Backland development at Lamsley House. High Town Road

Backland development at 1 Kings Grove

Modern design and efficient use of space - The Old Workshop, Lower Boyndon Rd

Proposed dwelling

Backland development including change of use at Valley Walk - on the land to the rear of 129-131 Grenfell Road.

Map of local precedents

Introduction to precedents on pages 22-25:

The following pages list some of the local planning precedents that have received approval and are within 220 meters of the proposed dwelling. The comparisons in this section illustrate the similarities of the proposed dwelling with already permitted schemes which use backland development to create low impact housing and make efficient use of space.

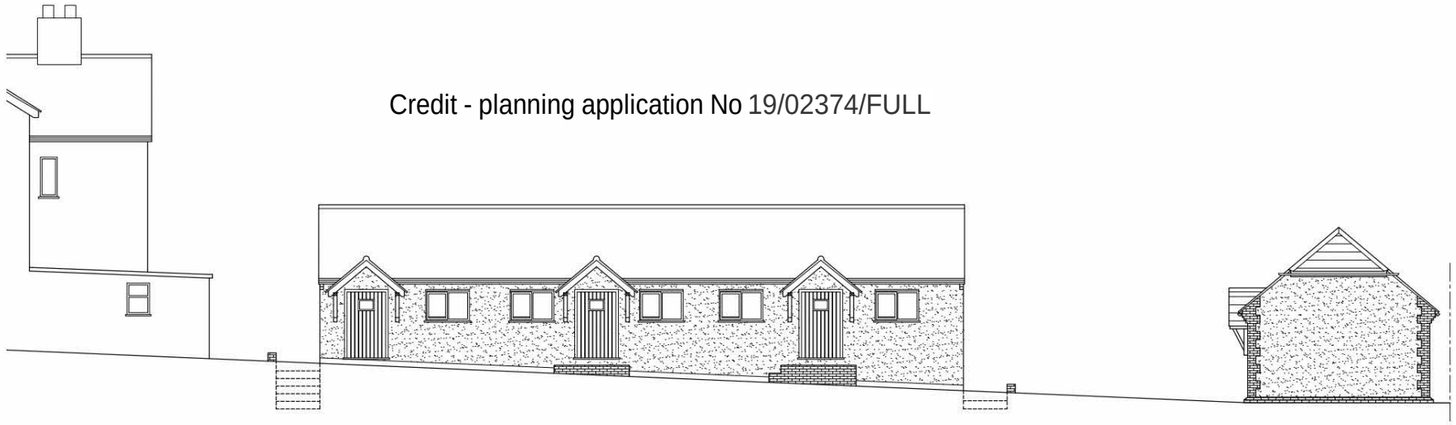
The schemes at Valley Walk (27 meters from the proposed dwelling), 1, 1a & 1b Kings Grove (29 meters from the proposed dwelling) and Lamsley House (120 meters from the proposed dwelling) all set a clear precedent for residential backland development in the neighbourhood.

The main difference between the proposed dwelling at No.7 and the buildings at Valley Walk and Lamsley House is that the former offers amenity space that is above the guideline amount in the RBWM Borough Wide Design Guide document, whereas the two latter offer no amenity space.

A visual comparison of the provision of parking space shows that the proposed dwelling at No.7 offers off street parking, whereas the schemes at 1a and 1b Kings Grove and Valley Walk offer no off street parking.

Another difference concerns street scene impact: Valley Walk, 1a and 1b Kings Grove and Lamsley House are all visible from the street and have a clear impact on the character of the local area whereas the proposed scheme at No.7 has no impact on the local area and is not visible from any of the surrounding streets.

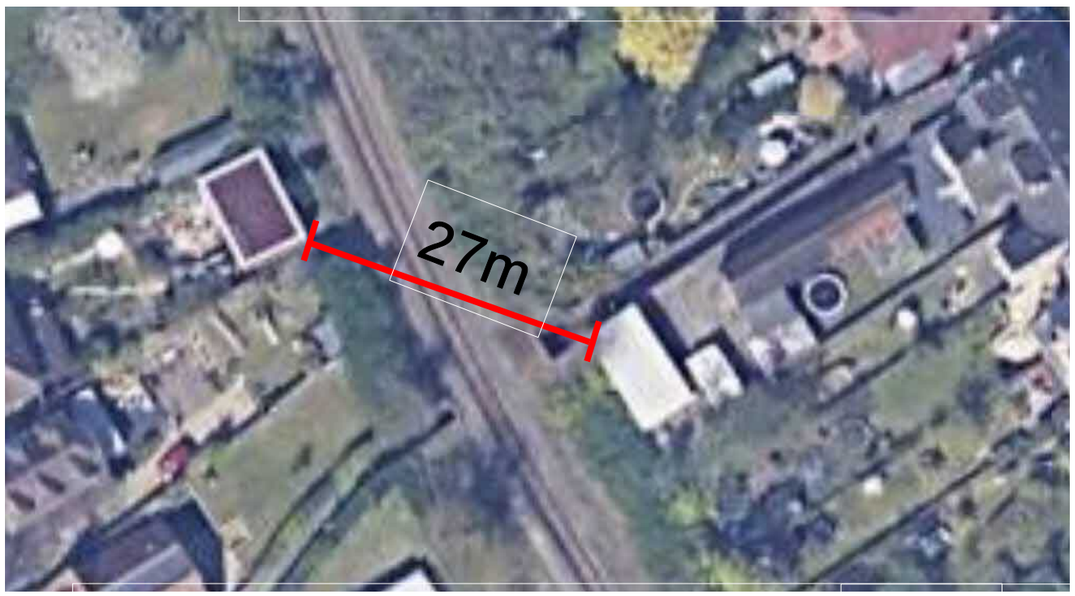
The scheme at lower Boyndon Road sets a clear precedent for the acceptance of a more modern, flat-roof style of architecture and the use of space saving design to make efficient use of space while not impeding on neighbours.



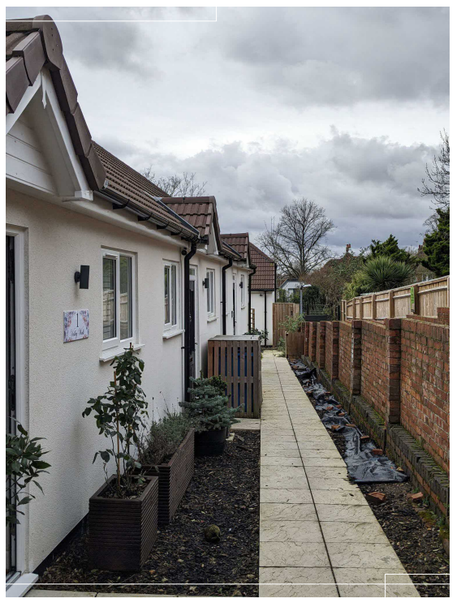
Credit - planning application No 19/02374/FULL

North West elevation

North West elevation. Photograph taken from Valley Walk. Green outlines the original host house, pink outlines the additional dwellings.



Satellite image showing proximity to the proposed dwelling.



Entrance to valley walk

On the 22nd August 2019, permission was sought to convert and extend an existing, light industrial outbuilding on land to the rear of 129-131 Grenfell Road to create 3x, 2-story dwellings.

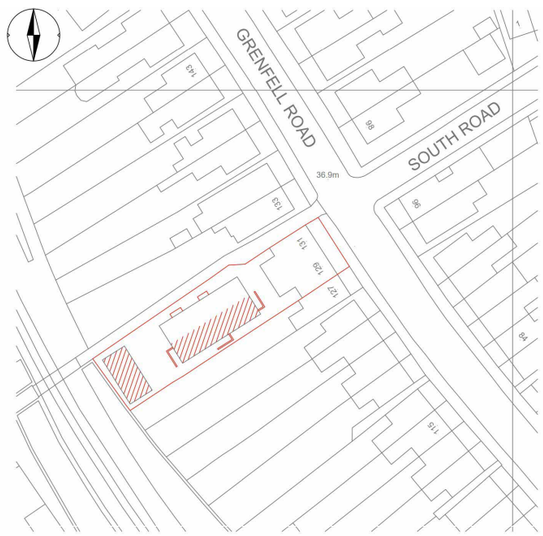
In addition to this conversion, the application also contained plans to construct a new, detached, single story dwelling, also on the land to the rear of 129-131 Grenfell Road.

On the 31st October 2019, the permission was granted for all 4 dwellings to be constructed.

None of these houses have parking or amenity space, instead it was deemed acceptable that these requirements were omitted due to the site's proximity to Grenfell Park, the town centre and Maidenhead train station.

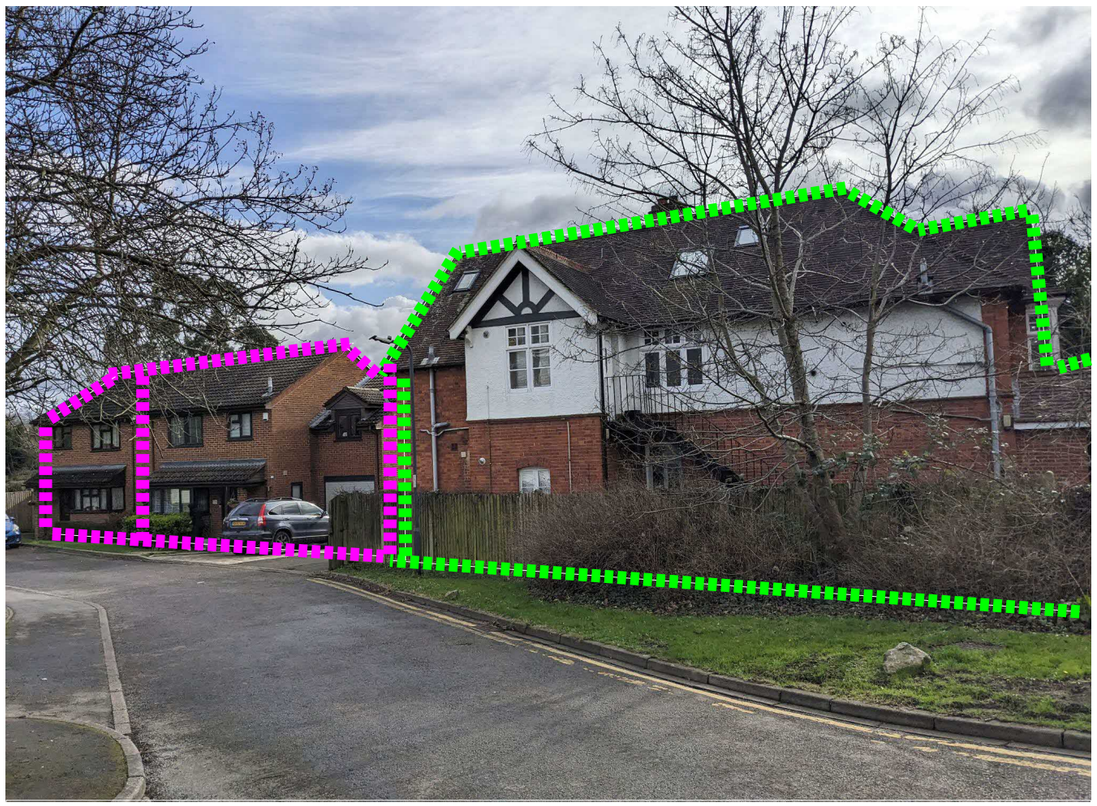
The location of the Valley Walk development sits 27 meters away from the dwelling being proposed in this document.

With its proximity to the railway line, backland development of Nos.129-131 Grenfell Road, the Valley Walk scheme represents the closest, most directly comparable and most contemporary precedent to the change of use proposal at No.7, Kings Grove.



Site location plan

Map showing proximity to the proposed dwelling.



Photograph taken from Kings Grove. Green outlines the original host house, pink outlines the additional dwellings.

Precedents - 1 Kings Grove 87/00799/FULL

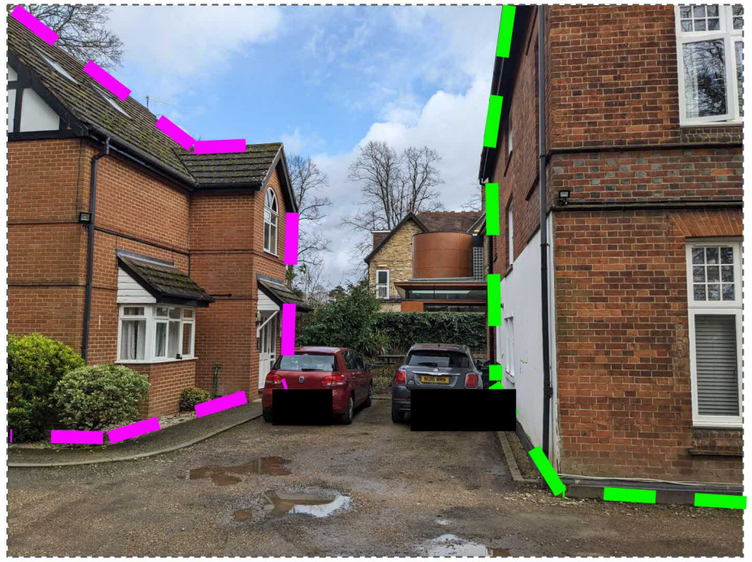
29 meters from the proposed dwelling at No.7 is the development of 2 x detached, 2 storey family houses: 1a & 1b Kings Grove.

These were built in what was the rear garden of 1 Kings Grove and subsequently divided to create 2 independent, separate addresses.

This development, along with Valley Walk and the proposed dwelling all share a similar proximity to the Marlow Branch Line railway.

This is a clear example of backland development in the immediate neighbourhood with the same proximity to the railway. The new dwellings make efficient use of space while providing small but adequate amenity space for 1a and 1b; and no rear amenity space for the house at No.1, instead this area is dedicated to parking and is hard paved.

Precedents - Lamsley House 95/00889/FULL



Green outlines the original host house, pink outlines the additional dwellings.

Map showing proximity to the proposed dwelling.

Yet another example of backland development in the immediate area lies 120 meters from 7 Kings Grove at Lamsley House on High Town Road.

Lamsley House originally stood as a single structure on a plot siding the Marlow Branch line. To this structure was added a small block of flats containing 4 maisonettes to the rear of the original house.

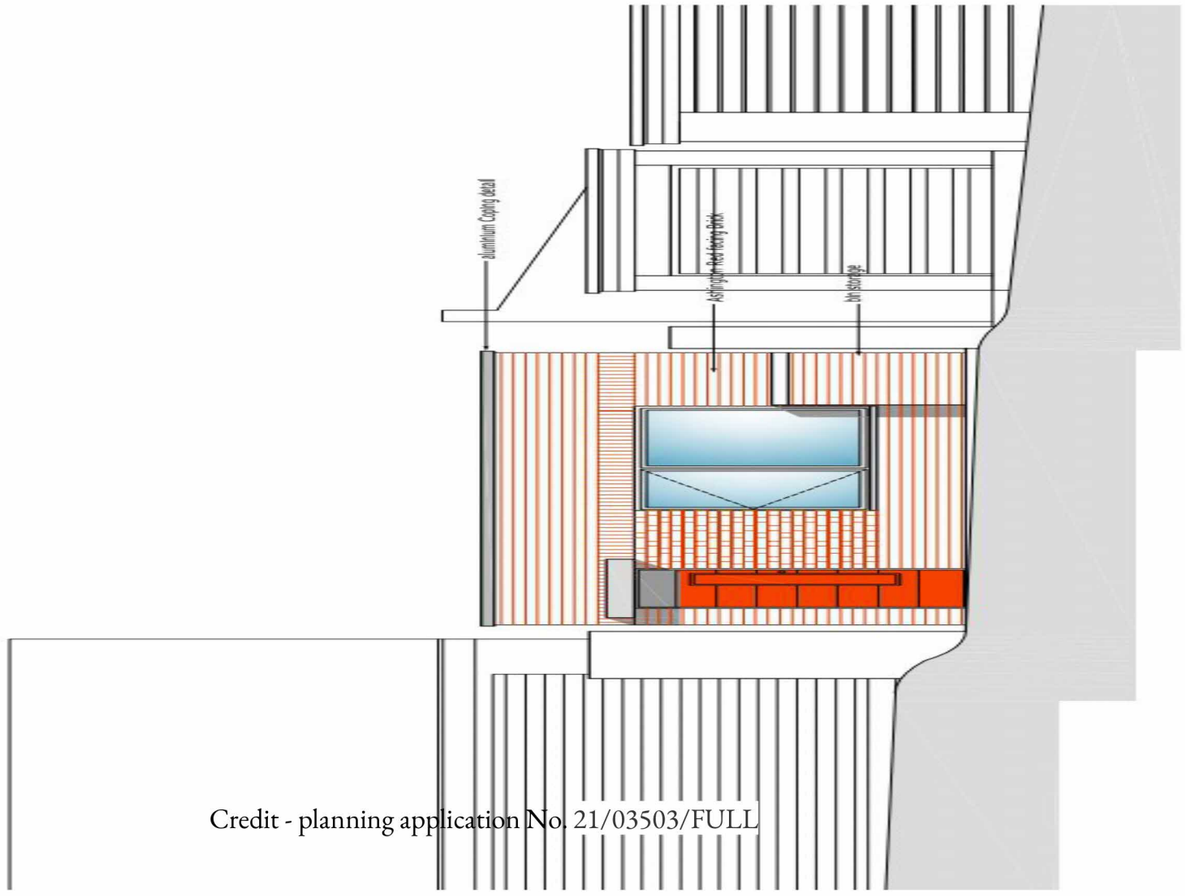
The curtilage of the original house was used to create parking for the additional units and the rear garden was almost entirely given over to the new development.

This is a clear example of backland development in the immediate neighbourhood with the same proximity to the railway as No. 7.

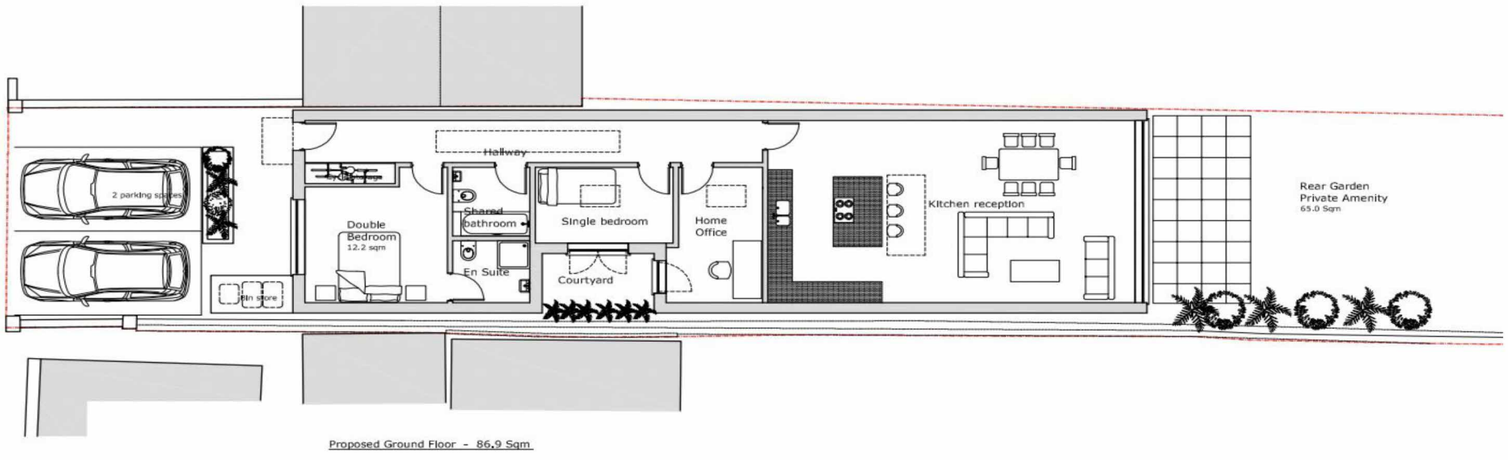
218 meters away from 7 Kings Grove on Lower Boyndon Road, permission was granted for the construction of a single story brick dwelling in a modern style with a flat roof on Lower in February 2022.

The scheme intensifies the existing pattern of housing on the surrounding streets of Laburnham Road and Kings Grove by infilling between garages and running perpendicular along the backs of gardens belonging to Nos. 27, 29 and 31 Laburnham Road.

Similar to the proposed dwelling at No.7 the scheme makes efficient use of space by cleverly containing off street parking, a detached dwelling and sufficient outdoor amenity space for its occupants. It is a modest design that uses a flat roof to keep the external height low and uses windows that are strategically placed so as not to overlook its neighbours.

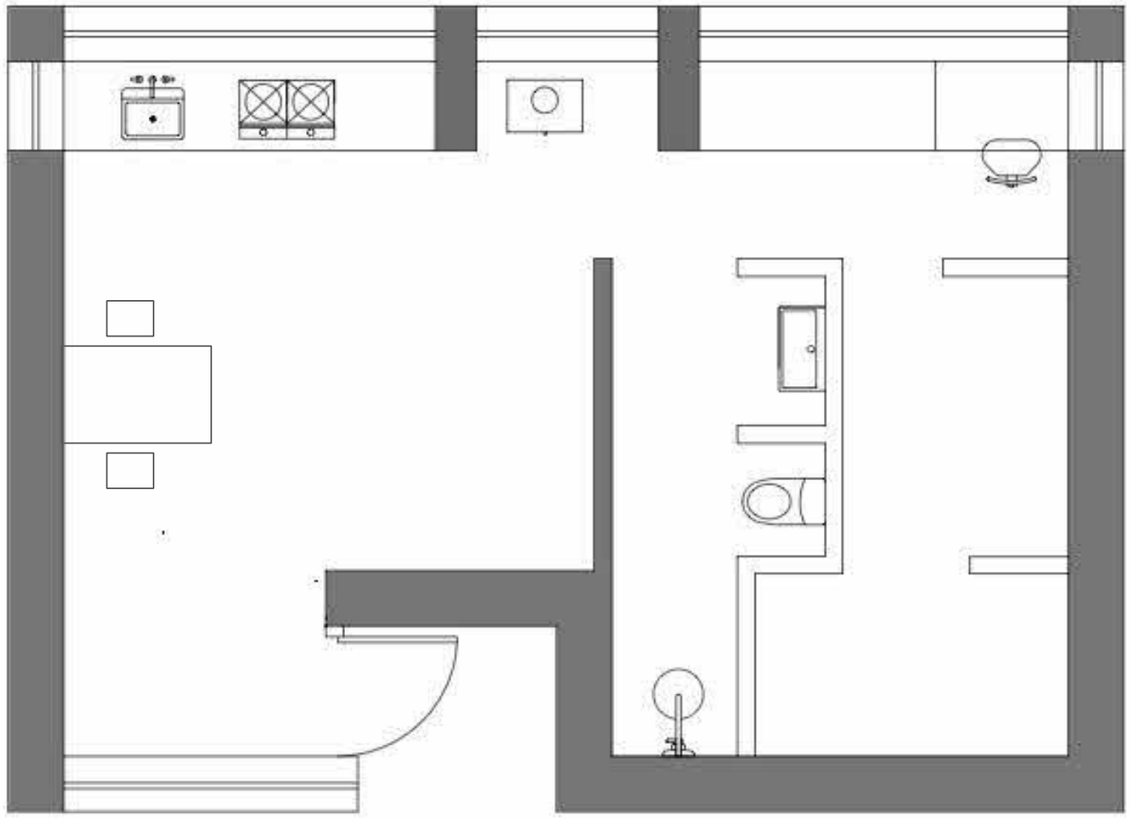


Credit - planning application No. 21/03503/FULL

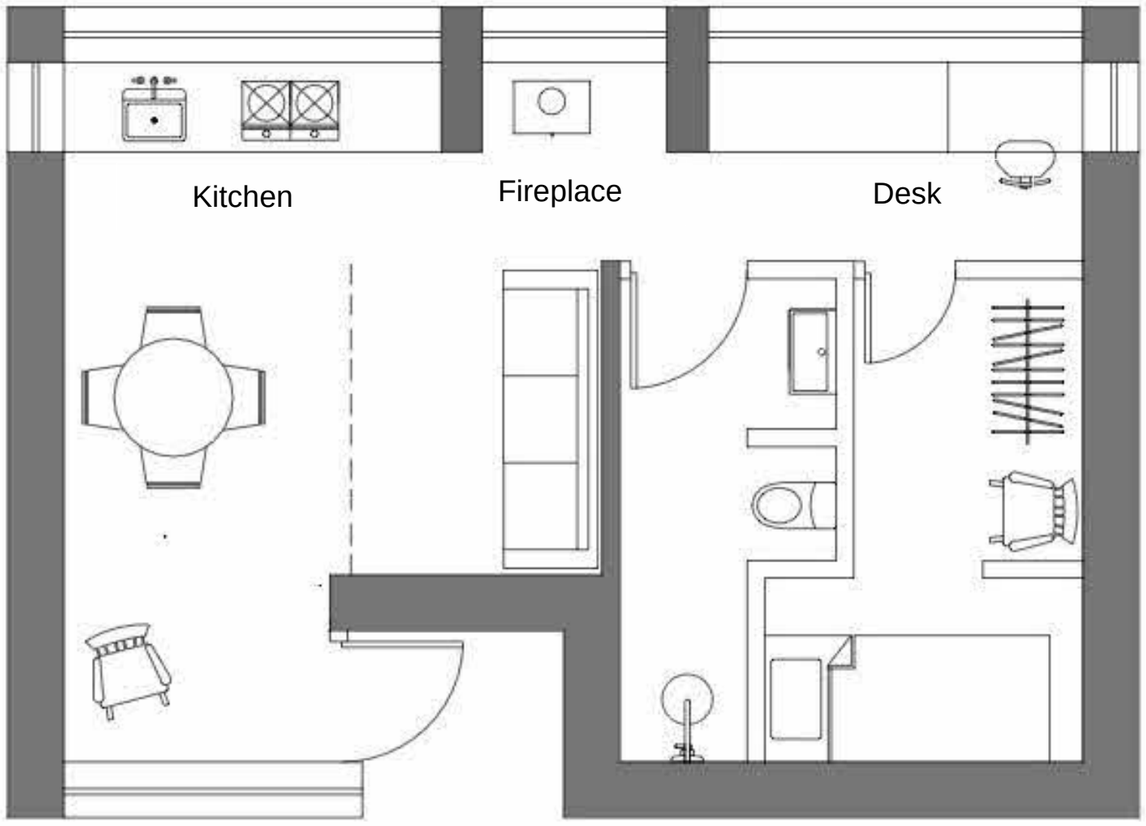


Credit - planning application No. 21/03503/FULL

Photo from Lower Boyndon Rd



Current floor plan



Proposed floor plan

Proposed scheme: Internal Layout

Conformity to national space standards for dwellings:

The “Technical Housing Standards - Nationally Described Space Standard” document published by the Department for Communities and Local Government and available on the UK Government website contains a set of minimum space requirements for dwellings of various sizes. The conformity of the proposed dwelling to these standards are set out below.

- *The document states that for a 1 bedroom, 1 person dwelling with a shower room, the internal floor area can not be smaller than 3.*

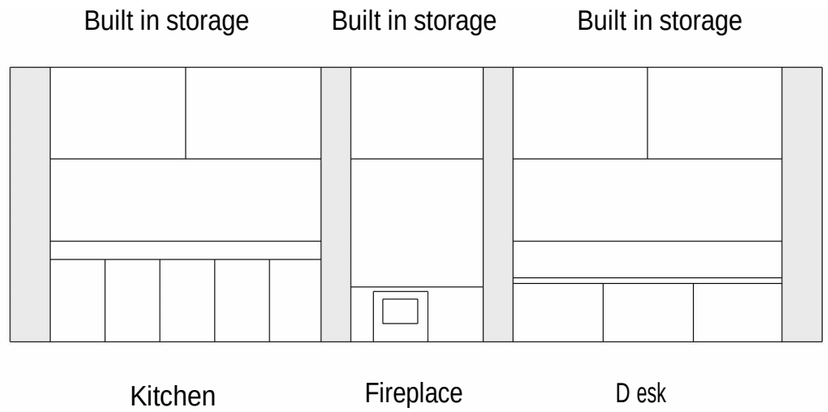
  The internal floor area of the proposed dwelling is 40.77m2

- *The document states that for a 1 bedroom, 1 person dwelling, the minimum amount of built in storage is 1m2.*

  The proposed dwelling contains a total of 5.4m2.

- *The document states that a bedroom area containing a single bed fo person should not be less than 7.5m2 and 2.15m wide*

  The proposed dwelling contains a single bedroom for one person tha 8.29m2 and 4.31m wide

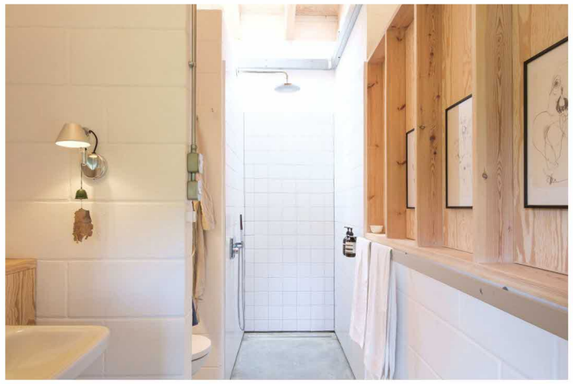


Internal photographs, current

Entrance area

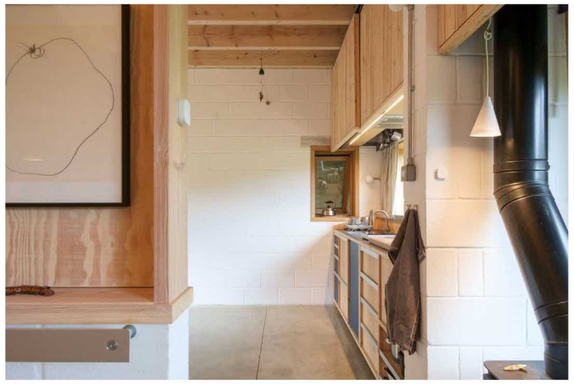
Desk space

Kitchen area / storage above



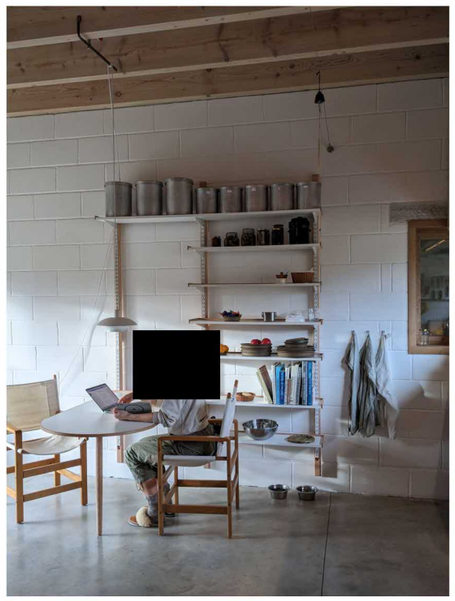
Shower room

Entrance porch



Kitchen area

Shower room



Dining table

Proposed scheme: Internal Layout

The internal layout of the proposed dwelling will consist of 1 bedroom with a separate walk-in wardrobe and storage space; a large wet room style shower with wc and basin; a study space with both seated and standing desks and an open plan kitchen, dining and lounge space; a modern and efficient wood burning stove sits in the centre of the space and can be enjoyed from most areas.

A 3.2m ceiling height throughout gives a light and spacious feeling in what would otherwise be a fairly modest 40.7m2 floor plan. The floor is polished concrete with underfloor heating.

Additional storage is provided in the form of 2x, 3x1x0.6m overhead cupboards above the east facing windows.

Privacy and well being for the occupants were prioritised in the original design. This is evident in the building's primary outlook towards the green and quiet space of the Marlow Branch Line and away from No.7. Although there are only dual carriage trains, passing twice an hour and at slow speeds in and out of nearby Maidenhead station, the utmost care has been taken to shield occupants from disturbance: the building has extra thick, laminated, sound deadening double glazing and a thick rubber mat under the first course of blocks to reduce groundborne vibration.

Thorough ventilation is provided by 2 small windows at either end of the building that were positioned with care as to not impede the privacy of neighbours on either side. A large centre pivot window placed at the centre of the house along with the door on the western elevation provide extra ventilation options for the summer months.

The large central space has been designed around built-in, fold away furniture to enable to the space to be multi-functional. The current user is an artist and enjoys reconfiguring the space during the day time to create a studio in which to work. The possibilities of a large space with a hard floor and high ceilings are almost endless.

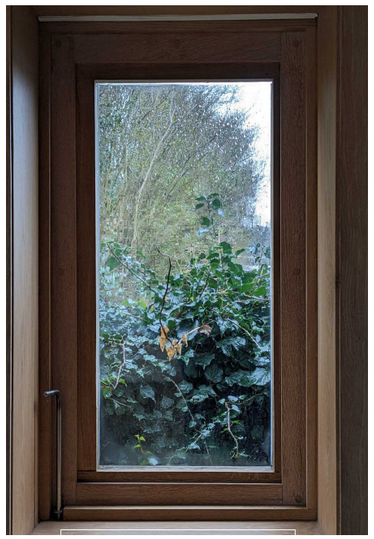
cont...

Facing NW

Facing NE

Facing NE

Facing NE



Facing SW

Facing SE

Proposed scheme: sight lines

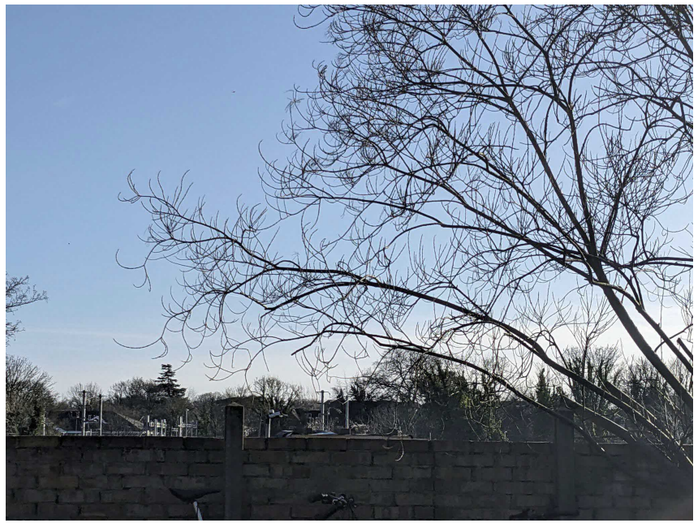
The images opposite seek to illustrate how the windows of the proposed dwelling have been positioned as to minimise overlookir neighbours and maximise aesthetic enjoyment of the green space lining either side of the branch line between Maidenhead and Marlow.

The windows facing NW and SW towards Nos. 5 & 9 Kings Grove have been kept small and function mainly as vents to allow through ventilation of the space.

The majority of the ventilation comes from the square centre window behind the stove facing NE, the front door and the window opening towards the SE.

View from the proposed dwelling towards No. 7

View from No. 7 towards the proposed dwelling



View towards No. 9 from the proposed dwelling

Proposed scheme: Privacy

Privacy for occupants of No. 7 (host house at front of site)
A blackened timber fence has been erected to create a boundary between No.7 and the outbuilding. This has been designed in a way that allows plants to climb, thus creating a soft, green border between the 2 spaces while also increasing biodiversity. Subtle design features like increased opacity at the lower half create a privacy screen for when occupants are in the garden and a more open, less opaque upper half that creates a softer visual barrier and acts as a framework for climbing plants and trees to grow through and onto. The dark colour of both the fence and outbuilding dissolve into the shadows under the plant growth and creates the effect of a blank backdrop which enhances the plants appearance.

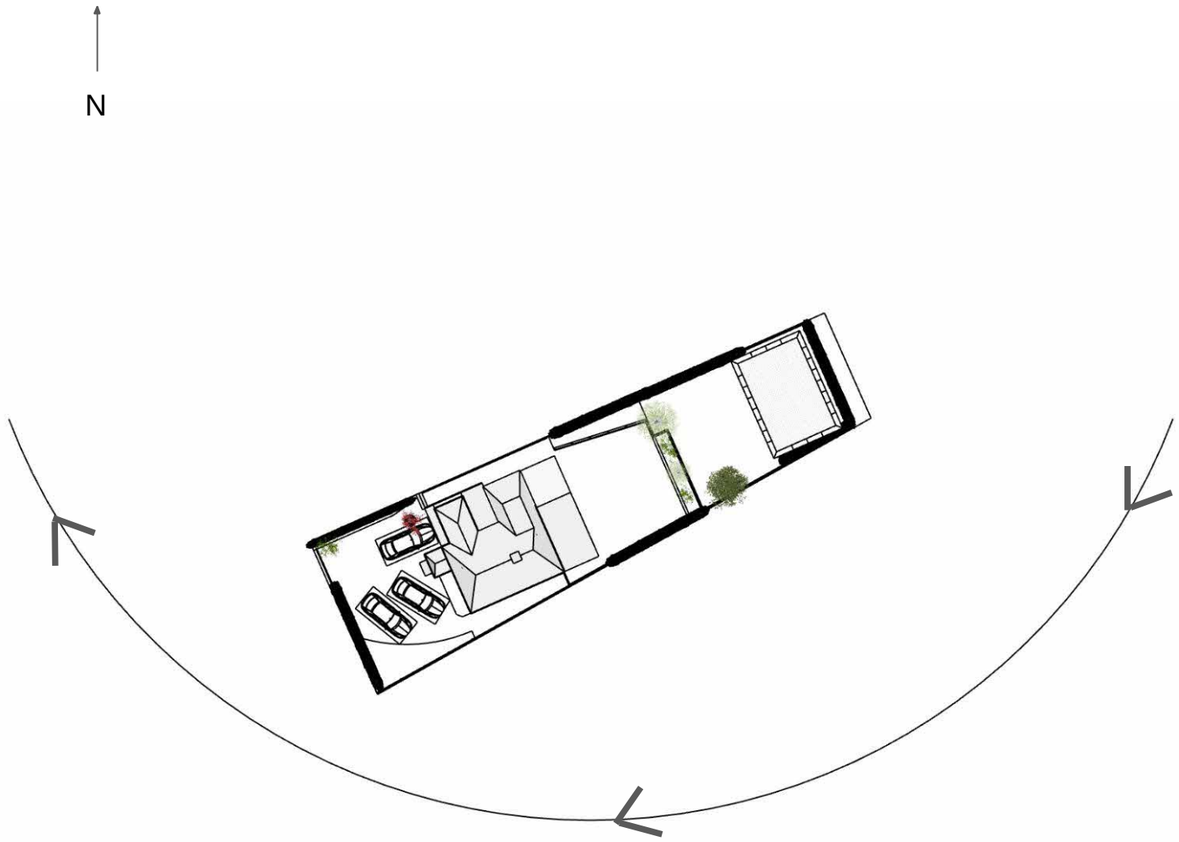
Windows have been strategically placed on the eastern elevation of the outbuilding so as not to overlook or compromise privacy for no.7, 5 or 9, or indeed future occupants of the residence.

A high, pre existing brick wall on the Northern boundary with ivy growth adding an additional 1 meter in height entirely eliminates overlooking in either direction between the outbuilding and the single storey dwelling at No. 5 Kings Grove.

A combination of the carefully selected western aspect of the outbuilding on the front left side of the outbuilding, looking along the western boundary and the high blackened fence / trellis boundary treatment eliminates overlooking and creates privacy between the outbuilding and No. 5.

The majority of the views and light for the outbuilding are facing east, over the green Marlow Branch Line corridor, with a 25m gap between the outbuilding and the western plot boundaries of the properties along Grenfell Rd. This aspect captures morning light whilst also reducing solar gain, creating a cooler, more comfortable indoor climate during the hotter months.

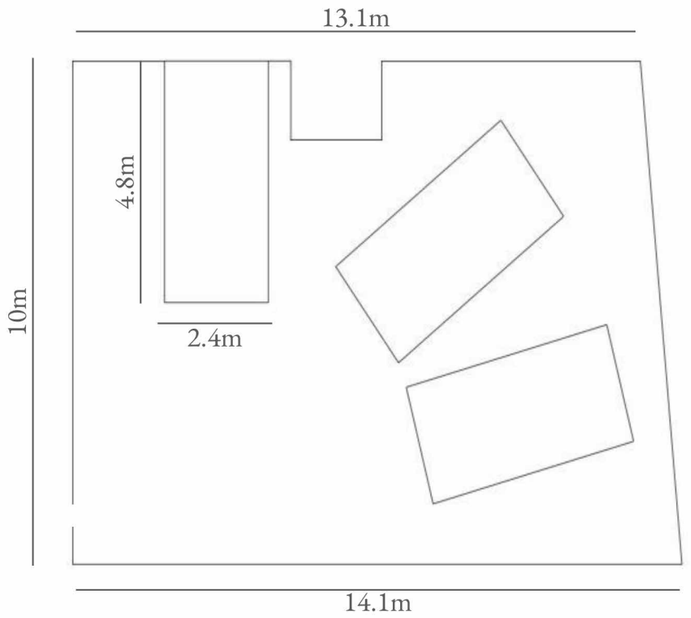
Proposed scheme: Land, boundary treatment: Sunlight



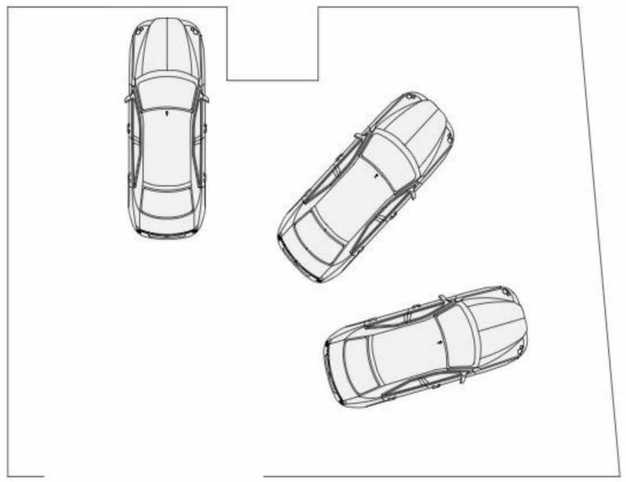
Engineering bricks of a dark blue/grey colour were chosen for the construction of the outbuilding for their ability to blend with creating a sense of depth and reducing the building's visual impact.

The boundary treatment between no.7 and the outbuilding compris soft blending of 3 elements; 1) A black handmade, bespoke oper structure that relates to the design of the outbuilding and acts a: for plant growth with strategically placed screens lower down for privacy between the two buildings. 2) Trees, shrubs and climbing plants soften the fence structure and the outbuilding behind a create biodiversity and pleasant, private outdoor spaces for both buildings. 3) Lastly, a step up in topography of 850mm between the two plots creates a additional level of distinction and separation.

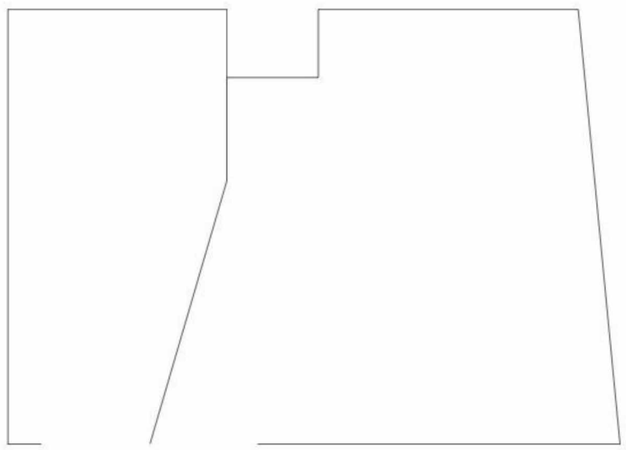
Sunlight and daylight: The buildings on 7 Kings Grove sit on one of a series of terraced plots on the side of Castle Hill and enjoy sunlight along their southern boundaries for most of the day. At no point during the day or year does either building overshadow the other.



With 2.4 x 4.8m parking space outlined



With 3 cars illustrated



Boundary split and shared access illustrated

Proposed scheme: Parking

- The brick paved driveway of No.7 measures 10x14m And is large enough for 3 cars and bin storage for No.7 and the proposed dwelling. It is surrounded by flower beds on all sides, all enclosed from the street scene by a tall yew hedge creating a barrier to Kings Grove. access is via a double wooden gate.

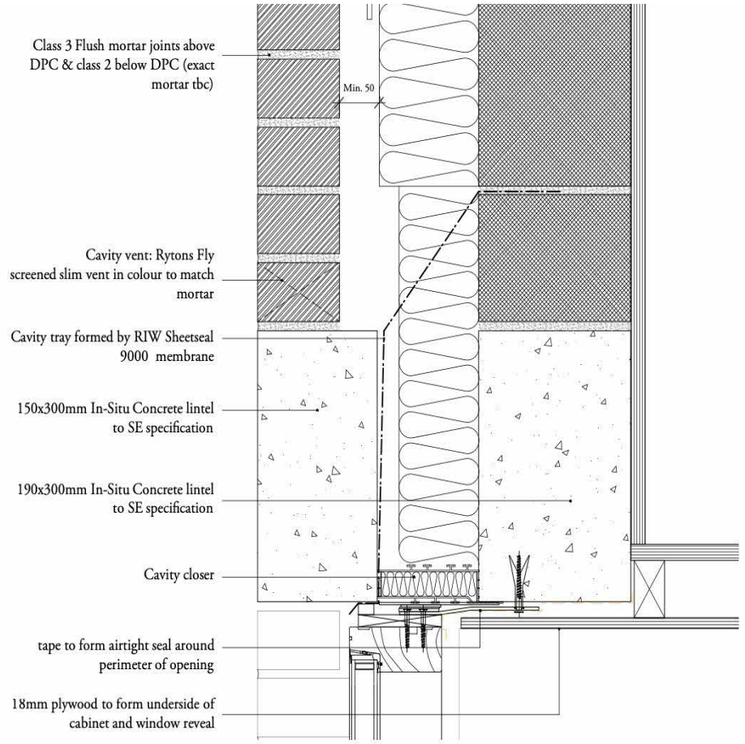
  Sharing this parking area leaves the occupants of No.7 with 2 spaces and 1 dedicated parking space for the proposed dwelling adjacent to the access walkway.

  This parking arrangement for No.7 and the proposed dwelling exceed the requirements set out in the RBWM Parking Strategy document which dictates that dwellings with 1 bedroom (the proposed dwelling) should have a minimum of 0.5 parking spaces and dwellings with 4 bedrooms (No.7) have a minimum of 2 parking spaces.

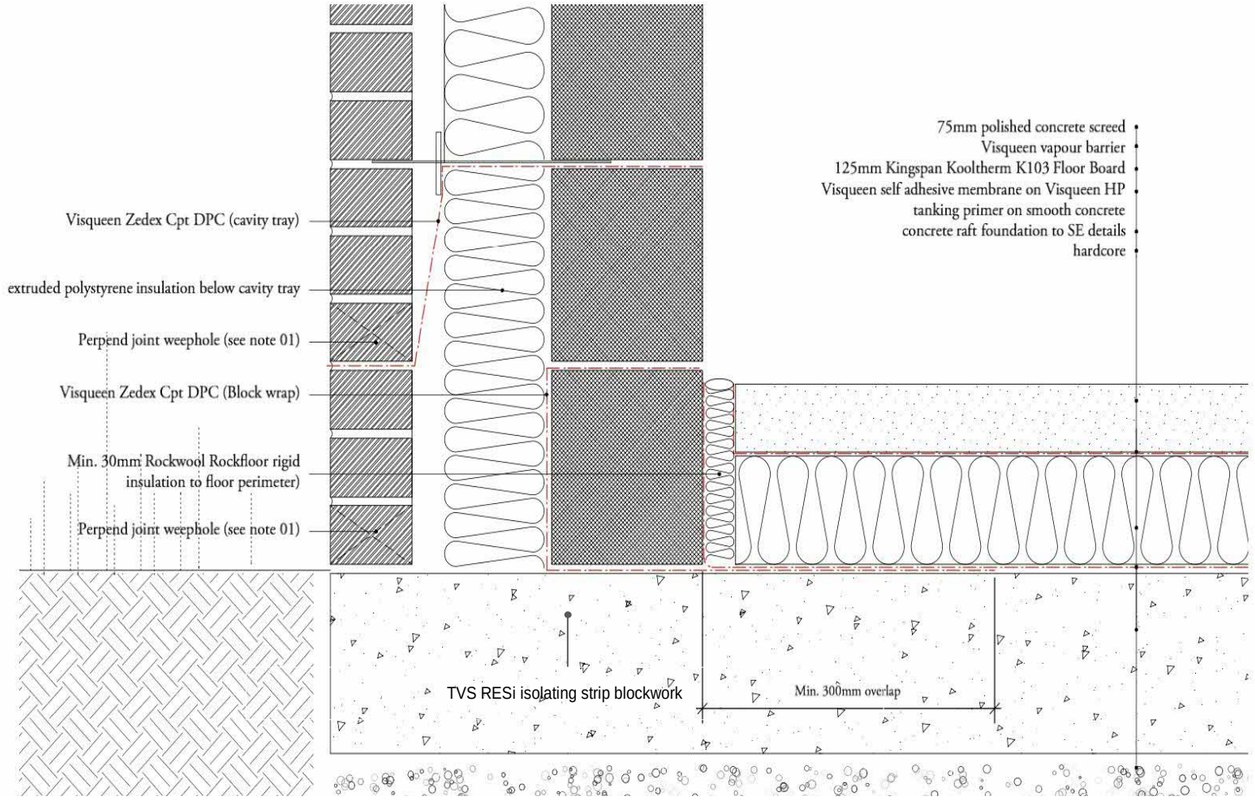
  All 3 parking spaces enjoy good visibility when maneuvering onto a straight section of Kings Grove and a stepped down curb design for easy car, bicycle and disabled access.

  There is currently a dedicated area along the southern side walkway of No. 7 for 2 wheelie bins and 1 food waste bin.

  Provision for the secure storage of cycles has been made in the garden of the proposed dwelling which is accessible via a 800mm wide gate and a step free, wheelchair friendly ramp.



Hannigan Cooke Architects construction drawings: Cavity wall and window reveal buildup.



Hannigan Cooke Architects construction drawings: Floor build up inc. groundborne vibration dampening

Proposed scheme: Sound insulation

The proposed dwelling is remarkably quiet inside due to a number of factors:

- Distance from Kings Grove: the proposed dwelling is set back from the main road by 30m, with No. 7 creating an additional acoustic barrier.

- Distance between neighbouring houses: there is a generous gap of 20m between the closest house (No. 7) and an even greater distance of 30m to No. 9. Compare this with the distance between No. 7 and No 9 (11m).

- Marlow Branch Line: two trains pass per hour on a single track line between Maidenhead and Bourne End. Due to the proximity of Maidenhead Station from the proposed dwelling (450m) trains are not at full speed as they have either just departed Maidenhead or have slowed down to arrive. The trains are short in length - only 2 carriages. This infrequent passing of small trains at low speed does not in itself represent an acoustic nuisance in the proposed dwelling.

- Design and construction: in addition to favourable environmental factors listed above, extra care has been taken to further mitigate outside noise and promote a healthy interior acoustic environment which is above and beyond the norm. This was achieved by constructing walls that are 460mm thick using engineering bricks which have a greater density than regular bricks. A 125mm thick layer of rigid thermal insulation was installed within the cavity- 125mm to further absorb sound. The close-textured concrete blocks made by Stowell that were used are 140mm thick, i.e. 40% thicker than standard blocks. They are also twice the density of standard breeze blocks and offer a 46db noise reduction.

  TVS RESI acoustic Isolating strip was used at the junction of wall and slab to further reduce vibration and acoustic transfer.

- Glazing was manufactured by Stadip and is from their Silent range. Two extra thick layers of laminated glass with an argon filled gap of 30mm produce panes that offer a high level of acoustic insulation.

TVS RESi Foam

TECHNICAL INFORMATION

TVS ACOUSTICS
NOISE & VIBRATION CONTROL

TVS RESi Foam is a lightweight flexible resilient product it is chemically inert with a cross-linked closed-cell structure that gives remarkable mechanical and physical properties compared with other cellular plastics 100% recycled & recyclable material.

Physical Information

Thickness: 10mm
(other thicknesses available on request)
Roll Length: 50mtr
Roll Width: 1.5mtr

Tensile Strength (BS 4443): 180 kPa

Compressive Strength (ASTM 1056)
at 25%: 42 kPa
at 50%: 110 kPa

Compression Set (50% Compression/70 hours/23°C)
after 24 hours recovery: 36%
after 72 hours recovery: 20%

Thermal Conductivity: 0.036 W/mK

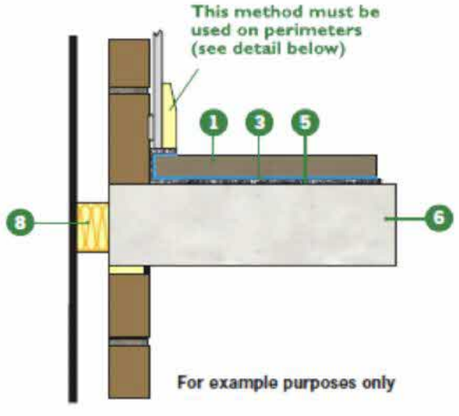
Water Absorption (after 6 weeks)
Volume change: + 3%

Benefits

- Complies with RD performance targets.
- Suitable for pre-cast and solid concrete floors
- Low water absorption eliminates the need for a vapour control layer
- Minimal change to traditional floor and ceiling construction
- Accepted by NHBC for ADE compliance.

Data

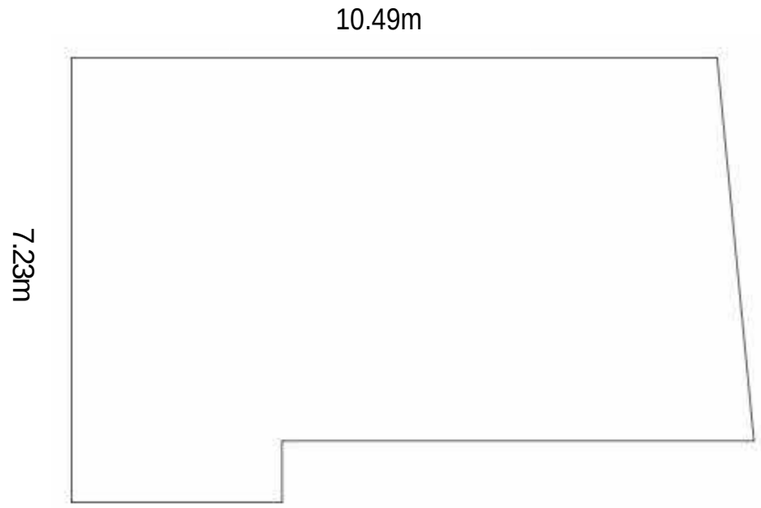
19dB Improvement



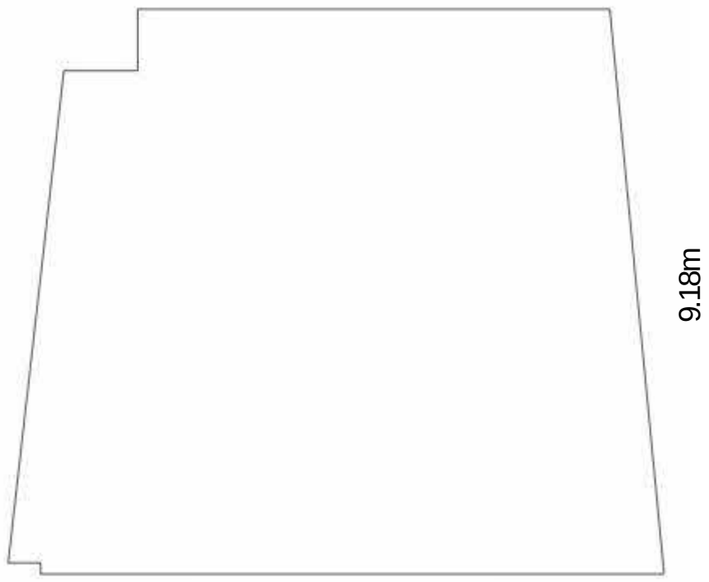
1 65mm sand cement screed or minimum 40mm proprietary screed
3 Optional waterproof membrane
5 TVS RESi Foam
6 Concrete Slab/Precast floor plank min 300kg/m^3
8 Acoustic cavity closure
9 TVS RESi Tape

Proposed scheme: Sound insulation

- Technical specification of the groundborne vibration dampening product used under the first course of blocks to insulate the occupants of the proposed dwelling from vibrations of the passing train.



Garden plan for the proposed dwelling.



Garden plan for No. 7..

Proposed scheme: Gardens

- Description of the garden space for the proposed dwelling:

According to the Bough Wide Design Guide document, the minimum outdoor amenity space required for a 1 bedroom dwelling with a predominantly south facing garden is 40 square meters. The rear garden space dedicated to The proposed dwelling measures 6.43x10.23m, which totals 65.77 square meters.

The garden benefits from a lot of direct sunlight due to the plot being predominantly south facing. The position of the garden on the side of Castle Hill means that the south facing aspect of the garden is raised up from the neighboring plots and therefore unobstructed by any neighboring buildings which might otherwise obstruct sunlight.

Boundary treatments are a visually pleasing mix of a 1.4m high brick wall and mature willow bush on the southern boundary with No.9 Kings Grove. On the Northern boundary with No.6 there is a higher brick wall (2 meters) partially covered in an evergreen ivy. And on the western boundary with No.7 there is a pleasant mix of open trellis and semi opaque screens with plants growing into and around it. Mature Cercis Canadensis, Prunus and Beula Nigra trees add further privacy between the existing and proposed dwellings. The surface of the garden is grass with path of compacted gravel functioning to link the proposed dwelling with the side access gate.

- Description of garden space for the existing dwelling:

According to the Bough Wide Design Guide document, the minimum outdoor amenity space required for a 4 bedroom dwelling with a predominantly south facing garden is 70 square meters. The rear garden space dedicated to the existing dwelling at No.7 measures 9.14 x 9.57m plus 1.2 x 7.42m ,which totals 93.67 square meters.

As with the proposed dwelling, the amenity space for the existing dwelling enjoys all day direct sun and a larger area that is in keeping with the dwelling's larger size. This garden is much more established than that for the proposed dwelling and well planted with a range of beautiful plants that reflect the occupant's interest in gardening.

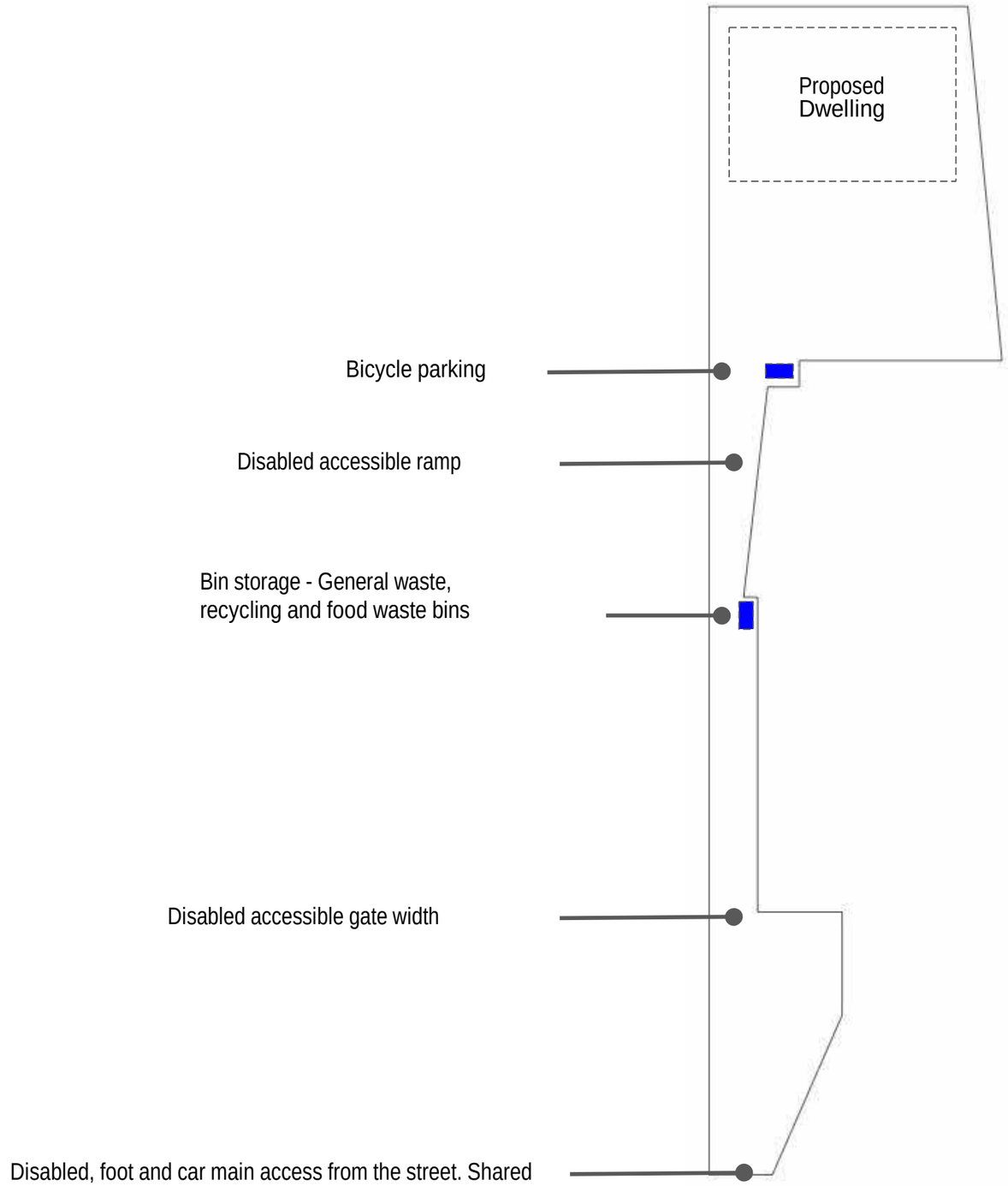
No. 7 garden amenity space.

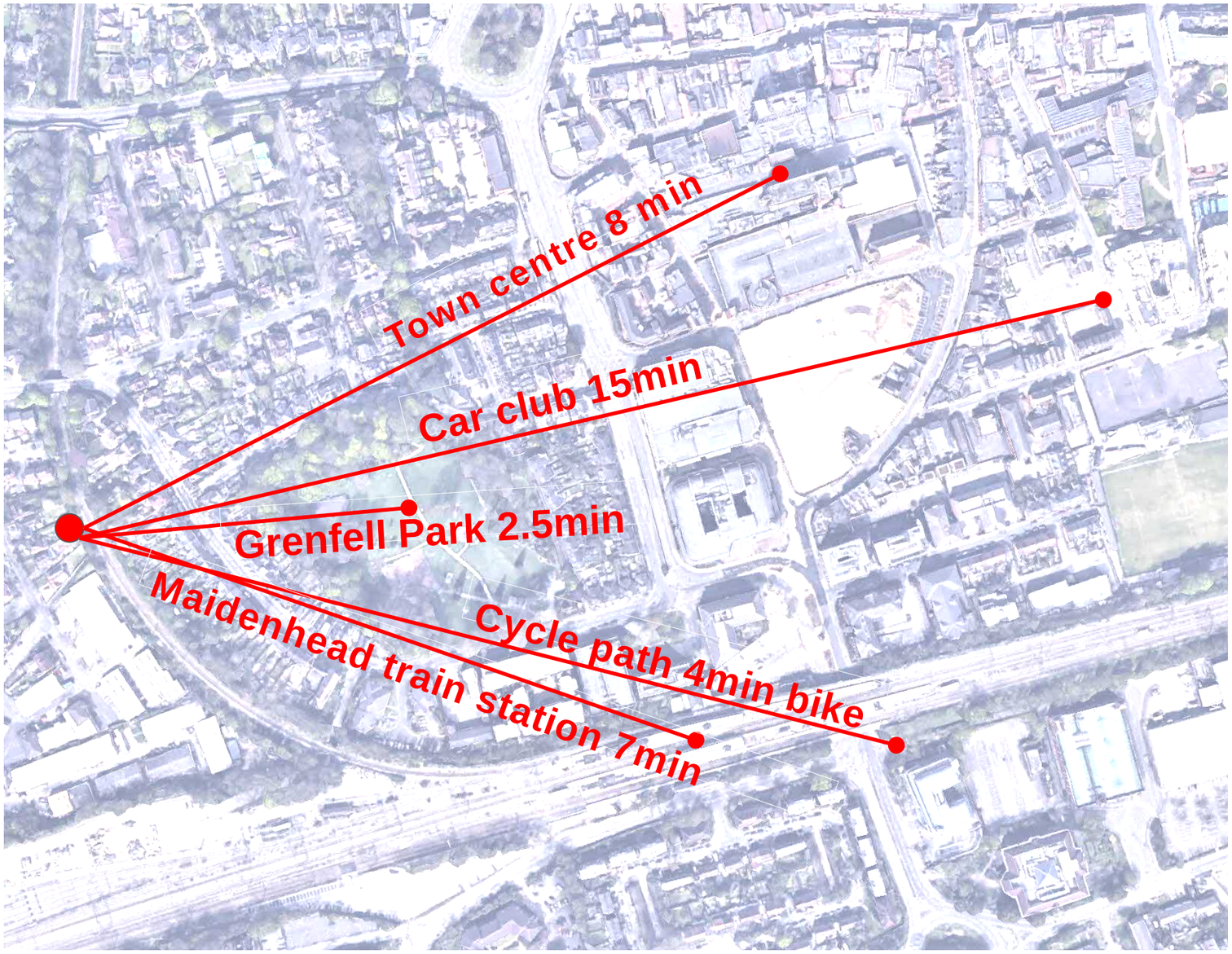
Proposed dwelling garden amenity space.

No. 7 garden amenity space.

Proposed scheme: Addressing requirements from the RBWM Boro
Wide Design Guide

The separated site plan for the proposed dwelling from the site for N 7 seeks to illustrate how the scheme meets the requirements stipulated in the RBWM Borough Wide Design Guide on issues such as disabled access, bicycle parking, bin storage, vehicle and pedestrian access.





Sustainability: Sustainable transport

Due to the location of the site, the proposed development benefits fr multiple sustainable transport options:

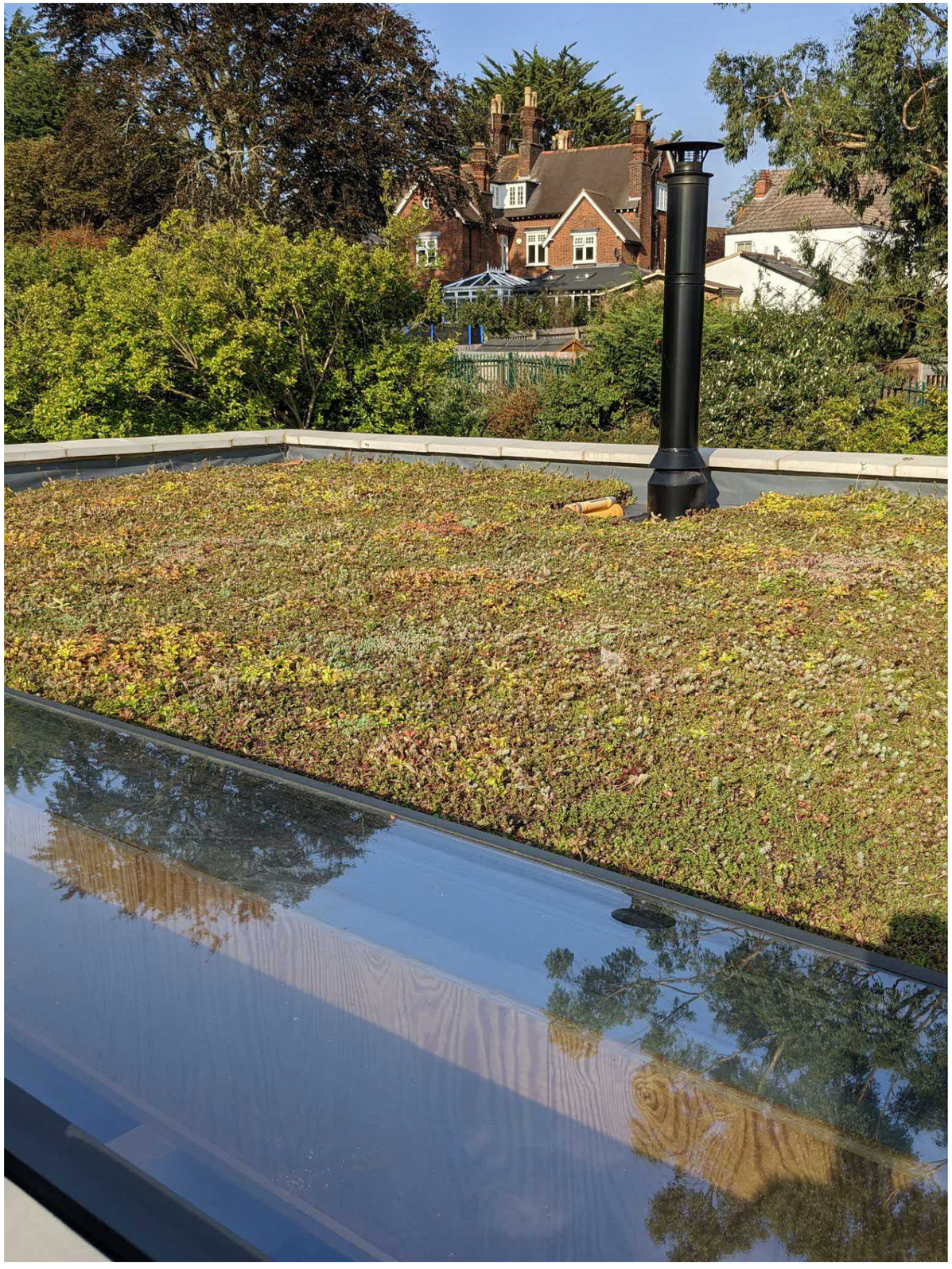
Walking: Maidenhead town centre and Maidenhead train station are each 8 minutes' walk away. The green open space of Grenfell Park is a 3 minutes walk.

Train: Easy access to Maidenhead train station with links to Reading, Marlow and London.

Cycling: Access to Sustrans Route 4 cycle route linking Bath to London can be joined at the junction of Braywick Road and Shoppenhangers Road - 4 minutes by bicycle from the proposed dwelling.

Bicycle parking: Located on the paved driveway that services the proposed dwelling is secure parking space for 2 bicycles with 1.5m wide, step free access to the street.

Car Club: Enterprise Car Club have a location on St Ives Rd, a 15 minute walk, where a car can be rented by the hour and returned to the same location.



Sustainability: Green and blue infrastructure

- Green roof:

  The proposed dwelling has been carefully designed and integrated to minimise its ecological impact on the site. It features a green roof with a thick layer of sedum: a blend of wild flowers and succulents planted into a free draining soil substrate.

  This has 3 benefits: it offers food and shelter to insects and in return other wildlife; it slows down the drainage of rainwater to reduce the chance of flash flooding during storms and prolonged periods of rainfall; and it provides increased thermal insulation in the winter and protection from summer sun.

  As the green roof covers the entire footprint of the structure, excluding the perimeter walls, it is effective in minimising the loss of green infrastructure.

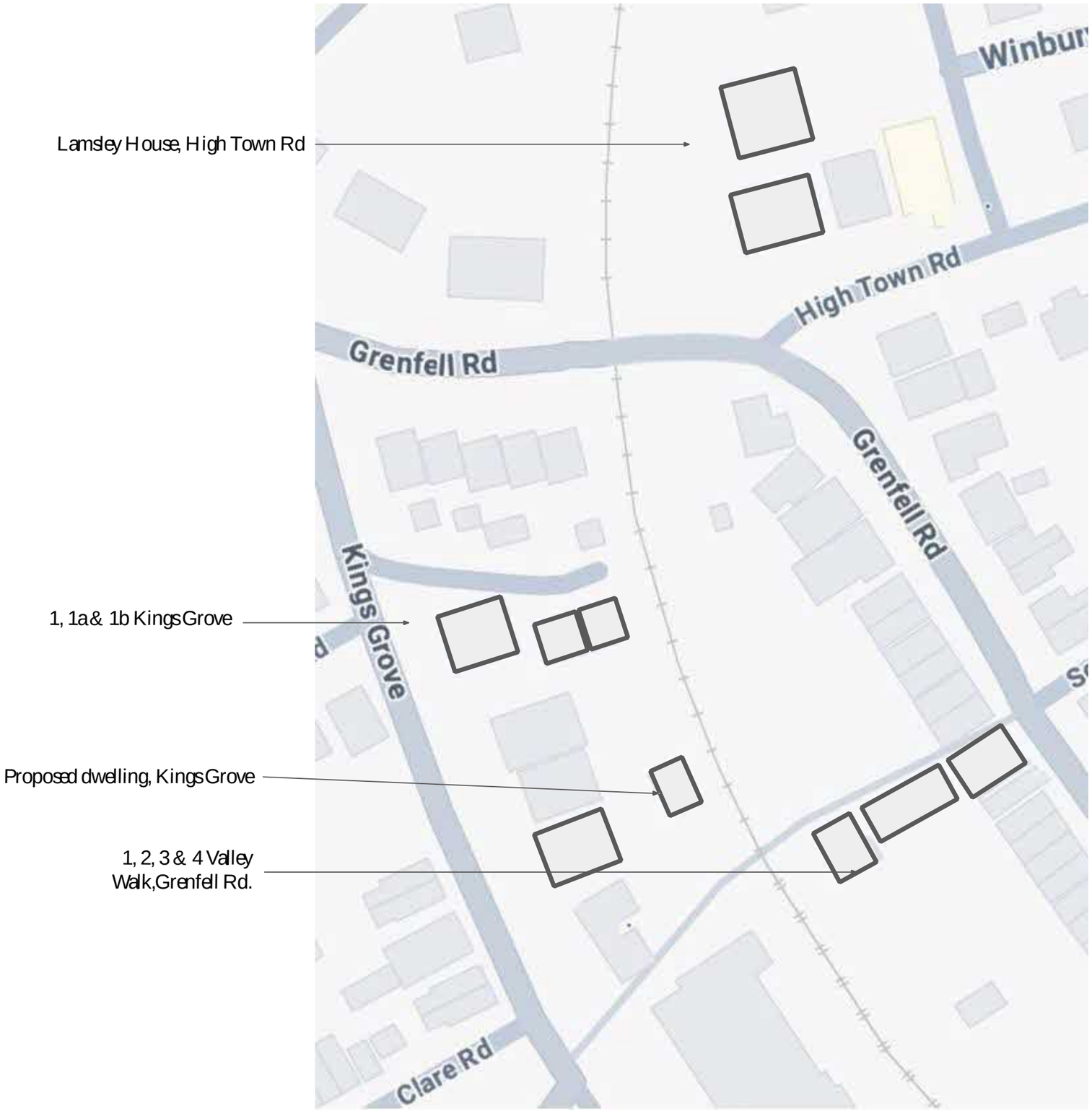
- Retaining of trees:

  As many of the original trees on the site that could be retained were saved. An original pear tree, possibly dating back to when the site was a green field near maidenhead town, was retained and incorporated into the design of the structure.

  Additional trees have also been planted: a river birch tree (Betual Nigra) and a Redbud tree (Cercis Canadensis) which are now filling the space where a 3 meter Magnolia once stood.

- Waterbutt and soakaway:

  Provision for the reuse of rainwater and the slowing down of storm runoff has been accounted for by the installation of a large water butt attached to the roof gutter. In addition to this a 1.5 m2 soakaway has been installed in the garden that takes any access rainwater overflowing from the waterbutt and channels it underground, to a central point in the garden, away from both structures.



The local block plan opposite shows how the proposed dwelling fits in with a pre-existing pattern of outbuildings on land to the rear of housing along Kings Grove and Grenfell Road.

A comparison of the proposed dwelling to the developments of 1a & 1b Kings Grove, Valley Walk and Lamsley House shows that the distance from the host house is greater for the proposed dwelling at No., and the percentage of garden space occupied by the proposed dwelling at No.7 is less than those of the other schemes.

Unlike the 3 schemes mentioned above, the proposed dwelling at No.7 cannot be seen from any of the surrounding streets and therefore has zero street impact and does not harm the character of the surrounding area in any way.

The pattern of spacing of houses on Kings Grove shows that the proposed dwelling offers greater separation and does not impede or impose on its neighbours in a way that is out of keeping with the pattern of development that has already been established.

Potential privacy issues with the host house have been overcome with a combination of careful design and boundary treatment. The main windows in the proposed dwelling face away from its neighbours and towards the green space of the railway, catching the morning light from the east. A combination of fence and trellis has been erected to visually separate the two structures and this is softened by climbing vegetation and trees, illustrated on pages 20 and 36.

View from Kings Grove

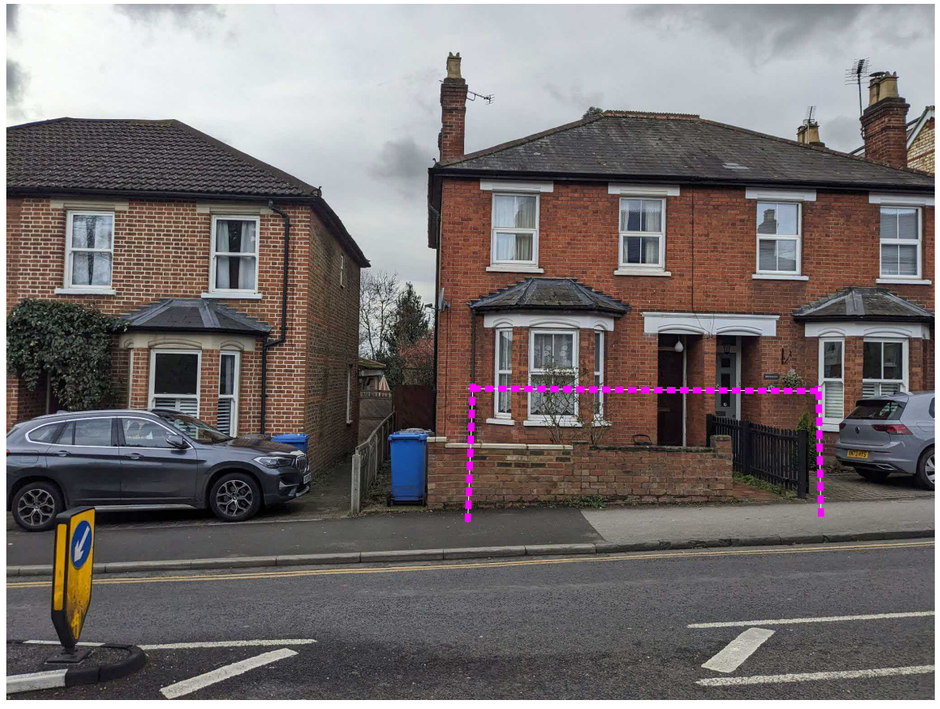
Proposed scheme: Street scene impact

The images on this page shows that the proposed dwelling is hidden from the surrounding streets, thereby illustrating its lack of impact on the street scene.

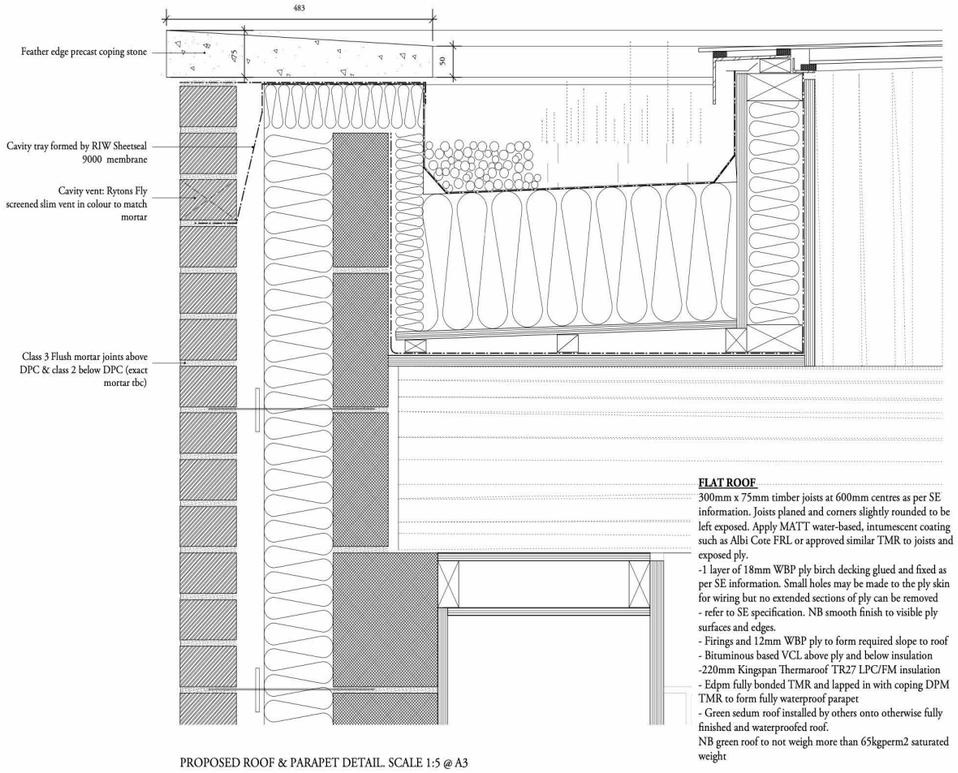
There is no public space from which the proposed dwelling can be seen. The pink dotted line represents the position of the proposed dwelling behind other buildings on Kings Grove and Grenfell Road.

- Top left: the view from Kings Grove facing No.7.
- Bottom left: the view from Grenfell Rd train bridge.
- Bottom right: the view from Grenfell Rd where the proposed dwelling sits slightly downhill and behind the house Nos. 137 & 139.

View from Grenfel Rd road bridge



View from Grenfel Rd



Wall and roof insulation detail.

Photograph of the construction of the proposed dwelling showing insulation and extra thick sound deadening concrete blocks in stiu

Sustainability: Thermal insulation

The structure for which we seek a change of use was originally designed and built in accordance with U-Values requirements for a Passivehaus; the German standard for thermal insulation. The walls contain 125mm Kingspan PIR insulation plus a 50mm cavity. The floor and roof contain 250mm Kingspan insulation.

Although not yet installed, the plumbing infrastructure is inplace to receive central heating in the form of an air source heat pump. This will be connected to the underfloor heating pipework which is already in place within the polished concrete floor screed.

There are argon filled sealed double glazing units throughout.

SW (front) elevation

Conclusion

- The aim of this document was to convey how the scheme seeks to offer a high quality residential space by making efficient use of land and seek permission for a change of use. Given the need for additional housing in the area, and larger nationwide housing targets that are not currently being met, this proposal shows how with careful consideration given to the design of the building, garden, access, and parking, a very comfortable, energy efficient domestic space can be achieved without negatively impacting neighboring properties, the street scene or the host house.

- The document illustrates how the building's designers paid careful attention to comply to the Royal Borough of Windsor and Maidenhead Borough Wide Design Guide's sections on backland development as well as wider guidelines on residential developments more generally regarding outdoor amenity space, parking, access and disabled access.

- Furthermore, there were no objections during the public consultation phases to either of the planning applications regarding the scheme (initial construction and later change of use) and there are no public spaces from where the building can be seen.

- There are 3 very clear planning precedents all within 250m of the proposed dwelling which have made efficient use of garden space to create high quality dwellings. The proposed scheme at No.7 goes beyond the scope of these precedents and offers garden amenity space as well as off street parking. The schemes at Valley Walk and Lamsley House offer neither of these.