROAD 28M NW OF LANGLAND GARDENS	1	0	0	0	1	0	0

Accident Ref	Junction/Link	Severity			Vulnerable Road Users			Under 18 Year Old Casualty
		Slight	Serious	Fatal	Peds	Pedal Cyclists	Motor Cyclists	
0112EK49018	FINCHLEY RD J/W FROGNAL	1	0	0	0	1	0	0
0112EK40671	PRINCE ARTHUR ROAD 32M NE OF FITZJOHN'S AVENUE	1	0	0	0	0	1	0
0112EK40610	HAMPSTEAD HIGH STREET J/W PERRIN'S LANE	1	0	0	1	0	0	1
0112EK40550	NFL: BELSIZE PLACE 28M NW J/W BELSIZE LANE	1	0	0	0	0	0	1
0112EK40532	WILLOW ROAD J/W GAYTON CRESCENT	1	0	0	0	0	0	1
0112EK40495	BELSIZE LANE J/W BELSIZE PLACE	1	0	0	1	0	0	0
0112EK40484	FROGNAL J/W ARKWRIGHT ROAD	1	0	0	0	0	0	0
0112EK40481	FINCHLEY ROAD J/W LANGLAND GARDENS	1	0	0	0	1	0	0
0112EK40482	ROSSLYN HILL 35M SE OF DOWNSHIRE HILL	1	0	0	0	1	0	0
0112EK40447	ROSSLYN HILL 64M SE OF DOWNSHIRE HILL	1	0	0	0	0	0	0
0112EK40501	ROSSLYN HILL 37M SE OF HAMPSTEAD HILL GARDENS	1	0	0	0	0	1	0
0112EK40444	HAMPSTEAD HIGH STREET 50M E OF GAYTON ROAD	1	0	0	0	0	1	0
0112EK40452	ARKWRIGHT ROAD J/W FITZJOHN'S AVENUE	1	0	0	0	0	1	0
0112EK40416	FINCHLEY ROAD J/W LITHOS ROAD	1	0	0	0	0	1	0
0112EK40363	HAMPSTEAD HIGH STREET J/W HEATH STREET	1	0	0	1	0	0	0
0112EK40348	FITZJOHNS AVENUE J/W AKENSIDE ROAD	1	0	0	0	0	1	0
0112TB00691	NFL- ROSSLYN HILL 34M NW OF J/W HAMPSTEAD HILL GARDENS	0	1	0	1	0	0	1
0112EK40301	FORGNAL 102M NORTH OF J/W NETHERALL WAY	1	0	0	0	0	0	1
0112EK40292	FINCHLEY ROAD J/W LITHOS ROAD	1	0	0	0	1	0	0
0112EK40339	ROSSLYN HILL 25M SE OF HAMPSTEAD HILL GARDENS	4	0	0	0	0	0	0
0112EK40261	HEATH STREET J/W HOLLY HILL	2	0	0	0	0	0	0
0112EK40232	GARDNOR ROAD J/W	1	0	0	1	0	0	0

Accident Ref	Junction/Link	Severity			Vulnerable Road Users			Under 18 Year Old Casualty
		Slight	Serious	Fatal	Peds	Pedal Cyclists	Motor Cyclists	
	FLASK WALK							
0112EK40228	HAMPSTEAD HIGH STREET 22M NW OF BIRD IN HAND YARD	1	0	0	1	0	0	0
0112EK40263	FINCHLEY ROAD J/W LYMINGTON ROAD	1	0	0	0	0	0	0
0112EK40223	FROGNAL J/W REDINGTON ROAD	1	0	0	0	0	0	0
0112EK40215	FROGNAL GARDENS J/W CHURCH ROW	1	0	0	1	0	0	0
0112EK40201	HAMPSTEAD HIGH STREET J/W PERRIN'S LANE	2	0	0	0	0	2	0
0112EK40171	FINCHLEY ROAD J/W LANGLAND GARDENS	1	0	0	0	0	1	0
0112TB00295	FINCHLEY ROAD 107M SE OF J/W FROGNAL	0	1	0	1	0	0	0
0112EK40100	FINCHLEY ROAD J/W LITHOS ROAD	1	0	0	0	0	1	0
0112TB00158	HAMPSTEAD HIGH STREET J/W BIRD IN HAND YARD	0	1	0	1	0	0	0
0112EK40028	FROGNAL J/W FINCHLEY ROAD	1	0	0	0	0	1	0
0112EK40019	FITZJOHN'S AVENUE J/W LYNDHURST ROAD	1	0	0	0	0	1	0
0112EK40029	HEATH STREET J/W HAMPSTEAD HIGH STREET	1	0	0	1	0	0	1
0111EK40001	GREENHILL 30M E J/W PRINCE ARTHUR ROAD	1	0	0	0	0	0	0
0111CW12366	NFL - ROSSLYN HILL J/W DOWNSHIRE HILL.	0	1	0	0	1	0	0
0111CW12374	FROGNAL GARDENS, 60 METRES NORTH OF CHURCH ROW.	1	0	0	0	0	1	0
0111CW12115	HEATH STREET J/W HEATH HIGH STREET	1	0	0	0	1	0	0
0111CW12083	FINCHLEY ROAD J/W ARKWRIGHT ROAD	1	0	0	0	0	1	0
0111CW11932	FINCHLEY ROAD J/W ROSEMONT ROAD	1	0	0	1	0	0	0
0111CW11832	FINCHLEY ROAD 63M NW J/W LITHOS ROAD	1	0	0	1	0	0	0
0111CW11424	ROSSLYN HILL J/W POND STREET	2	0	0	0	0	0	0
0111CW11203	LYMINGTON ROAD J/W FINCHLEY ROAD	1	0	0	0	0	0	0
0111CW11184	FITZJOHN'S AVENUE J/W NETHERHALL GARDENS	1	0	0	0	0	0	0

Accident Ref	Junction/Link	Serverity			Vulnerable Road Users			Under 18 Year Old Casualty
		Slight	Serious	Fatal	Peds	Pedal Cyclists	Motor Cyclists	
0111CW11129	LYNDHURST ROAD J/W AKENSIDE ROAD	1	0	0	0	0	0	0
0111CW11057	AKENSIDE ROAD J/W WEDDERBURN ROAD	1	0	0	0	0	1	0
0111CW11036	FINCHLEY ROAD J/W LYMINGTON ROAD.	0	1	0	0	1	0	0
0111CW10742	FINCHLEY ROAD J/W BLACKBURN ROAD	1	0	0	0	0	0	0
0111CW10606	ROSSLYN HILL J/W HAMPSTEAD HILL GARDENS.	1	0	0	0	1	0	0
0111CW10530	FITZJOHN'S AVENUE J/W NUTLEY TERRACE	0	1	0	1	0	0	1
0111CW10497	NFL - GREENHILL, 40 METRES EAST OF PRINCE ARTHUR ROAD.	1	0	0	1	0	0	0
0111CW10495	NFL - HAMPSTEAD HIGH STREET, 30 METRES NORTH WEST OF BIRD IN HAND	1	0	0	1	0	0	0
0111CW10432	FINCHLEY ROAD J/W BLACKBURN ROAD	0	1	0	0	0	1	0
0111CW10248	ARKWRIGHT ROAD J/W FROGNAL	1	0	0	0	0	0	0
0111CW10153	HAMPSTEAD HIGH STREET J/W BIRD IN HAND YARD.	1	0	0	1	0	0	0
0111TB00361	LANGLAND GARDENS J/W FOGNAL LANE	1	0	0	0	1	0	0
0111TB00236	FITZJOHN'S AVENUE 15M NORTH J/W NUTLEY TERRACE	1	0	0	1	0	0	0
0111TB00094	FROGNAL 75M. SE. OF J/W FROGNAL CLOSE.	2	0	0	1	1	0	2
0111CW10031	HEATH STREET J/W PERRIN'S WALK	1	0	0	1	0	0	1
0111CW10268	FINCHLEY ROAD J/W ARKWRIGHT ROAD	1	0	0	0	0	0	0
0111TB00138	FITZJOHN'S AVENUE J/W NETHERALL GARDENS	2	0	0	0	1	1	0
0110CW12702	ROSSLYN HILL J/W POND STREET	1	0	0	0	1	0	0
0110TB00755	FINCHLEY ROAD J/W LYMINGTON ROAD	0	0	1	0	0	1	0
0110CW12254	FINCHLEY ROAD J/W ROSEMONT ROAD.	1	0	0	0	0	0	0
0110CW12287	NFL - HAMPSTEAD HIGH STREET, 30 METRES N.W OF BIRD IN HAND YARD.	1	0	0	0	0	1	0
0110CW12155	ROSSLYN HILL J/W POND	1	0	0	0	0	1	0

Accident Ref	Junction/Link	Severity			Vulnerable Road Users			Under 18 Year Old Casualty
		Slight	Serious	Fatal	Peds	Pedal Cyclists	Motor Cyclists	
	STREET.							
0110CW12098	FINCHLEY ROAD J/W LITHOS ROAD	1	0	0	0	0	0	1
0110CW12059	ARKWRIGHT ROAD J/W ELLERDALE ROAD	1	0	0	0	0	1	0
0110CW12048	FINCHLEY ROAD J/W LANGLAND GARDENS	1	0	0	1	0	0	1
0110CW11915	FINCHLEY ROAD J/W LITHOS ROAD	1	0	0	0	0	1	0
0110CW11752	FINCHLEY ROAD, 57 METRES NORTH WEST OF LITHOS ROAD.	2	0	0	0	0	0	0
0110CW11747	FINCHLEY ROAD J/W FROGNAL	1	0	0	0	1	0	0
0110CW11551	ROSSLYN HILL 40M SOUTH EAST OF J/W HAMPSTEAD HILL GARDENS	1	0	0	1	0	0	0
0110CW11305	POND STREET J/W ROSSLYN HILL	1	0	0	1	0	0	0
0110CW11184	ROSSLYN HILL J/W DOWNSHIRE HILL	1	1	0	0	0	0	0
0110CW11223	FINCHLEY RD J/W FROGNAL COURT	1	0	0	0	0	0	0
0110CW11083	FINCHLEY ROAD J/W LITHOS ROAD	1	0	0	1	0	0	0
0110CW11106	HAMPSTEAD HIGH STREET J/W WILLOUGHBY ROAD	1	0	0	1	0	0	0
0110CW11012	HAMPSTEAD HIGH STREET J/W FLASH WALK	1	0	0	1	0	0	0
0110CW10937	FINCHLEY RD J/W FROGNAL COURT	1	0	0	0	0	0	0
0110CW10725	ARKWRIGHT RD 40M SOUTH WEST OF J/W LINDFIELD GARDENS	1	0	0	0	0	0	0
0110CW10683	ARKWRIGHT RD J/W ELLERDALE RD	1	0	0	0	1	0	0
0110CW10547	MARESFIELD GARDENS J/W NETHERHALL GARDENS	1	0	0	0	0	1	0
0110CW10428	ROSSLYN HILL J/W DOWNSHIRE HILL	1	0	0	0	1	0	0
0110TB00045	HEATH STREET 38M NORTH OF J/W HAMPSTEAD HIGH STREET	0	1	0	1	0	0	0
0110CW10248	HEATH STREET J/W CHURCH ROW.	1	0	0	0	0	1	0
0110CW10192	HEATH STREET J/W HAMPSTEAD HIGH	1	0	0	1	0	0	1

Accident Ref	Junction/Link	Severity			Vulnerable Road Users			Under 18 Year Old Casualty
		Slight	Serious	Fatal	Peds	Pedal Cyclists	Motor Cyclists	
	STREET							
0110CW12380	ARKWRIGHT ROAD J/W LINDFIELD GARDENS	2	0	0	2	0	0	2
0110CW10059	NFL - LYNDHURST RD J/W LYNDHURST TERRACE	0	1	0	0	0	1	0
0110CW10043	FINCHLEY RD J/W LITHOS RD	1	0	0	0	0	0	1
0110CW10437	NETHERHALL GARDENS 99M NORTH OF J/W NETHERALL WAY	1	0	0	0	0	0	0
0109CW12707	FROGNAL LANE J/W GREENAWAY GARDENS	1	0	0	0	0	0	0
0109CW12661	LYNDHURST ROAD J/W ELDEN GROVE	2	0	0	0	0	0	0
0109CW12603	DENNING ROAD 95M WEST J/W PILGRIM'S LANE	1	0	0	1	0	0	0
0109CW19018	FINCHLEY RD 55M NORTH WEST OF J/W LYMINGTON RD	0	1	0	0	0	0	0
0109CW12532	FITZJOHN'S AVENUE J/W PRINCE ARTHUR ROAD	0	1	0	0	0	1	0
0109CW12677	HEATH STREET J/W HOLLY HILL	1	0	0	1	0	0	0
0109CW12486	FITZJOHN'S AVENUE J/W NETHERHALL GARDENS	1	0	0	0	0	0	0
0109CW12338	FITZJOHN'S AVENUE J/W NETHERHALL GARDENS	0	2	0	1	0	0	0
0109CW12046	FITZJOHN'S AVENUE J/W ARKWRIGHT ROAD	2	0	0	0	0	0	1
0109CW12266	LYNDHURST ROAD J/W FITZJOHN'S AVENUE	1	0	0	0	0	0	0
0109CW11956	HAMPSTEAD HIGH STREET J/W PERRIN'S LANE	1	0	0	1	0	0	0
0109CW11887	HEATH STREET 24M S J/W HOLLY BUSH VALE	0	1	0	1	0	0	0
0109CW11602	HEATH STREET J/W THE MOUNT	1	0	0	0	1	0	0
0109CW11652	HAMPSTEAD HIGH STREET J/W WILLOUGHBY ROAD	1	0	0	1	0	0	0
Total		145	19	1	42	27	40	19

Accidents highlighted in orange contain an unknown age of injured person.

WSP UK Limited
70 Chancery Lane
London
WC2A 1AF

www.wspgroup.co.uk

