

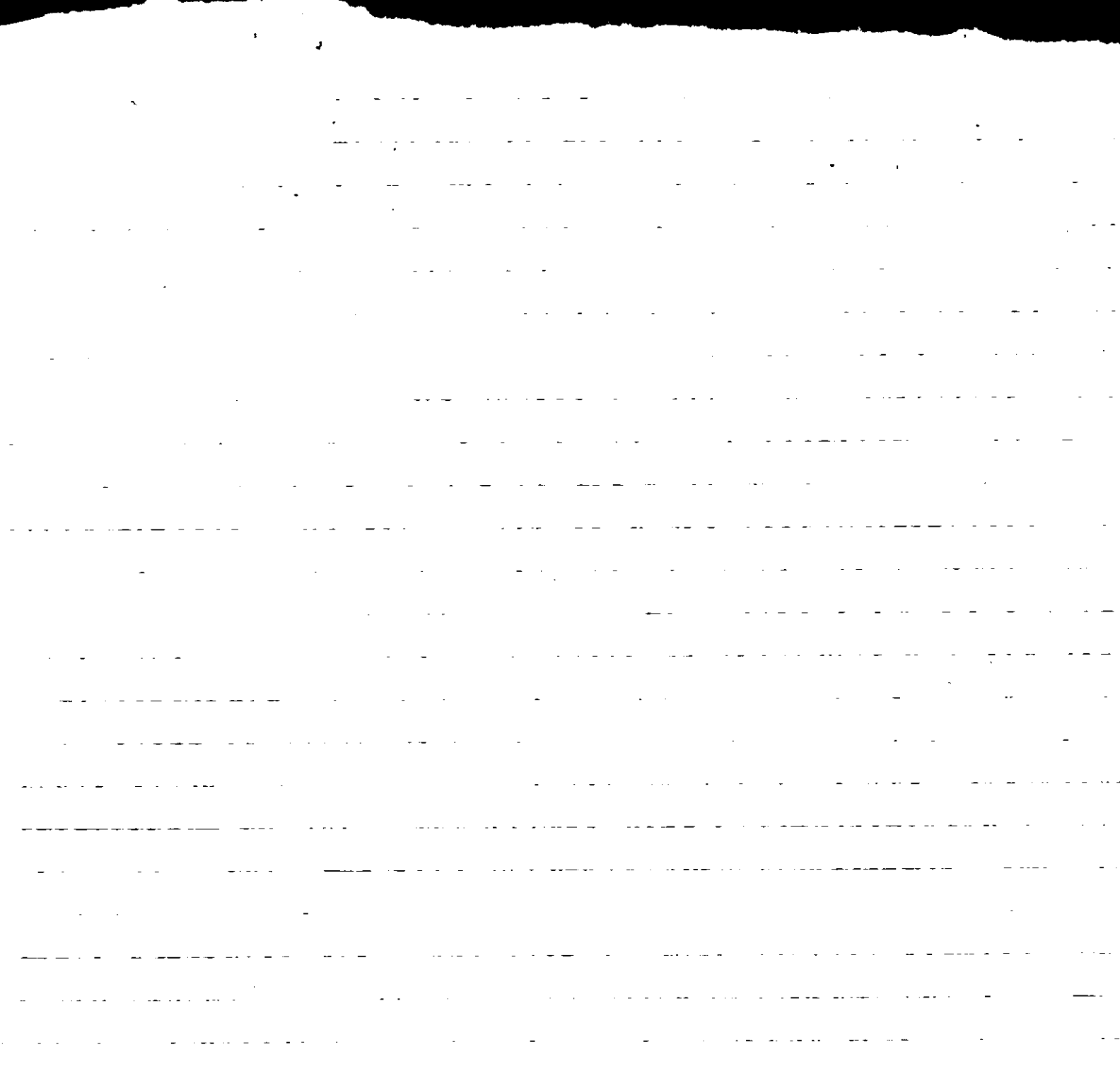
04/2265

130-136

BARBY

Rowdy

W10







**STAC Properties**

**130 -136 Barlby Road and 6 Exmoor Street,  
North Kensington, W10**

**Transport Assessment**

**WSP Development**

Mountbatten House  
Basing View  
Basingstoke  
Hampshire  
RG21 4HJ

Tel: 01256 318800

Fax: 01256 318700

<http://www.wspgroup.com>

EX	HDC	TP	CAC	AD	CLU	AO
DIR						AK
R.B.	- 4 OCT 2004				PLANING	
K.C.						
N	C	SW	SE	APP	IO	REC
HBS			ARB	FPLN	DES	FEES

**STAC Properties**  
**130 – 136 Barlby Road**  
**Transport Assessment**

Issue / revision	Issue 1	Revision 1	Revision 2	Revision 3
Remarks	Draft	Final		
Date	21 June 2004	25 August 2004		
Prepared by	Ben Muirhead	Ben Muirhead		
Signature	<i>B. Muirhead</i>	<i>B. Muirhead</i>		
Checked by	Paul O'Neill	Paul O'Neill		
Signature	<i>Paul O'Neill</i>	<i>Paul O'Neill</i>		
Authorised by	Simon Parfitt	Simon Parfitt		
Signature	<i>Simon Parfitt</i>	<i>Simon Parfitt</i>		
Project number	11011242	11011242		
File reference	TransAssess~1.doc	TransAssess~1.doc		

## 130 – 136 Barlby Road

### Transport Assessment

<b>CONTENTS</b>		<b>PAGE</b>
<b>EXECUTIVE SUMMARY</b>		
1	Introduction	2
2	Policy Background	3
3	Existing Conditions	6
4	Accessibility	11
5	Development Proposals	14
6	Assessment	16
7	Conclusions	30
 <b>FIGURES</b>		
1	Site Location Plan	
2	Local Highway Network	
3	Public Transport Network (Road)	
4	Pubic Transport Network (Underground & Rail)	
5	Cycle Network	
6	Land Use Plan	
7	Walking Accessibility from Planning Application Site	
8	Cycling Accessibility from Planning Application Site	
9	Personal Injury Accident Diagram	
 <b>APPENDICES</b>		
A	E-mail to RBKC dated 30 <sup>th</sup> March 2004	
B	Accident Data	
C	21 <sup>st</sup> Century London Living Extract	
D	WSP Vehicle Tracking and Visibility Splays Drawings	
E	QUAD Architects Development Site Drawings	
F	Minutes from meetings with RBKC	

## 130 – 136 Barlby Road

### Transport Assessment

#### 1 INTRODUCTION

1.1 WSP Development Ltd were commissioned by STAC Properties to prepare a Transport Assessment Report for the proposed redevelopment of the area South of Barlby Road and West of Exmoor Street. This area on the southern side of Barlby Road currently consists of B1 office (1431m<sup>2</sup>) and B8 Storage and Distribution (2063m<sup>2</sup>).

1.2 The proposed re-development of the site would provide 108 residential units, replacing the existing B1 & B8 land uses on the site. This report provides a robust method of assessing these development proposals.

1.3 The development site is situated within the Royal Borough of Kensington and Chelsea (RBKC). As highway authority for the area covering the site, RBKC has been consulted on the content and approach of the TA. An E-mail to RBKC dated 30<sup>th</sup> March 2004 regarding the Appraisal Methodology is attached in Appendix A. Full minutes of discussions with RBKC can also be seen in Appendix A.

1.4 For the purposes of clarity, this Transport Assessment Report is divided into the following sections:

- Executive Summary;
- Introduction;
- Policy Background, setting out relevant current national, regional and local policy relevant to the site;
- Existing Conditions, description of the existing transport conditions in the vicinity of the site;
- Accessibility, assessing the level of facilities accessible from the site;
- Development Proposals, detailing the nature of the application;
- Trip Generation;
- Trip Assignment;
- Parking Provision, detailing the development on site parking; and
- Conclusions.

## **2 POLICY BACKGROUND**

### **Introduction**

2.1 This Section sets out national, regional and local transport policy relevant to the development proposals. Section 5 assesses the development proposals against these policies.

2.2 An overview of the objectives expressed within the policy guidance has been given, rather than reproducing each policy in full. For further detail on policy, reference to the individual documents should be made.

2.3 Relevant national policy guidance is set out within Planning Policy Guidance Notes (PPGs). PPG3 relates to Housing and PPG13 relates to Transport. Regional policy is provided in Regional Planning Guidance for the South East (RPG9) and the Mayor's Transport Strategy. Local Policy is set out in the RBKC Unitary Development Plan (UDP).

### **PPG3 (Housing)**

2.4 PPG3: Housing (March 2000) seeks to apply the concept of sequential testing to the selection of land for housing, with preference given to sites within existing urban areas and those with high public transport accessibility. The document states that car dependence should be reduced by facilitating more walking and cycling trips; by improving linkages by public transport between housing, jobs, local services and local amenities; and by designing for mixed use developments.

2.5 Sustainable development linked to public transport is encouraged and the importance of integrating planning and transport decisions is further emphasised as local authorities are advised to exploit opportunities to locate larger housing developments around major transport nodes and alongside good quality public transport corridors.

2.6 In order to meet the government's objectives the guidance advises local authorities to (inter alia):

- provide sufficient housing land but give priority to re-using previously developed land within urban areas in preference to the development of 'greenfield' sites;
- create more sustainable patterns of development by building in ways that exploit and deliver accessibility by public transport to jobs, education and health facilities, shopping, leisure and local services;
- make more efficient use of land by reviewing planning policies and standards, and adopt a flexible attitude to the implementation of standards;
- place the needs of people before ease of traffic movement in designing the layout of residential developments; and
- seek to reduce car dependence by facilitating more walking and cycling, by improving linkages by public transport between housing, jobs, local services and local amenity, and by planning for mixed use.

#### **National Policy – PPG13 (Transport)**

2.7 The most up-to-date transport policy guidance is contained in PPG13 dated March 2001. This document provides the overarching transport policy that informs the production of regional and local policy guidance.

2.8 Paragraph 4 of PPG13 sets out the objectives of this guidance:

*"The objectives of this guidance are to integrate planning and transport at the national, regional, strategic and local level to:*

- *promote more sustainable transport choices for both people and for moving freight;*
- *promote accessibility to jobs, shopping, leisure facilities and services by public transport, walking and cycling, and*
- *reduce the need to travel, especially by car."*

2.9 In terms of housing development, PPG13 reiterates the guidance set out in PPG3: Housing. The aim is therefore to locate development, as far as possible, where it can be served by public transport and where local facilities and services can be reached by walking and cycling.

## **Regional Policy – RPG9**

2.10 RPG9 provides a regional framework for the preparation of local authority development plans and, in London, for the Mayor's Spatial Development Strategy. Chapter 9 of RPG9 sets out the Regional Transport Strategy. This highlights the importance of minimising travel distances and enhancing the choice and ease of access to facilities. It also recognises the beneficial role that Travel Plans can play in reducing congestion and increasing levels of public transport use, walking and cycling.

### **Regional Policy - The Mayor's Transport Strategy**

2.11 The Mayor's Transport Strategy sets the policy framework for transport in London. Section 3 describes the objectives and linkages of the Transport Strategy. Policy 3.7 sets out the Mayor's policy for considering planning applications and other land use matters. This highlights that development should be planned and located with the aim of providing a range of attractive and convenient travel choices, and encouraging alternatives to car use.

2.12 Section 3 of The Mayor's Transport Strategy also sets out that Transport Assessments should include information about how travel behaviour will be influenced by the proposed redevelopment and that Travel Plans should be produced where appropriate.

### **Local Policy - UDP**

2.13 Local transport policy is set out in the RBKC's UDP, which was adopted on 25 May 2002. The policies in the UDP support the need to reduce the number of trips taken by the car. This is to be achieved by locating development appropriately and "high-trip generating activity in areas well served by public transport".

2.14 RBKC's policy on car parking aims to reduce the number of car trips into the Borough by limiting the amount of on and off-street parking. RBKC policy is to ensure that residential development does not increase the demand for on-street parking.

2.15 Improvements to walking and cycling provision should make these trips a more attractive mode for travel. Public transport improvements should be made in order to improve its quality and reliability.

## Streetscape Guidance

2.16 RBKCs Streetscape guidance states that 'Everything placed on our streets must add to its surroundings by serving an essential purpose or by adding beauty'.

2.17 The main streetscape principles are:

- *Preservation of the historic fabric of the Royal Borough*
- *Respecting and enhancing local character*
- *Considered yet innovative design*
- *Experimentation – a willingness to see what works*
- *Reduction of clutter*
- *Simple, clean designs*
- *Co-ordination of design and colour*
- *Maintaining the existing and improved environment*

## 3 EXISTING CONDITIONS

### Site Location

3.1 The location of the site is illustrated on Figure 1. Its position in the local area with relation to the local highway network is shown on Figure 2. As can be seen from these Figures, the site is located on Barlby Road next to Exmoor Street.

3.2 The site on the southern side of Barlby Road currently consists of B1 office (1431m<sup>2</sup>) and B8 Storage and Distribution (2063m<sup>2</sup>).

3.3 There are three pedestrian access points to the site from Barlby Road. There is one either side of the main vehicle entrance and another 40m further east of the vehicle entrance. All of these are accessed via the southern footway of Barlby Road.

3.4 The access from Exmoor Street is approximately 65m south of its junction with Barlby Road.



## **Travel by Foot and Cycle**

3.5 Lit footways are provided on both sides of Barlby Road. On the southern side, the footway is 3-4m wide and on the northern side it is approximately 2m wide.

3.6 Bus stops are located on both sides of Barlby Road less than 15m from the site. There are also bus stops further west along Barlby Road and to the east on Ladbroke Grove.

3.7 Footways on Barlby Road and Ladbroke Grove provide access to Ladbroke Grove tube station, just over a kilometre away. Approximately 50m to the east of the site is a pelican crossing on Barlby Road.

3.8 At other locations along Barlby Road in the vicinity of the site the northern and southern footways are connected via zebra crossings.

3.9 Figure 5 illustrates the existing cycle provision in the vicinity of the site. At present there is a National Cycle Network route running East to West, North of the site along the Grand Union Canal. There are other signed on-road cycle routes along B450 Ladbroke Grove and A219 Scrubs Lane.

3.10 A number of new cycle routes are proposed in the area. When implemented, these will improve accessibility by cycle in RBKC.

## **Public Transport**

3.11 The site is well served by existing bus services. Bus stops and bus routes within 400m of the site are shown on Figure 3. There are two bus stops located within 15m of the site. These stops are served by bus routes 70 and 316. Bus stops on Ladbroke Grove are served by bus routes 23, 52, 70 and 295 and are located less than 400m to the east of the site. There are bus stops on Barlby Road to the west of the site served by bus routes 7 and 70.

3.12 Table 3.1 summarises the typical frequency of bus services in the vicinity of the site.

**Table 3.1: Bus Services**

Route	Route	Peak Freq. (buses / hour)	Off Peak Freq. (buses / hour)	Distance Site to Stop (m)
7	East Acton – Dalgarno Gardens – St. Charles Hospital – Ladbroke Grove – Russell Square	5-10	6-12	220
23	Westbourne Park – Barlby Road – Ladbroke Grove – Paddington – Liverpool Street	2-6	10	430
52	Victoria Bus Station – Ladbroke Grove – Barlby Road – Kensal Rise Station	3-7	7-10	320
70	South Kensington – Ladbroke Grove – Barlby Road – Acton Horn Lane	3-10	10-15	<15
220	Wandsworth Arndale Centre – Fulham High Street – North Pole Road – Willesden Jct Station	7-12	4-6	1000
295	Meyrick Arms – Fulham Broadway – Ladbroke Grove – Barlby Road – Canal Way	5-10	5-12	320
316	Neasden – Cricklewood Bus Garage – Kilburn Park – Barlby Gardens – St. Charles Square	6-9	5-6	<15

Source: Transport for London

3.13 As can be seen from the Table 3.1, these bus services provide access to a wide number of locations and facilities including central London and regular night buses also provide access to central London’s vibrant nightlife including Camden and the West End.

3.14 Bus services from the site provide interchange opportunities with rail and underground stations within 2km of the site.

3.15 The site has good access to underground services, with Ladbroke Grove Station less than a kilometre away. Services from the station are summarised in Table 3.2. The station is on the Hammersmith and City line providing access to Paddington, Kings Cross St. Pancras and Liverpool Street train stations. Figure 4 shows the rail and underground lines in close vicinity to the development site.

**Table 3.2: Summary of Underground Services at Ladbroke Grove Station**

Destination	Frequency (Trains per hour)			Journey Time (Typical)
	AM Peak	PM Peak	Off Peak	
Hammersmith	7	7	7	8mins
Paddington	7	7	7	6mins
Kings Cross St Pancras	7	7	7	17mins
Liverpool Street	7	7	7	25mins
Barking	7	7	7	47mins

Source: Transport for London

3.16 As can be seen from Table 3.2, there are regular underground rail services to a wide range of destinations including major railway stations. Mainline services from Paddington station offer frequent journeys West to Reading, Bristol and South Wales. Kings Cross St Pancras has frequent, train services to all major counties in the Midlands and the North of England. Liverpool Street has frequent services to Essex and East Anglia.

### Highway Network

3.17 Figure 2 shows the existing highway network in the vicinity of the site. Barlby Road, which is a Local Distributor Road, runs past the northern frontage of the site and connects B450 Ladbroke Grove to A219 Scrubs Road. Barlby Road lit along the whole of its length and is subject to a 30mph speed limit.

3.18 The A219 Scrubs Road, is located to the West of the site. It runs north linking to the A404 and south linking to the A40(M). The B450 Ladbroke Grove runs within 250m of the site's East side, from the A404 to the A402 in Notting Hill. This is a London distributor Road.

3.19 The A40(M) runs a kilometre to the south of the site and into central London. It is part of the Strategic London Road Network.

### Parking

3.20 The area around the site is subject to various parking controls including waiting restrictions, 'permit holder only' and short stay metered parking areas.

## Personal Injury Accidents

3.21 Personal Injury Accident (PIA) data for a five-year period between November 1998 and November 2003 have been obtained from the Royal Borough of Kensington & Chelsea. Records of accidents on Barlby Road between St. Quintin Gardens and Ladbroke Grove junctions (and including the junctions themselves) and those along Dalgarno Gardens have been obtained. These accidents have been plotted on Figure 9 and are summarised in Appendix C.

3.22 The accident records show that there were 59 PIAs on this section of highway network. Of these 47 were slight injury accidents and 12 serious injury accidents. No fatalities were recorded.

3.23 There were 16 accidents involving pedestrians within the time period shown above. There were also 7 accidents involving vehicles failing to give way. The remaining accidents occurred for varying reasons including, rear end shunts, failing to give way, hitting parked or stationary vehicles and vehicles crossing each others paths.

3.24 The location and type of accident are shown in Appendix B.

## 4 ACCESSIBILITY

### Introduction

4.1 This Chapter identifies the accessibility of the site. It considers the facilities and services in the vicinity of the site that can be reached without the need to use a car.

4.2 In identifying the accessibility of the site, the reasons why people travel have been considered. 'Transport Statistics Great Britain 2002' has been used to determine the following proportions by purpose for all journeys made throughout a year:

- **Employment** 19%
- **Education** 11%
- **Shopping** 21%
- Leisure 6%
- **Personal Business** 10%
- Visit Friends 18%
- Holidays 3%
- Other including just walk 12%

4.3 The purposes shown in bold above are those with the greatest degree of choice in destination. They are therefore the purposes that are most likely to be influenced by the opportunity to undertake the journey locally and therefore not by car. These purposes make up some 61% of the total reasons for making a journey.

4.4 The following sections consider the availability of local employment, education, shopping and leisure provision and describe the local opportunities to make journeys to these land uses. The local provision for each of these is shown on Figure 6.

4.5 A typical walking speed has been taken to be 400m every 5 minutes (3mph). On this basis, Figure 7 shows the broad area that can be reached within a 20-minute walk from the site.

4.6 Cyclists travel at greater speed and therefore can typically travel some 1,200m in 5 minutes (9mph). The area with an approximate cycle journey time of 20 minutes is shown on Figure 8.

## **Accessibility to Employment Opportunities**

4.7 The main employment areas are shown on Figure 6.

4.8 The nearest employment areas of note are at the two hospitals both located within 400m of the site. There are a large number of schools, both Primary and Secondary, within reasonable walking or cycling distance of the site, representing good employment opportunities.

4.9 Directly adjacent to the site is a media office, accessible from Exmoor Street. The supermarket on Canal Way provides full and part-time employment opportunities.

4.10 With the good public transport links, by both bus and underground, to other areas in west and central London, there are major employment opportunities for residents at the site.

## **Accessibility to Shopping**

4.11 Figure 6 also shows the shopping areas in the vicinity of the Barlby Road site.

4.12 There are newsagents located within easy walking and cycling distance from the site. These include Martins The Newsagent Ltd on Barlby Road and Kensal Newsagents on Ladbroke Grove. Also there are newsagents located on St. Helens Gardens and Golbourne Road.

4.13 Located approximately 600m to the north of site is a Sainsbury supermarket, within a 10 minute walk or 5 minute cycle from the site. There is St. Helens Post Office located within a 10 minute walk of the site, on St Helens Road, to the south of the site.

4.14 All these areas are within a reasonable walking and cycle distance from the site and provide a wide range of retail outlets. Further afield from the site and accessible by the excellent public transport services are central London shops such as those in Covent Garden and on Oxford Street. Central London provides a very high variety and range of shops, restaurants, pubs and clubs.

4.15 The site enjoys good access to local convenience shopping and to district shopping areas close to the site. Further afield, the site has access to the retail and entertainment heart of London via public transport.

### **Accessibility to Schools**

4.16 The locations of schools within the local area are shown on Figure 6. There are 18 schools or colleges within a distance of 1km from the centre of the site.

4.17 The closest primary school to the site is Barby Primary School, located on Barby Road within 200m from the site. Sion-Manning RC School for Girls is the nearest secondary school to the site, located within 700m of the site on St. Charles Square. The nearest independent secondary school is Instituto Espanol Vicente Canada Blanch, located within 600m of the site on Portobello Road. These schools are within easy cycling distance and within a 10-minute walk from the centre of the site.

### **Accessibility to Recreation / Leisure**

4.18 Figure 6 also shows the local leisure / recreational provision in the area.

4.19 There are number of public houses in the vicinity including The Chilled Eskimo and Earl of Warwick which are within a 15 minute walk of the site. There are a large number of restaurants within 15 minute walk or 5 minute cycle of the site. These include Sky Pizza and Yum Yum on Ladbroke Grove and Bow Church Brassiere and Galicia Restaurant on Portobello Road.

4.20 To the south of the site within a 5 minute walk is Brompton Park, a recreational ground located off Seagrave Road. This provides an open space within a reasonable walk distance from the site. Normand Park, located on Lillie Road, is 900m to the west of the site and provides open space and a swimming pool.

4.21 Within 1.2km or a 5-minute cycle of the site, is Jubilee Sports Centre, on Caird Street and Active Personal Training Health Club on St. Marks Road. Holland Park includes facilities such as tennis courts, cricket nets, football pitches and golf. Within this area there are also numerous restaurants, public houses and nightclubs.

4.22 The ease of public transport access from the site provides good links to many other leisure and recreational facilities throughout London.

### **Accessibility to Health**

4.23 There are two hospitals directly south of the site, St. Charles and Princess Louise, and another fitness centre within a 5 minute walk on St. Marks Road. There is a doctors surgery within

a 10 minute walk on St. Quintin Avenue and a further four within a 10 minute cycle ride on Golbourne Road.

### **Summary of Accessibility**

4.24 The site lies close to local employment and retail opportunities, many within easy walking distance. There is a wide range of schools within comfortable walking or cycling distance. The site is within reasonable walking, cycling or public transport distance of a range of social, leisure and community facilities, affording links to employment centres throughout London and beyond.

4.25 From the above it is apparent that the site enjoys a good level of accessibility, such that in transport terms it is suitable for residential development.

## **5 DEVELOPMENT PROPOSALS**

### **Development Scheme**

5.1 The development of the site will replace the existing land uses on the site, B1 office (1431m<sup>2</sup>) and B8 storage and distribution (2063m<sup>2</sup>), within the Parke House building with a new residential apartment building, with basement car parking.

5.2 The development proposals comprise a total of 108 residential units. Of this 108 units 64% will be open market apartments. The remaining 39 apartments are classified as affordable units and make up almost 40% of the total development.

5.3 QUAD Architects have produced the plans showing the scheme, which are drawings 529 P 02 and 529 P 03. These plans have been reproduced at A4 size for the site access and car parking levels in Appendix E.

### **Site Access**

5.4 Site access will be taken from Barlby Road to an underground car park that will replace a similar existing arrangement. The visibility provision at this access arrangement has been assessed against guidance set out in the DETR document 'Places, Street and Movement – A companion guide to Design Bulletin 32 Residential Roads and Footpaths'.



5.5 The distance that drivers need to see and be seen along the major road is known as the 'Y dimension'. 'Places, Streets and Movement' recommends a 'Y-dimension' of 90m for a major road speed of 30mph. Visibility Splays are shown in drawing 1142/GA/005 in Appendix D.

5.6 A vehicle swept path, shown on drawing 1242/GA/003, illustrates a large saloon vehicle manoeuvring into and around the underground car park.

5.7 Servicing access for refuse vehicles and fire appliances is provided via Exmoor Street. Vehicle tracks illustrate the access for a fire tender and refuse vehicle manoeuvring the rear access point. These vehicle track plans are shown in Appendix D.

5.8 The access to the car park has been designed in accordance with the third edition of the Institution of Structural Engineer's 'Design Recommendations for Multi-Storey and Underground Car Parks' 2002.

5.9 The access to the car park will be via a ramp, with a maximum gradient of 1:10. The above stated document sets out that with a gradient of 1:10, transition lengths should be provided for at least a length of 3.0m either side of the ramp gradient and should be half the gradient of the ramp. This has led to 1:20 gradient ramps, being designed, for 3m at either end.

5.10 The headroom clearance, as stated in 'Design Recommendations for Multi-Storey and Underground Car Parks', has a recommended minimum of 2.1m and states that 2.6m is preferable. The clearance for this site will be 3.5m to allow for a Tesco home delivery service vehicle to manoeuvre into and around the underground car park.

### **Parking Provision**

5.11 The development includes 94 car-parking spaces in the basement. Disabled parking makes up 10% (10 spaces) of the car parking spaces. The car parking provision accords with the expected car ownership of residents of the site in a location that is accessible by public transport and with the guidelines set out in the RBKC's Unitary Development Plan.

5.12 Cycle parking of 118 spaces will be provided in the basement level. This exceeds RBKC's standards, of one space per dwelling (108 spaces) and includes visitor cycle spaces.

### **Public Transport**

5.13 The existing access to public transport from the site is good with bus stops directly outside the site, with additional stops on Ladbroke Grove within 400m. Ladbroke Grove underground station is within one kilometre of the site.

### **Waste Disposal**

5.14 Refuse collection for the affordable apartments will be via an access point from Exmoor Street. This is shown on drawing 1242/GA/002 in Appendix D.

5.15 The refuse collection for the open market apartments will be on Barlby Road. This is considered to be the most appropriate method for waste collection from the site rather than requiring refuse vehicles to manoeuvre within the site underground car park.

5.16 Waste will also be collected via a managed service at the rear of the building. The proposals have been discussed with and agreed by RBKC.

### **Servicing**

5.17 Servicing to the building will be from the front entrance on Barlby Road and into the basement car park. At the entrance to the car park there would be a minimum headroom clearance of 3.5m.

5.18 There is an access at the rear of the building. This is to give access to service vehicles for removals and emergency vehicles. The access for the fire tender has been shown on drawing 1242/GA/004 in Appendix D.

## **6 ASSESSMENT**

### **Introduction**

6.1 This section assesses the likely travel demand of the residents of the development proposals. It evaluates the likely impact on local transport infrastructure including the local highway network. The site access arrangements are assessed as is the proposed car parking provision.

6.2 This transport assessment uses data from 21<sup>st</sup> Century London Living Report, a travel research survey for development sites in London, in order to obtain a representative robust vehicular trip rate for the proposed development.

6.3 This new research data from 21<sup>st</sup> Century London Living provides more accurate data than from the TRICS and TRAVL databases, as there are only 7 London sites on these databases that contain information for developments comprising apartments and does not reflect the trend for higher density, mixed use, mixed tenure developments.

6.4 The 21<sup>st</sup> Century London Living Report includes both private and affordable tenure sites from 12 developments situated in London. The trip rates are consistent with the information of the 7 sites publicly available. This research provides a valuable contribution to the understanding of factors affecting travel patterns of apartment (flatted) developments in London.

6.5 This research is very recent (it was compiled in August 2003). At this stage, it has been sent for consultation purposes to various organisations including Transport for London and RBKC. More details on this research can be provided if necessary, however an extract is attached in Appendix C.

### Trip Generation

6.6 An estimate of the total number of trips made by residents of the development proposals in a 12-hour period between 7am and 7pm has been made. The basis for this estimate is the AM and PM peak hour car trip rates set out on Table 19 of '21<sup>st</sup> Century London Living – Travel Research Survey', which is shown in Appendix C.

6.7 The trip rates shown in tables 6.1 and 6.2 below have been determined from the TRAVL database. The trip rates in table 6.1 were obtained from 17 office sites and the trip rates in table 6.2 were obtained from 4 storage sites, all in inner and outer London. Table 6.1 summarises the AM and PM peak hour trips rates and number of trips, for type B1 (Business) use:

**Table 6.1: Private Vehicle Trips for B1**

Direction	Two-Way Trip Rate (per 100sqm)		Two-Way No. of Trips (1431sqm)	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
In	1.71	0.28	24	4
Out	0.04	1.77	1	25
<b>Total</b>	<b>1.75</b>	<b>2.05</b>	<b>25</b>	<b>29</b>

Source: TRAVL

6.8 Table 6.2 summarises the AM and PM peak hour trips rates and number of trips, for type B8 (Storage and Distribution) use:

**Table 6.2: Private Vehicle Trips for B8**

Direction	Two-Way Trip Rate (per 100sqm)		Two-Way No. of Trips (2063sqm)	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
In	0.31	0.04	6	1
Out	0.02	0.44	1	9
Total	0.33	0.48	7	10

Source: TRAVL

6.9 Table 6.3 summarises the total AM and PM peak number of trips, for the existing business use, which consists of type B8 (Storage and Distribution) and type B1 (Business) use:

**Table 6.3: Vehicular Trips for Existing Use (3494sqm)**

Direction	Two-Way No. of Trips	
	AM Peak Hour	PM Peak Hour
In	30	5
Out	2	34
Total	32	39

6.10 Table 6.4 summarises the AM and PM peak hour trips rates and number of trips, for residential use:

**Table 6.4: Private Vehicle Trips for Residential**

Direction	Trip Rate (per dwelling)		Two-Way No. of Trips (108 dwellings)	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
In	0.15	0.18	16	19
Out	0.24	0.13	26	14
Total	0.39	0.31	42	33

Source: TRAVL

6.11 Table 6.5 summarises the net difference, between trip generation for the existing business use and the proposed residential development, for AM and PM peak number of trips:

**Table 6.5: Private Vehicle Net Difference Trips**

Direction	Difference of No. of Trips	
	AM Peak Hour	PM Peak Hour
In	-14	14
Out	24	-20
Total	10	-6

6.12 In order to provide 12-hour trips by car the combined AM and PM peak hour trips have been multiplied by a factor of 3.98. This factor has been derived from the TRAVL database for all residential developments in inner London. The method used for calculating this factor was by dividing the 12 hour traffic flows by the sum of the AM and PM peak hours. This gives the relationship factor between the peak hours and the 12 hour traffic movements. Table 6.6 sets out the 12-hour trips predicted to be generated by the development proposals:

**Table 6.6: 12-Hour Residential Trips by Private Vehicle**

Direction	Total
In	139
Out	159
Total	298

6.13 The development proposals are therefore expected to generate 298 two-way trips between 7am and 7pm.

6.14 Table 6.7 summarises the AM and PM peak hour trips rates used from Table 19 of '21<sup>st</sup> Century London Living – Travel Research Survey', (shown in Appendix C) and number of trips, split between the affordable and open market apartments, for the proposed residential development site:

**Table 6.7: Private Vehicle Trips for Residential**

Direction	Two-Way No. of Trips	
	AM Peak Hour	PM Peak Hour
In	2	14
Out	8	1
Total	10	15

Source: '21<sup>st</sup> Century London Living – Travel Research Survey'

6.15 Table 6.8 summarises the net difference, between trip generation for the existing business use and the proposed residential development, for the AM and PM peak hours, using 21<sup>st</sup> Century London Living to derive the number of trips:

**Table 6.8: Private Vehicle Net Difference Trips**

Direction	Difference of No. of Trips	
	AM Peak Hour	PM Peak Hour
In	-28	+9
Out	+6	-33
Total	-22	-24

6.16 The method used to derive the 12 hour trips for the TRAVL data has been replicated for the 21<sup>st</sup> Century London Living data. Table 6.9 sets out the 12-hour trips predicted to be generated by the development proposals:

**Table 6.9: 12-Hour Residential Trips by Private Vehicle (21<sup>st</sup> Century London Living)**

Direction	Total
In	64
Out	36
Total	100

6.17 The development proposals are therefore expected to generate 100 two-way trips between 7am and 7pm.

6.18 As can be seen from tables 6.6 and 6.9 above, 12 hour private vehicle trips generated using '21<sup>st</sup> Century London Living', are approximately one third of the trips generated by the TRAVL database, with 100 trips compared to 298 trips.

6.19 To assign these trips to the various modes available, the average modal split has been taken from five of the sites included in '21<sup>st</sup> Century London Living – Travel Research Survey'. Sites have been selected with similar characteristics, such as good public transport accessibility and / or good access to local services. The sites used are as follows:

- Riverside West – located west of Wandsworth Bridge with excellent local facilities and adjacent bus routes and Wandsworth Town rail station

- Pavilion Way – accessed from Deansbrook Road south of Edgware with good local facilities, 3 bus services within a 400m walk and Burnt Oak Northern Line station about 1.25km away
- Enfield Island – located in Enfield Lock with some local facilities, a bus service that runs through the site and a rail station some 1km away
- Bird Estate – established predominantly private development adjacent to Colindale Station on the Northern Line
- Highland Village – good facilities nearby including a Sainsbury's, bus routes adjacent to the site and Underground / mainline rail services within 1600m.

6.20 The resulting mode split and trips by mode is summarised on Table 6.10:

**Table 6.10: Modal Split and Trip Generation by Mode**

Mode	Percentage	12 Hour Two-Way Trips
Car Driver	33.7	100
Car Passenger	6.8	20
M / C	0.6	2
Cycle	1.6	5
Bus	9.5	28
Underground	11.2	33
Rail	17.3	51
Walk	18.3	54
Taxi	1.0	3
<b>Total</b>	<b>100.0%</b>	<b>296</b>

Source: '21<sup>st</sup> Century London Living – Travel Research Survey'

### Non-Car Trips

6.21 The non-car mode assessment will examine the facilities available for non-car mode travel within the vicinity of the site and consider the magnitude of the impact presented by the re-development. Table 6.11 summarises the number of trips by mode being assessed.

**Table 6.11: Non-car Trips**

Mode	12 Hour Trips
Bus	28
Rail Services*	84
Walk	54
Cycle	5

Source: '21<sup>st</sup> Century London Living – Travel Research Survey'

Note: \*London Underground and Mainline Rail

### Vehicle Trip Generation

6.22 The development proposals could generate up to 10 two-way vehicle movements in the AM peak hour and 15 two-way vehicle movements in the PM peak hour, as shown in Table 6.7.

6.23 The net difference in vehicle trips, as shown in Table 6.8, shows that the development site would produce 21 less movements in the AM peak hour and 24 less movements in the PM peak hour compared to the existing business use.

6.24 '21<sup>st</sup> Century London Living – Travel Research Survey' trip rates are approximately two thirds lower than those in TRAVL, as they have been taken solely from London flatted developments which produce lower trip rates than mixed housing. The '21<sup>st</sup> Century London Living' trip rates have thus been used as a robust assessment of the vehicle trips for the flatted development site, as they reflect similar characteristics.

### Journeys by Foot and Cycle

6.25 The development proposals are well located to a choice of local facilities within walking and / or cycling distance of the site. These include a large number of schools, employment opportunities, shops and leisure destinations, as shown in Figure 6. The development proposals are therefore in accordance with the objectives of current transport policy to encourage more sustainable travel.

6.26 The development is expected to generate 54 walk trips and 5 cycle trips between 7am and 7pm. These trips have been assigned on the basis of the provision of local facilities and the provision for pedestrian and cycle journeys.



6.27 The pedestrian footways that run alongside the roads in the vicinity of the site are lit and in good condition. The pelican crossing located just east of Exmoor Street approx. 30m to the east of the site ensures that journeys by foot will be well catered for.

6.28 The London Planning Advisory Committee (LPAC) has published guidance on pedestrian networks as part of its London Walking Strategy. The Strategy states that a good pedestrian environment should be:

- *connected (providing a comprehensive network);*
- *convenient (direct routes without detours);*
- *comfortable (good surface and adequate widths, lighting and separation from vehicular traffic);*
- *convivial (encouraging interaction and improving personal security); and*
- *conspicuous (legible routes with good signing).*

6.29 The existing network in the vicinity of the proposed redevelopment has a good compliance with these criteria. The site is therefore readily accessible on foot and its location reduces car dependency by facilitating pedestrian trips for the main reasons for making a journey.

6.30 Over the 12-hour period the development is expected to generate 2 cycle trips. The site is well placed to access the London Cycle Network and the additional trips are likely to use this network.

### **Journeys by Bus**

6.31 The development is well located for a choice of facilities and services within walking and cycling distance. For journeys further a field, there are frequent bus services in very close proximity to the site, with bus stops directly outside the site. These offer the opportunity for a much wider choice of destinations across western and central London to easily be reached without using a car. The site therefore accords with the aims of national, regional and local policy to locate development where it can be served by public transport and to encourage the use of buses.

6.32 Bus routes 70 and 316 can be accessed from bus stops located immediately outside the site, route 7 within 200m and routes 23, 52 and 295 are within a 300m walk distance. Table 6.14 shows the number of buses in each direction on these services during the 12 hour period between 7am and 7pm:

**Table 6.14: Number of Buses During 12-hour period**

Service	Towards	Number of Buses	Towards	Number of Buses
7	Russell Square	56	East Acton	83
23	Liverpool Street	175	Westbourne Park Bus Garage	120
52	Kensal Rise Station	139	Victoria Bus Station	156
70	Acton Horn Lane	99	South Kensington Station	87
295	Canal Way	101	Clapham Junction	103
220	Willesden Junction Station	120	Mapleton Crescent	95
316	St Charles Square	83	Brent Park Tesco	90

Source: Transport for London

6.33 The development is expected to generate 28 two-way bus passenger trips during a 12-hour period. Between 7am and 7pm there are 1507 buses providing services in the vicinity of the site. The development will therefore typically add less than 1 additional passenger for every 54 buses passing close to the site throughout the 12-hour period. This additional level of bus usage is unlikely to cause a material impact upon the operation of the services.

6.34 There are 119 bus movements in the AM peak hour and 129 in the PM Peak hour. Using this distribution the development will generate 2 two-way bus passenger trips during the AM Peak hour and 2 during the PM Peak hour. This relates to the development creating an addition of 1 passenger for every 54 buses, in both the AM and PM Peak hours, passing close to the site.

### Journeys by Rail

6.35 The development is well located for rail with Ladbroke Grove underground station less than one kilometre away. This service provides frequent trips to central London and to major mainline rail hubs are provided. Rail travel is a more convenient alternative to the car for many journeys from the development to elsewhere in London.

6.36 The development proposals are in accordance with policies to encourage development to be located where it is well served by alternatives to car use and encourage the use of these modes.

6.37 Rail trips have been assigned on the basis of local facilities and the range of services available. The combined mainline and underground trips are expected to use Ladbroke Grove Station. Table 6.15 shows the number of services in each direction for underground trains at

Ladbroke Grove between 7am and 7pm. The AM Peak period has been taken as 7-10am and the PM Peak period as 4-7pm.

**Table 6.15: Number of Trains During 12-hour period.**

Service	Towards	Train Frequency	Train Frequency
		AM / PM Peak	Off Peak
Hammersmith & City Line	Barking	5 mins	8 mins
	Hammersmith	5 mins	8 mins

Source: Transport for London and Network Rail

6.38 The development is expected to generate 84 additional two-way rail trips between 7am and 7pm. Using the frequencies shown in Table 6.15 there are 99 trains stopping at Ladbroke Grove Station during this period. This development is therefore predicted to add an average of less than 1 additional passenger for every train between 7am and 7pm. This is unlikely to materially affect the running of rail services to and from Ladbroke Grove Station.

### Journeys by Car

6.39 The development is predicted to generate 42 two-way vehicle movements in the AM peak hour and 33 two-way vehicle trips in the PM peak hour.

6.40 Table 6.8 shows that there is a net decrease in vehicle flows on Barlby Road of 21 vehicles in the AM peak hour and 24 vehicles in the PM peak hour, between the existing and the proposed land uses, even using robust vehicle trip rates. On this basis the decrease in traffic flows on Barlby Road would not lead to any material impact on the highway network.

### Highway Safety

6.41 Section 3 identified that there had been a number of accidents on Barlby Road in the five-year period to November 2003, particularly involving pedestrians. This is likely to be typical of the accident record of similar road types and locations elsewhere in London. RBKC has not identified highway safety as an issue and there are no programmed safety improvements in the vicinity of the site.

6.42 Established research indicates that the number of accidents is directly linked to vehicle flows. As noted above, the development will not lead to a material or noticeable increase in vehicles using Barlby Road. The development proposals should therefore not adversely affect highway safety.

## Car Parking

6.43 RBKC's car parking standards require a maximum of 1 space for each of the market units and 0.66 spaces for each of the affordable units. Policy TR42 of the RBKC UDP requires "*new residential development to include off-street parking up to the maximum standards adopted by the Council and contained in Chapter 13 of the plan, except:*

- *in locations, such as town centres, where services are readily accessible by walking, cycling or public transport;*
- *which provide housing for elderly people, students and single people where demand for car parking is likely to be less than for family housing;*
- *involving the conversion of housing or non-residential buildings where off-street parking is less likely to be successfully designed into the scheme;*
- *where, for specific townscape reasons or because the building is of architectural or historic interest, off street parking is less likely to be successfully designed into the scheme."*

6.44 It has already been demonstrated that the site's location is accessible to a choice of employment, education, retail and leisure destinations within walking and cycling distance of the site. The site is well located for bus services and for Underground rail services at Ladbroke Grove Station. The development is therefore in a location where services are readily accessible by walking, cycling or public transport.

6.45 Apartments also tend to have smaller household sizes than houses. They therefore tend to have a lower demand for travel, lower car ownership per household rates and therefore less demand for a car parking space.

6.46 It should be further noted that PPG13 provides guidance on parking provision for new development. Paragraph 51 of PPG13 states:

*"In developing and implementing policies on parking, local authorities should:*

*[...]*

- not require developers to provide more spaces than they themselves wish, other than in exceptional circumstances which might include for example where there are significant implications for road safety which cannot be resolved through the introduction of on street parking controls"*

6.47 In this case, parking controls already exist to prevent an adverse impact on road safety. Certainly, there would not be any 'significant implications for road safety' as a result of the proposed car parking provision.

#### **Travel Plan**

6.48 The Journey to Work Statistics, for Kensington and Chelsea, show that nearly one third (32.4%) of journeys are taken on the underground or light rail. Other sustainable modes of transport contribute greatly to the journey taken to work, including train (15.2%), bus (12.0%), bicycle (3.8%) and walking (11.3%).

6.49 Less than a quarter (21.8%) of journeys are made by car, with over half of these journeys being less than 10km.

6.50 The statistics taken from the 2001 census indicate there is a lower propensity to travel by private vehicle, with greater than 40% of the public in the borough travelling by alternative modes to private vehicle. With the above in mind further travel planning initiatives have not been included in this report, as setting onerous mode share targets may have an impact on the development proposals.

## **7 Conclusions**

7.1 The details provided in this Transport Statement have addressed the traffic and transport implications of the development proposals, from which a number of conclusions can be reached.

7.2 The site is situated within a residential area with excellent access to local facilities and complimentary land uses via alternative modes to the private vehicle.

7.3 The site has been accepted by the Royal Borough of Kensington and Chelsea as suitable for residential development.

7.4 This transport statement has demonstrated that the proposed development of 108 residential dwellings on land to the south of Barlby Road would provide a slight decrease in traffic as a result of the proposed development. The proposed development would also reduce the level of light and heavy goods vehicle movements within the area and would provide benefit to the local area.

6.51 Meetings and subsequent correspondence with the highways and planning officers have indicated that there are no matters of principle that would affect the acceptance of development proposals and as such, there is no reason on transport grounds why this application should not be recommended for acceptance.

**WSP Group**



# FIGURES





**PLANNING APPLICATION SITE**

REPRODUCED FROM THE  
 ORDNAVANCE SURVEY MAP WITH  
 THE PERMISSION OF THE  
 CONTROLLER OF HER MAJESTY'S  
 STATIONERY OFFICE LICENCE  
 NO. 100016037. CROWN  
 COPYRIGHT RESERVED.

N:\130 - 136 Barby Road, London\DRAWINGS\CORE\11242-Fig-Site Location Plan.cdr



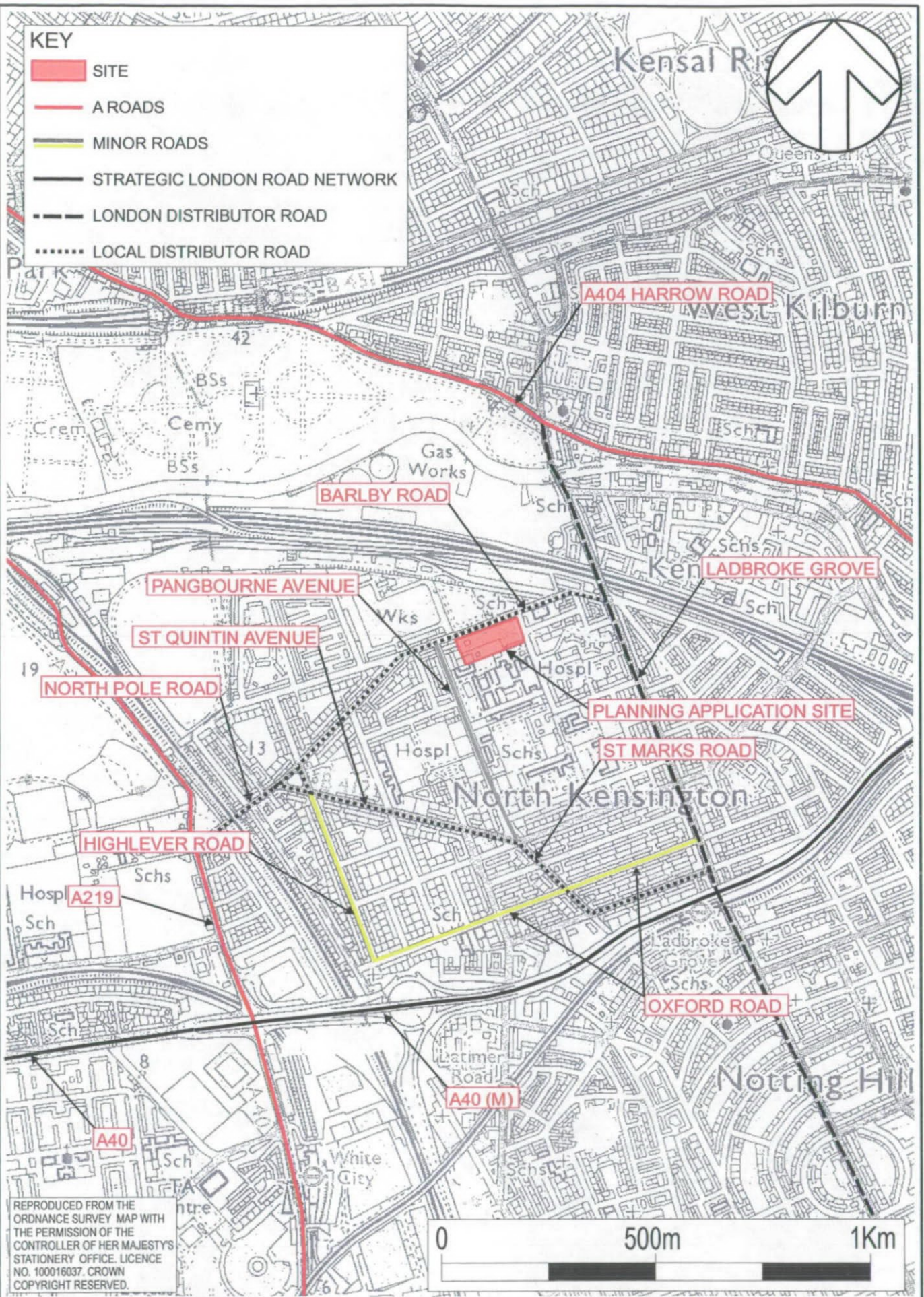
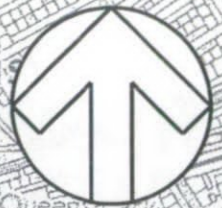
TITLE  
**SITE LOCATION PLAN**

FIGURE No:  
**1**



**KEY**

- SITE
- A ROADS
- MINOR ROADS
- STRATEGIC LONDON ROAD NETWORK
- LONDON DISTRIBUTOR ROAD
- LOCAL DISTRIBUTOR ROAD



REPRODUCED FROM THE  
ORDNANCE SURVEY MAP WITH  
THE PERMISSION OF THE  
CONTROLLER OF HER MAJESTY'S  
STATIONERY OFFICE. LICENCE  
NO. 100016037. CROWN  
COPYRIGHT RESERVED.



N1130 - 136 Barby Road, London DRAWINGS COREL11242-Fig2-Local Highway Network.cdr



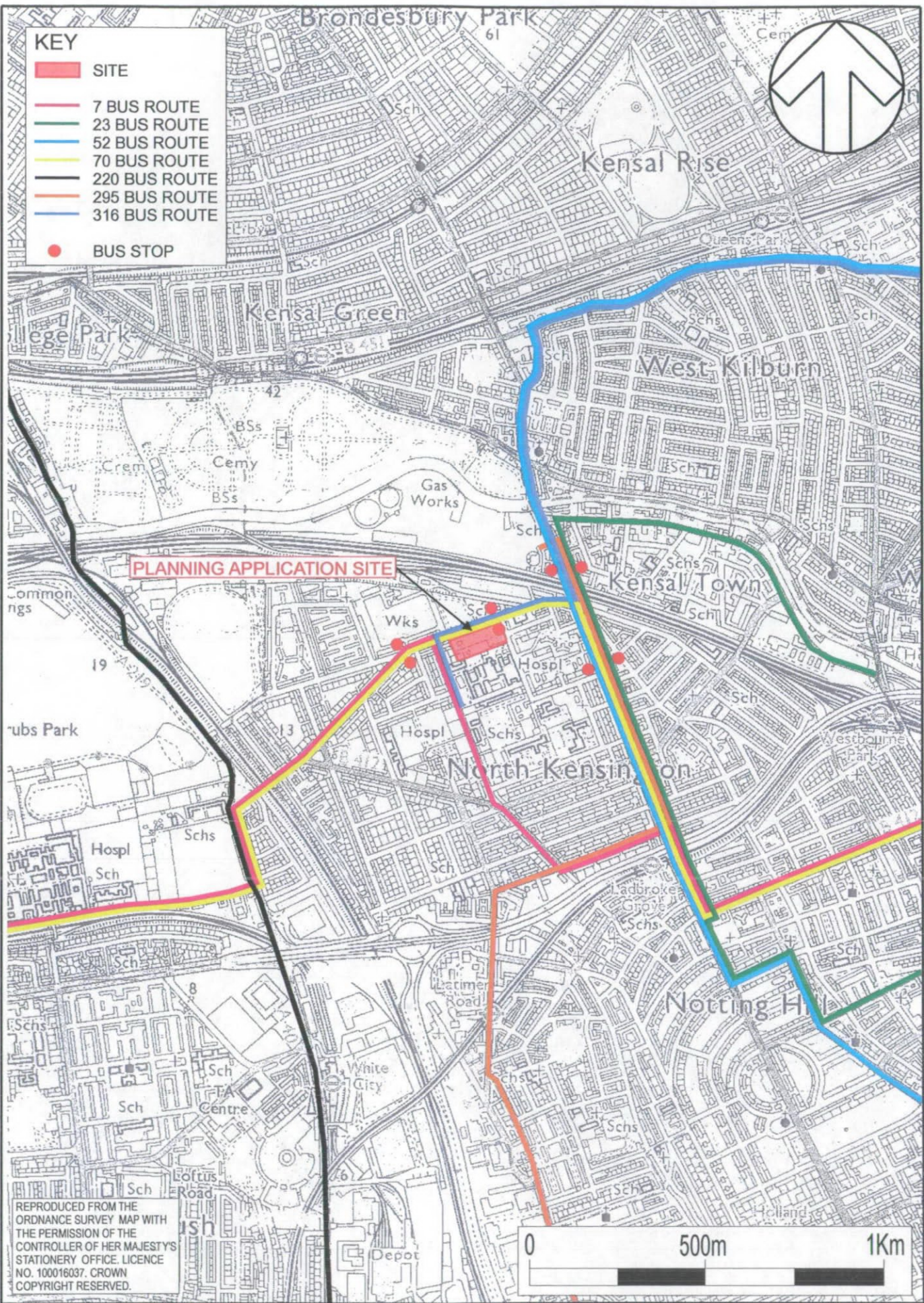
TITLE  
**LOCAL HIGHWAY NETWORK**

FIGURE No:  
**2**



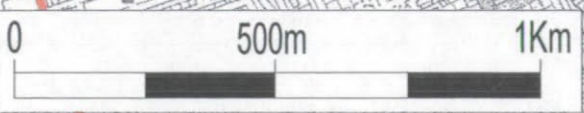
**KEY**

- SITE
- 7 BUS ROUTE
- 23 BUS ROUTE
- 52 BUS ROUTE
- 70 BUS ROUTE
- 220 BUS ROUTE
- 295 BUS ROUTE
- 316 BUS ROUTE
- BUS STOP



**PLANNING APPLICATION SITE**

REPRODUCED FROM THE  
ORDNANCE SURVEY MAP WITH  
THE PERMISSION OF THE  
CONTROLLER OF HER MAJESTY'S  
STATIONERY OFFICE. LICENCE  
NO. 100016037. CROWN  
COPYRIGHT RESERVED.



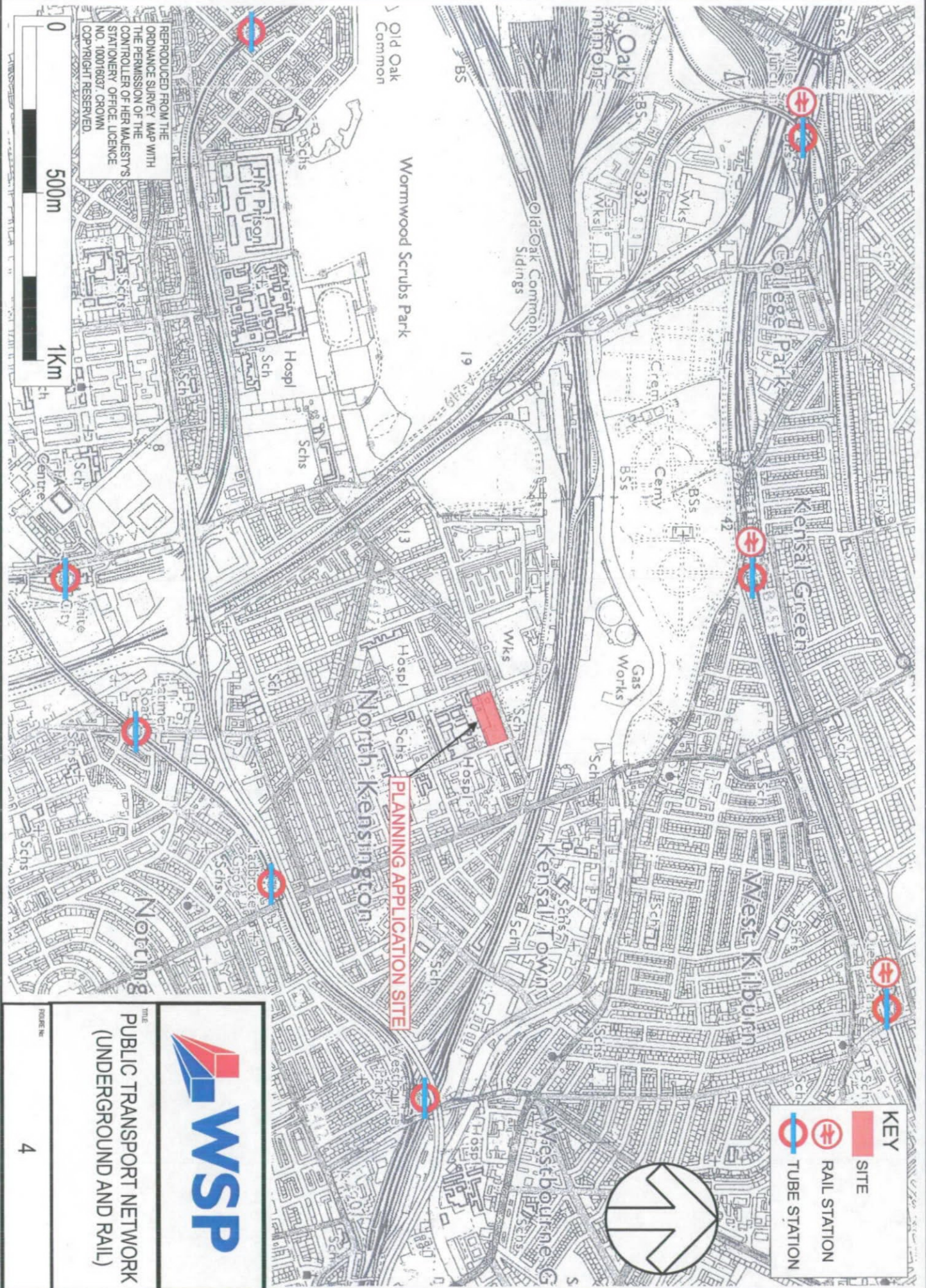
N:\130 - 136 Barbary Road, London\DRAWINGS\COREL11242-Fig-Public Transport Network.cdr



TITLE:  
**PUBLIC TRANSPORT NETWORK  
(ROAD)**

FIGURE No:  
**3**





THE  
PUBLIC TRANSPORT NETWORK  
(UNDERGROUND AND RAIL)



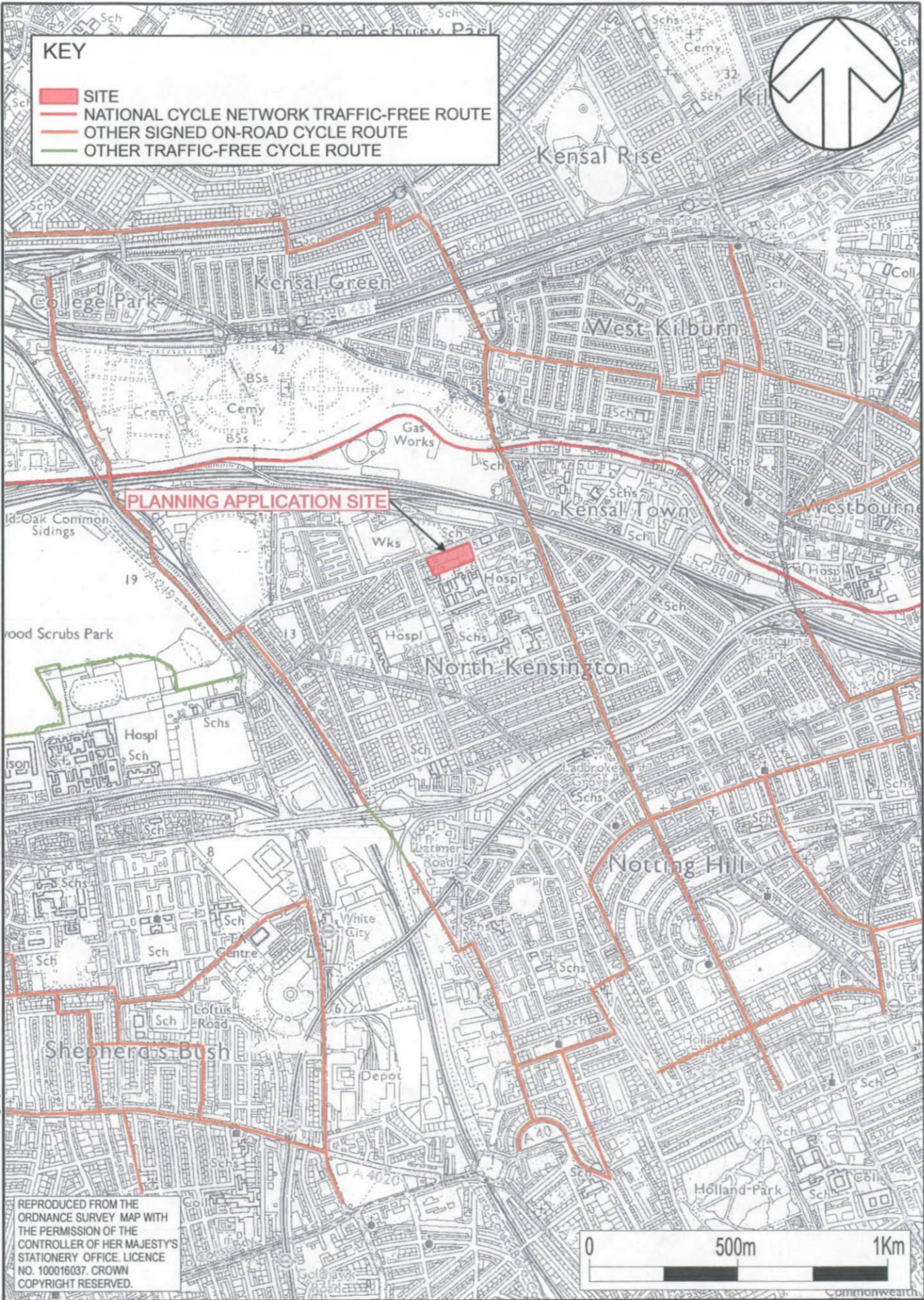






KEY

- SITE
- NATIONAL CYCLE NETWORK TRAFFIC-FREE ROUTE
- OTHER SIGNED ON-ROAD CYCLE ROUTE
- OTHER TRAFFIC-FREE CYCLE ROUTE



REPRODUCED FROM THE  
ORDNANCE SURVEY MAP WITH  
THE PERMISSION OF THE  
CONTROLLER OF HER MAJESTY'S  
STATIONERY OFFICE. LICENCE  
NO. 100016037. CROWN  
COPYRIGHT RESERVED.

N.1130 - 136 Barby Road, London DRAWINGS COREL11242-Fig-Cycle Network.cdr



TITLE

CYCLE NETWORK

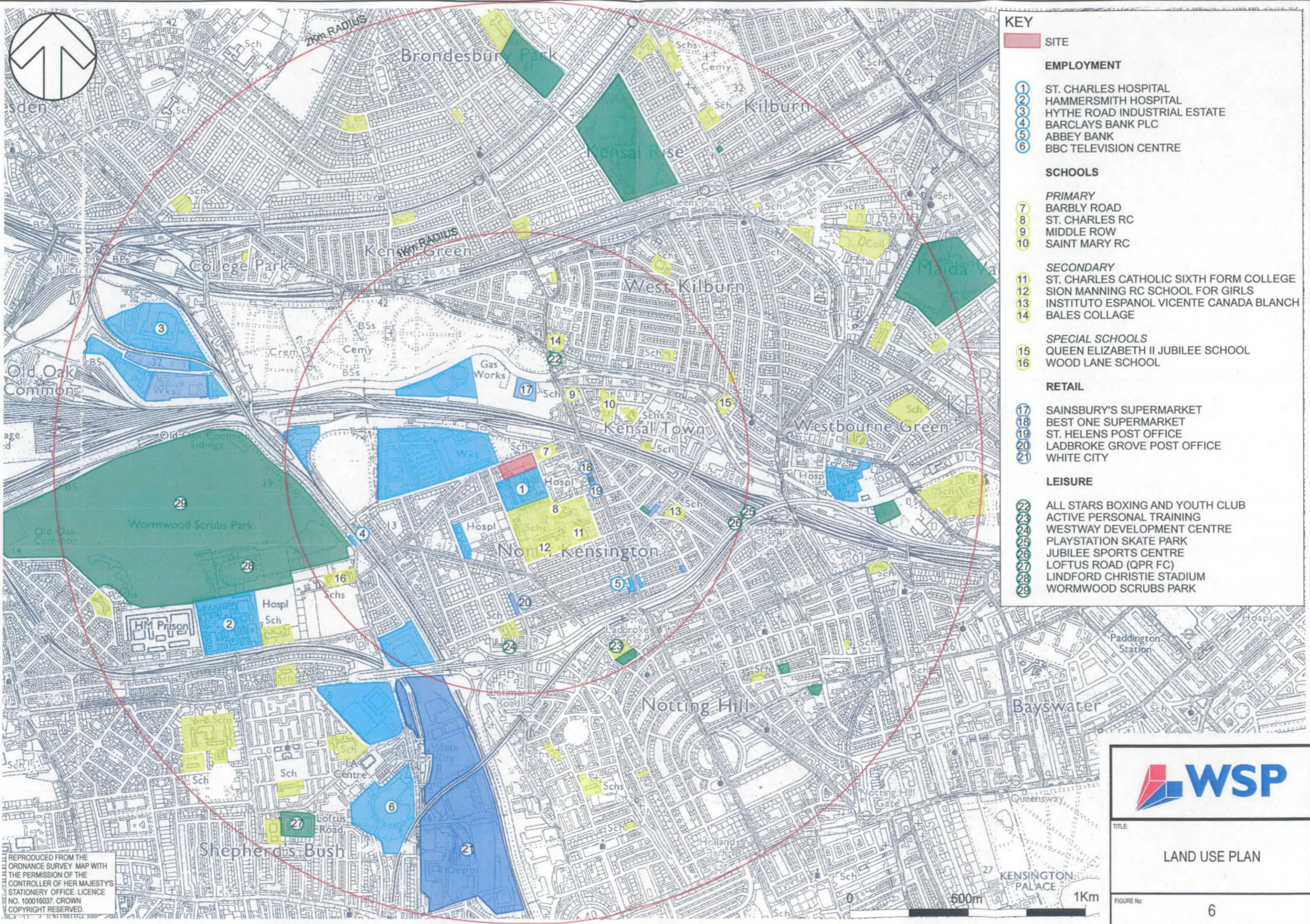
FIGURE No:

5





KEY	
	SITE
<b>EMPLOYMENT</b>	
①	ST. CHARLES HOSPITAL
②	HAMMERSMITH HOSPITAL
③	HYTHE ROAD INDUSTRIAL ESTATE
④	BARCLAYS BANK PLC
⑤	ABBAY BANK
⑥	BBC TELEVISION CENTRE
<b>SCHOOLS</b>	
<i>PRIMARY</i>	
⑦	BARBLY ROAD
⑧	ST. CHARLES RC
⑨	MIDDLE ROW
⑩	SAINT MARY RC
<i>SECONDARY</i>	
⑪	ST. CHARLES CATHOLIC SIXTH FORM COLLEGE
⑫	SION MANNING RC SCHOOL FOR GIRLS
⑬	INSTITUTO ESPANOL VICENTE CANADA BLANCH
⑭	BALES COLLAGE
<i>SPECIAL SCHOOLS</i>	
⑮	QUEEN ELIZABETH II JUBILEE SCHOOL
⑯	WOOD LANE SCHOOL
<b>RETAIL</b>	
⑰	SAINSBURY'S SUPERMARKET
⑱	BEST ONE SUPERMARKET
⑲	ST. HELENS POST OFFICE
⑳	LADBROKE GROVE POST OFFICE
㉑	WHITE CITY
<b>LEISURE</b>	
㉒	ALL STARS BOXING AND YOUTH CLUB
㉓	ACTIVE PERSONAL TRAINING
㉔	WESTWAY DEVELOPMENT CENTRE
㉕	PLAYSTATION SKATE PARK
㉖	JUBILEE SPORTS CENTRE
㉗	LOFTUS ROAD (QPR FC)
㉘	LINFORD CHRISTIE STADIUM
㉙	WORMWOOD SCRUBS PARK



N:1130 - 136 Barbary Road, London DRAWINGS/CORELL1242-Fig6-Land Use Plan.cdr

REPRODUCED FROM THE  
ORDNANCE SURVEY MAP WITH  
THE PERMISSION OF THE  
CONTROLLER OF HER MAJESTY'S  
STATIONERY OFFICE LICENCE  
NO. 100016037. CROWN  
COPYRIGHT RESERVED.



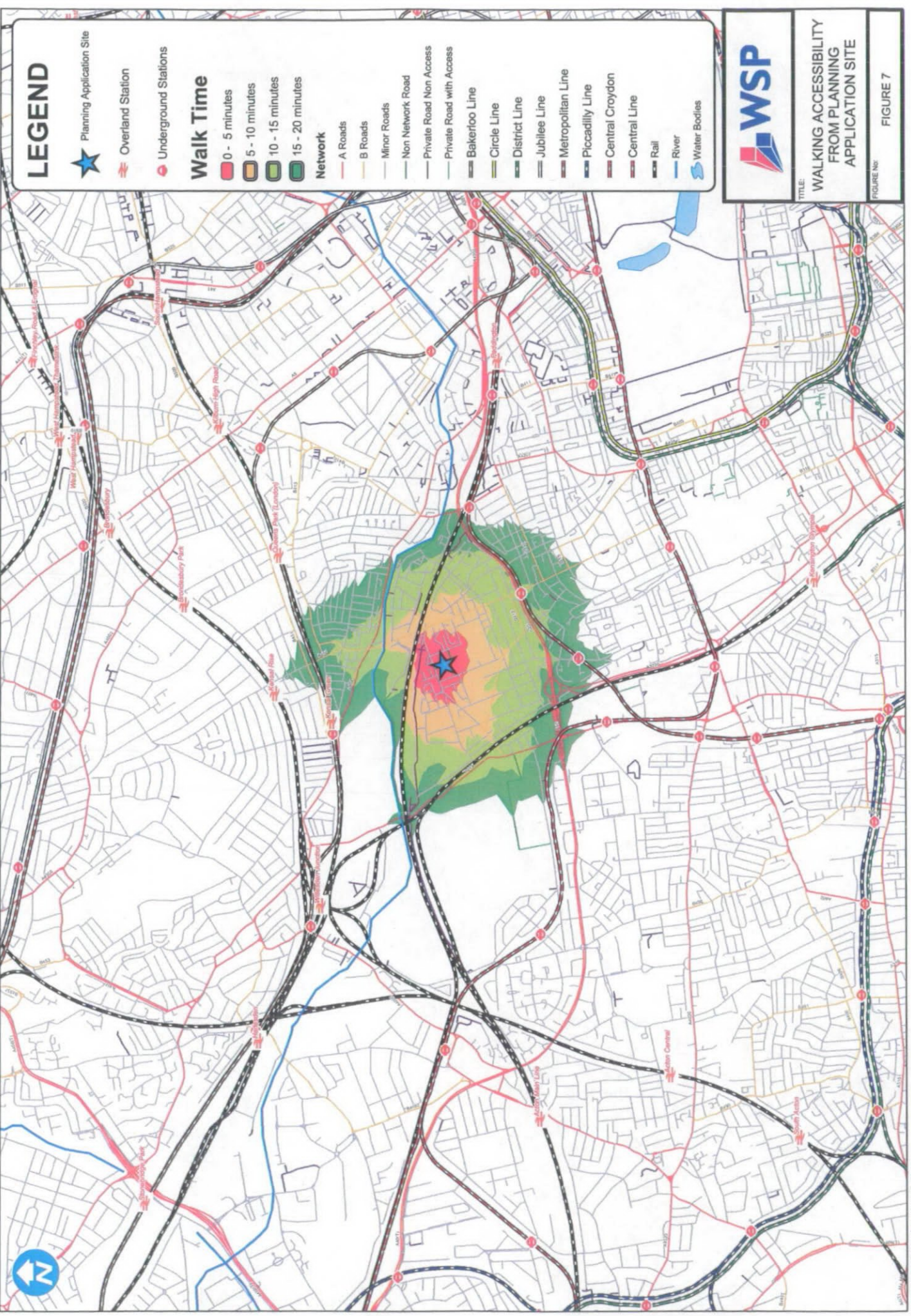
TITLE

**LAND USE PLAN**

FIGURE No. **6**

500m 1Km





# LEGEND

- Planning Application Site
- Overland Station
- Underground Stations
- Walk Time**
  - 0 - 5 minutes
  - 5 - 10 minutes
  - 10 - 15 minutes
  - 15 - 20 minutes
- Network**
  - A Roads
  - B Roads
  - Minor Roads
  - Non Network Road
  - Private Road Non Access
  - Private Road with Access
  - Bakerloo Line
  - Circle Line
  - District Line
  - Jubilee Line
  - Metropolitan Line
  - Piccadilly Line
  - Central Croydon
  - Central Line
  - Rail
  - River
  - Water Bodies

**WSP**

TITLE: **WALKING ACCESSIBILITY FROM PLANNING APPLICATION SITE**

FIGURE NO: **FIGURE 7**

Reproduced from Ordnance Survey data by permission of Ordnance Survey © on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright (2004). All rights reserved. Licence No. 100020242

0 500 1,000 meters

SCALE: 1:25,000



# LEGEND



Planning Application Site

## Cycle Time

- 0 - 5 minutes
- 5 - 10 minutes
- 10 - 15 minutes
- 15 - 20 minutes

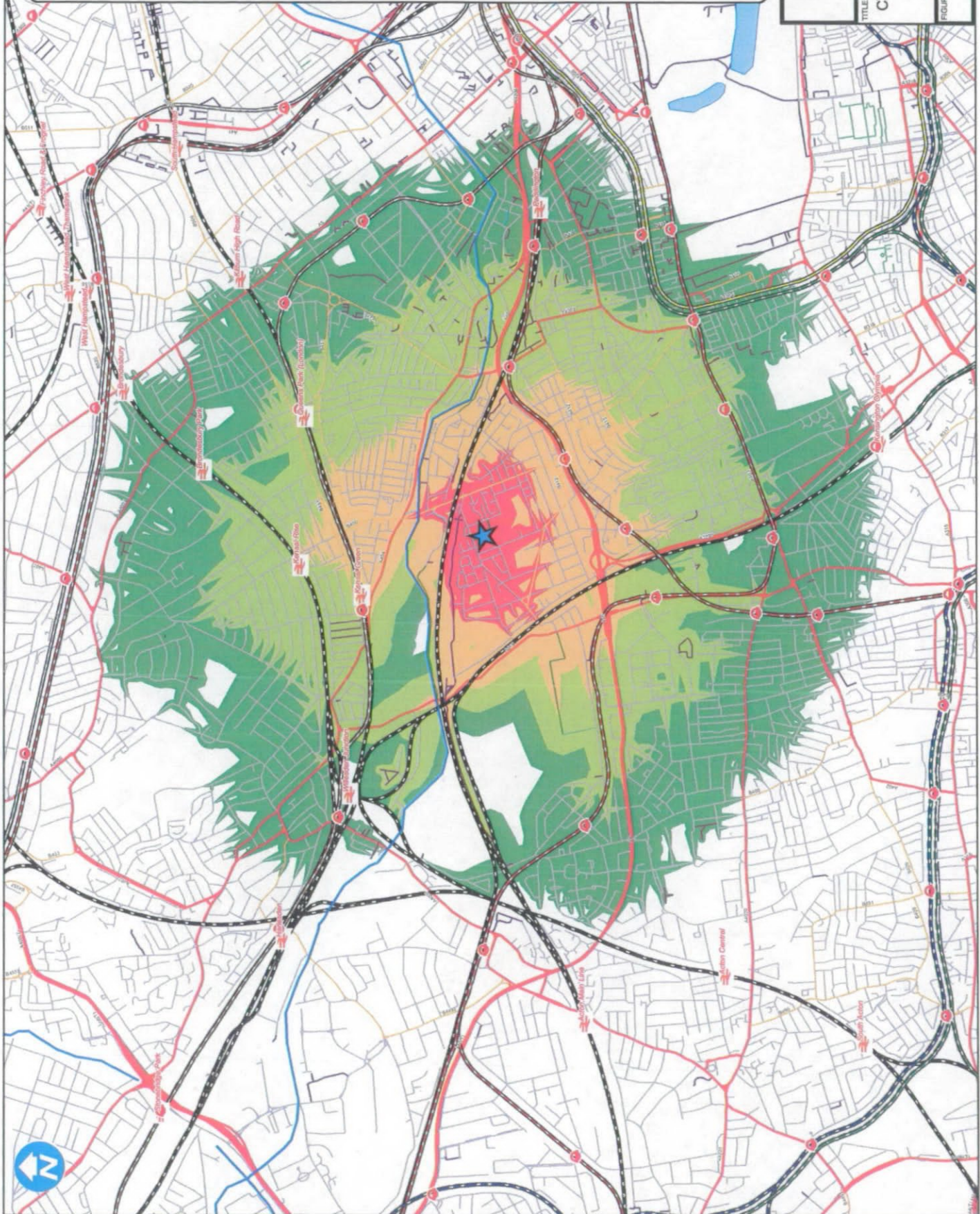
## Network

- Motorway
- A Roads
- B Roads
- Minor Roads
- Non Network Road
- Private Road Non Access
- Private Road with Access
- Pedestrianised
- Bakerloo Line
- Circle Line
- District Line
- Jubilee Line
- Metropolitan Line
- Piccadilly Line
- Central Croydon
- Central Line
- Rail
- River
- Water Bodies
- Overland Station
- Underground Stations



TITLE: CYCLING ACCESSIBILITY FROM PLANNING APPLICATION SITE

FIGURE NO: FIGURE 8

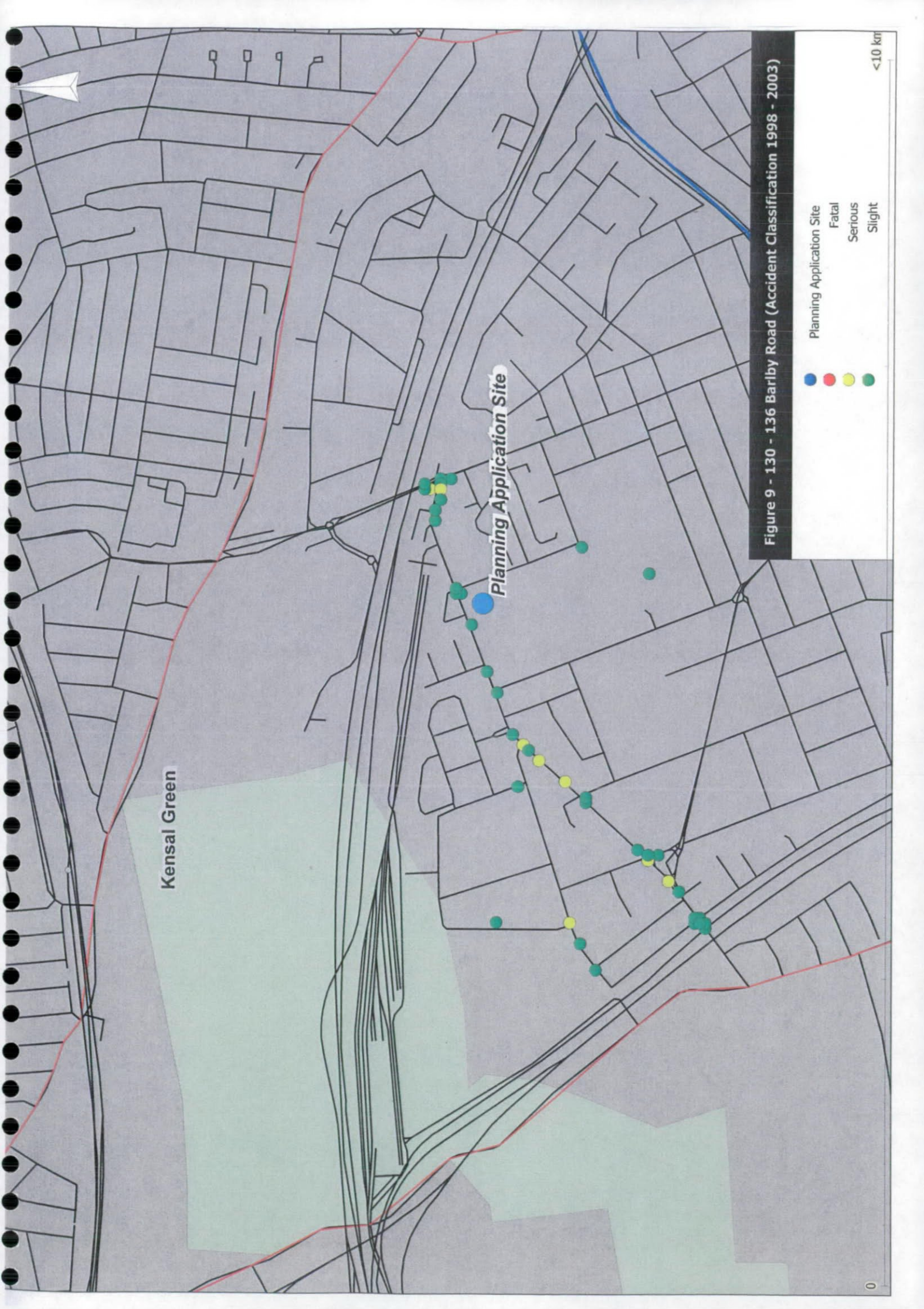


SCALE: 1:25,000



Reproduced from Ordnance Survey data by permission of Her Majesty's Stationery Office © Crown copyright (2004). All rights reserved. Licence No. 100033462.





Kensal Green

Planning Application Site

Figure 9 - 130 - 136 Barlby Road (Accident Classification 1998 - 2003)

Planning Application Site  
Fatal  
Serious  
Slight

● ● ● ●

## APPENDIX A

# E-mail to RBK&C dated 30 March 2004

**O'Neill, Paul**

---

**From:** O'Neill, Paul  
**Sent:** 30 March 2004 14:53  
**To:** 'richard.case@rbkc.gov.uk'  
**Cc:** 'Anna-Louise Forster'  
**Subject:** 130 - 136 Barlby Road - Highways Issues

Richard,

Further to our conversation regarding the redevelopment of the above, please find attached a copy of revised plans relating to service access (529 prelim 01 rev d) and car parking (529 prelim 10 rev d WSP).

The plans now show the required number of parking spaces and arrangements in line with geometric standards and the RBKC UDP. Other issues discussed in the previous meeting (minutes attached) in relation to the parking, cycling spaces, and access into the basement car park have also been addressed on the plans.

As discussed, the redevelopment of B1 – Office (1500 sq m) and B8 – Storage and Distribution (1000 sq m) into C3 – dwelling houses (108) will result in a net change in 15 (two-way) trips from the development in the Am peak hour and a net change of 6 trips in the Pm Peak hour. The net changes are caused by a reduction in vehicles in the inbound direction. And a slight increase in the outbound direction. The net changes in trips would indicate that an extra vehicle will be added to the network every 4 minutes in the Am peak hour and the addition of one vehicle extra every 10 minutes in the Pm peak hour.

This would indicate that there would be negligible impact on the Barlby Road junction with Ladbrooke Grove (this does not take into account trip assignment, including this effect impact is likely to be reduced further).

During our previous conversations you discussed the issue of directionality of trips in relation to the requirement to undertake a capacity assessment of the above junction. The change in land use from B1/B8 - Office/Storage & Distribution to C3 – residential will change the directionality of trips in the Am and Pm peak hours. On site observations indicate that the busiest period for this junction is the Am Peak. Inbound flows to the development in this period (existing land uses) are from the north/south at this junction (around 30%/35% of trips are from the west and do not have an impact on this junction). The reduction in trips from the North/South direction in the Am peak hours will reduce queuing and delay at this junction and provide means for relocation of capacity (for nominal increase in trips from the development) at the junction.

It should be noted that the trip rates used to calculate the flows for the preliminary works undertaken above have been extracted from TRAVL. WSP have recently undertaken a study into 21<sup>st</sup> century London living, which shows that vehicle trip rates are below the Levels in TRAVL (including areas with Low PTAL scores) for flatted development in London. Taking into account the sites in this research paper, the impact on the junction would further be reduced.

The above preliminary works indicate that a capacity assessment of the junction between Barlby Road and Ladbrooke Grove should not be required for inclusion in the Transport Assessment.

The proposals for service access can be discussed further at our meeting on Friday.

Can you please confirm your acceptance of this e-mail, with comment where applicable on the points raised above.

Regards  
Paul

**Paul O'Neill** - (Principal Engineer)

**WSP Development**

Mountbatten House, Basing View, Basingstoke, Hampshire, RG21 4HJ.

Telephone: +44 (0)1256 318800  
Direct Dial: +44 (0)1256 318807  
Fax: +44 (0)1256 318700

30/03/2004

Mobile: +44 07769 940495

Web: [Http://www.wspgroup.com](http://www.wspgroup.com)



# APPENDIX B

## Accident Data



Acc No.	Northing	Easting	Weather	Accident Description	Where Acc	Seriousness	Code
1	523500	181920	Fine (wet road)	V1 collides with lamp post	Slag. Jct/GW/Zebra	Serious Pas.	2
2	523160	181580	Fine	Ped. masked by parked veh into path of V1	Slag. Jct/GW/Zebra	Slight Ped.	1
3	523160	181580	Fine	V1 collides with Ped at ped crossing	Slag. Jct/GW/Zebra	Slight Ped.	1
4	523280	181680	Fine	Pas. falls boarding V1	Slag. Jct/GW/Zebra	Slight Pas.	1
5	523120	181810	Fine	V1 hits Slat V2, swings into parked V3	No jct in 20m	Slight Driver/pas.	1
6	523600	181970	Fine	V1 disobeys GW & hits V2	Mini/GW	Slight Driver	1
7	523160	181970	Raining	V1 disobeys crossing & collides Ped.	Slag. Jct/GW/Zebra	Slight Ped.	1
8	523600	181970	Fine	V2 disobeys GW & collides V1	Mini/GW	Slight Pas.	1
9	524010	182060	Fine	Drunk Ped. dragged by V1	Mini/GW	Slight Pas.	1
10	523170	181580	Raining	Ped. masked by parked veh into path of V1	Slag. Jct/GW/Zebra	Slight Ped.	1
11	523600	181970	Fine	V2 left across V1 path	Mini/GW	Slight Driver	1
12	523400	181800	Raining	Ped. crosses into V1 path	Other Jct/GW	Slight Ped.	1
13	523600	181970	Fine	V2 alongside & collides V1	Mini/GW	Slight Driver	1
14	524000	182080	Fine	V1 collides rear V2	Mini/GW/Zebra	Slight Driver	1
15	523070	181780	Fine (wet road)	V2 disobeys GW & collides V1	Slag. Jct/GW	Slight Driver	1
16	523160	181580	Fine	V2 hits slat. V1	Slag. Jct/GW/Zebra	Slight Driver	1
17	524000	182080	Fine	V2 turns across V1	Mini/GW	Slight Driver	1
18	524010	182060	Fine	Ped. Crosses path of V1	Zebra	Slight Ped.	1
19	523430	181940	Fine	Pas. falls from V1 as pulling away	No jct in 20m	Serious Pas.	2
20	523630	182090	Fine	V1 collides with n/s barrier	No jct in 20m	Serious Driver	2
21	523830	182090	Fine	V1 rider falls	No jct in 20m	Slight Driver	1
22	524010	182080	Fine (wet road)	V1 disobeys GW collides V2	Mini/GW/Zebra	Slight Pas.	1
23	523470	181890	Fine	V2 turns across V1	Mini/GW	Slight Driver	1
24	523470	181890	Raining	Ped. crosses into V1 path	No jct in 20m/Zebra	Slight Driver	1
25	524000	182080	Fine	V2 disobeys GW & collides V1	Mini/GW	Slight Driver	1
26	523220	181820	Fine	V1 starts & runs over Peds foot	Slag. Jct/GW	Slight Ped.	1
27	523390	181800	Fine (wet road)	V1 collides parked V2&3	No jct in 20m	Slight Driver	1
28	523790	182040	Raining	V2 turns across V1	Xroads/GW/Zebra	Slight Driver	1
29	523300	181700	Raining	V1 brake as window being smashed	No jct in 20m	Slight Pas.	1
30	523790	182040	Fine	Ped. crosses into V1 path	Xroads/GW/Zebra	Slight Driver	2
31	523990	182100	Fine	Ped. into V1	Slag/Uncont/Cen Ref	Serious Ped./Slight Driver	2
32	523900	182050	Fine	V2 hit V1 alongside	Slag. Jct/GW/Zebra	Serious Driver	2
33	523170	181590	Fine	V1 reversed into Ped.	Slag. Jct/GW/Zebra	Slight Ped.	1
34	523150	181570	Fine	V1 hits Ped. on Zebra	Xroads/GW/Zebra	Slight Ped.	1
35	523600	182050	Fine	V2 hit slat. V1	Slag. Jct/GW/Zebra	Slight Driver	1
36	523990	182090	Fine	Ped. 1 crossed in V1 path	No jct in 20m	Slight Ped.	1
37	523520	181940	Fine	Pas. Jumped from moving V1	Multi Jct/Uncont.	Slight Pas.	1
38	523730	182020	Fine	V3 hit V2. V3 stopped & restarted hitting V1	Other Jct/Uncont.	Slight Driver	1
39	523790	182050	Fine	V2 failed to GW hitting V1	Xroads/GW/Zebra	Slight Driver	1
40	523240	181640	Fine	V2 into slat. V1	Rabout/GW/Zebra	Serious Driver	2
41	523840	181990	Fine	V2 hit rear V1, then reversed into V3	Other Jct/Uncont.	Slight Driver	1
42	523160	181570	Fine	V2 overtaking hit V1	Slag. Jct/GW/Zebra	Slight Ped. X2	1
43	523400	181800	Fine	V1 lost control	Mini/GW	Slight Driver	1
44	523990	182080	Fine	V1 lost control	Slag. Jct/GW/Cen Ref	Serious Driver	2
45	523880	181810	Raining	V1 braked to avoid V2	Other Jct/Uncont.	Slight Driver	1
46	523420	181930	Fine	V1 rode into road hit by V2	Slag. Jct/GW	Slight Driver	1
47	523160	181560	Fine	V1 into slat V2	Slag. Jct/GW/Zebra	Slight Pas. X7, Slight Driver, Serious Pas. X2	1
48	523600	182050	Fine	V1 driver lost control	Xroads/GW/Zebra	Slight Driver/Serious Pas.	1
49	523970	182080	Fine	V2 crossed centre lines hitting V1	No jct in 20m	Slight Pas.	1
50	523300	181700	Fine	V1 hit rear V2	Xroads/GW/Zebra	Slight Driver	1
51	523280	181680	Fine (wet road)	V2 failed to GW hitting V1	Xroads/GW/Zebra	Serious Driver, Slight Driver	2
52	523520	181940	Snowing	V2 hit rear V1	Other Jct/Uncont./Zebra	Slight Driver	1
53	523290	181660	Fine	V1 hit Ped. on zebra	Other Jct/Uncont.	Slight Ped.	1
54	523160	181830	Fine	V2 hit V2 turning right	Other Jct/Uncont.	Serious Driver	2
55	523490	181910	Fine	V1 hit Ped. on zebra	Slag. Jct/GW/Zebra	Slight Ped.	1
56	523990	182110	Fine	V1 braking caused hit Pas.	Rabout/GW/ATS	Slight Pas.	1
57	523290	181690	Fine	V1 turning right hit oncoming V1	Xroads/GW/Zebra	Slight Driver	1
58	523830	181680	Fine	V1 reversed onto fw hitting Peds	Other Jct/Uncont.	Slight Ped. X2	1
59	524000	182110	Fine	V2 too close to V1 causing Cyclist to fall	Slag. Jct/GW/Zebra	Slight Driver	1



## APPENDIX C

# 21<sup>st</sup> Century London Living Extract

ownership. This difference can be accounted for by: -

- Trips prior to 7am (the start of the parking survey). If these trips are added to the parking total, it increases the ratio by about 20%. This means the observed parking would be about 80% of the car ownership.
- People on holiday – this could account for between 5-8% of households
- People staying with friends or partners elsewhere
- People on business trips
- Vacant dwellings, either due to occasional use/second home or investment properties.

4.22 Table 9 shows overall vehicle ownership for households and for occupants. There were significant differences for car ownership between private and affordable dwellings with observed car ownership much higher on the former.

Table 9 Household Vehicle Ownership by Dwelling Type, from Interview Survey

	Private ratio	Affordable ratio
Studio and 1 Bed Apartments	0.65	0.21
2 and 3 Bed Apartments	0.98	0.52
Overall mean	0.84	0.44

4.23 It was concluded that, for any given development mix and location, the characteristics of the type of development (in terms of location and demographic mix) could be used together with the development mix (numbers of each dwelling type) to give an estimated level of car ownership for a proposed development.

4.24 The above levels of car ownership can be compared to census information for London and the local area. Calculated values for car ownership in London give values of 0.62 for Inner London and 1.04 for Outer London (National Census, 2001). This Outer London figure is significantly higher than the mean from the study of 0.73, and higher than either of the tenure specific figures.

## Trip Generation

4.25 Trip rates are widely used to describe the activity of any development, and are typically expressed as the number of trips divided by the number of dwellings. Trip rates for households derived from interview surveys are set out in Tables 10 and 11. The peak hours included in the table are for 0800-0900 and 1700-1800, as these are typically the highway network peak. Tables 10-14 consider trips made by residents (which represent most trips) whilst Tables 15-17 consider trips for non-residents and then Tables 18 and 19 the combined trip rates.

Table 10 Two-Way Resident Trip Rate per Household, All Modes, from Interview Survey

	Private		Affordable	
	AM Total	PM Total	AM Total	PM Total
Bird Estate	0.219	0.438	0.660	0.330
Charter Quay	0.286	0.657		
Enfield Island	0.413	0.254		
Graham Park				
Highland Village	0.517	0.759		
Pavilion Way	0.265	0.588		
Riverside West	0.476	0.302		
Mean	0.378	0.445	0.660	0.330

4.26 The all mode trip rates in Table 10 indicate a significant difference between the morning and evening and different patterns than private dwellings. In particular the morning person trip rate is much higher for affordable than for private, possibly as a result of differing levels of education trips.

4.27 However, vehicle trip rates were much lower for affordable than for private households (Table 11). In the morning the affordable vehicle trip rate is lower than the private signifying that education based trips are undertaken by other modes of travel.

Table 11 Two Way Resident Vehicle Trip Rate per Household by Survey Site, from Interview Survey

	Private		Affordable	
	AM Total	PM Total	AM Total	PM Total
Bird Estate	0.094	0.156	0.043	0.085
Charter Quay	0.057	0.171		
Enfield Island	0.143	0.127		
Graham Park				
Highland Village	0.138	0.276		
Pavilion Way	0.059	0.294		
Riverside West	0.063	0.032		
Mean	0.086	0.152	0.043	0.085



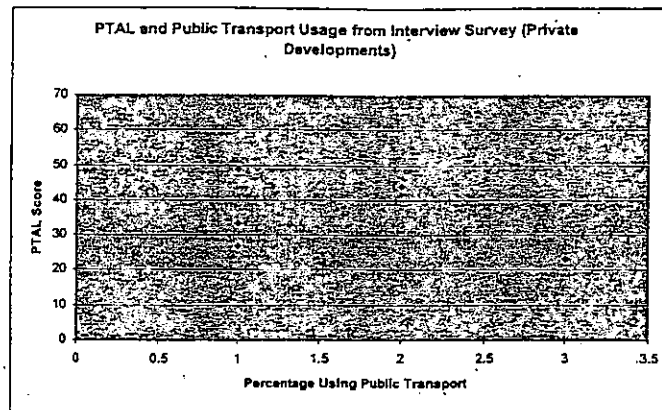


Figure 7

**Table 17 Non Resident Peak Period Visitor Vehicle Trips, From Interview Survey**

Dwelling type	Private				Affordable			
	AM		PM		AM		PM	
	In bound	Outbound	In bound	Outbound	In bound	Outbound	In bound	Outbound
Studio and 1-Bed	0.008	0	0	0	0	0	0.043	0
2 and 3 Bed	0.014	0.014	0.007	0	0	0	0	0
Mean	0.012	0.008	0.004	0	0	0	0.011	0

**Table 18 Combined All Mode Trips, From Interview Survey (Residents + Non resident)**

Dwelling type	Private				Affordable			
	AM		PM		AM		PM	
	In bound	Outbound	In bound	Outbound	In bound	Outbound	In bound	Outbound
Studio and 1 Bed	0.008	0.320	0.327	0.060	0	0.170	0.217	0
2 and 3 Bed	0.014	0.444	0.437	0.080	0.084	0.730	0.310	0.070
Mean	0.011	0.388	0.387	0.071	0.063	0.593	0.287	0.053

**Table 19 Combined Vehicle Trips, From Interview Survey (Residents + Non resident)**

Dwelling type	Private				Affordable			
	AM		PM		AM		PM	
	In bound	Outbound	In bound	Outbound	In bound	Outbound	In bound	Outbound
Studio and 1 Bed	0.008	0.086	0.121	0.000	0.000	0.000	0.217	0.000
2 and 3 Bed	0.014	0.114	0.164	0.021	0.028	0.028	0.056	0.000
Mean	0.012	0.102	0.145	0.012	0.021	0.021	0.096	0.000

**Table 20 Modes of Travel by Development over the Day, From Interview Survey**

Mode	Graham Park	Bird Estate	Charter Quay	Enfield Island	Highland Village	Pavilion Way	Riverside West	Private Mean
Car Driver	15.1%	29.9%	25.4%	42.4%	45.1%	41.6%	25.8%	33.7%
Car Passenger	8.9%	18.9%	0.7%	11.7%	3.5%	2.2%	7.1%	6.9%
Motorcycle							3.4%	0.7%
Bicycle			2.5%	3.6%			1.1%	1.6%
Bus	30.6%	4.7%	7.5%	7.8%	4.4%	21.9%	9.7%	9.5%
Underground/DLR	13.4%	39.4%	0.4%	3.9%	33.6%	11.7%	4.5%	11.2%
Rail			15.4%	15.3%	10.6%		43.7%	17.3%
Walk	30.4%	7.1%	48.2%	15.3%	2.7%	22.6%	1.5%	18.3%
Taxi	1.6%						3.4%	1.0%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%



## APPENDIX D

# WSP Vehicle Tracking and Visibility Splays

## Drawings

- 1242/GA/002
- 1242/GA/003
- 1242/GA/004
- 1242/GA/005



## APPENDIX E

### QUAD Architects Development Site

#### Drawings

- 529 P 02
- 529 P 03





## APPENDIX F

- **Minutes from meetings with RBKC**

## Minutes for Pre-planning Meeting No. 1

2.00pm Monday 28<sup>th</sup> July 2003  
Royal Borough of Kensington & Chelsea Planning Offices

**RE: 130 –136 Barlby Road, North Kensington, London W10**

Present:	Andrew Patterson	Planning Officer
	Andrew North	Client
	Nuggy Lianos	quad
	Anna-Louise Forster	quad

### Use Class

At present Use Class is B8 (Storage and Distribution) and B1 (Offices), proposal is for C3 Dwelling houses. Site is not in a designated employment zone so AP encouraged site changed to residential use. Maximise housing on the site as commercial might not work here. AP noted mixed schemes do not always work. There is no local policy in retention of B1 office use for that area.

One third of residential units need to be affordable housing. Key worker comes out of the open market housing and not the affordable.

Client will need to work with an affordable housing company (RSL). Contact Stan Logan at the housing department for more information

Parking to be maximum provision for number of units. Planners encourage permit free schemes where people who buy would have to sign up to no parking in the street car parking zones. This would have to be included in the section 106 agreement. Planning officer aware of expense of underground car parking provision.

Access to site can be off Exmoor Street as it may be more dangerous on barlby road to underground car parking.

Check Pall Mall listing.

Affordable housing design and materials to be of maximum quality. There should be no discrimination between the design of the open market flats and the affordable housing.

## Minutes for Pre-planning Meeting No. 2 (Housing Department)

3.00pm Wednesday 30<sup>th</sup> July 2003  
Royal Borough of Kensington & Chelsea Planning Offices

**RE: 130 –136 Barlby Road, North Kensington, London W10**

Present: Stan Logan                    Housing Officer  
          Andrew North                Client  
          Nuggy Lianos                quad  
          Anna-Louise Forster        quad

SL stated priority of affordable housing is social housing units for rent. If there are more than 20 units then 10 – 30 % will assigned for shared ownership. Affordable ownership database launched in September.

2000 applicants a year to the CHR (Common Housing Register) for borough of K & C. Difficult to meet demand.

Large schemes need more than 1/3 affordable housing.

Housing department propose client collaborates with a Registered Social Landlord (RSL). If development is less than 15 dwelling units, K & C Housing department propose an RSL. If development is between 15 and 40 dwelling units, K & C Housing Department provide a selection perhaps up to six based on local management base.

80% of TCI's to RSL for build costs.

Stan Logan to stipulate the mix of units. For example, 10 units would be made up of five one beds and five two beds. More than 20 units and Housing Department would require 10% 1 bed, 45% 2 bed, 35% 3 bed and 10% 4 bed.

Parking provision to be decided by planners. Only ¼ of social housing tenants will have a car. Ideally Housing department would prefer a car free environment.

Look at tables for recommended unit areas for affordable housing provision. Say one bed to be 44.5 sqm, 2 beds to 66sqm. If unit sizes are bigger, it provides a greater amenity.

10% of units need to be accessible built to mobility requirements. 4 bed units to be fully wheelchair compliant.

Encourage Occupational therapist to get involved at an early stage.



### Minutes for Pre-planning Meeting No. 3

10.00am Friday 17<sup>th</sup> October 2003  
Royal Borough of Kensington & Chelsea Planning Offices

**RE: 130 –136 Barlby Road, North Kensington, London W10**

Present:	Andrew Patterson	Planning Officer
	Stan Logan	Housing Officer
	Andrew North	Client
	Nuggy Lianos	quad
	Anna-Louise Forster	quad
	Jason Lai	quad

AP requested 50% affordable housing provision. All affordable housing to be for rent as requested by Housing Department. Any key workers would have to be accommodated within the open market housing provision.

Site considered to be a windfall site to the borough because of large provision of residential dwellings.

Calculation of affordable housing can be measured on a habitable room basis instead of unit percentages.

SL requested three bed flats to be 93 sqm (5 persons), four bed flats to be 104sqm (6 persons).

AP requested an electric car club of four parking spaces be included within the scheme.

AP requested client provide a community facility on the site, possibly a youth club or a crèche. Crèche to be designed for approximately 20 children. AP advised on visiting Maxilla crèche under the West way to act as a precedent to the design of the crèche.

AN asked for proportion of shared ownership units to be assigned to key workers from St. Charles' Hospital to continue good neighbour relationship between sites and for convenience and proximity. This may be made up of five local residents and five key workers. Again, AP and SL highlighted key worker provision should be in open market provision.

High quality of materials to be used in construction and design of units.

At present, there is an 80 TCI on RSL. Site is Super A – Kensington and Chelsea for TCI. 110% when not subject to a 106 agreement.

AP recommended our next meeting should be with the highways department. Quad to arrange.

## Minutes for Pre-planning Meeting No. 4 (Highways)

10.00am Monday 19<sup>th</sup> January 2004  
Royal Borough of Kensington & Chelsea Planning Offices

**RE: 130 –136 Barlby Road, North Kensington, London W10**

Present:	Andrew Patterson	Planning Officer
	Leslie Wyatt Jones	Head of Development Control
	Rachel Yorke	Transportation
	Geoff Burrage	Transportation
	Andrew North	Client
	Tim Lipton	Client
	Nuggy Lianos	quad
	Anna-Louise Forster	quad
	Jason Lai	quad

Stan Logan from the Housing Department joined the meeting after departure of Transportation department and Leslie Wyatt Jones.

### Parking Spaces (Rachel Yorke, Transport)

- Excessive parking spaces
- 1:1 for Open Market units and Affordable units with 5 or more habitable rooms, 0.66:1 for Affordable units with 4 or less habitable rooms.
- 95 parking spaces (calculated max) for this scheme according to UDP.
- 1 x additional disabled parking space required.
- Conversion of some parking spaces into 2 x parking spaces for service vehicles (double-space parking).

### Cycle Spaces (Rachel Yorke, Transport)

- Good provision and arrangement of cycle spaces.
- Shared access with cars through ramp not ideal because of curved ramp.
- Need to provide for bicycle access and re-look at access route in basement.

### Basement Ramp (Geoff Burrage, Transport)

- 1:10 ramp – surface needs to be protected from elements (surface treatment, strips, proper drainage etc.)
- Ramp ideally as wide as possible (min. 5200) – currently 5500 but curved ramp restricts line-of-sight of oncoming vehicles. Consideration must be given to larger service vehicles into basement.
- Lower part of ramp to be lined by low walls so that oncoming vehicles can be seen around corner.
- Show turning tracks in drawings for submission.  
Current radii of curved ramp: 4000 (inner radius), 6750 (centre line radius), 9500 (outer radius)

### Electric Car Club (Rachel Yorke, Transport)

- Objective of ECC is to minimise car use. Provision of excessive parking spaces does not reflect such an objective.
- Ratio of ECC car to usage should be 1 car: 10 people.
- No need for ECC in scheme.

### Service Provision (Rachel Yorke, Transport)

- Provision of refuse collection bay along Barlby Road.

- Show relationship with street in submission drawings.
- Rear access too narrow for service vehicles + 1800 pedestrian pathway.
- Need to call Refuse Department to clarify requirement for rear access.
- Check supplement appendix to UDP for updated requirement for turning tracks (hammerhead) for service vehicles for rear access.
- Provision of intercom for Affordable housing for opening of rear gates (for refuse collection).

#### Access for Residents of Affordable Housing (Andrew Patterson)

- Provision of access route for Residents of Affordable Housing from Barlby Road.

#### External Landscaped Areas (Leslie Wyatt Jones)

- More external landscaping required to provide for outdoor activities, especially for children.

#### Miscellaneous

- Provision for Art – crèche??
- Barlby Road classified under 'Low to Medium' Transport Accessibility Area for borough.
- One more meeting with Andrew Patterson and Stan Logan before submission.
- Send Andrew P one set of drawings before meeting.
- Transport (Motorways) Contact: Geoff Burrage
- Planners to start on Section 106 today.

#### Submission Notes

- Submit with Section 106 sorted out.
- Ensure legal proficiency and familiarity with Section 106.
- Transport Survey with submission (Public Transport Frequency and Movement, Vehicle Ownership etc.)
- Design Statement with submission.
- Daylight/Sunlight Survey with submission.
- Density Figures (Habitable Rooms per Acre) for Open Market Housing and Affordable Housing with submission (see UDP pg 130).

Project Name/Reference: **130 –136 Barlby Road, North Kensington, London W10**

Meeting purpose: **Pre-planning Meeting No. 5 (Transportation)**

Place of Meeting: **Royal Borough of Kensington & Chelsea Planning Offices**

Date and time: **9.00 am on Friday 2<sup>nd</sup> April 2004**

Those Present: **Richard Case                      Transportation**  
**Geoff Burrage                      Transportation**  
**Paul O'Neill                      WSP Development**  
**Anna-Louise Forster              quad**

**1.0      Parking Spaces**

1.1      PN presented new scheme proposing 94 car parking spaces, including 10 disabled spaces and 2 delivery vehicle spaces. Provision has been reduced from 110 spaces at previous meeting to be in line with UDP requirements. AF noted number of residential units proposed had been reduced from 95 to 94. It was agreed to change one delivery vehicle space to a standard car parking space. RC and GB agreed all parking requirements had been met.

**2.0      Cycle Spaces**

2.1      In response to comments from Rachel Yorke at previous meeting with regard to the safety of cyclists using the ramp, AF proposed scheme now provides a cycle lift to basement level. RC and GB agreed this was satisfactory.

**3.0      Basement Ramp**

3.1      It was agreed ramp gradient was acceptable at 1:10 (10%), with a gradient of 1:20 (5%) at top and bottom of ramp.

3.2      It was agreed the ramp width at 5.5m was acceptable.

3.3      PN noted ramp had been designed using AutoTrack using a large saloon car say a Jaguar, to map turning circle and radii of ramp. RC and GB satisfied with proposals.

3.4      AF noted ramp had been redesigned to allow walls at lower end of ramp to be opened up to increase line of sight for vehicles descending or ascending the ramp. AF proposed wall height to be 500 – 700mm in height. GB satisfied with proposals.

**4.      Service Provision**

4.1      AF noted refuse storage for site had been calculated to allow for 10 No. 1100 continental bins for each site after consulting Refuse Department guidelines for K & C.

- 4.2 It was proposed two separate refuse collections for the two sites (affordable housing and open market housing). Refuse vehicle servicing open market residents to use lay-by adjacent to entrance gates on Barby Road. Continental Bins can be wheeled approx 18m to vehicle by manager/ porter of site or refuse collectors. RC recommended checking proposals with local refuse collection department.
- 4.3 AF proposed collection for Affordable Housing to be at Exmoor Street. Refuse Vehicle to park at entrance gates and continental bins be transported to entrance gate on day of collection by manager of site. RC concerned about room for refuse vehicle to park at entrance gates. No lay-by is provided. RC noted it would be preferable for refuse vehicle to enter site.
- 4.4 AF and PN noted at last meeting concern for refuse vehicle using access route at the same time as pedestrians. RC noted if the majority of service vehicles, i.e. Tesco Delivery vans could use basement then use of access route could be limited to once weekly and would be deemed acceptable.
- 4.5 Width of access route need only be for refuse vehicle and fire appliances with relief zones provided for pedestrians. It was agreed this would allow planting and landscaping to access route to enhance approach/arrival to site.
- 4.6 PN to track turning heads of refuse vehicle using access route to ensure suitable width.
- 4.7 Floor to ceiling height of basement car park to be amended to allow for height of Tesco Delivery vehicles.

## **5. Access route from Exmoor Street**

- 5.1 It was agreed access should be controlled from Exmoor Street for vehicles using gates or bollards. Either one should be set in from Exmoor street to allow refuse vehicle to turn into access route before opening.
- 5.2 Control of gates / bollards to be by manager / porter of site only and not residents. If gated, residents to have intercom access to pedestrian gate only.
- 5.3 It was also agreed a Taxi drop off point in the basement should be provided within basement for residents of affordable housing.
- 5.4 GB issued RBKB&C Streetscape guide for design of access route.

## **5. Transport Assessment (TA)**

- 5.5 PN tabled the scope of works identified to complete the transport assessment. RC provided initial feedback and suggested two minor changes to the scope. All other sections of the transport assessment were commended for the approach taken.
- 5.6 RC agreed that RBKC would be in a position to review the TA prior to the planning application being submitted. PN indicated that all drawing and a draft version of the TA would be sent in near future.
- 5.7 PN discussed an e-mail sent to RC, outlining the likely traffic to be generated by the site, RC agreed with the content of the e-mail and suggested that commentary should be included in the TA, and that Capacity assessments would not be required at the junction of Barby Road and Ladbroke Grove.

## **6. Sustainability**

6.1 RC noted consideration should be given to green issues, with comment on a green travel plan included in the Transport Assessment. PN suggested that a full Travel Plan would not be required at this stage, RC agreed.

It was agreed no further meeting was required with Transportation Department.

---

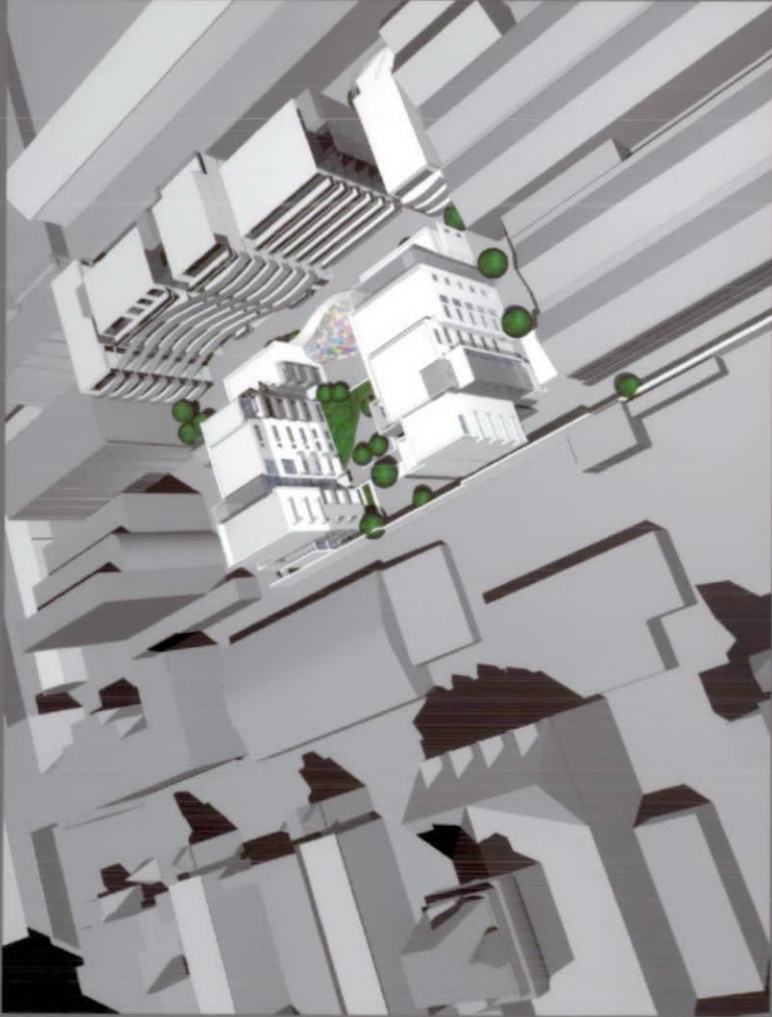
11 devonshire road chiswick london w4 2eu  
t: +44 (020) 8994 3344 f: +44 (020) 8742 1988 w: [www.quadarchitects.com](http://www.quadarchitects.com) e: [info@quadarchitects.com](mailto:info@quadarchitects.com)

# Other Documents

Please Index As

File Number

<b>Part</b>	<b>1</b>	<b>Part</b>	<b>10</b>
<b>Part</b>	<b>2</b>	<b>Part</b>	<b>11</b>
<b>Part</b>	<b>3</b>	<b>Part</b>	<b>12</b>
<b>Part</b>	<b>4</b>	<b>Part</b>	<b>13</b>
<b>Part</b>	<b>5</b>	<b>Part</b>	<b>14</b>
<b>Part</b>	<b>6</b>	<b>Part</b>	<b>15</b>
<b>Part</b>	<b>7</b>	<b>Part</b>	<b>16</b>
<b>Part</b>	<b>8</b>	<b>Part</b>	<b>17</b>
<b>Part</b>	<b>9</b>	<b>Part</b>	<b>18</b>

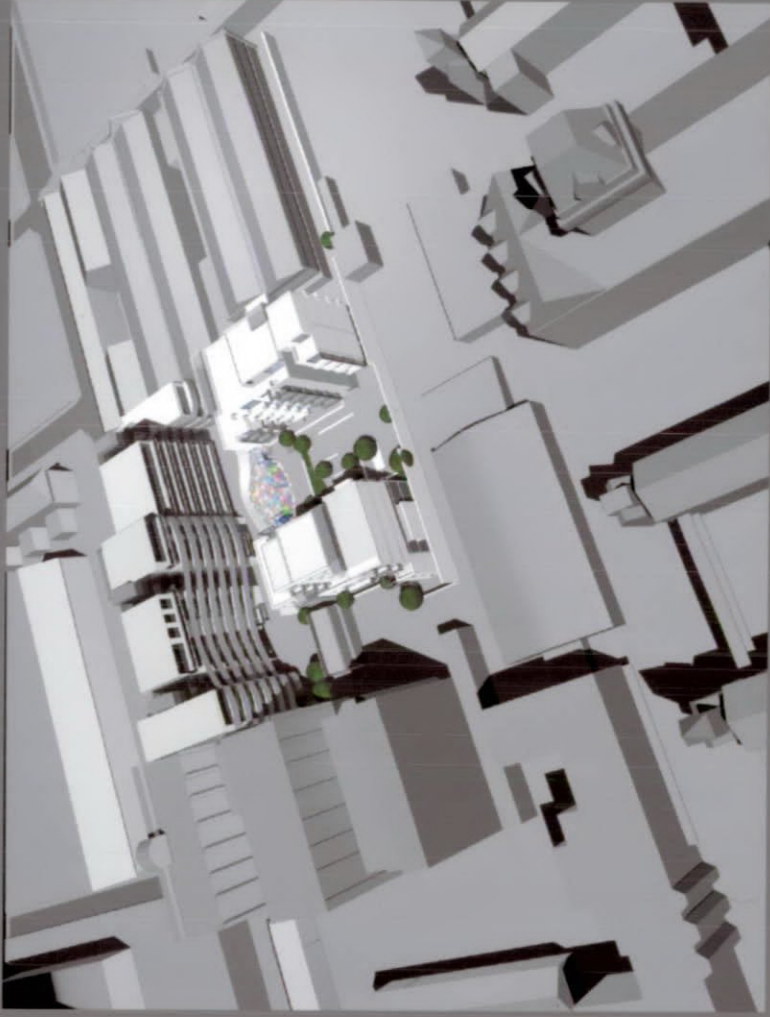
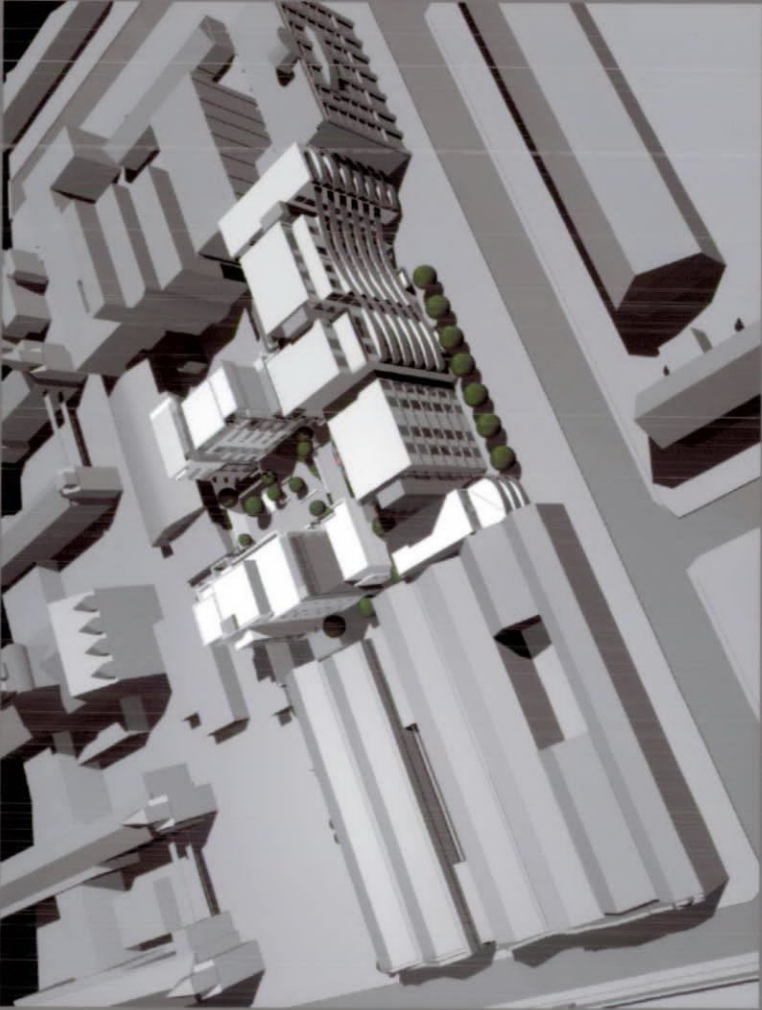


quad  
11, devonshire road, chiswick, london w4 2eu t: 020 8994 3344 f: 020 8742 1988

130-136 BARLBY ROAD AND 6 EXMOOR STREET, NORTH KENSINGTON W10  
529 ILLUSTRATION 6 - EAST AND WEST VIEW OF MASSING MODEL



APPROVED BY  
PLANNING SERVICES CTTEE  
2 0 DEC 2004  
CONSENT REF.....



quad  
11, devonshire road, chiswick, london w4 2eu t. 020 8994 3344 f. 020 8742 1988

130-136 BARLBY ROAD AND 6 EXMOOR STREET, NORTH KENSINGTON W10  
529 ILLUSTRATION 5 - NORTH AND SOUTH VIEW OF MASSING MODEL

APPROVED BY  
PLANNING SERVICES CTTEE

2 0 DEC 2004

CONSENT REF.....



quad  
11, devonshire road, chiswick, london w4 2eu t. 020 8994 3344 f. 020 8742 1988

130-136 BARLEY ROAD AND 6 EXMOR STREET, NORTH KENSINGTON W10  
529 ILLUSTRATION 4 - COURTYARD VIEW OF BLOCK E



APPROVED BY  
PLANNING SERVICES CTTEE

2 0 DEC 2004

CONSENT REF .....



quad  
11, devonshire road, chiswick, london w4 2eu t. 020 8994 3344 f. 020 8742 1988

1.30-1.36 BARLBY ROAD AND 6 EXMOOR STREET, NORTH KENSINGTON W10  
5.29 ILLUSTRATION 3 - COURTYARD VIEW OF BLOCK D

APPROVED BY  
PLANNING SERVICES CTTEE

2 0 DEC 2004

CONSENT REF .....





quad  
11, devonshire road, chiswick, london w4 2eu t. 020 8994 3344 f. 020 8742 1988

130-136 BARLBY ROAD AND 6 EXMOOR STREET, NORTH KENSINGTON W10  
529 ILLUSTRATION 2 - EXISTING BARLBY ROAD ELEVATION



APPROVED BY  
PLANNING SERVICES CTTEE

2 0 DEC 2004

CONSENT REF.....



quad  
11, devonshire road, chiswick, london w4 2eu t: 020 8994 3344 f: 020 8742 1988

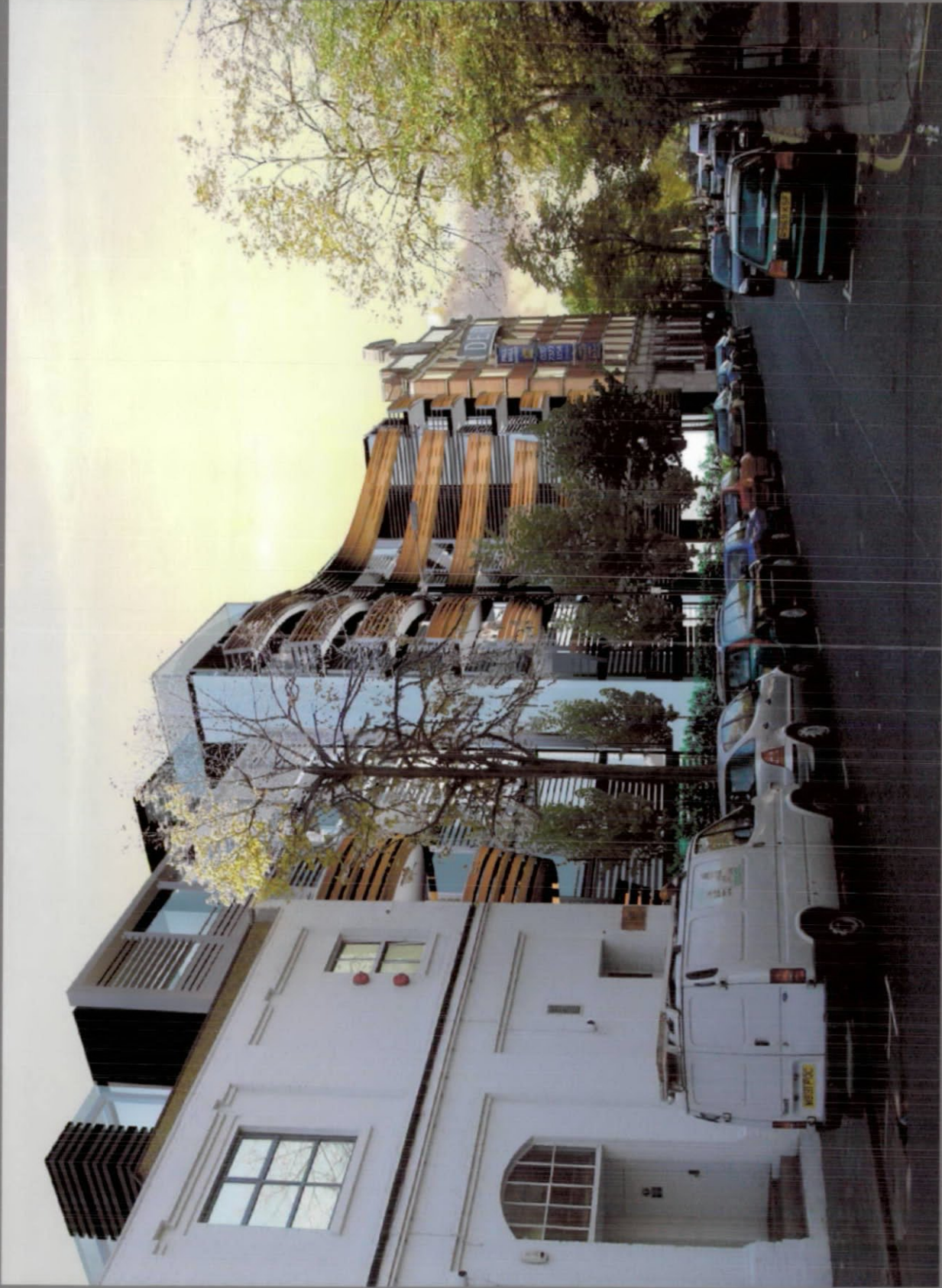
130-136 BARLBY ROAD AND 6 EXMOOR STREET, NORTH KENSINGTON W10  
529 ILLUSTRATION 1 - PROPOSED BARLBY ROAD ELEVATION

APPROVED BY  
PLANNING SERVICES CTTEE

2 0 DEC 2004

CONSENT REF.....





quad  
11, devonshire road, chiswick, london w4 2eu t. 020 8994 3344 f. 020 8742 1988

130-136 BARLEY ROAD AND 6 EXMOOR STREET, NORTH KENSINGTON W10  
529 ILLUSTRATION 1 - PROPOSED BARLEY ROAD ELEVATION





11, devonshire road, chiswick, london w4 2eu t. 020 8994 3344 f. 020 8742 1988

quad

1 30-1 36 BARLBY ROAD AND 6 EXMOOR STREET, NORTH KENSINGTON W10  
529 ILLUSTRATION 2 - EXISTING BARLBY ROAD ELEVATION





quad  
11, devonshire road, chiswick, london w4 2eu t: 020 8994 3344 f: 020 8742 1988

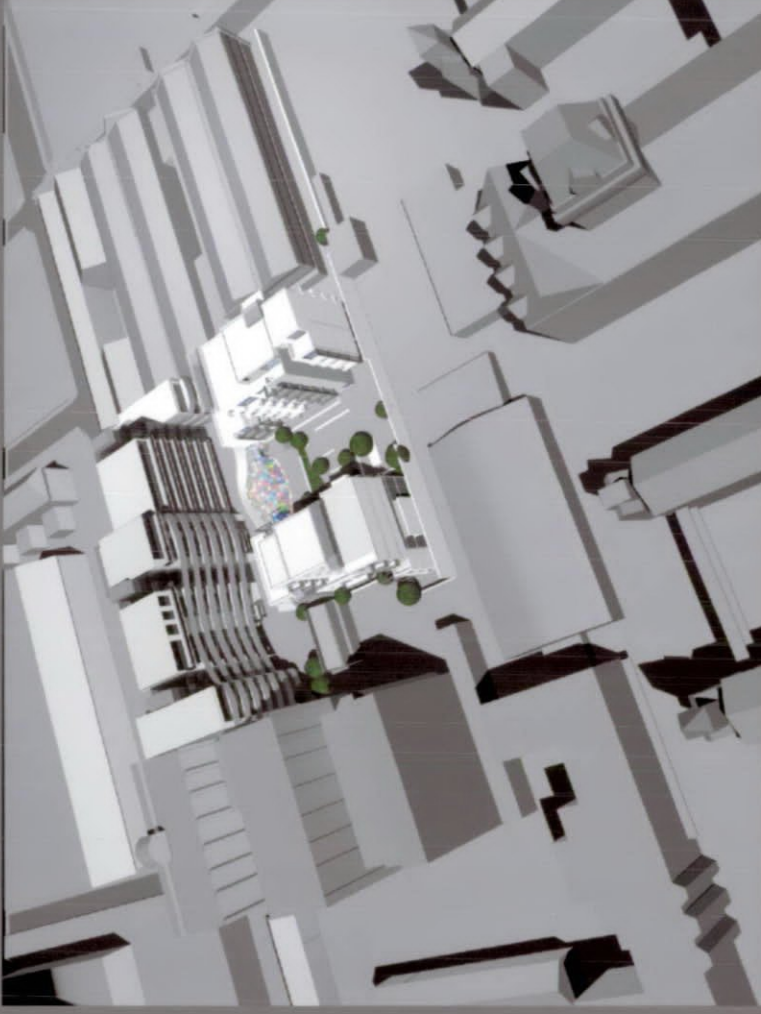
1 30-1 36 BARLBY ROAD AND 6 EXMOOR STREET, NORTH KENSINGTON W10  
529 ILLUSTRATION 3 - COURTYARD VIEW OF BLOCK D



quad  
11, devonshire road, chiswick, london w4 2eu t. 020 8994 3344 f. 020 8742 1988

130-136 BARLEY ROAD AND 6 EXMOOR STREET, NORTH KENSINGTON W10  
529 ILLUSTRATION 4 - COURTYARD VIEW OF BLOCK E

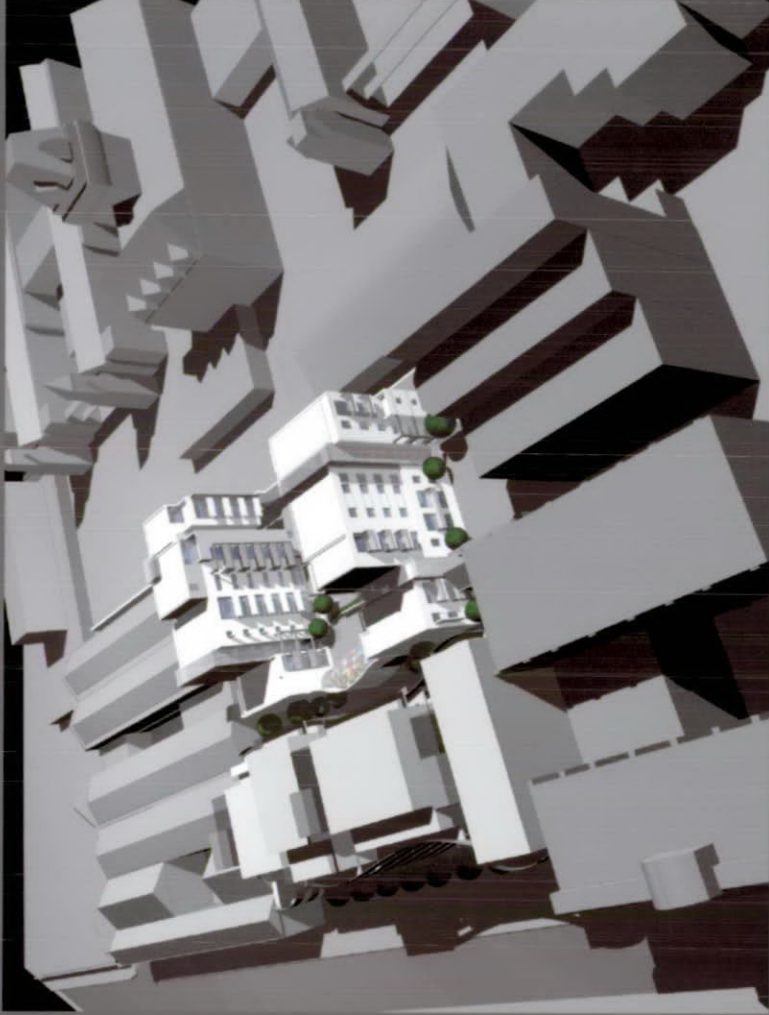
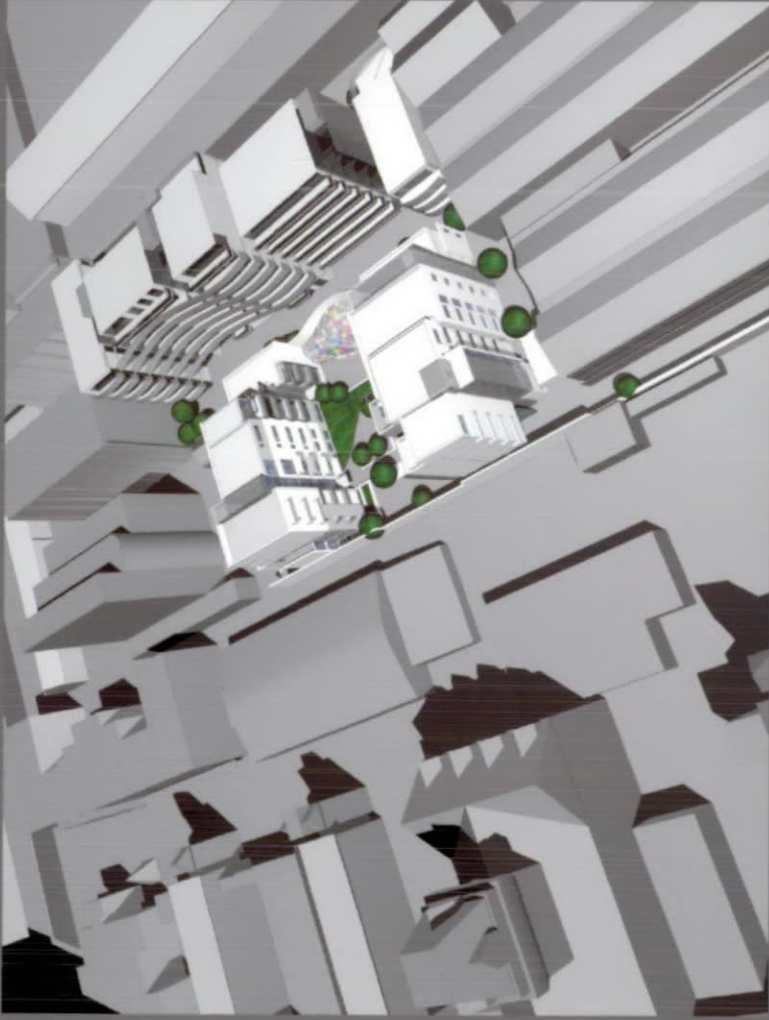




quad  
11, devonshire road, chiswick, london w4 2eu t: 020 8994 3344 f: 020 8742 1988

130-136 BARLBY ROAD AND 6 EXMOOR STREET, NORTH KENSINGTON W10  
529 ILLUSTRATION 5 - NORTH AND SOUTH VIEW OF MASSING MODEL





quad  
11, devonshire road, chiswick, london w4 2eu t. 020 8994 3344 f. 020 8742 1988

130-136 BARLBY ROAD AND 6 EXMOOR STREET, NORTH KENSINGTON W10  
529 ILLUSTRATION 6 - EAST AND WEST VIEW OF MASSING MODEL





quad  
11, devonshire road, chiswick, london w4 2eu t. 020 8994 3344 f. 020 8742 1988

130-136 BARLBY ROAD AND 6 EXMOOR STREET, NORTH KENSINGTON W10  
529 ILLUSTRATION 1 - PROPOSED BARLBY ROAD ELEVATION





11. devonshire road, chiswick, london w4 2eu t. 020 8994 3344 f. 020 8742 1988

quad





quad  
11, devonshire road, chiswick, london w4 2eu t. 020 8994 3344 f. 020 8742 1988

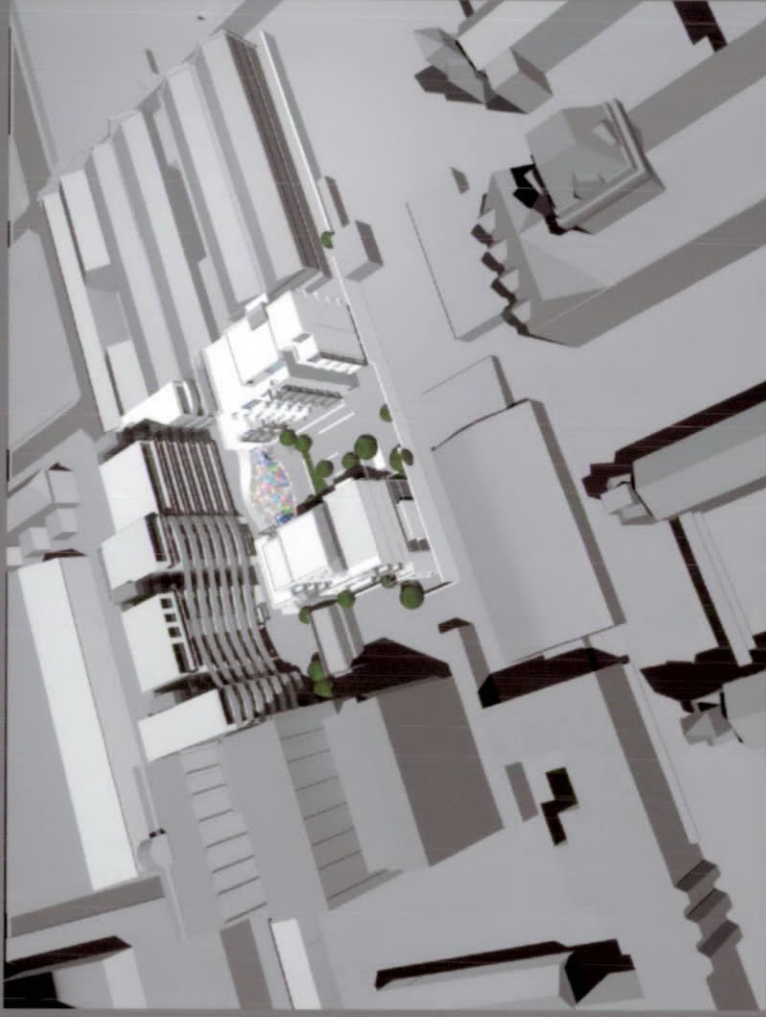
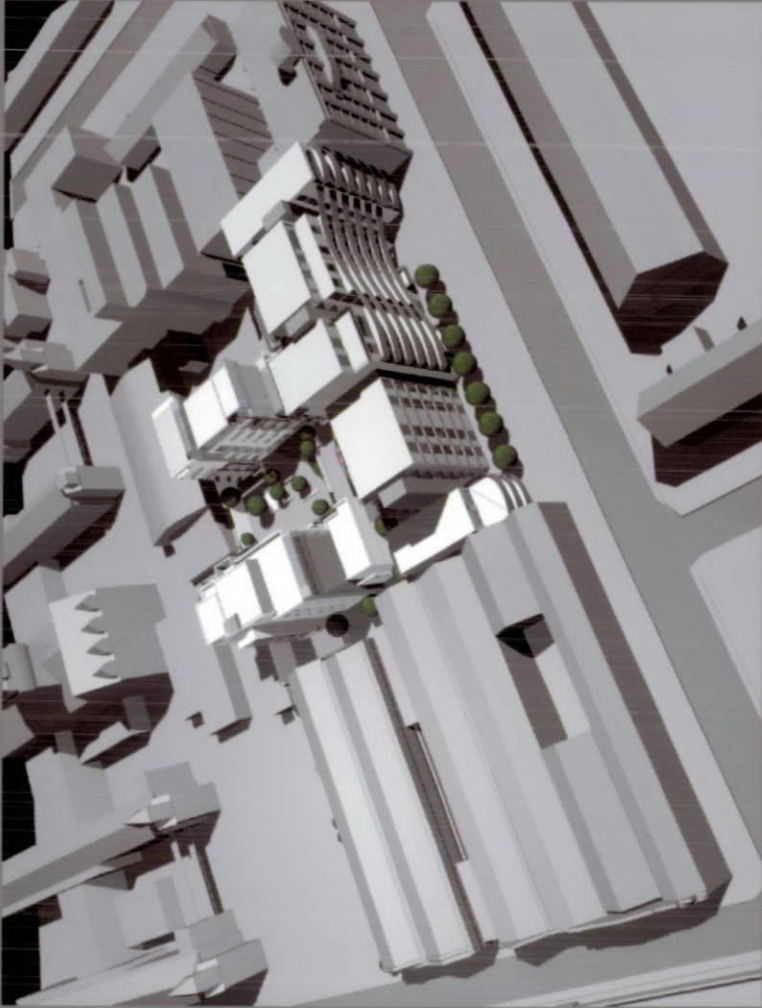
1 30-1 36 BARLBY ROAD AND 6 EXMOOR STREET, NORTH KENSINGTON W10  
529 ILLUSTRATION 3 - COURTYARD VIEW OF BLOCK D



quad  
11, devonshire road, chiswick, london w4 2eu t. 020 8994 3344 f. 020 8742 1988

1 30-1 36 BARLEY ROAD AND 6 EXMOR STREET, NORTH KENSINGTON W10  
529 ILLUSTRATION 4 - COURTYARD VIEW OF BLOCK E

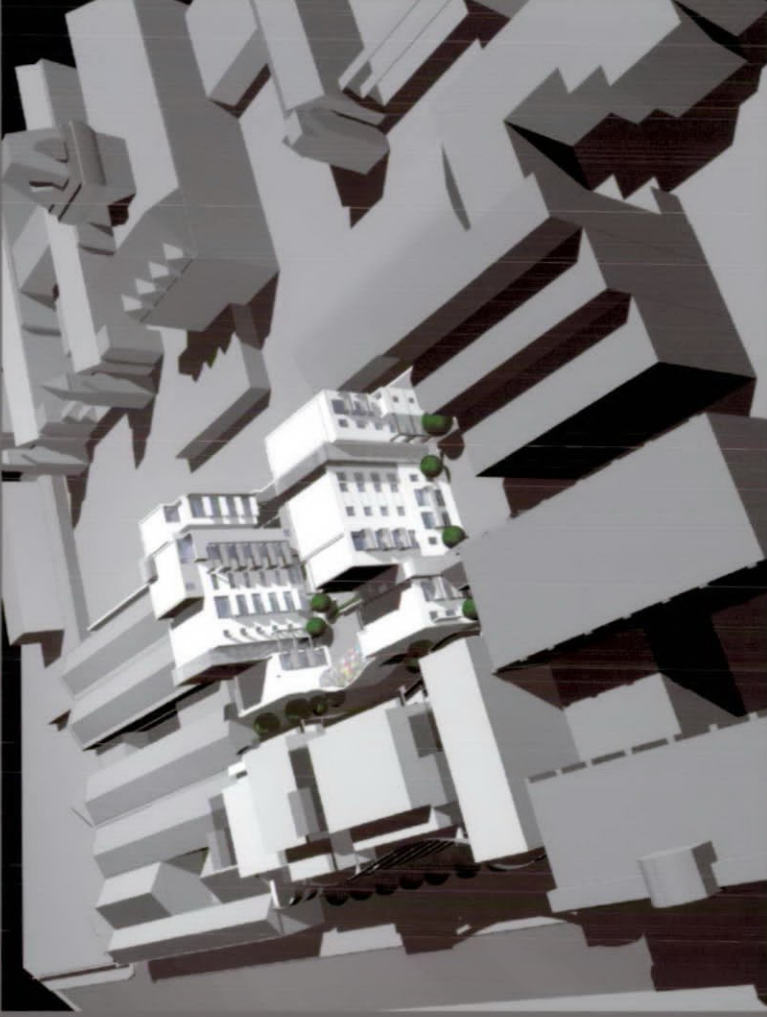
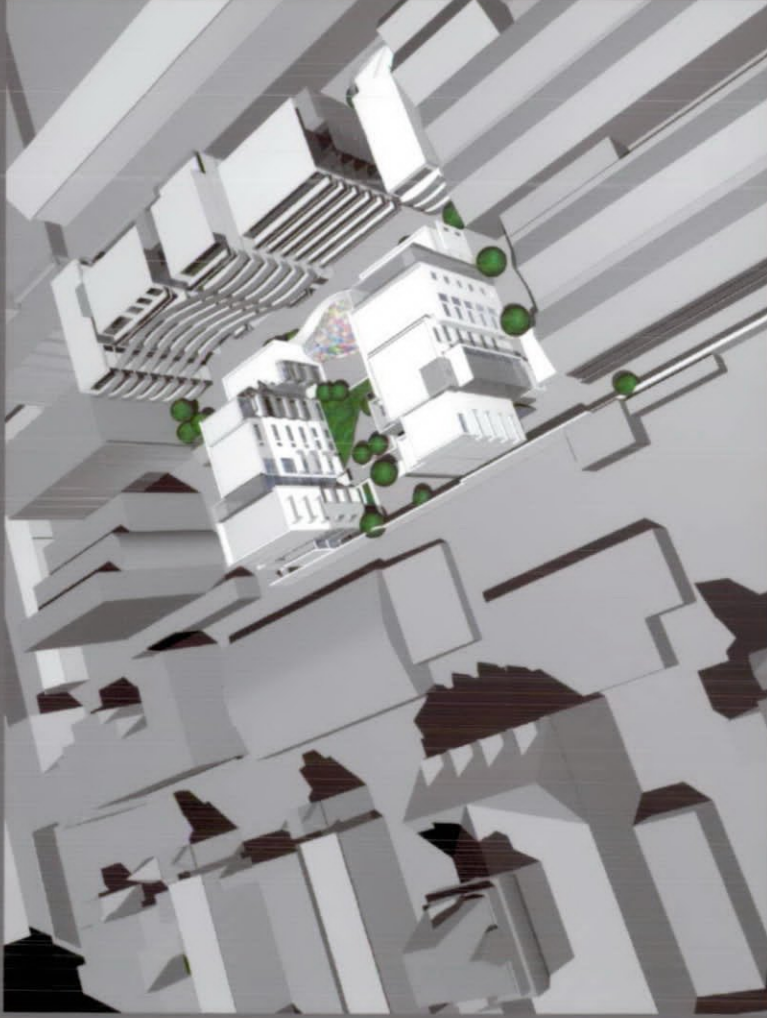




quad

11, devonshire road, chiswick, london w4 2eu t. 020 8994 3344 f. 020 8742 1988

130-136 BARLBY ROAD AND 6 EXMOOR STREET, NORTH KENSINGTON W10  
529 ILLUSTRATION 5 - NORTH AND SOUTH VIEW OF MASSING MODEL



quad  
11, devonshire road, chiswick, london w4 2eu t 020 8994 3344 f 020 8742 1988

130-136 BARLBY ROAD AND 6 EXMOOR STREET, NORTH KENSINGTON W10  
529 ILLUSTRATION 6 - EAST AND WEST VIEW OF MASSING MODEL





**PROPOSED RESIDENTIAL DEVELOPMENT**  
 AT 130-136 BARLBY ROAD AND  
 6 EXMOOR STREET, NORTH KENSINGTON, W10

REVISION A

EX DIR	HDC	TP	QAC	AD	CLU	AO AK
R.B. K.C.		6 DEC 2004			PLANNING	
N	C	SW	SE	APP	IO	REC
HBS			ARB	FPLN	DES	FEEES

This document was revised on 30.11.2004 in accordance with additional comments from Sue Lines, Access and Mobility Officer at the Royal Borough of Kensington and Chelsea.

prepared by:

quad 11, devonshire road, chiswick, london w4 2eu t: 020 8994 3344 f: 020 8742 1988



The aim of this Access and Mobility Statement is to provide an Inclusive Access Policy as part of the planning application for the development proposals at 130-136 Barlby Road and 6 Exmoor Street, and to illustrate the consideration and integration of all potential users of the scheme in accordance with current government and local policy and guidance.

### **Introduction to the Scheme**

The planning application is for the demolition of an existing 2 storey office building / warehouse and the construction of 108 residential units, 39 of which will be affordable. ~~and a small crèche. It is important to note the exact nature of the crèche has not been established by the Registered Social Landlord or the educational department at The Royal Borough of Kensington & Chelsea. Until then, sections 1 & 2 of this document apply.~~

The new residential development proposes two sites, Blocks A, B & C accessed from Barlby Road and Blocks D & E accessed from Exmoor Street. The residential blocks range in height from 3 to 9 storeys and are of a high quality contemporary design. There will be a mix of housing tenure, Blocks D & E representing the affordable housing component and A, B & C the open market flats. The residential blocks are situated within well-landscaped grounds and provide a safe, secure and inclusive environment in which to live.

### **Pre-Application Discussions**

A meeting was held with The Royal Borough of Kensington & Chelsea Access and Mobility Officer Sue Lines and quad architects on Monday June 28<sup>th</sup> 2004 at Hornton Street Offices, to discuss proposals for an inclusive environment within the scheme. The proposals for the scheme were presented and discussed and advice was given on additional policies relevant to the scheme. These recommendations have been incorporated into the development proposals to provide an inclusive accessible environment.

### **Sources of Advice and Guidance used**

ODPM's Planning and access for disabled people: a good practice guide  
Approved Document Part M (Access to and use of buildings) 2004 Edition  
Approved Document Part B (Fire safety) 2000 Edition  
Royal Borough of Kensington and Chelsea's Unitary Development Plan, Access Statements for Planning Applications, Supplementary guidance on Housing Standards, Access Design guidance notes  
British Standard BS8300 on Access for Disabled People  
Disability Discrimination Act 1995  
DfT Guidance on Inclusive Mobility

## Section 1

### 1.0 Travel to site

#### 1.1 Car parking

- 1.11 The development proposes an underground car park providing 94 95 parking spaces including 10 disabled spaces which amounts to more than 10% provision. The access to the car park is through a gated entrance from Barby Road and via a 2-way ramp to the basement. All car park users can operate the gates using a remote control device.
- 1.12 The size of the disabled car parking bays are a minimum of 4900mm x 3600mm. Refer to Drawing No. 529 P 02 for dimensioning of bays.
- 1.13 The disabled car parking bays have been evenly distributed throughout the car park to allow residents to use the nearest bay to their block.
- 1.14 No user will have to travel further than 20m from the disabled car parking bay to the point of entry to their block.
- 1.15 All disabled car parking bays will be clearly identified. This will be either with a sign positioned on wall adjacent to the space or on a free standing post where no wall is present. The sign will be 200 x 300mm and state 'Disabled Badge Holders Only'.
- 1.16 All surfaces of disabled car parking bays will be marked with the British Standard 'disabled' symbol in accordance with BS3262, part 1 and BS8300 Figure 2, including the yellow hatched transfer zones.
- 1.17 All residential blocks have lift access to the basement car park. Blocks A, B & C all have additional stair access to the car park. Block D has stair access to the car park for by all residents of Blocks D & E. This stair acts as a secondary means of escape for the car park. Refer to Section 3.3 of this document for additional information regarding lift provision.
- 1.18 Lighting levels in the underground car park are to be 200 – 300 lux.
- 1.19 The floor to the car park will be level except for minimal sloping of the surface for drainage to gulleys. There is no necessity for a change in level between the parking areas and the lift / stair lobbies because the car park is underground / covered and any surface water from the access ramp will be collected in drainage runs at the base.

#### 1.2 Drop-off Points

- 1.21 Residents of Blocks D & E gain access to the site via Exmoor Street. The gated entry to the site is set in 15m from Exmoor Street allowing vehicles to pull into the driveway area to drop-off residents.
- 1.22 Residents of Blocks A, B&C gain access to the site via Barby Road. Adjacent to the gated entrance to the underground car park there is an existing recessed loading bay which can be used as a drop off point for residents.

#### 1.3 Taxis

- 1.31 As above.

- 1.32 Additionally, a resident may request an arrangement is made where persons responsible for the dropping off and picking up of the resident regularly may be allowed to have a remote control device, to access the gated entry to the site.
- 1.4 **Bus stops**
- 1.41 There are two bus stops located within 15m of the site, served by bus routes 74 and 316. There are a further four bus stops within 400m of the site providing a good level of accessibility to surrounding areas. Access to these bus stops is by level ground or by dropped kerbs no steeper than 1:12 to ensure suitable access for wheelchair users.



## **Section 2**

### **2.0 Building Environs**

#### **2.1 Locations of Entrances to the site**

- 2.11 The approach to the gated entrance to the Affordable Housing Blocks D & E from Exmoor Street has a gradient of 1:25. The route from the gate to the buildings is ramped down in a series of 1:20 ramps and with a minimum width of 3350mm. The ramp lengths are no longer than 10m and landings are a minimum depth of 1500mm. The courtyard area provides level access to all entrances of the blocks.
- 2.12 Residents' access to the Open Market Blocks A, B & C is via Barlby Road and through a gated entrance which has a clear opening width of 1000mm. Blocks B & C have a level approach within 13m of the gated entrance. Residents to Block A have a 1200mm wide level route to their entrance which runs in front of the Block B. Refer to Drawing no. 529 P 01.
- 2.13 All entrances have a ramped access from external ground level of +19.00 to finished floor level +19.15 with a gradient of 1:20 (5%) to provide a level threshold. All ramps have a minimum width of 1400mm. All entrances have a level platform outside the entrance area of minimum 1200mm x 1200mm. Refer to 529 P 01 for dimensions.

#### **2.2 Entrance Route Design**

- 2.21 The access routes to all buildings will be in a suitable non-slip resin bonded aggregate to ensure a suitable grip for vehicles and easy manoeuvrability for wheelchair users. Where resin bonded aggregate is not shown a suitable tiled surface will be used. All materials to comply with DfT Guidance on Inclusive Mobility and Local Street Design guide and Materials Palette.
- 2.22 All external ramps are to have solid kerbs no less than 100mm in height and 50mm diameter handrails to one side only.
- 2.23 External Lighting along all access routes to be designed to Part 3 BS5489 to ensure good access and reduce crime risk. Design guidance has also been taken from The Royal Borough of Kensington and Chelsea's Streetscape Information Booklet. Minimum Lighting levels at entrances and exits are to be 250 – 350 lux.

### Section 3

#### 3.0 Means of Access to and into Dwellings

##### 3.1 Entrance Design

- 3.11 All entrances are covered to provide protection for people entering the building. Blocks A, B, C & E have lightweight timber and metal canopies at minimum height of 2.3m which extend 1.2m away from the entrance door. Residents to Blocks D1 & D2 enter under a covered area created by the Block D1 above. Access to D3 & D4 is under Flat No. 80's balcony area.
- 3.12 All Main Entrance Doors to blocks are 1000mm width door-leaf providing a clear opening width of 950mm.
- 3.13 All Main Entrance Doors are to be fitted with self-closing mechanisms and set for the minimum opening pressure.
- 3.14 A clear space of 300mm minimum width has been provided adjacent to the leading edge of the door.
- 3.15 All Main Entrance Doors have a minimum visibility zone between 250mm and 1550mm above floor level.

##### 3.2 Circulation within Entrance storey of the building

- 3.21 On entry into Blocks A, B & C the corridor width is 1500mm. On moving into the entrance lobby in front of the lift, the width becomes 2000mm. Access to the gardens at the rear of the blocks is through the adjacent stair-core. The internal doors to the stair-cores are fully glazed with suitable manifestation and have a clear opening of 900mm. This allows the entrance lobby to be a light filled space with clear views out to the gardens.
- 3.22 On entrance to Blocks D1 & D2 the corridor width is 1300mm minimum. Doors to the lift lobby and stair-core have a fire-rating of 30 minutes, glazed visibility panels between 250mm and 1500mm and a clear opening width of 900mm. The lift lobby has a minimum size of 1500mm x 1500mm.
- 3.23 All other entrance lobbies to Blocks D & E have an overall width of 2200mm allowing an unobstructed corridor width of 1200mm and 1000mm width stair.

##### 3.3 Vertical Circulation within residential blocks and Means of Escape

- 3.31 All blocks have a disabled access lift compliant with Approved Document M (2004 Edition) of the Building Regulations 2000 (Access to and use of buildings). This enables disabled people to visit occupants who live on any storey.
- 3.32 The minimum specification for all lifts is to be; 8 person capacity, contract load of 630KG, car size of 1200mmx1500mm, doors providing a clear opening width of 800mm, doors fitted with timing devices and re-opening activators, landing and car controls not less than 900mm and not more than 1200mm above floor level, tactile identification of car controls and a visual and audible indication of the floor reached.
- 3.33 All lifts are also designed for evacuation of disabled people in an emergency and conforms to the relevant recommendations of BS 5588-8:1999 (Fire precautions in the design, construction and use of buildings Part 8: Code of practice for the means of escape for Disabled people) and EN81-72. This enables wheelchair users to self-

evacuate and discharge to ground floor level to a place of safety where all levels have no gradient steeper than 1:20 ramp.

- 3.34 All circulation lobbies in front of the lifts have a clear landing of 1500x1500mm.
- 3.35 All circulation cores to have staircases designed to Approved Document Part M Section 3.51. Specification includes; unobstructed length of min 1200mm on each landing, contrasting nosing material of 55mm wide on tread and riser, no more than 16 risers in a flight, minimum tread width of 1000mm, maximum rise of 170mm and a minimum going of 250mm.
- 3.36 All landings have a minimum width of 1200mm to allow wheelchair users to turn into entrance to flats and for change in direction.

#### **3.4 Access to Amenity Space**

- 3.41 Residents of Blocks A, B & C can access the communal rear gardens and lawn area via a level access route to the east side of the car park ramp.
- 3.42 Residents of Blocks D & E regularly access their communal landscaped courtyard in front of the residential blocks to enter their dwellings.
- 3.43 The affordable housing wheelchair users accommodation in Block E is situated at second to fifth floor. The units have a generous provision of balcony space and can be accessed easily by wheelchair users.
- 3.44 The Open Market Housing wheelchair users accommodation in Block C is situated at ground to seventh floor. All users have level access to their balcony / garden area.

## Section 4

### 4.0 Wheelchair User Accommodation

Refer to attached Drawing No's. 529 P 20A, and 529 P 21, 529 P 22 and 529 P 23.

#### 4.1 Location of Wheelchair User Accommodation

- 4.11 In line with Royal Borough of Kensington & Chelsea UDP, the development provides a total of 12 flats (11%) specifically designed for wheelchair users. This accommodation is located in both the affordable housing and the open market blocks.
- 4.12 4 No. four bedroom units are located in the Affordable Housing Blocks D & E. These are flat no's ~~90, 96, 101 & 106~~ and are situated at ~~second, third, fourth and fifth floor~~ respectively. These are flat No's 70, 73, 74 and 77 and are situated at ground and first floor level.
- 4.13 ~~A further 8 No. one bedroom units are located in the Open Market Block C. These are flat no's 7, 17, 27, 36, 44, 52, 60 & 66 and sit directly above each other from ground up to the seventh floor.~~ 4 No. three bedroom units are also located in Affordable Housing Block D. These are flat No's 85, 93, 98, 104 and sit directly above each other from second to fifth floor.
- 4.14 A further 2 No. two bedroom units, flat No's 3 & 11 and 2 No. one bedroom units, flat No's 7 & 17 are provided in the Open Market blocks A and C at ground and first floor level.

#### 4.2 Entrance Door and Internal Doors

- 4.21 Entrance Doors are to be 926mm door leaf.
- 4.22 Internal Doors are to be 826 door leaf.
- 4.23 All doors have a minimum of 300mm offset between the opening edge of the door blade and the return of the wall, when pulling the door.
- 4.24 The hanging of all doors facilitate easy wheelchair manoeuvre.
- 4.25 Door handles are set at a common height of between 900mm and 1200mm above finished floor level to aid people with visual impairment.

#### 4.3 Internal Planning

- 4.31 All corridors have a minimum width of 1200mm.
- 4.32 All rooms have wheelchair access and a 1500mm manoeuvre space is provided to bedroom 1, bathroom, kitchen, living and dining space.
- 4.33 The dimensions of the wheelchair accessible bathroom are 2500mm x 2700mm and is designed to comply with Approved Document Part M Section 5.19 – 5.21.
- 4.34 The layout of the bathroom is designed to BS8300 standards.
- 4.35 Where the bathroom and main bedroom are adjacent to each other, there is a full height knockout panel on the connecting wall.



**4.4 Components**

- 4.41 All light switches, sockets and entry phones are to be placed at appropriate heights between 400mm and 1200mm above finished floor level.
- 4.42 Bath and kitchen to have slip resistant floor finish.
- 4.43 Recessed grab handles are provided to the bath.

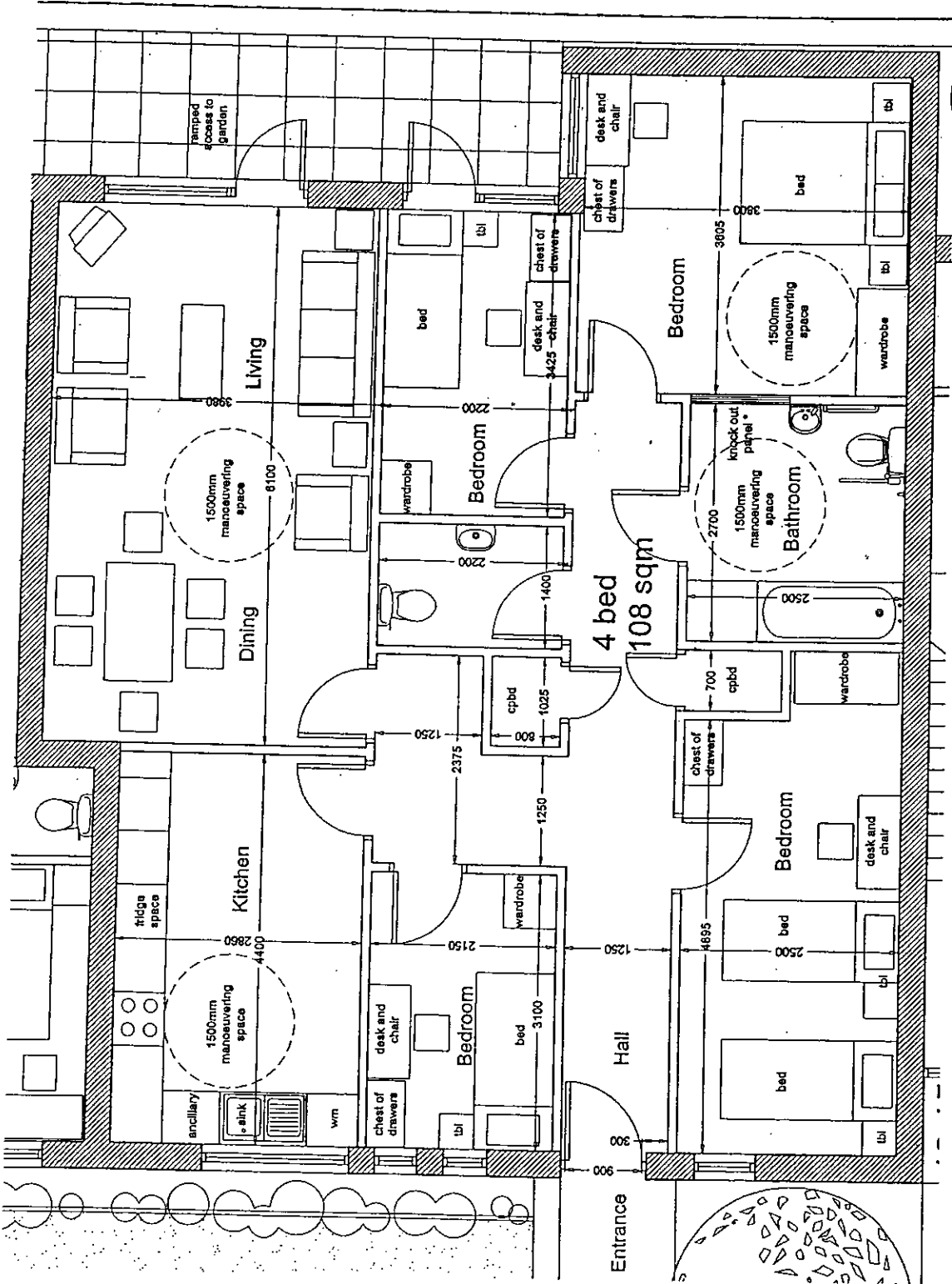
**Appendix**

Fig 1: Drawing No. 529 P 20 A – wheelchair user's accommodation – four bedroom (Block E)

Fig 2: Drawing No. 529 P 21 – wheelchair user's accommodation – one bedroom (Block C)

Fig 3: Drawing No. 529 P 22 – wheelchair user's accommodation – two bedroom (Block A2)

Fig 4: Drawing No. 529 P 23 – wheelchair user's accommodation – three bedroom (Block D)



For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 828mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

\* Full height knockout panel provided at connecting wall between master bedroom and bathroom.

For further information refer to Access and Mobility Statement

**SITE** 130-136 barby road and 6 exmoor street, london w10

**TITLE** wheelchair user's accommodation - four bedroom (Block E)

**SCALE** 1:50@A3

**DATE** NOV 2004

**NO** 529 P 20 A

.quad

11 devonshire road chiswick w4 24j

+44 (0) 20 8994 3344

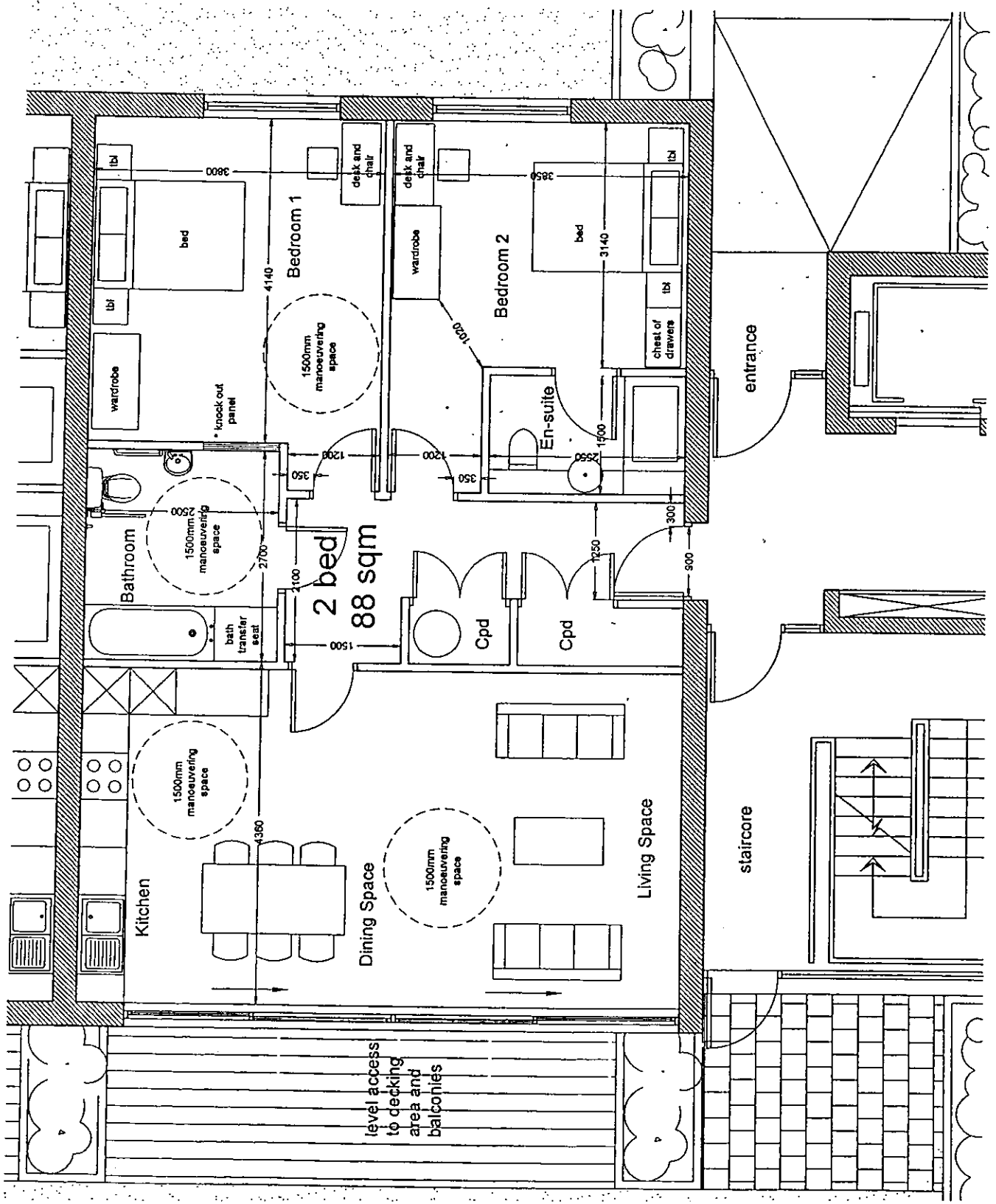
+44 (0) 20 8742 1888

www.quadarchitects.com

info@quadarchitects.com







For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 926mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

\* Full height knockout panel provided at connecting wall between master bedroom and bathroom.

For further information refer to Access and Mobility Statement.

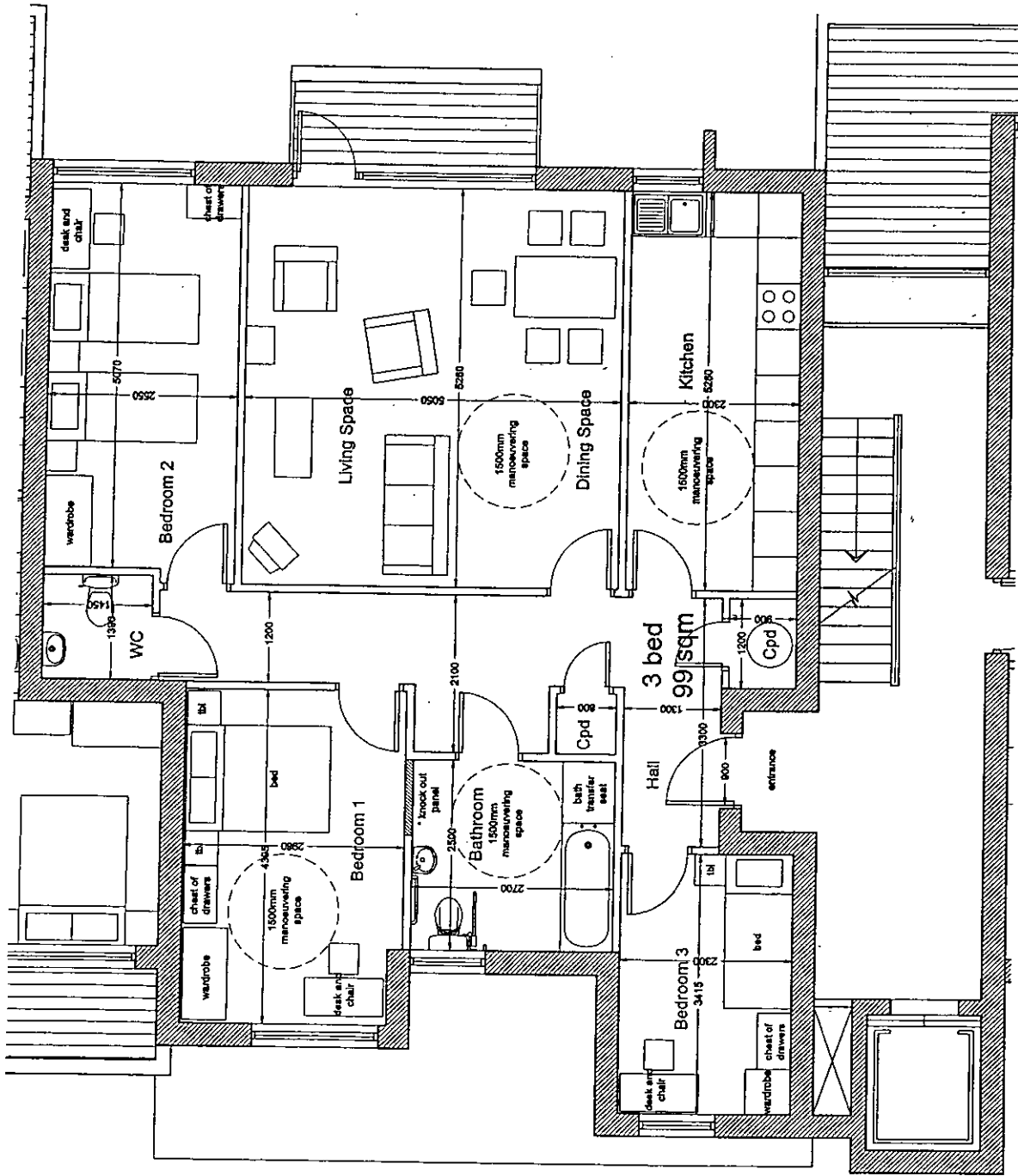
130-136 barlby road and  
6 exmoor street, london w10

BITE	TITLE
SCALE	1:50@A3
DATE	NOV 2004
NO.	529 P 22

wheelchair user's accommodation -  
two bedroom (Block A2)

.quad

11 devonshire road chiswick w12 9LJ  
+44 (0) 20 8994 3344  
+44 (0) 20 8742 1888  
www.quadarchitects.com  
info@quadarchitects.com



For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 926mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

\* Full height knockout panel provided at connecting wall between master bedroom and bathroom.

For further information refer to Access and Mobility Statement.

130-136 barlby road and  
6 exmoor street, london w10

wheelchair user's accommodation -  
three bedroom (Block D)

SCALE 1:50 @A3

DATE NOV 2004

NO. 529 P 23

SITE	
TITLE	
SCALE	
DATE	
NO.	

.quad

11 devonshire road chiswick w12 2su  
t +44 (0) 20 8864 3344  
f +44 (0) 20 8742 1868  
w www.quadarchitects.com  
e info@quadarchitects.com

ACCESS AND MOBILITY STATEMENT

EX DIR	HDC	TP	CAC	AD	CLU	AO	
						AK	
K.C.						- 4 OCT 2004	PLANNING
N	2	SW	SE	APP	IO	REC	
FES				ARB	FPLN	D&S FEES	



**PROPOSED RESIDENTIAL DEVELOPMENT  
AT 130-136 BARLBY ROAD AND  
6 EXMOOR STREET, NORTH KENSINGTON, W10**

prepared by:

quad 11, devonshire road, chiswick, london w4 2eu t: 020 8994 3344 f: 020 8742 1988

The aim of this Access and Mobility Statement is to provide an Inclusive Access Policy as part of the planning application for the development proposals at 130-136 Barlby Road and 6 Exmoor Street, and to illustrate the consideration and integration of all potential users of the scheme in accordance with current government and local policy and guidance.

### **Introduction to the Scheme**

The planning application is for the demolition of an existing 2 storey office building / warehouse and the construction of 108 residential units, 39 of which will be affordable and a small crèche. *It is important to note the exact nature of the crèche has not been established by the Registered Social Landlord or the educational department at The Royal Borough of Kensington & Chelsea. Until then, sections 1 & 2 of this document apply.*

The new residential development proposes two sites, Blocks A, B & C accessed from Barlby Road and Blocks D & E accessed from Exmoor Street. The residential blocks range in height from 3 to 9 storeys and are of a high quality contemporary design. There will be a mix of housing tenure, Blocks D & E representing the affordable housing component and A, B & C the open market flats. The residential blocks are situated within well-landscaped grounds and provide a safe, secure and inclusive environment in which to live.

### **Pre-Application Discussions**

A meeting was held with The Royal Borough of Kensington & Chelsea Access and Mobility Officer Sue Lines and quad architects on Monday June 28<sup>th</sup> 2004 at Hornton Street Offices, to discuss proposals for an inclusive environment within the scheme. The proposals for the scheme were presented and discussed and advice was given on additional policies relevant to the scheme. These recommendations have been incorporated into the development proposals to provide an inclusive accessible environment.

### **Sources of Advice and Guidance used**

ODPM's Planning and access for disabled people: a good practice guide  
Approved Document Part M (Access to and use of buildings) 2004 Edition  
Approved Document Part B (Fire safety) 2000 Edition  
Royal Borough of Kensington and Chelsea's Unitary Development Plan, Access Statements for Planning Applications, Supplementary guidance on Housing Standards, Access Design guidance notes  
British Standard BS8300 on Access for Disabled People  
Disability Discrimination Act 1995  
DfT Guidance on Inclusive Mobility



## **Section 1**

### **1.0 Travel to site**

#### **1.1 Car parking**

- 1.11 The development proposes an underground car park providing 94 parking spaces including 10 disabled spaces which amounts to more than 10% provision. The access to the car park is through a gated entrance from Barlby Road and via a 2-way ramp to the basement.
- 1.12 The size of the disabled car parking bays are a minimum of 4900mm x 3600mm. Refer to Drawing No. 529 P 02 for dimensioning of bays.
- 1.13 The disabled car parking bays have been evenly distributed throughout the car park to allow residents to use the nearest bay to their block.
- 1.14 No user will have to travel further than 20m from the disabled car parking bay to the point of entry to their block.
- 1.15 All disabled car parking bays will be clearly identified. This will be either with a sign positioned on wall adjacent to the space or on a free standing post where no wall is present. The sign will be 200 x 300mm and state 'Disabled Badge Holders Only'.
- 1.16 All surfaces of disabled car parking bays will be marked with the British Standard 'disabled' symbol in accordance with BS3262, part 1.
- 1.17 All residential blocks have lift access to the basement car park. Blocks A, B & C all have additional stair access to the car park. Block D has stair access to the car park for by all residents of Blocks D & E. This stair acts as a secondary means of escape for the car park. Refer to Section 3.3 of this document for additional information regarding lift provision.
- 1.18 Lighting levels in the underground car park are to be 200 – 300 lux.
- 1.19 The floor to the car park will be level except for minimal sloping of the surface for drainage to gulleys.

#### **1.2 Drop-off Points**

- 1.21 Residents of Blocks D & E gain access to the site via Exmoor Street. The gated entry to the site is set in 15m from Exmoor Street allowing vehicles to pull into the driveway area to drop-off residents.
- 1.22 Residents of Blocks A, B&C gain access to the site via Barlby Road. Adjacent to the gated entrance to the underground car park there is an existing recessed loading bay which can be used as a drop off point for residents.

#### **1.3 Taxis**

- 1.31 As above.
- 1.32 Additionally, a resident may request an arrangement is made where persons responsible for the dropping off and picking up of the resident regularly may be allowed to have a remote control device, to access the gated entry to the site.

#### **1.4 Bus stops**

- 1.41 There are two bus stops located within 15m of the site, served by bus routes 74 and 316. There are a further four bus stops within 400m of the site providing a good level of accessibility to surrounding areas. Access to these bus stops is by level ground or by dropped kerbs no steeper than 1:12 to ensure suitable access for wheelchair users.

## **Section 2**

### **2.0 Building Environs**

#### **2.1 Locations of Entrances to the site**

- 2.11 The approach to the gated entrance to the Affordable Housing Blocks D & E from Exmoor Street has a gradient of 1:25. The route from the gate to the buildings is ramped down in a series of 1:20 ramps and with a minimum width of 3350mm. The ramp lengths are no longer than 10m and landings are a minimum depth of 1500mm. The courtyard area provides level access to all entrances of the blocks.
- 2.12 Residents' access to the Open Market Blocks A, B & C is via Barbby Road and through a gated entrance which has a clear opening width of 1000mm. Blocks B & C have a level approach within 13m of the gated entrance. Residents to Block A have a 1200mm wide level route to their entrance which runs in front of the Block B. Refer to Drawing no. 529 P 01.
- 2.13 All entrances have a ramped access from external ground level of +19.00 to finished floor level +19.15 with a gradient of 1:20 (5%) to provide a level threshold. All ramps have a minimum width of 1400mm. All entrances have a level platform outside the entrance area of minimum 1200mm x 1200mm. Refer to 529 P 01 for dimensions.

#### **2.2 Entrance Route Design**

- 2.21 The access routes to all buildings will be in a suitable non-slip resin bonded aggregate to ensure a suitable grip for vehicles and easy manoeuvrability for wheelchair users. Where resin bonded aggregate is not shown a suitable tiled surface will be used. All materials to comply with DfT Guidance on Inclusive Mobility and Local Street Design guide and Materials Palette.
- 2.22 All external ramps are to have solid kerbs no less than 100mm in height and 50mm diameter handrails to one side only.
- 2.23 External Lighting along all access routes to be designed to Part 3 BS5489 to ensure good access and reduce crime risk. Design guidance has also been taken from The Royal Borough of Kensington and Chelsea's Streetscape Information Booklet. Minimum Lighting levels at entrances and exits are to be 250 – 350 lux.

### **Section 3**

#### **3.0 Means of Access to and into Dwellings**

##### **3.1 Entrance Design**

- 3.11 All entrances are covered to provide protection for people entering the building. Blocks A, B, C & E have lightweight timber and metal canopies at minimum height of 2.3m which extend 1.2m away from the entrance door. Residents to Blocks D1 & D2 enter under a covered area created by the Block D1 above. Access to D3 & D4 is under Flat No. 80's balcony area.
- 3.12 All Main Entrance Doors to blocks are 1000mm width door-leaf providing a clear opening width of 950mm.
- 3.13 All Main Entrance Doors are to be fitted with self-closing mechanisms and set for the minimum opening pressure.
- 3.14 A clear space of 300mm minimum width has been provided adjacent to the leading edge of the door.
- 3.15 All Main Entrance Doors have a minimum visibility zone between 250mm and 1550mm above floor level.

##### **3.2 Circulation within Entrance storey of the building**

- 3.21 On entry into Blocks A, B & C the corridor width is 1500mm. On moving into the entrance lobby in front of the lift, the width becomes 2000mm. Access to the gardens at the rear of the blocks is through the adjacent stair-core. The internal doors to the stair-cores are fully glazed with suitable manifestation and have a clear opening of 900mm. This allows the entrance lobby to be a light filled space with clear views out to the gardens.
- 3.22 On entrance to Blocks D1 & D2 the corridor width is 1300mm minimum. Doors to the lift lobby and stair-core have a fire-rating of 30 minutes, glazed visibility panels between 250mm and 1500mm and a clear opening width of 900mm. The lift lobby has a minimum size of 1500mm x 1500mm.
- 3.23 All other entrance lobbies to Blocks D & E have an overall width of 2200mm allowing an unobstructed corridor width of 1200mm and 1000mm width stair.

##### **3.3 Vertical Circulation within residential blocks and Means of Escape**

- 3.31 All blocks have a disabled access lift compliant with Approved Document M (2004 Edition) of the Building Regulations 2000 (Access to and use of buildings). This enables disabled people to visit occupants who live on any storey.
- 3.32 The minimum specification for all lifts is to be; 8 person capacity, contract load of 630KG, car size of 1200mmx1500mm, doors providing a clear opening width of 800mm, doors fitted with timing devices and re-opening activators, landing and car controls not less than 900mm and not more than 1200mm above floor level, tactile identification of car controls and a visual and audible indication of the floor reached.
- 3.33 All lifts are also designed for evacuation of disabled people in an emergency and conforms to the relevant recommendations of BS 5588-8:1999 (Fire precautions in the design, construction and use of buildings Part 8: Code of practice for the means



of escape for Disabled people) and EN81-72. This enables wheelchair users to self-evacuate and discharge to ground floor level to a place of safety where all levels have no gradient steeper than 1:20 ramp.

- 3.34 All circulation lobbies in front of the lifts have a clear landing of 1500x1500mm.
- 3.35 All circulation cores to have staircases designed to Approved Document Part M Section 3.51. Specification includes; unobstructed length of min 1200mm on each landing, contrasting nosing material of 55mm wide on tread and riser, no more than 16 risers in a flight, minimum tread width of 1000mm, maximum rise of 170mm and a minimum going of 250mm.
- 3.36 All landings have a minimum width of 1200mm to allow wheelchair users to turn into entrance to flats and for change in direction.

#### **3.4 Access to Amenity Space**

- 3.41 Residents of Blocks A, B & C can access the communal rear gardens and lawn area via a level access route to the east side of the car park ramp.
- 3.42 Residents of Blocks D & E regularly access their communal landscaped courtyard in front of the residential blocks to enter their dwellings.
- 3.43 The affordable housing wheelchair users accommodation in Block E is situated at second to fifth floor. The units have a generous provision of balcony space and can be accessed easily by wheelchair users.
- 3.44 The Open Market Housing wheelchair users accommodation in Block C is situated at ground to seventh floor. All users have level access to their balcony / garden area.

## **Section 4**

### **4.0 Wheelchair User Accommodation**

*Refer to attached Drawing No's. 529 P 20 and 529 P 21.*

#### **4.1 Location of Wheelchair User Accommodation**

- 4.11 In line with Royal Borough of Kensington & Chelsea UDP, the development provides a total of 12 flats (11%) specifically designed for wheelchair users. This accommodation is located in both the affordable housing and the open market blocks.
- 4.12 4 No. four bedroom units are located in the Affordable Housing Block E. These are flat no's 90, 96, 101 & 106 and are situated at second, third, fourth and fifth floor respectively.
- 4.13 A further 8 No. one bedroom units are located in the Open Market Block C. These are flat no's 7, 17, 27, 36, 44, 52, 60 & 66 and sit directly above each other from ground up to the seventh floor.

#### **4.2 Entrance Door and Internal Doors**

- 4.21 Entrance Doors are to be 926mm door leaf.
- 4.22 Internal Doors are to be 826 door leaf.
- 4.23 All doors have a minimum of 300mm offset between the opening edge of the door blade and the return of the wall, when pulling the door.
- 4.24 The hanging of all doors facilitate easy wheelchair manoeuvre.
- 4.25 Door handles are set at a common height of between 900mm and 1200mm above finished floor level to aid people with visual impairment.

#### **4.3 Internal Planning**

- 4.31 All corridors have a minimum width of 1200mm.
- 4.32 All rooms have wheelchair access and a 1500mm manoeuvre space is provided to bedroom 1, bathroom, kitchen, living and dining space.
- 4.33 The dimensions of the wheelchair accessible bathroom are 2500mm x 2700mm and is designed to comply with Approved Document Part M Section 5.19 – 5.21.
- 4.34 The layout of the bathroom is designed to BS8300 standards.

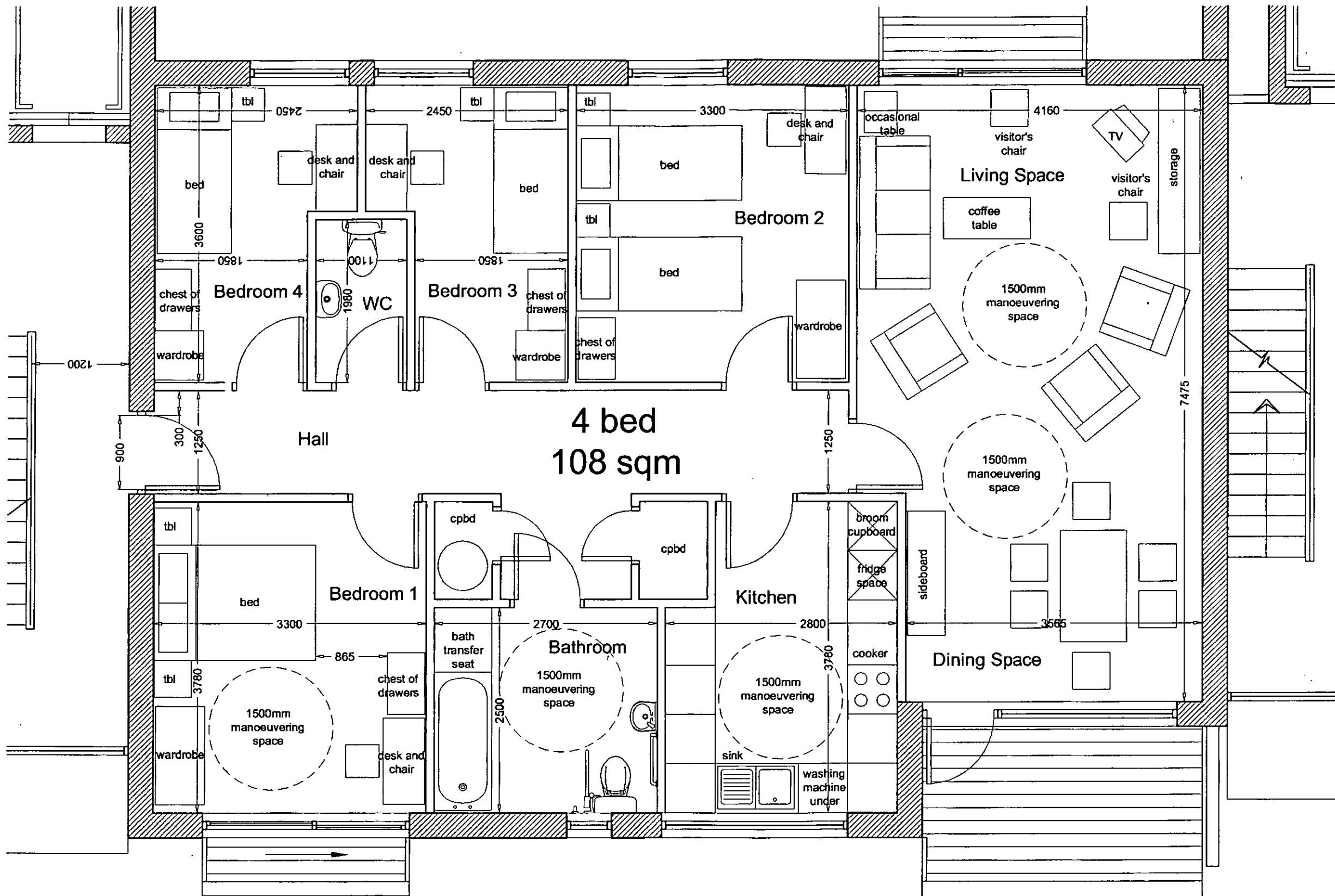
#### **4.4 Components**

- 4.41 All light switches, sockets and entry phones are to be placed at appropriate heights between 400mm and 1200mm above finished floor level.
- 4.42 Bath and kitchen to have slip resistant floor finish.
- 4.43 Recessed grab handles are provided to the bath.

**Appendix**

**Fig 1: Drawing No. 529 P 20 – wheelchair user's accommodation – four bedroom (Block E)**

**Fig 2: Drawing No. 529 P 21 – wheelchair user's accommodation – one bedroom (Block C)**



For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Part M compliant lift.

Entrance Door to be a 926mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

**4 bed  
108 sqm**

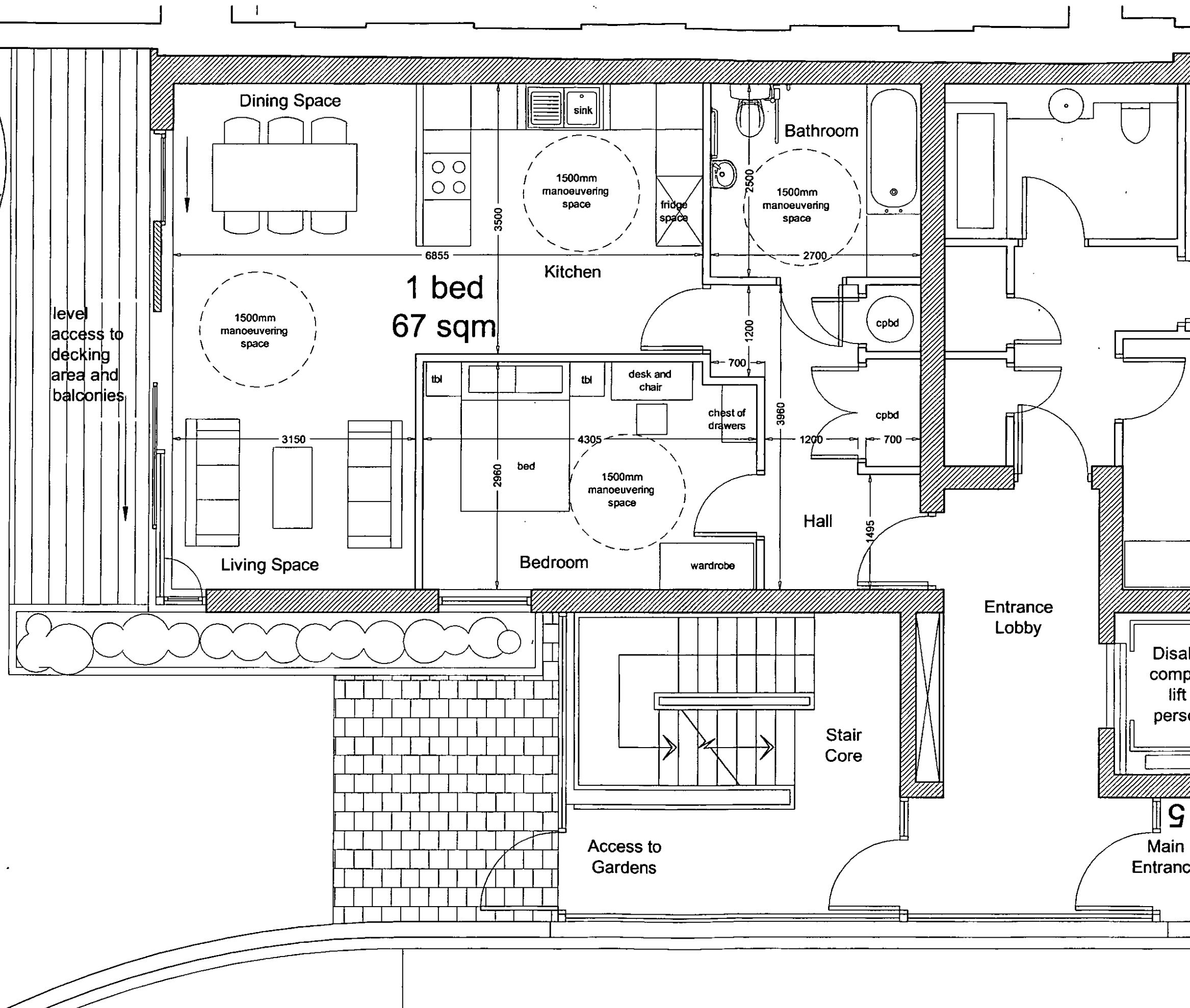
**130-136 barlby road and  
6 exmoor street, london w10**

SITE	<b>130-136 barlby road and 6 exmoor street, london w10</b>
TITLE	<b>wheelchair user's accommodation - four bedroom (Block E)</b>
SCALE	<b>1:50@A3</b>
DATE	<b>aug 2004</b>
NO.	<b>529 P 20</b>

**.quad**

a 11 devonshire road chiswick w4 2ou  
t +44 (0) 20 8994 3344  
f +44 (0) 20 8742 1988  
w www.quadarchitects.com  
e info@quadarchitects.com





For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 926mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

For further information refer to Access and Mobility Statement

130-136 barlby road and  
6 exmoor street, london w10

SITE

TITLE wheelchair user's accommodation -  
one bedroom (Block C)

SCALE 1:50@A3

DATE aug 2004

NO. 529 P 21

.quad

a 11 devonshire road chiswick w4 2eu  
t +44 (0) 20 8994 3344  
f +44 (0) 20 8742 1988  
w www.quadarchitects.com  
e info@quadarchitects.com

ACCESS AND MOBILITY STATEMENT

EX DIR	HDC	TF	CAC	AD	CLU	AO AK
R.B.		7 OCT 2004				PLANNING
N	C	SW	SE	APP	IO	REC
HBS			ARB	FPLN	DES	FEES



**PROPOSED RESIDENTIAL DEVELOPMENT**  
AT 130-136 BARLBY ROAD AND  
6 EXMOOR STREET, NORTH KENSINGTON, W10

prepared by:

quad 11, devonshire road, chiswick, london w4 2eu t: 020 8994 3344 f: 020 8742 1988

The aim of this Access and Mobility Statement is to provide an Inclusive Access Policy as part of the planning application for the development proposals at 130-136 Barby Road and 6 Exmoor Street, and to illustrate the consideration and integration of all potential users of the scheme in accordance with current government and local policy and guidance.

### **Introduction to the Scheme**

The planning application is for the demolition of an existing 2 storey office building / warehouse and the construction of 108 residential units, 39 of which will be affordable and a small crèche. *It is important to note the exact nature of the crèche has not been established by the Registered Social Landlord or the educational department at The Royal Borough of Kensington & Chelsea. Until then, sections 1 & 2 of this document apply.*

The new residential development proposes two sites, Blocks A, B & C accessed from Barby Road and Blocks D & E accessed from Exmoor Street. The residential blocks range in height from 3 to 9 storeys and are of a high quality contemporary design. There will be a mix of housing tenure, Blocks D & E representing the affordable housing component and A, B & C the open market flats. The residential blocks are situated within well-landscaped grounds and provide a safe, secure and inclusive environment in which to live.

### **Pre-Application Discussions**

A meeting was held with The Royal Borough of Kensington & Chelsea Access and Mobility Officer Sue Lines and quad architects on Monday June 28<sup>th</sup> 2004 at Hornton Street Offices, to discuss proposals for an inclusive environment within the scheme. The proposals for the scheme were presented and discussed and advice was given on additional policies relevant to the scheme. These recommendations have been incorporated into the development proposals to provide an inclusive accessible environment.

### **Sources of Advice and Guidance used**

ODPM's Planning and access for disabled people: a good practice guide  
Approved Document Part M (Access to and use of buildings) 2004 Edition  
Approved Document Part B (Fire safety) 2000 Edition  
Royal Borough of Kensington and Chelsea's Unitary Development Plan, Access Statements for Planning Applications, Supplementary guidance on Housing Standards, Access Design guidance notes  
British Standard BS8300 on Access for Disabled People  
Disability Discrimination Act 1995  
DfT Guidance on Inclusive Mobility

## **Section 1**

### **1.0 Travel to site**

#### **1.1 Car parking**

- 1.11 The development proposes an underground car park providing 94 parking spaces including 10 disabled spaces which amounts to more than 10% provision. The access to the car park is through a gated entrance from Barlby Road and via a 2-way ramp to the basement.
- 1.12 The size of the disabled car parking bays are a minimum of 4900mm x 3600mm. Refer to Drawing No. 529 P 02 for dimensioning of bays.
- 1.13 The disabled car parking bays have been evenly distributed throughout the car park to allow residents to use the nearest bay to their block.
- 1.14 No user will have to travel further than 20m from the disabled car parking bay to the point of entry to their block.
- 1.15 All disabled car parking bays will be clearly identified. This will be either with a sign positioned on wall adjacent to the space or on a free standing post where no wall is present. The sign will be 200 x 300mm and state 'Disabled Badge Holders Only'.
- 1.16 All surfaces of disabled car parking bays will be marked with the British Standard 'disabled' symbol in accordance with BS3262, part 1.
- 1.17 All residential blocks have lift access to the basement car park. Blocks A, B & C all have additional stair access to the car park. Block D has stair access to the car park for by all residents of Blocks D & E. This stair acts as a secondary means of escape for the car park. Refer to Section 3.3 of this document for additional information regarding lift provision.
- 1.18 Lighting levels in the underground car park are to be 200 – 300 lux.
- 1.19 The floor to the car park will be level except for minimal sloping of the surface for drainage to gulleys.

#### **1.2 Drop-off Points**

- 1.21 Residents of Blocks D & E gain access to the site via Exmoor Street. The gated entry to the site is set in 15m from Exmoor Street allowing vehicles to pull into the driveway area to drop-off residents.
- 1.22 Residents of Blocks A, B&C gain access to the site via Barlby Road. Adjacent to the gated entrance to the underground car park there is an existing recessed loading bay which can be used as a drop off point for residents.

#### **1.3 Taxis**

- 1.31 As above.
- 1.32 Additionally, a resident may request an arrangement is made where persons responsible for the dropping off and picking up of the resident regularly may be allowed to have a remote control device, to access the gated entry to the site.



**1.4 Bus stops**

1.41 There are two bus stops located within 15m of the site, served by bus routes 74 and 316. There are a further four bus stops within 400m of the site providing a good level of accessibility to surrounding areas. Access to these bus stops is by level ground or by dropped kerbs no steeper than 1:12 to ensure suitable access for wheelchair users.

## **Section 2**

### **2.0 Building Environs**

#### **2.1 Locations of Entrances to the site**

- 2.11 The approach to the gated entrance to the Affordable Housing Blocks D & E from Exmoor Street has a gradient of 1:25. The route from the gate to the buildings is ramped down in a series of 1:20 ramps and with a minimum width of 3350mm. The ramp lengths are no longer than 10m and landings are a minimum depth of 1500mm. The courtyard area provides level access to all entrances of the blocks.
- 2.12 Residents' access to the Open Market Blocks A, B & C is via Barby Road and through a gated entrance which has a clear opening width of 1000mm. Blocks B & C have a level approach within 13m of the gated entrance. Residents to Block A have a 1200mm wide level route to their entrance which runs in front of the Block B. Refer to Drawing no. 529 P 01.
- 2.13 All entrances have a ramped access from external ground level of +19.00 to finished floor level +19.15 with a gradient of 1:20 (5%) to provide a level threshold. All ramps have a minimum width of 1400mm. All entrances have a level platform outside the entrance area of minimum 1200mm x 1200mm. Refer to 529 P 01 for dimensions.

#### **2.2 Entrance Route Design**

- 2.21 The access routes to all buildings will be in a suitable non-slip resin bonded aggregate to ensure a suitable grip for vehicles and easy manoeuvrability for wheelchair users. Where resin bonded aggregate is not shown a suitable tiled surface will be used. All materials to comply with DfT Guidance on Inclusive Mobility and Local Street Design guide and Materials Palette.
- 2.22 All external ramps are to have solid kerbs no less than 100mm in height and 50mm diameter handrails to one side only.
- 2.23 External Lighting along all access routes to be designed to Part 3 BS5489 to ensure good access and reduce crime risk. Design guidance has also been taken from The Royal Borough of Kensington and Chelsea's Streetscape Information Booklet. Minimum Lighting levels at entrances and exits are to be 250 – 350 lux.

### **Section 3**

#### **3.0 Means of Access to and into Dwellings**

##### **3.1 Entrance Design**

- 3.11 All entrances are covered to provide protection for people entering the building. Blocks A, B, C & E have lightweight timber and metal canopies at minimum height of 2.3m which extend 1.2m away from the entrance door. Residents to Blocks D1 & D2 enter under a covered area created by the Block D1 above. Access to D3 & D4 is under Flat No. 80's balcony area.
- 3.12 All Main Entrance Doors to blocks are 1000mm width door-leaf providing a clear opening width of 950mm.
- 3.13 All Main Entrance Doors are to be fitted with self-closing mechanisms and set for the minimum opening pressure.
- 3.14 A clear space of 300mm minimum width has been provided adjacent to the leading edge of the door.
- 3.15 All Main Entrance Doors have a minimum visibility zone between 250mm and 1550mm above floor level.

##### **3.2 Circulation within Entrance storey of the building**

- 3.21 On entry into Blocks A, B & C the corridor width is 1500mm. On moving into the entrance lobby in front of the lift, the width becomes 2000mm. Access to the gardens at the rear of the blocks is through the adjacent stair-core. The internal doors to the stair-cores are fully glazed with suitable manifestation and have a clear opening of 900mm. This allows the entrance lobby to be a light filled space with clear views out to the gardens.
- 3.22 On entrance to Blocks D1 & D2 the corridor width is 1300mm minimum. Doors to the lift lobby and stair-core have a fire-rating of 30 minutes, glazed visibility panels between 250mm and 1500mm and a clear opening width of 900mm. The lift lobby has a minimum size of 1500mm x 1500mm.
- 3.23 All other entrance lobbies to Blocks D & E have an overall width of 2200mm allowing an unobstructed corridor width of 1200mm and 1000mm width stair.

##### **3.3 Vertical Circulation within residential blocks and Means of Escape**

- 3.31 All blocks have a disabled access lift compliant with Approved Document M (2004 Edition) of the Building Regulations 2000 (Access to and use of buildings). This enables disabled people to visit occupants who live on any storey.
- 3.32 The minimum specification for all lifts is to be; 8 person capacity, contract load of 630KG, car size of 1200mmx1500mm, doors providing a clear opening width of 800mm, doors fitted with timing devices and re-opening activators, landing and car controls not less than 900mm and not more than 1200mm above floor level, tactile identification of car controls and a visual and audible indication of the floor reached.
- 3.33 All lifts are also designed for evacuation of disabled people in an emergency and conforms to the relevant recommendations of BS 5588-8:1999 (Fire precautions in the design, construction and use of buildings Part 8: Code of practice for the means

of escape for Disabled people) and EN81-72. This enables wheelchair users to self-evacuate and discharge to ground floor level to a place of safety where all levels have no gradient steeper than 1:20 ramp.

- 3.34 All circulation lobbies in front of the lifts have a clear landing of 1500x1500mm.
- 3.35 All circulation cores to have staircases designed to Approved Document Part M Section 3.51. Specification includes; unobstructed length of min 1200mm on each landing, contrasting nosing material of 55mm wide on tread and riser, no more than 16 risers in a flight, minimum tread width of 1000mm, maximum rise of 170mm and a minimum going of 250mm.
- 3.36 All landings have a minimum width of 1200mm to allow wheelchair users to turn into entrance to flats and for change in direction.
- 3.4 Access to Amenity Space**
- 3.41 Residents of Blocks A, B & C can access the communal rear gardens and lawn area via a level access route to the east side of the car park ramp.
- 3.42 Residents of Blocks D & E regularly access their communal landscaped courtyard in front of the residential blocks to enter their dwellings.
- 3.43 The affordable housing wheelchair users accommodation in Block E is situated at second to fifth floor. The units have a generous provision of balcony space and can be accessed easily by wheelchair users.
- 3.44 The Open Market Housing wheelchair users accommodation in Block C is situated at ground to seventh floor. All users have level access to their balcony / garden area.



## **Section 4**

### **4.0 Wheelchair User Accommodation**

*Refer to attached Drawing No's. 529 P 20 and 529 P 21.*

#### **4.1 Location of Wheelchair User Accommodation**

- 4.11 In line with Royal Borough of Kensington & Chelsea UDP, the development provides a total of 12 flats (11%) specifically designed for wheelchair users. This accommodation is located in both the affordable housing and the open market blocks.
- 4.12 4 No. four bedroom units are located in the Affordable Housing Block E. These are flat no's 90, 96, 101 & 106 and are situated at second, third, fourth and fifth floor respectively.
- 4.13 A further 8 No. one bedroom units are located in the Open Market Block C. These are flat no's 7, 17, 27, 36, 44, 52, 60 & 66 and sit directly above each other from ground up to the seventh floor.

#### **4.2 Entrance Door and Internal Doors**

- 4.21 Entrance Doors are to be 926mm door leaf.
- 4.22 Internal Doors are to be 826 door leaf.
- 4.23 All doors have a minimum of 300mm offset between the opening edge of the door blade and the return of the wall, when pulling the door.
- 4.24 The hanging of all doors facilitate easy wheelchair manoeuvre.
- 4.25 Door handles are set at a common height of between 900mm and 1200mm above finished floor level to aid people with visual impairment.

#### **4.3 Internal Planning**

- 4.31 All corridors have a minimum width of 1200mm.
- 4.32 All rooms have wheelchair access and a 1500mm manoeuvre space is provided to bedroom 1, bathroom, kitchen, living and dining space.
- 4.33 The dimensions of the wheelchair accessible bathroom are 2500mm x 2700mm and is designed to comply with Approved Document Part M Section 5.19 – 5.21.
- 4.34 The layout of the bathroom is designed to BS8300 standards.

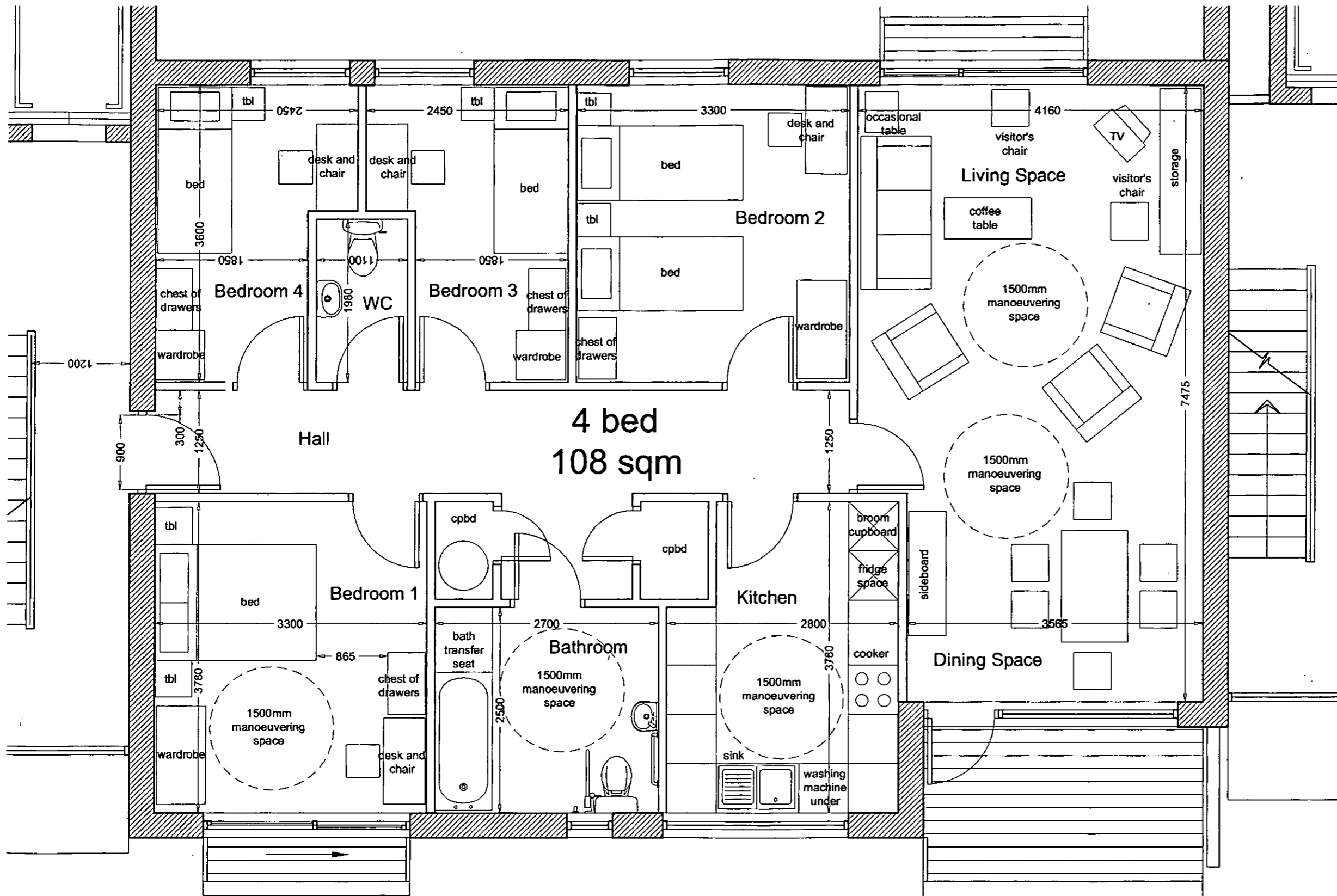
#### **4.4 Components**

- 4.41 All light switches, sockets and entry phones are to be placed at appropriate heights between 400mm and 1200mm above finished floor level.
- 4.42 Bath and kitchen to have slip resistant floor finish.
- 4.43 Recessed grab handles are provided to the bath.

**Appendix**

**Fig 1: Drawing No. 529 P 20 – wheelchair user's accommodation – four bedroom (Block E)**

**Fig 2: Drawing No. 529 P 21 – wheelchair user's accommodation – one bedroom (Block C)**



For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Part M compliant lift.

Entrance Door to be a 926mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

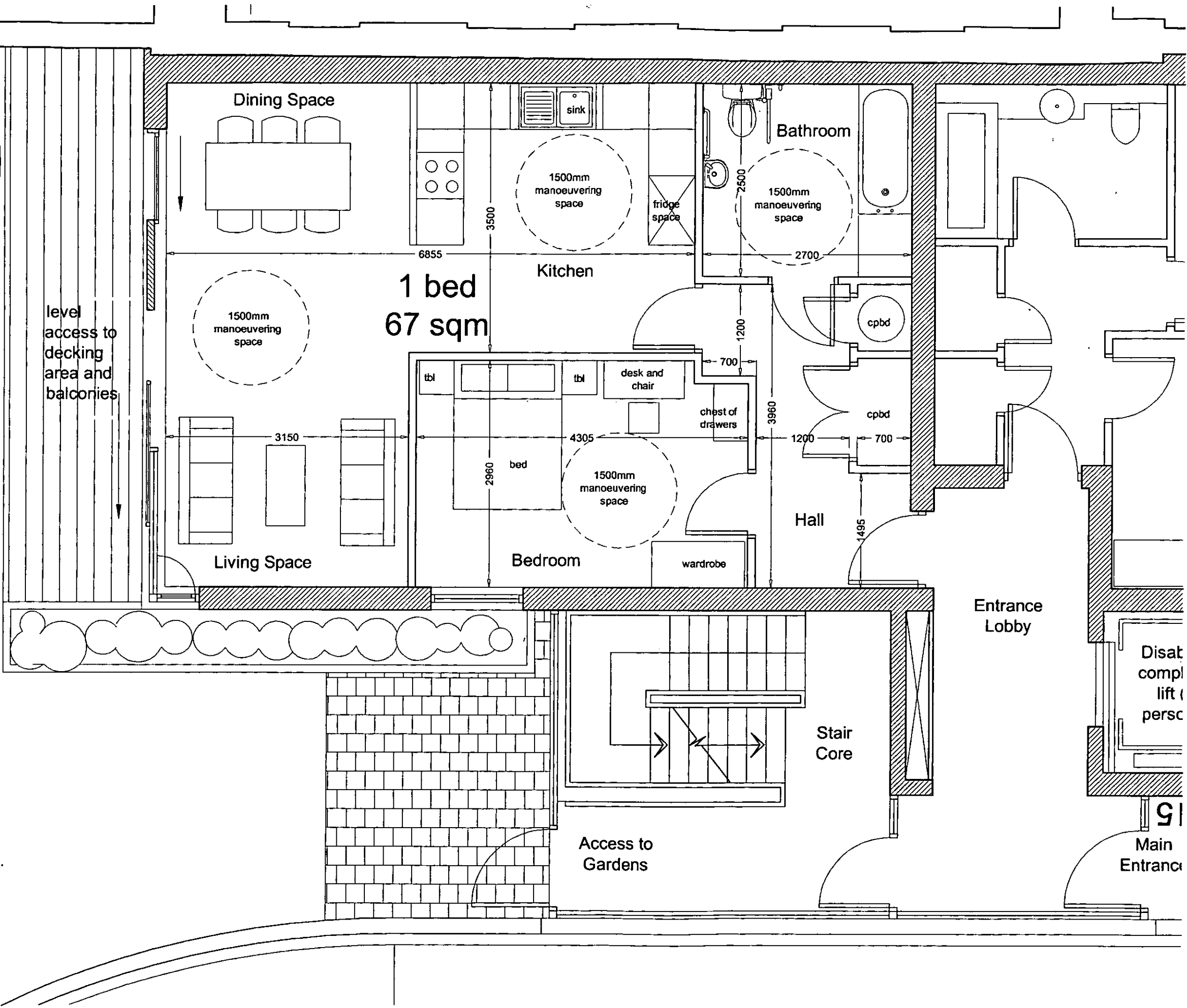
All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

**SITE** 130-136 barlby road and 6 exmoor street, london w10  
**TITLE** wheelchair user's accommodation - four bedroom (Block E)  
**SCALE** 1:50@A3  
**DATE** aug 2004  
**NO.** 529 P 20

**.quad**

a 11 devonshire road chiswick w4 2eu  
t +44 (0) 20 8994 3344  
f +44 (0) 20 8742 1988  
w www.quadarchitects.com  
e info@quadarchitects.com



For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 926mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

For further information refer to Access and Mobility Statement

**SITE** 130-136 barby road and 6 exmoor street, london w10  
**TITLE** wheelchair user's accommodation - one bedroom (Block C)  
**SCALE** 1:50@A3  
**DATE** aug 2004  
**NO.** 529 P 21

.quad

a 11 devonshire road chiswick w4 2eu  
 t +44 (0) 20 8994 3344  
 f +44 (0) 20 8742 1988  
 w www.quadarchitects.com  
 e info@quadarchitects.com



# Other Documents

Please Index As

File Number

<b>Part</b>	<b>1</b>	<b>Part</b>	<b>10</b>
<b>Part</b>	<b>2</b>	<b>Part</b>	<b>11</b>
<b>Part</b>	<b>3</b>	<b>Part</b>	<b>12</b>
<b>Part</b>	<b>4</b>	<b>Part</b>	<b>13</b>
<b>Part</b>	<b>5</b>	<b>Part</b>	<b>14</b>
<b>Part</b>	<b>6</b>	<b>Part</b>	<b>15</b>
<b>Part</b>	<b>7</b>	<b>Part</b>	<b>16</b>
<b>Part</b>	<b>8</b>	<b>Part</b>	<b>17</b>
<b>Part</b>	<b>9</b>	<b>Part</b>	<b>18</b>



**PROPOSED RESIDENTIAL DEVELOPMENT  
AT 130-136 BARLBY ROAD AND  
6 EXMOOR STREET, NORTH KENSINGTON, W10**

REVISION A

EX DIR	HDC	TP	D-C	AD	CLU	AO AK
R.B. K.C.	6 DEC 2004			PLANNING		
N	C	SW	SE	APP	IO	REC
HBS			ARB	FPLN	DES	FEES

This document was revised on 30.11.2004 in accordance with additional comments from Sue Lines, Access and Mobility Officer at the Royal Borough of Kensington and Chelsea.

prepared by:

quad 11, devonshire road, chiswick, london w4 2eu t: 020 8994 3344 f: 020 8742 1988

The aim of this Access and Mobility Statement is to provide an Inclusive Access Policy as part of the planning application for the development proposals at 130-136 Barby Road and 6 Exmoor Street, and to illustrate the consideration and integration of all potential users of the scheme in accordance with current government and local policy and guidance.

### **Introduction to the Scheme**

The planning application is for the demolition of an existing 2 storey office building / warehouse and the construction of 108 residential units, 39 of which will be affordable. ~~and a small crèche. It is important to note the exact nature of the crèche has not been established by the Registered Social Landlord or the educational department at The Royal Borough of Kensington & Chelsea. Until then, sections 1 & 2 of this document apply.~~

The new residential development proposes two sites, Blocks A, B & C accessed from Barby Road and Blocks D & E accessed from Exmoor Street. The residential blocks range in height from 3 to 9 storeys and are of a high quality contemporary design. There will be a mix of housing tenure, Blocks D & E representing the affordable housing component and A, B & C the open market flats. The residential blocks are situated within well-landscaped grounds and provide a safe, secure and inclusive environment in which to live.

### **Pre-Application Discussions**

A meeting was held with The Royal Borough of Kensington & Chelsea Access and Mobility Officer Sue Lines and quad architects on Monday June 28<sup>th</sup> 2004 at Hornton Street Offices, to discuss proposals for an inclusive environment within the scheme. The proposals for the scheme were presented and discussed and advice was given on additional policies relevant to the scheme. These recommendations have been incorporated into the development proposals to provide an inclusive accessible environment.

### **Sources of Advice and Guidance used**

ODPM's Planning and access for disabled people: a good practice guide  
Approved Document Part M (Access to and use of buildings) 2004 Edition  
Approved Document Part B (Fire safety) 2000 Edition  
Royal Borough of Kensington and Chelsea's Unitary Development Plan, Access Statements for Planning Applications, Supplementary guidance on Housing Standards, Access Design guidance notes  
British Standard BS8300 on Access for Disabled People  
Disability Discrimination Act 1995  
DfT Guidance on Inclusive Mobility

## Section 1

### 1.0 Travel to site

#### 1.1 Car parking

- 1.11 The development proposes an underground car park providing 94 95 parking spaces including 10 disabled spaces which amounts to more than 10% provision. The access to the car park is through a gated entrance from Barby Road and via a 2-way ramp to the basement. All car park users can operate the gates using a remote control device.
- 1.12 The size of the disabled car parking bays are a minimum of 4900mm x 3600mm. Refer to Drawing No. 529 P 02 for dimensioning of bays.
- 1.13 The disabled car parking bays have been evenly distributed throughout the car park to allow residents to use the nearest bay to their block.
- 1.14 No user will have to travel further than 20m from the disabled car parking bay to the point of entry to their block.
- 1.15 All disabled car parking bays will be clearly identified. This will be either with a sign positioned on wall adjacent to the space or on a free standing post where no wall is present. The sign will be 200 x 300mm and state 'Disabled Badge Holders Only'.
- 1.16 All surfaces of disabled car parking bays will be marked with the British Standard 'disabled' symbol in accordance with BS3262, part 1 and BS8300 Figure 2, including the yellow hatched transfer zones.
- 1.17 All residential blocks have lift access to the basement car park. Blocks A, B & C all have additional stair access to the car park. Block D has stair access to the car park for by all residents of Blocks D & E. This stair acts as a secondary means of escape for the car park. Refer to Section 3.3 of this document for additional information regarding lift provision.
- 1.18 Lighting levels in the underground car park are to be 200 – 300 lux.
- 1.19 The floor to the car park will be level except for minimal sloping of the surface for drainage to gulleys. There is no necessity for a change in level between the parking areas and the lift / stair lobbies because the car park is underground / covered and any surface water from the access ramp will be collected in drainage runs at the base.

#### 1.2 Drop-off Points

- 1.21 Residents of Blocks D & E gain access to the site via Exmoor Street. The gated entry to the site is set in 15m from Exmoor Street allowing vehicles to pull into the driveway area to drop-off residents.
- 1.22 Residents of Blocks A, B&C gain access to the site via Barby Road. Adjacent to the gated entrance to the underground car park there is an existing recessed loading bay which can be used as a drop off point for residents.

#### 1.3 Taxis

- 1.31 As above.



- 1.32 Additionally, a resident may request an arrangement is made where persons responsible for the dropping off and picking up of the resident regularly may be allowed to have a remote control device, to access the gated entry to the site.

**1.4 Bus stops**

- 1.41 There are two bus stops located within 15m of the site, served by bus routes 74 and 316. There are a further four bus stops within 400m of the site providing a good level of accessibility to surrounding areas. Access to these bus stops is by level ground or by dropped kerbs no steeper than 1:12 to ensure suitable access for wheelchair users.

## **Section 2**

### **2.0 Building Environs**

#### **2.1 Locations of Entrances to the site**

- 2.11 The approach to the gated entrance to the Affordable Housing Blocks D & E from Exmoor Street has a gradient of 1:25. The route from the gate to the buildings is ramped down in a series of 1:20 ramps and with a minimum width of 3350mm. The ramp lengths are no longer than 10m and landings are a minimum depth of 1500mm. The courtyard area provides level access to all entrances of the blocks.
- 2.12 Residents' access to the Open Market Blocks A, B & C is via Barlby Road and through a gated entrance which has a clear opening width of 1000mm. Blocks B & C have a level approach within 13m of the gated entrance. Residents to Block A have a 1200mm wide level route to their entrance which runs in front of the Block B. Refer to Drawing no. 529 P 01.
- 2.13 All entrances have a ramped access from external ground level of +19.00 to finished floor level +19.15 with a gradient of 1:20 (5%) to provide a level threshold. All ramps have a minimum width of 1400mm. All entrances have a level platform outside the entrance area of minimum 1200mm x 1200mm. Refer to 529 P 01 for dimensions.

#### **2.2 Entrance Route Design**

- 2.21 The access routes to all buildings will be in a suitable non-slip resin bonded aggregate to ensure a suitable grip for vehicles and easy manoeuvrability for wheelchair users. Where resin bonded aggregate is not shown a suitable tiled surface will be used. All materials to comply with DfT Guidance on Inclusive Mobility and Local Street Design guide and Materials Palette.
- 2.22 All external ramps are to have solid kerbs no less than 100mm in height and 50mm diameter handrails to one side only.
- 2.23 External Lighting along all access routes to be designed to Part 3 BS5489 to ensure good access and reduce crime risk. Design guidance has also been taken from The Royal Borough of Kensington and Chelsea's Streetscape Information Booklet. Minimum Lighting levels at entrances and exits are to be 250 – 350 lux.

## Section 3

### 3.0 Means of Access to and into Dwellings

#### 3.1 Entrance Design

- 3.11 All entrances are covered to provide protection for people entering the building. Blocks A, B, C & E have lightweight timber and metal canopies at minimum height of 2.3m which extend 1.2m away from the entrance door. Residents to Blocks D1 & D2 enter under a covered area created by the Block D1 above. Access to D3 & D4 is under Flat No. 80's balcony area.
- 3.12 All Main Entrance Doors to blocks are 1000mm width door-leaf providing a clear opening width of 950mm.
- 3.13 All Main Entrance Doors are to be fitted with self-closing mechanisms and set for the minimum opening pressure.
- 3.14 A clear space of 300mm minimum width has been provided adjacent to the leading edge of the door.
- 3.15 All Main Entrance Doors have a minimum visibility zone between 250mm and 1550mm above floor level.

#### 3.2 Circulation within Entrance storey of the building

- 3.21 On entry into Blocks A, B & C the corridor width is 1500mm. On moving into the entrance lobby in front of the lift, the width becomes 2000mm. Access to the gardens at the rear of the blocks is through the adjacent stair-core. The internal doors to the stair-cores are fully glazed with suitable manifestation and have a clear opening of 900mm. This allows the entrance lobby to be a light filled space with clear views out to the gardens.
- 3.22 On entrance to Blocks D1 & D2 the corridor width is 1300mm minimum. Doors to the lift lobby and stair-core have a fire-rating of 30 minutes, glazed visibility panels between 250mm and 1500mm and a clear opening width of 900mm. The lift lobby has a minimum size of 1500mm x 1500mm.
- 3.23 All other entrance lobbies to Blocks D & E have an overall width of 2200mm allowing an unobstructed corridor width of 1200mm and 1000mm width stair.

#### 3.3 Vertical Circulation within residential blocks and Means of Escape

- 3.31 All blocks have a disabled access lift compliant with Approved Document M (2004 Edition) of the Building Regulations 2000 (Access to and use of buildings). This enables disabled people to visit occupants who live on any storey.
- 3.32 The minimum specification for all lifts is to be; 8 person capacity, contract load of 630KG, car size of 1200mmx1500mm, doors providing a clear opening width of 800mm, doors fitted with timing devices and re-opening activators, landing and car controls not less than 900mm and not more than 1200mm above floor level, tactile identification of car controls and a visual and audible indication of the floor reached.
- 3.33 All lifts are also designed for evacuation of disabled people in an emergency and conforms to the relevant recommendations of BS 5588-8:1999 (Fire precautions in the design, construction and use of buildings Part 8: Code of practice for the means of escape for Disabled people) and EN81-72. This enables wheelchair users to self-

evacuate and discharge to ground floor level to a place of safety where all levels have no gradient steeper than 1:20 ramp.

- 3.34 All circulation lobbies in front of the lifts have a clear landing of 1500x1500mm.
- 3.35 All circulation cores to have staircases designed to Approved Document Part M Section 3.51. Specification includes; unobstructed length of min 1200mm on each landing, contrasting nosing material of 55mm wide on tread and riser, no more than 16 risers in a flight, minimum tread width of 1000mm, maximum rise of 170mm and a minimum going of 250mm.
- 3.36 All landings have a minimum width of 1200mm to allow wheelchair users to turn into entrance to flats and for change in direction.

#### **3.4 Access to Amenity Space**

- 3.41 Residents of Blocks A, B & C can access the communal rear gardens and lawn area via a level access route to the east side of the car park ramp.
- 3.42 Residents of Blocks D & E regularly access their communal landscaped courtyard in front of the residential blocks to enter their dwellings.
- 3.43 The affordable housing wheelchair users accommodation in Block E is situated at second to fifth floor. The units have a generous provision of balcony space and can be accessed easily by wheelchair users.
- 3.44 The Open Market Housing wheelchair users accommodation in Block C is situated at ground to seventh floor. All users have level access to their balcony / garden area.

## Section 4

### 4.0 Wheelchair User Accommodation

Refer to attached Drawing No's. 529 P 20A, and 529 P 21, 529 P 22 and 529 P 23.

#### 4.1 Location of Wheelchair User Accommodation

- 4.11 In line with Royal Borough of Kensington & Chelsea UDP, the development provides a total of 12 flats (11%) specifically designed for wheelchair users. This accommodation is located in both the affordable housing and the open market blocks.
- 4.12 4 No. four bedroom units are located in the Affordable Housing Blocks D & E. ~~These are flat no's 80, 96, 101 & 106 and are situated at second, third, fourth and fifth floor respectively.~~ These are flat No's 70, 73, 74 and 77 and are situated at ground and first floor level.
- 4.13 ~~A further 8 No. one bedroom units are located in the Open Market Block C. These are flat no's 7, 17, 27, 36, 44, 52, 60 & 66 and sit directly above each other from ground up to the seventh floor.~~ 4 No. three bedroom units are also located in Affordable Housing Block D. These are flat No's 85, 93, 98, 104 and sit directly above each other from second to fifth floor.
- 4.14 A further 2 No. two bedroom units, flat No's 3 & 11 and 2 No. one bedroom units, flat No's 7 & 17 are provided in the Open Market blocks A and C at ground and first floor level.

#### 4.2 Entrance Door and Internal Doors

- 4.21 Entrance Doors are to be 926mm door leaf.
- 4.22 Internal Doors are to be 826 door leaf.
- 4.23 All doors have a minimum of 300mm offset between the opening edge of the door blade and the return of the wall, when pulling the door.
- 4.24 The hanging of all doors facilitate easy wheelchair manoeuvre.
- 4.25 Door handles are set at a common height of between 900mm and 1200mm above finished floor level to aid people with visual impairment.

#### 4.3 Internal Planning

- 4.31 All corridors have a minimum width of 1200mm.
- 4.32 All rooms have wheelchair access and a 1500mm manoeuvre space is provided to bedroom 1, bathroom, kitchen, living and dining space.
- 4.33 The dimensions of the wheelchair accessible bathroom are 2500mm x 2700mm and is designed to comply with Approved Document Part M Section 5.19 – 5.21.
- 4.34 The layout of the bathroom is designed to BS8300 standards.
- 4.35 Where the bathroom and main bedroom are adjacent to each other, there is a full height knockout panel on the connecting wall.



**4.4 Components**

- 4.41 All light switches, sockets and entry phones are to be placed at appropriate heights between 400mm and 1200mm above finished floor level.
- 4.42 Bath and kitchen to have slip resistant floor finish.
- 4.43 Recessed grab handles are provided to the bath.

**Appendix**

Fig 1: Drawing No. 529 P 20 A – wheelchair user’s accommodation – four bedroom (Block E)

Fig 2: Drawing No. 529 P 21 – wheelchair user’s accommodation – one bedroom (Block C)

Fig 3: Drawing No. 529 P 22 – wheelchair user’s accommodation – two bedroom (Block A2)

Fig 4: Drawing No. 529 P 23 – wheelchair user’s accommodation – three bedroom (Block D)

For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 926mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

\* Full height knockout panel provided at connecting wall between master bedroom and bathroom.

For further information refer to Access and Mobility Statement.

**SITE** 130-136 barby road and  
6 exmoor street, london w10

**TITLE** wheelchair user's accommodation -  
four bedroom (Block E)

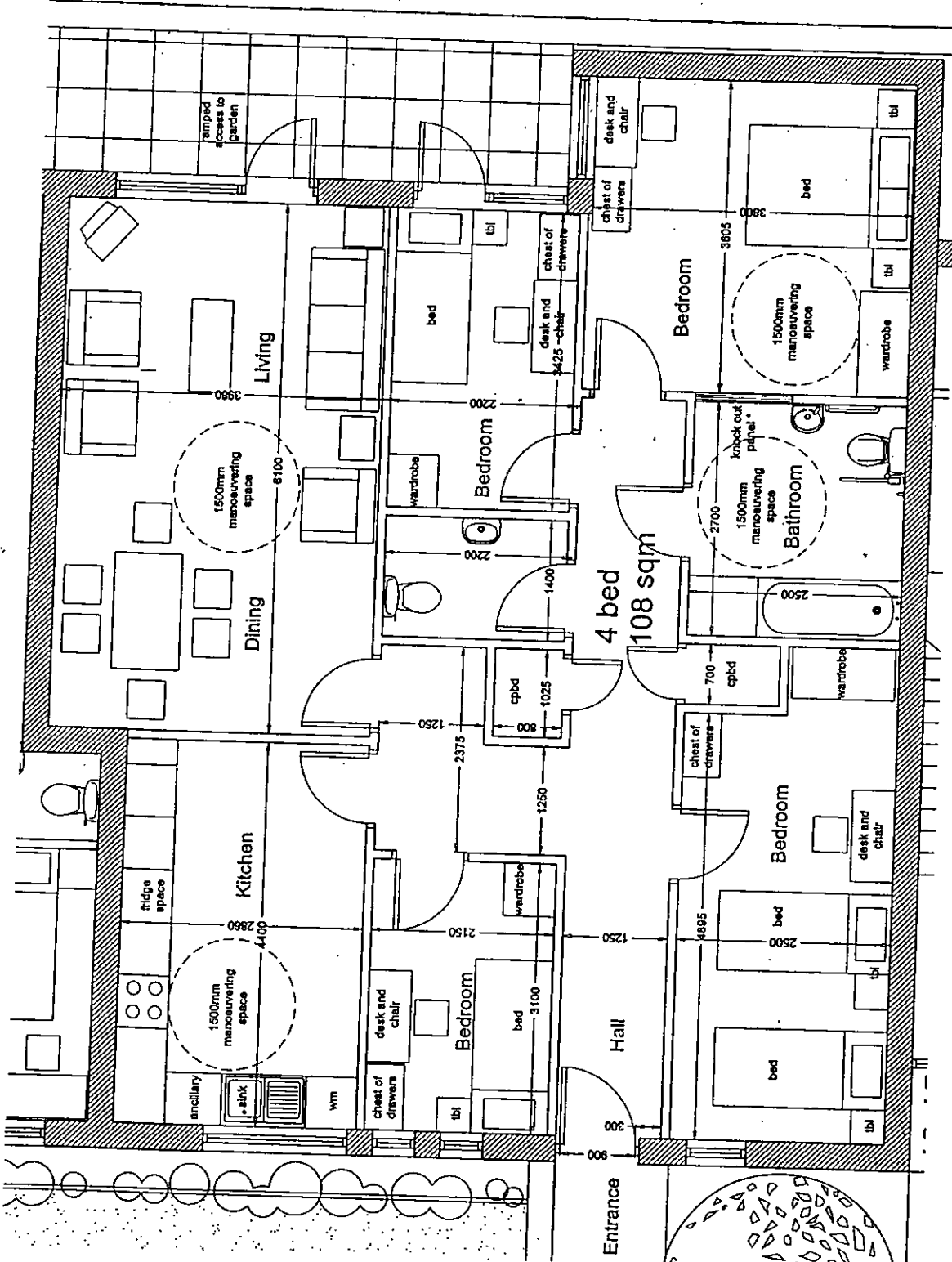
**SCALE** 1:50@A3

**DATE** NOV 2004

**NO.** 529 P 20 A

.quad

11 devonshire road chiswick w4 2au  
t +44 (0) 20 884 3344  
f +44 (0) 20 874 1988  
www.quadarchitects.com  
info@quadarchitects.com



For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 826mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, W/C and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

For further information refer to Access and Mobility Statement.

130-136 barlby road and  
6 exmoor street, london w10  
wheelchair user's accommodator  
one bedroom (Block C)

1:50 @A3

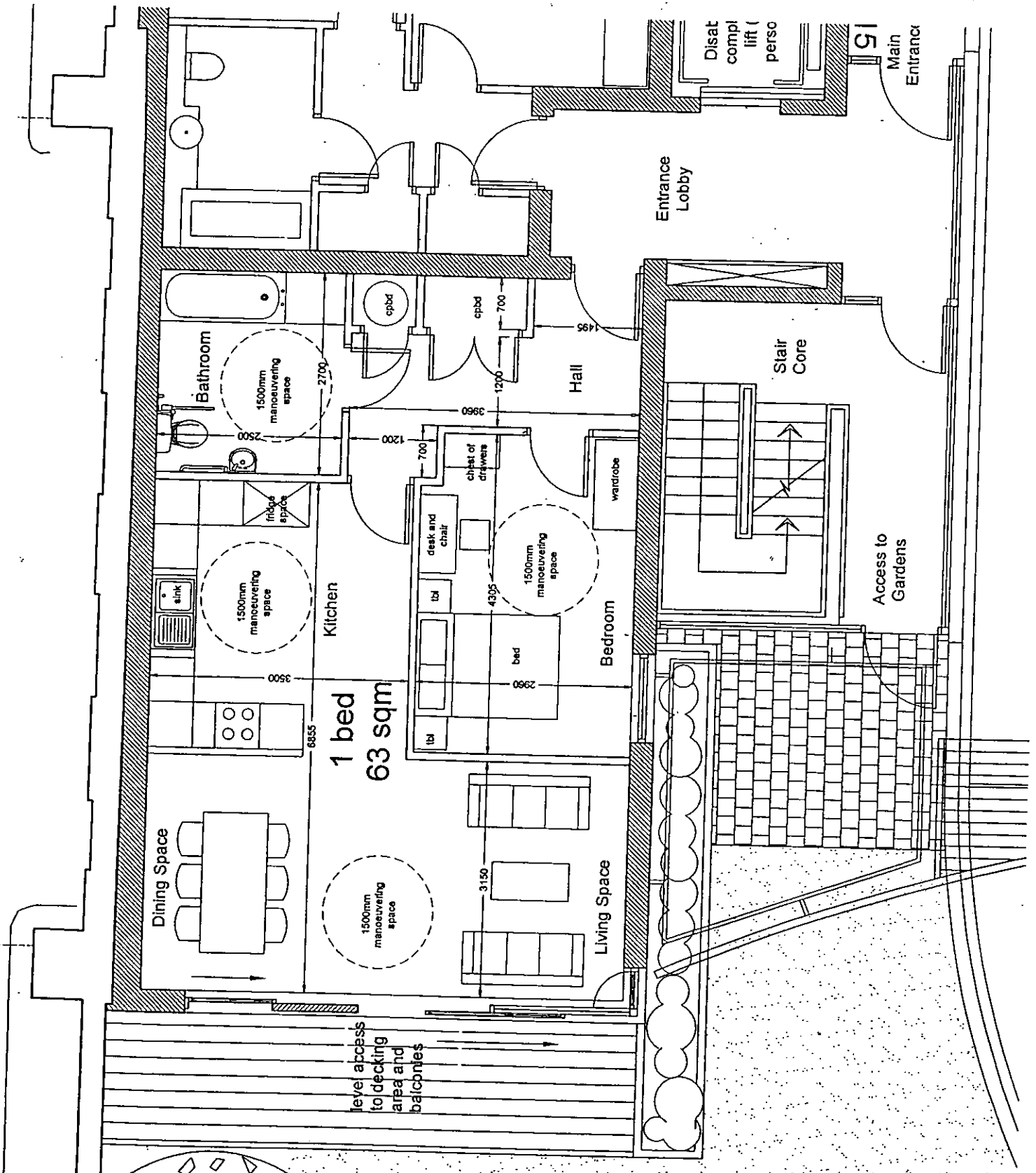
aug 2004

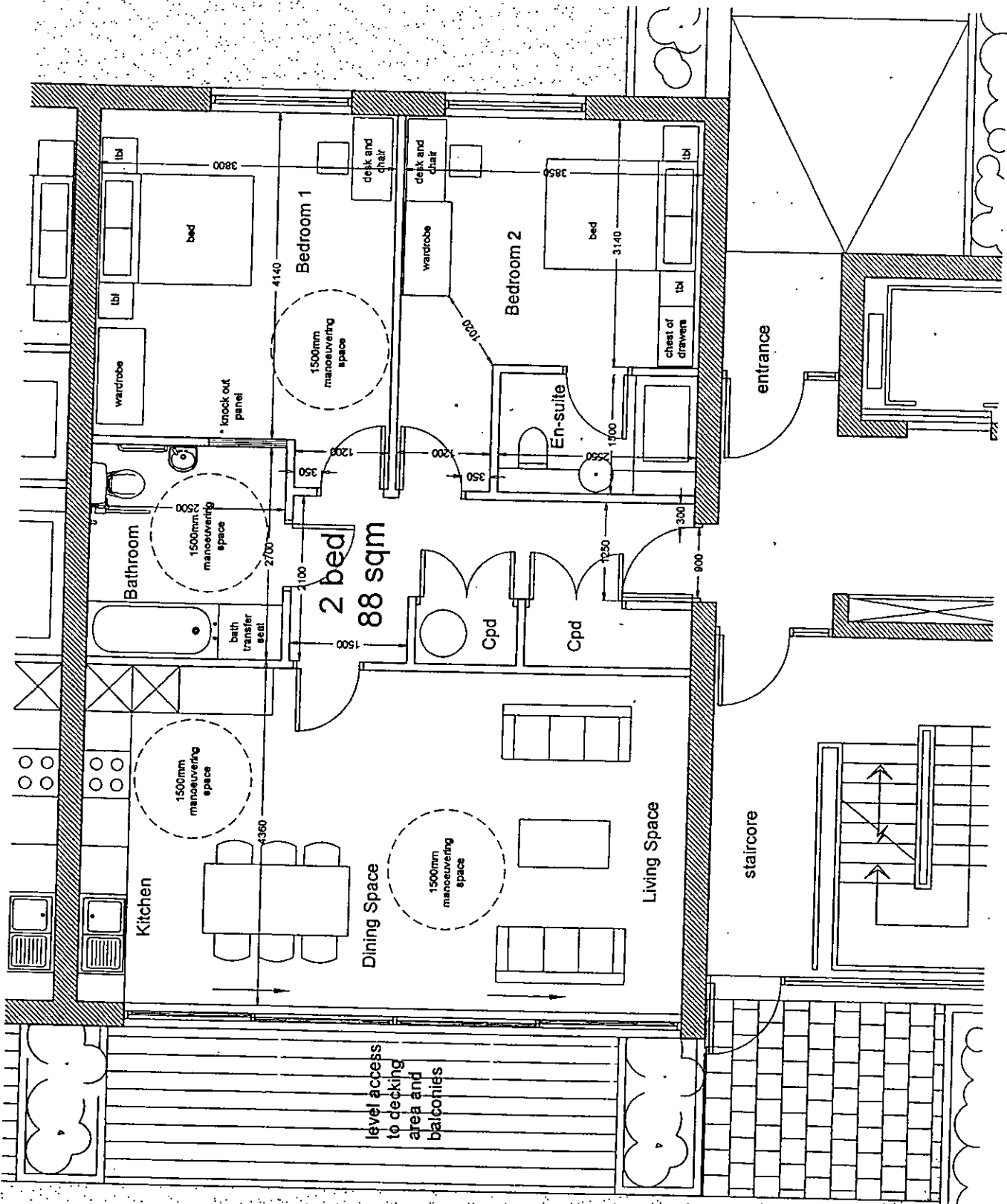
529 P 21

SITE	TITLE	SCALE	DATE	NO.

.quad

11 denonshire road chiswick w12 2au  
+44 (0) 20 8984 3344  
+44 (0) 20 8742 1888  
www.quadarchitects.com  
info@quadarchitects.com





For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 826mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

\* Full height knockout panel provided at connecting wall between master bedroom and bathroom.

For further information refer to Access and Mobility Statement.

130-136 barby road and  
6 exmoor street, london w10

wheelchair user's accommodation -  
two bedroom (Block A2)

1:50 @ A3

NOV 2004

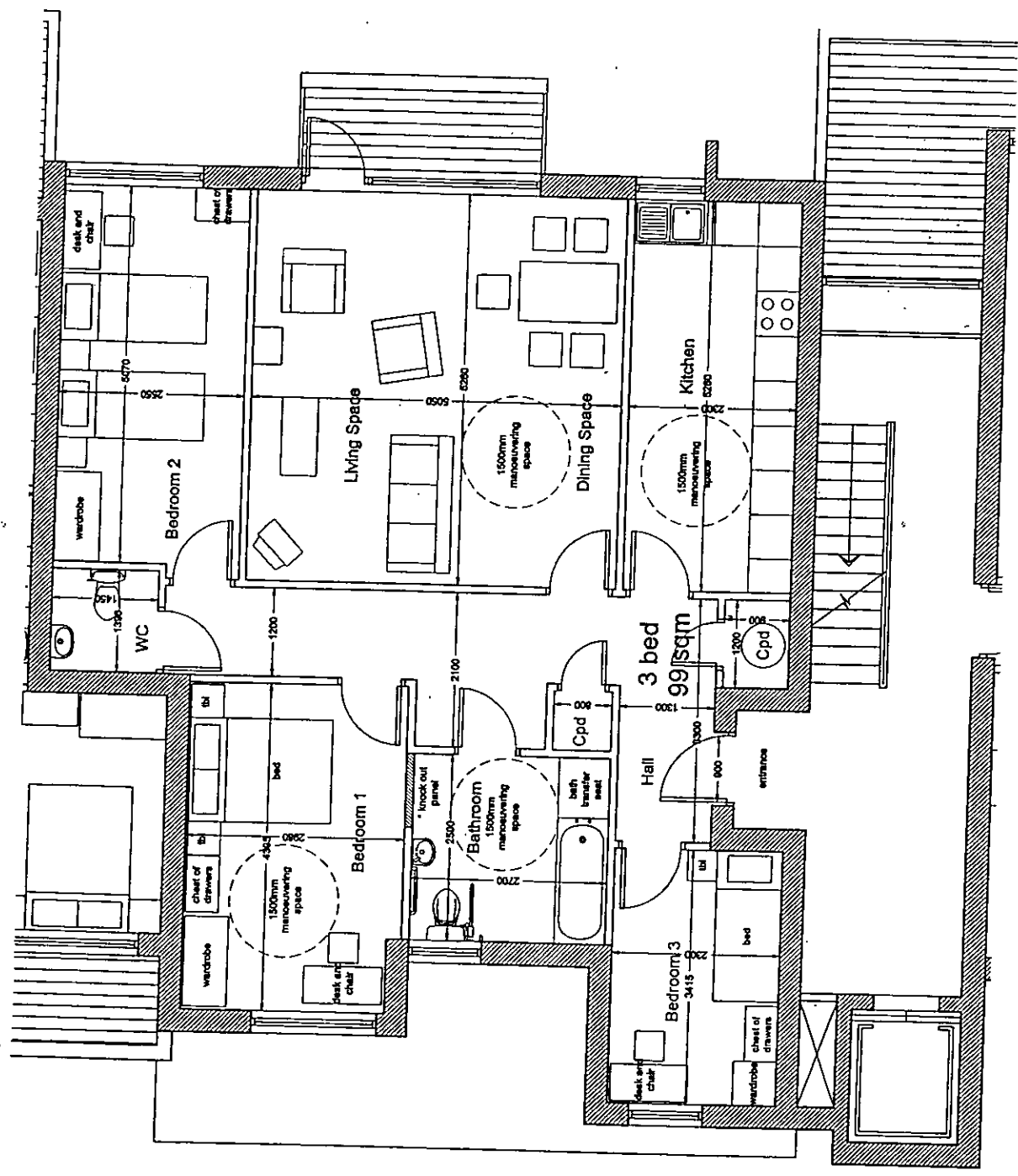
529 P 22

SITE	TITLE	SCALE	DATE	NO.

.quad

11 devonshire road chiswick, w4 2su  
+44 (0) 20 8964 3344  
+44 (0) 20 8742 1865  
www.quadarchitects.com  
info@quadarchitects.com





For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 926mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

\* Full height knockout panel provided at connecting wall between master bedroom and bathroom.

For further information refer to Access and Mobility Statement.

130-136 barby road and  
6 exmoor street, london w10  
wheelchair user's accommodation -  
three bedroom (Block D)

1:50@A3

NOV 2004

529 P 23

BITE	
TITLE	
SCALE	
DATE	
NO.	

.quad

11 devonshire road chiswick, w4 2w  
t +44 (0) 20 8994 3344  
f +44 (0) 20 8742 1800  
www.quadarchitects.com  
e info@quadarchitects.com

EX DIR	HDC	TP	CAC	AD	CLU	AO AK
R.B. K.C. - 4 OCT 2004					PLANNING	
N	C	SW	SE	APP	IO	REC
HBS			ARB	FPLN	DES	FEES



**PROPOSED RESIDENTIAL DEVELOPMENT**  
AT 130-136 BARLBY ROAD AND  
6 EXMOOR STREET, NORTH KENSINGTON, W10  
AUGUST 2004

**indigo**

Indigo Planning Limited  
Queens House  
Holly Road  
Twickenham TW1 4EG

Tel: 020 8607 9511  
Fax: 020 8607 9512

info@indigoplanning.com  
www.indigoplanning.com

<b>CONTENTS</b>	<b>PAGE</b>
<b>1. Introduction</b>	<b>1</b>
<b>2. Site and Surroundings</b>	<b>3</b>
<b>3. The Proposed Development</b>	<b>7</b>
<b>4. Policy Context</b>	<b>11</b>
National Guidance	11
The London Plan	14
Local Policy	16
<b>5. Key Issues and Policy Compliance</b>	<b>27</b>
Principle of Development	27
Accessibility and Transport	30
Design and Conservation	33
Surrounding Character and Amenity	36
Community Benefits	38
<b>6. Conclusions</b>	<b>39</b>

## 1. INTRODUCTION

1.1. This planning statement is submitted to the Royal Borough of Kensington and Chelsea (RBK&C), on behalf of the STAC Properties, in support of a full planning application and application for Conservation Area Consent for the demolition of B8 Storage and Distribution and B1 Offices/Recording Studios, and the erection of 108 residential units, a D1 unit (e.g. crèche), and basement car parking at 130-136 Barlby Road and 6 Exmoor Street, North Kensington.

1.2. The planning application formally seeks full planning permission for:

***'the demolition of B8 Storage and Distribution and B1 Offices/TV Studios, and the erection of 108 residential units, a D1 unit (e.g. crèche), and basement car parking, disabled and service staff car parking; pedestrian and vehicular access, landscaping and associated works'.***

1.3. Many constructive meetings have been undertaken with Senior Planning Officers in different departments within the Royal Borough of Kensington and Chelsea in order to satisfy their requirements for the site prior to an application being submitted. This has included the advancement of the Section 106 agreement, which it is hoped will help the smooth running of the application process. This statement examines the planning issues raised by the proposal. Quad architects have prepared the Design section of this statement, which constitutes the required design justification for the application. This planning statement is accompanied by a Transport Assessment, prepared by WSP Development, a Daylight and Sunlight Analysis prepared by Malcolm Hollis and an Access and Mobility statement prepared by Quad Architects.

1.4. Within the framework of relevant planning policy and guidance, this statement will pay particular regard to the key issues, namely:

- the principle of development, including the need for housing and the mix and type of accommodation; in the context of employment policy,
- the appropriateness of the proposals in terms of design, accessibility, and local amenity; and
- sustainability.

1.5. The assessment of the key issues will demonstrate that the proposed development:

- is a suitable and more efficient use of land in its urban context;
- will be of a high architectural quality befitting it's context within a Conservation Area, whilst respecting the bulk and massing of the adjacent buildings;
- will bring benefits to the local area, particularly in terms of providing affordable

housing and a community facility;

- will be sustainable and contribute positively to the surrounding area, both in terms of aesthetics and amenity, and benefit the surrounding transport network.



## 2. SITE AND SURROUNDINGS

- 2.1. The proposal is located on the southern side of Barlby Road in North Kensington, within the Royal Borough of Kensington & Chelsea. The site directly adjoins NHS premises to the west, and the Pall Mall Depository to the east, which accommodates office and distribution uses, exhibition space, and a café. The site is bordered to the south by St Charles Hospital and its associated buildings. To the north, across Barlby Road, is Barlby Gardens, a residential development. Refer to Fig 1 & 2.
- 2.2. The site boundary incorporates two buildings, Parke House (130-136 Barlby Road), and 6 Exmoor Street. Both buildings are two-storey, poor quality, standard office/warehouse blocks, refer to Fig. 3. The buildings are tired, particularly the façade onto Barlby Road, and have come to the end of their economic life. Parke House (130-136 Barlby Road) is currently in employment use, and used for storage and distribution uses, with ancillary offices. 6 Exmoor Street which comprises the rear of the site, has been vacant for 3 years, and its most recent use was as TV studios, refer to Fig 4. The development site comprises approximately 0.43 hectares, B1 office (1431m<sup>2</sup>) and B8 storage and distribution (2063m<sup>2</sup>).
- 2.3. Parke House is currently accessed from Barlby Road, whilst the warehouse to rear is accessed from Exmoor Street. The area around the site along Barlby Road and Exmoor Street is subject to various parking controls including waiting restrictions, 'permit holder only' and short stay metered parking areas.
- 2.4. This area of North Kensington is generally in need of regeneration and is characterised by high levels of social housing and higher than average unemployment. The area surrounding the site is characterised by a mix of uses, mainly residential development. Housing estates including the Peabody Estate occupy land to the north. Further north, dominating the wider landscape and defining the northern boundary of this part of Kensington are the railway line, gas works, and cemeteries. To the west, beyond the residential development, lies the recreation area of Little Wormwood Scrubs and the A219. St Charles Hospital occupies land directly to the south, while further south, the area is characterised by residential development, Princess Louise Hospital, a monastery, and secondary and primary schools. The area to the east is characterised by residential development, a primary school, and the busy B450 Ladbroke Grove which runs south to the underground station. Local shopping centres are situated in close proximity along Barlby Road, Ladbroke Grove (north), and St Helens Gardens.
- 2.5. The site's immediate surroundings include 2 to 4 storey office and distribution buildings. To the south, lies the 5 storey St Charles Hospital, a Grade II Listed building, and its associated buildings. Much of the surrounding area includes residential buildings of 2 to 4 storeys in height. The proposed development site is within the St Quintin Oxford Gardens Conservation Area.

- 2.6. The site is well served by existing bus services, which provide access to a wide number of locations and facilities including central London and regular night buses also provide access to central London's vibrant nightlife including Camden and the West End. A bus stop is located directly outside the site, with additional stops on Ladbrooke Grove within 400m. The site has good access to underground services, with Ladbrooke Grove Station less than a kilometre away. The station is on the Hammersmith and City line providing access to Paddington, Kings Cross St. Pancras and Liverpool Street train stations. Willesden Junction rail station is also situated to the north.



FIG 1. PALL MALL BUILDING



FIG 2. ST. CHARLES' HOSPITAL



FIG 3. EXISTING OFFICES AND WAREHOUSE AT 130 -136 BARLBY ROAD BUILDING



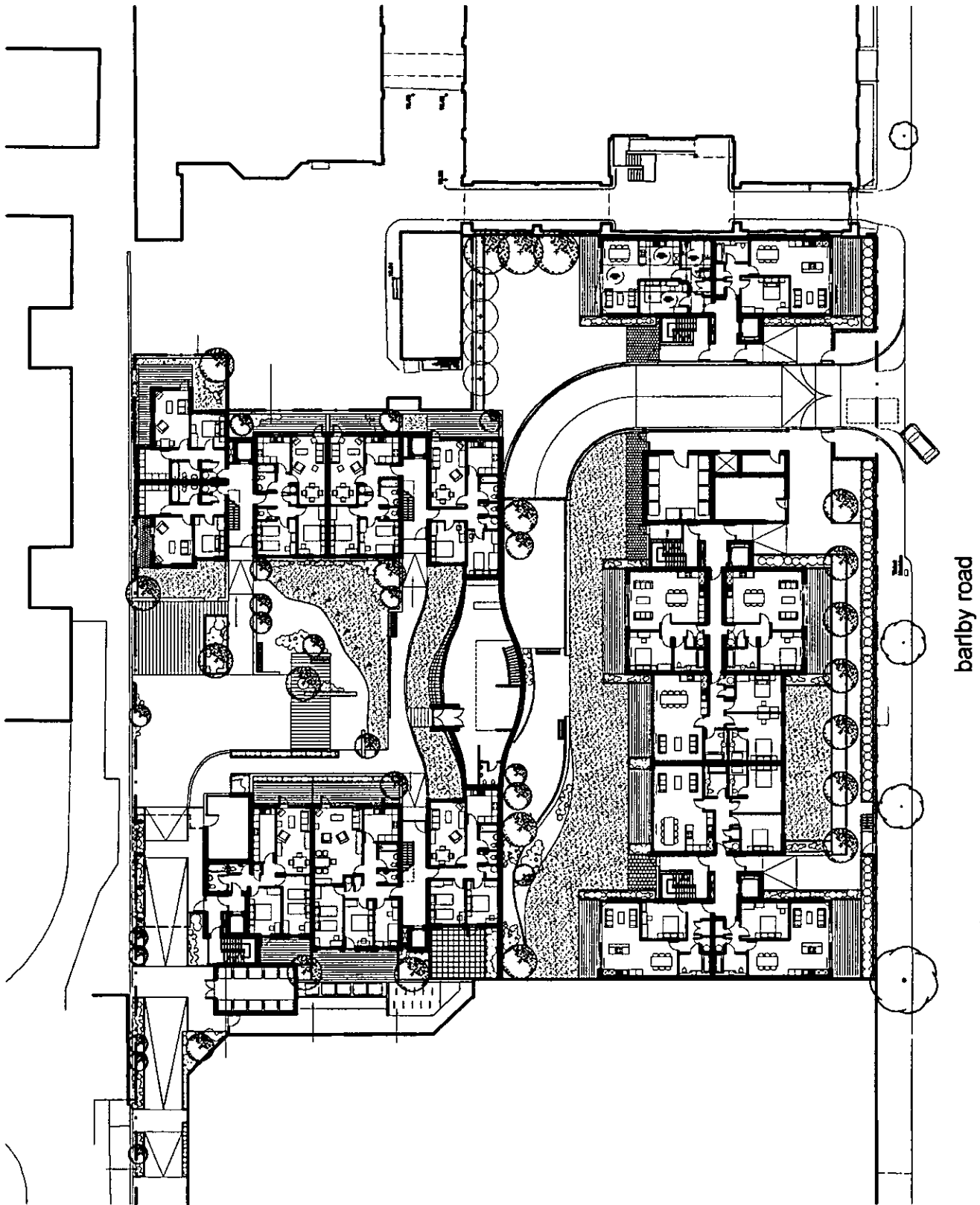
FIG 4. EXISTING TV STUDIOS, 6 EXMOOR STREET

### **3. THE PROPOSED DEVELOPMENT**

- 3.1 The proposed development comprises the demolition of the existing offices and warehouse and the erection of a total of 108 residential units, ranging from 1 to 4 bedroom units. The scheme layout and building elevations accompany the planning application.
- 3.2 The proposed development will comprise a range of tenures in a mix of sizes. Approximately 45% of the habitable rooms will be affordable, above standards set out in local policy, and will include shared equity and social rented properties. These will be incorporated in the southern part of the site and will be comparable in terms of design and materials to the homes for private sale, so that they are indistinguishable.
- 3.3 The proposed development incorporates five blocks, which range from 3 to 9 residential storeys. Blocks A, B, and C, which front Barlby Road, range from 9 residential storeys, adjacent to the Pall Mall Depository, to 4 storeys, adjacent to the NHS premises to the east. This step change in building height reflects the form and height of the adjacent buildings, and continues the strong built presence along this part of the street frontage. Blocks D and E are detached and sit back from the residential blocks which front Barlby Road. These blocks step up from 3 to 7 storeys from front to back. Refer to Fig. 5 – 12.
- 3.4 The scale and density of the proposed development is appropriate for its urban location, and will ensure that a more efficient use is made of this site in Central London, an approach advocated in government policy. The scheme has been broadly designed to comply with the established principles, in terms of massing and height. The site is also in a highly accessible location and is therefore ideal for the type of high density development proposed.
- 3.5 The proposed building is of a high quality, contemporary design. The design, scale, detailing and materials will be of a high quality, appropriate to the site and general location. The redevelopment of the site will aid the regeneration of this area and raise the profile of this area for investment. The design layout promotes a safe, secure and inclusive environment in line with government policy and urban design guidance.
- 3.6 Landscaping and private amenity space is interspersed within the development. Blocks D and E face inwardly onto a treed courtyard, whilst the rear of Blocks A, B, and C face onto a large lawned area. The development provides a total of 2965 m<sup>2</sup> amenity space.



- 3.7 Vehicular and pedestrian access to the development will be provided from Barlby Road and Exmoor Street. The site access from Barlby Road is provided by a ramped entry down into the basement car park, similar to the existing arrangement. At the entrance to the car park there would be a minimum headroom clearance of 2.1m. Secondary vehicular access into the development and basement car park is proposed via Exmoor Street.
- 3.8 The development includes 94 car-parking spaces in the basement. Disabled parking makes up 10% (10 spaces) of the car parking spaces, whilst a dedicated car parking space is provided for a delivery vehicle. Cycle parking of 118 spaces will be provided in the basement level, and serviced by a cycle lift.
- 3.9 Servicing access for refuse vehicles and fire appliances is provided via Exmoor Street. Waste would be collected via a managed service at the rear of the building. The proposals have been discussed and agreed with RBK&C. This is considered to be the most appropriate method for waste collection from the site rather than requiring refuse vehicles to manoeuvre within the site underground car park.
- 3.10 The development will also provide a D1 unit, perhaps a crèche, as part of the proposals. The D1 unit will be open to the public. It is envisaged that this facility will be invaluable to not only the residents of the development but also the residents of the local area. The design will be innovative and high quality, and it has been agreed with the RBK&C that the D1 unit will constitute the public art contribution for the scheme.
- 3.11 A detailed analysis of the scheme design is included within the Design section of this statement,, and an Access and Disability Statement is also included. The daylight and sunlight considerations are set out in the Daylight and Sunlight Report, which accompanies the application.



barlby road

FIG. 5 SITE PLAN

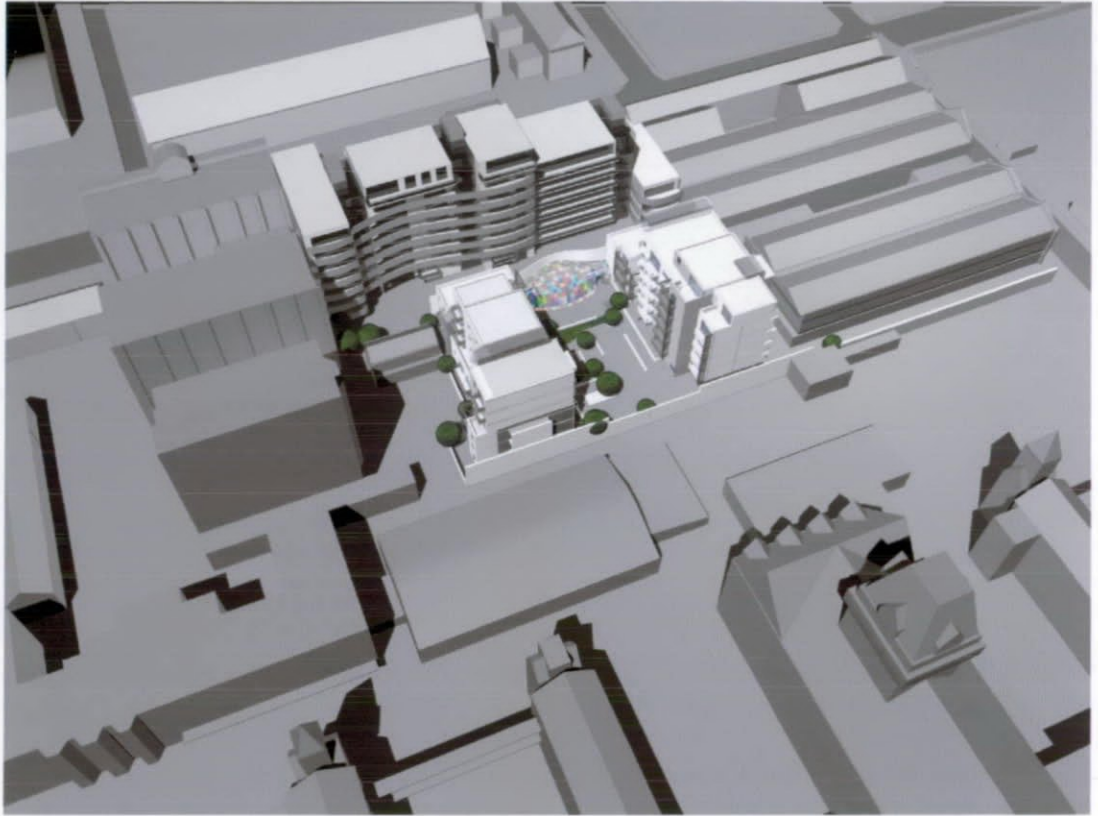


FIG 6. SITE MASSING MODEL - VIEW FROM SOUTH



FIG 7. SITE MASSING MODEL - VIEW FROM NORTH

## **4. POLICY CONTEXT**

- 4.1. The planning policy context for this application is established by national guidance, the Mayor's London Plan, and the Unitary Development Plan and supplementary notes.

### **National Guidance**

- 4.2. Draft Planning Policy Statement 1: Creating Sustainable Communities (PPS1) was published for consultation in 2004, and states that sustainable communities need sufficient, quality housing to meet the needs of the community.
- 4.3. The Government considers that planning should facilitate and promote sustainable patterns of urban and rural development by amongst other making suitable land available for development in line with economic, social and environmental objectives; ensuring high quality development through good design; and ensuring that development supports existing communities and contributes to the creation of safe, sustainable and liveable communities with good access to jobs and key services.
- 4.4. PPS1 highlights that planning policies should seek to promote the more efficient use of land through higher density development and the use of suitable previously developed land and buildings. Planning should seek actively to get vacant and underused previously developed land and building back into beneficial use to achieve targets set by the Government for development on previously developed land.
- 4.5. PPS1 emphasises that high quality design ensures usable, durable and adaptable places and is a key element in achieving sustainable development.
- 4.6. Planning policies should promote high quality design for new development areas and individual buildings in terms of functionality and impact. Design policies should encourage developments which:
- are appropriate to their context in respect of scale and compatibility with their surroundings;
  - secure positive improvement to the streetscape or place where they are located;
  - create safe environments where crime and disorder or fear of crime does not undermine the quality of life or community cohesion;
  - make efficient use of natural resources;
  - address the needs of all in society, including people with disability.

- 4.7. The adopted Planning Policy Guidance Note 1: General Policy and Principles (1997); states that urban regeneration and the re-use of urban land are important supporting objectives for creating a more sustainable pattern of development. This guidance note confirms that the Government is committed to concentrating development for uses which generate a large number of trips in places well-served by public transport, especially town-centres rather than in out-of-centre locations; preferring the development of land within urban areas, particularly on previously developed sites, provided that this creates or maintains a good living environment.
- 4.8. Planning Policy Guidance Note 3: Housing (2000); states that Local Planning Authorities (LPA's) should amongst other things provide sufficient housing land but give priority to re-using previously developed land within urban areas, bringing empty homes back into use and converting existing buildings of non-residential use, in preference to the existence of greenfield sites.
- 4.9. PPG3 confirms the Government's support of creating mixed and inclusive communities, which offer a choice of housing and lifestyle. It does not accept that different types of housing and tenures make bad neighbours. LPA's should encourage the development of mixed and balanced communities and ensure that new housing developments help to secure a better social mix by avoiding the creation of large areas of housing of similar characteristics.
- 4.10. PPG3 states that decisions about the amount and type of affordable housing to be provided in individual proposals should reflect local housing need and individual site suitability and be a matter of agreement between parties. LPA's and developers should be reasonably flexible in deciding the type of affordable housing most appropriate to a particular site. The objective should be to ensure that the affordable housing secured would contribute to satisfying local housing needs as demonstrated by rigorous assessment.
- 4.11. PPG3 confirms that the Government is committed to maximising the re-use of previously developed land and empty properties and the conversions for housing, in order both to promote regeneration and minimise the amount of greenfield land being taken for development.
- 4.12. In 2003, the Government issued draft guidance regarding the release of employment sites for residential development. The intention is that local authorities should allow land currently allocated for industrial or commercial use in their development plans, and redundant industrial or commercial buildings, to be used for housing or mixed-use development unless a convincing case for retention can be made. The draft guidance states that before a comprehensive review of employment sites is undertaken by the Council during its Local Plan Review, applicants for planning permission for development that includes housing should be able to expect "expeditious and sympathetic handling of planning proposals" in such cases.





FIG 8. SITE MASSING MODEL - VIEW FROM EAST

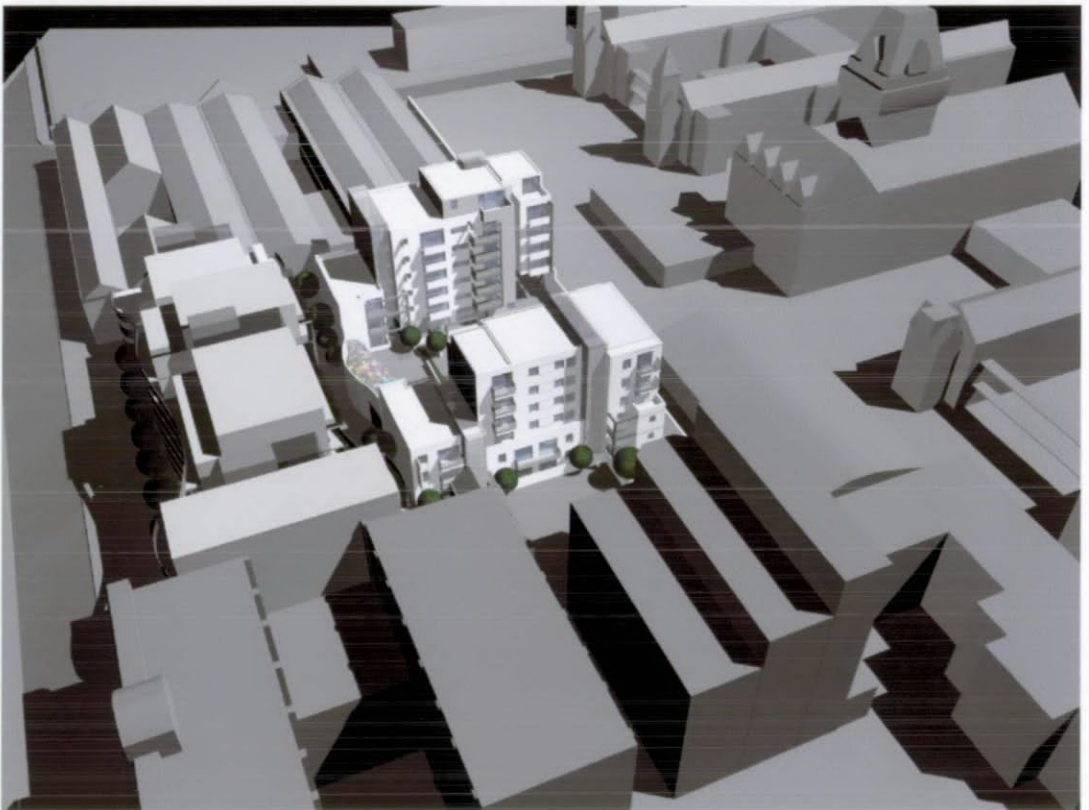


FIG 9. SITE MASSING MODEL - VIEW FROM WEST

- 4.13. Planning Policy Guidance Note 13: Transport (2001) confirms that the Government aims to promote more sustainable residential environments by avoiding the inefficient use of land (avoiding development of less than 30 dwellings per hectare net), and encouraging housing development which makes more efficient use of land (between 30 and 50 dwellings per hectare net) and seek greater intensity of development at places with good public transport accessibility, such as city, town, district and local centres.

## **The London Plan**

- 4.14. The London Plan was adopted on 10 February 2004. This guidance document replaces the strategic guidance for London (RPG3). The London Plan sets out a strategy to guide development in London and provides guidance on physical, social, economic, environmental and financial issues in the City.
- 4.15. Policy 2A.1 sets out the Plan's criteria for sustainable development, which include:
- optimising the use of previously developed land and vacant or under-used buildings;
  - using a design-led approach to optimise the potential of sites
  - ensuring that development occurs in locations that are currently, or are planned to be, accessible by public transport, walking and cycling;
  - ensuring that development occurs in locations that are accessible to town centres, employment, housing, shops and services;
- 4.16. Chapter 3 of the London Plan sets out policies to govern housing development in the City. In line with the concept of a sustainable and compact city, future residential development needs should be located so as to maximise the use of scarce land, to conserve energy and to be within easy access of jobs, schools, shops and public transport.
- 4.17. Supporting text of chapter 3 of the plan identifies that more capacity can be achieved through redevelopment and applying higher densities. Boroughs are encouraged to investigate additional sources of housing capacity and identify further sites, applying higher densities where appropriate.
- 4.18. Policy 3A.5 sets out that large-scale residential developments present the potential to provide additional housing, as well as create a sense of place with its own character and identity.
- 4.19. In setting targets, boroughs should take account regional and local assessment of

need, the Mayor's strategic target for affordable housing provision (that 50% of housing provision should be affordable – and within that the London wide objective of 70% social rented housing and 30% intermediate provision) and the promotion of mixed and balanced communities.

- 4.20. Policy 3A.8 states that affordable housing targets should be applied flexibly, taking account of individual site costs, the availability of public subsidy and other scheme requirements. Supporting text to this policy states that affordable housing should be integrated with the rest of the development and have the same external appearance as the rest of the housing.
- 4.21. Chapter 4 of the London Plan addresses issues in relation to the design of development. The plan considers that there is a strong link between good design and the attraction of economic investors. Policy 4B.1 sets out the design principles for a compact city. Developments should seek to ensure that they:
- maximise the potential of sites;
  - create or enhance the public realm;
  - provide or enhance a mix of uses;
  - are accessible, usable and permeable for all users;
  - are sustainable, durable and adaptable;
  - are safe for users and passers-by;
  - respect local context, character and communities;
  - are practical and legible;
  - are attractive to look at and, where appropriate, inspire, excite and delight;
  - respect the natural environment; and
  - respect London's built heritage.
- 4.22. Paragraph 4.37 states that a compact city must maximise the potential of its sites. In order to absorb growth in population and jobs, London must achieve more intensive development in the right places. It must be designed and managed to ensure longer-term efficient use.
- 4.23. Policy 4B.3 states that the Mayor will ensure that development proposals achieve the highest possible intensity of use compatible with local context, the Plan's design principles, and with public transport. The mayor will refuse permission for strategic referrals that, taking into account context and potential transport capacity, under-use the potential of the site.

- 4.24. The London Plan sets out appropriate density ranges for typical locations in London. These standards are not static, and only provides a guide to the density that would be appropriate in certain locations. A range of between 450-700 hr/ha or 165-275u/ha would be appropriate for an urban location similar to the development site, within 10 mins walking distance to a town centre.
- 4.25. Policy 4B.5 sets out guidance aimed at creating inclusive environments. The mayor will require all future development to meet the highest standards of accessibility and inclusion. It is noted that a truly inclusive society demands an environment in which a diverse population can exist harmoniously.
- 4.26. Policy 4B.6 sets out guidance for sustainable design and construction to ensure that future developments meet the highest standards of sustainable design and construction.

### **Local Policy**

- 4.27. The statutory development plan for the area, in terms of Section 54A of the Town and Country Planning Act 1990 (as amended), comprises the Royal Borough of Kensington and Chelsea Unitary Development Plan (UDP). The UDP was formally adopted on 25 May 2002. This document constitutes the local planning guidance for the Borough.
- 4.28. Policy STRAT 2 aims to increase the residential provision within the Royal Borough by restricting the loss of and buildings with existing residential use and encourage the provision of additional permanent residential accommodation on suitable sites and buildings where appropriate. Policies STRAT 16 and STRAT 17 go further by stating that it aims to ensure the contribution of the Royal Borough to the dwelling stock of Greater London is not diminished and increase wherever appropriate; and seeks to maximise the residential capacity of the Borough in line with Strategic Guidance for London. Policy STRAT 18 aims to encourage an adequate and continuing supply of land for new housing development through the development of vacant and under-used land for residential use in appropriate locations.
- 4.29. More specifically, Policy STRAT 9 seeks to ensure that all development preserves and enhances the residential character of the Royal Borough, and Policy STRAT 10 aims to protect Listed Buildings and to preserve and enhance the character of Conservation Areas, and other buildings or places. Policy STRAT 11 aims to promote high quality environmental and architectural design standards in new developments and alterations and in additions to existing buildings. Policy STRAT 19 seeks to increase the amount and range of sizes and types of dwellings to meet the needs of those seeking permanent accommodation in the Royal Borough, whilst maintaining the overall quality of the residential environment.

## Offices and Industry

- 4.30. The Council appreciate that as there are very few vacant sites remaining in the Borough, the provision of new housing, other than from conversion schemes, will mainly arise from redevelopment proposals. Policy E4 states that redevelopments will be expected to provide housing on all or at least the major part of the site area or floorspace. Para. 6.3.12 states that 'for those sites outside the Borough's Employment Zones (which the site is), the suitability of the site for housing should be established with reference to the policies of the Housing Chapter'.
- 4.31. Historically, light industrial uses have been considered an important resource in North Kensington, particularly in the two Employment Zones of Kensal and Freston Road/Latimer Road. Policy E17 states that the Council will normally resist the loss of light industrial uses in North Kensington.

## Design and Conservation

- 4.32. Chapter 4 of the adopted UDP sets out 4 overall objectives for conservation and development. These are:
- to protect and enhance areas of character throughout the Borough, both in terms of use and the physical environment;
  - to ensure that all development respects local character, is of a high standards of design, takes into account people with special mobility needs and does not adversely affect the Borough's conservation areas;
  - to preserve and enhance the Borough's conservation areas and listed buildings;
  - to protect and enhance the natural environment and to preserve archaeology of the Borough.
- 4.33. The architectural quality of a building and its contribution to the character and appearance of a conservation area may be severely compromised by substantial demolition, and this will be taken into account when the Council considers any proposals. It is considered that a building's contribution to the character of a conservation area stems not only from its street frontage but also the side and rear elevations. The historic plan form and integrity of the buildings also make a significant contribution to the character of the conservation areas. Redevelopment behind a retained front façade therefore is generally not acceptable.
- 4.34. Policy CD60 states that the LPA will resist demolition or substantial demolition of buildings in conservation areas unless:
- the building or part of the building structure makes no positive contribution to the character or appearance of the area; or
  - the condition of the building is proved to be such that refurbishment is not possible; and
  - a satisfactory scheme for redevelopment has been approved.





FIG 10. BARLBY ROAD ELEVATION

- 4.35. Any consent for demolition will normally be subject to a condition that the building shall not be demolished until a contract for new work has been made.
- 4.36. Policy CD61 seeks to ensure that any development in a conservation area preserves and enhances the character or appearance of the area.
- 4.37. Policy CD62 seeks to ensure that all development in conservation areas is to a high standard of design and is compatible with:
- character, scale and pattern;
  - bulk and height;
  - proportion and rhythm;
  - roofscape;
  - materials;
  - landscaping and boundary treatment of surrounding development.
- 4.38. Policy CD63 considers the effect of proposals on views identified in the Council's Conservation Area Proposals Statements, and generally within, into, and out of conservation areas, and the effect of development on sites adjacent to such areas. Trees in conservation areas are also protected. Six weeks notice must be given to the Council if it is proposed to carry out any work to a tree conservation area. This applies only to trees with a trunk diameter greater than 75mm at 1.5m in height. The purpose of this requirement is to give the Council a final opportunity to make an Order where appropriate before work is carried out.
- 4.39. Policy CD64 requires full planning applications in conservation areas where a proposal is likely to affect the character or appearance of the conservation area.
- 4.40. Policy CD27 aims to ensure that all development in any part of the Borough is to a high standard of design and is sensitive to and compatible with the scale, height, bulk, materials and character of the surroundings, this is particularly important in or adjacent to Conservation Areas and listed buildings.
- 4.41. Paragraph 4.3.3 indicates that the quality of urban design is considered as an essential component in the control of development. Policy CD28 requires development to be physically and visually integrated into the surroundings by:
- preserving existing public routes, creating new routes where appropriate, and extending links to maintain a high level of accessibility;

- ensuring that the appearance of buildings form a pattern which reflects the traditional urban form of the Borough, by maintaining and creating new building lines and giving a coherent form to the spaces enclosed by new buildings. Buildings and features should also be designed to emphasise the importance of main routes, and of key locations such as important cross-roads, shopping centres or other public gathering places;
- maintaining a clear distinction between private and public space, and ensuring the provision of active building frontages, particularly at ground floor level in appropriate locations;
- preserving and creating those aspects of architecture and urban form which contribute to local distinctiveness and character such as plot widths, building lines, roofscape and open space.

4.42. In assessing proposed residential developments, including conversions, the space to be provided for individual dwellings will be important factors in the quality of the accommodation to be provided, and in the impact of the proposed development on the character and amenity of the surrounding area. The Council will have regard to the standards set out in Table 3.1, which are considered relevant to the Borough and likely to achieve the relevant policy objectives.

4.43. Policy CD33 aims to resist development, which significantly reduces sunlight or daylight enjoyed by existing adjoining buildings and amenity spaces. Policy CD34 requires development to be designed to ensure good light conditions for its building spaces. Paragraph 4.3.15 indicates that in considering development proposals, the Council will not be seeking to ensure that they meet any particular minimum or maximum standards. Within new developments, the Council will seek good light conditions taking into account the general levels of light in the immediate area, and the character of its built form and spaces.

4.44. In assessing development proposals the Council will seek to protect the existing privacy of residents to ensure good standards of privacy in new development. However, supporting text acknowledges that some loss of privacy as a result of development may be unavoidable. Paragraph 4.3.23 states that within new developments, the Council will be seeking good standards of privacy for future occupants, taking into account the general levels of privacy in the immediate area, and the character of its built form and spaces.

4.45. Policy CD35 requires that development should be designed to ensure sufficient visual privacy for residents and the working population. Paragraph 4.3.27 indicates that the Council will (where appropriate) attach planning conditions to planning permissions to ensure that developments do not significantly reduce the privacy enjoyed by adjoining properties.



FIG 11. AFFORDABLE HOUSING BLOCK D





FIG 12. AFFORDABLE HOUSING BLOCK E



- 4.46. Policy CD36 aims to resist development where it would result in a harmful increase in the sense of enclosure to nearby residential property.
- 4.47. Policy CD38 aims to ensure that where open space forms part of a proposal it is designed and landscaped to a high standard. Supporting text indicates that the Council will require landscaping to be both functional and aesthetic.
- 4.48. Policy CD39 requires that the design of new and altered buildings or areas adequately takes into account the safety and security of the users of the facilities and that of neighbouring residents.
- 4.49. Policies CD40 and CD41 aim to resist proposals where the noise generated by the use or activity would cause material disturbance to occupiers of surrounding properties; and ensure that residential developments include adequate protection of the internal environment from the effects of noise.
- 4.50. The site is located within a Conservation Area. Policy CD63 states that consideration should be given to the effect of proposals the Conservation Area and its setting, and on views identified in the Council's Conservation Area Proposals Statements, and generally within, into, and out of conservation areas, and the effect of development on sites adjacent to such areas.
- 4.51. Policy CD81 encourages the planting of trees, particularly in new development. The Council recognises the importance of trees as valuable elements of the urban landscape.
- 4.52. Policy CD82 resists the loss of trees unless they are dead, dying or potentially a public danger, causing an actionable nuisance or, exceptionally, when removal is required in a replanting programme.

## Housing

- 4.53. Kensington and Chelsea has some of the highest residential rents and prices in the country. Accommodation is difficult to obtain for many people who have a need to live in the Borough because of their work or family contacts. The Council's policies aim to maintain and increase the amount of affordable housing, family dwellings, small units and accommodation for special needs. The Council will seek to negotiate for a wide variety of housing within large development schemes, and will seek the provision of a substantial element of affordable housing.
- 4.54. Policy H2 seeks the development of land and buildings for residential use unless a satisfactory residential environment cannot reasonably be achieved by reason of excessive noise, inappropriate location or ground contamination; or the land is required for the provision of social or community facilities to meet local needs; or the development is for the replacement on the same site of existing commercial floorspace which has not given rise to environmental or traffic problems.
- 4.55. Paragraph 5.2.4 states that the Council will have regard to the history of the use of the site and any known conflict with the amenity of the area through traffic or noise generation, hours of operation and any other material factors, including the considerations set out in the definition of the B1 Use Class. The Council will also have regard to the positive aspects of the existing use and its continuation or replacement by another non-residential use, such as its contribution to the vitality of the local economy. Where a site or building is not suitable or appropriate for residential use, its residential use will not be sought.
- 4.56. Policy H7 seeks, where appropriate, the provision of some outdoor space in all new development and, in particular, the provision of open space and play facilities in developments of over ten units.
- 4.57. Policy H11 aims to resist housing designed to higher densities except where it:
- is designed predominantly for occupation by small households; or
  - enables the provision of special needs or affordable housing on appropriate sites; or
  - is an infill scheme where a higher density development is necessary for townscape reasons to comply with the policies of the Conservation and Development Chapter.
- 4.58. The mix of accommodation in the Borough should be related to the range in household types existing or likely to exist and to deficiencies in the range of accommodation. Households are typically smaller than elsewhere in the capital. In response to market demand, the private sector already provides a substantial proportion of smaller units, mostly through conversion schemes and it is therefore

important to retain existing provision. A large stock of small residential units is also important in order to: maintain the level of population by allowing a more intensive use of residential properties; maintain the number of adult households who, through their spending power, help support the ancillary services which underpin the residential function; and meet the overall housing provision envisaged by the London Plan.

- 4.59. Policy H18 seeks the inclusion of smaller units (of one or two habitable rooms) and larger units (of three habitable rooms and more) in schemes for residential development.
- 4.60. Policy H19 seeks an appropriate mix of dwellings within a scheme, having regard to the following factors:
- the physical character of the site or building and its setting;
  - the previous or existing use of the site or building;
  - access to private gardens or communal garden squares for family units;
  - the likely effect on demand for car parking within the area;
  - the surrounding composition and density of population;
  - the location of schools, shops and open spaces;
  - provision of accommodation for special needs; and
  - busy roads or railway lines nearby.
- 4.61. Policy H22 states that the Council will seek to negotiate the provision and retention of a significant proportion of affordable housing on sites suitable for residential use with a capacity of 15 dwellings or more.

## Transport

- 4.62. RBK&C's policy on car parking aims to reduce the number of car trips into the Borough by limiting the amount of on and off-street parking. RBK&C policy is to ensure that residential development does not increase the demand for on-street parking.
- 4.63. Improvements to walking and cycling provision should make these trips a more attractive mode for travel. Public transport improvements should be made in order to improve its quality and reliability.

## 5. KEY ISSUES AND POLICY COMPLIANCE

- 5.1 This section of the statement examines the key planning issues that are relevant to the determination of the planning application.

### Principle of Development

- 5.2 Within the UDP, RBK&C have stated that there is an exceptionally high need for all forms of housing in London, with demand now reaching crisis point, and showing no sign of being met. This unmet strategic need and demand for housing forms the basis for Government policy set out in PPG3 and the London Plan, which emphasises the need 'to maximise the contribution to housing'. The Mayor has stated that 'the need for additional homes, especially affordable homes, is the single most pressing land use problem in London'.
- 5.3 The Royal Borough of Kensington and Chelsea are under considerable pressure to provide the required number of additional dwellings for the Borough. The Council accepts that the number of sites with potential for residential development is declining, as is the number of properties suitable for conversion. Therefore the UDP states that if the housing capacity figure for the Borough is to be met, a high priority must be placed on allocating nearly all available development land for residential use, except where there is a history of employment-generating uses and the site is unsuitable for housing.
- 5.4 The site is currently in employment use, and used for storage and distribution uses, and offices. The site is not designated as an Employment Zone, nor is it in light industrial use, which the Council are keen to see retained in North Kensington. The redevelopment of the employment site for housing is therefore fully in accordance with Policy E4 of the UDP, which states that redevelopment schemes will be expected to provide housing on all or at least the major part of the site area or floorspace. The acceptability of the loss of employment land on the site is clearly justified through local policy, ensuring that the development involves residential uses.
- 5.5 This message is echoed through national guidance, particularly draft guidance issued in 2003 regarding the release of employment sites for residential development.
- 5.6 The preamble to Policy E4 of the UDP states that for those sites outside of the Borough's Employment Zones, the suitability of the site for housing should be established with reference to its Housing policies. Policy H2 seeks the development of land and buildings for residential use unless a satisfactory residential environment cannot reasonably be achieved; the land is required for social or community facilities; or the development is for the replacement of commercial facilities which have not



given rise to environmental or traffic problems. The development does not involve the replacement of commercial facilities, nor is it required for community and social facilities. The adjacent uses include B1, B8, and C2, which are generally compatible in residential areas. The nature of the existing uses adjacent to the site do not create an unsatisfactory environment at present by way of noise or traffic generation, for the residential properties to the north of Barlby Road, and we consider that this would continue to be the case should the site be redeveloped for housing.

- 5.7 The development will provide an ideal opportunity to redevelop and regenerate tired, looking office and warehouse buildings in a primarily residential area. It will raise the profile of the area, and provide a catalyst for the regeneration of the wider area.
- 5.8 We consider the redevelopment would make efficient and effective use of previously developed land, fully in accordance with the key themes of sustainability within national policy documents such as PPS1 and PPG3. As promoted by the London Plan, the development would be of a high density, maximising the potential of its accessible, urban location.
- 5.9 The density of the scheme is 619 hr/ha or 225 u/ha. Although above the density guidelines set out in paragraph 5.3.13 of the UDP, Policy H11 of the UDP states that housing at higher densities will be resisted except where it is designed predominantly for occupation by small households; or enables the provision of special needs or affordable housing on appropriate sites; or is an infill scheme where a higher density development is necessary for townscape reasons to comply with the policies of the Conservation and Development chapter. We consider that the scheme satisfies all of these criteria. The scheme provides housing predominantly for small households, with approximately 80% of the scheme incorporating 1 and 2 bed units. The scheme provides a large element of affordable housing, approximately 45% of the scheme. Additionally, the proposals are an infill scheme where a higher density development is necessary to maintain continuity along the street in townscape terms.
- 5.10 The proposed density of the scheme is also in line with the guide figures suggested within the London Plan for locations similar to that of the site. A range of between 450-700 hr/ha or 165-275u/ha would be appropriate for an urban location similar to the development site, within 10 mins walking distance to a town centre.
- 5.11 The loss of employment has not been raised as an issue in any of the previous meetings with planning officers at RBK&C, and we have been reassured in the past that the principle of the redevelopment of the site for residential purposes is fully in accordance with the UDP.
- 5.12 The proposals create a mixed, balanced and inclusive community, which offers a choice of housing and lifestyle. In line with local and national housing policy, the

development will provide a mix of types, sizes and tenure of residential units. Policy H8 of the UDP seeks the provision of smaller units of one or two habitable rooms, together with larger units of three habitable rooms and more. The proposals provide a mixture of both.

- 5.13 The proposed development includes a large amount of affordable, approximately 45% of the habitable rooms, above standards set out in local policy. The affordable units will be a mix of sizes and tenures including shared equity and social rented properties. As advocated in PPG3, LPA's should encourage the development of mixed and balanced communities and ensure that new housing developments help to secure a better social mix by avoiding the creation of large areas of housing of similar characteristics. These will be incorporated in the southern part of the site and will be comparable in terms of design and materials to the homes for private sale, so that they are indistinguishable.
- 5.14 The mix of dwellings within the scheme is appropriate for the site, having regard to the physical character of the site and its setting, the surrounding composition and density of population, and the location of facilities and infrastructure.

## Accessibility and Transport

- 5.15 In terms of location, the proposal benefits from excellent accessibility by all modes of transport and to a variety of services and facilities. A Transport Assessment accompanies this planning application and gives further detail into the accessibility and transport issues associated with the proposals. The Transport Assessment has been produced in consultation with the Highways department at RBK&C.
- 5.16 The site is well served by existing bus services, which provide access to a wide number of locations and facilities including central London and regular night buses also provide access to central London's vibrant nightlife including Camden and the West End. A bus stop is located directly outside the site, with additional stops on Ladbroke Grove within 400m.
- 5.17 The site has good access to underground services, with Ladbroke Grove Station less than a kilometre away. The station is on the Hammersmith and City line providing access to Paddington, Kings Cross St. Pancras and Liverpool Street train stations. Willesden Junction rail station is also situated to the north.
- 5.18 The proposals would provide sufficient car parking in line with car parking standards set out within Table 13.5.1 of the UDP. This avoids any disturbance and potential problems with on-street parking and competition for the existing allocated spaces. In addition, 10% of parking spaces will be for people with disabilities. Cycle parking of 118 spaces will be provided in the basement level. This exceeds RBK&C's standards, of one space per dwelling and includes visitor cycle spaces. Several meetings have been held with the highways department at RBK&C and the proposed levels of parking provision have been influenced by and are now to the satisfaction of the Council.
- 5.19 The development of residential accommodation with good access to both underground and public bus services has significant benefits in delivering a highly sustainable development. The car parking provision on site is in accordance with the Council's parking standards, and due to its location at basement level, produces a pedestrian friendly development that is not dominated by the car. Refer to Fig. 13
- 5.20 The development site has very good access to employment opportunities and local facilities by cycling and walking. The nearest employment areas of note are at the two hospitals both located within 400m of the site. There are a large number of schools, both Primary and Secondary, within reasonable walking or cycling distance of the site, representing good employment opportunities. Directly adjacent to the site is a media office, accessible from Exmoor Street. The supermarket on Canal Way provides full and part-time employment opportunities. With the good public transport links, by both bus and underground, to other areas in west and central London, there are major employment opportunities for residents at the site.

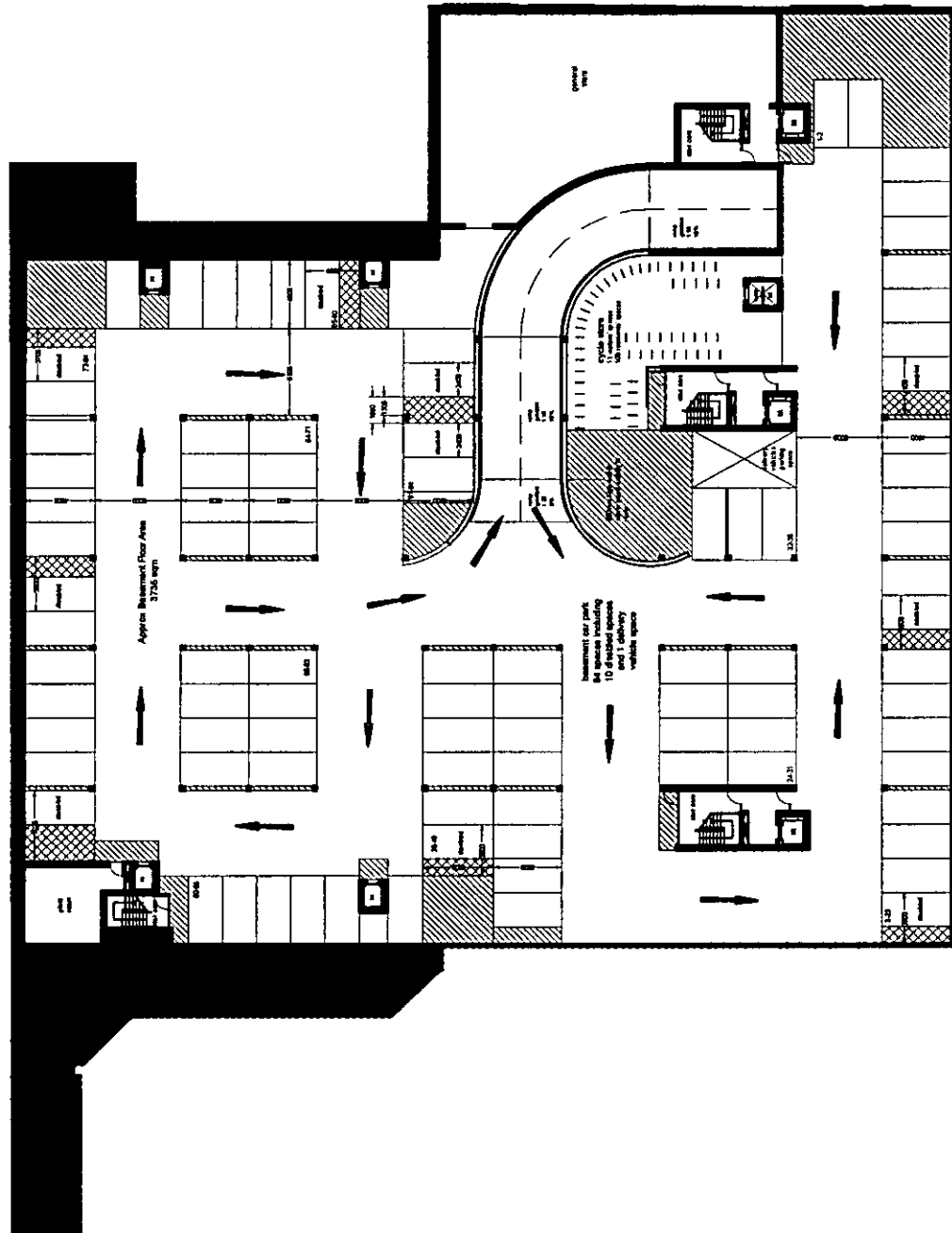


FIG. 13 BASEMENT FLOOR PLAN

- 5.21 The site enjoys good access to local convenience shopping and to district shopping areas close to the site. According to Map 12 and 13 of the UDP, the site is within reasonable walking distance of at least 5 local shopping centres and also within walking distance of the Primary Shopping Centre at Portobello Road. Many newsagents are located within easy walking and cycling distance from the site. These include Martins The Newsagent Ltd on Barlby Road and Kensal Newsagents on Ladbroke Grove. Sainsbury supermarket is located approximately 600m to the north of site is a, within a 10 minute walk or 5 minute cycle from the site. There is also St. Helens Post Office located within a 10 minute walk of the site, on St Helens Road, to the south of the site. The major retail/mixed-use redevelopment at White City is also only 1 km to the south. Further afield, the site has access to the retail and entertainment heart of London via public transport.
- 5.22 There are 18 schools or colleges within a distance of 1km from the centre of the site. The closest primary school to the site is Barlby Primary School, located on Barlby Road within 200m from the site. Sion-Manning RC School for Girls is the nearest secondary school to the site, located within 700m of the site on St. Charles Square. These schools are within easy cycling distance and within a 10-minute walk from the centre of the site.
- 5.23 Leisure opportunities are in close proximity to the development site. To the south of the site within a 5 minute walk is Brompton Park, a recreational ground located off Seagrave Road. This provides an open space within a reasonable walk distance from the site. Normand Park, located on Lillie Road, is 900m to the West of the site and provides open space and a swimming pool. The ease of public transport access from the site provides good links to many other leisure and recreational facilities throughout London. Additionally, there are larger recreation areas at Wormwood Scrubs and Little Wormwood Scrubs to the west of the site.
- 5.24 The components provided within the site also promote sustainability. The provision of a D1 unit perhaps a crèche reduces the need for future residents to travel to crèches within the locality.
- 5.25 Being a site located within an urban area surrounded by existing development, this location also benefits from proximity to existing infrastructure, including water and sewerage and other utilities that can easily be adapted or extended with far less of an environmental or social cost.
- 5.26 In line with London Plan policy, the residential development will be located so as to maximise the use of scarce land, to conserve energy and to be within easy access of jobs, schools, shops and public transport.



## Design and Conservation

- 5.27 The scale and density of the proposed development is appropriate for its urban location, and will ensure that a more efficient use is made of this inner London site, an approach advocated in government policy. The scheme has been designed to comply with the established principles along the street frontage, in terms of massing and height. Policy CD27 states that the design of new development should be of a high standard and sensitive to and compatible with the scale, height, bulk, materials and character of the surroundings. The site is also in a highly accessible location and is therefore ideal for the type of higher density development proposed.
- 5.28 The proposed Barlby Road building is situated between 138 Barlby Road and the Pall Mall Deposit, ranging from four to nine storeys respectively. The first three storeys of Block A are no higher than the eaves level of 138 Barlby Road and the fourth storey has been set back to sit within the pitch line of the existing gable. The building increases in height to seven storeys, reaching nine storeys at the centre and eventually reducing to eight storeys adjacent and in line with the massing of the Pall Mall Deposit. The façade is staggered back away from the road to encourage a sense of semi-public space in front of the buildings. This also adds relief to the elevation and articulation to the individual blocks A, B & C to create variety and interest to the street scene.
- 5.29 Urban design is also an essential component to controlling development and includes the relationship between buildings and the streets, and the nature and quality of the public domain. In accordance with Policy CD28, the development is physically and visually integrated into its surroundings, by preserving existing public routes, by maintaining and creating new building lines and giving a coherent form to the spaces enclosed by new buildings, and by ensuring the provision of an active building frontage.
- 5.30 The design led approach to the development of the site has enabled the optimum potential to be realised and is in line with the Mayor's criteria for sustainable development.
- 5.31 The proposed buildings are of a high quality, contemporary design, sensitive to their location within the Oxford Gardens St Quintin Conservation Area, and their location adjacent to St Charles Hospital, a Grade II Listed building. The design process has been integrally influenced by the site's surroundings and its location within a Conservation Area. A Conservation Area planning application accompanies this submission.
- 5.32 The development would not result in the loss of any trees on site nor along the street,

in accordance with Policy CD82. In addition, a proposed colonnade of semi-mature trees is set 3m in from the Barlby road boundary. The trees help soften the street scape, providing a privacy screen, and a sense of shade. The box hedge immediately behind the site boundary's metal railings adds to the colour and texture of the building's surroundings and helps ensure privacy to the gardens of the ground floor residents.

- 5.33 The site presents the chance to provide additional housing, as well as creating a sense of place with its own character and identity. The proposed building does not attempt to imitate the character of the adjoining buildings, as this would be detrimental to the strength in appearance of its street frontage. Hence, the design of the new buildings are both original and contemporary yet sympathetic to its context in terms of rhythm, proportion and massing. The new building's materials of rendered walls, weatherboard cladding, glazing, timber and curved balconies create a contemporary architecture adding to the richness of the varied context.
- 5.34 The design of the Barlby Road building takes its cue from the horizontal datum lines of the Pall Mall Building. Gentle curved timber balconies extend from behind the existing brick corner pier in towards the centre of the building leading the eye into the space created by the recessed blocks. The curve is continued to form the balconies to Block A1 at a lower scale which connects the buildings to the adjacent 138 Barlby Road building.
- 5.35 The D1 unit has been designed to be a focal point for the courtyard. Its lively multi-coloured translucent cladding panels and organic shape create a significant contrast to the geometric forms of the residential blocks. Internally the space is articulated by the play of colour through the panels and open layout of facilities. The inclusion of the D1 unit brings a vibrancy and artistic contribution to the landscaped space and a vital community facility to the area.
- 5.36 The Zen-like design of the courtyard space creates a space of relaxation for the residents. The flowing lines soften formal entrance approaches and the provision of seating areas, planting bays and semi-mature trees enhance the context of the buildings.
- 5.37 We consider that the design of the development will be of a high quality, capable of attracting investment and raising the profile of the area. The London Plan considers that there is a strong link between good design and the attraction of economic investors.
- 5.38 The residential properties on site will be designed in order to ensure the future occupiers will not be unduly affected by noise and air pollution. The balconies and colonnade of trees act as an acoustic baffle to reduce noise pollution from Barlby

Road. The setting back of the building from Barby road increases the distance noise pollution has to travel. The majority of the flats have their living space facing onto the courtyard to the rear and all windows and doors are double-glazed. The screen provided by the trees and box hedge also reduces air pollution by the absorption of carbon dioxide and the release of oxygen.

- 5.39 The development is accessible, usable and permeable for all users. It creates an inclusive environment, which is fully accessible for disabled persons and able persons alike. Please refer to the Access and Mobility Statement accompanying this application.
- 5.40 The introduction of a new resident population will increase the general vitality of the area, lessening the opportunity for criminal activity, and will offer potential benefits in reducing levels of crime. The development by the nature and arrangement of the accommodation will also facilitate high levels of natural surveillance, again reducing the opportunity for criminal activity on the site. Affordable Housing blocks D & E and the crèche have been positioned to create a central courtyard promoting natural surveillance. The design of the buildings and areas adequately take into account the safety and security of the users of the facilities and that of neighbouring residents, as required in Policy CD39 of the UDP. All circulation spaces have generous areas of glazing where possible to allow for well lit communal areas.
- 5.41 The building design and materials also represent sustainability benefits. Energy efficiency targets are to be met in accordance with current building regulations, and the use of energy saving measures such as energy efficient lighting daylight sensors or variable time controllers where necessary. Layout on the site of residential accommodation is designed to maximise sunlight to rooms enabling solar heat gain and to provide external cultivatable spaces in the form of balconies and gardens. No PVC based products are to be used. Careful use of materials such as black timber weatherboarding to all ground floor external walls discourages graffiti and provides a hard wearing surface.

## Surrounding Character and Amenity

- 5.42 The development will improve the quality and character of the area in general, and have no detrimental impact on the amenity residents and users of the buildings in the surrounding area.
- 5.43 The proposals protect and enhance the Oxford Gardens St Quintin Conservation Area including views in and out, and the setting of St Charles Hospital. The existing buildings on site make no positive contribution to the character or appearance of the area, whether on the street frontage, the side, or rear elevations, due to their intrinsic design and tired looking condition, and are therefore suitable for demolition and in accordance with Policy CD60 of the UDP. The development scheme provides a more interesting and active street scene, contributing to the character of the local area and integrating fully with the interesting frontage of the Pall Mall building adjacent.
- 5.44 The scale and massing of the proposed development is appropriate for its location, and will ensure that a more efficient use is made of this inner London site, an approach advocated in government policy. The scheme has been designed to comply with the established principles along the street frontage.
- 5.45 The orientation of the apartments has been designed to prevent overlooking both within the scheme and in relation to adjacent properties, thereby ensuring privacy for both existing and proposed residents. The design of the scheme has taken into account the general levels of privacy in the immediate area, and the character of its built form and spaces. Overlooking to the Affordable Housing residents from the Barlby Road block has been addressed by having windows with solid side screens and balconies with full height timber slatted screens.
- 5.46 The proposals would not significantly reduce the daylight or sunlight enjoyed by existing adjoining buildings and amenity spaces within the surrounding area, as required under CD33 of the UDP. A Daylight and Sunlight Report accompanies this application and provides more detail, illustrating this limited impact on the surrounding area. The adjacent units to the south, east and west accommodate employment uses and their design, location, and orientation mean that a minimum impact will be experienced. Additionally the residential units to the north are a sufficient distance away to avoid any significant daylight and sunlight effects. The design of the scheme has been advanced carefully to ensure that the proposed buildings will have no detrimental impact on adjacent properties.
- 5.47 In addition, the design of the new development ensures that good light conditions are prevalent within the development taking into account the general levels of light in the immediate area, and the character of its built form and spaces.

- 5.48 The design of the residential development will include adequate protection of the internal environment from the effects of noise and pollution. This is in accordance with Policy CD41 of the UDP. The balconies and colonnade of trees act as an acoustic baffle to reduce noise pollution from Barlby Road. The setting back of the building from Barlby road increases the distance noise pollution has to travel. The majority of the flats have their living space facing onto the courtyard to the rear and all windows and doors are double-glazed. The screen provided by the trees and box hedge also reduces air pollution by the absorption of carbon dioxide and the release of oxygen.
- 5.49 High quality landscaping and private amenity space is interspersed within the development. Blocks D and E face inwardly onto a treed courtyard, whilst the rear of Blocks A, B, and C face onto a large lawned area. The development provides a total of 2965 m2 amenity space. In line with Policy CD38, the landscaping is both functional and aesthetic, producing a pleasant and usable environment. All communal spaces are easily accessible and all flats have either private garden areas or generous balcony space. The entrance from Exmoor Street to the Affordable Housing Block has been designed to create an attractive well-landscaped environment for the residents. Entrance is through metal gates, which leads the resident along a cobbled route with planting bays on either side and intermittent planting of trees. Ample street lighting along the route has been provided to deter criminal activity in line with the Royal Borough of Kensington and Chelsea's Streetscape guide.



## Community Benefits

- 5.50 The proposals will produce a number of benefits, in addition to the economic and environmental benefits outlined above.
- 5.51 The development will provide a large element of affordable housing, which will help deliver much needed low and intermediate cost housing as set out in the Council's Housing Strategy. The Mayor has stated that 'the need for additional homes, especially affordable homes, is the single most pressing land use problem in London'. As advocated in PPG3, the development will produce a mixed and balanced community.
- 5.52 The development will also provide a much needed community facility, perhaps a crèche. It is envisaged that this facility will be invaluable to not only the residents of the development but also the residents of the local area. The design will be innovative and high quality, and it has been agreed with the RBK&C that the crèche will constitute the public art contribution for the scheme.
- 5.53 As part of the development proposals, an education contribution will be agreed with RBK&C.

## 6. CONCLUSIONS

- 6.1. The proposed residential development provides an ideal opportunity to redevelop and regenerate an under-utilised site comprising tired-looking office and warehouse buildings, for much needed housing. The Royal Borough of Kensington and Chelsea are under considerable pressure to provide the required number of additional dwellings for the Borough. The Council accepts that the number of sites with potential for residential development is declining, as is the number of properties suitable for conversion. Therefore the UDP states that if the housing capacity figure for the Borough is to be met, a high priority must be placed on developing nearly all available land for residential use.
- 6.2. We consider the redevelopment would make efficient and effective use of previously developed land, fully in accordance with the key themes of sustainability within national policy documents such as PPS1 and PPG3. As promoted by the London Plan, the development would be of a high density, maximising the potential of its accessible, urban location. The development will raise the profile of the area, and provide a catalyst for its regeneration.
- 6.3. The proposals will deliver the following benefits:
- a suitable and more efficient use of land in its urban context;
  - benefits to the local area, particularly in terms of providing a significant number of affordable housing units and a community facility;
  - help the RBK&C meet their overall housing requirements;
  - a high architectural quality befitting its context within a Conservation Area and within close proximity to a listed building, whilst respecting the bulk and massing of the adjacent buildings;
  - sustainable development and contribute positively to the surrounding area, both in terms of aesthetics and amenity,
  - create a highly sustainable development on an underused site with good access to a choice of means of transport other than the car, fully in accordance with the Government's sustainability objectives;
  - have positive benefits in terms of increasing the total available expenditure locally, helping to enhance the vitality and viability of shopping and local services;
  - have beneficial impacts on the local economy with the potential to increase local property prices and confidence in the area generally, and act as a catalyst for further investment;

# Other Documents

Please Index As

File Number

Part 1

Part 10

Part 2

Part 11

Part 3

Part 12

Part 4

Part 13

Part 5

Part 14

Part 6

Part 15

Part 7

Part 16

Part 8

Part 17

Part 9

Part 18



**PROPOSED RESIDENTIAL DEVELOPMENT  
AT 130-136 BARLBY ROAD AND  
6 EXMOOR STREET, NORTH KENSINGTON, W10**

REVISION A

EX DIR	HDC	TP	D&D	AD	CLU	AO AK
R.B.	6 DEC 2004				PLANNING	
K.C.						
N	C	SW	SE	APP	IO	REC
HBS			ARB	FPLN	DES	FEEES

This document was revised on 30.11.2004 in accordance with additional comments from Sue Lines, Access and Mobility Officer at the Royal Borough of Kensington and Chelsea.

prepared by:

quad 11, devonshire road, chiswick, london w4 2eu t: 020 8994 3344 f: 020 8742 1988

The aim of this Access and Mobility Statement is to provide an Inclusive Access Policy as part of the planning application for the development proposals at 130-136 Barlby Road and 6 Exmoor Street, and to illustrate the consideration and integration of all potential users of the scheme in accordance with current government and local policy and guidance.

### **Introduction to the Scheme**

The planning application is for the demolition of an existing 2 storey office building / warehouse and the construction of 108 residential units, 39 of which will be affordable. ~~and a small crèche. It is important to note the exact nature of the crèche has not been established by the Registered Social Landlord or the educational department at The Royal Borough of Kensington & Chelsea. Until then, sections 1 & 2 of this document apply.~~

The new residential development proposes two sites, Blocks A, B & C accessed from Barlby Road and Blocks D & E accessed from Exmoor Street. The residential blocks range in height from 3 to 9 storeys and are of a high quality contemporary design. There will be a mix of housing tenure, Blocks D & E representing the affordable housing component and A, B & C the open market flats. The residential blocks are situated within well-landscaped grounds and provide a safe, secure and inclusive environment in which to live.

### **Pre-Application Discussions**

A meeting was held with The Royal Borough of Kensington & Chelsea Access and Mobility Officer Sue Lines and quad architects on Monday June 28<sup>th</sup> 2004 at Hornton Street Offices, to discuss proposals for an inclusive environment within the scheme. The proposals for the scheme were presented and discussed and advice was given on additional policies relevant to the scheme. These recommendations have been incorporated into the development proposals to provide an inclusive accessible environment.

### **Sources of Advice and Guidance used**

ODPM's Planning and access for disabled people: a good practice guide  
Approved Document Part M (Access to and use of buildings) 2004 Edition  
Approved Document Part B (Fire safety) 2000 Edition  
Royal Borough of Kensington and Chelsea's Unitary Development Plan, Access Statements for Planning Applications, Supplementary guidance on Housing Standards, Access Design guidance notes  
British Standard BS8300 on Access for Disabled People  
Disability Discrimination Act 1995  
DfT Guidance on Inclusive Mobility



## Section 1

### 1.0 Travel to site

#### 1.1 Car parking

- 1.11 The development proposes an underground car park providing 94 95 parking spaces including 10 disabled spaces which amounts to more than 10% provision. The access to the car park is through a gated entrance from Barlby Road and via a 2-way ramp to the basement. All car park users can operate the gates using a remote control device.
- 1.12 The size of the disabled car parking bays are a minimum of 4900mm x 3600mm. Refer to Drawing No. 529 P 02 for dimensioning of bays.
- 1.13 The disabled car parking bays have been evenly distributed throughout the car park to allow residents to use the nearest bay to their block.
- 1.14 No user will have to travel further than 20m from the disabled car parking bay to the point of entry to their block.
- 1.15 All disabled car parking bays will be clearly identified. This will be either with a sign positioned on wall adjacent to the space or on a free standing post where no wall is present. The sign will be 200 x 300mm and state 'Disabled Badge Holders Only'.
- 1.16 All surfaces of disabled car parking bays will be marked with the British Standard 'disabled' symbol in accordance with BS3262, part 1 and BS8300 Figure 2, including the yellow hatched transfer zones.
- 1.17 All residential blocks have lift access to the basement car park. Blocks A, B & C all have additional stair access to the car park. Block D has stair access to the car park for by all residents of Blocks D & E. This stair acts as a secondary means of escape for the car park. Refer to Section 3.3 of this document for additional information regarding lift provision.
- 1.18 Lighting levels in the underground car park are to be 200 – 300 lux.
- 1.19 The floor to the car park will be level except for minimal sloping of the surface for drainage to gulleys. There is no necessity for a change in level between the parking areas and the lift / stair lobbies because the car park is underground / covered and any surface water from the access ramp will be collected in drainage runs at the base.

#### 1.2 Drop-off Points

- 1.21 Residents of Blocks D & E gain access to the site via Exmoor Street. The gated entry to the site is set in 15m from Exmoor Street allowing vehicles to pull into the driveway area to drop-off residents.
- 1.22 Residents of Blocks A, B&C gain access to the site via Barlby Road. Adjacent to the gated entrance to the underground car park there is an existing recessed loading bay which can be used as a drop off point for residents.

#### 1.3 Taxis

- 1.31 As above.

1.32 Additionally, a resident may request an arrangement is made where persons responsible for the dropping off and picking up of the resident regularly may be allowed to have a remote control device, to access the gated entry to the site.

**1.4 Bus stops**

1.41 There are two bus stops located within 15m of the site, served by bus routes 74 and 316. There are a further four bus stops within 400m of the site providing a good level of accessibility to surrounding areas. Access to these bus stops is by level ground or by dropped kerbs no steeper than 1:12 to ensure suitable access for wheelchair users.

## Section 2

### 2.0 Building Environs

#### 2.1 Locations of Entrances to the site

- 2.11 The approach to the gated entrance to the Affordable Housing Blocks D & E from Exmoor Street has a gradient of 1:25. The route from the gate to the buildings is ramped down in a series of 1:20 ramps and with a minimum width of 3350mm. The ramp lengths are no longer than 10m and landings are a minimum depth of 1500mm. The courtyard area provides level access to all entrances of the blocks.
- 2.12 Residents' access to the Open Market Blocks A, B & C is via Barlby Road and through a gated entrance which has a clear opening width of 1000mm. Blocks B & C have a level approach within 13m of the gated entrance. Residents to Block A have a 1200mm wide level route to their entrance which runs in front of the Block B. Refer to Drawing no. 529 P 01.
- 2.13 All entrances have a ramped access from external ground level of +19.00 to finished floor level +19.15 with a gradient of 1:20 (5%) to provide a level threshold. All ramps have a minimum width of 1400mm. All entrances have a level platform outside the entrance area of minimum 1200mm x 1200mm. Refer to 529 P 01 for dimensions.

#### 2.2 Entrance Route Design

- 2.21 The access routes to all buildings will be in a suitable non-slip resin bonded aggregate to ensure a suitable grip for vehicles and easy manoeuvrability for wheelchair users. Where resin bonded aggregate is not shown a suitable tiled surface will be used. All materials to comply with DfT Guidance on Inclusive Mobility and Local Street Design guide and Materials Palette.
- 2.22 All external ramps are to have solid kerbs no less than 100mm in height and 50mm diameter handrails to one side only.
- 2.23 External Lighting along all access routes to be designed to Part 3 BS5489 to ensure good access and reduce crime risk. Design guidance has also been taken from The Royal Borough of Kensington and Chelsea's Streetscape Information Booklet. Minimum Lighting levels at entrances and exits are to be 250 – 350 lux.

## Section 3

### 3.0 Means of Access to and into Dwellings

#### 3.1 Entrance Design

- 3.11 All entrances are covered to provide protection for people entering the building. Blocks A, B, C & E have lightweight timber and metal canopies at minimum height of 2.3m which extend 1.2m away from the entrance door. Residents to Blocks D1 & D2 enter under a covered area created by the Block D1 above. Access to D3 & D4 is under Flat No. 80's balcony area.
- 3.12 All Main Entrance Doors to blocks are 1000mm width door-leaf providing a clear opening width of 950mm.
- 3.13 All Main Entrance Doors are to be fitted with self-closing mechanisms and set for the minimum opening pressure.
- 3.14 A clear space of 300mm minimum width has been provided adjacent to the leading edge of the door.
- 3.15 All Main Entrance Doors have a minimum visibility zone between 250mm and 1550mm above floor level.

#### 3.2 Circulation within Entrance storey of the building

- 3.21 On entry into Blocks A, B & C the corridor width is 1500mm. On moving into the entrance lobby in front of the lift, the width becomes 2000mm. Access to the gardens at the rear of the blocks is through the adjacent stair-core. The internal doors to the stair-cores are fully glazed with suitable manifestation and have a clear opening of 900mm. This allows the entrance lobby to be a light filled space with clear views out to the gardens.
- 3.22 On entrance to Blocks D1 & D2 the corridor width is 1300mm minimum. Doors to the lift lobby and stair-core have a fire-rating of 30 minutes, glazed visibility panels between 250mm and 1500mm and a clear opening width of 900mm. The lift lobby has a minimum size of 1500mm x 1500mm.
- 3.23 All other entrance lobbies to Blocks D & E have an overall width of 2200mm allowing an unobstructed corridor width of 1200mm and 1000mm width stair.

#### 3.3 Vertical Circulation within residential blocks and Means of Escape

- 3.31 All blocks have a disabled access lift compliant with Approved Document M (2004 Edition) of the Building Regulations 2000 (Access to and use of buildings). This enables disabled people to visit occupants who live on any storey.
- 3.32 The minimum specification for all lifts is to be; 8 person capacity, contract load of 630KG, car size of 1200mmx1500mm, doors providing a clear opening width of 800mm, doors fitted with timing devices and re-opening activators, landing and car controls not less than 900mm and not more than 1200mm above floor level, tactile identification of car controls and a visual and audible indication of the floor reached.
- 3.33 All lifts are also designed for evacuation of disabled people in an emergency and conforms to the relevant recommendations of BS 5588-8:1999 (Fire precautions in the design, construction and use of buildings Part 8: Code of practice for the means of escape for Disabled people) and EN81-72. This enables wheelchair users to self-

evacuate and discharge to ground floor level to a place of safety where all levels have no gradient steeper than 1:20 ramp.

- 3.34 All circulation lobbies in front of the lifts have a clear landing of 1500x1500mm.
- 3.35 All circulation cores to have staircases designed to Approved Document Part M Section 3.51. Specification includes; unobstructed length of min 1200mm on each landing, contrasting nosing material of 55mm wide on tread and riser, no more than 16 risers in a flight, minimum tread width of 1000mm, maximum rise of 170mm and a minimum going of 250mm.
- 3.36 All landings have a minimum width of 1200mm to allow wheelchair users to turn into entrance to flats and for change in direction.

#### **3.4 Access to Amenity Space**

- 3.41 Residents of Blocks A, B & C can access the communal rear gardens and lawn area via a level access route to the east side of the car park ramp.
- 3.42 Residents of Blocks D & E regularly access their communal landscaped courtyard in front of the residential blocks to enter their dwellings.
- 3.43 The affordable housing wheelchair users accommodation in Block E is situated at second to fifth floor. The units have a generous provision of balcony space and can be accessed easily by wheelchair users.
- 3.44 The Open Market Housing wheelchair users accommodation in Block C is situated at ground to seventh floor. All users have level access to their balcony / garden area.



## Section 4

### 4.0 Wheelchair User Accommodation

Refer to attached Drawing No's. 529 P 20A, and 529 P 21, 529 P 22 and 529 P 23.

#### 4.1 Location of Wheelchair User Accommodation

- 4.11 In line with Royal Borough of Kensington & Chelsea UDP, the development provides a total of 12 flats (11%) specifically designed for wheelchair users. This accommodation is located in both the affordable housing and the open market blocks.
- 4.12 4 No. four bedroom units are located in the Affordable Housing Blocks D & E. These are flat no's ~~90, 96, 101 & 106~~ and are situated at ~~second, third, fourth and fifth floor respectively~~. These are flat No's 70, 73, 74 and 77 and are situated at ground and first floor level.
- 4.13 ~~A further 8 No. one bedroom units are located in the Open Market Block C. These are flat no's 7, 17, 27, 36, 44, 52, 60 & 66 and sit directly above each other from ground up to the seventh floor.~~ 4 No. three bedroom units are also located in Affordable Housing Block D. These are flat No's 85, 93, 98, 104 and sit directly above each other from second to fifth floor.
- 4.14 A further 2 No. two bedroom units, flat No's 3 & 11 and 2 No. one bedroom units, flat No's 7 & 17 are provided in the Open Market blocks A and C at ground and first floor level.

#### 4.2 Entrance Door and Internal Doors

- 4.21 Entrance Doors are to be 926mm door leaf.
- 4.22 Internal Doors are to be 826 door leaf.
- 4.23 All doors have a minimum of 300mm offset between the opening edge of the door blade and the return of the wall, when pulling the door.
- 4.24 The hanging of all doors facilitate easy wheelchair manoeuvre.
- 4.25 Door handles are set at a common height of between 900mm and 1200mm above finished floor level to aid people with visual impairment.

#### 4.3 Internal Planning

- 4.31 All corridors have a minimum width of 1200mm.
- 4.32 All rooms have wheelchair access and a 1500mm manoeuvre space is provided to bedroom 1, bathroom, kitchen, living and dining space.
- 4.33 The dimensions of the wheelchair accessible bathroom are 2500mm x 2700mm and is designed to comply with Approved Document Part M Section 5.19 – 5.21.
- 4.34 The layout of the bathroom is designed to BS8300 standards.
- 4.35 Where the bathroom and main bedroom are adjacent to each other, there is a full height knockout panel on the connecting wall.

**4.4 Components**

- 4.41 All light switches, sockets and entry phones are to be placed at appropriate heights between 400mm and 1200mm above finished floor level.
- 4.42 Bath and kitchen to have slip resistant floor finish.
- 4.43 Recessed grab handles are provided to the bath.

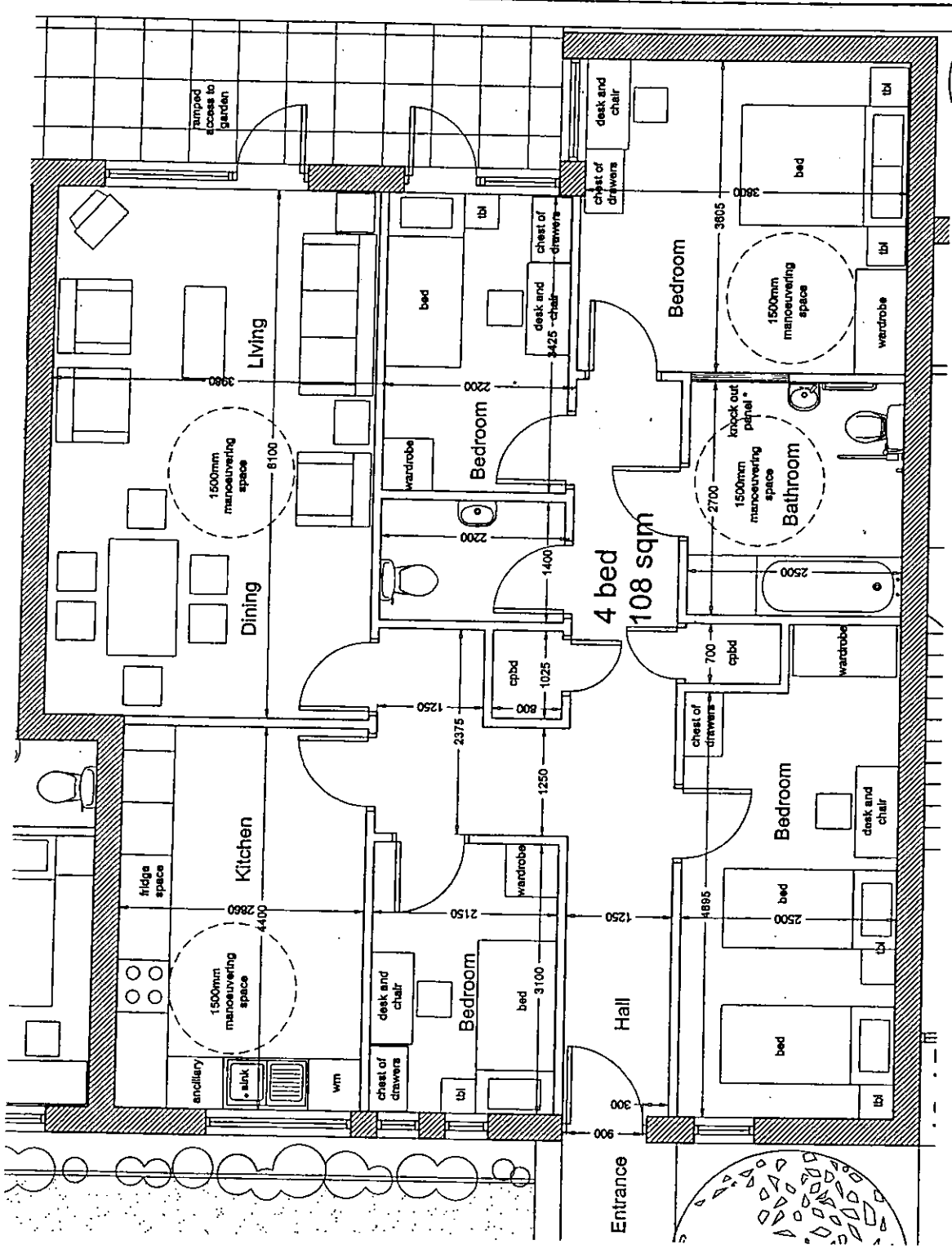
**Appendix**

Fig 1: Drawing No. 529 P 20 A – wheelchair user’s accommodation – four bedroom (Block E)

Fig 2: Drawing No. 529 P 21 – wheelchair user’s accommodation – one bedroom (Block C)

Fig 3: Drawing No. 529 P 22 – wheelchair user’s accommodation – two bedroom (Block A2)

Fig 4: Drawing No. 529 P 23 – wheelchair user’s accommodation – three bedroom (Block D)



For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 826mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

\* Full height knockout panel provided at connecting wall between master bedroom and bathroom.

For further information refer to Access and Mobility Statement.

BITE	130-136 barby road and 6 exmoor street, london w10
TITLE	Wheelchair user's accommodation - four bedroom (Block E)
SCALE	1:50@A3
DATE	NOV 2004
NO.	529 P 20 A

.quad

11 devonshire road chelmsford w1 2su  
 t +44 (0) 20 8894 3344  
 f +44 (0) 20 8742 1888  
 www.quadarchitects.com  
 info@quadarchitects.com

For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 926mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

For further information refer to Access and Mobility Statement.

130-136 barby road and  
6 exmoor street, london w10

wheelchair user's accommodator  
one bedroom (Block C)

SCALE 1:50@A3

DATE aug 2004

NO. 529 P 21

.quad

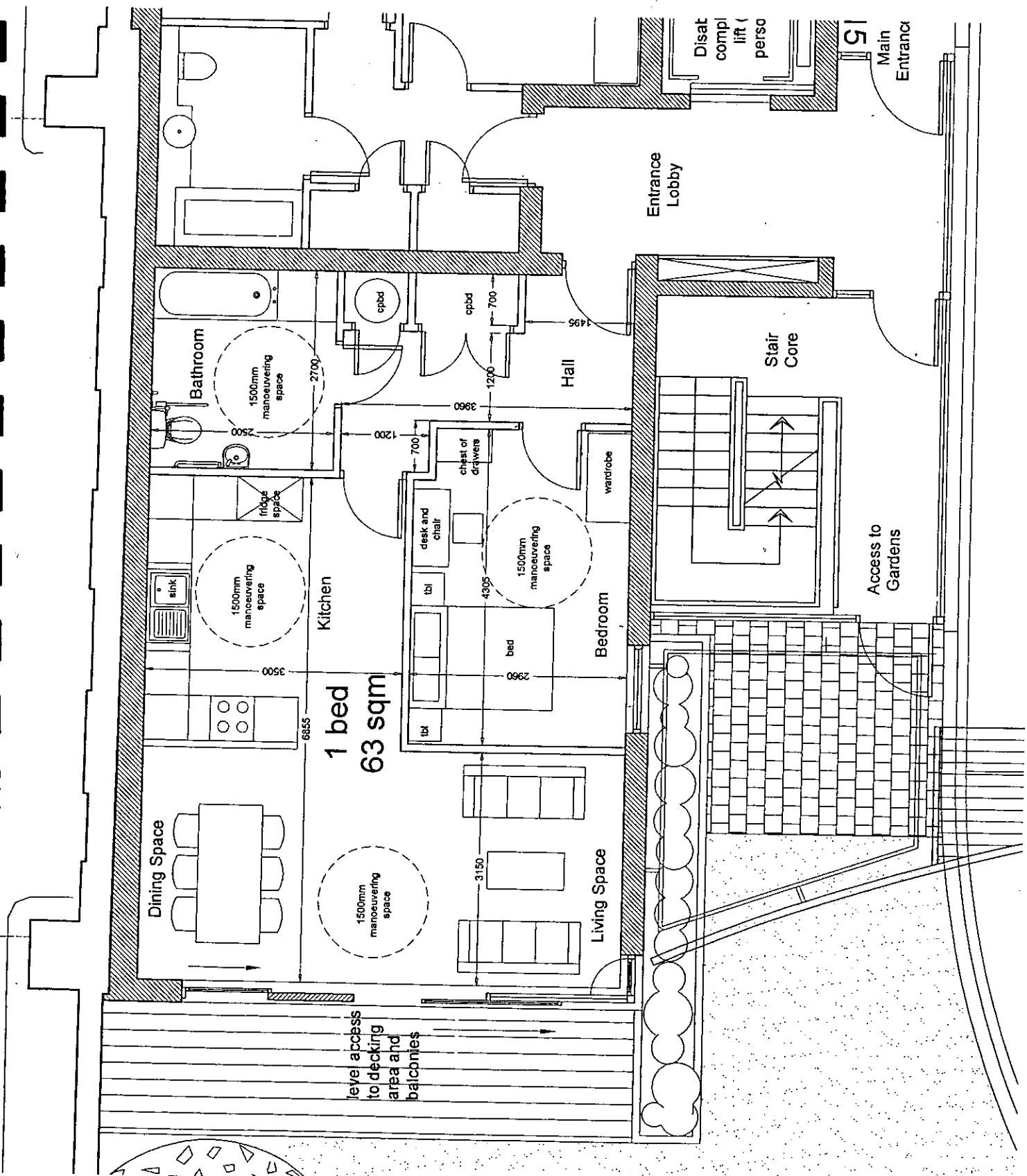
11 devonshire road, chiswick, w4 2au

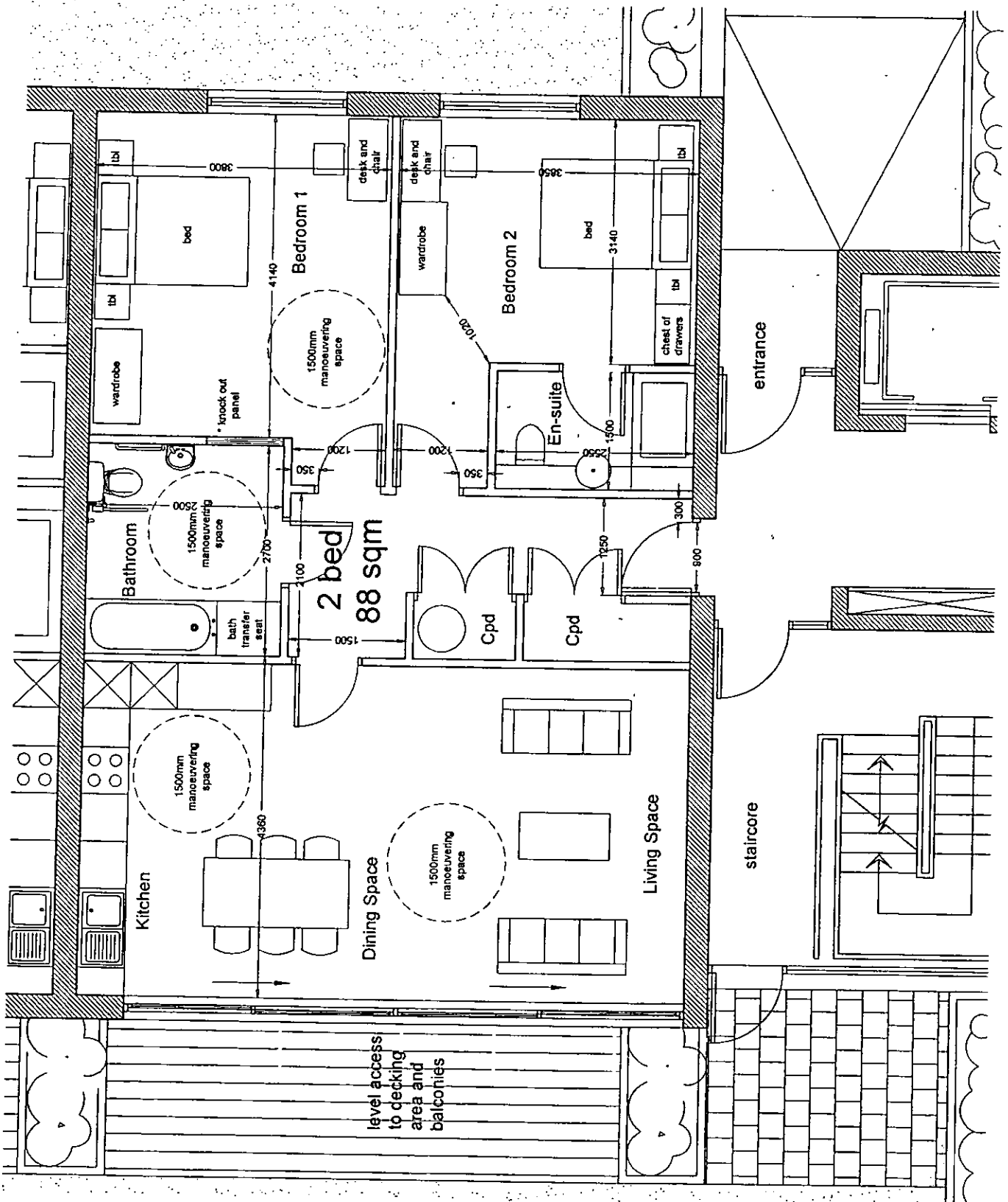
t +44 (0) 20 8894 3244

f +44 (0) 20 8742 1888

w www.quadarchitects.com

e info@quadarchitects.com





For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 826mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

\* Full height knockout panel provided at connecting wall between master bedroom and bathroom.

For further information refer to Access and Mobility Statement.

130-136 barlby road and  
6 exmoor street, london w10

wheelchair user's accommodation -  
two bedroom (Block A2)

SCALE 1:50@A3

DATE NOV 2004

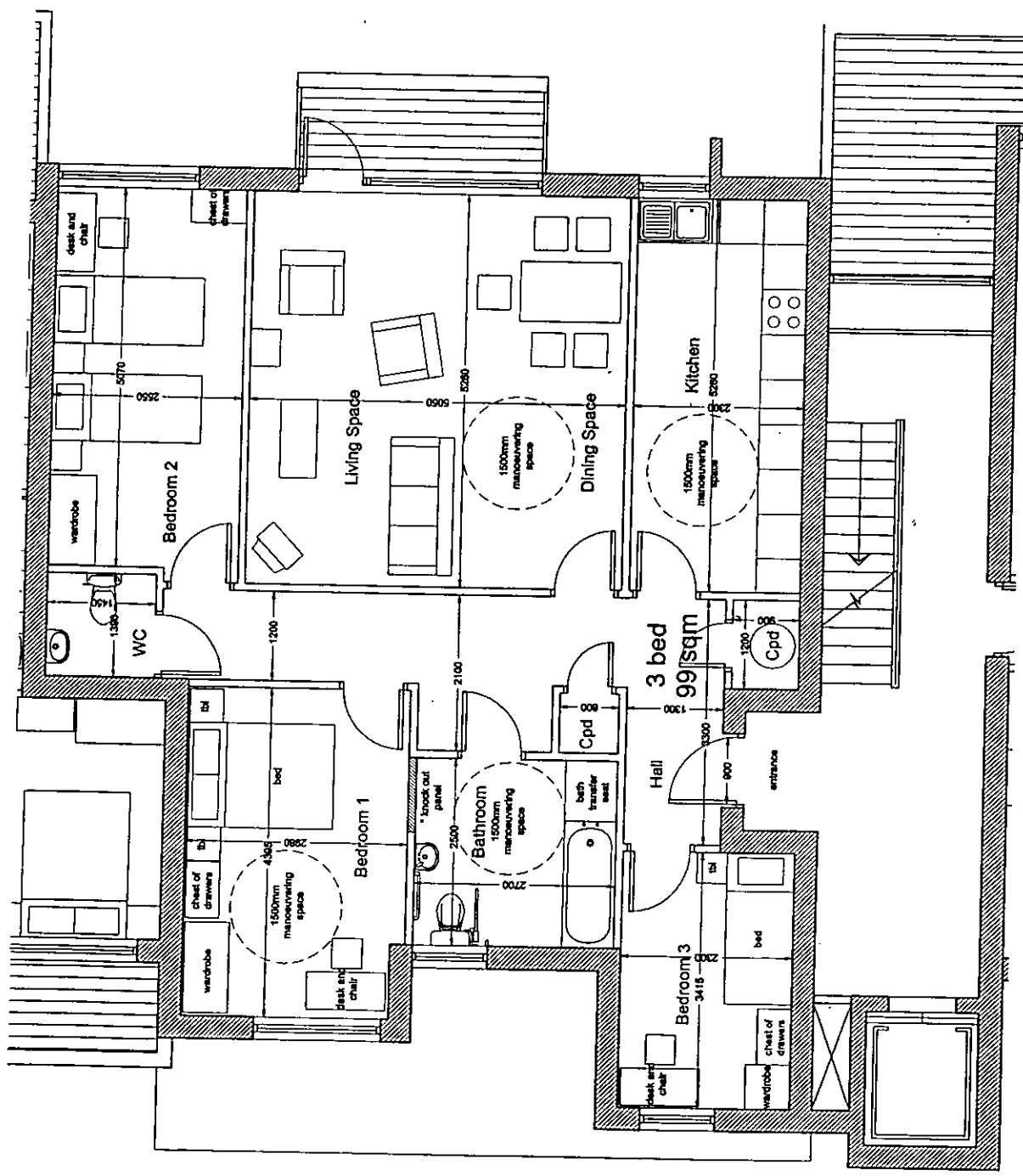
NO. 529 P 22

BITE	TITLE	SCALE	DATE	NO.

quad

11 devonshire road chiswick w4 2su  
+44 (0) 20 8984 3344  
+44 (0) 20 8742 1868  
www.quadinteriors.com  
info@quadinteriors.com





For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 826mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc positioned between 800 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

\* Full height knock-out panel provided at connecting wall between master bedroom and bathroom.

For further information refer to Access and Mobility Statement.

130-136 barby road and  
6 exmoor street, london w10

wheelchair user's accommodation -  
three bedroom (Block D)

1:50@A3

NOV 2004

529 P 23

SITE	
TITLE	
SCALE	
DATE	
NO.	

.quad

11 devonshire road chiswick w6 2su  
t +44 (0) 20 884 3344  
f +44 (0) 20 8742 1865  
www.quadarchitects.com  
info@quadarchitects.com

EX DIR	HDC	TP	CAC	AD	CLU	AO AK
K.C. - 4 OCT 2004						PLANNING
N	C	SW	SE	APP	IO	REC
HBS			ARB	FPLN	DES	FEES



**PROPOSED RESIDENTIAL DEVELOPMENT  
AT 130-136 BARLBY ROAD AND  
6 EXMOOR STREET, NORTH KENSINGTON, W10  
AUGUST 2004**

**indigo**

Indigo Planning Limited  
Queens House  
Holly Road  
Twickenham TW1 4EG

Tel: 020 8607 9511  
Fax: 020 8607 9512

info@indigoplanning.com  
www.indigoplanning.com

<b>CONTENTS</b>	<b>PAGE</b>
<b>1. Introduction</b>	<b>1</b>
<b>2. Site and Surroundings</b>	<b>3</b>
<b>3. The Proposed Development</b>	<b>7</b>
<b>4. Policy Context</b>	<b>11</b>
National Guidance	11
The London Plan	14
Local Policy	16
<b>5. Key Issues and Policy Compliance</b>	<b>27</b>
Principle of Development	27
Accessibility and Transport	30
Design and Conservation	33
Surrounding Character and Amenity	36
Community Benefits	38
<b>6. Conclusions</b>	<b>39</b>

## 1. INTRODUCTION

- 1.1. This planning statement is submitted to the Royal Borough of Kensington and Chelsea (RBK&C), on behalf of the STAC Properties, in support of a full planning application and application for Conservation Area Consent for the demolition of B8 Storage and Distribution and B1 Offices/Recording Studios, and the erection of 108 residential units, a D1 unit (e.g. crèche), and basement car parking at 130-136 Barlby Road and 6 Exmoor Street, North Kensington.
  
- 1.2. The planning application formally seeks full planning permission for:  
  
***'the demolition of B8 Storage and Distribution and B1 Offices/TV Studios, and the erection of 108 residential units, a D1 unit (e.g. crèche), and basement car parking, disabled and service staff car parking; pedestrian and vehicular access, landscaping and associated works'.***
  
- 1.3. Many constructive meetings have been undertaken with Senior Planning Officers in different departments within the Royal Borough of Kensington and Chelsea in order to satisfy their requirements for the site prior to an application being submitted. This has included the advancement of the Section 106 agreement, which it is hoped will help the smooth running of the application process. This statement examines the planning issues raised by the proposal. Quad architects have prepared the Design section of this statement, which constitutes the required design justification for the application. This planning statement is accompanied by a Transport Assessment, prepared by WSP Development, a Daylight and Sunlight Analysis prepared by Malcolm Hollis and an Access and Mobility statement prepared by Quad Architects.
  
- 1.4. Within the framework of relevant planning policy and guidance, this statement will pay particular regard to the key issues, namely:
  - the principle of development, including the need for housing and the mix and type of accommodation; in the context of employment policy,
  - the appropriateness of the proposals in terms of design, accessibility, and local amenity; and
  - sustainability.
  
- 1.5. The assessment of the key issues will demonstrate that the proposed development:
  - is a suitable and more efficient use of land in its urban context;
  - will be of a high architectural quality befitting it's context within a Conservation Area, whilst respecting the bulk and massing of the adjacent buildings;
  - will bring benefits to the local area, particularly in terms of providing affordable

housing and a community facility;

- will be sustainable and contribute positively to the surrounding area, both in terms of aesthetics and amenity, and benefit the surrounding transport network.

## 2. SITE AND SURROUNDINGS

- 2.1. The proposal is located on the southern side of Barlby Road in North Kensington, within the Royal Borough of Kensington & Chelsea. The site directly adjoins NHS premises to the west, and the Pall Mall Depository to the east, which accommodates office and distribution uses, exhibition space, and a café. The site is bordered to the south by St Charles Hospital and its associated buildings. To the north, across Barlby Road, is Barlby Gardens, a residential development. Refer to Fig 1 & 2.
- 2.2. The site boundary incorporates two buildings, Parke House (130-136 Barlby Road), and 6 Exmoor Street. Both buildings are two-storey, poor quality, standard office/warehouse blocks, refer to Fig. 3. The buildings are tired, particularly the façade onto Barlby Road, and have come to the end of their economic life. Parke House (130-136 Barlby Road) is currently in employment use, and used for storage and distribution uses, with ancillary offices. 6 Exmoor Street which comprises the rear of the site, has been vacant for 3 years, and its most recent use was as TV studios, refer to Fig 4. The development site comprises approximately 0.43 hectares, B1 office (1431m<sup>2</sup>) and B8 storage and distribution (2063m<sup>2</sup>).
- 2.3. Parke House is currently accessed from Barlby Road, whilst the warehouse to rear is accessed from Exmoor Street. The area around the site along Barlby Road and Exmoor Street is subject to various parking controls including waiting restrictions, 'permit holder only' and short stay metered parking areas.
- 2.4. This area of North Kensington is generally in need of regeneration and is characterised by high levels of social housing and higher than average unemployment. The area surrounding the site is characterised by a mix of uses, mainly residential development. Housing estates including the Peabody Estate occupy land to the north. Further north, dominating the wider landscape and defining the northern boundary of this part of Kensington are the railway line, gas works, and cemeteries. To the west, beyond the residential development, lies the recreation area of Little Wormwood Scrubs and the A219. St Charles Hospital occupies land directly to the south, while further south, the area is characterised by residential development, Princess Louise Hospital, a monastery, and secondary and primary schools. The area to the east is characterised by residential development, a primary school, and the busy B450 Ladbrooke Grove which runs south to the underground station. Local shopping centres are situated in close proximity along Barlby Road, Ladbrooke Grove (north), and St Helens Gardens.
- 2.5. The site's immediate surroundings include 2 to 4 storey office and distribution buildings. To the south, lies the 5 storey St Charles Hospital, a Grade II Listed building, and its associated buildings. Much of the surrounding area includes residential buildings of 2 to 4 storeys in height. The proposed development site is within the St Quintin Oxford Gardens Conservation Area.



- 2.6. The site is well served by existing bus services, which provide access to a wide number of locations and facilities including central London and regular night buses also provide access to central London's vibrant nightlife including Camden and the West End. A bus stop is located directly outside the site, with additional stops on Ladbrooke Grove within 400m. The site has good access to underground services, with Ladbrooke Grove Station less than a kilometre away. The station is on the Hammersmith and City line providing access to Paddington, Kings Cross St. Pancras and Liverpool Street train stations. Willesden Junction rail station is also situated to the north.



FIG 1. PALL MALL BUILDING



FIG 2. ST. CHARLES' HOSPITAL



FIG 3. EXISTING OFFICES AND WAREHOUSE AT 130 -136 BARLBY ROAD BUILDING

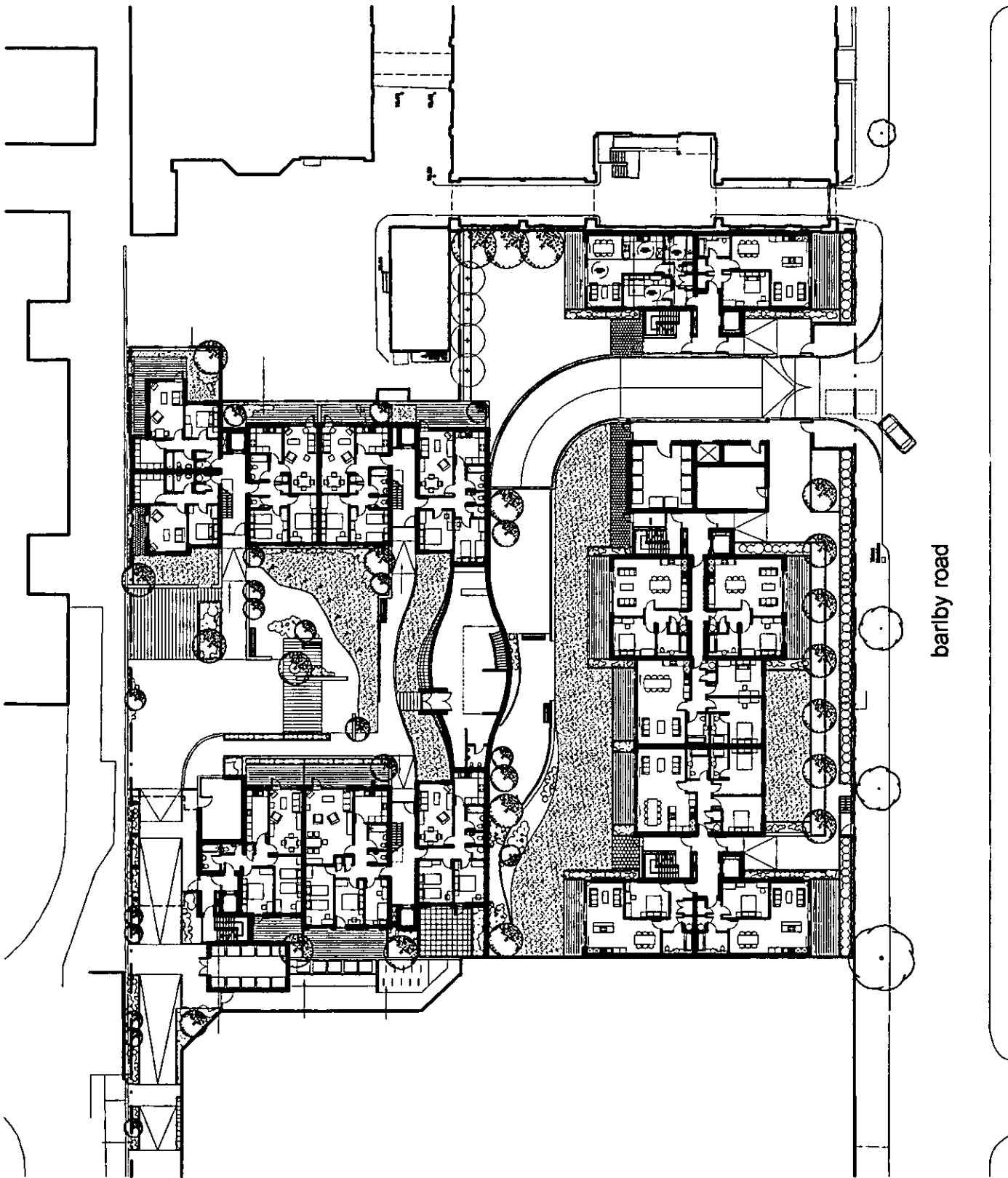


FIG 4. EXISTING TV STUDIOS, 6 EXMOOR STREET

### **3. THE PROPOSED DEVELOPMENT**

- 3.1 The proposed development comprises the demolition of the existing offices and warehouse and the erection of a total of 108 residential units, ranging from 1 to 4 bedroom units. The scheme layout and building elevations accompany the planning application.
- 3.2 The proposed development will comprise a range of tenures in a mix of sizes. Approximately 45% of the habitable rooms will be affordable, above standards set out in local policy, and will include shared equity and social rented properties. These will be incorporated in the southern part of the site and will be comparable in terms of design and materials to the homes for private sale, so that they are indistinguishable.
- 3.3 The proposed development incorporates five blocks, which range from 3 to 9 residential storeys. Blocks A, B, and C, which front Barlby Road, range from 9 residential storeys, adjacent to the Pall Mall Depository, to 4 storeys, adjacent to the NHS premises to the east. This step change in building height reflects the form and height of the adjacent buildings, and continues the strong built presence along this part of the street frontage. Blocks D and E are detached and sit back from the residential blocks which front Barlby Road. These blocks step up from 3 to 7 storeys from front to back. Refer to Fig. 5 – 12.
- 3.4 The scale and density of the proposed development is appropriate for its urban location, and will ensure that a more efficient use is made of this site in Central London, an approach advocated in government policy. The scheme has been broadly designed to comply with the established principles, in terms of massing and height. The site is also in a highly accessible location and is therefore ideal for the type of high density development proposed.
- 3.5 The proposed building is of a high quality, contemporary design. The design, scale, detailing and materials will be of a high quality, appropriate to the site and general location. The redevelopment of the site will aid the regeneration of this area and raise the profile of this area for investment. The design layout promotes a safe, secure and inclusive environment in line with government policy and urban design guidance.
- 3.6 Landscaping and private amenity space is interspersed within the development. Blocks D and E face inwardly onto a treed courtyard, whilst the rear of Blocks A, B, and C face onto a large lawned area. The development provides a total of 2965 m<sup>2</sup> amenity space.

- 3.7 Vehicular and pedestrian access to the development will be provided from Barlby Road and Exmoor Street. The site access from Barlby Road is provided by a ramped entry down into the basement car park, similar to the existing arrangement. At the entrance to the car park there would be a minimum headroom clearance of 2.1m. Secondary vehicular access into the development and basement car park is proposed via Exmoor Street.
- 3.8 The development includes 94 car-parking spaces in the basement. Disabled parking makes up 10% (10 spaces) of the car parking spaces, whilst a dedicated car parking space is provided for a delivery vehicle. Cycle parking of 118 spaces will be provided in the basement level, and serviced by a cycle lift.
- 3.9 Servicing access for refuse vehicles and fire appliances is provided via Exmoor Street. Waste would be collected via a managed service at the rear of the building. The proposals have been discussed and agreed with RBK&C. This is considered to be the most appropriate method for waste collection from the site rather than requiring refuse vehicles to manoeuvre within the site underground car park.
- 3.10 The development will also provide a D1 unit, perhaps a crèche, as part of the proposals. The D1 unit will be open to the public. It is envisaged that this facility will be invaluable to not only the residents of the development but also the residents of the local area. The design will be innovative and high quality, and it has been agreed with the RBK&C that the D1 unit will constitute the public art contribution for the scheme.
- 3.11 A detailed analysis of the scheme design is included within the Design section of this statement,, and an Access and Disability Statement is also included. The daylight and sunlight considerations are set out in the Daylight and Sunlight Report, which accompanies the application.



barby road

FIG. 5 SITE PLAN



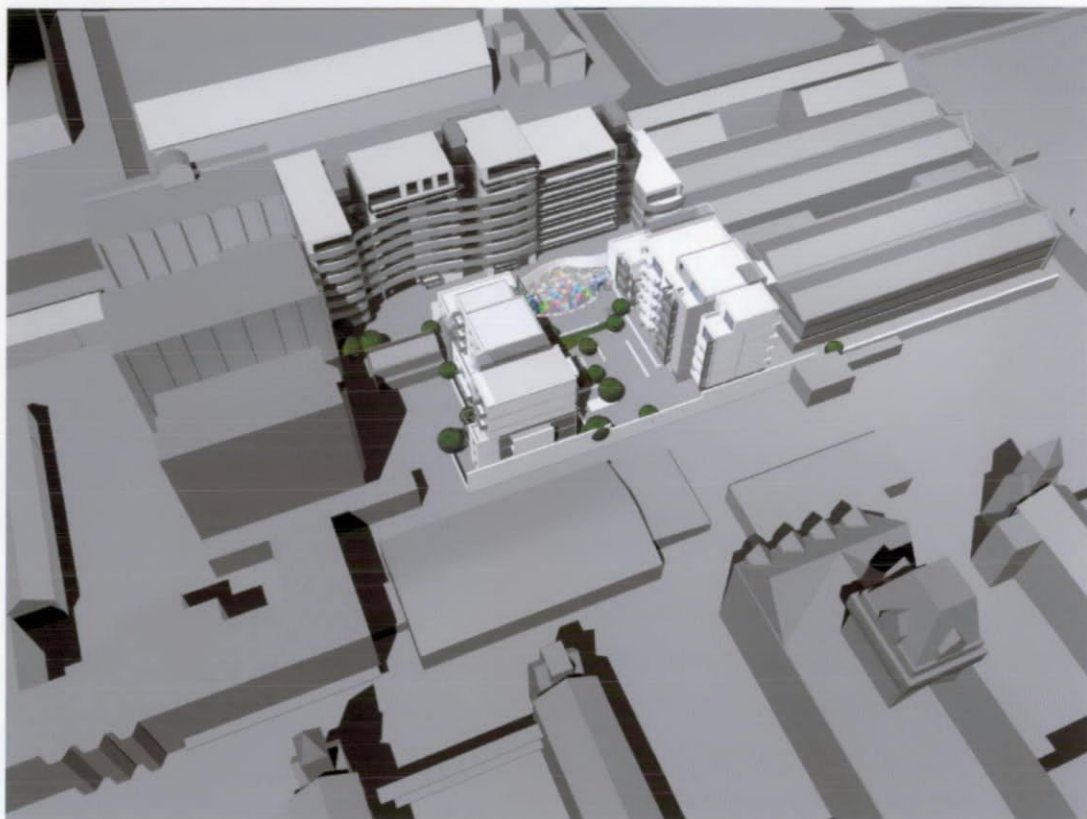


FIG 6. SITE MASSING MODEL - VIEW FROM SOUTH



FIG 7. SITE MASSING MODEL - VIEW FROM NORTH

## 4. POLICY CONTEXT

- 4.1. The planning policy context for this application is established by national guidance, the Mayor's London Plan, and the Unitary Development Plan and supplementary notes.

### National Guidance

- 4.2. Draft Planning Policy Statement 1: Creating Sustainable Communities (PPS1) was published for consultation in 2004, and states that sustainable communities need sufficient, quality housing to meet the needs of the community.
- 4.3. The Government considers that planning should facilitate and promote sustainable patterns of urban and rural development by amongst other making suitable land available for development in line with economic, social and environmental objectives; ensuring high quality development through good design; and ensuring that development supports existing communities and contributes to the creation of safe, sustainable and liveable communities with good access to jobs and key services.
- 4.4. PPS1 highlights that planning policies should seek to promote the more efficient use of land through higher density development and the use of suitable previously developed land and buildings. Planning should seek actively to get vacant and underused previously developed land and building back into beneficial use to achieve targets set by the Government for development on previously developed land.
- 4.5. PPS1 emphasises that high quality design ensures usable, durable and adaptable places and is a key element in achieving sustainable development.
- 4.6. Planning policies should promote high quality design for new development areas and individual buildings in terms of functionality and impact. Design policies should encourage developments which:
- are appropriate to their context in respect of scale and compatibility with their surroundings;
  - secure positive improvement to the streetscape or place where they are located;
  - create safe environments where crime and disorder or fear of crime does not undermine the quality of life or community cohesion;
  - make efficient use of natural resources;
  - address the needs of all in society, including people with disability.

- 4.7. The adopted Planning Policy Guidance Note 1: General Policy and Principles (1997); states that urban regeneration and the re-use of urban land are important supporting objectives for creating a more sustainable pattern of development. This guidance note confirms that the Government is committed to concentrating development for uses which generate a large number of trips in places well-served by public transport, especially town-centres rather than in out-of-centre locations; preferring the development of land within urban areas, particularly on previously developed sites, provided that this creates or maintains a good living environment.
- 4.8. Planning Policy Guidance Note 3: Housing (2000); states that Local Planning Authorities (LPA's) should amongst other things provide sufficient housing land but give priority to re-using previously developed land within urban areas, bringing empty homes back into use and converting existing buildings of non-residential use, in preference to the existence of greenfield sites.
- 4.9. PPG3 confirms the Government's support of creating mixed and inclusive communities, which offer a choice of housing and lifestyle. It does not accept that different types of housing and tenures make bad neighbours. LPA's should encourage the development of mixed and balanced communities and ensure that new housing developments help to secure a better social mix by avoiding the creation of large areas of housing of similar characteristics.
- 4.10. PPG3 states that decisions about the amount and type of affordable housing to be provided in individual proposals should reflect local housing need and individual site suitability and be a matter of agreement between parties. LPA's and developers should be reasonably flexible in deciding the type of affordable housing most appropriate to a particular site. The objective should be to ensure that the affordable housing secured would contribute to satisfying local housing needs as demonstrated by rigorous assessment.
- 4.11. PPG3 confirms that the Government is committed to maximising the re-use of previously developed land and empty properties and the conversions for housing, in order both to promote regeneration and minimise the amount of greenfield land being taken for development.
- 4.12. In 2003, the Government issued draft guidance regarding the release of employment sites for residential development. The intention is that local authorities should allow land currently allocated for industrial or commercial use in their development plans, and redundant industrial or commercial buildings, to be used for housing or mixed-use development unless a convincing case for retention can be made. The draft guidance states that before a comprehensive review of employment sites is undertaken by the Council during its Local Plan Review, applicants for planning permission for development that includes housing should be able to expect "expeditious and sympathetic handling of planning proposals" in such cases.



FIG 8. SITE MASSING MODEL - VIEW FROM EAST

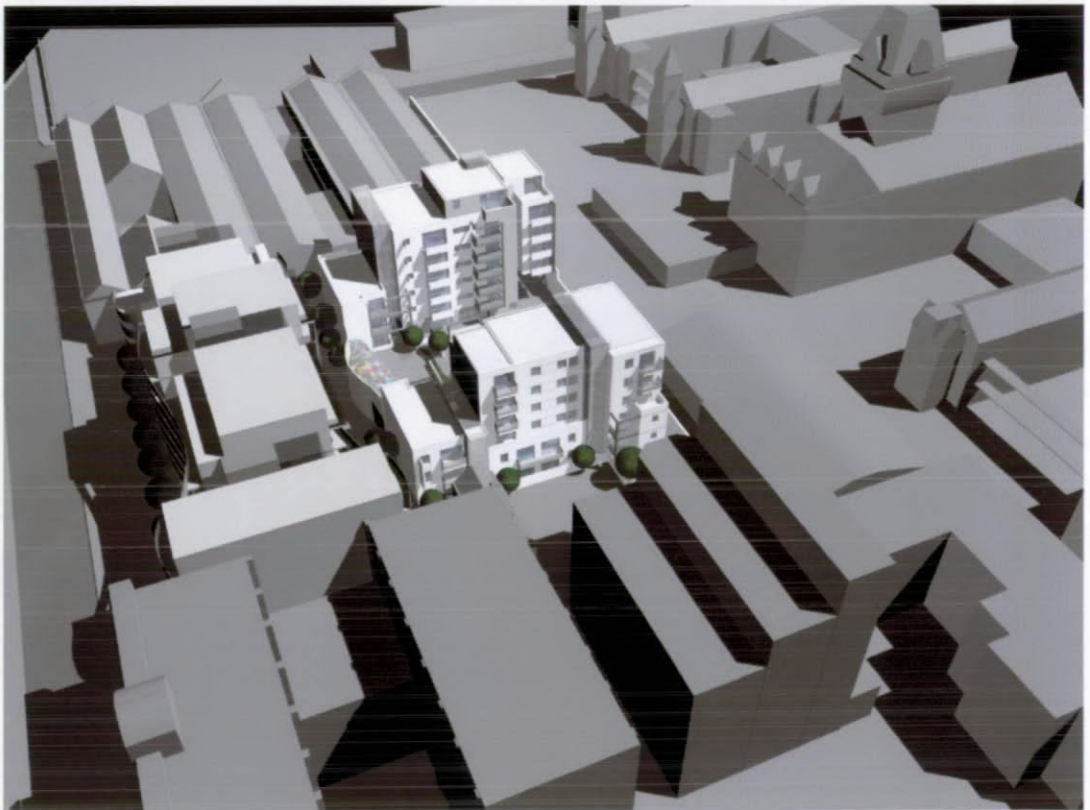


FIG 9. SITE MASSING MODEL - VIEW FROM WEST



- 4.13. Planning Policy Guidance Note 13: Transport (2001) confirms that the Government aims to promote more sustainable residential environments by avoiding the inefficient use of land (avoiding development of less than 30 dwellings per hectare net), and encouraging housing development which makes more efficient use of land (between 30 and 50 dwellings per hectare net) and seek greater intensity of development at places with good public transport accessibility, such as city, town, district and local centres.

## **The London Plan**

- 4.14. The London Plan was adopted on 10 February 2004. This guidance document replaces the strategic guidance for London (RPG3). The London Plan sets out a strategy to guide development in London and provides guidance on physical, social, economic, environmental and financial issues in the City.
- 4.15. Policy 2A.1 sets out the Plan's criteria for sustainable development, which include:
- optimising the use of previously developed land and vacant or under-used buildings;
  - using a design-led approach to optimise the potential of sites
  - ensuring that development occurs in locations that are currently, or are planned to be, accessible by public transport, walking and cycling;
  - ensuring that development occurs in locations that are accessible to town centres, employment, housing, shops and services;
- 4.16. Chapter 3 of the London Plan sets out policies to govern housing development in the City. In line with the concept of a sustainable and compact city, future residential development needs should be located so as to maximise the use of scarce land, to conserve energy and to be within easy access of jobs, schools, shops and public transport.
- 4.17. Supporting text of chapter 3 of the plan identifies that more capacity can be achieved through redevelopment and applying higher densities. Boroughs are encouraged to investigate additional sources of housing capacity and identify further sites, applying higher densities where appropriate.
- 4.18. Policy 3A.5 sets out that large-scale residential developments present the potential to provide additional housing, as well as create a sense of place with its own character and identity.
- 4.19. In setting targets, boroughs should take account regional and local assessment of

need, the Mayor's strategic target for affordable housing provision (that 50% of housing provision should be affordable – and within that the London wide objective of 70% social rented housing and 30% intermediate provision) and the promotion of mixed and balanced communities.

- 4.20. Policy 3A.8 states that affordable housing targets should be applied flexibly, taking account of individual site costs, the availability of public subsidy and other scheme requirements. Supporting text to this policy states that affordable housing should be integrated with the rest of the development and have the same external appearance as the rest of the housing.
- 4.21. Chapter 4 of the London Plan addresses issues in relation to the design of development. The plan considers that there is a strong link between good design and the attraction of economic investors. Policy 4B.1 sets out the design principles for a compact city. Developments should seek to ensure that they:
- maximise the potential of sites;
  - create or enhance the public realm;
  - provide or enhance a mix of uses;
  - are accessible, usable and permeable for all users;
  - are sustainable, durable and adaptable;
  - are safe for users and passers-by;
  - respect local context, character and communities;
  - are practical and legible;
  - are attractive to look at and, where appropriate, inspire, excite and delight;
  - respect the natural environment; and
  - respect London's built heritage.
- 4.22. Paragraph 4.37 states that a compact city must maximise the potential of its sites. In order to absorb growth in population and jobs, London must achieve more intensive development in the right places. It must be designed and managed to ensure longer-term efficient use.
- 4.23. Policy 4B.3 states that the Mayor will ensure that development proposals achieve the highest possible intensity of use compatible with local context, the Plan's design principles, and with public transport. The mayor will refuse permission for strategic referrals that, taking into account context and potential transport capacity, under-use the potential of the site.



- 4.24. The London Plan sets out appropriate density ranges for typical locations in London. These standards are not static, and only provides a guide to the density that would be appropriate in certain locations. A range of between 450-700 hr/ha or 165-275u/ha would be appropriate for an urban location similar to the development site, within 10 mins walking distance to a town centre.
- 4.25. Policy 4B.5 sets out guidance aimed at creating inclusive environments. The mayor will require all future development to meet the highest standards of accessibility and inclusion. It is noted that a truly inclusive society demands an environment in which a diverse population can exist harmoniously.
- 4.26. Policy 4B.6 sets out guidance for sustainable design and construction to ensure that future developments meet the highest standards of sustainable design and construction.

## **Local Policy**

- 4.27. The statutory development plan for the area, in terms of Section 54A of the Town and Country Planning Act 1990 (as amended), comprises the Royal Borough of Kensington and Chelsea Unitary Development Plan (UDP). The UDP was formally adopted on 25 May 2002. This document constitutes the local planning guidance for the Borough.
- 4.28. Policy STRAT 2 aims to increase the residential provision within the Royal Borough by restricting the loss of and buildings with existing residential use and encourage the provision of additional permanent residential accommodation on suitable sites and buildings where appropriate. Policies STRAT 16 and STRAT 17 go further by stating that it aims to ensure the contribution of the Royal Borough to the dwelling stock of Greater London is not diminished and increase wherever appropriate; and seeks to maximise the residential capacity of the Borough in line with Strategic Guidance for London. Policy STRAT 18 aims to encourage an adequate and continuing supply of land for new housing development through the development of vacant and under-used land for residential use in appropriate locations.
- 4.29. More specifically, Policy STRAT 9 seeks to ensure that all development preserves and enhances the residential character of the Royal Borough, and Policy STRAT 10 aims to protect Listed Buildings and to preserve and enhance the character of Conservation Areas, and other buildings or places. Policy STRAT 11 aims to promote high quality environmental and architectural design standards in new developments and alterations and in additions to existing buildings. Policy STRAT 19 seeks to increase the amount and range of sizes and types of dwellings to meet the needs of those seeking permanent accommodation in the Royal Borough, whilst maintaining the overall quality of the residential environment.

## Offices and Industry

- 4.30. The Council appreciate that as there are very few vacant sites remaining in the Borough, the provision of new housing, other than from conversion schemes, will mainly arise from redevelopment proposals. Policy E4 states that redevelopments will be expected to provide housing on all or at least the major part of the site area or floorspace. Para. 6.3.12 states that 'for those sites outside the Borough's Employment Zones (which the site is), the suitability of the site for housing should be established with reference to the policies of the Housing Chapter'.
- 4.31. Historically, light industrial uses have been considered an important resource in North Kensington, particularly in the two Employment Zones of Kensal and Freston Road/Latimer Road. Policy E17 states that the Council will normally resist the loss of light industrial uses in North Kensington.

## Design and Conservation

- 4.32. Chapter 4 of the adopted UDP sets out 4 overall objectives for conservation and development. These are:
- to protect and enhance areas of character throughout the Borough, both in terms of use and the physical environment;
  - to ensure that all development respects local character, is of a high standards of design, takes into account people with special mobility needs and does not adversely affect the Borough's conservation areas;
  - to preserve and enhance the Borough's conservation areas and listed buildings;
  - to protect and enhance the natural environment and to preserve archaeology of the Borough.
- 4.33. The architectural quality of a building and its contribution to the character and appearance of a conservation area may be severely compromised by substantial demolition, and this will be taken into account when the Council considers any proposals. It is considered that a building's contribution to the character of a conservation area stems not only from its street frontage but also the side and rear elevations. The historic plan form and integrity of the buildings also make a significant contribution to the character of the conservation areas. Redevelopment behind a retained front façade therefore is generally not acceptable.
- 4.34. Policy CD60 states that the LPA will resist demolition or substantial demolition of buildings in conservation areas unless:
- the building or part of the building structure makes no positive contribution to the character or appearance of the area; or
  - the condition of the building is proved to be such that refurbishment is not possible; and
  - a satisfactory scheme for redevelopment has been approved.



FIG 10. BARLBY ROAD ELEVATION

- 4.35. Any consent for demolition will normally be subject to a condition that the building shall not be demolished until a contract for new work has been made.
- 4.36. Policy CD61 seeks to ensure that any development in a conservation area preserves and enhances the character or appearance of the area.
- 4.37. Policy CD62 seeks to ensure that all development in conservation areas is to a high standard of design and is compatible with:
- character, scale and pattern;
  - bulk and height;
  - proportion and rhythm;
  - roofscape;
  - materials;
  - landscaping and boundary treatment of surrounding development.
- 4.38. Policy CD63 considers the effect of proposals on views identified in the Council's Conservation Area Proposals Statements, and generally within, into, and out of conservation areas, and the effect of development on sites adjacent to such areas. Trees in conservation areas are also protected. Six weeks notice must be given to the Council if it is proposed to carry out any work to a tree conservation area. This applies only to trees with a trunk diameter greater than 75mm at 1.5m in height. The purpose of this requirement is to give the Council a final opportunity to make an Order where appropriate before work is carried out.
- 4.39. Policy CD64 requires full planning applications in conservation areas where a proposal is likely to affect the character or appearance of the conservation area.
- 4.40. Policy CD27 aims to ensure that all development in any part of the Borough is to a high standard of design and is sensitive to and compatible with the scale, height, bulk, materials and character of the surroundings, this is particularly important in or adjacent to Conservation Areas and listed buildings.
- 4.41. Paragraph 4.3.3 indicates that the quality of urban design is considered as an essential component in the control of development. Policy CD28 requires development to be physically and visually integrated into the surroundings by:
- preserving existing public routes, creating new routes where appropriate, and extending links to maintain a high level of accessibility;

- ensuring that the appearance of buildings form a pattern which reflects the traditional urban form of the Borough, by maintaining and creating new building lines and giving a coherent form to the spaces enclosed by new buildings. Buildings and features should also be designed to emphasise the importance of main routes, and of key locations such as important cross-roads, shopping centres or other public gathering places;
  - maintaining a clear distinction between private and public space, and ensuring the provision of active building frontages, particularly at ground floor level in appropriate locations;
  - preserving and creating those aspects of architecture and urban form which contribute to local distinctiveness and character such as plot widths, building lines, roofscape and open space.
- 4.42. In assessing proposed residential developments, including conversions, the space to be provided for individual dwellings will be important factors in the quality of the accommodation to be provided, and in the impact of the proposed development on the character and amenity of the surrounding area. The Council will have regard to the standards set out in Table 3.1, which are considered relevant to the Borough and likely to achieve the relevant policy objectives.
- 4.43. Policy CD33 aims to resist development, which significantly reduces sunlight or daylight enjoyed by existing adjoining buildings and amenity spaces. Policy CD34 requires development to be designed to ensure good light conditions for its building spaces. Paragraph 4.3.15 indicates that in considering development proposals, the Council will not be seeking to ensure that they meet any particular minimum or maximum standards. Within new developments, the Council will seek good light conditions taking into account the general levels of light in the immediate area, and the character of its built form and spaces.
- 4.44. In assessing development proposals the Council will seek to protect the existing privacy of residents to ensure good standards of privacy in new development. However, supporting text acknowledges that some loss of privacy as a result of development may be unavoidable. Paragraph 4.3.23 states that within new developments, the Council will be seeking good standards of privacy for future occupants, taking into account the general levels of privacy in the immediate area, and the character of its built form and spaces.
- 4.45. Policy CD35 requires that development should be designed to ensure sufficient visual privacy for residents and the working population. Paragraph 4.3.27 indicates that the Council will (where appropriate) attach planning conditions to planning permissions to ensure that developments do not significantly reduce the privacy enjoyed by adjoining properties.



FIG 11. AFFORDABLE HOUSING BLOCK D





FIG 12. AFFORDABLE HOUSING BLOCK E

- 4.46. Policy CD36 aims to resist development where it would result in a harmful increase in the sense of enclosure to nearby residential property.
- 4.47. Policy CD38 aims to ensure that where open space forms part of a proposal it is designed and landscaped to a high standard. Supporting text indicates that the Council will require landscaping to be both functional and aesthetic.
- 4.48. Policy CD39 requires that the design of new and altered buildings or areas adequately takes into account the safety and security of the users of the facilities and that of neighbouring residents.
- 4.49. Policies CD40 and CD41 aim to resist proposals where the noise generated by the use or activity would cause material disturbance to occupiers of surrounding properties; and ensure that residential developments include adequate protection of the internal environment from the effects of noise.
- 4.50. The site is located within a Conservation Area. Policy CD63 states that consideration should be given to the effect of proposals the Conservation Area and its setting, and on views identified in the Council's Conservation Area Proposals Statements, and generally within, into, and out of conservation areas, and the effect of development on sites adjacent to such areas.
- 4.51. Policy CD81 encourages the planting of trees, particularly in new development. The Council recognises the importance of trees as valuable elements of the urban landscape.
- 4.52. Policy CD82 resists the loss of trees unless they are dead, dying or potentially a public danger, causing an actionable nuisance or, exceptionally, when removal is required in a replanting programme.

## Housing

- 4.53. Kensington and Chelsea has some of the highest residential rents and prices in the country. Accommodation is difficult to obtain for many people who have a need to live in the Borough because of their work or family contacts. The Council's policies aim to maintain and increase the amount of affordable housing, family dwellings, small units and accommodation for special needs. The Council will seek to negotiate for a wide variety of housing within large development schemes, and will seek the provision of a substantial element of affordable housing.
- 4.54. Policy H2 seeks the development of land and buildings for residential use unless a satisfactory residential environment cannot reasonably be achieved by reason of excessive noise, inappropriate location or ground contamination; or the land is required for the provision of social or community facilities to meet local needs; or the development is for the replacement on the same site of existing commercial floorspace which has not given rise to environmental or traffic problems.
- 4.55. Paragraph 5.2.4 states that the Council will have regard to the history of the use of the site and any known conflict with the amenity of the area through traffic or noise generation, hours of operation and any other material factors, including the considerations set out in the definition of the B1 Use Class. The Council will also have regard to the positive aspects of the existing use and its continuation or replacement by another non-residential use, such as its contribution to the vitality of the local economy. Where a site or building is not suitable or appropriate for residential use, its residential use will not be sought.
- 4.56. Policy H7 seeks, where appropriate, the provision of some outdoor space in all new development and, in particular, the provision of open space and play facilities in developments of over ten units.
- 4.57. Policy H11 aims to resist housing designed to higher densities except where it:
- is designed predominantly for occupation by small households; or
  - enables the provision of special needs or affordable housing on appropriate sites; or
  - is an infill scheme where a higher density development is necessary for townscape reasons to comply with the policies of the Conservation and Development Chapter.
- 4.58. The mix of accommodation in the Borough should be related to the range in household types existing or likely to exist and to deficiencies in the range of accommodation. Households are typically smaller than elsewhere in the capital. In response to market demand, the private sector already provides a substantial proportion of smaller units, mostly through conversion schemes and it is therefore

important to retain existing provision. A large stock of small residential units is also important in order to: maintain the level of population by allowing a more intensive use of residential properties; maintain the number of adult households who, through their spending power, help support the ancillary services which underpin the residential function; and meet the overall housing provision envisaged by the London Plan.

- 4.59. Policy H18 seeks the inclusion of smaller units (of one or two habitable rooms) and larger units (of three habitable rooms and more) in schemes for residential development.
- 4.60. Policy H19 seeks an appropriate mix of dwellings within a scheme, having regard to the following factors:
- the physical character of the site or building and its setting;
  - the previous or existing use of the site or building;
  - access to private gardens or communal garden squares for family units;
  - the likely effect on demand for car parking within the area;
  - the surrounding composition and density of population;
  - the location of schools, shops and open spaces;
  - provision of accommodation for special needs; and
  - busy roads or railway lines nearby.
- 4.61. Policy H22 states that the Council will seek to negotiate the provision and retention of a significant proportion of affordable housing on sites suitable for residential use with a capacity of 15 dwellings or more.

## Transport

- 4.62. RBK&C's policy on car parking aims to reduce the number of car trips into the Borough by limiting the amount of on and off-street parking. RBK&C policy is to ensure that residential development does not increase the demand for on-street parking.
- 4.63. Improvements to walking and cycling provision should make these trips a more attractive mode for travel. Public transport improvements should be made in order to improve its quality and reliability.

## 5. KEY ISSUES AND POLICY COMPLIANCE

- 5.1 This section of the statement examines the key planning issues that are relevant to the determination of the planning application.

### Principle of Development

- 5.2 Within the UDP, RBK&C have stated that there is an exceptionally high need for all forms of housing in London, with demand now reaching crisis point, and showing no sign of being met. This unmet strategic need and demand for housing forms the basis for Government policy set out in PPG3 and the London Plan, which emphasises the need 'to maximise the contribution to housing'. The Mayor has stated that 'the need for additional homes, especially affordable homes, is the single most pressing land use problem in London'.
- 5.3 The Royal Borough of Kensington and Chelsea are under considerable pressure to provide the required number of additional dwellings for the Borough. The Council accepts that the number of sites with potential for residential development is declining, as is the number of properties suitable for conversion. Therefore the UDP states that if the housing capacity figure for the Borough is to be met, a high priority must be placed on allocating nearly all available development land for residential use, except where there is a history of employment-generating uses and the site is unsuitable for housing.
- 5.4 The site is currently in employment use, and used for storage and distribution uses, and offices. The site is not designated as an Employment Zone, nor is it in light industrial use, which the Council are keen to see retained in North Kensington. The redevelopment of the employment site for housing is therefore fully in accordance with Policy E4 of the UDP, which states that redevelopment schemes will be expected to provide housing on all or at least the major part of the site area or floorspace. The acceptability of the loss of employment land on the site is clearly justified through local policy, ensuring that the development involves residential uses.
- 5.5 This message is echoed through national guidance, particularly draft guidance issued in 2003 regarding the release of employment sites for residential development.
- 5.6 The preamble to Policy E4 of the UDP states that for those sites outside of the Borough's Employment Zones, the suitability of the site for housing should be established with reference to its Housing policies. Policy H2 seeks the development of land and buildings for residential use unless a satisfactory residential environment cannot reasonably be achieved; the land is required for social or community facilities; or the development is for the replacement of commercial facilities which have not



given rise to environmental or traffic problems. The development does not involve the replacement of commercial facilities, nor is it required for community and social facilities. The adjacent uses include B1, B8, and C2, which are generally compatible in residential areas. The nature of the existing uses adjacent to the site do not create an unsatisfactory environment at present by way of noise or traffic generation, for the residential properties to the north of Barlby Road, and we consider that this would continue to be the case should the site be redeveloped for housing.

- 5.7 The development will provide an ideal opportunity to redevelop and regenerate tired, looking office and warehouse buildings in a primarily residential area. It will raise the profile of the area, and provide a catalyst for the regeneration of the wider area.
- 5.8 We consider the redevelopment would make efficient and effective use of previously developed land, fully in accordance with the key themes of sustainability within national policy documents such as PPS1 and PPG3. As promoted by the London Plan, the development would be of a high density, maximising the potential of its accessible, urban location.
- 5.9 The density of the scheme is 619 hr/ha or 225 u/ha. Although above the density guidelines set out in paragraph 5.3.13 of the UDP, Policy H11 of the UDP states that housing at higher densities will be resisted except where it is designed predominantly for occupation by small households; or enables the provision of special needs or affordable housing on appropriate sites; or is an infill scheme where a higher density development is necessary for townscape reasons to comply with the policies of the Conservation and Development chapter. We consider that the scheme satisfies all of these criteria. The scheme provides housing predominantly for small households, with approximately 80% of the scheme incorporating 1 and 2 bed units. The scheme provides a large element of affordable housing, approximately 45% of the scheme. Additionally, the proposals are an infill scheme where a higher density development is necessary to maintain continuity along the street in townscape terms.
- 5.10 The proposed density of the scheme is also in line with the guide figures suggested within the London Plan for locations similar to that of the site. A range of between 450-700 hr/ha or 165-275u/ha would be appropriate for an urban location similar to the development site, within 10 mins walking distance to a town centre.
- 5.11 The loss of employment has not been raised as an issue in any of the previous meetings with planning officers at RBK&C, and we have been reassured in the past that the principle of the redevelopment of the site for residential purposes is fully in accordance with the UDP.
- 5.12 The proposals create a mixed, balanced and inclusive community, which offers a choice of housing and lifestyle. In line with local and national housing policy, the

development will provide a mix of types, sizes and tenure of residential units. Policy H8 of the UDP seeks the provision of smaller units of one or two habitable rooms, together with larger units of three habitable rooms and more. The proposals provide a mixture of both.

- 5.13 The proposed development includes a large amount of affordable, approximately 45% of the habitable rooms, above standards set out in local policy. The affordable units will be a mix of sizes and tenures including shared equity and social rented properties. As advocated in PPG3, LPA's should encourage the development of mixed and balanced communities and ensure that new housing developments help to secure a better social mix by avoiding the creation of large areas of housing of similar characteristics. These will be incorporated in the southern part of the site and will be comparable in terms of design and materials to the homes for private sale, so that they are indistinguishable.
- 5.14 The mix of dwellings within the scheme is appropriate for the site, having regard to the physical character of the site and its setting, the surrounding composition and density of population, and the location of facilities and infrastructure.

## Accessibility and Transport

- 5.15 In terms of location, the proposal benefits from excellent accessibility by all modes of transport and to a variety of services and facilities. A Transport Assessment accompanies this planning application and gives further detail into the accessibility and transport issues associated with the proposals. The Transport Assessment has been produced in consultation with the Highways department at RBK&C.
- 5.16 The site is well served by existing bus services, which provide access to a wide number of locations and facilities including central London and regular night buses also provide access to central London's vibrant nightlife including Camden and the West End. A bus stop is located directly outside the site, with additional stops on Ladbroke Grove within 400m.
- 5.17 The site has good access to underground services, with Ladbroke Grove Station less than a kilometre away. The station is on the Hammersmith and City line providing access to Paddington, Kings Cross St. Pancras and Liverpool Street train stations. Willesden Junction rail station is also situated to the north.
- 5.18 The proposals would provide sufficient car parking in line with car parking standards set out within Table 13.5.1 of the UDP. This avoids any disturbance and potential problems with on-street parking and competition for the existing allocated spaces. In addition, 10% of parking spaces will be for people with disabilities. Cycle parking of 118 spaces will be provided in the basement level. This exceeds RBK&C's standards, of one space per dwelling and includes visitor cycle spaces. Several meetings have been held with the highways department at RBK&C and the proposed levels of parking provision have been influenced by and are now to the satisfaction of the Council.
- 5.19 The development of residential accommodation with good access to both underground and public bus services has significant benefits in delivering a highly sustainable development. The car parking provision on site is in accordance with the Council's parking standards, and due to its location at basement level, produces a pedestrian friendly development that is not dominated by the car. Refer to Fig. 13
- 5.20 The development site has very good access to employment opportunities and local facilities by cycling and walking. The nearest employment areas of note are at the two hospitals both located within 400m of the site. There are a large number of schools, both Primary and Secondary, within reasonable walking or cycling distance of the site, representing good employment opportunities. Directly adjacent to the site is a media office, accessible from Exmoor Street. The supermarket on Canal Way provides full and part-time employment opportunities. With the good public transport links, by both bus and underground, to other areas in west and central London, there are major employment opportunities for residents at the site.

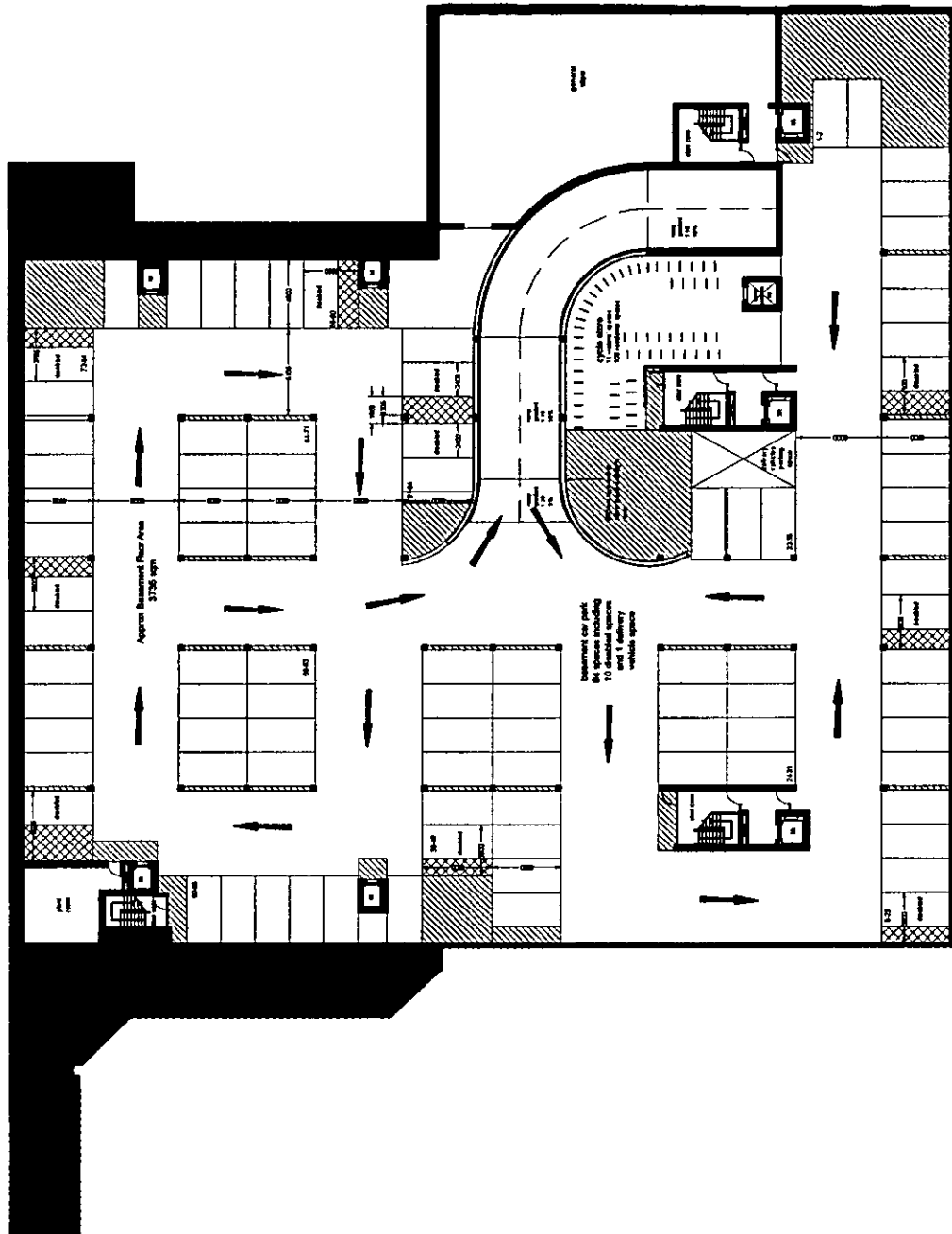


FIG. 13 BASEMENT FLOOR PLAN

- 5.21 The site enjoys good access to local convenience shopping and to district shopping areas close to the site. According to Map 12 and 13 of the UDP, the site is within reasonable walking distance of at least 5 local shopping centres and also within walking distance of the Primary Shopping Centre at Portobello Road. Many newsagents are located within easy walking and cycling distance from the site. These include Martins The Newsagent Ltd on Barlby Road and Kensal Newsagents on Ladbroke Grove. Sainsbury supermarket is located approximately 600m to the north of site is a, within a 10 minute walk or 5 minute cycle from the site. There is also St. Helens Post Office located within a 10 minute walk of the site, on St Helens Road, to the south of the site. The major retail/mixed-use redevelopment at White City is also only 1 km to the south. Further afield, the site has access to the retail and entertainment heart of London via public transport.
- 5.22 There are 18 schools or colleges within a distance of 1km from the centre of the site. The closest primary school to the site is Barlby Primary School, located on Barlby Road within 200m from the site. Sion-Manning RC School for Girls is the nearest secondary school to the site, located within 700m of the site on St. Charles Square. These schools are within easy cycling distance and within a 10-minute walk from the centre of the site.
- 5.23 Leisure opportunities are in close proximity to the development site. To the south of the site within a 5 minute walk is Brompton Park, a recreational ground located off Seagrave Road. This provides an open space within a reasonable walk distance from the site. Normand Park, located on Lillie Road, is 900m to the West of the site and provides open space and a swimming pool. The ease of public transport access from the site provides good links to many other leisure and recreational facilities throughout London. Additionally, there are larger recreation areas at Wormwood Scrubs and Little Wormwood Scrubs to the west of the site.
- 5.24 The components provided within the site also promote sustainability. The provision of a D1 unit perhaps a crèche reduces the need for future residents to travel to crèches within the locality.
- 5.25 Being a site located within an urban area surrounded by existing development, this location also benefits from proximity to existing infrastructure, including water and sewerage and other utilities that can easily be adapted or extended with far less of an environmental or social cost.
- 5.26 In line with London Plan policy, the residential development will be located so as to maximise the use of scarce land, to conserve energy and to be within easy access of jobs, schools, shops and public transport.

## Design and Conservation

- 5.27 The scale and density of the proposed development is appropriate for its urban location, and will ensure that a more efficient use is made of this inner London site, an approach advocated in government policy. The scheme has been designed to comply with the established principles along the street frontage, in terms of massing and height. Policy CD27 states that the design of new development should be of a high standard and sensitive to and compatible with the scale, height, bulk, materials and character of the surroundings. The site is also in a highly accessible location and is therefore ideal for the type of higher density development proposed.
- 5.28 The proposed Barlby Road building is situated between 138 Barlby Road and the Pall Mall Deposit, ranging from four to nine storeys respectively. The first three storeys of Block A are no higher than the eaves level of 138 Barlby Road and the fourth storey has been set back to sit within the pitch line of the existing gable. The building increases in height to seven storeys, reaching nine storeys at the centre and eventually reducing to eight storeys adjacent and in line with the massing of the Pall Mall Deposit. The façade is staggered back away from the road to encourage a sense of semi-public space in front of the buildings. This also adds relief to the elevation and articulation to the individual blocks A, B & C to create variety and interest to the street scene.
- 5.29 Urban design is also an essential component to controlling development and includes the relationship between buildings and the streets, and the nature and quality of the public domain. In accordance with Policy CD28, the development is physically and visually integrated into its surroundings, by preserving existing public routes, by maintaining and creating new building lines and giving a coherent form to the spaces enclosed by new buildings, and by ensuring the provision of an active building frontage.
- 5.30 The design led approach to the development of the site has enabled the optimum potential to be realised and is in line with the Mayor's criteria for sustainable development.
- 5.31 The proposed buildings are of a high quality, contemporary design, sensitive to their location within the Oxford Gardens St Quintin Conservation Area, and their location adjacent to St Charles Hospital, a Grade II Listed building. The design process has been integrally influenced by the site's surroundings and its location within a Conservation Area. A Conservation Area planning application accompanies this submission.
- 5.32 The development would not result in the loss of any trees on site nor along the street,



in accordance with Policy CD82. In addition, a proposed colonnade of semi-mature trees is set 3m in from the Barlby road boundary. The trees help soften the street scape, providing a privacy screen, and a sense of shade. The box hedge immediately behind the site boundary's metal railings adds to the colour and texture of the building's surroundings and helps ensure privacy to the gardens of the ground floor residents.

- 5.33 The site presents the chance to provide additional housing, as well as creating a sense of place with its own character and identity. The proposed building does not attempt to imitate the character of the adjoining buildings, as this would be detrimental to the strength in appearance of its street frontage. Hence, the design of the new buildings are both original and contemporary yet sympathetic to its context in terms of rhythm, proportion and massing. The new building's materials of rendered walls, weatherboard cladding, glazing, timber and curved balconies create a contemporary architecture adding to the richness of the varied context.
- 5.34 The design of the Barlby Road building takes its cue from the horizontal datum lines of the Pall Mall Building. Gentle curved timber balconies extend from behind the existing brick corner pier in towards the centre of the building leading the eye into the space created by the recessed blocks. The curve is continued to form the balconies to Block A1 at a lower scale which connects the buildings to the adjacent 138 Barlby Road building.
- 5.35 The D1 unit has been designed to be a focal point for the courtyard. Its lively multi-coloured translucent cladding panels and organic shape create a significant contrast to the geometric forms of the residential blocks. Internally the space is articulated by the play of colour through the panels and open layout of facilities. The inclusion of the D1 unit brings a vibrancy and artistic contribution to the landscaped space and a vital community facility to the area.
- 5.36 The Zen-like design of the courtyard space creates a space of relaxation for the residents. The flowing lines soften formal entrance approaches and the provision of seating areas, planting bays and semi-mature trees enhance the context of the buildings.
- 5.37 We consider that the design of the development will be of a high quality, capable of attracting investment and raising the profile of the area. The London Plan considers that there is a strong link between good design and the attraction of economic investors.
- 5.38 The residential properties on site will be designed in order to ensure the future occupiers will not be unduly affected by noise and air pollution. The balconies and colonnade of trees act as an acoustic baffle to reduce noise pollution from Barlby

Road. The setting back of the building from Barlby road increases the distance noise pollution has to travel. The majority of the flats have their living space facing onto the courtyard to the rear and all windows and doors are double-glazed. The screen provided by the trees and box hedge also reduces air pollution by the absorption of carbon dioxide and the release of oxygen.

- 5.39 The development is accessible, usable and permeable for all users. It creates an inclusive environment, which is fully accessible for disabled persons and able persons alike. Please refer to the Access and Mobility Statement accompanying this application.
- 5.40 The introduction of a new resident population will increase the general vitality of the area, lessening the opportunity for criminal activity, and will offer potential benefits in reducing levels of crime. The development by the nature and arrangement of the accommodation will also facilitate high levels of natural surveillance, again reducing the opportunity for criminal activity on the site. Affordable Housing blocks D & E and the crèche have been positioned to create a central courtyard promoting natural surveillance. The design of the buildings and areas adequately take into account the safety and security of the users of the facilities and that of neighbouring residents, as required in Policy CD39 of the UDP. All circulation spaces have generous areas of glazing where possible to allow for well lit communal areas.
- 5.41 The building design and materials also represent sustainability benefits. Energy efficiency targets are to be met in accordance with current building regulations, and the use of energy saving measures such as energy efficient lighting daylight sensors or variable time controllers where necessary. Layout on the site of residential accommodation is designed to maximise sunlight to rooms enabling solar heat gain and to provide external cultivatable spaces in the form of balconies and gardens. No PVC based products are to be used. Careful use of materials such as black timber weatherboarding to all ground floor external walls discourages graffiti and provides a hard wearing surface.

## Surrounding Character and Amenity

- 5.42 The development will improve the quality and character of the area in general, and have no detrimental impact on the amenity residents and users of the buildings in the surrounding area.
- 5.43 The proposals protect and enhance the Oxford Gardens St Quintin Conservation Area including views in and out, and the setting of St Charles Hospital. The existing buildings on site make no positive contribution to the character or appearance of the area, whether on the street frontage, the side, or rear elevations, due to their intrinsic design and tired looking condition, and are therefore suitable for demolition and in accordance with Policy CD60 of the UDP. The development scheme provides a more interesting and active street scene, contributing to the character of the local area and integrating fully with the interesting frontage of the Pall Mall building adjacent.
- 5.44 The scale and massing of the proposed development is appropriate for its location, and will ensure that a more efficient use is made of this inner London site, an approach advocated in government policy. The scheme has been designed to comply with the established principles along the street frontage.
- 5.45 The orientation of the apartments has been designed to prevent overlooking both within the scheme and in relation to adjacent properties, thereby ensuring privacy for both existing and proposed residents. The design of the scheme has taken into account the general levels of privacy in the immediate area, and the character of its built form and spaces. Overlooking to the Affordable Housing residents from the Barlby Road block has been addressed by having windows with solid side screens and balconies with full height timber slatted screens.
- 5.46 The proposals would not significantly reduce the daylight or sunlight enjoyed by existing adjoining buildings and amenity spaces within the surrounding area, as required under CD33 of the UDP. A Daylight and Sunlight Report accompanies this application and provides more detail, illustrating this limited impact on the surrounding area. The adjacent units to the south, east and west accommodate employment uses and their design, location, and orientation mean that a minimum impact will be experienced. Additionally the residential units to the north are a sufficient distance away to avoid any significant daylight and sunlight effects. The design of the scheme has been advanced carefully to ensure that the proposed buildings will have no detrimental impact on adjacent properties.
- 5.47 In addition, the design of the new development ensures that good light conditions are prevalent within the development taking into account the general levels of light in the immediate area, and the character of its built form and spaces.

- 5.48 The design of the residential development will include adequate protection of the internal environment from the effects of noise and pollution. This is in accordance with Policy CD41 of the UDP. The balconies and colonnade of trees act as an acoustic baffle to reduce noise pollution from Barlby Road. The setting back of the building from Barlby road increases the distance noise pollution has to travel. The majority of the flats have their living space facing onto the courtyard to the rear and all windows and doors are double-glazed. The screen provided by the trees and box hedge also reduces air pollution by the absorption of carbon dioxide and the release of oxygen.
- 5.49 High quality landscaping and private amenity space is interspersed within the development. Blocks D and E face inwardly onto a treed courtyard, whilst the rear of Blocks A, B, and C face onto a large lawned area. The development provides a total of 2965 m2 amenity space. In line with Policy CD38, the landscaping is both functional and aesthetic, producing a pleasant and usable environment. All communal spaces are easily accessible and all flats have either private garden areas or generous balcony space. The entrance from Exmoor Street to the Affordable Housing Block has been designed to create an attractive well-landscaped environment for the residents. Entrance is through metal gates, which leads the resident along a cobbled route with planting bays on either side and intermittent planting of trees. Ample street lighting along the route has been provided to deter criminal activity in line with the Royal Borough of Kensington and Chelsea's Streetscape guide.

## Community Benefits

- 5.50 The proposals will produce a number of benefits, in addition to the economic and environmental benefits outlined above.
- 5.51 The development will provide a large element of affordable housing, which will help deliver much needed low and intermediate cost housing as set out in the Council's Housing Strategy. The Mayor has stated that 'the need for additional homes, especially affordable homes, is the single most pressing land use problem in London'. As advocated in PPG3, the development will produce a mixed and balanced community.
- 5.52 The development will also provide a much needed community facility, perhaps a crèche. It is envisaged that this facility will be invaluable to not only the residents of the development but also the residents of the local area. The design will be innovative and high quality, and it has been agreed with the RBK&C that the crèche will constitute the public art contribution for the scheme.
- 5.53 As part of the development proposals, an education contribution will be agreed with RBK&C.

## 6. CONCLUSIONS

- 6.1. The proposed residential development provides an ideal opportunity to redevelop and regenerate an under-utilised site comprising tired-looking office and warehouse buildings, for much needed housing. The Royal Borough of Kensington and Chelsea are under considerable pressure to provide the required number of additional dwellings for the Borough. The Council accepts that the number of sites with potential for residential development is declining, as is the number of properties suitable for conversion. Therefore the UDP states that if the housing capacity figure for the Borough is to be met, a high priority must be placed on developing nearly all available land for residential use.
- 6.2. We consider the redevelopment would make efficient and effective use of previously developed land, fully in accordance with the key themes of sustainability within national policy documents such as PPS1 and PPG3. As promoted by the London Plan, the development would be of a high density, maximising the potential of its accessible, urban location. The development will raise the profile of the area, and provide a catalyst for its regeneration.
- 6.3. The proposals will deliver the following benefits:
- a suitable and more efficient use of land in its urban context;
  - benefits to the local area, particularly in terms of providing a significant number of affordable housing units and a community facility;
  - help the RBK&C meet their overall housing requirements;
  - a high architectural quality befitting it's context within a Conservation Area and within close proximity to a listed building, whilst respecting the bulk and massing of the adjacent buildings;
  - sustainable development and contribute positively to the surrounding area, both in terms of aesthetics and amenity,
  - create a highly sustainable development on an underused site with good access to a choice of means of transport other than the car, fully in accordance with the Government's sustainability objectives;
  - have positive benefits in terms of increasing the total available expenditure locally, helping to enhance the vitality and viability of shopping and local services;
  - have beneficial impacts on the local economy with the potential to increase local property prices and confidence in the area generally, and act as a catalyst for further investment;



# Other Documents

Please Index As

File Number

Part 1

Part 10

Part 2

Part 11

Part 3

Part 12

Part 4

Part 13

Part 5

Part 14

Part 6

Part 15

Part 7

Part 16

Part 8

Part 17

Part 9

Part 18

EX DIR	HDC	TP	CAC	AD	CLU	AO	AK
R.B.		- 4 OCT 2004				PLANN NG	
N	C	SW	SE	APP	REC		
ARB	FPLN	DES	FEES				

PLANNING AND DESIGN STATEMENT



**PROPOSED RESIDENTIAL DEVELOPMENT**  
 AT 130-136 BARLBY ROAD AND  
 6 EXMOOR STREET, NORTH KENSINGTON, W10  
 AUGUST 2004

**indigo**

Indigo Planning Limited  
 Queens House  
 Holly Road  
 Twickenham TW1 4EG

Tel: 020 8607 9511  
 Fax: 020 8607 9512

info@indigoplanning.com  
 www.indigoplanning.com

<b>CONTENTS</b>	<b>PAGE</b>
<b>1. Introduction</b>	<b>1</b>
<b>2. Site and Surroundings</b>	<b>3</b>
<b>3. The Proposed Development</b>	<b>7</b>
<b>4. Policy Context</b>	<b>11</b>
National Guidance	11
The London Plan	14
Local Policy	16
<b>5. Key Issues and Policy Compliance</b>	<b>27</b>
Principle of Development	27
Accessibility and Transport	30
Design and Conservation	33
Surrounding Character and Amenity	36
Community Benefits	38
<b>6. Conclusions</b>	<b>39</b>

# 1 . INTRODUCTION

1.1. This planning statement is submitted to the Royal Borough of Kensington and Chelsea (RBK&C), on behalf of the STAC Properties, in support of a full planning application and application for Conservation Area Consent for the demolition of B8 Storage and Distribution and B1 Offices/Recording Studios, and the erection of 108 residential units, a D1 unit (e.g. crèche), and basement car parking at 130-136 Barlby Road and 6 Exmoor Street, North Kensington.

1.2. The planning application formally seeks full planning permission for:

***‘the demolition of B8 Storage and Distribution and B1 Offices/TV Studios, and the erection of 108 residential units, a D1 unit (e.g. crèche), and basement car parking, disabled and service staff car parking; pedestrian and vehicular access, landscaping and associated works’.***

1.3. Many constructive meetings have been undertaken with Senior Planning Officers in different departments within the Royal Borough of Kensington and Chelsea in order to satisfy their requirements for the site prior to an application being submitted. This has included the advancement of the Section 106 agreement, which it is hoped will help the smooth running of the application process. This statement examines the planning issues raised by the proposal. Quad architects have prepared the Design section of this statement, which constitutes the required design justification for the application. This planning statement is accompanied by a Transport Assessment, prepared by WSP Development, a Daylight and Sunlight Analysis prepared by Malcolm Hollis and an Access and Mobility statement prepared by Quad Architects.

1.4. Within the framework of relevant planning policy and guidance, this statement will pay particular regard to the key issues, namely:

- the principle of development, including the need for housing and the mix and type of accommodation; in the context of employment policy,
- the appropriateness of the proposals in terms of design, accessibility, and local amenity; and
- sustainability.

1.5. The assessment of the key issues will demonstrate that the proposed development:

- is a suitable and more efficient use of land in its urban context;
- will be of a high architectural quality befitting it’s context within a Conservation Area, whilst respecting the bulk and massing of the adjacent buildings;
- will bring benefits to the local area, particularly in terms of providing affordable

housing and a community facility;

- will be sustainable and contribute positively to the surrounding area, both in terms of aesthetics and amenity, and benefit the surrounding transport network.

## 2. SITE AND SURROUNDINGS

- 2.1. The proposal is located on the southern side of Barlby Road in North Kensington, within the Royal Borough of Kensington & Chelsea. The site directly adjoins NHS premises to the west, and the Pall Mall Depository to the east, which accommodates office and distribution uses, exhibition space, and a café. The site is bordered to the south by St Charles Hospital and its associated buildings. To the north, across Barlby Road, is Barlby Gardens, a residential development. Refer to Fig 1 & 2.
- 2.2. The site boundary incorporates two buildings, Parke House (130-136 Barlby Road), and 6 Exmoor Street. Both buildings are two-storey, poor quality, standard office/warehouse blocks, refer to Fig. 3. The buildings are tired, particularly the façade onto Barlby Road, and have come to the end of their economic life. Parke House (130-136 Barlby Road) is currently in employment use, and used for storage and distribution uses, with ancillary offices. 6 Exmoor Street which comprises the rear of the site, has been vacant for 3 years, and its most recent use was as TV studios, refer to Fig 4. The development site comprises approximately 0.43 hectares, B1 office (1431m<sup>2</sup>) and B8 storage and distribution (2063m<sup>2</sup>).
- 2.3. Parke House is currently accessed from Barlby Road, whilst the warehouse to rear is accessed from Exmoor Street. The area around the site along Barlby Road and Exmoor Street is subject to various parking controls including waiting restrictions, 'permit holder only' and short stay metered parking areas.
- 2.4. This area of North Kensington is generally in need of regeneration and is characterised by high levels of social housing and higher than average unemployment. The area surrounding the site is characterised by a mix of uses, mainly residential development. Housing estates including the Peabody Estate occupy land to the north. Further north, dominating the wider landscape and defining the northern boundary of this part of Kensington are the railway line, gas works, and cemeteries. To the west, beyond the residential development, lies the recreation area of Little Wormwood Scrubs and the A219. St Charles Hospital occupies land directly to the south, while further south, the area is characterised by residential development, Princess Louise Hospital, a monastery, and secondary and primary schools. The area to the east is characterised by residential development, a primary school, and the busy B450 Ladbroke Grove which runs south to the underground station. Local shopping centres are situated in close proximity along Barlby Road, Ladbroke Grove (north), and St Helens Gardens.
- 2.5. The site's immediate surroundings include 2 to 4 storey office and distribution buildings. To the south, lies the 5 storey St Charles Hospital, a Grade II Listed building, and its associated buildings. Much of the surrounding area includes residential buildings of 2 to 4 storeys in height. The proposed development site is within the St Quintin Oxford Gardens Conservation Area.



- 2.6. The site is well served by existing bus services, which provide access to a wide number of locations and facilities including central London and regular night buses also provide access to central London's vibrant nightlife including Camden and the West End. A bus stop is located directly outside the site, with additional stops on Ladbroke Grove within 400m. The site has good access to underground services, with Ladbroke Grove Station less than a kilometre away. The station is on the Hammersmith and City line providing access to Paddington, Kings Cross St. Pancras and Liverpool Street train stations. Willesden Junction rail station is also situated to the north.



FIG 1. PALL MALL BUILDING



FIG 2. ST. CHARLES' HOSPITAL



FIG 3. EXISTING OFFICES AND WAREHOUSE AT 130 -136 BARLBY ROAD BUILDING



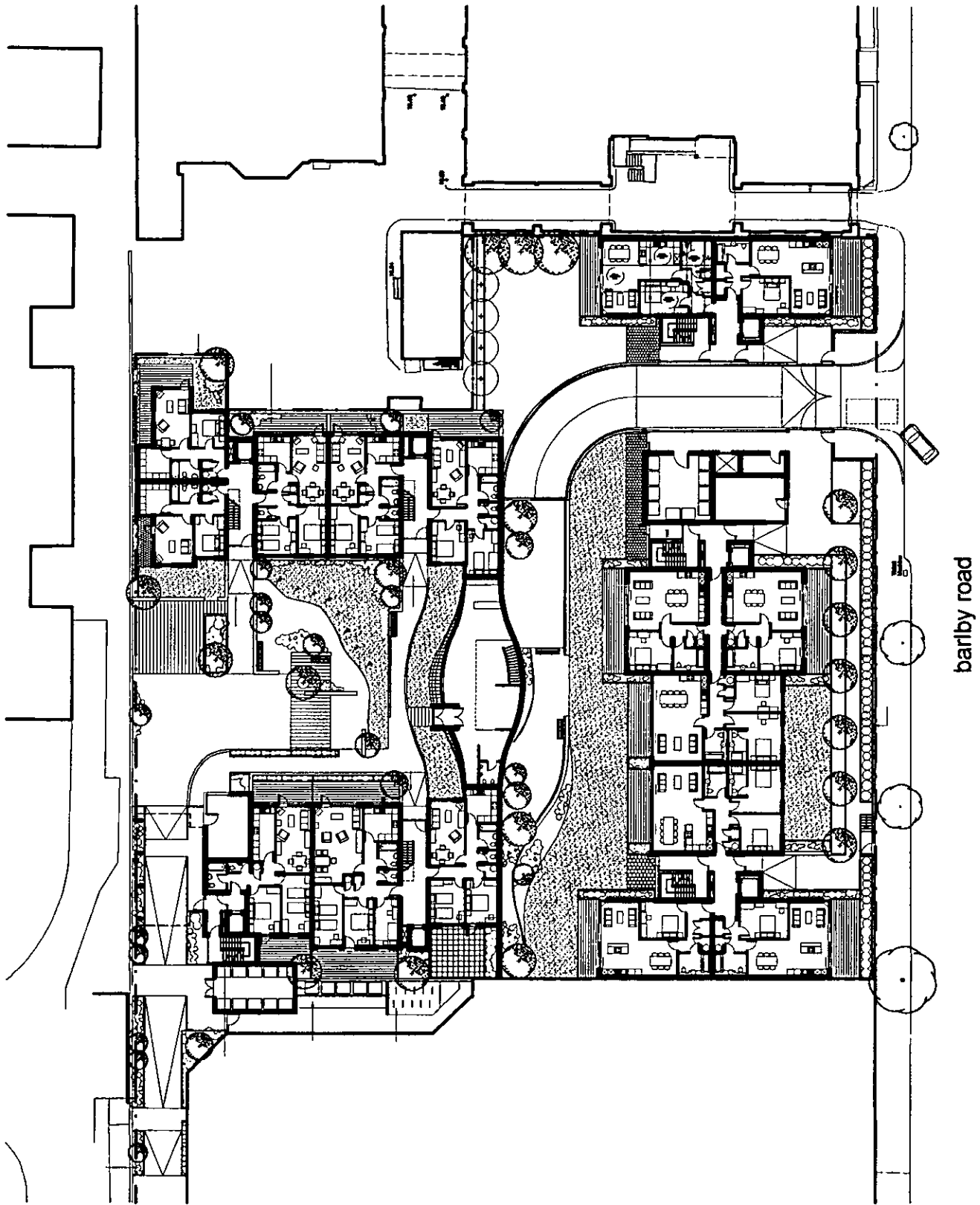
FIG 4. EXISTING TV STUDIOS, 6 EXMOOR STREET

### **3. THE PROPOSED DEVELOPMENT**

- 3.1 The proposed development comprises the demolition of the existing offices and warehouse and the erection of a total of 108 residential units, ranging from 1 to 4 bedroom units. The scheme layout and building elevations accompany the planning application.
- 3.2 The proposed development will comprise a range of tenures in a mix of sizes. Approximately 45% of the habitable rooms will be affordable, above standards set out in local policy, and will include shared equity and social rented properties. These will be incorporated in the southern part of the site and will be comparable in terms of design and materials to the homes for private sale, so that they are indistinguishable.
- 3.3 The proposed development incorporates five blocks, which range from 3 to 9 residential storeys. Blocks A, B, and C, which front Barlby Road, range from 9 residential storeys, adjacent to the Pall Mall Depository, to 4 storeys, adjacent to the NHS premises to the east. This step change in building height reflects the form and height of the adjacent buildings, and continues the strong built presence along this part of the street frontage. Blocks D and E are detached and sit back from the residential blocks which front Barlby Road. These blocks step up from 3 to 7 storeys from front to back. Refer to Fig. 5 – 12.
- 3.4 The scale and density of the proposed development is appropriate for its urban location, and will ensure that a more efficient use is made of this site in Central London, an approach advocated in government policy. The scheme has been broadly designed to comply with the established principles, in terms of massing and height. The site is also in a highly accessible location and is therefore ideal for the type of high density development proposed.
- 3.5 The proposed building is of a high quality, contemporary design. The design, scale, detailing and materials will be of a high quality, appropriate to the site and general location. The redevelopment of the site will aid the regeneration of this area and raise the profile of this area for investment. The design layout promotes a safe, secure and inclusive environment in line with government policy and urban design guidance.
- 3.6 Landscaping and private amenity space is interspersed within the development. Blocks D and E face inwardly onto a treed courtyard, whilst the rear of Blocks A, B, and C face onto a large lawned area. The development provides a total of 2965 m2 amenity space.

- 3.7 Vehicular and pedestrian access to the development will be provided from Barlby Road and Exmoor Street. The site access from Barlby Road is provided by a ramped entry down into the basement car park, similar to the existing arrangement. At the entrance to the car park there would be a minimum headroom clearance of 2.1m. Secondary vehicular access into the development and basement car park is proposed via Exmoor Street.
- 3.8 The development includes 94 car-parking spaces in the basement. Disabled parking makes up 10% (10 spaces) of the car parking spaces, whilst a dedicated car parking space is provided for a delivery vehicle. Cycle parking of 118 spaces will be provided in the basement level, and serviced by a cycle lift.
- 3.9 Servicing access for refuse vehicles and fire appliances is provided via Exmoor Street. Waste would be collected via a managed service at the rear of the building. The proposals have been discussed and agreed with RBK&C. This is considered to be the most appropriate method for waste collection from the site rather than requiring refuse vehicles to manoeuvre within the site underground car park.
- 3.10 The development will also provide a D1 unit, perhaps a crèche, as part of the proposals. The D1 unit will be open to the public. It is envisaged that this facility will be invaluable to not only the residents of the development but also the residents of the local area. The design will be innovative and high quality, and it has been agreed with the RBK&C that the D1 unit will constitute the public art contribution for the scheme.
- 3.11 A detailed analysis of the scheme design is included within the Design section of this statement, and an Access and Disability Statement is also included. The daylight and sunlight considerations are set out in the Daylight and Sunlight Report, which accompanies the application.





barlby road

FIG. 5 SITE PLAN



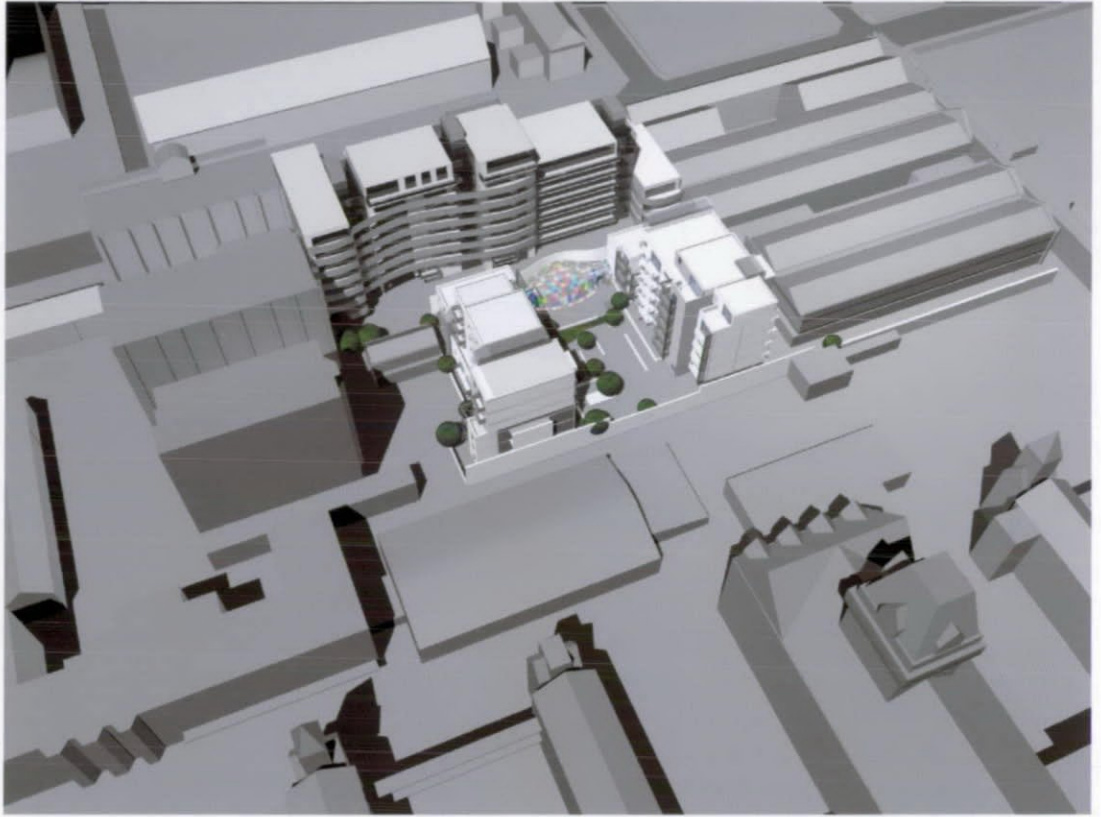


FIG 6. SITE MASSING MODEL - VIEW FROM SOUTH



FIG 7. SITE MASSING MODEL - VIEW FROM NORTH

## 4. POLICY CONTEXT

- 4.1. The planning policy context for this application is established by national guidance, the Mayor's London Plan, and the Unitary Development Plan and supplementary notes.

### National Guidance

- 4.2. Draft Planning Policy Statement 1: Creating Sustainable Communities (PPS1) was published for consultation in 2004, and states that sustainable communities need sufficient, quality housing to meet the needs of the community.
- 4.3. The Government considers that planning should facilitate and promote sustainable patterns of urban and rural development by amongst other making suitable land available for development in line with economic, social and environmental objectives; ensuring high quality development through good design; and ensuring that development supports existing communities and contributes to the creation of safe, sustainable and liveable communities with good access to jobs and key services.
- 4.4. PPS1 highlights that planning policies should seek to promote the more efficient use of land through higher density development and the use of suitable previously developed land and buildings. Planning should seek actively to get vacant and underused previously developed land and building back into beneficial use to achieve targets set by the Government for development on previously developed land.
- 4.5. PPS1 emphasises that high quality design ensures usable, durable and adaptable places and is a key element in achieving sustainable development.
- 4.6. Planning policies should promote high quality design for new development areas and individual buildings in terms of functionality and impact. Design policies should encourage developments which:
- are appropriate to their context in respect of scale and compatibility with their surroundings;
  - secure positive improvement to the streetscape or place where they are located;
  - create safe environments where crime and disorder or fear of crime does not undermine the quality of life or community cohesion;
  - make efficient use of natural resources;
  - address the needs of all in society, including people with disability.

- 4.7. The adopted Planning Policy Guidance Note 1: General Policy and Principles (1997); states that urban regeneration and the re-use of urban land are important supporting objectives for creating a more sustainable pattern of development. This guidance note confirms that the Government is committed to concentrating development for uses which generate a large number of trips in places well-served by public transport, especially town-centres rather than in out-of-centre locations; preferring the development of land within urban areas, particularly on previously developed sites, provided that this creates or maintains a good living environment.
- 4.8. Planning Policy Guidance Note 3: Housing (2000); states that Local Planning Authorities (LPA's) should amongst other things provide sufficient housing land but give priority to re-using previously developed land within urban areas, bringing empty homes back into use and converting existing buildings of non-residential use, in preference to the existence of greenfield sites.
- 4.9. PPG3 confirms the Government's support of creating mixed and inclusive communities, which offer a choice of housing and lifestyle. It does not accept that different types of housing and tenures make bad neighbours. LPA's should encourage the development of mixed and balanced communities and ensure that new housing developments help to secure a better social mix by avoiding the creation of large areas of housing of similar characteristics.
- 4.10. PPG3 states that decisions about the amount and type of affordable housing to be provided in individual proposals should reflect local housing need and individual site suitability and be a matter of agreement between parties. LPA's and developers should be reasonably flexible in deciding the type of affordable housing most appropriate to a particular site. The objective should be to ensure that the affordable housing secured would contribute to satisfying local housing needs as demonstrated by rigorous assessment.
- 4.11. PPG3 confirms that the Government is committed to maximising the re-use of previously developed land and empty properties and the conversions for housing, in order both to promote regeneration and minimise the amount of greenfield land being taken for development.
- 4.12. In 2003, the Government issued draft guidance regarding the release of employment sites for residential development. The intention is that local authorities should allow land currently allocated for industrial or commercial use in their development plans, and redundant industrial or commercial buildings, to be used for housing or mixed-use development unless a convincing case for retention can be made. The draft guidance states that before a comprehensive review of employment sites is undertaken by the Council during its Local Plan Review, applicants for planning permission for development that includes housing should be able to expect "expeditious and sympathetic handling of planning proposals" in such cases.



FIG 8. SITE MASSING MODEL - VIEW FROM EAST

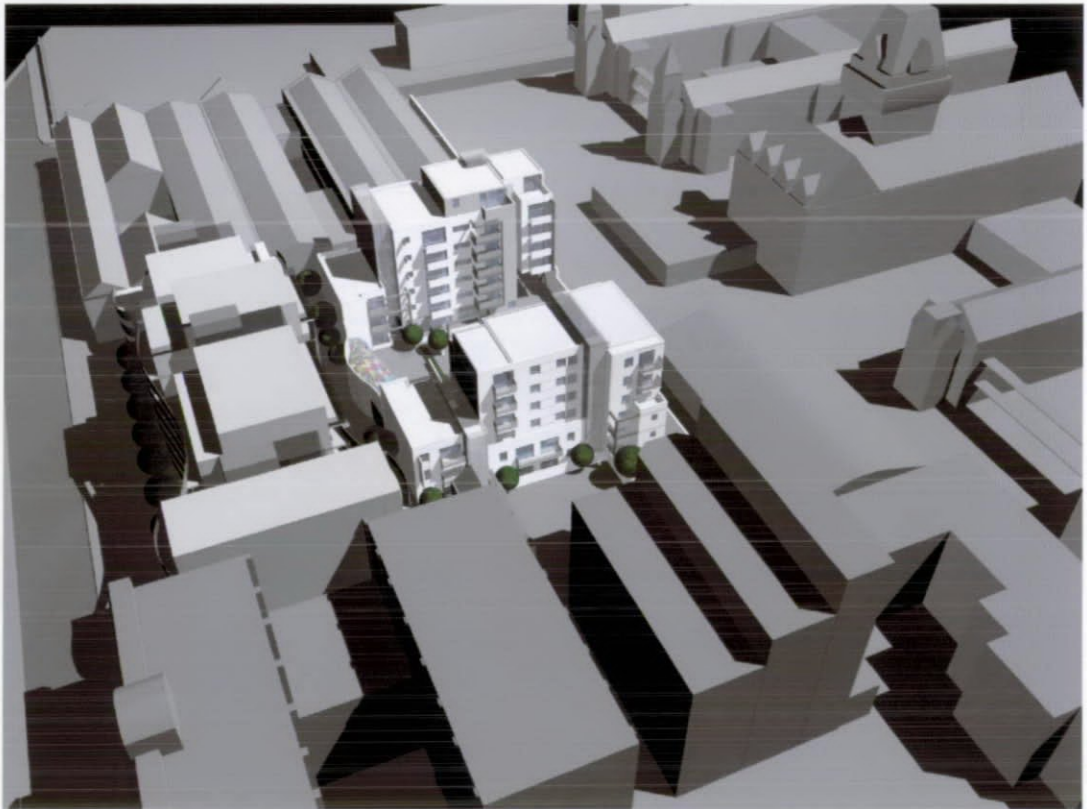


FIG 9. SITE MASSING MODEL - VIEW FROM WEST



- 4.13. Planning Policy Guidance Note 13: Transport (2001) confirms that the Government aims to promote more sustainable residential environments by avoiding the inefficient use of land (avoiding development of less than 30 dwellings per hectare net), and encouraging housing development which makes more efficient use of land (between 30 and 50 dwellings per hectare net) and seek greater intensity of development at places with good public transport accessibility, such as city, town, district and local centres.

## The London Plan

- 4.14. The London Plan was adopted on 10 February 2004. This guidance document replaces the strategic guidance for London (RPG3). The London Plan sets out a strategy to guide development in London and provides guidance on physical, social, economic, environmental and financial issues in the City.
- 4.15. Policy 2A.1 sets out the Plan's criteria for sustainable development, which include:
- optimising the use of previously developed land and vacant or under-used buildings;
  - using a design-led approach to optimise the potential of sites
  - ensuring that development occurs in locations that are currently, or are planned to be, accessible by public transport, walking and cycling;
  - ensuring that development occurs in locations that are accessible to town centres, employment, housing, shops and services;
- 4.16. Chapter 3 of the London Plan sets out policies to govern housing development in the City. In line with the concept of a sustainable and compact city, future residential development needs should be located so as to maximise the use of scarce land, to conserve energy and to be within easy access of jobs, schools, shops and public transport.
- 4.17. Supporting text of chapter 3 of the plan identifies that more capacity can be achieved through redevelopment and applying higher densities. Boroughs are encouraged to investigate additional sources of housing capacity and identify further sites, applying higher densities where appropriate.
- 4.18. Policy 3A.5 sets out that large-scale residential developments present the potential to provide additional housing, as well as create a sense of place with its own character and identity.
- 4.19. In setting targets, boroughs should take account regional and local assessment of

need, the Mayor's strategic target for affordable housing provision (that 50% of housing provision should be affordable – and within that the London wide objective of 70% social rented housing and 30% intermediate provision) and the promotion of mixed and balanced communities.

- 4.20. Policy 3A.8 states that affordable housing targets should be applied flexibly, taking account of individual site costs, the availability of public subsidy and other scheme requirements. Supporting text to this policy states that affordable housing should be integrated with the rest of the development and have the same external appearance as the rest of the housing.
- 4.21. Chapter 4 of the London Plan addresses issues in relation to the design of development. The plan considers that there is a strong link between good design and the attraction of economic investors. Policy 4B.1 sets out the design principles for a compact city. Developments should seek to ensure that they:
- maximise the potential of sites;
  - create or enhance the public realm;
  - provide or enhance a mix of uses;
  - are accessible, usable and permeable for all users;
  - are sustainable, durable and adaptable;
  - are safe for users and passers-by;
  - respect local context, character and communities;
  - are practical and legible;
  - are attractive to look at and, where appropriate, inspire, excite and delight;
  - respect the natural environment; and
  - respect London's built heritage.
- 4.22. Paragraph 4.37 states that a compact city must maximise the potential of its sites. In order to absorb growth in population and jobs, London must achieve more intensive development in the right places. It must be designed and managed to ensure longer-term efficient use.
- 4.23. Policy 4B.3 states that the Mayor will ensure that development proposals achieve the highest possible intensity of use compatible with local context, the Plan's design principles, and with public transport. The mayor will refuse permission for strategic referrals that, taking into account context and potential transport capacity, under-use the potential of the site.



- 4.24. The London Plan sets out appropriate density ranges for typical locations in London. These standards are not static, and only provides a guide to the density that would be appropriate in certain locations. A range of between 450-700 hr/ha or 165-275u/ha would be appropriate for an urban location similar to the development site, within 10 mins walking distance to a town centre.
- 4.25. Policy 4B.5 sets out guidance aimed at creating inclusive environments. The mayor will require all future development to meet the highest standards of accessibility and inclusion. It is noted that a truly inclusive society demands an environment in which a diverse population can exist harmoniously.
- 4.26. Policy 4B.6 sets out guidance for sustainable design and construction to ensure that future developments meet the highest standards of sustainable design and construction.

### **Local Policy**

- 4.27. The statutory development plan for the area, in terms of Section 54A of the Town and Country Planning Act 1990 (as amended), comprises the Royal Borough of Kensington and Chelsea Unitary Development Plan (UDP). The UDP was formally adopted on 25 May 2002. This document constitutes the local planning guidance for the Borough.
- 4.28. Policy STRAT 2 aims to increase the residential provision within the Royal Borough by restricting the loss of and buildings with existing residential use and encourage the provision of additional permanent residential accommodation on suitable sites and buildings where appropriate. Policies STRAT 16 and STRAT 17 go further by stating that it aims to ensure the contribution of the Royal Borough to the dwelling stock of Greater London is not diminished and increase wherever appropriate; and seeks to maximise the residential capacity of the Borough in line with Strategic Guidance for London. Policy STRAT 18 aims to encourage an adequate and continuing supply of land for new housing development through the development of vacant and under-used land for residential use in appropriate locations.
- 4.29. More specifically, Policy STRAT 9 seeks to ensure that all development preserves and enhances the residential character of the Royal Borough, and Policy STRAT 10 aims to protect Listed Buildings and to preserve and enhance the character of Conservation Areas, and other buildings or places. Policy STRAT 11 aims to promote high quality environmental and architectural design standards in new developments and alterations and in additions to existing buildings. Policy STRAT 19 seeks to increase the amount and range of sizes and types of dwellings to meet the needs of those seeking permanent accommodation in the Royal Borough, whilst maintaining the overall quality of the residential environment.

## Offices and Industry

- 4.30. The Council appreciate that as there are very few vacant sites remaining in the Borough, the provision of new housing, other than from conversion schemes, will mainly arise from redevelopment proposals. Policy E4 states that redevelopments will be expected to provide housing on all or at least the major part of the site area or floorspace. Para. 6.3.12 states that 'for those sites outside the Borough's Employment Zones (which the site is), the suitability of the site for housing should be established with reference to the policies of the Housing Chapter'.
- 4.31. Historically, light industrial uses have been considered an important resource in North Kensington, particularly in the two Employment Zones of Kensal and Freston Road/Latimer Road. Policy E17 states that the Council will normally resist the loss of light industrial uses in North Kensington.

## Design and Conservation

- 4.32. Chapter 4 of the adopted UDP sets out 4 overall objectives for conservation and development. These are:
- to protect and enhance areas of character throughout the Borough, both in terms of use and the physical environment;
  - to ensure that all development respects local character, is of a high standards of design, takes into account people with special mobility needs and does not adversely affect the Borough's conservation areas;
  - to preserve and enhance the Borough's conservation areas and listed buildings;
  - to protect and enhance the natural environment and to preserve archaeology of the Borough.
- 4.33. The architectural quality of a building and its contribution to the character and appearance of a conservation area may be severely compromised by substantial demolition, and this will be taken into account when the Council considers any proposals. It is considered that a building's contribution to the character of a conservation area stems not only from its street frontage but also the side and rear elevations. The historic plan form and integrity of the buildings also make a significant contribution to the character of the conservation areas. Redevelopment behind a retained front façade therefore is generally not acceptable.
- 4.34. Policy CD60 states that the LPA will resist demolition or substantial demolition of buildings in conservation areas unless:
- the building or part of the building structure makes no positive contribution to the character or appearance of the area; or
  - the condition of the building is proved to be such that refurbishment is not possible; and
  - a satisfactory scheme for redevelopment has been approved.



FIG 10. BARLBY ROAD ELEVATION

- 4.35. Any consent for demolition will normally be subject to a condition that the building shall not be demolished until a contract for new work has been made.
- 4.36. Policy CD61 seeks to ensure that any development in a conservation area preserves and enhances the character or appearance of the area.
- 4.37. Policy CD62 seeks to ensure that all development in conservation areas is to a high standard of design and is compatible with:
- character, scale and pattern;
  - bulk and height;
  - proportion and rhythm;
  - roofscape;
  - materials;
  - landscaping and boundary treatment of surrounding development.
- 4.38. Policy CD63 considers the effect of proposals on views identified in the Council's Conservation Area Proposals Statements, and generally within, into, and out of conservation areas, and the effect of development on sites adjacent to such areas. Trees in conservation areas are also protected. Six weeks notice must be given to the Council if it is proposed to carry out any work to a tree conservation area. This applies only to trees with a trunk diameter greater than 75mm at 1.5m in height. The purpose of this requirement is to give the Council a final opportunity to make an Order where appropriate before work is carried out.
- 4.39. Policy CD64 requires full planning applications in conservation areas where a proposal is likely to affect the character or appearance of the conservation area.
- 4.40. Policy CD27 aims to ensure that all development in any part of the Borough is to a high standard of design and is sensitive to and compatible with the scale, height, bulk, materials and character of the surroundings, this is particularly important in or adjacent to Conservation Areas and listed buildings.
- 4.41. Paragraph 4.3.3 indicates that the quality of urban design is considered as an essential component in the control of development. Policy CD28 requires development to be physically and visually integrated into the surroundings by:
- preserving existing public routes, creating new routes where appropriate, and extending links to maintain a high level of accessibility;

- ensuring that the appearance of buildings form a pattern which reflects the traditional urban form of the Borough, by maintaining and creating new building lines and giving a coherent form to the spaces enclosed by new buildings. Buildings and features should also be designed to emphasise the importance of main routes, and of key locations such as important cross-roads, shopping centres or other public gathering places;
- maintaining a clear distinction between private and public space, and ensuring the provision of active building frontages, particularly at ground floor level in appropriate locations;
- preserving and creating those aspects of architecture and urban form which contribute to local distinctiveness and character such as plot widths, building lines, roofscape and open space.

4.42. In assessing proposed residential developments, including conversions, the space to be provided for individual dwellings will be important factors in the quality of the accommodation to be provided, and in the impact of the proposed development on the character and amenity of the surrounding area. The Council will have regard to the standards set out in Table 3.1, which are considered relevant to the Borough and likely to achieve the relevant policy objectives.

4.43. Policy CD33 aims to resist development, which significantly reduces sunlight or daylight enjoyed by existing adjoining buildings and amenity spaces. Policy CD34 requires development to be designed to ensure good light conditions for its building spaces. Paragraph 4.3.15 indicates that in considering development proposals, the Council will not be seeking to ensure that they meet any particular minimum or maximum standards. Within new developments, the Council will seek good light conditions taking into account the general levels of light in the immediate area, and the character of its built form and spaces.

4.44. In assessing development proposals the Council will seek to protect the existing privacy of residents to ensure good standards of privacy in new development. However, supporting text acknowledges that some loss of privacy as a result of development may be unavoidable. Paragraph 4.3.23 states that within new developments, the Council will be seeking good standards of privacy for future occupants, taking into account the general levels of privacy in the immediate area, and the character of its built form and spaces.

4.45. Policy CD35 requires that development should be designed to ensure sufficient visual privacy of residents and the working population. Paragraph 4.3.27 indicates that the Council will (where appropriate) attach planning conditions to planning permissions to ensure that developments do not significantly reduce the privacy enjoyed by adjoining properties.



FIG 11. AFFORDABLE HOUSING BLOCK D





FIG 12. AFFORDABLE HOUSING BLOCK E

- 4.46. Policy CD36 aims to resist development where it would result in a harmful increase in the sense of enclosure to nearby residential property.
- 4.47. Policy CD38 aims to ensure that where open space forms part of a proposal it is designed and landscaped to a high standard. Supporting text indicates that the Council will require landscaping to be both functional and aesthetic.
- 4.48. Policy CD39 requires that the design of new and altered buildings or areas adequately takes into account the safety and security of the users of the facilities and that of neighbouring residents.
- 4.49. Policies CD40 and CD41 aim to resist proposals where the noise generated by the use or activity would cause material disturbance to occupiers of surrounding properties; and ensure that residential developments include adequate protection of the internal environment from the effects of noise.
- 4.50. The site is located within a Conservation Area. Policy CD63 states that consideration should be given to the effect of proposals the Conservation Area and its setting, and on views identified in the Council's Conservation Area Proposals Statements, and generally within, into, and out of conservation areas, and the effect of development on sites adjacent to such areas.
- 4.51. Policy CD81 encourages the planting of trees, particularly in new development. The Council recognises the importance of trees as valuable elements of the urban landscape.
- 4.52. Policy CD82 resists the loss of trees unless they are dead, dying or potentially a public danger, causing an actionable nuisance or, exceptionally, when removal is required in a replanting programme.

## Housing

- 4.53. Kensington and Chelsea has some of the highest residential rents and prices in the country. Accommodation is difficult to obtain for many people who have a need to live in the Borough because of their work or family contacts. The Council's policies aim to maintain and increase the amount of affordable housing, family dwellings, small units and accommodation for special needs. The Council will seek to negotiate for a wide variety of housing within large development schemes, and will seek the provision of a substantial element of affordable housing.
- 4.54. Policy H2 seeks the development of land and buildings for residential use unless a satisfactory residential environment cannot reasonably be achieved by reason of excessive noise, inappropriate location or ground contamination; or the land is required for the provision of social or community facilities to meet local needs; or the development is for the replacement on the same site of existing commercial floorspace which has not given rise to environmental or traffic problems.
- 4.55. Paragraph 5.2.4 states that the Council will have regard to the history of the use of the site and any known conflict with the amenity of the area through traffic or noise generation, hours of operation and any other material factors, including the considerations set out in the definition of the B1 Use Class. The Council will also have regard to the positive aspects of the existing use and its continuation or replacement by another non-residential use, such as its contribution to the vitality of the local economy. Where a site or building is not suitable or appropriate for residential use, its residential use will not be sought.
- 4.56. Policy H7 seeks, where appropriate, the provision of some outdoor space in all new development and, in particular, the provision of open space and play facilities in developments of over ten units.
- 4.57. Policy H11 aims to resist housing designed to higher densities except where it:
- is designed predominantly for occupation by small households; or
  - enables the provision of special needs or affordable housing on appropriate sites; or
  - is an infill scheme where a higher density development is necessary for townscape reasons to comply with the policies of the Conservation and Development Chapter.
- 4.58. The mix of accommodation in the Borough should be related to the range in household types existing or likely to exist and to deficiencies in the range of accommodation. Households are typically smaller than elsewhere in the capital. In response to market demand, the private sector already provides a substantial proportion of smaller units, mostly through conversion schemes and it is therefore

important to retain existing provision. A large stock of small residential units is also important in order to: maintain the level of population by allowing a more intensive use of residential properties; maintain the number of adult households who, through their spending power, help support the ancillary services which underpin the residential function; and meet the overall housing provision envisaged by the London Plan.

- 4.59. Policy H18 seeks the inclusion of smaller units (of one or two habitable rooms) and larger units (of three habitable rooms and more) in schemes for residential development.
- 4.60. Policy H19 seeks an appropriate mix of dwellings within a scheme, having regard to the following factors:
- the physical character of the site or building and its setting;
  - the previous or existing use of the site or building;
  - access to private gardens or communal garden squares for family units;
  - the likely effect on demand for car parking within the area;
  - the surrounding composition and density of population;
  - the location of schools, shops and open spaces;
  - provision of accommodation for special needs; and
  - busy roads or railway lines nearby.
- 4.61. Policy H22 states that the Council will seek to negotiate the provision and retention of a significant proportion of affordable housing on sites suitable for residential use with a capacity of 15 dwellings or more.

## Transport

- 4.62. RBK&C's policy on car parking aims to reduce the number of car trips into the Borough by limiting the amount of on and off-street parking. RBK&C policy is to ensure that residential development does not increase the demand for on-street parking.
- 4.63. Improvements to walking and cycling provision should make these trips a more attractive mode for travel. Public transport improvements should be made in order to improve its quality and reliability.

## 5. KEY ISSUES AND POLICY COMPLIANCE

- 5.1 This section of the statement examines the key planning issues that are relevant to the determination of the planning application.

### Principle of Development

- 5.2 Within the UDP, RBK&C have stated that there is an exceptionally high need for all forms of housing in London, with demand now reaching crisis point, and showing no sign of being met. This unmet strategic need and demand for housing forms the basis for Government policy set out in PPG3 and the London Plan, which emphasises the need 'to maximise the contribution to housing'. The Mayor has stated that 'the need for additional homes, especially affordable homes, is the single most pressing land use problem in London'.
- 5.3 The Royal Borough of Kensington and Chelsea are under considerable pressure to provide the required number of additional dwellings for the Borough. The Council accepts that the number of sites with potential for residential development is declining, as is the number of properties suitable for conversion. Therefore the UDP states that if the housing capacity figure for the Borough is to be met, a high priority must be placed on allocating nearly all available development land for residential use, except where there is a history of employment-generating uses and the site is unsuitable for housing.
- 5.4 The site is currently in employment use, and used for storage and distribution uses, and offices. The site is not designated as an Employment Zone, nor is it in light industrial use, which the Council are keen to see retained in North Kensington. The redevelopment of the employment site for housing is therefore fully in accordance with Policy E4 of the UDP, which states that redevelopment schemes will be expected to provide housing on all or at least the major part of the site area or floorspace. The acceptability of the loss of employment land on the site is clearly justified through local policy, ensuring that the development involves residential uses.
- 5.5 This message is echoed through national guidance, particularly draft guidance issued in 2003 regarding the release of employment sites for residential development.
- 5.6 The preamble to Policy E4 of the UDP states that for those sites outside of the Borough's Employment Zones, the suitability of the site for housing should be established with reference to its Housing policies. Policy H2 seeks the development of land and buildings for residential use unless a satisfactory residential environment cannot reasonably be achieved; the land is required for social or community facilities; or the development is for the replacement of commercial facilities which have not



given rise to environmental or traffic problems. The development does not involve the replacement of commercial facilities, nor is it required for community and social facilities. The adjacent uses include B1, B8, and C2, which are generally compatible in residential areas. The nature of the existing uses adjacent to the site do not create an unsatisfactory environment at present by way of noise or traffic generation, for the residential properties to the north of Barlby Road, and we consider that this would continue to be the case should the site be redeveloped for housing.

- 5.7 The development will provide an ideal opportunity to redevelop and regenerate tired, looking office and warehouse buildings in a primarily residential area. It will raise the profile of the area, and provide a catalyst for the regeneration of the wider area.
- 5.8 We consider the redevelopment would make efficient and effective use of previously developed land, fully in accordance with the key themes of sustainability within national policy documents such as PPS1 and PPG3. As promoted by the London Plan, the development would be of a high density, maximising the potential of its accessible, urban location.
- 5.9 The density of the scheme is 619 hr/ha or 225 u/ha. Although above the density guidelines set out in paragraph 5.3.13 of the UDP, Policy H11 of the UDP states that housing at higher densities will be resisted except where it is designed predominantly for occupation by small households; or enables the provision of special needs or affordable housing on appropriate sites; or is an infill scheme where a higher density development is necessary for townscape reasons to comply with the policies of the Conservation and Development chapter. We consider that the scheme satisfies all of these criteria. The scheme provides housing predominantly for small households, with approximately 80% of the scheme incorporating 1 and 2 bed units. The scheme provides a large element of affordable housing, approximately 45% of the scheme. Additionally, the proposals are an infill scheme where a higher density development is necessary to maintain continuity along the street in townscape terms.
- 5.10 The proposed density of the scheme is also in line with the guide figures suggested within the London Plan for locations similar to that of the site. A range of between 450-700 hr/ha or 165-275u/ha would be appropriate for an urban location similar to the development site, within 10 mins walking distance to a town centre.
- 5.11 The loss of employment has not been raised as an issue in any of the previous meetings with planning officers at RBK&C, and we have been reassured in the past that the principle of the redevelopment of the site for residential purposes is fully in accordance with the UDP.
- 5.12 The proposals create a mixed, balanced and inclusive community, which offers a choice of housing and lifestyle. In line with local and national housing policy, the

development will provide a mix of types, sizes and tenure of residential units. Policy H8 of the UDP seeks the provision of smaller units of one or two habitable rooms, together with larger units of three habitable rooms and more. The proposals provide a mixture of both.

- 5.13 The proposed development includes a large amount of affordable, approximately 45% of the habitable rooms, above standards set out in local policy. The affordable units will be a mix of sizes and tenures including shared equity and social rented properties. As advocated in PPG3, LPA's should encourage the development of mixed and balanced communities and ensure that new housing developments help to secure a better social mix by avoiding the creation of large areas of housing of similar characteristics. These will be incorporated in the southern part of the site and will be comparable in terms of design and materials to the homes for private sale, so that they are indistinguishable.
- 5.14 The mix of dwellings within the scheme is appropriate for the site, having regard to the physical character of the site and its setting, the surrounding composition and density of population, and the location of facilities and infrastructure.

## Accessibility and Transport

- 5.15 In terms of location, the proposal benefits from excellent accessibility by all modes of transport and to a variety of services and facilities. A Transport Assessment accompanies this planning application and gives further detail into the accessibility and transport issues associated with the proposals. The Transport Assessment has been produced in consultation with the Highways department at RBK&C.
- 5.16 The site is well served by existing bus services, which provide access to a wide number of locations and facilities including central London and regular night buses also provide access to central London's vibrant nightlife including Camden and the West End. A bus stop is located directly outside the site, with additional stops on Ladbrooke Grove within 400m.
- 5.17 The site has good access to underground services, with Ladbrooke Grove Station less than a kilometre away. The station is on the Hammersmith and City line providing access to Paddington, Kings Cross St. Pancras and Liverpool Street train stations. Willesden Junction rail station is also situated to the north.
- 5.18 The proposals would provide sufficient car parking in line with car parking standards set out within Table 13.5.1 of the UDP. This avoids any disturbance and potential problems with on-street parking and competition for the existing allocated spaces. In addition, 10% of parking spaces will be for people with disabilities. Cycle parking of 118 spaces will be provided in the basement level. This exceeds RBK&C's standards, of one space per dwelling and includes visitor cycle spaces. Several meetings have been held with the highways department at RBK&C and the proposed levels of parking provision have been influenced by and are now to the satisfaction of the Council.
- 5.19 The development of residential accommodation with good access to both underground and public bus services has significant benefits in delivering a highly sustainable development. The car parking provision on site is in accordance with the Council's parking standards, and due to its location at basement level, produces a pedestrian friendly development that is not dominated by the car. Refer to Fig. 13
- 5.20 The development site has very good access to employment opportunities and local facilities by cycling and walking. The nearest employment areas of note are at the two hospitals both located within 400m of the site. There are a large number of schools, both Primary and Secondary, within reasonable walking or cycling distance of the site, representing good employment opportunities. Directly adjacent to the site is a media office, accessible from Exmoor Street. The supermarket on Canal Way provides full and part-time employment opportunities. With the good public transport links, by both bus and underground, to other areas in west and central London, there are major employment opportunities for residents at the site.



- 5.21 The site enjoys good access to local convenience shopping and to district shopping areas close to the site. According to Map 12 and 13 of the UDP, the site is within reasonable walking distance of at least 5 local shopping centres and also within walking distance of the Primary Shopping Centre at Portobello Road. Many newsagents are located within easy walking and cycling distance from the site. These include Martins The Newsagent Ltd on Barlby Road and Kensal Newsagents on Ladbroke Grove. Sainsbury supermarket is located approximately 600m to the north of site is a, within a 10 minute walk or 5 minute cycle from the site. There is also St. Helens Post Office located within a 10 minute walk of the site, on St Helens Road, to the south of the site. The major retail/mixed-use redevelopment at White City is also only 1 km to the south. Further afield, the site has access to the retail and entertainment heart of London via public transport.
- 5.22 There are 18 schools or colleges within a distance of 1km from the centre of the site. The closest primary school to the site is Barlby Primary School, located on Barlby Road within 200m from the site. Sion-Manning RC School for Girls is the nearest secondary school to the site, located within 700m of the site on St. Charles Square. These schools are within easy cycling distance and within a 10-minute walk from the centre of the site.
- 5.23 Leisure opportunities are in close proximity to the development site. To the south of the site within a 5 minute walk is Brompton Park, a recreational ground located off Seagrave Road. This provides an open space within a reasonable walk distance from the site. Normand Park, located on Lillie Road, is 900m to the West of the site and provides open space and a swimming pool. The ease of public transport access from the site provides good links to many other leisure and recreational facilities throughout London. Additionally, there are larger recreation areas at Wormwood Scrubs and Little Wormwood Scrubs to the west of the site.
- 5.24 The components provided within the site also promote sustainability. The provision of a D1 unit perhaps a crèche reduces the need for future residents to travel to crèches within the locality.
- 5.25 Being a site located within an urban area surrounded by existing development, this location also benefits from proximity to existing infrastructure, including water and sewerage and other utilities that can easily be adapted or extended with far less of an environmental or social cost.
- 5.26 In line with London Plan policy, the residential development will be located so as to maximise the use of scarce land, to conserve energy and to be within easy access of jobs, schools, shops and public transport.

## Design and Conservation

- 5.27 The scale and density of the proposed development is appropriate for its urban location, and will ensure that a more efficient use is made of this inner London site, an approach advocated in government policy. The scheme has been designed to comply with the established principles along the street frontage, in terms of massing and height. Policy CD27 states that the design of new development should be of a high standard and sensitive to and compatible with the scale, height, bulk, materials and character of the surroundings. The site is also in a highly accessible location and is therefore ideal for the type of higher density development proposed.
- 5.28 The proposed Barlby Road building is situated between 138 Barlby Road and the Pall Mall Deposit, ranging from four to nine storeys respectively. The first three storeys of Block A are no higher than the eaves level of 138 Barlby Road and the fourth storey has been set back to sit within the pitch line of the existing gable. The building increases in height to seven storeys, reaching nine storeys at the centre and eventually reducing to eight storeys adjacent and in line with the massing of the Pall Mall Deposit. The façade is staggered back away from the road to encourage a sense of semi-public space in front of the buildings. This also adds relief to the elevation and articulation to the individual blocks A, B & C to create variety and interest to the street scene.
- 5.29 Urban design is also an essential component to controlling development and includes the relationship between buildings and the streets, and the nature and quality of the public domain. In accordance with Policy CD28, the development is physically and visually integrated into its surroundings, by preserving existing public routes, by maintaining and creating new building lines and giving a coherent form to the spaces enclosed by new buildings, and by ensuring the provision of an active building frontage.
- 5.30 The design led approach to the development of the site has enabled the optimum potential to be realised and is in line with the Mayor's criteria for sustainable development.
- 5.31 The proposed buildings are of a high quality, contemporary design, sensitive to their location within the Oxford Gardens St Quintin Conservation Area, and their location adjacent to St Charles Hospital, a Grade II Listed building. The design process has been integrally influenced by the site's surroundings and its location within a Conservation Area. A Conservation Area planning application accompanies this submission.
- 5.32 The development would not result in the loss of any trees on site nor along the street,



in accordance with Policy CD82. In addition, a proposed colonnade of semi-mature trees is set 3m in from the Barlby road boundary. The trees help soften the street scape, providing a privacy screen, and a sense of shade. The box hedge immediately behind the site boundary's metal railings adds to the colour and texture of the building's surroundings and helps ensure privacy to the gardens of the ground floor residents.

- 5.33 The site presents the chance to provide additional housing, as well as creating a sense of place with its own character and identity. The proposed building does not attempt to imitate the character of the adjoining buildings, as this would be detrimental to the strength in appearance of its street frontage. Hence, the design of the new buildings are both original and contemporary yet sympathetic to its context in terms of rhythm, proportion and massing. The new building's materials of rendered walls, weatherboard cladding, glazing, timber and curved balconies create a contemporary architecture adding to the richness of the varied context.
- 5.34 The design of the Barlby Road building takes its cue from the horizontal datum lines of the Pall Mall Building. Gentle curved timber balconies extend from behind the existing brick corner pier in towards the centre of the building leading the eye into the space created by the recessed blocks. The curve is continued to form the balconies to Block A1 at a lower scale which connects the buildings to the adjacent 138 Barlby Road building.
- 5.35 The D1 unit has been designed to be a focal point for the courtyard. Its lively multi-coloured translucent cladding panels and organic shape create a significant contrast to the geometric forms of the residential blocks. Internally the space is articulated by the play of colour through the panels and open layout of facilities. The inclusion of the D1 unit brings a vibrancy and artistic contribution to the landscaped space and a vital community facility to the area.
- 5.36 The Zen-like design of the courtyard space creates a space of relaxation for the residents. The flowing lines soften formal entrance approaches and the provision of seating areas, planting bays and semi-mature trees enhance the context of the buildings.
- 5.37 We consider that the design of the development will be of a high quality, capable of attracting investment and raising the profile of the area. The London Plan considers that there is a strong link between good design and the attraction of economic investors.
- 5.38 The residential properties on site will be designed in order to ensure the future occupiers will not be unduly affected by noise and air pollution. The balconies and colonnade of trees act as an acoustic baffle to reduce noise pollution from Barlby

Road. The setting back of the building from Barlby road increases the distance noise pollution has to travel. The majority of the flats have their living space facing onto the courtyard to the rear and all windows and doors are double-glazed. The screen provided by the trees and box hedge also reduces air pollution by the absorption of carbon dioxide and the release of oxygen.

- 5.39 The development is accessible, usable and permeable for all users. It creates an inclusive environment, which is fully accessible for disabled persons and able persons alike. Please refer to the Access and Mobility Statement accompanying this application.
- 5.40 The introduction of a new resident population will increase the general vitality of the area, lessening the opportunity for criminal activity, and will offer potential benefits in reducing levels of crime. The development by the nature and arrangement of the accommodation will also facilitate high levels of natural surveillance, again reducing the opportunity for criminal activity on the site. Affordable Housing blocks D & E and the crèche have been positioned to create a central courtyard promoting natural surveillance. The design of the buildings and areas adequately take into account the safety and security of the users of the facilities and that of neighbouring residents, as required in Policy CD39 of the UDP. All circulation spaces have generous areas of glazing where possible to allow for well lit communal areas.
- 5.41 The building design and materials also represent sustainability benefits. Energy efficiency targets are to be met in accordance with current building regulations, and the use of energy saving measures such as energy efficient lighting daylight sensors or variable time controllers where necessary. Layout on the site of residential accommodation is designed to maximise sunlight to rooms enabling solar heat gain and to provide external cultivatable spaces in the form of balconies and gardens. No PVC based products are to be used. Careful use of materials such as black timber weatherboarding to all ground floor external walls discourages graffiti and provides a hard wearing surface.

## Surrounding Character and Amenity

- 5.42 The development will improve the quality and character of the area in general, and have no detrimental impact on the amenity residents and users of the buildings in the surrounding area.
- 5.43 The proposals protect and enhance the Oxford Gardens St Quintin Conservation Area including views in and out, and the setting of St Charles Hospital. The existing buildings on site make no positive contribution to the character or appearance of the area, whether on the street frontage, the side, or rear elevations, due to their intrinsic design and tired looking condition, and are therefore suitable for demolition and in accordance with Policy CD60 of the UDP. The development scheme provides a more interesting and active street scene, contributing to the character of the local area and integrating fully with the interesting frontage of the Pall Mall building adjacent.
- 5.44 The scale and massing of the proposed development is appropriate for its location, and will ensure that a more efficient use is made of this inner London site, an approach advocated in government policy. The scheme has been designed to comply with the established principles along the street frontage.
- 5.45 The orientation of the apartments has been designed to prevent overlooking both within the scheme and in relation to adjacent properties, thereby ensuring privacy for both existing and proposed residents. The design of the scheme has taken into account the general levels of privacy in the immediate area, and the character of its built form and spaces. Overlooking to the Affordable Housing residents from the Barlby Road block has been addressed by having windows with solid side screens and balconies with full height timber slatted screens.
- 5.46 The proposals would not significantly reduce the daylight or sunlight enjoyed by existing adjoining buildings and amenity spaces within the surrounding area, as required under CD33 of the UDP. A Daylight and Sunlight Report accompanies this application and provides more detail, illustrating this limited impact on the surrounding area. The adjacent units to the south, east and west accommodate employment uses and their design, location, and orientation mean that a minimum impact will be experienced. Additionally the residential units to the north are a sufficient distance away to avoid any significant daylight and sunlight effects. The design of the scheme has been advanced carefully to ensure that the proposed buildings will have no detrimental impact on adjacent properties.
- 5.47 In addition, the design of the new development ensures that good light conditions are prevalent within the development taking into account the general levels of light in the immediate area, and the character of its built form and spaces.

- 5.48 The design of the residential development will include adequate protection of the internal environment from the effects of noise and pollution. This is in accordance with Policy CD41 of the UDP. The balconies and colonnade of trees act as an acoustic baffle to reduce noise pollution from Barlby Road. The setting back of the building from Barlby road increases the distance noise pollution has to travel. The majority of the flats have their living space facing onto the courtyard to the rear and all windows and doors are double-glazed. The screen provided by the trees and box hedge also reduces air pollution by the absorption of carbon dioxide and the release of oxygen.
- 5.49 High quality landscaping and private amenity space is interspersed within the development. Blocks D and E face inwardly onto a treed courtyard, whilst the rear of Blocks A, B, and C face onto a large lawned area. The development provides a total of 2965 m2 amenity space. In line with Policy CD38, the landscaping is both functional and aesthetic, producing a pleasant and usable environment. All communal spaces are easily accessible and all flats have either private garden areas or generous balcony space. The entrance from Exmoor Street to the Affordable Housing Block has been designed to create an attractive well-landscaped environment for the residents. Entrance is through metal gates, which leads the resident along a cobbled route with planting bays on either side and intermittent planting of trees. Ample street lighting along the route has been provided to deter criminal activity in line with the Royal Borough of Kensington and Chelsea's Streetscape guide.

## Community Benefits

- 5.50 The proposals will produce a number of benefits, in addition to the economic and environmental benefits outlined above.
- 5.51 The development will provide a large element of affordable housing, which will help deliver much needed low and intermediate cost housing as set out in the Council's Housing Strategy. The Mayor has stated that 'the need for additional homes, especially affordable homes, is the single most pressing land use problem in London'. As advocated in PPG3, the development will produce a mixed and balanced community.
- 5.52 The development will also provide a much needed community facility, perhaps a crèche. It is envisaged that this facility will be invaluable to not only the residents of the development but also the residents of the local area. The design will be innovative and high quality, and it has been agreed with the RBK&C that the crèche will constitute the public art contribution for the scheme.
- 5.53 As part of the development proposals, an education contribution will be agreed with RBK&C.

## 6. CONCLUSIONS

- 6.1. The proposed residential development provides an ideal opportunity to redevelop and regenerate an under-utilised site comprising tired-looking office and warehouse buildings, for much needed housing. The Royal Borough of Kensington and Chelsea are under considerable pressure to provide the required number of additional dwellings for the Borough. The Council accepts that the number of sites with potential for residential development is declining, as is the number of properties suitable for conversion. Therefore the UDP states that if the housing capacity figure for the Borough is to be met, a high priority must be placed on developing nearly all available land for residential use.
- 6.2. We consider the redevelopment would make efficient and effective use of previously developed land, fully in accordance with the key themes of sustainability within national policy documents such as PPS1 and PPG3. As promoted by the London Plan, the development would be of a high density, maximising the potential of its accessible, urban location. The development will raise the profile of the area, and provide a catalyst for its regeneration.
- 6.3. The proposals will deliver the following benefits:
- a suitable and more efficient use of land in its urban context;
  - benefits to the local area, particularly in terms of providing a significant number of affordable housing units and a community facility;
  - help the RBK&C meet their overall housing requirements;
  - a high architectural quality befitting it's context within a Conservation Area and within close proximity to a listed building, whilst respecting the bulk and massing of the adjacent buildings;
  - sustainable development and contribute positively to the surrounding area, both in terms of aesthetics and amenity,
  - create a highly sustainable development on an underused site with good access to a choice of means of transport other than the car, fully in accordance with the Government's sustainability objectives;
  - have positive benefits in terms of increasing the total available expenditure locally, helping to enhance the vitality and viability of shopping and local services;
  - have beneficial impacts on the local economy with the potential to increase local property prices and confidence in the area generally, and act as a catalyst for further investment;



ACCESS AND MOBILITY STATEMENT

EX DIP	HDC	TP	CAC	AD	CLU	AO AK
R.B. K.C.	- 4 OCT 2004				PLANNING	
N	C	SW	SE	APP	IO	REC
HBS			ARB	FPLN	DES	FEES



**PROPOSED RESIDENTIAL DEVELOPMENT  
AT 130-136 BARLBY ROAD AND  
6 EXMOOR STREET, NORTH KENSINGTON, W10**

prepared by:

quad 11, devonshire road, chiswick, london w4 2eu t: 020 8994 3344 f: 020 8742 1988

The aim of this Access and Mobility Statement is to provide an Inclusive Access Policy as part of the planning application for the development proposals at 130-136 Barby Road and 6 Exmoor Street, and to illustrate the consideration and integration of all potential users of the scheme in accordance with current government and local policy and guidance.

### **Introduction to the Scheme**

The planning application is for the demolition of an existing 2 storey office building / warehouse and the construction of 108 residential units, 39 of which will be affordable and a small crèche. *It is important to note the exact nature of the crèche has not been established by the Registered Social Landlord or the educational department at The Royal Borough of Kensington & Chelsea. Until then, sections 1 & 2 of this document apply.*

The new residential development proposes two sites, Blocks A, B & C accessed from Barby Road and Blocks D & E accessed from Exmoor Street. The residential blocks range in height from 3 to 9 storeys and are of a high quality contemporary design. There will be a mix of housing tenure, Blocks D & E representing the affordable housing component and A, B & C the open market flats. The residential blocks are situated within well-landscaped grounds and provide a safe, secure and inclusive environment in which to live.

### **Pre-Application Discussions**

A meeting was held with The Royal Borough of Kensington & Chelsea Access and Mobility Officer Sue Lines and quad architects on Monday June 28<sup>th</sup> 2004 at Homton Street Offices, to discuss proposals for an inclusive environment within the scheme. The proposals for the scheme were presented and discussed and advice was given on additional policies relevant to the scheme. These recommendations have been incorporated into the development proposals to provide an inclusive accessible environment.

### **Sources of Advice and Guidance used**

ODPM's Planning and access for disabled people: a good practice guide  
Approved Document Part M (Access to and use of buildings) 2004 Edition  
Approved Document Part B (Fire safety) 2000 Edition  
Royal Borough of Kensington and Chelsea's Unitary Development Plan, Access Statements for Planning Applications, Supplementary guidance on Housing Standards, Access Design guidance notes  
British Standard BS8300 on Access for Disabled People  
Disability Discrimination Act 1995  
DfT Guidance on Inclusive Mobility

## **Section 1**

### **1.0 Travel to site**

#### **1.1 Car parking**

- 1.11 The development proposes an underground car park providing 94 parking spaces including 10 disabled spaces which amounts to more than 10% provision. The access to the car park is through a gated entrance from Barlby Road and via a 2-way ramp to the basement.
- 1.12 The size of the disabled car parking bays are a minimum of 4900mm x 3600mm. Refer to Drawing No. 529 P 02 for dimensioning of bays.
- 1.13 The disabled car parking bays have been evenly distributed throughout the car park to allow residents to use the nearest bay to their block.
- 1.14 No user will have to travel further than 20m from the disabled car parking bay to the point of entry to their block.
- 1.15 All disabled car parking bays will be clearly identified. This will be either with a sign positioned on wall adjacent to the space or on a free standing post where no wall is present. The sign will be 200 x 300mm and state 'Disabled Badge Holders Only'.
- 1.16 All surfaces of disabled car parking bays will be marked with the British Standard 'disabled' symbol in accordance with BS3262, part 1.
- 1.17 All residential blocks have lift access to the basement car park. Blocks A, B & C all have additional stair access to the car park. Block D has stair access to the car park for by all residents of Blocks D & E. This stair acts as a secondary means of escape for the car park. Refer to Section 3.3 of this document for additional information regarding lift provision.
- 1.18 Lighting levels in the underground car park are to be 200 – 300 lux.
- 1.19 The floor to the car park will be level except for minimal sloping of the surface for drainage to gulleys.

#### **1.2 Drop-off Points**

- 1.21 Residents of Blocks D & E gain access to the site via Exmoor Street. The gated entry to the site is set in 15m from Exmoor Street allowing vehicles to pull into the driveway area to drop-off residents.
- 1.22 Residents of Blocks A, B&C gain access to the site via Barlby Road. Adjacent to the gated entrance to the underground car park there is an existing recessed loading bay which can be used as a drop off point for residents.

#### **1.3 Taxis**

- 1.31 As above.
- 1.32 Additionally, a resident may request an arrangement is made where persons responsible for the dropping off and picking up of the resident regularly may be allowed to have a remote control device, to access the gated entry to the site.

#### **1.4 Bus stops**

- 1.41 There are two bus stops located within 15m of the site, served by bus routes 74 and 316. There are a further four bus stops within 400m of the site providing a good level of accessibility to surrounding areas. Access to these bus stops is by level ground or by dropped kerbs no steeper than 1:12 to ensure suitable access for wheelchair users.

## **Section 2**

### **2.0 Building Environs**

#### **2.1 Locations of Entrances to the site**

- 2.11 The approach to the gated entrance to the Affordable Housing Blocks D & E from Exmoor Street has a gradient of 1:25. The route from the gate to the buildings is ramped down in a series of 1:20 ramps and with a minimum width of 3350mm. The ramp lengths are no longer than 10m and landings are a minimum depth of 1500mm. The courtyard area provides level access to all entrances of the blocks.
- 2.12 Residents' access to the Open Market Blocks A, B & C is via Barby Road and through a gated entrance which has a clear opening width of 1000mm. Blocks B & C have a level approach within 13m of the gated entrance. Residents to Block A have a 1200mm wide level route to their entrance which runs in front of the Block B. Refer to Drawing no. 529 P 01.
- 2.13 All entrances have a ramped access from external ground level of +19.00 to finished floor level +19.15 with a gradient of 1:20 (5%) to provide a level threshold. All ramps have a minimum width of 1400mm. All entrances have a level platform outside the entrance area of minimum 1200mm x 1200mm. Refer to 529 P 01 for dimensions.

#### **2.2 Entrance Route Design**

- 2.21 The access routes to all buildings will be in a suitable non-slip resin bonded aggregate to ensure a suitable grip for vehicles and easy manoeuvrability for wheelchair users. Where resin bonded aggregate is not shown a suitable tiled surface will be used. All materials to comply with DfT Guidance on Inclusive Mobility and Local Street Design guide and Materials Palette.
- 2.22 All external ramps are to have solid kerbs no less than 100mm in height and 50mm diameter handrails to one side only.
- 2.23 External Lighting along all access routes to be designed to Part 3 BS5489 to ensure good access and reduce crime risk. Design guidance has also been taken from The Royal Borough of Kensington and Chelsea's Streetscape Information Booklet. Minimum Lighting levels at entrances and exits are to be 250 – 350 lux.

### **Section 3**

#### **3.0 Means of Access to and into Dwellings**

##### **3.1 Entrance Design**

- 3.11 All entrances are covered to provide protection for people entering the building. Blocks A, B, C & E have lightweight timber and metal canopies at minimum height of 2.3m which extend 1.2m away from the entrance door. Residents to Blocks D1 & D2 enter under a covered area created by the Block D1 above. Access to D3 & D4 is under Flat No. 80's balcony area.
- 3.12 All Main Entrance Doors to blocks are 1000mm width door-leaf providing a clear opening width of 950mm.
- 3.13 All Main Entrance Doors are to be fitted with self-closing mechanisms and set for the minimum opening pressure.
- 3.14 A clear space of 300mm minimum width has been provided adjacent to the leading edge of the door.
- 3.15 All Main Entrance Doors have a minimum visibility zone between 250mm and 1550mm above floor level.

##### **3.2 Circulation within Entrance storey of the building**

- 3.21 On entry into Blocks A, B & C the corridor width is 1500mm. On moving into the entrance lobby in front of the lift, the width becomes 2000mm. Access to the gardens at the rear of the blocks is through the adjacent stair-core. The internal doors to the stair-cores are fully glazed with suitable manifestation and have a clear opening of 900mm. This allows the entrance lobby to be a light filled space with clear views out to the gardens.
- 3.22 On entrance to Blocks D1 & D2 the corridor width is 1300mm minimum. Doors to the lift lobby and stair-core have a fire-rating of 30 minutes, glazed visibility panels between 250mm and 1500mm and a clear opening width of 900mm. The lift lobby has a minimum size of 1500mm x 1500mm.
- 3.23 All other entrance lobbies to Blocks D & E have an overall width of 2200mm allowing an unobstructed corridor width of 1200mm and 1000mm width stair.

##### **3.3 Vertical Circulation within residential blocks and Means of Escape**

- 3.31 All blocks have a disabled access lift compliant with Approved Document M (2004 Edition) of the Building Regulations 2000 (Access to and use of buildings). This enables disabled people to visit occupants who live on any storey.
- 3.32 The minimum specification for all lifts is to be; 8 person capacity, contract load of 630KG, car size of 1200mmx1500mm, doors providing a clear opening width of 800mm, doors fitted with timing devices and re-opening activators, landing and car controls not less than 900mm and not more than 1200mm above floor level, tactile identification of car controls and a visual and audible indication of the floor reached.
- 3.33 All lifts are also designed for evacuation of disabled people in an emergency and conforms to the relevant recommendations of BS 5588-8:1999 (Fire precautions in the design, construction and use of buildings Part 8: Code of practice for the means



of escape for Disabled people) and EN81-72. This enables wheelchair users to self-evacuate and discharge to ground floor level to a place of safety where all levels have no gradient steeper than 1:20 ramp.

- 3.34 All circulation lobbies in front of the lifts have a clear landing of 1500x1500mm.
- 3.35 All circulation cores to have staircases designed to Approved Document Part M Section 3.51. Specification includes; unobstructed length of min 1200mm on each landing, contrasting nosing material of 55mm wide on tread and riser, no more than 16 risers in a flight, minimum tread width of 1000mm, maximum rise of 170mm and a minimum going of 250mm.
- 3.36 All landings have a minimum width of 1200mm to allow wheelchair users to turn into entrance to flats and for change in direction.

#### **3.4 Access to Amenity Space**

- 3.41 Residents of Blocks A, B & C can access the communal rear gardens and lawn area via a level access route to the east side of the car park ramp.
- 3.42 Residents of Blocks D & E regularly access their communal landscaped courtyard in front of the residential blocks to enter their dwellings.
- 3.43 The affordable housing wheelchair users accommodation in Block E is situated at second to fifth floor. The units have a generous provision of balcony space and can be accessed easily by wheelchair users.
- 3.44 The Open Market Housing wheelchair users accommodation in Block C is situated at ground to seventh floor. All users have level access to their balcony / garden area.

## **Section 4**

### **4.0 Wheelchair User Accommodation**

*Refer to attached Drawing No's. 529 P 20 and 529 P 21.*

#### **4.1 Location of Wheelchair User Accommodation**

- 4.11 In line with Royal Borough of Kensington & Chelsea UDP, the development provides a total of 12 flats (11%) specifically designed for wheelchair users. This accommodation is located in both the affordable housing and the open market blocks.
- 4.12 4 No. four bedroom units are located in the Affordable Housing Block E. These are flat no's 90, 96, 101 & 106 and are situated at second, third, fourth and fifth floor respectively.
- 4.13 A further 8 No. one bedroom units are located in the Open Market Block C. These are flat no's 7, 17, 27, 36, 44, 52, 60 & 66 and sit directly above each other from ground up to the seventh floor.

#### **4.2 Entrance Door and Internal Doors**

- 4.21 Entrance Doors are to be 926mm door leaf.
- 4.22 Internal Doors are to be 826 door leaf.
- 4.23 All doors have a minimum of 300mm offset between the opening edge of the door blade and the return of the wall, when pulling the door.
- 4.24 The hanging of all doors facilitate easy wheelchair manoeuvre.
- 4.25 Door handles are set at a common height of between 900mm and 1200mm above finished floor level to aid people with visual impairment.

#### **4.3 Internal Planning**

- 4.31 All corridors have a minimum width of 1200mm.
- 4.32 All rooms have wheelchair access and a 1500mm manoeuvre space is provided to bedroom 1, bathroom, kitchen, living and dining space.
- 4.33 The dimensions of the wheelchair accessible bathroom are 2500mm x 2700mm and is designed to comply with Approved Document Part M Section 5.19 – 5.21.
- 4.34 The layout of the bathroom is designed to BS8300 standards.

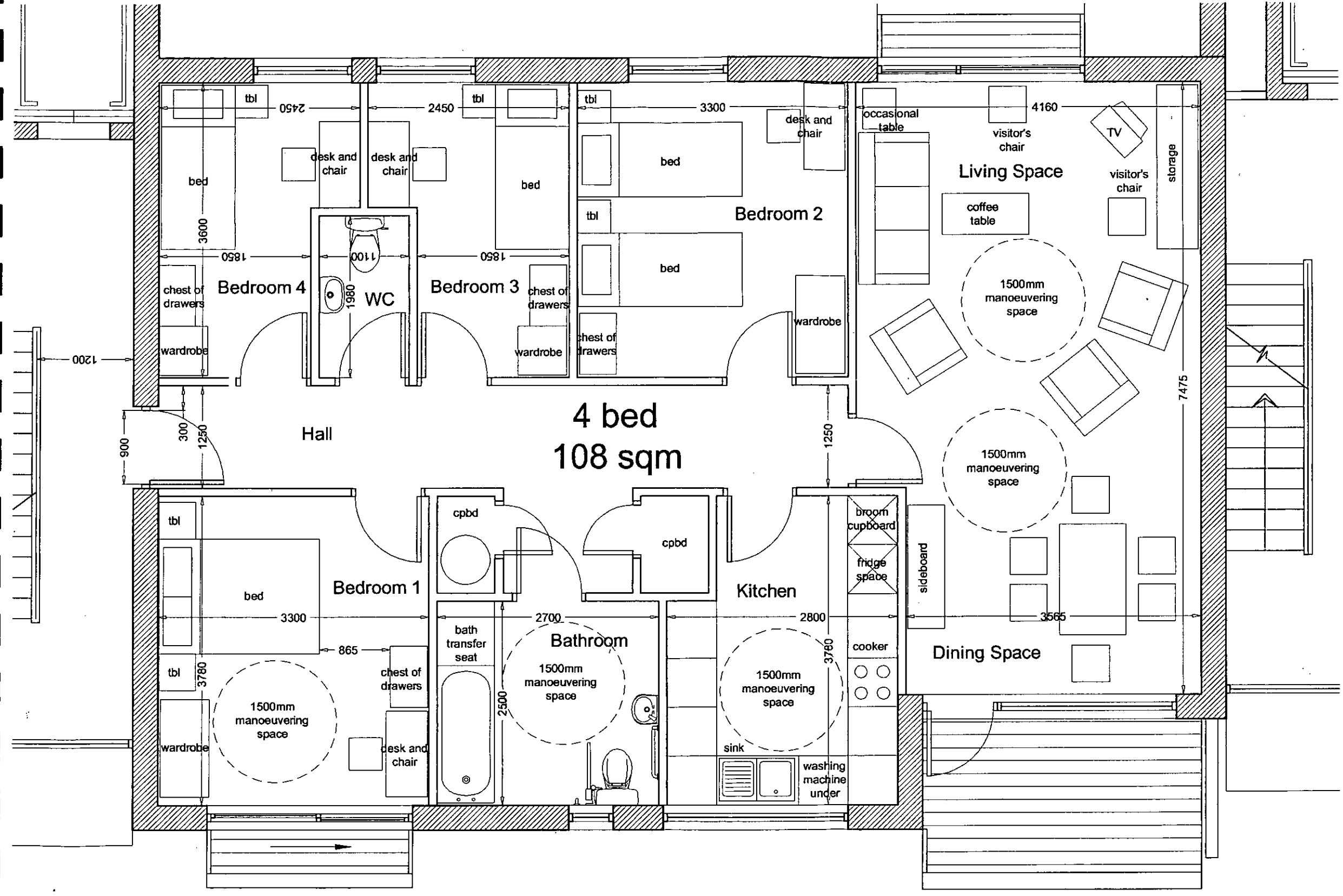
#### **4.4 Components**

- 4.41 All light switches, sockets and entry phones are to be placed at appropriate heights between 400mm and 1200mm above finished floor level.
- 4.42 Bath and kitchen to have slip resistant floor finish.
- 4.43 Recessed grab handles are provided to the bath.

**Appendix**

**Fig 1: Drawing No. 529 P 20 – wheelchair user’s accommodation – four bedroom (Block E)**

**Fig 2: Drawing No. 529 P 21 – wheelchair user’s accommodation – one bedroom (Block C)**



**4 bed  
108 sqm**

For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Part M compliant lift.

Entrance Door to be a 926mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

**130-136 barlby road and  
6 exmoor street, london w10**

**wheelchair user's accommodation -  
four bedroom (Block E)**

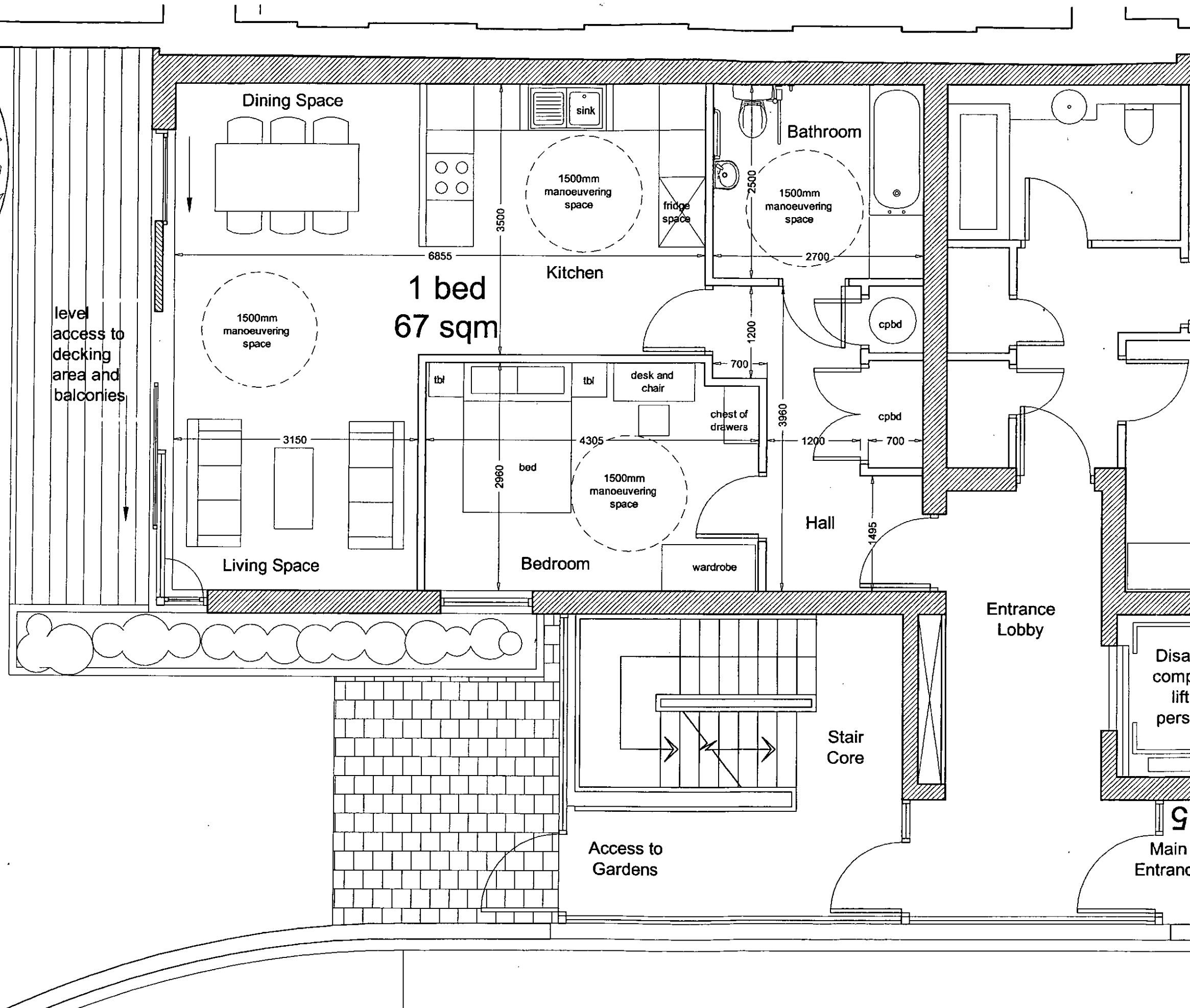
**1:50@A3**

**aug 2004**

**529 P 20**

**.quad**

a 11 devonshire road chiswick w4 2ou  
t +44 (0) 20 8994 3344  
f +44 (0) 20 8742 1988  
w www.quadarchitects.com  
e info@quadarchitects.com



For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 926mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

For further information refer to Access and Mobility Statement

<b>SITE</b>	<b>130-136 barlby road and 6 exmoor street, london w10</b>
<b>TITLE</b>	<b>wheelchair user's accommodation - one bedroom (Block C)</b>
<b>SCALE</b>	<b>1:50@A3</b>
<b>DATE</b>	<b>aug 2004</b>
<b>NO.</b>	<b>529 P 21</b>

**.quad**

a 11 devonshire road chiswick w4 2eu  
t +44 (0) 20 8994 3344  
f +44 (0) 20 8742 1988  
w www.quadarchitects.com  
e info@quadarchitects.com

# Other Documents

Please Index As

File Number

<b>Part</b>	<b>1</b>	<b>Part</b>	<b>10</b>
<b>Part</b>	<b>2</b>	<b>Part</b>	<b>11</b>
<b>Part</b>	<b>3</b>	<b>Part</b>	<b>12</b>
<b>Part</b>	<b>4</b>	<b>Part</b>	<b>13</b>
<b>Part</b>	<b>5</b>	<b>Part</b>	<b>14</b>
<b>Part</b>	<b>6</b>	<b>Part</b>	<b>15</b>
<b>Part</b>	<b>7</b>	<b>Part</b>	<b>16</b>
<b>Part</b>	<b>8</b>	<b>Part</b>	<b>17</b>
<b>Part</b>	<b>9</b>	<b>Part</b>	<b>18</b>



ACCESS AND MOBILITY STATEMENT

EX D.I.R	HDC	TP	CAC	AD	CLU	AO AK	
R.B.	70072004					PLANNING	
R.C.	N	C	SW	SE	APP	IO	REC
HBS				ARB	FPLN	DES	FEES



**PROPOSED RESIDENTIAL DEVELOPMENT**  
AT 130-136 BARLBY ROAD AND  
6 EXMOOR STREET, NORTH KENSINGTON, W10

prepared by:

quad 11, devonshire road, chiswick, london w4 2eu t: 020 8994 3344 f: 020 8742 1988

The aim of this Access and Mobility Statement is to provide an Inclusive Access Policy as part of the planning application for the development proposals at 130-136 Barby Road and 6 Exmoor Street, and to illustrate the consideration and integration of all potential users of the scheme in accordance with current government and local policy and guidance.

### **Introduction to the Scheme**

The planning application is for the demolition of an existing 2 storey office building / warehouse and the construction of 108 residential units, 39 of which will be affordable and a small crèche. *It is important to note the exact nature of the crèche has not been established by the Registered Social Landlord or the educational department at The Royal Borough of Kensington & Chelsea. Until then, sections 1 & 2 of this document apply.*

The new residential development proposes two sites, Blocks A, B & C accessed from Barby Road and Blocks D & E accessed from Exmoor Street. The residential blocks range in height from 3 to 9 storeys and are of a high quality contemporary design. There will be a mix of housing tenure, Blocks D & E representing the affordable housing component and A, B & C the open market flats. The residential blocks are situated within well-landscaped grounds and provide a safe, secure and inclusive environment in which to live.

### **Pre-Application Discussions**

A meeting was held with The Royal Borough of Kensington & Chelsea Access and Mobility Officer Sue Lines and quad architects on Monday June 28<sup>th</sup> 2004 at Hornton Street Offices, to discuss proposals for an inclusive environment within the scheme. The proposals for the scheme were presented and discussed and advice was given on additional policies relevant to the scheme. These recommendations have been incorporated into the development proposals to provide an inclusive accessible environment.

### **Sources of Advice and Guidance used**

ODPM's Planning and access for disabled people: a good practice guide  
Approved Document Part M (Access to and use of buildings) 2004 Edition  
Approved Document Part B (Fire safety) 2000 Edition  
Royal Borough of Kensington and Chelsea's Unitary Development Plan, Access Statements for Planning Applications, Supplementary guidance on Housing Standards, Access Design guidance notes  
British Standard BS8300 on Access for Disabled People  
Disability Discrimination Act 1995  
DfT Guidance on Inclusive Mobility

## **Section 1**

### **1.0 Travel to site**

#### **1.1 Car parking**

- 1.11 The development proposes an underground car park providing 94 parking spaces including 10 disabled spaces which amounts to more than 10% provision. The access to the car park is through a gated entrance from Barlby Road and via a 2-way ramp to the basement.
  - 1.12 The size of the disabled car parking bays are a minimum of 4900mm x 3600mm. Refer to Drawing No. 529 P 02 for dimensioning of bays.
  - 1.13 The disabled car parking bays have been evenly distributed throughout the car park to allow residents to use the nearest bay to their block.
  - 1.14 No user will have to travel further than 20m from the disabled car parking bay to the point of entry to their block.
  - 1.15 All disabled car parking bays will be clearly identified. This will be either with a sign positioned on wall adjacent to the space or on a free standing post where no wall is present. The sign will be 200 x 300mm and state 'Disabled Badge Holders Only'.
  - 1.16 All surfaces of disabled car parking bays will be marked with the British Standard 'disabled' symbol in accordance with BS3262, part 1.
  - 1.17 All residential blocks have lift access to the basement car park. Blocks A, B & C all have additional stair access to the car park. Block D has stair access to the car park for by all residents of Blocks D & E. This stair acts as a secondary means of escape for the car park. Refer to Section 3.3 of this document for additional information regarding lift provision.
  - 1.18 Lighting levels in the underground car park are to be 200 – 300 lux.
  - 1.19 The floor to the car park will be level except for minimal sloping of the surface for drainage to gulleys.
- #### **1.2 Drop-off Points**
- 1.21 Residents of Blocks D & E gain access to the site via Exmoor Street. The gated entry to the site is set in 15m from Exmoor Street allowing vehicles to pull into the driveway area to drop-off residents.
  - 1.22 Residents of Blocks A, B&C gain access to the site via Barlby Road. Adjacent to the gated entrance to the underground car park there is an existing recessed loading bay which can be used as a drop off point for residents.
- #### **1.3 Taxis**
- 1.31 As above.
  - 1.32 Additionally, a resident may request an arrangement is made where persons responsible for the dropping off and picking up of the resident regularly may be allowed to have a remote control device, to access the gated entry to the site.

#### **1.4 Bus stops**

- 1.41 There are two bus stops located within 15m of the site, served by bus routes 74 and 316. There are a further four bus stops within 400m of the site providing a good level of accessibility to surrounding areas. Access to these bus stops is by level ground or by dropped kerbs no steeper than 1:12 to ensure suitable access for wheelchair users.

## **Section 2**

### **2.0 Building Environs**

#### **2.1 Locations of Entrances to the site**

- 2.11 The approach to the gated entrance to the Affordable Housing Blocks D & E from Exmoor Street has a gradient of 1:25. The route from the gate to the buildings is ramped down in a series of 1:20 ramps and with a minimum width of 3350mm. The ramp lengths are no longer than 10m and landings are a minimum depth of 1500mm. The courtyard area provides level access to all entrances of the blocks.
- 2.12 Residents' access to the Open Market Blocks A, B & C is via Barby Road and through a gated entrance which has a clear opening width of 1000mm. Blocks B & C have a level approach within 13m of the gated entrance. Residents to Block A have a 1200mm wide level route to their entrance which runs in front of the Block B. Refer to Drawing no. 529 P 01.
- 2.13 All entrances have a ramped access from external ground level of +19.00 to finished floor level +19.15 with a gradient of 1:20 (5%) to provide a level threshold. All ramps have a minimum width of 1400mm. All entrances have a level platform outside the entrance area of minimum 1200mm x 1200mm. Refer to 529 P 01 for dimensions.

#### **2.2 Entrance Route Design**

- 2.21 The access routes to all buildings will be in a suitable non-slip resin bonded aggregate to ensure a suitable grip for vehicles and easy manoeuvrability for wheelchair users. Where resin bonded aggregate is not shown a suitable tiled surface will be used. All materials to comply with DfT Guidance on Inclusive Mobility and Local Street Design guide and Materials Palette.
- 2.22 All external ramps are to have solid kerbs no less than 100mm in height and 50mm diameter handrails to one side only.
- 2.23 External Lighting along all access routes to be designed to Part 3 BS5489 to ensure good access and reduce crime risk. Design guidance has also been taken from The Royal Borough of Kensington and Chelsea's Streetscape Information Booklet. Minimum Lighting levels at entrances and exits are to be 250 – 350 lux.

### **Section 3**

#### **3.0 Means of Access to and into Dwellings**

##### **3.1 Entrance Design**

- 3.11 All entrances are covered to provide protection for people entering the building. Blocks A, B, C & E have lightweight timber and metal canopies at minimum height of 2.3m which extend 1.2m away from the entrance door. Residents to Blocks D1 & D2 enter under a covered area created by the Block D1 above. Access to D3 & D4 is under Flat No. 80's balcony area.
- 3.12 All Main Entrance Doors to blocks are 1000mm width door-leaf providing a clear opening width of 950mm.
- 3.13 All Main Entrance Doors are to be fitted with self-closing mechanisms and set for the minimum opening pressure.
- 3.14 A clear space of 300mm minimum width has been provided adjacent to the leading edge of the door.
- 3.15 All Main Entrance Doors have a minimum visibility zone between 250mm and 1550mm above floor level.

##### **3.2 Circulation within Entrance storey of the building**

- 3.21 On entry into Blocks A, B & C the corridor width is 1500mm. On moving into the entrance lobby in front of the lift, the width becomes 2000mm. Access to the gardens at the rear of the blocks is through the adjacent stair-core. The internal doors to the stair-cores are fully glazed with suitable manifestation and have a clear opening of 900mm. This allows the entrance lobby to be a light filled space with clear views out to the gardens.
- 3.22 On entrance to Blocks D1 & D2 the corridor width is 1300mm minimum. Doors to the lift lobby and stair-core have a fire-rating of 30 minutes, glazed visibility panels between 250mm and 1500mm and a clear opening width of 900mm. The lift lobby has a minimum size of 1500mm x 1500mm.
- 3.23 All other entrance lobbies to Blocks D & E have an overall width of 2200mm allowing an unobstructed corridor width of 1200mm and 1000mm width stair.

##### **3.3 Vertical Circulation within residential blocks and Means of Escape**

- 3.31 All blocks have a disabled access lift compliant with Approved Document M (2004 Edition) of the Building Regulations 2000 (Access to and use of buildings). This enables disabled people to visit occupants who live on any storey.
- 3.32 The minimum specification for all lifts is to be; 8 person capacity, contract load of 630KG, car size of 1200mmx1500mm, doors providing a clear opening width of 800mm, doors fitted with timing devices and re-opening activators, landing and car controls not less than 900mm and not more than 1200mm above floor level, tactile identification of car controls and a visual and audible indication of the floor reached.
- 3.33 All lifts are also designed for evacuation of disabled people in an emergency and conforms to the relevant recommendations of BS 5588-8:1999 (Fire precautions in the design, construction and use of buildings Part 8: Code of practice for the means



of escape for Disabled people) and EN81-72. This enables wheelchair users to self-evacuate and discharge to ground floor level to a place of safety where all levels have no gradient steeper than 1:20 ramp.

- 3.34 All circulation lobbies in front of the lifts have a clear landing of 1500x1500mm.
- 3.35 All circulation cores to have staircases designed to Approved Document Part M Section 3.51. Specification includes; unobstructed length of min 1200mm on each landing, contrasting nosing material of 55mm wide on tread and riser, no more than 16 risers in a flight, minimum tread width of 1000mm, maximum rise of 170mm and a minimum going of 250mm.
- 3.36 All landings have a minimum width of 1200mm to allow wheelchair users to turn into entrance to flats and for change in direction.

#### **3.4 Access to Amenity Space**

- 3.41 Residents of Blocks A, B & C can access the communal rear gardens and lawn area via a level access route to the east side of the car park ramp.
- 3.42 Residents of Blocks D & E regularly access their communal landscaped courtyard in front of the residential blocks to enter their dwellings.
- 3.43 The affordable housing wheelchair users accommodation in Block E is situated at second to fifth floor. The units have a generous provision of balcony space and can be accessed easily by wheelchair users.
- 3.44 The Open Market Housing wheelchair users accommodation in Block C is situated at ground to seventh floor. All users have level access to their balcony / garden area.

## **Section 4**

### **4.0 Wheelchair User Accommodation**

*Refer to attached Drawing No's. 529 P 20 and 529 P 21.*

#### **4.1 Location of Wheelchair User Accommodation**

- 4.11 In line with Royal Borough of Kensington & Chelsea UDP, the development provides a total of 12 flats (11%) specifically designed for wheelchair users. This accommodation is located in both the affordable housing and the open market blocks.
- 4.12 4 No. four bedroom units are located in the Affordable Housing Block E. These are flat no's 90, 96, 101 & 106 and are situated at second, third, fourth and fifth floor respectively.
- 4.13 A further 8 No. one bedroom units are located in the Open Market Block C. These are flat no's 7, 17, 27, 36, 44, 52, 60 & 66 and sit directly above each other from ground up to the seventh floor.

#### **4.2 Entrance Door and Internal Doors**

- 4.21 Entrance Doors are to be 926mm door leaf.
- 4.22 Internal Doors are to be 826 door leaf.
- 4.23 All doors have a minimum of 300mm offset between the opening edge of the door blade and the return of the wall, when pulling the door.
- 4.24 The hanging of all doors facilitate easy wheelchair manoeuvre.
- 4.25 Door handles are set at a common height of between 900mm and 1200mm above finished floor level to aid people with visual impairment.

#### **4.3 Internal Planning**

- 4.31 All corridors have a minimum width of 1200mm.
- 4.32 All rooms have wheelchair access and a 1500mm manoeuvre space is provided to bedroom 1, bathroom, kitchen, living and dining space.
- 4.33 The dimensions of the wheelchair accessible bathroom are 2500mm x 2700mm and is designed to comply with Approved Document Part M Section 5.19 – 5.21.
- 4.34 The layout of the bathroom is designed to BS8300 standards.

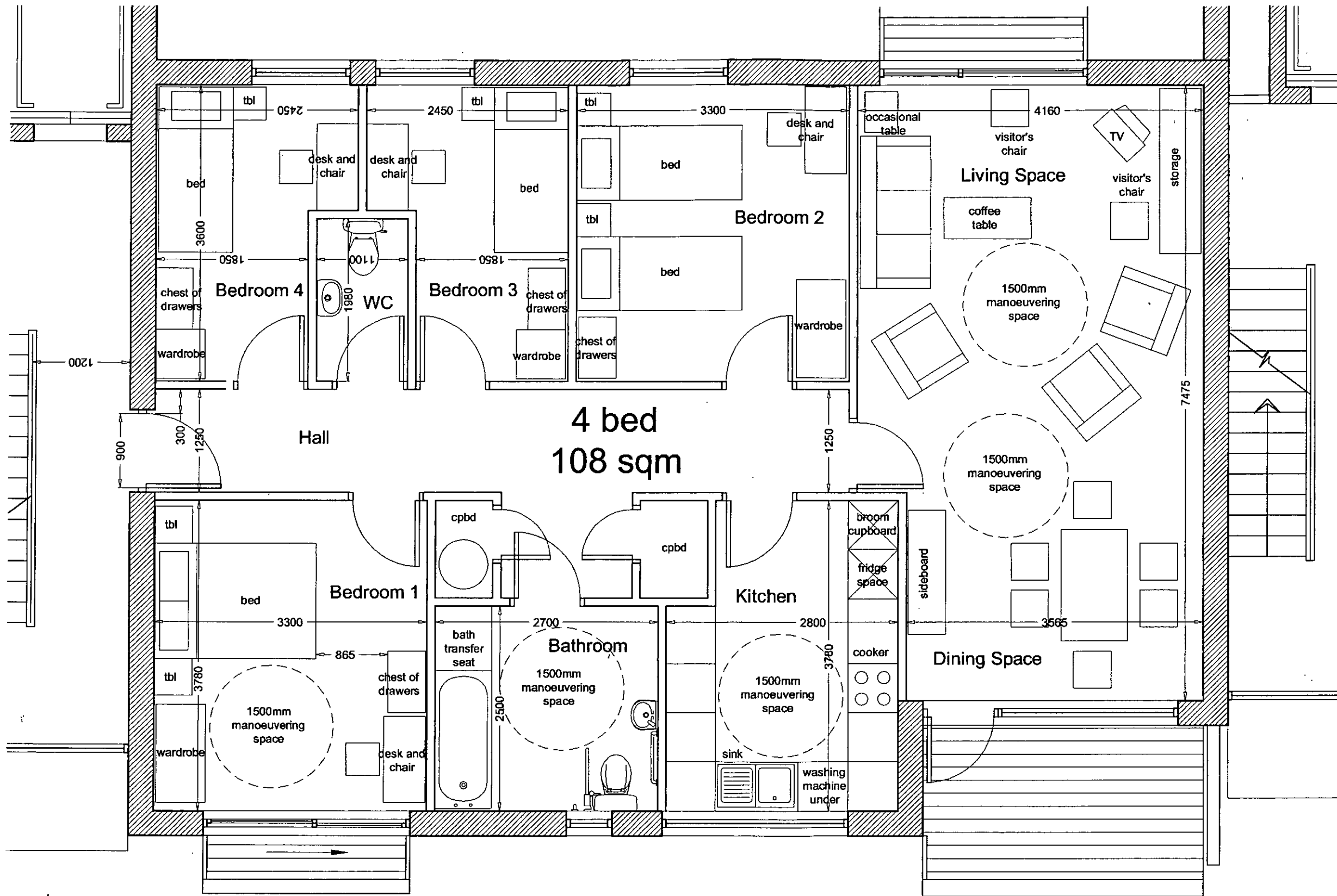
#### **4.4 Components**

- 4.41 All light switches, sockets and entry phones are to be placed at appropriate heights between 400mm and 1200mm above finished floor level.
- 4.42 Bath and kitchen to have slip resistant floor finish.
- 4.43 Recessed grab handles are provided to the bath.

**Appendix**

**Fig 1: Drawing No. 529 P 20 – wheelchair user’s accommodation – four bedroom (Block E)**

**Fig 2: Drawing No. 529 P 21 – wheelchair user’s accommodation – one bedroom (Block C)**



For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Part M compliant lift.

Entrance Door to be a 926mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

**130-136 barlby road and  
6 exmoor street, london w10**

SITE

**wheelchair user's accommodation -  
four bedroom (Block E)**

TITLE

SCALE

**1:50@A3**

DATE

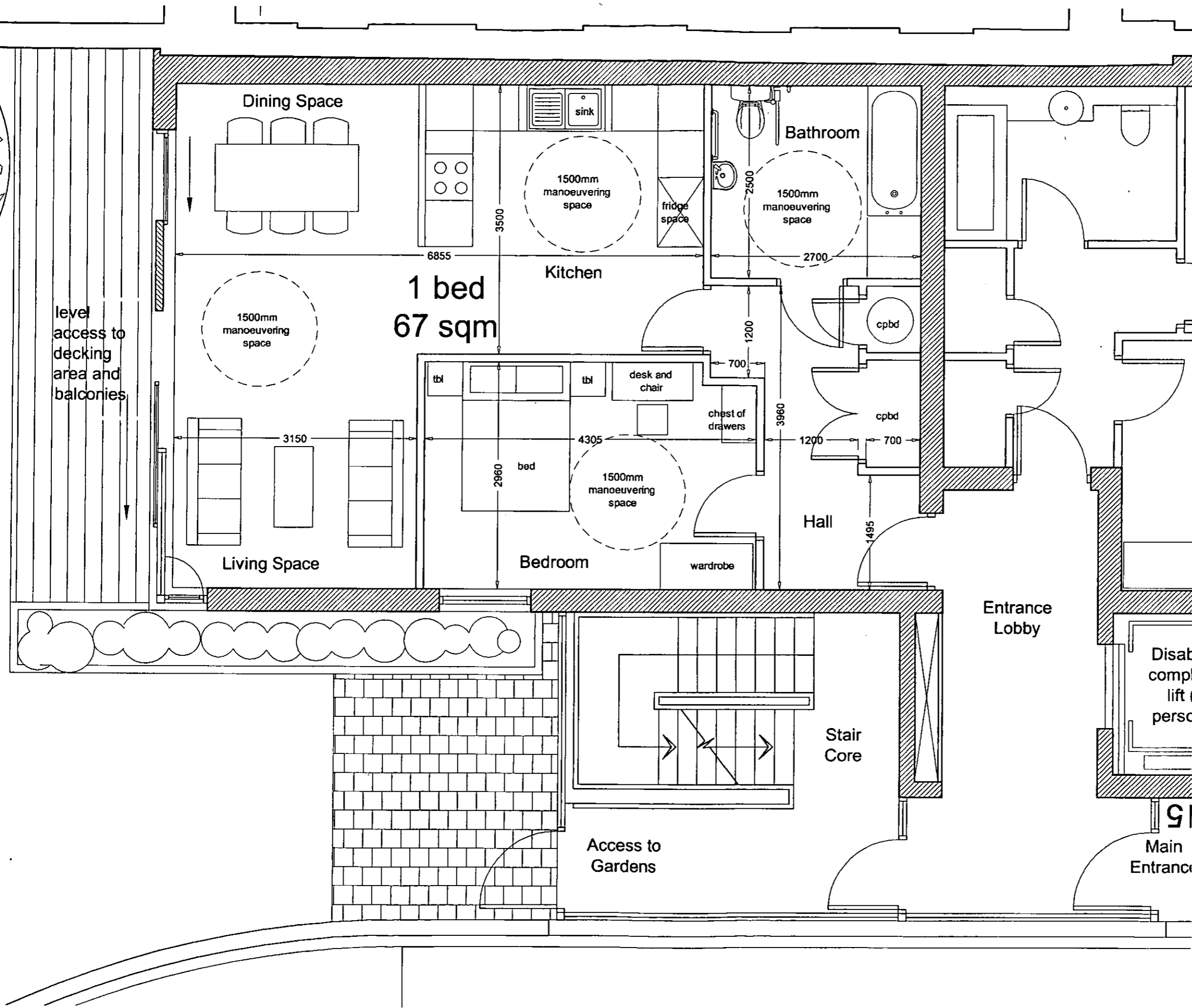
**aug 2004**

NO.

**529 P 20**

**.quad**

a 11 devonshire road chiswick w4 2au  
t +44 (0) 20 8994 3344  
f +44 (0) 20 8742 1988  
w www.quadarchitects.com  
e info@quadarchitects.com



For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 926mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

For further information refer to Access and Mobility Statement

SITE	130-136 barlby road and 6 exmoor street, london w10
TITLE	wheelchair user's accommodation - one bedroom (Block C)
SCALE	1:50@A3
DATE	aug 2004
NO.	529 P 21

.quad

a 11 devonshire road chiswick w4 2eu  
 t +44 (0) 20 8994 3344  
 f +44 (0) 20 8742 1988  
 w www.quadarchitects.com  
 e info@quadarchitects.com



**PROPOSED RESIDENTIAL DEVELOPMENT**  
 AT 130-136 BARLBY ROAD AND  
 6 EXMOOR STREET, NORTH KENSINGTON, W10

REVISION A

EX DIR	HDC	TP	C&C	AD	CLU	AO AK
R.B. K.C.	6 DEC 2004				PLANNING	
N	C	SW	SE	APP	IO	REC
HBS			ARB	FPLN	DES	FEES

This document was revised on 30.11.2004 in accordance with additional comments from Sue Lines, Access and Mobility Officer at the Royal Borough of Kensington and Chelsea.

prepared by:

quad 11, devonshire road, chiswick, london w4 2eu t: 020 8994 3344 f: 020 8742 1988

The aim of this Access and Mobility Statement is to provide an Inclusive Access Policy as part of the planning application for the development proposals at 130-136 Barlby Road and 6 Exmoor Street, and to illustrate the consideration and integration of all potential users of the scheme in accordance with current government and local policy and guidance.

### **Introduction to the Scheme**

The planning application is for the demolition of an existing 2 storey office building / warehouse and the construction of 108 residential units, 39 of which will be affordable. ~~and a small crèche. It is important to note the exact nature of the crèche has not been established by the Registered Social Landlord or the educational department of The Royal Borough of Kensington & Chelsea. Until then, sections 1 & 2 of this document apply.~~

The new residential development proposes two sites, Blocks A, B & C accessed from Barlby Road and Blocks D & E accessed from Exmoor Street. The residential blocks range in height from 3 to 9 storeys and are of a high quality contemporary design. There will be a mix of housing tenure, Blocks D & E representing the affordable housing component and A, B & C the open market flats. The residential blocks are situated within well-landscaped grounds and provide a safe, secure and inclusive environment in which to live.

### **Pre-Application Discussions**

A meeting was held with The Royal Borough of Kensington & Chelsea Access and Mobility Officer Sue Lines and quad architects on Monday June 28<sup>th</sup> 2004 at Hornton Street Offices, to discuss proposals for an inclusive environment within the scheme. The proposals for the scheme were presented and discussed and advice was given on additional policies relevant to the scheme. These recommendations have been incorporated into the development proposals to provide an inclusive accessible environment.

### **Sources of Advice and Guidance used**

ODPM's Planning and access for disabled people: a good practice guide  
Approved Document Part M (Access to and use of buildings) 2004 Edition  
Approved Document Part B (Fire safety) 2000 Edition  
Royal Borough of Kensington and Chelsea's Unitary Development Plan, Access Statements for Planning Applications, Supplementary guidance on Housing Standards, Access Design guidance notes  
British Standard BS8300 on Access for Disabled People  
Disability Discrimination Act 1995  
DfT Guidance on Inclusive Mobility



## Section 1

### 1.0 Travel to site

#### 1.1 Car parking

- 1.11 The development proposes an underground car park providing 94 95 parking spaces including 10 disabled spaces which amounts to more than 10% provision. The access to the car park is through a gated entrance from Barby Road and via a 2-way ramp to the basement. All car park users can operate the gates using a remote control device.
- 1.12 The size of the disabled car parking bays are a minimum of 4900mm x 3600mm. Refer to Drawing No. 529 P 02 for dimensioning of bays.
- 1.13 The disabled car parking bays have been evenly distributed throughout the car park to allow residents to use the nearest bay to their block.
- 1.14 No user will have to travel further than 20m from the disabled car parking bay to the point of entry to their block.
- 1.15 All disabled car parking bays will be clearly identified. This will be either with a sign positioned on wall adjacent to the space or on a free standing post where no wall is present. The sign will be 200 x 300mm and state 'Disabled Badge Holders Only'.
- 1.16 All surfaces of disabled car parking bays will be marked with the British Standard 'disabled' symbol in accordance with BS3262, part 1 and BS8300 Figure 2, including the yellow hatched transfer zones.
- 1.17 All residential blocks have lift access to the basement car park. Blocks A, B & C all have additional stair access to the car park. Block D has stair access to the car park for by all residents of Blocks D & E. This stair acts as a secondary means of escape for the car park. Refer to Section 3.3 of this document for additional information regarding lift provision.
- 1.18 Lighting levels in the underground car park are to be 200 – 300 lux.
- 1.19 The floor to the car park will be level except for minimal sloping of the surface for drainage to gulleys. There is no necessity for a change in level between the parking areas and the lift / stair lobbies because the car park is underground / covered and any surface water from the access ramp will be collected in drainage runs at the base.

#### 1.2 Drop-off Points

- 1.21 Residents of Blocks D & E gain access to the site via Exmoor Street. The gated entry to the site is set in 15m from Exmoor Street allowing vehicles to pull into the driveway area to drop-off residents.
- 1.22 Residents of Blocks A, B&C gain access to the site via Barby Road. Adjacent to the gated entrance to the underground car park there is an existing recessed loading bay which can be used as a drop off point for residents.

#### 1.3 Taxis

- 1.31 As above.

- 1.32 Additionally, a resident may request an arrangement is made where persons responsible for the dropping off and picking up of the resident regularly may be allowed to have a remote control device, to access the gated entry to the site.

**1.4 Bus stops**

- 1.41 There are two bus stops located within 15m of the site, served by bus routes 74 and 316. There are a further four bus stops within 400m of the site providing a good level of accessibility to surrounding areas. Access to these bus stops is by level ground or by dropped kerbs no steeper than 1:12 to ensure suitable access for wheelchair users.

## **Section 2**

### **2.0 Building Environs**

#### **2.1 Locations of Entrances to the site**

- 2.11 The approach to the gated entrance to the Affordable Housing Blocks D & E from Exmoor Street has a gradient of 1:25. The route from the gate to the buildings is ramped down in a series of 1:20 ramps and with a minimum width of 3350mm. The ramp lengths are no longer than 10m and landings are a minimum depth of 1500mm. The courtyard area provides level access to all entrances of the blocks.
- 2.12 Residents' access to the Open Market Blocks A, B & C is via Barlby Road and through a gated entrance which has a clear opening width of 1000mm. Blocks B & C have a level approach within 13m of the gated entrance. Residents to Block A have a 1200mm wide level route to their entrance which runs in front of the Block B. Refer to Drawing no. 529 P 01.
- 2.13 All entrances have a ramped access from external ground level of +19.00 to finished floor level +19.15 with a gradient of 1:20 (5%) to provide a level threshold. All ramps have a minimum width of 1400mm. All entrances have a level platform outside the entrance area of minimum 1200mm x 1200mm. Refer to 529 P 01 for dimensions.

#### **2.2 Entrance Route Design**

- 2.21 The access routes to all buildings will be in a suitable non-slip resin bonded aggregate to ensure a suitable grip for vehicles and easy manoeuvrability for wheelchair users. Where resin bonded aggregate is not shown a suitable tiled surface will be used. All materials to comply with DfT Guidance on Inclusive Mobility and Local Street Design guide and Materials Palette.
- 2.22 All external ramps are to have solid kerbs no less than 100mm in height and 50mm diameter handrails to one side only.
- 2.23 External Lighting along all access routes to be designed to Part 3 BS5489 to ensure good access and reduce crime risk. Design guidance has also been taken from The Royal Borough of Kensington and Chelsea's Streetscape Information Booklet. Minimum Lighting levels at entrances and exits are to be 250 – 350 lux.

### Section 3

#### 3.0 Means of Access to and into Dwellings

##### 3.1 Entrance Design

- 3.11 All entrances are covered to provide protection for people entering the building. Blocks A, B, C & E have lightweight timber and metal canopies at minimum height of 2.3m which extend 1.2m away from the entrance door. Residents to Blocks D1 & D2 enter under a covered area created by the Block D1 above. Access to D3 & D4 is under Flat No. 80's balcony area.
- 3.12 All Main Entrance Doors to blocks are 1000mm width door-leaf providing a clear opening width of 950mm.
- 3.13 All Main Entrance Doors are to be fitted with self-closing mechanisms and set for the minimum opening pressure.
- 3.14 A clear space of 300mm minimum width has been provided adjacent to the leading edge of the door.
- 3.15 All Main Entrance Doors have a minimum visibility zone between 250mm and 1550mm above floor level.

##### 3.2 Circulation within Entrance storey of the building

- 3.21 On entry into Blocks A, B & C the corridor width is 1500mm. On moving into the entrance lobby in front of the lift, the width becomes 2000mm. Access to the gardens at the rear of the blocks is through the adjacent stair-core. The internal doors to the stair-cores are fully glazed with suitable manifestation and have a clear opening of 900mm. This allows the entrance lobby to be a light filled space with clear views out to the gardens.
- 3.22 On entrance to Blocks D1 & D2 the corridor width is 1300mm minimum. Doors to the lift lobby and stair-core have a fire-rating of 30 minutes, glazed visibility panels between 250mm and 1500mm and a clear opening width of 900mm. The lift lobby has a minimum size of 1500mm x 1500mm.
- 3.23 All other entrance lobbies to Blocks D & E have an overall width of 2200mm allowing an unobstructed corridor width of 1200mm and 1000mm width stair.

##### 3.3 Vertical Circulation within residential blocks and Means of Escape

- 3.31 All blocks have a disabled access lift compliant with Approved Document M (2004 Edition) of the Building Regulations 2000 (Access to and use of buildings). This enables disabled people to visit occupants who live on any storey.
- 3.32 The minimum specification for all lifts is to be; 8 person capacity, contract load of 630KG, car size of 1200mmx1500mm, doors providing a clear opening width of 800mm, doors fitted with timing devices and re-opening activators, landing and car controls not less than 900mm and not more than 1200mm above floor level, tactile identification of car controls and a visual and audible indication of the floor reached.
- 3.33 All lifts are also designed for evacuation of disabled people in an emergency and conforms to the relevant recommendations of BS 5588-8:1999 (Fire precautions in the design, construction and use of buildings Part 8: Code of practice for the means of escape for Disabled people) and EN81-72. This enables wheelchair users to self-

evacuate and discharge to ground floor level to a place of safety where all levels have no gradient steeper than 1:20 ramp.

- 3.34 All circulation lobbies in front of the lifts have a clear landing of 1500x1500mm.
- 3.35 All circulation cores to have staircases designed to Approved Document Part M Section 3.51. Specification includes; unobstructed length of min 1200mm on each landing, contrasting nosing material of 55mm wide on tread and riser, no more than 16 risers in a flight, minimum tread width of 1000mm, maximum rise of 170mm and a minimum going of 250mm.
- 3.36 All landings have a minimum width of 1200mm to allow wheelchair users to turn into entrance to flats and for change in direction.

#### **3.4 Access to Amenity Space**

- 3.41 Residents of Blocks A, B & C can access the communal rear gardens and lawn area via a level access route to the east side of the car park ramp.
- 3.42 Residents of Blocks D & E regularly access their communal landscaped courtyard in front of the residential blocks to enter their dwellings.
- 3.43 The affordable housing wheelchair users accommodation in Block E is situated at second to fifth floor. The units have a generous provision of balcony space and can be accessed easily by wheelchair users.
- 3.44 The Open Market Housing wheelchair users accommodation in Block C is situated at ground to seventh floor. All users have level access to their balcony / garden area.

## Section 4

### 4.0 Wheelchair User Accommodation

Refer to attached Drawing No's. 529 P 20A, and 529 P 21, 529 P 22 and 529 P 23.

#### 4.1 Location of Wheelchair User Accommodation

- 4.11 In line with Royal Borough of Kensington & Chelsea UDP, the development provides a total of 12 flats (11%) specifically designed for wheelchair users. This accommodation is located in both the affordable housing and the open market blocks.
- 4.12 4 No. four bedroom units are located in the Affordable Housing Blocks D & E. ~~These are flat no's 90, 96, 101 & 106 and are situated at second, third, fourth and fifth floor respectively.~~ These are flat No's 70, 73, 74 and 77 and are situated at ground and first floor level.
- 4.13 ~~A further 8 No. one bedroom units are located in the Open Market Block C. These are flat no's 7, 17, 27, 36, 44, 52, 60 & 66 and sit directly above each other from ground up to the seventh floor.~~ 4 No. three bedroom units are also located in Affordable Housing Block D. These are flat No's 85, 93, 98, 104 and sit directly above each other from second to fifth floor.
- 4.14 A further 2 No. two bedroom units, flat No's 3 & 11 and 2 No. one bedroom units, flat No's 7 & 17 are provided in the Open Market blocks A and C at ground and first floor level.

#### 4.2 Entrance Door and Internal Doors

- 4.21 Entrance Doors are to be 926mm door leaf.
- 4.22 Internal Doors are to be 826 door leaf.
- 4.23 All doors have a minimum of 300mm offset between the opening edge of the door blade and the return of the wall, when pulling the door.
- 4.24 The hanging of all doors facilitate easy wheelchair manoeuvre.
- 4.25 Door handles are set at a common height of between 900mm and 1200mm above finished floor level to aid people with visual impairment.

#### 4.3 Internal Planning

- 4.31 All corridors have a minimum width of 1200mm.
- 4.32 All rooms have wheelchair access and a 1500mm manoeuvre space is provided to bedroom 1, bathroom, kitchen, living and dining space.
- 4.33 The dimensions of the wheelchair accessible bathroom are 2500mm x 2700mm and is designed to comply with Approved Document Part M Section 5.19 – 5.21.
- 4.34 The layout of the bathroom is designed to BS8300 standards.
- 4.35 Where the bathroom and main bedroom are adjacent to each other, there is a full height knockout panel on the connecting wall.

**4.4 Components**

- 4.41 All light switches, sockets and entry phones are to be placed at appropriate heights between 400mm and 1200mm above finished floor level.
- 4.42 Bath and kitchen to have slip resistant floor finish.
- 4.43 Recessed grab handles are provided to the bath.



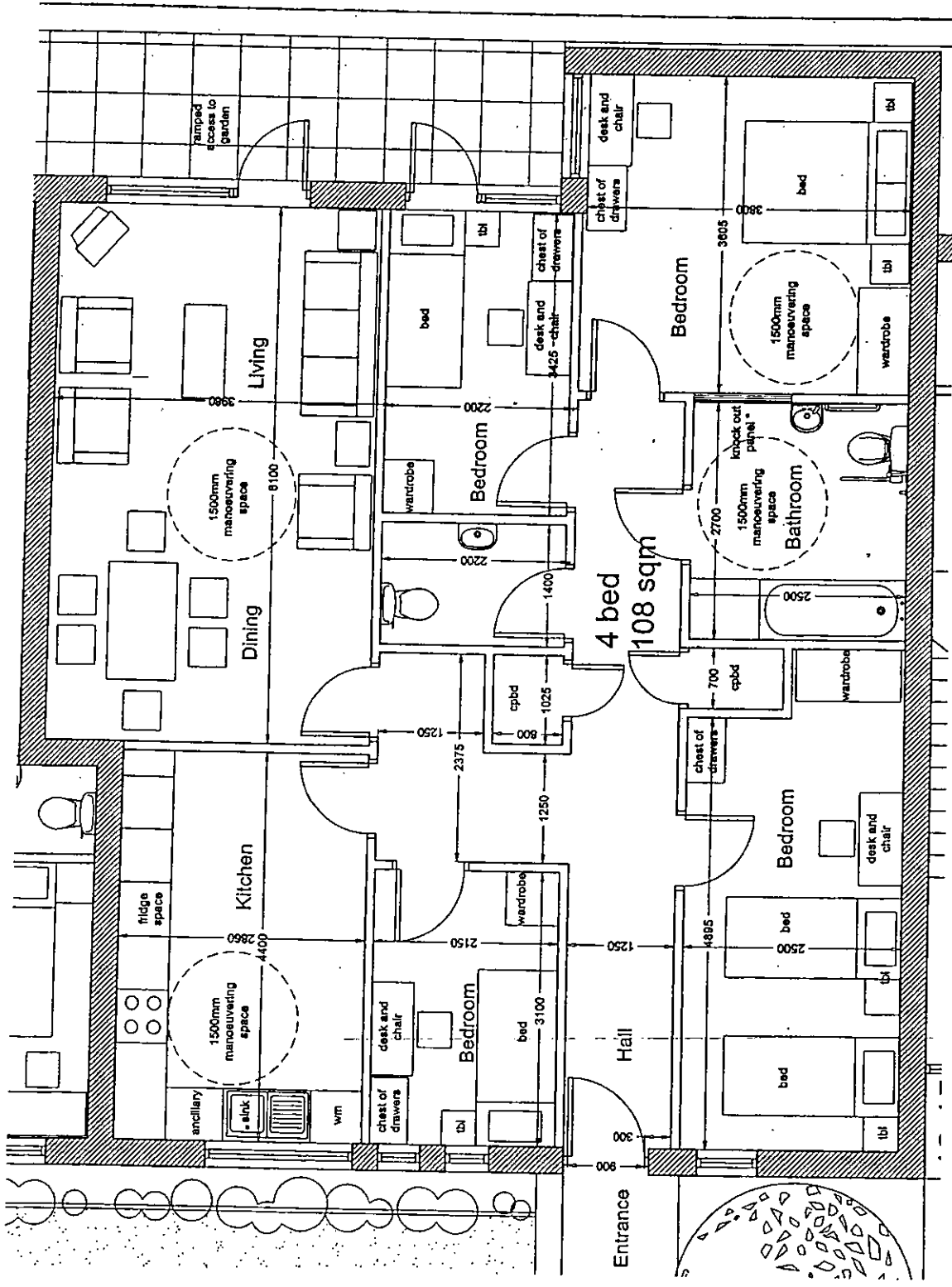
**Appendix**

Fig 1: Drawing No. 529 P 20 A – wheelchair user’s accommodation – four bedroom (Block E)

Fig 2: Drawing No. 529 P 21 – wheelchair user’s accommodation – one bedroom (Block C)

Fig 3: Drawing No. 529 P 22 – wheelchair user’s accommodation – two bedroom (Block A2)

Fig 4: Drawing No. 529 P 23 – wheelchair user’s accommodation – three bedroom (Block D)



For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 825mm door leaf.

All internal doors are 825mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

\* Full height knockout panel provided at connecting wall between master bedroom and bathroom.

For further information refer to Access and Mobility Statement.

**SITE** 130-136 barby road and  
6 exmoor street, london w10

**TITLE** wheelchair user's accommodation -  
four bedroom (Block E)

**SCALE** 1:50 @A3

**DATE** NOV 2004

**NO** 529 P 20 A

.quad

11 devonshire road chelwick w12 8u  
 t +44 (0) 20 8864 3344  
 f +44 (0) 20 8742 1869  
 w www.quadrobust.com  
 e info@quadrobust.com

For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 928mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

For further information refer to Access and Mobility Statement.

130-136 barlby road and  
6 exmoor street, london w10  
wheelchair user's accommodator  
one bedroom (Block C)

1:50@A3

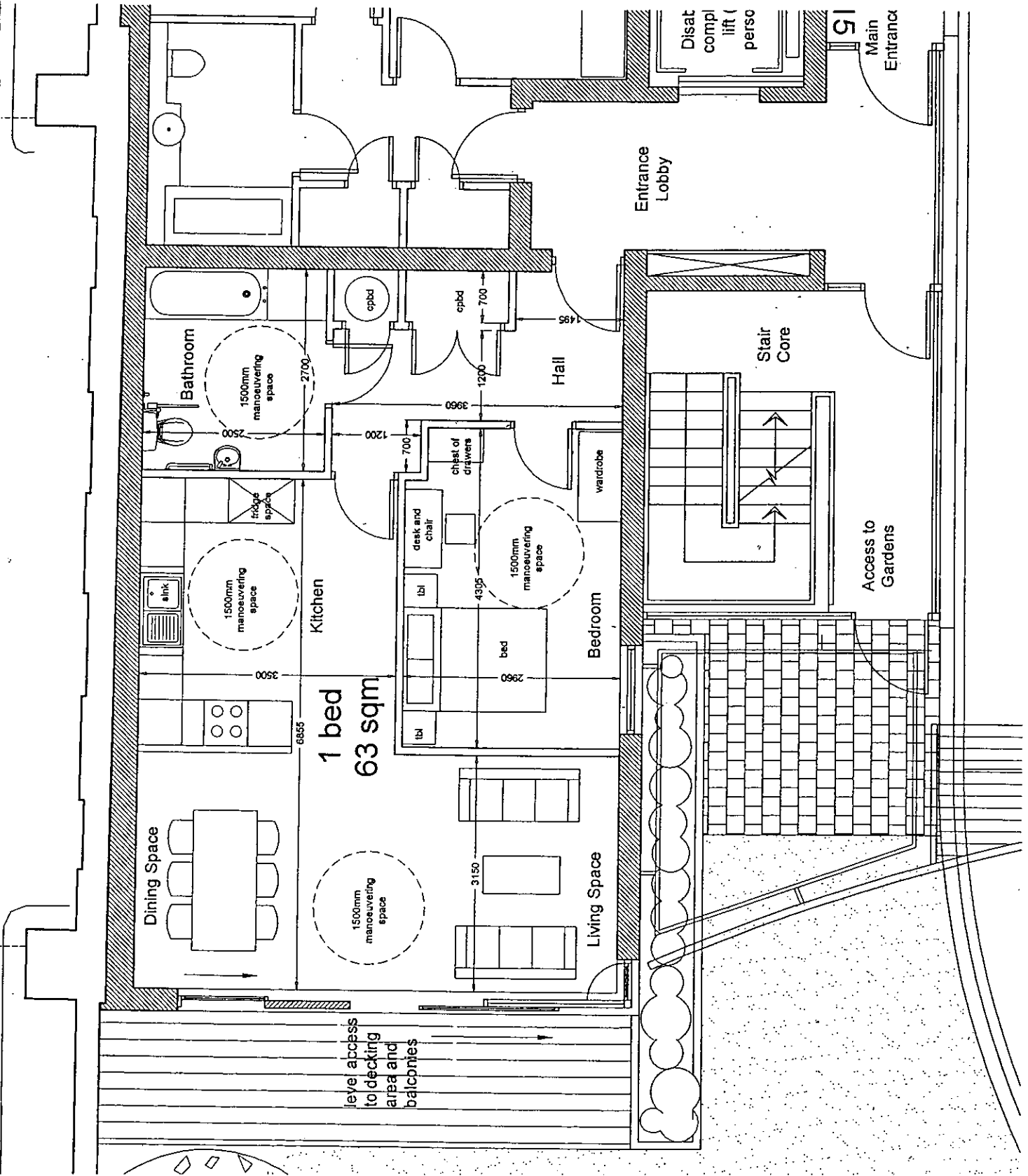
aug 2004

529 P 21

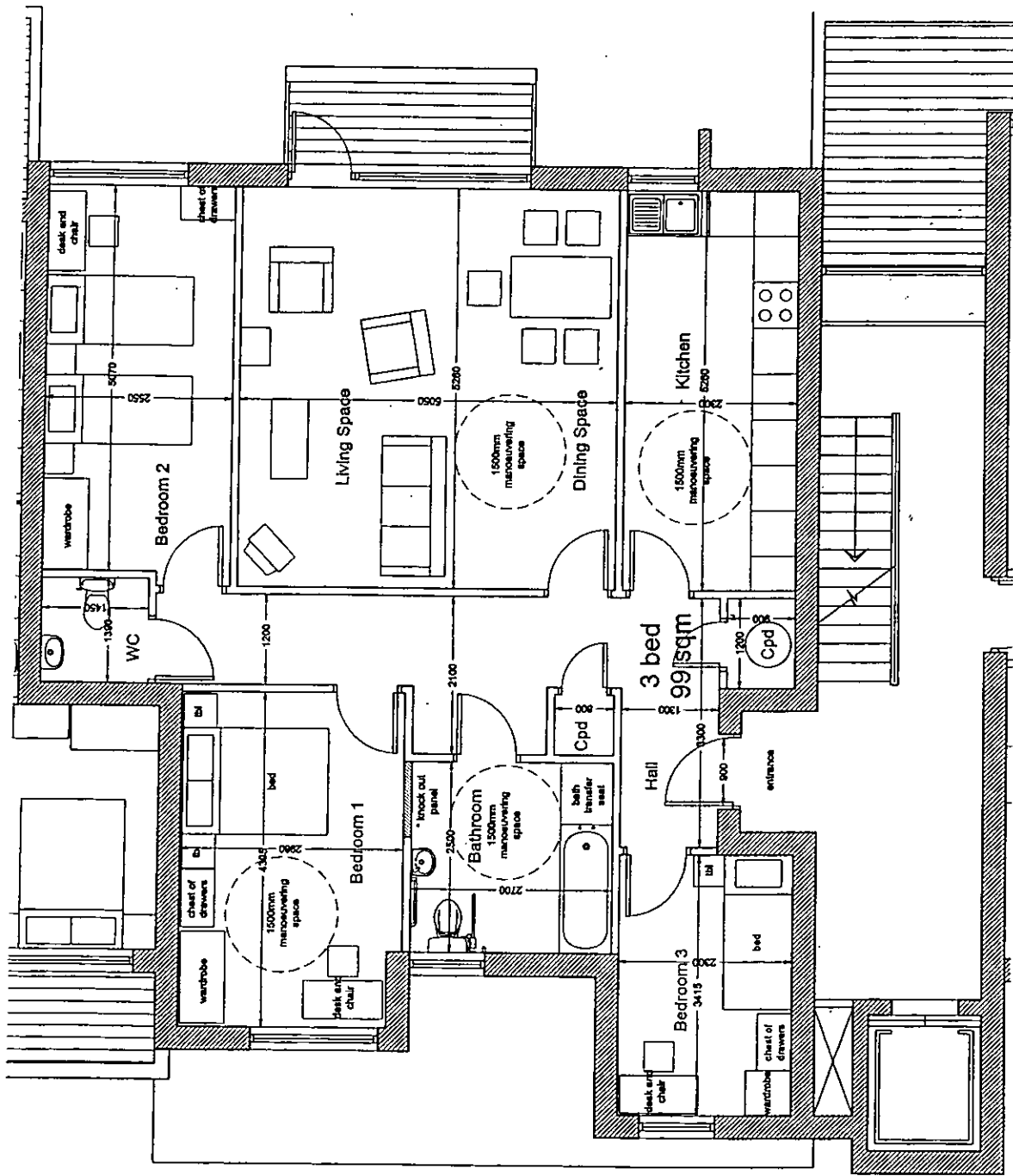
SITE	
TITLE	
SCALE	
DATE	
NO.	

.quad

- # 11 devonshire road chiswick w4 2w
- t +44 (0) 20 8864 3344
- f +44 (0) 20 8742 1888
- w www.quadsarchitects.com
- e info@quadsarchitects.com







For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 826mm door leaf.

All Internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

\* Full height knockout panel provided at connecting wall between master bedroom and bathroom.

For further information refer to Access and Mobility Statement.

130-136 barlby road and  
6 exmoor street, london w10

11 devonshire road chiswick w4 2au  
+44 (0) 20 884 3344  
+44 (0) 20 8742 1888  
www.jas.architects.com  
info@jasarchitects.com

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

.quad

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

BITE

TITLE

SCALE

DATE

NO.

.quad

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

130-136 barlby road and  
6 exmoor street, london w10

11 devonshire road chiswick w4 2au  
+44 (0) 20 884 3344  
+44 (0) 20 8742 1888  
www.jas.architects.com  
info@jasarchitects.com

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

.quad

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

BITE

TITLE

SCALE

DATE

NO.

.quad

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

130-136 barlby road and  
6 exmoor street, london w10

11 devonshire road chiswick w4 2au  
+44 (0) 20 884 3344  
+44 (0) 20 8742 1888  
www.jas.architects.com  
info@jasarchitects.com

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

.quad

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

BITE

TITLE

SCALE

DATE

NO.

.quad

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

130-136 barlby road and  
6 exmoor street, london w10

11 devonshire road chiswick w4 2au  
+44 (0) 20 884 3344  
+44 (0) 20 8742 1888  
www.jas.architects.com  
info@jasarchitects.com

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

.quad

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

BITE

TITLE

SCALE

DATE

NO.

.quad

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

130-136 barlby road and  
6 exmoor street, london w10

11 devonshire road chiswick w4 2au  
+44 (0) 20 884 3344  
+44 (0) 20 8742 1888  
www.jas.architects.com  
info@jasarchitects.com

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

.quad

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

BITE

TITLE

SCALE

DATE

NO.

.quad

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

130-136 barlby road and  
6 exmoor street, london w10

11 devonshire road chiswick w4 2au  
+44 (0) 20 884 3344  
+44 (0) 20 8742 1888  
www.jas.architects.com  
info@jasarchitects.com

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

.quad

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

BITE

TITLE

SCALE

DATE

NO.

.quad

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

130-136 barlby road and  
6 exmoor street, london w10

11 devonshire road chiswick w4 2au  
+44 (0) 20 884 3344  
+44 (0) 20 8742 1888  
www.jas.architects.com  
info@jasarchitects.com

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

.quad

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

BITE

TITLE

SCALE

DATE

NO.

.quad

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

130-136 barlby road and  
6 exmoor street, london w10

11 devonshire road chiswick w4 2au  
+44 (0) 20 884 3344  
+44 (0) 20 8742 1888  
www.jas.architects.com  
info@jasarchitects.com

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

.quad

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

BITE

TITLE

SCALE

DATE

NO.

.quad

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

130-136 barlby road and  
6 exmoor street, london w10

11 devonshire road chiswick w4 2au  
+44 (0) 20 884 3344  
+44 (0) 20 8742 1888  
www.jas.architects.com  
info@jasarchitects.com

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

.quad

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

BITE

TITLE

SCALE

DATE

NO.

.quad

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

130-136 barlby road and  
6 exmoor street, london w10

11 devonshire road chiswick w4 2au  
+44 (0) 20 884 3344  
+44 (0) 20 8742 1888  
www.jas.architects.com  
info@jasarchitects.com

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

.quad

11 devonshire road chiswick w4 2au

+44 (0) 20 884 3344

+44 (0) 20 8742 1888

www.jas.architects.com

info@jasarchitects.com

BITE

TITLE

SCALE

DATE

NO.

.quad



**PROPOSED RESIDENTIAL DEVELOPMENT  
AT 130-136 BARLBY ROAD AND  
6 EXMOOR STREET, NORTH KENSINGTON, W10**

REVISION A

EX DIR	HDC	TP	CAC	AD	CLU	AO AK
R.B. K.C.	6 DEC 2004				PLANNING	
N	C	S.W.	SE	APP	IO	REC
HBS			ARB	FPLN	DES	FEEES

This document was revised on 30.11.2004 in accordance with additional comments from Sue Lines, Access and Mobility Officer at the Royal Borough of Kensington and Chelsea.

prepared by:

quad 11, devonshire road, chiswick, london w4 2eu t: 020 8994 3344 f: 020 8742 1988

The aim of this Access and Mobility Statement is to provide an Inclusive Access Policy as part of the planning application for the development proposals at 130-136 Barlby Road and 6 Exmoor Street, and to illustrate the consideration and integration of all potential users of the scheme in accordance with current government and local policy and guidance.

### **Introduction to the Scheme**

The planning application is for the demolition of an existing 2 storey office building / warehouse and the construction of 108 residential units, 39 of which will be affordable. ~~and a small crèche. It is important to note the exact nature of the crèche has not been established by the Registered Social Landlord or the educational department at The Royal Borough of Kensington & Chelsea. Until then, sections 1 & 2 of this document apply.~~

The new residential development proposes two sites, Blocks A, B & C accessed from Barlby Road and Blocks D & E accessed from Exmoor Street. The residential blocks range in height from 3 to 9 storeys and are of a high quality contemporary design. There will be a mix of housing tenure, Blocks D & E representing the affordable housing component and A, B & C the open market flats. The residential blocks are situated within well-landscaped grounds and provide a safe, secure and inclusive environment in which to live.

### **Pre-Application Discussions**

A meeting was held with The Royal Borough of Kensington & Chelsea Access and Mobility Officer Sue Lines and quad architects on Monday June 28<sup>th</sup> 2004 at Hornton Street Offices, to discuss proposals for an inclusive environment within the scheme. The proposals for the scheme were presented and discussed and advice was given on additional policies relevant to the scheme. These recommendations have been incorporated into the development proposals to provide an inclusive accessible environment.

### **Sources of Advice and Guidance used**

ODPM's Planning and access for disabled people: a good practice guide  
Approved Document Part M (Access to and use of buildings) 2004 Edition  
Approved Document Part B (Fire safety) 2000 Edition  
Royal Borough of Kensington and Chelsea's Unitary Development Plan, Access Statements for Planning Applications, Supplementary guidance on Housing Standards, Access Design guidance notes  
British Standard BS8300 on Access for Disabled People  
Disability Discrimination Act 1995  
DfT Guidance on Inclusive Mobility



## **Section 1**

### **1.0 Travel to site**

#### **1.1 Car parking**

- 1.11 The development proposes an underground car park providing 94 95 parking spaces including 10 disabled spaces which amounts to more than 10% provision. The access to the car park is through a gated entrance from Barby Road and via a 2-way ramp to the basement. All car park users can operate the gates using a remote control device.
- 1.12 The size of the disabled car parking bays are a minimum of 4900mm x 3600mm. Refer to Drawing No. 529 P 02 for dimensioning of bays.
- 1.13 The disabled car parking bays have been evenly distributed throughout the car park to allow residents to use the nearest bay to their block.
- 1.14 No user will have to travel further than 20m from the disabled car parking bay to the point of entry to their block.
- 1.15 All disabled car parking bays will be clearly identified. This will be either with a sign positioned on wall adjacent to the space or on a free standing post where no wall is present. The sign will be 200 x 300mm and state 'Disabled Badge Holders Only'.
- 1.16 All surfaces of disabled car parking bays will be marked with the British Standard 'disabled' symbol in accordance with BS3262, part 1 and BS8300 Figure 2, including the yellow hatched transfer zones.
- 1.17 All residential blocks have lift access to the basement car park. Blocks A, B & C all have additional stair access to the car park. Block D has stair access to the car park for by all residents of Blocks D & E. This stair acts as a secondary means of escape for the car park. Refer to Section 3.3 of this document for additional information regarding lift provision.
- 1.18 Lighting levels in the underground car park are to be 200 – 300 lux.
- 1.19 The floor to the car park will be level except for minimal sloping of the surface for drainage to gulleys. There is no necessity for a change in level between the parking areas and the lift / stair lobbies because the car park is underground / covered and any surface water from the access ramp will be collected in drainage runs at the base.

#### **1.2 Drop-off Points**

- 1.21 Residents of Blocks D & E gain access to the site via Exmoor Street. The gated entry to the site is set in 15m from Exmoor Street allowing vehicles to pull into the driveway area to drop-off residents.
- 1.22 Residents of Blocks A, B&C gain access to the site via Barby Road. Adjacent to the gated entrance to the underground car park there is an existing recessed loading bay which can be used as a drop off point for residents.

#### **1.3 Taxis**

- 1.31 As above.

- 1.32 Additionally, a resident may request an arrangement is made where persons responsible for the dropping off and picking up of the resident regularly may be allowed to have a remote control device, to access the gated entry to the site.

**1.4 Bus stops**

- 1.41 There are two bus stops located within 15m of the site, served by bus routes 74 and 316. There are a further four bus stops within 400m of the site providing a good level of accessibility to surrounding areas. Access to these bus stops is by level ground or by dropped kerbs no steeper than 1:12 to ensure suitable access for wheelchair users.

## **Section 2**

### **2.0 Building Environs**

#### **2.1 Locations of Entrances to the site**

- 2.11 The approach to the gated entrance to the Affordable Housing Blocks D & E from Exmoor Street has a gradient of 1:25. The route from the gate to the buildings is ramped down in a series of 1:20 ramps and with a minimum width of 3350mm. The ramp lengths are no longer than 10m and landings are a minimum depth of 1500mm. The courtyard area provides level access to all entrances of the blocks.
- 2.12 Residents' access to the Open Market Blocks A, B & C is via Barlby Road and through a gated entrance which has a clear opening width of 1000mm. Blocks B & C have a level approach within 13m of the gated entrance. Residents to Block A have a 1200mm wide level route to their entrance which runs in front of the Block B. Refer to Drawing no. 529 P 01.
- 2.13 All entrances have a ramped access from external ground level of +19.00 to finished floor level +19.15 with a gradient of 1:20 (5%) to provide a level threshold. All ramps have a minimum width of 1400mm. All entrances have a level platform outside the entrance area of minimum 1200mm x 1200mm. Refer to 529 P 01 for dimensions.

#### **2.2 Entrance Route Design**

- 2.21 The access routes to all buildings will be in a suitable non-slip resin bonded aggregate to ensure a suitable grip for vehicles and easy manoeuvrability for wheelchair users. Where resin bonded aggregate is not shown a suitable tiled surface will be used. All materials to comply with DfT Guidance on Inclusive Mobility and Local Street Design guide and Materials Palette.
- 2.22 All external ramps are to have solid kerbs no less than 100mm in height and 50mm diameter handrails to one side only.
- 2.23 External Lighting along all access routes to be designed to Part 3 BS5489 to ensure good access and reduce crime risk. Design guidance has also been taken from The Royal Borough of Kensington and Chelsea's Streetscape Information Booklet. Minimum Lighting levels at entrances and exits are to be 250 – 350 lux.

### Section 3

#### 3.0 Means of Access to and into Dwellings

##### 3.1 Entrance Design

- 3.11 All entrances are covered to provide protection for people entering the building. Blocks A, B, C & E have lightweight timber and metal canopies at minimum height of 2.3m which extend 1.2m away from the entrance door. Residents to Blocks D1 & D2 enter under a covered area created by the Block D1 above. Access to D3 & D4 is under Flat No. 80's balcony area.
- 3.12 All Main Entrance Doors to blocks are 1000mm width door-leaf providing a clear opening width of 950mm.
- 3.13 All Main Entrance Doors are to be fitted with self-closing mechanisms and set for the minimum opening pressure.
- 3.14 A clear space of 300mm minimum width has been provided adjacent to the leading edge of the door.
- 3.15 All Main Entrance Doors have a minimum visibility zone between 250mm and 1550mm above floor level.

##### 3.2 Circulation within Entrance storey of the building

- 3.21 On entry into Blocks A, B & C the corridor width is 1500mm. On moving into the entrance lobby in front of the lift, the width becomes 2000mm. Access to the gardens at the rear of the blocks is through the adjacent stair-core. The internal doors to the stair-cores are fully glazed with suitable manifestation and have a clear opening of 900mm. This allows the entrance lobby to be a light filled space with clear views out to the gardens.
- 3.22 On entrance to Blocks D1 & D2 the corridor width is 1300mm minimum. Doors to the lift lobby and stair-core have a fire-rating of 30 minutes, glazed visibility panels between 250mm and 1500mm and a clear opening width of 900mm. The lift lobby has a minimum size of 1500mm x 1500mm.
- 3.23 All other entrance lobbies to Blocks D & E have an overall width of 2200mm allowing an unobstructed corridor width of 1200mm and 1000mm width stair.

##### 3.3 Vertical Circulation within residential blocks and Means of Escape

- 3.31 All blocks have a disabled access lift compliant with Approved Document M (2004 Edition) of the Building Regulations 2000 (Access to and use of buildings). This enables disabled people to visit occupants who live on any storey.
- 3.32 The minimum specification for all lifts is to be; 8 person capacity, contract load of 630KG, car size of 1200mmx1500mm, doors providing a clear opening width of 800mm, doors fitted with timing devices and re-opening activators, landing and car controls not less than 900mm and not more than 1200mm above floor level, tactile identification of car controls and a visual and audible indication of the floor reached.
- 3.33 All lifts are also designed for evacuation of disabled people in an emergency and conforms to the relevant recommendations of BS 5588-8:1999 (Fire precautions in the design, construction and use of buildings Part 8: Code of practice for the means of escape for Disabled people) and EN81-72. This enables wheelchair users to self-

evacuate and discharge to ground floor level to a place of safety where all levels have no gradient steeper than 1:20 ramp.

- 3.34 All circulation lobbies in front of the lifts have a clear landing of 1500x1500mm.
  - 3.35 All circulation cores to have staircases designed to Approved Document Part M Section 3.51. Specification includes; unobstructed length of min 1200mm on each landing, contrasting nosing material of 55mm wide on tread and riser, no more than 16 risers in a flight, minimum tread width of 1000mm, maximum rise of 170mm and a minimum going of 250mm.
  - 3.36 All landings have a minimum width of 1200mm to allow wheelchair users to turn into entrance to flats and for change in direction.
- 3.4 Access to Amenity Space**
- 3.41 Residents of Blocks A, B & C can access the communal rear gardens and lawn area via a level access route to the east side of the car park ramp.
  - 3.42 Residents of Blocks D & E regularly access their communal landscaped courtyard in front of the residential blocks to enter their dwellings.
  - 3.43 The affordable housing wheelchair users accommodation in Block E is situated at second to fifth floor. The units have a generous provision of balcony space and can be accessed easily by wheelchair users.
  - 3.44 The Open Market Housing wheelchair users accommodation in Block C is situated at ground to seventh floor. All users have level access to their balcony / garden area.

## Section 4

### 4.0 Wheelchair User Accommodation

Refer to attached Drawing No's. 529 P 20A, and 529 P 21, 529 P 22 and 529 P 23.

#### 4.1 Location of Wheelchair User Accommodation

- 4.11 In line with Royal Borough of Kensington & Chelsea UDP, the development provides a total of 12 flats (11%) specifically designed for wheelchair users. This accommodation is located in both the affordable housing and the open market blocks.
- 4.12 4 No. four bedroom units are located in the Affordable Housing Blocks D & E. ~~These are flat no's 90, 96, 101 & 106 and are situated at second, third, fourth and fifth floor respectively.~~ These are flat No's 70, 73, 74 and 77 and are situated at ground and first floor level.
- 4.13 ~~A further 8 No. one bedroom units are located in the Open Market Block C. These are flat no's 7, 17, 27, 36, 44, 52, 60 & 66 and sit directly above each other from ground up to the seventh floor.~~ 4 No. three bedroom units are also located in Affordable Housing Block D. These are flat No's 85, 93, 98, 104 and sit directly above each other from second to fifth floor.
- 4.14 A further 2 No. two bedroom units, flat No's 3 & 11 and 2 No. one bedroom units, flat No's 7 & 17 are provided in the Open Market blocks A and C at ground and first floor level.

#### 4.2 Entrance Door and Internal Doors

- 4.21 Entrance Doors are to be 926mm door leaf.
- 4.22 Internal Doors are to be 826 door leaf.
- 4.23 All doors have a minimum of 300mm offset between the opening edge of the door blade and the return of the wall, when pulling the door.
- 4.24 The hanging of all doors facilitate easy wheelchair manoeuvre.
- 4.25 Door handles are set at a common height of between 900mm and 1200mm above finished floor level to aid people with visual impairment.

#### 4.3 Internal Planning

- 4.31 All corridors have a minimum width of 1200mm.
- 4.32 All rooms have wheelchair access and a 1500mm manoeuvre space is provided to bedroom 1, bathroom, kitchen, living and dining space.
- 4.33 The dimensions of the wheelchair accessible bathroom are 2500mm x 2700mm and is designed to comply with Approved Document Part M Section 5.19 – 5.21.
- 4.34 The layout of the bathroom is designed to BS8300 standards.
- 4.35 Where the bathroom and main bedroom are adjacent to each other, there is a full height knockout panel on the connecting wall.

**4.4 Components**

- 4.41 All light switches, sockets and entry phones are to be placed at appropriate heights between 400mm and 1200mm above finished floor level.
- 4.42 Bath and kitchen to have slip resistant floor finish.
- 4.43 Recessed grab handles are provided to the bath.



**Appendix**

Fig 1: Drawing No. 529 P 20 A – wheelchair user’s accommodation – four bedroom (Block E)

Fig 2: Drawing No. 529 P 21 – wheelchair user’s accommodation – one bedroom (Block C)

Fig 3: Drawing No. 529 P 22 – wheelchair user’s accommodation – two bedroom (Block A2)

Fig 4: Drawing No. 529 P 23 – wheelchair user’s accommodation – three bedroom (Block D)

For disabled parking provision refer to drawing No. 529 p 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 926mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 800 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

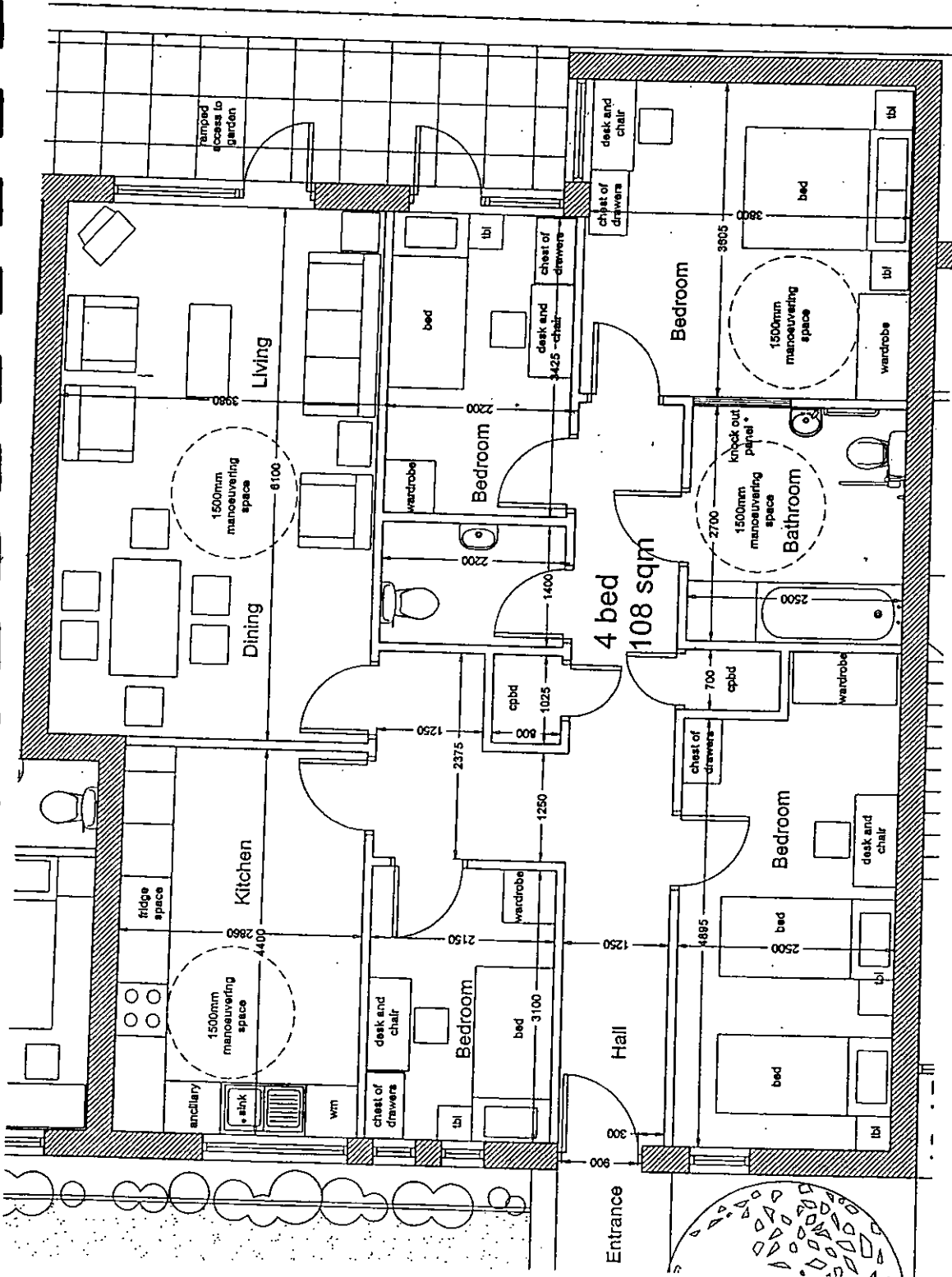
\* Full height knockout panel provided at connecting wall between master bedroom and bathroom.

For further information refer to Access and Mobility Statement.

SITE	130-136 barby road and 6 exmoor street, london w10
TITLE	wheelchair user's accommodation - four bedroom (Block E)
SCALE	1:50 @ A3
DATE	NOV 2004
NO	529 P 20 A

quad

11 dovetail road chiswick w4 2su  
+44 (0) 20 8994 3344  
+44 (0) 20 8742 1885  
www.quadarchitects.com  
info@quadarchitects.com



For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 926mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

For further information refer to Access and Mobility Statement.

130-136 barbry road and  
6 exmoor street, london w10  
wheelchair user's accommodator  
one bedroom (Block C)

1:50@A3

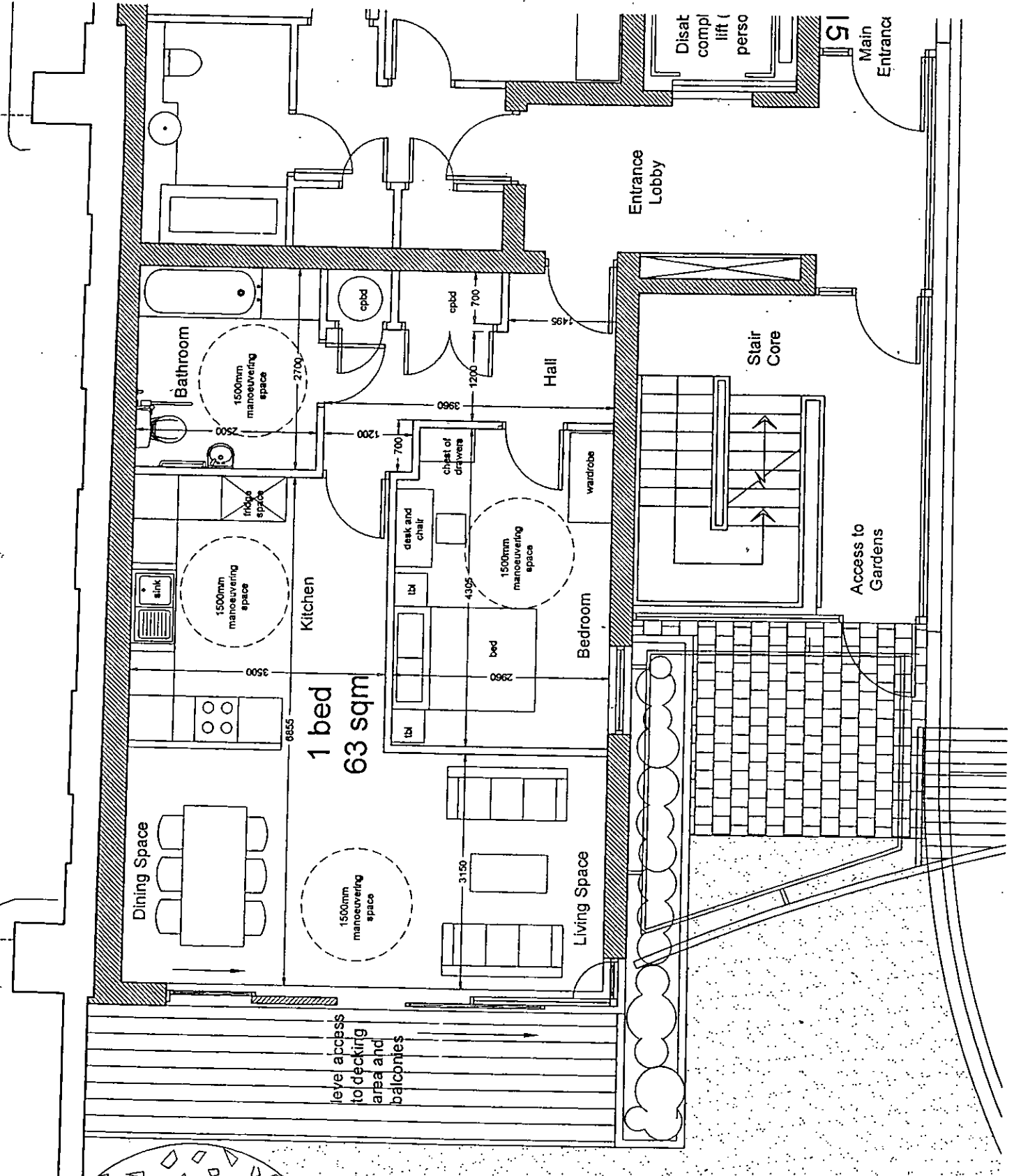
aug 2004

529 P 21

SITE	
TITLE	
SCALE	
DATE	
NO.	

.quad

- 11 devonshire road chiswick w4 2su
- +44 (0) 20 8864 3344
- +44 (0) 20 8742 1868
- www.quadarchitects.com
- info@quadarchitects.com



1 bed  
63 sqm

level access  
to decking  
area and  
balconies

Disat compl lift ( perso)  
Main Entrance

Entrance Lobby

Bathroom

Hall

Stair Core

Kitchen

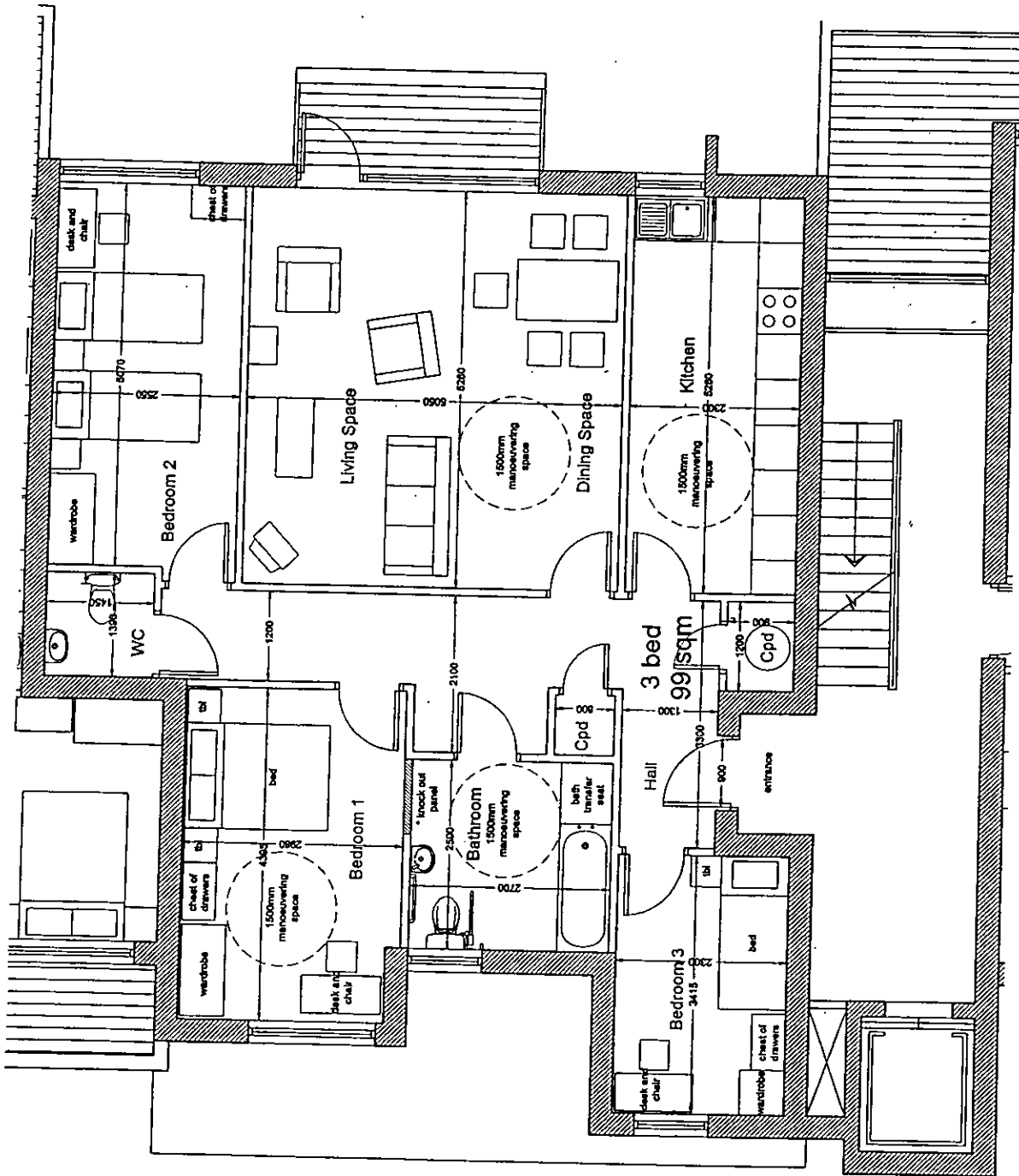
Bedroom

Access to Gardens

Dining Space

Living Space





For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 926mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

\* Full height knockout panel provided at connecting wall between master bedroom and bathroom.

For further information refer to Access and Mobility Statement.

130-136 barlby road and  
6 exmoor street, london w10

Wheelchair user's accommodation -  
three bedroom (Block D)

SCALE 1:50@A3

DATE NOV 2004

NO. 529 P 23

SITE	
TITLE	
SCALE	
DATE	
NO.	

.quad

11 devenshille road chiswick w4 2aw  
+44 (0) 20 8864 3344  
+44 (0) 20 8742 1888  
www.quadarchitect.com  
info@quadarchitects.com



**PROPOSED RESIDENTIAL DEVELOPMENT  
AT 130-136 BARLBY ROAD AND  
6 EXMOOR STREET, NORTH KENSINGTON, W10**

REVISION A

EX DIR	HDC	TP	SAC	AD	CLU	AO AK
R.B. K.C.	6 DEC 2004			PLANNING		
N	C	S.W.	SE	APP	IO	REC
HBS			ARB	FFLN	DES	FEES

This document was revised on 30.11.2004 in accordance with additional comments from Sue Lines, Access and Mobility Officer at the Royal Borough of Kensington and Chelsea.

prepared by:

quad 11, devonshire road, chiswick, london w4 2eu t: 020 8994 3344 f: 020 8742 1988

The aim of this Access and Mobility Statement is to provide an Inclusive Access Policy as part of the planning application for the development proposals at 130-136 Barlby Road and 6 Exmoor Street, and to illustrate the consideration and integration of all potential users of the scheme in accordance with current government and local policy and guidance.

### **Introduction to the Scheme**

The planning application is for the demolition of an existing 2 storey office building / warehouse and the construction of 108 residential units, 39 of which will be affordable. ~~and a small crèche. It is important to note the exact nature of the crèche has not been established by the Registered Social Landlord or the educational department at The Royal Borough of Kensington & Chelsea. Until then, sections 1 & 2 of this document apply.~~

The new residential development proposes two sites, Blocks A, B & C accessed from Barlby Road and Blocks D & E accessed from Exmoor Street. The residential blocks range in height from 3 to 9 storeys and are of a high quality contemporary design. There will be a mix of housing tenure, Blocks D & E representing the affordable housing component and A, B & C the open market flats. The residential blocks are situated within well-landscaped grounds and provide a safe, secure and inclusive environment in which to live.

### **Pre-Application Discussions**

A meeting was held with The Royal Borough of Kensington & Chelsea Access and Mobility Officer Sue Lines and quad architects on Monday June 28<sup>th</sup> 2004 at Hornton Street Offices, to discuss proposals for an inclusive environment within the scheme. The proposals for the scheme were presented and discussed and advice was given on additional policies relevant to the scheme. These recommendations have been incorporated into the development proposals to provide an inclusive accessible environment.

### **Sources of Advice and Guidance used**

ODPM's Planning and access for disabled people: a good practice guide  
Approved Document Part M (Access to and use of buildings) 2004 Edition  
Approved Document Part B (Fire safety) 2000 Edition  
Royal Borough of Kensington and Chelsea's Unitary Development Plan, Access Statements for Planning Applications, Supplementary guidance on Housing Standards, Access Design guidance notes  
British Standard BS8300 on Access for Disabled People  
Disability Discrimination Act 1995  
DfT Guidance on Inclusive Mobility



## Section 1

### 1.0 Travel to site

#### 1.1 Car parking

- 1.11 The development proposes an underground car park providing 94 95 parking spaces including 10 disabled spaces which amounts to more than 10% provision. The access to the car park is through a gated entrance from Barby Road and via a 2-way ramp to the basement. All car park users can operate the gates using a remote control device.
- 1.12 The size of the disabled car parking bays are a minimum of 4900mm x 3600mm. Refer to Drawing No. 529 P 02 for dimensioning of bays.
- 1.13 The disabled car parking bays have been evenly distributed throughout the car park to allow residents to use the nearest bay to their block.
- 1.14 No user will have to travel further than 20m from the disabled car parking bay to the point of entry to their block.
- 1.15 All disabled car parking bays will be clearly identified. This will be either with a sign positioned on wall adjacent to the space or on a free standing post where no wall is present. The sign will be 200 x 300mm and state 'Disabled Badge Holders Only'.
- 1.16 All surfaces of disabled car parking bays will be marked with the British Standard 'disabled' symbol in accordance with BS3262, part 1 and BS8300 Figure 2, including the yellow hatched transfer zones.
- 1.17 All residential blocks have lift access to the basement car park. Blocks A, B & C all have additional stair access to the car park. Block D has stair access to the car park for by all residents of Blocks D & E. This stair acts as a secondary means of escape for the car park. Refer to Section 3.3 of this document for additional information regarding lift provision.
- 1.18 Lighting levels in the underground car park are to be 200 – 300 lux.
- 1.19 The floor to the car park will be level except for minimal sloping of the surface for drainage to gulleys. There is no necessity for a change in level between the parking areas and the lift / stair lobbies because the car park is underground / covered and any surface water from the access ramp will be collected in drainage runs at the base.

#### 1.2 Drop-off Points

- 1.21 Residents of Blocks D & E gain access to the site via Exmoor Street. The gated entry to the site is set in 15m from Exmoor Street allowing vehicles to pull into the driveway area to drop-off residents.
- 1.22 Residents of Blocks A, B&C gain access to the site via Barby Road. Adjacent to the gated entrance to the underground car park there is an existing recessed loading bay which can be used as a drop off point for residents.

#### 1.3 Taxis

- 1.31 As above.

1.32 Additionally, a resident may request an arrangement is made where persons responsible for the dropping off and picking up of the resident regularly may be allowed to have a remote control device, to access the gated entry to the site.

**1.4 Bus stops**

1.41 There are two bus stops located within 15m of the site, served by bus routes 74 and 316. There are a further four bus stops within 400m of the site providing a good level of accessibility to surrounding areas. Access to these bus stops is by level ground or by dropped kerbs no steeper than 1:12 to ensure suitable access for wheelchair users.

## **Section 2**

### **2.0 Building Environs**

#### **2.1 Locations of Entrances to the site**

- 2.11 The approach to the gated entrance to the Affordable Housing Blocks D & E from Exmoor Street has a gradient of 1:25. The route from the gate to the buildings is ramped down in a series of 1:20 ramps and with a minimum width of 3350mm. The ramp lengths are no longer than 10m and landings are a minimum depth of 1500mm. The courtyard area provides level access to all entrances of the blocks.
- 2.12 Residents' access to the Open Market Blocks A, B & C is via Barlby Road and through a gated entrance which has a clear opening width of 1000mm. Blocks B & C have a level approach within 13m of the gated entrance. Residents to Block A have a 1200mm wide level route to their entrance which runs in front of the Block B. Refer to Drawing no. 529 P 01.
- 2.13 All entrances have a ramped access from external ground level of +19.00 to finished floor level +19.15 with a gradient of 1:20 (5%) to provide a level threshold. All ramps have a minimum width of 1400mm. All entrances have a level platform outside the entrance area of minimum 1200mm x 1200mm. Refer to 529 P 01 for dimensions.

#### **2.2 Entrance Route Design**

- 2.21 The access routes to all buildings will be in a suitable non-slip resin bonded aggregate to ensure a suitable grip for vehicles and easy manoeuvrability for wheelchair users. Where resin bonded aggregate is not shown a suitable tiled surface will be used. All materials to comply with DfT Guidance on Inclusive Mobility and Local Street Design guide and Materials Palette.
- 2.22 All external ramps are to have solid kerbs no less than 100mm in height and 50mm diameter handrails to one side only.
- 2.23 External Lighting along all access routes to be designed to Part 3 BS5489 to ensure good access and reduce crime risk. Design guidance has also been taken from The Royal Borough of Kensington and Chelsea's Streetscape Information Booklet. Minimum Lighting levels at entrances and exits are to be 250 – 350 lux.

### Section 3

#### 3.0 Means of Access to and into Dwellings

##### 3.1 Entrance Design

- 3.11 All entrances are covered to provide protection for people entering the building. Blocks A, B, C & E have lightweight timber and metal canopies at minimum height of 2.3m which extend 1.2m away from the entrance door. Residents to Blocks D1 & D2 enter under a covered area created by the Block D1 above. Access to D3 & D4 is under Flat No. 80's balcony area.
- 3.12 All Main Entrance Doors to blocks are 1000mm width door-leaf providing a clear opening width of 950mm.
- 3.13 All Main Entrance Doors are to be fitted with self-closing mechanisms and set for the minimum opening pressure.
- 3.14 A clear space of 300mm minimum width has been provided adjacent to the leading edge of the door.
- 3.15 All Main Entrance Doors have a minimum visibility zone between 250mm and 1550mm above floor level.

##### 3.2 Circulation within Entrance storey of the building

- 3.21 On entry into Blocks A, B & C the corridor width is 1500mm. On moving into the entrance lobby in front of the lift, the width becomes 2000mm. Access to the gardens at the rear of the blocks is through the adjacent stair-core. The internal doors to the stair-cores are fully glazed with suitable manifestation and have a clear opening of 900mm. This allows the entrance lobby to be a light filled space with clear views out to the gardens.
- 3.22 On entrance to Blocks D1 & D2 the corridor width is 1300mm minimum. Doors to the lift lobby and stair-core have a fire-rating of 30 minutes, glazed visibility panels between 250mm and 1500mm and a clear opening width of 900mm. The lift lobby has a minimum size of 1500mm x 1500mm.
- 3.23 All other entrance lobbies to Blocks D & E have an overall width of 2200mm allowing an unobstructed corridor width of 1200mm and 1000mm width stair.

##### 3.3 Vertical Circulation within residential blocks and Means of Escape

- 3.31 All blocks have a disabled access lift compliant with Approved Document M (2004 Edition) of the Building Regulations 2000 (Access to and use of buildings). This enables disabled people to visit occupants who live on any storey.
- 3.32 The minimum specification for all lifts is to be; 8 person capacity, contract load of 630KG, car size of 1200mmx1500mm, doors providing a clear opening width of 800mm, doors fitted with timing devices and re-opening activators, landing and car controls not less than 900mm and not more than 1200mm above floor level, tactile identification of car controls and a visual and audible indication of the floor reached.
- 3.33 All lifts are also designed for evacuation of disabled people in an emergency and conforms to the relevant recommendations of BS 5588-8:1999 (Fire precautions in the design, construction and use of buildings Part 8: Code of practice for the means of escape for Disabled people) and EN81-72. This enables wheelchair users to self-

evacuate and discharge to ground floor level to a place of safety where all levels have no gradient steeper than 1:20 ramp.

- 3.34 All circulation lobbies in front of the lifts have a clear landing of 1500x1500mm.
- 3.35 All circulation cores to have staircases designed to Approved Document Part M Section 3.51. Specification includes; unobstructed length of min 1200mm on each landing, contrasting nosing material of 55mm wide on tread and riser, no more than 16 risers in a flight, minimum tread width of 1000mm, maximum rise of 170mm and a minimum going of 250mm.
- 3.36 All landings have a minimum width of 1200mm to allow wheelchair users to turn into entrance to flats and for change in direction.

#### **3.4 Access to Amenity Space**

- 3.41 Residents of Blocks A, B & C can access the communal rear gardens and lawn area via a level access route to the east side of the car park ramp.
- 3.42 Residents of Blocks D & E regularly access their communal landscaped courtyard in front of the residential blocks to enter their dwellings.
- 3.43 The affordable housing wheelchair users accommodation in Block E is situated at second to fifth floor. The units have a generous provision of balcony space and can be accessed easily by wheelchair users.
- 3.44 The Open Market Housing wheelchair users accommodation in Block C is situated at ground to seventh floor. All users have level access to their balcony / garden area.

## Section 4

### 4.0 Wheelchair User Accommodation

Refer to attached Drawing No's. 529 P 20A, and 529 P 21, 529 P 22 and 529 P 23.

#### 4.1 Location of Wheelchair User Accommodation

- 4.11 In line with Royal Borough of Kensington & Chelsea UDP, the development provides a total of 12 flats (11%) specifically designed for wheelchair users. This accommodation is located in both the affordable housing and the open market blocks.
- 4.12 4 No. four bedroom units are located in the Affordable Housing Blocks D & E. ~~These are flat no's 90, 96, 101 & 106 and are situated at second, third, fourth and fifth floor respectively.~~ These are flat No's 70, 73, 74 and 77 and are situated at ground and first floor level.
- 4.13 ~~A further 8 No. one bedroom units are located in the Open Market Block C. These are flat no's 7, 17, 27, 36, 44, 52, 60 & 66 and sit directly above each other from ground up to the seventh floor.~~ 4 No. three bedroom units are also located in Affordable Housing Block D. These are flat No's 85, 93, 98, 104 and sit directly above each other from second to fifth floor.
- 4.14 A further 2 No. two bedroom units, flat No's 3 & 11 and 2 No. one bedroom units, flat No's 7 & 17 are provided in the Open Market blocks A and C at ground and first floor level.

#### 4.2 Entrance Door and Internal Doors

- 4.21 Entrance Doors are to be 926mm door leaf.
- 4.22 Internal Doors are to be 826 door leaf.
- 4.23 All doors have a minimum of 300mm offset between the opening edge of the door blade and the return of the wall, when pulling the door.
- 4.24 The hanging of all doors facilitate easy wheelchair manoeuvre.
- 4.25 Door handles are set at a common height of between 900mm and 1200mm above finished floor level to aid people with visual impairment.

#### 4.3 Internal Planning

- 4.31 All corridors have a minimum width of 1200mm.
- 4.32 All rooms have wheelchair access and a 1500mm manoeuvre space is provided to bedroom 1, bathroom, kitchen, living and dining space.
- 4.33 The dimensions of the wheelchair accessible bathroom are 2500mm x 2700mm and is designed to comply with Approved Document Part M Section 5.19 – 5.21.
- 4.34 The layout of the bathroom is designed to BS8300 standards.
- 4.35 Where the bathroom and main bedroom are adjacent to each other, there is a full height knockout panel on the connecting wall.

**4.4 Components**

- 4.41 All light switches, sockets and entry phones are to be placed at appropriate heights between 400mm and 1200mm above finished floor level.
- 4.42 Bath and kitchen to have slip resistant floor finish.
- 4.43 Recessed grab handles are provided to the bath.



**Appendix**

Fig 1: Drawing No. 529 P 20 A – wheelchair user's accommodation – four bedroom (Block E)

Fig 2: Drawing No. 529 P 21 – wheelchair user's accommodation – one bedroom (Block C)

Fig 3: Drawing No. 529 P 22 – wheelchair user's accommodation – two bedroom (Block A2)

Fig 4: Drawing No. 529 P 23 – wheelchair user's accommodation – three bedroom (Block D)



For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 926mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

For further information refer to Access and Mobility Statement.

130-136 barbry road and  
6 exmoor street, london w10  
wheelchair user's accommodator  
one bedroom (Block C)

1:50@A3

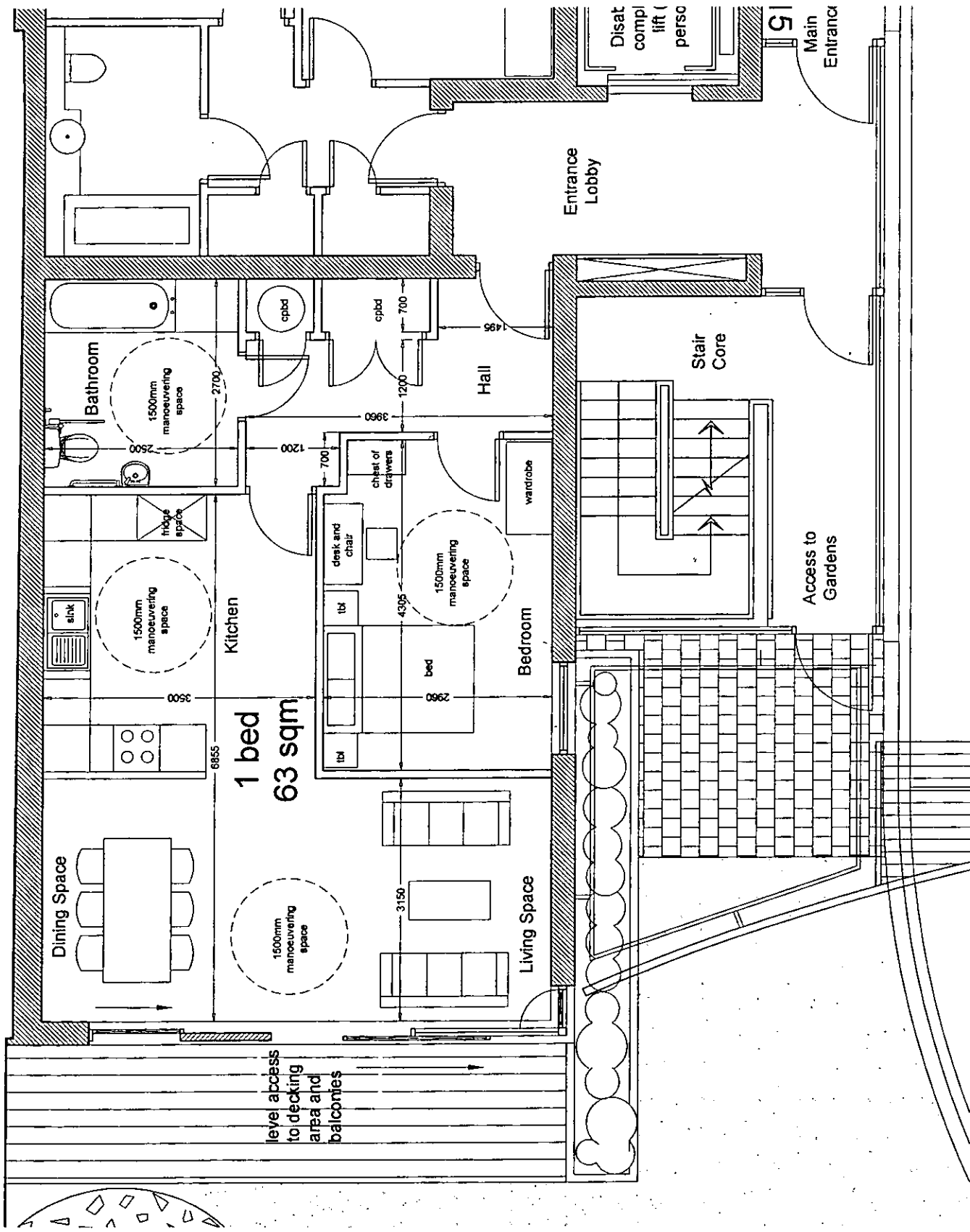
aug 2004

529 P 21

BITE	TITLE	SCALE	DATE	NO.

.quad

11 devonshire road chiswick w4 2w  
+44 (0) 20 8864 3344  
+44 (0) 20 8742 1888  
www.quadrarchitects.com  
info@quadrarchitects.com



1 bed  
63 sqm

level access  
to decking  
area and  
balconies

Entrance  
Lobby

Stair  
Core

Access to  
Gardens

Main  
Entrance

Disat  
compl  
lift (

perso

Bathroom

Kitchen

Bedroom

Living Space

Hall

Dining Space

1500mm  
manoeuvring  
space

1500mm  
manoeuvring  
space

1500mm  
manoeuvring  
space

1500mm  
manoeuvring  
space

6855

3500

2500

2700

1200

3960

700

4305

2960

3150

1500mm  
manoeuvring  
space

1500mm  
manoeuvring  
space

1500mm  
manoeuvring  
space

1500mm  
manoeuvring  
space

700

1495

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

700

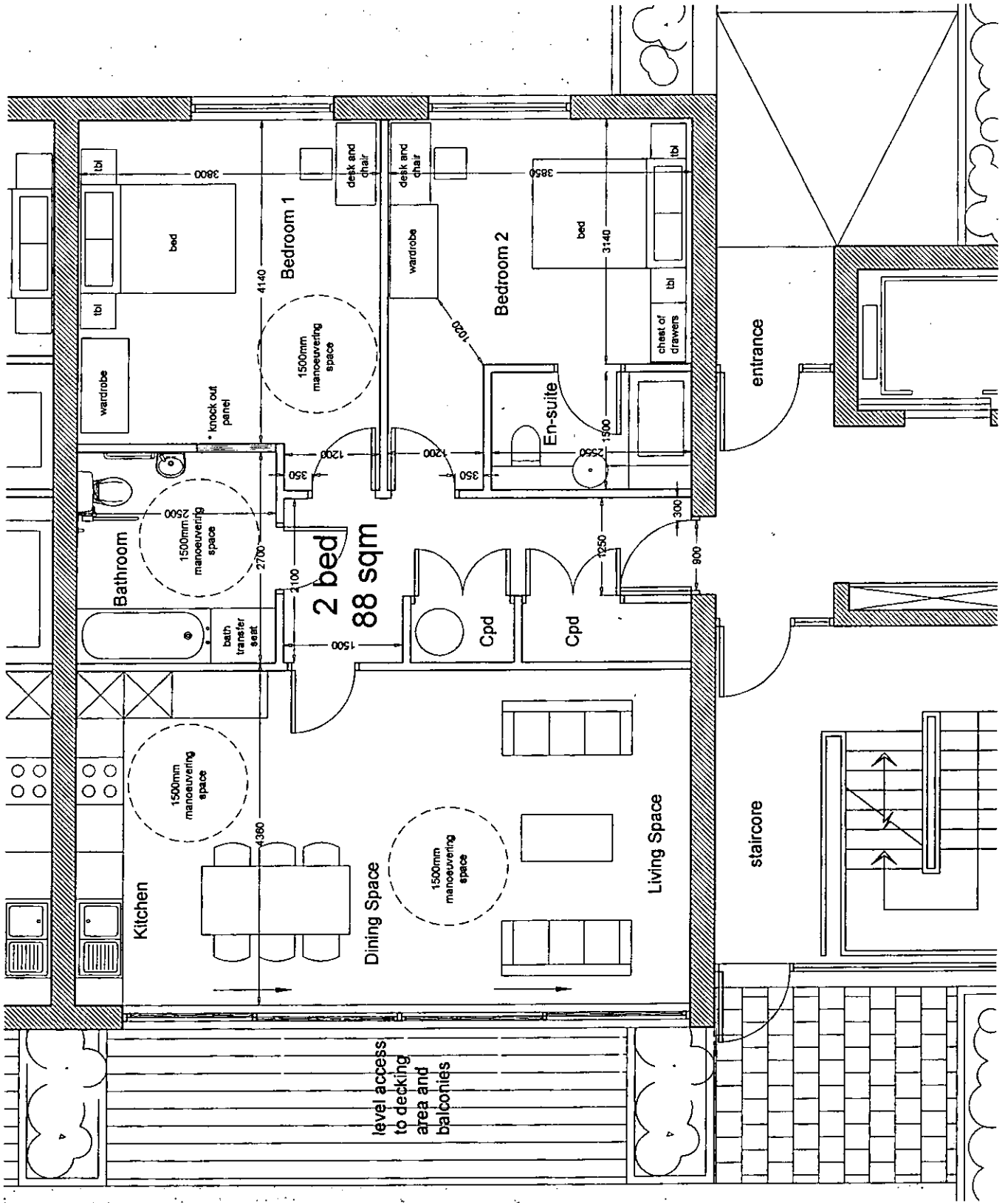
700

700

700

700

700



For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 926mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

\* Full height knockout panel provided at connecting wall between master bedroom and bathroom.

For further information refer to Access and Mobility Statement.

130-136 barby road and  
6 exmoor street, london w10  
wheelchair user's accommodation -  
two bedroom (Block A2)

SITE

TITLE

SCALE

DATE

NO.

.quad

11 devonshire road chiswick west 2nd  
t +44 (0) 20 884 3344  
f +44 (0) 20 8742 1988  
www.quadarchitects.com  
info@quadarchitects.com

staircore

entrance

2 bed  
88 sqm

Bedroom 1

Bedroom 2

Bathroom

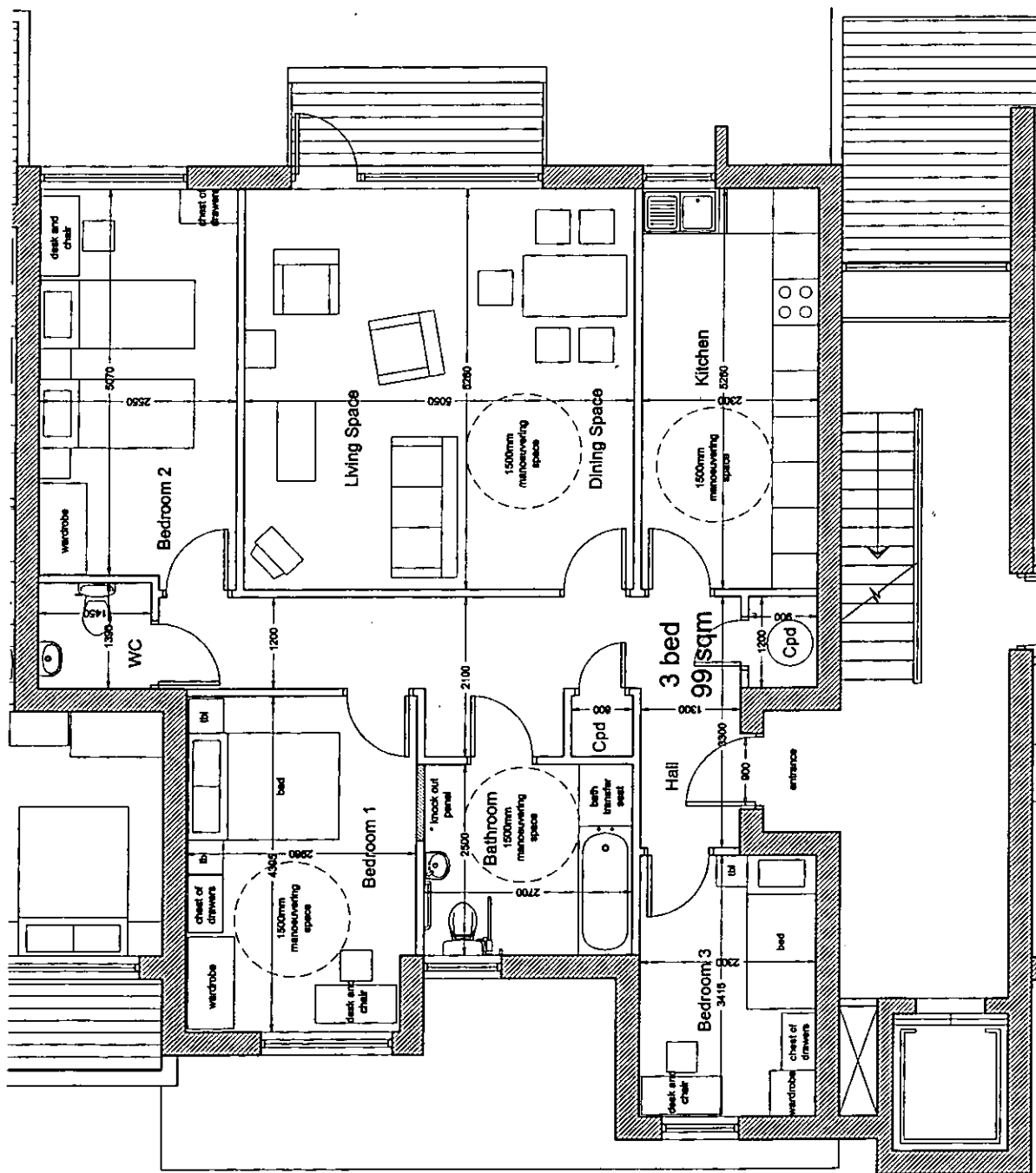
Kitchen

Dining Space

Living Space

En-suite

level access to decking area and balconies



For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 926mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

\* Full height knockout panel provided at connecting wall between master bedroom and bathroom.

For further information refer to Access and Mobility Statement.

130-136 barlby road and  
6 exmoor street, london w10

wheelchair user's accommodation -  
three bedroom (Block D)

1:50@A3

nov 2004

529 P 23

SITE	
TITLE	
SCALE	
DATE	
NO.	

.quad

11 denvershire road ebwicket w6 2ku  
t +44 (0) 20 8894 3344  
f +44 (0) 20 8742 1989  
w www.quadarchitects.com  
e info@quadarchitects.com



**PROPOSED RESIDENTIAL DEVELOPMENT  
AT 130-136 BARLBY ROAD AND  
6 EXMOOR STREET, NORTH KENSINGTON, W10**

REVISION A

EX DIR	HDC	TP	C-C	AD	CLU	AO AK
R.B. K.C.	6 DEC 2004			PLANNING		
N	C	SW	SE	APP	IO	REC
HBS			ARB	FPLN	DES	FEEES

This document was revised on 30.11.2004 in accordance with additional comments from Sue Lines, Access and Mobility Officer at the Royal Borough of Kensington and Chelsea.

prepared by:

quad 11, devonshire road, chiswick, london w4 2eu t: 020 8994 3344 f: 020 8742 1988

The aim of this Access and Mobility Statement is to provide an Inclusive Access Policy as part of the planning application for the development proposals at 130-136 Barlby Road and 6 Exmoor Street, and to illustrate the consideration and integration of all potential users of the scheme in accordance with current government and local policy and guidance.

### **Introduction to the Scheme**

The planning application is for the demolition of an existing 2 storey office building / warehouse and the construction of 108 residential units, 39 of which will be affordable. ~~and a small crèche. It is important to note the exact nature of the crèche has not been established by the Registered Social Landlord or the educational department at The Royal Borough of Kensington & Chelsea. Until then, sections 1 & 2 of this document apply.~~

The new residential development proposes two sites, Blocks A, B & C accessed from Barlby Road and Blocks D & E accessed from Exmoor Street. The residential blocks range in height from 3 to 9 storeys and are of a high quality contemporary design. There will be a mix of housing tenure, Blocks D & E representing the affordable housing component and A, B & C the open market flats. The residential blocks are situated within well-landscaped grounds and provide a safe, secure and inclusive environment in which to live.

### **Pre-Application Discussions**

A meeting was held with The Royal Borough of Kensington & Chelsea Access and Mobility Officer Sue Lines and quad architects on Monday June 28<sup>th</sup> 2004 at Hornton Street Offices, to discuss proposals for an inclusive environment within the scheme. The proposals for the scheme were presented and discussed and advice was given on additional policies relevant to the scheme. These recommendations have been incorporated into the development proposals to provide an inclusive accessible environment.

### **Sources of Advice and Guidance used**

ODPM's Planning and access for disabled people: a good practice guide  
Approved Document Part M (Access to and use of buildings) 2004 Edition  
Approved Document Part B (Fire safety) 2000 Edition  
Royal Borough of Kensington and Chelsea's Unitary Development Plan, Access Statements for Planning Applications, Supplementary guidance on Housing Standards, Access Design guidance notes  
British Standard BS8300 on Access for Disabled People  
Disability Discrimination Act 1995  
DfT Guidance on Inclusive Mobility



## Section 1

### 1.0 Travel to site

#### 1.1 Car parking

- 1.11 The development proposes an underground car park providing 94 95 parking spaces including 10 disabled spaces which amounts to more than 10% provision. The access to the car park is through a gated entrance from Barlby Road and via a 2-way ramp to the basement. All car park users can operate the gates using a remote control device.
- 1.12 The size of the disabled car parking bays are a minimum of 4900mm x 3600mm. Refer to Drawing No. 529 P 02 for dimensioning of bays.
- 1.13 The disabled car parking bays have been evenly distributed throughout the car park to allow residents to use the nearest bay to their block.
- 1.14 No user will have to travel further than 20m from the disabled car parking bay to the point of entry to their block.
- 1.15 All disabled car parking bays will be clearly identified. This will be either with a sign positioned on wall adjacent to the space or on a free standing post where no wall is present. The sign will be 200 x 300mm and state 'Disabled Badge Holders Only'.
- 1.16 All surfaces of disabled car parking bays will be marked with the British Standard 'disabled' symbol in accordance with BS3262, part 1 and BS8300 Figure 2, including the yellow hatched transfer zones.
- 1.17 All residential blocks have lift access to the basement car park. Blocks A, B & C all have additional stair access to the car park. Block D has stair access to the car park for by all residents of Blocks D & E. This stair acts as a secondary means of escape for the car park. Refer to Section 3.3 of this document for additional information regarding lift provision.
- 1.18 Lighting levels in the underground car park are to be 200 – 300 lux.
- 1.19 The floor to the car park will be level except for minimal sloping of the surface for drainage to gulleys. There is no necessity for a change in level between the parking areas and the lift / stair lobbies because the car park is underground / covered and any surface water from the access ramp will be collected in drainage runs at the base.

#### 1.2 Drop-off Points

- 1.21 Residents of Blocks D & E gain access to the site via Exmoor Street. The gated entry to the site is set in 15m from Exmoor Street allowing vehicles to pull into the driveway area to drop-off residents.
- 1.22 Residents of Blocks A, B&C gain access to the site via Barlby Road. Adjacent to the gated entrance to the underground car park there is an existing recessed loading bay which can be used as a drop off point for residents.

#### 1.3 Taxis

- 1.31 As above.

- 1.32 Additionally, a resident may request an arrangement is made where persons responsible for the dropping off and picking up of the resident regularly may be allowed to have a remote control device, to access the gated entry to the site.

**1.4 Bus stops**

- 1.41 There are two bus stops located within 15m of the site, served by bus routes 74 and 316. There are a further four bus stops within 400m of the site providing a good level of accessibility to surrounding areas. Access to these bus stops is by level ground or by dropped kerbs no steeper than 1:12 to ensure suitable access for wheelchair users.

## **Section 2**

### **2.0 Building Environs**

#### **2.1 Locations of Entrances to the site**

- 2.11 The approach to the gated entrance to the Affordable Housing Blocks D & E from Exmoor Street has a gradient of 1:25. The route from the gate to the buildings is ramped down in a series of 1:20 ramps and with a minimum width of 3350mm. The ramp lengths are no longer than 10m and landings are a minimum depth of 1500mm. The courtyard area provides level access to all entrances of the blocks.
- 2.12 Residents' access to the Open Market Blocks A, B & C is via Barlby Road and through a gated entrance which has a clear opening width of 1000mm. Blocks B & C have a level approach within 13m of the gated entrance. Residents to Block A have a 1200mm wide level route to their entrance which runs in front of the Block B. Refer to Drawing no. 529 P 01.
- 2.13 All entrances have a ramped access from external ground level of +19.00 to finished floor level +19.15 with a gradient of 1:20 (5%) to provide a level threshold. All ramps have a minimum width of 1400mm. All entrances have a level platform outside the entrance area of minimum 1200mm x 1200mm. Refer to 529 P 01 for dimensions.

#### **2.2 Entrance Route Design**

- 2.21 The access routes to all buildings will be in a suitable non-slip resin bonded aggregate to ensure a suitable grip for vehicles and easy manoeuvrability for wheelchair users. Where resin bonded aggregate is not shown a suitable tiled surface will be used. All materials to comply with DfT Guidance on Inclusive Mobility and Local Street Design guide and Materials Palette.
- 2.22 All external ramps are to have solid kerbs no less than 100mm in height and 50mm diameter handrails to one side only.
- 2.23 External Lighting along all access routes to be designed to Part 3 BS5489 to ensure good access and reduce crime risk. Design guidance has also been taken from The Royal Borough of Kensington and Chelsea's Streetscape Information Booklet. Minimum Lighting levels at entrances and exits are to be 250 – 350 lux.

### Section 3

#### 3.0 Means of Access to and into Dwellings

##### 3.1 Entrance Design

- 3.11 All entrances are covered to provide protection for people entering the building. Blocks A, B, C & E have lightweight timber and metal canopies at minimum height of 2.3m which extend 1.2m away from the entrance door. Residents to Blocks D1 & D2 enter under a covered area created by the Block D1 above. Access to D3 & D4 is under Flat No. 80's balcony area.
- 3.12 All Main Entrance Doors to blocks are 1000mm width door-leaf providing a clear opening width of 950mm.
- 3.13 All Main Entrance Doors are to be fitted with self-closing mechanisms and set for the minimum opening pressure.
- 3.14 A clear space of 300mm minimum width has been provided adjacent to the leading edge of the door.
- 3.15 All Main Entrance Doors have a minimum visibility zone between 250mm and 1550mm above floor level.

##### 3.2 Circulation within Entrance storey of the building

- 3.21 On entry into Blocks A, B & C the corridor width is 1500mm. On moving into the entrance lobby in front of the lift, the width becomes 2000mm. Access to the gardens at the rear of the blocks is through the adjacent stair-core. The internal doors to the stair-cores are fully glazed with suitable manifestation and have a clear opening of 900mm. This allows the entrance lobby to be a light filled space with clear views out to the gardens.
- 3.22 On entrance to Blocks D1 & D2 the corridor width is 1300mm minimum. Doors to the lift lobby and stair-core have a fire-rating of 30 minutes, glazed visibility panels between 250mm and 1500mm and a clear opening width of 900mm. The lift lobby has a minimum size of 1500mm x 1500mm.
- 3.23 All other entrance lobbies to Blocks D & E have an overall width of 2200mm allowing an unobstructed corridor width of 1200mm and 1000mm width stair.

##### 3.3 Vertical Circulation within residential blocks and Means of Escape

- 3.31 All blocks have a disabled access lift compliant with Approved Document M (2004 Edition) of the Building Regulations 2000 (Access to and use of buildings). This enables disabled people to visit occupants who live on any storey.
- 3.32 The minimum specification for all lifts is to be; 8 person capacity, contract load of 630KG, car size of 1200mmx1500mm, doors providing a clear opening width of 800mm, doors fitted with timing devices and re-opening activators, landing and car controls not less than 900mm and not more than 1200mm above floor level, tactile identification of car controls and a visual and audible indication of the floor reached.
- 3.33 All lifts are also designed for evacuation of disabled people in an emergency and conforms to the relevant recommendations of BS 5588-8:1999 (Fire precautions in the design, construction and use of buildings Part 8: Code of practice for the means of escape for Disabled people) and EN81-72. This enables wheelchair users to self-

evacuate and discharge to ground floor level to a place of safety where all levels have no gradient steeper than 1:20 ramp.

- 3.34 All circulation lobbies in front of the lifts have a clear landing of 1500x1500mm.
  - 3.35 All circulation cores to have staircases designed to Approved Document Part M Section 3.51. Specification includes; unobstructed length of min 1200mm on each landing, contrasting nosing material of 55mm wide on tread and riser, no more than 16 risers in a flight, minimum tread width of 1000mm, maximum rise of 170mm and a minimum going of 250mm.
  - 3.36 All landings have a minimum width of 1200mm to allow wheelchair users to turn into entrance to flats and for change in direction.
- 3.4 Access to Amenity Space**
- 3.41 Residents of Blocks A, B & C can access the communal rear gardens and lawn area via a level access route to the east side of the car park ramp.
  - 3.42 Residents of Blocks D & E regularly access their communal landscaped courtyard in front of the residential blocks to enter their dwellings.
  - 3.43 The affordable housing wheelchair users accommodation in Block E is situated at second to fifth floor. The units have a generous provision of balcony space and can be accessed easily by wheelchair users.
  - 3.44 The Open Market Housing wheelchair users accommodation in Block C is situated at ground to seventh floor. All users have level access to their balcony / garden area.

## Section 4

### 4.0 Wheelchair User Accommodation

Refer to attached Drawing No's. 529 P 20A, and 529 P 21, 529 P 22 and 529 P 23.

#### 4.1 Location of Wheelchair User Accommodation

- 4.11 In line with Royal Borough of Kensington & Chelsea UDP, the development provides a total of 12 flats (11%) specifically designed for wheelchair users. This accommodation is located in both the affordable housing and the open market blocks.
- 4.12 4 No. four bedroom units are located in the Affordable Housing Blocks D & E. These are flat no's ~~90, 96, 101 & 106~~ and are situated at ~~second, third, fourth and fifth floor~~ respectively. These are flat No's 70, 73, 74 and 77 and are situated at ground and first floor level.
- 4.13 ~~A further 8 No. one bedroom units are located in the Open Market Block C. These are flat no's 7, 17, 27, 36, 44, 52, 60 & 66 and sit directly above each other from ground up to the seventh floor.~~ 4 No. three bedroom units are also located in Affordable Housing Block D. These are flat No's 85, 93, 98, 104 and sit directly above each other from second to fifth floor.
- 4.14 A further 2 No. two bedroom units, flat No's 3 & 11 and 2 No. one bedroom units, flat No's 7 & 17 are provided in the Open Market blocks A and C at ground and first floor level.

#### 4.2 Entrance Door and Internal Doors

- 4.21 Entrance Doors are to be 926mm door leaf.
- 4.22 Internal Doors are to be 826 door leaf.
- 4.23 All doors have a minimum of 300mm offset between the opening edge of the door blade and the return of the wall, when pulling the door.
- 4.24 The hanging of all doors facilitate easy wheelchair manoeuvre.
- 4.25 Door handles are set at a common height of between 900mm and 1200mm above finished floor level to aid people with visual impairment.

#### 4.3 Internal Planning

- 4.31 All corridors have a minimum width of 1200mm.
- 4.32 All rooms have wheelchair access and a 1500mm manoeuvre space is provided to bedroom 1, bathroom, kitchen, living and dining space.
- 4.33 The dimensions of the wheelchair accessible bathroom are 2500mm x 2700mm and is designed to comply with Approved Document Part M Section 5.19 – 5.21.
- 4.34 The layout of the bathroom is designed to BS8300 standards.
- 4.35 Where the bathroom and main bedroom are adjacent to each other, there is a full height knockout panel on the connecting wall.

**4.4 Components**

- 4.41 All light switches, sockets and entry phones are to be placed at appropriate heights between 400mm and 1200mm above finished floor level.
- 4.42 Bath and kitchen to have slip resistant floor finish.
- 4.43 Recessed grab handles are provided to the bath.



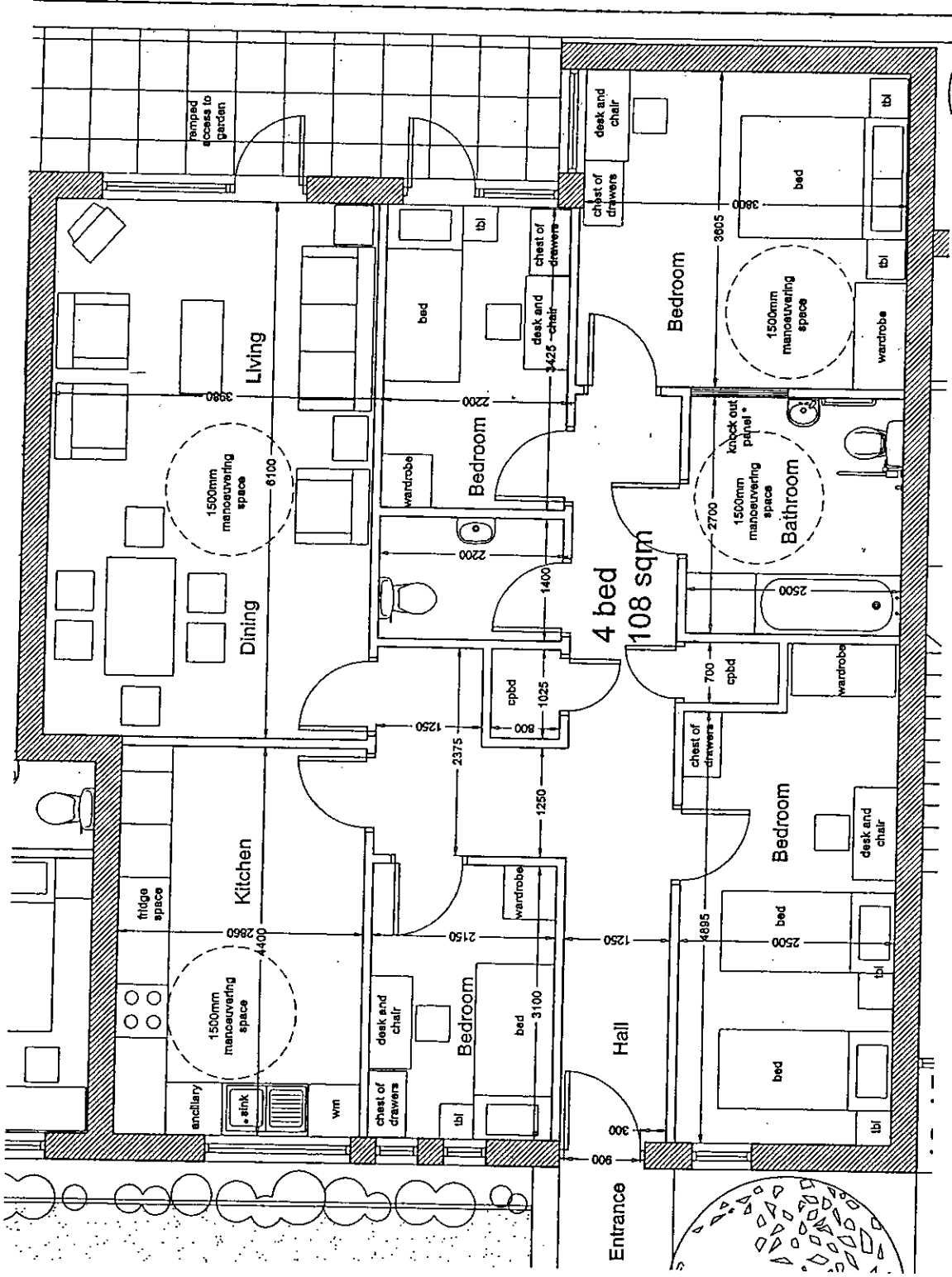
**Appendix**

Fig 1: Drawing No. 529 P 20 A – wheelchair user's accommodation – four bedroom (Block E)

Fig 2: Drawing No. 529 P 21 – wheelchair user's accommodation – one bedroom (Block C)

Fig 3: Drawing No. 529 P 22 – wheelchair user's accommodation – two bedroom (Block A2)

Fig 4: Drawing No. 529 P 23 – wheelchair user's accommodation – three bedroom (Block D)



For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 926mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

\* Full height knockout panel provided at connecting wall between master bedroom and bathroom.

For further information refer to Access and Mobility Statement.

SITE 130-136 bariby road and 6 exmoor street, london w10

TITLE wheelchair user's accommodation - four bedroom (Block E)

SCALE 1:50@A3

DATE NOV 2004

NO. 529 P 20 A

quad

11 devonshire road chiswick w4 2JW  
 t +44 (0) 20 8984 3344  
 f +44 (0) 20 8742 1888  
 www.quadrants.com  
 e info@quadrants.com

For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 826mm door leaf.

All internal doors are 826mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 800 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, W/C and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

For further information refer to Access and Mobility Statement.

130-136 barlby road and  
6 exmoor street, london w10

wheelchair user's accommodator  
one bedroom (Block C)

1:50@A3

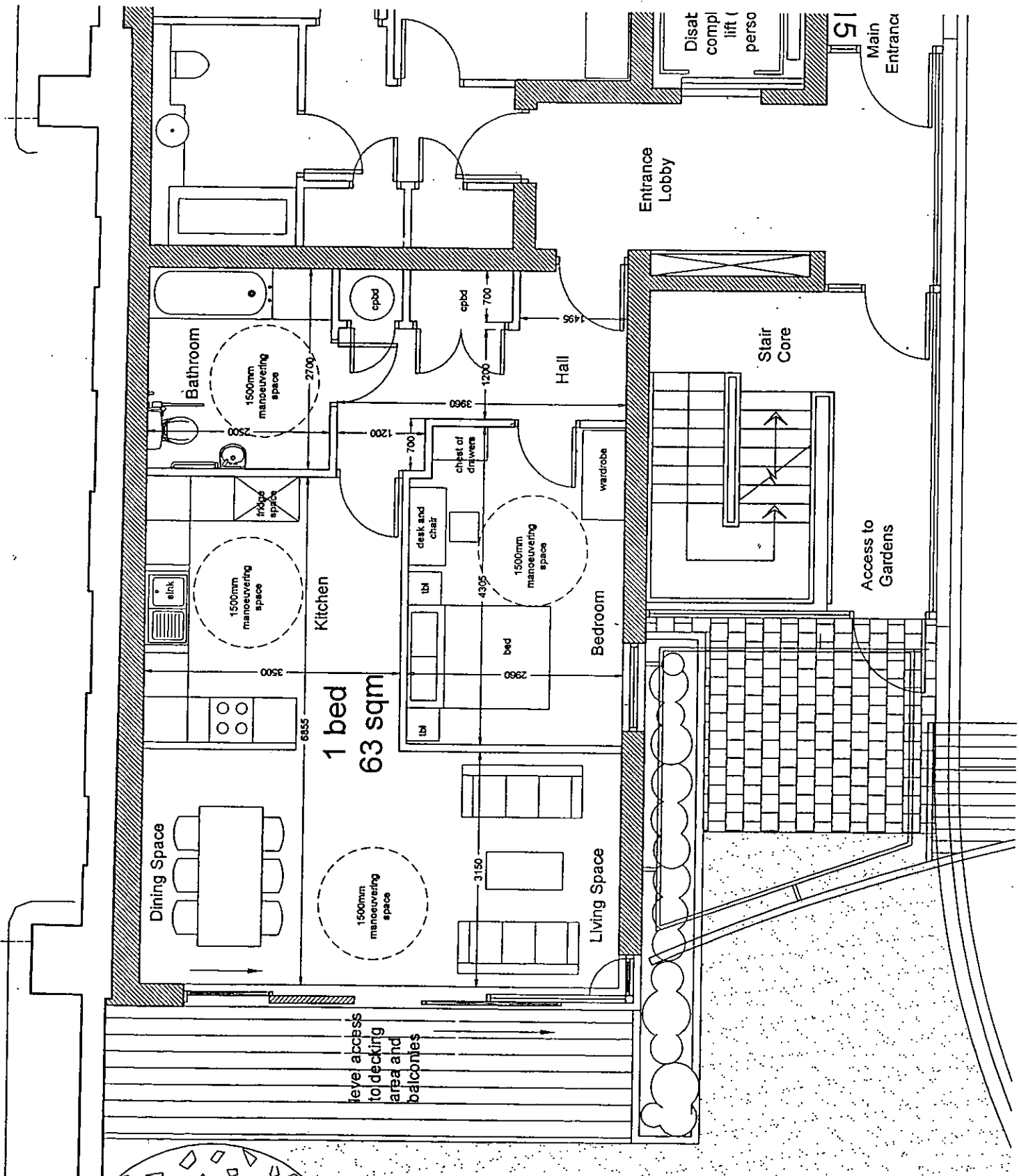
aug 2004

529 P 21

BITE	TITLE	SCALE	DATE	NO.

.quad

11 dovehill road, ebworth w12 9su  
+44 (0) 20 8994 3344  
+44 (0) 20 8742 1888  
www.quadarchitect.com  
info@quadarchitect.com



1 bed  
63 sqm

level access  
to decking  
area and  
balconies

Entrance  
Lobby

Stair  
Core

Access to  
Gardens

Disat  
compl  
lift (perso)

Main  
Entrance

Bathroom

Kitchen

Dining  
Space

Living  
Space

Bedroom

Hall

Access to  
Gardens

Access to  
Gardens

Entrance  
Lobby

Stair  
Core

Access to  
Gardens

Disat  
compl  
lift (perso)

Main  
Entrance

Bathroom

Kitchen

Dining  
Space

Living  
Space

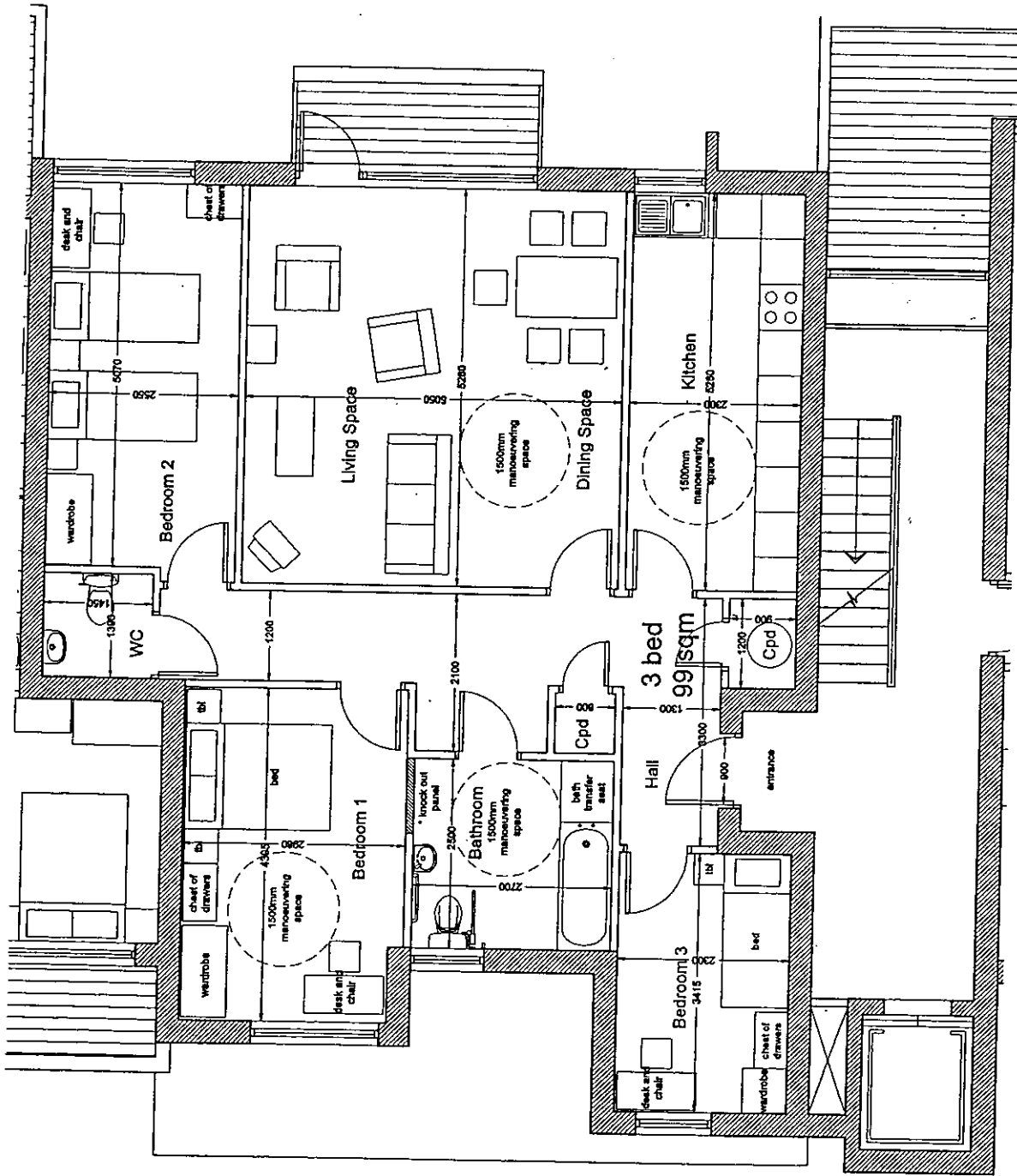
Bedroom

Hall

Access to  
Gardens

Access to  
Gardens





For disabled parking provision refer to drawing No. 529 P 02

Access to the basement car park is via the Approved Document Part M compliant lift.

Entrance Door to be a 928mm door leaf.

All Internal doors are 928mm door leaf.

Level thresholds provided at main entrance door, flat entrance door and doors to balconies.

All Door handles, switches, thermostats etc. positioned between 900 and 1200mm above floor level. All sockets to be 450-600mm above finished floor level.

Bathroom, WC and Kitchen to have slip resistant floor finish. Recessed grab handles provided to the bath.

\* Full height knockout panel provided at connecting wall between master bedroom and bathroom.

For further information refer to Access and Mobility Statement.

130-136 barlby road and  
6 exmoor street, london w10  
wheelchair user's accommodation -  
three bedroom (Block D)

1:50@A3  
NOV 2004  
529 P 23

SITE	TITLE	SCALE	DATE	NO.

.quad

11 devonshire road chiswick w4 2w  
t +44 (0) 20 894 3344  
f +44 (0) 20 874 1888  
www.quadarchitects.com  
info@quadarchitects.com

# Other Documents

Please Index As

File Number

Part 1

Part 10

Part 2

Part 11

Part 3

Part 12

Part 4

Part 13

Part 5

Part 14

Part 6

Part 15

Part 7

Part 16

Part 8

Part 17

Part 9

Part 18



11, devonshire road, chiswick, london w4 2eu t. 020 8994 3344 f. 020 8742 1988

quad

1.30-1.36 BARLBY ROAD AND 6 EXMOOR STREET, NORTH KENSINGTON W10  
529 ILLUSTRATION 2 - EXISTING BARLBY ROAD ELEVATION

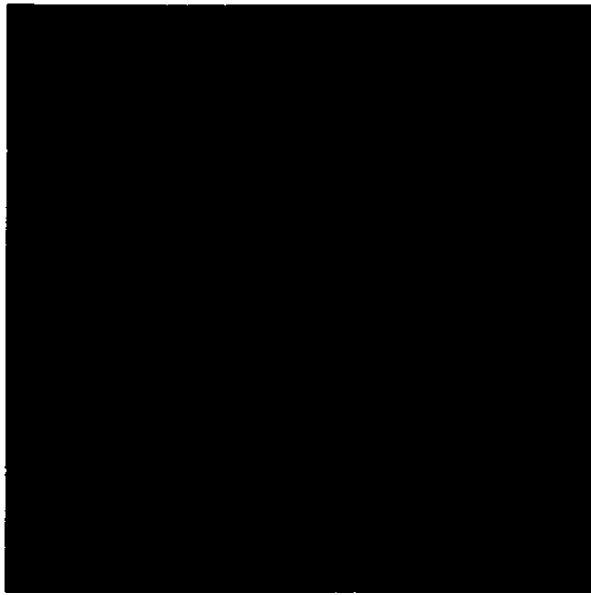




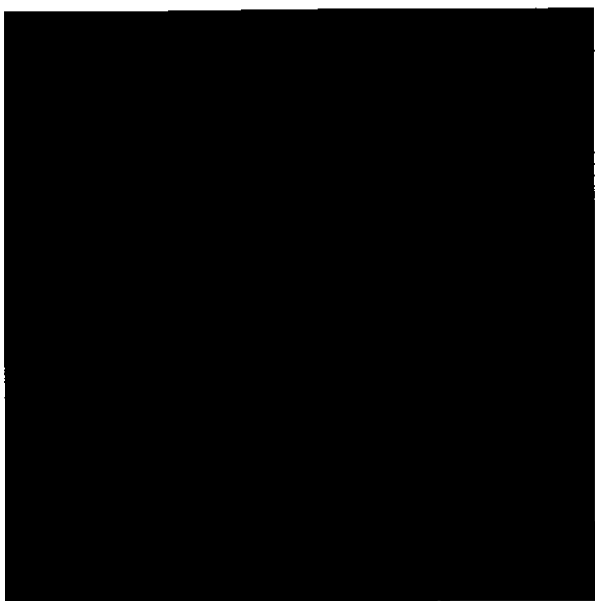
11. devonshire road, chiswick, london w4 2eu t. 020 8994 3344 f. 020 8742 1988

quad

130-136 BARLBY ROAD AND 6 EXMOOR STREET, NORTH KENSINGTON W10  
529 ILLUSTRATION 2 - EXISTING BARLBY ROAD ELEVATION



b6





**A REPORT ON SUNLIGHT AND  
DAYLIGHT AS A RESULT OF  
THE REDEVELOPMENT  
OF  
130-136 BARLBY ROAD  
AND 6 EXMOOR STREET  
LONDON  
W10**

Prepared for: Indigo Planning Limited

Prepared by: Kaivin Wong BSc (Hons) MRICS  
**MALCOLM HOLLIS**

Date: 30 September 2004

Reference: KW1/KW1-77/KW/fb

**Partners**

John Woodman BSc (Hons) MSc FRICS  
Kaivin Wong BSc (Hons) MRICS  
Simon Hill BSc MRICS  
Alex Brown BSc (Hons) MRICS  
Julian Bisson BSc (Hons) MRICS  
Claire Charlton BSc (Hons) MRICS  
Bartie Woolhouse BSc (Hons) MRICS  
Peter Martin BSc MRICS

**Finance Director**  
Ian Thompson ACA

**Associates**

Graham Hough BSc MRICS  
Matthew Gosling BSc (Hons) DipSurv  
MRICS MCIOB  
Steven Hughes BSc (Hons) MRICS

**Consultants**

Ray Evans Dip Arch RIBA  
John Gillies FRICS FBEng

**5 Brooks Court  
Kirtling Street  
London SW8 5BP**

**T: 020 7622 9555  
F: 020 7627 9850**

**E: london@malcolmhollis.co.uk  
W: www.malcolmhollis.co.uk**



INVESTOR IN PEOPLE



---

<b>CONTENTS</b>	<b>PAGE</b>
<b>1. INTRODUCTION .....</b>	<b>3</b>
<b>1.2 RELEVANT POLICY CONSIDERATIONS .....</b>	<b>3</b>
<b>2. TESTS TO BE APPLIED TO EXISTING BUILDINGS .....</b>	<b>3</b>
<b>2.2 DAYLIGHT.....</b>	<b>4</b>
<b>2.3 SUNLIGHT.....</b>	<b>6</b>
<b>3. ASSESSMENT .....</b>	<b>7</b>
<b>3.1 DAYLIGHT TO NEIGHBOURING AND ADJOINING BUILDINGS .....</b>	<b>7</b>
<b>3.2 DAYLIGHT TO THE PROPOSED BUILDING .....</b>	<b>9</b>
<b>3.3 SUNLIGHT TO NEIGHBOURING AND ADJOINING BUILDINGS .....</b>	<b>11</b>
<b>3.4 SUNLIGHT TO THE PROPOSED BUILDINGS .....</b>	<b>12</b>
<b>4. CONCLUSION .....</b>	<b>13</b>

APPENDIX 1 – EXTRACT FROM BRE GUIDELINES

## 1. INTRODUCTION

1.1.1 We are instructed by Indigo Planning Limited to assess the impact on natural daylight and sunlight as a result of the redevelopment of 130-136 Barlby Road and 6 Exmoor Street, London, W10 in the context of the planning guidelines contained in the UDP of the Royal Borough of Kensington and Chelsea. The standards adopted within the UDP documents are set out in the Building Research Establishment (BRE) Report "Site layout planning for daylight and sunlight – A guide to good practice" 1991. Reference is also made to the standards contained within the British Standard Code of Practice for Daylighting, BS8206 Part 2.

### 1.2 Relevant Policy Considerations

1.2.1 The principal purpose of the Council's policy in connection with the amenity of adjoining buildings, is to ensure that new development does not materially or adversely affect the amenity of those buildings in the context of sunlight, daylight, sense of enclosure, privacy and overshadowing. The policy also seeks to ensure that natural light to new developments is adequate for their occupation and use. To assess these considerations objectively, the scientific empirical measurements contained in the BRE Guidelines and British Standard Code of Practice are referred to in the UDP as the standards to be applied.

## 2. TESTS TO BE APPLIED TO EXISTING BUILDINGS

2.1.1 The main purpose of the guidelines is to assist in the consideration of the relationship of new and existing buildings to ensure that each retain a potential to achieve good daylighting and sunlighting levels. That is, by following and satisfying the tests contained in the guidelines, new and existing buildings should be sufficiently spaced apart in relation to their relative heights so that both continue to have the potential to achieve good levels of daylight and sunlight. They have been drafted primarily for use with low density suburban developments and should therefore be used flexibly when dealing with a dense urban city centre site – a fact recognised by the Report's author in the Introduction where Dr Paul Littlefair says:

*'The Guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and this document should not be seen as an instrument of planning policy. Its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of many factors in site layout design..... In special circumstances the developer or Planning Authority may wish to use different target values. For example, in a historic city centre a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings.....'*

2.1.2 In addition, the block spacing criteria for daylight and sunlight are a major determinant of other amenity considerations such as *sense of enclosure, privacy, overlooking and overshadowing*. That is to say, if the relationship between height, distance and massing of the new and existing buildings is sufficient to meet the sunlight and daylight criteria, they should generally be sufficiently well-spaced as not to be oppressive by creating an unacceptable degree of sense of enclosure nor would they unreasonably interfere with privacy or overlooking or cast an unreasonable amount of shadow.

## 2.2 Daylight

2.2.1 There are various methods of measuring and assessing daylight and the choice of test depends on the circumstances of each particular window. For example, greater protection should be afforded to windows which serve living rooms or family kitchens compared to bedrooms. The tests should however also be applied to non-domestic uses such as offices and workplaces where such uses will ordinarily have a reasonable expectation of daylight and are a principal workplace.

2.2.2 The criteria for protecting daylight to existing buildings is contained in Section 2.2 of the BRE Guidelines, which have been reproduced at Appendix 1. The BRE have developed a series of tests which begin with very simple block spacing formulae followed by increasingly sophisticated measurements of Vertical Sky Component (VSC) on the face of each window, and measurements of internal daylighting by calculating Average Daylight Factor (*df*) followed by the plotting of Sky Factor Contours. The tests are consecutive and for there to be a failure of the guidelines, there must be a failure on each test. It also follows that if a design passes one of the daylight tests, the proposed level of daylight will be acceptable and it is therefore unnecessary to proceed to any further tests.

2.2.3 The tests are summarised in the decision flow chart in Appendix 1 and are briefly as follows.

Test 1 – if a new development subtends an angle less than 25° taken from the mid-point to the lowest window of the existing building, that window, and any window at the same level or above it, will continue to receive sufficient daylight.

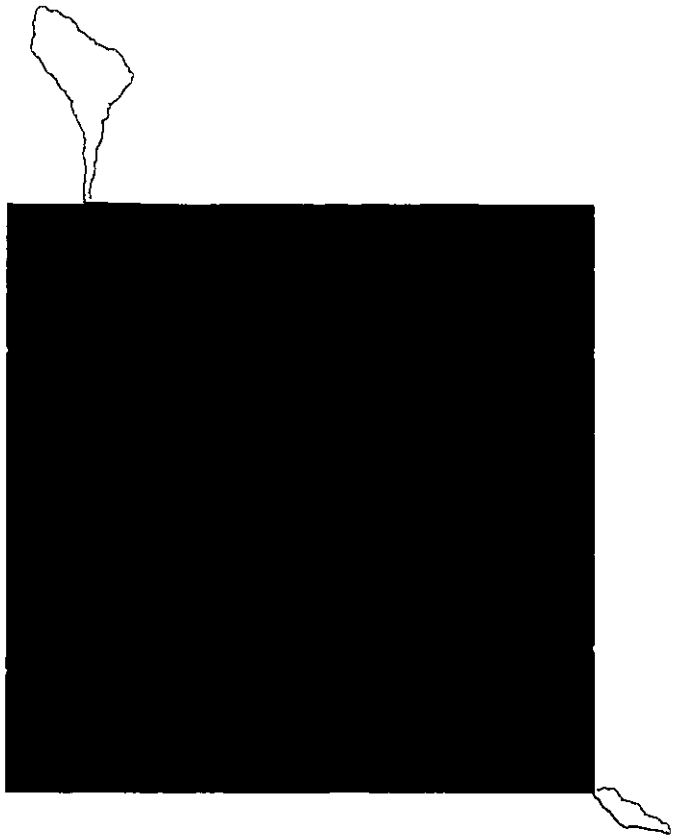
Test 2 – if the window continues to receive greater than 27% Vertical Sky Component (VSC) at its mid point, it will continue to receive sufficient daylight.

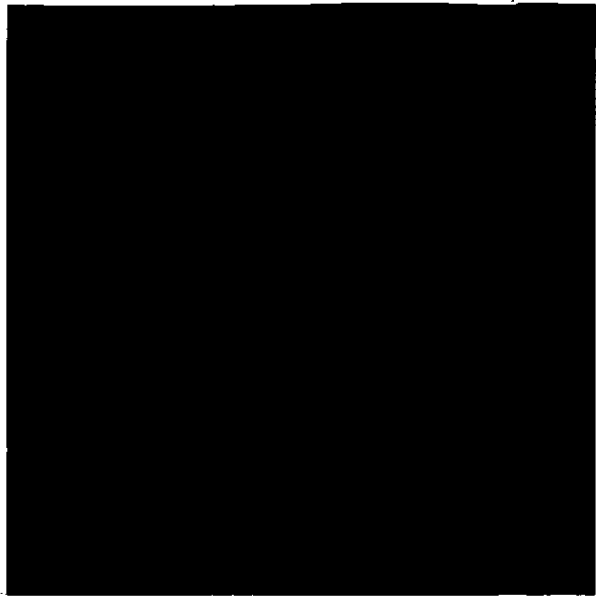
Test 3 – if the window receives less than 27% VSC under present conditions, it is permissible to reduce this amount by a maximum of 20% (i.e. 0.8 times its former value), before the loss is considered material.

Test 4 – if the reduction in the VSC is greater than 20%, it is necessary to measure the interior daylight distribution and this value may be reduced by 20% of its existing value (i.e. 0.8 times its former value), before the loss is considered material. Average Daylight Factor (*df*) measurements in accordance with the methodology in Appendix C of the BRE Guidelines and British Standard BS8206 Part 2, can then be used to assess lighting levels.



- 2.2.4 Test 1 is a very simple test for block spacing and should only be used where the proposed development is of a reasonably uniform profile and is directly opposite the existing building. Its use is more appropriate for low density well-spaced developments such as housing and often is not a particularly useful tool in assessing urban and in-fill sites.
- 2.2.5 For Test 2, the Vertical Sky Component is a unit of measurement that represents the amount of available daylight from the sky, receivable at a particular window. It is measured on the outside face of the window. The 'unit' is expressed as a percentage as it is the ratio between the amount of sky visible at the given reference point compared to the amount of light that would be available from a totally unobstructed hemisphere of sky. To put this unit of measurement in perspective, the maximum percentage value for a window with a completely unobstructed outlook (i.e. with a totally unobstructed view through 90° in every direction) is 50%. In practice, the true measure of this value can in fact be nearer 40% to take account of the losses at extreme angles and the effect of windows set in window reveals. The target figure recommended by the BRE is 27% VSC and if the value is in excess of 27% VSC the window in question will continue to receive a good level of daylight.
- 2.2.6 27% VSC is a relatively good level of daylight and is a target level that we would expect to find for habitable rooms with windows on principal elevations. This level is often difficult to achieve on secondary elevations and in densely built-up urban environments.
- 2.2.7 For comparison, a window receiving 27% VSC is approximately equivalent to a window that would have a continuous obstruction opposite it and which subtends an angle of 25° i.e. the same as Test 1.
- 2.2.8 The Average Daylight Factor (*df*) takes account of the interior dimensions and reflectances within the room being tested and is a more detailed and representative measure of the adequacy of light for this reason. The recommended *df* values contained in the British Standard for Daylighting (Code of Practice for Daylighting, British Standard BS8206 Part 2) are 2% for family kitchens, 1.5% for living rooms and 1% for bedrooms. It is however only necessary to calculate Average Daylight Factors where the Vertical Sky Component level is below 27%.
- 2.2.9 Through their research, the Building Research Establishment have determined that daylight (and sunlight levels) can be reduced by approximately 20% of its original value before the loss is materially noticeable. It is for this reason that they consider that a 20% reduction is permissible in circumstances where the existing VSC value is below the 27% threshold.
- 2.2.10 This level of reduction also applies to the measurements adopted in the third and fourth tests in the BRE Guidelines.





1





**A REPORT ON SUNLIGHT AND  
DAYLIGHT AS A RESULT OF  
THE REDEVELOPMENT  
OF  
130-136 BARLBY ROAD  
AND 6 EXMOOR STREET  
LONDON  
W10**

Prepared for: Indigo Planning Limited

Prepared by: Kaivin Wong BSc (Hons) MRICS  
**MALCOLM HOLLIS**

Date: 30 September 2004

Reference: KW1/KW1-77/KW/fb

**Partners**

John Woodman BSc (Hons) MSc FRICS  
Kaivin Wong BSc (Hons) MRICS  
Simon Hill BSc MRICS  
Alex Brown BSc (Hons) MRICS  
Julian Blisson BSc (Hons) MRICS  
Claire Charlton BSc (Hons) MRICS  
Bartie Woolhouse BSc (Hons) MRICS  
Peter Martin BSc MRICS

**Finance Director**  
Ian Thompson ACA

**Associates**

Graham Hough BSc MRICS  
Matthew Gosling BSc (Hons) DipSurv  
MRICS MCIOS  
Steven Hughes BSc (Hons) MRICS

**Consultants**

Ray Evans Dip Arch RIBA  
John Gillies FRICS FBEng

**5 Brooks Court  
Kirtling Street  
London SW8 5BP**

**T: 020 7622 9555  
F: 020 7627 9850**

**E: london@malcolmhollis.co.uk  
W: www.malcolmhollis.co.uk**



INVESTOR IN PEOPLE



---

<b>CONTENTS</b>	<b>PAGE</b>
<b>1. INTRODUCTION .....</b>	<b>3</b>
<b>1.2 RELEVANT POLICY CONSIDERATIONS .....</b>	<b>3</b>
<b>2. TESTS TO BE APPLIED TO EXISTING BUILDINGS .....</b>	<b>3</b>
<b>2.2 DAYLIGHT.....</b>	<b>4</b>
<b>2.3 SUNLIGHT.....</b>	<b>6</b>
<b>3. ASSESSMENT .....</b>	<b>7</b>
<b>3.1 DAYLIGHT TO NEIGHBOURING AND ADJOINING BUILDINGS.....</b>	<b>7</b>
<b>3.2 DAYLIGHT TO THE PROPOSED BUILDING .....</b>	<b>9</b>
<b>3.3 SUNLIGHT TO NEIGHBOURING AND ADJOINING BUILDINGS .....</b>	<b>11</b>
<b>3.4 SUNLIGHT TO THE PROPOSED BUILDINGS .....</b>	<b>12</b>
<b>4. CONCLUSION .....</b>	<b>13</b>

APPENDIX 1 – EXTRACT FROM BRE GUIDELINES

## 1. INTRODUCTION

1.1.1 We are instructed by Indigo Planning Limited to assess the impact on natural daylight and sunlight as a result of the redevelopment of 130-136 Barlby Road and 6 Exmoor Street, London, W10 in the context of the planning guidelines contained in the UDP of the Royal Borough of Kensington and Chelsea. The standards adopted within the UDP documents are set out in the Building Research Establishment (BRE) Report "Site layout planning for daylight and sunlight – A guide to good practice" 1991. Reference is also made to the standards contained within the British Standard Code of Practice for Daylighting, BS8206 Part 2.

### 1.2 Relevant Policy Considerations

1.2.1 The principal purpose of the Council's policy in connection with the amenity of adjoining buildings, is to ensure that new development does not materially or adversely affect the amenity of those buildings in the context of sunlight, daylight, sense of enclosure, privacy and overshadowing. The policy also seeks to ensure that natural light to new developments is adequate for their occupation and use. To assess these considerations objectively, the scientific empirical measurements contained in the BRE Guidelines and British Standard Code of Practice are referred to in the UDP as the standards to be applied.

## 2. TESTS TO BE APPLIED TO EXISTING BUILDINGS

2.1.1 The main purpose of the guidelines is to assist in the consideration of the relationship of new and existing buildings to ensure that each retain a potential to achieve good daylighting and sunlighting levels. That is, by following and satisfying the tests contained in the guidelines, new and existing buildings should be sufficiently spaced apart in relation to their relative heights so that both continue to have the potential to achieve good levels of daylight and sunlight. They have been drafted primarily for use with low density suburban developments and should therefore be used flexibly when dealing with a dense urban city centre site – a fact recognised by the Report's author in the Introduction where Dr Paul Littlefair says:

*'The Guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and this document should not be seen as an instrument of planning policy. Its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of many factors in site layout design..... In special circumstances the developer or Planning Authority may wish to use different target values. For example, in a historic city centre a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings.....'*

2.1.2 In addition, the block spacing criteria for daylight and sunlight are a major determinant of other amenity considerations such as *sense of enclosure, privacy, overlooking and overshadowing*. That is to say, if the relationship between height, distance and massing of the new and existing buildings is sufficient to meet the sunlight and daylight criteria, they should generally be sufficiently well-spaced as not to be oppressive by creating an unacceptable degree of sense of enclosure nor would they unreasonably interfere with privacy or overlooking or cast an unreasonable amount of shadow.

## 2.2 Daylight

2.2.1 There are various methods of measuring and assessing daylight and the choice of test depends on the circumstances of each particular window. For example, greater protection should be afforded to windows which serve living rooms or family kitchens compared to bedrooms. The tests should however also be applied to non-domestic uses such as offices and workplaces where such uses will ordinarily have a reasonable expectation of daylight and are a principal workplace.

2.2.2 The criteria for protecting daylight to existing buildings is contained in Section 2.2 of the BRE Guidelines, which have been reproduced at Appendix 1. The BRE have developed a series of tests which begin with very simple block spacing formulae followed by increasingly sophisticated measurements of Vertical Sky Component (VSC) on the face of each window, and measurements of internal daylighting by calculating Average Daylight Factor (*df*) followed by the plotting of Sky Factor Contours. The tests are consecutive and for there to be a failure of the guidelines, there must be a failure on each test. It also follows that if a design passes one of the daylight tests, the proposed level of daylight will be acceptable and it is therefore unnecessary to proceed to any further tests.

2.2.3 The tests are summarised in the decision flow chart in Appendix 1 and are briefly as follows.

Test 1 – if a new development subtends an angle less than 25° taken from the mid-point to the lowest window of the existing building, that window, and any window at the same level or above it, will continue to receive sufficient daylight.

Test 2 – if the window continues to receive greater than 27% Vertical Sky Component (VSC) at its mid point, it will continue to receive sufficient daylight.

Test 3 – if the window receives less than 27% VSC under present conditions, it is permissible to reduce this amount by a maximum of 20% (i.e. 0.8 times its former value), before the loss is considered material.

Test 4 – if the reduction in the VSC is greater than 20%, it is necessary to measure the interior daylight distribution and this value may be reduced by 20% of its existing value (i.e. 0.8 times its former value), before the loss is considered material. Average Daylight Factor (*df*) measurements in accordance with the methodology in Appendix C of the BRE Guidelines and British Standard BS8206 Part 2, can then be used to assess lighting levels.



- 2.2.4 Test 1 is a very simple test for block spacing and should only be used where the proposed development is of a reasonably uniform profile and is directly opposite the existing building. Its use is more appropriate for low density well-spaced developments such as housing and often is not a particularly useful tool in assessing urban and in-fill sites.
- 2.2.5 For Test 2, the Vertical Sky Component is a unit of measurement that represents the amount of available daylight from the sky, receivable at a particular window. It is measured on the outside face of the window. The 'unit' is expressed as a percentage as it is the ratio between the amount of sky visible at the given reference point compared to the amount of light that would be available from a totally unobstructed hemisphere of sky. To put this unit of measurement in perspective, the maximum percentage value for a window with a completely unobstructed outlook (i.e. with a totally unobstructed view through 90° in every direction) is 50%. In practice, the true measure of this value can in fact be nearer 40% to take account of the losses at extreme angles and the effect of windows set in window reveals. The target figure recommended by the BRE is 27% VSC and if the value is in excess of 27% VSC the window in question will continue to receive a good level of daylight.
- 2.2.6 27% VSC is a relatively good level of daylight and is a target level that we would expect to find for habitable rooms with windows on principal elevations. This level is often difficult to achieve on secondary elevations and in densely built-up urban environments.
- 2.2.7 For comparison, a window receiving 27% VSC is approximately equivalent to a window that would have a continuous obstruction opposite it and which subtends an angle of 25° i.e. the same as Test 1.
- 2.2.8 The Average Daylight Factor (*df*) takes account of the interior dimensions and reflectances within the room being tested and is a more detailed and representative measure of the adequacy of light for this reason. The recommended *df* values contained in the British Standard for Daylighting (Code of Practice for Daylighting, British Standard BS8206 Part 2) are 2% for family kitchens, 1.5% for living rooms and 1% for bedrooms. It is however only necessary to calculate Average Daylight Factors where the Vertical Sky Component level is below 27%.
- 2.2.9 Through their research, the Building Research Establishment have determined that daylight (and sunlight levels) can be reduced by approximately 20% of its original value before the loss is materially noticeable. It is for this reason that they consider that a 20% reduction is permissible in circumstances where the existing VSC value is below the 27% threshold.
- 2.2.10 This level of reduction also applies to the measurements adopted in the third and fourth tests in the BRE Guidelines.

## 2.3 Sunlight

- 2.3.1 Unlike with daylight, which is non-directional and assumes that light from the sky is uniform, the availability of sunlight is dependent on direction. That is, as the United Kingdom is in the northern hemisphere, we only receive our sun from the south and the sun rises in the east and sets in the west. The availability of sunlight is therefore dependent on the orientation of the window or area of ground being assessed relative to position of due south.
- 2.3.2 Accordingly, sunlight need only be measured where an existing building has a 'window wall' (i.e. a wall with a window serving a habitable room) within 90° of due south.
- 2.3.3 The guidelines also state that the sunlight criteria will be met if: -
- (i) The *window wall* faces within 90° of due south and no obstruction measured in the section perpendicular to the window wall, subtends an angle of more than 25° from the horizontal. Obstructions within 90° due north of the reference point need not count.
  - (ii) The window wall faces within 20° due south and the reference point has a Vertical Sky Component of 27% or more.
- 2.3.4 In this context, the sunlight criteria only applies where a window faces within 90° of due south and where the Vertical Sky Component value for daylight is less than 27% within 20° of due south. The criteria should also be viewed flexibly with account taken for the actual orientation relative to due south.
- 2.3.5 The two tests referred to above at paragraph 2.3.3. are used as a rule of thumb and where sunlight needs to be tested to a greater level of detail, sunlight is measured using the Sunlight Availability Indicator contained in Appendix 1 of the Guidelines. That indicator calculates the anticipated annual probable sunlight hours that a window can receive over and around a proposed new building. For this report, the sunlight levels have been calculated by our software package which has been developed using the Sunlight Availability Indicators but is more accurate as it measures sunlight availability to a much higher degree of accuracy than the "spotting" method in the Guidelines. The sunlight criteria only applies to windows serving living rooms of an existing dwelling. This is in contrast to the daylight criteria which applies to kitchens and bedrooms as well as living rooms. The sunlight criteria taken from section 3.2 of the BRE guidelines (page 12 of the guidelines – see Appendix 1) is as follows: -

'If a living room of an existing dwelling has a main window facing within 90° of due south, and any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the window in a vertical section perpendicular to the window, then the sunlighting of the existing dwelling may be adversely effected. This will be the case if a point at the centre of the window, in the plane of the inner window wall, received in the year less than one quarter of annual probable sunlight hours including at least 5% of annual probable sunlight hours between 21 September and 21 March, and less than 0.8 times its former sunlight hours during either period.'

### 3. ASSESSMENT

#### 3.1 Daylight to Neighbouring and Adjoining Buildings

3.1.1 The testing criteria in the BRE Guidelines apply to habitable rooms which are categorised as living rooms, kitchens and bedrooms. Bathrooms, hallways and circulation space are excluded.

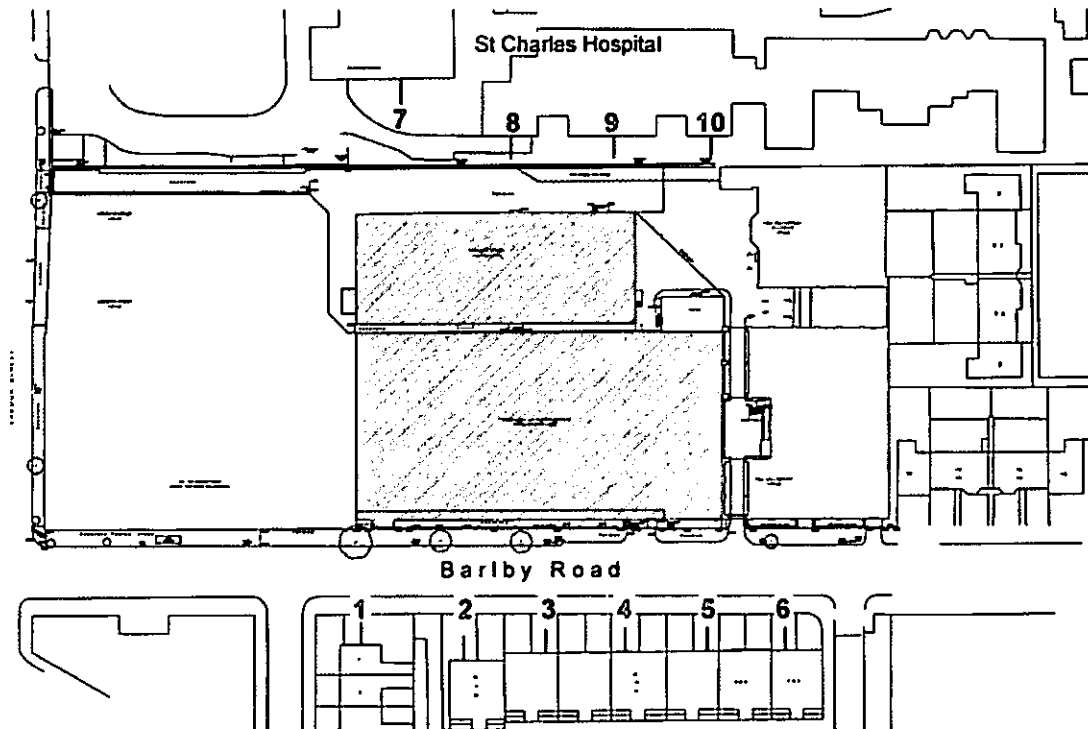
3.1.2 The amenity policy and the BRE Guidelines are generally applicable to habitable rooms within domestic residential dwellings. The only residential properties within close proximity of the site are the houses on the opposite side of Barlby Road situated in Matthew Close (reference points 1-6 in Table 1 below). However, for completeness we have also tested a number of reference points for St Charles Hospital as windows serving the hospital will have a reasonable expectation of daylight.

3.1.3 The simple angle test of 25° in Test 1 of the BRE Guidelines is not entirely appropriate as the profile of the proposed new building will not be a continuous obstruction opposite the windows and would not take account of the effect of the existing neighbouring buildings. The most appropriate test to be applied is therefore the calculation of Vertical Sky Components on the face of the windows in question. We have therefore calculated the "existing" and "proposed" VSC values for a representative selection of windows and those results are summarised in the table below. The location of the reference points chosen is given on the location plan at the foot of the table overleaf.

3.1.4 The results in the table below need to be interpreted in the context of the criteria contained in Section 2 of the BRE Guidelines. To satisfy the initial test in the guidelines, the VSC measured on the face of the window should not fall below a target value of 27% VSC represented by the figures in the third column of the table. Where the VSC is below 27% under existing circumstances, it is permissible to reduce the present value by a maximum of 20% of the present value before the loss is considered noticeable.

3.1.5 The results of our analysis are tabulated below.

TABLE 1	Existing VSC [%]	Proposed VSC [%]	% of original VSC [%]
<b>Selected Points at 2m above ground level</b>			
Point 1	34.32	27.68	80.65
Point 2	34.13	30.46	89.25
Point 3	33.99	30.44	89.56
Point 4	33.73	30.45	90.28
Point 5	32.75	30.72	93.80
Point 6	32.38	31.62	97.65
Point 7	37.03	30.52	82.42
Point 8	36.67		70.03
Point 9	35.31		62.59
Point 10	30.92	26.85	86.84



- 3.1.6 Under existing circumstances, the windows presently receive very good levels of daylight due to the existing height and distance ratios.
- 3.1.7 Reference points 1-6 provide a comprehensive sample of readings across the rear elevations of all of the houses on Matthew Close. Each of those reference points was taken at 2m above ground level and each yielded "proposed" VSC value in excess of the minimum 27% VSC threshold in the BRE Guidelines. The lowest value was measured at reference point 1 at 27.68% whereas all of the other reference points measured on the rear elevations of the Matthew Close buildings yielded values in excess of 30% VSC. It should also be noted that whilst reference points 2-6 were taken on the rear elevation (which would be considered as a "principal" elevation) reference point 1 is in fact the flank wall of the house in question and would therefore be classed as a "secondary" elevation. In any event, not only do all of the windows tested meet the Vertical Sky Component standard in the BRE Guidelines, none of the losses to the Matthew Close houses exceeded 20%.
- 3.1.8 Whilst St Charles hospital is not a residential property, it was included within the analysis and four reference points were taken (reference points 7-10).
- 3.1.9 Two of the readings fell below the 27% VSC threshold and resulted in greater than a 20% reduction. Those reference points were reference points 8 and 9 opposite the middle of the proposed developments and have been highlighted in green in Table 1 above.

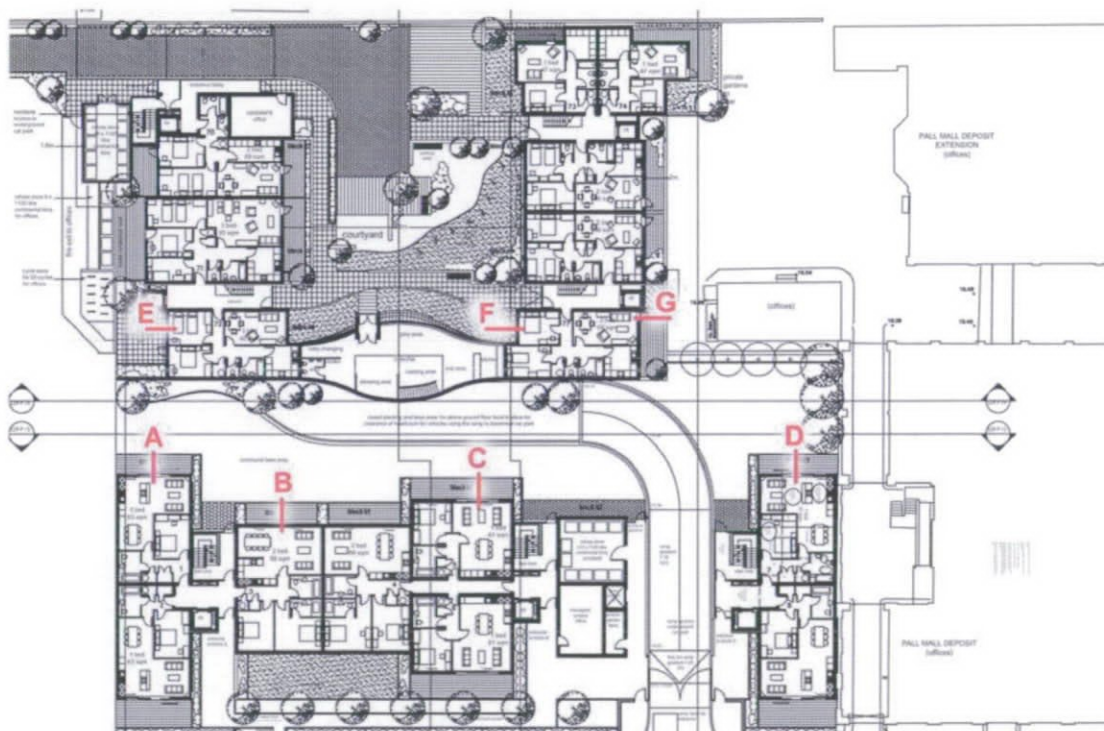
- 3.1.10 As the light readings taken at these two reference points fell below the BRE VSC standard, we have calculated indicative Average Daylight Factor values for these reference points in accordance with the Code of Practice for Daylighting, BS8206 Part 2.
- 3.1.11 The ADF value for reference point 8 was measured at 3.43% *df* and the equivalent value for reference point 9 was 3.08% *df*. These figures should be read in context with the standards contained in the Code of Practice for Daylighting BS8206 Part 2 – see paragraph 2.2.8 above.
- 3.1.12 The standards in the Code of Practice have been drafted for residential dwellings and therefore contain standards for kitchens, living rooms and bedrooms. There are no equivalent standards for non-domestic buildings such as workplaces or hospitals. We must therefore rely on the comparable residential standards in order to assess the adequacy of daylight.
- 3.1.13 The Code of Practice requires a minimum level of 2% *df* for family kitchens, 1.5% *df* for living rooms and 1% *df* for bedrooms. The readings obtained for reference points 8 and 9 were measured at 3.43% *df* and 3.08% *df* are well above these minimum standards. These figures were however based on estimated dimensions as we do not have a full measured survey of the adjoining hospital buildings. They are however indicative of the lighting levels that would be achieved.

## **3.2 Daylight to the proposed building**

- 3.2.1 For the proposed building, we have selected a number of habitable rooms at ground floor level which will receive the least amount of sunlight and daylight. The location of those rooms has been identified on the plan at the foot of table 2 below.
- 3.2.2 The living rooms at points A, B, C, D and G has balconies and these balconies act as canopies over the windows and therefore reduce the amount of light available at the face of the windows below them. We have therefore calculated two values for the Vertical Sky Component. The first value is taken on the face of the balcony and the second value is the true value taken on the face of the window. Those figures have been tabulated in Table 2 below.
- 3.2.3 The design target value of Vertical Sky Component to the 'proposed' habitable rooms is the same as the values that should be achieved for protecting the existing neighbouring and adjoining buildings. The true value of Vertical Sky Component is therefore the value that has been obtained on the face of the window in question.

TABLE 2

Location	Balcony Front VSC %	At Window Front VSC%	Room Area	Aw	$\Theta_1$	$\Theta_2$	df <sub>1</sub>	df <sub>2</sub>
A	25.34	12.14	132.58	12.5	62.23	38.57	6.26	3.88
B	30.14	17.11	100.30	18.4	70.23	48.52	13.74	9.49
C	28.94	16.06	119.40	10.0	68.23	46.77	6.10	4.18
D	20.12	12.23	132.58	12.5	53.53	38.72	5.38	3.89
E	No balcony	17.99	53.55	2.3	N/A	49.98	2.29	2.29
F	No balcony	27.49	53.55	2.2	N/A	65.82	2.88	2.88
G	19.62	11.54	74.75	6.6	52.70	37.57	4.96	3.54



- 3.2.4 Due to the 'canopy effect' of the projecting balconies, the VSC values obtained are relatively low. It was therefore necessary to calculate the Average Daylight Factor values for each of the rooms served by these windows. The Average Daylight Factor value is a better representation of the actual natural lighting levels in each of the rooms as it takes account of the area of glazing and the size and reflectants values of the rooms in question whereas the VSC value is a simple measurement on the face of the building. Clearly, the actual amount of daylight penetrating a room is directly proportional to the size of the windows.
- 3.2.5 The proposed scheme incorporates full height glazed walls rather than conventional windows with the effect that the amount of daylight penetration into the rooms themselves is increased very significantly. In the table 2 above, we have calculated the corresponding Average Daylight Factor values achieved for each of those reference points and those figures have been listed in the ninth column.
- 3.2.6 The rooms affected are living rooms and bedrooms. The living rooms are located at reference points A, B, C, D and G and the two bedrooms tested are located at reference points E and F. The target value for Average Daylight Factor for the living rooms is 1.5% *df* and the corresponding value for bedrooms is 1% *df*.
- 3.2.7 From the table above, it is clear that all of the living rooms and bedrooms achieve ADF values well in excess of the target minimum values taken from the British Standard Code of Practice for Daylighting BS8206 Part 2. This is due to the ratio of glazing to internal room surface area.
- 3.3 Sunlight to neighbouring and adjoining buildings**
- 3.3.1 The sunlight criteria only applies to windows that face within 90° of due south. Reference points 1-6 fall within this criteria but at reference point 6, the proposed new development is not perpendicular to the "window wall" in section. Testing was therefore only required for reference points 1-5.
- 3.3.2 To meet the BRE Guidelines, the proposed development should not reduce the availability of annual sunlight (expressed as annual probably sunlight hours) to below one quarter (or 25%) of the total available annual probable sunlight hours. In addition, 5% of those "sunlight hours" should be available in the winter months between the autumn and spring equinox. The results of that assessment are summarised in the table below.



**TABLE 3**

Location	Total Available Annual Probable Sunlight Hours/%		Total Available Probable Sunlight Hours/%	
	Existing	Proposed	Existing	Proposed
1	65	61	10	6
2	65	59	12	6
3	66	59	12	5
4	65	57	11	5
5	65	58	9	6

3.3.3 In order to comply with the BRE Guidelines, the figures expressed as a percentage in the third column should not fall below 25% (i.e. one quarter) and in the fifth column, should not fall below 5%. From the figures in the table above, the “proposed” total available annual probable sunlight hours will all be well in excess of the target value of one quarter, or 25%. In addition, the available probable sunlight hours in the winter will not fall below 5%. The sunlight availability will therefore meet the BRE Guidelines.

**3.4 Sunlight to the proposed buildings**

3.4.1 The reference points taken for the sunlight analysis are the same as those that were used for the daylight analysis and can be located on the plan at the foot of table 2 above.

3.4.2 The rooms at reference points E and F (i.e. the two bedrooms) fall outside the BRE sunlight testing criteria as neither of these windows face within 90° of due south.

3.4.3 The result of the sunlight analysis are summarised in table 4 below.

**TABLE 4**

Sunlight Availability [%] at 2m above Ground level		
Point A	21 1	Total winter
Point B	36 9	Total winter
Point C	43 8	Total winter
Point D	33 9	Total winter
Point G	34 11	Total winter
Point E	No testing – not within 90° of due south	
Point F	No testing – not within 90° of due south	

3.4.4 As with existing buildings, the target value for sunlight in the BRE Guidelines is 25% of total annual probable sunlight hours, 5% of which should be received in the winter months.

3.4.5 With the exception of the window at reference point A, all other rooms will comfortably meet the sunlight criteria.

3.4.6 The window at reference point A will receive 21% of annual probable sunlight hours compared to a target value of 25% and 1% of those available sunlight hours will be received in the winter months in comparison to a target value of 5%.

3.4.7 Although these values are below the recommended target minimum values for sunlight, the window at reference point A serves the living room of a one bedroom flat and is therefore not a family unit.

#### 4. CONCLUSION

4.1.1 The protection of sunlight and daylight generally only applies to residential dwellings. The only residential dwellings directly affected by the proposed development are the houses on Matthew Close. Strictly speaking, these are the only properties that need to be tested. We have however undertaken additional tests for a number of reference points on the St Charles Hospital buildings as it is not unreasonable that there should be a reasonable expectation of daylight for a hospital. We have also tested seven representative reference points in the proposed development at ground floor level which will have the lowest sunlight and daylight readings.

4.1.2 For sunlight, we measured the total available annual probable sunlight hours and the availability of sunlight in the winter months. The sunlight criteria only applies

to the rear elevation of the Matthew Close houses and all of these windows will continue to receive well above the BRE recommendations both in terms of the annual availability of sunlight and the availability in winter.

- 4.1.3 For the proposed building, all but one of the reference points tested comfortably met the BRE sunlight criteria. The window at reference point A falls below the target minimum standard for sunlight but achieved very good levels for daylight. In mitigation, this window serves a living room to a one bedroom flat and not a family unit. Whilst sunlight is desirable for all habitable rooms, the aim is to maximise sunlight to living rooms of family size units of three or more bedrooms.
- 4.1.4 Having tested a comprehensive selection of reference points for the Matthew Close houses, all of the windows will continue to receive a VSC value in excess of 27% VSC and they therefore will meet the BRE Guidelines.
- 4.1.5 Two locations on St Charles Hospital fell below the minimum VSC threshold and it was therefore necessary to measure the Average Daylight Factor value for these reference points. The values obtained for these two windows was well above the standards in the Code of Practice for Daylighting BS8206 Part 2 and these windows will therefore continue to receive more than adequate light for all forms of habitable use.
- 4.1.6 For the proposed building, the "canopy effect" of the projecting balconies above the living rooms reduces the availability of daylight to the face of the windows. The rooms do however have fully glazed external walls and when the Average Daylight Factor is calculated, the internal lighting values obtained for all of the windows are well above the target standards in the British Standard Code of Practice.
- 4.1.7 With the exception of the availability of sunlight to the living room windows in the proposed one bedroom flat at reference point A we can therefore conclude that the proposed development will comply with the BRE Guidelines for both daylight and sunlight and that it should therefore meet the Council's policy objectives.

**APPENDIX 1**

**EXTRACT FROM BRE GUIDELINES**

In some cases, for example with a standard house design, window positions may already be known. The vertical sky component can then be calculated at the centre of each window. In the case of a floor-to-ceiling window, such as a patio door, a point 2 m above ground on the centre line of the window may be used. Again, a vertical sky component of 27% or more indicates the potential for good daylighting. The interior daylighting of the building can then be checked easily using the method described in Appendix C.

Where space in a layout is restricted, interior daylighting may be improved in a number of ways. An obvious one is to increase window sizes. The best way to do this is to raise the window head height, because this will improve both the amount of daylight entering and its distribution within the room (Figure 5).

Improving external surface reflectances will also help. Light-coloured building materials and paving slabs on the ground may be used. However, maintenance of such surfaces should be planned to stop them



Figure 5 In Georgian streets the small spacing-to-height ratio is compensated for by tall windows. Note how window-head height increases for the lower floors which are more heavily obstructed

discolouring. Often the benefits will not be as great as envisaged, partly because of ageing of materials and partly for geometrical reasons. An obstructed vertical building surface will receive light from less than half the sky. Even if it is light coloured its brightness can never approach that of unobstructed sky.

Finally, one important way to plan for good interior daylight is to reduce building depth (window wall to window wall). Even on a totally unobstructed site there is a limit to how deep a room can be while remaining properly daylight. The presence of obstructions may reduce this limiting depth still further. Appendix C gives details of how to calculate these limiting room depths for good daylighting.

#### Summary

In general, a building will retain the potential for good interior diffuse daylighting provided that on all its main faces:

- (a) no obstruction, measured in a vertical section perpendicular to the main face, from a point 2 m above ground level, subtends an angle of more than 25° to the horizontal;

or

- (b) if (a) is not satisfied, then all points on the main face on a line 2 m above ground level are within 4 m (measured sideways) of a point which has a vertical sky component of 27% or more.

## 2.2 Existing buildings

In designing a new development or extension to a building, it is important to safeguard the daylight to nearby buildings. A badly planned development may make adjoining properties and their gardens gloomy and unattractive, annoying their occupants and even, in some cases, infringing rights to light (see later in this Section). The guidelines given here are intended for use with adjoining dwellings and any existing non-domestic buildings where the occupants have a reasonable expectation of daylight; this would normally include schools, hospitals, hotels and hostels, small workshops and most offices. Gardens and open spaces are dealt with in Section 3.3.

Note that numerical values given here are purely advisory. Different criteria may be used, based on the requirements for daylighting in an area viewed against other site layout constraints.

A modified form of the procedure adopted for new buildings can be used to find out whether an existing building still receives enough skylight. First, draw a section in a plane perpendicular to each affected main window wall of the existing building (Figure 6). Measure the angle to the horizontal subtended by the

new development at the level of the centre of the lowest window. If this angle is less than 25° for the whole of the development then it is unlikely to have a substantial effect on the diffuse skylight enjoyed by the existing building.

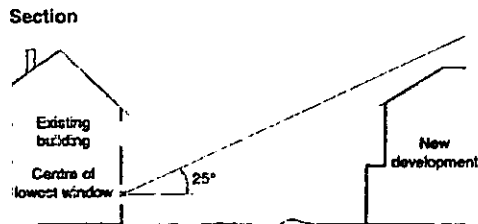


Figure 6 Section in plane perpendicular to the affected window wall

If, for any part of the new development, this angle is more than 25°, a more detailed check is needed to find the loss of skylight to the existing building. Both the total amount of skylight and its distribution within the building are important.

Any reduction in the total amount of skylight can be calculated by finding the vertical sky component at the centre of each main window. (In the case of a floor-to-ceiling window, such as a patio door, a point 2 m above ground on the centre line of the window may be used.) The reference point is in the external plane of the window wall. Windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analysed. The vertical sky component can be found by using the skylight indicator (Appendix A) or Waldram Diagram (Appendix B).

If this vertical sky component is greater than 27% then enough skylight should still be reaching the window of the existing building. Any reduction below this level should be kept to a minimum. If the vertical sky component, with the new development in place, is both less than 27% and less than 0.8 times its former value, then occupants of the existing building will notice the reduction in the amount of skylight. The area lit by the window is likely to appear more gloomy, and electric lighting will be needed more of the time.

The impact on the daylighting distribution in the existing building can be found by plotting the no-sky line in each of the main rooms. For houses this would include living rooms, dining rooms and kitchens. Bedrooms should also be analysed, although they are less important. In non-domestic buildings each main room where daylight is expected should be investigated. The no-sky line divides points on the working plane which can and cannot see the sky. (In houses the working plane is assumed to be horizontal and 0.85 m high; in offices 0.7 m high; in special interiors like hospital wards and infant school

classrooms a different height may be appropriate.) Areas beyond the no-sky line, since they receive no direct daylight, usually look dark and gloomy compared with the rest of the room, however bright it is outside. According to the British Standard<sup>1</sup>, supplementary electric lighting will be needed if a significant part of the working plane lies beyond the no-sky line. Appendix D gives hints on how to plot the no-sky line.

If, following construction of a new development, the no-sky line moves so that the area of the existing room which does receive direct skylight is reduced to less than 0.8 times its former value, then this will be noticeable to the occupants, and more of the room will appear poorly lit. This is also true if the no-sky line encroaches on key areas like kitchen sinks and worktops.

These guidelines need to be applied sensibly and flexibly. There is little point in designing tiny gaps in the roof lines of new development in order to safeguard no-sky lines in existing buildings. If an existing building contains rooms lit from one side only and greater than 5 m deep, then a greater movement of the no-sky line may be unavoidable. Another important issue is whether the existing building is itself a good neighbour, standing a reasonable distance from the boundary and taking no more than its fair share of light.

However, as a general rule the aim should be to minimise the impact to existing property. This is particularly important where successive extensions are planned to the same building. In this case the total impact on skylight of all the extensions needs to be calculated and compared with the guidelines.

For domestic extensions which adjoin the front or rear of a house, a quick method can be used to assess the diffuse skylight impact on the house next door. It applies only where the nearest side of the extension is perpendicular to the window (Figure 7); it is not valid for windows which directly face the extension, or for buildings opposite. For these cases the guidelines, in the left-hand column of this page, should be used.

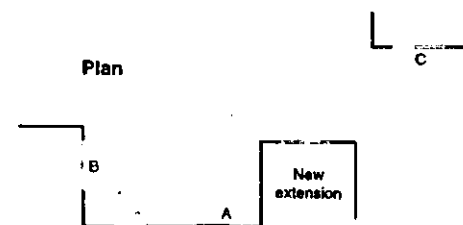


Figure 7 To assess the impact of the new extension, the 45° approach may be used for window A but not for windows B and C which directly face it

Figure 8 illustrates the application of the method, the '45° approach'. Take the elevation of the window wall and draw diagonally down at an angle of 45° away from the near top corner of the extension. Then take the plan and draw diagonally back at an angle of 45° towards the window wall from the end of the extension. (Note that the section perpendicular to the window is not used here.) If the centre of a main window of the next-door property lies on the extension side of both these 45° lines then the extension may well cause a significant reduction in the skylight received by the window. (In the case of a floor-to-ceiling window, such as a patio door, a point 2 m above the ground on the centre line of the window may be used.)

Like most rules of thumb, this one needs to be interpreted flexibly. For example, if the extension has a much larger building behind it then the daylight from that direction may be blocked anyway. If the extension has a pitched roof then the top of the extension can be taken as the height of its roof halfway along the slope (Figure 8). Special care needs to be taken in cases where an extension already exists on the other side of the window, to avoid a tunnel

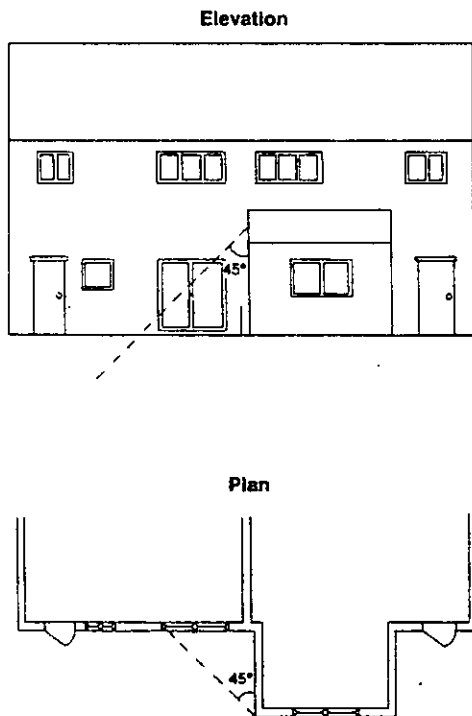


Figure 8 Application of the 45° approach to a domestic extension. A significant amount of light is likely to be blocked if the centre of the window (or, for a floor-to-ceiling window as here, a point 2 m from the ground) lies within the 45° lines on both plan and elevation

effect (Figure 9); it is then advisable to plot the no-sky line in the obstructed room (as already described). Finally, as with the other guidelines in this Section, the 45° approach deals with diffuse skylight only. Additional checks will need to be made for the sunlight which may be blocked.

The windows of some existing buildings will also have rights to light. None of the guidelines here is intended to replace, or be a means of satisfying, the legal requirements contained in rights-to-light law.

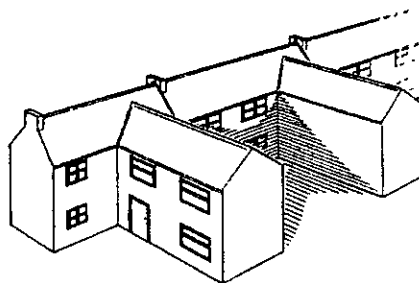


Figure 9 A tunnel effect can occur if windows are obstructed by extensions on both sides

The criterion used in rights-to-light cases is very much a minimum standard, so it is usually true that if the guidelines given here are satisfied then a new development will not infringe rights to light. But this is not always true, particularly if the existing building is unusually deep or has especially small or low windows. If an existing building does have rights to light, and this will usually be the case if it is more than 20 years old, then the designer of the new development should check that it does not infringe them. Appendix E gives further details.

Obstruction of light from the sky is just one of the ways in which a new development can affect existing buildings nearby. The obstruction of sunlight is also important (see Sections 3.2 and 3.3) as are questions of view and privacy (see Section 5).



**Summary (see Figure 10)**

If any part of a new building or extension, measured in a vertical section perpendicular to a main window wall of an existing building, from the centre of the lowest window, subtends an angle of more than 25° to the horizontal, then the diffuse daylighting of the existing building may be adversely affected. This will be the case if either:

- the vertical sky component measured at the centre of an existing main window is less than 27%, and less than 0.8 times its former value;

or

- the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value.

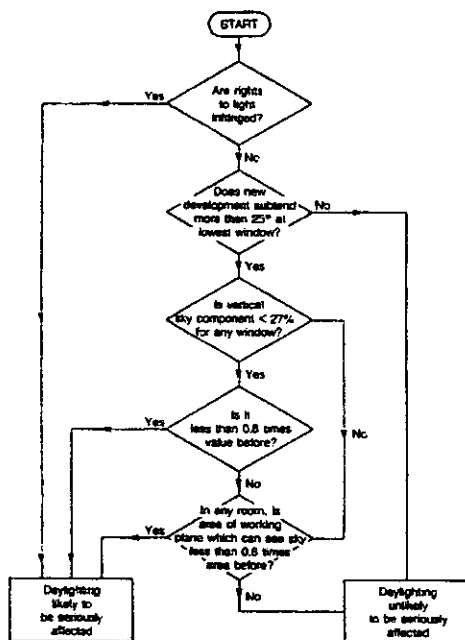


Figure 10 Decision chart: diffuse daylight in existing buildings

**2.3 Adjoining development land**

From a daylighting standpoint it is possible to reduce the quality of adjoining land by building too close to the boundary. A well designed building will stand a reasonable distance back from the boundaries so as to enable future nearby developments to enjoy similar access to daylight. By doing so it will also keep its own natural light when the adjoining land is developed.

This applies to future non-domestic development as well as housing. However, it does not apply when no main window wall, either of the current new development or of any probable future development on the adjoining site, will face over the boundary. The guidance does not, therefore, apply to a boundary next to a windowless flank wall of a new house where any future housing next door should also present a flank wall without windows; nor need it apply to an industrial estate where new development and any future development is either windowless or solely rooflit.

The diffuse daylight coming over the boundary may be quantified in the following way. As a first check, draw a section in a plane perpendicular to the boundary (Figure 11). If a road separates the two sites, then the centre line of the road should be taken. Measure the angle to the horizontal subtended at a point 2 m above the boundary by the proposed new buildings. If this angle is less than 43° then there will normally still be the potential for good daylighting on the adjoining development site.

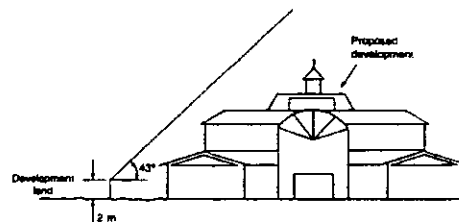


Figure 11 Angular criterion for overshadowing of future development land (on left)

If any of the new buildings is taller than this, enough skylight may still reach the development site provided the building is narrow enough to allow adequate light around its sides. This may be quantified by calculating the vertical sky component (see Section 2.1) at a series of points 2 m above the boundary and facing towards the proposed new buildings. Only obstructions caused by the proposed new buildings need to be taken into account. This contrasts with the calculations for buildings where all obstructions need to be included in the analysis. Vertical sky components may be found using the skylight indicator (Appendix A) or Waldram Diagram (Appendix B). Overall, the adjoining development site should normally retain the potential for good daylighting if

for, a lower target value could be used. In either case, the sunlight availability indicator in Appendix A will show whether the hours of sunlight received meet the target.

#### Summary

In general, a dwelling or non-domestic building which has a particular requirement for sunlight, will appear reasonably sunlit provided that:

- at least one main window wall faces within 90° of due south;
- and
- on this window wall, all points on a line 2 m above ground level are within 4 m (measured sideways) of a point which receives at least a quarter of annual probable sunlight hours, including at least 5% of annual probable sunlight hours during the winter months, between 21 September and 21 March.

### 3.2 Existing buildings

In designing a new development or extension to a building, take care to safeguard the access to sunlight, both for existing dwellings, and for any nearby non-domestic buildings where there is a particular requirement for sunlight. People are particularly likely to notice a loss of sunlight to their homes, and if it is extensive then it will usually be resented.

Obstruction to sunlight may become an issue if:

- Some part of a new development is situated within 90° of due south of a main window wall of an existing building (Figure 16);
- and
- In the section drawn perpendicular to this existing window wall, the new development subtends an angle greater than 25° to the horizontal measured from a point 2 m above the ground (Figure 2).

To find out whether an existing building still receives enough sunlight, the British Standard<sup>1</sup> can be used. It is suggested that all main living rooms of dwellings, and conservatories, should be checked if they have a window facing within 90° of due south. Kitchens and bedrooms are less important, although care should be taken not to block too much sun. In non-domestic buildings any spaces which are deemed to have a special requirement for sunlight should be checked: they will normally face within 90° of due south anyway.

Access to sunlight should be checked for the main window of each room which faces within 90° of due south. The British Standard<sup>1</sup> recommends that a 'window reference point', at the centre of each

window on the plane of the inside surface of the wall, should be used for the calculations. Sunlight which would be blocked by the window reveals does not count. In the case of a floor-to-ceiling window, such as a patio door, a point on the centre line of the window 2 m above the ground may be used (again on the plane of the inside surface of the wall).

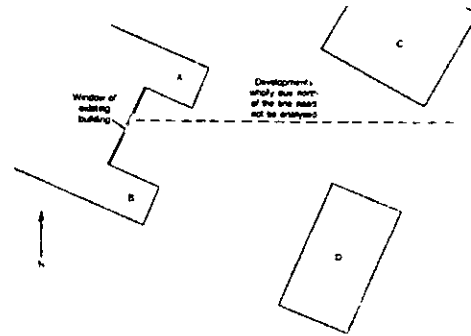


Figure 16 In analysing the sunlighting impact on the existing window, no check need be made for proposed extension A and new building C, as they lie within 90° of due north of the window. Proposed extension B should be checked, as should new building D if it subtends more than 25° to the horizontal, measured in section from the centre of the window

If this window reference point can receive more than one quarter of annual probable sunlight hours (see Section 3.1), including at least 5% of annual probable sunlight hours during the winter months between 21 September and 21 March, then the room should still receive enough sunlight. The sunlight availability indicator in Appendix A, or the rules-of-thumb in Section 3.1, can be used to check this.

Any reduction in sunlight access below this level should be kept to a minimum. If the available sunlight hours are both less than the amount given and less than 0.8 times their former value, either over the whole year or just during the winter months (21 September to 21 March), then the occupants of the existing building will notice the loss of sunlight. The room may appear colder and less cheerful and pleasant.

In certain situations care needs to be taken in applying these guidelines. For example, if the proposed new development is one of a number of successive extensions to the same building, then the total impact on sunlight of all the extensions should be assessed. On the other hand, if the existing building stands unusually close to the common boundary with the new development, then a greater reduction in sunlight access may be unavoidable. The guidelines are purely advisory. Planning authorities may wish to use different criteria, based on the requirements for sunlight in particular types of development in particular areas.

It is good practice to check the sunlighting of gardens of existing buildings. This is described in the next Section.

#### Summary

If a living room of an existing dwelling has a main window facing within 90° of due south, and any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the window in a vertical section perpendicular to the window, then the sunlighting of the existing dwelling may be adversely affected. This will be the case if a point at the centre of the window, in the plane of the inner window wall, receives in the year less than one quarter of annual probable sunlight hours including at least 5% of annual probable sunlight hours between 21 September and 21 March, and less than 0.8 times its former sunlight hours during either period.

### 3.3 Gardens and open spaces

Good site layout planning for daylight and sunlight should not limit itself to providing good natural lighting inside buildings. Sunlight in the spaces between buildings has an important impact on the overall appearance and ambience of a development.

It is valuable for a number of reasons:

- To provide attractive sunlit views (all year)
- To make outdoor activities like sitting out and children's play more pleasant (mainly during the warmer months)
- To encourage plant growth (mainly in spring and summer)
- To dry out the ground, reducing moss and slime (mainly during the colder months)
- To melt frost, ice and snow (in winter)
- To dry clothes (all year)

The sunlit nature of a site can be enhanced by using some of the techniques described in the previous Section. This could include siting low-rise, low-density housing to the south, with taller, higher density housing to the north of a site; and by opening out courtyards to the southern half of the sky. Special care needs to be taken in the design of courtyards, otherwise they can turn out to be sunless and unappealing (Figure 17).

The use of specific parts of a site can be planned with sunlight in mind. This could include reserving the sunniest parts of the site for gardens and sitting out, while using the shadier areas for car parking. In summer, shade is often valued in car parks (Figure 18).



Figure 17 Extensive shadowing can occur in courtyards unless care is taken in their design



Figure 18 Shadier areas can usefully be reserved for car parking

The availability of sunlight should be checked for all open spaces where it will be required. This would normally include:

- Gardens, usually the main back garden of a house, and allotments
- Parks and playing fields
- Children's playgrounds
- Outdoor swimming pools and paddling pools
- Sitting-out areas, such as those between non-domestic buildings and in public squares



- Focal points for views, such as a group of monuments or fountains

Each of these spaces will have different sunlighting requirements and it is difficult to suggest a hard and fast rule. However, it is clear that the worst situation is to have significant areas on which the sun does not shine for a large part of the year. These areas will, in general, be damp, chilly and uninviting (Figure 19). The equinox (21 March) is a good date for assessment.

This problem occurs with only certain forms of layout. If a long face of a building faces within  $13^\circ$  of due north, then there will be an area adjoining the building face which is permanently in shade at the equinox (and hence all winter). Areas of this sort can also occur if buildings form an enclosed or partly enclosed space which is blocked off from the southern half of the sky. Figure 20 illustrates some typical examples.



Figure 19 This outdoor space is in shade all winter. It is grim and underused

It is usually possible to redesign the layout to minimise these areas, either by reorienting buildings or by opening gaps to the south in courtyards.

Where this is not possible, it is suggested that no more than two-fifths, and preferably no more than a quarter, of any of the listed amenity areas should be prevented by buildings from receiving any sunlight at all on 21 March. Sunlight at an altitude of  $10^\circ$  or less does not count. In working out the total area to be considered, driveways and hard standing for cars should be left out. Around housing, front gardens which are relatively small and visible from public footpaths should be omitted; only the main back garden should be analysed. Each individual garden for each dwelling in a block should be considered separately.

Areas of open space which can and cannot receive sunlight on 21 March may be found using the sunlight-on-ground indicator (Appendix G). It is

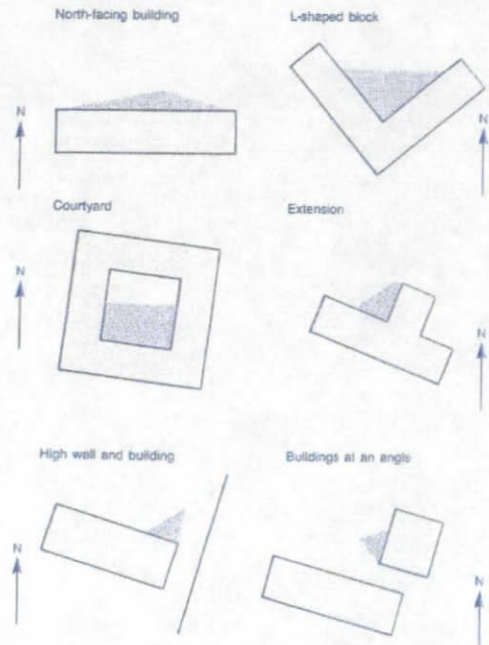


Figure 20 Examples of layouts where poor sunlighting on the ground can occur. The shaded areas will receive no sunlight at the equinox

instructive to draw the no-sun contour which separates these areas on plan. For conventional buildings, if a point lies within the no-sun contour (ie it receives no sun on 21 March), it will be permanently in shade all winter. Likewise, if it can receive some sun on 21 March, it will receive some sunlight all summer. Here 'conventional buildings' means structures without overhangs, open arches or overhead walkways.

The question of whether trees or fences should be included in the calculation depends upon the type of shade they produce. Normally, trees and shrubs need not be included, partly because their shapes are almost impossible to predict, and partly because the dappled shade of a tree is more pleasant than the deep shadow of a building. This applies especially to deciduous trees. Nevertheless, choose locations for tree planting with care. The aim should normally be to have some areas of partial shade under trees while leaving other parts of the garden or amenity area in full sun. Where a dense belt or group of evergreens is specifically planned as a windbreak or for privacy purposes, it is better to include them in the calculation of shaded area (Figure 21). The growth of trees and their likely final size should be allowed for.

Fences and walls cast deeper shade than trees, and their positions can often be predicted. As a guide, it is suggested that where the plan calls for walls or



opaque fences greater than 1.5 m high, the shadows they cast should be included in the calculation. Where low fences or walls are intended, or no specific provision is made, no calculation of shadows is necessary.



Figure 21 A dense belt of coniferous trees should be treated as an obstruction to sunlight

This guidance applies both to new gardens and amenity areas and to existing ones which are affected by new developments. If an existing garden or outdoor space is already heavily obstructed, then any further loss of sunlight should be kept to a minimum. In this poorly sunlit case, if as a result of new development the area which can receive direct sunlight on 21 March is reduced to less than 0.8 times its former size, then this further loss of sunlight is significant. The garden or amenity area will tend to look more heavily overshadowed.

It is important to realise that the area-based guideline is very much a minimum standard. It will not guarantee large amounts of sun in summer, or any sun at all in winter. It will not ensure that sunlight is available in specific areas like patios, terraces or flower beds. For critical areas it is suggested that a more detailed study of sunlighting potential be carried out, using a prediction tool such as the sunpath indicator in Appendix A, or BRE's *Sunlight availability protractor* (see back cover).

It is also important to use the guideline sensibly. There is little point in leaving a tiny gap between

buildings so that a thin shaft of sunlight penetrates through to a gloomy 'amenity area' on 21 March.

Where a large building is proposed which may affect a number of gardens or open spaces, it is often illustrative to plot a shadow plan showing the location of shadows at different times of day and year. For 21 March this can be done by using the sun-on-ground indicator in reverse (Appendix G).

#### Summary

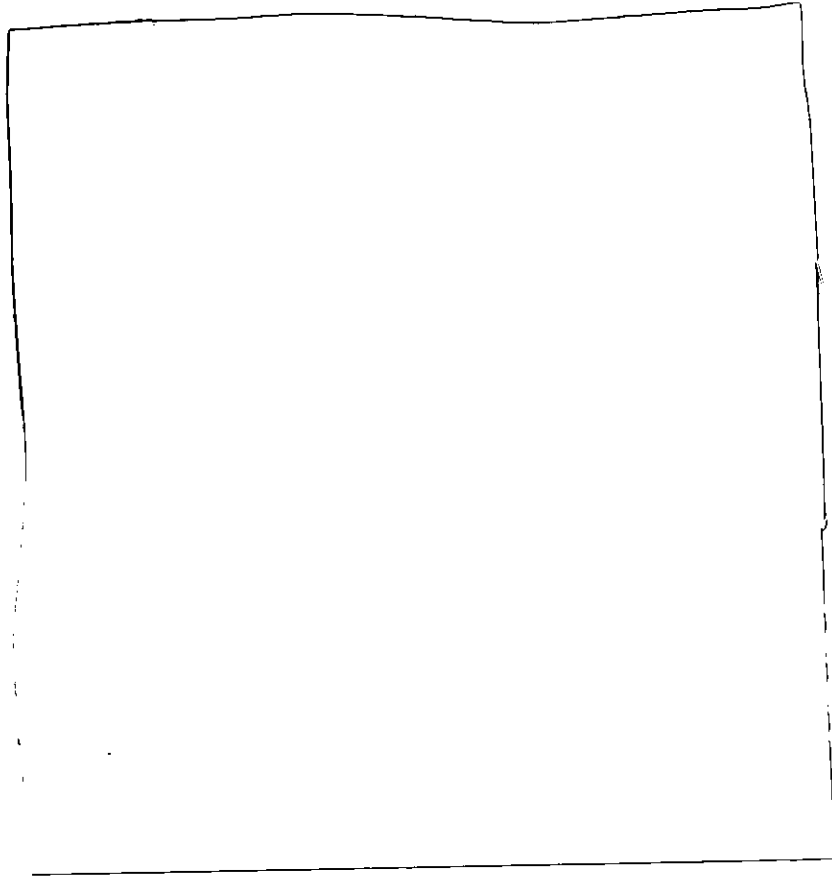
It is suggested that, for it to appear adequately sunlit throughout the year, no more than two-fifths and preferably no more than a quarter of any garden or amenity area should be prevented by buildings from receiving any sun at all on 21 March. If, as a result of new development, an existing garden or amenity area does not meet these guidelines, and the area which can receive some sun on 21 March is less than 0.8 times its former value, then the loss of sunlight is likely to be noticeable.

# Other Documents

Please Index As

File Number

Part 1	Part 10
Part 2	Part 11
Part 3	Part 12
Part 4	Part 13
Part 5	Part 14
Part 6	Part 15
Part 7	Part 16
Part 8	Part 17
Part 9	Part 18







**A REPORT ON SUNLIGHT AND  
DAYLIGHT AS A RESULT OF  
THE REDEVELOPMENT  
OF  
130-136 BARLBY ROAD  
AND 6 EXMOOR STREET  
LONDON  
W10**

Prepared for: Indigo Planning Limited

Prepared by: Kaivin Wong BSc (Hons) MRICS  
**MALCOLM HOLLIS**

Date: 30 September 2004

Reference: KW1/KW1-77/KW/fb

**Partners**

John Woodman BSc (Hons) MSc FRICS  
Kaivin Wong BSc (Hons) MRICS  
Simon Hill BSc MRICS  
Alex Brown BSc (Hons) MRICS  
Julian Bisson BSc (Hons) MRICS  
Claire Charlton BSc (Hons) MRICS  
Bartle Woolhouse BSc (Hons) MRICS  
Peter Martin BSc MRICS

**Finance Director**  
Ian Thompson ACA

**Associates**

Graham Hough BSc MRICS  
Matthew Gosling BSc (Hons) DipSurv  
MRICS MCIOB  
Steven Hughes BSc (Hons) MRICS

**Consultants**

Ray Evans Dip Arch RIBA  
John Gillies FRICS FBEng

**5 Brooks Court  
Kirtling Street  
London SW8 5BP**

**T: 020 7622 9555  
F: 020 7627 9850**

**E: london@malcolmhollis.co.uk  
W: www.malcolmhollis.co.uk**



INVESTOR IN PEOPLE



---

<b>CONTENTS</b>	<b>PAGE</b>
<b>1. INTRODUCTION .....</b>	<b>3</b>
<b>1.2 RELEVANT POLICY CONSIDERATIONS .....</b>	<b>3</b>
<b>2. TESTS TO BE APPLIED TO EXISTING BUILDINGS .....</b>	<b>3</b>
<b>2.2 DAYLIGHT.....</b>	<b>4</b>
<b>2.3 SUNLIGHT.....</b>	<b>6</b>
<b>3. ASSESSMENT .....</b>	<b>7</b>
<b>3.1 DAYLIGHT TO NEIGHBOURING AND ADJOINING BUILDINGS .....</b>	<b>7</b>
<b>3.2 DAYLIGHT TO THE PROPOSED BUILDING .....</b>	<b>9</b>
<b>3.3 SUNLIGHT TO NEIGHBOURING AND ADJOINING BUILDINGS .....</b>	<b>11</b>
<b>3.4 SUNLIGHT TO THE PROPOSED BUILDINGS .....</b>	<b>12</b>
<b>4. CONCLUSION .....</b>	<b>13</b>

APPENDIX 1 – EXTRACT FROM BRE GUIDELINES

## 1. INTRODUCTION

1.1.1 We are instructed by Indigo Planning Limited to assess the impact on natural daylight and sunlight as a result of the redevelopment of 130-136 Barby Road and 6 Exmoor Street, London, W10 in the context of the planning guidelines contained in the UDP of the Royal Borough of Kensington and Chelsea. The standards adopted within the UDP documents are set out in the Building Research Establishment (BRE) Report "Site layout planning for daylight and sunlight – A guide to good practice" 1991. Reference is also made to the standards contained within the British Standard Code of Practice for Daylighting, BS8206 Part 2.

### 1.2 Relevant Policy Considerations

1.2.1 The principal purpose of the Council's policy in connection with the amenity of adjoining buildings, is to ensure that new development does not materially or adversely affect the amenity of those buildings in the context of sunlight, daylight, sense of enclosure, privacy and overshadowing. The policy also seeks to ensure that natural light to new developments is adequate for their occupation and use. To assess these considerations objectively, the scientific empirical measurements contained in the BRE Guidelines and British Standard Code of Practice are referred to in the UDP as the standards to be applied.

## 2. TESTS TO BE APPLIED TO EXISTING BUILDINGS

2.1.1 The main purpose of the guidelines is to assist in the consideration of the relationship of new and existing buildings to ensure that each retain a potential to achieve good daylighting and sunlighting levels. That is, by following and satisfying the tests contained in the guidelines, new and existing buildings should be sufficiently spaced apart in relation to their relative heights so that both continue to have the potential to achieve good levels of daylight and sunlight. They have been drafted primarily for use with low density suburban developments and should therefore be used flexibly when dealing with a dense urban city centre site – a fact recognised by the Report's author in the Introduction where Dr Paul Littlefair says:

*'The Guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and this document should not be seen as an instrument of planning policy. Its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of many factors in site layout design..... In special circumstances the developer or Planning Authority may wish to use different target values. For example, in a historic city centre a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings.....'*

2.1.2 In addition, the block spacing criteria for daylight and sunlight are a major determinant of other amenity considerations such as *sense of enclosure, privacy, overlooking and overshadowing*. That is to say, if the relationship between height, distance and massing of the new and existing buildings is sufficient to meet the sunlight and daylight criteria, they should generally be sufficiently well-spaced as not to be oppressive by creating an unacceptable degree of sense of enclosure nor would they unreasonably interfere with privacy or overlooking or cast an unreasonable amount of shadow.

## 2.2 Daylight

2.2.1 There are various methods of measuring and assessing daylight and the choice of test depends on the circumstances of each particular window. For example, greater protection should be afforded to windows which serve living rooms or family kitchens compared to bedrooms. The tests should however also be applied to non-domestic uses such as offices and workplaces where such uses will ordinarily have a reasonable expectation of daylight and are a principal workplace.

2.2.2 The criteria for protecting daylight to existing buildings is contained in Section 2.2 of the BRE Guidelines, which have been reproduced at Appendix 1. The BRE have developed a series of tests which begin with very simple block spacing formulae followed by increasingly sophisticated measurements of Vertical Sky Component (VSC) on the face of each window, and measurements of internal daylighting by calculating Average Daylight Factor (*df*) followed by the plotting of Sky Factor Contours. The tests are consecutive and for there to be a failure of the guidelines, there must be a failure on each test. It also follows that if a design passes one of the daylight tests, the proposed level of daylight will be acceptable and it is therefore unnecessary to proceed to any further tests.

2.2.3 The tests are summarised in the decision flow chart in Appendix 1 and are briefly as follows.

Test 1 – if a new development subtends an angle less than 25° taken from the mid-point to the lowest window of the existing building, that window, and any window at the same level or above it, will continue to receive sufficient daylight.

Test 2 – if the window continues to receive greater than 27% Vertical Sky Component (VSC) at its mid point, it will continue to receive sufficient daylight.

Test 3 – if the window receives less than 27% VSC under present conditions, it is permissible to reduce this amount by a maximum of 20% (i.e. 0.8 times its former value), before the loss is considered material.

Test 4 – if the reduction in the VSC is greater than 20%, it is necessary to measure the interior daylight distribution and this value may be reduced by 20% of its existing value (i.e. 0.8 times its former value), before the loss is considered material. Average Daylight Factor (*df*) measurements in accordance with the methodology in Appendix C of the BRE Guidelines and British Standard BS8206 Part 2, can then be used to assess lighting levels.

- 2.2.4 Test 1 is a very simple test for block spacing and should only be used where the proposed development is of a reasonably uniform profile and is directly opposite the existing building. Its use is more appropriate for low density well-spaced developments such as housing and often is not a particularly useful tool in assessing urban and in-fill sites.
- 2.2.5 For Test 2, the Vertical Sky Component is a unit of measurement that represents the amount of available daylight from the sky, receivable at a particular window. It is measured on the outside face of the window. The 'unit' is expressed as a percentage as it is the ratio between the amount of sky visible at the given reference point compared to the amount of light that would be available from a totally unobstructed hemisphere of sky. To put this unit of measurement in perspective, the maximum percentage value for a window with a completely unobstructed outlook (i.e. with a totally unobstructed view through 90° in every direction) is 50%. In practice, the true measure of this value can in fact be nearer 40% to take account of the losses at extreme angles and the effect of windows set in window reveals. The target figure recommended by the BRE is 27% VSC and if the value is in excess of 27% VSC the window in question will continue to receive a good level of daylight.
- 2.2.6 27% VSC is a relatively good level of daylight and is a target level that we would expect to find for habitable rooms with windows on principal elevations. This level is often difficult to achieve on secondary elevations and in densely built-up urban environments.
- 2.2.7 For comparison, a window receiving 27% VSC is approximately equivalent to a window that would have a continuous obstruction opposite it and which subtends an angle of 25° i.e. the same as Test 1.
- 2.2.8 The Average Daylight Factor (*df*) takes account of the interior dimensions and reflectances within the room being tested and is a more detailed and representative measure of the adequacy of light for this reason. The recommended *df* values contained in the British Standard for Daylighting (Code of Practice for Daylighting, British Standard BS8206 Part 2) are 2% for family kitchens, 1.5% for living rooms and 1% for bedrooms. It is however only necessary to calculate Average Daylight Factors where the Vertical Sky Component level is below 27%.
- 2.2.9 Through their research, the Building Research Establishment have determined that daylight (and sunlight levels) can be reduced by approximately 20% of its original value before the loss is materially noticeable. It is for this reason that they consider that a 20% reduction is permissible in circumstances where the existing VSC value is below the 27% threshold.
- 2.2.10 This level of reduction also applies to the measurements adopted in the third and fourth tests in the BRE Guidelines.

## 2.3 Sunlight

2.3.1 Unlike with daylight, which is non-directional and assumes that light from the sky is uniform, the availability of sunlight is dependent on direction. That is, as the United Kingdom is in the northern hemisphere, we only receive our sun from the south and the sun rises in the east and sets in the west. The availability of sunlight is therefore dependent on the orientation of the window or area of ground being assessed relative to position of due south.

2.3.2 Accordingly, sunlight need only be measured where an existing building has a 'window wall' (i.e. a wall with a window serving a habitable room) within 90° of due south.

2.3.3 The guidelines also state that the sunlight criteria will be met if: -

- (i) The *window wall* faces within 90° of due south and no obstruction measured in the section perpendicular to the window wall, subtends an angle of more than 25° from the horizontal. Obstructions within 90° due north of the reference point need not count.
- (ii) The window wall faces within 20° due south and the reference point has a Vertical Sky Component of 27% or more.

2.3.4 In this context, the sunlight criteria only applies where a window faces within 90° of due south and where the Vertical Sky Component value for daylight is less than 27% within 20° of due south. The criteria should also be viewed flexibly with account taken for the actual orientation relative to due south.

2.3.5 The two tests referred to above at paragraph 2.3.3. are used as a rule of thumb and where sunlight needs to be tested to a greater level of detail, sunlight is measured using the Sunlight Availability Indicator contained in Appendix 1 of the Guidelines. That indicator calculates the anticipated annual probable sunlight hours that a window can receive over and around a proposed new building. For this report, the sunlight levels have been calculated by our software package which has been developed using the Sunlight Availability Indicators but is more accurate as it measures sunlight availability to a much higher degree of accuracy than the "spotting" method in the Guidelines. The sunlight criteria only applies to windows serving living rooms of an existing dwelling. This is in contrast to the daylight criteria which applies to kitchens and bedrooms as well as living rooms. The sunlight criteria taken from section 3.2 of the BRE guidelines (page 12 of the guidelines – see Appendix 1) is as follows: -

'If a living room of an existing dwelling has a main window facing within 90° of due south, and any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the window in a vertical section perpendicular to the window, then the sunlighting of the existing dwelling may be adversely effected. This will be the case if a point at the centre of the window, in the plane of the inner window wall, received in the year less than one quarter of annual probable sunlight hours including at least 5% of annual probable sunlight hours between 21 September and 21 March, and less than 0.8 times its former sunlight hours during either period.'

### 3. ASSESSMENT

#### 3.1 Daylight to Neighbouring and Adjoining Buildings

3.1.1 The testing criteria in the BRE Guidelines apply to habitable rooms which are categorised as living rooms, kitchens and bedrooms. Bathrooms, hallways and circulation space are excluded.

3.1.2 The amenity policy and the BRE Guidelines are generally applicable to habitable rooms within domestic residential dwellings. The only residential properties within close proximity of the site are the houses on the opposite side of Barlby Road situated in Matthew Close (reference points 1-6 in Table 1 below). However, for completeness we have also tested a number of reference points for St Charles Hospital as windows serving the hospital will have a reasonable expectation of daylight.

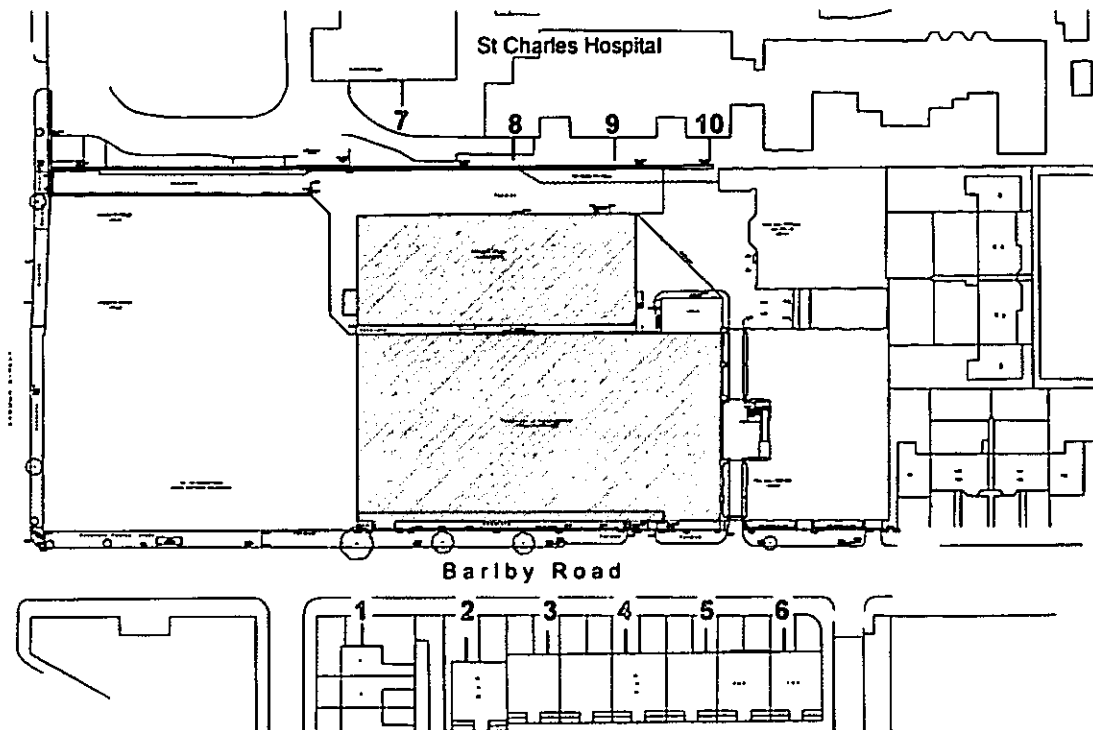
3.1.3 The simple angle test of 25° in Test 1 of the BRE Guidelines is not entirely appropriate as the profile of the proposed new building will not be a continuous obstruction opposite the windows and would not take account of the effect of the existing neighbouring buildings. The most appropriate test to be applied is therefore the calculation of Vertical Sky Components on the face of the windows in question. We have therefore calculated the "existing" and "proposed" VSC values for a representative selection of windows and those results are summarised in the table below. The location of the reference points chosen is given on the location plan at the foot of the table overleaf.

3.1.4 The results in the table below need to be interpreted in the context of the criteria contained in Section 2 of the BRE Guidelines. To satisfy the initial test in the guidelines, the VSC measured on the face of the window should not fall below a target value of 27% VSC represented by the figures in the third column of the table. Where the VSC is below 27% under existing circumstances, it is permissible to reduce the present value by a maximum of 20% of the present value before the loss is considered noticeable.

3.1.5 The results of our analysis are tabulated below.

<b>TABLE 1</b>	<b>Existing</b>	<b>Proposed</b>	<b>% of original</b>
	<b>VSC [%]</b>	<b>VSC [%]</b>	<b>VSC [%]</b>
<b>Selected Points at 2m above ground level</b>			
Point 1	34.32	27.68	80.65
Point 2	34.13	30.46	89.25
Point 3	33.99	30.44	89.56
Point 4	33.73	30.45	90.28
Point 5	32.75	30.72	93.80
Point 6	32.38	31.62	97.65
Point 7	37.03	30.52	82.42
Point 8	36.67		70.03
Point 9	35.31		62.59
Point 10	30.92	26.85	86.84





- 3.1.6 Under existing circumstances, the windows presently receive very good levels of daylight due to the existing height and distance ratios.
- 3.1.7 Reference points 1-6 provide a comprehensive sample of readings across the rear elevations of all of the houses on Matthew Close. Each of those reference points was taken at 2m above ground level and each yielded "proposed" VSC value in excess of the minimum 27% VSC threshold in the BRE Guidelines. The lowest value was measured at reference point 1 at 27.68% whereas all of the other reference points measured on the rear elevations of the Matthew Close buildings yielded values in excess of 30% VSC. It should also be noted that whilst reference points 2-6 were taken on the rear elevation (which would be considered as a "principal" elevation) reference point 1 is in fact the flank wall of the house in question and would therefore be classed as a "secondary" elevation. In any event, not only do all of the windows tested meet the Vertical Sky Component standard in the BRE Guidelines, none of the losses to the Matthew Close houses exceeded 20%.
- 3.1.8 Whilst St Charles hospital is not a residential property, it was included within the analysis and four reference points were taken (reference points 7-10).
- 3.1.9 Two of the readings fell below the 27% VSC threshold and resulted in greater than a 20% reduction. Those reference points were reference points 8 and 9 opposite the middle of the proposed developments and have been highlighted in green in Table 1 above.

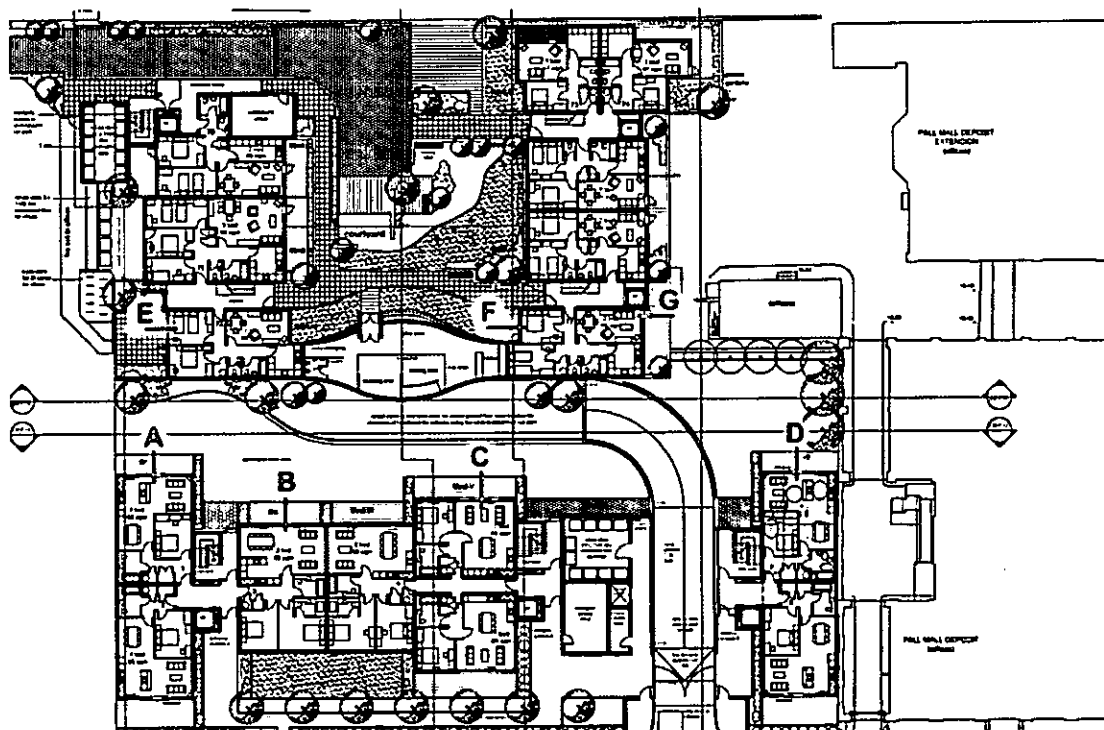
- 3.1.10 As the light readings taken at these two reference points fell below the BRE VSC standard, we have calculated indicative Average Daylight Factor values for these reference points in accordance with the Code of Practice for Daylighting, BS8206 Part 2.
- 3.1.11 The ADF value for reference point 8 was measured at 3.43% *df* and the equivalent value for reference point 9 was 3.08% *df*. These figures should be read in context with the standards contained in the Code of Practice for Daylighting BS8206 Part 2 – see paragraph 2.2.8 above.
- 3.1.12 The standards in the Code of Practice have been drafted for residential dwellings and therefore contain standards for kitchens, living rooms and bedrooms. There are no equivalent standards for non-domestic buildings such as workplaces or hospitals. We must therefore rely on the comparable residential standards in order to assess the adequacy of daylight.
- 3.1.13 The Code of Practice requires a minimum level of 2% *df* for family kitchens, 1.5% *df* for living rooms and 1% *df* for bedrooms. The readings obtained for reference points 8 and 9 were measured at 3.43% *df* and 3.08% *df* are well above these minimum standards. These figures were however based on estimated dimensions as we do not have a full measured survey of the adjoining hospital buildings. They are however indicative of the lighting levels that would be achieved.

## 3.2 Daylight to the proposed building

- 3.2.1 For the proposed building, we have selected a number of habitable rooms at ground floor level which will receive the least amount of sunlight and daylight. The location of those rooms has been identified on the plan at the foot of table 2 below.
- 3.2.2 The living rooms at points A, B, C, D and G has balconies and these balconies act as canopies over the windows and therefore reduce the amount of light available at the face of the windows below them. We have therefore calculated two values for the Vertical Sky Component. The first value is taken on the face of the balcony and the second value is the true value taken on the face of the window. Those figures have been tabulated in Table 2 below.
- 3.2.3 The design target value of Vertical Sky Component to the 'proposed' habitable rooms is the same as the values that should be achieved for protecting the existing neighbouring and adjoining buildings. The true value of Vertical Sky Component is therefore the value that has been obtained on the face of the window in question.

**TABLE 2**

Location	Balcony Front VSC %	At Window Front VSC%	Room Area	Aw	$\Theta_1$	$\Theta_2$	df <sub>1</sub>	df <sub>2</sub>
A	25.34	12.14	132.58	12.5	62.23	38.57	6.26	3.88
B	30.14	17.11	100.30	18.4	70.23	48.52	13.74	9.49
C	28.94	16.06	119.40	10.0	68.23	46.77	6.10	4.18
D	20.12	12.23	132.58	12.5	53.53	38.72	5.38	3.89
E	No balcony	17.99	53.55	2.3	N/A	49.98	2.29	2.29
F	No balcony	27.49	53.55	2.2	N/A	65.82	2.88	2.88
G	19.62	11.54	74.75	6.6	52.70	37.57	4.96	3.54



- 3.2.4 Due to the 'canopy effect' of the projecting balconies, the VSC values obtained are relatively low. It was therefore necessary to calculate the Average Daylight Factor values for each of the rooms served by these windows. The Average Daylight Factor value is a better representation of the actual natural lighting levels in each of the rooms as it takes account of the area of glazing and the size and reflectants values of the rooms in question whereas the VSC value is a simple measurement on the face of the building. Clearly, the actual amount of daylight penetrating a room is directly proportional to the size of the windows.
- 3.2.5 The proposed scheme incorporates full height glazed walls rather than conventional windows with the effect that the amount of daylight penetration into the rooms themselves is increased very significantly. In the table 2 above, we have calculated the corresponding Average Daylight Factor values achieved for each of those reference points and those figures have been listed in the ninth column.
- 3.2.6 The rooms affected are living rooms and bedrooms. The living rooms are located at reference points A, B, C, D and G and the two bedrooms tested are located at reference points E and F. The target value for Average Daylight Factor for the living rooms is 1.5% *df* and the corresponding value for bedrooms is 1% *df*.
- 3.2.7 From the table above, it is clear that all of the living rooms and bedrooms achieve ADF values well in excess of the target minimum values taken from the British Standard Code of Practice for Daylighting BS8206 Part 2. This is due to the ratio of glazing to internal room surface area.
- 3.3 Sunlight to neighbouring and adjoining buildings**
- 3.3.1 The sunlight criteria only applies to windows that face within 90° of due south. Reference points 1-6 fall within this criteria but at reference point 6, the proposed new development is not perpendicular to the "window wall" in section. Testing was therefore only required for reference points 1-5.
- 3.3.2 To meet the BRE Guidelines, the proposed development should not reduce the availability of annual sunlight (expressed as annual probably sunlight hours) to below one quarter (or 25%) of the total available annual probable sunlight hours. In addition, 5% of those "sunlight hours" should be available in the winter months between the autumn and spring equinox. The results of that assessment are summarised in the table below.

**TABLE 3**

Location	Total Available Annual Probable Sunlight Hours/%		Total Available Probable Sunlight Hours/%	
	Existing	Proposed	Existing	Proposed
1	65	61	10	6
2	65	59	12	6
3	66	59	12	5
4	65	57	11	5
5	65	58	9	6

3.3.3 In order to comply with the BRE Guidelines, the figures expressed as a percentage in the third column should not fall below 25% (i.e. one quarter) and in the fifth column, should not fall below 5%. From the figures in the table above, the “proposed” total available annual probable sunlight hours will all be well in excess of the target value of one quarter, or 25%. In addition, the available probable sunlight hours in the winter will not fall below 5%. The sunlight availability will therefore meet the BRE Guidelines.

### 3.4 Sunlight to the proposed buildings

3.4.1 The reference points taken for the sunlight analysis are the same as those that were used for the daylight analysis and can be located on the plan at the foot of table 2 above.

3.4.2 The rooms at reference points E and F (i.e. the two bedrooms) fall outside the BRE sunlight testing criteria as neither of these windows face within 90° of due south.

3.4.3 The result of the sunlight analysis are summarised in table 4 below.

**TABLE 4**

Sunlight Availability [%] at 2m above Ground level		
Point A	21 1	Total winter
Point B	36 9	Total winter
Point C	43 8	Total winter
Point D	33 9	Total winter
Point G	34 11	Total winter
Point E	No testing – not within 90° of due south	
Point F	No testing – not within 90° of due south	

- 3.4.4 As with existing buildings, the target value for sunlight in the BRE Guidelines is 25% of total annual probable sunlight hours, 5% of which should be received in the winter months.
- 3.4.5 With the exception of the window at reference point A, all other rooms will comfortably meet the sunlight criteria.
- 3.4.6 The window at reference point A will receive 21% of annual probable sunlight hours compared to a target value of 25% and 1% of those available sunlight hours will be received in the winter months in comparison to a target value of 5%.
- 3.4.7 Although these values are below the recommended target minimum values for sunlight, the window at reference point A serves the living room of a one bedroom flat and is therefore not a family unit.
- 4. CONCLUSION**
- 4.1.1 The protection of sunlight and daylight generally only applies to residential dwellings. The only residential dwellings directly affected by the proposed development are the houses on Matthew Close. Strictly speaking, these are the only properties that need to be tested. We have however undertaken additional tests for a number of reference points on the St Charles Hospital buildings as it is not unreasonable that there should be a reasonable expectation of daylight for a hospital. We have also tested seven representative reference points in the proposed development at ground floor level which will have the lowest sunlight and daylight readings.
- 4.1.2 For sunlight, we measured the total available annual probable sunlight hours and the availability of sunlight in the winter months. The sunlight criteria only applies

to the rear elevation of the Matthew Close houses and all of these windows will continue to receive well above the BRE recommendations both in terms of the annual availability of sunlight and the availability in winter.

- 4.1.3 For the proposed building, all but one of the reference points tested comfortably met the BRE sunlight criteria. The window at reference point A falls below the target minimum standard for sunlight but achieved very good levels for daylight. In mitigation, this window serves a living room to a one bedroom flat and not a family unit. Whilst sunlight is desirable for all habitable rooms, the aim is to maximise sunlight to living rooms of family size units of three or more bedrooms.
- 4.1.4 Having tested a comprehensive selection of reference points for the Matthew Close houses, all of the windows will continue to receive a VSC value in excess of 27% VSC and they therefore will meet the BRE Guidelines.
- 4.1.5 Two locations on St Charles Hospital fell below the minimum VSC threshold and it was therefore necessary to measure the Average Daylight Factor value for these reference points. The values obtained for these two windows was well above the standards in the Code of Practice for Daylighting BS8206 Part 2 and these windows will therefore continue to receive more than adequate light for all forms of habitable use.
- 4.1.6 For the proposed building, the "canopy effect" of the projecting balconies above the living rooms reduces the availability of daylight to the face of the windows. The rooms do however have fully glazed external walls and when the Average Daylight Factor is calculated, the internal lighting values obtained for all of the windows are well above the target standards in the British Standard Code of Practice.
- 4.1.7 With the exception of the availability of sunlight to the living room windows in the proposed one bedroom flat at reference point A we can therefore conclude that the proposed development will comply with the BRE Guidelines for both daylight and sunlight and that it should therefore meet the Council's policy objectives.



**APPENDIX 1**

**EXTRACT FROM BRE GUIDELINES**

In some cases, for example with a standard house design, window positions may already be known. The vertical sky component can then be calculated at the centre of each window. In the case of a floor-to-ceiling window, such as a patio door, a point 2 m above ground on the centre line of the window may be used. Again, a vertical sky component of 27% or more indicates the potential for good daylighting. The interior daylighting of the building can then be checked easily using the method described in Appendix C.

Where space in a layout is restricted, interior daylighting may be improved in a number of ways. An obvious one is to increase window sizes. The best way to do this is to raise the window head height, because this will improve both the amount of daylight entering and its distribution within the room (Figure 5).

Improving external surface reflectances will also help. Light-coloured building materials and paving slabs on the ground may be used. However, maintenance of such surfaces should be planned to stop them



Figure 5 In Georgian streets the small spacing-to-height ratio is compensated for by tall windows. Note how window-head height increases for the lower floors which are more heavily obstructed

discolouring. Often the benefits will not be as great as envisaged, partly because of ageing of materials and partly for geometrical reasons. An obstructed vertical building surface will receive light from less than half the sky. Even if it is light coloured its brightness can never approach that of unobstructed sky.

Finally, one important way to plan for good interior daylight is to reduce building depth (window wall to window wall). Even on a totally unobstructed site there is a limit to how deep a room can be while remaining properly daylight. The presence of obstructions may reduce this limiting depth still further. Appendix C gives details of how to calculate these limiting room depths for good daylighting.

#### Summary

In general, a building will retain the potential for good interior diffuse daylighting provided that on all its main faces:

- (a) no obstruction, measured in a vertical section perpendicular to the main face, from a point 2 m above ground level, subtends an angle of more than 25° to the horizontal;

or

- (b) if (a) is not satisfied, then all points on the main face on a line 2 m above ground level are within 4 m (measured sideways) of a point which has a vertical sky component of 27% or more.

## 2.2 Existing buildings

In designing a new development or extension to a building, it is important to safeguard the daylight to nearby buildings. A badly planned development may make adjoining properties and their gardens gloomy and unattractive, annoying their occupants and even, in some cases, infringing rights to light (see later in this Section). The guidelines given here are intended for use with adjoining dwellings and any existing non-domestic buildings where the occupants have a reasonable expectation of daylight; this would normally include schools, hospitals, hotels and hostels, small workshops and most offices. Gardens and open spaces are dealt with in Section 3.3.

Note that numerical values given here are purely advisory. Different criteria may be used, based on the requirements for daylighting in an area viewed against other site layout constraints.

A modified form of the procedure adopted for new buildings can be used to find out whether an existing building still receives enough skylight. First, draw a section in a plane perpendicular to each affected main window wall of the existing building (Figure 6). Measure the angle to the horizontal subtended by the

new development at the level of the centre of the lowest window. If this angle is less than 25° for the whole of the development then it is unlikely to have a substantial effect on the diffuse skylight enjoyed by the existing building.

**Section**

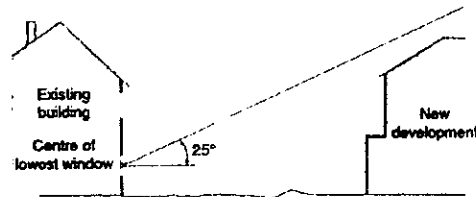


Figure 6 Section in plane perpendicular to the affected window wall

If, for any part of the new development, this angle is more than 25°, a more detailed check is needed to find the loss of skylight to the existing building. Both the total amount of skylight and its distribution within the building are important.

Any reduction in the total amount of skylight can be calculated by finding the vertical sky component at the centre of each main window. (In the case of a floor-to-ceiling window, such as a patio door, a point 2 m above ground on the centre line of the window may be used.) The reference point is in the external plane of the window wall. Windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analysed. The vertical sky component can be found by using the skylight indicator (Appendix A) or Waldram Diagram (Appendix B).

If this vertical sky component is greater than 27%, then enough skylight should still be reaching the window of the existing building. Any reduction below this level should be kept to a minimum. If the vertical sky component, with the new development in place, is both less than 27% and less than 0.8 times its former value, then occupants of the existing building will notice the reduction in the amount of skylight. The area lit by the window is likely to appear more gloomy, and electric lighting will be needed more of the time.

The impact on the daylighting distribution in the existing building can be found by plotting the no-sky line in each of the main rooms. For houses this would include living rooms, dining rooms and kitchens. Bedrooms should also be analysed, although they are less important. In non-domestic buildings each main room where daylight is expected should be investigated. The no-sky line divides points on the working plane which can and cannot see the sky. (In houses the working plane is assumed to be horizontal and 0.85 m high; in offices 0.7 m high; in special interiors like hospital wards and infant school

classrooms a different height may be appropriate.) Areas beyond the no-sky line, since they receive no direct daylight, usually look dark and gloomy compared with the rest of the room, however bright it is outside. According to the British Standard<sup>1</sup>, supplementary electric lighting will be needed if a significant part of the working plane lies beyond the no-sky line. Appendix D gives hints on how to plot the no-sky line.

If, following construction of a new development, the no-sky line moves so that the area of the existing room which does receive direct skylight is reduced to less than 0.8 times its former value, then this will be noticeable to the occupants, and more of the room will appear poorly lit. This is also true if the no-sky line encroaches on key areas like kitchen sinks and worktops.

These guidelines need to be applied sensibly and flexibly. There is little point in designing tiny gaps in the roof lines of new development in order to safeguard no-sky lines in existing buildings. If an existing building contains rooms lit from one side only and greater than 5 m deep, then a greater movement of the no-sky line may be unavoidable. Another important issue is whether the existing building is itself a good neighbour, standing a reasonable distance from the boundary and taking no more than its fair share of light.

However, as a general rule the aim should be to minimise the impact to existing property. This is particularly important where successive extensions are planned to the same building. In this case the total impact on skylight of all the extensions needs to be calculated and compared with the guidelines.

For domestic extensions which adjoin the front or rear of a house, a quick method can be used to assess the diffuse skylight impact on the house next door. It applies only where the nearest side of the extension is perpendicular to the window (Figure 7); it is not valid for windows which directly face the extension, or for buildings opposite. For these cases the guidelines, in the left-hand column of this page, should be used.

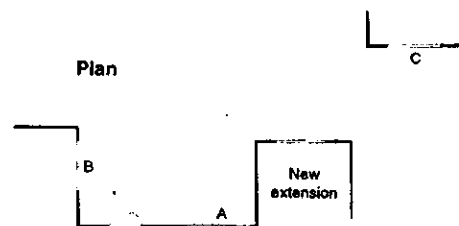


Figure 7 To assess the impact of the new extension, the 45° approach may be used for window A but not for windows B and C which directly face it

Figure 8 illustrates the application of the method, the '45° approach'. Take the elevation of the window wall and draw diagonally down at an angle of 45° away from the near top corner of the extension. Then take the plan and draw diagonally back at an angle of 45° towards the window wall from the end of the extension. (Note that the section perpendicular to the window is not used here.) If the centre of a main window of the next-door property lies on the extension side of both these 45° lines then the extension may well cause a significant reduction in the skylight received by the window. (In the case of a floor-to-ceiling window, such as a patio door, a point 2 m above the ground on the centre line of the window may be used.)

Like most rules of thumb, this one needs to be interpreted flexibly. For example, if the extension has a much larger building behind it then the daylight from that direction may be blocked anyway. If the extension has a pitched roof then the top of the extension can be taken as the height of its roof halfway along the slope (Figure 8). Special care needs to be taken in cases where an extension already exists on the other side of the window, to avoid a tunnel

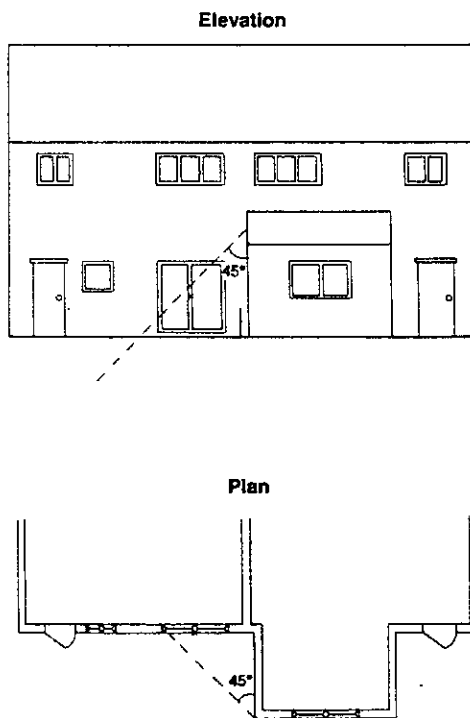


Figure 8 Application of the 45° approach to a domestic extension. A significant amount of light is likely to be blocked if the centre of the window (or, for a floor-to-ceiling window as here, a point 2 m from the ground) lies within the 45° lines on both plan and elevation

effect (Figure 9); it is then advisable to plot the no-sky line in the obstructed room (as already described). Finally, as with the other guidelines in this Section, the 45° approach deals with diffuse skylight only. Additional checks will need to be made for the sunlight which may be blocked.

The windows of some existing buildings will also have rights to light. None of the guidelines here is intended to replace, or be a means of satisfying, the legal requirements contained in rights-to-light law.

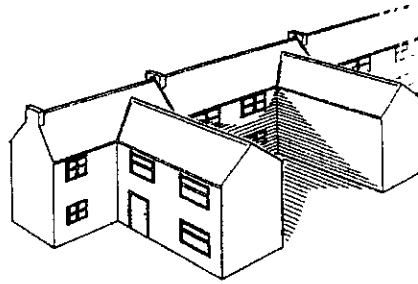


Figure 9 A tunnel effect can occur if windows are obstructed by extensions on both sides

The criterion used in rights-to-light cases is very much a minimum standard, so it is usually true that if the guidelines given here are satisfied then a new development will not infringe rights to light. But this is not always true, particularly if the existing building is unusually deep or has especially small or low windows. If an existing building does have rights to light, and this will usually be the case if it is more than 20 years old, then the designer of the new development should check that it does not infringe them. Appendix E gives further details.

Obstruction of light from the sky is just one of the ways in which a new development can affect existing buildings nearby. The obstruction of sunlight is also important (see Sections 3.2 and 3.3) as are questions of view and privacy (see Section 5).

**Summary** (see Figure 10)

If any part of a new building or extension, measured in a vertical section perpendicular to a main window wall of an existing building, from the centre of the lowest window, subtends an angle of more than 25° to the horizontal, then the diffuse daylighting of the existing building may be adversely affected. This will be the case if either:

- the vertical sky component measured at the centre of an existing main window is less than 27%, and less than 0.8 times its former value;

OR

- the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value.

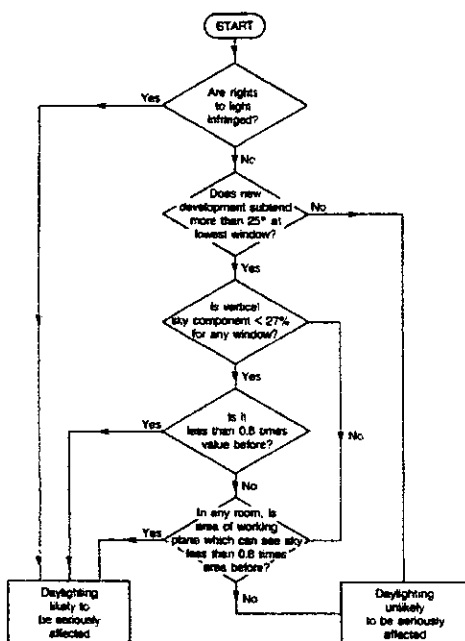


Figure 10 Decision chart: diffuse daylight in existing buildings

**2.3 Adjoining development land**

From a daylighting standpoint it is possible to reduce the quality of adjoining land by building too close to the boundary. A well designed building will stand a reasonable distance back from the boundaries so as to enable future nearby developments to enjoy similar access to daylight. By doing so it will also keep its own natural light when the adjoining land is developed.

This applies to future non-domestic development as well as housing. However, it does not apply when no main window wall, either of the current new development or of any probable future development on the adjoining site, will face over the boundary. The guidance does not, therefore, apply to a boundary next to a windowless flank wall of a new house where any future housing next door should also present a flank wall without windows; nor need it apply to an industrial estate where new development and any future development is either windowless or solely rooflit.

The diffuse daylight coming over the boundary may be quantified in the following way. As a first check, draw a section in a plane perpendicular to the boundary (Figure 11). If a road separates the two sites, then the centre line of the road should be taken. Measure the angle to the horizontal subtended at a point 2 m above the boundary by the proposed new buildings. If this angle is less than 43° then there will normally still be the potential for good daylighting on the adjoining development site.

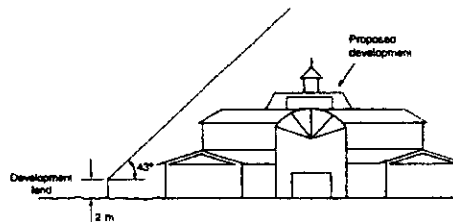


Figure 11 Angular criterion for overshadowing of future development land (on left)

If any of the new buildings is taller than this, enough skylight may still reach the development site provided the building is narrow enough to allow adequate light around its sides. This may be quantified by calculating the vertical sky component (see Section 2.1) at a series of points 2 m above the boundary and facing towards the proposed new buildings. Only obstructions caused by the proposed new buildings need to be taken into account. This contrasts with the calculations for buildings where all obstructions need to be included in the analysis. Vertical sky components may be found using the skylight indicator (Appendix A) or Waldram Diagram (Appendix B). Overall, the adjoining development site should normally retain the potential for good daylighting if

for, a lower target value could be used. In either case, the sunlight availability indicator in Appendix A will show whether the hours of sunlight received meet the target.

#### Summary

In general, a dwelling or non-domestic building which has a particular requirement for sunlight, will appear reasonably sunlit provided that:

- at least one main window wall faces within 90° of due south;
- and
- on this window wall, all points on a line 2 m above ground level are within 4 m (measured sideways) of a point which receives at least a quarter of annual probable sunlight hours, including at least 5% of annual probable sunlight hours during the winter months, between 21 September and 21 March.

### 3.2 Existing buildings

In designing a new development or extension to a building, take care to safeguard the access to sunlight, both for existing dwellings, and for any nearby non-domestic buildings where there is a particular requirement for sunlight. People are particularly likely to notice a loss of sunlight to their homes, and if it is extensive then it will usually be resented.

Obstruction to sunlight may become an issue if:

- Some part of a new development is situated within 90° of due south of a main window wall of an existing building (Figure 16);
- and
- In the section drawn perpendicular to this existing window wall, the new development subtends an angle greater than 25° to the horizontal measured from a point 2 m above the ground (Figure 2).

To find out whether an existing building still receives enough sunlight, the British Standard<sup>1</sup> can be used. It is suggested that all main living rooms of dwellings, and conservatories, should be checked if they have a window facing within 90° of due south. Kitchens and bedrooms are less important, although care should be taken not to block too much sun. In non-domestic buildings any spaces which are deemed to have a special requirement for sunlight should be checked; they will normally face within 90° of due south anyway.

Access to sunlight should be checked for the main window of each room which faces within 90° of due south. The British Standard<sup>1</sup> recommends that a 'window reference point', at the centre of each

window on the plane of the inside surface of the wall, should be used for the calculations. Sunlight which would be blocked by the window reveals does not count. In the case of a floor-to-ceiling window, such as a patio door, a point on the centre line of the window 2 m above the ground may be used (again on the plane of the inside surface of the wall).

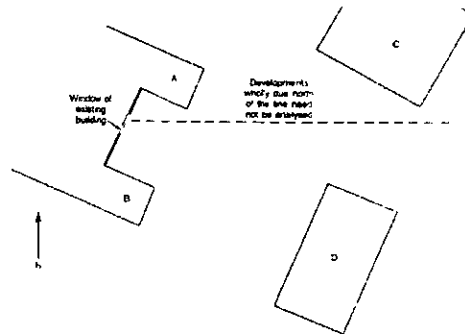


Figure 16 In analysing the sunlighting impact on the existing window, no check need be made for proposed extension A and new building C, as they lie within 90° of due north of the window. Proposed extension B should be checked, as should new building D if it subtends more than 25° to the horizontal, measured in section from the centre of the window

If this window reference point can receive more than one quarter of annual probable sunlight hours (see Section 3.1), including at least 5% of annual probable sunlight hours during the winter months between 21 September and 21 March, then the room should still receive enough sunlight. The sunlight availability indicator in Appendix A, or the rules-of-thumb in Section 3.1, can be used to check this.

Any reduction in sunlight access below this level should be kept to a minimum. If the available sunlight hours are both less than the amount given and less than 0.8 times their former value, either over the whole year or just during the winter months (21 September to 21 March), then the occupants of the existing building will notice the loss of sunlight. The room may appear colder and less cheerful and pleasant.

In certain situations care needs to be taken in applying these guidelines. For example, if the proposed new development is one of a number of successive extensions to the same building, then the total impact on sunlight of all the extensions should be assessed. On the other hand, if the existing building stands unusually close to the common boundary with the new development, then a greater reduction in sunlight access may be unavoidable. The guidelines are purely advisory. Planning authorities may wish to use different criteria, based on the requirements for sunlight in particular types of development in particular areas.



It is good practice to check the sunlighting of gardens of existing buildings. This is described in the next Section.

#### Summary

If a living room of an existing dwelling has a main window facing within 90° of due south, and any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the window in a vertical section perpendicular to the window, then the sunlighting of the existing dwelling may be adversely affected. This will be the case if a point at the centre of the window, in the plane of the inner window wall, receives in the year less than one quarter of annual probable sunlight hours including at least 5% of annual probable sunlight hours between 21 September and 21 March, and less than 0.8 times its former sunlight hours during either period.

### 3.3 Gardens and open spaces

Good site layout planning for daylight and sunlight should not limit itself to providing good natural lighting inside buildings. Sunlight in the spaces between buildings has an important impact on the overall appearance and ambience of a development.

It is valuable for a number of reasons:

- To provide attractive sunlit views (all year)
- To make outdoor activities like sitting out and children's play more pleasant (mainly during the warmer months)
- To encourage plant growth (mainly in spring and summer)
- To dry out the ground, reducing moss and slime (mainly during the colder months)
- To melt frost, ice and snow (in winter)
- To dry clothes (all year)

The sunlit nature of a site can be enhanced by using some of the techniques described in the previous Section. This could include siting low-rise, low-density housing to the south, with taller, higher density housing to the north of a site; and by opening out courtyards to the southern half of the sky. Special care needs to be taken in the design of courtyards, otherwise they can turn out to be sunless and unappealing (Figure 17).

The use of specific parts of a site can be planned with sunlight in mind. This could include reserving the sunniest parts of the site for gardens and sitting out, while using the shadier areas for car parking. In summer, shade is often valued in car parks (Figure 18).



Figure 17 Extensive shadowing can occur in courtyards unless care is taken in their design



Figure 18 Shadier areas can usefully be reserved for car parking

The availability of sunlight should be checked for all open spaces where it will be required. This would normally include:

- Gardens, usually the main back garden of a house, and allotments
- Parks and playing fields
- Children's playgrounds
- Outdoor swimming pools and paddling pools
- Sitting-out areas, such as those between non-domestic buildings and in public squares



- Focal points for views, such as a group of monuments or fountains

Each of these spaces will have different sunlighting requirements and it is difficult to suggest a hard and fast rule. However, it is clear that the worst situation is to have significant areas on which the sun does not shine for a large part of the year. These areas will, in general, be damp, chilly and uninviting (Figure 19). The equinox (21 March) is a good date for assessment.

This problem occurs with only certain forms of layout. If a long face of a building faces within  $13^\circ$  of due north, then there will be an area adjoining the building face which is permanently in shade at the equinox (and hence all winter). Areas of this sort can also occur if buildings form an enclosed or partly enclosed space which is blocked off from the southern half of the sky. Figure 20 illustrates some typical examples.



Figure 19 This outdoor space is in shade all winter. It is grim and underused

It is usually possible to redesign the layout to minimise these areas, either by reorienting buildings or by opening gaps to the south in courtyards.

Where this is not possible, it is suggested that no more than two-fifths, and preferably no more than a quarter, of any of the listed amenity areas should be prevented by buildings from receiving any sunlight at all on 21 March. Sunlight at an altitude of  $10^\circ$  or less does not count. In working out the total area to be considered, driveways and hard standing for cars should be left out. Around housing, front gardens which are relatively small and visible from public footpaths should be omitted; only the main back garden should be analysed. Each individual garden for each dwelling in a block should be considered separately.

Areas of open space which can and cannot receive sunlight on 21 March may be found using the sunlight-on-ground indicator (Appendix G). It is

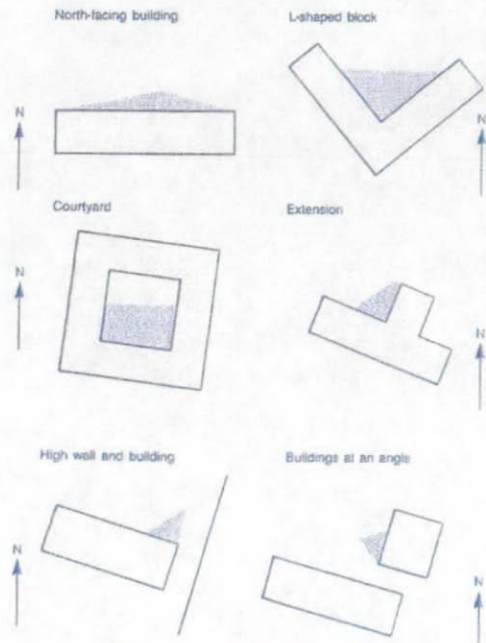


Figure 20 Examples of layouts where poor sunlighting on the ground can occur. The shaded areas will receive no sunlight at the equinox

instructive to draw the no-sun contour which separates these areas on plan. For conventional buildings, if a point lies within the no-sun contour (ie it receives no sun on 21 March), it will be permanently in shade all winter. Likewise, if it can receive some sun on 21 March, it will receive some sunlight all summer. Here 'conventional buildings' means structures without overhangs, open arches or overhead walkways.

The question of whether trees or fences should be included in the calculation depends upon the type of shade they produce. Normally, trees and shrubs need not be included, partly because their shapes are almost impossible to predict, and partly because the dappled shade of a tree is more pleasant than the deep shadow of a building. This applies especially to deciduous trees. Nevertheless, choose locations for tree planting with care. The aim should normally be to have some areas of partial shade under trees while leaving other parts of the garden or amenity area in full sun. Where a dense belt or group of evergreens is specifically planned as a windbreak or for privacy purposes, it is better to include them in the calculation of shaded area (Figure 21). The growth of trees and their likely final size should be allowed for.

Fences and walls cast deeper shade than trees, and their positions can often be predicted. As a guide, it is suggested that where the plan calls for walls or



opaque fences greater than 1.5 m high, the shadows they cast should be included in the calculation. Where low fences or walls are intended, or no specific provision is made, no calculation of shadows is necessary.

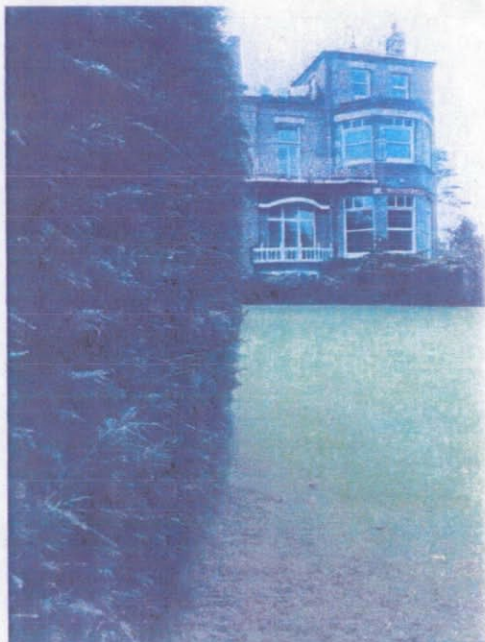


Figure 21 A dense belt of coniferous trees should be treated as an obstruction to sunlight

This guidance applies both to new gardens and amenity areas and to existing ones which are affected by new developments. If an existing garden or outdoor space is already heavily obstructed, then any further loss of sunlight should be kept to a minimum. In this poorly sunlit case, if as a result of new development the area which can receive direct sunlight on 21 March is reduced to less than 0.8 times its former size, then this further loss of sunlight is significant. The garden or amenity area will tend to look more heavily overshadowed.

It is important to realise that the area-based guideline is very much a minimum standard. It will not guarantee large amounts of sun in summer, or any sun at all in winter. It will not ensure that sunlight is available in specific areas like patios, terraces or flower beds. For critical areas it is suggested that a more detailed study of sunlighting potential be carried out, using a prediction tool such as the sunpath indicator in Appendix A, or BRE's *Sunlight availability protractor* (see back cover).

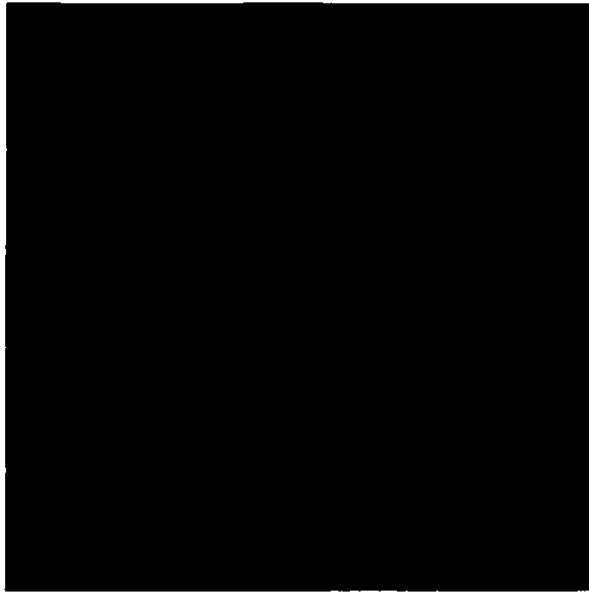
It is also important to use the guideline sensibly. There is little point in leaving a tiny gap between

buildings so that a thin shaft of sunlight penetrates through to a gloomy 'amenity area' on 21 March.

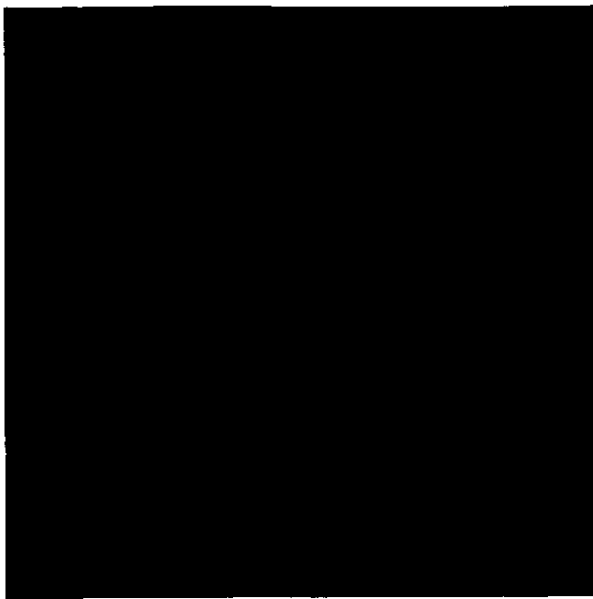
Where a large building is proposed which may affect a number of gardens or open spaces, it is often illustrative to plot a shadow plan showing the location of shadows at different times of day and year. For 21 March this can be done by using the sun-on-ground indicator in reverse (Appendix G).

#### Summary

It is suggested that, for it to appear adequately sunlit throughout the year, no more than two-fifths and preferably no more than a quarter of any garden or amenity area should be prevented by buildings from receiving any sun at all on 21 March. If, as a result of new development, an existing garden or amenity area does not meet these guidelines, and the area which can receive some sun on 21 March is less than 0.8 times its former value, then the loss of sunlight is likely to be noticeable.



op





**A REPORT ON SUNLIGHT AND  
DAYLIGHT AS A RESULT OF  
THE REDEVELOPMENT  
OF  
130-136 BARLBY ROAD  
AND 6 EXMOOR STREET  
LONDON  
W10**

Prepared for: Indigo Planning Limited

Prepared by: Kaivin Wong BSc (Hons) MRICS  
**MALCOLM HOLLIS**

Date: 30 September 2004

Reference: KW1/KW1-77/KW/fb

**Partners**

John Woodman BSc (Hons) MSc FRICS  
Kaivin Wong BSc (Hons) MRICS  
Simon Hill BSc MRICS  
Alex Brown BSc (Hons) MRICS  
Julian Bisson BSc (Hons) MRICS  
Claire Charlton BSc (Hons) MRICS  
Bartle Woolhouse BSc (Hons) MRICS  
Peter Martin BSc MRICS

**Finance Director**  
Ian Thompson ACA

**Associates**

Graham Hough BSc MRICS  
Matthew Gosling BSc (Hons) DipSurv  
MRICS MCIOB  
Steven Hughes BSc (Hons) MRICS

**Consultants**

Ray Evans Dip Arch RIBA  
John Gillies FRICS FBEng

**5 Brooks Court  
Kirtling Street  
London SW8 5BP**

**T: 020 7622 9555  
F: 020 7627 9850**

**E: london@malcolmhollis.co.uk  
W: www.malcolmhollis.co.uk**



INVESTOR IN PEOPLE



---

<b>CONTENTS</b>	<b>PAGE</b>
<b>1. INTRODUCTION .....</b>	<b>3</b>
<b>1.2 RELEVANT POLICY CONSIDERATIONS .....</b>	<b>3</b>
<b>2. TESTS TO BE APPLIED TO EXISTING BUILDINGS .....</b>	<b>3</b>
<b>2.2 DAYLIGHT.....</b>	<b>4</b>
<b>2.3 SUNLIGHT.....</b>	<b>6</b>
<b>3. ASSESSMENT .....</b>	<b>7</b>
<b>3.1 DAYLIGHT TO NEIGHBOURING AND ADJOINING BUILDINGS .....</b>	<b>7</b>
<b>3.2 DAYLIGHT TO THE PROPOSED BUILDING .....</b>	<b>9</b>
<b>3.3 SUNLIGHT TO NEIGHBOURING AND ADJOINING BUILDINGS .....</b>	<b>11</b>
<b>3.4 SUNLIGHT TO THE PROPOSED BUILDINGS .....</b>	<b>12</b>
<b>4. CONCLUSION.....</b>	<b>13</b>

APPENDIX 1 – EXTRACT FROM BRE GUIDELINES

## 1. INTRODUCTION

1.1.1 We are instructed by Indigo Planning Limited to assess the impact on natural daylight and sunlight as a result of the redevelopment of 130-136 Barlby Road and 6 Exmoor Street, London, W10 in the context of the planning guidelines contained in the UDP of the Royal Borough of Kensington and Chelsea. The standards adopted within the UDP documents are set out in the Building Research Establishment (BRE) Report "Site layout planning for daylight and sunlight – A guide to good practice" 1991. Reference is also made to the standards contained within the British Standard Code of Practice for Daylighting, BS8206 Part 2.

### 1.2 Relevant Policy Considerations

1.2.1 The principal purpose of the Council's policy in connection with the amenity of adjoining buildings, is to ensure that new development does not materially or adversely affect the amenity of those buildings in the context of sunlight, daylight, sense of enclosure, privacy and overshadowing. The policy also seeks to ensure that natural light to new developments is adequate for their occupation and use. To assess these considerations objectively, the scientific empirical measurements contained in the BRE Guidelines and British Standard Code of Practice are referred to in the UDP as the standards to be applied.

## 2. TESTS TO BE APPLIED TO EXISTING BUILDINGS

2.1.1 The main purpose of the guidelines is to assist in the consideration of the relationship of new and existing buildings to ensure that each retain a potential to achieve good daylighting and sunlighting levels. That is, by following and satisfying the tests contained in the guidelines, new and existing buildings should be sufficiently spaced apart in relation to their relative heights so that both continue to have the potential to achieve good levels of daylight and sunlight. They have been drafted primarily for use with low density suburban developments and should therefore be used flexibly when dealing with a dense urban city centre site – a fact recognised by the Report's author in the Introduction where Dr Paul Littlefair says:

*'The Guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and this document should not be seen as an instrument of planning policy. Its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of many factors in site layout design..... In special circumstances the developer or Planning Authority may wish to use different target values. For example, in a historic city centre a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings.....'*



2.1.2 In addition, the block spacing criteria for daylight and sunlight are a major determinant of other amenity considerations such as *sense of enclosure, privacy, overlooking and overshadowing*. That is to say, if the relationship between height, distance and massing of the new and existing buildings is sufficient to meet the sunlight and daylight criteria, they should generally be sufficiently well-spaced as not to be oppressive by creating an unacceptable degree of sense of enclosure nor would they unreasonably interfere with privacy or overlooking or cast an unreasonable amount of shadow.

## 2.2 Daylight

2.2.1 There are various methods of measuring and assessing daylight and the choice of test depends on the circumstances of each particular window. For example, greater protection should be afforded to windows which serve living rooms or family kitchens compared to bedrooms. The tests should however also be applied to non-domestic uses such as offices and workplaces where such uses will ordinarily have a reasonable expectation of daylight and are a principal workplace.

2.2.2 The criteria for protecting daylight to existing buildings is contained in Section 2.2 of the BRE Guidelines, which have been reproduced at Appendix 1. The BRE have developed a series of tests which begin with very simple block spacing formulae followed by increasingly sophisticated measurements of Vertical Sky Component (VSC) on the face of each window, and measurements of internal daylighting by calculating Average Daylight Factor (*df*) followed by the plotting of Sky Factor Contours. The tests are consecutive and for there to be a failure of the guidelines, there must be a failure on each test. It also follows that if a design passes one of the daylight tests, the proposed level of daylight will be acceptable and it is therefore unnecessary to proceed to any further tests.

2.2.3 The tests are summarised in the decision flow chart in Appendix 1 and are briefly as follows.

Test 1 – if a new development subtends an angle less than 25° taken from the mid-point to the lowest window of the existing building, that window, and any window at the same level or above it, will continue to receive sufficient daylight.

Test 2 – if the window continues to receive greater than 27% Vertical Sky Component (VSC) at its mid point, it will continue to receive sufficient daylight.

Test 3 – if the window receives less than 27% VSC under present conditions, it is permissible to reduce this amount by a maximum of 20% (i.e. 0.8 times its former value), before the loss is considered material.

Test 4 – if the reduction in the VSC is greater than 20%, it is necessary to measure the interior daylight distribution and this value may be reduced by 20% of its existing value (i.e. 0.8 times its former value), before the loss is considered material. Average Daylight Factor (*df*) measurements in accordance with the methodology in Appendix C of the BRE Guidelines and British Standard BS8206 Part 2, can then be used to assess lighting levels.

- 2.2.4 Test 1 is a very simple test for block spacing and should only be used where the proposed development is of a reasonably uniform profile and is directly opposite the existing building. Its use is more appropriate for low density well-spaced developments such as housing and often is not a particularly useful tool in assessing urban and in-fill sites.
- 2.2.5 For Test 2, the Vertical Sky Component is a unit of measurement that represents the amount of available daylight from the sky, receivable at a particular window. It is measured on the outside face of the window. The 'unit' is expressed as a percentage as it is the ratio between the amount of sky visible at the given reference point compared to the amount of light that would be available from a totally unobstructed hemisphere of sky. To put this unit of measurement in perspective, the maximum percentage value for a window with a completely unobstructed outlook (i.e. with a totally unobstructed view through 90° in every direction) is 50%. In practice, the true measure of this value can in fact be nearer 40% to take account of the losses at extreme angles and the effect of windows set in window reveals. The target figure recommended by the BRE is 27% VSC and if the value is in excess of 27% VSC the window in question will continue to receive a good level of daylight.
- 2.2.6 27% VSC is a relatively good level of daylight and is a target level that we would expect to find for habitable rooms with windows on principal elevations. This level is often difficult to achieve on secondary elevations and in densely built-up urban environments.
- 2.2.7 For comparison, a window receiving 27% VSC is approximately equivalent to a window that would have a continuous obstruction opposite it and which subtends an angle of 25° i.e. the same as Test 1.
- 2.2.8 The Average Daylight Factor (*df*) takes account of the interior dimensions and reflectances within the room being tested and is a more detailed and representative measure of the adequacy of light for this reason. The recommended *df* values contained in the British Standard for Daylighting (Code of Practice for Daylighting, British Standard BS8206 Part 2) are 2% for family kitchens, 1.5% for living rooms and 1% for bedrooms. It is however only necessary to calculate Average Daylight Factors where the Vertical Sky Component level is below 27%.
- 2.2.9 Through their research, the Building Research Establishment have determined that daylight (and sunlight levels) can be reduced by approximately 20% of its original value before the loss is materially noticeable. It is for this reason that they consider that a 20% reduction is permissible in circumstances where the existing VSC value is below the 27% threshold.
- 2.2.10 This level of reduction also applies to the measurements adopted in the third and fourth tests in the BRE Guidelines.

## 2.3 Sunlight

2.3.1 Unlike with daylight, which is non-directional and assumes that light from the sky is uniform, the availability of sunlight is dependent on direction. That is, as the United Kingdom is in the northern hemisphere, we only receive our sun from the south and the sun rises in the east and sets in the west. The availability of sunlight is therefore dependent on the orientation of the window or area of ground being assessed relative to position of due south.

2.3.2 Accordingly, sunlight need only be measured where an existing building has a 'window wall' (i.e. a wall with a window serving a habitable room) within 90° of due south.

2.3.3 The guidelines also state that the sunlight criteria will be met if: -

- (i) The *window wall* faces within 90° of due south and no obstruction measured in the section perpendicular to the window wall, subtends an angle of more than 25° from the horizontal. Obstructions within 90° due north of the reference point need not count.
- (ii) The window wall faces within 20° due south and the reference point has a Vertical Sky Component of 27% or more.

2.3.4 In this context, the sunlight criteria only applies where a window faces within 90° of due south and where the Vertical Sky Component value for daylight is less than 27% within 20° of due south. The criteria should also be viewed flexibly with account taken for the actual orientation relative to due south.

2.3.5 The two tests referred to above at paragraph 2.3.3. are used as a rule of thumb and where sunlight needs to be tested to a greater level of detail, sunlight is measured using the Sunlight Availability Indicator contained in Appendix 1 of the Guidelines. That indicator calculates the anticipated annual probable sunlight hours that a window can receive over and around a proposed new building. For this report, the sunlight levels have been calculated by our software package which has been developed using the Sunlight Availability Indicators but is more accurate as it measures sunlight availability to a much higher degree of accuracy than the "spotting" method in the Guidelines. The sunlight criteria only applies to windows serving living rooms of an existing dwelling. This is in contrast to the daylight criteria which applies to kitchens and bedrooms as well as living rooms. The sunlight criteria taken from section 3.2 of the BRE guidelines (page 12 of the guidelines – see Appendix 1) is as follows: -

'If a living room of an existing dwelling has a main window facing within 90° of due south, and any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the window in a vertical section perpendicular to the window, then the sunlighting of the existing dwelling may be adversely effected. This will be the case if a point at the centre of the window, in the plane of the inner window wall, received in the year less than one quarter of annual probable sunlight hours including at least 5% of annual probable sunlight hours between 21 September and 21 March, and less than 0.8 times its former sunlight hours during either period.'

### 3. ASSESSMENT

#### 3.1 Daylight to Neighbouring and Adjoining Buildings

3.1.1 The testing criteria in the BRE Guidelines apply to habitable rooms which are categorised as living rooms, kitchens and bedrooms. Bathrooms, hallways and circulation space are excluded.

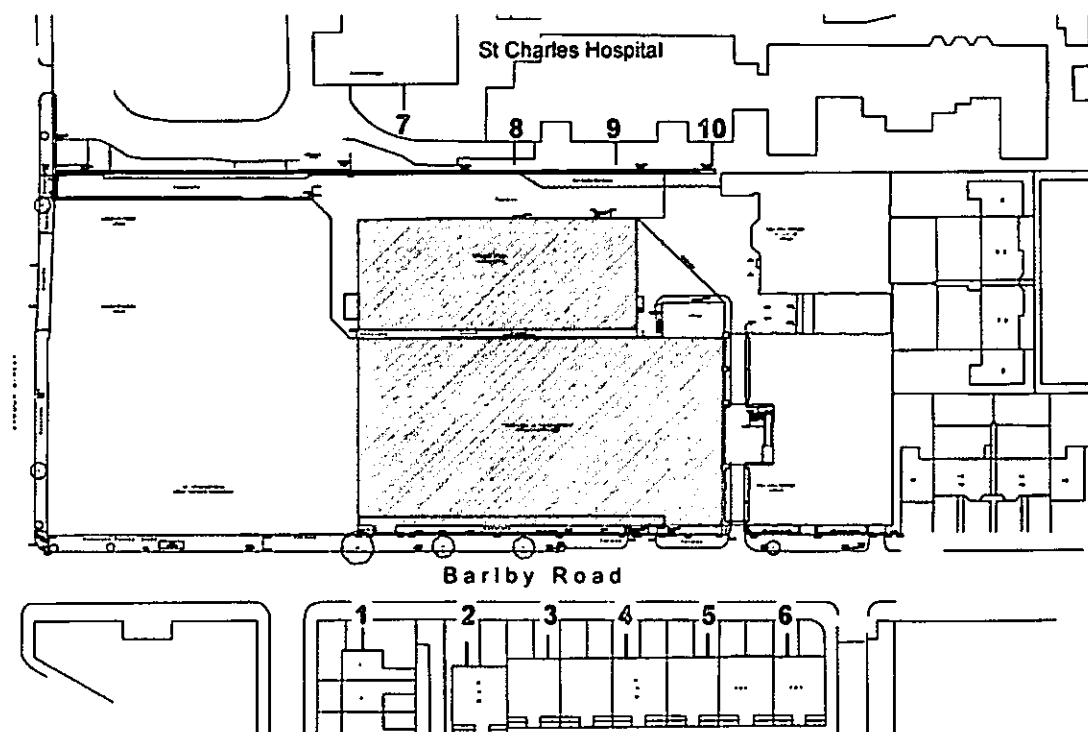
3.1.2 The amenity policy and the BRE Guidelines are generally applicable to habitable rooms within domestic residential dwellings. The only residential properties within close proximity of the site are the houses on the opposite side of Barlby Road situated in Matthew Close (reference points 1-6 in Table 1 below). However, for completeness we have also tested a number of reference points for St Charles Hospital as windows serving the hospital will have a reasonable expectation of daylight.

3.1.3 The simple angle test of 25° in Test 1 of the BRE Guidelines is not entirely appropriate as the profile of the proposed new building will not be a continuous obstruction opposite the windows and would not take account of the effect of the existing neighbouring buildings. The most appropriate test to be applied is therefore the calculation of Vertical Sky Components on the face of the windows in question. We have therefore calculated the “existing” and “proposed” VSC values for a representative selection of windows and those results are summarised in the table below. The location of the reference points chosen is given on the location plan at the foot of the table overleaf.

3.1.4 The results in the table below need to be interpreted in the context of the criteria contained in Section 2 of the BRE Guidelines. To satisfy the initial test in the guidelines, the VSC measured on the face of the window should not fall below a target value of 27% VSC represented by the figures in the third column of the table. Where the VSC is below 27% under existing circumstances, it is permissible to reduce the present value by a maximum of 20% of the present value before the loss is considered noticeable.

3.1.5 The results of our analysis are tabulated below.

TABLE 1	Existing VSC [%]	Proposed VSC [%]	% of original VSC [%]
<b>Selected Points at 2m above ground level</b>			
Point 1	34.32	27.68	80.65
Point 2	34.13	30.46	89.25
Point 3	33.99	30.44	89.56
Point 4	33.73	30.45	90.28
Point 5	32.75	30.72	93.80
Point 6	32.38	31.62	97.65
Point 7	37.03	30.52	82.42
Point 8	36.67		70.03
Point 9	35.31		62.59
Point 10	30.92	26.85	86.84



- 3.1.6 Under existing circumstances, the windows presently receive very good levels of daylight due to the existing height and distance ratios.
- 3.1.7 Reference points 1-6 provide a comprehensive sample of readings across the rear elevations of all of the houses on Matthew Close. Each of those reference points was taken at 2m above ground level and each yielded "proposed" VSC value in excess of the minimum 27% VSC threshold in the BRE Guidelines. The lowest value was measured at reference point 1 at 27.68% whereas all of the other reference points measured on the rear elevations of the Matthew Close buildings yielded values in excess of 30% VSC. It should also be noted that whilst reference points 2-6 were taken on the rear elevation (which would be considered as a "principal" elevation) reference point 1 is in fact the flank wall of the house in question and would therefore be classed as a "secondary" elevation. In any event, not only do all of the windows tested meet the Vertical Sky Component standard in the BRE Guidelines, none of the losses to the Matthew Close houses exceeded 20%.
- 3.1.8 Whilst St Charles hospital is not a residential property, it was included within the analysis and four reference points were taken (reference points 7-10).
- 3.1.9 Two of the readings fell below the 27% VSC threshold and resulted in greater than a 20% reduction. Those reference points were reference points 8 and 9 opposite the middle of the proposed developments and have been highlighted in green in Table 1 above.

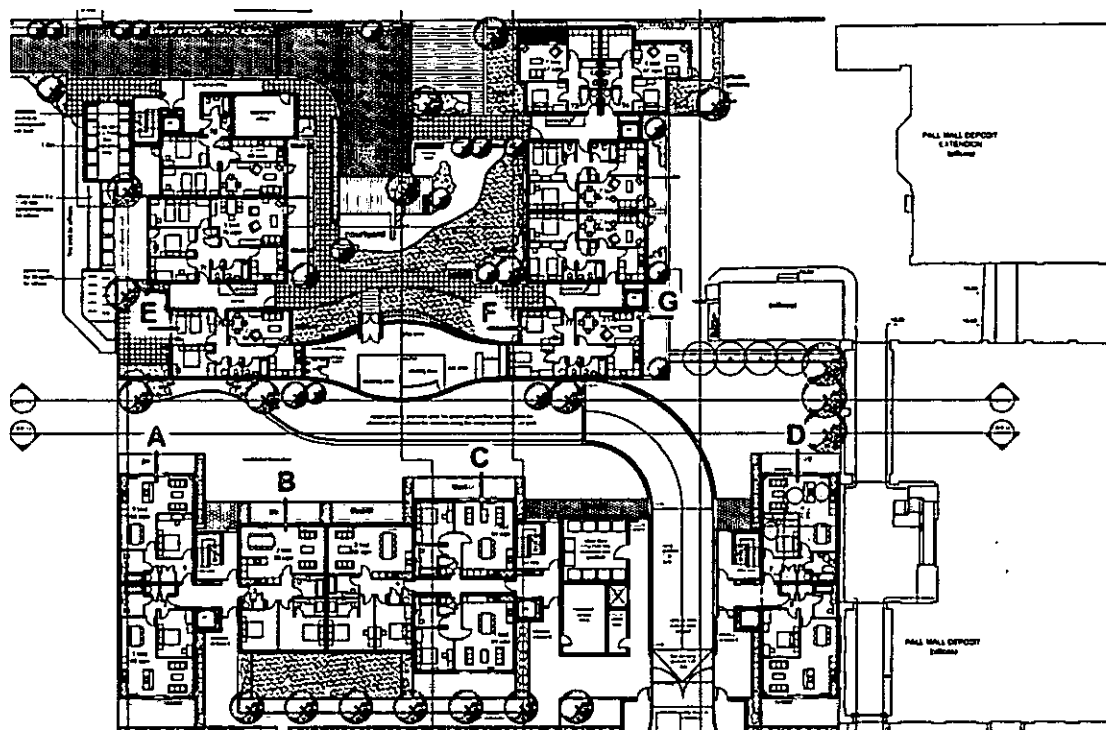
- 3.1.10 As the light readings taken at these two reference points fell below the BRE VSC standard, we have calculated indicative Average Daylight Factor values for these reference points in accordance with the Code of Practice for Daylighting, BS8206 Part 2.
- 3.1.11 The ADF value for reference point 8 was measured at 3.43% *df* and the equivalent value for reference point 9 was 3.08% *df*. These figures should be read in context with the standards contained in the Code of Practice for Daylighting BS8206 Part 2 – see paragraph 2.2.8 above.
- 3.1.12 The standards in the Code of Practice have been drafted for residential dwellings and therefore contain standards for kitchens, living rooms and bedrooms. There are no equivalent standards for non-domestic buildings such as workplaces or hospitals. We must therefore rely on the comparable residential standards in order to assess the adequacy of daylight.
- 3.1.13 The Code of Practice requires a minimum level of 2% *df* for family kitchens, 1.5% *df* for living rooms and 1% *df* for bedrooms. The readings obtained for reference points 8 and 9 were measured at 3.43% *df* and 3.08% *df* are well above these minimum standards. These figures were however based on estimated dimensions as we do not have a full measured survey of the adjoining hospital buildings. They are however indicative of the lighting levels that would be achieved.

## 3.2 Daylight to the proposed building

- 3.2.1 For the proposed building, we have selected a number of habitable rooms at ground floor level which will receive the least amount of sunlight and daylight. The location of those rooms has been identified on the plan at the foot of table 2 below.
- 3.2.2 The living rooms at points A, B, C, D and G has balconies and these balconies act as canopies over the windows and therefore reduce the amount of light available at the face of the windows below them. We have therefore calculated two values for the Vertical Sky Component. The first value is taken on the face of the balcony and the second value is the true value taken on the face of the window. Those figures have been tabulated in Table 2 below.
- 3.2.3 The design target value of Vertical Sky Component to the 'proposed' habitable rooms is the same as the values that should be achieved for protecting the existing neighbouring and adjoining buildings. The true value of Vertical Sky Component is therefore the value that has been obtained on the face of the window in question.

TABLE 2

Location	Balcony Front VSC %	At Window Front VSC%	Room Area	Aw	$\Theta_1$	$\Theta_2$	df <sub>1</sub>	df <sub>2</sub>
A	25.34	12.14	132.58	12.5	62.23	38.57	6.26	3.88
B	30.14	17.11	100.30	18.4	70.23	48.52	13.74	9.49
C	28.94	16.06	119.40	10.0	68.23	46.77	6.10	4.18
D	20.12	12.23	132.58	12.5	53.53	38.72	5.38	3.89
E	No balcony	17.99	53.55	2.3	N/A	49.98	2.29	2.29
F	No balcony	27.49	53.55	2.2	N/A	65.82	2.88	2.88
G	19.62	11.54	74.75	6.6	52.70	37.57	4.96	3.54





- 3.2.4 Due to the 'canopy effect' of the projecting balconies, the VSC values obtained are relatively low. It was therefore necessary to calculate the Average Daylight Factor values for each of the rooms served by these windows. The Average Daylight Factor value is a better representation of the actual natural lighting levels in each of the rooms as it takes account of the area of glazing and the size and reflectants values of the rooms in question whereas the VSC value is a simple measurement on the face of the building. Clearly, the actual amount of daylight penetrating a room is directly proportional to the size of the windows.
- 3.2.5 The proposed scheme incorporates full height glazed walls rather than conventional windows with the effect that the amount of daylight penetration into the rooms themselves is increased very significantly. In the table 2 above, we have calculated the corresponding Average Daylight Factor values achieved for each of those reference points and those figures have been listed in the ninth column.
- 3.2.6 The rooms affected are living rooms and bedrooms. The living rooms are located at reference points A, B, C, D and G and the two bedrooms tested are located at reference points E and F. The target value for Average Daylight Factor for the living rooms is 1.5% *df* and the corresponding value for bedrooms is 1% *df*.
- 3.2.7 From the table above, it is clear that all of the living rooms and bedrooms achieve ADF values well in excess of the target minimum values taken from the British Standard Code of Practice for Daylighting BS8206 Part 2. This is due to the ratio of glazing to internal room surface area.
- 3.3 Sunlight to neighbouring and adjoining buildings**
- 3.3.1 The sunlight criteria only applies to windows that face within 90° of due south. Reference points 1-6 fall within this criteria but at reference point 6, the proposed new development is not perpendicular to the "window wall" in section. Testing was therefore only required for reference points 1-5.
- 3.3.2 To meet the BRE Guidelines, the proposed development should not reduce the availability of annual sunlight (expressed as annual probably sunlight hours) to below one quarter (or 25%) of the total available annual probable sunlight hours. In addition, 5% of those "sunlight hours" should be available in the winter months between the autumn and spring equinox. The results of that assessment are summarised in the table below.

**TABLE 3**

Location	Total Available Annual Probable Sunlight Hours/%		Total Available Probable Sunlight Hours/%	
	Existing	Proposed	Existing	Proposed
1	65	61	10	6
2	65	59	12	6
3	66	59	12	5
4	65	57	11	5
5	65	58	9	6

3.3.3 In order to comply with the BRE Guidelines, the figures expressed as a percentage in the third column should not fall below 25% (i.e. one quarter) and in the fifth column, should not fall below 5%. From the figures in the table above, the “proposed” total available annual probable sunlight hours will all be well in excess of the target value of one quarter, or 25%. In addition, the available probable sunlight hours in the winter will not fall below 5%. The sunlight availability will therefore meet the BRE Guidelines.

**3.4 Sunlight to the proposed buildings**

3.4.1 The reference points taken for the sunlight analysis are the same as those that were used for the daylight analysis and can be located on the plan at the foot of table 2 above.

3.4.2 The rooms at reference points E and F (i.e. the two bedrooms) fall outside the BRE sunlight testing criteria as neither of these windows face within 90° of due south.

3.4.3 The result of the sunlight analysis are summarised in table 4 below.

**TABLE 4**

Sunlight Availability [%] at 2m above Ground level		
Point A	21 1	Total winter
Point B	36 9	Total winter
Point C	43 8	Total winter
Point D	33 9	Total winter
Point G	34 11	Total winter
Point E	No testing – not within 90° of due south	
Point F	No testing – not within 90° of due south	

3.4.4 As with existing buildings, the target value for sunlight in the BRE Guidelines is 25% of total annual probable sunlight hours, 5% of which should be received in the winter months.

3.4.5 With the exception of the window at reference point A, all other rooms will comfortably meet the sunlight criteria.

3.4.6 The window at reference point A will receive 21% of annual probable sunlight hours compared to a target value of 25% and 1% of those available sunlight hours will be received in the winter months in comparison to a target value of 5%.

3.4.7 Although these values are below the recommended target minimum values for sunlight, the window at reference point A serves the living room of a one bedroom flat and is therefore not a family unit.

#### **4. CONCLUSION**

4.1.1 The protection of sunlight and daylight generally only applies to residential dwellings. The only residential dwellings directly affected by the proposed development are the houses on Matthew Close. Strictly speaking, these are the only properties that need to be tested. We have however undertaken additional tests for a number of reference points on the St Charles Hospital buildings as it is not unreasonable that there should be a reasonable expectation of daylight for a hospital. We have also tested seven representative reference points in the proposed development at ground floor level which will have the lowest sunlight and daylight readings.

4.1.2 For sunlight, we measured the total available annual probable sunlight hours and the availability of sunlight in the winter months. The sunlight criteria only applies

to the rear elevation of the Matthew Close houses and all of these windows will continue to receive well above the BRE recommendations both in terms of the annual availability of sunlight and the availability in winter.

- 4.1.3 For the proposed building, all but one of the reference points tested comfortably met the BRE sunlight criteria. The window at reference point A falls below the target minimum standard for sunlight but achieved very good levels for daylight. In mitigation, this window serves a living room to a one bedroom flat and not a family unit. Whilst sunlight is desirable for all habitable rooms, the aim is to maximise sunlight to living rooms of family size units of three or more bedrooms.
- 4.1.4 Having tested a comprehensive selection of reference points for the Matthew Close houses, all of the windows will continue to receive a VSC value in excess of 27% VSC and they therefore will meet the BRE Guidelines.
- 4.1.5 Two locations on St Charles Hospital fell below the minimum VSC threshold and it was therefore necessary to measure the Average Daylight Factor value for these reference points. The values obtained for these two windows was well above the standards in the Code of Practice for Daylighting BS8206 Part 2 and these windows will therefore continue to receive more than adequate light for all forms of habitable use.
- 4.1.6 For the proposed building, the “canopy effect” of the projecting balconies above the living rooms reduces the availability of daylight to the face of the windows. The rooms do however have fully glazed external walls and when the Average Daylight Factor is calculated, the internal lighting values obtained for all of the windows are well above the target standards in the British Standard Code of Practice.
- 4.1.7 With the exception of the availability of sunlight to the living room windows in the proposed one bedroom flat at reference point A we can therefore conclude that the proposed development will comply with the BRE Guidelines for both daylight and sunlight and that it should therefore meet the Council's policy objectives.

**APPENDIX 1**

**EXTRACT FROM BRE GUIDELINES**

In some cases, for example with a standard house design, window positions may already be known. The vertical sky component can then be calculated at the centre of each window. In the case of a floor-to-ceiling window, such as a patio door, a point 2 m above ground on the centre line of the window may be used. Again, a vertical sky component of 27% or more indicates the potential for good daylighting. The interior daylighting of the building can then be checked easily using the method described in Appendix C.

Where space in a layout is restricted, interior daylighting may be improved in a number of ways. An obvious one is to increase window sizes. The best way to do this is to raise the window head height, because this will improve both the amount of daylight entering and its distribution within the room (Figure 5).

Improving external surface reflectances will also help. Light-coloured building materials and paving slabs on the ground may be used. However, maintenance of such surfaces should be planned to stop them



**Figure 5** In Georgian streets the small spacing-to-height ratio is compensated for by tall windows. Note how window-head height increases for the lower floors which are more heavily obstructed

4

discolouring. Often the benefits will not be as great as envisaged, partly because of ageing of materials and partly for geometrical reasons. An obstructed vertical building surface will receive light from less than half the sky. Even if it is light coloured its brightness can never approach that of unobstructed sky.

Finally, one important way to plan for good interior daylight is to reduce building depth (window wall to window wall). Even on a totally unobstructed site there is a limit to how deep a room can be while remaining properly daylighted. The presence of obstructions may reduce this limiting depth still further. Appendix C gives details of how to calculate these limiting room depths for good daylighting.

#### Summary

In general, a building will retain the potential for good interior diffuse daylighting provided that on all its main faces:

- (a) no obstruction, measured in a vertical section perpendicular to the main face, from a point 2 m above ground level, subtends an angle of more than  $25^\circ$  to the horizontal;

or

- (b) if (a) is not satisfied, then all points on the main face on a line 2 m above ground level are within 4 m (measured sideways) of a point which has a vertical sky component of 27% or more.

## 2.2 Existing buildings

In designing a new development or extension to a building, it is important to safeguard the daylight to nearby buildings. A badly planned development may make adjoining properties and their gardens gloomy and unattractive, annoying their occupants and even, in some cases, infringing rights to light (see later in this Section). The guidelines given here are intended for use with adjoining dwellings and any existing non-domestic buildings where the occupants have a reasonable expectation of daylight; this would normally include schools, hospitals, hotels and hostels, small workshops and most offices. Gardens and open spaces are dealt with in Section 3.3.

Note that numerical values given here are purely advisory. Different criteria may be used, based on the requirements for daylighting in an area viewed against other site layout constraints.

A modified form of the procedure adopted for new buildings can be used to find out whether an existing building still receives enough skylight. First, draw a section in a plane perpendicular to each affected main window wall of the existing building (Figure 6). Measure the angle to the horizontal subtended by the

new development at the level of the centre of the lowest window. If this angle is less than  $25^\circ$  for the whole of the development then it is unlikely to have a substantial effect on the diffuse skylight enjoyed by the existing building.

#### Section

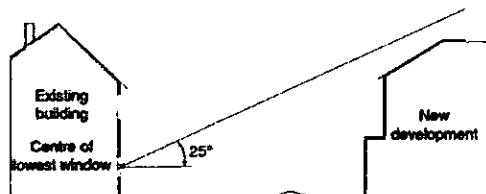


Figure 6 Section in plane perpendicular to the affected window wall

If, for any part of the new development, this angle is more than  $25^\circ$ , a more detailed check is needed to find the loss of skylight to the existing building. Both the total amount of skylight and its distribution within the building are important.

Any reduction in the total amount of skylight can be calculated by finding the vertical sky component at the centre of each main window. (In the case of a floor-to-ceiling window, such as a patio door, a point 2 m above ground on the centre line of the window may be used.) The reference point is in the external plane of the window wall. Windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analysed. The vertical sky component can be found by using the skylight indicator (Appendix A) or Waldram Diagram (Appendix B).

If this vertical sky component is greater than 27% then enough skylight should still be reaching the window of the existing building. Any reduction below this level should be kept to a minimum. If the vertical sky component, with the new development in place, is both less than 27% and less than 0.8 times its former value, then occupants of the existing building will notice the reduction in the amount of skylight. The area lit by the window is likely to appear more gloomy, and electric lighting will be needed more of the time.

The impact on the daylighting distribution in the existing building can be found by plotting the no-sky line in each of the main rooms. For houses this would include living rooms, dining rooms and kitchens. Bedrooms should also be analysed, although they are less important. In non-domestic buildings each main room where daylight is expected should be investigated. The no-sky line divides points on the working plane which can and cannot see the sky. (In houses the working plane is assumed to be horizontal and 0.85 m high; in offices 0.7 m high; in special interiors like hospital wards and infant school

classrooms a different height may be appropriate.) Areas beyond the no-sky line, since they receive no direct daylight, usually look dark and gloomy compared with the rest of the room, however bright it is outside. According to the British Standard<sup>1</sup>, supplementary electric lighting will be needed if a significant part of the working plane lies beyond the no-sky line. Appendix D gives hints on how to plot the no-sky line.

If, following construction of a new development, the no-sky line moves so that the area of the existing room which does receive direct skylight is reduced to less than 0.8 times its former value, then this will be noticeable to the occupants, and more of the room will appear poorly lit. This is also true if the no-sky line encroaches on key areas like kitchen sinks and worktops.

These guidelines need to be applied sensibly and flexibly. There is little point in designing tiny gaps in the roof lines of new development in order to safeguard no-sky lines in existing buildings. If an existing building contains rooms lit from one side only and greater than 5 m deep, then a greater movement of the no-sky line may be unavoidable. Another important issue is whether the existing building is itself a good neighbour, standing a reasonable distance from the boundary and taking no more than its fair share of light.

However, as a general rule the aim should be to minimise the impact to existing property. This is particularly important where successive extensions are planned to the same building. In this case the total impact on skylight of all the extensions needs to be calculated and compared with the guidelines.

For domestic extensions which adjoin the front or rear of a house, a quick method can be used to assess the diffuse skylight impact on the house next door. It applies only where the nearest side of the extension is perpendicular to the window (Figure 7); it is not valid for windows which directly face the extension, or for buildings opposite. For these cases the guidelines, in the left-hand column of this page, should be used.

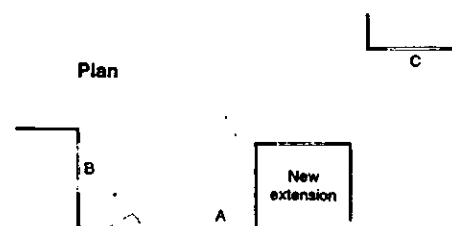


Figure 7 To assess the impact of the new extension, the  $45^\circ$  approach may be used for window A but not for windows B and C which directly face it



Figure 8 illustrates the application of the method, the '45° approach'. Take the elevation of the window wall and draw diagonally down at an angle of 45° away from the near top corner of the extension. Then take the plan and draw diagonally back at an angle of 45° towards the window wall from the end of the extension. (Note that the section perpendicular to the window is not used here.) If the centre of a main window of the next-door property lies on the extension side of both these 45° lines then the extension may well cause a significant reduction in the skylight received by the window. (In the case of a floor-to-ceiling window, such as a patio door, a point 2 m above the ground on the centre line of the window may be used.)

Like most rules of thumb, this one needs to be interpreted flexibly. For example, if the extension has a much larger building behind it then the daylight from that direction may be blocked anyway. If the extension has a pitched roof then the top of the extension can be taken as the height of its roof halfway along the slope (Figure 8). Special care needs to be taken in cases where an extension already exists on the other side of the window, to avoid a tunnel

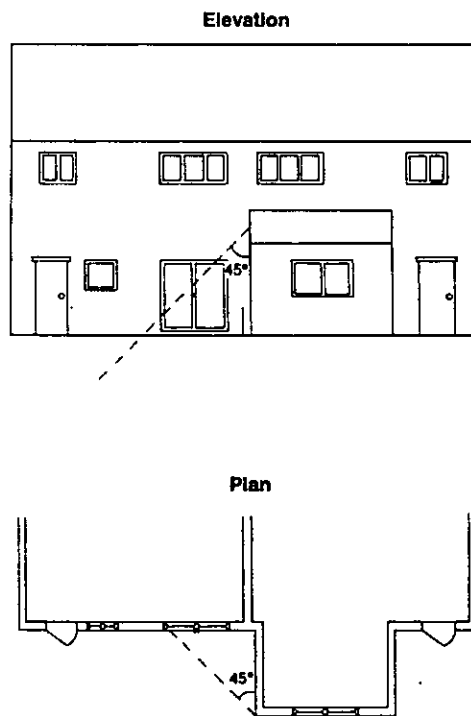


Figure 8 Application of the 45° approach to a domestic extension. A significant amount of light is likely to be blocked if the centre of the window (or, for a floor-to-ceiling window as here, a point 2 m from the ground) lies within the 45° lines on both plan and elevation

effect (Figure 9); it is then advisable to plot the no-sky line in the obstructed room (as already described). Finally, as with the other guidelines in this Section, the 45° approach deals with diffuse skylight only. Additional checks will need to be made for the sunlight which may be blocked.

The windows of some existing buildings will also have rights to light. None of the guidelines here is intended to replace, or be a means of satisfying, the legal requirements contained in rights-to-light law.

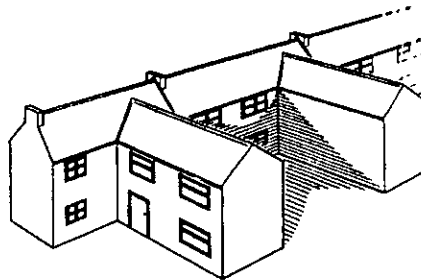


Figure 9 A tunnel effect can occur if windows are obstructed by extensions on both sides

The criterion used in rights-to-light cases is very much a minimum standard, so it is usually true that if the guidelines given here are satisfied then a new development will not infringe rights to light. But this is not always true, particularly if the existing building is unusually deep or has especially small or low windows. If an existing building does have rights to light, and this will usually be the case if it is more than 20 years old, then the designer of the new development should check that it does not infringe them. Appendix E gives further details.

Obstruction of light from the sky is just one of the ways in which a new development can affect existing buildings nearby. The obstruction of sunlight is also important (see Sections 3.2 and 3.3) as are questions of view and privacy (see Section 5).

**Summary (see Figure 10)**

If any part of a new building or extension, measured in a vertical section perpendicular to a main window wall of an existing building, from the centre of the lowest window, subtends an angle of more than 25° to the horizontal, then the diffuse daylighting of the existing building may be adversely affected. This will be the case if either:

- the vertical sky component measured at the centre of an existing main window is less than 27%, and less than 0.8 times its former value;
- or
- the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value.

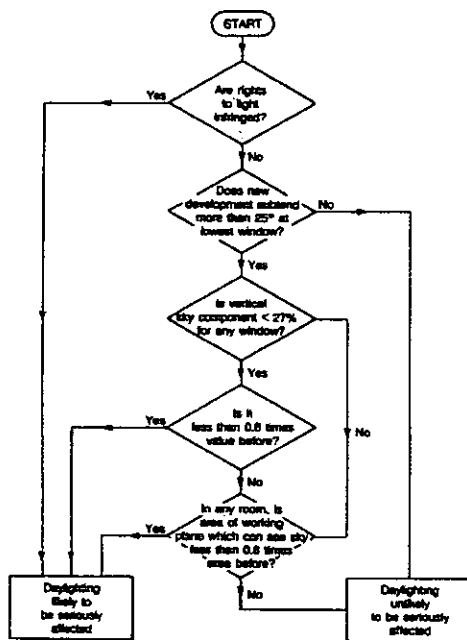


Figure 10 Decision chart; diffuse daylight in existing buildings

**2.3 Adjoining development land**

From a daylighting standpoint it is possible to reduce the quality of adjoining land by building too close to the boundary. A well designed building will stand a reasonable distance back from the boundaries so as to enable future nearby developments to enjoy similar access to daylight. By doing so it will also keep its own natural light when the adjoining land is developed.

This applies to future non-domestic development as well as housing. However, it does not apply when no main window wall, either of the current new development or of any probable future development on the adjoining site, will face over the boundary. The guidance does not, therefore, apply to a boundary next to a windowless flank wall of a new house where any future housing next door should also present a flank wall without windows; nor need it apply to an industrial estate where new development and any future development is either windowless or solely rooflit.

The diffuse daylight coming over the boundary may be quantified in the following way. As a first check, draw a section in a plane perpendicular to the boundary (Figure 11). If a road separates the two sites, then the centre line of the road should be taken. Measure the angle to the horizontal subtended at a point 2 m above the boundary by the proposed new buildings. If this angle is less than 43° then there will normally still be the potential for good daylighting on the adjoining development site.

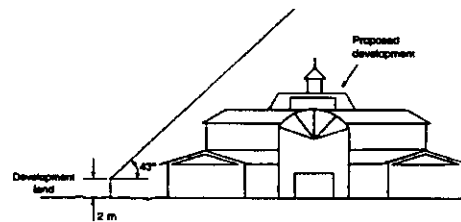


Figure 11 Angular criterion for overhadowing of future development land (on left)

If any of the new buildings is taller than this, enough skylight may still reach the development site provided the building is narrow enough to allow adequate light around its sides. This may be quantified by calculating the vertical sky component (see Section 2.1) at a series of points 2 m above the boundary and facing towards the proposed new buildings. Only obstructions caused by the proposed new buildings need to be taken into account. This contrasts with the calculations for buildings where all obstructions need to be included in the analysis. Vertical sky components may be found using the skylight indicator (Appendix A) or Waldram Diagram (Appendix B). Overall, the adjoining development site should normally retain the potential for good daylighting if

for, a lower target value could be used. In either case, the sunlight availability indicator in Appendix A will show whether the hours of sunlight received meet the target.

#### Summary

In general, a dwelling or non-domestic building which has a particular requirement for sunlight, will appear reasonably sunlit provided that:

- at least one main window wall faces within 90° of due south;

and

- on this window wall, all points on a line 2 m above ground level are within 4 m (measured sideways) of a point which receives at least a quarter of annual probable sunlight hours, including at least 5% of annual probable sunlight hours during the winter months, between 21 September and 21 March.

### 3.2 Existing buildings

In designing a new development or extension to a building, take care to safeguard the access to sunlight, both for existing dwellings, and for any nearby non-domestic buildings where there is a particular requirement for sunlight. People are particularly likely to notice a loss of sunlight to their homes, and if it is extensive then it will usually be resented.

Obstruction to sunlight may become an issue if:

- Some part of a new development is situated within 90° of due south of a main window wall of an existing building (Figure 16);

and

- In the section drawn perpendicular to this existing window wall, the new development subtends an angle greater than 25° to the horizontal measured from a point 2 m above the ground (Figure 2).

To find out whether an existing building still receives enough sunlight, the British Standard<sup>1</sup> can be used. It is suggested that all main living rooms of dwellings, and conservatories, should be checked if they have a window facing within 90° of due south. Kitchens and bedrooms are less important, although care should be taken not to block too much sun. In non-domestic buildings any spaces which are deemed to have a special requirement for sunlight should be checked; they will normally face within 90° of due south anyway.

Access to sunlight should be checked for the main window of each room which faces within 90° of due south. The British Standard<sup>1</sup> recommends that a 'window reference point', at the centre of each

window on the plane of the inside surface of the wall, should be used for the calculations. Sunlight which would be blocked by the window reveals does not count. In the case of a floor-to-ceiling window, such as a patio door, a point on the centre line of the window 2 m above the ground may be used (again on the plane of the inside surface of the wall).

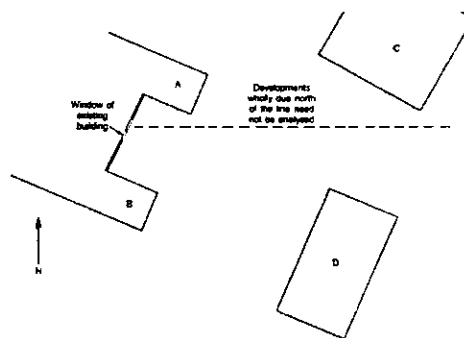


Figure 16 In analysing the sunlighting impact on the existing window, no check need be made for proposed extension A and new building C, as they lie within 90° of due north of the window. Proposed extension B should be checked, as should new building D if it subtends more than 25° to the horizontal, measured in section from the centre of the window

If this window reference point can receive more than one quarter of annual probable sunlight hours (see Section 3.1), including at least 5% of annual probable sunlight hours during the winter months between 21 September and 21 March, then the room should still receive enough sunlight. The sunlight availability indicator in Appendix A, or the rules-of-thumb in Section 3.1, can be used to check this.

Any reduction in sunlight access below this level should be kept to a minimum. If the available sunlight hours are both less than the amount given and less than 0.8 times their former value, either over the whole year or just during the winter months (21 September to 21 March), then the occupants of the existing building will notice the loss of sunlight. The room may appear colder and less cheerful and pleasant.

In certain situations care needs to be taken in applying these guidelines. For example, if the proposed new development is one of a number of successive extensions to the same building, then the total impact on sunlight of all the extensions should be assessed. On the other hand, if the existing building stands unusually close to the common boundary with the new development, then a greater reduction in sunlight access may be unavoidable. The guidelines are purely advisory. Planning authorities may wish to use different criteria, based on the requirements for sunlight in particular types of development in particular areas.

It is good practice to check the sunlighting of gardens of existing buildings. This is described in the next Section.

#### Summary

If a living room of an existing dwelling has a main window facing within 90° of due south, and any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the window in a vertical section perpendicular to the window, then the sunlighting of the existing dwelling may be adversely affected. This will be the case if a point at the centre of the window, in the plane of the inner window wall, receives in the year less than one quarter of annual probable sunlight hours including at least 5% of annual probable sunlight hours between 21 September and 21 March, and less than 0.8 times its former sunlight hours during either period.

### 3.3 Gardens and open spaces

Good site layout planning for daylight and sunlight should not limit itself to providing good natural lighting inside buildings. Sunlight in the spaces between buildings has an important impact on the overall appearance and ambience of a development.

It is valuable for a number of reasons:

- To provide attractive sunlit views (all year)
- To make outdoor activities like sitting out and children's play more pleasant (mainly during the warmer months)
- To encourage plant growth (mainly in spring and summer)
- To dry out the ground, reducing moss and slime (mainly during the colder months)
- To melt frost, ice and snow (in winter)
- To dry clothes (all year)

The sunlit nature of a site can be enhanced by using some of the techniques described in the previous Section. This could include siting low-rise, low-density housing to the south, with taller, higher density housing to the north of a site; and by opening out courtyards to the southern half of the sky. Special care needs to be taken in the design of courtyards, otherwise they can turn out to be sunless and unappealing (Figure 17).

The use of specific parts of a site can be planned with sunlight in mind. This could include reserving the sunniest parts of the site for gardens and sitting out, while using the shadier areas for car parking. In summer, shade is often valued in car parks (Figure 18).

12



Figure 17 Extensive shadowing can occur in courtyards unless care is taken in their design



Figure 18 Shadier areas can usefully be reserved for car parking

The availability of sunlight should be checked for all open spaces where it will be required. This would normally include:

- Gardens, usually the main back garden of a house, and allotments
- Parks and playing fields
- Children's playgrounds
- Outdoor swimming pools and paddling pools
- Sitting-out areas, such as those between non-domestic buildings and in public squares



- Focal points for views, such as a group of monuments or fountains

Each of these spaces will have different sunlighting requirements and it is difficult to suggest a hard and fast rule. However, it is clear that the worst situation is to have significant areas on which the sun does not shine for a large part of the year. These areas will, in general, be damp, chilly and uninviting (Figure 19). The equinox (21 March) is a good date for assessment.

This problem occurs with only certain forms of layout. If a long face of a building faces within  $13^\circ$  of due north, then there will be an area adjoining the building face which is permanently in shade at the equinox (and hence all winter). Areas of this sort can also occur if buildings form an enclosed or partly enclosed space which is blocked off from the southern half of the sky. Figure 20 illustrates some typical examples.



Figure 19 This outdoor space is in shade all winter. It is grim and underused

It is usually possible to redesign the layout to minimise these areas, either by reorienting buildings or by opening gaps to the south in courtyards.

Where this is not possible, it is suggested that no more than two-fifths, and preferably no more than a quarter, of any of the listed amenity areas should be prevented by buildings from receiving any sunlight at all on 21 March. Sunlight at an altitude of  $10^\circ$  or less does not count. In working out the total area to be considered, driveways and hard standing for cars should be left out. Around housing, front gardens which are relatively small and visible from public footpaths should be omitted; only the main back garden should be analysed. Each individual garden for each dwelling in a block should be considered separately.

Areas of open space which can and cannot receive sunlight on 21 March may be found using the sunlight-on-ground indicator (Appendix G). It is

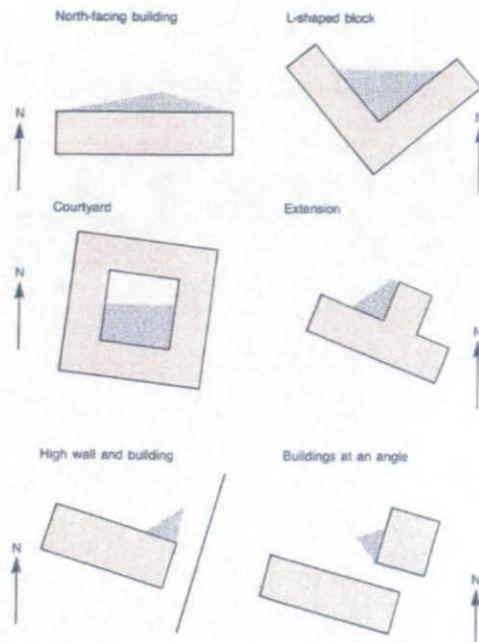


Figure 20 Examples of layouts where poor sunlighting on the ground can occur. The shaded areas will receive no sunlight at the equinox

instructive to draw the no-sun contour which separates these areas on plan. For conventional buildings, if a point lies within the no-sun contour (ie it receives no sun on 21 March), it will be permanently in shade all winter. Likewise, if it can receive some sun on 21 March, it will receive some sunlight all summer. Here 'conventional buildings' means structures without overhangs, open arches or overhead walkways.

The question of whether trees or fences should be included in the calculation depends upon the type of shade they produce. Normally, trees and shrubs need not be included, partly because their shapes are almost impossible to predict, and partly because the dappled shade of a tree is more pleasant than the deep shadow of a building. This applies especially to deciduous trees. Nevertheless, choose locations for tree planting with care. The aim should normally be to have some areas of partial shade under trees while leaving other parts of the garden or amenity area in full sun. Where a dense belt or group of evergreens is specifically planned as a windbreak or for privacy purposes, it is better to include them in the calculation of shaded area (Figure 21). The growth of trees and their likely final size should be allowed for.

Fences and walls cast deeper shade than trees, and their positions can often be predicted. As a guide, it is suggested that where the plan calls for walls or

opaque fences greater than 1.5 m high, the shadows they cast should be included in the calculation. Where low fences or walls are intended, or no specific provision is made, no calculation of shadows is necessary.

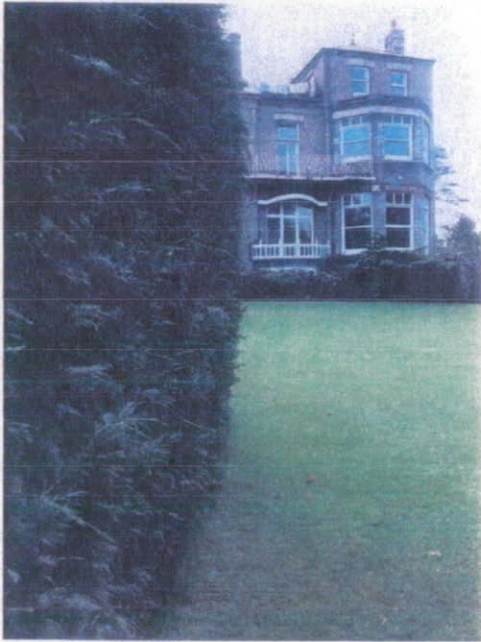


Figure 21 A dense belt of coniferous trees should be treated as an obstruction to sunlight

This guidance applies both to new gardens and amenity areas and to existing ones which are affected by new developments. If an existing garden or outdoor space is already heavily obstructed, then any further loss of sunlight should be kept to a minimum. In this poorly sunlit case, if as a result of new development the area which can receive direct sunlight on 21 March is reduced to less than 0.8 times its former size, then this further loss of sunlight is significant. The garden or amenity area will tend to look more heavily overshadowed.

It is important to realise that the area-based guideline is very much a minimum standard. It will not guarantee large amounts of sun in summer, or any sun at all in winter. It will not ensure that sunlight is available in specific areas like patios, terraces or flower beds. For critical areas it is suggested that a more detailed study of sunlighting potential be carried out, using a prediction tool such as the sunpath indicator in Appendix A, or BRE's *Sunlight availability protractor* (see back cover).

It is also important to use the guideline sensibly. There is little point in leaving a tiny gap between

buildings so that a thin shaft of sunlight penetrates through to a gloomy 'amenity area' on 21 March.

Where a large building is proposed which may affect a number of gardens or open spaces, it is often illustrative to plot a shadow plan showing the location of shadows at different times of day and year. For 21 March this can be done by using the sun-on-ground indicator in reverse (Appendix G).

#### Summary

It is suggested that, for it to appear adequately sunlit throughout the year, no more than two-fifths and preferably no more than a quarter of any garden or amenity area should be prevented by buildings from receiving any sun at all on 21 March. If, as a result of new development, an existing garden or amenity area does not meet these guidelines, and the area which can receive some sun on 21 March is less than 0.8 times its former value, then the loss of sunlight is likely to be noticeable.

# Other Documents

Please Index As

File Number

Part 1

Part 10

Part 2

Part 11

Part 3

Part 12

Part 4

Part 13

Part 5

Part 14

Part 6

Part 15

Part 7

Part 16

Part 8

Part 17

Part 9

Part 18





## 2.3 Sunlight

2.3.1 Unlike with daylight, which is non-directional and assumes that light from the sky is uniform, the availability of sunlight is dependent on direction. That is, as the United Kingdom is in the northern hemisphere, we only receive our sun from the south and the sun rises in the east and sets in the west. The availability of sunlight is therefore dependent on the orientation of the window or area of ground being assessed relative to position of due south.

2.3.2 Accordingly, sunlight need only be measured where an existing building has a 'window wall' (i.e. a wall with a window serving a habitable room) within 90° of due south.

2.3.3 The guidelines also state that the sunlight criteria will be met if: -

- (i) The *window wall* faces within 90° of due south and no obstruction measured in the section perpendicular to the window wall, subtends an angle of more than 25° from the horizontal. Obstructions within 90° due north of the reference point need not count.
- (ii) The window wall faces within 20° due south and the reference point has a Vertical Sky Component of 27% or more.

2.3.4 In this context, the sunlight criteria only applies where a window faces within 90° of due south and where the Vertical Sky Component value for daylight is less than 27% within 20° of due south. The criteria should also be viewed flexibly with account taken for the actual orientation relative to due south.

2.3.5 The two tests referred to above at paragraph 2.3.3. are used as a rule of thumb and where sunlight needs to be tested to a greater level of detail, sunlight is measured using the Sunlight Availability Indicator contained in Appendix 1 of the Guidelines. That indicator calculates the anticipated annual probable sunlight hours that a window can receive over and around a proposed new building. For this report, the sunlight levels have been calculated by our software package which has been developed using the Sunlight Availability Indicators but is more accurate as it measures sunlight availability to a much higher degree of accuracy than the "spotting" method in the Guidelines. The sunlight criteria only applies to windows serving living rooms of an existing dwelling. This is in contrast to the daylight criteria which applies to kitchens and bedrooms as well as living rooms. The sunlight criteria taken from section 3.2 of the BRE guidelines (page 12 of the guidelines – see Appendix 1) is as follows: -

'If a living room of an existing dwelling has a main window facing within 90° of due south, and any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the window in a vertical section perpendicular to the window, then the sunlighting of the existing dwelling may be adversely effected. This will be the case if a point at the centre of the window, in the plane of the inner window wall, received in the year less than one quarter of annual probable sunlight hours including at least 5% of annual probable sunlight hours between 21 September and 21 March, and less than 0.8 times its former sunlight hours during either period.'

### 3. ASSESSMENT

#### 3.1 Daylight to Neighbouring and Adjoining Buildings

3.1.1 The testing criteria in the BRE Guidelines apply to habitable rooms which are categorised as living rooms, kitchens and bedrooms. Bathrooms, hallways and circulation space are excluded.

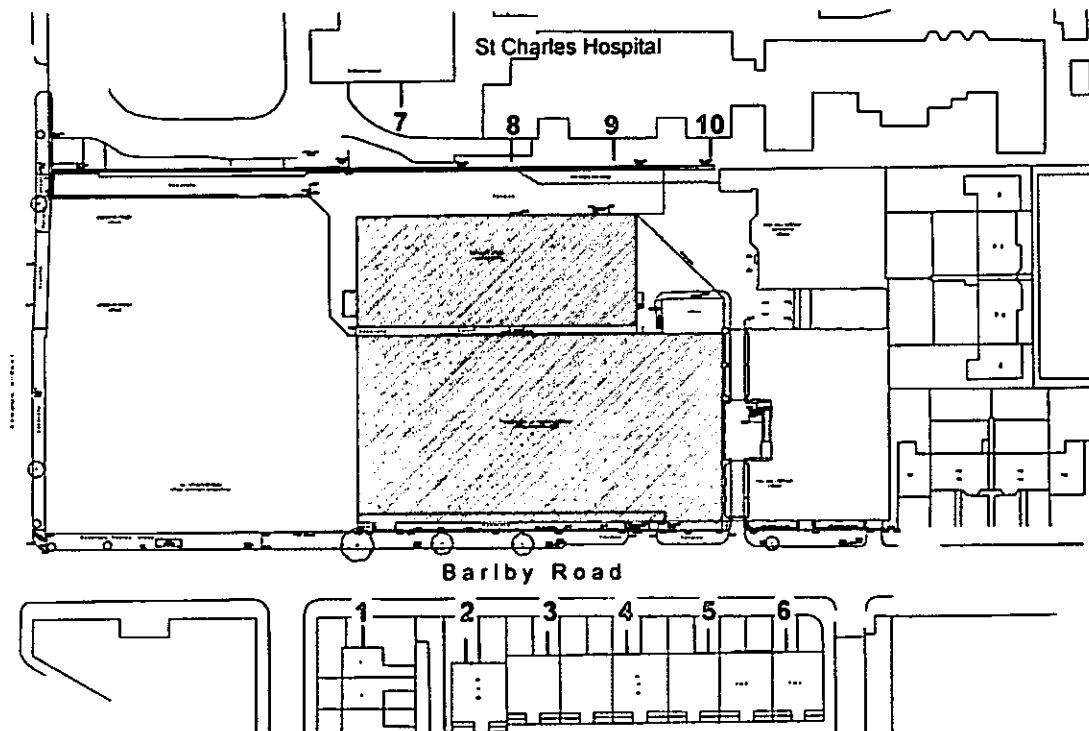
3.1.2 The amenity policy and the BRE Guidelines are generally applicable to habitable rooms within domestic residential dwellings. The only residential properties within close proximity of the site are the houses on the opposite side of Barlby Road situated in Matthew Close (reference points 1-6 in Table 1 below). However, for completeness we have also tested a number of reference points for St Charles Hospital as windows serving the hospital will have a reasonable expectation of daylight.

3.1.3 The simple angle test of 25° in Test 1 of the BRE Guidelines is not entirely appropriate as the profile of the proposed new building will not be a continuous obstruction opposite the windows and would not take account of the effect of the existing neighbouring buildings. The most appropriate test to be applied is therefore the calculation of Vertical Sky Components on the face of the windows in question. We have therefore calculated the “existing” and “proposed” VSC values for a representative selection of windows and those results are summarised in the table below. The location of the reference points chosen is given on the location plan at the foot of the table overleaf.

3.1.4 The results in the table below need to be interpreted in the context of the criteria contained in Section 2 of the BRE Guidelines. To satisfy the initial test in the guidelines, the VSC measured on the face of the window should not fall below a target value of 27% VSC represented by the figures in the third column of the table. Where the VSC is below 27% under existing circumstances, it is permissible to reduce the present value by a maximum of 20% of the present value before the loss is considered noticeable.

3.1.5 The results of our analysis are tabulated below.

TABLE 1	Existing VSC [%]	Proposed VSC [%]	% of original VSC [%]
<b>Selected Points at 2m above ground level</b>			
Point 1	34.32	27.68	80.65
Point 2	34.13	30.46	89.25
Point 3	33.99	30.44	89.56
Point 4	33.73	30.45	90.28
Point 5	32.75	30.72	93.80
Point 6	32.38	31.62	97.65
Point 7	37.03	30.52	82.42
Point 8	36.67		70.03
Point 9	35.31		62.59
Point 10	30.92	26.85	86.84



- 3.1.6 Under existing circumstances, the windows presently receive very good levels of daylight due to the existing height and distance ratios.
- 3.1.7 Reference points 1-6 provide a comprehensive sample of readings across the rear elevations of all of the houses on Matthew Close. Each of those reference points was taken at 2m above ground level and each yielded "proposed" VSC value in excess of the minimum 27% VSC threshold in the BRE Guidelines. The lowest value was measured at reference point 1 at 27.68% whereas all of the other reference points measured on the rear elevations of the Matthew Close buildings yielded values in excess of 30% VSC. It should also be noted that whilst reference points 2-6 were taken on the rear elevation (which would be considered as a "principal" elevation) reference point 1 is in fact the flank wall of the house in question and would therefore be classed as a "secondary" elevation. In any event, not only do all of the windows tested meet the Vertical Sky Component standard in the BRE Guidelines, none of the losses to the Matthew Close houses exceeded 20%.
- 3.1.8 Whilst St Charles hospital is not a residential property, it was included within the analysis and four reference points were taken (reference points 7-10).
- 3.1.9 Two of the readings fell below the 27% VSC threshold and resulted in greater than a 20% reduction. Those reference points were reference points 8 and 9 opposite the middle of the proposed developments and have been highlighted in green in Table 1 above.

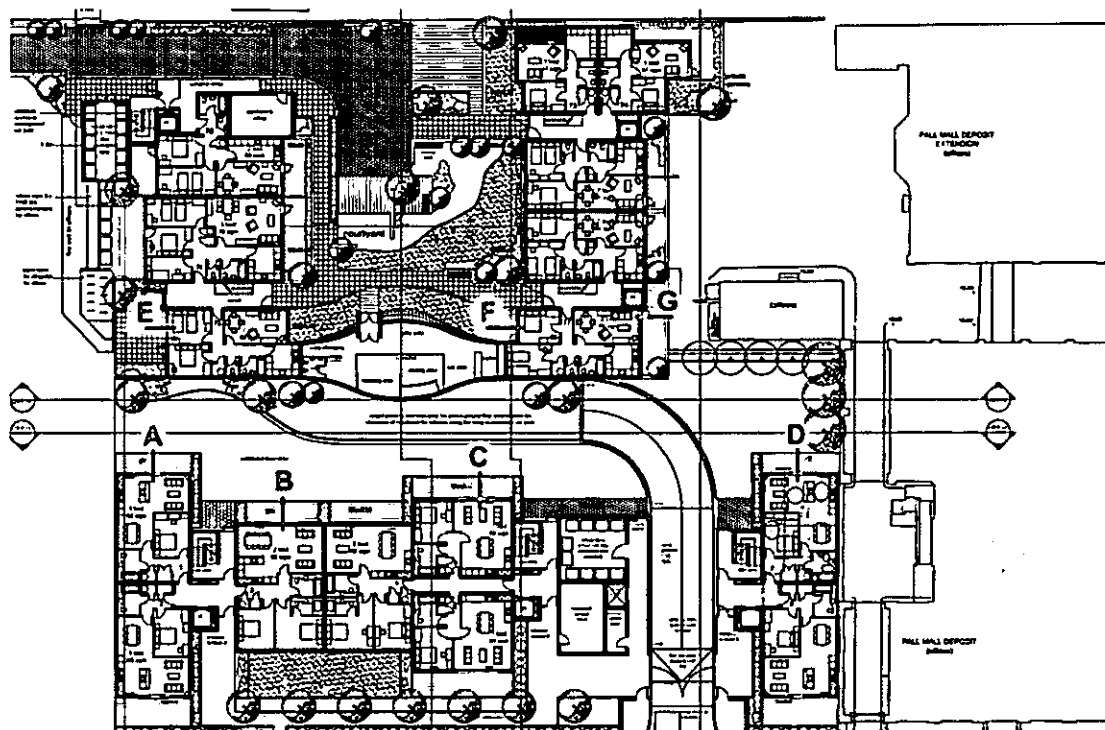
- 3.1.10 As the light readings taken at these two reference points fell below the BRE VSC standard, we have calculated indicative Average Daylight Factor values for these reference points in accordance with the Code of Practice for Daylighting, BS8206 Part 2.
- 3.1.11 The ADF value for reference point 8 was measured at 3.43% *df* and the equivalent value for reference point 9 was 3.08% *df*. These figures should be read in context with the standards contained in the Code of Practice for Daylighting BS8206 Part 2 – see paragraph 2.2.8 above.
- 3.1.12 The standards in the Code of Practice have been drafted for residential dwellings and therefore contain standards for kitchens, living rooms and bedrooms. There are no equivalent standards for non-domestic buildings such as workplaces or hospitals. We must therefore rely on the comparable residential standards in order to assess the adequacy of daylight.
- 3.1.13 The Code of Practice requires a minimum level of 2% *df* for family kitchens, 1.5% *df* for living rooms and 1% *df* for bedrooms. The readings obtained for reference points 8 and 9 were measured at 3.43% *df* and 3.08% *df* are well above these minimum standards. These figures were however based on estimated dimensions as we do not have a full measured survey of the adjoining hospital buildings. They are however indicative of the lighting levels that would be achieved.

## 3.2 Daylight to the proposed building

- 3.2.1 For the proposed building, we have selected a number of habitable rooms at ground floor level which will receive the least amount of sunlight and daylight. The location of those rooms has been identified on the plan at the foot of table 2 below.
- 3.2.2 The living rooms at points A, B, C, D and G has balconies and these balconies act as canopies over the windows and therefore reduce the amount of light available at the face of the windows below them. We have therefore calculated two values for the Vertical Sky Component. The first value is taken on the face of the balcony and the second value is the true value taken on the face of the window. Those figures have been tabulated in Table 2 below.
- 3.2.3 The design target value of Vertical Sky Component to the 'proposed' habitable rooms is the same as the values that should be achieved for protecting the existing neighbouring and adjoining buildings. The true value of Vertical Sky Component is therefore the value that has been obtained on the face of the window in question.

TABLE 2

Location	Balcony Front VSC %	At Window Front VSC%	Room Area	Aw	$\Theta_1$	$\Theta_2$	df <sub>1</sub>	df <sub>2</sub>
A	25.34	12.14	132.58	12.5	62.23	38.57	6.26	3.88
B	30.14	17.11	100.30	18.4	70.23	48.52	13.74	9.49
C	28.94	16.06	119.40	10.0	68.23	46.77	6.10	4.18
D	20.12	12.23	132.58	12.5	53.53	38.72	5.38	3.89
E	No balcony	17.99	53.55	2.3	N/A	49.98	2.29	2.29
F	No balcony	27.49	53.55	2.2	N/A	65.82	2.88	2.88
G	19.62	11.54	74.75	6.6	52.70	37.57	4.96	3.54



- 3.2.4 Due to the 'canopy effect' of the projecting balconies, the VSC values obtained are relatively low. It was therefore necessary to calculate the Average Daylight Factor values for each of the rooms served by these windows. The Average Daylight Factor value is a better representation of the actual natural lighting levels in each of the rooms as it takes account of the area of glazing and the size and reflectants values of the rooms in question whereas the VSC value is a simple measurement on the face of the building. Clearly, the actual amount of daylight penetrating a room is directly proportional to the size of the windows.
- 3.2.5 The proposed scheme incorporates full height glazed walls rather than conventional windows with the effect that the amount of daylight penetration into the rooms themselves is increased very significantly. In the table 2 above, we have calculated the corresponding Average Daylight Factor values achieved for each of those reference points and those figures have been listed in the ninth column.
- 3.2.6 The rooms affected are living rooms and bedrooms. The living rooms are located at reference points A, B, C, D and G and the two bedrooms tested are located at reference points E and F. The target value for Average Daylight Factor for the living rooms is 1.5% *df* and the corresponding value for bedrooms is 1% *df*.
- 3.2.7 From the table above, it is clear that all of the living rooms and bedrooms achieve ADF values well in excess of the target minimum values taken from the British Standard Code of Practice for Daylighting BS8206 Part 2. This is due to the ratio of glazing to internal room surface area.
- 3.3 Sunlight to neighbouring and adjoining buildings**
- 3.3.1 The sunlight criteria only applies to windows that face within 90° of due south. Reference points 1-6 fall within this criteria but at reference point 6, the proposed new development is not perpendicular to the "window wall" in section. Testing was therefore only required for reference points 1-5.
- 3.3.2 To meet the BRE Guidelines, the proposed development should not reduce the availability of annual sunlight (expressed as annual probably sunlight hours) to below one quarter (or 25%) of the total available annual probable sunlight hours. In addition, 5% of those "sunlight hours" should be available in the winter months between the autumn and spring equinox. The results of that assessment are summarised in the table below.



**TABLE 3**

Location	Total Available Annual Probable Sunlight Hours/%		Total Available Probable Sunlight Hours/%	
	Existing	Proposed	Existing	Proposed
1	65	61	10	6
2	65	59	12	6
3	66	59	12	5
4	65	57	11	5
5	65	58	9	6

3.3.3 In order to comply with the BRE Guidelines, the figures expressed as a percentage in the third column should not fall below 25% (i.e. one quarter) and in the fifth column, should not fall below 5%. From the figures in the table above, the “proposed” total available annual probable sunlight hours will all be well in excess of the target value of one quarter, or 25%. In addition, the available probable sunlight hours in the winter will not fall below 5%. The sunlight availability will therefore meet the BRE Guidelines.

**3.4 Sunlight to the proposed buildings**

3.4.1 The reference points taken for the sunlight analysis are the same as those that were used for the daylight analysis and can be located on the plan at the foot of table 2 above.

3.4.2 The rooms at reference points E and F (i.e. the two bedrooms) fall outside the BRE sunlight testing criteria as neither of these windows face within 90° of due south.

3.4.3 The result of the sunlight analysis are summarised in table 4 below.

**TABLE 4**

Sunlight Availability [%] at 2m above Ground level		
Point A	21 1	Total winter
Point B	36 9	Total winter
Point C	43 8	Total winter
Point D	33 9	Total winter
Point G	34 11	Total winter
Point E	No testing – not within 90° of due south	
Point F	No testing – not within 90° of due south	

- 3.4.4 As with existing buildings, the target value for sunlight in the BRE Guidelines is 25% of total annual probable sunlight hours, 5% of which should be received in the winter months.
- 3.4.5 With the exception of the window at reference point A, all other rooms will comfortably meet the sunlight criteria.
- 3.4.6 The window at reference point A will receive 21% of annual probable sunlight hours compared to a target value of 25% and 1% of those available sunlight hours will be received in the winter months in comparison to a target value of 5%.
- 3.4.7 Although these values are below the recommended target minimum values for sunlight, the window at reference point A serves the living room of a one bedroom flat and is therefore not a family unit.
- 4. CONCLUSION**
- 4.1.1 The protection of sunlight and daylight generally only applies to residential dwellings. The only residential dwellings directly affected by the proposed development are the houses on Matthew Close. Strictly speaking, these are the only properties that need to be tested. We have however undertaken additional tests for a number of reference points on the St Charles Hospital buildings as it is not unreasonable that there should be a reasonable expectation of daylight for a hospital. We have also tested seven representative reference points in the proposed development at ground floor level which will have the lowest sunlight and daylight readings.
- 4.1.2 For sunlight, we measured the total available annual probable sunlight hours and the availability of sunlight in the winter months. The sunlight criteria only applies

to the rear elevation of the Matthew Close houses and all of these windows will continue to receive well above the BRE recommendations both in terms of the annual availability of sunlight and the availability in winter.

- 4.1.3 For the proposed building, all but one of the reference points tested comfortably met the BRE sunlight criteria. The window at reference point A falls below the target minimum standard for sunlight but achieved very good levels for daylight. In mitigation, this window serves a living room to a one bedroom flat and not a family unit. Whilst sunlight is desirable for all habitable rooms, the aim is to maximise sunlight to living rooms of family size units of three or more bedrooms.
- 4.1.4 Having tested a comprehensive selection of reference points for the Matthew Close houses, all of the windows will continue to receive a VSC value in excess of 27% VSC and they therefore will meet the BRE Guidelines.
- 4.1.5 Two locations on St Charles Hospital fell below the minimum VSC threshold and it was therefore necessary to measure the Average Daylight Factor value for these reference points. The values obtained for these two windows was well above the standards in the Code of Practice for Daylighting BS8206 Part 2 and these windows will therefore continue to receive more than adequate light for all forms of habitable use.
- 4.1.6 For the proposed building, the "canopy effect" of the projecting balconies above the living rooms reduces the availability of daylight to the face of the windows. The rooms do however have fully glazed external walls and when the Average Daylight Factor is calculated, the internal lighting values obtained for all of the windows are well above the target standards in the British Standard Code of Practice.
- 4.1.7 With the exception of the availability of sunlight to the living room windows in the proposed one bedroom flat at reference point A we can therefore conclude that the proposed development will comply with the BRE Guidelines for both daylight and sunlight and that it should therefore meet the Council's policy objectives.

**APPENDIX 1**

**EXTRACT FROM BRE GUIDELINES**

In some cases, for example with a standard house design, window positions may already be known. The vertical sky component can then be calculated at the centre of each window. In the case of a floor-to-ceiling window, such as a patio door, a point 2 m above ground on the centre line of the window may be used. Again, a vertical sky component of 27% or more indicates the potential for good daylighting. The interior daylighting of the building can then be checked easily using the method described in Appendix C.

Where space in a layout is restricted, interior daylighting may be improved in a number of ways. An obvious one is to increase window sizes. The best way to do this is to raise the window head height, because this will improve both the amount of daylight entering and its distribution within the room (Figure 5).

Improving external surface reflectances will also help. Light-coloured building materials and paving slabs on the ground may be used. However, maintenance of such surfaces should be planned to stop them



**Figure 5** In Georgian streets the small spacing-to-height ratio is compensated for by tall windows. Note how window-head height increases for the lower floors which are more heavily obstructed

discolouring. Often the benefits will not be as great as envisaged, partly because of ageing of materials and partly for geometrical reasons. An obstructed vertical building surface will receive light from less than half the sky. Even if it is light coloured its brightness can never approach that of unobstructed sky.

Finally, one important way to plan for good interior daylight is to reduce building depth (window wall to window wall). Even on a totally unobstructed site there is a limit to how deep a room can be while remaining properly daylit. The presence of obstructions may reduce this limiting depth still further. Appendix C gives details of how to calculate these limiting room depths for good daylighting.

#### Summary

In general, a building will retain the potential for good interior diffuse daylighting provided that on all its main faces:

- (a) no obstruction, measured in a vertical section perpendicular to the main face, from a point 2 m above ground level, subtends an angle of more than  $25^\circ$  to the horizontal;

or

- (b) if (a) is not satisfied, then all points on the main face on a line 2 m above ground level are within 4 m (measured sideways) of a point which has a vertical sky component of 27% or more.

## 2.2 Existing buildings

In designing a new development or extension to a building, it is important to safeguard the daylight to nearby buildings. A badly planned development may make adjoining properties and their gardens gloomy and unattractive, annoying their occupants and even, in some cases, infringing rights to light (see later in this Section). The guidelines given here are intended for use with adjoining dwellings and any existing non-domestic buildings where the occupants have a reasonable expectation of daylight; this would normally include schools, hospitals, hotels and hostels, small workshops and most offices. Gardens and open spaces are dealt with in Section 3.3.

Note that numerical values given here are purely advisory. Different criteria may be used, based on the requirements for daylighting in an area viewed against other site layout constraints.

A modified form of the procedure adopted for new buildings can be used to find out whether an existing building still receives enough skylight. First, draw a section in a plane perpendicular to each affected main window wall of the existing building (Figure 6). Measure the angle to the horizontal subtended by the

new development at the level of the centre of the lowest window. If this angle is less than 25° for the whole of the development then it is unlikely to have a substantial effect on the diffuse skylight enjoyed by the existing building.

**Section**

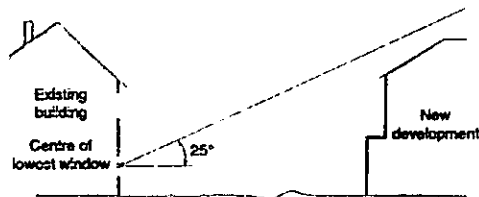


Figure 6 Section in plane perpendicular to the affected window wall

If, for any part of the new development, this angle is more than 25°, a more detailed check is needed to find the loss of skylight to the existing building. Both the total amount of skylight and its distribution within the building are important.

Any reduction in the total amount of skylight can be calculated by finding the vertical sky component at the centre of each main window. (In the case of a floor-to-ceiling window, such as a patio door, a point 2 m above ground on the centre line of the window may be used.) The reference point is in the external plane of the window wall. Windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analysed. The vertical sky component can be found by using the skylight indicator (Appendix A) or Waldram Diagram (Appendix B).

If this vertical sky component is greater than 27% then enough skylight should still be reaching the window of the existing building. Any reduction below this level should be kept to a minimum. If the vertical sky component, with the new development in place, is both less than 27% and less than 0.8 times its former value, then occupants of the existing building will notice the reduction in the amount of skylight. The area lit by the window is likely to appear more gloomy, and electric lighting will be needed more of the time.

The impact on the daylighting distribution in the existing building can be found by plotting the no-sky line in each of the main rooms. For houses this would include living rooms, dining rooms and kitchens. Bedrooms should also be analysed, although they are less important. In non-domestic buildings each main room where daylight is expected should be investigated. The no-sky line divides points on the working plane which can and cannot see the sky. (In houses the working plane is assumed to be horizontal and 0.85 m high; in offices 0.7 m high; in special interiors like hospital wards and infant school

classrooms a different height may be appropriate.) Areas beyond the no-sky line, since they receive no direct daylight, usually look dark and gloomy compared with the rest of the room, however bright it is outside. According to the British Standard<sup>1</sup>, supplementary electric lighting will be needed if a significant part of the working plane lies beyond the no-sky line. Appendix D gives hints on how to plot the no-sky line.

If, following construction of a new development, the no-sky line moves so that the area of the existing room which does receive direct skylight is reduced to less than 0.8 times its former value, then this will be noticeable to the occupants, and more of the room will appear poorly lit. This is also true if the no-sky line encroaches on key areas like kitchen sinks and worktops.

These guidelines need to be applied sensibly and flexibly. There is little point in designing tiny gaps in the roof lines of new development in order to safeguard no-sky lines in existing buildings. If an existing building contains rooms lit from one side only and greater than 5 m deep, then a greater movement of the no-sky line may be unavoidable. Another important issue is whether the existing building is itself a good neighbour, standing a reasonable distance from the boundary and taking no more than its fair share of light.

However, as a general rule the aim should be to minimise the impact to existing property. This is particularly important where successive extensions are planned to the same building. In this case the total impact on skylight of all the extensions needs to be calculated and compared with the guidelines.

For domestic extensions which adjoin the front or rear of a house, a quick method can be used to assess the diffuse skylight impact on the house next door. It applies only where the nearest side of the extension is perpendicular to the window (Figure 7); it is not valid for windows which directly face the extension, or for buildings opposite. For these cases the guidelines, in the left-hand column of this page, should be used.

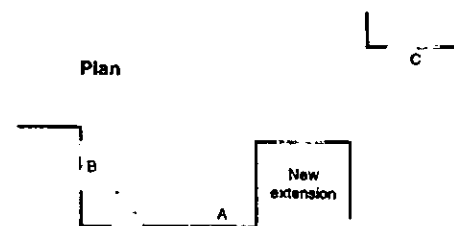


Figure 7 To assess the impact of the new extension, the 45° approach may be used for window A but not for windows B and C which directly face it

Figure 8 illustrates the application of the method, the '45° approach'. Take the elevation of the window wall and draw diagonally down at an angle of 45° away from the near top corner of the extension. Then take the plan and draw diagonally back at an angle of 45° towards the window wall from the end of the extension. (Note that the section perpendicular to the window is not used here.) If the centre of a main window of the next-door property lies on the extension side of both these 45° lines then the extension may well cause a significant reduction in the skylight received by the window. (In the case of a floor-to-ceiling window, such as a patio door, a point 2 m above the ground on the centre line of the window may be used.)

Like most rules of thumb, this one needs to be interpreted flexibly. For example, if the extension has a much larger building behind it then the daylight from that direction may be blocked anyway. If the extension has a pitched roof then the top of the extension can be taken as the height of its roof halfway along the slope (Figure 8). Special care needs to be taken in cases where an extension already exists on the other side of the window, to avoid a tunnel

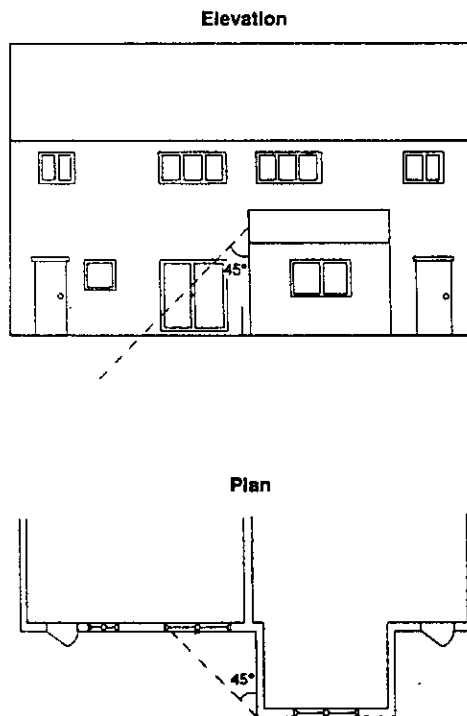


Figure 8 Application of the 45° approach to a domestic extension. A significant amount of light is likely to be blocked if the centre of the window (or, for a floor-to-ceiling window as here, a point 2 m from the ground) lies within the 45° lines on both plan and elevation

effect (Figure 9); it is then advisable to plot the no-sky line in the obstructed room (as already described). Finally, as with the other guidelines in this Section, the 45° approach deals with diffuse skylight only. Additional checks will need to be made for the sunlight which may be blocked.

The windows of some existing buildings will also have rights to light. None of the guidelines here is intended to replace, or be a means of satisfying, the legal requirements contained in rights-to-light law.

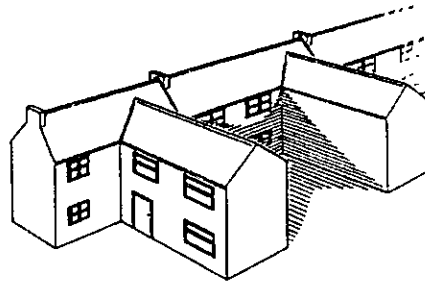


Figure 9 A tunnel effect can occur if windows are obstructed by extensions on both sides

The criterion used in rights-to-light cases is very much a minimum standard, so it is usually true that if the guidelines given here are satisfied then a new development will not infringe rights to light. But this is not always true, particularly if the existing building is unusually deep or has especially small or low windows. If an existing building does have rights to light, and this will usually be the case if it is more than 20 years old, then the designer of the new development should check that it does not infringe them. Appendix E gives further details.

Obstruction of light from the sky is just one of the ways in which a new development can affect existing buildings nearby. The obstruction of sunlight is also important (see Sections 3.2 and 3.3) as are questions of view and privacy (see Section 5).



**Summary (see Figure 10)**

If any part of a new building or extension, measured in a vertical section perpendicular to a main window wall of an existing building, from the centre of the lowest window, subtends an angle of more than 25° to the horizontal, then the diffuse daylighting of the existing building may be adversely affected. This will be the case if either:

- the vertical sky component measured at the centre of an existing main window is less than 27%, and less than 0.8 times its former value;
- or
- the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value.

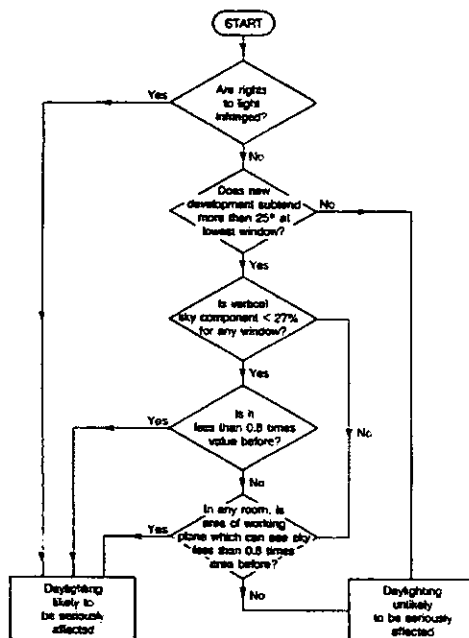


Figure 10 Decision chart; diffuse daylight in existing buildings

**2.3 Adjoining development land**

From a daylighting standpoint it is possible to reduce the quality of adjoining land by building too close to the boundary. A well designed building will stand a reasonable distance back from the boundaries so as to enable future nearby developments to enjoy similar access to daylight. By doing so it will also keep its own natural light when the adjoining land is developed.

This applies to future non-domestic development as well as housing. However, it does not apply when no main window wall, either of the current new development or of any probable future development on the adjoining site, will face over the boundary. The guidance does not, therefore, apply to a boundary next to a windowless flank wall of a new house where any future housing next door should also present a flank wall without windows; nor need it apply to an industrial estate where new development and any future development is either windowless or solely rooflit.

The diffuse daylight coming over the boundary may be quantified in the following way. As a first check, draw a section in a plane perpendicular to the boundary (Figure 11). If a road separates the two sites, then the centre line of the road should be taken. Measure the angle to the horizontal subtended at a point 2 m above the boundary by the proposed new buildings. If this angle is less than 43° then there will normally still be the potential for good daylighting on the adjoining development site.

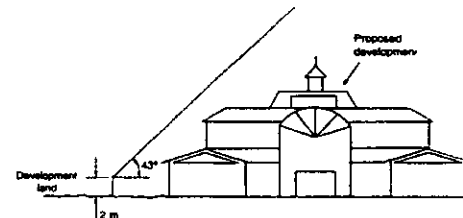


Figure 11 Angular criterion for overshadowing of future development land (on left)

If any of the new buildings is taller than this, enough skylight may still reach the development site provided the building is narrow enough to allow adequate light around its sides. This may be quantified by calculating the vertical sky component (see Section 2.1) at a series of points 2 m above the boundary and facing towards the proposed new buildings. Only obstructions caused by the proposed new buildings need to be taken into account. This contrasts with the calculations for buildings where all obstructions need to be included in the analysis. Vertical sky components may be found using the skylight indicator (Appendix A) or Waldram Diagram (Appendix B). Overall, the adjoining development site should normally retain the potential for good daylighting if



It is good practice to check the sunlighting of gardens of existing buildings. This is described in the next Section.

#### Summary

If a living room of an existing dwelling has a main window facing within 90° of due south, and any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the window in a vertical section perpendicular to the window, then the sunlighting of the existing dwelling may be adversely affected. This will be the case if a point at the centre of the window, in the plane of the inner window wall, receives in the year less than one quarter of annual probable sunlight hours including at least 5% of annual probable sunlight hours between 21 September and 21 March, and less than 0.8 times its former sunlight hours during either period.

### 3.3 Gardens and open spaces

Good site layout planning for daylight and sunlight should not limit itself to providing good natural lighting inside buildings. Sunlight in the spaces between buildings has an important impact on the overall appearance and ambience of a development.

It is valuable for a number of reasons:

- To provide attractive sunlit views (all year)
- To make outdoor activities like sitting out and children's play more pleasant (mainly during the warmer months)
- To encourage plant growth (mainly in spring and summer)
- To dry out the ground, reducing moss and slime (mainly during the colder months)
- To melt frost, ice and snow (in winter)
- To dry clothes (all year)

The sunlit nature of a site can be enhanced by using some of the techniques described in the previous Section. This could include siting low-rise, low-density housing to the south, with taller, higher density housing to the north of a site; and by opening out courtyards to the southern half of the sky. Special care needs to be taken in the design of courtyards, otherwise they can turn out to be sunless and unappealing (Figure 17).

The use of specific parts of a site can be planned with sunlight in mind. This could include reserving the sunniest parts of the site for gardens and sitting out, while using the shadier areas for car parking. In summer, shade is often valued in car parks (Figure 18).



Figure 17 Extensive shadowing can occur in courtyards unless care is taken in their design



Figure 18 Shadier areas can usefully be reserved for car parking

The availability of sunlight should be checked for all open spaces where it will be required. This would normally include:

- Gardens, usually the main back garden of a house, and allotments
- Parks and playing fields
- Children's playgrounds
- Outdoor swimming pools and paddling pools
- Sitting-out areas, such as those between non-domestic buildings and in public squares



- Focal points for views, such as a group of monuments or fountains

Each of these spaces will have different sunlighting requirements and it is difficult to suggest a hard and fast rule. However, it is clear that the worst situation is to have significant areas on which the sun does not shine for a large part of the year. These areas will, in general, be damp, chilly and uninviting (Figure 19). The equinox (21 March) is a good date for assessment.

This problem occurs with only certain forms of layout. If a long face of a building faces within  $13^\circ$  of due north, then there will be an area adjoining the building face which is permanently in shade at the equinox (and hence all winter). Areas of this sort can also occur if buildings form an enclosed or partly enclosed space which is blocked off from the southern half of the sky. Figure 20 illustrates some typical examples.

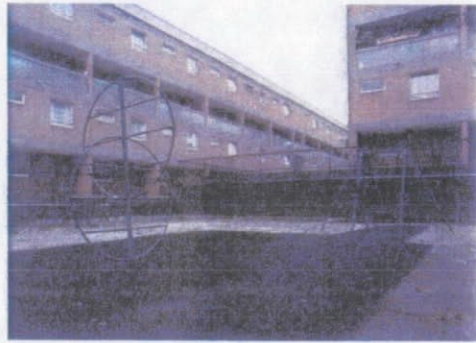


Figure 19 This outdoor space is in shade all winter. It is grim and underused

It is usually possible to redesign the layout to minimise these areas, either by reorienting buildings or by opening gaps to the south in courtyards.

Where this is not possible, it is suggested that no more than two-fifths, and preferably no more than a quarter, of any of the listed amenity areas should be prevented by buildings from receiving any sunlight at all on 21 March. Sunlight at an altitude of  $10^\circ$  or less does not count. In working out the total area to be considered, driveways and hard standing for cars should be left out. Around housing, front gardens which are relatively small and visible from public footpaths should be omitted; only the main back garden should be analysed. Each individual garden for each dwelling in a block should be considered separately.

Areas of open space which can and cannot receive sunlight on 21 March may be found using the sunlight-on-ground indicator (Appendix G). It is

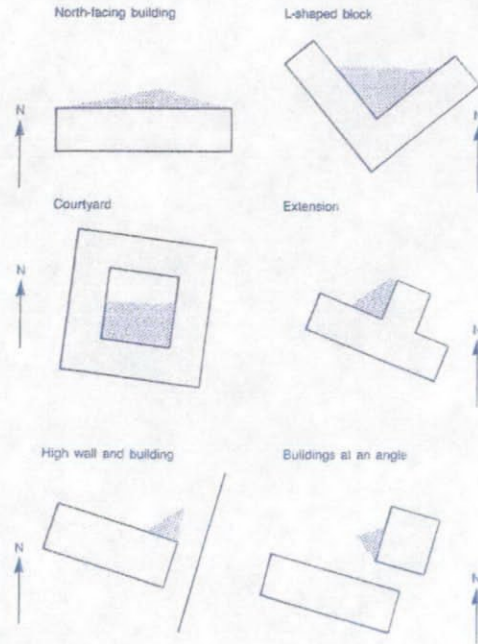


Figure 20 Examples of layouts where poor sunlighting on the ground can occur. The shaded areas will receive no sunlight at the equinox

instructive to draw the no-sun contour which separates these areas on plan. For conventional buildings, if a point lies within the no-sun contour (ie it receives no sun on 21 March), it will be permanently in shade all winter. Likewise, if it can receive some sun on 21 March, it will receive some sunlight all summer. Here 'conventional buildings' means structures without overhangs, open arches or overhead walkways.

The question of whether trees or fences should be included in the calculation depends upon the type of shade they produce. Normally, trees and shrubs need not be included, partly because their shapes are almost impossible to predict, and partly because the dappled shade of a tree is more pleasant than the deep shadow of a building. This applies especially to deciduous trees. Nevertheless, choose locations for tree planting with care. The aim should normally be to have some areas of partial shade under trees while leaving other parts of the garden or amenity area in full sun. Where a dense belt or group of evergreens is specifically planned as a windbreak or for privacy purposes, it is better to include them in the calculation of shaded area (Figure 21). The growth of trees and their likely final size should be allowed for.

Fences and walls cast deeper shade than trees, and their positions can often be predicted. As a guide, it is suggested that where the plan calls for walls or



opaque fences greater than 1.5 m high, the shadows they cast should be included in the calculation. Where low fences or walls are intended, or no specific provision is made, no calculation of shadows is necessary.



Figure 21 A dense belt of coniferous trees should be treated as an obstruction to sunlight

This guidance applies both to new gardens and amenity areas and to existing ones which are affected by new developments. If an existing garden or outdoor space is already heavily obstructed, then any further loss of sunlight should be kept to a minimum. In this poorly sunlit case, if as a result of new development the area which can receive direct sunlight on 21 March is reduced to less than 0.8 times its former size, then this further loss of sunlight is significant. The garden or amenity area will tend to look more heavily overshadowed.

It is important to realise that the area-based guideline is very much a minimum standard. It will not guarantee large amounts of sun in summer, or any sun at all in winter. It will not ensure that sunlight is available in specific areas like patios, terraces or flower beds. For critical areas it is suggested that a more detailed study of sunlighting potential be carried out, using a prediction tool such as the sunpath indicator in Appendix A, or BRE's *Sunlight availability protractor* (see back cover).

It is also important to use the guideline sensibly. There is little point in leaving a tiny gap between

buildings so that a thin shaft of sunlight penetrates through to a gloomy 'amenity area' on 21 March.

Where a large building is proposed which may affect a number of gardens or open spaces, it is often illustrative to plot a shadow plan showing the location of shadows at different times of day and year. For 21 March this can be done by using the sun-on-ground indicator in reverse (Appendix G).

#### Summary

It is suggested that, for it to appear adequately sunlit throughout the year, no more than two-fifths and preferably no more than a quarter of any garden or amenity area should be prevented by buildings from receiving any sun at all on 21 March. If, as a result of new development, an existing garden or amenity area does not meet these guidelines, and the area which can receive some sun on 21 March is less than 0.8 times its former value, then the loss of sunlight is likely to be noticeable.