Charlie Ratchford Extra-Care Scheme

Transport Statement

On behalf of **London Borough of Camden**

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1 Introduction

1.1 Background

1.1.1 Peter Brett Associates (PBA) has been commissioned by the London Borough of Camden (LBC) to produce a Transport Statement (TS) in support of the planning application for an extra-care facility on a site of approximately 1,200 sqm, situated to the east of Chalk Farm Underground Station.

1.2 Site Location

1.2.1 Figure 1.1 shows the location of the application site in relation to its wider surrounding area. The slightly irregular shaped development site is currently undeveloped. To the north the site is bounded by residential dwellings, to the east by Crogsland Road, and to the south and west by Haverstock School, a business and enterprise college for 11 to 18 year old students.

Figure 1.1 Strategic Site Location Plan

1.3 Development Proposals

1.3.1 The development proposals comprise the relocation of the Charlie Ratchford Resource Centre (CRRC), which is currently situated on Belmont Street, to the application site on Crogsland Road.

1.3.2 The proposed extra-care development on the application site will comprise a day centre for the elderly at ground floor level and a total of 38 extra-care residential units on floors one to five.

1.4 Structure of the Report

1.4.1 A Transport Scoping Report was prepared and circulated to the LBC Highways in September 2014. Comments have been received from the LBC in late September. This TS is based on

the agreed Scope of Works. The submitted scope is presented in Appendix A alongside the scoping response.

1.4.2 This chapter forms the introduction to the TS with a brief overview of the development proposals. As agreed in the Scope of Works, this TS has been structured as follows:

- Chapter 2 provides an insight into the existing conditions on site, in particular the site's connections with transport networks;
- Chapter 3 presents the development proposals in detail;
- Chapter 4 provides a comprehensive review of the relevant national, regional and local policy in relation to the proposed development;
- Chapter 5 presents the travel characteristics of the site, including the trip generation estimations as agreed with LBC Highways;
- Chapter 6 uses the trip generation estimations from Chapter 5 to assess the potential impact of the development on the highway as well as the public transport;
- Chapter 7 presents the Delivery and Servicing Plan for the proposed development;
- Chapter 8 provides a framework Construction and Logistics Plan for the proposed development; and
- Finally, Chapter 9 summarises and concludes the report.

2 Existing Conditions

2.1 Introduction

2.1.1 This chapter of the report outlines the existing conditions of the site, including a baseline review of local transport network accessible from the site.

2.2 Existing Site Use

2.2.1 The current CRRC facility is currently located to the northeast of Chalk Farm Underground Station, bounded by Belmont Street to the east and Crogsland Road to the west.

2.2.2 CRRC aims at users that are aged 60 or above in Camden. The Centre offers activities including art and crafts, pottery, singing groups and ballroom dancing. It was in operation from 09:00 to 16:00 from Monday to Friday.

2.2.3 The proposed relocation site is currently an undeveloped gated area with unmanaged vegetation on one side and it is used as an informal parking space for the members of staff of the Haverstock School on the other side.

2.3 Existing Access

2.3.1 The existing CRRC site is currently accessed from Belmont Street, which is the link to the east of the site that leads to the main road of A502 Chalk Farm Road to the south. This access is shared by vehicles, pedestrians and cyclists.

2.3.2 The proposed relocation site adjacent to the Haverstock School on Crogsland Road currently has one gated access for vehicles.

2.3.3 Footways are provided on both sides of Crogsland Road and street lighting is provided in regular intervals on the eastern side of the road. Pedestrian crossing facilities on the Crogsland Road / A502 Haverstock Hill junction grant pedestrians safe access to Chalk Farm Underground Station and the adjacent bus stops on Haverstock Hill and the B509.

2.4 Existing Highway Network

2.4.1 Belmont Street is a two-way road going in the south-west to north-east direction to the east of the site. It has two lanes at the southern junction with Chalk Farm Road and one lane further north, where it then divides into two cul-de-sacs that encircle a neighbouring estate forming a U-shaped fork opened to the north-east. The width of the carriageway varies from approximately 6m in the widest part to 3m in the narrowest. There are footways on both sides of the carriageway which has a width of approximately 4m on the southern part and approximately 2.5m on each arm of the U-fork. There is no parking restriction on any arm of the street. In addition, there are some on-street parking bays for motorcycles and car club vehicles along the southern arm of the road.

2.4.2 Chalk Farm Road is a major road to the south of the site with a two-way and two-lane carriageway that runs north-west to south-east. There is a designated bus stop just opposite the entrance to Belmont Street in the westbound direction. There are some designated and regulated parking bays, partly on the pavement between the junctions with Crogsland Road and Belmont Street, with a maximum stay of two hours and Pay & Display between 08:30 and 23:00 on weekdays and 09:30 and 23:00 on weekends. There is also cycle parking provision on the footways along this stretch of the road.

2.4.3 The junction with Crogsland Road is signalised. There are central islands separating the traffic flows on each arm, and there is a signalised pedestrian crossing on the eastbound arm. This junction has no-stop markings except the stretch with a cycle lane running across Chalk Farm Road. The carriageway width varies from approximately 10m to around 15m at the junction. There are footways at both sides of the carriageway which vary from approximately 2m to 5m in width.

2.4.4 Crogsland Road is a two-way road that runs to the west of the site running north to south. The carriageway is approximately 6.5m wide along the whole road and there are footways at both sides with an approximate width of 3m. There is on-street parking along most part of the road with the notable exception of the access to the school on the southwest of the application site. Parking on Crogsland Road is regulated for resident permit holders only on weekdays between 08:30 and 23:00 and weekends from 09:30 to 23:00.

2.4.5 It should be noted that the Haverstock School has an access on Crogsland Road and the potential traffic impacts/ conflicts with the School are presented in Section 2.10 of this report. Haverstock School is a mixed community school for students from Year 7 to Sixth Form. There are approximately 1,200 students currently studying in the school according to the October 2014 data from Department of Education.

2.5 Existing Parking Conditions

2.5.1 There are currently two disabled bays and six parking spaces for the residents within the CRRC facility.

2.5.2 As recommended in the correspondence of the submitted Scoping Report, the construction of crossover will result in a loss in on-street resident parking spaces. Therefore a parking survey was conducted to better understand the existing parking situation and to estimate and inform the future parking scenarios in the vicinity of the site.

2.5.3 A parking survey was conducted on 1st and 2nd October 2014 (Wednesday and Thursday) at 12:30 and 05:30. Details are presented in Appendix C . The following streets (both sides of the carriageway) were surveyed:

- Crogsland Road;
- Prince of Wales Road;
- Craddock Street;
- Truro Street; and
- St Silas Place.

2.5.4 Data has been analysed and car parking capacity (percentage) of each survey time at each road has been calculated. An average of this occupancy data has been obtained for each street. The average car occupancy data of the streets is illustrated in Figure 2.1.

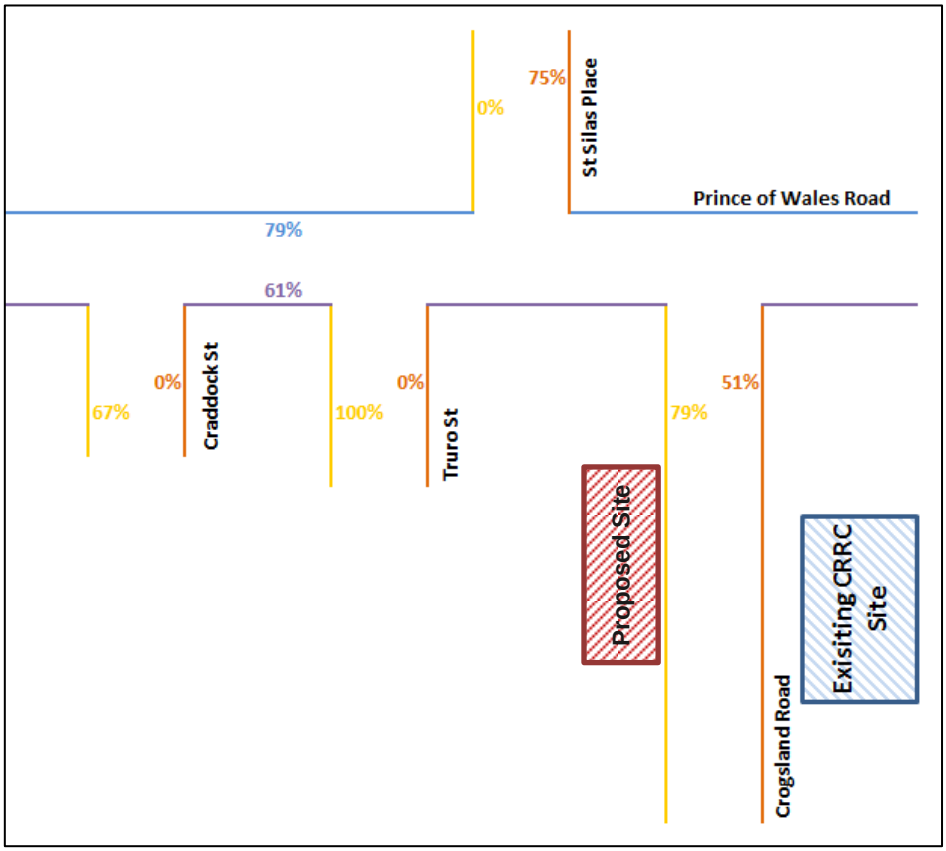
2.5.5 There are 111 on-street parking spaces on all the streets surveyed. Prince of Wales Road has the highest combined average car occupancy; 79% on the northern carriageway and 61% on the southern carriageway. There are 21 permit holders-only (PHO) spaces on the northern carriageway and 22 PHO spaces on the southern carriageway.

2.5.6 Closer to the site on Crogsland Road, there are 22 PHO spaces and 10 Pay & Display bays available on the eastern carriageway; while there are only 21 PHO spaces on the western carriageway. On both surveyed days, 15 cars were parked in the 22 PHO bays on the eastern carriageway while all the Pay & Display spaces were unoccupied. On the western carriageway

17 and 16 cars of the 22 PHO bays were parked on the two days of survey. As the western carriageway has less parking spaces and a higher number of parked vehicles, the occupancy shows a higher percentage.

2.5.7 Further, there are double-yellow line parking restrictions on the eastern carriageways of Truro Street and Craddock Street and therefore no data has been recorded. There is also no provision of on-street parking on the western carriageway of St Silas Place. Parking stress levels of the above have been recorded as 0%.

Figure 2.1 Parking Stress Level in the Surveyed Area



2.6 Existing Minibus Services

2.6.1 As advised by LBC officers, where correspondence is presented in Appendix B, there are currently three minibuses servicing the present site. Each minibus does two rounds of 'in and out' movements; with an average of approximately 30 trips per day. They arrive at the site for various periods during the day but do not have a fixed schedule every day. The time required for boarding and unloading can take up to 10 to 15 minutes.

2.6.2 The first round of minibuses arrives at CRRC between 09:00 to 09:20. Minibuses normally arrive one after another; while it is possible that all three buses arrive at the site at the same time. The second round of minibus services will arrive at the site between 10:30 and 11:00. This is the indicative timescale; actual arrival time is dependent on traffic conditions.

2.6.3 "Outbound" journey of the first round of the minibuses normally leaves CRRC at 14:30, while the second round leaves at 15:30.

2.6.4 There are currently four minibus bays at the CRRC. Minibuses do not stay for any length of time although some occasionally arrive very early for collection but this is not essential. Minibuses also do not park at the site overnight; but park at the depot at York Way.

2.7 Existing Traffic Flows

2.7.1 A 7-day 24-hour Automated Traffic Counts (ATC) has been conducted at the following locations; directions of movements are presented in Figure 2.2:

- A502 Chalk Farm Road
- Crogsland Road
- Prince of Wales Road (Between Truro Street and Crogsland Road)
- Prince of Wales Road (East of Crogsland Road)

Figure 2.2 Movement Plans for ATC Surveys

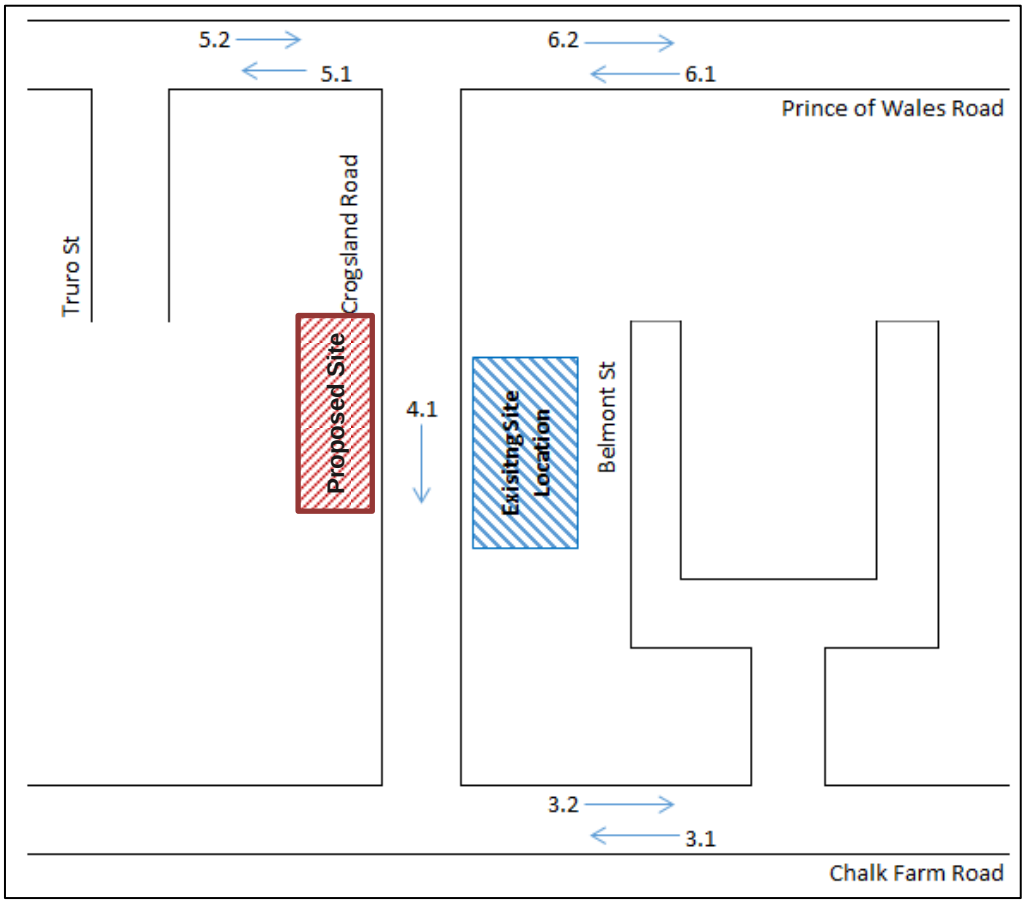


Table 2.1 ATC Surveys Summary Tables

	Movement 3.1		Movement 3.2		Movement 4.1		Movement 5.2	
	Cycle	All Vehicles	Cycle	All Vehicles	Cycle	All Vehicles	Cycle	All Vehicles
Weekday AM Peak	20	388	3	475	37	44	2	250
Weekday PM Peak	34	525	3	464	8	44	10	319
Weekend AM Peak	6	233	0	256	5	12	0	102
Weekend PM Peak	20	484	2	415	9	42	6	266

	Movement 5.2		Movement 6.1		Movement 6.2	
	Cycle	All Vehicles	Cycle	All Vehicles	Cycle	All Vehicles
Weekday AM Peak	30	201	46	396	30	272
Weekday PM Peak	23	295	27	357	23	305
Weekend AM Peak	2	100	7	112	3	106
Weekend PM Peak	9	260	17	299	8	260

2.7.3 Figure 2.2 presents the weekday and weekend day average on each movement at the survey location, for the morning and evening peak hours. Detailed information of survey locations and movement directions are presented in Appendix D .

2.7.4 As summarised in Table 2.1, most cyclist movements are in the weekday morning peak hour on Movement 6.1 (i.e. westbound movement on Prince of Wales Road). Similarly in the evening peak hour, the same movement has the most recorded cyclists (27 movements in the peak hour), followed by Movement 6.2 and 5.2, both with 23 one-direction movements within the evening peak hour.

2.7.5 For all other motorised vehicles, Chalk Farm Road has the highest number of peak hour movements (1,852 counts in the weekday peak hours and 1,388 in the weekend peak hours); while Crogsland Road has the least movements 88 counts in the weekday peak hours and 54 in the weekend peak hours).

2.8 Existing Public Transport Network

2.8.1 The closest London Underground Station to the site is Chalk Farm Underground Station, which lies approximately 185m (2 minutes of walking distance) to the south-west of the site. Chalk Farm Station grants access to Northern Line services between Edgware and Kennington / Morden.

2.8.2 Swiss Cottage Underground Station, which lies approximately 1,850m (approximately 7 minutes of cycle distance) to the west of the site, is served by Jubilee Line between Stanmore and Stratford. Swiss Cottage Underground Station can also be accessed via bus route 31.

2.8.3 The closest London Overground Station to the site is Kentish Town West. This station lies approximately 490m (approximately 6 minutes of walking distance) to the north-east of the site. Kentish Town West Station is served by Overground services operating between Richmond / Clapham and Stratford.

2.8.4 The closest bus stops to the site are situated along the A502 Chalk Farm Road / Haverstock Hill and the B509 Adelaide Road to the south of the site. The closest bus stops to the north of the site are situated along Prince of Wales Road.

2.8.5 The bus stops on the A502 are serviced by bus routes 31, N5, N28, N31, 168, and 393. Bus services 31, N28 and N31 serve bus stops on the B509 Adelaide Road and bus stops on Prince of Wales Road are served by bus route 393.

2.8.6 Table 2.2 shows the bus services available within walking distance of the development site as well as their route description and weekday morning peak hour frequency

Table 2.2 Bus Services in the Vicinity of the Site

Service Number	Route Description	Approximate Distance from Site	Weekday AM Peak Hour Frequency
31	White City–Kilburn–Camden Town	235m	10-11 services in each direction
168	Hampstead Heath–Euston–Old Kent Road	245m	9 services in each direction
393	Clapton–Holloway–Chalk Farm	110m	5 services towards Clapton
N5	Edgware–Hampstead–Trafalgar Square	245m	-Night time only-
N28	Wandsworth–Kensington–Camden Town	245m	-Night time only-
N31	Clapham Junction–Kensington–Camden Town	245m	-Night time only-
Total	**Approximately 24-25 buses per hour in each direction**		

2.8.7 The closest National Rail Station to the site is London St Pancras, which lies approximately 2.5 km to the south-east of the site. This station can be accessed via Northern Line services from Chalk Farm to Kings Cross Underground Station.

2.9 Public Transport Accessibility Levels

2.9.1 Public Transport Accessibility Levels (PTALs) are a measure of the accessibility of a point from a development site to the public transport network, taking into account walk access times and service availability. The method is essentially a way of measuring the density of the public transport network at particular points. A PTAL score can range from 1a to 6b, where a score of 1 indicates a “very poor” level of accessibility and 6b indicates an “excellent” accessibility level.

2.9.2 The PTAL of the application site is 5, indicating a very good level of public transport accessibility. PTALs have been calculated using Transport for London (TfL)'s online calculator. The detailed output from the online calculator is given in Appendix E .

2.10 Observations of Haverstock School

2.10.1 Consideration of the Haverstock School opposite the existing CRRC site has been given to investigate the potential conflicts of the proposed development. The proposed site is located on the eastern boundary of the school site bounded by Crogsland Road to the east.

2.10.2 Observation from a site visit on 21 October (Tuesday) informed the likely travel pattern of the students in the morning peak hour as well as the evening peak hour. Haverstock School is a mixed school with students from the age of 11 to 18. It is situated on Crogsland Road, opposite Chalk Farm Station and is bounded by the residential units on Prince of Wales Road to the north. The main access to the school premises is on Crogsland Road opposite the existing CRRC site.

2.10.3 It has been observed that the majority of students' final mode to school is 'walking'. Only some cycled to school on the day of site visit; while some were dropped off by private vehicles (assuming by parents), or by taxis.

2.10.4 Crogsland Road gets busy with pedestrians during the school peak hours, i.e. 08:00 to 09:00 and 15:00 to 16:00. School gates were open till 08:35 in the morning and, the gates remained open until 15:35 when students left school in the afternoon.

2.10.5 On-street parking was observed along Crogsland Road but spaces were not fully occupied. It was particularly free from parked vehicles towards the Crogsland Road/ Chalk Farm Road junction. The empty parking spaces were then used by private vehicles as pick-up or drop-off location. Most movements were observed during the last 15 minutes before the gates closed at 08:35 as well as the 15 minutes after the school gates opened at 15:00. Approximately five vehicles dropped-off/ picked up students within the period of 15 minutes; each stopping for an average of approximately 30-40 seconds.

2.10.6 Photos of the site visits are presented as Figure 2.3 and Figure 2.4. Figure 2.3 shows that most of the students walk to school from both directions of Crogsland Road, gaining access to the premises via the main gate. Figure 2.4 shows that vehicles are stopped by the kerbside adjacent to the School on Crogsland Road for drop-offs and pick-ups.

Figure 2.3 Students Walking to School

Figure 2.4 Some Students get Dropped-off and Picked-Up by Private Vehicles

2.10.7 It is assumed that the future users of the Charlie Ratchford Extra-Care Scheme will not travel during the network peak hours or the school peak hours. Although some minibuses arrive at the proposed site during 09:00 – 09:30 and some depart at approximately 15:30, the loading time of passengers usually take 10-15 minutes; therefore conflicts between future users and the students will be insignificant. Further, minibuses will not obstruct the footway as they will be servicing within the site. Pedestrians (i.e. parents, students and school staff) will continue to have access to clear footways. Hence, conflicts between the School and the proposed development will be minimal and any impacts are considered insignificant.

2.11 Accident Analysis

2.11.1 Accident data was requested from TfL to cover the area and major junctions around the existing site of the CRRC as well as the application site. The data spans the three year period from May 2012 to May 2014. The map is presented in Figure 2.5; while the detailed TfL output is presented in Appendix F .

2.11.2 Over the three year period, there were 43 accidents within the identified area. None of these accidents were fatal, five were serious and the remaining 38 were of a slight nature. Two of the serious accidents occurred at the junction between Prince of Wales Road and Haverstock Hill; another occurred at the junction of Prince of Wales Road and Malden Cres where a cyclist collided with the rear of a parked vehicle.

2.11.3 Most of the accidents were caused by pedestrian's incorrect use of crossing facilities or in a lot of occasions vehicles running into the back of another vehicle queuing at the traffic lights. Hence, there seems to be signs of clusters at the junction of Prince of Wales Road and Malden Cres; as well as the junction of Ferdinand Street and Chalk Farm Road, which has a particularly concentrated accident cluster.

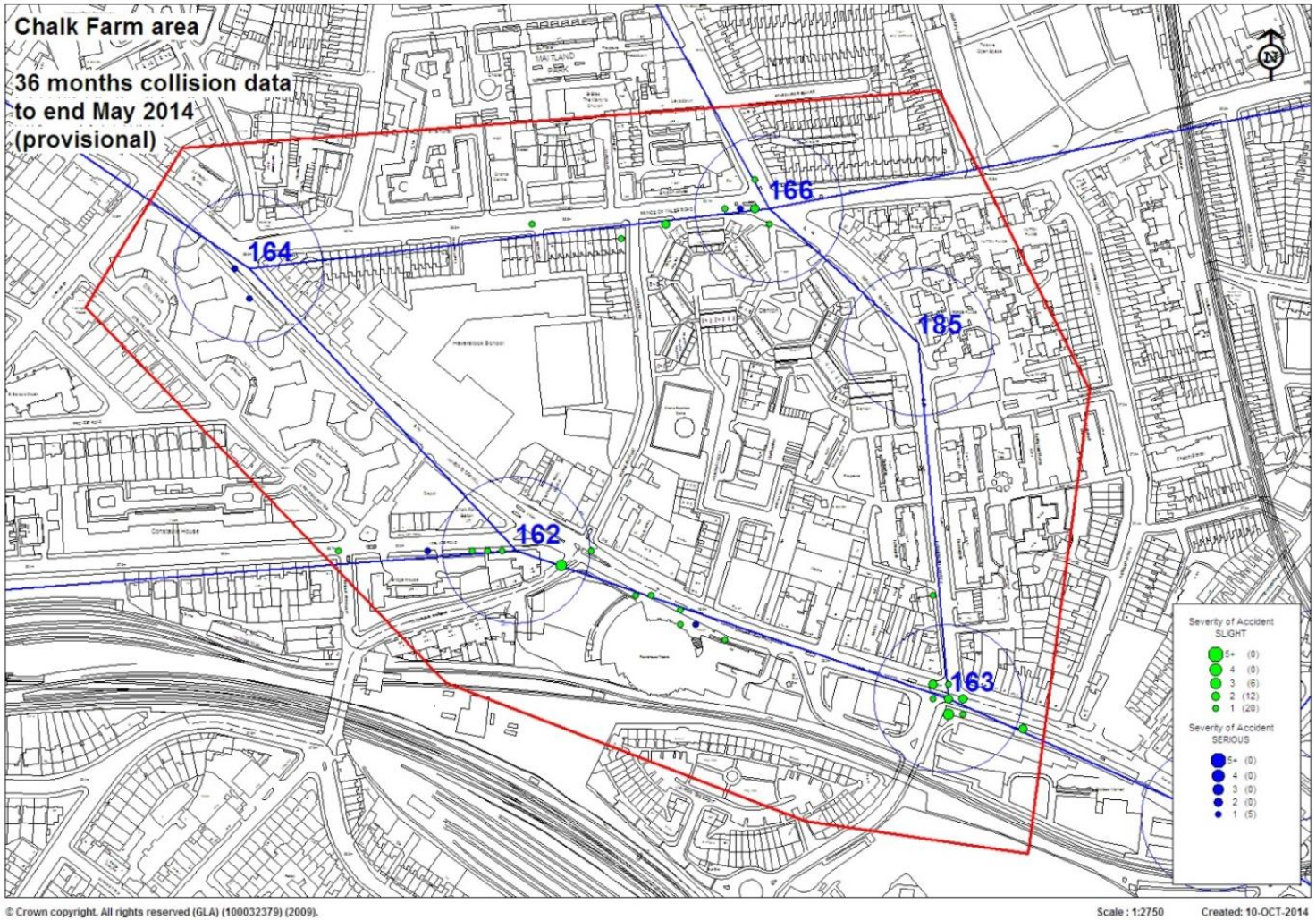
2.11.4 Closer to the site at the junction of Haverstock Hill and Crogsland Road, there were three accidents over the three year period. All of them were caused by drivers' mistakes either failing to look at the on-coming traffic or that they have made a poor turn at the junction.

2.11.5 Of the 43 accidents, 11 were caused by pedestrians' carelessness and 28 were caused by drivers' carelessness or that the accidents involved drivers or cyclists. Further, buses were involved in four accidents.

Table 2.3 Summary of Accident Causes

	Pedestrian	Cyclists	Vehicles
Fatal	0	0	0
Serious	1	3	1
Slight	10	7	17

Figure 2.5 Accident Data Map



3 Development Proposals

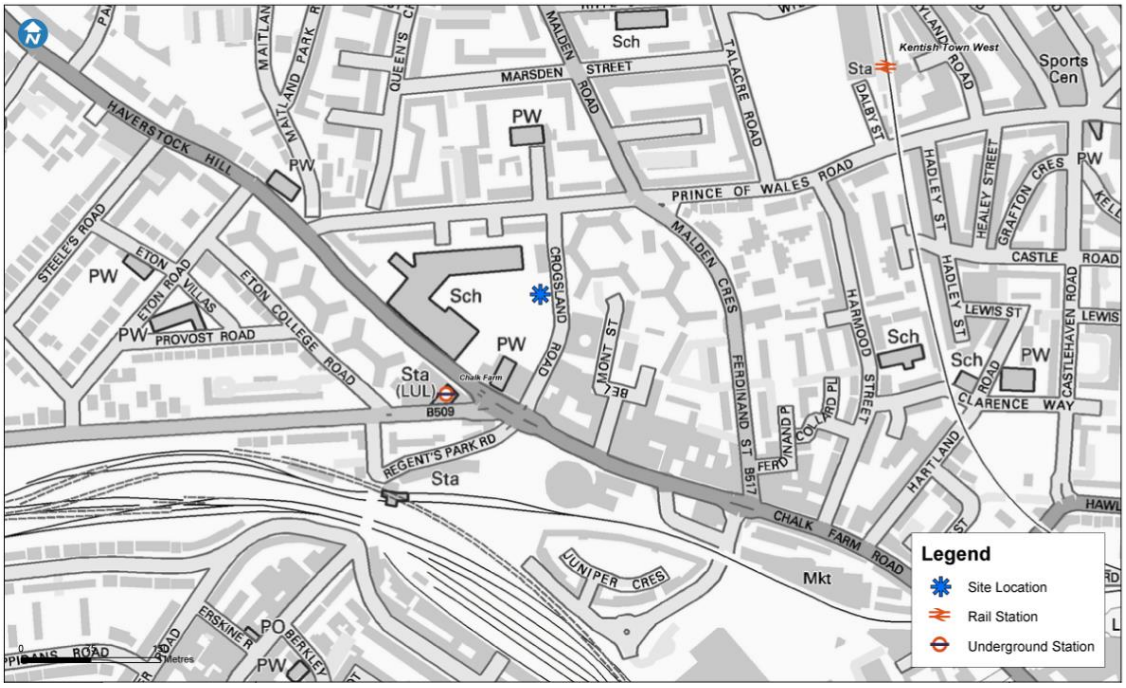
3.1 Introduction

3.1.1 The development proposals comprise the re-location of the CRRC, which is currently located on Belmont Street, to the application site on Crogsland Road. The application site is presented in Figure 3.1.

3.1.2 The proposed extra-care development on the Crogsland Road site comprises of a day care centre for the elderly on the ground floor level along with 38 extra-care residential units on first floor to fifth floor.

3.1.3 The ground floor level will accommodate an activity room, lounge, foyer, meeting and admin room, café/ restaurant, kitchen, and staff room as well as ancillary floorspaces. The extra-care units, formed of 31 one-bed and seven two-bed flats as well as one guest bedroom, will be situated from the first to fifth floor.

Figure 3.1 Site Location Plan



3.2 Proposed Access Arrangements

3.2.1 A new pedestrian and cycle access is proposed to the site. Pedestrians are proposed to access the site via the main entrance to the development on Crogsland Road. Cyclists or buggy users can access the site via the other entrance of approximately 2m wide further north of the main entrance.

3.2.2 It is proposed that delivery/ servicing vehicles will serve the site via Crogsland Road without entering the site and use the secondary entrance. The main access towards the south of the site will provide an access for a minibus to pull in, close to the main entrance on Crogsland Road.

3.3 Proposed Car/ Cycle Parking

3.3.1 The proposed development is a car-free scheme where no vehicle parking is provided on-site. No on-site or on-street disabled parking is proposed either. Further, eight buggy spaces are allocated on the ground floor adjacent to the buggy/ cyclist entrance.

3.3.2 It is proposed that cycle parking will be provided at the same location as the buggy parking adjacent to the deliveries entrance. There are also changing and shower facilities on the ground floor for cyclists which are assumed to be the staff at the new development. The level of provision is in accordance with the Camden Planning Guidance 7 (CP7) Transport; Camden's Development policies; and the London Plan Standards, Early Minor Alterations from 2012.

3.3.3 For a C2 Residential Institutions, 1 space should be provided per 250 sqm starting from the 500 sqm threshold for the staff; while the same standards apply to residents. The policy also states that a lower provision can be accepted where visitors/ users of the proposed scheme are unlikely to travel by bicycles due to age or disability.

3.4 Proposed Minibus Services

3.4.1 It is proposed that the minibus access time will largely remain the same as per the current situation; however the number of mini-buses serving the site will reduce significantly from the current situation. Access to the site will be on Crogsland Road, dropping off/ picking up residents in front of the main entrance.

3.4.2 The footway immediately in front of the main entrance of the proposed development is on the right side; residents can access the minibus bay with a short walk from the main entrance and board the vehicle on the right side.

3.4.3 Swept path analysis of the minibus has been conducted to show the minibus' ability to manoeuvre adequately without affecting the operation of the highway network. Analysis, shown in Appendix G , also shows the proposed development is capable to accommodate the minibuses on-site.

3.5 Proposed Emergency, Delivery and Servicing Vehicles Arrangements

3.5.1 It is proposed in the Outline Fire Strategy prepared by URS in October 2014 that the fire vehicle access will be on Crogsland Road.

3.5.2 It is proposed that the delivery and servicing vehicles will access the site via the northern entrance of the site on Crogsland Road. The details for the servicing and deliveries are provided in Chapter 7. Deliveries for the proposed development will be provided on-site via the delivery access at the northern access on Crogsland Road.

3.5.3 A refuse store is located to the north of the deliveries entrance. Refuse collection to take place via the maintenance access via Crogsland Road.

4 Policy Review

4.1 Introduction

4.1.1 This section provides a review of the existing national, regional and local policy and discusses how the proposed development accords with these policy objectives.

4.2 National Planning Policy Guidance (NPPG)

4.2.1 The National Planning Policy Framework (NPPF) was published on 27th March 2012. A common theme running through the NPPF is to achieve sustainable development. This was followed by the publication of Planning Practice Guidance in March 2014, which supports the NPPF. In respect of Transport, the NPPG advocates that planning policies and decisions should consider whether:

- The opportunities for sustainable transport modes have been taken up depending upon 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 impacts of development are severe.

4.2.2 At a more detailed level, the NPPG states that Transport Assessments are to evaluate the potential transport impacts of a development proposal; while Travel Plans are employed to mitigate the negative impacts by implementing mitigation measures. In particular, they should be:

- Proportionate to the size and scope of the proposed development to which they relate and build on existing information wherever possible;
- Be tailored to particular local circumstances (also to consider other locally-determined factors and information beyond those that are set out in the Guidance for robust evidence)

4.2.3 They can then positively contribute to, for example, encouraging sustainable travel, lessening traffic generation and other negative effects; reducing carbon emissions and adverse climatic impacts; or creating accessible, connected, and inclusive communities.

4.3 The London Plan

4.3.1 The London Plan was published in July 2011 to provide an integrated economic, environmental, transport and social framework for the development of London over the next 20-25 years. Transport was noted as having a fundamental role in addressing the objectives of the Plan.

4.3.2 Chapter 6 of the London Plan identifies polices to support the delivery of an efficient and effective transport system and places emphasis on encouraging sustainable travel by enhancing walking policies, promoting electric car use and improving public transport capacity.

4.3.3 The relevant policies included within this Chapter are outlined below:

Policy 6.1 Strategic Approach

4.3.4 The mayor will work with key parties to encourage integrated transport systems. This will be achieved by;

- Encouraging patterns and nodes of development that reduce the need to travel, especially by car;
- Supporting development with a high trip generation at locations where there is good public transport accessibility and capacity;
- Supporting measures that encourage shifts to more sustainable modes and appropriate demand management;
- Promoting greater use of low-carbon technology to reduce carbon dioxide emissions and global warming contributions; and
- Promoting walking by ensuring an improved public realm.

Policy 6.3 Assessing Transport Capacity

4.3.5 Development proposals should ensure that the impacts of the transport capacity and the transport network are considered and that Transport Assessments will be required in accordance with TfL's Transport Assessment Best Practice guidelines (May 2014).

Policy 6.9 and Policy 6.10 Cycling and Walking

The Mayor will work to increase cycling and walking in London. Developments should:

- Provide secure, integrated and accessible cycle parking facilities in line with London Plan standards;
- Provide onsite showering and changing facilities;
- Integrate the Barclays Cycle Superhighways and facilitate the central London Cycle Hire scheme;
- Ensure high quality pedestrian environments in and around new developments that give emphasis to pedestrian and street space; and
- Promote simplified streetscapes that are de-cluttered and provide access for all.

Policy 6.13 Parking

4.3.6 New developments should ensure a balance is met between promoting new development and avoiding excessive car parking that can reduce the use of sustainable travel. When the car parking provision for new developments are being considered, maximum car parking standards (in line with London Plan policy) should be applied.

4.4 The Revised Early Minor Alterations to the London Plan, October 2013

4.4.1 The revisions provide updated standards for cycle parking for all land uses. Table 6.3 in the Revised Alterations states that one cycle parking space should be provided per unit with one or two bedrooms and two spaces provided per unit with three or more bedrooms. In addition to this one visitor cycle parking space should be provided for every forty units.

4.5 The Mayor's Transport Strategy

4.5.1 The Mayor's Transport Strategy was published in May 2010 and aims to provide a framework to inform the strategic development of London, alongside the London Plan, for the next 20 years. One of the strategic aims of the strategy is to improve transport opportunities for all Londoners.

4.5.2 The strategy aims to improve cycling and walking in London and promote the use of sustainable technologies, for example electric vehicles.

4.6 Camden Core Strategy

4.6.1 Camden's Core Strategy document lies within the borough's overall Local Development Framework. It is written to cover the period of 2010-2025.

4.6.2 Section two of the Core Strategy focusses on 'Meeting Camden's needs', this includes a focus on ensuring the transport needed to support Camden's growth is provided and promotion of more sustainable travel. This includes policy CS11 which is summarised below:

Policy CS11 – Promoting Sustainable and Efficient Travel

4.6.3 The Council will promote the delivery of transport infrastructure and the availability of sustainable transport choices in order to support Camden's growth, reduce the environmental impact of travel and relieve the pressure of the borough's transport network.

4.6.4 Key infrastructure proposals which the Council will promote include King's Cross station improvements, improvements to facilities at Camden's London Underground and Overground Stations (including Camden Town), and improvements to walking and cycling as part of transport infrastructure works.

4.6.5 To promote sustainable travel the council will improve public spaces and pedestrian links across the borough (including extending the Legible London scheme), continue to improve facilities for cyclists (including increasing the availability of cycle parking and enhancing cycle links), and work with TfL to improve the bus network and support proposals to improve services and capacity on the tube and London Overground.

4.6.6 To work towards making private transport more sustainable the Council will expand the availability of car clubs, minimise car parking provision in new developments, restrict new public parking, promote the use of low emissions vehicles (including through the provision of electrical vehicle charging points) and ensure that growth and development has regard to Camden's road hierarchy and does not cause harm to the management of the road network.

4.7 Development Policies Document

4.7.1 The Development Policies document is also within the Local Development Framework. It relates development policies to the Core Strategy Policies laid out in the Core Strategy.

4.7.2 The relevant polices are outlined below.

DP16 – The Transport Implications of Development

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

- Movements to, from and within the site; including links to existing transport networks.

- Additional transport capacity off-site where existing or committed infrastructure cannot meet the additional need generated by the development. Where appropriate, the Council will expect proposals to provide information to indicate the likely impacts of the development and the steps that will be taken to mitigate those impacts, for example using transport assessments and travel plans.

- Safe pick-up, drop-off and waiting areas for taxis, private cars and coaches, where the activity is likely to be associated with the development.

DP17- Walking, Cycling and Public Transport

4.7.4 The Council will promote walking, cycling and public transport use. Developments should make suitable provision for pedestrians, cyclists and public transport. Provision may include:

- Convenient, safe and well-signalled routes including footways and cycleways designed to appropriate widths.

- Other features associated with pedestrian and cycling access to the development, for example seating for pedestrians, signage, or high quality cycle parking.

- Safe road crossings where needed.

- Bus stops, shelters, passenger seating and waiting areas, signage and timetable information.

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

DP18- Parking Standards and Limiting the Availability of Car Parking

4.7.5 The Council will seek to ensure that developments provide the minimum necessary car parking provision. It will be expected that development is car-free in the town centres and other areas within Controlled Parking Zones that are easily accessible by public transport. Development should comply with the councils parking standards.

4.7.6 For car-free and car-capped developments, the Council will:

- Limit on-site parking to spaces designated for disabled people, any operational/servicing needs or any spaces designated for the occupiers of development specified as car capped.

- Not issue on-street parking permits.

- Use a legal agreement to ensure that future occupants are aware they are not entitled to on-street parking permits.

4.7.7 Developments will also be expected to meet the Council's minimum standards for cycle parking.

4.7.8 The Council will strongly encourage contributions to car clubs and pool car schemes in place of private parking in new developments across the borough. The Council will also seek the provision of electric charging points as part of any car parking provision.

DP19- Managing the impact of parking

4.7.9 The Council will ensure that the creation of additional car parking spaces does not have a negative impact on parking, highways or the environment and will encourage the removal of surplus car parking spaces. Development will be resisted where parking provision would:

- Harm highway safety or hinder pedestrian movement.
- Provide inadequate sightlines for vehicles leaving the site.
- Add to on-street parking demand where on-street spaces cannot meet existing demand, or otherwise harm existing on-street parking conditions.
- Require detrimental amendment to existing or proposed CPZ's.
- Create a shortfall of parking provision in terms of the Council's Parking Standards for bicycles, people with disabilities, service vehicles, coaches and taxis.
- Create a shortfall of public car parking, operational business parking or residents' parking.
- Create, or add to, an area of car parking that has a harmful visual impact.

4.7.10 The Council will require off-street parking to preserve a building's setting and the character of the surrounding area. It must preserve any means of enclosure, trees or other features of a forecourt or garden that make a significant contribution to the visual appearance of the area. Adequate soft landscaping, permeable surfaces and boundary treatment must be provided alongside any other treatments to offset adverse visual impacts and increases in surface run off.

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

DP20- Movement of goods and materials

4.7.12 In order to minimise the movement of goods and materials by road the Council will expect development that would generate significant movement of goods/material during construction or operation to minimise movement by road, instead considering more sustainable alternatives.

4.7.13 The Council will expect development that would generate significant movement of goods/materials by road, both during construction and in operation, to:

- Be located close to the TLRN or other Major Roads.
- Avoid any additional need for movement of vehicles over 7.5 tonnes in predominately residential areas.
- Accommodate goods vehicles on site.
- Seek opportunities to minimise disruption for local communities through effective management, including through the optimisation of collection and delivery timings and the use of low emission vehicles for deliveries.

DP21- Development connecting to the highway network

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

- Ensure the use of the most appropriate roads by each form of transport and purpose of journey, in accordance with Camden's road hierarchy.
- Avoid direct vehicular access to the TLRN and other Major Roads.
- Avoid the use of local routes by through traffic

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

Appendix 2: parking standards

4.7.16 According to Camden's Development Policies, the following standards of parking should be applied to residential development:

- **Cycles** – For residents one storage/parking space must be provided per unit, an exception may be made for dwellings available solely to occupants unlikely to use cycles due to age or disability. From a threshold of 20 units, one visitor space must be provided per ten units or part thereof.
- **People with disabilities**- For Wheelchair Housing one parking space must be provided per dwelling, the dimensions of which should be suitable for use by people with disabilities. For general housing, where justified by the likely occupancy of the dwelling and reserved for use by people with disabilities, above a threshold of ten units, one space is to be provided per 20 units or part thereof. The dimensions should be suitable for use by people with disabilities.
- **General car parking** - In low parking provision areas a maximum of 0.5 spaces per dwelling may be provided. For the rest of the borough a maximum of one space per dwelling may be provided.

4.8 Camden Planning Guidance: Transport

4.8.1 LBC have produced a series of Planning Guidance documents to support the policies in the Local Development Framework. Their Transport document is relevant to this Transport Assessment.

4.8.2 The document states that a TS should be provided for developments which have less than 1000 person trips per day or more than 100 person trips during the morning or evening peak (07:00-10:00 or 16:00-19:00).

4.8.3 In terms of Delivery and Servicing, the document advices that the Council does not generally allow waste to be left on the highway for collection on a specified day, except in the case of a residential development of six units or less. External storage space is sought for residential developments of seven dwellings or more, and for most non-residential developments. The external storage space should be at or near street level, and within 10 meters of a place suitable for a collection vehicle to stop. If appropriate storage cannot be provided within 10 meters of the public highway, it will generally be necessary for the collection vehicle to access the development site.

4.8.4 The guidance states that applicants should provide swept path drawings. Normally all vehicles should be able to enter and leave the site in a forward gear, in exceptional circumstances where this is not possible the service area must be designed to allow vehicles to reverse off the highway rather than on to it. Servicing Bays should be cleared marked out to discourage their use for car parking and storage.

4.8.5 Where access roads for service vehicles represent the most direct or visible route for pedestrians, a segregated footway of at least 1.8m in width should be provided with direct links to each pedestrian entrance of each building on site.

4.8.6 A minimum carriageway-width of six meters is required where an internal access is designed for two-way use by service vehicles. Where a footway is not provided to each side, a safety margin with a minimum width of 0.5 meters must be provided wherever there is no footway. Vertical clearance of 3.5 meters must be provided for light and medium goods vehicles.

4.8.7 The guidance has a chapter summarising and explaining car-capped and car-free developments in LBC, it states that:

4.8.8 LBC expect car-free developments in the Central London area, town centres and other areas with high PTALs. It is also expected where the creation of a new access could lead to on-street parking problems where the loss of kerb space would create unacceptable parking pressure.

4.8.9 Car-capped development is development in which all of the dwellings created are not entitled to on-street car parking permits, although some or all of the dwellings or units created may have a car-parking space on site in accordance with LBC's parking standards.

4.8.10 In order to maintain car-free and car-capped development over the lifetime of a scheme, the developer will be required to enter into a legal agreement which would permanently remove the entitlement to an on-street parking permit for each home created.

4.8.11 Existing parking rights can normally be retained on development sites, where it can be demonstrated that existing occupiers are to return to the address when it is completed.

4.8.12 Car-free and car-capped developments should be designed taking into account the needs of disabled car users. Blue Badge holders are able to use parking spaces in Controlled Parking Zones without a parking permit. Minimum parking standards apply to parking for people with disabilities, and one car parking space for people with disabilities is required per 10 general-purpose dwellings. In addition, where car-free and car-capped developments contain wheelchair accessible dwellings, the Council will expect a parking space to be provided for each wheelchair accessible unit. Where a resident in need of a reserved disabled parking space moves into a development with no off-street spaces, the Council will consider a request for a designated disabled space on-street in the same way whether the development is formally car-free or not.

4.8.13 The document has a chapter detailing the standards that must be adhered to where any off-street parking is provided. In particular general parking spaces must be 2.4 meters wide by 4.8 meters deep, and parking spaces for disabled users must be 3.3 meters wide by 4.8 meters deep. Parking spaces provided in front gardens or forecourts should be 5.0 meters wide and 6.0 meters deep.

4.8.14 The document also sets out design guidance for the creation of new vehicular accesses, new pedestrian areas/footpaths and new cycling facilities.

4.9 Camden's Transport Strategy

4.9.1 The Camden Transport Strategy (CTS) sets out the Camden's future direction of the transport; and describes the context of traffic and transport in the borough, as well as challenges and objectives.

4.9.2 Some of the objectives that are relevant to the development site are highlighted below:

- Objective 1: Reduce motor traffic levels and vehicle emissions to improve air quality, mitigate climate change and contribute to making Camden a “low carbon and low waste borough”
- Objective 2: Encourage healthy and sustainable travel choices by prioritising walking, cycling and public transport in Camden
- Objective 4: Effectively manage the road network to manage congestion, improve reliability and ensure the efficient movement of goods and people
- Objective 5: Develop and maintain high quality, accessible public streets and spaces and recognise that streets are about more than movement
- Objective 6: Ensure the transport system supports Camden’s sustainable growth and regeneration as well as enhancing economic and community development
- Objective 7: Ensure the transport system supports access to local services and facilities, reduces inequalities in transport and increases social inclusion.

4.9.3 The document also provides further details of the objective and as well as suggestions of the actions that can be taken to achieve the objectives.

5 Travel Characteristics

5.1 Introduction

5.1.1 The Scope of Works Report for this TS presented the method used to calculate trip generation with the LBC. Trip rates per unit were also agreed within this Scoping Report. This section will detail the methodology used to estimate trip generation and trip rates obtained from TRICS for the trip generation calculations.

5.1.2 The TRICS database has been interrogated to determine the trip rates and the 2011 Census data has been used to determine the mode splits. This chapter will conclude the net impact of the proposed development on the various modes of travel, taking into account likely current and future trip rates and the Census mode split.

5.1.3 Trip generation conducted in this chapter has been discussed within the Scope of Works by the LBC Highways which can be referred to Appendix A. A comparison of the trips generated by the existing site and proposed development are also conducted.

5.2 Trip Rates Calculations

5.2.1 In order to establish the trip generation of the proposed development site, the TRAVL (Trip Rate Assessment Valid for London) database, now contained in the TRICS database, has been initially reviewed with the aim of finding comparable sites to the proposed development site. However, the database for the C2 Residential Care land use category comprises merely two outer London sites with PTALs ranging between 1 and 2, survey years of 1998 and 2000, and the number of beds in excess of 120. As such, TRAVL sites have been discarded as they were deemed incomparable to the proposed development site.

5.2.2 The TRICS database, which is the national standard database for trip generation analysis, has therefore been interrogated to obtain relevant trip rates. Trip generation for the existing CRRC will also be explored for the purpose of comparison.

Existing Site

5.2.3 The CRRC offers classes and facilities for the senior residents e.g. language class and group exercise lessons; as well as a community space for them to spend time and social with other residents. It is assumed that residents arrive at the Centre in the morning and mostly stay for the day.

5.2.4 In the absence of the land use option of “community centre”, trip rates generated by “D1 Day Nurseries” have been investigated. This category has been selected due to the similar nature of trips generated by the two landuses. It is considered that children who attend day nurseries would make one trip to the nursery in the morning and get picked up in the evening; which is broadly similar to the travel pattern of the elderly users in the existing CRRC.

5.2.5 Site details of the Day Nurseries are illustrated in Table 5.1 and in Appendix H .

5.2.6 It should be noted that the proposed development will not be situated on the same site of the current CRRC; but will be relocated to the site adjacent to the Haverstock Road opposite the current CRRC. The existing location of the application site is assumed to produce no trips, as it is an undeveloped land; giving reference to the existing trips generated by the CRRC provides a good indication as they are located in close proximity. That also means that both the local highway network and public transport network share the same impacts and therefore a comparison of the existing CRRC trips and the estimated trips by the proposed development will provide a robust assessment.

Table 5.1 Selected "Day Nurseries" Sites for the Existing CRRC

Survey Reference	Name	Area	PTAL	GFA	No. of Students
519	Avenue Nursery	Haringey	3	290	85
842	Bush Hill Park Day Nursery	Enfield	3	546	53

5.2.7 The average trip rates for the two selected sites for all modes have been extracted from the TRAVL database and are presented in Table 5.4.

Table 5.2 Trip Rates for the Existing Development

Time Period	Trip Rate (per 100 sqm GFA)
AM Peak (08:00-09:00)	0.18
PM Peak (17:00-18:00)	0.06
Total Daily (07:00-22:00)	1.03

Proposed Site

5.2.8 The TRICS database includes only one London site which falls under the 05 Health – F Nursing Homes category. This site has been deemed comparable to the application site, as both are situated in London edge of town centre locations, and both have similar PTALs. Site details of the selected TRICS site are contained in Table 5.3. The TRICS outputs are presented in Appendix H.

5.2.9 A further site; the Wellesley Road Care Home, which has been surveyed as part of the 'Homes for Older People, Maitland Park Transport Assessment' prepared by RPS in June 2009; has been selected. Wellesley Road Care Home, comprising 48 beds, is situated approximately 800m to the north of the application site in Camden. Due to its close proximity to the application site and similar number of unit provision, the Wellesley Road site has been deemed comparable to the proposed development site. The survey for the Wellesley Road site has been undertaken on Wednesday 3 June 2009 between 07:00 and 19:00. Site details of the Wellesley Road Care Home are illustrated in Table 5.3. The survey results for Wellesley Road Care Home are included in Appendix H .

Table 5.3 Selected Comparable Sites for the Proposed Extra-Care Development

Reference	Area	Location	PTAL	No. of Units
HO-05-F-01	Hounslow	Edge of Town Centre	6	59
Wellesley Road site	Camden	Edge of Town Centre	3	48

5.2.10 The average trip rates of the two selected sites for all modes have been calculated. The resulting peak hour and daily trip rates are shown in Table 5.4.

Table 5.4 TRICS Trip Rate per Unit

Time Period	Trips in	Trips out	Total
AM Peak (08:00-09:00)	0.134	0.099	0.234
PM Peak (17:00-18:00)	0.134	0.129	0.263
Total Daily (07:00-22:00)	1.772	1.758	3.531

5.3 Trip Generation

5.3.1 The trip rates calculated in the previous section have been applied to the proposed quantum of units for the proposed extra-care development; as well as the existing floor area for the existing site. Trip generation for the existing and proposed site has been investigation for the interest of comparison.

Trip Generation for the Existing Site

5.3.2 The existing site is a resource centre where users use the facilities for classes or sports activities. It is assumed that the existing Centre has a floorspace of approximately 1,358 sqm. The number of trips will be made by staffs and the senior users. Users are likely to use the minibus service to arrive at the site in the morning and leave when the minibus service makes the return trips, i.e. from 14:00. The nature of Centre means that it is intended for the users to spend the day in the Centre to join activities/ classes or to socialise with other residents in the communal area.

5.3.3 The extracted trip rates have been applied to the estimated floorspace of 1,358 sqm. The estimated number of trips generated at the existing CRRS is presented in Table 5.5**Error! Reference source not found.**.

5.3.4 Further, the existing trip generation should take into account of the minibus trips that also service the site. As discussed in Section 2.6, there are three minibuses making approximately 30 trips a day out of network peak hours; which are reflected in Table 5.5 in addition to the total number of trips generated by other modes.

Table 5.5 Trips Generated by the Existing Site of CRRC

Time Period	Total Trips	Total Trips + Minibus Services
AM Peak (08:00-09:00)	3	3
PM Peak (17:00-18:00)	1	1
Total Daily (07:00-22:00)	**14**	**26**

5.3.5 Referring to Table 5.5, it is likely that the CRRC generates three trips in the morning peak hour and one trip in the evening peak hour. The small number of trip generation could be a result of the users not likely to travel during peak hours. The provision of minibus services is likely to contribute to the low number of trip generation. With the minibus services, it is estimated that the existing site generate a daily total of 44 trips.

Trip Generation for the Proposed Site

5.3.6 The proposed extra-care development will consist of 38 residential units for the elderly together with activity room, a lounge, meeting and admin room and a café/ restaurants within the ground floor of the development.

5.3.7 The number of trips shown in Table 5.6 for the proposed development is estimated by applying the proposed number of units (38) to the trip rates as presented in Table 5.6.

Table 5.6 Trips for the Proposed 38 Units

Time Period	Trips in	Trips out	Total
AM Peak (08:00-09:00)	5	4	9
PM Peak (17:00-18:00)	5	5	10
Total Daily (07:00-22:00)	69	69	138

Mode Splits

5.3.8 It was presented in the Scoping Report that mode splits were initially obtained from the selected TRICS sites, the Wellesley Road site and the Census 2011 Travel to Work data. The mode splits for the former were discarded and only the data from the Census 2011 Travel to Work was used.

5.3.9 The mode share of the selected TRICS site includes no trips undertaken via London Underground or rail. As the application site is situated close to Chalk Farm Underground station as well as the Kentish Town West Overground station, it is expected that trips to the proposed development will be undertaken via this mode of transport. As a result, the TRICS mode share split has been discarded.

5.3.10 The mode share of the Wellesley Road site includes no public transport trips, as the survey could only take account of arrivals from the immediate area, thus excluding all public transport facilities. As a result, the mode share split of the Wellesley site has been discarded.

5.3.11 The 2011 Census Travel to Work data has been employed to establish the proposed development's trips by mode of transport. However, the Census data include the categories 'Work mainly at or from home' and 'Not in employment'. The mode splits of these two categories have been re-distributed per rata to the remaining mode shares. The following table illustrates the utilised modal share as well as the resulting development trips for each peak hour and per day.

5.3.12 The site is located in the Haverstock ward. The 2011 Census gives vehicle ownership for this ward as 0.42 vehicles per residential unit.

5.3.13 Table 5.7 gives the mode split for those who travel to work according to the 2011 Census and the modified mode splits based on the car driver trip redistribution for the car drivers, passengers, motorcycles and 'other' across the public transport modes to provide a mode split for the proposed development which is car-free and suitable for its proposed nature/ target users.

Table 5.7 Census 2011 Travel to Work Mode Splits in the Haverstock Ward

Mode of Transport	Mode Share	Modified Mode Share
Walking	17%	20%
Cycling	7%	8%
Taxi	1%	1%
Car Driver	11%	0%
Car Passenger	1%	0%
Public Transport	62%	71%

Motorcycle	1%	0%
Other	1%	0%
Total	**100%**	**100%**

5.3.14 The mode splits have then been applied to the total number of trips generated as shown in Table 5.6. Table 5.8 and Table 5.9 present the number of trips generated by each mode in the morning peak, evening peak and the daily total for the proposed and existing development respectively. Impacts on highway and public transport are discussed in Chapter 6 with reference to Table 5.8 and Table 5.9.

Table 5.8 Trips Generated by Mode in the Proposed Development

Mode	AM			PM			Daily		
	Trips In	Trips Out	Total	Trips In	Trips Out	Total	Trips In	Trips Out	Total
Walking	1	1	2	1	1	2	14	14	28
Cycling	0	0	0	0	0	0	5	5	10
Taxi	0	0	0	0	0	0	1	1	2
Car Driver	0	0	0	0	0	0	0	0	0
Car Passenger	0	0	0	0	0	0	0	0	0
PT	4	3	7	4	4	8	49	49	98
Motorcycle	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0
Total	**5**	**4**	**9**	**5**	**5**	**10**	**69**	**69**	**138**

Table 5.9 Trips Generated by Mode in the Existing Development

Mode	AM	PM	Daily
	Total	Total	Total
Walking	1	0	2
Cycling	0	0	1
Taxi	0	0	0
Car Driver	0	0	1
Car Passenger	0	0	0
PT	2	1	9
Motorcycle	0	0	0
Other	0	0	0
Total	**3**	**1**	**14**

6 Traffic Impact Assessment

6.1 Introduction

6.1.1 The total trips by mode presented in Chapter 5 are assessed for their impacts on road network and public transport network. The impacts are assessed for the morning and evening peak periods.

6.2 Highway Network Impact

6.2.1 As there is no car parking (including disabled parking) proposed for the application site apart from parking for mobility scooters, impacts of vehicles on the road network is considered to be negligible.

6.2.2 In terms of cycling trips, a daily total of four trips will be generated by the proposed development. It is less likely that residents or users of the Extra-Care development will be using bicycle as a mode of transport.

6.2.3 The proposed development would add four pedestrians on the footways during the morning peak hour, and another five in the evening peak hour. Since the residents are unlikely to travel during the network peak hours or the school peak hours; an addition of 66 pedestrian trips a day is therefore considered negligible.

6.2.4 The impact of the proposed loading bay has also been assessed on the parking situation and detailed in Chapter 7. There is negligible impact of the proposed loading/ servicing arrangements and the current parking provision can be modified or reallocated to reprovide elsewhere on the Crogsland Road.

6.3 Public Transport Network Impact

6.3.1 It is estimated that the proposed development will generate four and five passenger trips on the public transport network in the morning and evening peak hours respectively.

6.3.2 The mode share data does not provide a detailed breakdown of those that travel by train and those that travel by Underground/ Overground or London Buses. However, due to the site's proximity to the Chalk Farm Underground Station and various bus stops; it is assumed that most of the local/ short distance trips will be made by bus; while long-distance journeys are likely to be made by Underground via Chalk Farm Station.

6.3.3 There are approximately 50 buses running in the proximity to the application site in both morning and evening peak hours. Impacts of additional passengers to each bus in the peak hours are considered negligible.

6.3.4 Overall, the impact of the daily total of 55 passengers on the public transport network within walking distance of the site is regarded as negligible.

7 Deliveries and Servicing Plan

7.1 Introduction

7.1.1 Delivery and Servicing Plans (DSPs) provide a framework to better manage all types of freight vehicle movement to and from individual developments. A DSP is essentially the equivalent of a workplace travel plan for freight. The London Freight Plan highlights DSPs as one of the four measures to improve freight and servicing in London. The other three measures include the Freight Operator Recognition Scheme (FORS); Construction Logistics Plans (CLPs); and the Freight Information Portals (FIP).

7.1.2 The *'Managing Freight Effectively: Delivering and Servicing Plans'* document identifies the benefits of DSPs to local authorities and residents, building developers and businesses and freight operators. In summary, DSPs will:

- Help developers and local authority planning officials comply with:
  - National Planning Policy Framework, which requires the promotion of more sustainable transport choices for moving freight; and
  - The Traffic Management Act, the London Plan and any borough-specific policies, cover issues such as road safety and air quality.
- Demonstrate that goods and services can be delivered, and waste removed, in a safe, efficient and sustainable way;
- Identify deliveries that could be reduced, re-timed or consolidated, particularly during busy periods;
- Help cut congestion on London's roads and ease pressure on the environment;
- Improve the reliability and efficiency of deliveries to the site concerned;
- Reduce the operating costs for building occupants and freight companies; and
- Reduce the impact of freight activity on local residents.

7.2 On-Site Servicing Activity

7.2.1 The existing CRRC is serviced from Belmont Street from the main access to the Centre, turning at the courtyard in front of the Centre.

7.2.2 Delivery and servicing vehicles may enter the site via Chalk Farm Road to the main entrance, where there is a car parking courtyard. There is space for delivery and servicing vehicles to drop-off and to turn within the courtyard.

7.2.3 Domestic rubbish and recycling collection at the CRRC takes place weekly. Collection tends to take place on the same day but can be at different time slots.

7.2.4 Emergency vehicles also access the site via the Chalk Farm Road and Belmont Street to the main entrance of the Resource Centre. There is a designated area in front of the main entrance to the centre marked "Keep Clear Ambulance" on Belmont Street.

7.2.5 It is proposed that servicing will take place on Crogsland Road with the relocation of site. The impact of the proposed loading/ servicing operations have been assessed on the parking

provision on Croglsand Road. This was shared with LBC in a note in December 2014. The technical note presented in the Appendix I.

7.3 Impact of Loading Bay on On-Street Parking

7.3.1 There are 22 permit holders only (PHO) spaces, 10 Pay & Display (P&D) bays and six spaces of single yellow line (SYL) available on the eastern side of the carriageway of Crogsland Road. There is a capacity of 21 PHO spaces and 15 spaces on SYL on the western side of the carriageway on Crogsland Road. On both the surveyed days (as detailed in Section 2.5), 15 cars were parked in the 22 PHO bays on the eastern carriageway while all the Pay & Display spaces were unoccupied. On the western carriageway, a maximum of 17 cars were parked in the 22 PHO bays. No vehicles were observed to be parked on the SYL on the western side of the carriageway, while one vehicle was parked on the eastern side of the carriageway during the surveyed period.

7.3.2 Therefore during the peak periods of parking requirements, at least four parking bays were unoccupied on the western side of carriageway on Crogsland Road during the surveyed period. As there will be no impact to residential parking with the loss of three permit holder bays. Further the stretch of SYL has been investigated where if needed, these permit holder bays can be reprovided. These spaces can be reprovided without any issues by extending the parking between the proposed maintenance entrance and the proposed mini-bus parking. The proposed location of refuse vehicle collection and the potential reprovision of the parking bays are presented in Appendix G.

8 Construction and Logistics Plan

8.1 Introduction and Background

8.1.1 This chapter presents an outline Construction Logistics Plan (CLP) which will be implemented during construction stages of the proposed development. CLPs provide a framework to better manage all types of freight vehicle movement to and from construction sites. A CLP is essentially the equivalent of a workplace travel plan for construction vehicles. The London Freight Plan highlights CLPs as one of the four measures to improve freight and servicing in London. The other three measures include the Freight Operators Recognition Scheme (FORS); Deliver and Servicing Plans (DSPs); and the Freight Information Portal (FIP).

8.1.2 A detailed Construction Management Plan is prepared by EC Harris and submitted as part of the planning application documentation. This section only presents an Outline CLP.

8.1.3 The *'Building a Better Future for Freight: Construction Logistics Plans'* document identifies the benefits of CLPs to local authorities and residents, building developers and business and freight operators. In summary, CLPs will:

- Demonstrate that goods and services can be delivered, and waste removed, in a safe, efficient and environmentally-friendly way;
- Identify deliveries that could be reduced, re-timed or even consolidated, particularly during busy periods;
- Help cut congestion on London's roads and ease pressure on the environment;
- Improve the reliability of deliveries to the site concerned;
- Reduce the operating costs of building occupants and freight companies; and
- Reduce the impact of freight activity on local residents.

8.1.4 The London Freight Plan (2007) recognises that:

- The improvement of the efficiency of the freight sector will help reduce the environmental and social impacts of freight transport in London, particularly the contribution to climate change;
- Achieving sustainable freight distribution in London will make a real and positive contribution to improving the lives of those who live, work and visit London.
- Road network efficiency will be increased by each traffic authority's response to its Network Management Duty, which will include the reduction of freight vehicle Penalty Charge Notice (PCN) hotspots to improve congestion and help reduce CO2 emissions.

8.2 Objective of this CLP

8.2.1 The objective of this outline CLP is-

"To minimise the impacts of construction-related vehicle movements and facilitate sustainable construction travel to and from the proposed development"

8.2.2 To support the realisation of this overarching objective, several sub-objectives have been set out:

- Encouraging construction workers to travel by non-car modes to the proposed development site;
- Promoting smarter operations that reduce the need for construction travel overall or that reduce or eliminate trips particularly those in peak periods;
- Encouraging greater use of sustainable freight modes;
- Encouraging use of greener vehicles;
- Managing the ongoing development and delivery of the CLP with construction contractors;
- Communication of site servicing/delivery facilities (through dissemination of information) to workers and suppliers; and
- Encouraging the most efficient use of construction freight vehicles.

8.3 Construction Traffic Flows

8.3.1 In order to reduce the effect of construction traffic, bulk transit trips (such as muck away and steelwork delivery) would be undertaken during off-peak periods only. It is not anticipated at this stage any lane closures would be required, but if they were to take place, they would be minimised and would not occur during peak periods.

8.3.2 Construction delivery vehicles would approach the site via Crogsland Road.

8.3.3 The hours of work are likely to be specified within planning conditions attached to the planning permission sought. However, it is considered likely that the standard hours of work would be as set out below:

- 08:00 to 18:00 hours Monday to Friday;
- 08:00 to 13:00 hours Saturday; and
- No working on Sundays or Bank Holidays.

8.3.4 Although night-time (23:00 - 08:00), out-of-hours or weekend working would not normally be permitted, it is conceivable that certain works (for example, heavy deliveries) may have to be undertaken during these periods. If necessary, the hours of operation for such works would be subject to prior agreement and reasonable notice with LBC, highways.

8.3.5 Final details regarding traffic flow alteration and management would be agreed with LBC and TfL, if needed, prior to the onset of any works. Any necessary lane closures on the local highway network will avoid peak periods if at all possible, and the relevant authorities (including emergency services) will be notified. The Principal Contractor will co-ordinate all deliveries and collections to/from the Site, and ensure that:

- All delivery and collection vehicles are aware of the proposed routing;
- Prior to a delivery or collection, hauliers will notify the relevant authorities (TfL Police, Highways Authority etc) in accordance with the Road Vehicles (Authorisation of Special Types) (General) Order 2003 if required;
- Liaison will be undertaken with occupants of adjacent buildings to avoid delays to service deliveries due to construction vehicles; and
- Deliveries will be made on a ‘just in time’ basis.

8.3.6 Larger vehicle movements will be scheduled to avoid peak hours on the local road network if at all possible. If an alternative construction traffic route is required this will first be agreed with LBC. All deliveries will be made to the designated areas within the site. If for any reason it is necessary to load and unload outside the site boundary, the details and procedure for this will be agreed in advance with LBC and occupants of local buildings.

8.4 Staff Travel

8.4.1 Individual contracts (for example waste removal) would incorporate appropriate requirements in respect of environmental management plan (EMP). These would be based on statutory requirements and the principles of 'good working practice' outlined in the EMP. Potential contractors and sub-contractors would be required to demonstrate how they would achieve the provisions of the EMP, how targets would be met and how potential adverse effects would be prevented, reduced and offset.

8.5 CLP Targets

8.5.1 The CLP targets should align with the objectives and measures set out earlier. Examples of targets that could be developed include:

- Number, or a specific percentage, of construction trips to be undertaken during the morning and evening peak hours;
- A specific number of daily construction trips to encourage the consolidation of trips to the site;
- All, or a specific proportion, of servicing and delivery companies used to be a member of FORS;
- Specific percentage of the proposed development construction vehicles to be 'green' vehicles.

8.6 Summary

8.6.1 This section of the TS has presented the proposed CLP for the Charlie Ratchford extra-care scheme. A series of measures are proposed to be taken forward as part of the CLP, prior to commencement of construction. These will encourage sustainable construction movements to the proposed development and reduce unnecessary construction related trips, particularly during peak times and also ensure that there is minimal disruption to the retained residents on site during construction and also to the neighbouring community.

9 Summary and Conclusions

9.1.1 The proposed development comprises of relocation of the existing services provided at the Charlie Ratchford Resource Centre to the proposed car-free Charlie Ratchford Extra-Care Scheme on Crogsland Road opposite to the existing CRRC site. The proposed scheme also provides 38 extra-care residential units from first floor to the fifth floor.

9.1.2 In line with LBC's policy, the proposed development will be car-free with the exception of eight buggy(mobility scooter) parking spaces. Provision of cycle parking is also in line with the parking standards as set out in CPG 7.

9.1.3 The pedestrian/ cyclist accesses will be on Crogsland Road to the main entrance of the development leading to the lobby and foyer of the ground floor. There is also a maintenance entrance to the north of the building as well as a buggy/ deliveries entrance adjacent to the refuse store.

9.1.4 The development impact has been assessed and it was estimated that the proposed development will generate a daily total of 138 trips by all modes; including nine trips during the morning peak hour and 10 trips during the evening peak hour. The development impacts on the road and public transport network in the vicinity are considered negligible.

9.1.5 Refuse and recycling collection vehicles will access the site via Crogsland Road. The refuse store is located to the north of the proposed development; while collection is made via the maintenance entrance adjacent to the refuse store.

9.1.6 The proposed development provides a car-free residential scheme with the exception of nine mobility scooters as well as policy-compliant cycle parking spaces. It does not post any large impacts to the local highway network or public transport network. Therefore, the Charlie Ratchford Extra-Care Scheme is therefore in line with the National, Regional, and Local policies.