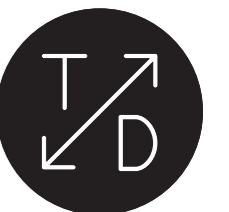
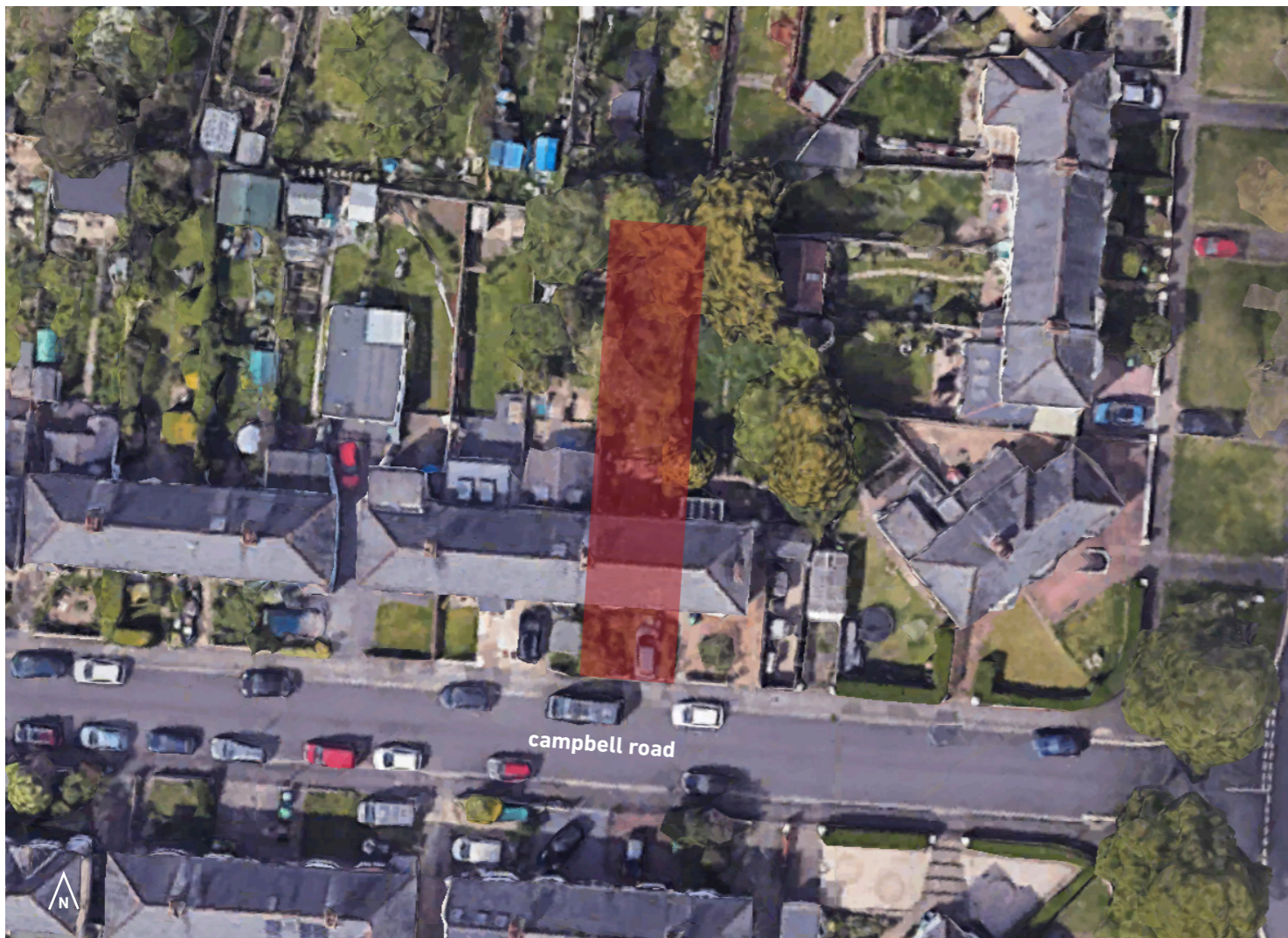


DESIGN AND ACCESS STATEMENT

80 Campbell Road OX4 3NU | November 2023

Transition by Design
architecture@transitionbydesign.org





Above
Aerial Image with the site highlighted in red.
Image courtesy of Google Maps.

CONTENTS

- p1 / Introduction
- p2 / Site setting and local context
- p8 / Design development
- p8 / Proposal
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INTRODUCTION

Transition by Design (T/D) has been appointed by Tina Friedrich and Frederik Ferner, hereinafter the Applicant, to submit a planning application for a rear extension and energy retrofit to their existing dwelling. We have prepared this Design & Access Statement on their behalf to explain the design decisions in relation to the local context.

SITE SETTING AND LOCAL CONTEXT

80 Campbell Road is situated in the Florence Park area of Oxford, a residential area on the south eastern edges of the city of Oxford. The site is located a few streets south of Florence park, towards Henley Avenue. Number 80 is a mid terrace property which is typical of the properties in the area.

Although there are about 1500 listed buildings in Oxford, the dwelling is not in close proximity to any listed buildings and is not located in any of Oxford's conservation areas.

The site comprises of the main dwelling with a large rear garden, and smaller front garden. There is a side access which is shared with the neighbour to the east of the dwelling. The site is accessed from Campbell Road and has a concrete driveway with parking for one car. To the frontage of the property is a drop curb in front of the concrete driveway, and a low brick wall in front of a grass and shrub front garden.

The building is within Flood Risk Zone 1. This means that the land and property in this zone have a low probability of flooding.

There is one recorded planning application relevant to this property, the information for this is below:

04/01638/FUL | Single storey rear extension | Approved Fri 22 Oct 2004



United Kingdom



Oxford, Oxfordshire

Above
Project site location maps.

EXISTING BUILDING

80 Campbell Road is a two storey, two bedroom building which is part of a terraced row built in approximately 1935.

Typical of its age and location, the building is a brick cavity wall for the front and rear facade. The front facade is externally rendered at the first floor of the bay window, and the top half of the facade. The rear wall is fully rendered.

The roof is double pitched with slate roof tiles and clay ridge tiles. There is a shared brick chimney stack shared with the property to the west of the building. The windows are double glazed with aluminium or uPVC frames.

In 2004 - 2005 the ground floor bathroom was converted into a utility room. The original fourth bedroom, which partly over-sails the ground floor shared passage, was converted to a bathroom. Works on a single storey rear extension were commenced and stopped at DPC level. This slab is covered by a timber patio.



Above
Front elevation image.
Photo taken October 2022.



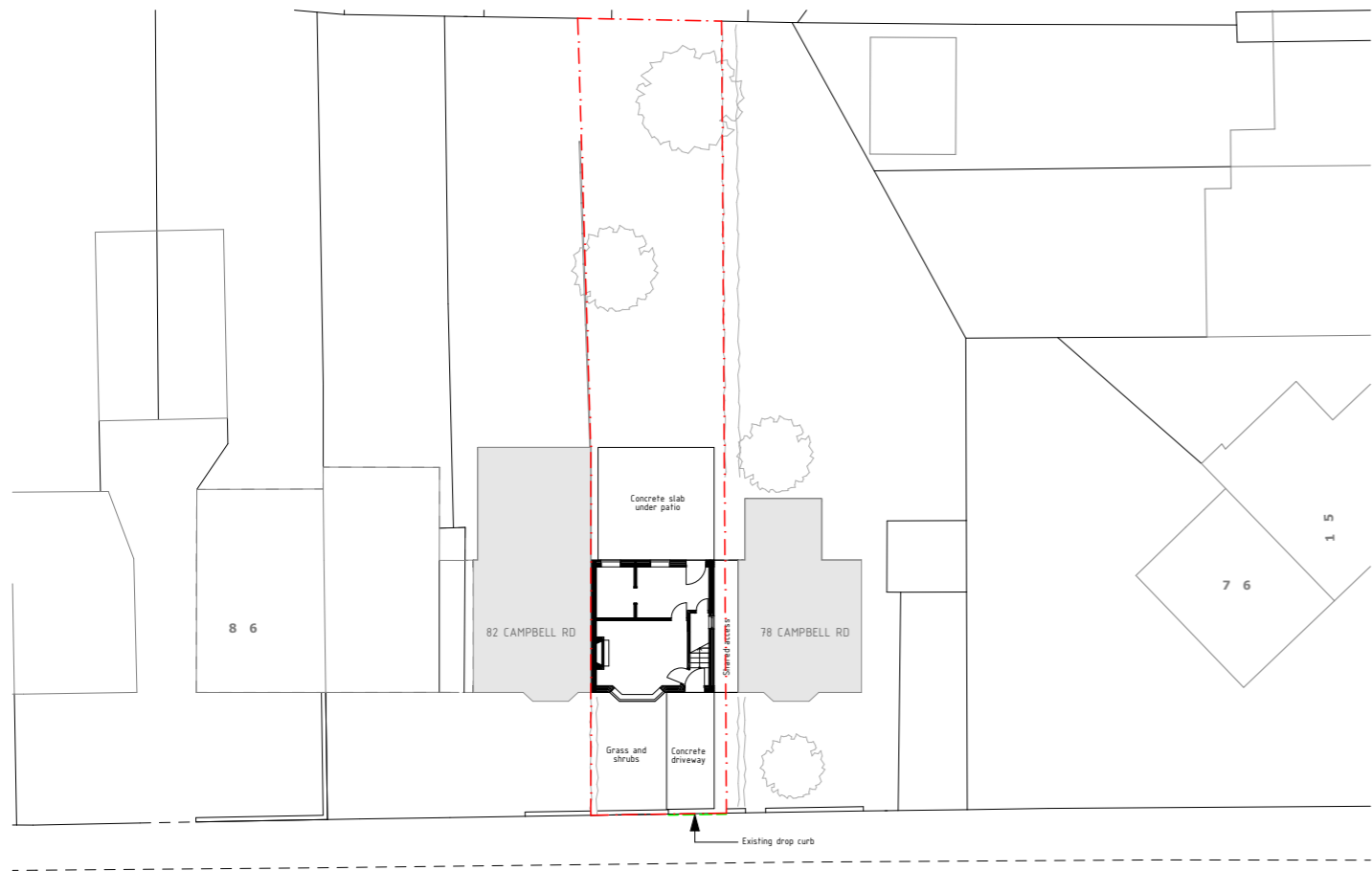
Above
Rear elevation image.
Photo taken October 2022.



Above
Front elevation image.
Photo taken October 2022.

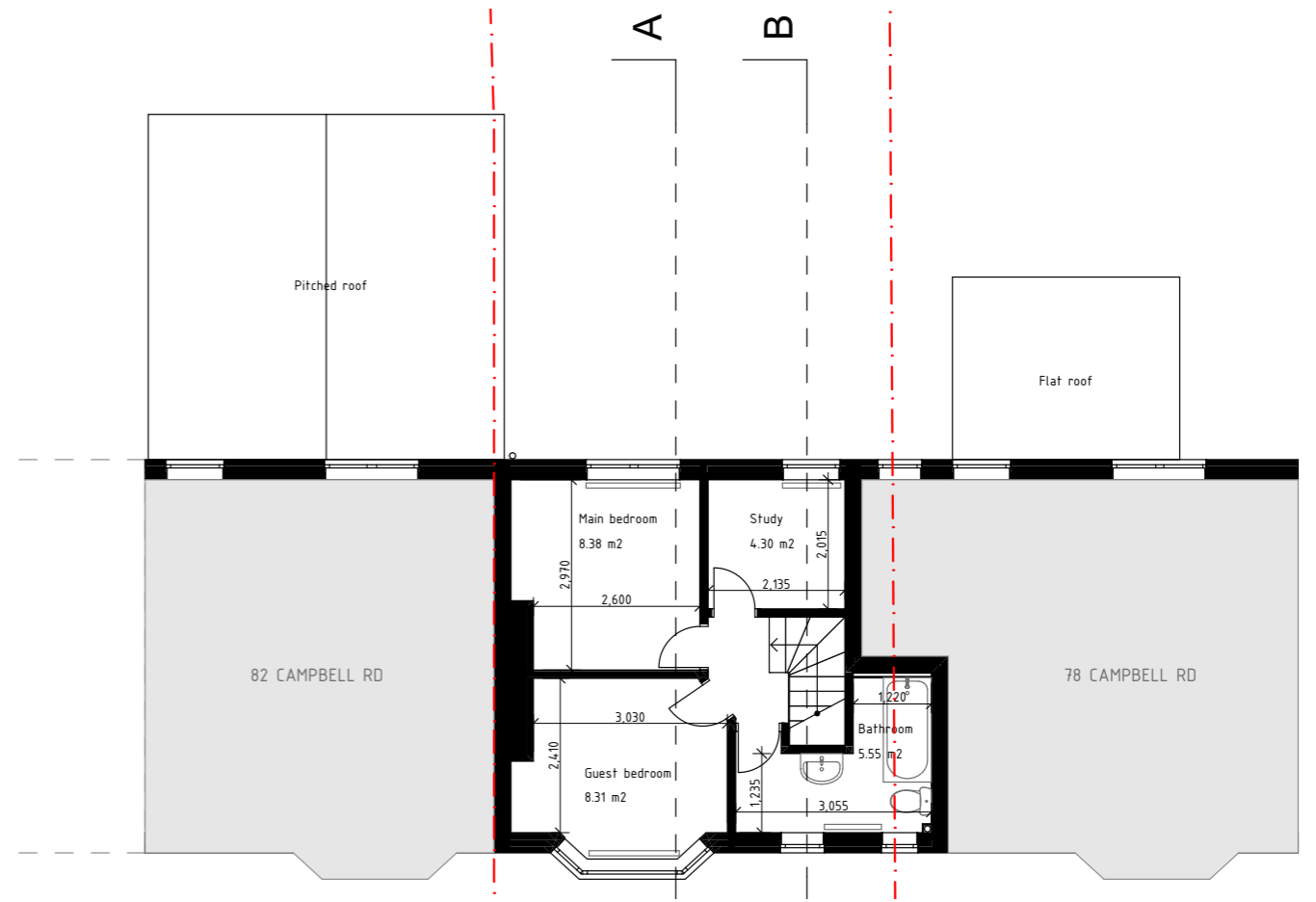


Above
View down shared side passageway.
Photo taken October 2022.



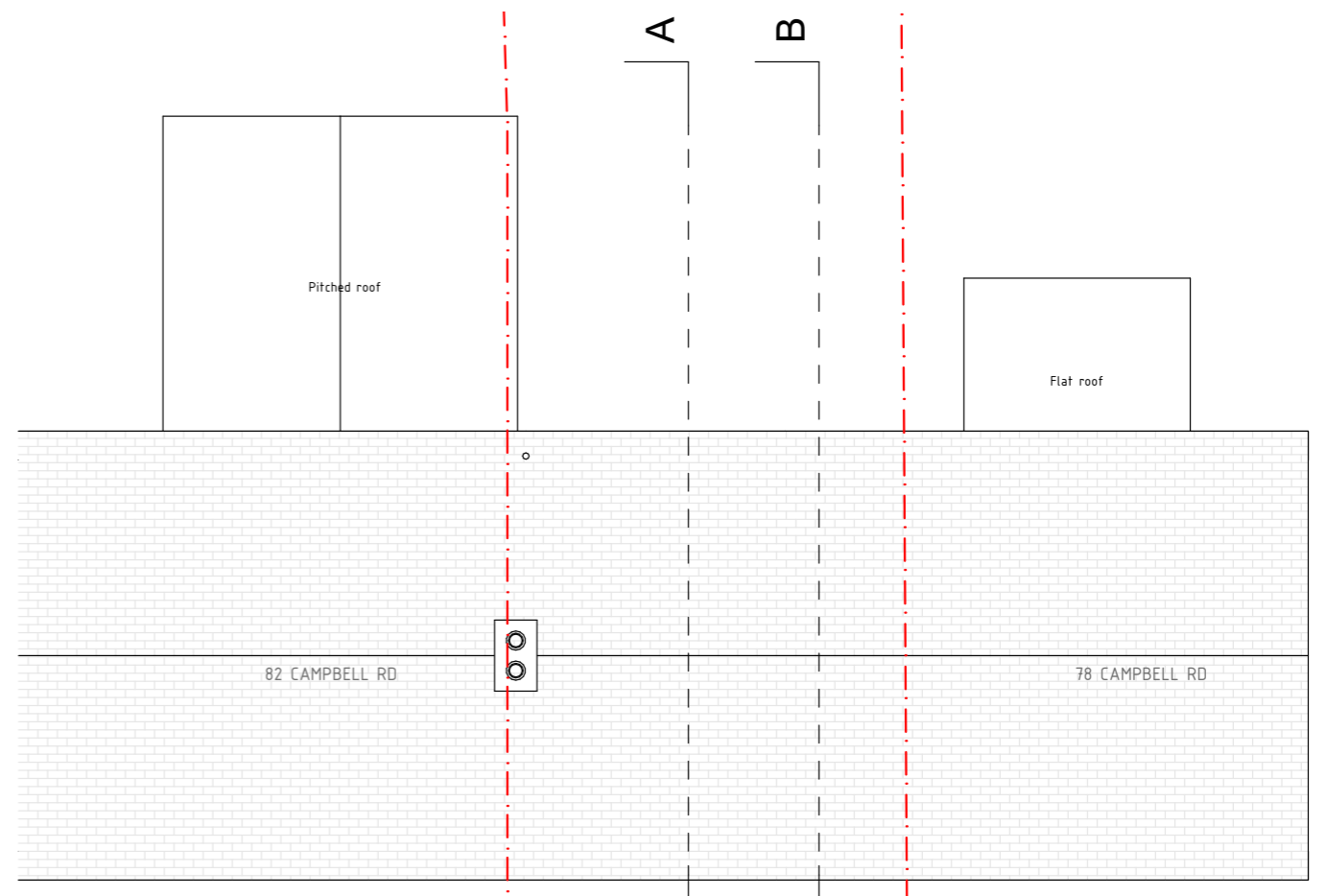
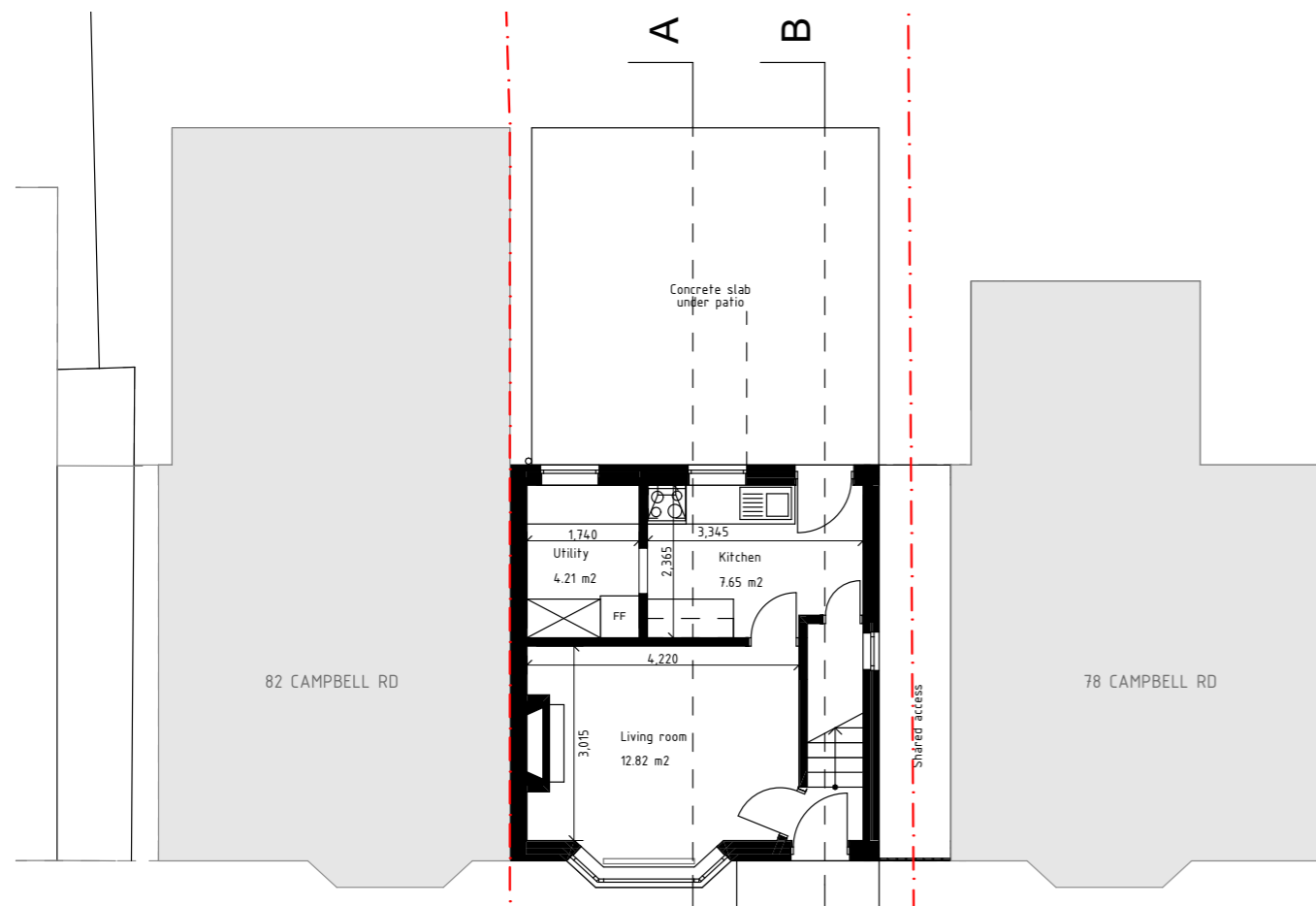
Above
Existing Site Plan

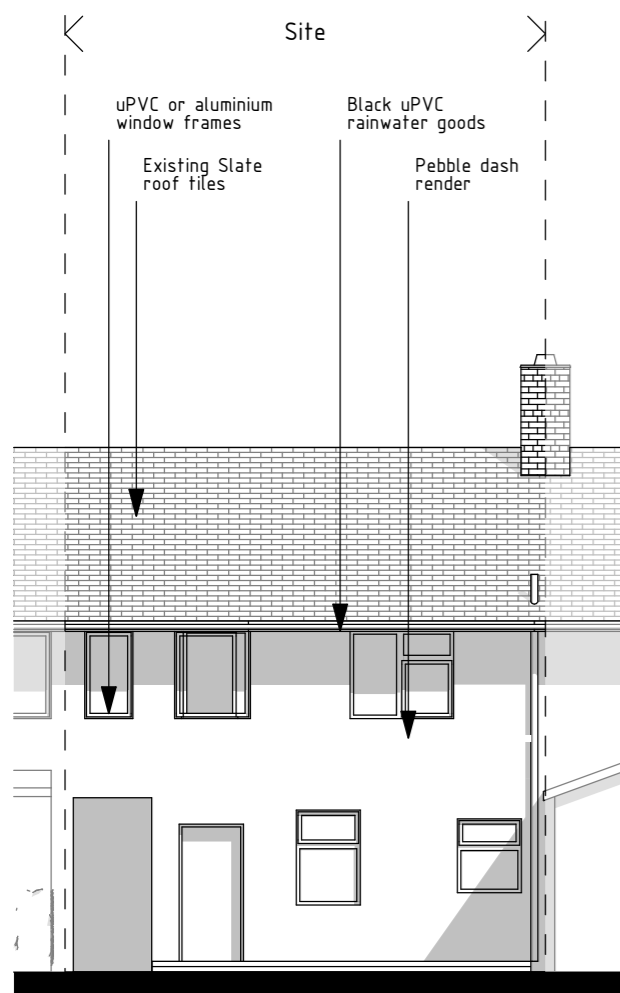
Below
Existing Ground Floor Plan



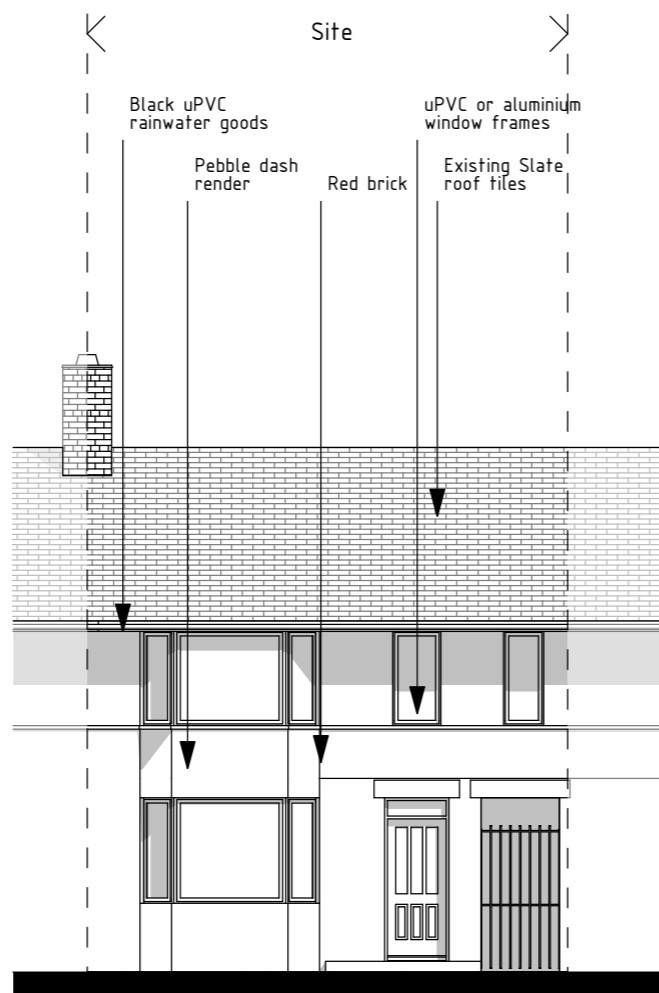
Above
Existing First Floor Plan

Below
Existing Roof Plan

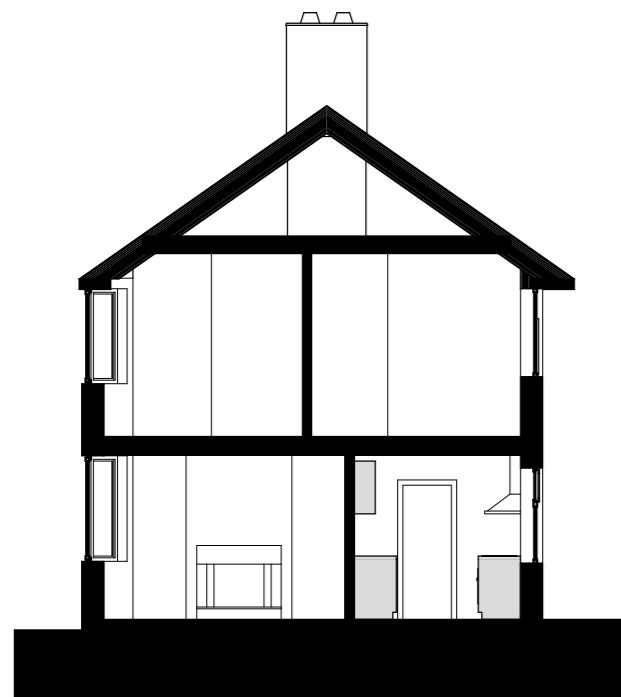




Above
Existing Rear and Front Elevations



Below
Existing Sections A and B



DESIGN DEVELOPMENT

The Applicant would like to create a better connection between their living spaces and the north facing rear garden, as well as increase the size of their living room to allow more flexible use in light of changes in working and living since the increase in working from home in recent years. They would also like to increase the size of their bedroom, for it to be fit for their daily needs

The concept developed from a focus on extending the north elevation outwards slightly into the garden and in-line with neighbouring property 82 Campbell Road. The brief was also to utilise the concrete slab from the footprint of the approved planning application from 2004.

Another element of their brief is to create a more open Kitchen/Dining space, and allow for more practical spaces such as a boot room for show storage and to facilitate an area where they can enter after a walk with the family dog. This brief can be

achieved through some internal reconfiguration, along side the rear extension. Visual connections are improved through larger glazed patio doors and connect the key living areas to the garden.

The Applicant further requires improvement measures to the thermal efficiency of their home as a whole, so some energy retrofitting measures will be included in the design, including an Air Source Heat Pump (ASHP) to replace the old gas boiler, External Wall Insulation, upgraded triple glazed windows, and solar photovoltaic panel to the roof of the building.

The design is in-keeping with the existing house and is of similar massing to other extensions in the local area. The materiality responds to those present on Campbell Road and surrounding roads, including render which to be used on the all elevations of the existing and proposed building.

PROPOSAL

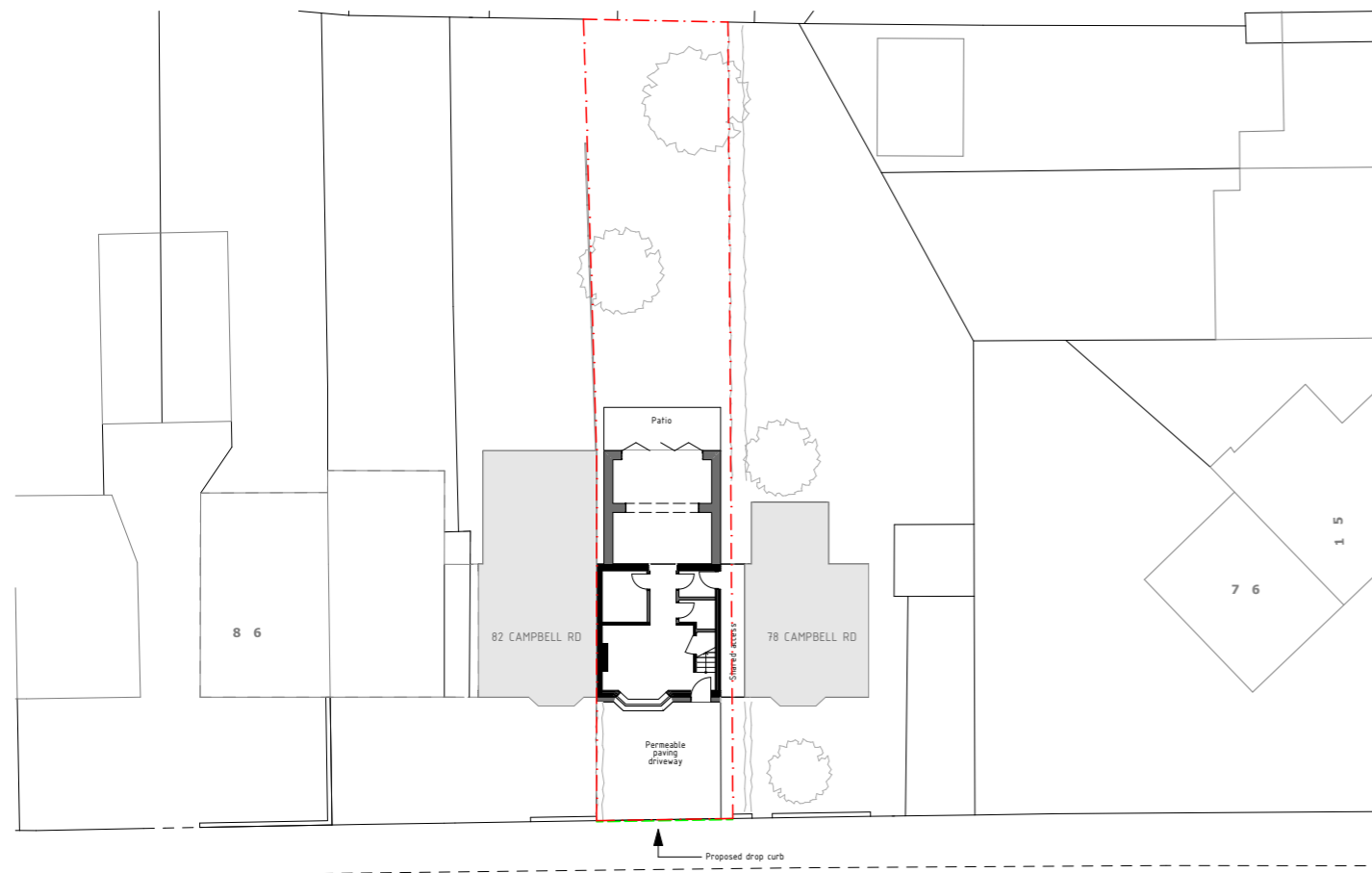
Design Strategy

The proposal creates a one and a half storey rear extension with a mono-pitch roof, improving the overall layout and creating a better connection with the north facing garden. The proposed design has developed from the following key concepts:

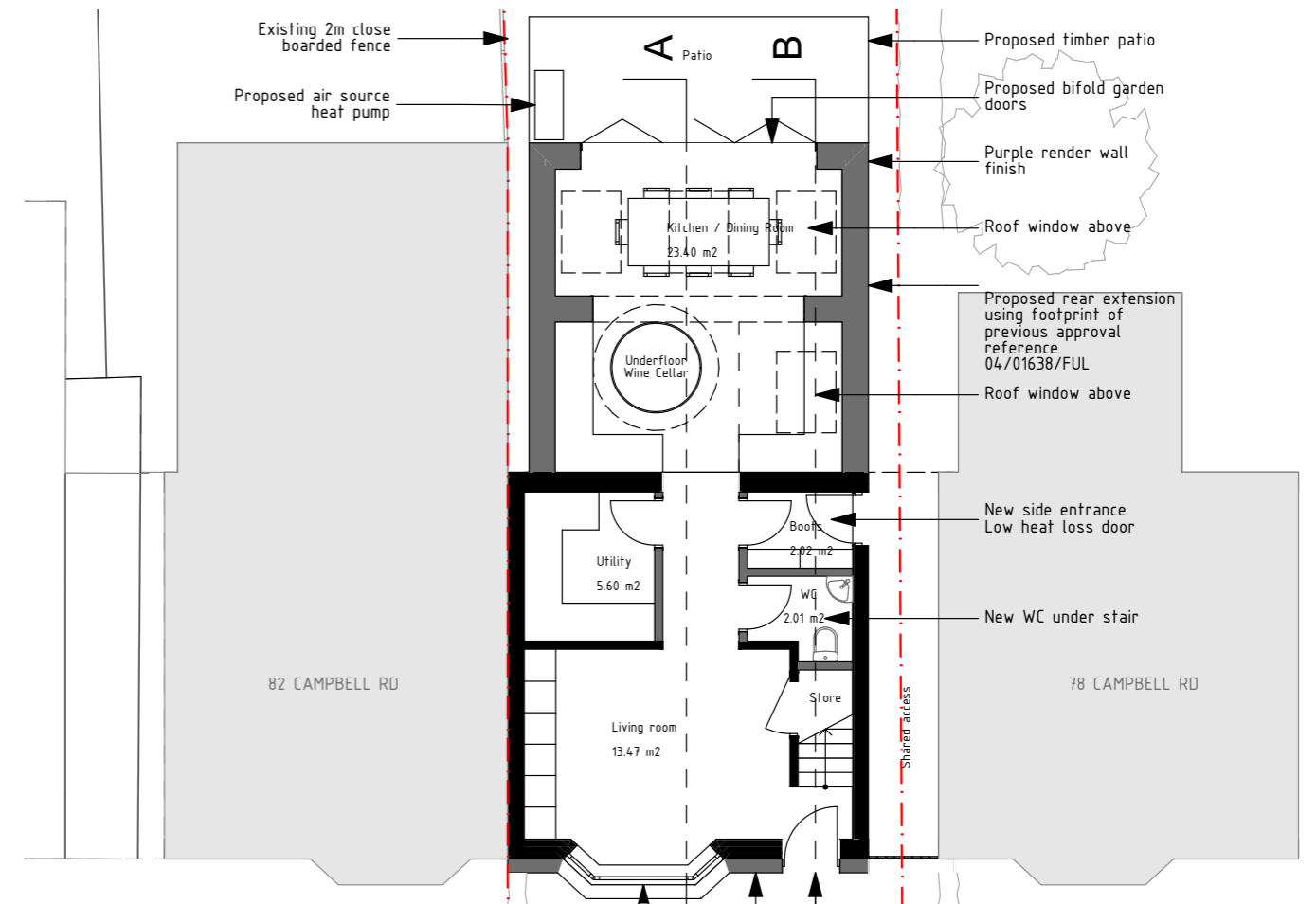
- // Contextual response, aligned with similar local extensions of form and size. The extension extends as far as the rear elevation of the neighbouring 82 Campbell Road.
- // Incorporation of materials from the local context on Campbell Road and surrounding roads.
- // Minimising the impact on the neighbouring properties with a mono-pitch roof angling away from neighbouring properties to maintain levels of privacy.
- // Using low-energy technologies and ecological materials
- // Applying modern, low carbon building techniques

- // A low energy retrofit, which works in tandem with the PAS 2035 framework, and EnerPHit standards.
- // Adjustments to the front garden to include permeable paving, retaining the connection for charging the participants electric car and space for parking another vehicle with access to the EV charging point.
- // The extension is proposed to extend by 6m into the rear garden, in-line with 82 Campbell Road, and utilising the footprint of the existing extension foundations under the rear patio.
- // Cladding the rear extension in lime render allows for the new build area to be read as coherent with the existing building.
- // The new bi-fold doors will allow the Applicants to really appreciate and connect to their rear garden from their internal living spaces. Bi-fold doors at the ground floor also allows for a better visual connection with the garden, and allow more natural light into the room offering improved quality of the internal spaces.

- // A mono-pitch roof over the new extension is proposed, offering a simple form connecting to the existing house.
- // The roof is proposed to be natural slate tiles to match the existing roof, and those in the neighbouring area.
- // The external wall insulation is proposed to wrap the existing building, increasing the thermal performance of the building and reducing the Applicant's energy demand.
- // An Air Source Heat Pump is proposed to the rear of the property minimising the visual impact of the pump for neighbouring properties.
- // The extension has proposed roof light to allow light into a for with roof space to facilitate this, solar PV panels are proposed on the existing roof, along with a proposed roof light which will allow light into the dressing room area of the main bedroom.

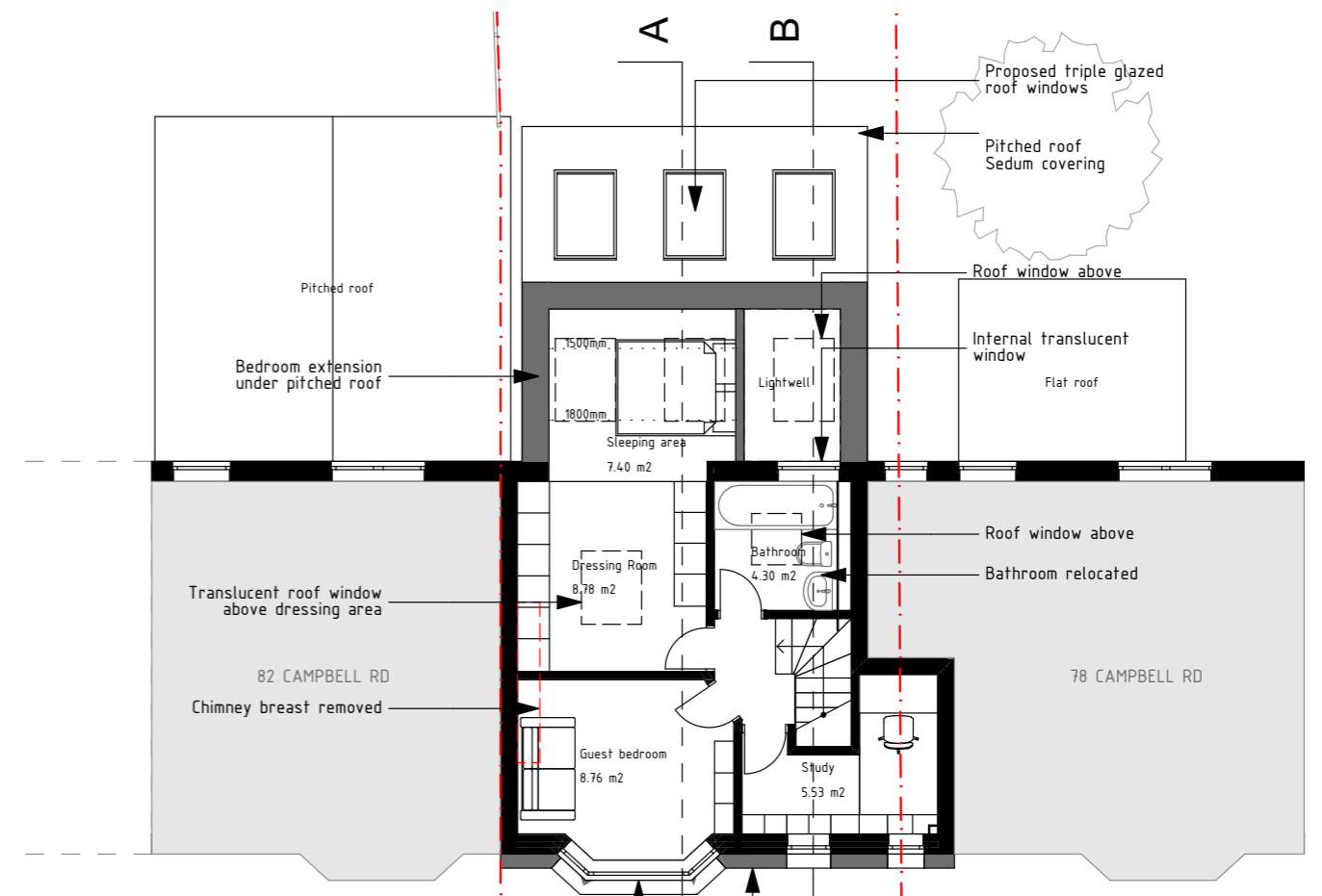


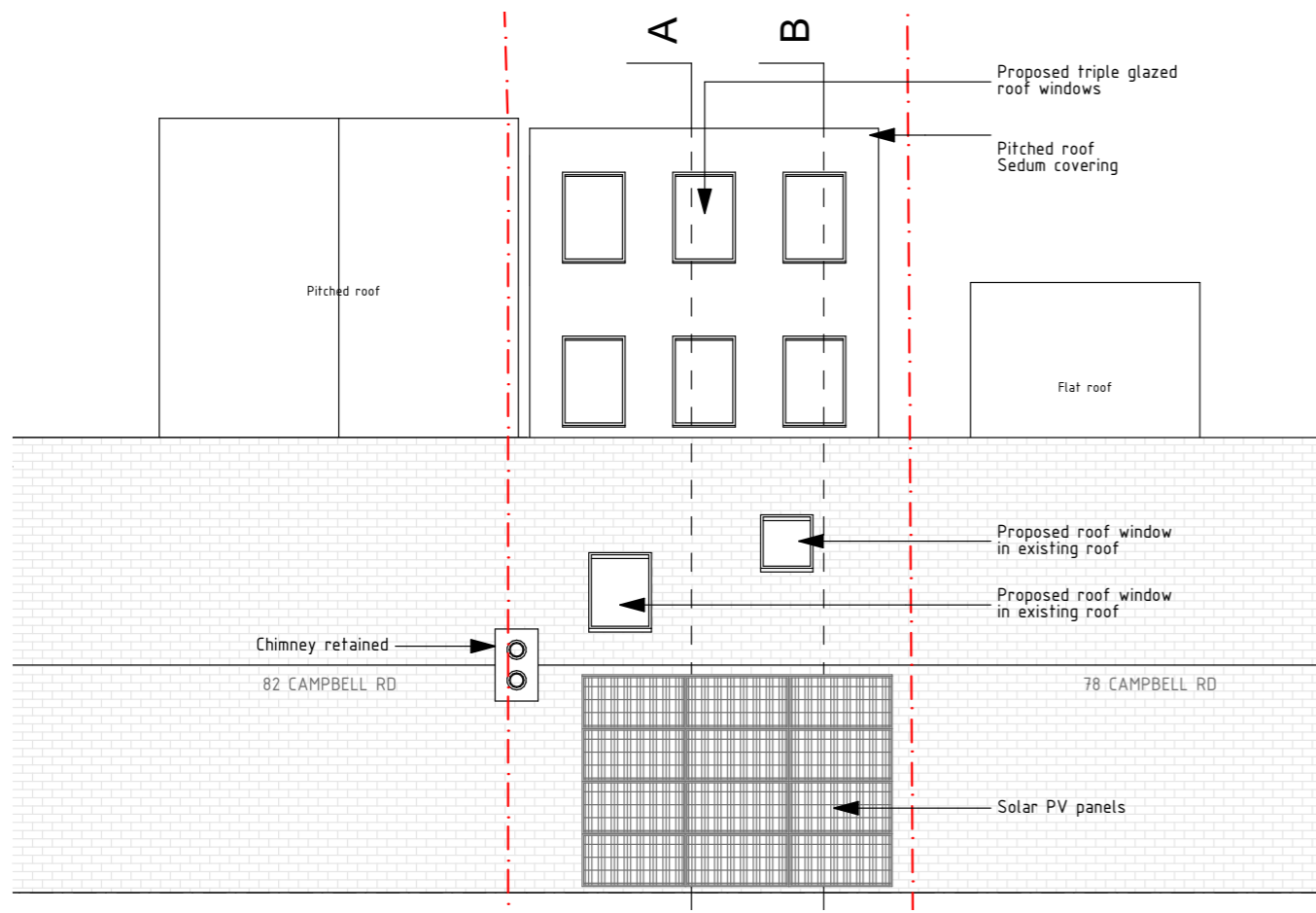
Above
Proposed Site plan



Above
Proposed Ground Floor Plan

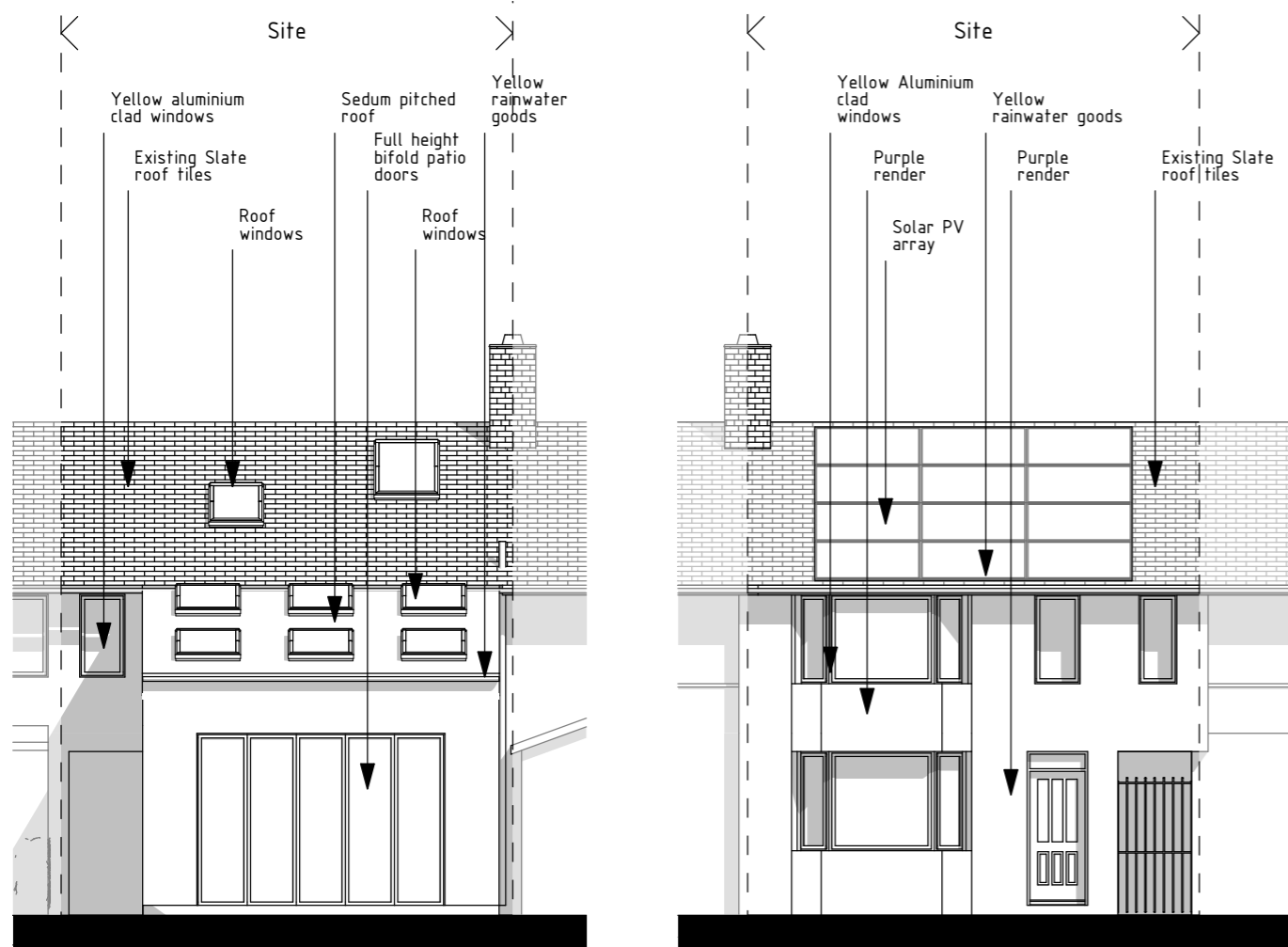
Below
Proposed First Floor Plan





Above
Proposed Roof Plan

Below
Proposed Rear and Front Elevations



Above
Proposed Section A

Below
Proposed Section B



LOCAL RESIDENTIAL CONTEXT

The proposals include a 1.5 storey rear extension, and a widening of the existing drop curb to the frontage of the property. Both of these adjustments can be seen in multiple precedented examples.

To the right are maps exploring these examples within the local area of the site.

Materials

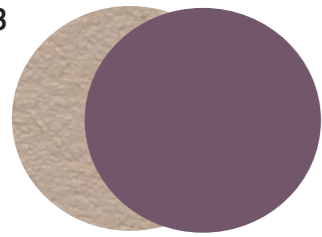
Proposed materials of the extension are to complement the existing while achieving the high environmental standards required by the Applicant's brief. The design proposes buff render walls to the existing and proposed walls with slate roof tiles and a sedum mat to the flat roof portion of the new rear extension. All new windows, doors and roof windows are to be triple glazed fitted with dark grey frames, matching the rainwater goods. It is common practice for the houses in the local area to have a finish of render across the external façades.



1 Sedum roof
New rear extension roof



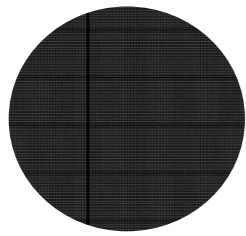
2 Glazing
All windows and doors to be double/triple glazed with a yellow frame
(image to the right shows window style not colour)



3 Purple render
All building façades
(image to the left shows render texture, not colour)



4 Permeable paving
Permeable paving front driveway



5 Solar PV
Solar PV panels on roofs



DAYLIGHT SUNLIGHT ANALYSIS

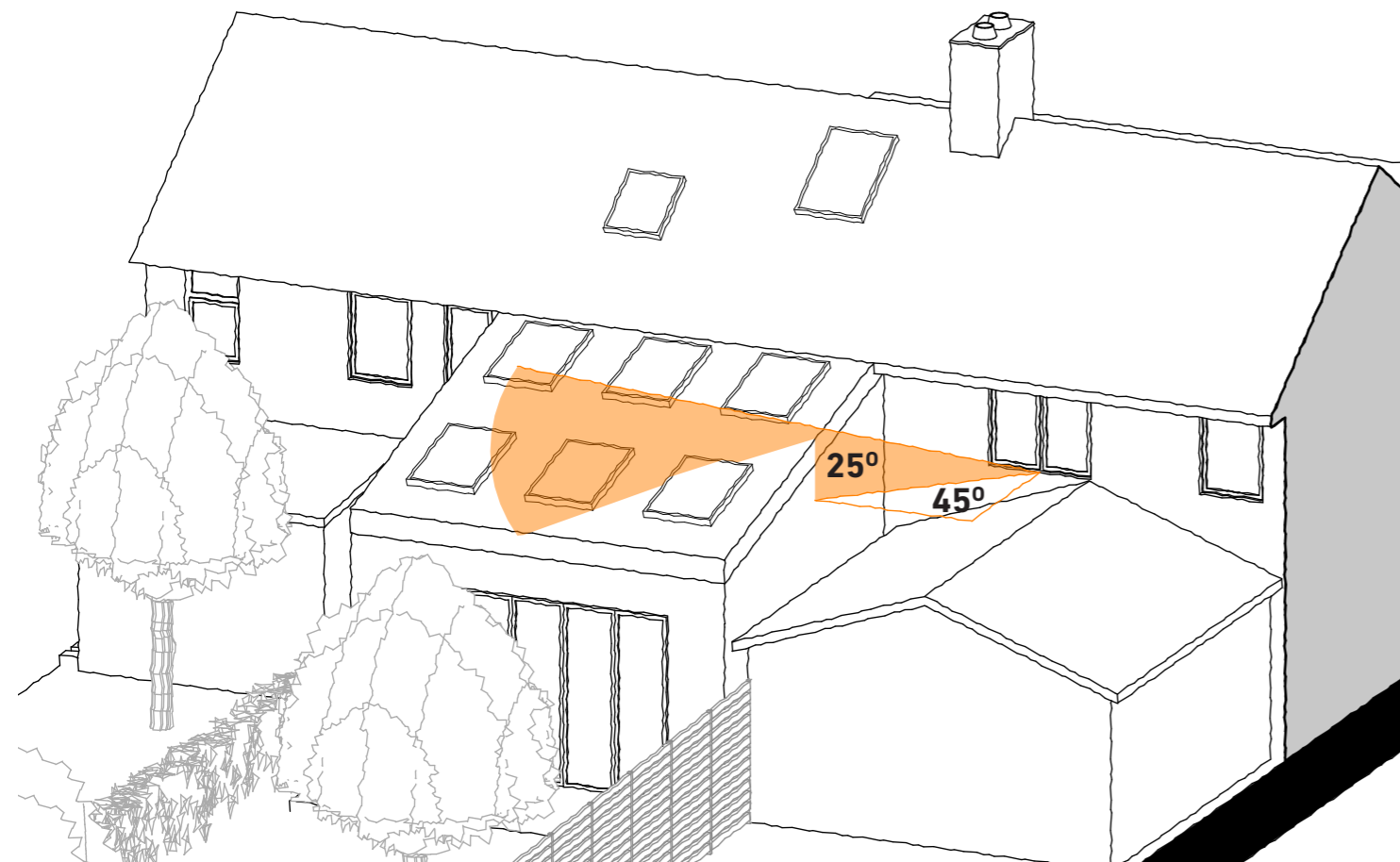
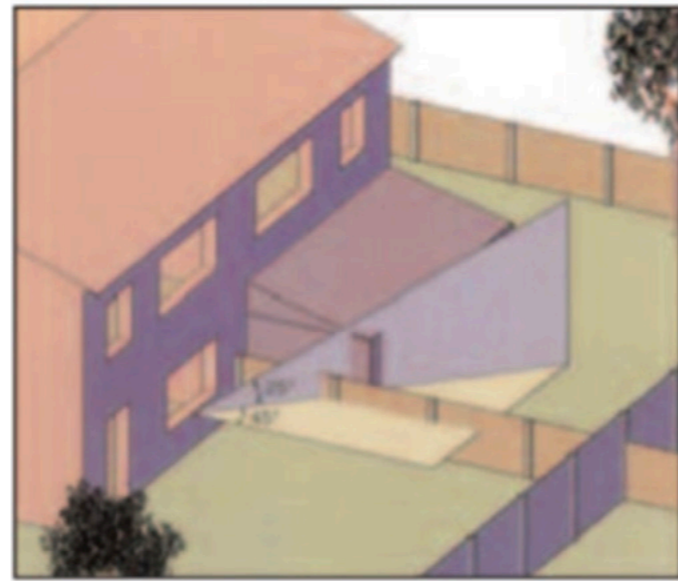
The Oxford City Council adopted Local Plan 2036 stipulates that any residential development has considered the effect of the proposals on neighbouring buildings quality of light.

Appendices 3.7

'While development proposals will be considered in the light of these factors, as a guideline to assess their impact on daylight, sunlight and outlook, the City Council will use the guidelines illustrated below. In normal circumstances, no development should intrude over a line drawn at an angle of 45° in the horizontal plane from the midpoint of the nearest window of a habitable room and rising at an angle of 25° in the vertical plane from the cill'

These proposals have been assessed against Example 2 in the Local Plan, and can conclude that this proposal will not have a detrimental affect to the neighbouring property. This is illustrated in the diagram below. To the right is a excerpt of the example diagram.

The rear windows of 78 Campbell Rd, which are adjacent to the extension, do not require assessment as it is not to a habitable room (bathroom).



SUSTAINABILITY

A key element of the Applicant's brief was the deep retrofit to existing house to Passivhaus EnerPHit in addition to the ecological rear extension.

Passivhaus energy modelling (PHPP) has been used to calculate the current energy demand and future performance. This analysis was used to inform the package of measures to reduce the energy demand of the home.

The existing carbon emissions of the house is 7.1 Tonnes CO₂/year. With the package of measures proposed as part of the proposals, which includes solar PV, an air source heat pump and MVHR, has brought the carbon emissions to -0.08 Tonnes CO₂/year and an energy demand reduction of 90%. This aligns with the Local Plan which states that:

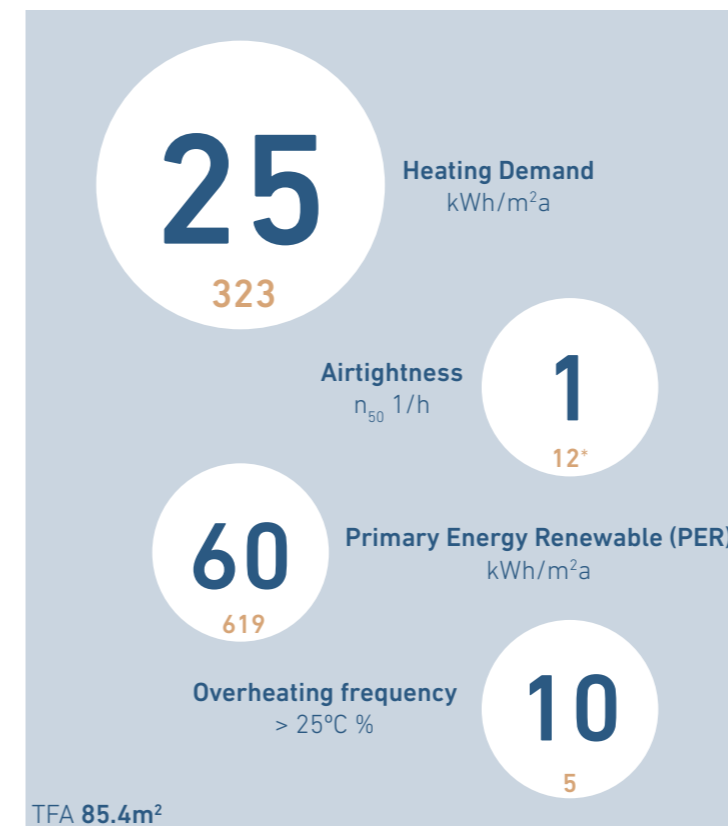
"New development is expected to incorporate sustainable design and construction principles of the highest environmental standards in order to reduce carbon emissions.

The proposals also include a replacement of the concrete front drive, with a permeable paving system which support the reduction of local flooding

CONCLUSION

In conclusion, the proposed design for the rear extension and energy retrofit of the domestic property adheres meticulously to Oxford City Council's regulations on overlooking, daylight, and sunlight. Furthermore, the integration of sustainability measures stands as a testament to the commitment to reduce the building's carbon emissions.

The incorporation of ecological materials not only promotes environmental responsibility but also enhances the overall ecological footprint of the property. This proposal embodies a harmonious blend of innovative design, environmental consciousness, and compliance with regulatory guidelines, offering a sustainable and forward-thinking upgrade to the existing property.



Above
EnerPHit energy targets. Existing figures are below in brown for comparison.