

# **Bacton Low Rise Phase 2 Minor Material Amendment**

**Transport Statement** 

On behalf of London Borough of Camden



Project Ref: 35548/5501 | Rev: 1.1 | Date: September 2016





#### **Document Control Sheet**

Project Name: Bacton Low Rise Phase 2 Minor Material Amendment

Project Ref: 38845

Report Title: Transport Statement

Doc Ref: 1.1

Date: September 2016

	Name	Position	Signature	Date
Prepared by:	Morteza Mortezai-Nejad	Graduate Transport Planner	Morteza Mortezai- Nejad	September 2016
Reviewed by:	Manu Dwivedi	Associate	Manu Dwivedi	September 2016
Approved by:	Robert Parker	Director of Transport Planning	Robert Parker	September 2016

#### For and on behalf of Peter Brett Associates LLP

Revision	Date	Description	Prepared	Reviewed	Approved
1.1	21 Sept 2016	First draft to project team	MMN	MD	RAP
1.2	23 Sept 2016	Final for Submission	MMN	MD	RAP

This report has been prepared by Peter Brett Associates LLP ('PBA') on behalf of its client to whom this report is addressed ('Client') in connection with the project described in this report and takes into account the Client's particular instructions and requirements. This report was prepared in accordance with the professional services appointment under which PBA was appointed by its Client. This report is not intended for and should not be relied on by any third party (i.e. parties other than the Client). PBA accepts no duty or responsibility (including in negligence) to any party other than the Client and disclaims all liability of any nature whatsoever to any such party in respect of this report.

© Peter Brett Associates LLP 2016



# **Contents**

1	Introdu	ction	6
	1.1	Background	6
	1.2	Site Location	6
	1.3	Consented Scheme and the Proposed Minor Material Amendments	7
	1.4	Liaison with LBC Highways	8
	1.5	Development Proposals	8
	1.6	Transport Statement Structure	8
2	Baselin	e Conditions	10
	2.1	Introduction	10
	2.2	Site Access	10
	2.3	Car Club Bays	10
	2.4	Cycle Parking Provision	10
	2.5	Servicing Strategy	10
	2.6	Existing Highway Network	11
	2.7	Existing Public Transport Network	11
	2.8	Pedestrian Provision	13
	2.9	Cycle Provision	14
	2.10	Parking	15
	2.11	Summary	15
3	Nationa	al, Regional and Local Policy	17
	3.1	Introduction	17
	3.2	National Policy	17
	3.3	Regional Policy	17
	3.4	Local Policy	20
	3.5	Summary	23
4	Develo	pment Proposals	24
	4.1	Introduction	24
	4.2	Consented Development	24
	4.3	Proposed Minor Material Amendments	24
	4.4	Proposed Vehicle Parking Arrangements	25
	4.5	Proposed Cycle Parking Arrangements	26
	4.6	Proposed Servicing Arrangements	27
5	Trip Ge	neration and Impact Assessment	31
	5.1	Introduction	31
	5.2	Methodology	31
	5.3	Person Trip Rate	32
	5.4	Multi-Modal Trip Generation	32
	5.5	Summary	33



6	Constr	uction Management Plan	34
	6.1	Introduction and Background	34
	6.2	Objective of this CMP	34
	6.3	Construction Traffic Flows	35
	6.4	Staff Travel	36
	6.5	CMP Targets	36
	6.6	Summary	36
7	Summa	ary and Conclusions	
Fig	ures		
Figur	e 1.1 Sit	e Location Plan	7
Figur	e 2.1 Ex	sting Public Transport Networks	11
		destrian Isochrones and Facilities isting Cycle and Pedestrian Network	
		posed Vehicle Parking Layout	
		posed Cycle Parking Locations	
		posed Refuse Stores and Approx. Distance to the Refuse Collection Vehicle	
Tab	oles		
		nsented and New Development Schedule	
		sting Bus Services and Frequenciesdon Overground Services	
		kimum Vehicle Parking Standards from London Plan (March 2016)	
		ele Parking Provision from FLAP (March 2016)	
		posed Development Schedule by Tenure	
		commended Distance by Impaired Group	
		nsented and New Development Proposed Vehicle Parking Provision  posed Cycle Parking	
		Generation for 20 Residential Units	
		sting Mode Share for the Ward Containing the Site	
Table	e 5.3 Trip	Generation by Mode	33
Δ	والمواد والمواد		
App	pendic	es	
Appe	endix A	Meeting Minutes	

PTAL Report

Swept Path Analysis

Trip Generation Calculations

Appendix B

Appendix C

Appendix D



This page is intentionally blank



# 1 Introduction

## 1.1 Background

- 1.1.1 Peter Brett Associates LLP has been commissioned by the London Borough of Camden (LBC) to prepare the transport related documentation in support of the Minor Material Amendment (MMA) application relating to Bacton Low Rise (BLR) Phase 2. The planning process for the BLR regeneration started in May 2012. The development proposals seek to:
  - Provide replacement properties for existing tenants of the BLR estate.
  - Provide further high quality housing of a variety of sizes and tenures.
  - Provide on-site replacement employment floorspace and off-site upgraded employment floorspace to safeguard employment opportunities in the Gospel Oak area.
  - Upgrade the public realm of the estate for the benefit of the wider community.

#### 1.1.2 Scheme History:

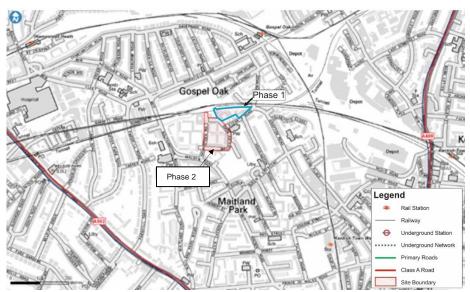
- i. The planning application was submitted in November 2012 and gained planning approval in April 2013 (2012/6338/P). The previous consented scheme proposed 67 units in Phase 1 of the BLR redevelopment and 227 units in Phases 2 and 3.
- ii. Subsequently, A Minor Material Amendment application for the removal and replacement of four trees on Vicars Road was approved in March 2015 (2015/1189/P) and a further Minor Material Amendment application for four additional residential units within phase 1 was approved in March 2016 (2014/3633/P). Phase 1 of the BLR is constructed and occupied.
- iii. The scheme has undergone changes in the Phase 2 development schedule in response to brief changes requested by LBC which has resulted in an increase of 20 units in BLR Phase 2. The current proposals seek to increase the number of units from 227 in Phase 2 to 247 units and these are presented as Minor Material Amendments (MMA) to the previous approval associated with 2012/6338/P. Details of the consented and proposed scheme are provided in subsequent sections.
- 1.1.3 A Transport Assessment (TA) was submitted in November 2012 to support the planning application for Bacton Low Rise Redevelopment. This report presents the Transport Statement (TS) addressing the MMA to the consented scheme.

#### 1.2 Site Location

- 1.2.1 Phase 2 of the BLR comprises of eight residential blocks, and is bounded by Haverstock Road, to the west and Wellesley Road to the south, east and north. This site lies to the south of the Bacton High Rise building.
- 1.2.2 There are two 'A' roads, the A502 and the A400, in the vicinity of the site. The A502 is to the west and can be accessed from the site by routing north on Southampton Road and then Fleet Road to the west; the A502 links Camden Town to Hendon. The A400 runs to the east of the site, joining Charing Cross to Archway. It can be accessed by taking Grafton Road south and then Spring Place and Holmes Road. A network of pedestrian pathways and rights of way are in place joining the site to surrounding housing estates and Mansfield Road.
- 1.2.3 Figure 1.1 presents the site location.



Figure 1.1 Site Location Plan



# 1.3 Consented Scheme and the Proposed Minor Material Amendments

1.3.1 BLR development has a planning consent for 294 residential units of which 67 are within Phase 1 and are already constructed with some units are occupied. The MMA relates to amending the consented 227 units in Phase 2 to 247 units as part of a MMA application. The increase in 20 number of units is across the development in all tenures and unit sizes and is a result of review of brief by LBC. Table 1.1 presents the consented and new development schedule.

Table 1.1 Consented and New Development Schedule

Unit Size	Completed Phase 1	Consented Phase 2	Total Consented	New Phase 2	Comparison between approved and proposed Phase 2	Total Proposed (inc Phase1)
One Bedroom	10	63	73	97	+34	107
Two Bedroom	38	90	128	100	+10	138
Three Bedroom	15	65	80	40	-25	55
Four Bedroom	3	7	10	10	+2	13
Five Bedroom	1	2	3	0	-1	1
Total	67	227	294	247	+20	314

- 1.3.2 As part of the consented scheme, 19 wheelchair accessible units were proposed. The MMA seeks to increase that by three to provide a total of 22 wheelchair accessible units.
- 1.3.3 The scheme was proposed to be car free with the exception of disabled parking spaces, car club bay and electric vehicle parking bay. A total of 17 car parking bays were proposed- 15 were disabled parking bays (five for Phase 1 and 10 for Phases 2 and 3), one car club bay and one electric vehicle parking bay.



# 1.4 Liaison with LBC Highways

- 1.4.1 There have been three informal pre-application meetings with LBC Officers and two formal pre-application meetings covered by a Planning Performance Agreement. A pre-application meeting was held between Camden Highways and the design team on 7<sup>th</sup> September 2016. The minutes of this meeting are presented in Appendix A and following are the main outputs:
  - LBC Highways queried the provision of disabled parking which was considered high and there may not be an uptake of the parking spaces. Phase 1 had five spaces allocated for the wheelchair accessible units; however there has been no uptake of these spaces. Therefore ideally these parking spaces could be provided as a phased provision and could perhaps be part of landscape till such time when they are required for vehicle parking.
  - LBC Highways suggested that a car club bay at this location may not be viable. Evidence suggests that growth in car club provision has stagnated in recent years, mainly because there is an over-provision of on-street cars relative to the level of membership.<sup>1</sup>
  - LBC Highways suggested a review of the rationale behind the electric vehicle charging bay. As the development is proposed to be car free, the London Plan standards for the provision of electric vehicle charging bay as a percentage of overall provision do not apply.
  - Appropriate and policy compliant cycle parking should be provided for the MMA proposals and the details of how the parking spaces will be designed should be detailed as part of the planning application documentation.

# 1.5 Development Proposals

- 1.5.1 The numbers of one and two bedroom units increase significantly and the numbers of three bedroom units and larger units has decreased significantly, with the overall net increase of 20 units. Table 1.1 presents the development schedule of the MMA proposals.
- 1.5.2 Based on discussions with LBC highways, the proposed car club bay has been removed and replaced by one disabled parking space.
- 1.5.3 Further, the number of wheelchair accessible units has increased from 19 to 22 units as part of the MMA proposals. In line with the previous consented scheme one disabled parking bay was proposed to be added to the overall pool of disabled parking spaces. This will need to be discussed with LBC Highways at a later stage and perhaps through monitoring could be phased out. Further details on the development proposals are provided in Chapter 4.

# 1.6 Transport Statement Structure

- 1.6.1 This chapter presents a background to the consented scheme and an introduction to the MMA proposals. The remaining sections of this Transport Statement are structured as follows:
  - Chapter 2 describes the baseline conditions in terms of site location, existing use, access arrangements for all modes, existing parking situation;
  - Chapter 3 provides a review of the relevant national, regional and local policy in relation to the proposed development;
  - Chapter 4 presents the details of the proposed development;

<sup>1</sup> Camden Local Plan Evidence Report, Car-free development, February 2016

# Bacton Low Rise Phase 2 Minor Material Amendment Transport Statement



- Chapter 5 describes the net trip generation and potential transport impacts of the proposed development;
- Chapter 6 provides construction details and how this will be managed; and
- Chapter 7 summaries and concludes the TS.



# 2 Baseline Conditions

#### 2.1 Introduction

- 2.1.1 There are presently 99 residential units in the BLR overall site and the site is currently vacant apart from one residential unit.
- 2.1.2 This chapter presents the existing conditions and will provide the current access and parking situation for the site and the transport context in terms of parking in the surrounding streets and public transport accessibility.

#### 2.2 Site Access

- 2.2.1 The western frontage of BLR can be accessed by vehicles via Haverstock Road, the northern end of which forms part of the estate. This allows access to the garages that are located beneath the western section of the building.
- 2.2.2 In order to gain vehicular access to the car parking bays and garages located within the central courtyards and eastern sections of BLR, a crossover located on Wellesley Road to the east of the building can be used.
- 2.2.3 The remaining area where on-site car parking bays and garages are provided can be accessed by vehicles from the northern end of Wellesley Road. The section of Wellesley Road where these parking bays are located, and where the northern garages can be accessed from, also forms part of the estate and, in order to reach this area, vehicles can route along Wellesley Road.
- 2.2.4 There is no permanent through-route for vehicles from the northern end of Haverstock Road to the northern end of Wellesley Road as bollards are currently in place where the two roads meet. However, some bollards are removable which could provide a connection between the two roads for servicing vehicles.

#### 2.3 Car Club Bays

2.3.1 As of present, there are four car clubs bays located within 500m from the development site. A Zipcar van is located on Courthope Road and a Zipcar vehicle is located on Parkhill Road to the south of the junction with Garnett Road. One Enterprise Car Club vehicle is located on Shirlock Road and another located on Mansfield Road to the west of the junction with Savernake Road.

#### 2.4 Cycle Parking Provision

2.4.1 At present there are no cycle stands provided within the development site.

#### 2.5 Servicing Strategy

- 2.5.1 The residential waste generated by BLR is stored in communal bin stores on-site and collected by LBC's waste management services. Refuse vehicles currently travel the length of Haverstock Road to collect refuse and recycling.
- 2.5.2 Veolia, the London Borough of Camden's waste contractor, has confirmed that for crews to access the bin store on Haverstock Road they do so by reversing the refuse vehicle down Haverstock Road from Wellesley Road.



2.5.3 It is also necessary for refuse vehicles to access the northern end of Wellesley Road to service the bin store located in BLR which fronts onto this section of the road. As this road is a cul-de-sac and there is a limited area for vehicle turning, the refuse vehicle currently right turns into Vicars Road and then reverses back into the northern end of Wellesley Road.

# 2.6 Existing Highway Network

- 2.6.1 The development site is bounded by Wellesley Road to the south and east and Haverstock Road to the north and west. The southern sections of Wellesley Road and Haverstock Road form part of the public highway and are residential in nature. Both these roads accommodate on-street permit parking where they lie within the public highway.
- 2.6.2 The section of Haverstock Road to the north of Wellesley Road and the section of Wellesley Road to the north of Vicars Road form part of Bacton Estate and accommodate estate car parking and access to garages which front onto the northern and eastern sides of BLR. Both of these roads are cul-de-sacs with the northern end of Haverstock Road terminating at Lismore Circus which is a pedestrianised area. No through-route is possible from the northern end of Wellesley Road to Haverstock Road, except for servicing vehicles, due to the presence of bollards.

# 2.7 Existing Public Transport Network

2.7.1 The public transport links in the vicinity of the development site are shown in Figure 2.1 and are discussed in more detail in the following sections.

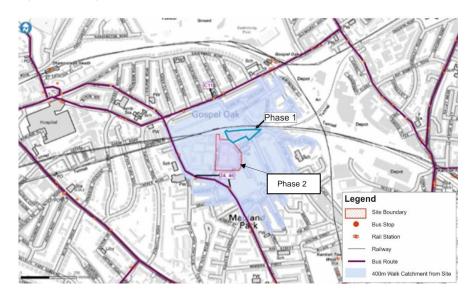


Figure 2.1 Existing Public Transport Networks

#### **Bus Services**

- 2.7.2 Grafton Terrace bus stop is located on Malden Road, approximately 300m from the development site and is serviced by routes 24 and 46 southbound. St Dominic's Priory is the nearest bus stop for northbound services on these routes and is again located on Malden Road approximately 300m from the site. The origins and destinations of these two routes are shown in Table 2.1.
- 2.7.3 The nearest stop for route C11, which routes from Archway Station to Brent Cross Shopping Centre, is Estelle Road bus stop on Mansfield Road to the north of the site at a distance of approximately 280m. The location of these bus stops in relation to the site is shown in Figure 2.1.



- 2.7.4 All of these bus stops comprise a formal bus shelter with bus service information and route maps for both the relevant routes.
- 2.7.5 The destinations and frequencies of the bus service in close proximity to the site are summarised in Table 2.1 below.

Table 2.1 Existing Bus Services and Frequencies

Bus Stop	Distance from site	Service Number	Origin – Destination	Peak Frequency (buses per hour)
St		24	Grosvenor Road to Royal Free Hospital (Northbound)	10
Dominic's Priory 300m		46	Stonecutter Street to Lancaster Gate (Northbound)	6
Grafton Terrace		24	South End Green to Grosvenor Road (Southbound)	6
	300m	46	Lancaster Gate to Stonecutter Street (Southbound)	7
Estelle	200m	C11	Archway Station to Brent Cross Shopping Centre (Westbound)	7
Road	280m —	C11	Brent Cross Shopping Centre to Archway Junction (Eastbound)	7
Total Number of Peak Hour Services				43

2.7.6 As shown by the table above, 43 buses serve the area in the peak hour. These bus routes include destinations such as Brent Cross Shopping Centre, Kings Cross and St Pancras Stations, Archway Station, Trafalgar Square, Camden and Victoria Station.

## **London Overground Services**

- 2.7.7 Gospel Oak Overground Station is located approximately 490m north of the development. This station lies on the Overground line which runs to the east to Barking and Stratford and to the south to Willesden Junction and Clapham Junction. The station has step free access from street to platform which increases accessibility.
- 2.7.8 The Overground services at Gospel Oak links commuters to a range of different rail services. Access to National Rail and London Underground can be gained via the Gospel Oak Overground at Highbury and Islington Station where the Victoria Line and National Rail are available, Jubilee Line and rail services to Gatwick and Luton Airport are available at West Hampstead Station. Central Line, Jubilee Line, DLR and rail services to Stansted Airport are available at Stratford Station.
- 2.7.9 The frequency of services from Gospel Oak Overground Station is shown in Table 2.2 below.



Table 2.2 London Overground Services

Origin – Destination	Peak Frequency (trains per hour)
Gospel Oak – Barking	5
Gospel Oak – Stratford	8
Gospel Oak - Willesden Junction/Clapham Junction	8
Total Number of Peak Hour Services	21

2.7.10 As shown in Table 2.2 there are approximately 20 Overground services departing from Gospel Oak in the peak hour.

#### **National Rail and London Underground**

- 2.7.11 Kentish Town Station lies approximately 1.3km south-west of Bacton Low Rise and provides access to National Rail and London Underground services. The rail services are operated by First Capital Connect with trains running directly to Luton Airport, Luton and Bedford in the north and Sutton in the south. Certain southbound rail services from Kentish Town crosses London stopping at stations including St Pancras International, Farringdon, Blackfriars and London Bridge. However these services are on an infrequent basis.
- 2.7.12 During the peak hour, approximately 10 trains run per hour in the northbound and southbound direction on the National Rail line from Kentish Town.
- 2.7.13 The Northern Line service at Kentish Town Station runs from High Barnet to Euston where commuters have the option to continue to Morden via the Charing Cross branch or Bank branch. In the AM and PM peak hours southbound and northbound services depart the station approximately every three minutes.

#### **Public Transport Accessibility**

- 2.7.14 Public Transport Accessibility Levels (PTALs) are a detailed and accurate 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.
- 2.7.15 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. PTAL scores are used to both inform the level of density on a development site as well as informing the level of car parking provision required for a residential development.
- 2.7.16 The development site is located in an area which is classified as having a 'moderate' PTAL of 3. The details of this PTAL rating are contained in Appendix B of this report.

#### 2.8 Pedestrian Provision

2.8.1 Lismore Circus is located to the north of the development site and can be accessed via a pedestrian walkway from the northern end of Haverstock Road or by a footpath adjacent to the Phase 1 completed blocks. The network of pedestrian paths within the Circus provides pedestrian links for estate residents to the bus stops on Mansfield Road and Southampton Road and also to Gospel Oak Overground Station.



- 2.8.2 There is also a network of pedestrian paths to the south of the development site through a green area which links the estate to the local shops, restaurants and services, which includes a library, post office and pharmacy on Queen's Crescent. The Queen's Crescent Market is held every Thursday and Saturday and sells food, clothing and household items. The Queen's Crescent Community Centre can also be accessed using this pedestrian path.
- 2.8.3 There are two pedestrian paths in place adjacent to the Weedington residential blocks which can be used if routing east from the development site and link the development to Grafton Road where a local primary school is located. The network of pedestrian paths in close proximity to the site is shown in Figure 2.3, further on in this section of the report.
- 2.8.4 Zebra crossings are provided on Malden Road adjacent to the Haverstock Road/Malden Road junction and Mansfield Road adjacent to the Mansfield Road/Estelle Road junction which facilitate pedestrians crossing to reach bus services on the opposite side of the road. Both these crossing points incorporate dropped kerbs and tactile paving.
- 2.8.5 Signalised pedestrian crossings are in place on Mansfield Road to the west of Gospel Oak Overground Station and at the Fleet Street/Mansfield Road/Southampton Road junction. Both these crossings provide dropped kerbs and tactile paving for ease of use.
- 2.8.6 Pedestrian walk times and the facilities within a 10 minute walk of the development are shown in Figure 2.2.

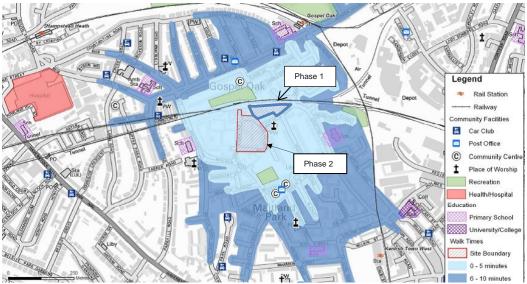


Figure 2.2 Pedestrian Isochrones and Facilities

# 2.9 Cycle Provision

- 2.9.1 There are two public cycle stands located within the footpath on the northern side of Vicars Road, to the east of the Vicars Road/Wellesley Road junction and there are a further three public cycle stands located in the footpath on the southern side of Vicars Road to the east of the Vicars Road/Weedington Road junction.
- 2.9.2 At present there are no Santander Cycle Hire Docking Stations within the vicinity of the development.
- 2.9.3 Figure 2.3 illustrates the cycle network in place within close proximity to the development site and also highlights the pedestrian network. Although there are no mandatory cycle routes there is a good network of advisory cycle routes. The advisory cycle paths along Wellesley Road and Vicars Road provide links from the site to the cycle network.

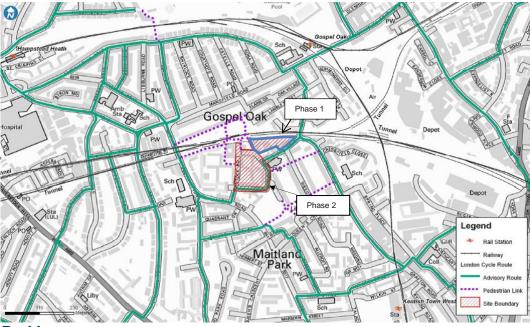


Figure 2.3 Existing Cycle and Pedestrian Network

# 2.10 Parking

## **On-Street Parking**

- 2.10.1 On-street parking in the area local to the development site is restricted by CPZs. The site is included within the Outer CA-L parking zone which is operational Monday to Friday from 0830 until 1830. To the south of the site, neighbouring roads such as Weedington Road, Grafton Road and Allcroft Road are part of the Inner CA-L parking zone which is operational between 0900 and 1100 from Monday to Friday.
- 2.10.2 On-street parking surveys were undertaken within 200m of the development site as part of the 2012 TA submission. Surveys were undertaken over five selected one hour periods on Monday 24th and Tuesday 25th of September 2012 in accordance with the Lambeth Residential Parking Survey Methodology. The overall residential parking stress ranged from 80% in the 2300 to 0000 time period to 71% in the 1100 to 1200 time period. The single yellow line parking stress ranged from 27% in the 2300 to 0000 time period to 16% in the 1100 to 1200 time period.

# 2.11 Summary

- 2.11.1 The development site is bounded by Vicars Road and Wellesley Road to the south and east and Haverstock Road to the west. Vicars Road and the southern sections of Wellesley Road and Haverstock Road form part of the public highway and are residential in nature. All three roads accommodate on-street permit parking where they lie within the public highway and estate parking is provided on the section of Haverstock Road to the north of Wellesley Road and the section of Wellesley Road to the north of Vicars Road.
- 2.11.2 A total of 43 buses serve the area in the peak hour. These bus routes include destinations such as Brent Cross Shopping Centre, Kings Cross and St Pancras Stations, Archway Station, Trafalgar Square, Camden and Victoria Station. The bus stops servicing these destinations are approximately 300m from the development.
- 2.11.3 Gospel Oak Overground Station is approximately 490m from the development. This station lies on the overground line which runs to the east to Barking and Stratford and to the south to



- Willesden Junction and Clapham Junction. Approximately 20 overground services depart from Gospel Oak station in the peak hour.
- 2.11.4 Kentish Town Station lies approximately 1.3km south-west of Bacton Estate and provides access to National Rail and London Underground services. During the peak hour, approximately 10 trains run per hour in the northbound and southbound direction on the National Rail line from Kentish Town while Northern Line services depart every three minutes in both directions during the AM and PM peak hour.
- 2.11.5 The public transport accessibility of the site is deemed moderate with a PTAL of 3.
- 2.11.6 There is a well-established network of pedestrian paths in the area surrounding the development site.
- 2.11.7 In the vicinity of the site there is also a wide network of advisory cycle routes along Wellesley Road and Vicars Road. Public cycle stands are provided on the eastern and western end of Vicars Road.
- 2.11.8 On-street parking in the area local to the development site is restricted by CPZs. The site is included within the Outer CA-L parking zone which is operational Monday to Friday from 0830 until 1830. To the south of the site, neighbouring roads are part of the Inner CA-L parking zone which is operational between 0900 and 1100 from Monday to Friday.
- 2.11.9 Parking surveys conducted in 2012 as part of the 2012 TA submission suggest that the majority of on-street parking in the area is used by local residents and demand stays relatively high during the hours of operation of the CPZ and the level of parking remains at this level or increases overnight.



# 3 National, Regional and Local Policy

#### 3.1 Introduction

- 3.1.1 This section provides a review of the existing national, regional and local policy and how this related to the development proposal. The policies covered within this review include:
  - National Planning Policy Framework (NPPF), 2012;
  - The London Plan (including Further Alterations), 2016;
  - The Mayor's Transport Strategy, 2010; and
  - Camden Core Strategy, 2010, Camden Transport Strategy, 2011 and Camden Development Policies, 2010-2025.

### 3.2 National Policy

# **National Planning Policy Framework (NPPF)**

- 3.2.1 The NPPF was published on 27<sup>th</sup> March 2012 replacing all existing Planning Policy Statements and Planning Policy Guidelines, including PPG13. The new framework seeks to facilitate sustainable development. In respect of transport, the NPPF 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.
- 3.2.2 At a more detailed level, the NPPF states that developments should be located and designed in order to:
  - Give priority to pedestrian and cycle movements and have access to high quality public transport facilities; and
  - Create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians.
- 3.2.3 Priority is given to providing low emission vehicles in the NPPF, in particular charging facilities.

# 3.3 Regional Policy

# The London Plan (including Further Alterations), March 2016

3.3.1 The London Plan was published in July 2011. Since than two sets of alterations have been made to the 2011 London Plan to ensure it is as up-to-date as possible. Revised early minor alterations (REMA) were made to the Plan to ensure it reflected the NPPF and the Government's approach to affordable housing. These were formally published on 11 October 2013.



- 3.3.2 The FALP, published in March 2015, consolidates with all the alterations to the London Plan since 2011. The cycle parking standards were further reviewed and published as aprt of the further alterations in March 2016. It sets out the overarching policies and principles for developments in London until 2036. Transport was noted as having a fundamental role in addressing the objectives of the Plan.
- 3.3.3 A key objective of the Plan states 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".
- 3.3.4 Chapter 6 of the FALP identifies policies to support integration of transport and development, connecting London and ensuring better streets. It also sets out car and cycle parking standards.

#### Policy 6.9 and Policy 6.10 Cycling and Walking

- 3.3.5 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 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

- 3.3.6 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.
- 3.3.7 Within Annexe Four of the London Plan, Parking Standards, it states, "Residential development with lower car parking provision is encouraged in areas with high PTAL scores and/or close to town centres. An element of car free housing should be included where accessibility and type of housing allow".
- 3.3.8 It has been noted that the Draft MALP (2015) alters the content of Policy 6.13 by putting focus on outer London boroughs with low PTAL scores (generally PTALs 0-1). The MALP has been reviewed and adjudged to not be relevant to the proposals.
- 3.3.9 Maximum parking standards for residential units are specified in Chapter 6 of the FALP and are presented below.

Table 3.1 Maximum Vehicle Parking Standards from London Plan (March 2016)

Number of Beds	4 or more	3	1-2
Parking Spaces	up to 2 per unit	up to 1.5 per unit	less than 1 per unit



#### **Cycle Parking**

3.3.10 The FALP (March 2016) shows the required cycle parking provision for each land use. The standards are presented in Table 3.2.

Table 3.2 Cycle Parking Provision from FLAP (March 2016)

Land Use	Long-Stay	Short-Stay
C3 Dwellings	1 space per studio and 1 bed unit 2 spaces per all other dwellings	1 space per 40 units

# The Mayor's Transport Strategy, 2010

- 3.3.11 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. The strategy key aims include:
  - Supporting economic development and population growth;
  - Enhancing the quality of life for all Londoners;
  - Improving the safety and security of Londoners;
  - Improving the transport opportunities for all Londoners;
  - Reducing transport's contribution to climate change, and improving its resilience; and
- 3.3.12 Throughout the strategy, emphasis is placed on:
  - Improving cycling and walking in London;
  - Improving the interchange between transport modes;
  - Putting Crossrail into place;
  - Promoting sustainable technologies such as electric vehicles;
  - Providing better travel information to travellers;
  - Encouraging the use of River Thames and other waterways to transport goods and people;
  - Promoting strategic interchange between inner and outer areas of London and improving strategies to tackle road congestion.
- 3.3.13 As part of Proposal 54, the cycle revolution will be supported by the increased provision of secure bicycle parking facilities, particularly at stations, workplaces, schools, retail and leisure sites.



# 3.4 Local Policy

#### Camden Core Strategy (2010)

3.4.1 Camden's Core Strategy sets of the council's vision to promote sustainable travel. It hopes to do this using the Policies discussed below.

#### Policy CS11: Promoting Sustainable and Efficient Travel

- 3.4.2 It is hoped that by promoting key transport infrastructure proposals, promoting sustainable travel and making private transport more sustainable that Camden can relieve existing pressures on the transport system. It aims to promote cycling and walking whilst reducing traffic in the borough by 15% from 2001 levels.
- 3.4.3 Key transport infrastructure proposals include:
  - Kings Cross Station Improvements:
  - The redevelopment of Euston Station and the development of an improved public transport interchange;
  - Crossrail services and associated station improvements at Tottenham Court Road;
  - Improved interchange at West Hampstead;
  - Improvement to facilities at Camden's London Underground and London Overground stations, including at Camden Town and Holborn; and
  - Improvements to encourage walking and cycling as part of transport infrastructure works.
- 3.4.4 Whilst sustainable travel will be promoted by:
  - Improving public spaces and pedestrian links across the borough,
  - Continuing to improve facilities for cyclists, including increasing the availability of cycle parking, helping to deliver the London Cycle Scheme and enhancing cycle links; and
  - Working with Transport for London to improve the bus network and deliver related infrastructure and supporting proposals to improve service capacity on the London Underground and First Capital Connect's Thameslink line.
  - Expanding the availability of car clubs and pool cars as an alternative to the private car;
  - Minimising provision for private parking in new developments by making developments car-capped or even car-free in the most accessible areas of the borough;
  - Restrict new public parking and promote the re-use of existing car parks where appropriate;
  - Promote the use of low emission vehicles, including through the provision of electric charging points; and
  - Ensure all growth and development has regard to Camden's road hierarchy and does not cause harm to the management of the road network.
- 3.4.5 In regard to freight, the Council will seek to remove freight movement by road; encouraging the movement of goods by canal, rail and bicycle. This will reduce the impact of freight movement on local amenity, traffic and the environment.



3.4.6 The proposed development follows these guidelines by providing public spaces and improving pedestrian links on Haverstock Road. The scheme also includes a considerable provision of cycle parking and addition of a car club bay to the site. It is intended that this development could be one of the 'car-free' developments Camden aims for as the new market accommodation will be 'car-free'.

#### **Camden Development Policies 2010-2025**

- 3.4.7 Camden Development Policies forms part of the LBC's Local Development Framework which sets out the Council's planning strategy and policies. Camden Development Policies contribute towards delivering the Council's Core Strategy by setting out detailed planning policies that the Council will use when determining applications for planning permission in the borough.
- 3.4.8 There are a number of policies which relate to transport in this document and these are outlined in this section of the report.

#### **DP16: The Implications of Development**

- 3.4.9 This policy outlines the Council's intention to ensure that development is properly integrated with the transport network and is supported by adequate walking, cycling and public transport links.
- 3.4.10 The Council will resist developments that fail to address any need for:
  - Movements to, from and within the site to public transport;
  - Additional transport capacity off-site where existing or committed capacity cannot meet the additional need generated by the development; and
  - Safe pick up, drop off and waiting areas for taxis, private cars and coaches where this
    activity is likely to be associated with the development.

# **DP17: Walking Cycling and Public Transport**

- 3.4.11 DP17 outlines the Council's requirements with regard the provision of walking, cycling and public transport and where appropriate the interchange between different modes of transport.
- 3.4.12 Provision as part of the development may include:
  - Convenient, safe and well-signalised routes including footways and cycleway designed to appropriate widths;
  - Features associated with pedestrian and cycle access where needed such as seating, signage, cycle parking, workplace showers and lockers;
  - Safe road crossings; and
  - Bus stops, shelters, passenger seating and waiting areas, signage and timetable information.
- 3.4.13 The Council will resist any development which would be dependent on travel by private car and will seek to secure travel interchange facilities in locations that maximise travel benefits and minimise environmental harm.

#### DP18: Parking Standards and Limiting the Availability of Car Parking

3.4.14 The Council's approach to parking provision is addressed in DP18. The Council will seek to ensure that developments provide the minimum necessary car parking provision. Where the



Council accepts the need for car parking, the development should not exceed the maximum standard for the area in which it is located (excluding spaces designated for disabled people).

- 3.4.15 For 'car-free' and car capped developments, the Council will limit on-site parking to:
  - Spaces designated for disabled people:
  - Any operational or servicing needs; and
  - Spaces designated for the occupiers of development specified as car capped.
- 3.4.16 The Council will also not issue on-street parking permits and future occupants of developments will not be eligible to apply for on-street parking permits.

#### **DP19: Managing the Impact of Parking**

- 3.4.17 In DP19 the Council outlines its intention to ensure that the creation of additional car parking spaces will not have a negative impact on parking, highways and the environment and that it will encourage the removal of surplus parking spaces.
- 3.4.18 Where parking is created or reallocated, the Council will encourage the provision of parking spaces for low emission vehicles, car clubs, pool cars, cycle hire and electric vehicle charging equipment under this policy.
- 3.4.19 The proposed development accords policies set out in the Camden Development Policies 2010 2025 through the creation of a new east-west pedestrian corridor which will increase connectivity to public transport, the 'car-free' status of the new market residential units, the limited on-site parking provision and the removal of surplus car spaces and garages in the reprovision of garages for the existing residents.

#### **Camden Transport Strategy (2011)**

- 3.4.20 LBC is working to improve both transport and the public realm. This work includes a parking simplification project to balance the demand for kerb space; public realm improvements to encourage walking and cycling for onward journeys; and continuing the use of developer contributions to address local transport and public realm issues in mitigating the impacts of development.
- 3.4.21 The Camden Transport Strategy outlines major objectives towards transport improvements, these include:
  - Reduction of motor traffic and vehicle emissions;
  - Encouraging healthy and sustainable travel choices by prioritising walking, cycling and public transport in Camden;
  - Improved road safety and personal security for people travelling in Camden;
  - Management of the road network to reduce congestion, improve reliability and ensure efficient movement of goods and people;
  - Developing and maintaining high quality, accessible public streets and space, recognising streets are about more than movement;
  - Ensuring that the transport system supports Camden's sustainable growth and regeneration as well as enhancing economic and community development;



- Ensuring that the transport systems supports access to local services and facilities, reduces inequalities and increases social inclusion; and
- Ensuring the provision of parking is fair by considering the needs of all users, whilst also encouraging sustainable travel choices.
- 3.4.22 Within these objectives, the document sets out a series of policies to help achieve the objectives, some of these are discussed below:
- 3.4.23 Policy 1.3: Camden will continue to encourage travel by sustainable modes, using the following road user hierarchy: Pedestrians, Cyclists, Public transport, Freight (including loading/unloading), Taxis, Motorcycles/Private Cars, and finally on street parking.
- 3.4.24 Policy 1.1: Camden will encourage mixed use development to reduce the frequency and length of people's journeys. Alongside this, Camden will continue to guide development so that it is well integrated with the transport network, minimises congestion and promotes sustainable modes of travel such as walking, cycling and public transport (Policy 1.6)
- 3.4.25 Policy 2.1: The council will seek to encourage, promote and priorities walking and cycling as the preferred modes of travel in the borough.
- 3.4.26 The council will encourage cycling by supporting the extension of the cycle hire scheme further north of Camden Town and across other areas of the borough, improving cycling networks and securing parking for cyclists (Policies 2.8, 2.9, 2.10, 2.11 and 2.12).
- 3.4.27 Where car journeys are essential, Camden will encourage the use of car clubs and electrical vehicles. This will require expansion of charging point and car club networks (Policies 1.5 and 1.10).
- 3.4.28 Camden will work with public transport providers to improve the public transport system, increase its capacity and make sure it is meeting the needs and requirements of residents, businesses and visitors. This will include work to the Underground, Overground and bus routes in the borough (Policies 2.13, 2.14, 2.16, 2.17 and 2.19).
- 3.4.29 The Camden Transport Strategy identifies Gospel Oak as one of its priority areas for funding. Proposed transport improvements for Gospel Oak include introducing Legible London signage; improved pedestrian facilities and access to Hampstead Heath; measures to address fear of crime; and minor public realm improvements.
- 3.4.30 The proposed development of Bacton Estate compliments the Camden Transport Strategy by encouraging sustainable travel whilst providing cycle parking, a car club point and public realm improvements.

## 3.5 Summary

- 3.5.1 This chapter has reviewed the national, local and regional policy which will influence the development at the Bacton Estate in Gospel Oak.
- 3.5.2 Existing policy is focussed on the need for sustainable developments with opportunities for sustainable travel rather than private car provisions.
- 3.5.3 The proposed development corresponds well with the discussed policies, providing on-site parking only for the disabled, and linking in well to existing pedestrian, cycle and public transport routes. The development will also see provision of compliant cycle parking, a car club bay, a pedestrian route and public realm improvements.



# 4 Development Proposals

#### 4.1 Introduction

- 4.1.1 The Proposed development site can be broadly split into two main parts; the DHO site, to the eastern side of Wellesley Road and the Bacton Low Rise (BLR) site, to the western side of Wellesley Road.
- 4.1.2 The proposed development on Phase 2 entails the demolition of the existing buildings on the BLR (Phase 2) site and the development of 247 residential units, two employment units, new open space and ancillary development. The residential development will contain a mix of sizes and will be a mix of market, social rented and intermediate tenures. The proposed development also includes minor design based alterations to the extant Bacton planning permission.

## 4.2 Consented Development

4.2.1 The approved scheme includes 156 dwellings per hectare and 486 habitable rooms per hectare. This will increase to 166 dwellings per hectare and 487 habitable rooms per hectare under the Phase 2 MMA proposals. The approximate number of residents on site under the approved scheme is 1102. The Phase 2 MMA proposals will not change the approximate number of residents expected on site.

### 4.3 Proposed Minor Material Amendments

- 4.3.1 The Phase 2 MMA proposals include an uplift of 20 additional units. To facilitate these changes to the scheme's housing mix, as well as enhance the scheme's functionality, the updated scheme design includes the rationalisation of Phase 2's internal layout, the relocation of the commercial units, a reduction in lift numbers, revising the landscape strategy and increasing the provision of cycle storage and disabled parking in accordance with the uplift of dwellings on site.
- 4.3.2 The proposed development on Phase 2 is for the demolition of the existing buildings on the BLR (Phase 2) site and the development of 247 residential units, two employment units, new openF space and ancillary development. The residential development will contain a mix of sizes and will be a mix of market, social rented and intermediate tenures. The proposed development also includes minor design based alterations to the extant Bacton planning permission. Table 4.1 (also presented in Table 1.1) presents the proposed development schedule and the overall total development schedule for combined Phases 1 and 2.

Table 4.1 Proposed Development Schedule by Tenure

Unit Size	MMA Phase 2 (change from	Proposed Total Development Schedule			
	the consented scheme)	Social	Intermediate	Market	Total
One Bedroom	+34	19	0	88	107
Two Bedroom	+10	48	11	79	138
Three Bedroom	-25	32	0	23	55
Four Bedroom	+2	7	0	6	13
Five Bedroom	-1	1	0	0	1
Total	+20	107	11	196	314



# 4.4 Proposed Vehicle Parking Arrangements

- 4.4.1 There were no vehicle parking spaces proposed as part of the consented scheme with the exception of wheelchair accessible units, one electric charging bay and one car club bay. As part of the consented scheme a total of 19 wheelchair accessible units were proposed.
- 4.4.2 A total of 17 car parking bays were proposed- 15 were disabled parking bays (five for Phase 1 and 10 for Phases 2/3), one car club bay and one electric vehicle parking bay.
- 4.4.3 With the increase in the total number of units the number of wheelchair accessible units has increased from 19 to 22 and therefore the disabled vehicle parking has increased from 15 for the overall scheme to 17 for the overall scheme- five of which are for the use by residents of Phase 1.
- 4.4.4 The proposed disabled parking bays are provided on Haverstock Road similar to the consented parking arrangement. One additional bay is proposed on Haverstock Road.
- 4.4.5 The disabled parking bays are provided within the 50m recommended distance of a disabled parking bay, with the exception of three wheelchair accessible units, of which one is on the ground floor. It is understood that the Inclusive Mobility<sup>2</sup> states that 'spaces for Blue Badge holders should be provided as close as possible, preferably within 50 metres of the facilities served by the car park'. All parking spaces at this stage are proposed within the LBC Housing's boundary. The document further provides the walking distances based in impaired group which is presented In Table 4.2.

Table 4.2 Recommended Distance by Impaired Group

Impaired Group	Recommended Distance Limit without Rest
Wheelchair users	150m
Visually impaired	150m
Mobility impaired using stick	50m
Mobility impaired without walking aid	100m

4.4.6 It should be noted that while the design has aimed to provide all parking bays within the recommended 50m of the units, due to site constraints three units have a walking distance of around 100m to the disabled parking bay. Based on the above table, this could be overcome by providing a resting place on Wellesley Road. Alternatively, in discussions with the LBC highways and parking, some spaces on Wellesley Road could be converted into disabled parking bays subject to availability. Table 4.3 presents the consented and proposed parking provision for the overall development. Figure 4.1 presents the proposed parking layout and Appendix C presents the swept path analysis.

<sup>&</sup>lt;sup>2</sup> https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/3695/inclusive-mobility.pdf



Table 4.3 Consented and New Development Proposed Vehicle Parking Provision

Vehicle Parking Type	Consented Scheme	MMA Proposals
Disabled parking space	15 of which five were for Phase1	16 of which five are proposed for Phase 1 and one for the additional three wheelchair accessible units
Electric vehicle charging bay	1	1
Car Club bay	1	0
Total	17	17

# 4.5 Proposed Cycle Parking Arrangements

- 4.5.1 As stated earlier, the MMA seeks to propose an additional 20 residential units. In response to the brief, the number of three, four and five bedroom units in Phase 2 have reduced from 74 in the consented scheme to 50 as part of the current proposals. The number of one and two bedroom units in Phase 2 has increased from 153 to 197. Therefore the MMA proposals would require an additional seven cycle parking spaces, based on the London Plan (Minor Alterations from March 2016) cycle parking standards.
- 4.5.2 If the London Plan (MALP 2016) standards are applied to the overall Phase 2, the total number of cycle parking spaces required is 404. Given that it is a consented scheme and while the unit numbers have increased to respond to the Client brief, the site constraints have largely remained the same. Therefore while the aspiration has been to meet the London Plan 2016 standards. The overall number of cycle parking that has been proposed is 368 for residents in covered and secure locations, seven for visitors to residential units as part of the landscape proposals and three spaces for the commercial units. Table 4.4 presents the cycle parking proposals.

Table 4.4 Proposed Cycle Parking

Unit Size	Approved Phase 2	Cycle Parking for Approved Phase 2 according to London Plan 2013	New Phase 2	Cycle Parking for New Phase 2 according to London Plan MALP March 2016	Cycle Parking Required for MMA (ie only in change of units)
One Bedroom	63	63	97	97	34
Two Bedroom	90	89	100	200	22
Three Bedroom	65	132	40	80	-52
Four Bedroom	7	16	10	20	4
Five Bedroom	2	2	0	0	-2
Total	227	302	247	397	6
Cycle Parking for Visitors		6		7	1
Total Cycle Parking for resi and visitors		308		404	7



4.5.3 As can be seen this is a significant uplift from the current provision and a much higher provision than when the London Plan MALP standards are applied. Therefore a total provision of 368 spaces for residents and seven spaces for visitors to residential units and three spaces for the commercial units is considered reasonable and in accordance with the policy standards. Figure 4.2 presents the cycle parking provision for the proposed development.

# 4.6 Proposed Servicing Arrangements

- 4.6.1 Figure 4.3 presents the refuse store location for the proposed BLR. Drawings 38856/001/001-004 in Appendix C present the refuse collection stores in the ground floor of the Phase 2 development along with the swept path analysis for a Camden refuse collection vehicle accessing the stores. All stores are accessible within 10m of the refuse collection vehicle with the exception on one location where the distance is 26m. This is due to the presence of bollards on Haverstock Road. This refuse store can be accessed through an alternate route; however that increases the reversing distance for a refuse collection vehicle. Therefore the option is to either the refuse collection vehicle reverses a longer distance or the refuse bins are wheeled at slightly higher distance than the standard. It should be noted that it is at one distance only where this has been the case. At all other locations, the refuse stores are well within the acceptable wheeling distance.
- 4.6.2 A loading bay has been proposed to service the proposed commercial units. The loading bay is designed to accommodate a 7.5t box van which is considered a suitable vehicle to service the proposed commercial units. The loading bay is proposed to be designed as a shared surface with time restrictions of loading/ unloading between 1000 and 1600 only. At all other times there will be pedestrian priority on the loading bay. Drawing 38856/001/005 (RevA) in Appendix C presents the swept path analysis for the 7.5t box van accessing the loading bay.



Figure 4.1 Proposed Vehicle Parking Layout



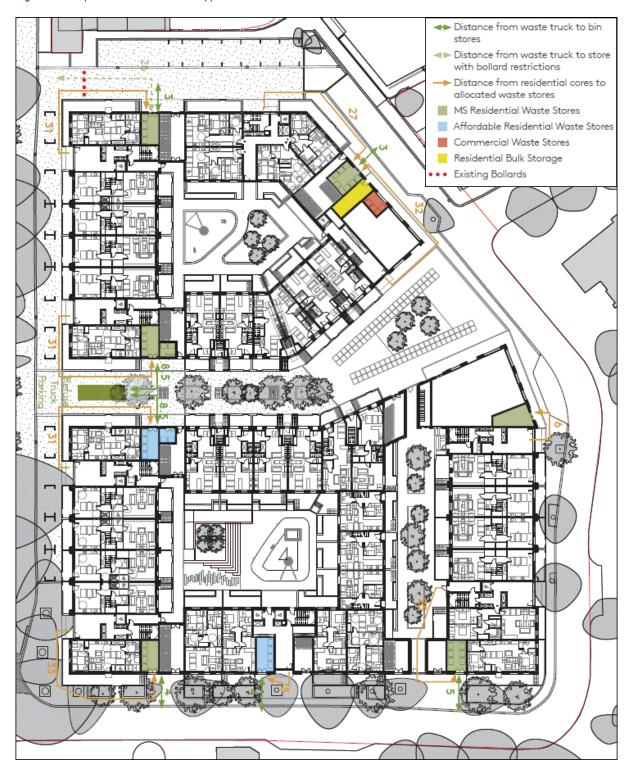


Figure 4.2 Proposed Cycle Parking Locations





Figure 4.3 Proposed Refuse Stores and Approx. Distance to the Refuse Collection Vehicle





# 5 Trip Generation and Impact Assessment

#### 5.1 Introduction

5.1.1 This chapter forecasts the multi-modal trip generation of the proposed development in order to identify any potential impacts the development may have on the local transport networks.

### 5.2 Methodology

#### **Residential Land Use**

- 5.2.1 A detailed trip generation assessment was conducted as part of the consented scheme. For the purposes of this TS, only the trip generation associated with the increase in the number of residential units in Phase 2, from 227 to 247, will be assessed. Therefore, only the net difference in trip generation as a result of the 20 extra additional units will be considered.
- 5.2.2 Moreover, as part of the consented scheme TA, the trip generation was calculated on the basis of trip rates per bedroom. As the unit mix has changed significantly, the number of bedrooms has reduced; therefore the trip generation as part of this Transport Statement is based on trip rates per dwelling units for the increase in the number of units only.
- 5.2.3 In order to determine the change in the number of trips by mode generated by the proposed additional residential units, the TRICS database v7.3.1 was used to provide trip rates as a measure of unit dwelling.
- 5.2.4 The same sites were selected from the TRICS database as those used in the 2012 TA submission which meant that the selected sites were of a similar nature to Bacton Estate and those with exceptionally high or low trip rates were discounted.
- 5.2.5 Of the ten sites originally used in the 2012 TA trip generation, one site has since been recategorised into a different dwelling type in the TRICS database and so has been discounted in the assessment. Since this discounted site has a lower than average trip rate value, its exclusion will allow for a more robust assessment. The nine sites selected for assessment can be found in Appendix D.
- 5.2.6 Once appropriate trip rates were obtained from the TRICS database, they were applied to the 20 additional units to determine the total number of additional trips which would be generated by all modes of transport.

#### Office Land Use

- 5.2.7 There are no existing and no proposed office land use at the BLR site (Phase 2) and so office trips will not be considered in the trip generation calculations.
- 5.2.8 The negative trip generation associated with the removal of the office space at the former DHO site (Phase 1) has been calculated in the 2012 TA submission and does not apply to this assessment.

#### **Commercial Land Use**

5.2.9 The previous consented scheme proposed a commercial unit area of 259m² and the changes in the development schedule do not result in any change to this. This change is deemed insignificant and is unlikely to have an effect on the trip generation associated with commercial land use. Therefore, changes in commercial land use will not be considered.



# 5.3 Person Trip Rate

5.3.1 The person trip rates associated with the 9 sites mentioned above, along with the person trip generation for the 20 additional residential units are indicated in Table 5.1.

Table 5.1 Trip Generation for 20 Residential Units

	AM Peak (08:00 - 09:00)			PM Peak (17:00 - 18:00)			Daily (07:00 - 22:00)		
	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot
Trip Rate	0.15	0.54	0.69	0.45	0.21	0.65	2.49	2.80	5.29
Trip Generation (for 20 units)	3	11	14	9	4	13	50	56	106

# 5.4 Multi-Modal Trip Generation

- 5.4.1 The BLR site is located within the Gospel Oak ward of Camden Borough. The existing mode share for the ward containing the site has been shown in Table 5.2.
- 5.4.2 The existing mode share of the proposed development was obtained from 2011 Census Data for Gospel Oak (ward).
- 5.4.3 The mode share for driving a car or van has not been reassigned even though the development is car-free. This is because the mode share percentage for driving a car was found to be small (13%) and also because the additional number of trips generated in the morning and evening peak hours are relatively small. Reassigning the mode-shares is therefore unlikely to have an effect on the overall multi-modal trip generation although the vehicle trips will be lower than the trip generation numbers shown in Table 5.3.

Table 5.2 Existing Mode Share for the Ward Containing the Site

Mode	Existing Mode Share (%)
Underground	30.3%
Train	6.8%
Bus, Minibus or Coach	20.5%
Taxi	0.5%
Motorcycle, Scooter or Moped	1.7%
Driving a Car or Van	13.3%
Passenger in a Car or Van	0.9%
Bicycle	9.5%
On Foot	15.5%
Other	1.0%
Total	30.3%

5.4.4 The 2011 Census mode share has been applied to the calculated trip generation numbers and the results have been shown in Table 5.3 in terms of peak hour and daily trips.



Table 5.3 Trip Generation by Mode

Mode	AM Peak (08:00 - 09:00)			PM Peak (17:00 - 18:00)			Daily (07:00 - 22:00)		
	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot
Underground	1	3	4	3	1	4	15	17	32
Train	0	1	1	1	0	1	3	4	7
Bus, Minibus or Coach	1	2	3	2	1	3	10	11	22
Taxi	0	0	0	0	0	0	0	0	1
Motorcycle, Scooter or Moped	0	0	0	0	0	0	1	1	2
Driving a Car or Van	0	1	1	1	1	2	7	7	14
Passenger in a Car or Van	0	0	0	0	0	0	0	1	1
Bicycle	0	1	1	1	0	1	5	5	10
On Foot	0	2	2	1	1	2	8	9	16
Other	0	0	0	0	0	0	0	1	1
Total*	3	11	14	9	4	13	50	56	106

<sup>\*</sup>Note: The Trip generation totals may not match with the sum of the individual mode trip generation values as the individual values have been rounded up or down to the next whole number.

5.4.5 As can be seen from above, there will be five additional trips on the Underground and National Rail services in both the morning and evening peak hours. On bus services, there will be three additional trips in both the morning and evening peak hours. The stated additional trips generated on public transport are negligible and will not have an effect on services.

# 5.5 Summary

5.5.1 This chapter sets out the expected future trips associated with the BLR development (Phase 0). Overall, the assessment has shown that the net impact of the development on vehicle trip generation is negligible with a total person trip of 14 trips during the morning peak hour, 13 trips in the evening peak hour and a total of 106 person trips throughout the day.



# 6 Construction Management Plan

### 6.1 Introduction and Background

- 6.1.1 LBC has produced a CMP pro-forma that needs to be submitted the CMP which provides the technical requirements of a CMP. The CMP pro-forma is detailed and includes specifics such as: site location and receptors of construction impacts; traffic routing and details of traffic impact mitigation; and VRU safety and impact mitigation.
- 6.1.2 This chapter presents an outline Construction Management Plan (CMP) which will be implemented during construction stages of the proposed development. CMPs provide a framework to better manage all types of freight vehicle movement to and from construction sites. A CMP is essentially the equivalent of a workplace travel plan for construction vehicles. The London Freight Plan highlights CMPs 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).
- 6.1.3 A detailed CMP will be prepared by Rydon who are the construction contractors for Bacton High Rise and will be submitted as part of the discharge of conditions. This section only presents an Outline CMP.
- 6.1.4 The 'Building a Better Future for Freight: Construction Logistics Plans' document identifies the benefits of CMPs to local authorities and residents, building developers and business and freight operators. In summary, CMPs 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.
- 6.1.5 The London Freight Plan 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.

#### 6.2 Objective of this CMP

6.2.1 The objective of this outline CMP is-



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

- 6.2.2 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 CMP 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.

#### 6.3 Construction Traffic Flows

- 6.3.1 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.
- 6.3.2 Construction delivery vehicles would approach the site via Malden Road.
- 6.3.3 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.
- 6.3.4 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.
- 6.3.5 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. Rydon 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.
- 6.3.6 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.

#### 6.4 Staff Travel

6.4.1 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.

# 6.5 CMP Targets

- 6.5.1 The CMP 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.

#### 6.6 Summary

6.6.1 This section of the TS has presented the proposed CMP for the MMA related to the Bacton Low Rise development. A series of measures are proposed to be taken forward as part of the CMP, 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.



# 7 Summary and Conclusions

- 7.1.1 The development site has a total area of 1.89 hectares and spans two areas. Phase 1 of the Bacton Estate is already constructed and partially occupied. This Transport Statement refers to the Minor Material Amendments associated with the Phase 2.
- 7.1.2 The development site is located in an area which is classified as having a moderate PTAL of 3. Approximately 43 buses serve the area in the peak hour and Gospel Oak Overground Station is located approximately 490m to the north of the development. Approximately 20 Overground services depart from Gospel Oak Station in the peak hour. Kentish Town Station lies approximately 1.3km south-west of Bacton Estate and provides access to National Rail and London Underground services.
- 7.1.3 As a result of the review of national, regional and local policy it was determined that the proposed development aligns with the discussed policies, providing on-site parking only for the wheelchair accessible units and providing good links to existing pedestrian, cycle and public transport routes. The development will also see provision of cycle parking, an electric vehicle charging bay, a new east-west pedestrian corridor and public realm improvements.
- 7.1.4 It is proposed that the development will be primarily residential in nature with the provision of 20 additional residential units over the consented scheme of 294, providing a total of 314 residential units (Phases 1 and 2 combined). A small allocation of two commercial units, will be located in the north-western section of the BLR site.
- 7.1.5 Traditional bin storage will be used on-site with refuse being collected from Haverstock Road, Wellesley Road and Vicars Road. A turning area will be provided on the northern end of Haverstock Road in order to allow refuse vehicle to access and egress the road in forward gear. Refuse collection operations will remain the same as present on Wellesley Road and Vicars Road.
- 7.1.6 There will be 17 on-site car parking bays provided on the eastern side of Haverstock Road and the northern end of Wellesley Road. 16 of these will be disabled bays which will be allocated to the wheelchair accessible units and one will be an electrical vehicle charge point bay. There will be no parking provision for the commercial units or the 'car-free' units.
- 7.1.7 It was determined that there will be an overall insignificant increase in the number of trips generated by the increase of 20 units. The majority of which will be undertaken by bus. However this equates to less than one additional passenger trip in the peak hour on average which is not expected to be of significance.
- 7.1.8 This TS concludes that the proposed development on the BLR Phase 2 will have a negligible impact on the local highway network.
- 7.1.9 There will be a small net increase in bus trips but the increase in demand will be equivalent to less than one additional passenger per bus during both morning and evening peak hours.
- 7.1.10 There are no transport issues that should prevent this development from coming forward. The impact of the scheme on the local transport network is expected to be small and the area will benefit from the provision of an improved pedestrian link on Haverstock Road, enhanced public realm, the proposed east-west pedestrian corridor through the BLR site.



# Appendix A Meeting Minutes

# Quod

# meeting notes

#### **Attendees:**

Fergus Freeney (FF) - London Borough of Camden, Planning Case Officer Zoe Trower (ZT) - London Borough of Camden, Principal Planner

Caroline Hull (CH) - Karakusevic Carson Architects

Terri Smyth (TS) - Developing Projects
Manu Dwivedi (MD) - Peter Brett Associates

Poppy Carmody-Morgan (PCM) - Quod Aaron Brown (AB) - Quod

Project: Q30150

Meeting Title: Location: Date & Time:

Bacton Low Rise LB Camden, 5 Pancras Square, London 07/09/2016

Phase 2 MMA transport N1C 4AG 4pm

meeting

a) Introductions and overview

1. CH presented the relevant parts of the Bacton Phase 2 MMA PPA Report 3 to all. FF and ZT confirmed they had received and read the report.

#### b) Car Parking

- 2. CH recapped on the as approved car parking position on Bacton car free in principle with the exception of car parking for the wheelchair accessible dwellings the applicant is carrying this forward with the Phase 2 MMA. The applicant is currently proposing an increase of 1 disabled parking bays (15 to 16) due to the uplift in wheelchair ready units across the scheme as part of the MMA proposals.
- ZT stated the Council no longer encourage car club bays a position that was approved at Cabinet recently. ZT suggested an amendment be made to the Phase 2 MMA proposals to remove the car club bay unless the applicant has engaged with a car club provider and assessed demand for the service. CH/MD to amend.

CH/MD

**ACTION** 

- 4. CH stated that the car club bay on Phase 1 haven't been provided yet due to the necessity for a temporary boiler house in their place, so there's scope to repurpose these.
- 5. MD suggested it is unlikely the blue badge spaces provided will be fully utilised. ZT advised that the blue shading that we are showing on Wellesley Road for



## meeting notes

potential blue badge parking should be removed from the planning application drawings. MD/CH to note.

MD/CH

- 6. ZT advised in practical terms the number of people in wheelchair ready units with blue badges will be significantly less than the amount of blue badge bays currently proposed. However these bays contribute to the future proofing of sites, allowing for the provision of electric charging bays or cycle storage in the future.
- 7. CH acknowledged that 5 of the proposed wheelchair ready units are above the guidance 50m distance from an allocated disabled parking bay. CH confirmed that Philippa Jackson (Access Officer, London Borough of Camden) has suggested in previous pre-application meetings that this will however be acceptable in this instance. ZT confirmed this is the case.
- 8. MD suggested the demarcation of car bays could be tied to a condition and revisited once the site is occupied and demand is properly assessed. MD to draft amended condition wording.

MD

9. ZT requested that the applicant carries out research with regards to the proposed electric vehicle charging bays. i.e. do we know who would pay for the spaces? MD to advise TS accordingly.

MD

#### c) Cycle Storage

- 10. CH summarised the as approved cycle storage position on Bacton and explained the Phase 2 MMA strives to match the new guidance as best possible. CH clarified the applicant is applying the old standards to the consented parts of the scheme, new standards to the uplift of 20 units but going over and above what this requires. The applicant is therefore proposing 369 cycle spaces, 256 internal, for phase 2 compared to 316 approved spaces, of which 216 were internal, for phase 2. CH explained the applicant has incorporated GS's desire for as much internal spaces as possible.
- 11. ZT stated the Council are more concerned with how cycle storage is provided, to ensure it is well-used, than numbers alone.
- 12. CH reassured ZT the cycle storage will be detailed out (i.e. detailed dimensions of the cycle storage areas and details of the types of stands proposed), and included in the Phase 2 MMA application DAS, before it goes to contractors so that the Council can be confident that the cycle spaces proposed can be delivered.

CH

13. ZT advised Phase 2 will comprise entirely of new residents so there is a greater opportunity to affect behavioural change, encouraging a transition to more



# meeting notes

sustainable modes of transport. ZT asked whether the design team has considered storage for alternative cycle's i.e hand cycles.

14. CH confirmed the scheme should be able to accommodate alternative types of cycles post planning once it is occupied and demand is properly understood. Most of the disabled units are ground floor with defensible space, so if there's a proven need for alternative cycles in these cases they can be accommodated in this defensible space. Reference to this is to be included in the DAS and/or TA.

CH/MD

15. ZT suggested the use of CaMden cycle stands due to their flexibility (rather than Sheffield stands). CH stated the scheme will endeavour to provide CaMden stands for visitor and commercial cycle storage.

СН

- 16. ZT confirmed that she was pleased that the cycle stores have been removed from the mews courtyard area.
- 17. ZT requested that details of the cycle storage provided within the defensible spaces is clearly shown within our application documentation. MD/CH to note.

CH/MS

### d) Servicing and Delivery strategy

- 18. MD noted that one refuse store exceeds the guidance 10m (26m) from the point of storage to the collection vehicle. CH confirmed Philippa Jackson (Access Officer, London Borough of Camden) is satisfied with these distances.
- 19. CH stated 15/20 sqm of bulk storage space has been provided and this has been agreed as appropriate with Gavin Sexton. . FF asked that the PPA 03 Report is sent to Ann Baker for review and comment.

CH/AB

- 20. MD stated the proposed servicing layby has been designed to accommodate box van sized vehicles as the B1 use commercial units should not demand heavy servicing.
- 21. ZT noted the servicing bay, as currently proposed, would be on a public footpath/public highways land and questioned whether it is within the redline boundary of the extant applications. A servicing bay located partly on the footway wouldn't necessary be supported by the Council as it could be used as a loading bay by anyone.
- 22. MD enquired as to whether on street servicing would be acceptable. ZT stated it's hard to give a conclusive answer to this now as the Council don't know who will occupy the commercial units. ZT to think about this matter further, talk to officers if necessary and see what best approach from LBCs perspective would be. ZT to feed back to the applicant as soon as possible.

ZT



## meeting notes

23. MD and CH requested that ZT clarify the extent of Highways land in and around the site. ZT stated the extent of Highways Land is assessed through visual inspection rather than being provided on a definitive plan. ZT to provide additional materials to design team that will assist in the assessment of the extent of Highways Land. ZT stated the triangle on Wellesley Road will need to be stopped up (transferred from Highways to Housing land).MD to consider implications.

ZT/MD

24. ZT recommended cheap and low-maintenance materials are used on highways land. ZT suggested the applicant enter into an agreement with the Council if they intend on upscaling the materials used on Highways land to ensure the applicant covers or contributes towards the additional costs incurred upon LBC. CH/TS to consider further.

CH/TS

25. MD confirmed she will include in the supporting Transport Statement submitted with the Phase 2 MMA application detail of the cycle storage, disabled parking and servicing arrangements proposed.

MD

#### e) Footway along Wellesley Road

- 26. CH stated the applicant is seeking one grade level on the Wellesley Road frontage and needs to agree the removal of trees (T14-21) with Nick Bell (Tree Officer, London Borough of Camden) if we are to achieve this.
- 27. ZT stated it is preferable to submit the approved and proposed layouts for Highways and Housing land with the Phase 2 MMA application. This is to demonstrate that the width of the footway is not reducing in this location due to the proposals.

PCM/CH

28. ZT suggested the materials should reflect what is being agreed currently on the Tybalds Estate (regeneration scheme).



# Appendix B PTAL Report





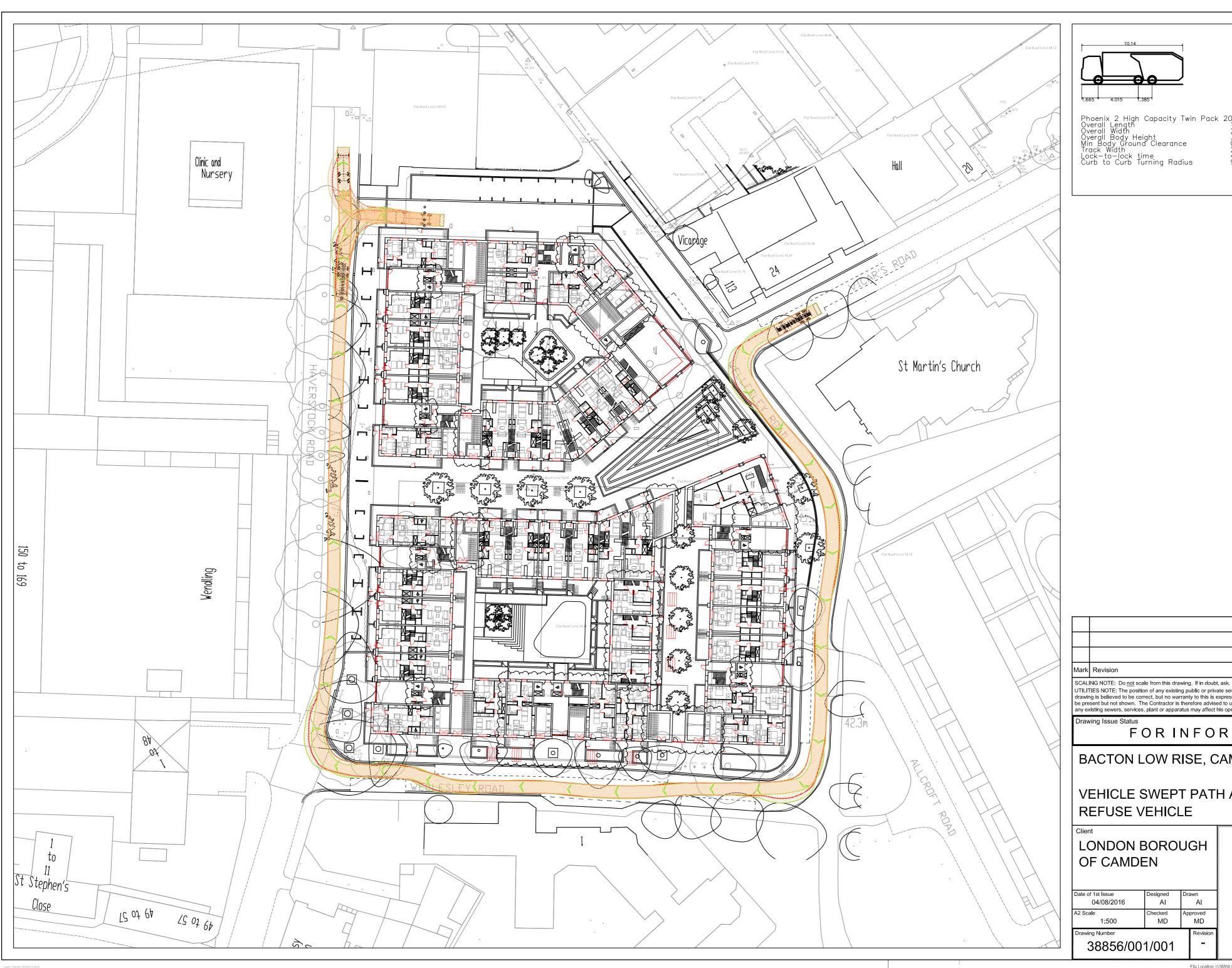


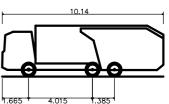


Mode	Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	Al
Bus	AGINCOURT ROAD FLEET RD	C11	566.63	7.5	7.08	6	13.08	2.29	0.5	1.15
Bus	ST DOMINICS PRIORY	24	123.19	10	1.54	5	6.54	4.59	1	4.59
Bus	ST DOMINICS PRIORY	46	123.19	6	1.54	7	8.54	3.51	0.5	1.76
Rail	Gospel Oak	'BARKING-GOSPLOK 2J00'	650.83	4	8.14	8.25	16.39	1.83	1	1.83
Rail	Gospel Oak	'GOSPLOK-BARKING 2J07'	650.83	4	8.14	8.25	16.39	1.83	0.5	0.92
Rail	Gospel Oak	'CLPHMJ2-STFD 2L50'	650.83	3.67	8.14	8.92	17.06	1.76	0.5	0.88
Rail	Kentish Town West	'STFD-CLPHMJ22Y11'	936.22	3.67	11.7	8.92	20.63	1.45	0.5	0.73



# Appendix C Swept Path Analysis





Phoenix 2 High Capacity Twin Pack 20 (with Elite 2 6x4 chassis)
Overall Length 10.140m
Overall Width 2.500m
Overall Body Height 3.205m
Min Body Ground Clearance 0.410m
Track Width 2.500m
Lock—to—lock time 4.00s
Curb to Curb Turning Radius 9.100m

UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake his own investigation where the presence of any existing sewers, services, plant or apparatus may affect his operations.

FOR INFORMATION

BACTON LOW RISE, CAMDEN

VEHICLE SWEPT PATH ANALYSIS REFUSE VEHICLE

LONDON BOROUGH OF CAMDEN

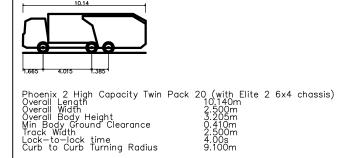
Date of 1st Issue	Designed	Drawn
04/08/2016	Al	Al
A2 Scale	Checked	Approved
1:500	MD	MD



Offices throughout the UK and Europe www.peterbrett.com

© Peter Brett Associates LLP





Mark	Revision	Date	Drawn	Chkd	Appd

SCALING NOTE: Do not scale from this drawing. If in doubt, ask.

JTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this trawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake his own investigation where the presence of iny existing sewers, services, plant or apparatus may affect his operations.

**FOR INFORMATION** 

BACTON LOW RISE, CAMDEN

VEHICLE SWEPT PATH ANALYSIS REFUSE VEHICLE

LONDON BOROUGH OF CAMDEN

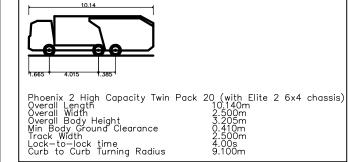
Date of 1st Issue	Designed	Dra	awn	
04/08/2016	Al	Al		
A3 Scale	Checked	Checked App		
1:250 MD			MD	
Drawing Number			Revision	
38856/00 <sup>-</sup>		-		



© Peter Brett Associates LLP

LONDON Tel: 020 7566 8600





Mark	Revision	Date	Drawn	Chkd	Appd

SCALING NOTE: Do <u>not</u> scale from this drawing. If in doubt, ask.

UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake his own investigation where the presence of any existing sewers, services, plant or apparatus may affect his operations.

FORINFORMATION

BACTON LOW RISE, CAMDEN

VEHICLE SWEPT PATH ANALYSIS REFUSE VEHICLE

LONDON BOROUGH OF CAMDEN

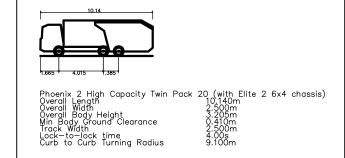
Date of 1st Issue	ue Designed [			
08/08/2016	Al		Al	
A3 Scale	Checked	Аp	proved	
1:250	MD		MD	
Drawing Number		Revision		
38856/00 <sup>-</sup>		-		



© Peter Brett Associates LLP

LONDON Tel: 020 7566 8600





RevIsion	Date	Drawn	Chkd	Appd
	Revision	Revision Date	Revision Date Drawn	Revision Date Drawn Chkd

SCALING NOTE: Do not scale from this drawing. If in doubt, ask.

UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake his own investigation where the presence of any existing sewers, services, plant or apparatus may affect his operations.

**FOR INFORMATION** 

BACTON LOW RISE, CAMDEN

VEHICLE SWEPT PATH ANALYSIS REFUSE VEHICLE

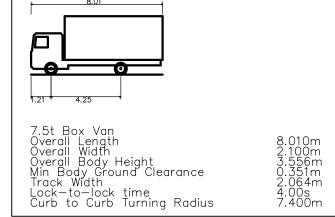
LONDON BOROUGH OF CAMDEN

Date of 1st Issue	Designed	Dra	awn			
08/08/2016	Al	Al				
A3 Scale	Checked	Аp	proved			
1:250	MD		MD			
Drawing Number		Revision				
38856/00 <sup>-</sup>		-				



© Peter Brett Associates LLP LONDON Tel: 020 7566 8600





Α	RELOCATION OF LOADING BAY	20.09.16	AI	MD	MD
Mark	Revision	Date	Drawn	Chkd	Appd

SCALING NOTE: Do not scale from this drawing. If in doubt, ask.

UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake his own investigation where the presence of any existing sewers, services, plant or apparatus may affect his operations.

FORINFORMATION

BACTON LOW RISE, CAMDEN PROPOSED LOADING BAY VEHICLE SWEPT PATH ANALYSIS 7.5t BOX VAN

## LONDON BOROUGH OF CAMDEN

Date of 1st Issue	Designed	Dra	awn	
08/08/2016	Al	Al		
A3 Scale	Checked	Аp	proved	
1:200	MD		MD	
Drawing Number			Revision	
38856/00		Α		



© Peter Brett Associates LLP LONDON Tel: 020 7566 8600



# **Appendix D** Trip Generation Calculations

Peter Brett Associates Caversham Bridge House Reading

## LIST OF SITES relevant to selection parameters

1 BR-03-C-01 FLATS & TERRACED BRISTOL CITY

CLARENCE ROAD

**BRISTOL** 

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 102

Survey date: MONDAY 09/11/09 Survey Type: MANUAL

2 GC-03-C-01 BLOCK OF FLATS GLASGOW CITY

FERSIT STREET MANESWOOD GLASGOW

Suburban Area (PPS6 Out of Centre)

Built-Up Zone

Total Number of dwellings: 36

Survey date: SUNDAY 29/06/08 Survey Type: MANUAL

3 IS-03-C-01 FLATS ISLINGTON

RAMSEY WALK

**ISLINGTON** 

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 31

Survey date: TUESDAY 04/11/08 Survey Type: MANUAL

4 RD-03-C-02 BLOCK OF FLATS RICHMOND

**B306 QUEENS RIDE** 

**BARNES** 

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 28

Survey date: MONDAY 29/01/07 Survey Type: MANUAL

5 SC-03-C-02 FLATS SURREY

**CONSTITUTION HILL** 

WOKING

Suburban Area (PPS6 Out of Centre)

Built-Up Zone

Total Number of dwellings: 36

Survey date: WEDNESDAY 23/07/08 Survey Type: MANUAL

S SC-03-C-03 FLATS SURREY

KINGS ROAD

WOKING

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 52

Survey date: SATURDAY 19/07/08 Survey Type: MANUAL

7 TH-03-C-03 FLATS TOWER HAMLETS

PALMERS ROAD

**BETHNAL GREEN** 

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 69

Survey date: WEDNESDAY 12/11/08 Survey Type: MANUAL

Licence No: 706701 Peter Brett Associates Caversham Bridge House Reading

## LIST OF SITES relevant to selection parameters (Cont.)

TV-03-C-01 APARTMENTS BLOCKS **TEES VALLEY** 

OXFORD ROAD LINTHORPE MIDDLESBROUGH

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings:

Survey date: MONDAY 06/10/08 Survey Type: MANUAL

TV-03-C-02 **FLATS TEES VALLEY** 

ACKLAM ROAD LINTHORPE MIDDLESBROUGH Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 85

Survey date: WEDNESDAY 29/06/11 Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

Peter Brett Associates Caversham Bridge House Reading

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES			TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip		
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate		
00:00 - 01:00											
01:00 - 02:00											
02:00 - 03:00											
03:00 - 04:00											
04:00 - 05:00											
05:00 - 06:00											
06:00 - 07:00											
07:00 - 08:00	9	58	0.048	9	58	0.281	9	58	0.329		
08:00 - 09:00	9	58	0.147	9	58	0.542	9	58	0.689		
09:00 - 10:00	9	58	0.126	9	58	0.246	9	58	0.372		
10:00 - 11:00	9	58	0.145	9	58	0.195	9	58	0.340		
11:00 - 12:00	9	58	0.141	9	58	0.176	9	58	0.317		
12:00 - 13:00	9	58	0.212	9	58	0.231	9	58	0.443		
13:00 - 14:00	9	58	0.177	9	58	0.183	9	58	0.360		
14:00 - 15:00	9	58	0.164	9	58	0.181	9	58	0.345		
15:00 - 16:00	9	58	0.292	9	58	0.158	9	58	0.450		
16:00 - 17:00	9	58	0.269	9	58	0.185	9	58	0.454		
17:00 - 18:00	9	58	0.445	9	58	0.208	9	58	0.653		
18:00 - 19:00	9	58	0.328	9	58	0.214	9	58	0.542		
19:00 - 20:00											
20:00 - 21:00											
21:00 - 22:00											
22:00 - 23:00											
23:00 - 24:00											
Total Rates:			2.494			2.800			5.294		

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP\*FACT. Trip rates are then rounded to 3 decimal places.

#### Parameter summary

Trip rate parameter range selected: 28 - 102 (units: )
Survey date date range: 01/01/07 - 29/06/11

Number of weekdays (Monday-Friday): 7
Number of Saturdays: 1
Number of Sundays: 1
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.