

Ben Smith Architecture

## **FULL PLANNING APPLICATION**

70 Berrymead Gardens  
London W3 8AB

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## 1.0 SUBMISSION SUMMARY

- 1.1 This submission to Ealing Council's Planning Department follows the exploration of different design proposals by the architect in consultation with the applicants and the Council's planning team. Detailed research into the history of the property was carried out, including a review of the relevant policy documents, relevant planning precedent, and the withdrawn application by the previous owner.
- 1.2 The existing house forms the end of the east terrace of Berrymead Gardens. The property is currently configured as a House of Multiple Occupancy (HMO) and is licensed until May 2024.
- 1.3 The proposals are for conversion into five flats with a new layout including the following alterations:
  - i. The front façade is retained and extended to the south, mirrored about the southern bay window.
  - ii. The rear extensions are removed and replaced, with new rear gardens and side courtyard accessed from the ground floor flat.
  - iii. One of the existing three car parking spaces is retained and the side courtyard gate is replaced, with a lowered boundary wall.
  - iv. A loft conversion provides additional space across the new width for a two-bedroom flat.
- 1.4 The proposals have been carefully considered to balance the contemporary layout suited to modern life with the requirements for the external elevations and window positions. The proposed flats meet the spatial requirements provided by the Council as set out in the Mayor of London's Plan. The layout provides high quality residential accommodation and makes the best use of the available space within the site constraints.

## 2.0 DESIGN & ACCESS STATEMENT

### 2.1 USE

The house is configured as a House of Multiple Occupancy, or HMO, falling within residential Use Class 4. The London Borough of Ealing Council recently renewed the building's HMO license in 2019 and it is currently rented in accordance with this license. Although the Council have renewed an historic license for this site, the existing layout would not comply with the Council's space standards for a new HMO on this site.

This application seeks permission for Change of Use to residential Use Class C3. The proposed layout is for five flats over three storeys across an increased floor area.

### 2.2 AMOUNT

The house is approximately 154 sqm over ground and first floor levels, with a loft space over. We are proposing to reconfigure the ground and first floors with an additional second floor adding approximately 123 sqm in total to the main building. The proposals include side and rear extensions and the removal of the outbuilding to the side courtyard, which measures 15 sqm. The total proposed floor area is approximately 277 sqm, representing a net increase in the overall area of 64% to the existing house.

	Existing Area	Proposed Area
Outbuilding	15	0
Ground Floor	97	112
First Floor	57	100
Second Floor	0	65
<b>Total Areas (sqm)</b>	<b>169</b>	<b>277</b>

Fig.1 Table of existing and proposed areas

### 2.3 LAYOUT

The existing layout is entirely unoriginal. As explained in further detail in the Planning Statement, the original building has undergone a series of significant modifications and additions over the course of the last 100 years as the usage of the building has evolved. The current layout creates eight bedrooms and a communal kitchen on the ground floor. Five of the bedrooms have en suite bathroom facilities, with further shared washing facilities at ground floor. The rear bedroom has no window (only a roof light) and is accessed via the communal kitchen. Furthermore, the existing condition of the building is poor and in need of refurbishment.

The proposed layout has a completely different format, with a mirrored extension to the south of the terrace. The new layout retains the existing front door location and approximate position of the common stairwell, with a shorter hallway and more compact circulation. The ground floor comprises two garden-flats; a one-bedroom flat with the living space facing a rear garden, and a two-bedroom flat facing south onto the side garden, where one off-street parking space is retained. The first floor comprises similar one-bedroom flats, with a two-bedroom flat across the new second floor.

## 2.4 SCALE

The proposals represent a sensitive and proportionate increase in scale at the side and rear of the building. The visible elements of the front façade are made consistent and harmonious with the adjacent elevations, continuing the terrace with a matching bay window. There is a net-reduction in the ground floor footprint with the removal of the outbuilding and rear lean-to structures. To the rear, the closet wing is extended across at first floor but remains well within the line of the two-storey rear closet wing or no.68 Berrymead Gardens to the north. The proposed massing restricts the rear mansard and dormer additions to the original building. There are no additional projections to the continuation of the pitched roof.

The existing courtyard is flanked by a high front wall alongside the public highway. This creates an oppressive and incongruous frontage out of scale with the prevailing front garden wall typology along Berrymead Gardens. The proposals include lowering this brick wall by approximately half a meter to a more human scale and replacing the existing driveway gate. The wall is also reduced in length significantly and the front garden extended.

## 2.5 APPEARANCE

The front façade of the building forms the south end of a curved terrace. The terrace is characterized by bay windows with pitched gables. The mid-terrace houses each have a single bay with two front-facing windows whereas the subject building has two projecting bays either side of the front door, each with a single front-facing window. The proposed design has been developed through detailed consultation with the Council and follows the pre-application case officer's suggestion to mirror the front elevation about the centre of the southern bay, creating a triple bay window frontage as a 'bookend' to the terrace.

Only the very north end of Berrymead Gardens forms part of the Acton Town Centre Conservation Area. The application site is the southernmost property on the east side of the road, so is not in close proximity to a conservation area. Although the terraced houses on this part of Berrymead Gardens are not protected as part of a conservation area, the terrace has a consistent appearance and an even variety of pastel colour brickwork offset by white stucco. The subject building, on balance, currently makes a negative contribution to terrace and street scene due to the uPVC windows and poorly-decorated render in a light blue tone. The proposals include replacing the windows with double glazed painted timber sash windows and overhauling the paintwork and stucco mouldings to the front elevation. To the side and rear, the walls are of reclaimed London stock brick to match existing.

## 2.6 LANDSCAPING

The existing car parking courtyard measures 64 sqm and is entirely concreted, with a triangular brick outbuilding or garage in the southern corner. The proposed side courtyard garden measures 38 sqm is to be made up of permeable stone chippings and lawn. The rear gardens to Flats 1 and 2, and the communal front garden will also have permeable surfaces, adding another c.40 sqm of free-drainage surface to the site. There is a proposed increase in the permeable surface of the site from 0 sqm to approximately 78 sqm representing a significant reduction in the run-off to the public sewer.

This application assumes that a detailed landscaping condition would be attached to an approval decision notice. Further detail would then be provided about the soil build ups and proposed planting including tree species.

## 2.7 ACCESS AND TRANSPORT LINKS

No changes are proposed to pedestrian or vehicular access. There is a proposed reduction in parking spaces of three to one space. The proposals include provision for secure cycle parking in the communal front garden alongside refuse storage.

Transport links are unaffected by our proposals.

## 2.8 LIFETIME HOMES

The existing external entrance threshold will be retained with a minimal slope as necessary, whereas the rear garden thresholds will be new, and level (with no more than a 15mm step) for accessible use and illuminated with wall lights on a daylight sensor.

The existing staircase is narrow and uneven, making it difficult for ambulant disabled use. The new staircase is regular and shallower, making it more suitable.

All doors provide a clear opening of 800mm or greater and all circulation spaces provide adequate width for wheelchair use. There is space for turning a wheelchair in all habitable areas. Two of the flats are located at ground floor, with shower rooms accessible without steps or thresholds. If required at some point in the future, either ground floor shower room can easily be expanded to facilitate disabled use.

The design could potentially be adapted in future to provide lift access or stair chairlift access to the first and second floor. The simplest way would be to introduce a chairlift to each flight.

The above includes just some of the future-proofing design features that will allow the new building to be adapted in future in a series of ways that help secure its longevity and enable ambulant disabled use.

## 3.0 PLANNING STATEMENT

### 3.1 Introduction

This Planning Statement has been prepared on behalf of the applicant by Ben Smith Architecture to accompany a planning application for the change of use and alterations to the existing HMO.

### 3.2 Site and Surroundings

Berrymead Gardens is a one-way residential road to the south of Acton High Street. The north end of the road forms part of the Acton Town Centre Conservation Area. The application site is located at the south end of the road, at the end of the terrace. The application site includes a triangular courtyard to the south, beyond which is car parking and a small green area at the junction with Avenue Road.

The buildings on this part of Berrymead Gardens do not form part of a conservation area, however the terrace has a relatively consistent appearance with the even variety of pastel colour brickwork and white stucco detailing. The terrace is characterized by bay windows with pitched gables. The mid-terrace houses each have a single bay with two front-facing windows whereas the subject building has two projecting bays either side of a central front door, each bay with a single front-facing window. There are no similarly configured buildings opposite or at the north end of Berrymead Gardens. Although in keeping with the prevailing design and detailing, the property overall makes a negative contribution to terrace and street scene; the original windows have been replaced with uPVC windows and the brick has been poorly rendered and painted light blue.

The high boundary wall to the south courtyard creates an oppressive street scene and unwelcome frontage at the end of Berrymead Gardens, in stark contrast to the low front garden walls to the north.

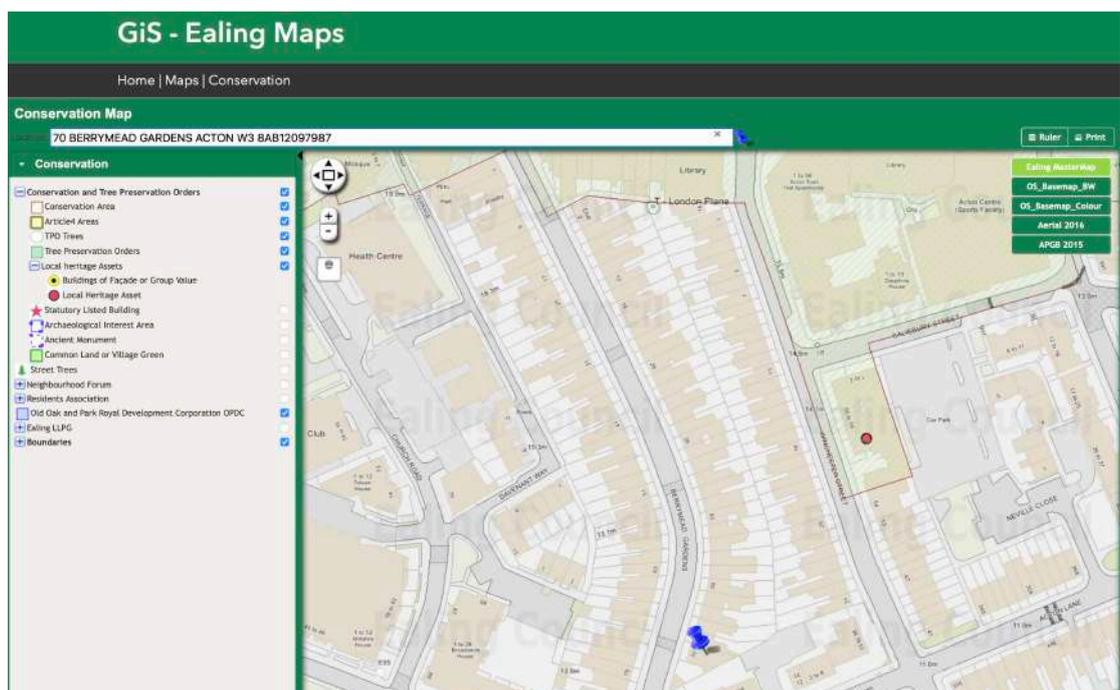


Fig. 3.1 Ealing Council's interactive map of conservation areas in the surrounding area

To the rear (south-east) of the site along Avenue Road is a two-storey, purpose built post-war block of flats, no.s 22-28 Crown Villas. The flats have a communal garden to the rear and are set back c.8-10m from the shared boundary, which forms the rear of 70 Berrymead Gardens. The rear garden is lawn with refuse storage, and car parking alongside.

The terraced houses along the east side of Berrymead Gardens have deep, two-storey closet wings. Several of the closet wings and roofs have been extended upwards at the rear, including no.s 62 and 64.

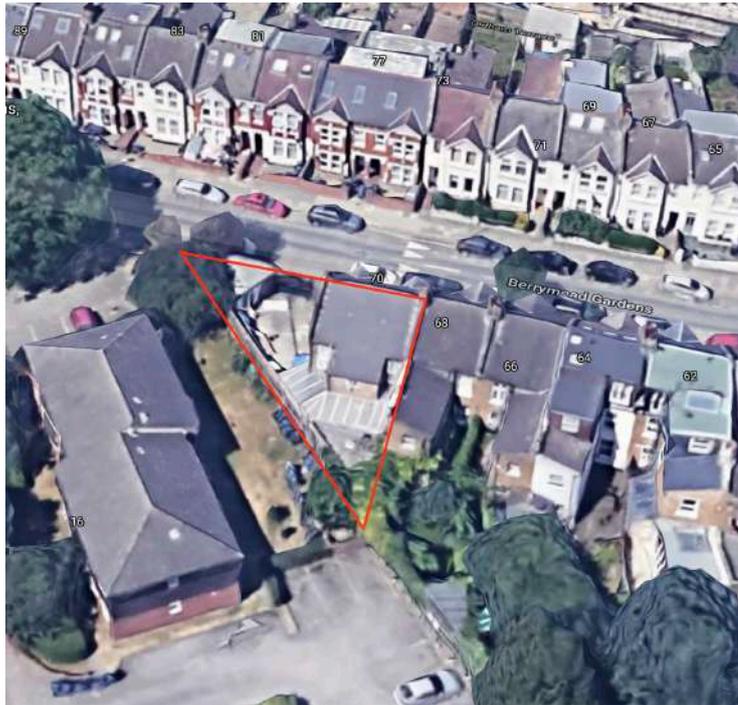


Fig. 3.2 Google Earth satellite image of the site and surroundings

### 3.3 Relevant Planning History

The available site planning history is as follows:

20/0412/FUL WITHDRAWN 24 Mar 2020

*Conversion of existing property into 5 self-contained residential units; Single storey, part 2 storey, rear extension following demolition of existing rear addition; Two storey side extension; Rear roof extension, and installation of four roof lights to front roof slope*

P/2010/0896 APPROVED 23 Jun 2010

*Rear roof extension; installation of four rooflights to front roof slope; and continued use of the property as House in Multiple Occupation (HMO)*

P/2001/3832 APPROVED 09 Jul 2002

*Retention of single storey rear extension and alterations to roof space to provide two rear dormer windows, new hipped roof to existing second floor rear extension and two veluxes to front roof slope of house (Revised Proposal)*

P/2001/2572 APPROVED 01 Oct 2001

*Single storey rear extension and alterations to roof space to provide two rear dormer windows, new hipped roof to existing second floor rear extension and two veluxes to front roof slope of house*

The applicant has received the Council's advice regarding the withdrawn application ref 20/0412/FUL via the previous owner and again during the pre-application process. The proposals were deemed to constitute over-densification and require further refinement through consultation with the Council. The withdrawn proposals differ from this application in the following key ways:

- There building was extended to the side (south) but with the existing parapet retained and without the bay window
- The extended parts of the building had a projecting dormers window (side and rear closet wing)
- The proposed replacement closet wing was three-storey, with a rear facing gable significantly above the adjacent closet wing at. No.68
- Less outdoor amenity space, mostly due to the retention of the outbuilding
- They included a large, side-facing window from the first floor rear closet wing (living room)
- Provided only one-bedroom accommodation, with no scope for mix of units

The proposals also produced unsuitable flat layouts, with convoluted circulation among other issues. For example, Flat 1 included a long and very oddly shaped corridor, and Flat 2 was configured as a studio, with the bedroom open to the living room, and yet was 45 sqm so easily large enough to be a one-bedroom flat.

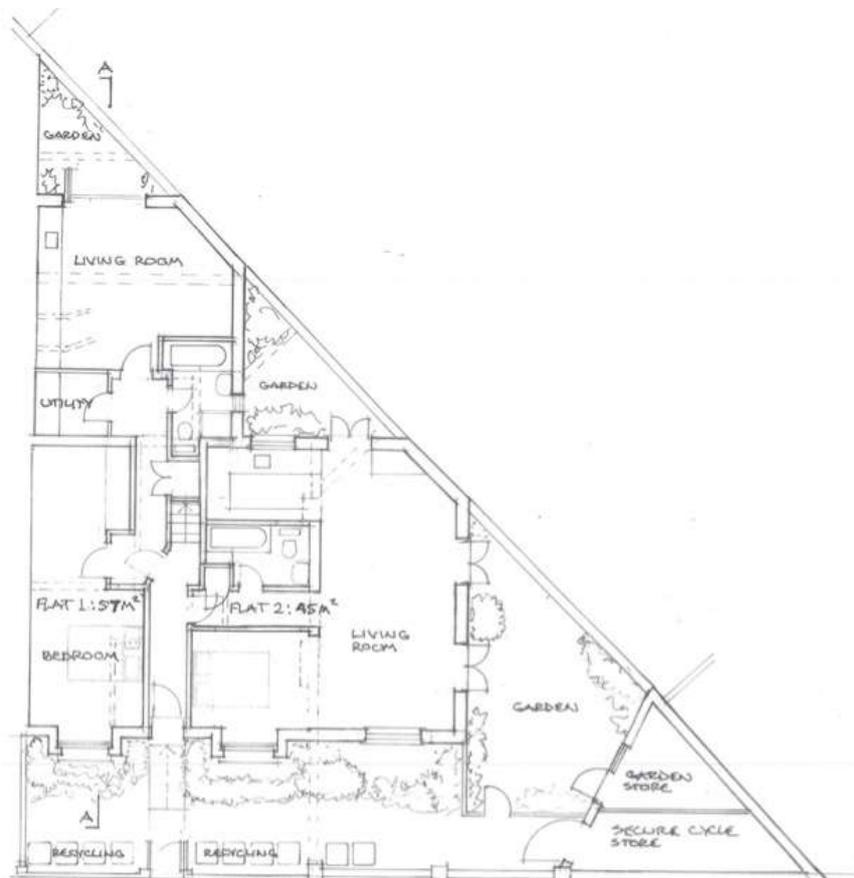


Fig. 3.3 Withdrawn Proposals for 70 Berrymead Gardens – Ground Floor Plan

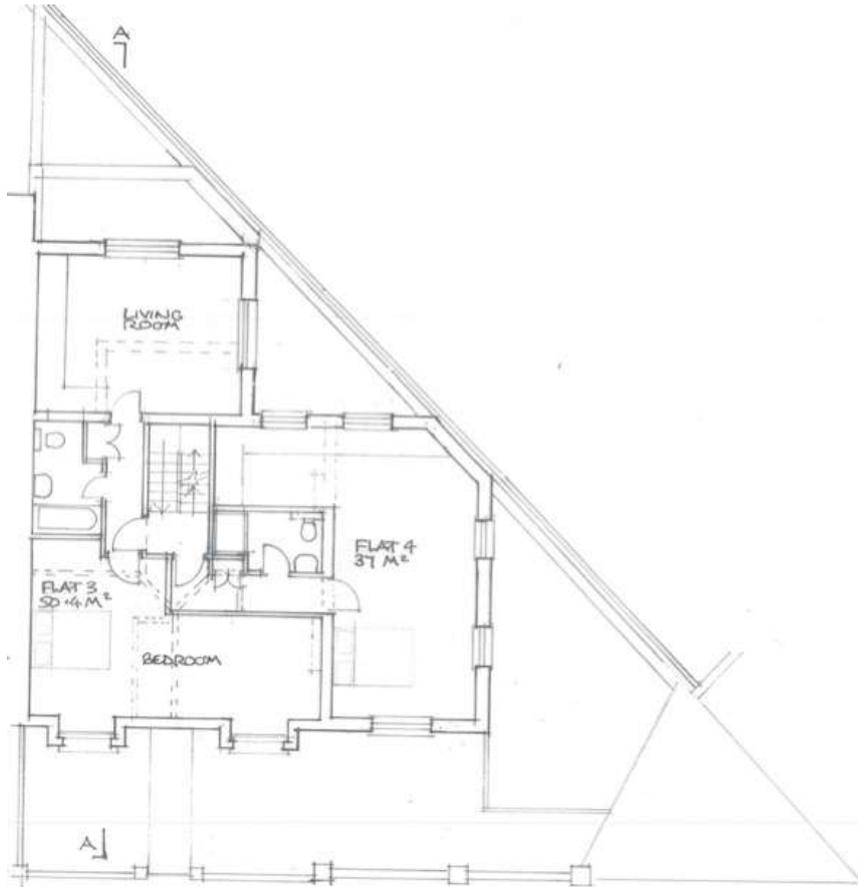


Fig. 3.4 Withdrawn Proposals for 70 Berrymead Gardens – First Floor Plan

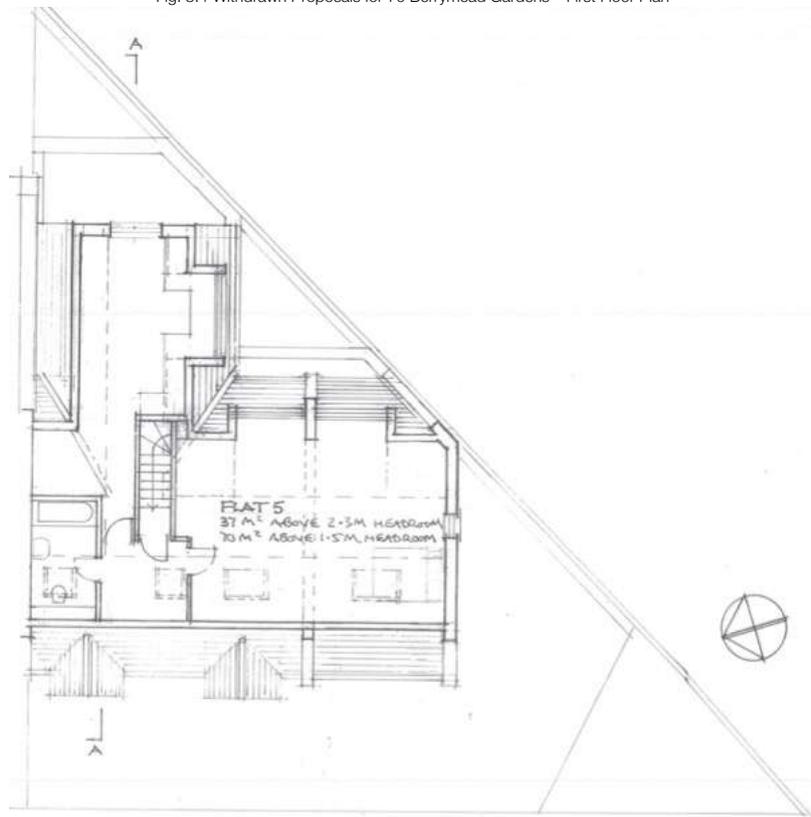


Fig. 3.5 Withdrawn Proposals for 70 Berrymead Gardens – Second Floor Plan

## 3.4 Relevant Planning Policy Considerations

This section of the Planning Statement sets out the relevant national, regional and local policies, and demonstrates the support of the adopted and emerging policy framework for the proposals.

The National Planning Policy Framework (July 2018) sets out the Government’s planning policies for England and replaced the majority of the existing Planning Policy Statements (PPSs) and Planning Policy Guidance (PPGs). In accordance with Section 38 (6) of the Planning and Compulsory Purchase Act 2004, applications should be determined in accordance with the policies within the Development Plan unless material considerations indicate otherwise. In this case the development plan comprises The London Plan (Consolidated with Alterations since 2011, adopted March 2016) and Development (or Core Strategy) DPD, April 2012

At the heart of the NPPF is a presumption in favour of sustainable development (chapter 2). It states, at paragraph 8 that one of the three overarching objectives of the plan should be to: *‘help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity’*. Also, paragraph 85 states the need for *‘Planning policies and decisions should support the role that town centres play at the heart of local communities, by taking a positive approach to their growth, management and adaptation’*.

The primary planning considerations are understood to be:

- Quality of Accommodation
- Design and Appearance
- Impact on Residential Amenity

### 3.4.1 Quality of Accommodation

Policy D6 of the London Plan sets out the requirements for Housing Quality and Standards. The proposed flats have been carefully designed with these in mind and meet the requirements as follows:

		<b>Minimum gross internal floor areas<sup>+</sup> and storage (square metres)</b>			
<b>Number of bedrooms (b)</b>	<b>Number of bed spaces (persons(p))</b>	<b>1 storey dwellings</b>	<b>2 storey dwellings</b>	<b>3 storey dwellings</b>	<b>Built-in storage</b>
1b	1p	39 (37) *			1
	2p	50	58		1.5
2b	3p	61	70		2
	4p	70	79		

Fig. 3.4.1 London Plan Space Standards Table 3.1

The building has been surveyed by Midland Survey and the proposed developed in AutoCAD to maintain the accuracy of the dimensions and areas.

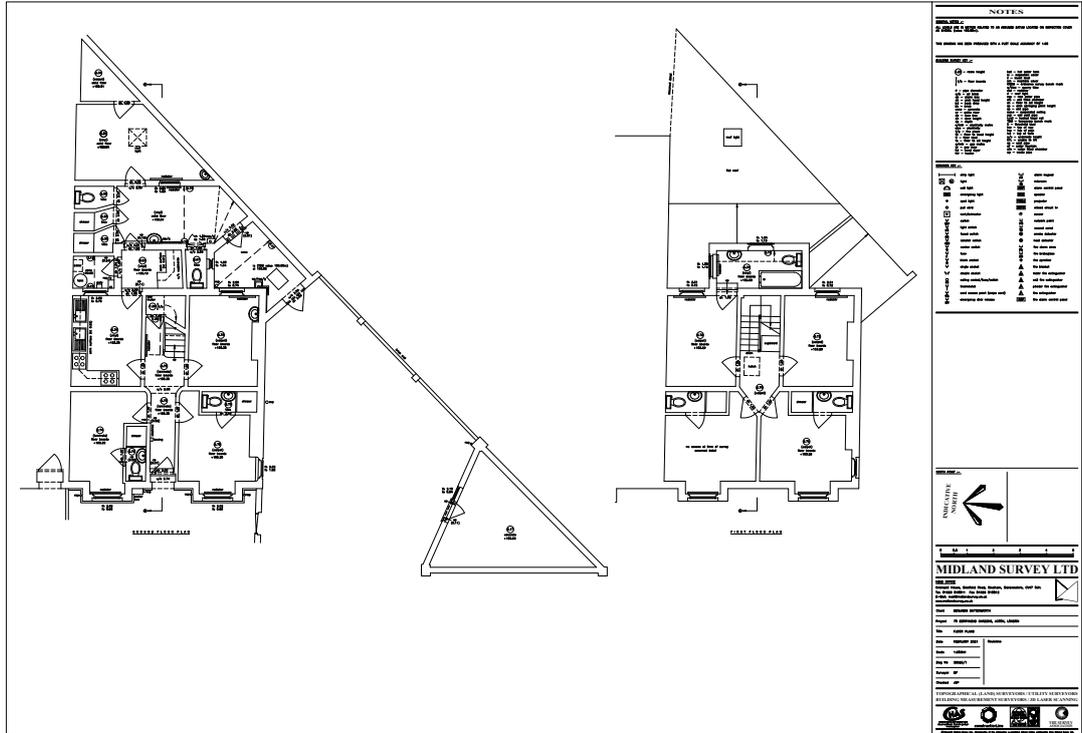


Fig. 3.4.2 Midland Survey's measured survey CAD drawing

The following table assess the areas of the proposed flats against the spatial requirements to ensure the flats are 'adequately sized' (Policy D6-A).

	Bedrooms	Bed Spaces	Required Area (sqm)	Proposed Area (sqm)
Flat 1	1	1	39	40.3
Flat 2	2	3	61	63.4
Flat 3	1	1	39	39.2
Flat 4	1	2	50	52.8
Flat 5	2	3	61	61.2
<b>Totals</b>	<b>7</b>	<b>10</b>	<b>250</b>	<b>256.9</b>

Fig. 3.4.3 Assessment of proposed flats against table 3.1

The qualitative aspects of the design set out in Table. 3.2 are principally addressed through the sensitive extension of the building, mirroring the façade to create a 'bookend' to the street. There is no overall increase in the height of the building and the ground floor footprint is reduced. The clear massing of the building and reducing of the height of the courtyard wall create a more legible composition than the current outbuilding and high

wall – in accordance with requirements 3.2.i and ii. The landscaping of the side courtyard provides a private amenity space for Flat 2 and makes the best use of this with new window openings facing the outside space. Privacy is maintained and overlooking restricted without having an obtrusive, inactive frontage to the public highway. The orientation and outlook of the outside spaces, to the side and rear of the building and south facing, is ideal for privacy and amenity. The communal front garden provides a positive outlook for Flats 1 and 2 and replicates the prevailing boundary condition along Berrymead Gardens. The front garden also provides ample space for refuse and recycling storage as required by 3.2.vi and Policy D6-E.

In accordance with Policies D6-C and D6-D, all of the proposed five flats are dual aspect, front and rear, and Flats 2 and 4 are triple aspect facing east, west, and south. The windows are generous, with large rear sliding windows to the ground floor garden flats. By way of example, the only one-bedroom flat without outdoor amenity space, Flat 3, has two large south-east facing windows to the living room which is over 4m wide.

Policy D6-F 2) requires dwellings with two or more bedspaces to have a bedroom at least 2.75m wide. The most restricted bedroom falling into this category is the double bedroom to Flat 5 (second floor), where the bedroom is 4.06m x 3.03m. In accordance with D6-F 3) and 4) all double bedrooms are over 11.5 sqm and all secondary single rooms are over 7.5 sqm. The ground and first floors have a ceiling height of 2.5m as required by D6-F 8) whereas Flat 5 has a ceiling height of 2.75m under the mansard roof and 47 sqm of floorspace (over 75%) with ceiling heights in excess of 2.5m. The lower ceiling height areas include the bathroom, and bedroom and kitchen storage.

Where possible, at ground floor level, private outdoor amenity space of over 6 sqm have been provided; 13 sqm and 41 sqm for Flats 1 and 2 respectively. Approximately 25 sqm of communal outdoor space is provided by the front garden which is partly dedicated to refuse and recycling storage and bicycle storage.

### 3.4.3 Design and Appearance

In design terms, given the retention of the principal elevation and the majority of added volume at the rear, the proposals can be viewed or assessed as an extension to the existing dwelling. In these terms, the alterations constitute a continuation of the building into and towards vacant parking sites, and do not visually dominate the existing elevation as part of the terrace composition; they are sensitive in scale and proportion, reflecting the style and details of the host building whilst concealing services and pipework wherever possible.

The unitary development plan explains the conditions under which extensions are alterations should be permitted in UDP Chapter 10, Policy DES 5 Alterations and Extensions as follows: *Permission will generally be granted for development involving the extension or alteration of buildings in the following circumstances:*

- *where it is confined to the rear of the existing building*
- *where it does not visually dominate the existing building*
- *if it is in scale with the existing building and its immediate surroundings*
- *if its design reflects the style and details of the existing building*
- *if the use of external materials is consistent with that of the existing building*
- *where any necessary equipment, plant, pipework, ducting or other apparatus is enclosed within the external building envelope, if reasonably practicable*

By virtue of the high-quality architecture and matching materials, the design takes the opportunities available to improve upon the quality and character of the existing building

at the rear whilst the scale, bulk and massing of the proposals respect the hierarchy of the existing urban block by not projecting beyond the neighbouring rear closet wing. The result is a simplified form and pleasing proportions, combined with appropriate timber fenestration.

The restriction of the roof level addition to the rear of the original building keeps it hidden from the public realm, with only flush roof lights to indicate the conversion.

The proposed replacement rear extension is sympathetic in its detailing but with the use of high-quality traditional building materials that match those surrounding them. The existing conservatory-style infill is removed and the appearance of the building from the rear is of consistent London stock brickwork.

The quality of the design, layout and materials will secure the building's long-term future making it a sustainable development. The proposals make full use of the opportunity the site provides whilst respecting the environmental limits, which would be considered a full courtyard infill, three-storey closet wing, or more significant rear extensions at ground and first floor levels. The design offers an improved outlook for its neighbours and uses modern sustainable construction techniques to meet new-build building control standards.

#### 3.4.4 Impact on Residential Amenity

Challenges of overlooking and access to daylight that have been carefully addressed and the design preserves reasonable visual privacy for the occupants and neighbours whilst providing a good standard of living conditions in the new basement spaces. The main outdoor amenity space is retained in the same location, which is and will be heavily screened from view by the garden boundaries and additional planting. Bringing the rear outrigger across, parallel with the principle rear elevation, does not represent a significant change in overlooking of the rear neighbours' communal garden at no.s 14-20 and 22-28 Crown Villas. The new angled wall along the boundary has no windows and is over 10 from the closest neighbouring windows behind. The new first floor windows do not directly face the flats, which are orientated at c.45° to the application property.

Although there is an existing dwelling already on the site, the new layout is designed in accordance with the Mayor of London's Space Standards and conforms to all amenity and daylight requirements. The circulation, bedrooms and living spaces widths and areas comfortably comply with the Standards. The lowest habitable rooms have ceiling heights of 2.5m and all bedrooms have a window area of greater than 20% of the floor area. The existing front garden has space to accommodate three or more secure cycle parking as required by Standard 3.4.1. As explained in the Design and Access statement and Lifetime Homes sections, the design is made inclusive and future proofed for disable users.

### 3.5 Conclusion

In summary, the site is in a densely populated area of West London benefiting from excellent transport links. The site is currently not over-developed and the proposals provide a significant increase in green space providing the outdoor amenity space currently lacking. There is no significant impact on the only adjoining neighbour given the existing closet wing at no.68 and the set-back of the proposed mansard. There is a limited impact on the flats behind which are set back c.10m from the boundary, with no new windows directly facing this direction. Overall the proposed alterations make a positive contribution to the public frontage and street scene.

## 4.0 SUSTAINABLE DESIGN AND ENVIRONMENTAL STRATEGY

### 4.1 Reducing Energy Requirements

The existing dwelling is of early Victorian construction with ad-hoc alterations and additions. The configuration of the building gives it a relatively high surface area to volume ratio, which is poor for maintaining internal temperature. The external walls and roof are not properly insulated, and the majority of the windows are uPVC or single-glazed, without proper draft seals. The conservatory extension to the rear constructed in the early 1990's and is almost entirely glazed. Elsewhere there are radiators and a gas boiler, un-insulated floorboards and walls. The light fittings are largely halogen – with much higher energy consumption and shorter lifespans than LED fittings. The overall result is an inefficient and energy-hungry building – expensive to maintain and unsustainable.

All windows will be replaced with new double-glazed windows, with draft seals. The solid masonry walls will be insulated internally to reduce heat-loss and gain directly through the brickwork. The new rear windows are all double-glazed to meet new-build U-value requirements.

The new pitched roof will be insulated to new-build building regulations standards (Part L) or better. The use of dense materials as brick has benefits in terms of thermal mass, which in combination with improved insulation will help stabilize internal temperatures and reduce the need for artificial heating and cooling. It may be suitable for internal blinds to be specified to reduce nighttime heat losses from the rear extension and courtyard glazing. This will also help limit light pollution although the impact on the surrounding neighbours is extremely limited from ground level.

The design will be aiming for a level of airtightness that is better than  $3\text{m}^3/\text{hr}/\text{m}^2$  at 50Pa. This is significantly better than existing standard building practice but is achievable using the construction methods proposed for the site. This will reduce heat losses caused by uncontrolled infiltration.

### 4.2 Renewable Energy Sources

The water consumption of the flats will be reduced to a level of 105 l/person/day in line with current best practice for dwellings. This will be achieved by specifying low flow water fittings with the exception of the kitchen, master bathroom and water efficient cleaning and washing equipment. A rainwater collection system from the roofs will be considered for potential use as grey water for filling WC cisterns and for external use. The applicant is interested in reusing and recycling as much water as possible, and these requirements will form part of the technical design brief.

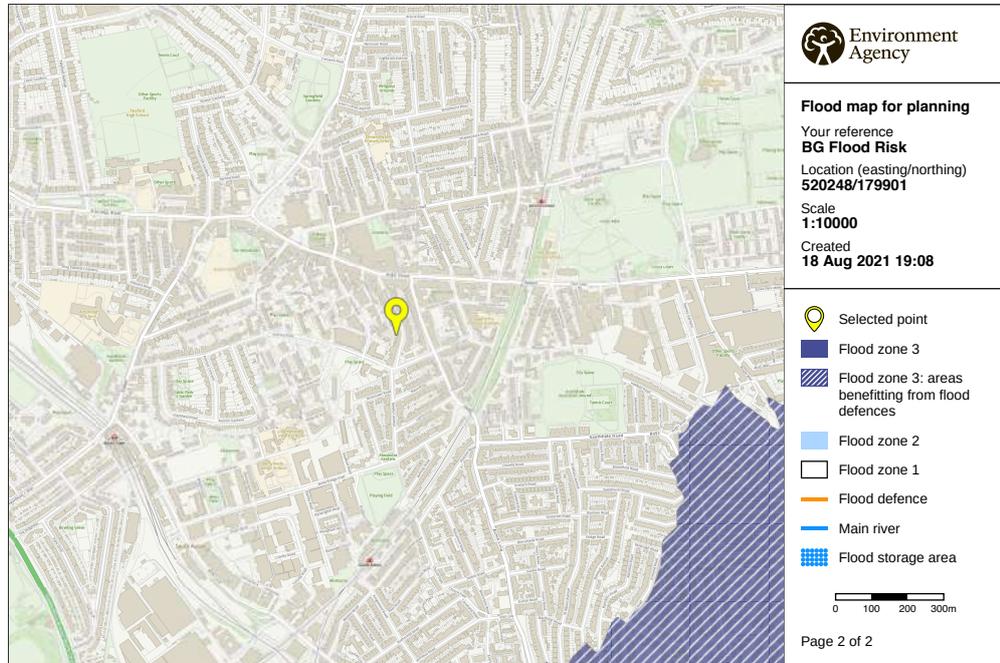
### 4.3 Future Adaptability

The design of this building maximizes its future range of uses. The new external envelope will be robustly constructed of brickwork, with clear-spanning structure at the rear to maximise flexibility. The central circulation and regular placement of fenestration lends itself to future conversion into a house or houses should a future occupant want to explore this option.

## 5.0 FLOOD RISK ASSESSMENT & SUSTAINABLE URBAN DRAINAGE STRATEGY

### 5.1 Flood Risk Assessment

The site is located in Flood Zone 1, with a 'low probability of flooding' as shown on the Environment Agency's Flood Zone Map.



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Fig.5.1 Flood Risk Map of the site location from the Environment Agency website

The Agency's website describes the location as follows:

*"Location (easting/northing): 520248/179901*

*Your selected location is in flood zone 1, an area with a low probability of flooding*

*This means:*

- *you don't need to do a flood risk assessment if your development is smaller than 1 hectare and not affected by other sources of flooding*
- *you may need to do a flood risk assessment if your development is larger than 1 hectare or affected by other sources of flooding or in an area with critical drainage problems"*

The site is not located within a Critical Drainage Area and Ealing's Local Flood Risk Management 2016 shows the site outside the expected area of surface water flooding even in a 1 in 100-year storm event. The site also remains flood free for all scenarios of Thames Tidal Flooding due to the considerable distance from the Thames.

**LOCAL FLOOD RISK MANAGEMENT STRATEGY**

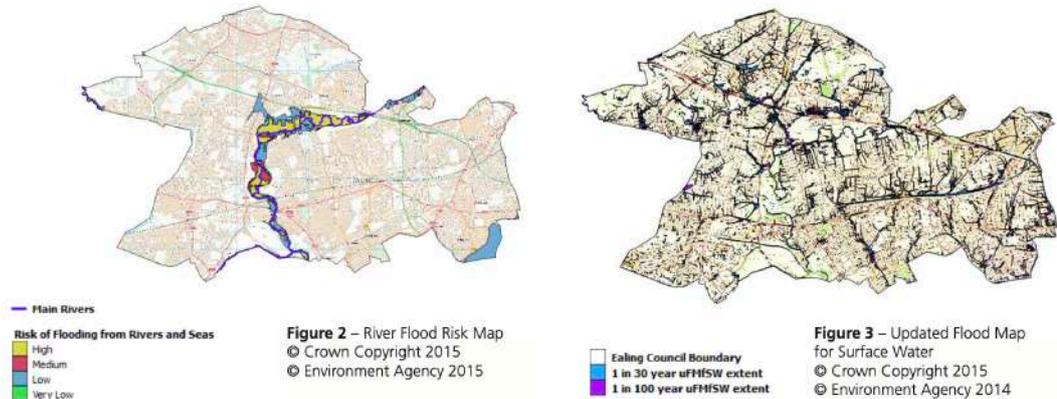


Fig.5.2 Flood Risk Maps of River and Surface Water Flood Risk from Ealing's Local Flood Risk Management Strategy

5.2 Thames Water Consultation

Thames Water Developer Services have been consulted during early stage design development. Developer Services confirmed that Thames Water's map show nothing other than the combined sewer (foul & rain water) under Berrymead Gardens, with no connections to the house at no.70.

There is nothing shown in the side courtyard. Combined with observations drainage investigations on site, this points towards the conclusion that there are only foul and surface water below ground sewage connections from no.70 to this combined sewer under Berrymead Gardens.

5.3 Sustainable Urban Drainage Strategy

This Technical Note briefly sets out the main flood risks that may arise as a result of the redevelopment.

In order to estimate whether the proposals will produce an increase in the peak surface water runoff from the site, the existing and proposed hardstanding areas have been calculated as follows:

Existing Hard-paved Area = 67 sqm

Proposed Hard-paved Area = 0 sqm

Total Proposed Attenuation Area = 78 sqm

Total Site Area = 208 sqm

The Supplementary Planning Guidance (SPG) – Sustainable Design Construction 2014 gives further details on Policy 5.13 found in the London Plan and it also states that the minimum expectation from development proposals is to achieve at least 50% attenuation of the site's pre-development peak surface water runoff. The proposed area of surface water run-off is approximately 130 sqm, or 62.5% of the site area, however this is well below the existing 100% to the public sewer. The proposed free-draining area of the site

could be increased further still if just the rear ground floor extension roof rainwater were attenuated in a green roof and discharged to the rear gardens, possibly via a soakaway, rather than into the public sewer.

The site currently freely drains into the public sewers without any attenuation. It is proposed to implement permeable terrace paving and land drains leading to a soakaway in the rear garden to the north of the site. The discharge of rainwater from the building will be restricted discharge via a flow control device to the existing Thames Water public surface water sewer. This will be designed to restrict discharge as set out in the London Plan, which states that 5 l/s per outfall is appropriate for sites where the calculated greenfield runoff rate is extremely low.

The following resilience measures will also be included within the redevelopment:

- External walls will be re-pointed and cracked bricks replaced (front elevation);
- Joints between all walls and window/door frames will be sealed;
- Non-return valves will be fitted to all drains and water inlet pipes;
- Any gaps around all pipes will be sealed;
- Flood resilient flooring, such as ceramic tiles or laminate flooring will be used at ground floor level, instead of fitted carpets.

The following measures will be considered for the project prior to construction stage:

- The height of electrical sockets can be raised to at least 1.5m above ground floor level where appropriate for the internal layout;
- The position of the main parts of the heating system, such as the boiler, could be raised well above the ground floor level;
- A lime plaster finish could be used on walls, instead of gypsum plaster.

In conclusion, this assessment has established the principles of surface water management at the site and demonstrated that issues relating to flood risk and drainage do not represent an obstruction to the proposed redevelopment.

6.0 Appendix 1: Site Photographs



Fig.6.1 Front and rear elevations of 70 Berrymead Gardens



Fig.6.2 Stree view of 70 Berrymead Gardens looking north, and below, side courtyard



Fig.6.3 Side elevation of 70 Berrymead Gardens, and below, outbuilding to side courtyard

# Ben Smith Architecture

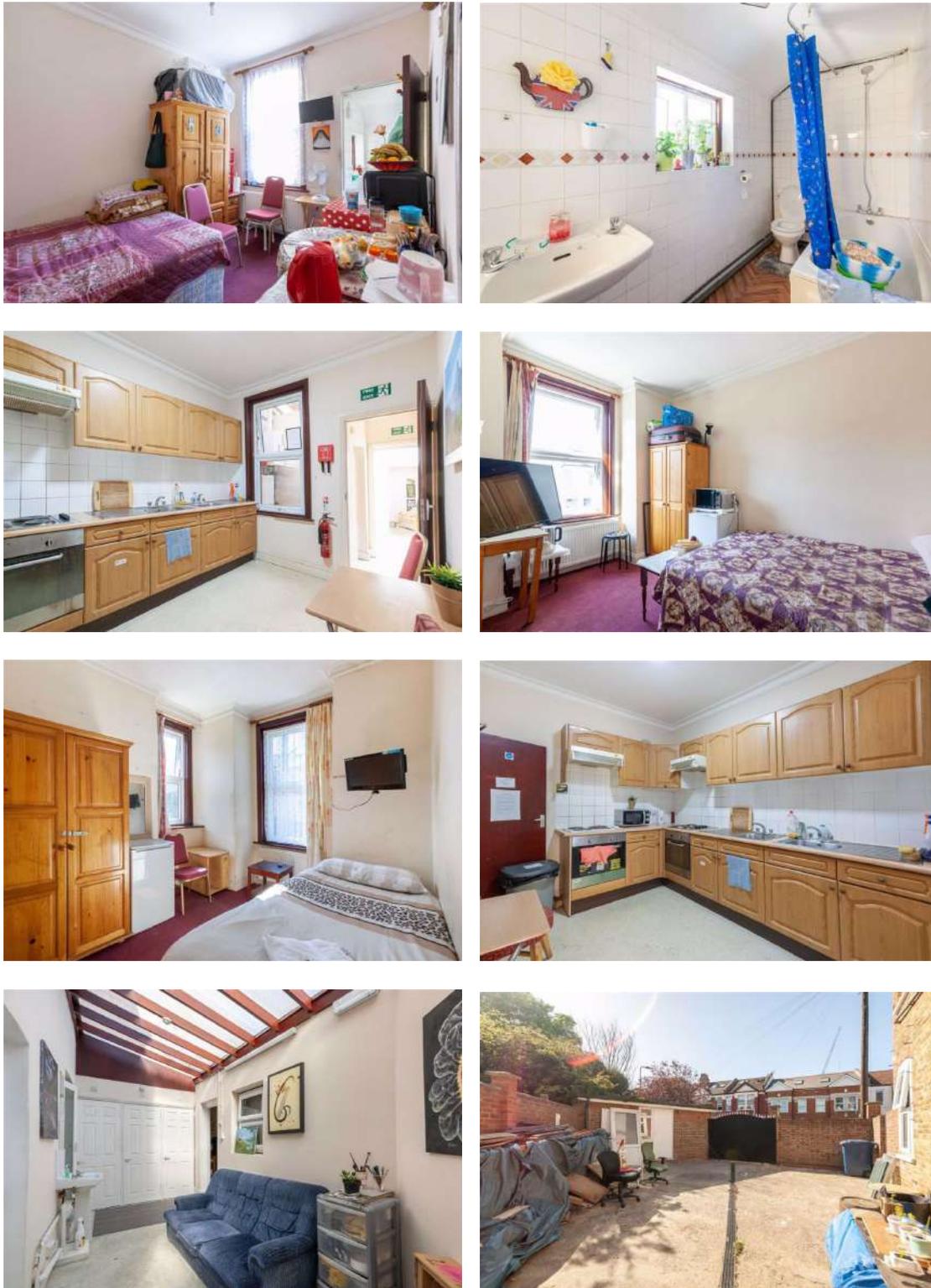


Fig.6.4 Internal photographs of 70 Berrymead Gardens, and bottom right, side courtyard



Fig.6.5 View from rear first floor window, and below, rear elevation