

Landscape Design Proposals

Introduction

The landscape design proposals for the proposed scheme have been developed to provide a visually attractive setting to the buildings as well as maximising the potential to attract wildlife and to address issues associated with the climate emergency. The landscape proposals have been designed to optimise the spaces available for planting and where hard surfaces are proposed at ground floor level, to adopt a permeable paved system.

As part of the approach to 'greening' up the development, green roofs have been specified above structures such as bin-stores and cycle-stores along with a green roof on the flat roofed parts of the proposed houses along Send Road.

The adjacent plan illustrates the overall landscape masterplan and the subsequent pages describe and illustrate the planting proposals and hard landscape proposals. A fully detailed planting plan along with information on materials, bird/bat boxes etc is provided on the Arc Landscape Design and Planning Drawing Ref. A325-GA01.



Landscape Masterplan - NTS

LEGEND	
	Application boundary
	Existing trees to be retained - (off site) refer to arboricultural survey for details
Proposed Planting (refer to A325-GA01B for details of planting)	
	Native and ornamental trees
	Evergreen hedge
	Shrubs and herbaceous planting with climbers to boundary fences
	Specimen shrubs
	Flowering lawn to gardens (eg Emorsgate EL1)
	Bio-diverse green roofs to bin store and cycle stores etc
	Bio-diverse green roofs to properties on Send Road
Proposed Hardworks (refer to A325-GA01B for details)	
	Steps and paths to gardens in granite effect concrete slabs (eg Marshalls Symphony Senna)
	Permeable concrete sett paving to parking bays (eg Marshalls Tegula Priora - traditional)
	Permeable concrete sett paving to paths at front of houses (eg Marshall Tegula Priora - ochre)
	Concrete paving slabs set as stepping stones (eg Marshalls Perfecta Natural)
	Timber fencing to rear gardens with 300mm trellis (Eg Jacksons 1.52m 'Hit and Miss')

Landscape Design Proposals

Planting Strategy

The strategy for planting for the proposed development focuses on creating an attractive setting which complements the architectural design combined with an approach that considers issues relating to the climate emergency, sustainable drainage, increasing biodiversity, and improving air quality.

Hedgerows, trees and specimen shrubs have been proposed which will create a longer term green structure. Hedgerows and trees are proposed between properties along Forge Close. Hedge species have been selected as evergreen varieties with dense foliage which assists in capturing emissions from vehicles year round. The tree species is a fastigate variety of the native field maple a medium growing tree that will contribute to the tree cover in the streetscape. Trees are set away from the buildings and tree pit designs will be fully coordinated with the foundation design to ensure long term viability of the trees.

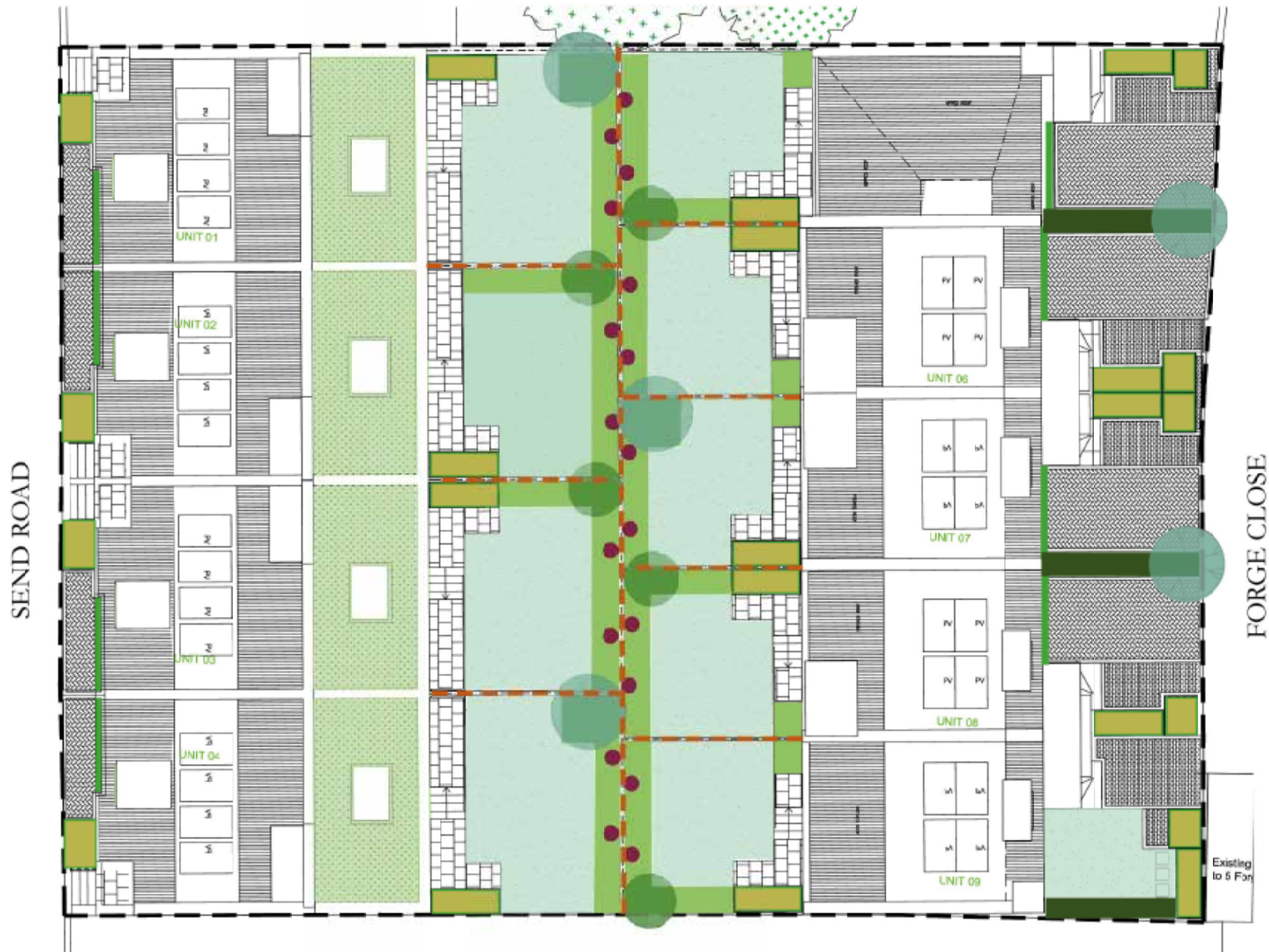
A 'green corridor' is proposed along the adjoining gardens within the rear gardens of each of the properties. This will create a localised corridor that links with the existing trees to the north. A range of planting types is proposed which include three medium sized tree species selected to provide structure, canopy cover and diversity. The trees are to be located within plant beds set back from the adjacent fence to allow for future growth. These are assisted by smaller growing specimen shrubs again selected to provide further species variety as well as character and variation in form, colour and seasonal interest.

At the lower level a mix of evergreen and perennial plants have been selected that will encourage increased wildlife. Climbing plants have been specified to grow along each of the fences with species again being selected for both their visual and wildlife enhancing qualities. Continuing the theme of promoting insects and pollinators, the grassed areas within each of the gardens will include flowering species.

Ground level planters (some of which will receive rainwater directly via the rainwater goods of the houses) will contribute to the sustainable drainage performance of the site, capturing rainfall and holding it back from release, while simultaneously increasing the green cover of the site.

Planters have been integrated into the window reveals which will be planted with a range of flowering and trailing plants and the flat roof areas to properties on Send Road will benefit from a green roof seeded with a bio-diverse mix of species to attract insects and other wildlife.

As a single storey flat roof it will be easily accessible and maintainable by future residents. The roof will benefit from irrigation directly from the rainwater goods of the respective properties. The make up of the roof will include water storage and drainage component.



Planting Strategy - NTS

Refer to subsequent pages for plant lists/key to Planting Strategy.
The following characteristics are identified where applicable.

PLANTING CHARACTERISTICS

- | | | |
|---|---|--|
|  Pollinator friendly |  Evergreen species |  Drought tolerant species |
|  Bird friendly |  Edible species |  Shade/Mid-shade tolerant species |
|  Ornamental species |  Sensory species |  Native species |

TREES

- 1 - *Sorbus acuparia* - Mountain Ash
- 2 - *Betula jacquemontii* - Himalayan Birch
- 3 - *Prunus mackii* - Manchurian Cherry
- 4 - *Acer campestre* 'William Caldwell' - Field Maple (Fastigate variety)



BIODIVERSE GREEN ROOF

Pre-seeded to Bauder specification



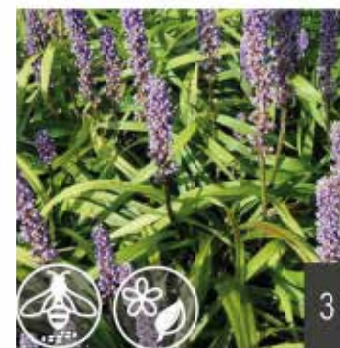
HEDGE SPECIES

- 1- *Elaeagnus ebbingei* - Ebbinge's silverberry
- 2- *Prunus lusitanica* - Portuguese laurel



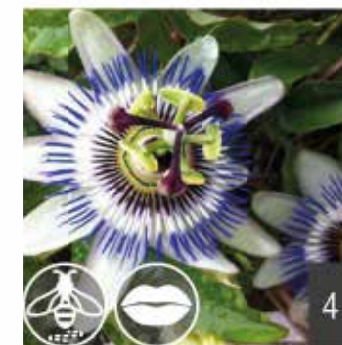
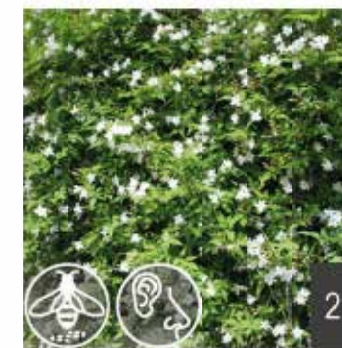
WINDOW PLANTERS (INCLUDING CLIMBERS/TRAILING PLANTS)

- 1 - *Salvia officinalis* - Sage
- 2 - *Hedera helix* 'Sagittifolia' - Ivy
- 3 - *Liriope muscari* - Blue lily turf
- 4 - *Lonicera perichlymenum* - Honeysuckle
- 5 - *Clematis* 'Jackmanii Superba'
- 6 - *Passiflora caerulea* - Passion flower
- 7 - *Lavandula sp.* - Lavender
- 8 - *Allium cristophii* - Star of Persia



REAR GARDEN CLIMBERS

- 1- *Hedera helix* 'Glacier' - Ivy
- 2- *Jasminum officinalis* - Jasmine
- 3- *Rosa Iceberg* - Climbing rose
- 4- *Passiflora caerulea* - Passion flower



REAR GARDEN HERBACEOUS ETC

- 1- *Allium 'Globetrotter'* - Allium
- 2- *Bergenia 'Bressingham Beauty'* - Elephants ear
- 3- *Echinacea purpurea* - Cone flower
- 4- *Epimedium x youngianum 'Niveum'* - Snowy barrenwort

- 5- *Euphorbia amygdaloides robbiae* - Mrs Robbs bonnet
- 6- *Geranium 'Johnsons Blue'* - Cranesbill
- 7- *Geranium 'Wargrave Pink'* - Cranesbill
- 8- *Heuchera 'Silver Scrolls'* - Alum root
- 9- *Hackonechloa 'Aureola'* - Golden hakonechloa

- 10- *Liriope muscari* - Blue lily turf
- 11- *Miscanthus 'Morning Light'* - Eualia
- 12- *Ophiopogon japonicus* - Mondo grass
- 13- *Salvia 'Purpurescens'* - Purple sage
- 14- *Tiarella cordifolia* - Foam flower

- 15- *Verbena bonariensis* - Purple top
- 16- *Polystichum setiferum* - Soft shield fern



SPECIMEN SHRUBS

- 1 - *Coruna kousa* - Dogwood
- 2 - *Garrya elliptica* - Silk tassel bush
- 3 - *Amelanchier lamarkii* - Snowy mespilis
- 4 - *Magnolia stellata* - Magnolia
- 5 - *Photinia 'Red Robin' (standard)* - Christmas berry



PLANTED 'LIVING PILLAR'

Proposed installation of a 'Living Pillar' on one of the street lights on Forge Close or Send Road outside the development. The Pillar would be to Scotscape specification or similar. Location to be confirmed and subject to Reading Highway's consideration.



Landscape Design Proposals

Hard Landscape Strategy

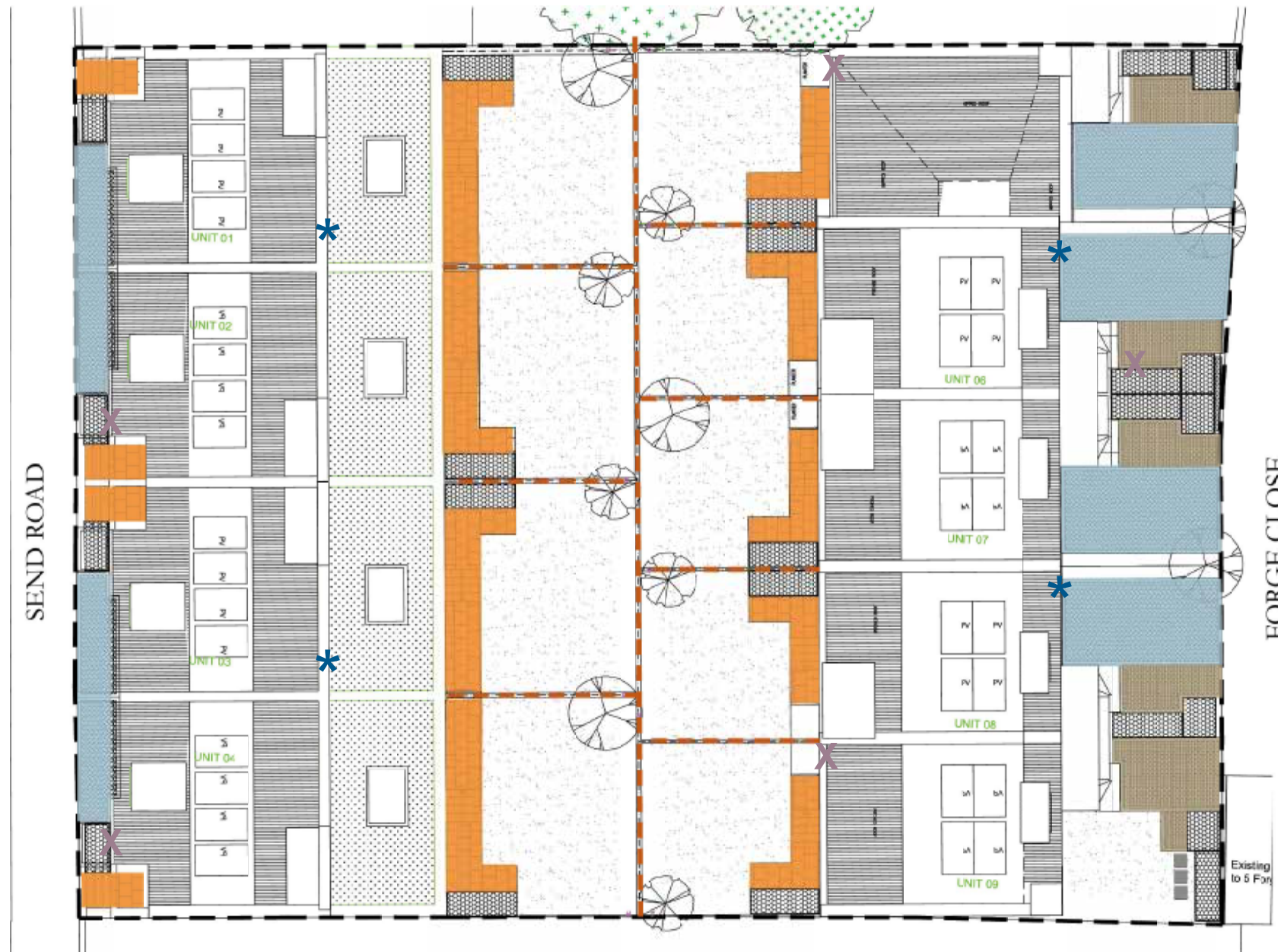
The surface materials for the external areas have been selected for their visual and functional qualities.

Guided by the need to provide sustainable drainage for the development, the amount of paved surfaces are limited to areas for parking or for access into the houses. To the front of the properties, parking bays will be constructed from permeable concrete paving blocks and for visual contrast and legibility, a permeable clay paver will be used for the pedestrian areas.

To the rear of the properties, paths and steps provide access from the houses to the gardens as well as serving the covered storage areas.

Timber fencing is proposed between the gardens. A 'Hit and Miss' style fence (illustrated below) is proposed. This will comprise 1.5m high panels with a 300mm height trellis fixed to the top. This will create privacy but will allow additional light through to the gardens. Along the base of each fence, a gap will be left to allow easy movement of small mammals such as hedgehogs, between each of the gardens. And as described as part of the planting strategy, will include a range of climbing plants.

Both bird and bat bricks will be incorporated within the facade of the buildings. Detailed locations will be agreed at the detailed design stage with the project ecologist to ensure the optimum location for specific species. Bat bricks will be selected to house 'crevice-dwelling' species/pipistrelles and located on south or east facing façades.



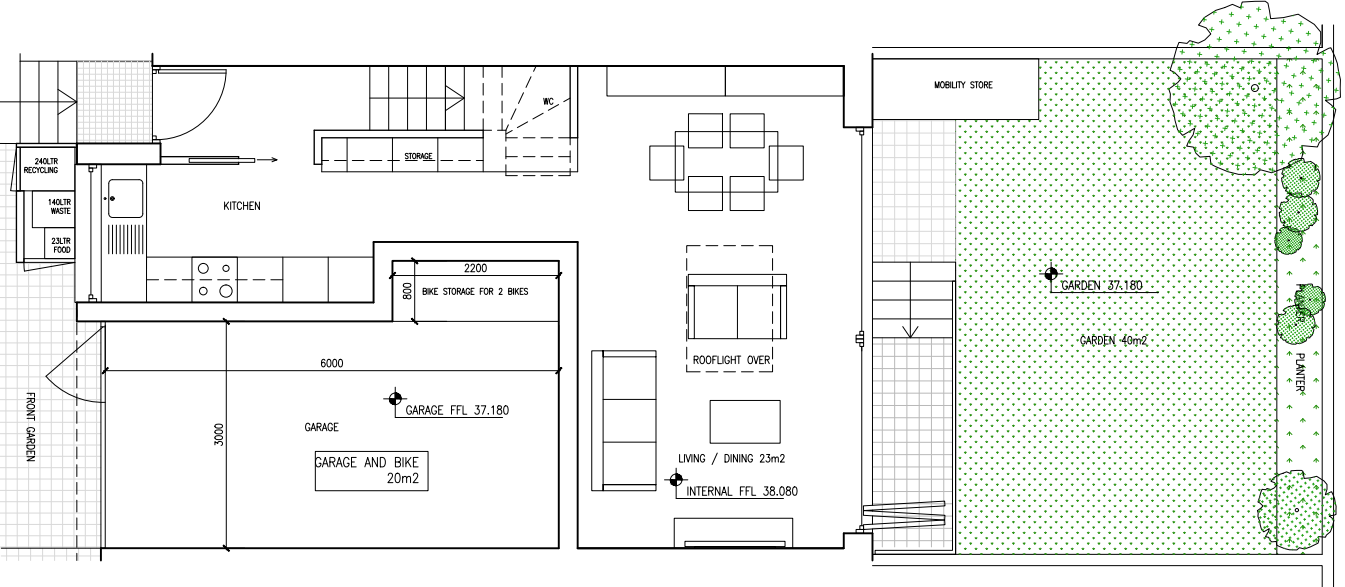
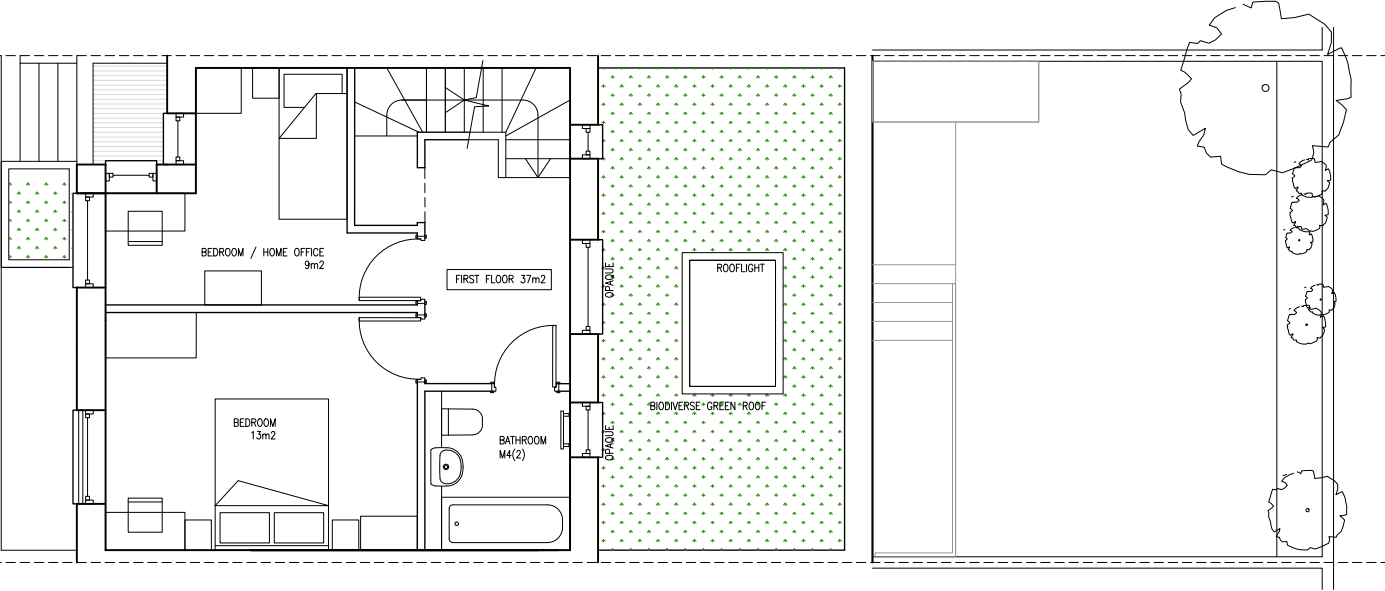
Hard Landscape Strategy - NTS



Second Floor



First Floor



Ground Floor
1:100@a3

Proposed Scheme:

Send Road Houses:

The layouts opposite show the four houses along Send Road.

Each house is 3b4p and around 96m2, in line with National Space Standards

The house is entered up steps from Send Road. The steps increase the ground floor level to enable the house to be above the flood risk levels, allowing for climate change modelling.

A kitchen is at the front of the house with a large window facing the street. The living / dining area is accessed through the kitchen. The living room is taller than the kitchen area with full width glazing to the rear 40m2 garden.

The first floor has two bedrooms. The smaller of the bedrooms is designed to be easily adapted into a very useful home office or study space. This reflects the new reality of increased home working that has arisen during COVID, and is widely projected to be a permanent lifestyle shift for many people.

The second floor provides the main bedroom in the roof space with a dormer window facing the street.

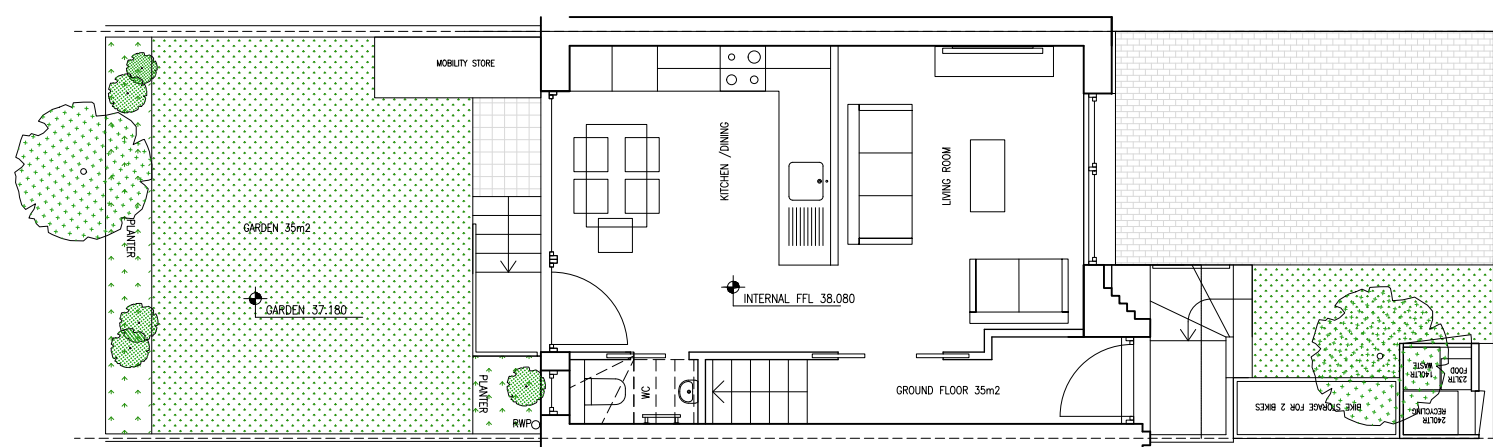
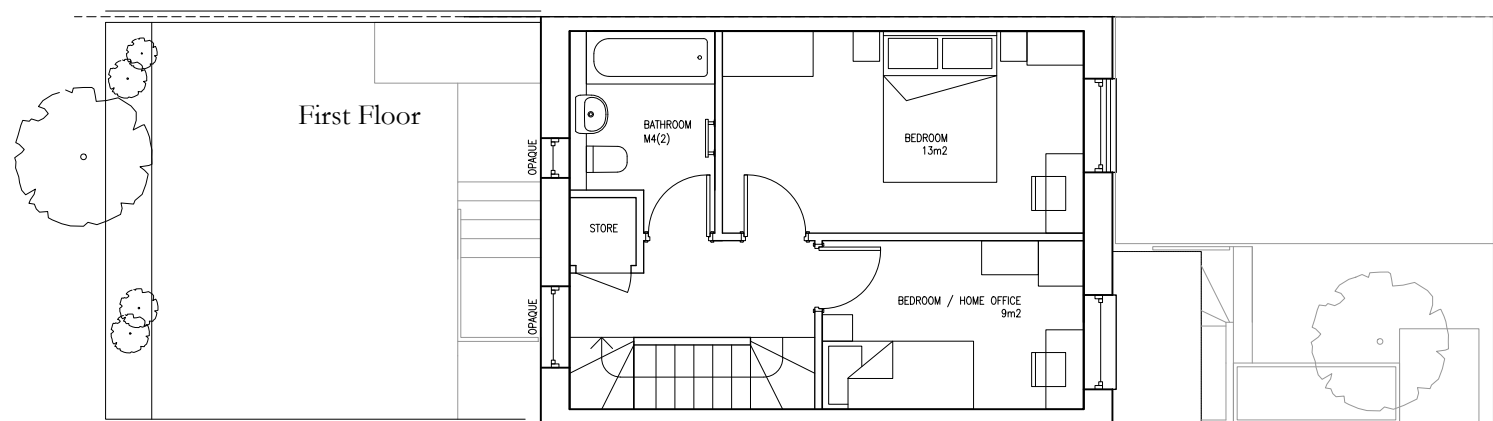
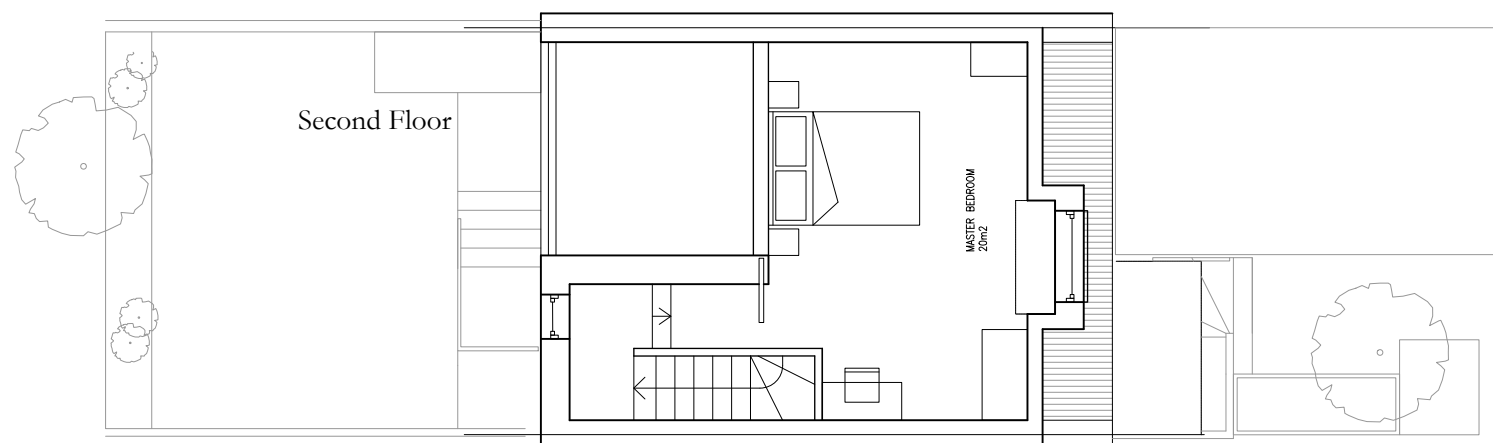
All the rooms / internal circulation spaces are designed to be as per M4(2) standards.

There are no windows facing the properties opposite to the rear from any habitable rooms.

The roof also pitches away from the neighbouring property to maximise the amount of daylight/ sunlight into the opposite property and to minimise any overbearing. Please see the accompanying daylight / sunlight assessment from XCO2 for further detail.



Location



Ground Floor
1:100@a3

Proposed Scheme:

Forge Close Houses 06-08

The layouts opposite show the layouts of houses 06-08 on Forge Close. Units 05 and 09 are the same at ground and first floor but are only 2b3p / 2 storey houses.

Each house (units 06-08) is 3b4p and around 90m², in line with National Space Standards

The house is entered up steps from Forge Close. The steps increase the ground floor FFL to enable the house to be above the flood risk levels, allowing for climate change. An external stair lift can be installed to allow for step free access to the front door.

A living room is at the front of the house with a large window facing the street. The kitchen / dining area is accessed through the living room. The kitchen has full width glazing to the rear 35m² garden, accessed via steps.

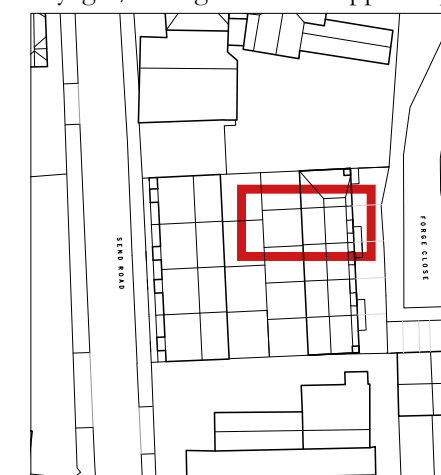
The first floor has two bedrooms. The smaller of the bedrooms can easily be adapted to be a very useful home office in line with increasing trends for home and flexible working.

The second floor provides the main bedroom in the roof space with a dormer window facing the street.

All the rooms / internal circulation spaces are designed to be as per Part M4(2) standards.

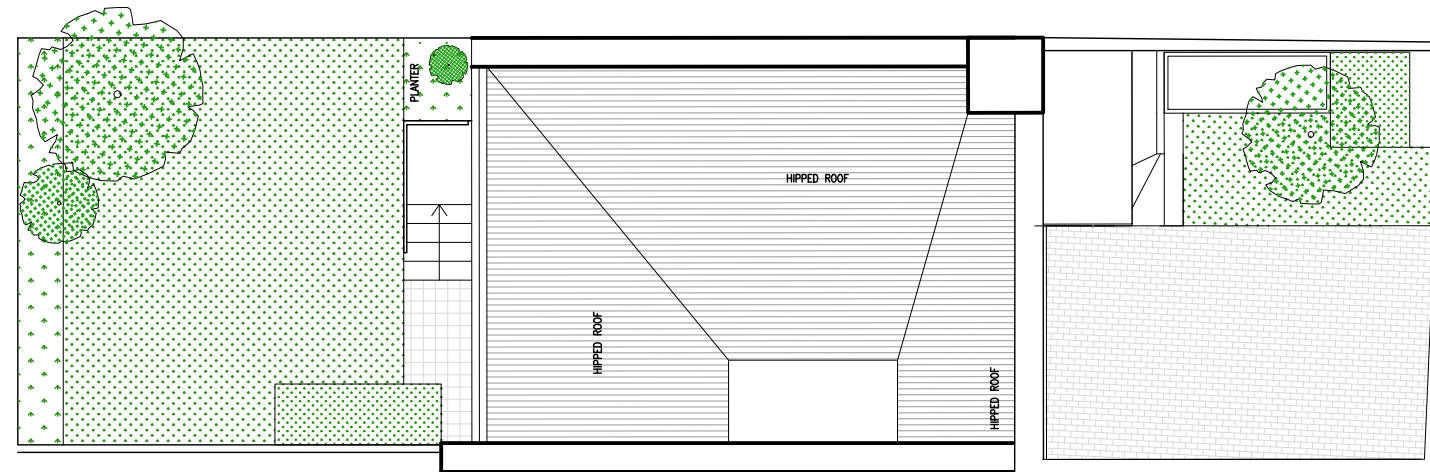
There are no windows facing the properties opposite to the rear from any habitable rooms.

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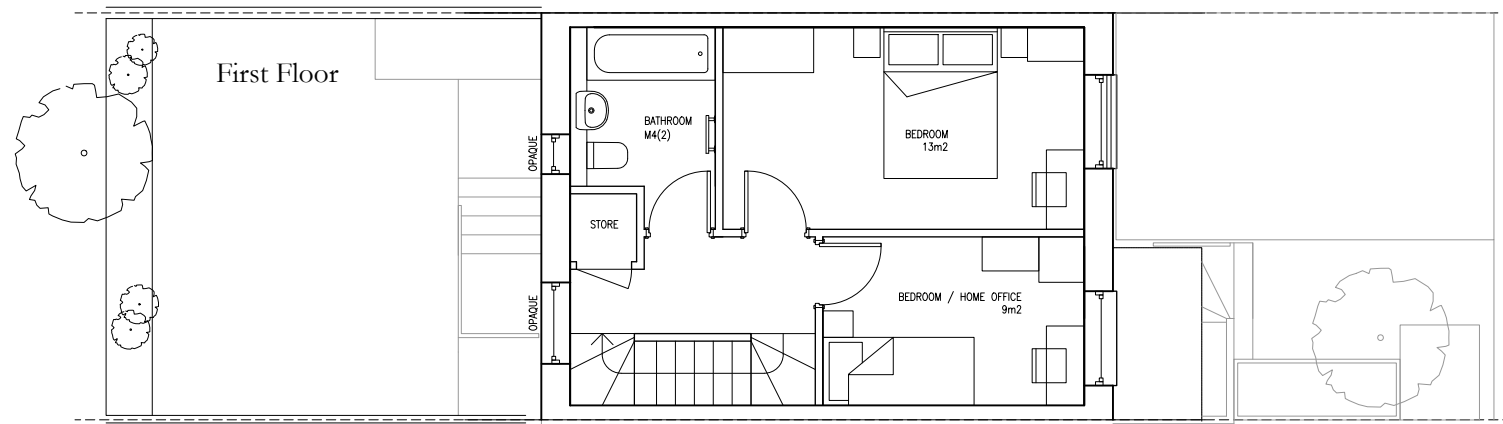


Location

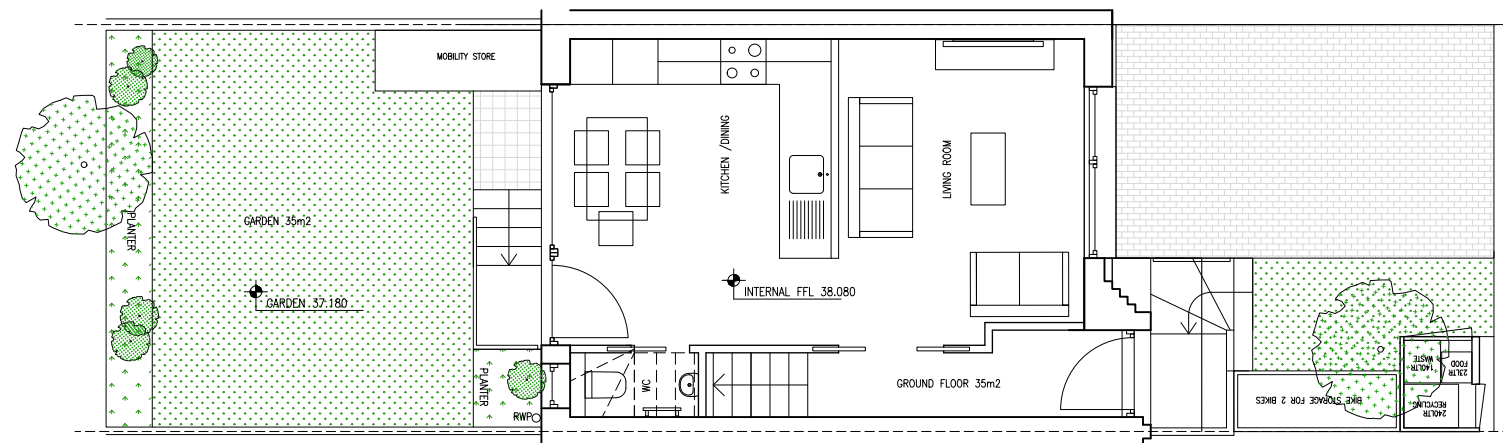
Roof Plan



First Floor



Ground Floor
1:100@a3



Proposed Scheme:

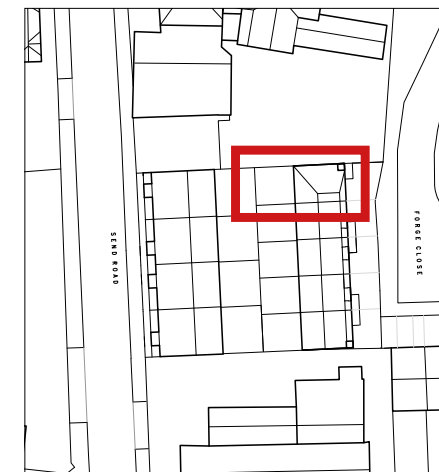
Forge Close House 05

The layout of Unit 05 on ground and first floor is the same as the other new houses along Forge Close.

We are keen to minimise any impact on to the listed building to the north of our site and also 399 Gosbrook Road (the house on the far side of Gosbrook Road) therefore this house is only two storeys tall.

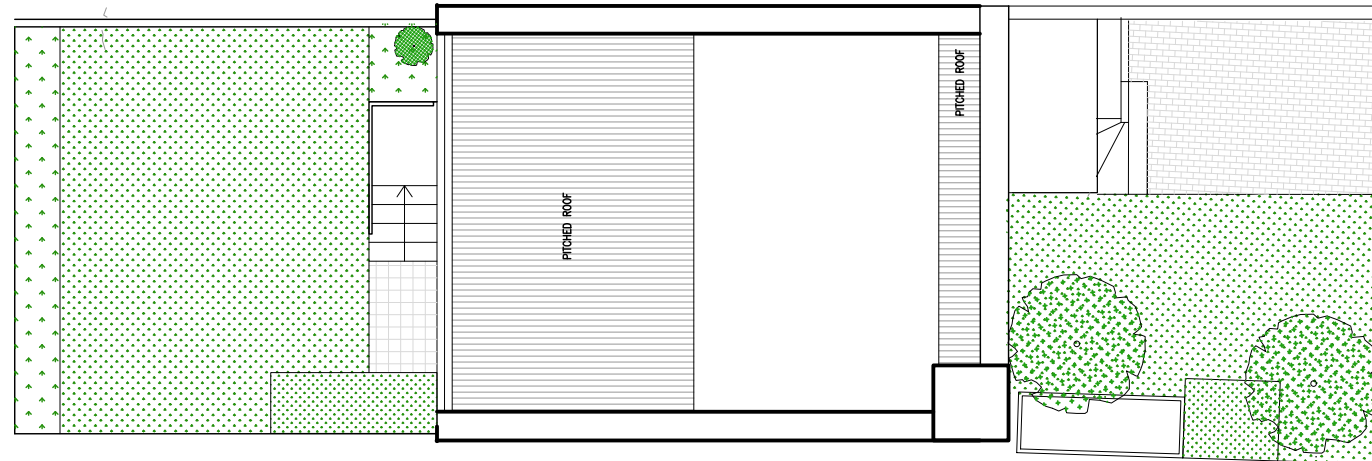
This allows the roofline to be hipped, further minimising the impact on to the surrounding existing dwellings.

The house is 70m2.

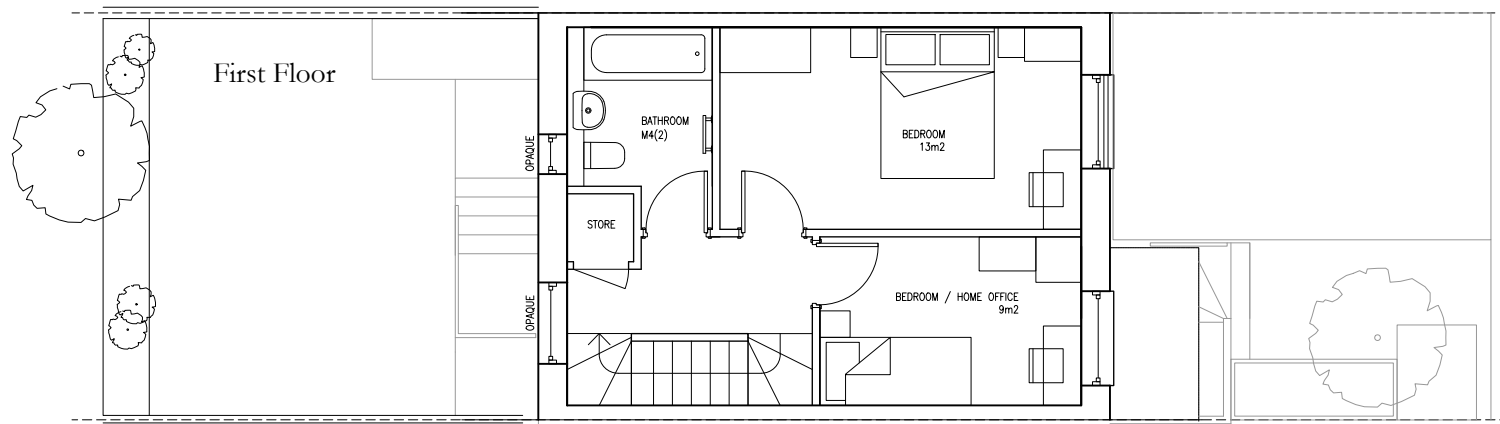


Location

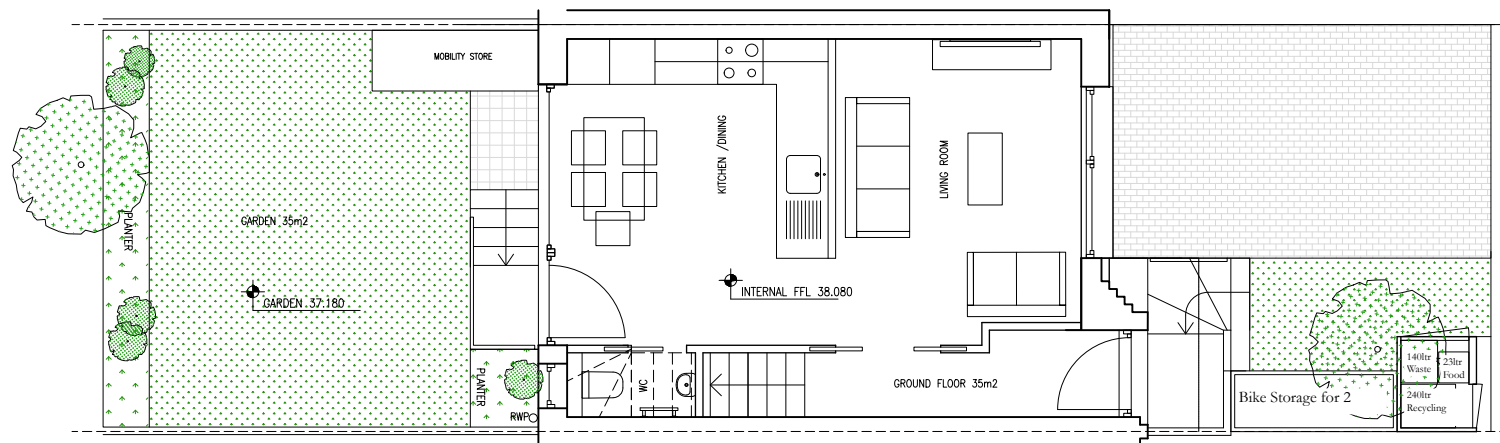
Roof Plan



First Floor



Ground Floor
1:100@a3



Proposed Scheme:

Forge Close House 09

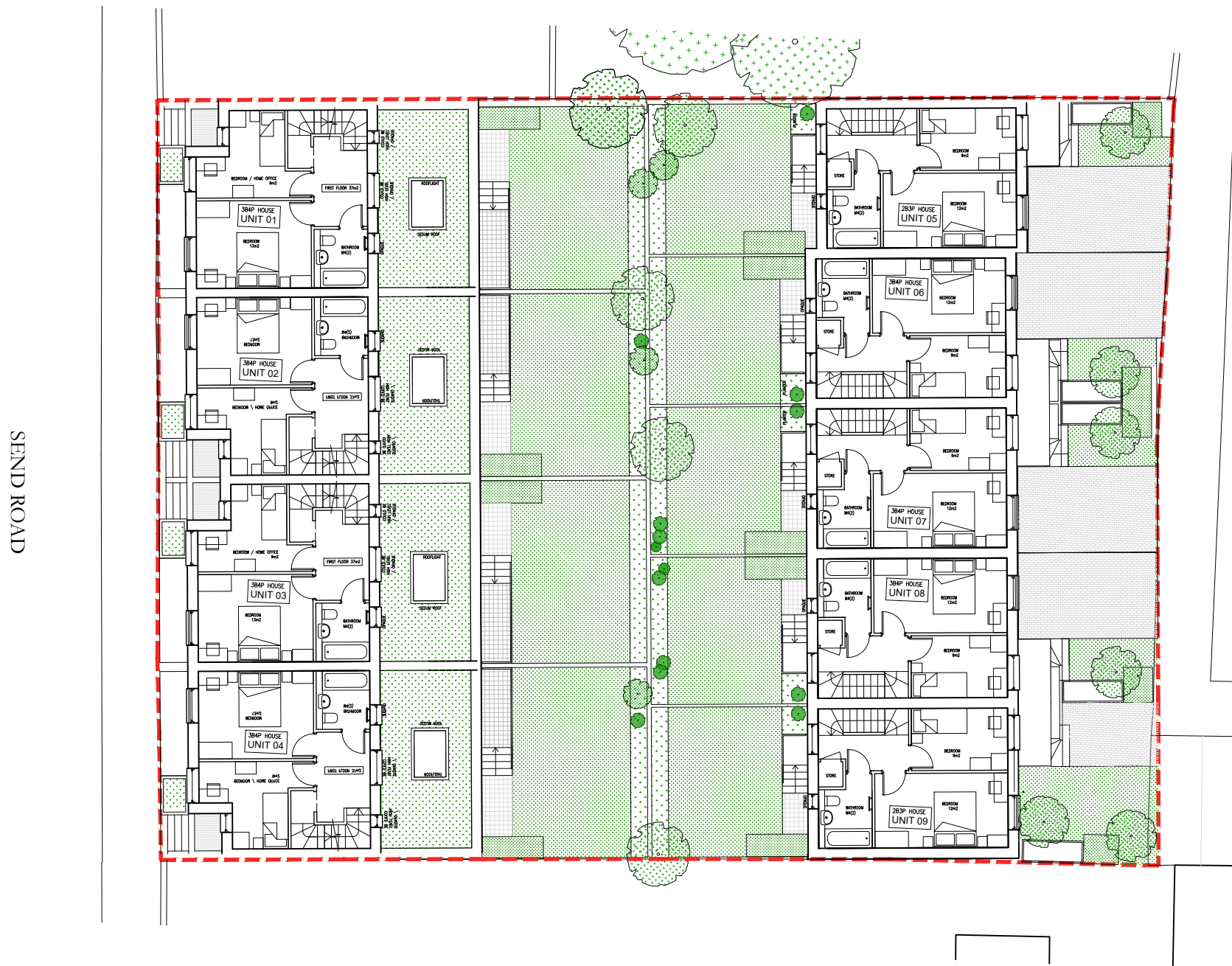
The layout of Unit 09 on ground and first floor is the same as the other new houses along Forge Close.

We are keen to minimise any impact on to the existing dwellings along the south of Forge Close too, and therefore the massing of this house has also be reduced to only a two storey house.

The house is 70m2.



Location



Indicative First Floor Plan

Proposed Scheme:

Section: Overlooking Distances

The width between the houses at the upper levels is 16m. At ground floor the houses are approximately 12m apart at ground floor level.

The current Reading planning policy states: “a back to back distance of 20 metres between dwellings is usually appropriate”, but it also states that “the circumstances on individual sites may enable dwellings to be closer without a detrimental effect on privacy”

We have designed the houses so that there are no windows required to the rear upper floor of either house type. Therefore the potential issues with overlooking are eliminated. Any windows that are not in habitable rooms are opaque.

The pre-application response stated “Natural ventilation is considered better than mechanical ventilation and there is opportunity to introduce windows to the bathrooms which again could be obscure glazing with high level window openings to protect the privacy of neighbouring properties.” Accordingly, opaque windows have been added to the rear elevations. These will provide further natural light into these areas.

The bedrooms are located on the front of each house overlooking the street. The small set back and terraces provide dual aspect to the west / east and south.

Please see indicative first floor plan opposite.

Please see the accompanying daylight / sunlight assessment for additional information on the acceptable back to back distances.



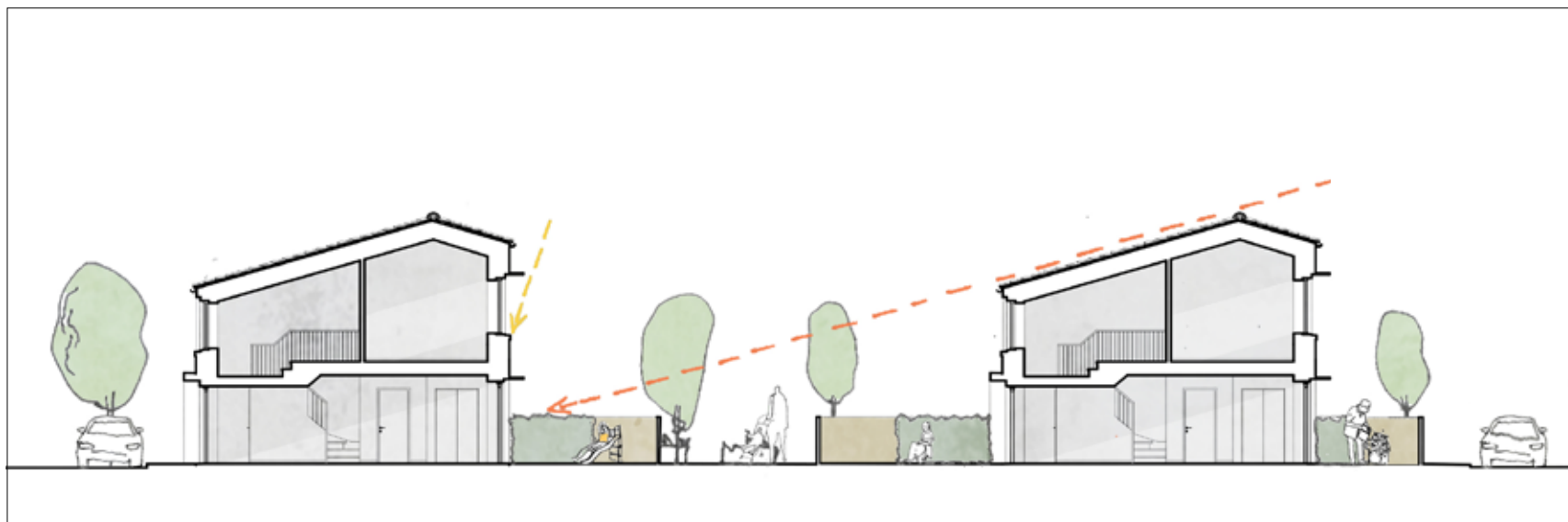
Precedent Scheme:

Goldsmith Street, Norwich: Mikhail Riches Architects

Goldsmith Street housing is the Stirling Prize winning street based housing project in Norwich. It provides a high density street based neighbourhood with relatively simple urban design that is based on a traditional coherent Victorian street.

In order to maximise the potential of the site they arranged the parallel terraces of houses so that the habitable rooms were all facing the same way with no habitable rooms to the rear of each dwelling.

Therefore they could move the terraces closer together than policy and avoid any issues with overlooking or affecting the privacy of the residents.



Site Section showing the arrangement of the terraces to avoid potential overlooking by arrangement of habitable rooms to be at the front of each property and only having bathrooms / stairs at the rear



Site Plan showing the parallel terraces

Proposed Scheme:

Section: Daylight / Sunlight

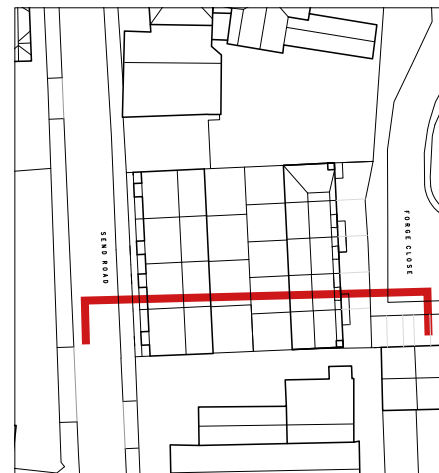
We have designed the scheme to maximise the amount of daylight sunlight to the habitable rooms as well as protect the amenity of the houses opposite.

A good way of assessing the daylight sunlight without technical analysis is using the BRE 25 Degree Rule of Thumb. This is defined as: “Suitable daylight for habitable rooms is achieved when a 25 degree vertical angle taken from the centre of the lowest windows is kept unobstructed”

The section below shows the 25 degree rule of thumb for the glazing to the rear of each house is satisfied.

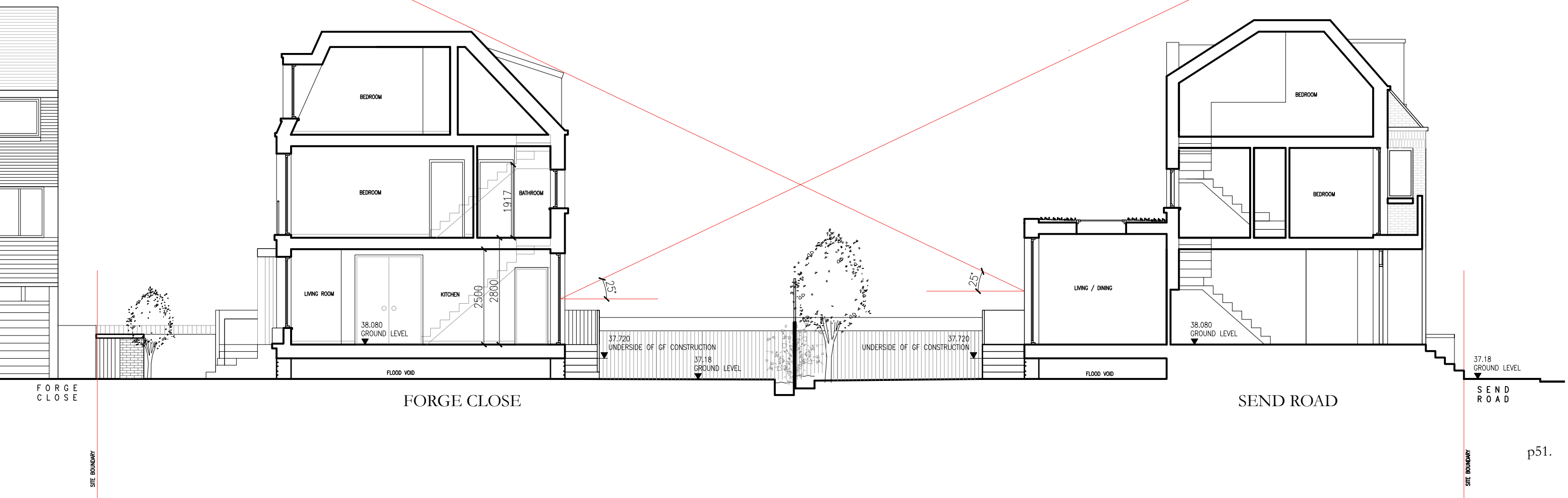
In addition to the above we have also reduced the overall height of the Send Road houses by amending the roof form. For the Forge Close houses we have reduced the overall height of the main elevation by including the access to the top floor in a dormer window that only extends along part of the top floor. This amendment further improves the daylight / sunlight conditions for the new dwellings, in line with the pre-application response.

The Pre-Application advice we received noted: “due to the orientation of the proposal there is not considered to be any harm in terms of loss of sunlight and daylight to neighbouring properties as concluded in the daylight and sunlight assessment.”



Section Line

Existing Forge Close Block



Proposed Scheme:

Daylight / Sunlight

Please also refer to XC02 Assessment:

We have worked with XCo2 daylight / sunlight consultants to develop a scheme that both provided excellent levels of daylight / sunlight for the new dwellings but also had minimal impact on the adjacent existing dwellings.

A series of tests have been undertaken to assess the schemes potential impact onto the surrounding buildings including

- Daylight 25 degree line
- Daylight Vertical Sky Component for neighbouring properties
- Sunlight Access
- Sunlight Overshadowing.

Further tests were carried out on the new dwellings,

- Daylight, average daylight factor for proposed scheme.
- Sunlight Access
- Sunlight Overshadowing

The assessment concludes, that:

“The proposed scheme performs well in relation to daylight and sunlight access for windows and amenity spaces in general, and is considered to have no significant impact to the daylight / sunlight levels of the surrounding properties and amenity spaces.”

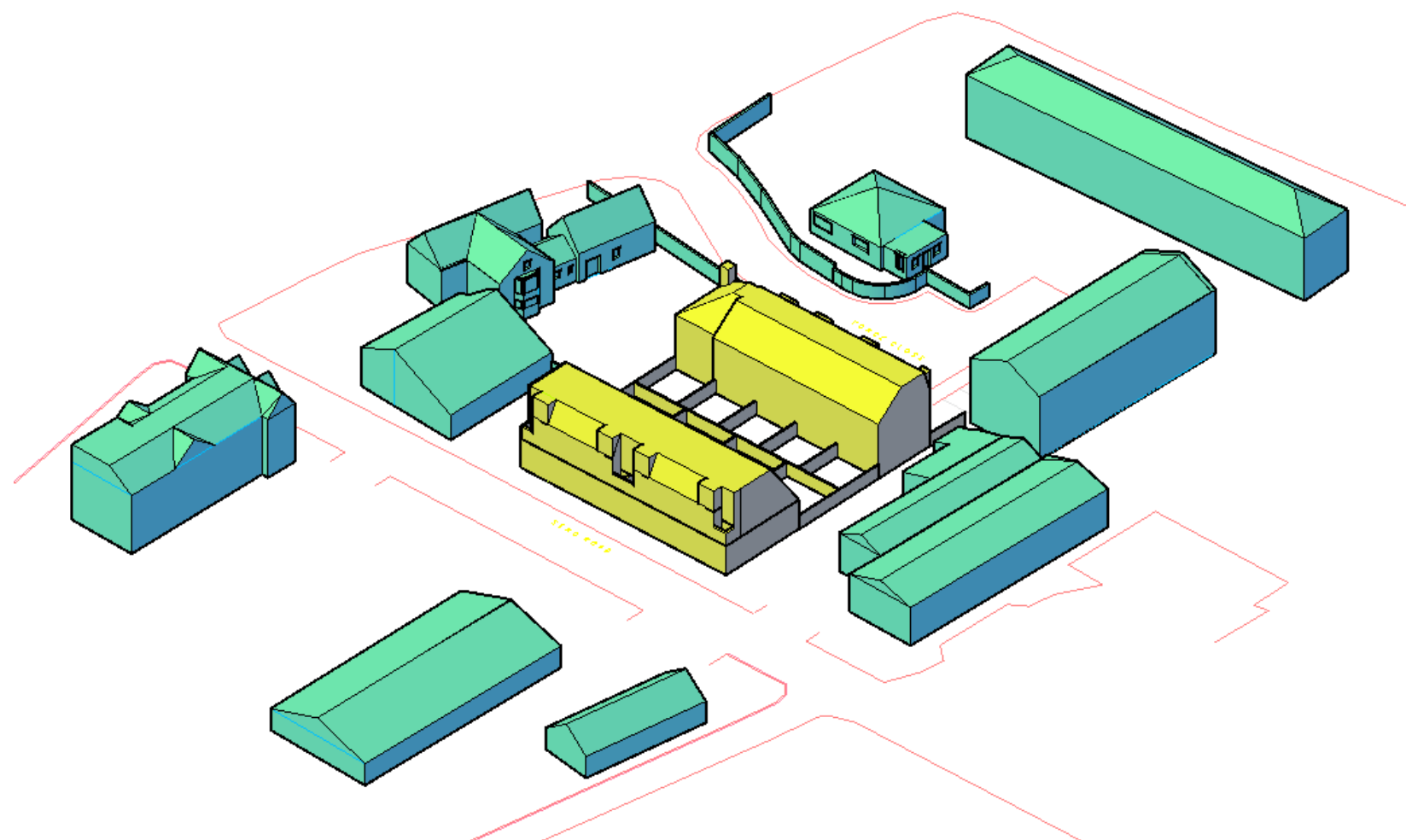


Figure 3: South-west axonometric view of 2-4 Send Road

Atypical two storey house with hipped roof



Proposed Scheme:

Forge Close: Protecting Existing amenity

We are aiming to create a new delightful line of dwellings on Forge Close with landscaping and new planting to create a new coherent edge to the site. This would replace the current unattractive fenced boundary and view of unattractive dilapidated commercial buildings on 4 and 6 Send Road.

We have also designed the scheme to minimise the impact on to the existing dwellings on Forge Close.

Building Line:

We have proposed that the new dwellings on Forge Close reflect a similar building line as the existing houses to the south of the site. Therefore our new dwellings are set back from the site boundary by over 5m. This also minimises the impact of the new dwellings on to the existing single storey house at 399 Gosbrook Road.

The building line also creates a sense of openness at the corner where the new development is nearest the existing three storey dwellings to the south of the close, again trying to minimise the impact of the new development on to the existing dwellings.

Form and Massing:

The dwelling at 399 Gosbrook Road is immediately opposite our site and therefore has the potential to be affected by the development. Our proposal only overlaps with the existing dwelling for approximately 3.5m.

In order to mitigate the impact on to the existing dwelling at 399 Gosbrook Road we have amended the form of Unit 05, which is partially opposite the existing house. Unit 05 has been reduced in height compared to the other houses. It is a 2 bed house over 2 storeys rather than the 3 bed house over 3 floors.

The roof form has also been amended to be a hipped roof, reducing the massing on the corner that minimises the impact on to the listed building to the north and 399 Gosbrook Road opposite.

Existing Forge Close showing poor quality fencing, blank elevation and unsightly commercial units on 4 and 6 Send Road.

Proposed Scheme:

Forge Close : Protecting Existing amenity

We have designed the scheme to minimise the impact on to the existing dwellings on Forge Close.

Distancing:

The existing house and the new front elevations on Forge Close are approximately 18.5m apart. This is more than the distance between the house and the flatted block on Star Road as this is 13.4m. The proposed distance is also only slightly less than the distance between the existing dwellings to the south and the existing house as this is approximately 20m.

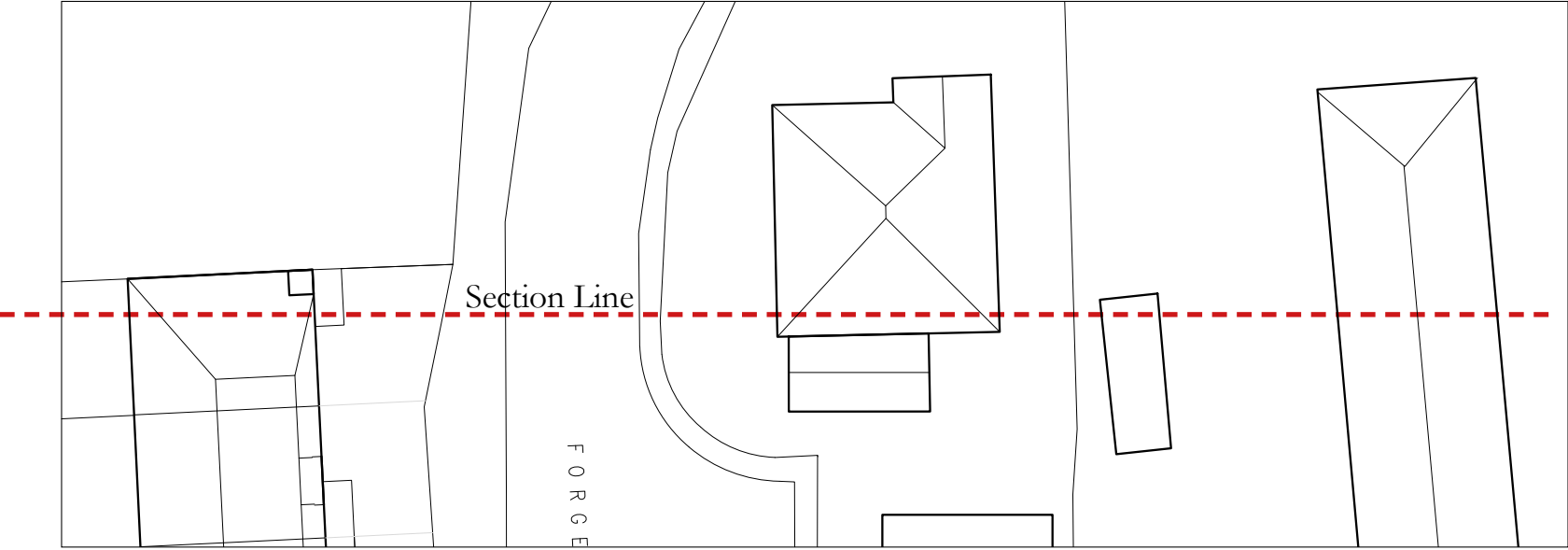
The proposed front to front distance of 18.5m is larger than the surrounding streets such as Kings Road and Queens Road where the front to front distance is only 14.5m and is therefore in keeping with the aspiration to create a new development of street based housing, influenced by the best principles of the surrounding Caversham area.



Surrounding area aerial photo showing the coherent urban design produced by traditional Victorian street based housing with similar or smaller distances between dwellings

Proposed Scheme:

Key Plan:



Forge Close: Existing amenity / Daylight and Sunlight

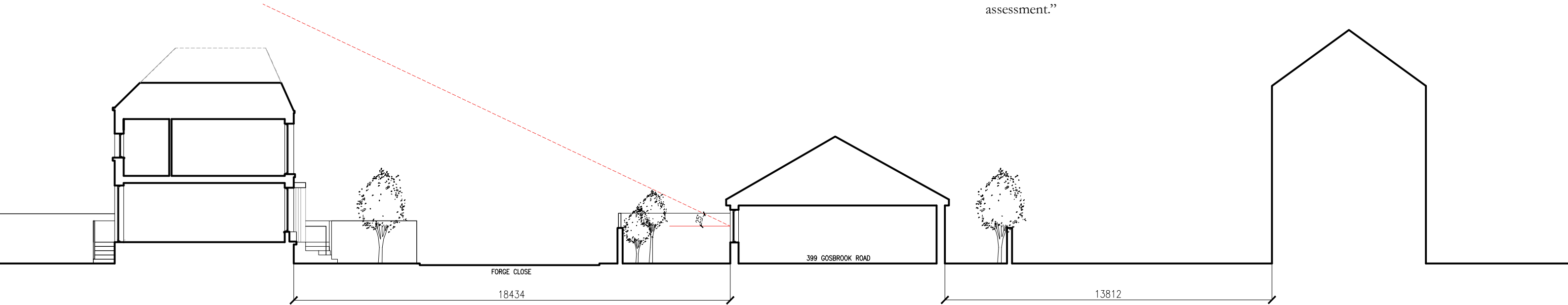
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The section below shows that in the small area of site where the new and existing dwellings overlap the 25 degree line is well clear of the new development and therefore good levels of daylight sunlight should still be provided.

Our new scheme is also to the north west of the three storey dwellings to the south and west to the single storey houses. Therefore the primary, south facing elevations of these existing dwellings should retain good levels of daylight as existing.

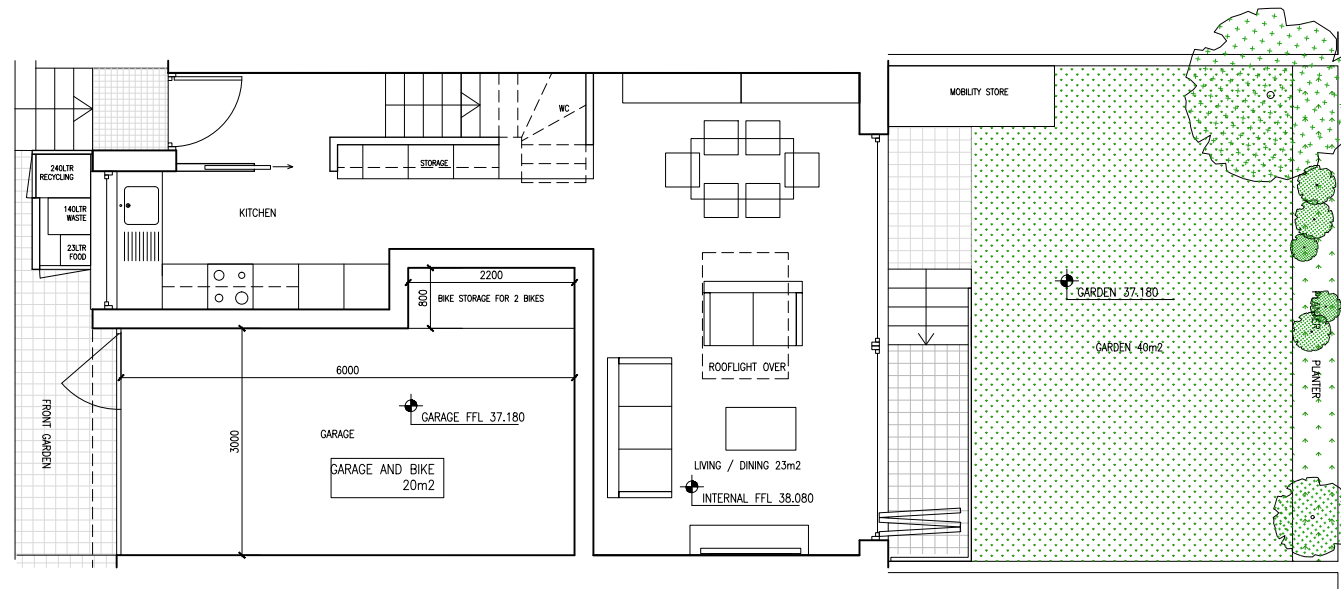
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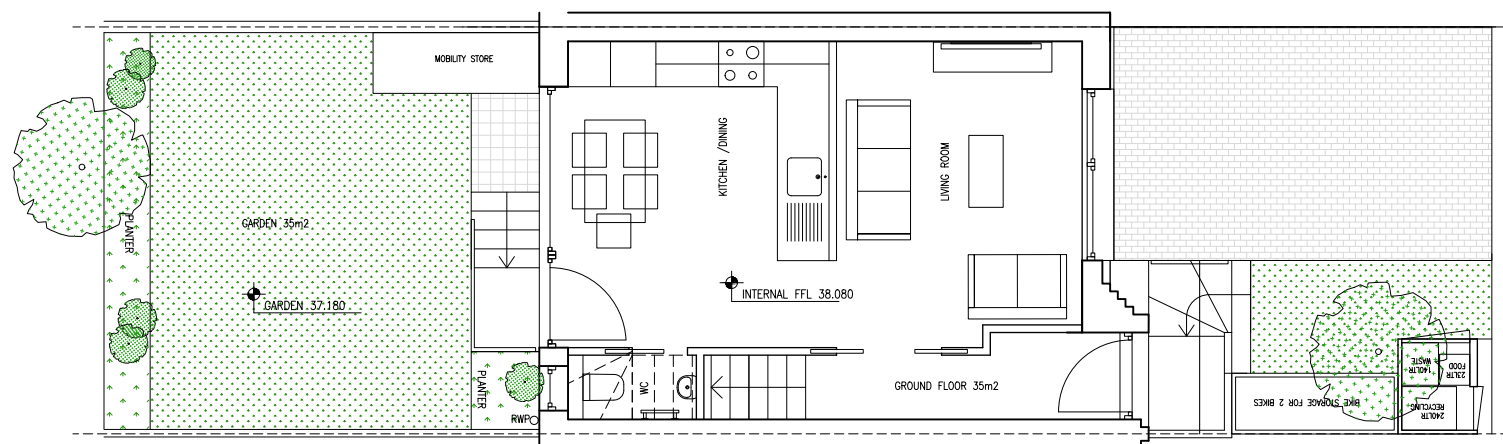
Section showing the relationship between the new and existing dwellings



View looking down Forge
Close from Gosbrook Road



Send Road Typical Ground Floor Layout



Forge Close Typical Ground Floor Layout

Accessibility:

Due to the site falling within a flood risk location, the ground floor level has been raised in line with the climate changing modelling.

These steps have all been designed to have a maximum riser of only 170mm, not the 220mm permitted for private dwellings. This should help people with less mobility enter the houses.

The houses could all at a later stage have a small external stair lift added to overcome these external stairs.

All the internal circulation spaces and room sizes are designed as per Approved Document M, Part M4(2).

Bins and Bikes:

Send Road: Cycle Storage

Each house is provided with internal secure storage for two bikes. This is accessed through the garage in its own designated area - please see the green lined area on the floor plan alongside.

A second area for cycle storage has been added to the rear gardens in the mobility store. This would be more than double the required cycle storage. These external mobility stores would also be green roofed with a wildflower blanket. The mobility stores can also store ebikes, scooters and other personal mobility equipment, and will include a plug socket for electric charging.

The garage doors will be designed to allow for a small wicket door to open to allow access to the bikes without opening the whole garage door.

Send Road: Bins

Each house has its own bin storage area at the front of the house. This has space for storage for

- 1x 240ltr recycling bin
- 1x 140ltr waste bin
- 1x 23ltr food waste bin.

The store is clad in timber / brick to match the main elevation of the house and is topped with planting. It is located ideally for ease of collection by Council waste management services

Forge Close: Cycle Storage

Each house is provided with external secure storage for two bikes. This is located in the front garden of each house next to the waste and recycling store.

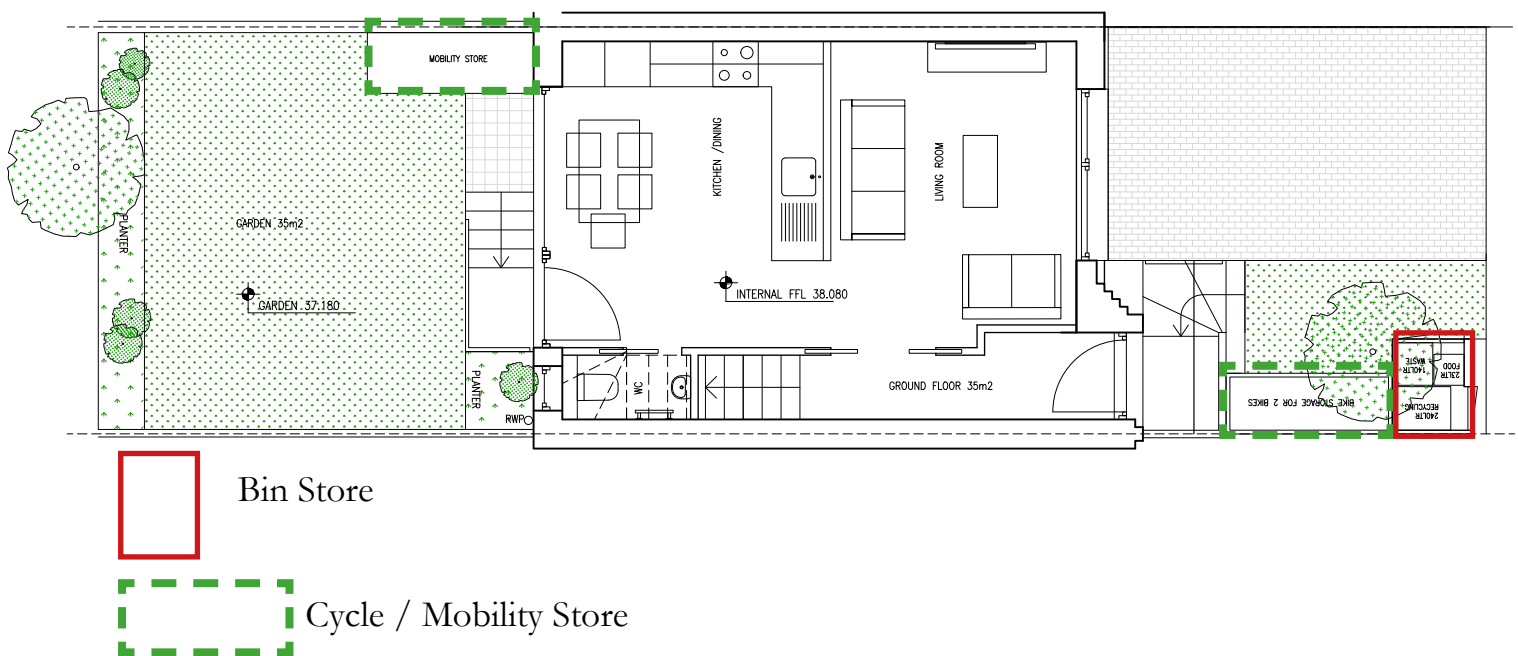
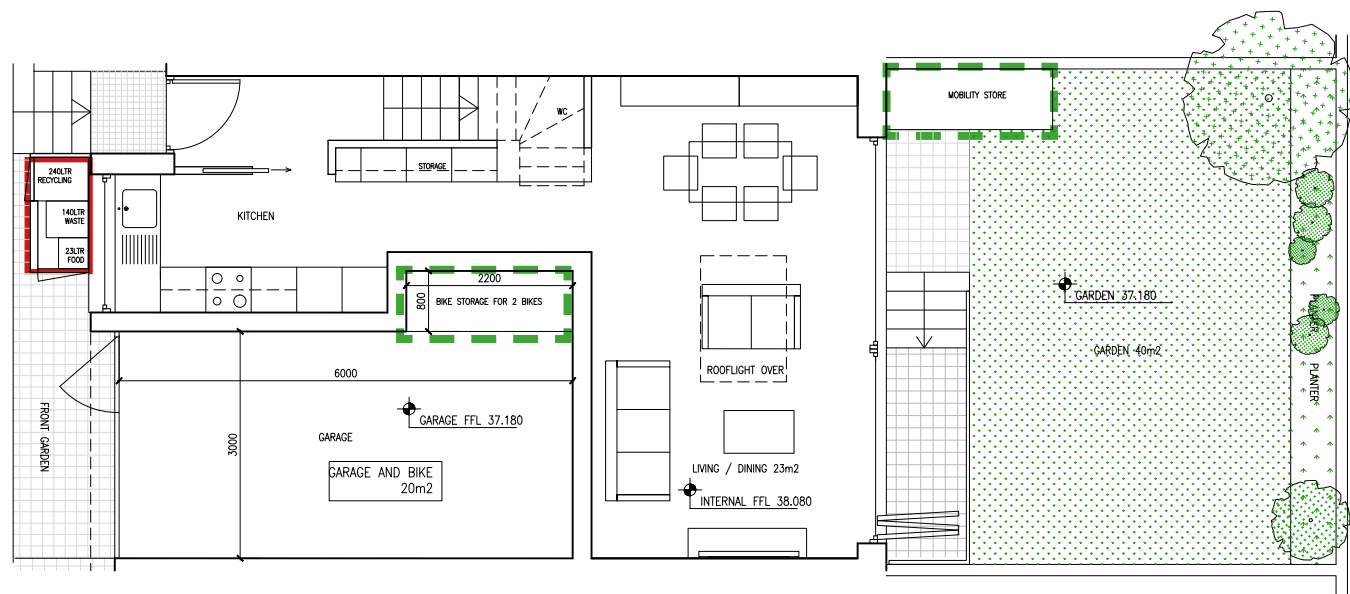
A second area for cycle storage has been added to the rear gardens in the mobility store. This would be more than double the required cycle storage. These external mobility stores would also be green roofed with a wildflower blanket. The mobility stores can also store ebikes, scooters and other personal mobility equipment, and will include a plug socket for electric charging.

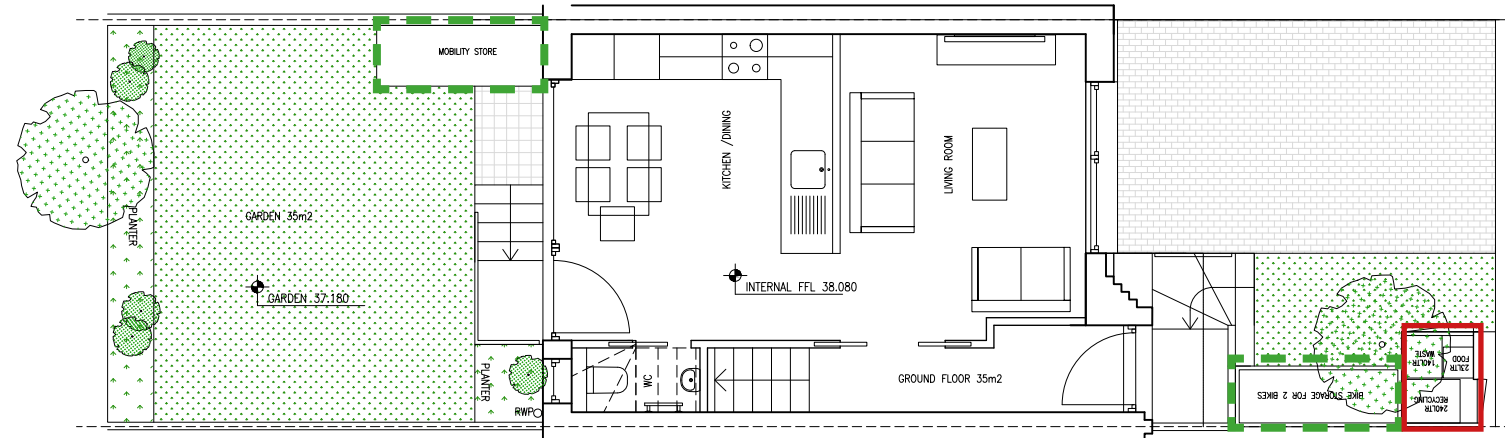
Forge Close: Bins

Each house has its own bin storage area at the front of the house. This has space for storage for

- 1x 240ltr recycling bin
- 1x 140ltr waste bin
- 1x 23ltr food waste bin.

The store is clad in timber / brick to match the main elevation of the house and is topped with planting. It is located ideally for ease of collection by Council waste management services





Mobility Store:

Mobility Store:

A wildflower roofed mobility store is specified for the rear gardens of the Send Road and Forge Close houses. The stores will be equipped with plug points for electric charging. This approach advances traditional bicycle storage in line with growing national trends for more diverse personal forms of transportation, including powered transporters. "Powered transporters" is a term used to cover a variety of novel and emerging personal transport devices which are powered by a motor. These popular forms of personal transportation include escooters, hoverboards, Segways, powered unicycles and electric skateboards. Taken together they have been referred to as a mobility revolution.

With scooters in particular, increasing numbers of children use them in preference to bicycles, and are taking this lifestyle habit into adult hood. This dovetails with the growing trend for escooters.

Many of these alternative forms of transportation are far more compact in storage than traditional bicycles, in both erected and collapsed modes. For instance, a cycle store that would accommodate 2 adult sized bikes would easily accommodate quadruple the number of Brompton-style collapsible bikes or escooters.



Electric Scooter



Electric Skateboard



Electric Bike



Fold up bike



Hover board



Scooter



Electric Unicycle



Electric Vespa

Heritage and Listed Building:

Please also refer to the Heritage Statement of Significance by RPS Group.

The design from an early stage has been developed in close collaboration with Jonathan Smith of RPS Group who was appointed to undertake a heritage assessment for the project submitted with the pre-application.

Before any design work was undertaken the heritage asset was assessed and the potential to improve the setting of the Grade II listed building Ivy Farmhouse identified.

We were keen not to compete with the listed building but to improve the surrounding street scene with a clear urban plan of terraced houses, in keeping with the positive character of the surrounding area.

The new “green corridor” in the middle of the scheme provides a new outlook and sense of openness from the listed building to the north with views continuing through the centre.

Detailing and materials have been designed and specified to reflect elements of the listed building and the surrounding housing.

Unit 05, on Forge Close, adjacent to the listed building steps down to two storeys from three and also has a hipped roof to step away from the listed building. This helps to mitigate any impact onto the listed building.

There are also no windows facing the listed building.

We have added a chimney to the end of u05 to add vertical articulation to the corner and continue the pattern of elements stepping up above the roof line along the terrace.



Elevation on Forge Close



View of Ivy Farmhouse from Gosbrook Road

Heritage and Listed Building:

The heritage statement concludes: “The development will remove the Site’s current negative and incoherent condition, most particularly pertaining to the southern portion. The proposal will greatly improve street frontages at Send Road and Forge Close and will open up new undeveloped space opposite the asset’s rear wing.

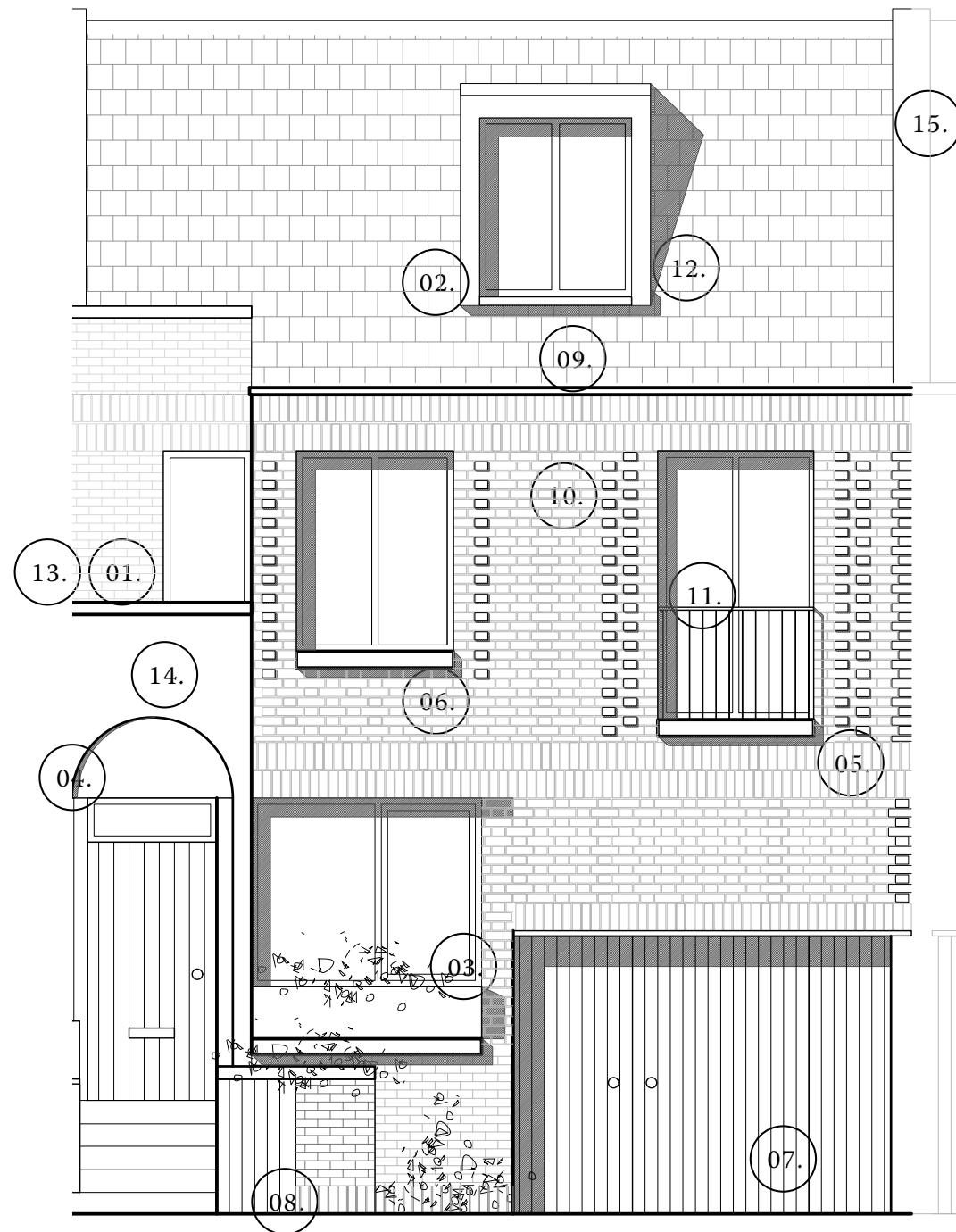
The proposed development will replace the current unsympathetic and unattractive light industrial mid and later twentieth-century piecemeal development with an attractive and contemporary take on the most positive architectural type and form in the wider area, of the residential terrace.”

The pre-application response stated that

“the proposed design has clearly taken in to consideration the listed building at Ivy Farmhouse by creating the “green corridor” in the middle of the scheme which opens up the site and provides views through. Detailing and materials have also been designed and specified to reflect elements of the listed building and the surrounding properties and the roof of the closest property on Forge Close hipped away from the listed building. The Heritage Statement concludes that the impact of the proposal is mitigated by the terraces addressing the roads to the east and the west leaving a newly undeveloped strip of open land through the middle and that there is a negligible/minor level of harm to the listed building.

The Council’s Conservation and Urban Design Officer also concluded that the impact on the listed building would be acceptable. It further stated:

“In terms of design it is clear that this has been carefully considered and officers consider that although different to other developments in the vicinity it is an interesting scheme, which has the potential to improve the character and appearance of the site and the surrounding area. The materials and detailing proposed are considered to be of a high quality and create an attractive scheme.”



Proposed Materials: Send Road

We are intending on referencing the best of the local materials used throughout the local area.

Key:

1. Terrace moved to be smaller and above the front door, improves the overall elevation along the street.
2. Deep reveal brick window, approx 190mm
3. Planters in front of kitchen window and on the top of the store.
4. Concrete arched entrance
5. Soldier course brick banding full with the main facade
6. Concrete cills
7. Timber garage doors, same as front door timber with pedestrian door
8. Bin store.
9. Concrete capping
10. Coloured brick pattern around the windows.
11. Juliet balcony
12. Slate roof behind.
13. Terrace on the corner adjacent to neighbouring development reduces the massing on the corner and allows for greater views across the new developments towards the listed building.
14. Assume grey / silver brick throughout.
15. Brickwork party walls taken above roof line in keeping with surrounding area.





Looking towards the new
houses on Send Road



Proposed Materials: Forge Close

We are intending on referencing the best of the local materials used throughout the local area.

Key :

1. Deep reveal brick window, approx 190mm
2. Planters in front of kitchen window and on the top of the store.
3. Projecting concrete canopy.
4. Soldier course brick banding
5. Concrete cills
6. Concrete capping
7. Coloured brickwork around the windows
8. Juliet balcony
9. Slate roof behind.
10. Assume red / orange buff brick throughout. In line with the scheme heritage consultant's input, a brick will be selected of a dark red muted tone that is in keeping with the garage of the listed building so as not to complete with the lighter red tone of Ivy Farmhouse itself.





Energy and Sustainability:

Please also refer to Sustainability Statement

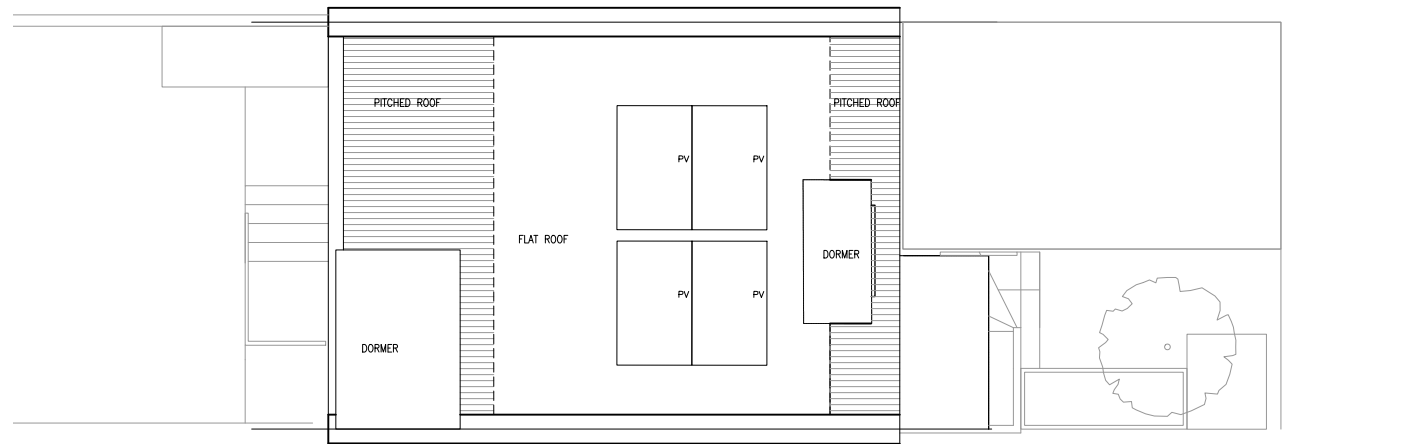
The development has been assessed to achieve a high level of sustainability with a fabric first approach. This will involve ambitious u-values, air tightness and water usage.

Renewable technologies are incorporated into the design. PV panels are specified on the roofs.

Biodiverse green roofs are specified for the flat roof areas of the Send Road units to add natural insulation, reducing the need for heating and cooling.

The Sustainability Statement concludes with;

- In summary, this development incorporates many sustainable features that are consistent with achieving a high level of overall sustainability.
- Areas of strong approach involve the plans for energy and water efficiency, waste arising and the approach to ecology and materials and where issues have requirements to be met under the Building Regulations, the proposed approach is to significantly exceed these minimum standards.
- All specific requirements under RBC policy are met, with the proposed dwellings currently projected to achieve a 21.25% uplift over minimum Part L1A compliance, in exceedance of the 19% uplift required by RBC Local Plan policy H5.
- In short, the proposals outlined within this report demonstrate that the proposed development will meet the high levels of sustainability as required by Reading Borough Council.



Roof Plan with potential position of PV panels: Forge Close



Roof Plan with potential position of PV panels: Send Road



Noise Assessment: Please refer to Noise Impact Assessment

A noise survey has been carried out on the site and the surrounding area.

An assessment has been carried out of the present noise climate at 2-4 Send Road, Caversham and the impact of that noise on the proposed development. The assessment is based on the results of an environmental noise survey that was carried out over a 4 day period at the proposed development site in July 2021 and considers the requirement of local and national planning policy and best practice guidance.

The assessment established that the soundscape of the site comprised traffic noise from the B3345 Gosbrook Road and local vehicle movement, and some nature noise from wildlife and vegetation. Any activities at the commercial unit across Send Road were not audible whilst Syntegra personal were on site and the measured noise levels do not indicate significant commercial activities being present in the soundscape. The assessment concluded: “The results of the initial site risk assessment based on the measured noise levels indicate that the site has a low-negligible risk in terms of noise during daytime and night-time.” The initial site risk assessment concluded “the site as low risk in terms of noise.”

The following construction assumptions were recommended.

- The facade build up will be a standard brick and block construction to achieve an Rw of approx 55db.
- A typical double glazing system in a 4/12/6 configuration will be installed to give a sound reduction index (SRI) of 28db Rw.
- Appropriately specified acoustic trickle vents, with a Dnew of at least 34db, or an alternative means of
- Ventilation will be installed to allow adequate ventilation without the requirement to open windows.

The noise impact assessment concludes with:

“Overall, it has been shown that through careful consideration of the site layout and ventilation strategy the proposed development should avoid future residents being exposed to harmful levels of noise. It can therefore be concluded that significant adverse impacts on the health or quality of life of those future residents would be avoided, in line with the aims of the NPPF, NPSE and the PPG-Noise.”

Air Quality Assessment: Please refer to air quality Assessment

An air quality assessment has been carried out on the site. The report concludes: “Based on the assessment results, air quality factors are not considered a constraint to planning consent for the development” It summarised the air quality impacts as “not significant” as follows:

- The potential for residual significance of potential air quality impacts from dust generated by demolition, earthworks, construction and trackout was predicted to be not significant.
- The potential for road vehicle exhaust emissions impacts were predicted to be not significant.
- There are no major roads within 200m of the development therefore the potential exposure to elevated pollution levels was predicted to be not significant.
- The assessment also noted that NO2 “concentrations in the area have reduced in recent years and are below the levels that triggered the declaration of an AQMA. It is expected the proposed development site will experience lower NO2 concentration than the monitored site. The monitored sites are found on the B3345, whereas the development site is found on a residential road, with lighter and far fewer traffic movements”.



Secured by Design:

Crime is the product of many factors. However, research has shown that design is one element that can influence the occurrence of crime - both positively and negatively. The aim of 'Designing Out Crime' is to reduce the vulnerability of people and property to crime by removing opportunities that may be provided inadvertently by the built environment. It also aims to reduce fear of crime and, in doing so, helps to improve people's quality of life.

Secure by Design (SBD) is a police initiative to encourage the building industry to adopt crime prevention measures in the design of developments to assist in reducing the opportunity for, and fear of, crime, creating a safer and more secure environment.

This development will adopt SBD design principles for a residential setting. This includes the consideration of the following:

- Good visual overlooking opportunities within the design allowing for natural surveillance of communal spaces around the site, with restricted access to the side of the building;
- Doors and windows to be SBD certified;
- Provision of a clear threshold between the street and site in the form of front gardens to clearly define public and private space;
- Within the site around the buildings soft landscaping is kept low to reduce hiding places;
- A lighting design to reduce dark and shadowed areas will be developed, in accordance with recommendations by the Ecology Consultant;
- Cycle and bin stores will be lockable.
- The motorcycle/emotorbike space for Unit 9 will feature a ground anchor for securing the bike to.



Sketch of the rear of the Send Road houses: Sketch was drawn at design development stages.
The rear of the houses now have steps down to the rear garden.



Conclusion:

The scheme provides nine new high quality family houses in a highly sustainable location, meeting a clear local need.

The scheme aims to enhance the character of the existing street scene with a contemporary design that draws on the best aspects of the surrounding coherent street-based terraced housing.

This is reflected in the urban design, scale and the aspects of the detailing and materials.

This is recognised in the pre-application response:

“In terms of design it is clear that this has been carefully considered and officers consider that although different to other developments in the vicinity it is an interesting scheme, which has the potential to improve the character and appearance of the site and the surrounding area. The materials and detailing proposed are considered to be of a high quality and create an attractive scheme.”

The proposal replaces a semi-derelict light industrial unit and a single bungalow with new family terraced housing, along with a tremendous amount of new landscaping features, therefore improving the setting of Ivy Farmhouse, the listed building to the north of the site. The extensive landscaping will also vastly improve the site's biodiversity.

The development provides the opportunity to create an appropriately sensitive architectural development in what is a predominately residential area.