

3.0 DESIGN RESPONSE AND CONCEPT

3.0 DESIGN RESPONSE AND CONCEPT

SITE AMBITIONS

HOMES

- Creation of high quality modern homes with good aspect, natural daylighting & passive ventilation strategies
- Preferred homes mix is for 1B2P and 2B3P to meet the housing demographic of Merthyr Valley Homes tenants
- Allowance for wheelchair accessible homes
- Potential for apartments at GF to have own front door with private gardens creating a sense of ownership / defensible space
- Ensure an appropriate proportion of parking is delivered within the scheme whilst not placing additional burden on existing highways constraints

LANDSCAPE

- Enhancement to the public realm creating a safe, secure and comfortable environment
- Block massing sensitive to neighbouring houses
- Visual and pedestrian connection from the top of the site to the lower portion

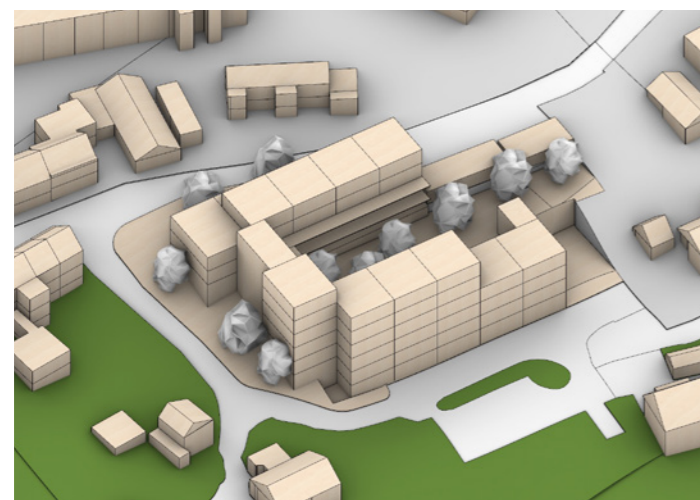
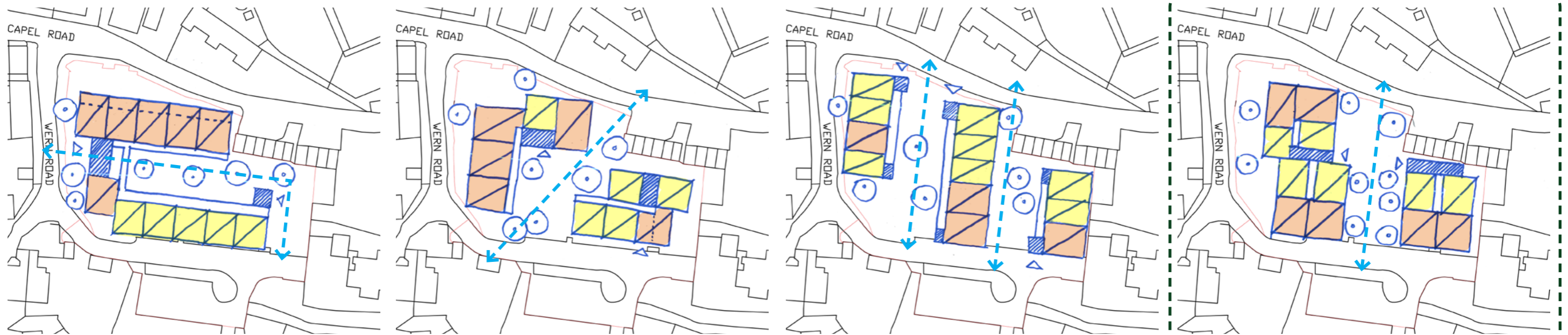


EXISTING BUILDING MASSING

3.0 DESIGN RESPONSE AND CONCEPT

INITIAL MASSING OPTIONS

The initial studies were focused on how the site could be reconfigured to provide the best response to the context and meet the brief requirements to provide high quality homes with a better connection to the surrounding site context, neighbouring properties and wider village.



MASSING STUDY 01
1 BLOCK / GALLERY / COURTYARD



MASSING STUDY 02
2 BLOCKS / DIAGONAL PARK



MASSING STUDY 03
3 BLOCKS / GALLERY ACCESS / ROUTES



MASSING STUDY 04
2 BLOCKS / CENTRALISED LANDSCAPE

- 1B2P
- 2B4P

3.0 DESIGN RESPONSE AND CONCEPT

INITIAL MASSING OPTIONS

The development of the 2-block arrangement culminated in an option which reduced site coverage compared to the existing building and reconfigured the orientation of the plot to make it a more open and accessible space with aspect and views to all homes.



2 BLOCKS / CENTRALISED CORES / MATCHING FOOTPRINT



3.0 DESIGN RESPONSE AND CONCEPT

INITIAL MASSING

The massing provides a simple yet considered response to the site and achieves many of the site ambitions including the number of homes targeted whilst being cognisant of the constraints and opportunities of the site.

TOTAL NUMBER OF HOMES
44 HOMES

TOTAL NUMBER OF CORES
2 CORES

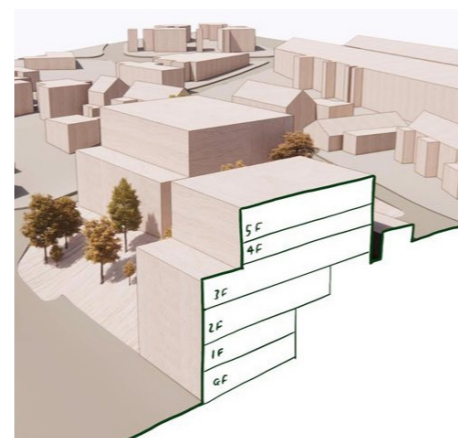
RESIDENTIAL MIX
24 1B2P
20 2B3P



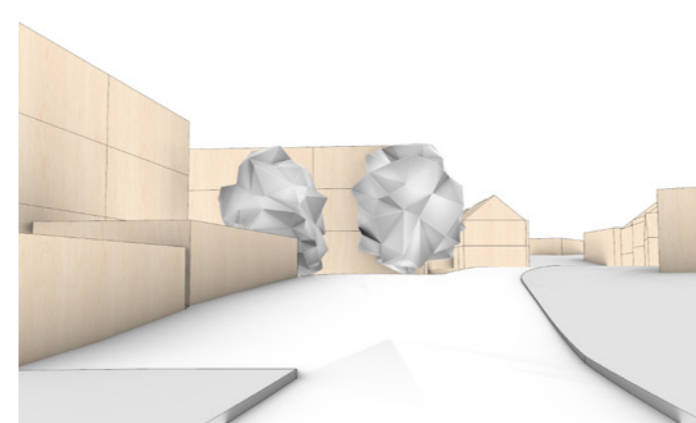
MASSING VIEW 01



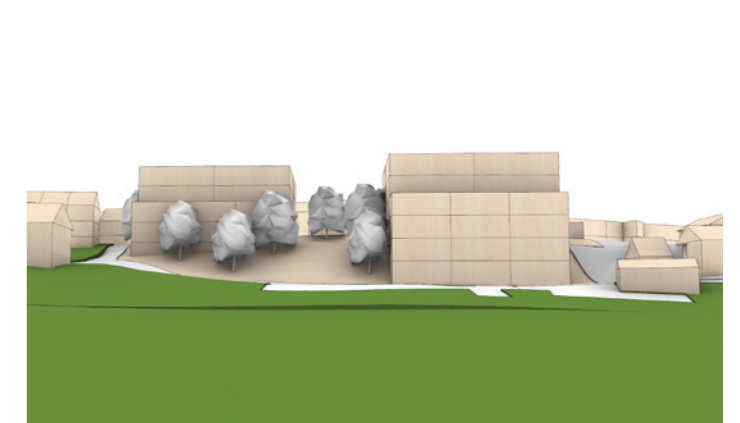
KEY PLAN



MASSING SECTION



MASSING VIEW 02



MASSING VIEW 03

3.0 DESIGN RESPONSE AND CONCEPT

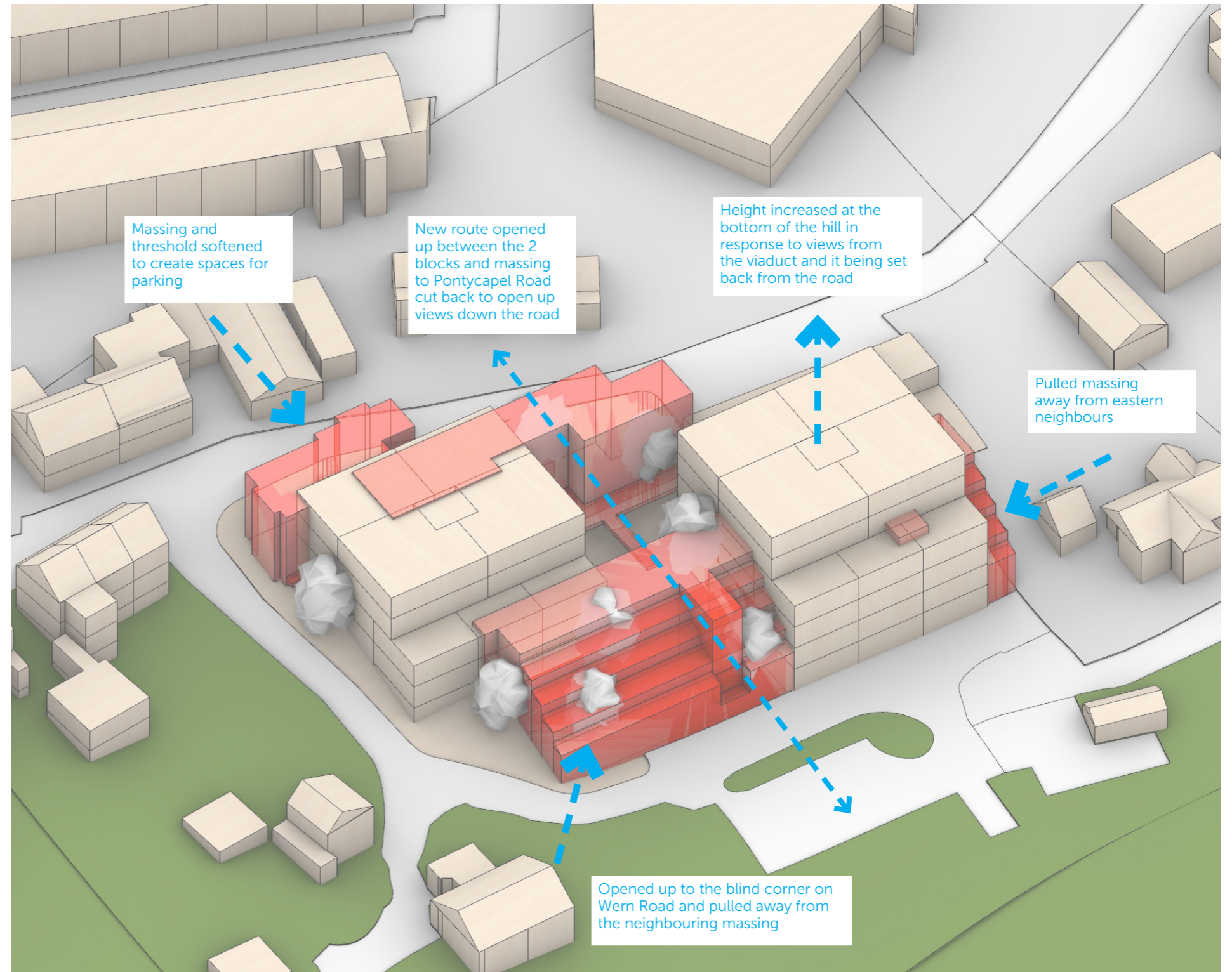
INITIAL MASSING OVERLAY WITH EXISTING BUILDING



Existing building massing



Initial massing



Massing and threshold softened to create spaces for parking

New route opened up between the 2 blocks and massing to Pontycapel Road cut back to open up views down the road

Height increased at the bottom of the hill in response to views from the viaduct and it being set back from the road

Pulled massing away from eastern neighbours

Opened up to the blind corner on Wern Road and pulled away from the neighbouring massing

3.0 DESIGN RESPONSE AND CONCEPT

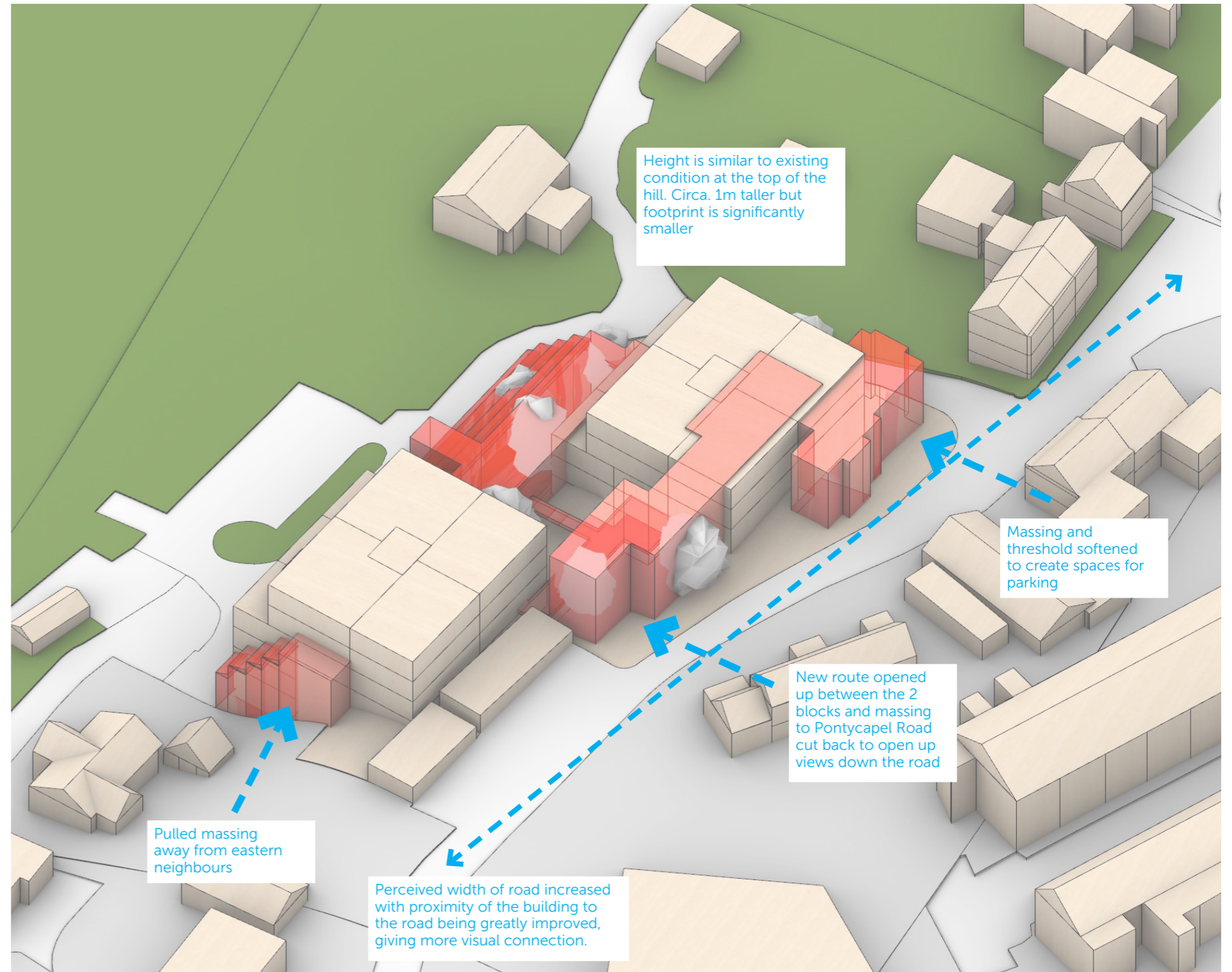
INITIAL MASSING OVERLAY WITH EXISTING BUILDING



Existing building massing



Initial massing



3.0 DESIGN RESPONSE AND CONCEPT

PRE-APP FEEDBACK SUMMARY

The proposed development seeks to replace a poorly designed block of flats and the redevelopment of the site, as advised in our meetings, is therefore highly welcomed.

The main issues that would be considered when assessing a planning application for a proposal of this nature would relate to whether the proposal would be acceptable in respect of its impact upon the character and appearance of the area, residential amenity, ecology, parking provision and highway safety.

CHARACTER AND APPEARANCE

The proposal, subject to appropriate high-quality finishes and detailing, could be considered to provide a contemporary and appropriate form of development, which could positively contribute to the character and appearance of the area and enhance the overall quality of the street scene.

The separate blocks and their layout, break up the mass of the development and open up the overall site, since the one block has been located further south and both blocks have been set back from the edge of the site. This layout combined with the levels of the site would ensure that the height of the overall five-storey buildings is very similar to that of the existing built development and would reduce the impact of the proposal along Pontycapel Road.

The open landscaped areas to the front of Pontycapel Road, and in particular, the central landscaped area in between the two blocks, provide interesting and inviting features.

In respect of its external finishes, as discussed during our meeting, this development with the appropriate use of high quality materials and finishes, provides an opportunity to add further interest to the building. Their use in certain sections of the development would break up the bulk of the buildings further and create focal points and features, resulting in a more attractive and innovative proposal.

The proposed development could therefore be considered to provide a good quality of space and built environment, which could enhance the character and appearance of the area and comply with LDP Policy SW11.

RESIDENTIAL AMENITY

The proposed blocks have been set back further from the edge of the site and one of the blocks would be re-sited further south. This would prevent an adverse impact on the properties along Pontycapel Road. Whilst these neighbouring dwellings are located on the opposite side of the road, due to its narrow width, the existing three storey building currently appears to 'tower' over these properties, particularly since the front of the building projects out over the road, at first floor level. The proposed redevelopment of the site would therefore address this concern.

In respect of the properties located off Wern Road, to the east and the west, the building's set back further into the site would also improve the relationship with these neighbouring dwellings. It is noted that the majority of the proposed flats

would be served by external balcony areas. Whilst the current building comprises rear conservatory areas, which provide overlooking opportunities to the neighbouring surrounding dwellings, it is important that this relationship with the neighbours is not undermined further.

A better and improved relationship would also be welcomed. As such, you may wish to consider adding privacy screens to the side of the balconies, which may somewhat help to limit overlooking opportunities and address the privacy concerns which could arise from the introduction of external balconies. Please note however that your application should be accompanied by a PAC (Pre-application Consultation) report and any objections received at the time of the application would be material considerations during the assessment of the application.

The proposed development could therefore be considered acceptable in respect of its impact upon the privacy and amenities of nearby occupiers and could comply with LDP Policy SW11.

PARKING PROVISION AND HIGHWAY SAFETY

The proposed development would be served by 30 parking spaces, which would include 4 disabled parking bays. As you stated during our meeting, affordable housing occupiers tend to have lower car ownership and you would submit additional information regarding this at the time of the application. Nevertheless, the proposed parking provision would be below the required standards of 1 parking space per flat and the Head

of Engineering and Highways has therefore raised concerns with the proposal.

Whilst it is noted that the existing flats also fail to provide sufficient parking facilities to serve the 34 units, made up of 1, 2 and 3 bedrooms, the Head Engineering and Highways has also noted further concerns in respect of the narrow width of the carriageway along sections of Pontycapel Road and Wern Road.

To address these concerns, the Head Engineering and Highways has requested that the site boundary be set back further (into the site) to provide a minimum carriageway width of 5.5 metres with a 2 metre wide footway on the development side. This would not only improve the access and enable adequate 2-way traffic movements along this part of the highway, but would also allow for short term visitor parking along the highway, which has not been included in the redevelopment of the site.

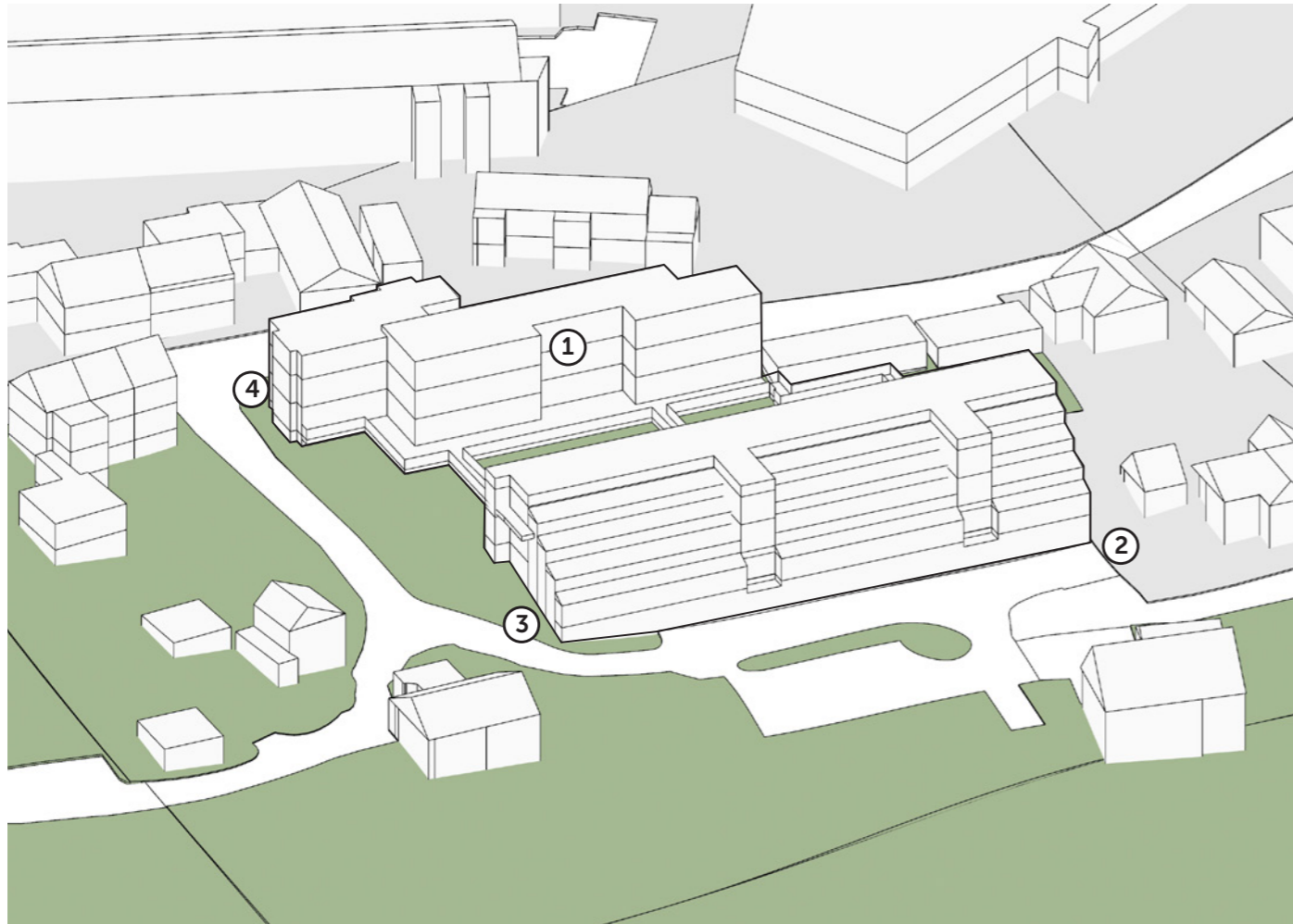
The proposed development, subject to the above amendments, could be considered acceptable in respect of parking provision and highway safety and could therefore comply with LDP Policy SW11.

4.0 DESIGN DEVELOPMENT

4.0 DESIGN DEVELOPMENT

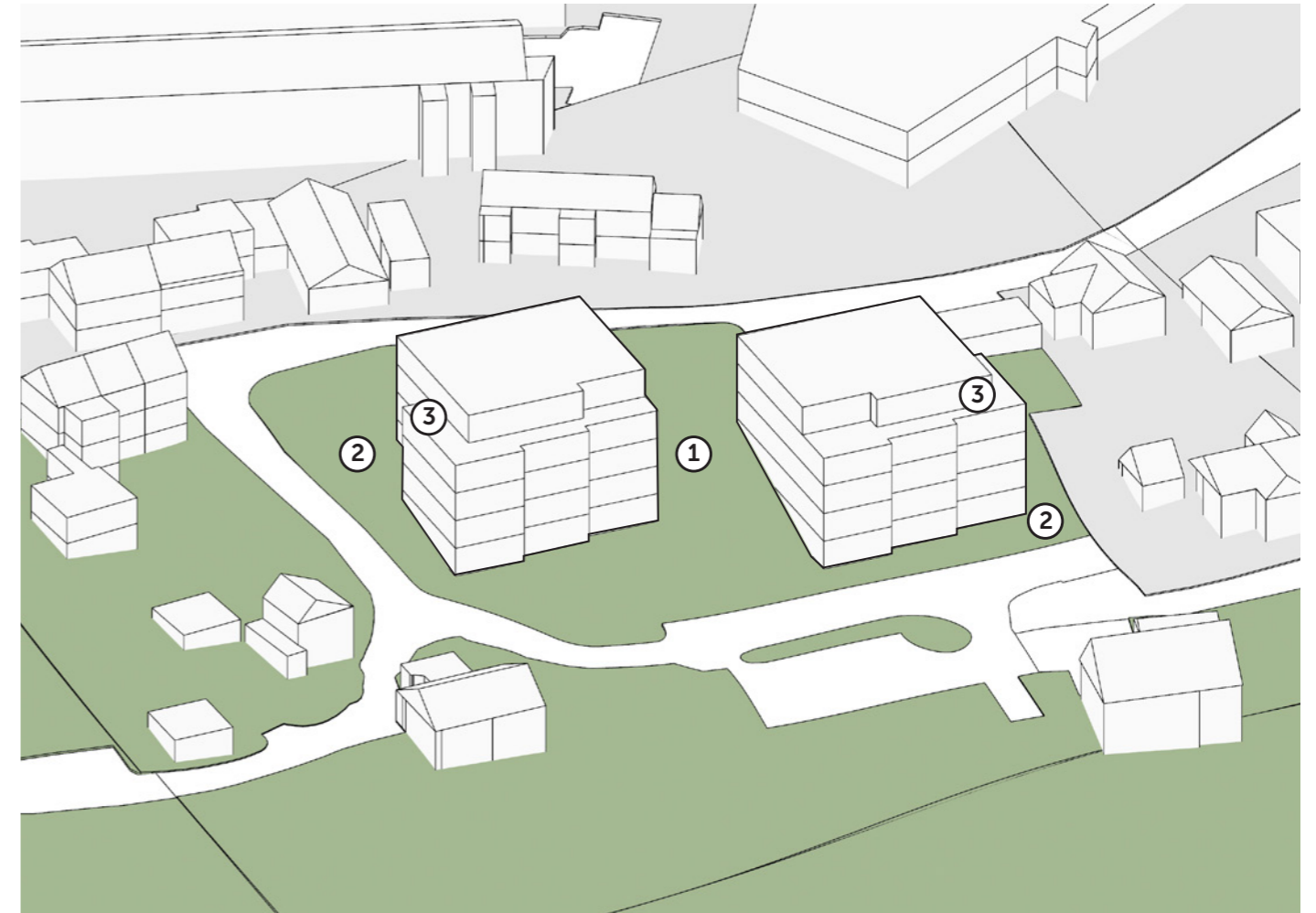
MASSING DEVELOPMENT

The building has been developed in response to pre-app feedback and site conditions. Key moves are summarised below:



EXISTING MASSING

1. Long east to west massing blocks views into the valley from properties to the North
2. Massing sits against site boundary and road line
3. Massing extends to the corner of Wern Road
4. Building massing sits to the extent of the site boundary on the North West corner - close to road line and neighbouring property opposite



PROPOSED MASSING

1. Two blocks with a gap introduced between opens up the site improving views, light and connections north/south.
2. The massing footprint is significantly reduced and pulled back from the edges of the site and adjacent to neighbouring properties to improve proximity distances and add articulation to reduce the perceived visual mass
3. The top storey steps back to the East and West edges of the site to respond to the scale of surrounding homes and the slope of the site

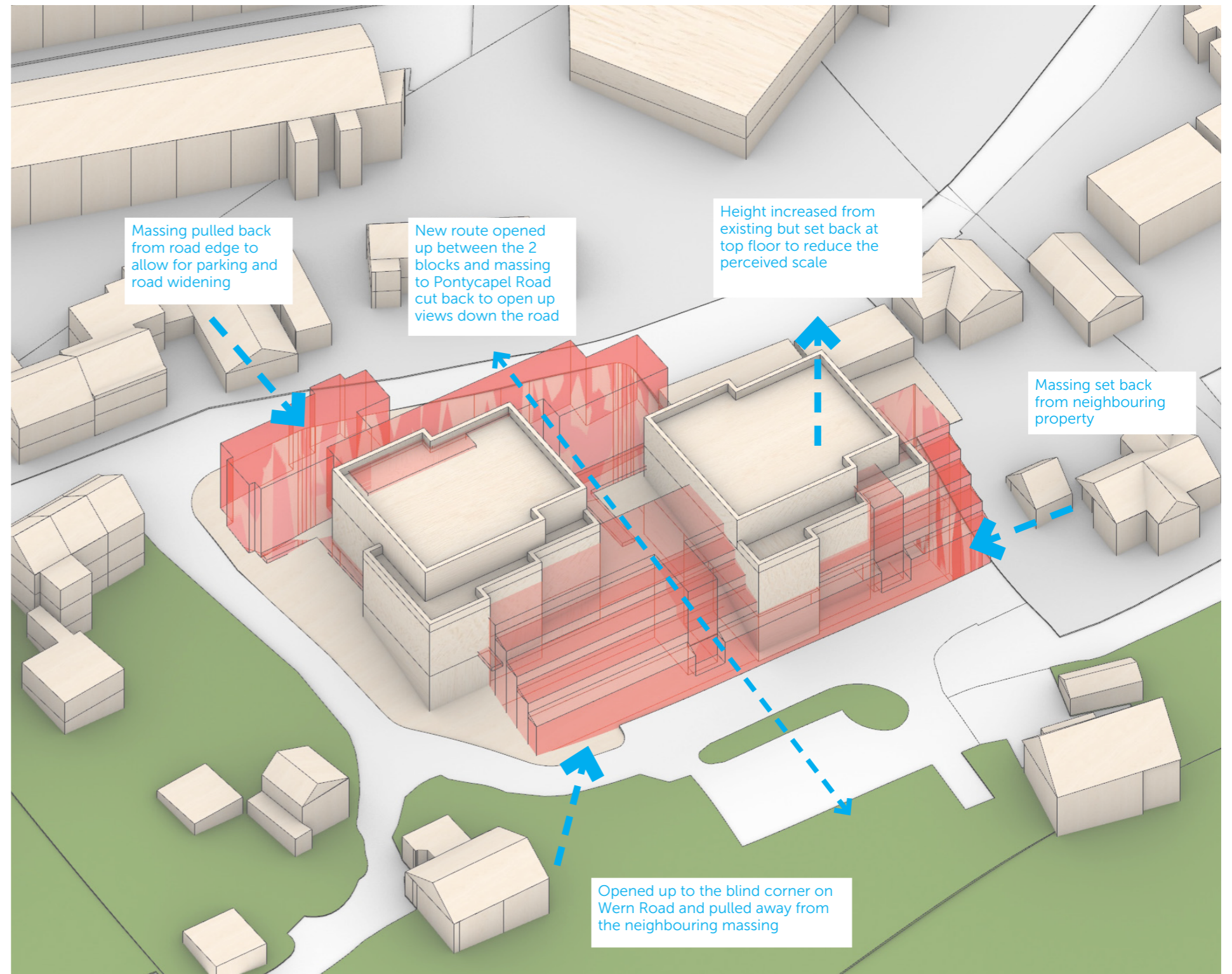
4.0 DESIGN DEVELOPMENT

MASSING OVERLAY WITH EXISTING BUILDING

Overlay of proposed massing with existing shown in red. The diagram highlights the key areas of difference in footprint, height and proximities.



Existing building massing



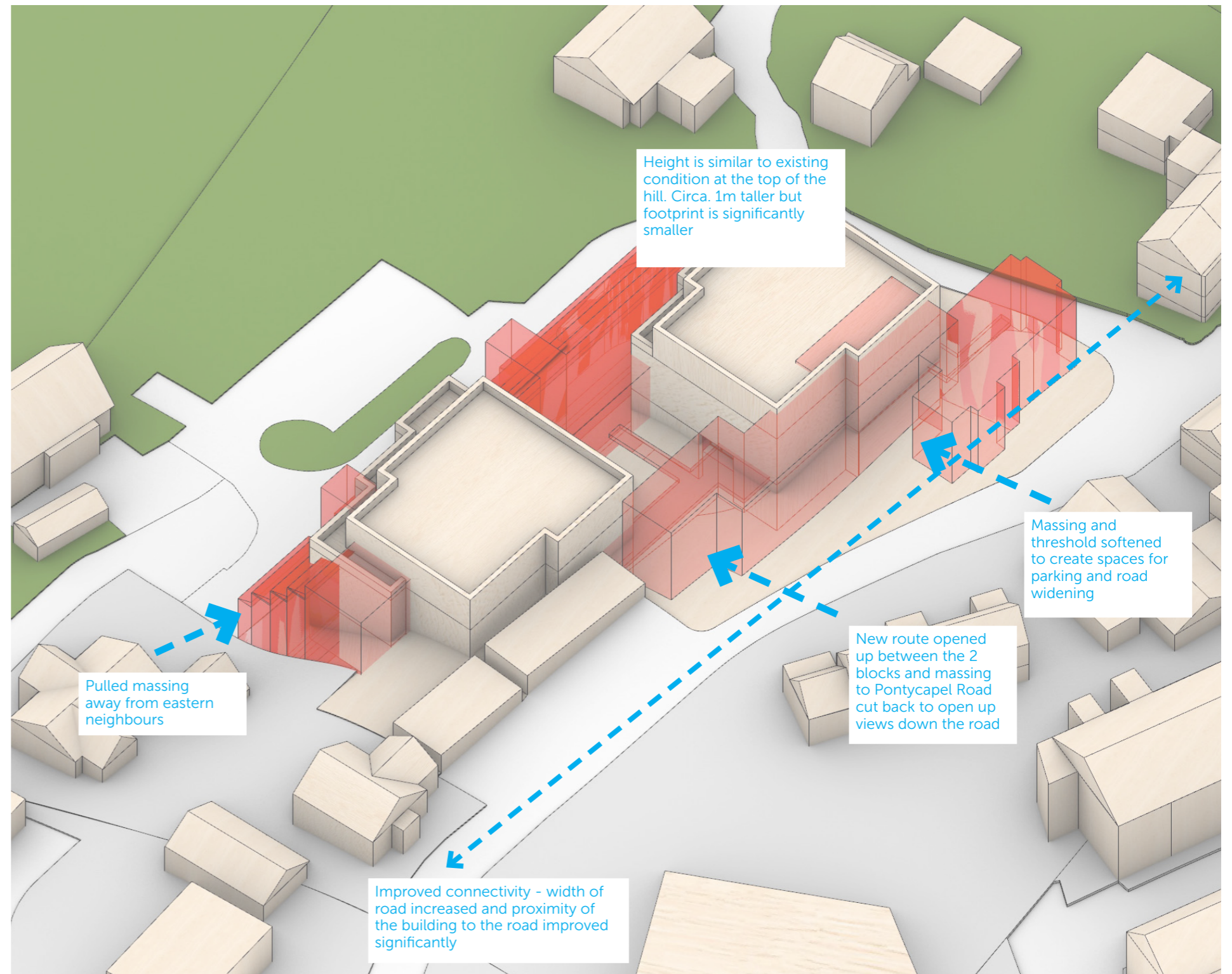
4.0 DESIGN DEVELOPMENT

MASSING OVERLAY WITH EXISTING BUILDING

Overlay of proposed massing with existing shown in red. The diagram highlights the key areas of difference in footprint, height and proximities.



EXISTING BUILDING MASSING



5.0 CONSULTATION

5.0 CONSULTATION ENGAGEMENT AND CONSULTATION

The proposals have been developed alongside multiple consultation events with the Client, pre-application advice from the local planning authority, secured by design, heritage input and a community consultation event by way of a public exhibition in September 2023.

Consideration has been given to design solutions for the proposal based on the feedback from each of these discussions.



Community consultation- public exhibition

6.0 THE PROPOSAL

5.0 THE PROPOSAL CHARACTER

CHARACTER

The proposal consists of two blocks with a central landscape and parking areas to the north and south.

The design maximises dual aspect with no single north facing homes, it improves connectivity across the site whilst reducing the footprint on the site and increasing soft landscape areas. The effect of which creates buildings that sit within and feel part of a landscape.

The exterior of the buildings draws influence local materials including rendered finishes/textures in combination glazed linings and stonework to create a contemporary palette that feels part of it's surroundings. Please refer to the next section in the document for further details.

RESPONSE TO PLANNING POLICY

Refer to the accompanying Planning Statement prepared by Asbri Planning for details.



6.0 THE PROPOSAL

ACCESS AND MOVEMENT

Main entrances are located centrally. Flats at lower ground floor level have individual front door entrances accessed externally.

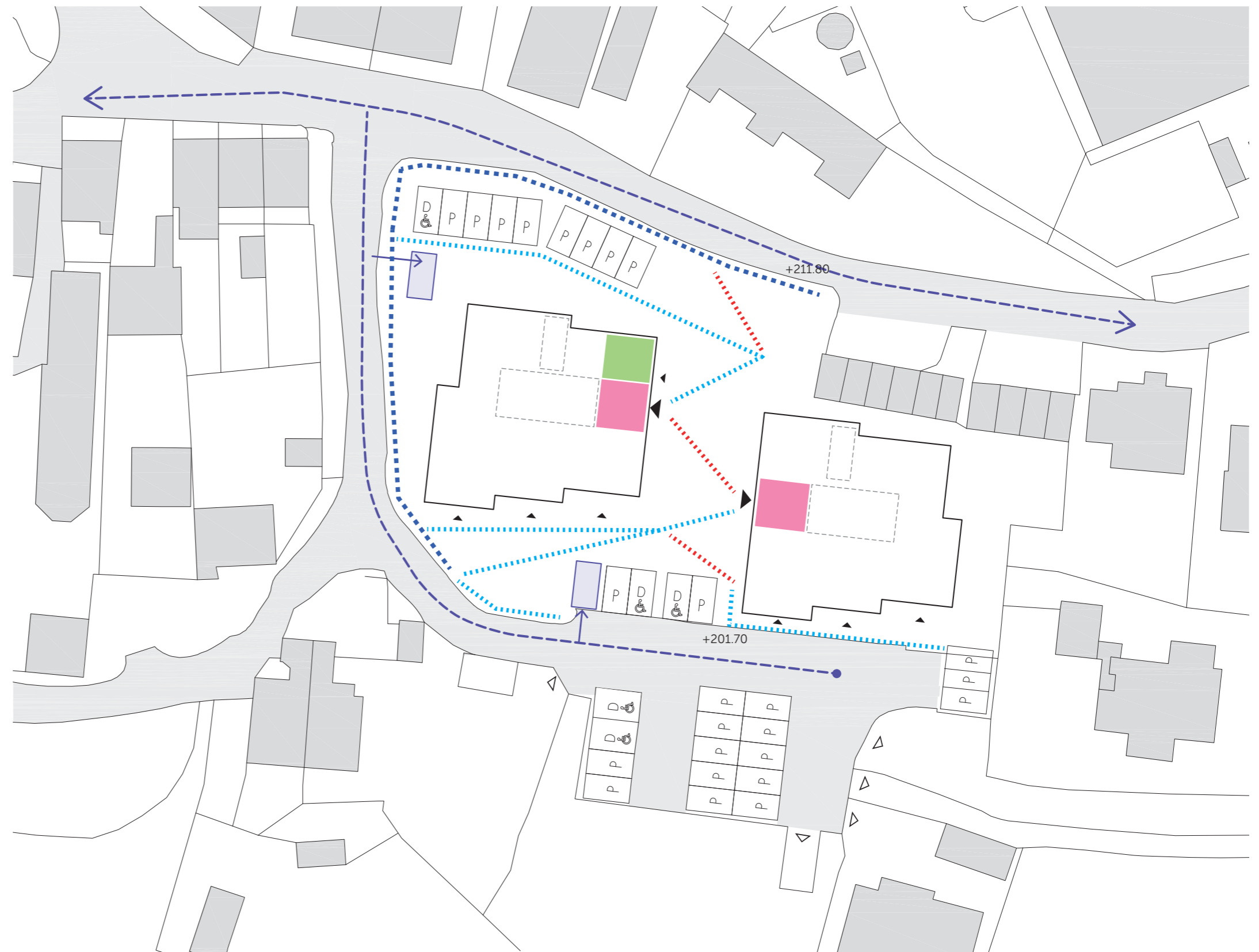
Parking sizes are in accordance with welsh parking standards. There are 30 Spaces (Incl. 5 Accessible) 1 Unit: 0.75 Spaces. (Car ownership survey of existing developments shows 0.6). Refer to detailed transport statement for more information.

There are two bin stores located to the north and south of the south close to the roadway for ease of collection. Due to the steep topography of the site they exceed 30m distance from respective block main entrances. However they are away from windows, on peoples typical routes

Bin stores have been sized per block in accordance with supplementary planning guidance.

Block	Bedrooms	Recycling (l)	General (l)	Food (l)
A	27	2200	2200	240
B	27	2200	2200	240

- ENTRANCE LOBBY
- REFUSE STORE
- CYCLE STORE (26 SPACES)
- PEDESTRIAN PATHWAY
- PEDESTRIAN STEPPED CONNECTION
- EXISTING PEDESTRIAN FOOTPATH
- REFUSE SERVICING ROUTE
- MAIN ENTRANCE
- EXTERNAL DWELLING ENTRANCE
- DRIVEWAY ACCESS FOR NEIGHBOURS



6.0 THE PROPOSAL

LOWER GROUND FLOOR

Lower ground level – Because of the slope to the site, dwellings are located to the south with all units entered via individual external front doors. Wheelchair accessible units are located at this level.



6.0 THE PROPOSAL

UPPER GROUND FLOOR

Upper Ground floor shows main entrances accessed from the central landscape located opposite each other.

These connect to a centralised core with stair against the façade to introduce natural light to the circulation areas and borrowed light to the lift lobby.

Cycle stores and plant are located to the north where the ground level is not conducive to incorporating dwellings.

Bin stores are located to the north and south of the site close to collection routes.



6.0 THE PROPOSAL

FIRST AND SECOND FLOOR

Typical layouts to level 2 and 3 illustrate how dwellings are located around the centralised core, maximising dual aspect and quality of view.

By staggering the blocks in plan to avoid apartments directly opposite and controlling the orientation of apartment outlook minimises any potential overlooking.

The stepped footprint responds to neighbouring properties to increase proximity and minimise any potential overlooking.



6.0 THE PROPOSAL

THIRD FLOOR

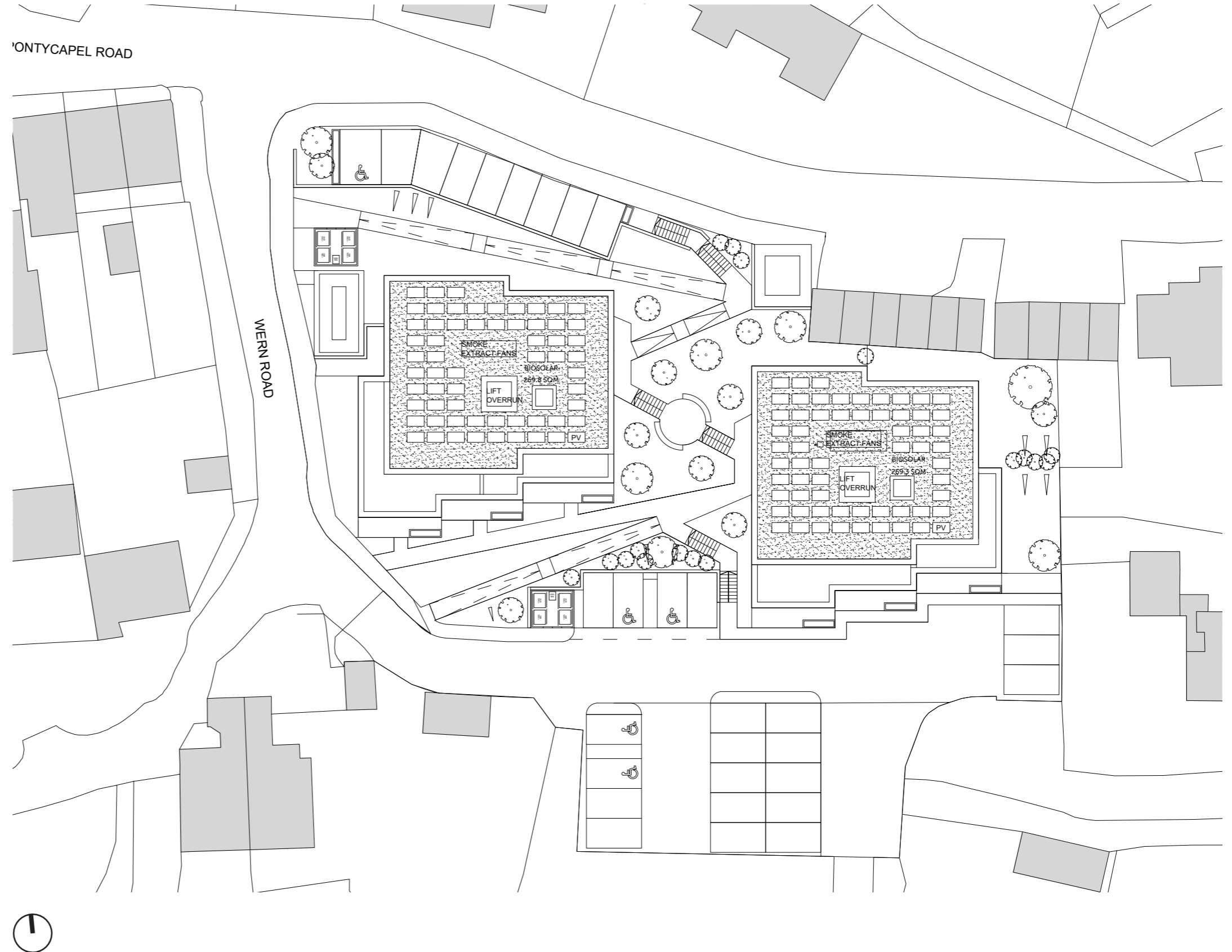
Dwellings stack where possible. The two apartments to the south are pulled back from the building line to set the top storey back and allow the opportunity for private terraces. Access to terraces to the east has been controlled to minimise any potential overlooking to adjacent properties.



6.0 THE PROPOSAL

ROOF LEVEL

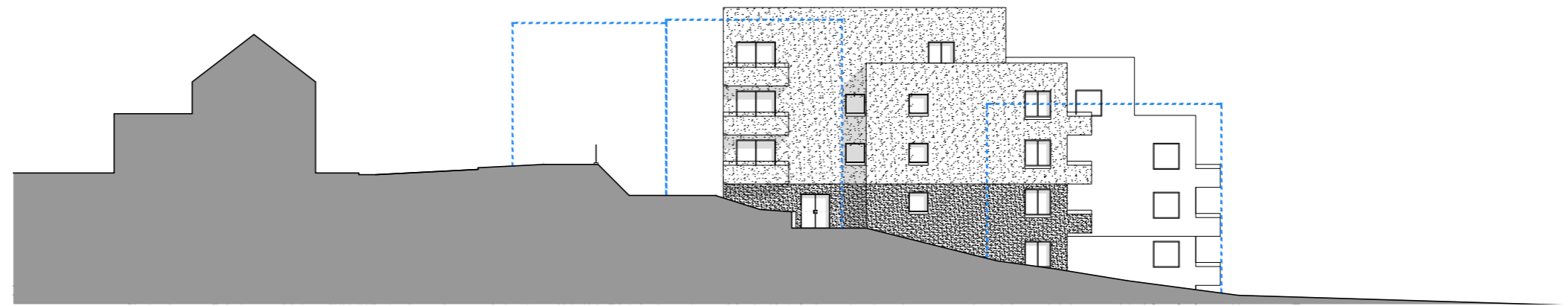
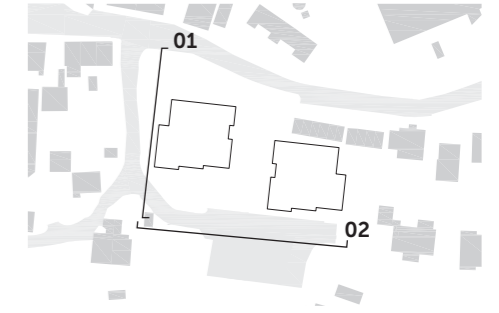
The roof is accessed via a hatch within the lobby below. PV panels are arranged at roof level on top of a biodiverse green roof which also facilitates attenuation as part of the sustainable drainage strategy. Plant has been minimised at roof level with only smoke extract fans located here.



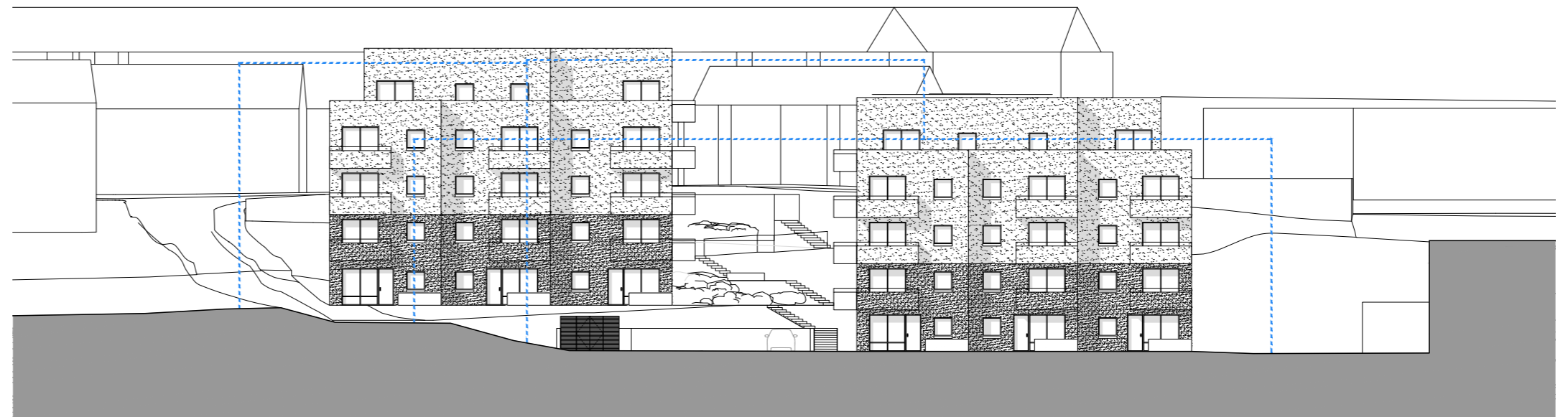
6.0 THE PROPOSAL SECTIONS

The sections shown right show how the blocks work with the existing topography and how they sit against the existing building line shown in blue.

The proposed block is taller in places than the existing. However, the footprint extent on the site is significantly reduced and distances to nearby homes increased.



Section 01



Section 02

6.0 THE PROPOSAL

ACCOMMODATION SCHEDULE

	GEA		GIA		NSA		UNITS		
	sqm	sqft	sqm	sqft	sqm	sqft	1B2P	2B3P	TOTAL
LOWER GF	487.6	5,249	418.8	4,508	382.5	4,117	6	0	6
UPPER GF	787.2	8,474	700.0	7,535	327.8	3,529	4	2	6
1F	797.1	8,580	713.0	7,675	564.0	6,071	4	6	10
2F	797.1	735.8	713.0	7,675	564.0	6,071	4	6	10
3F	640.0	6,889	567.6	6,110	432.5	4,656	8	0	8
TOTAL	3,509.0	37,771.8	3,112.4	33,502.7	2,270.8	24,443.5	25	15	40
							63%	38%	

GENERAL NOTES

GEA = Gross External Area

GIA = Gross Internal Area

NSA = Net Sales Area

6.0 THE PROPOSAL

ENVIRONMENTAL SUSTAINABILITY

SUSTAINABILITY COMMITMENT

Merthyr Valley Homes is committed to building sustainable and affordable homes that meet the needs of the current and future generations within the local communities that they serve.

This includes careful consideration of low carbon structure and materials and the environmental performance of the homes with the aim to minimise on going energy and maintenance costs.

MODERN METHODS OF CONSTRUCTION

Our thinking extends to how the homes are constructed to help economy and improve long term quality. This includes options for off site construction which helps reduce the construction time on site.

The principle approach for structure and envelope is to design for lightweight and off-site construction where possible. Various structural systems have been reviewed and tested including CLT, SIPs, LGS as well as traditional methods of using concrete or steel. The preference was for Light gauge steel (LGS) which had a low embodied carbon content and was the most suitable across a range of metrics (shown right):

- It is lightweight, therefore reduces overall weight on the foundations
- Cassettes can be pre-fabricated off-site
- Steel is an inherently a recyclable material.
- If designed without bolts then can be easily disassembled and recycled or reused

- Common method of construction therefore easy to procure
- Fast construction improved by minimising wet trades
- Acoustic limitations can be improved significantly by build-ups.

The facade is proposed as a contemporary render system which is lightweight and performs well in terms of embodied carbon. The system can accommodate generous insulation zones to create a highly energy efficient and air tight envelope.



	Wall Systems		
System	SIPs (walls+floors)	CLT (walls+floors)	Light gauge steel (walls+floors)
Other metrics			
Construction speed	✓ Wholly panelised	✓ Wholly panelised	✓ Can be panelised or prefabricated walls and floor
Structural depth & spans	✗/✓ Deeper floors but can allow services to run through	✗/✓ longer spans can be achieved but screed required	✗/✓ Deeper floors but can allow services to run through
Acoustics	✗/✓ good separation between units but not floors	✓/? Reasonable separation (joints critical)	✗ Little separation offered
Weight (Load on substructure)	✓✓ Very lightweight	✗/✓ Heavier than traditional timber (lighter than conc)	✓✓ Very lightweight
Demountability (Ease of circular economy)	✓ Demountable	✓✓ Demountable	✓ Demountable
Additional Notes			No timber in external structure which can be beneficial for insurance purposes
Embodied carbon	<p>Stages A1-A3 considered (cradle to gate), for primary frame elements only. Mean values calculated across all grid options.</p> <p>Comparative kgCO₂e/m² with SCORS rating.</p> <p>Note: Carbon varies across SIPs products, depending on the type of insulation so a range has been given</p>		
Notes and assumptions	<p>Sequestration has not been included in embodied carbon calculations for timber options.</p> <p>Screed not assumed for any options but likely required for CLT to control vibrations & on all concrete options.</p> <p>Assumed in-situ concrete mix 25% GGBS cement replacement.</p> <p>Embodied carbon values assume only cradle to gate (A1-A3). Stage A4 onwards not currently considered.</p> <p>Assumed loads for calculation of structural zones: SDL = 1.5kPa. LL = 2.5kPa (residential loading).</p>		

Comparison of structural systems being considered

6.0 THE PROPOSAL COMMUNITY SAFETY

The design proposal has been developed with safety and security of local residents and visitors in mind. We have sought advice and input from Design Out Crime Officer and integrated key comments. To prevent crime and improve safety the following measures have been considered and integrated into the design:

- The perimeter of the site will be clearly defined with planting.
- Communal areas, entrances, paths, refuse stores and vehicle parking areas will be lit during the hours of darkness.
- Trees and other landscaping features have been positioned so they do not create hiding/ entrapment spaces, obscure signage/lighting or provide a potential climbing aid into properties.
- Vehicle parking is overlooked to create passive surveillance
- Windows and doors will be clear from landscaping features and trees in public areas
- Trees and other landscaping features are positioned away from areas where they could provide a potential climbing aid into properties.
- There are clear lines of sight across the development and clear unobstructed views of the parking bays from the properties.
- External windows and doors will meet PAS 24 2022 requirements
- Access into the apartment blocks will be controlled by access control with audio and visual verification fitted that meets Secured by Design standards specifications.