

# Deformalising Formal Settlements

RE-IMAGINING THE DENSIFICATION OF SUBURBIA

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Discipline Leader: Dr Jan Hugo

**DESIGN PROBLEM:**

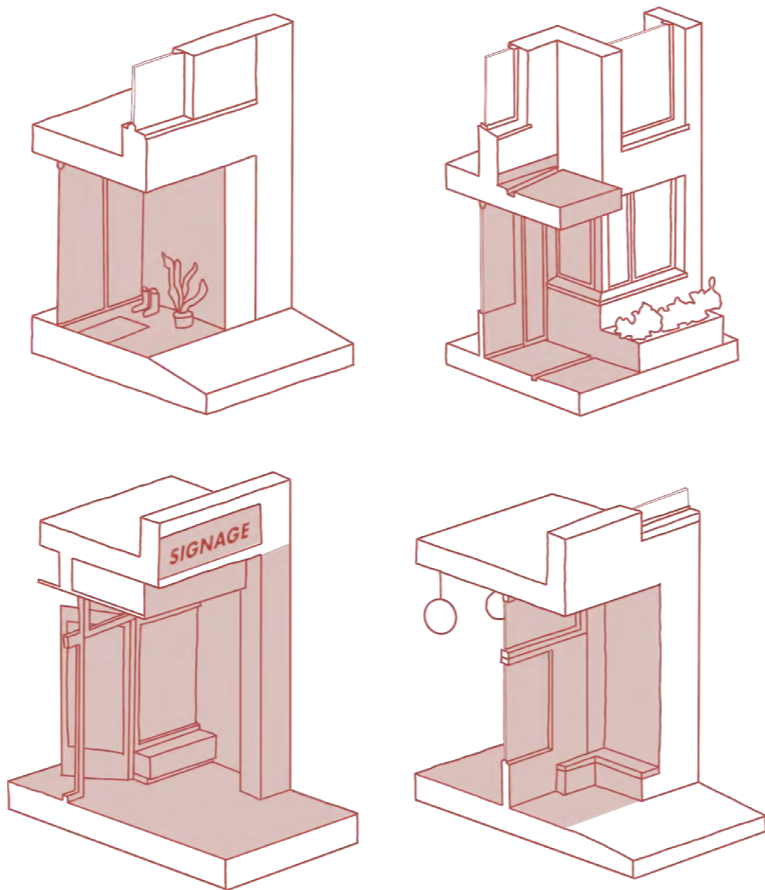
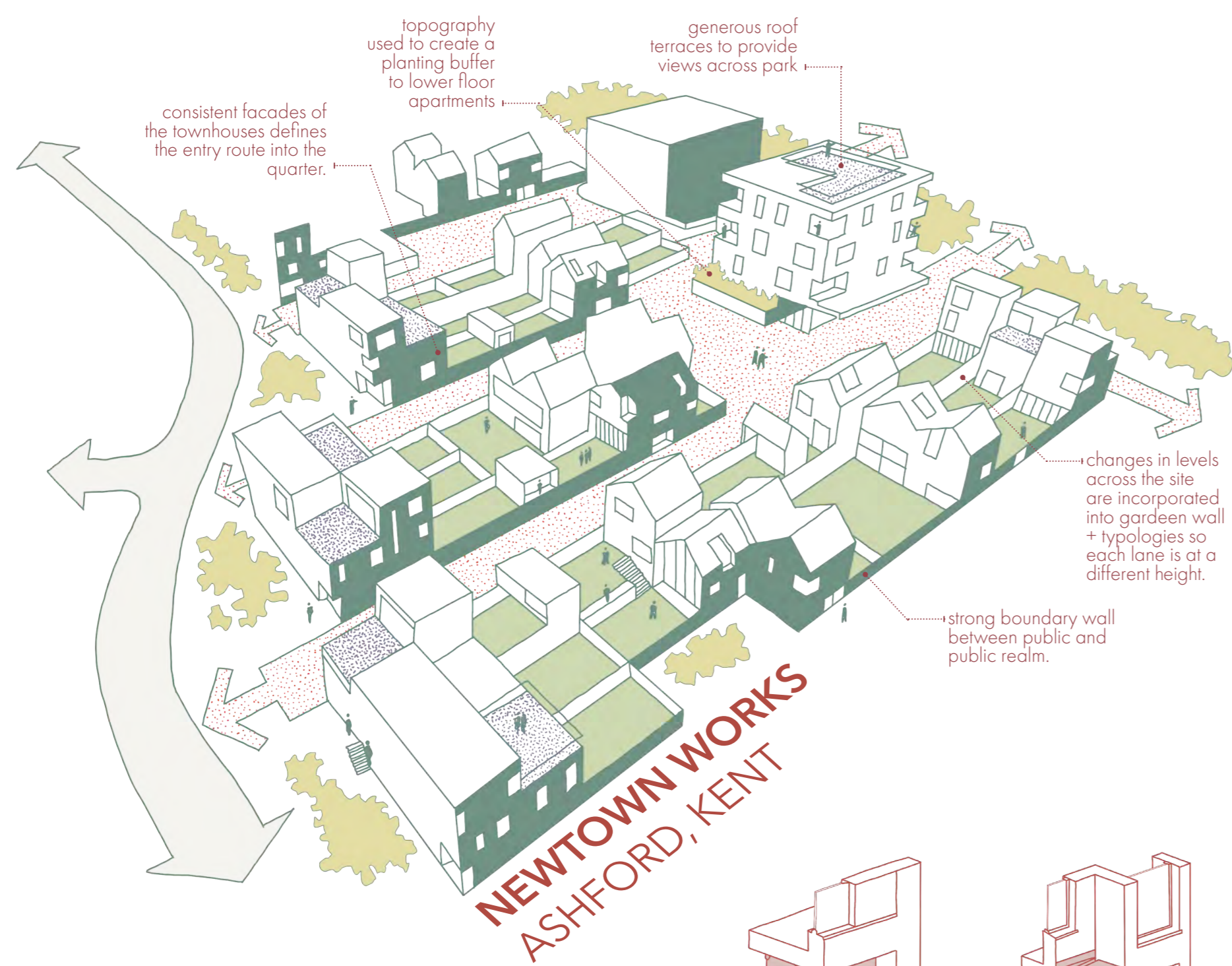
How should interstitial inter-suburban areas be densified while facilitating cultural and socio-economic sustainability in neighbourhoods and communities located in formalised settlements?

**PROJECT INTENTION:**

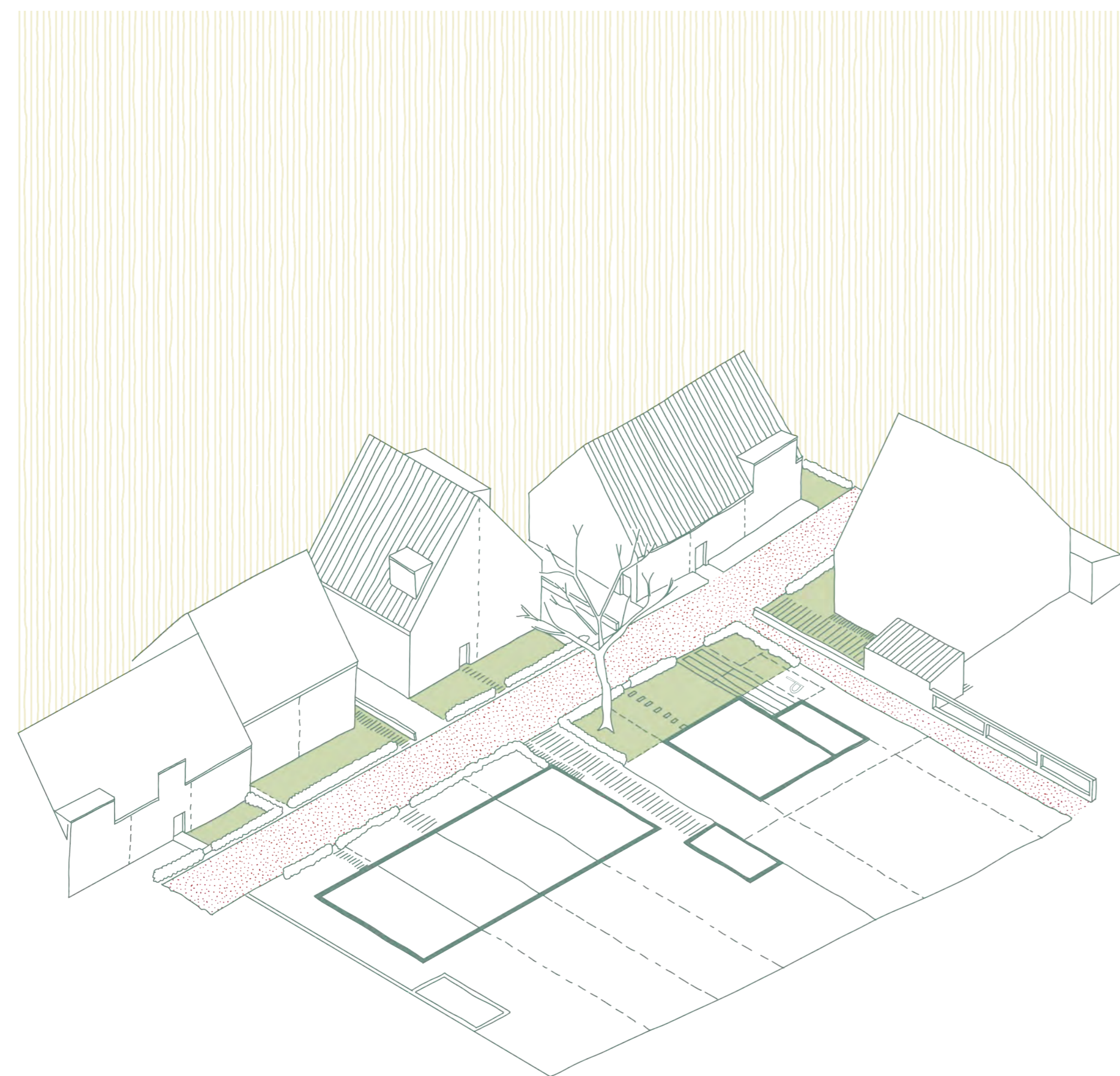
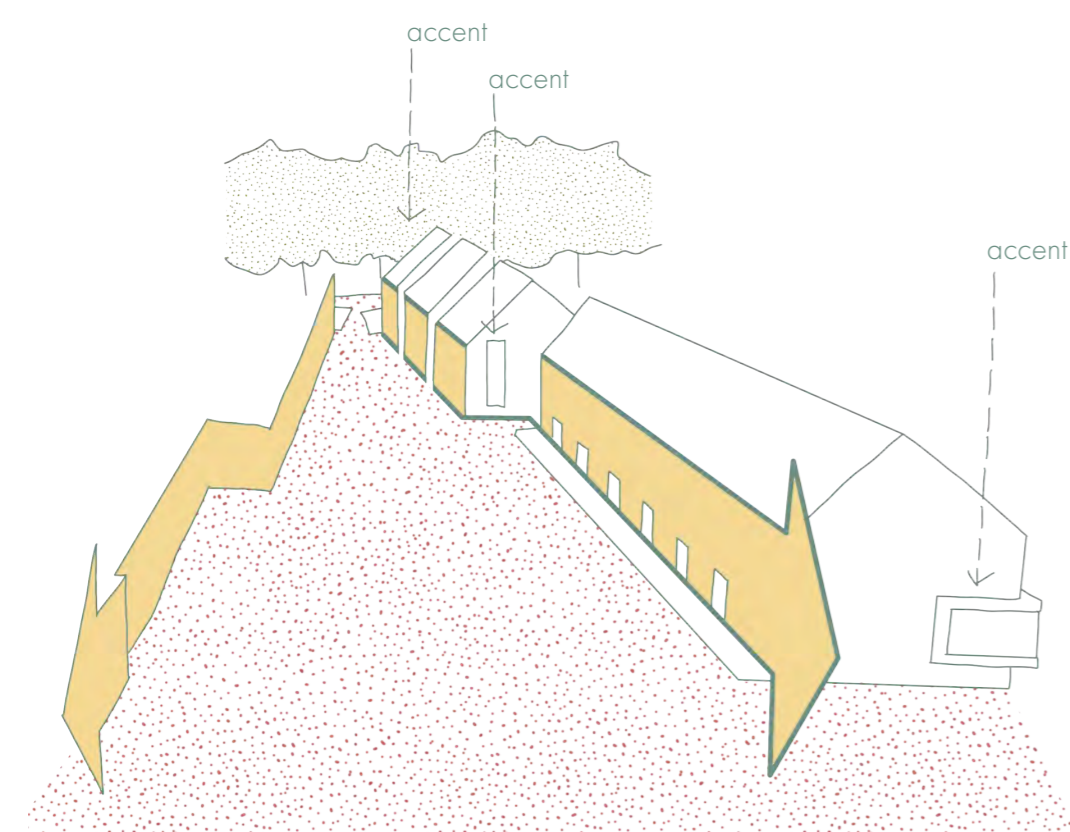
This project serves as a demonstration of the potential to densify and pedestrianise the uniform suburban landscape. It specifically examines residential blocks that predominantly serve a single purpose. The investigation assesses the suitability of these residential blocks to integrate into proposed semi-public and public green networks connecting suburban areas. The design intention is to reimagine suburbia as a focal point for public life, especially in areas lacking communal outdoor spaces.

**SOUTH AFRICAN SUBURBIA**

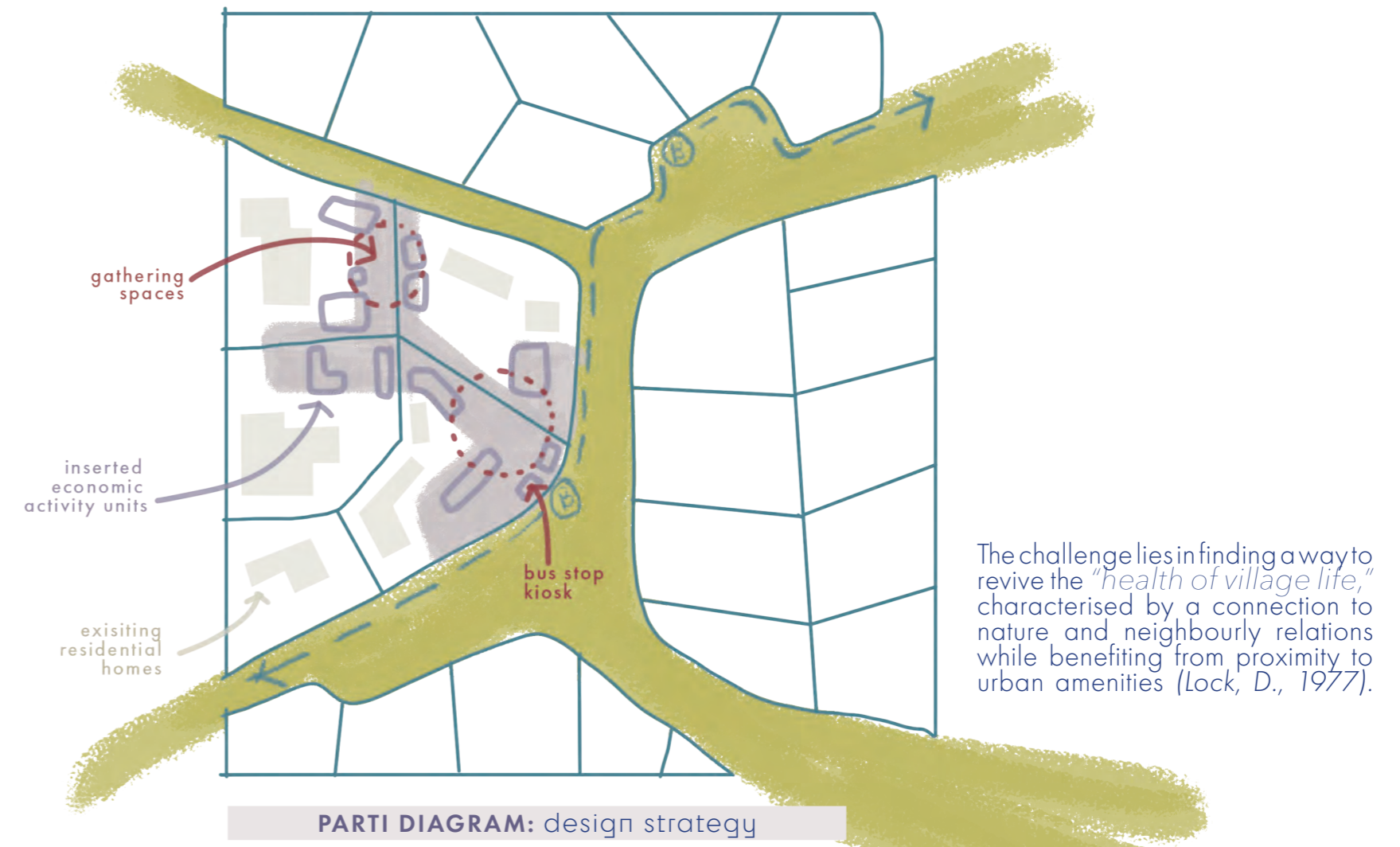
**DENSIFIED SUBURB PRECEDENT**



Treatments of the entrances and the threshold crossover point between the public realm and the private or semi-private interiors



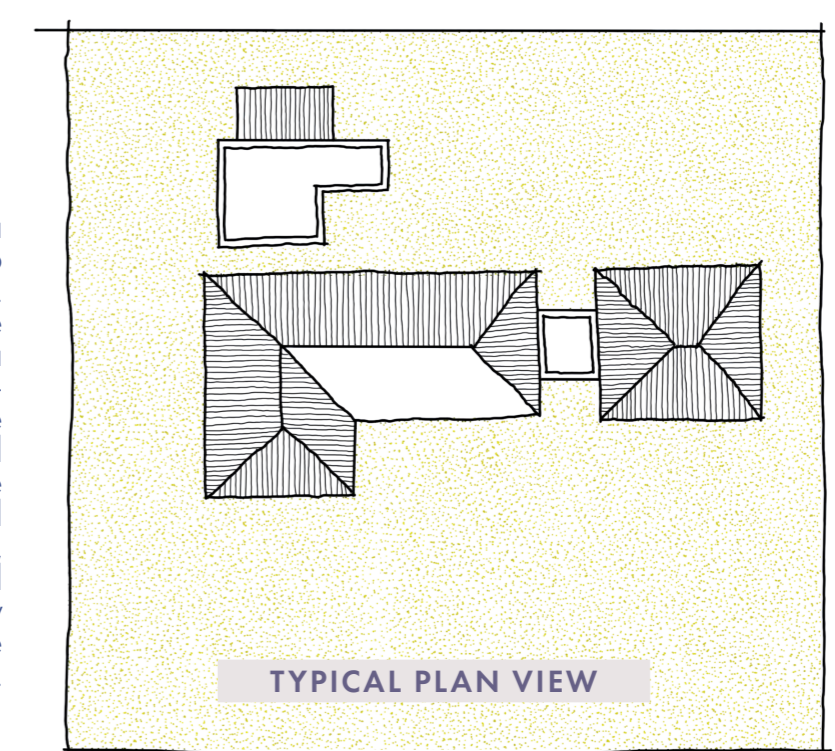
SKETCH OF TYPICAL NEIGHBOURHOOD ARRANGEMENT



The challenge lies in finding a way to revive the "health of village life," characterised by a connection to nature and neighbourly relations while benefiting from proximity to urban amenities (Lock, D., 1977).

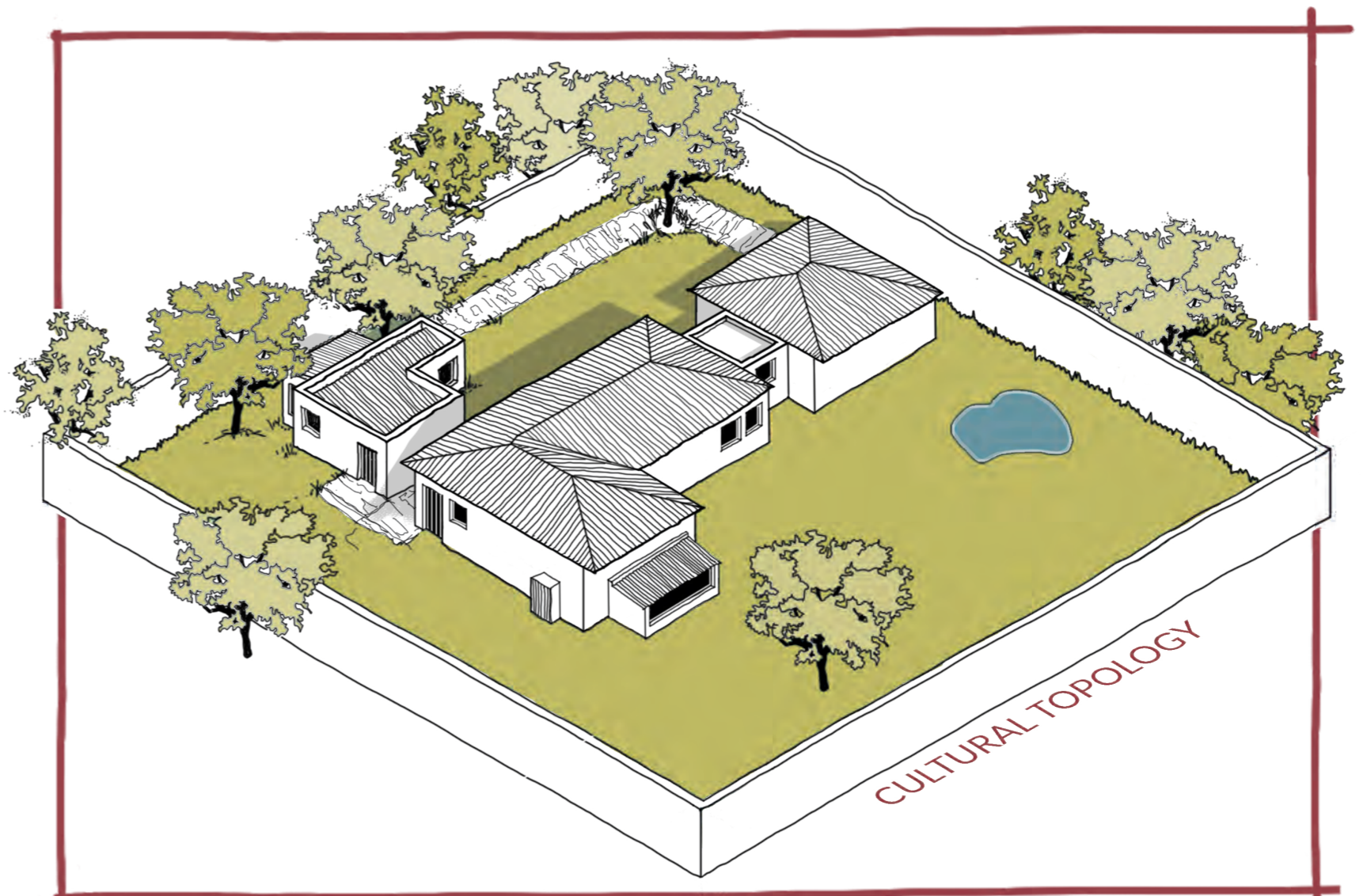


AERIAL VIEW OF SUBURBAN MENLO PARK



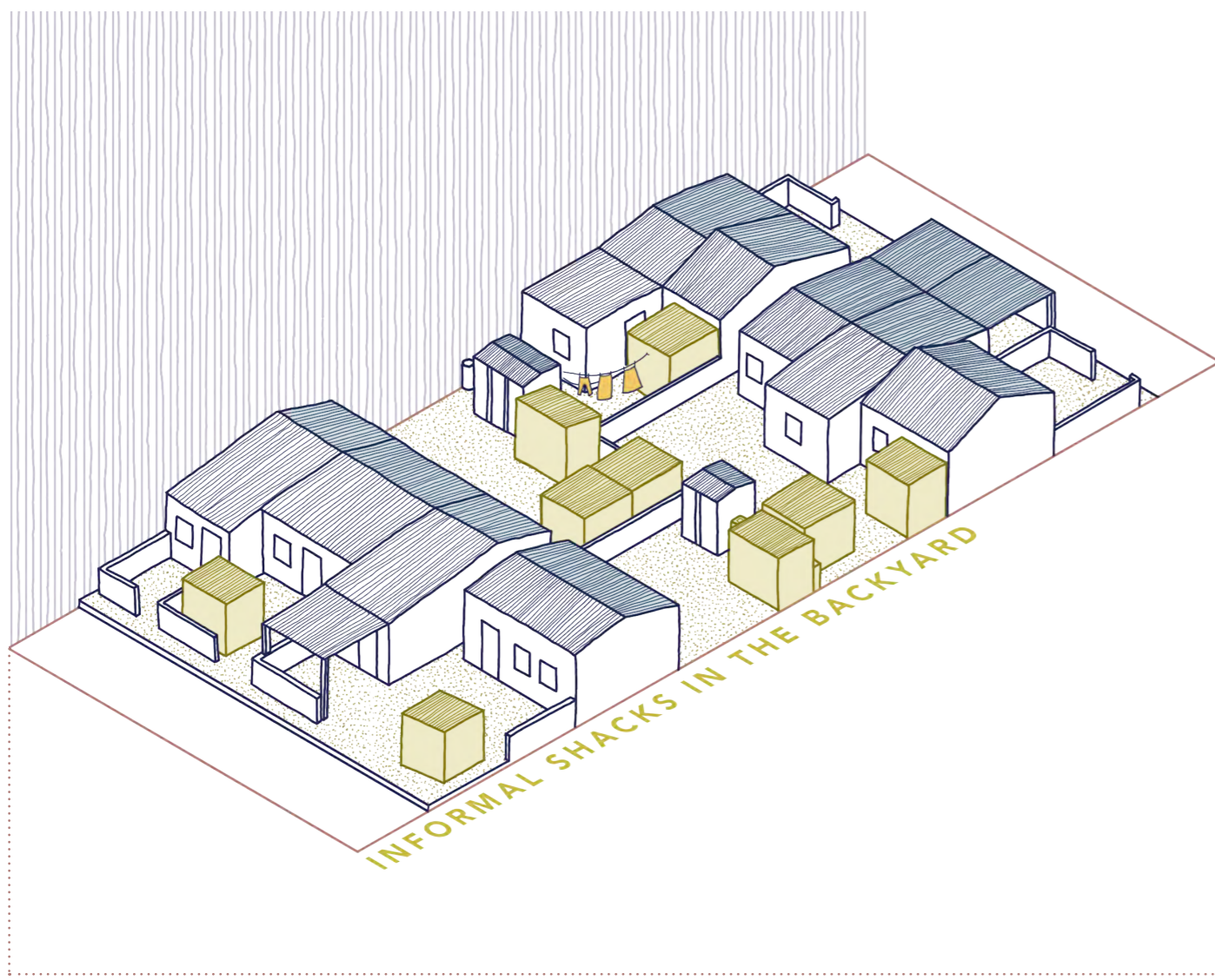
TYPICAL PLAN VIEW

The sketch depicts the arrangement of a suburban house on 28th Street in Menlo Park, evident in older aerial photos. Recent images reveal the complete replacement of the original house with a single apartment block, now housing 15-20 people, a notable increase from the previous 4 to 6 residents. The original house was centrally located on the erf, surrounded by lawns. A substantial portion of the erf remains undeveloped, serving as a garden for recreational purposes. The boundary wall distinctly separates the property, aligning with the typical feature seen in formal settlements.

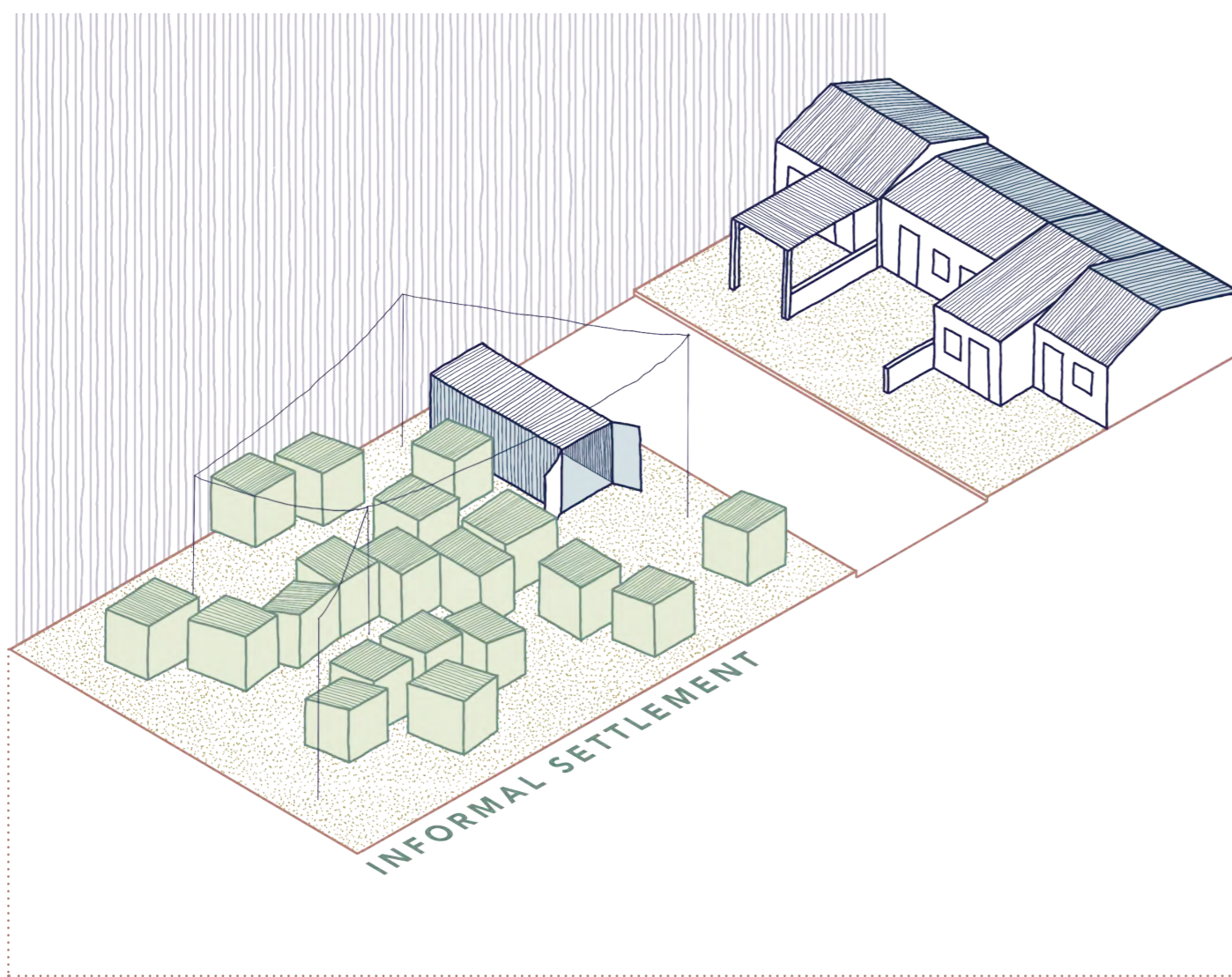


SKETCH OF TYPICAL SUBURBAN ERF ARRANGEMENT

# WHY DEFORMALISE?



The emergence of informal "backyard shacks" in low-density residential areas as a response to the need for more densified residential areas. This is a rudimentary example of social self-governance employed by the community in response to the issue of low-density living environments.



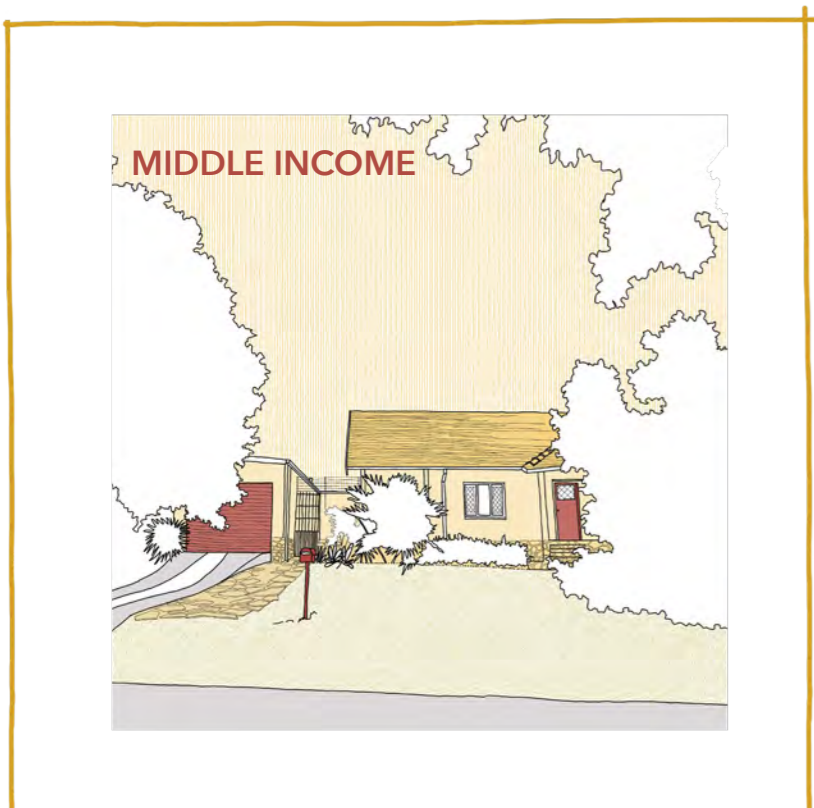
The emergence of informal "backyard shacks" in low-density residential areas as a response to the need for more densified residential areas. This is a rudimentary example of social self-governance employed by the community in response to the issue of low-density living environments.



## PLASTIC VIEW INFORMALITY PRECEDENT

\*Sketch based on the photograph taken by the 2021 UUC Masters Group.

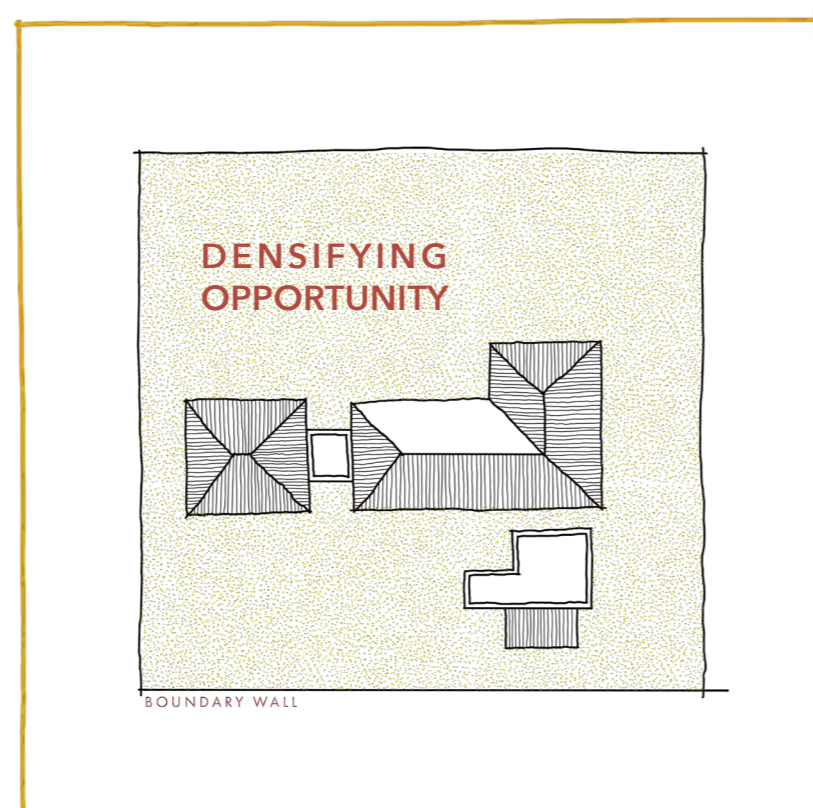
# SITE SELECTION CRITERIA



### GUIDELINE 1

middle income earning neighbourhood

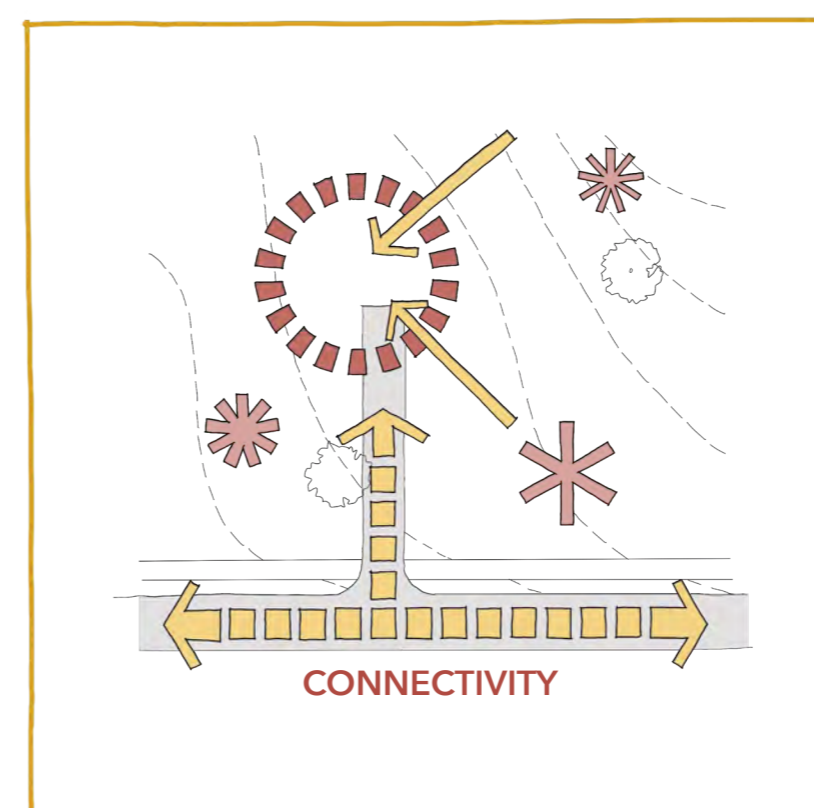
The location should be situated in a middle-income neighborhood predominantly inhabited by families.



### GUIDELINE 2

larger residential erven

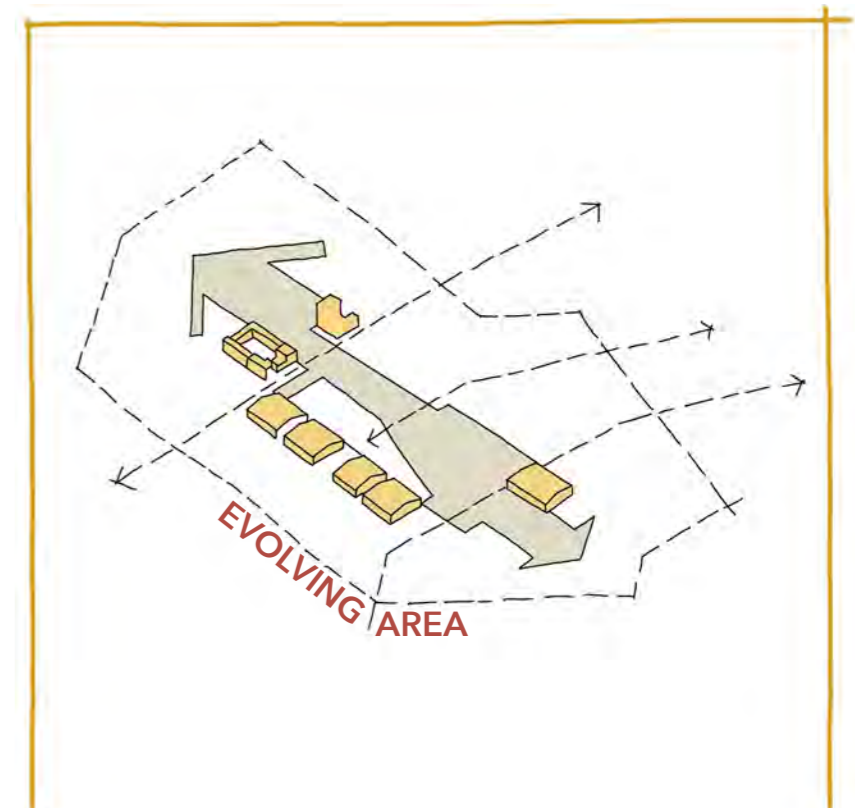
The residential properties must have ample space around the primary single-family dwelling to accommodate up to two additional interventions. The residential blocks will be better suited if they are not fully geometric.



### GUIDELINE 3

centrally located + well connected

Convenient access to transportation routes, including public transport and vehicular routes.



### GUIDELINE 4

within an area undergoing change

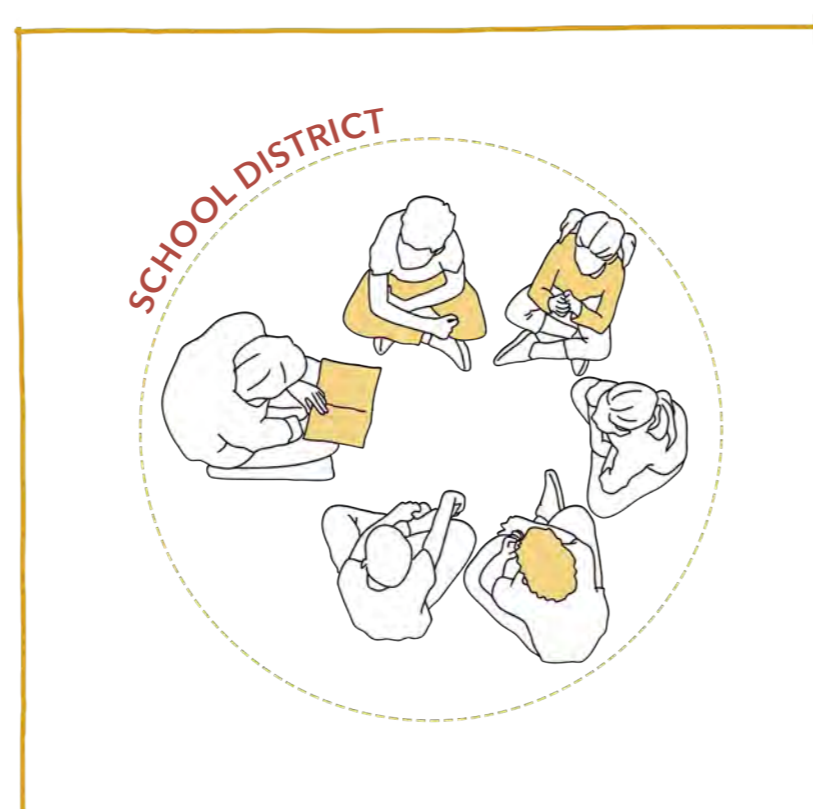
Close proximity to existing / evolving commercial activities in the area.



### GUIDELINE 5

medium to large residential block

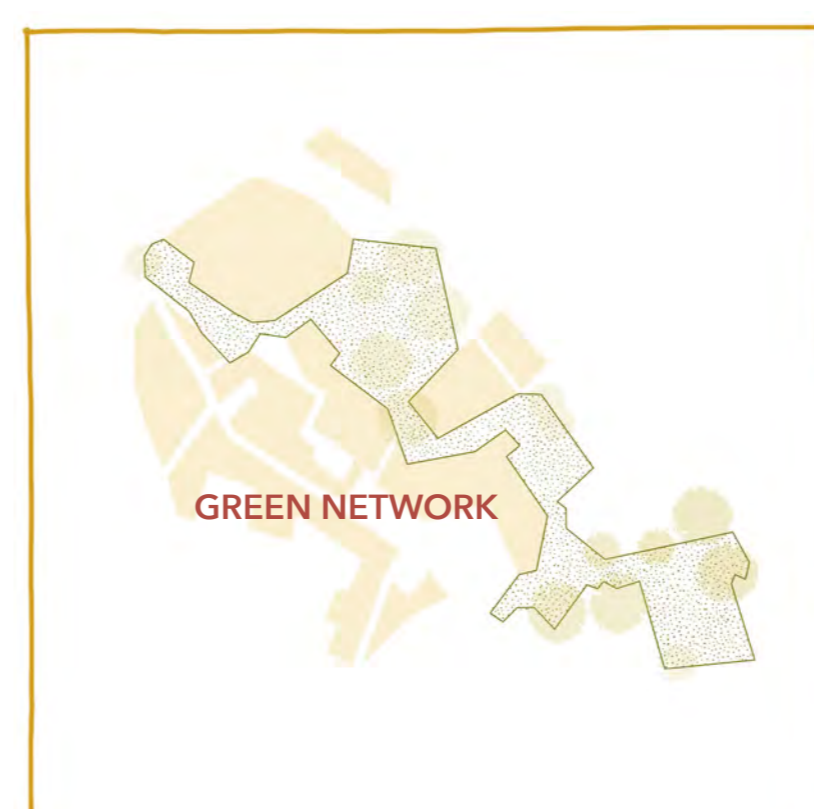
The chosen residential block must be of medium to large size to facilitate the integration of a finer-grained pedestrian corridor.



### GUIDELINE 6

located within a school district

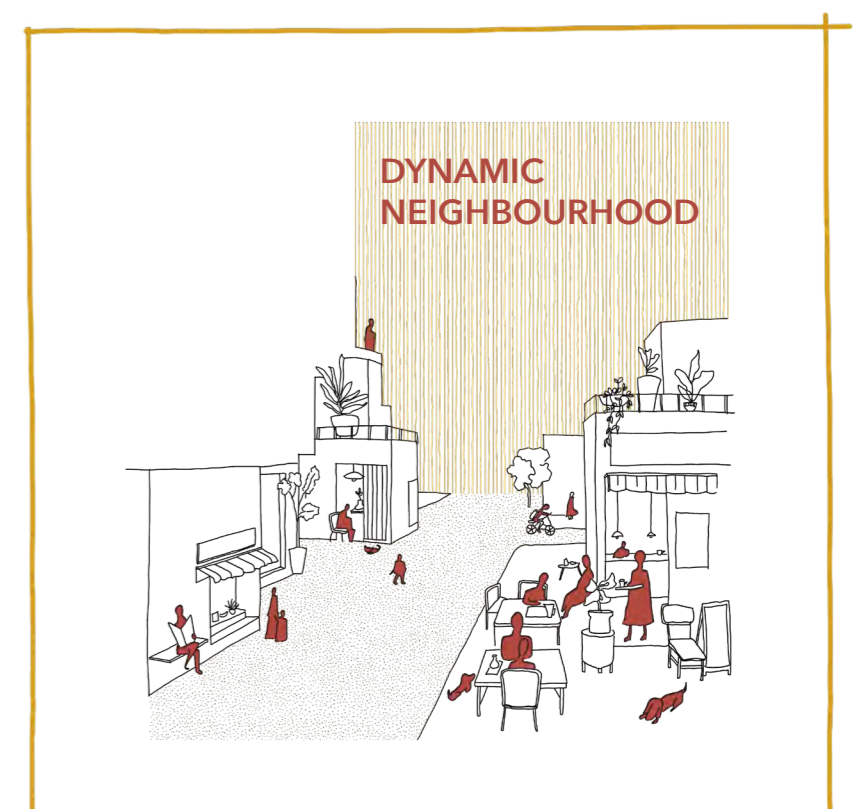
There's a perception that residing within a school district ensures safer and quieter streets, fostering a sense of community.



### GUIDELINE 7

close to public green spaces

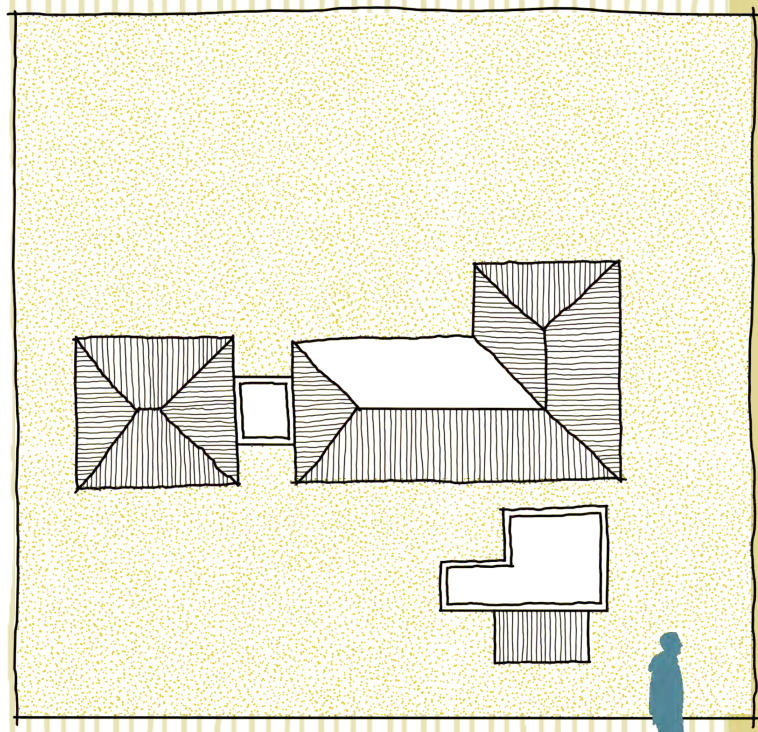
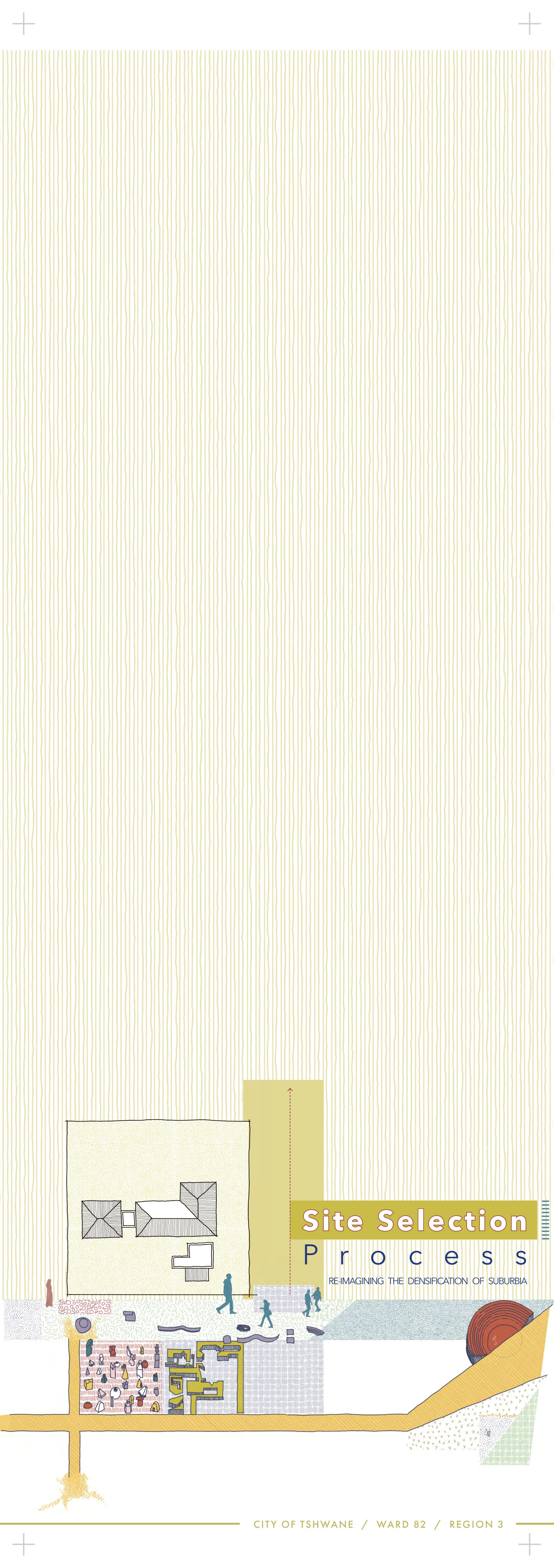
In proximity to green spaces, whether restricted or open-access. The new development should serve as a link between the existing green areas.



### GUIDELINE 8

within an evolving neighbourhood

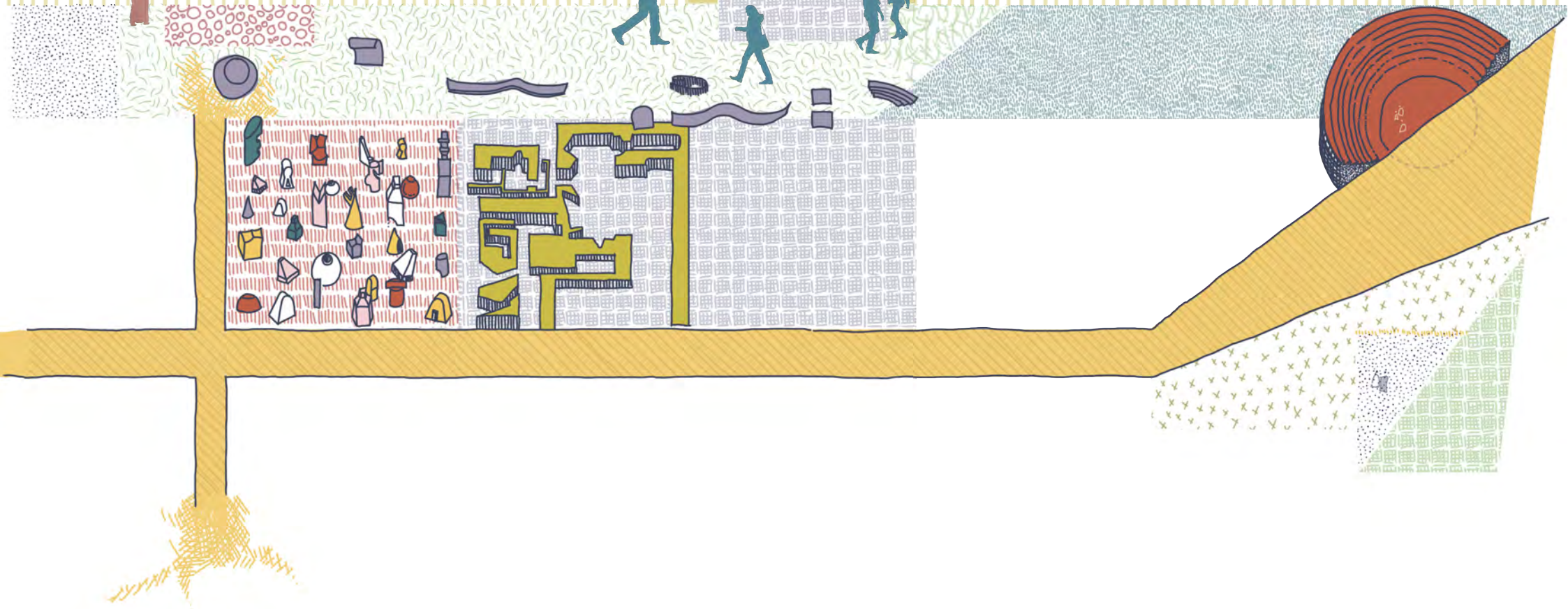
A suburb on the verge of transitioning into a mixed-use area, ripe for new ways of development.

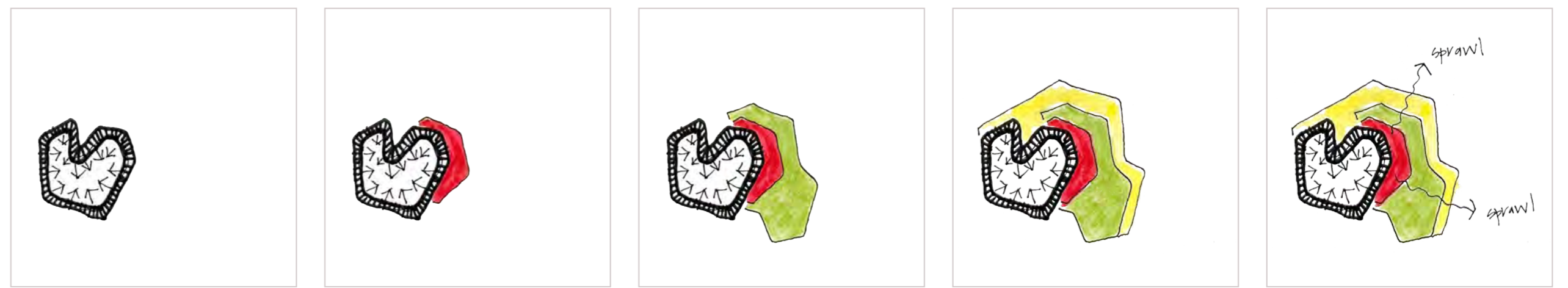
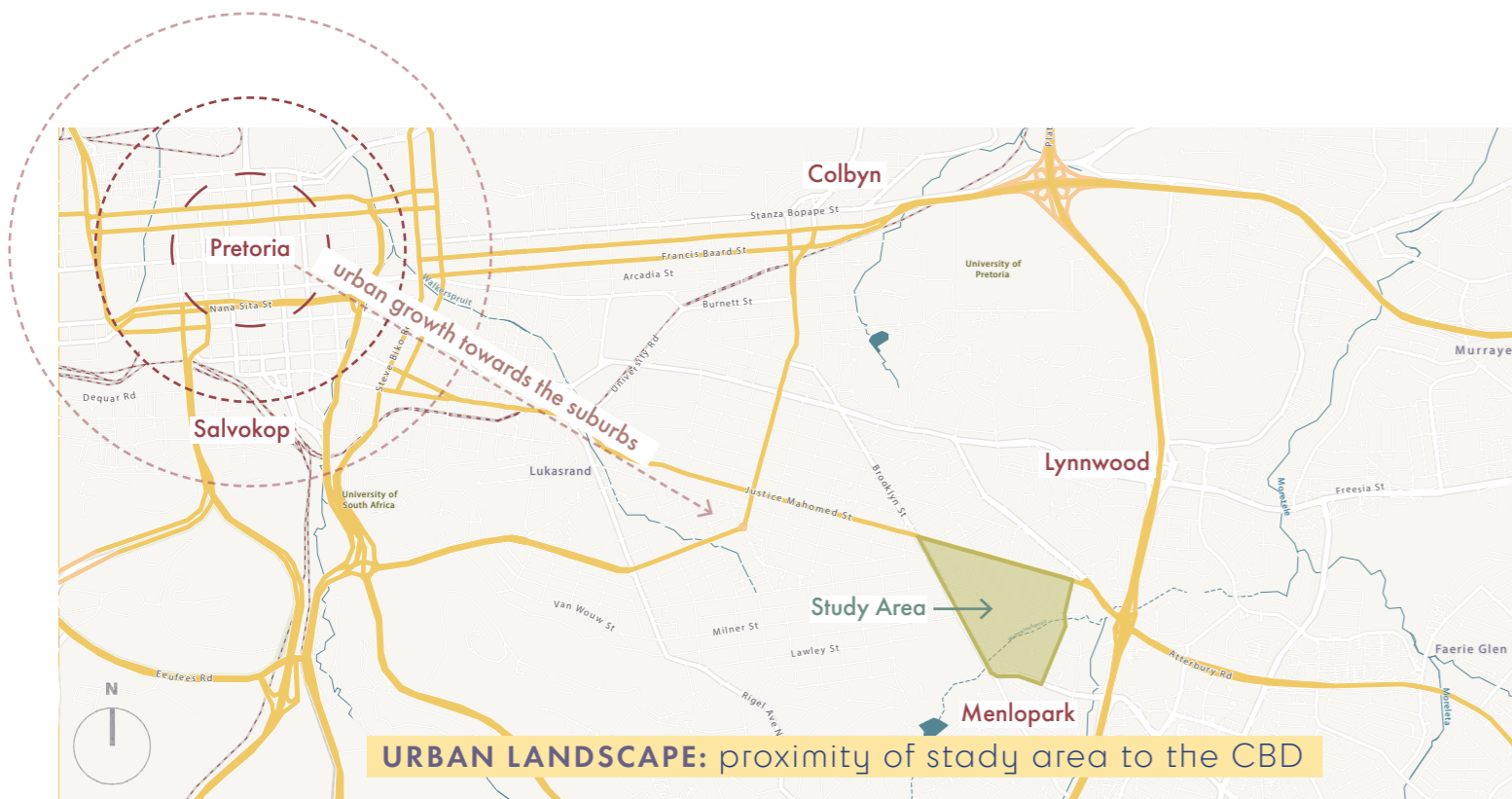


# Site Selection

## P r o c e s s

RE-IMAGINING THE DENSIFICATION OF SUBURBIA



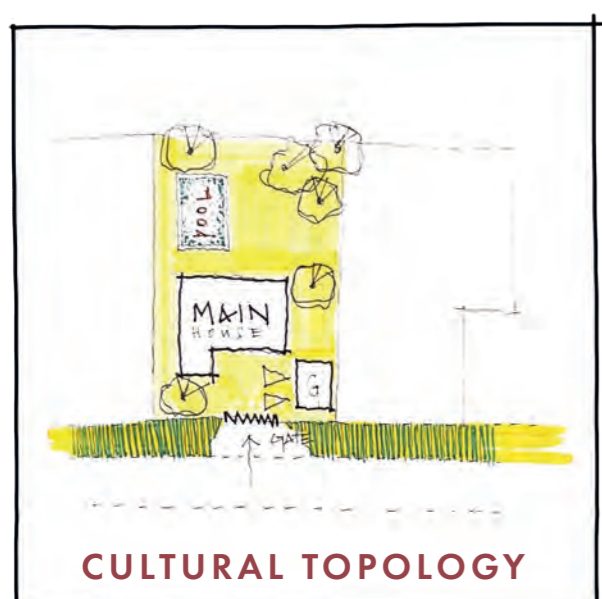


THE CONCERN OF SUBURBAN **S P R A W L** →



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THE LARGER AREA USED TO STUDY SUBURBIA



## SUBURBAN ANALYSIS

The existing suburban housing lexicon is very rigid and traditional. The study aims to document the current lexicon of residential densification happening within the study area of Menlo Park. The traditional free standing house in the centre of the erf is a remnant of the planning frameworks dating back to colonial 1900s. Contemporary society and planners have started to densify within suburbia throughout the country.

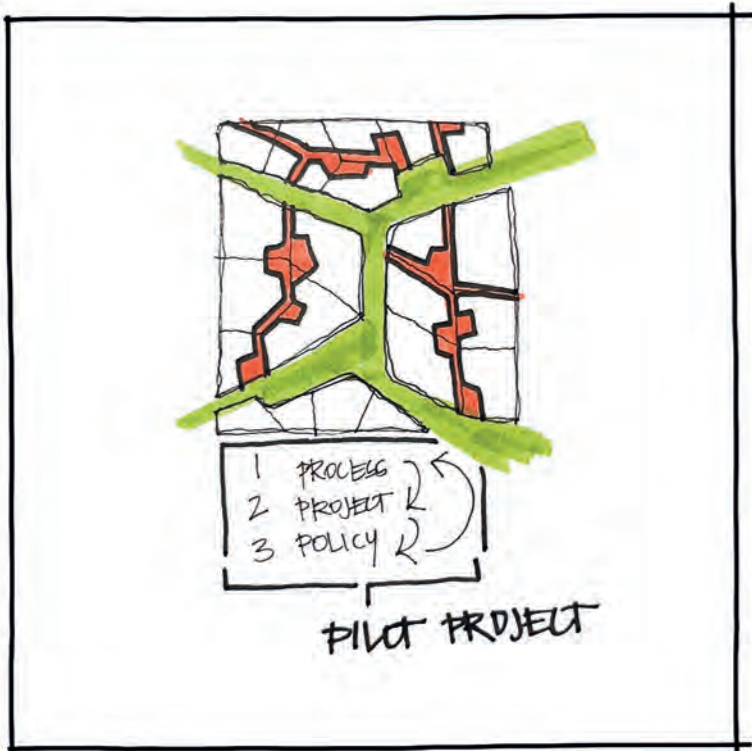
Each process of densification occurs in isolation, focusing solely on the individual erf and designing it inwards towards the centre of the erf. The buildings' backs are turned to the street and communal living environments are not in great supply. As a result big, corporate developments occur readily within new suburban areas and create housing en masse that has little variety and neighbourhood character.

Project goal:

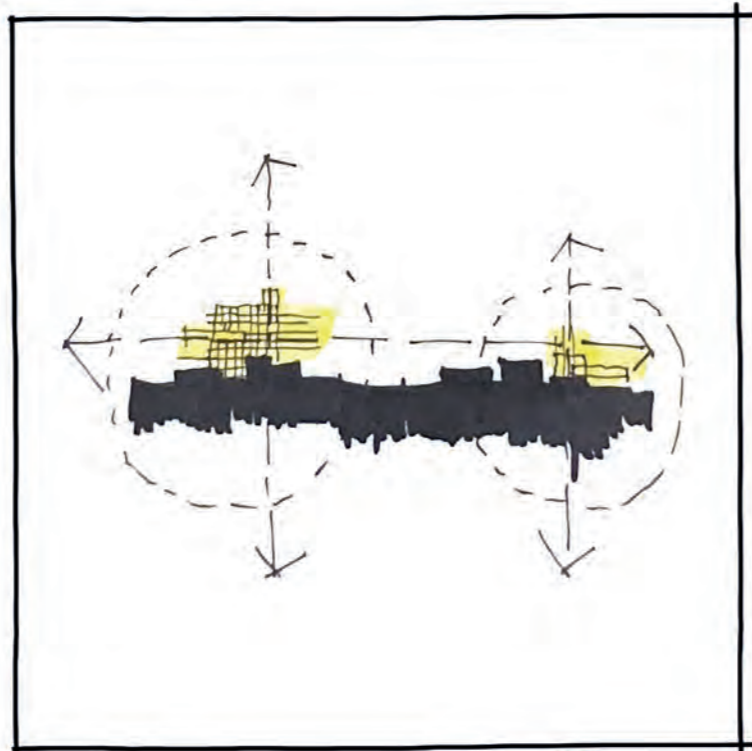
**TO REDEFINE THE SUBURBAN DENSIFICATION LEXICON**

This will be achieved by inserting small scale economic activities along a green spine typology into the sterile + uniform fabric of suburbia. Connecting back to life in the public realm is a central theme.

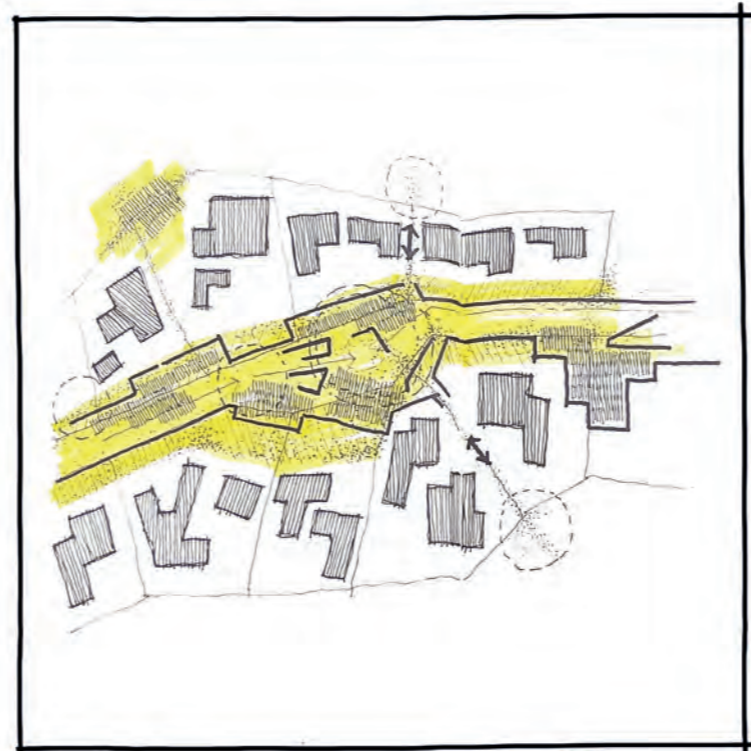
# MENLO PARK / STUDY



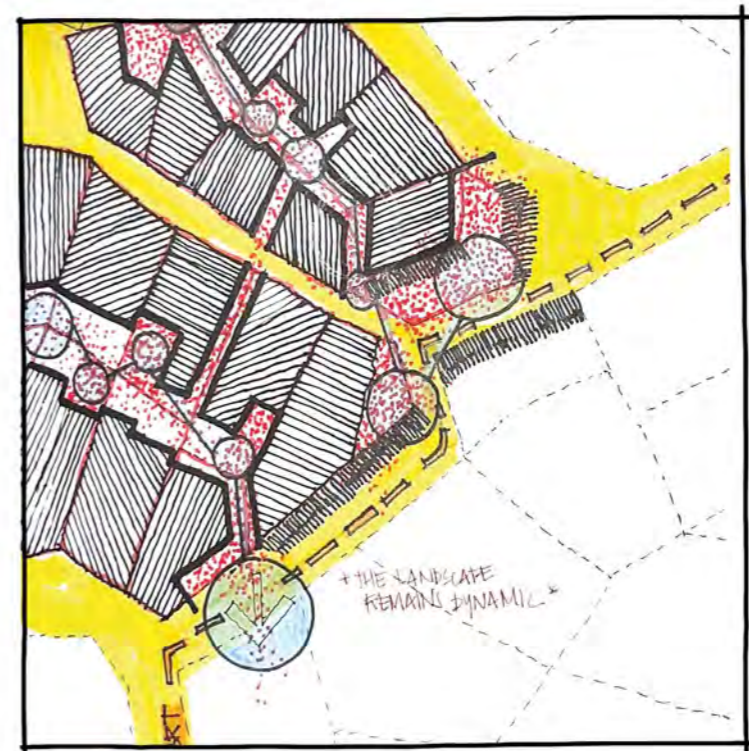
The projects is executed through a cyclical 3-step process.



Sketch showing the need for vertical elements to extend above the suburban skyline.



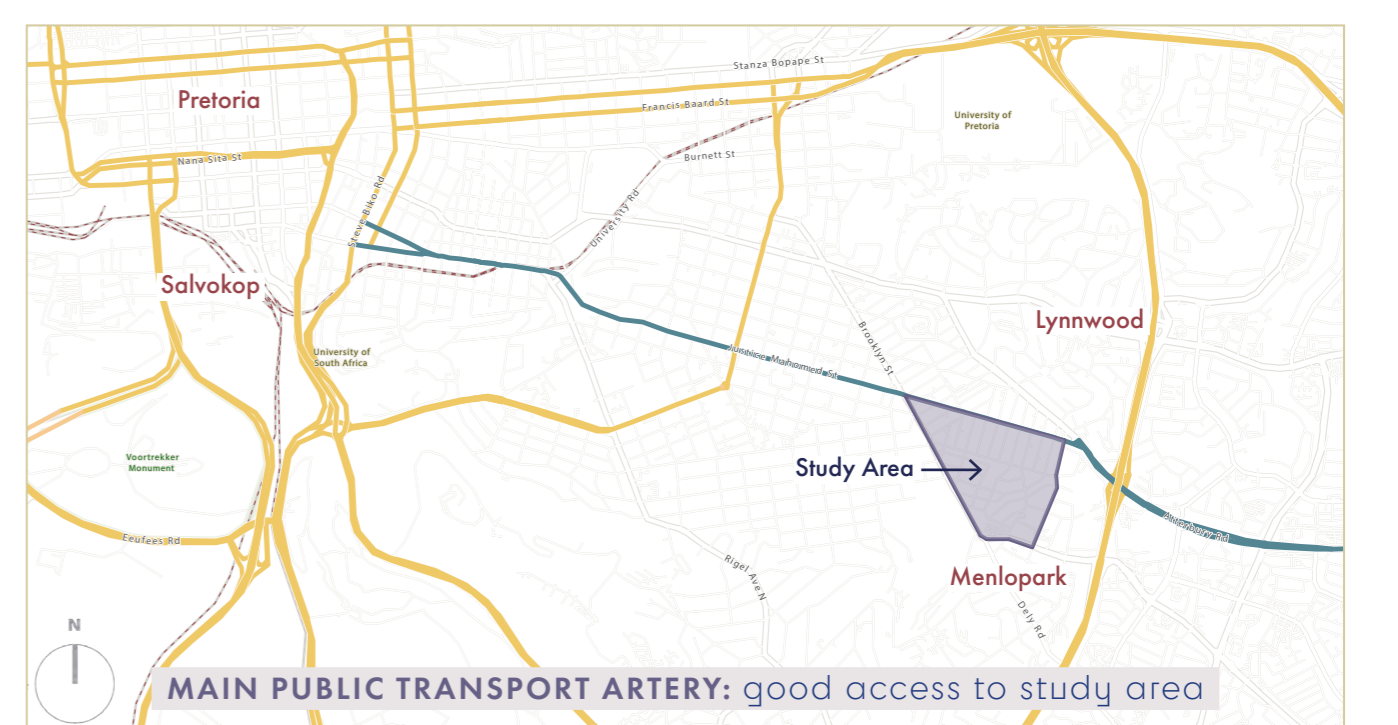
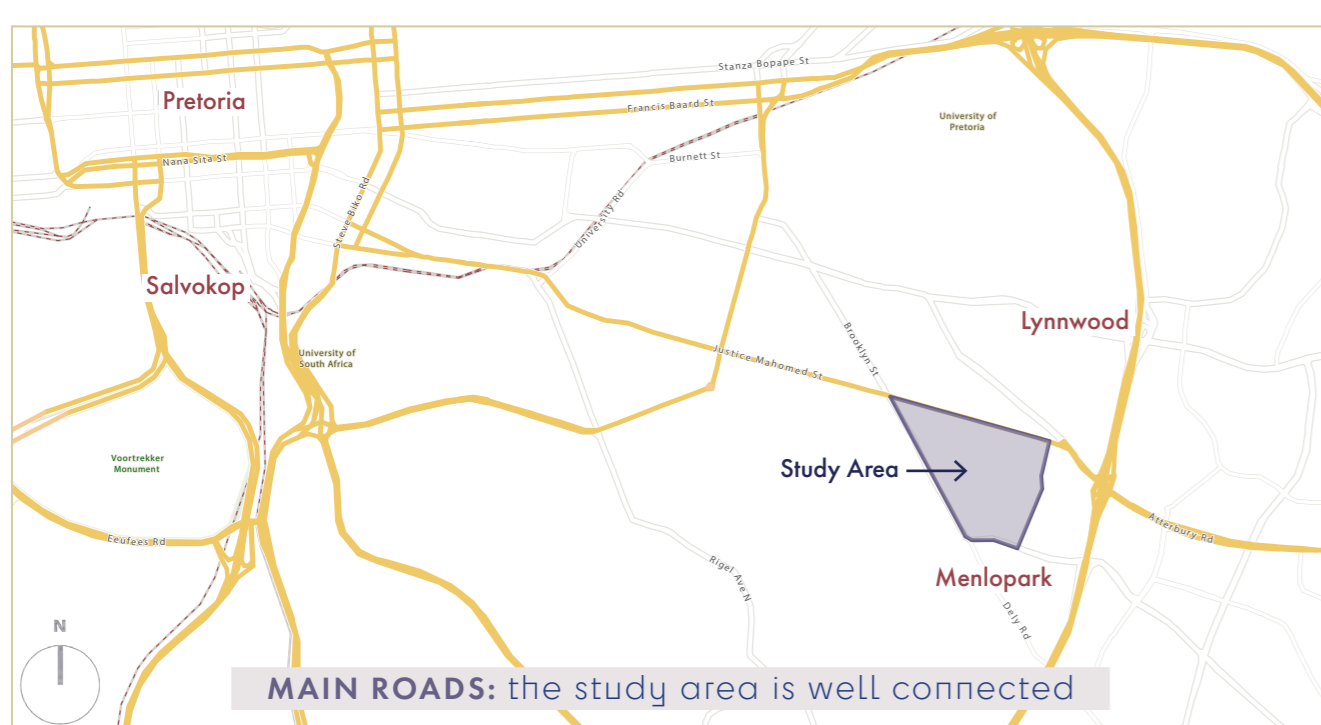
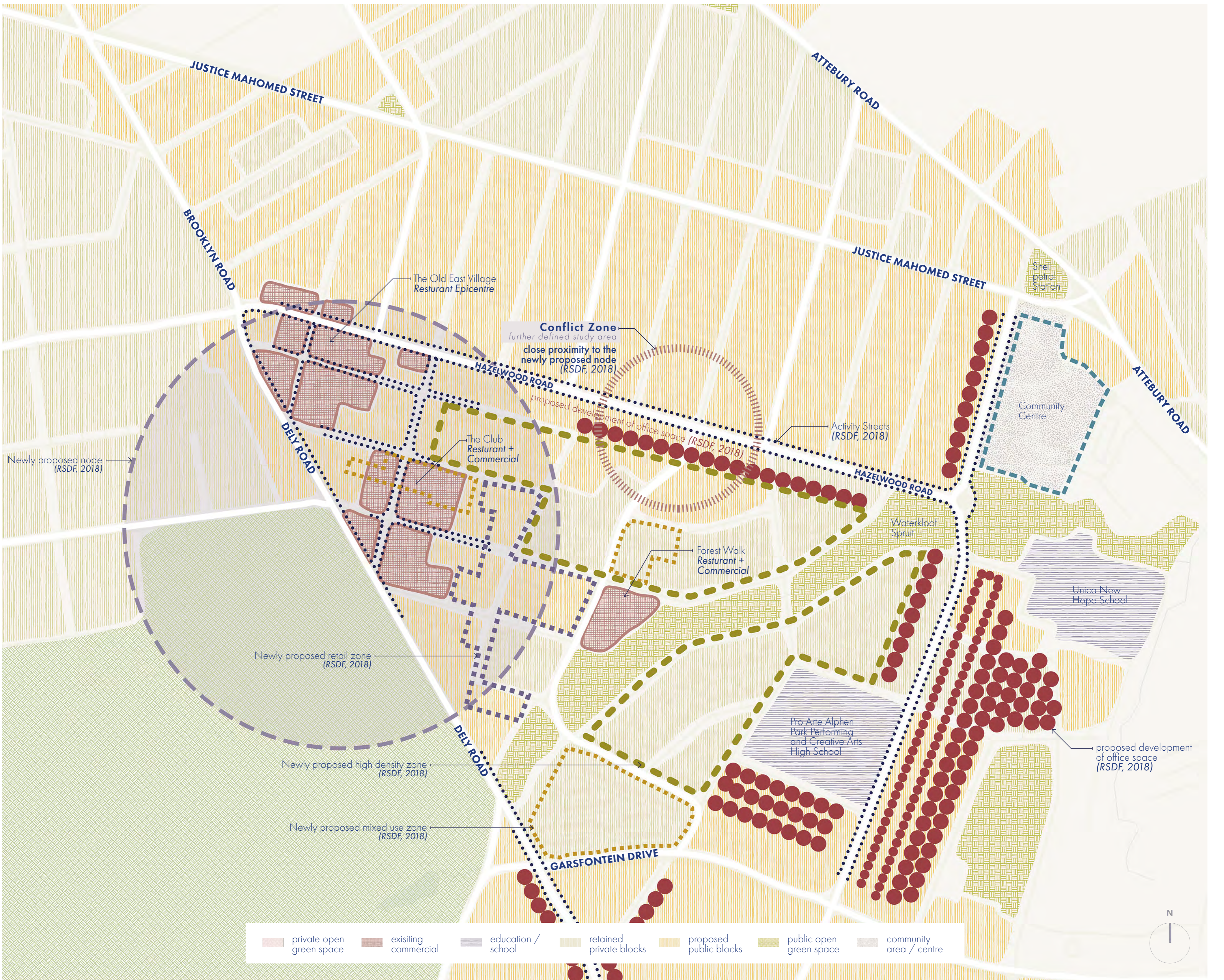
Sketch exploring the opportunities offered by the 3<sup>rd</sup> dwelling by-law implemented by the City of Johannesburg.

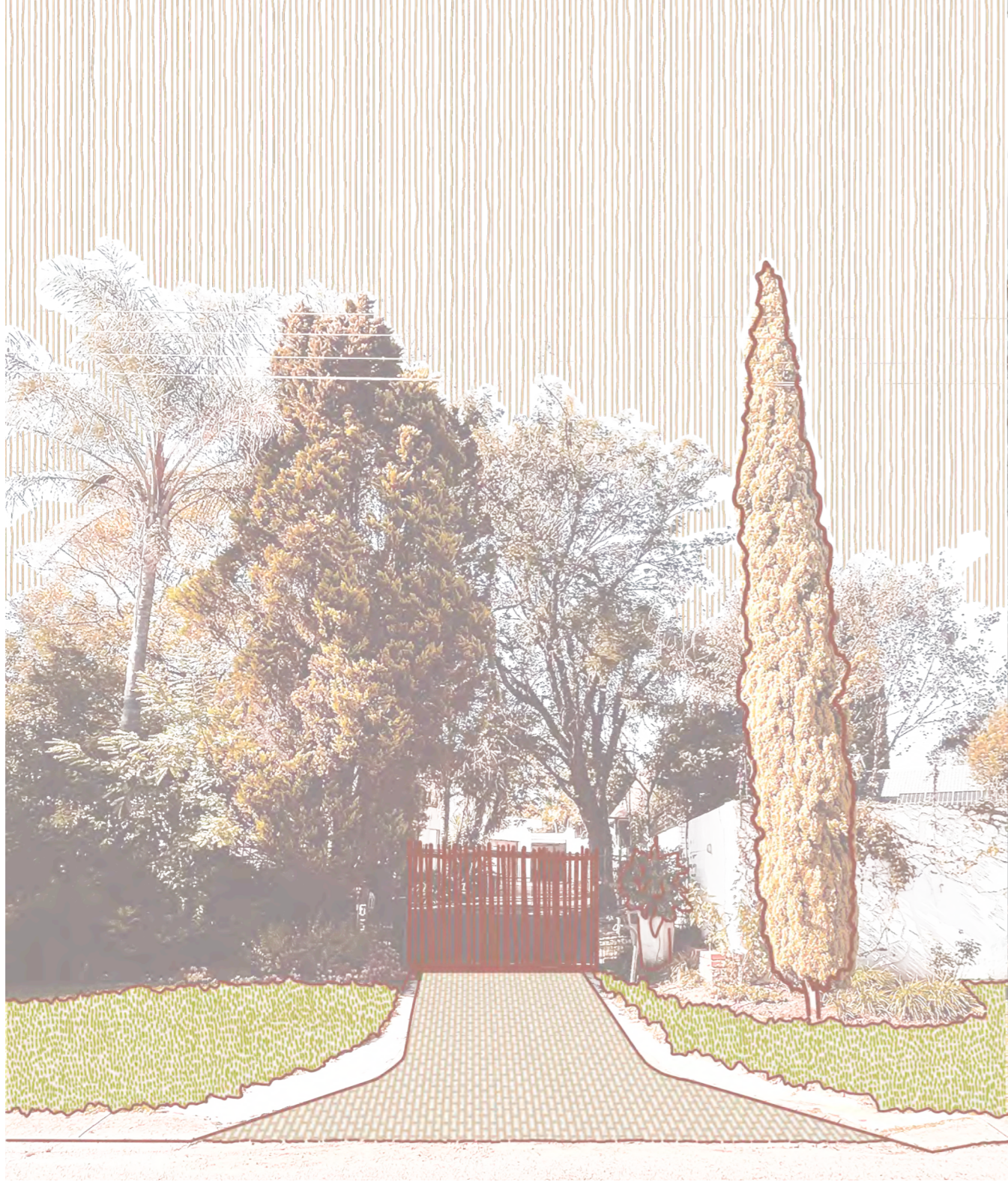


Sketch exploring how the pedestrian corridor could connect to existing public transport networks.



Sketch exploring the options for densifying the interstitial spaces between the residential homes.

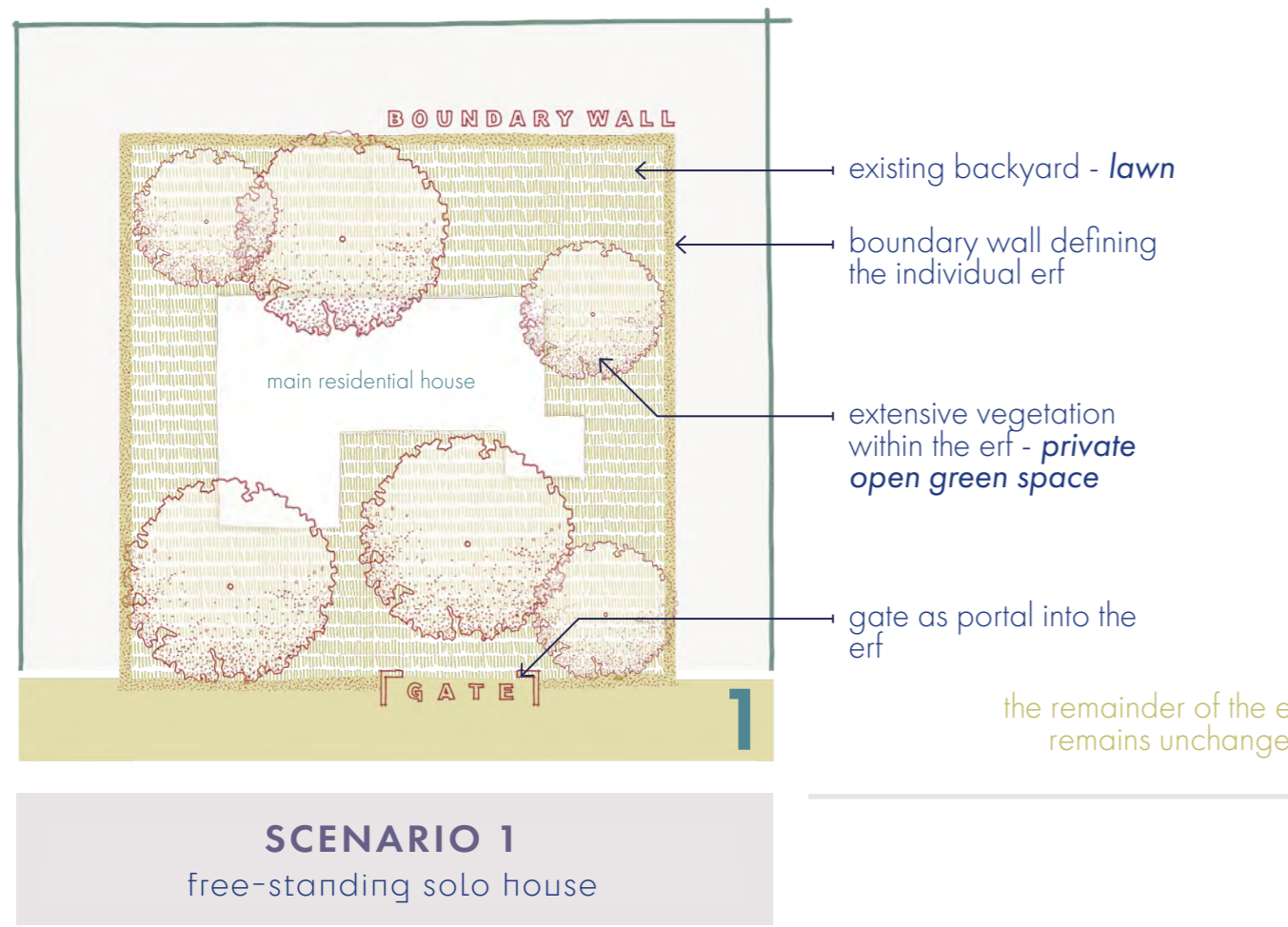




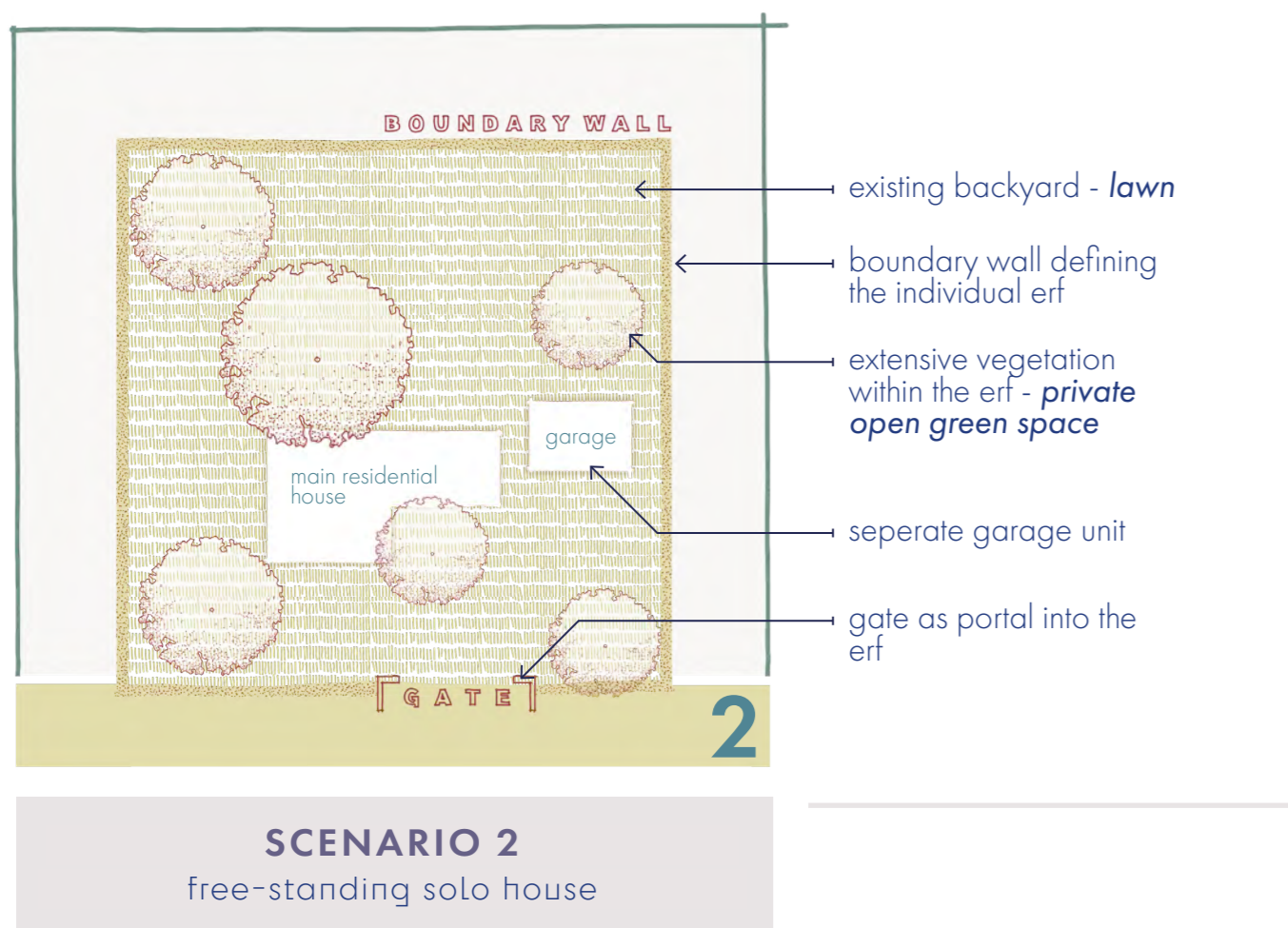
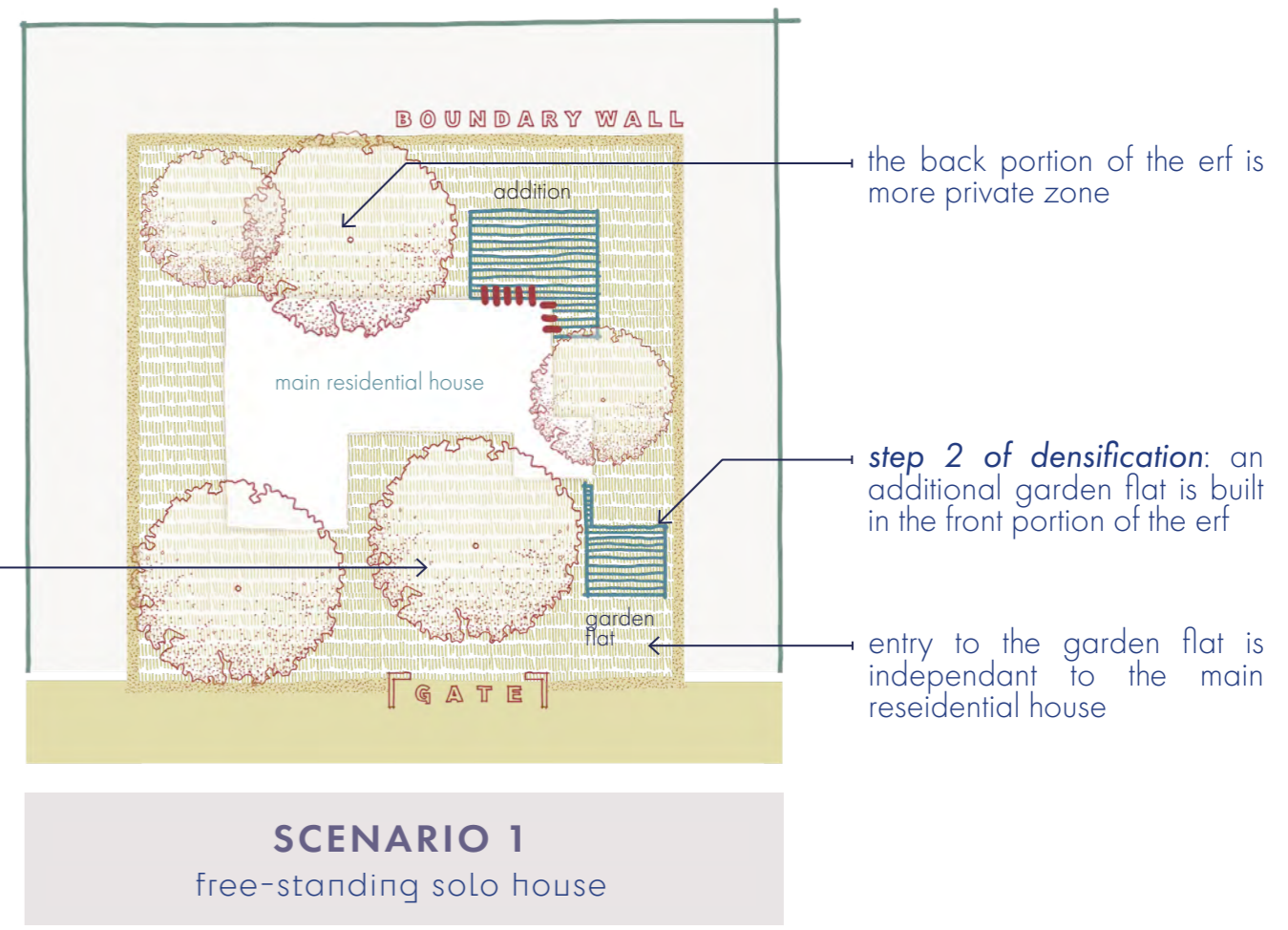
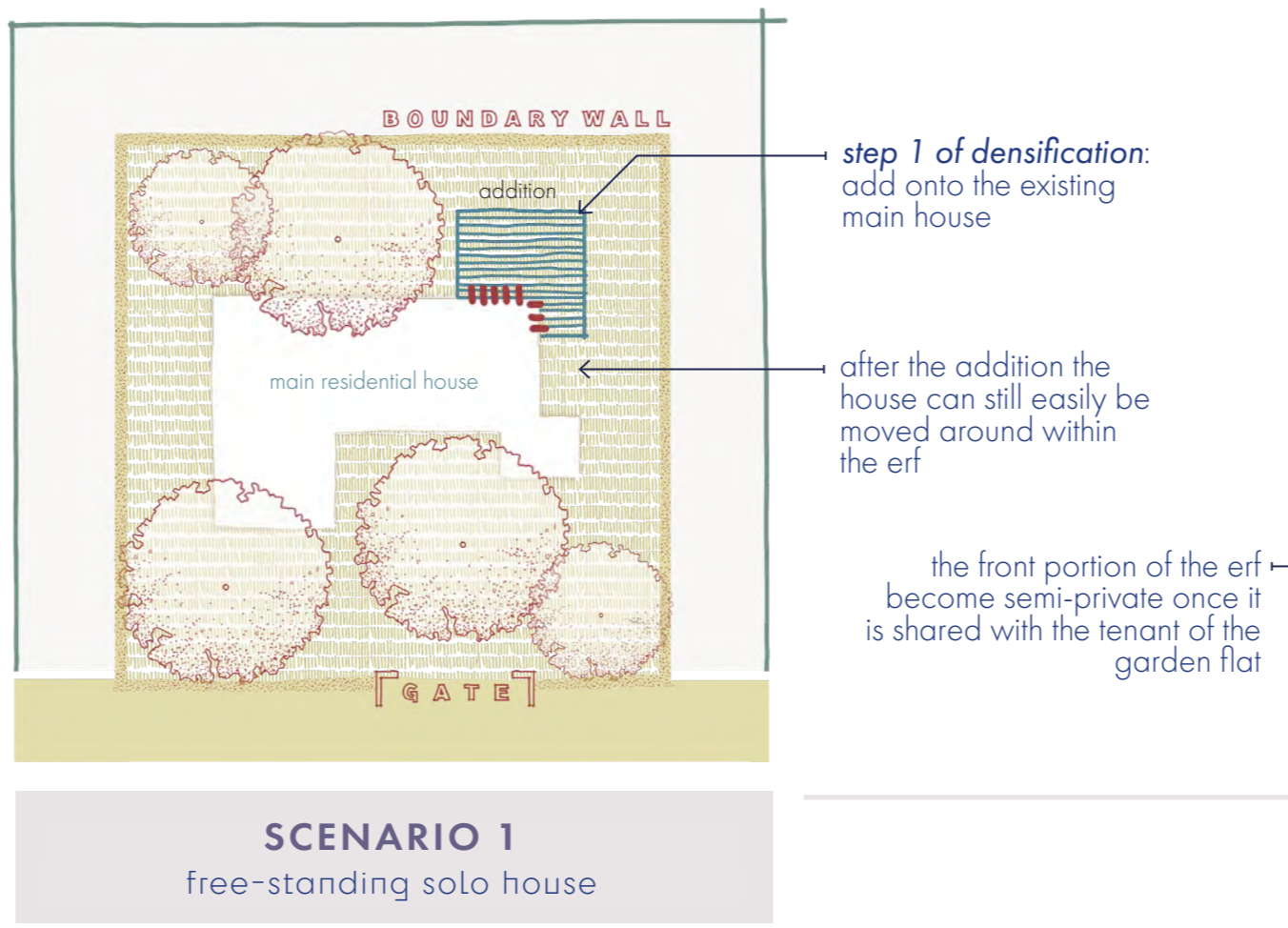
This front gate represents the typical appearance of a suburban residential home within Menlo Park. The traditional palisade gate, prolific foliage, a manicured lawn sidewalk, and some brick pavement used in the drive way.

SUBURBAN SITE VIEWS

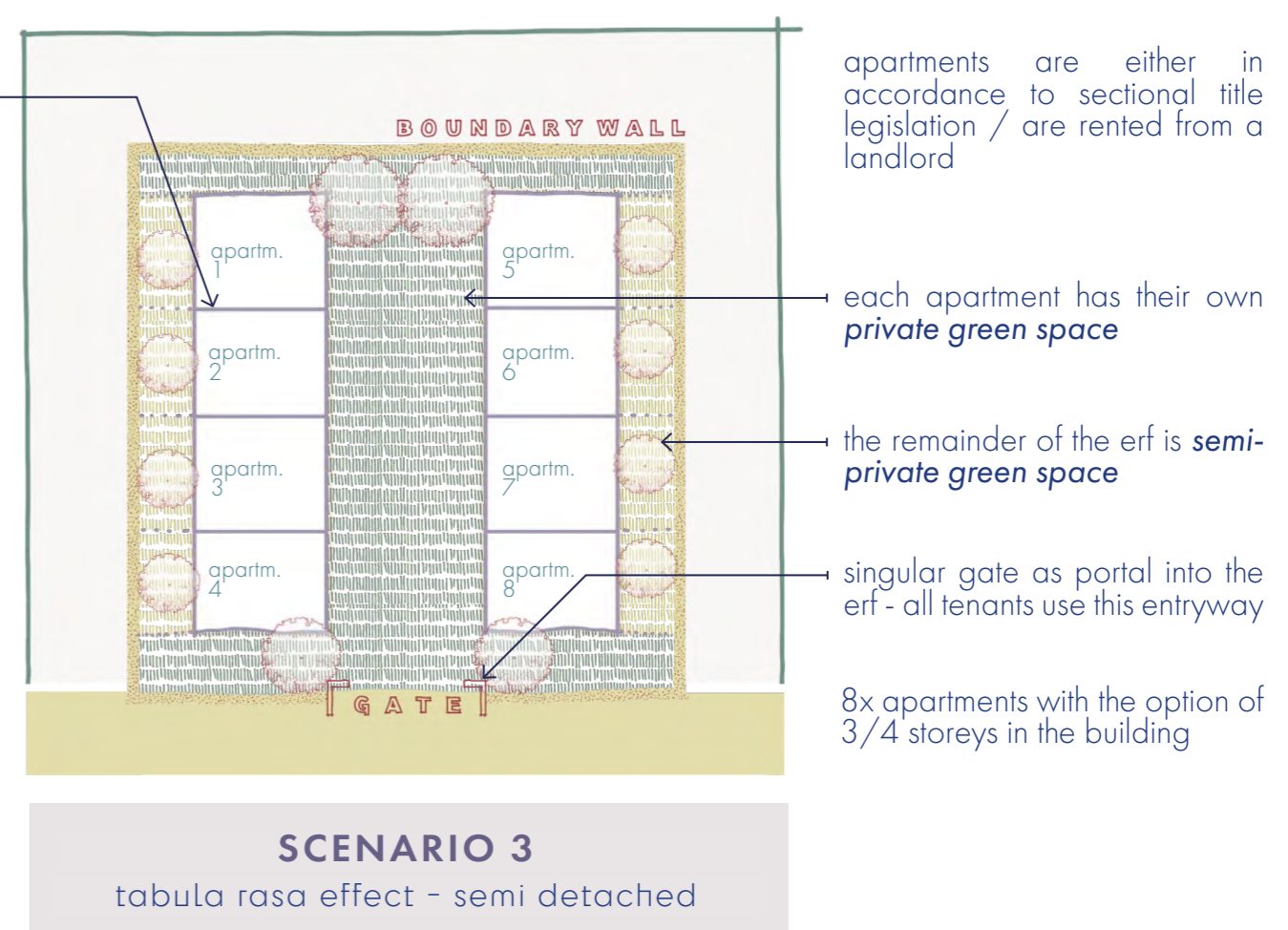
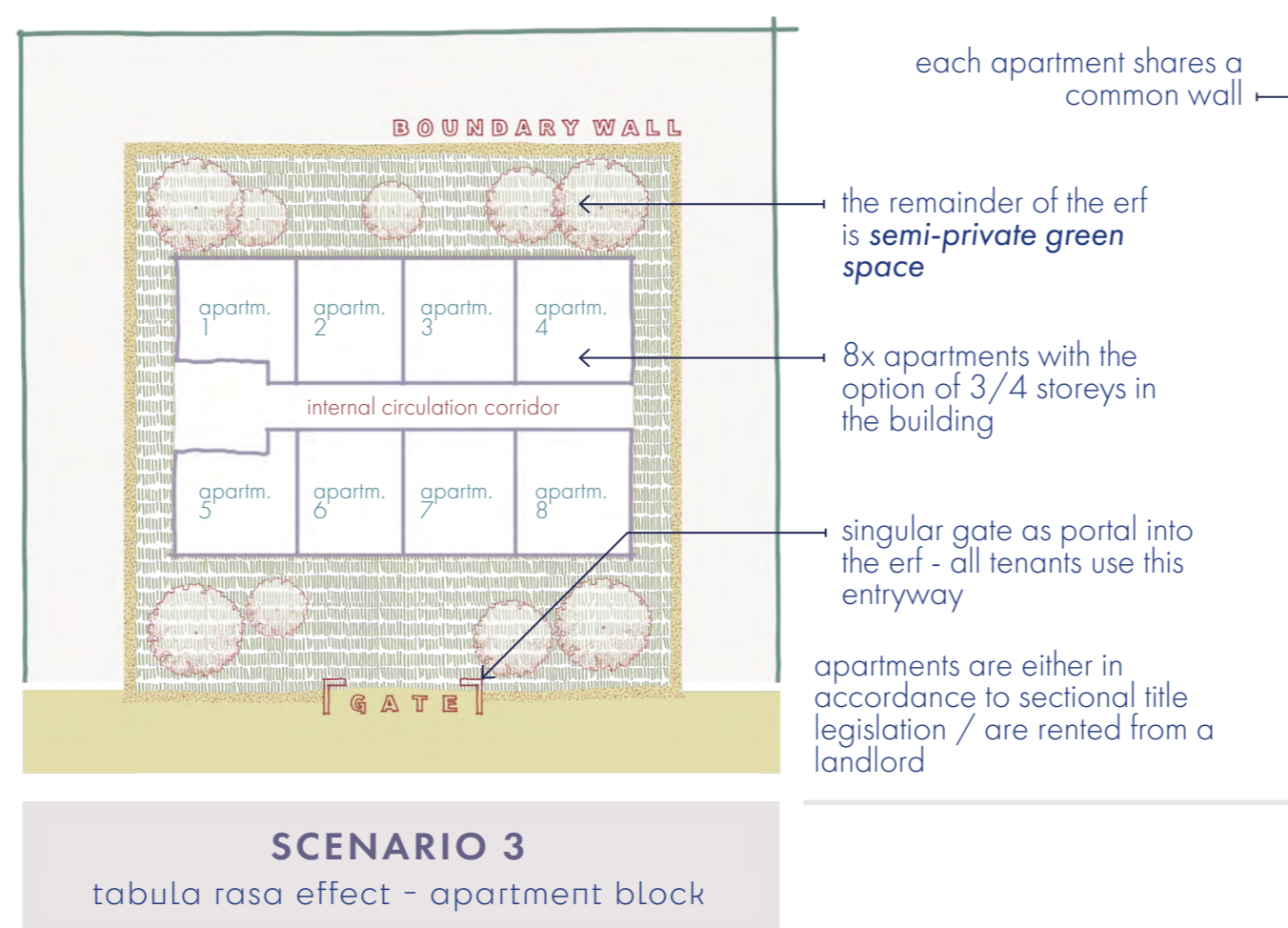
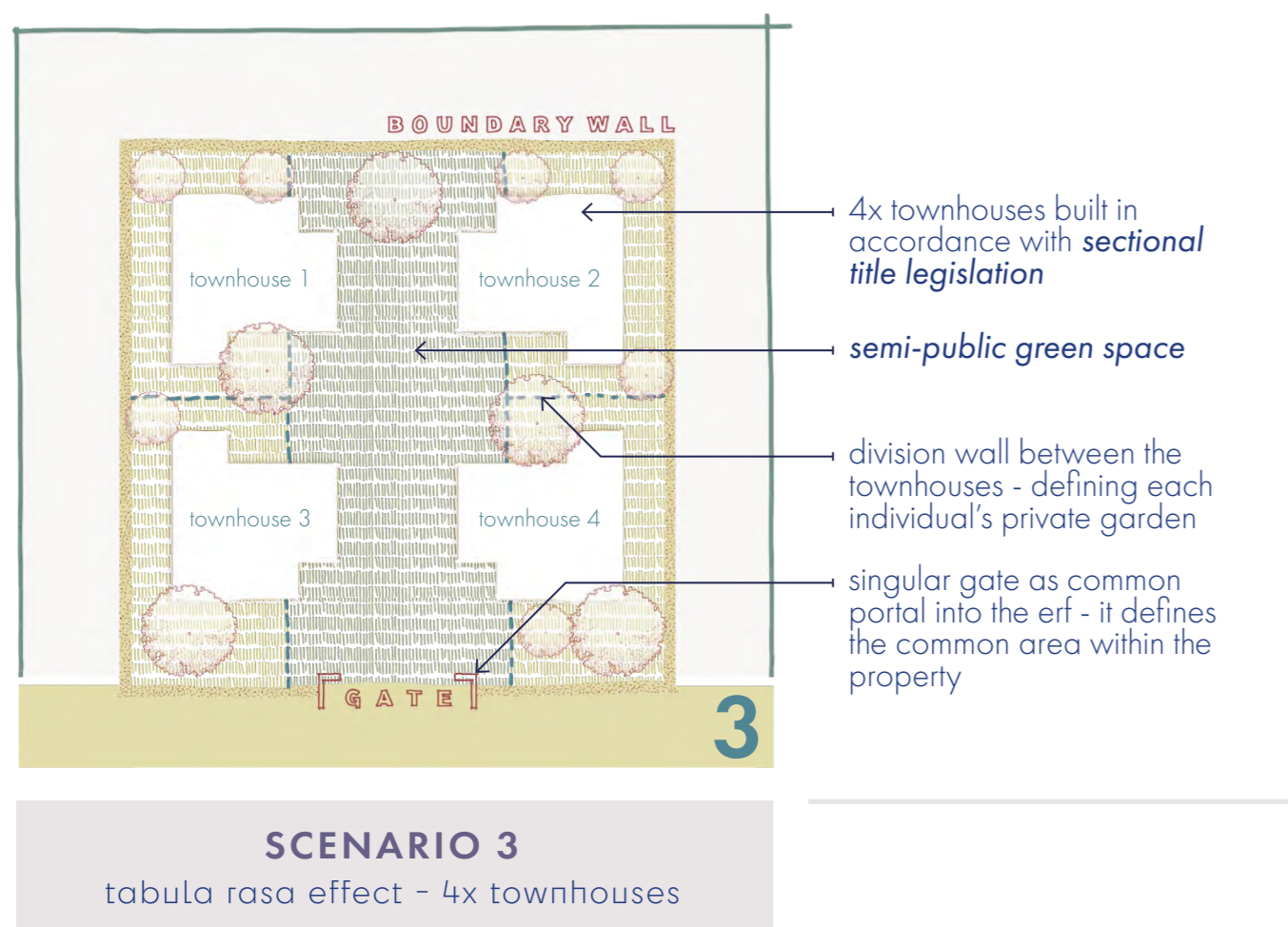
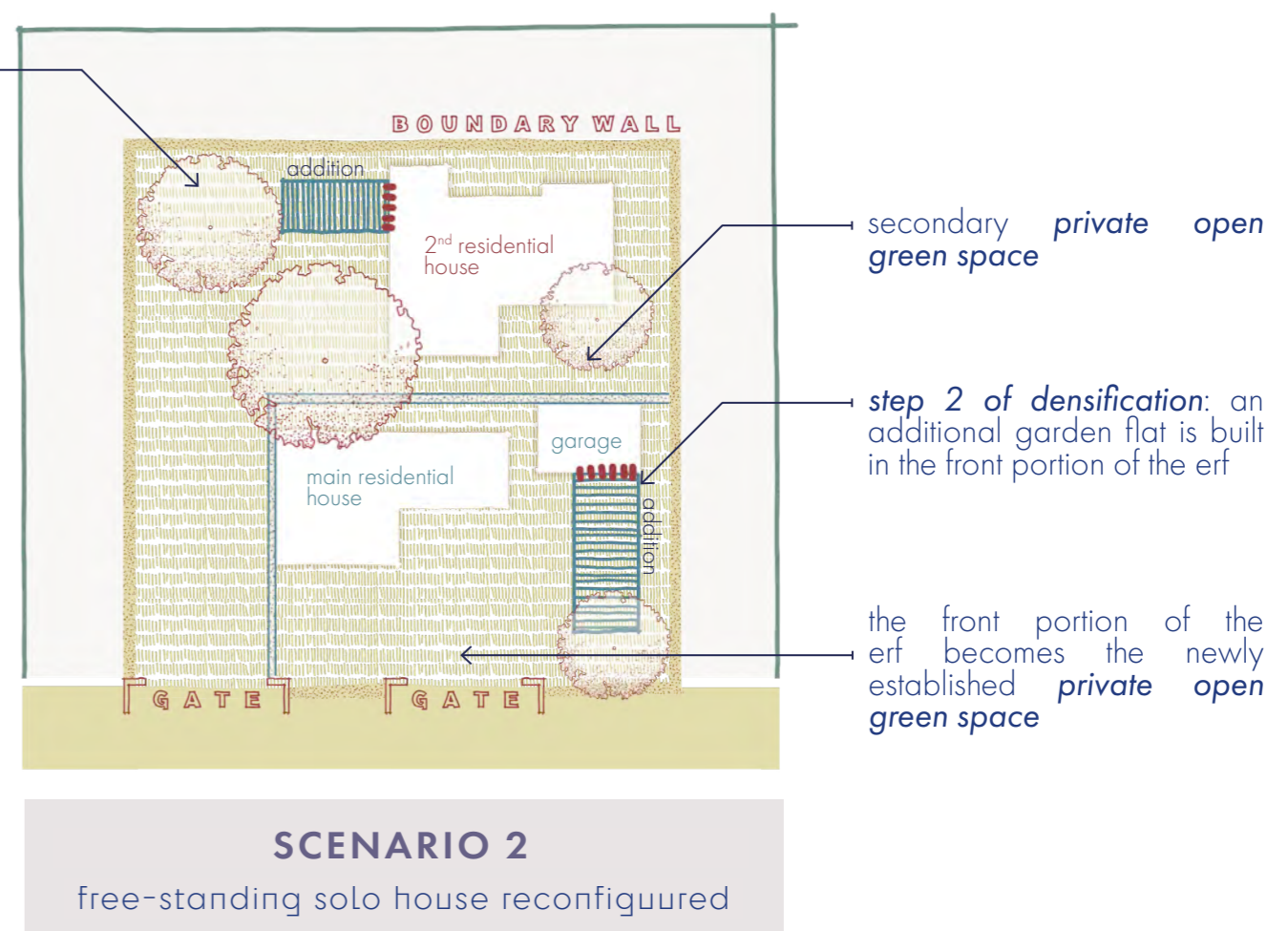
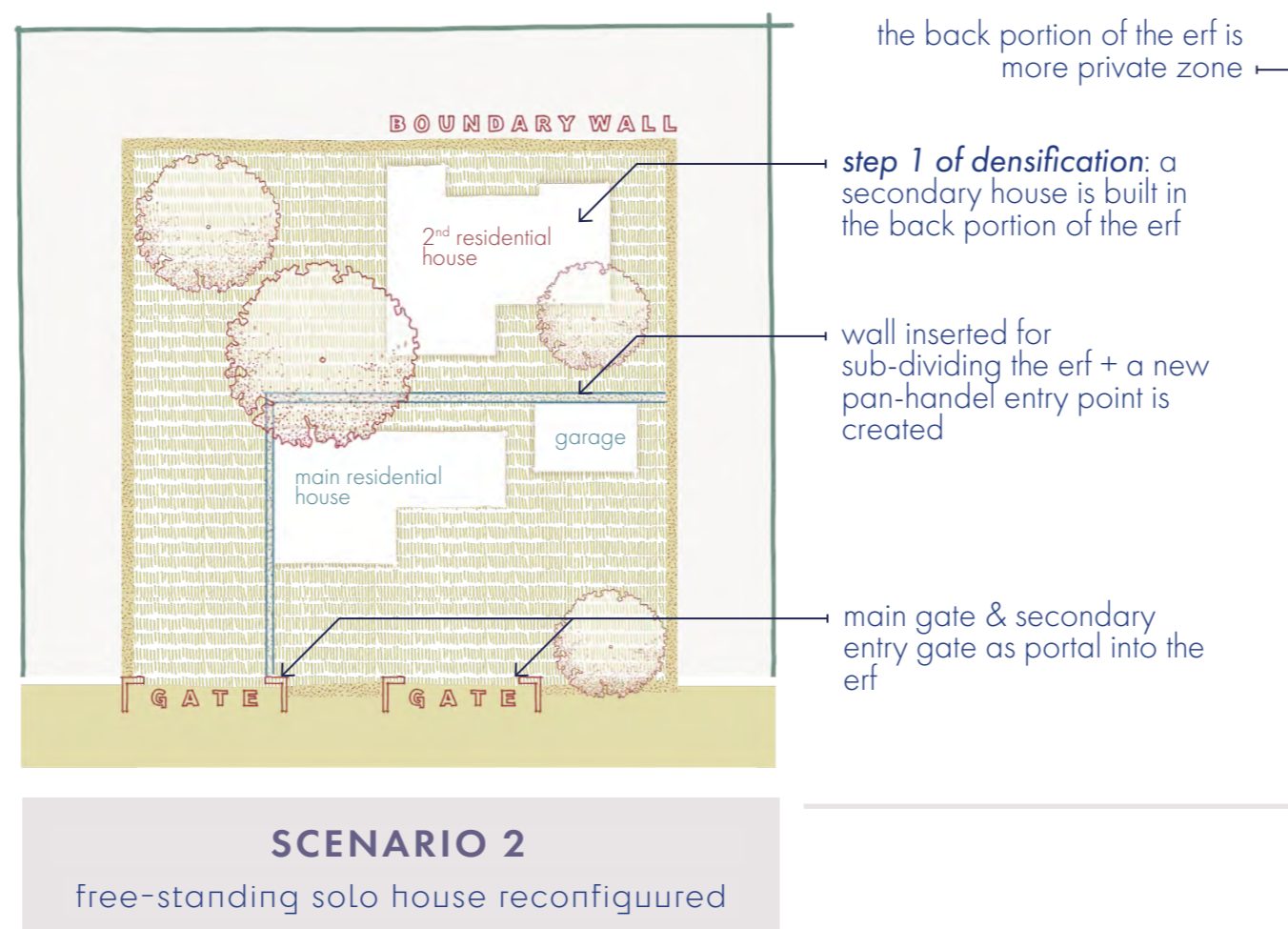
EXISTING DENSIFICATION LEXICON

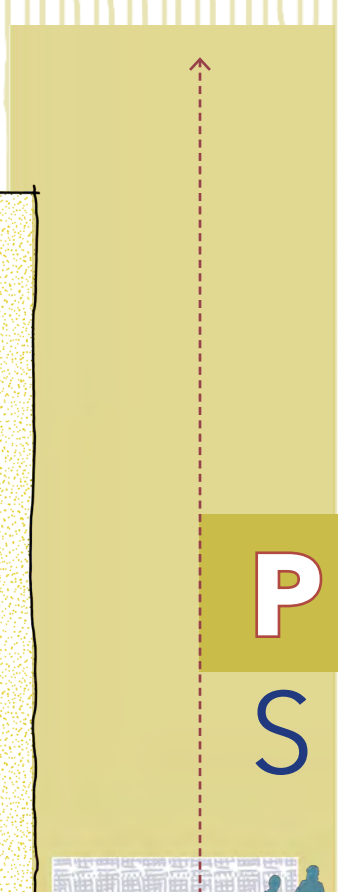
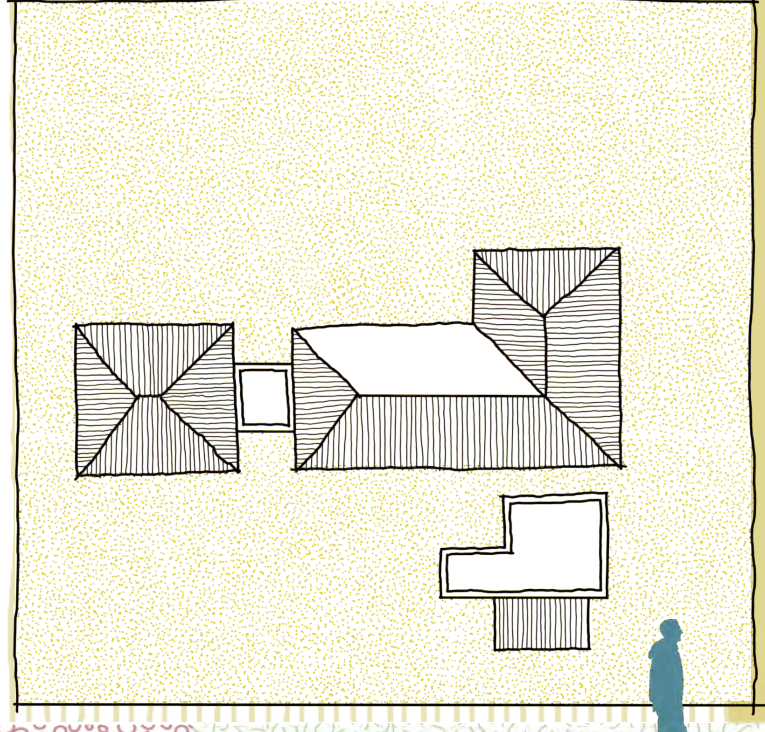
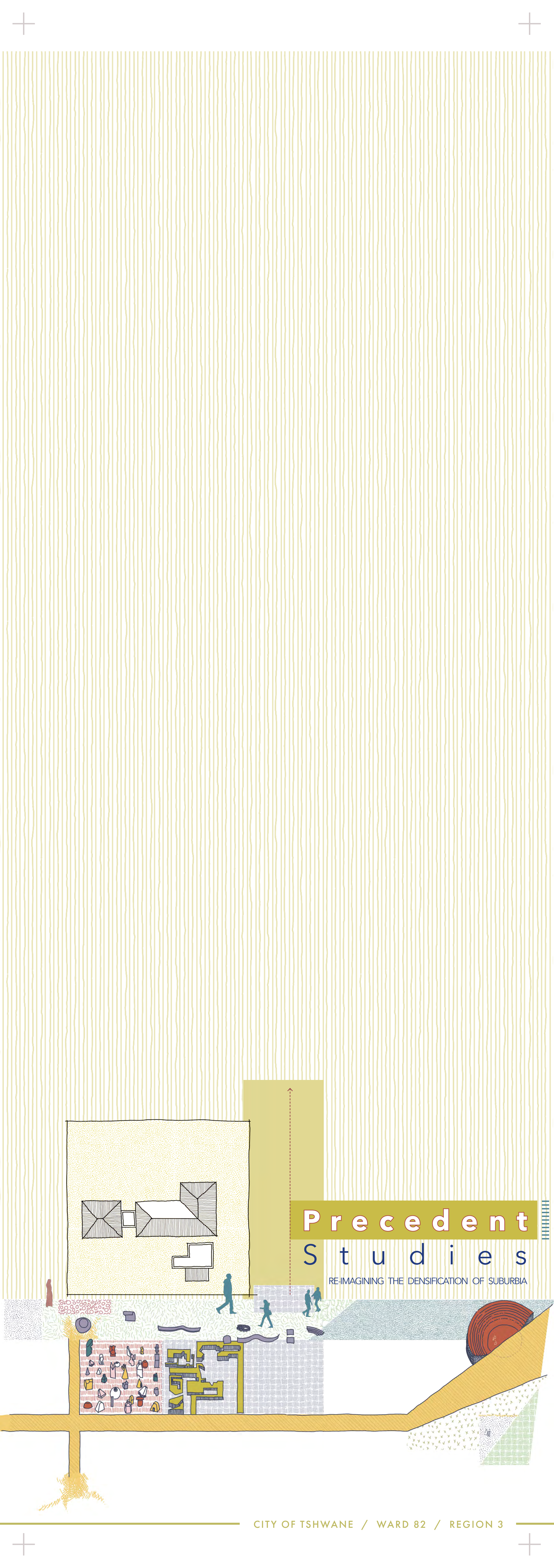


this type of erf configuration was typical during the setting out of the suburb during the early colonial neighbourhood planning frameworks (1950s)



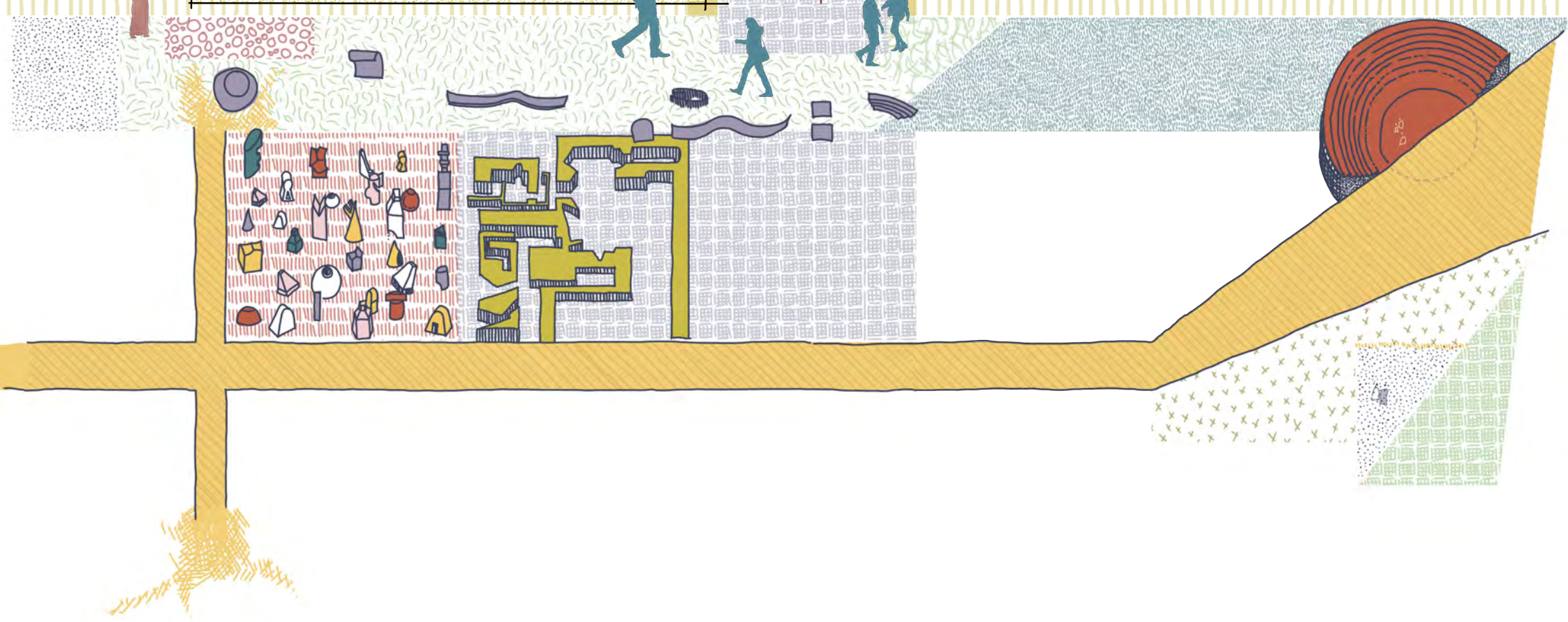
this type of erf configuration, still typical during the setting out of the suburb during the early colonial neighbourhood planning frameworks, represents the smaller house erf configuration.



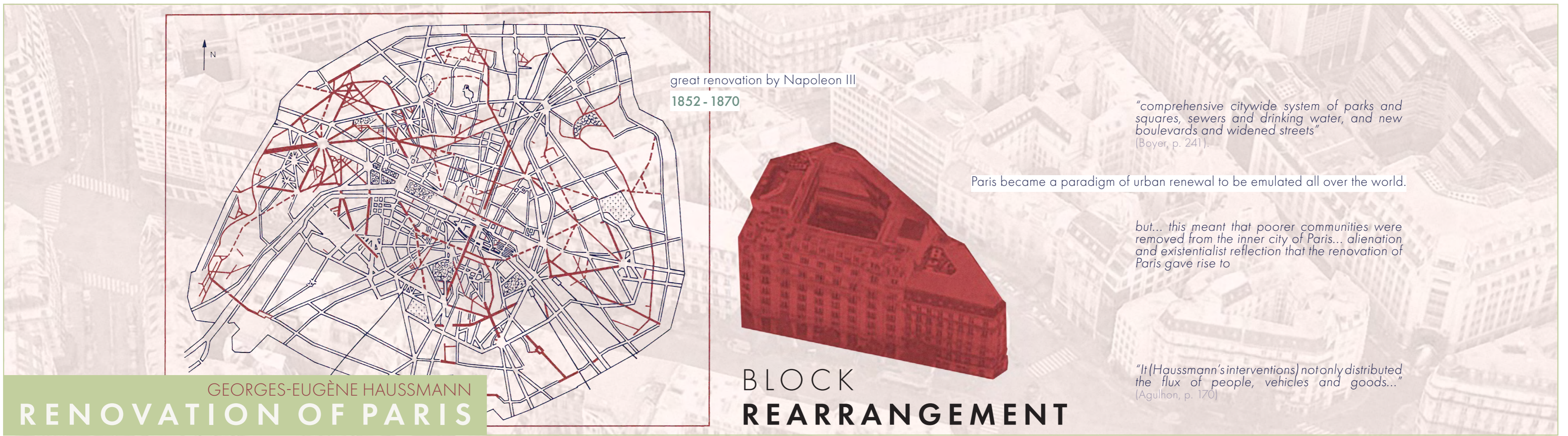
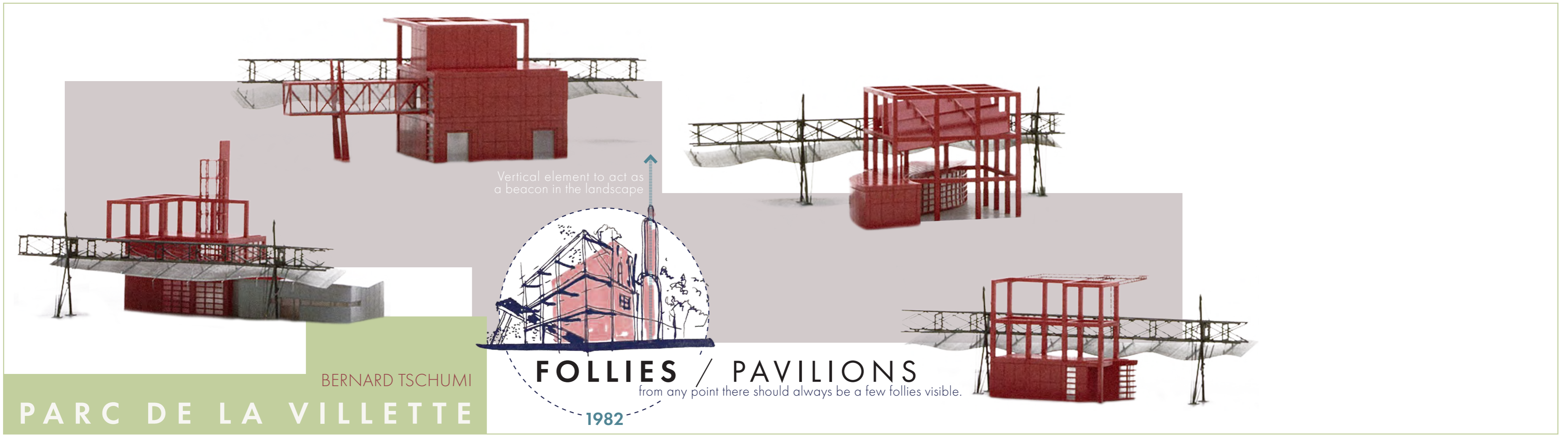


# Precedent Studies

RE-IMAGINING THE DENSIFICATION OF SUBURBIA



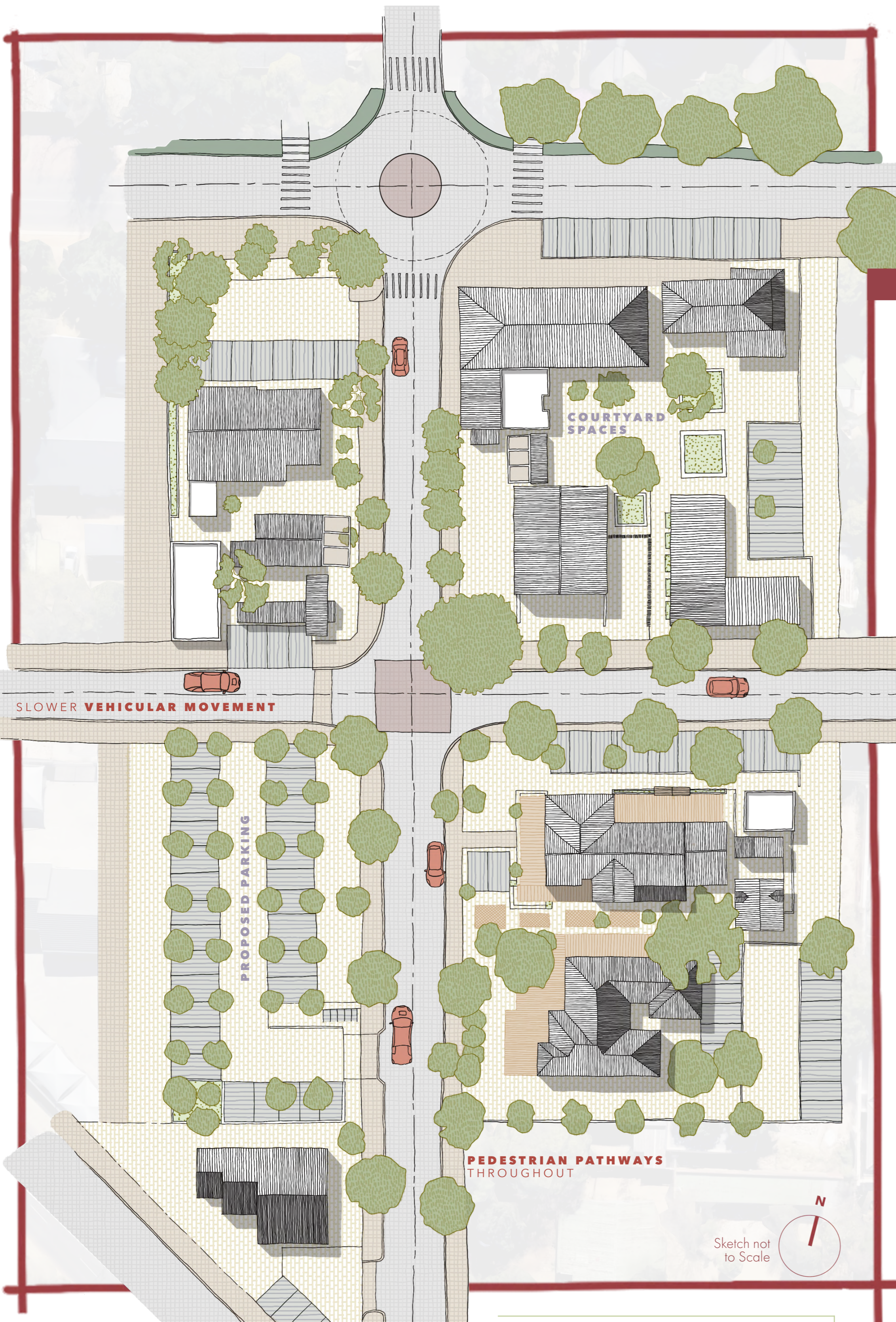




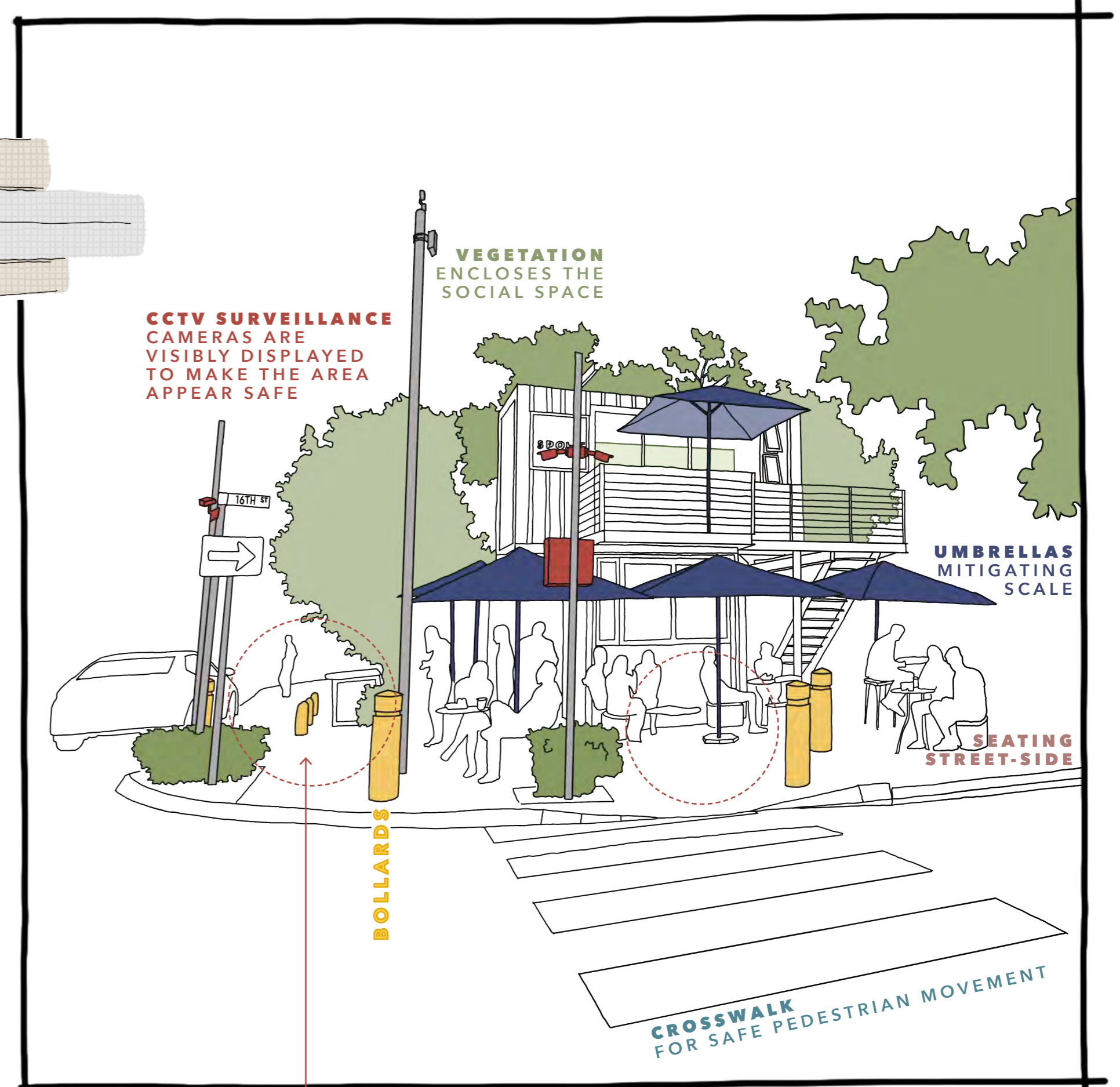
# THE VILLAGE PRECINCT

coaxing suburban life into the public realm

## BASE CASE + PLANNING PRECEDENT



**DIAGRAM 1** Bird's eye view of The Village Precinct



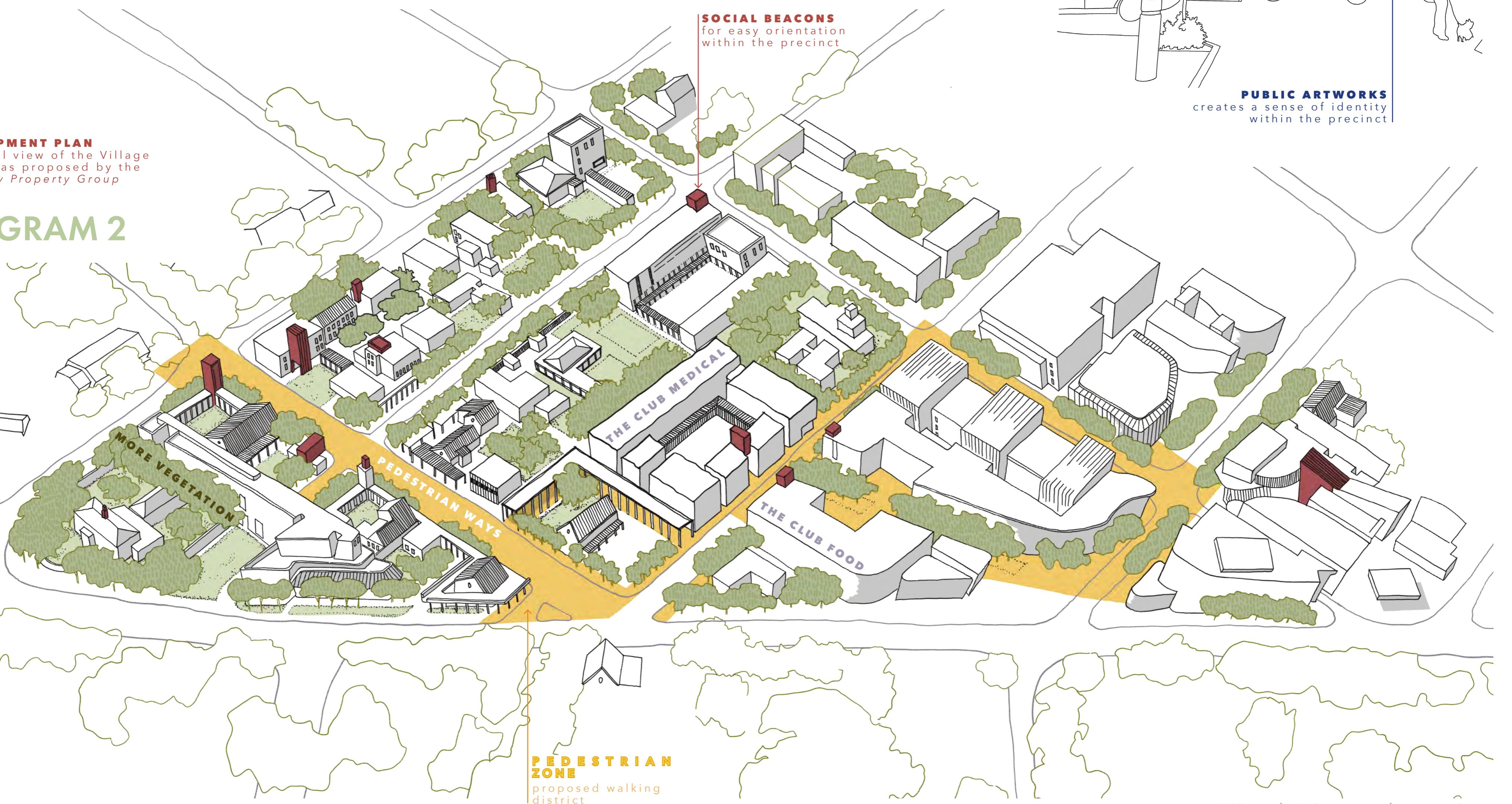
**SOCIAL SPACE** for appropriation



**PUBLIC ARTWORKS** creates a sense of identity within the precinct

**DEVELOPMENT PLAN** the aerial view of the Village Precinct as proposed by the Atterbury Property Group

## DIAGRAM 2



**SOCIAL BEACONS** for easy orientation within the precinct

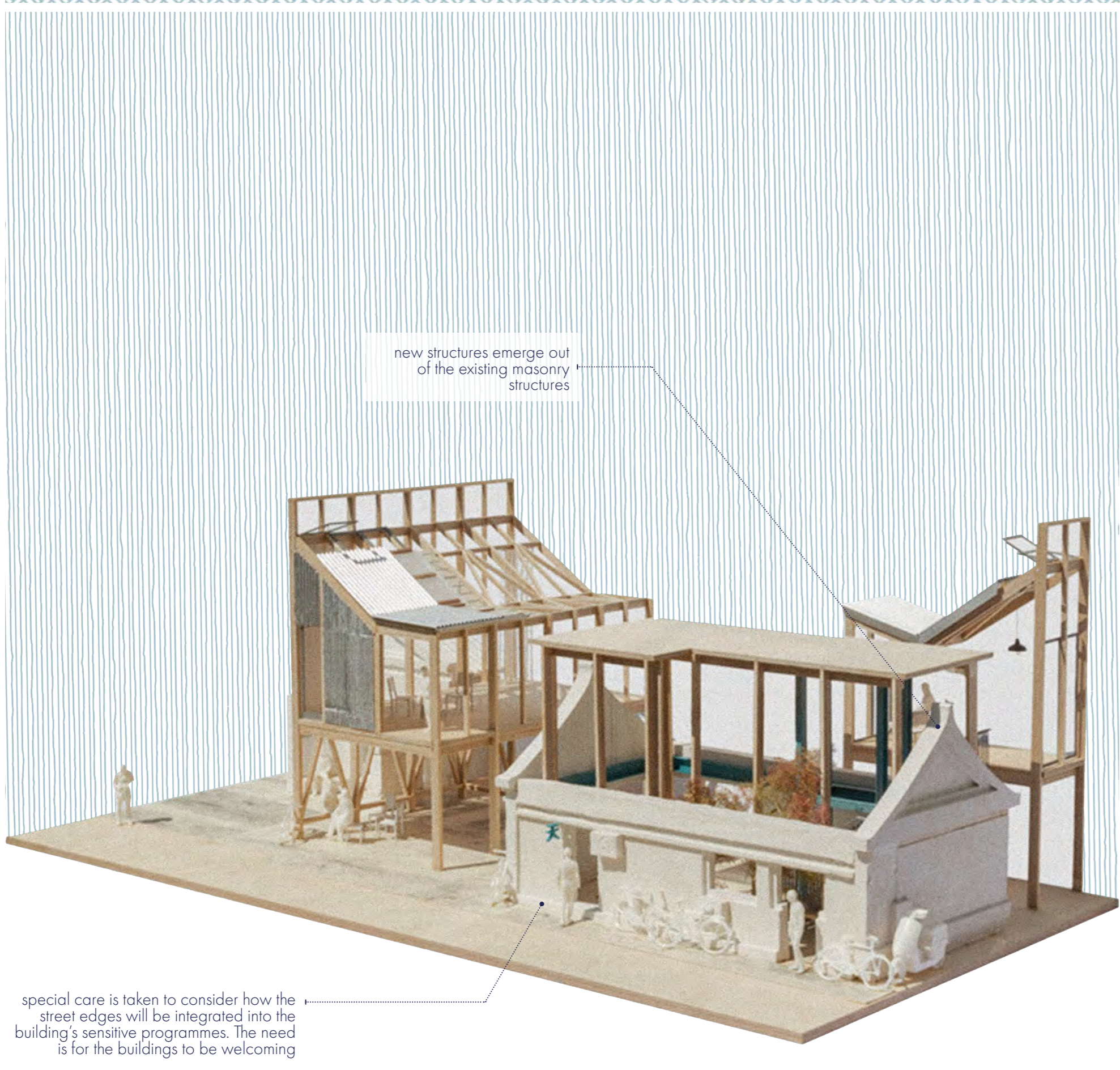
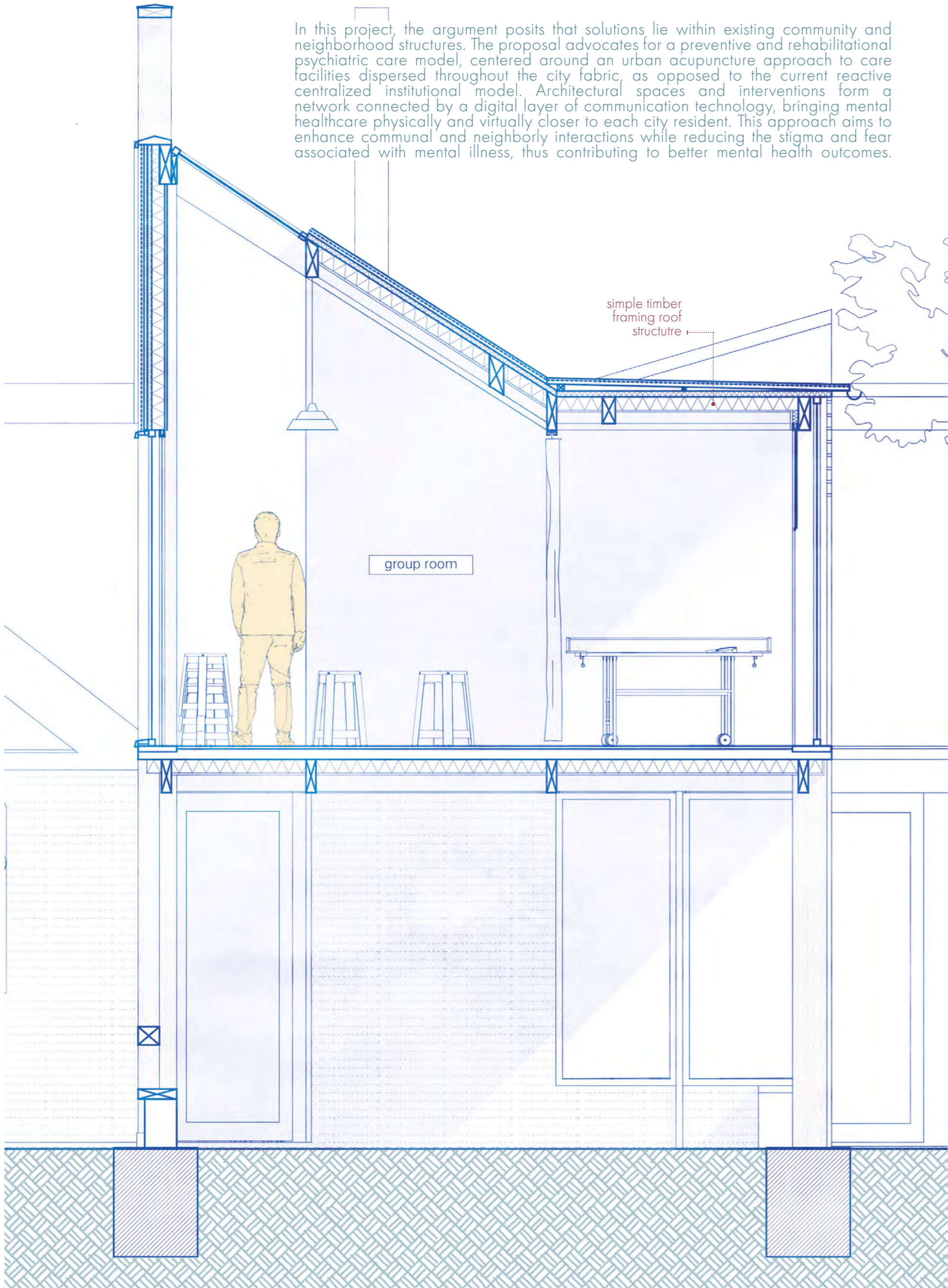
**PEDESTRIAN ZONE** proposed walking district

**PROJECT INTENTION:**

"Close to Home" is a speculative architectural and research initiative that explores the potential of architectural interventions within Beijing's city fabric to contribute significantly to the future mental well-being of urban lives. The project focuses on fortifying existing communities and neighborhood structures as a key strategy.

**CLOSE TO HOME | CAMERON CLARKE**

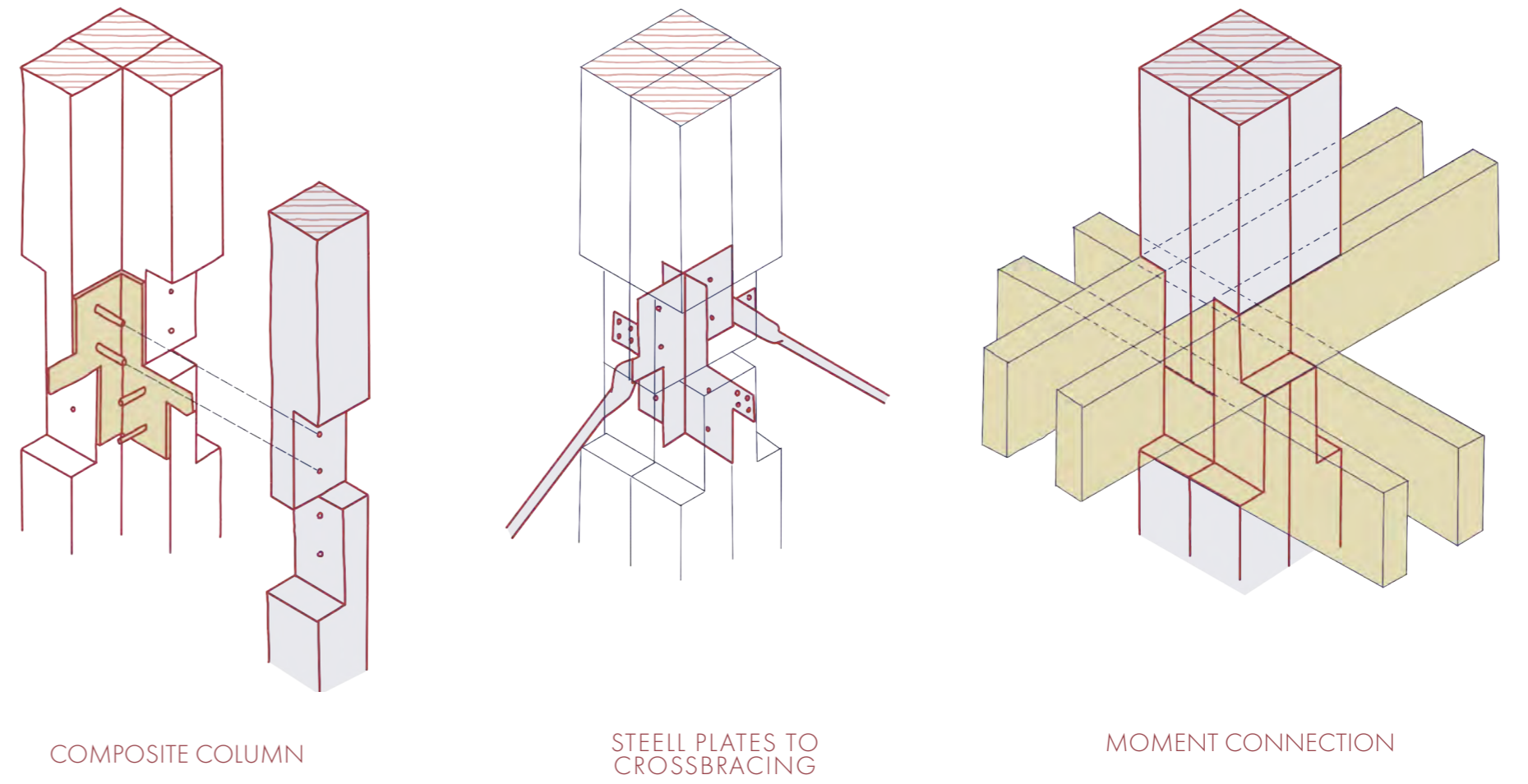
In this project, the argument posits that solutions lie within existing community and neighborhood structures. The proposal advocates for a preventive and rehabilitational psychiatric care model, centered around an urban acupuncture approach to care facilities dispersed throughout the city fabric, as opposed to the current reactive centralized institutional model. Architectural spaces and interventions form a network connected by a digital layer of communication technology, bringing mental healthcare physically and virtually closer to each city resident. This approach aims to enhance communal and neighborly interactions while reducing the stigma and fear associated with mental illness, thus contributing to better mental health outcomes.



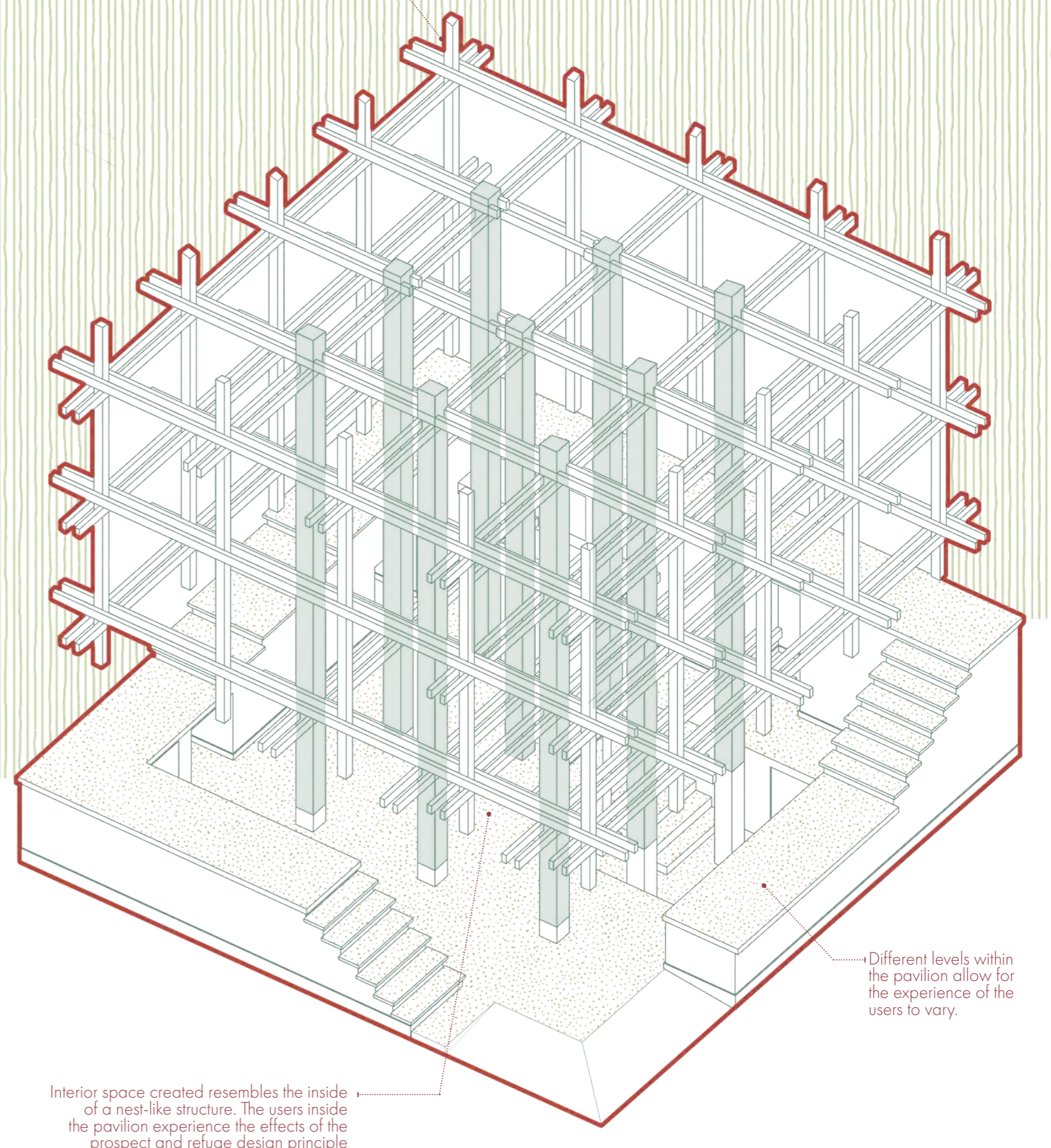
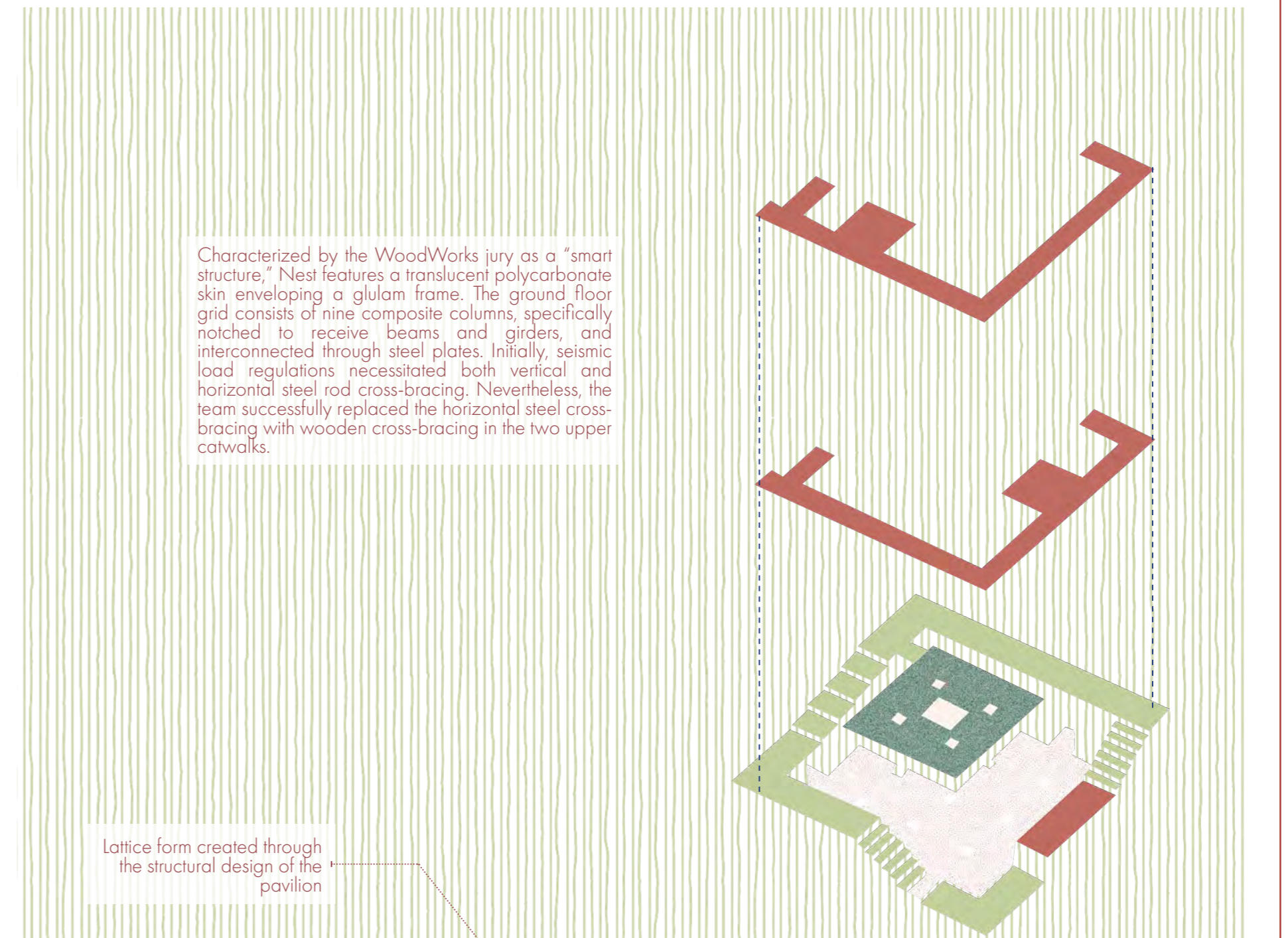
**PROJECT INTENTION:**

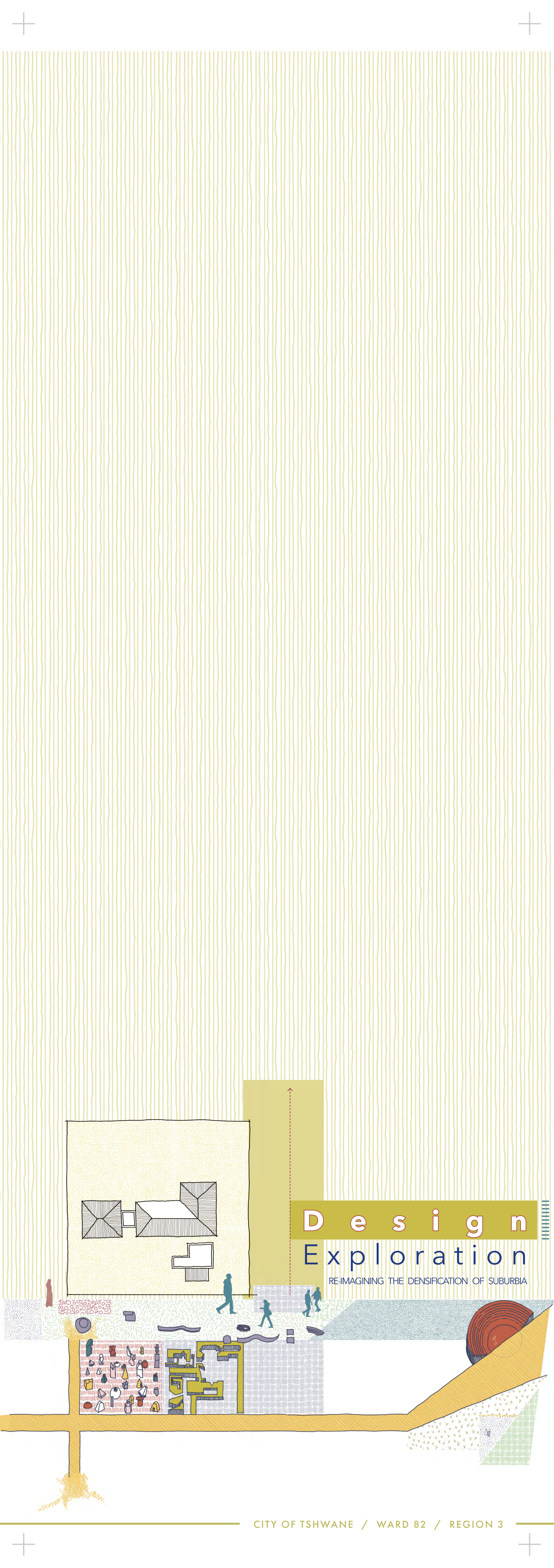
In accordance with the guidelines outlined in the design competition, Nest We Grow aims to unite individuals and food at the Lixil JS Foundation's Memu Meadows research center in Taiki-cho, Hiro-gun, Hokkaido, Japan. Smith expresses the team's aspiration for the recently inaugurated permanent structure, stating, "We want to foster a sense of community."

**NEST WE GROW | KENGO KUMA**



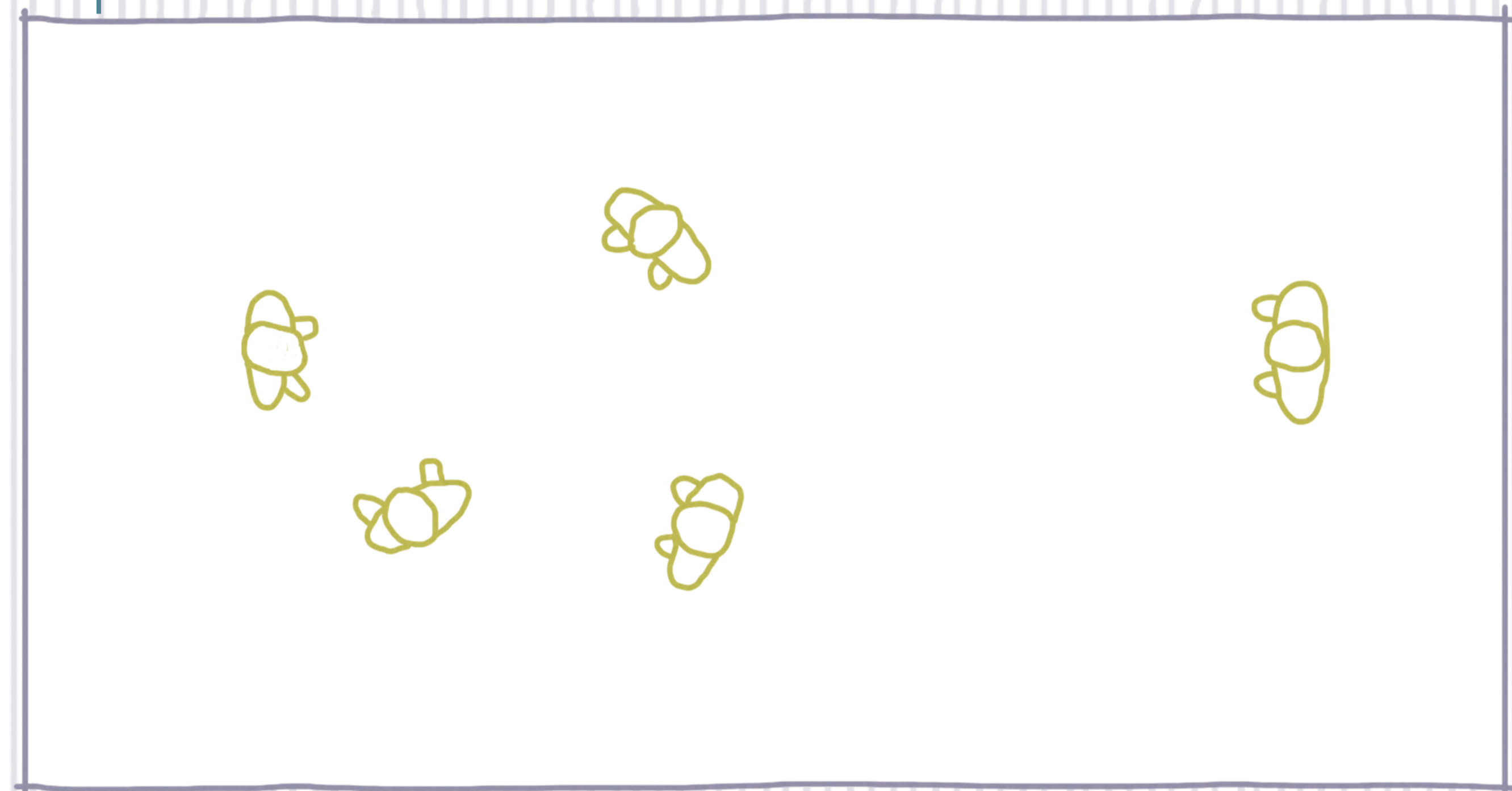
Designed as a communal space for the preparation and enjoyment of local foods, the Nest incorporates various features to ensure comfort across seasons. Utilizing translucent plastic corrugated sheets for the façade and roof helps trap heat from the tea platform fireplace during colder months. Sliding panels integrated into the façade and roof promote airflow in warmer weather. Additionally, a concrete wall at the structure's base acts as a shield against strong northwest winds.



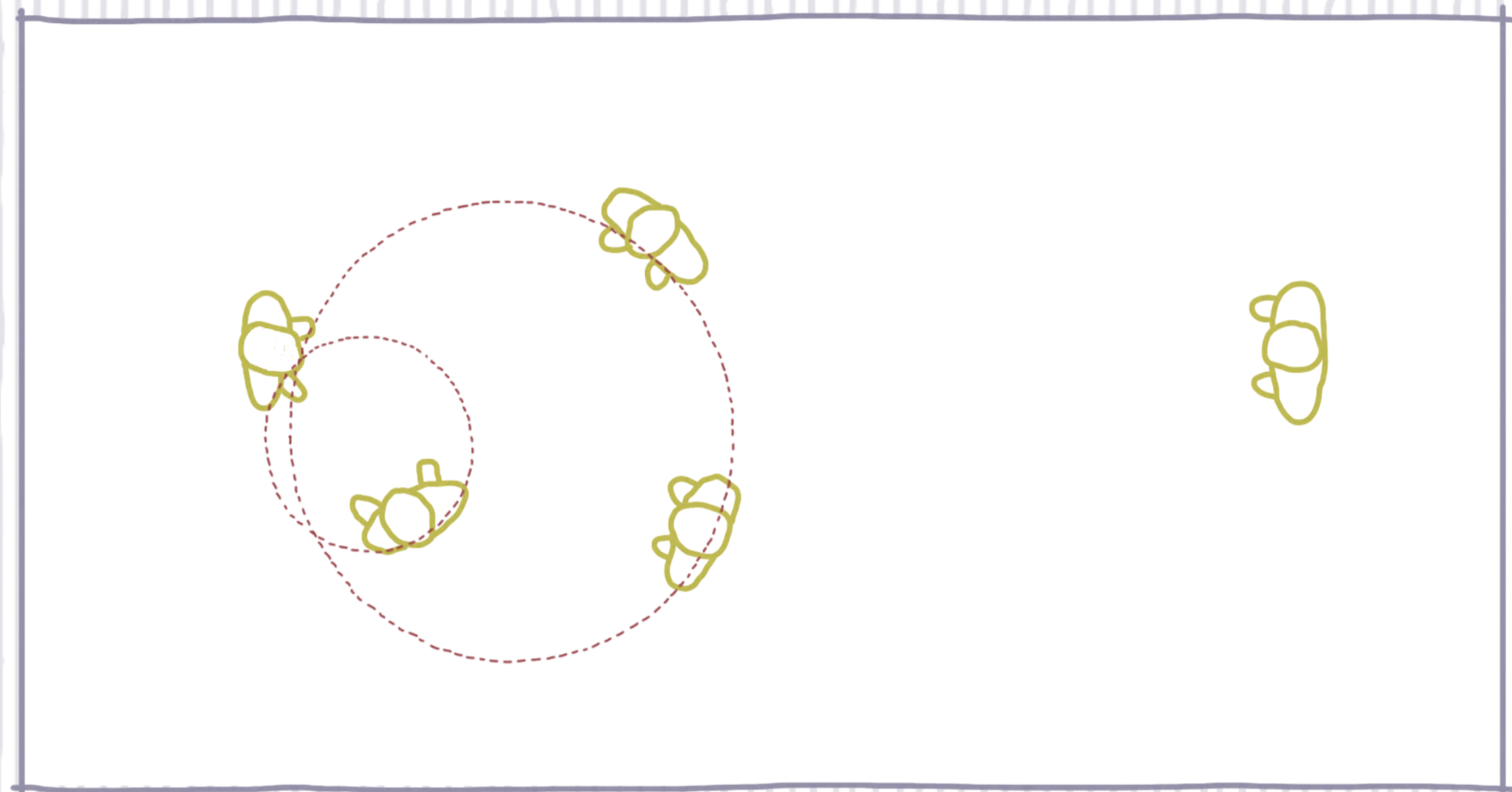


# Design Exploration

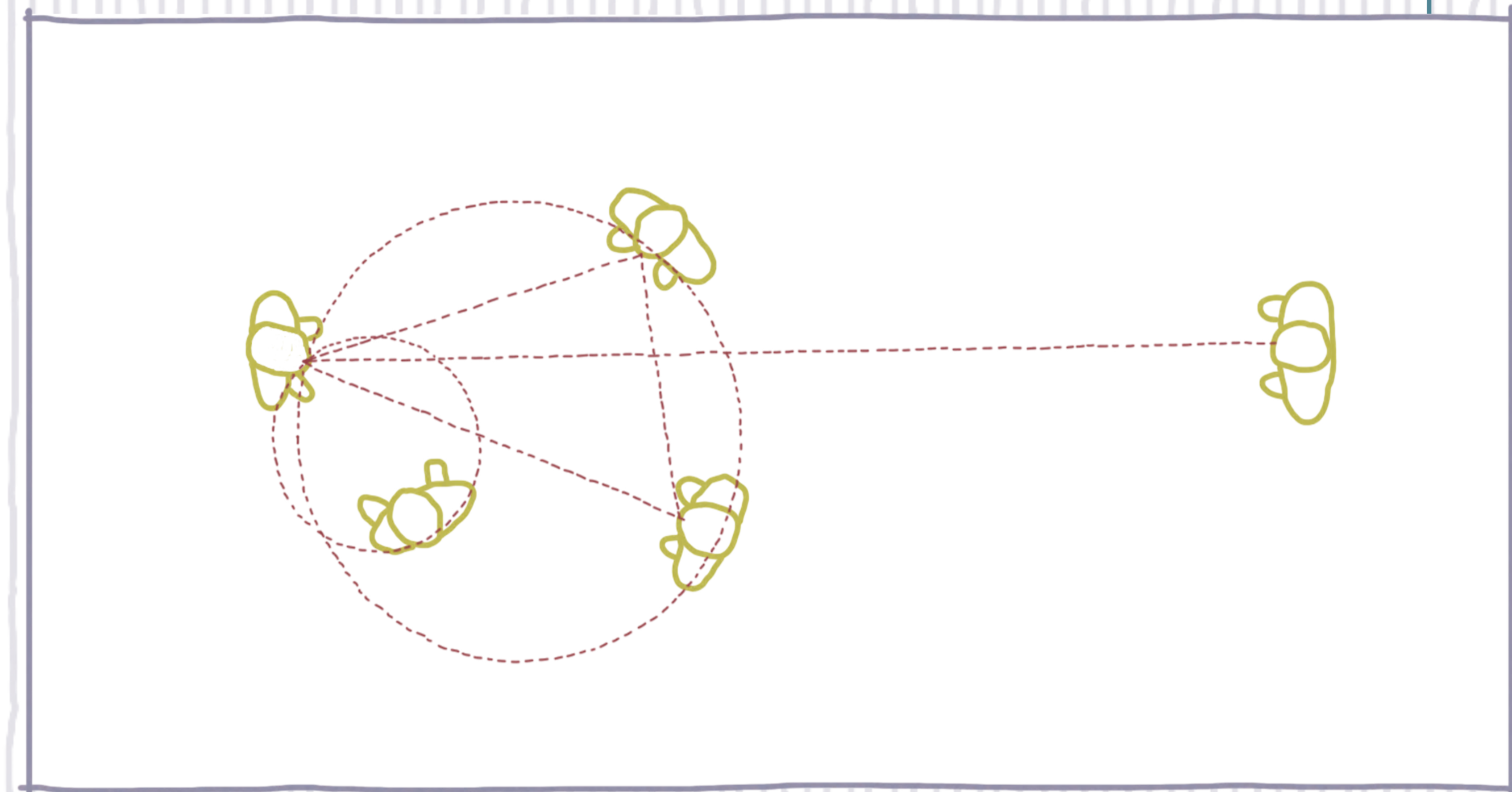
RE-IMAGINING THE DENSIFICATION OF SUBURBIA



PARTICIPATION



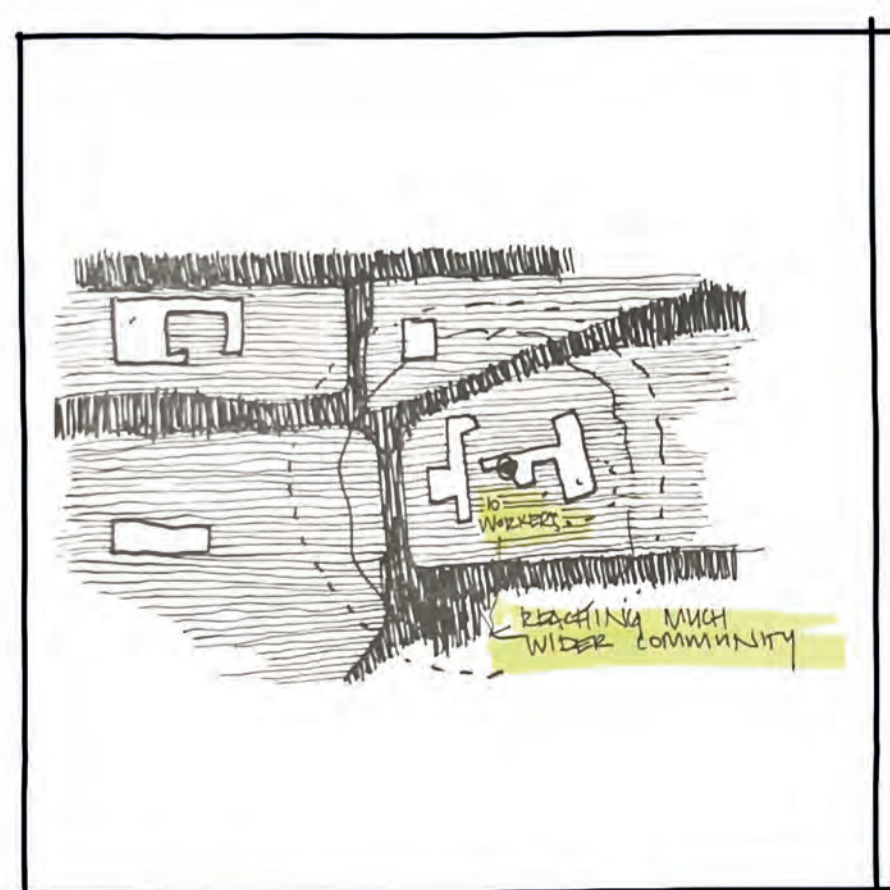
ENGAGEMENT



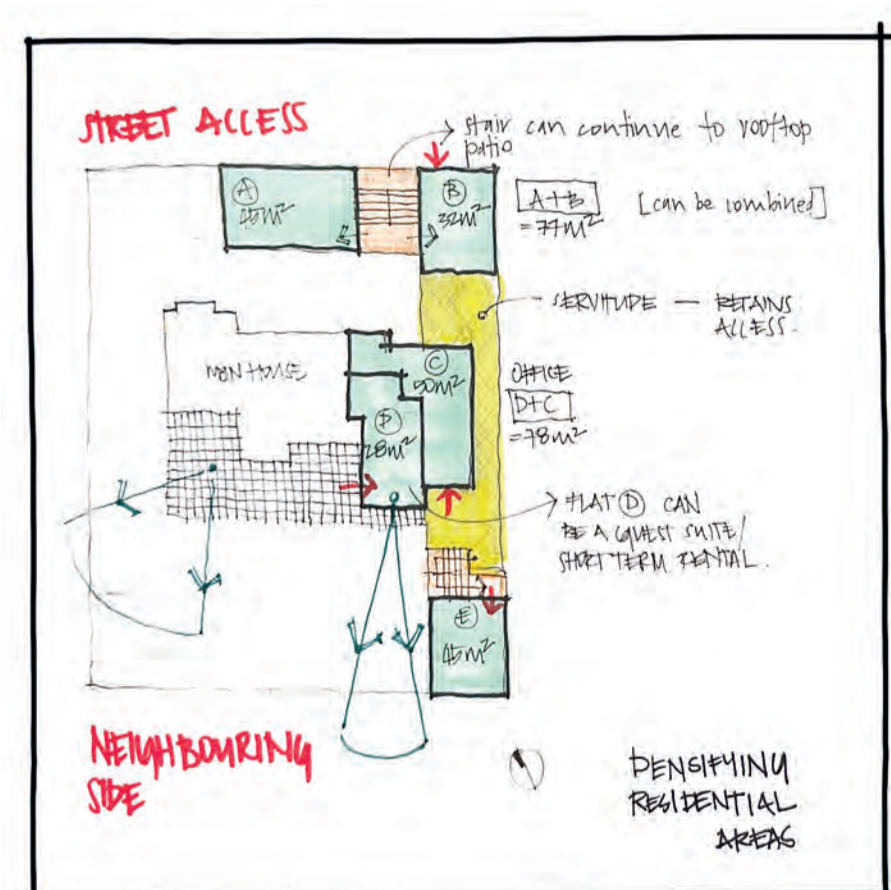
COLLABORATION

THE RESULT THEN BEING A SHARED REALITY

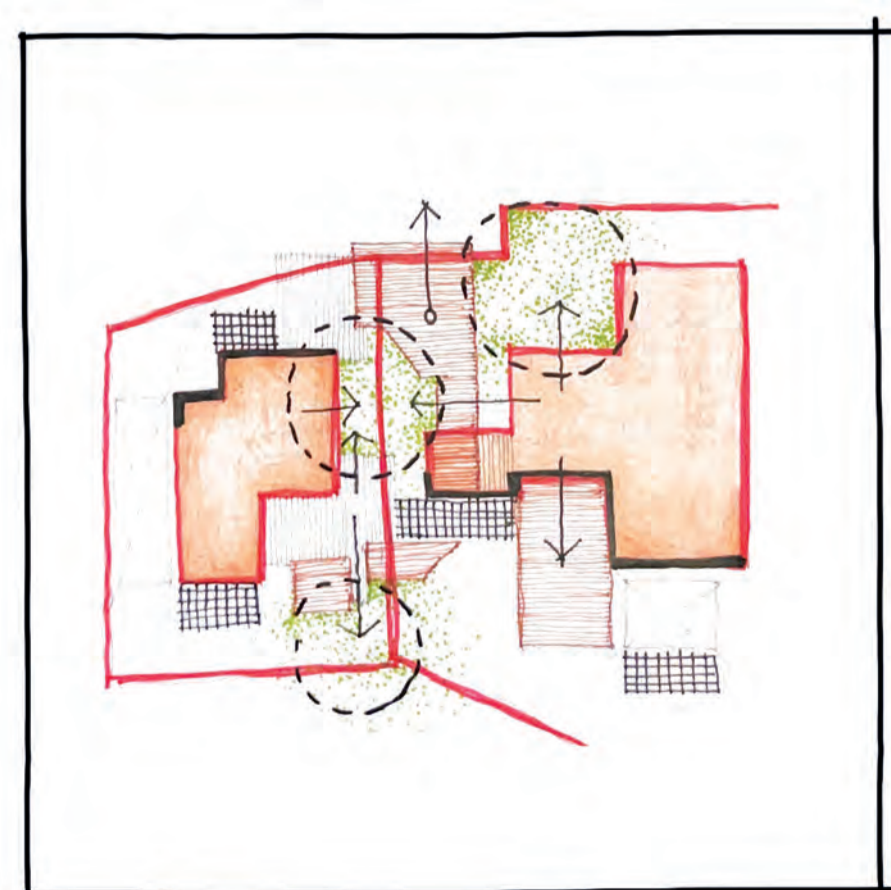
This demonstrates the aspiration to establish a collective experience among residents residing in the residential blocks. The key to realising this vision lies in fostering active participation and collaboration between residents and architectural professionals to construct a densified suburban environment using facilitated self-build practices.



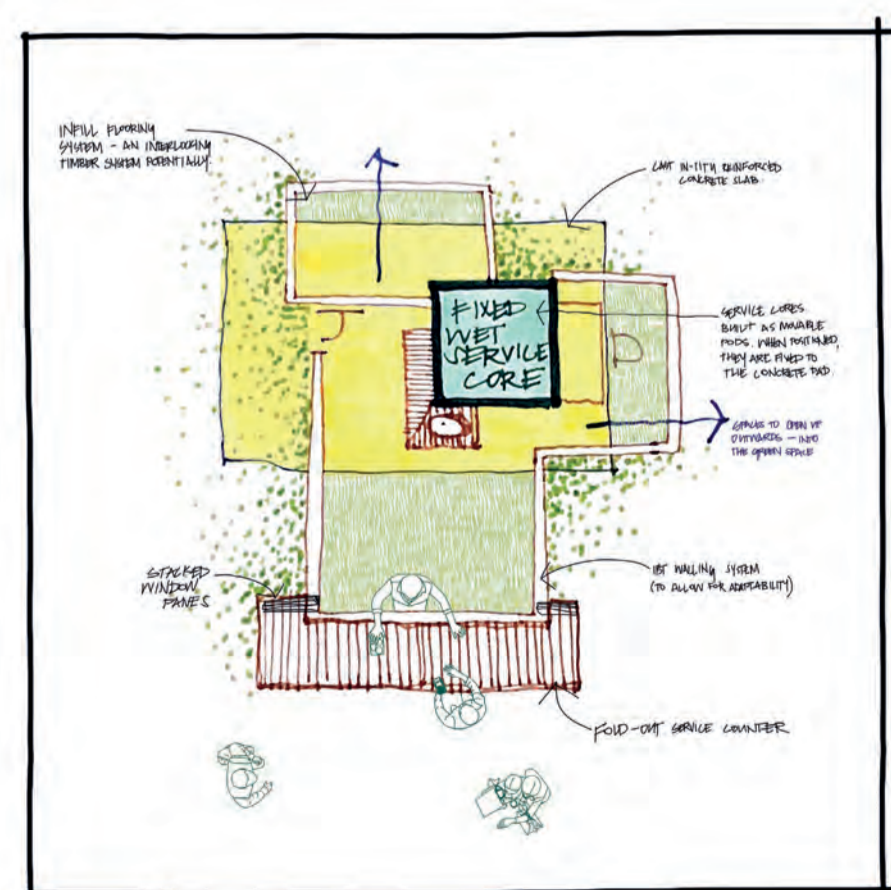
The initial iteration of the design concept explored the idea of discrete pockets of activity within suburbia, each not interconnected.



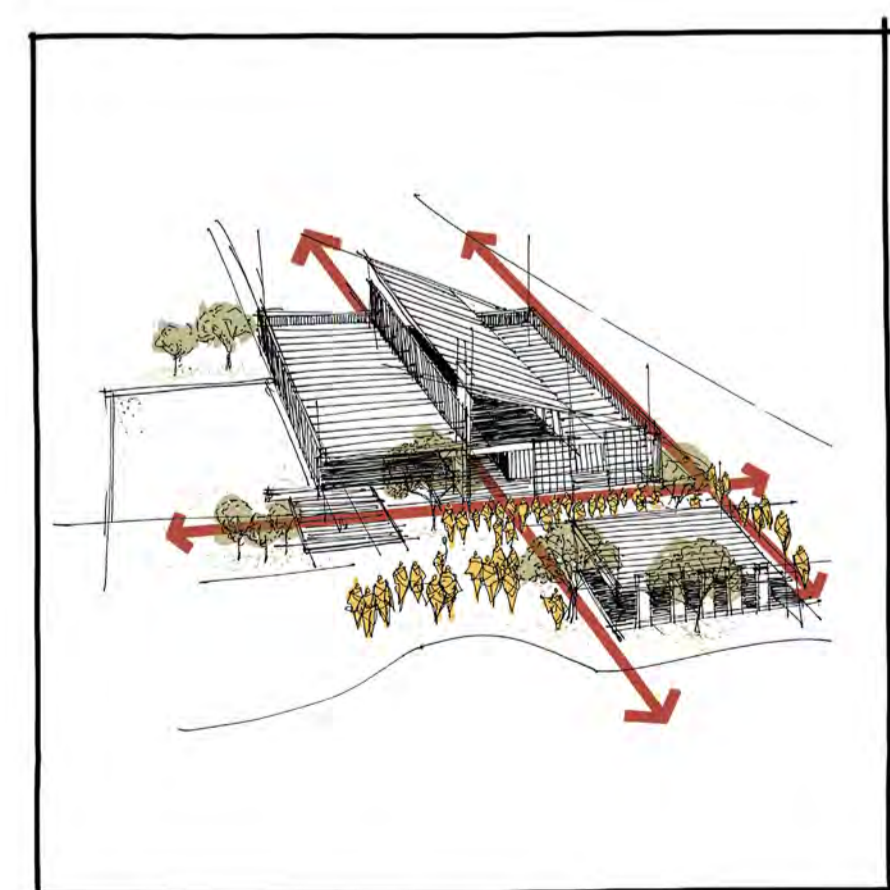
Sketch based on the work by Thorsten Deckler exploring similar ideas about densifying suburbia.



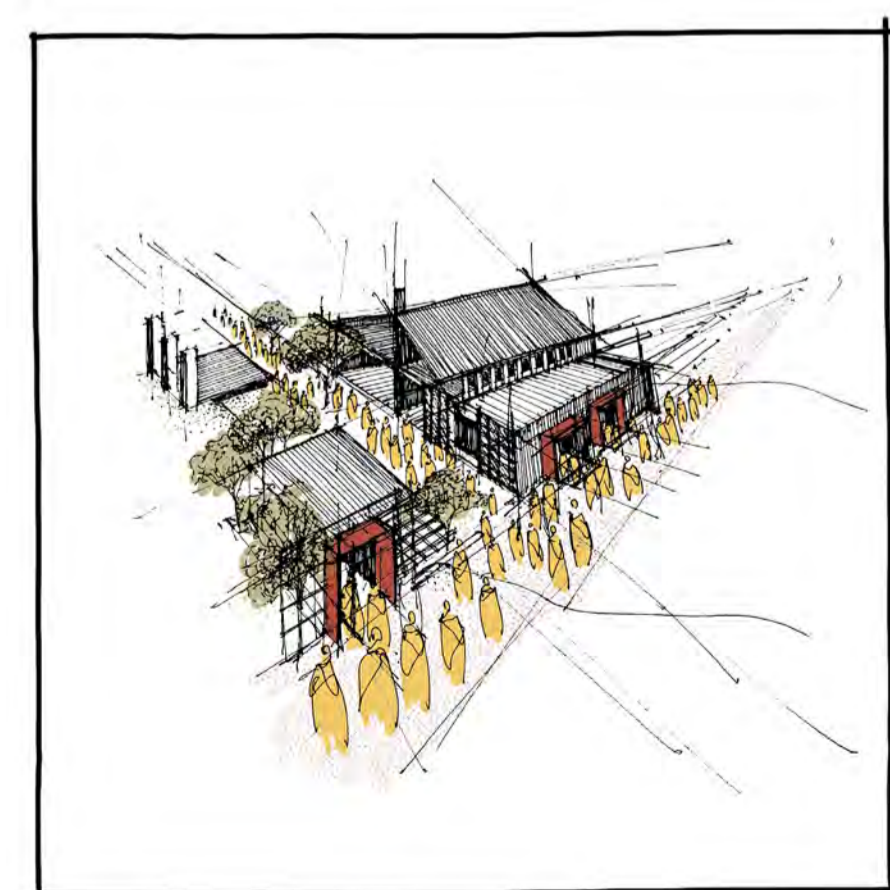
Sketch exploring the options for densifying the interstitial spaces between existing residential homes.



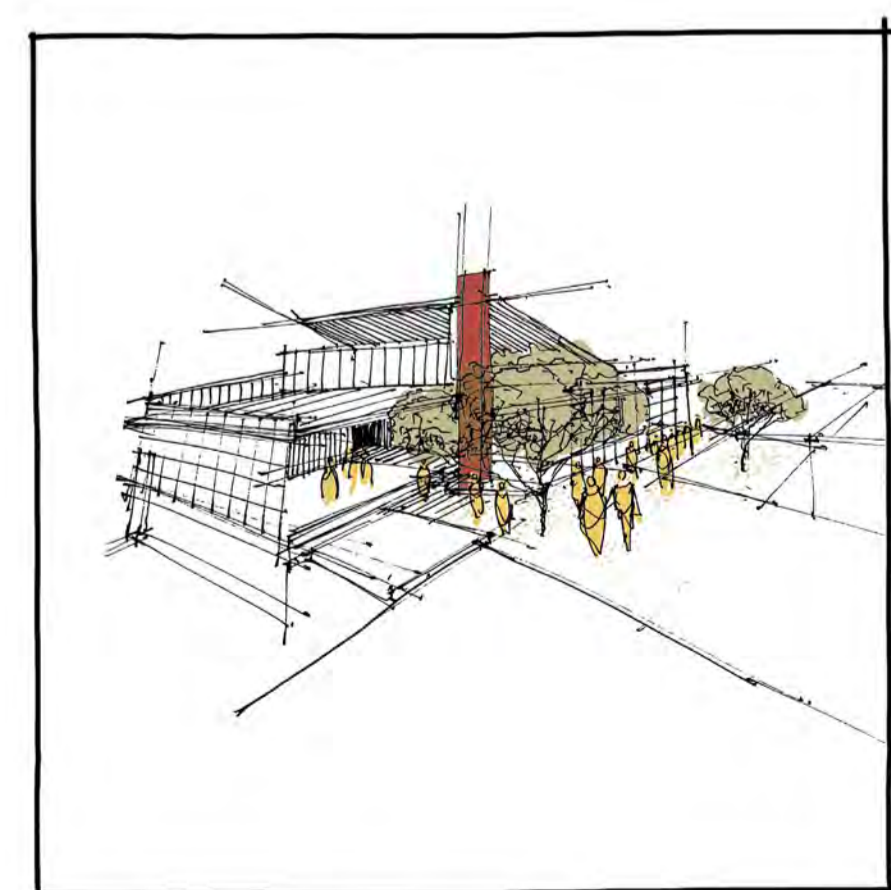
Sketch exploring intimate interventions that could be placed within the residential context.



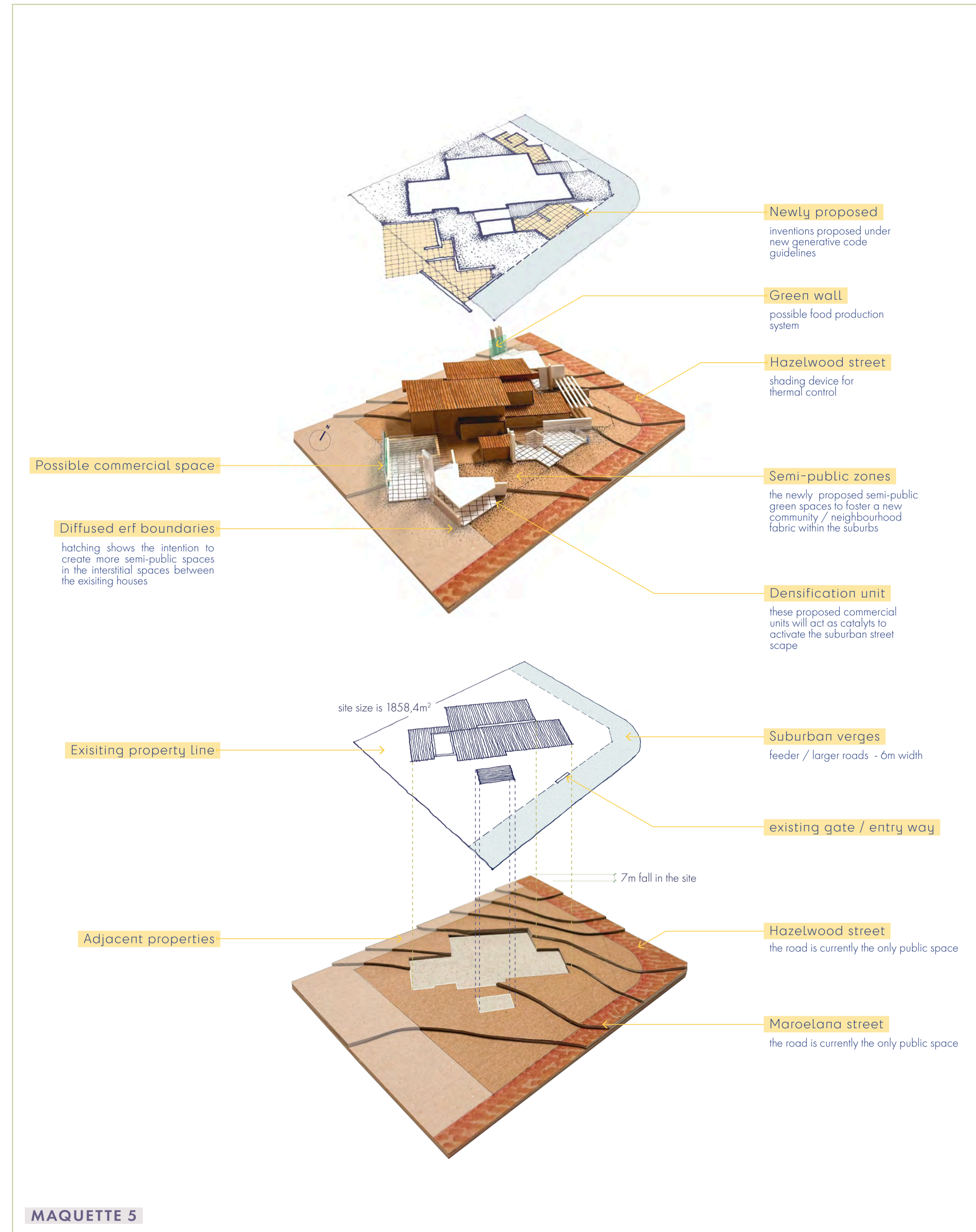
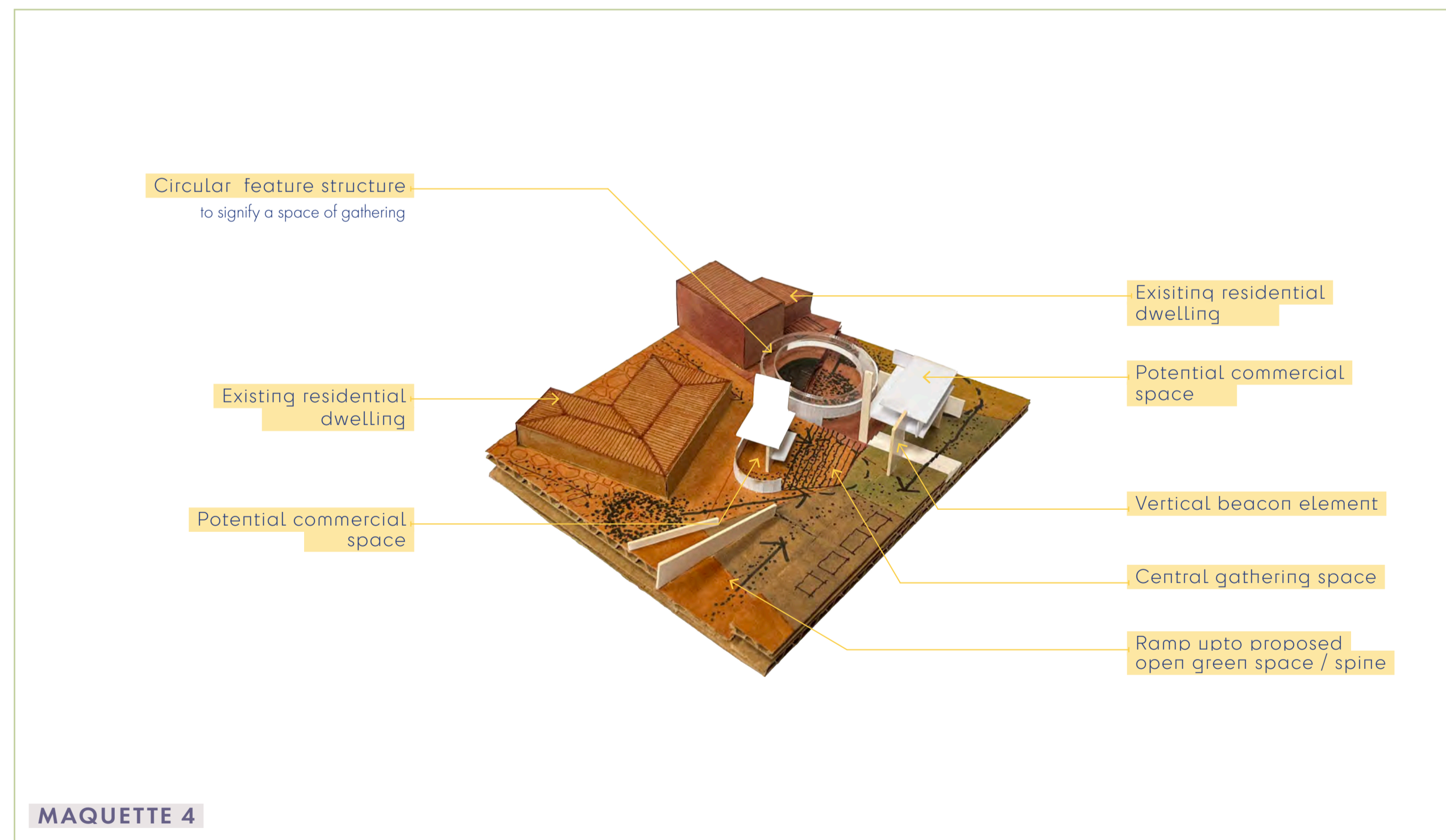
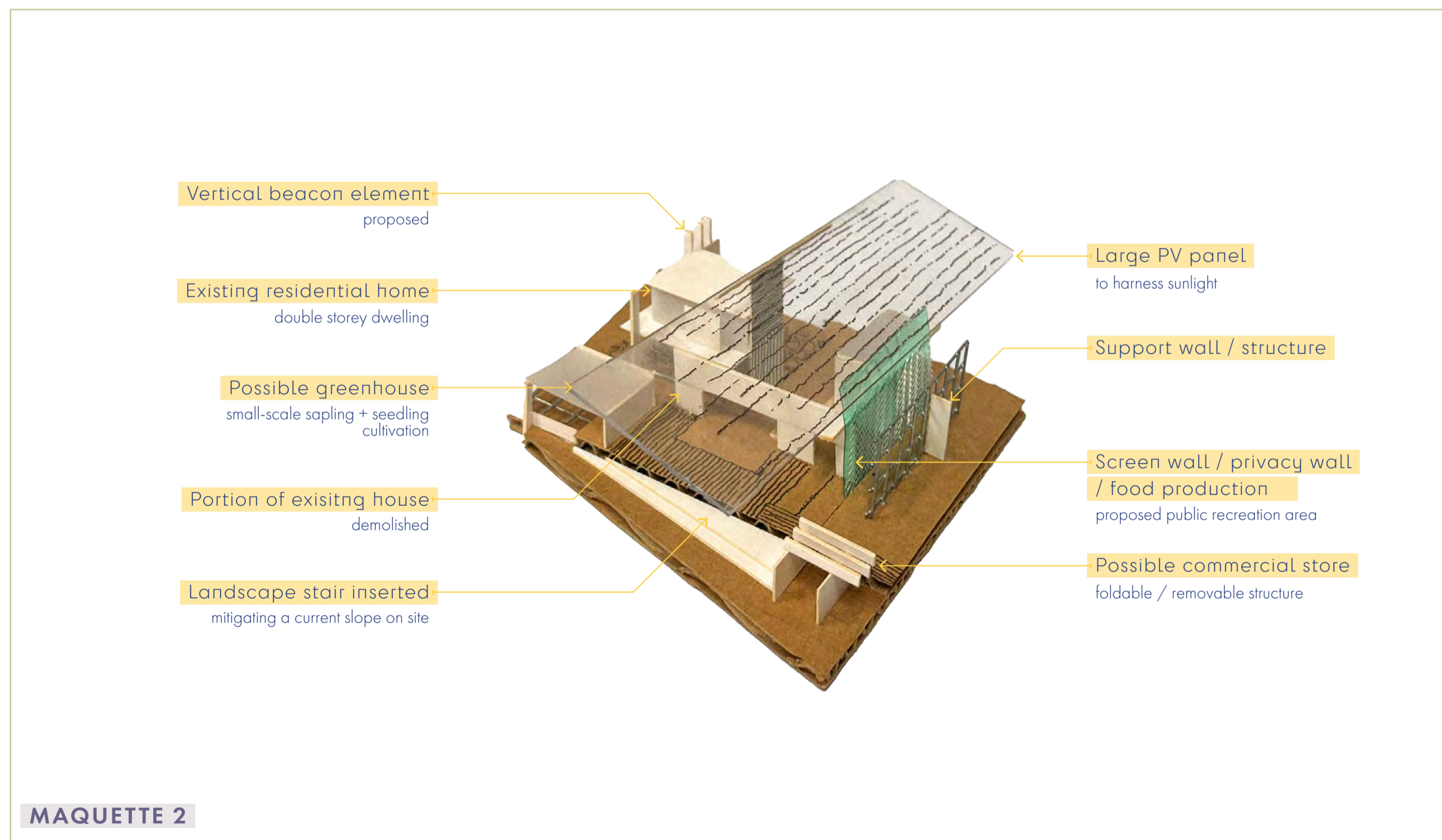
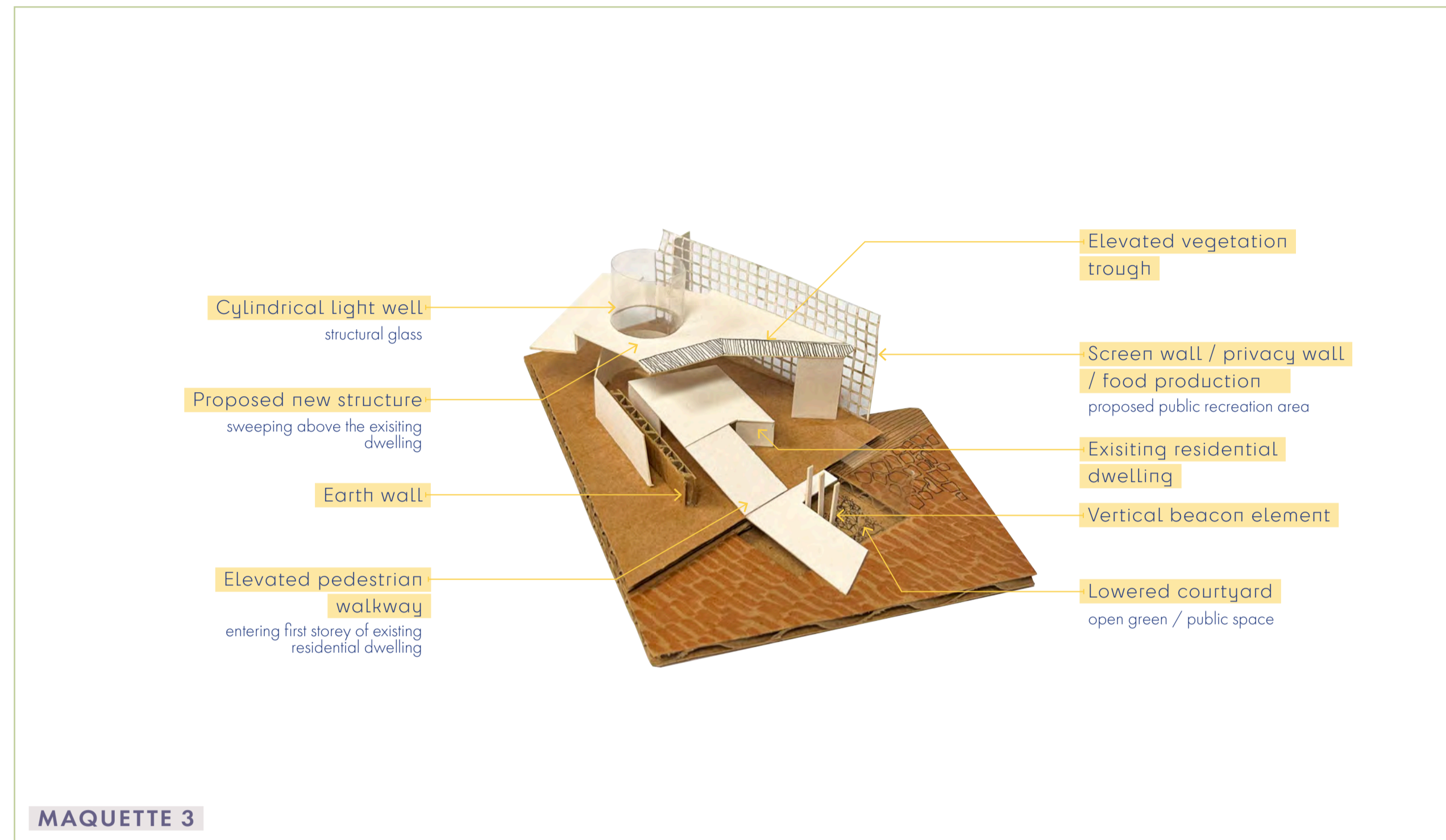
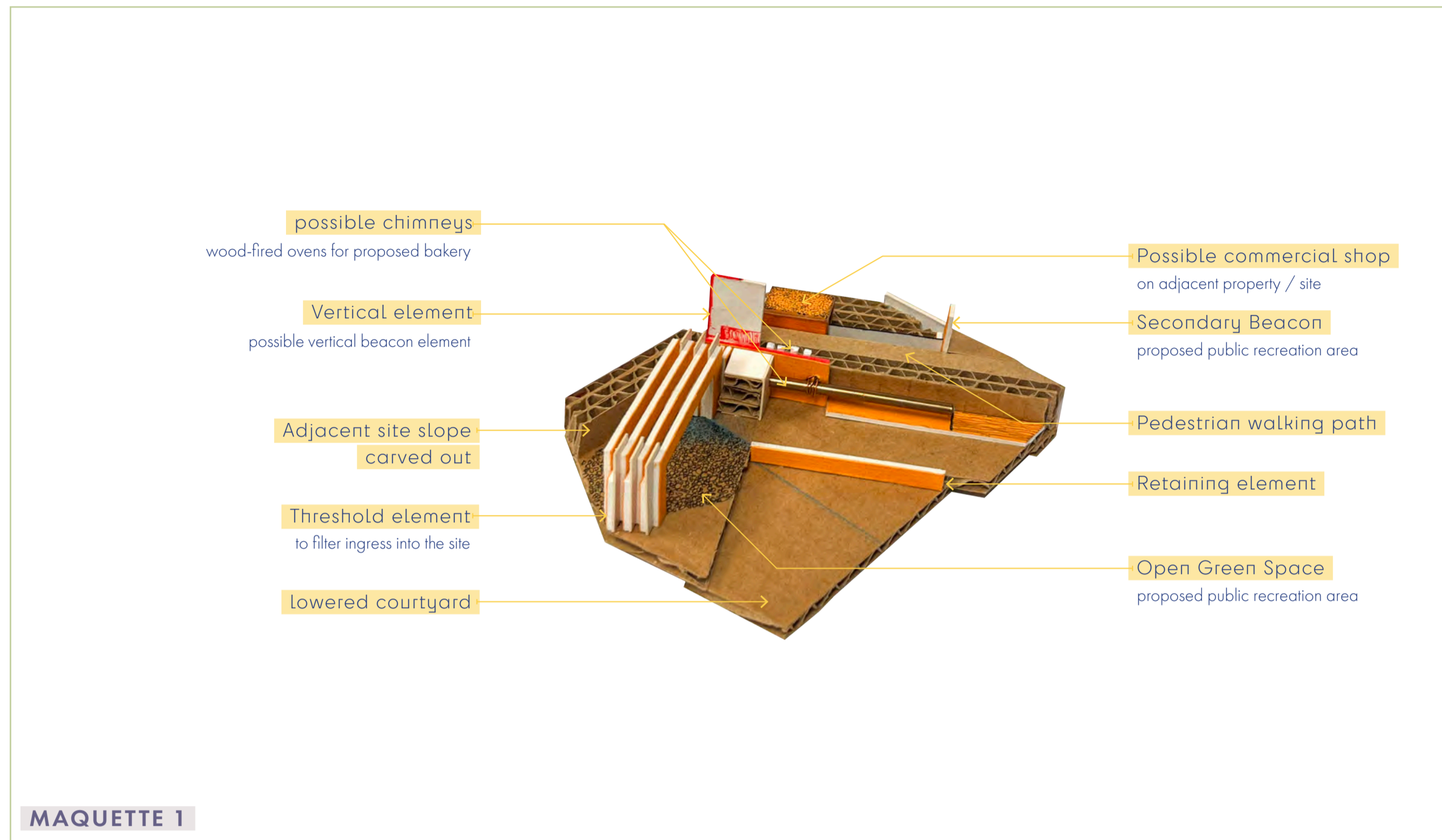
Linear axial arrangement of buildings allow easy navigation for users and ensure visual connection between where you are and where you are heading (sense of safety)



Pedestrian routes through the prototypical proposed buildings.



Vertical element: the vertical element is included in the design to allow for visibility from a distance and allow for pedestrians to orientate themselves easily.



# PLANNING ITERATIONS

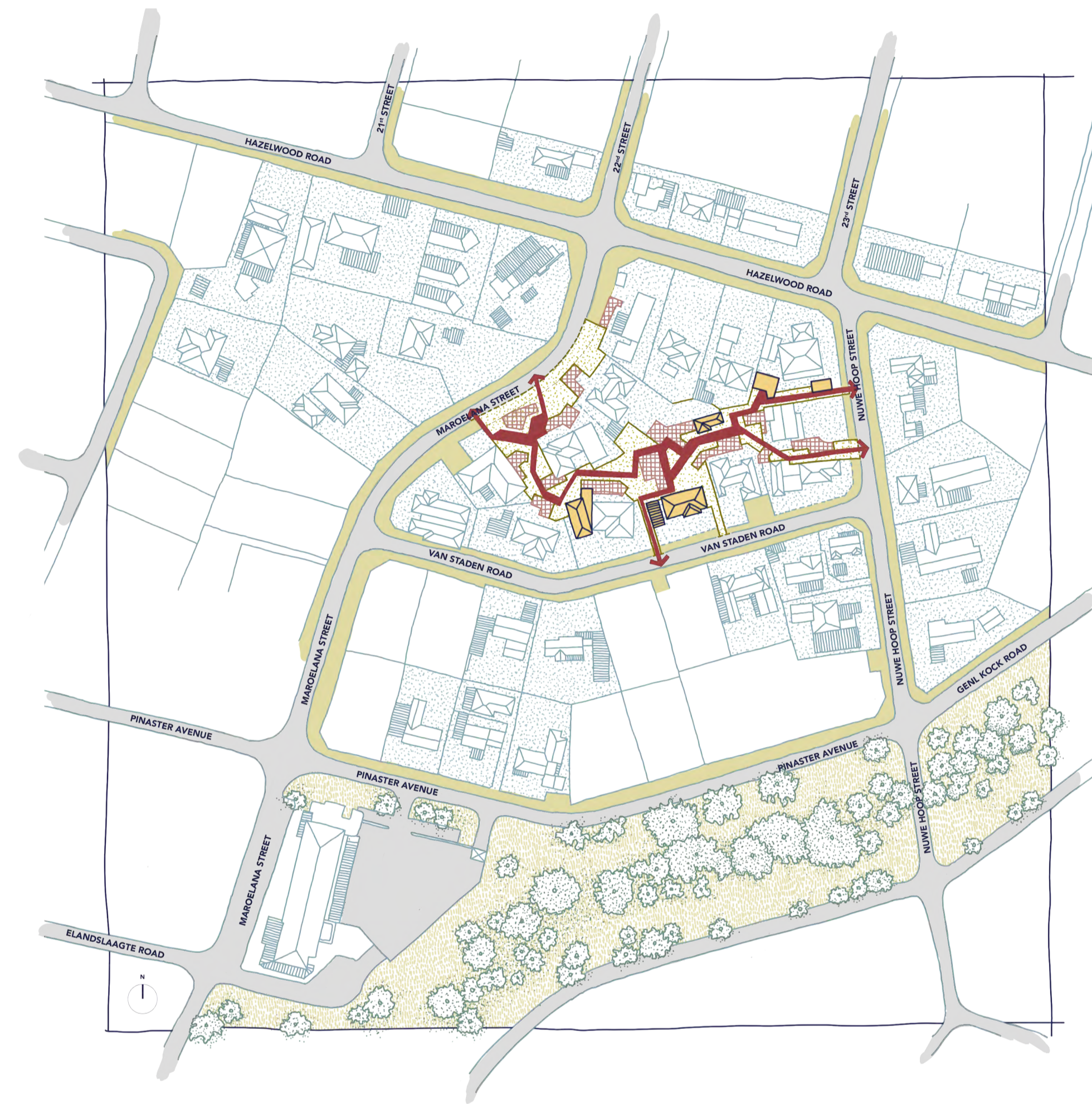


## ITERATION 1

*infill units were placed in relation to the existing residential homes*

The pedestrian spine route was deduced later, the concern is that there are too many corners and blind areas in the residential block. The entrance ways into the block are also too large and scattered. Orientation for the user will be difficult.

- new infill buildings
- converted existing buildings
- green areas adjacent to the spine
- pedestrian route
- existing context

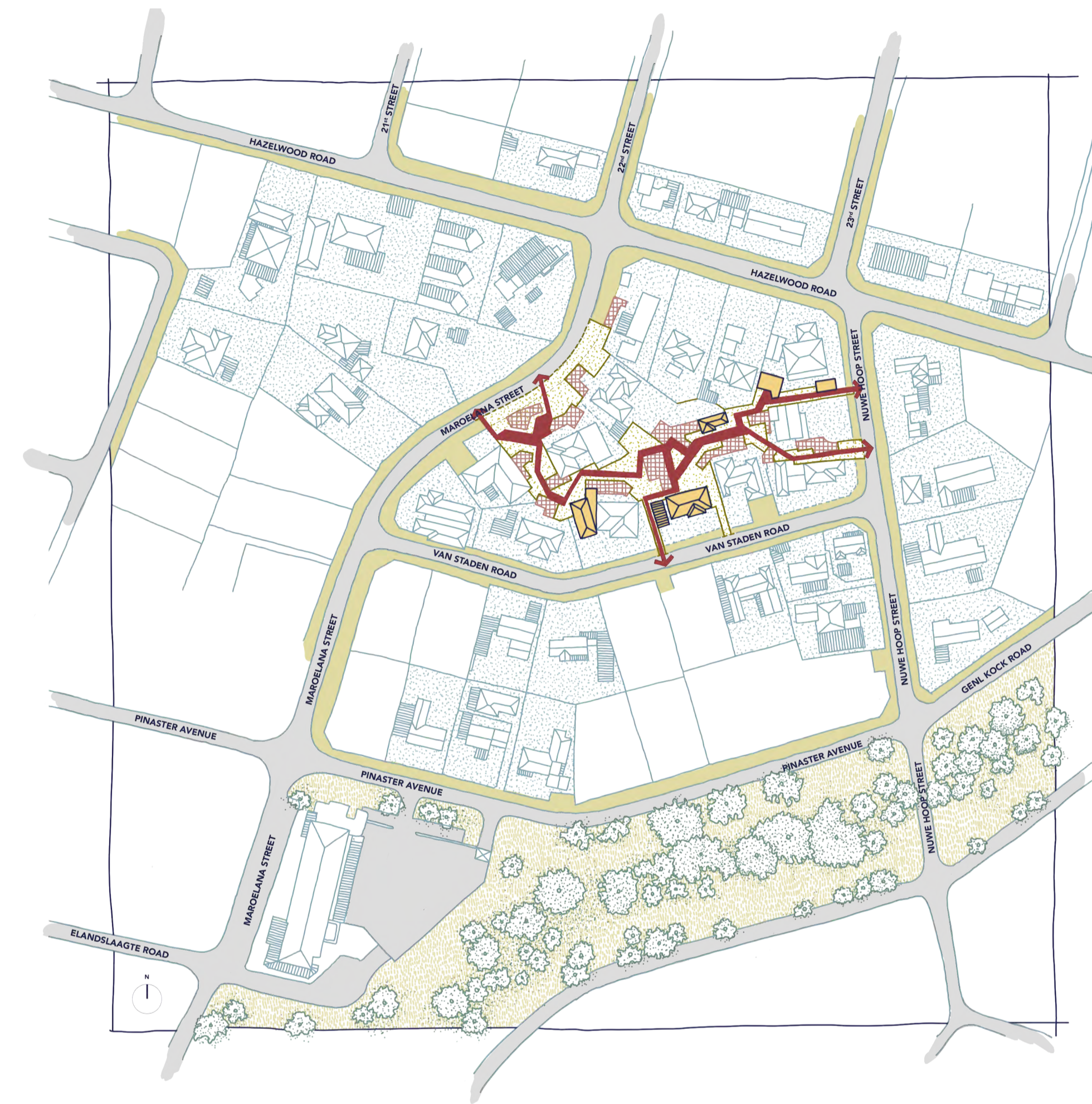


## ITERATION 2

*infill units were placed within the larger open spaces between the existing homes*

The pedestrian spine route was deduced later. This iteration aimed to only propose new buildings that do not affect the existing homes too drastically. This still resulted in the deduced route to appear random and difficult to navigate by the users.

- new infill buildings
- converted existing buildings
- green areas adjacent to the spine
- pedestrian route
- existing context



## ITERATION 3

*the infill units were clustered more + focused to the north and south of the residential block*

This iteration shows, although the pedestrian route is still too hap-hazardous, that the infill units can be placed in combination with altering some existing structures within the context. The pedestrian route is more focused, with fewer entrances which directly improves the sense of safety within the block.

- new infill buildings
- converted existing buildings
- green areas adjacent to the spine
- pedestrian route
- existing context



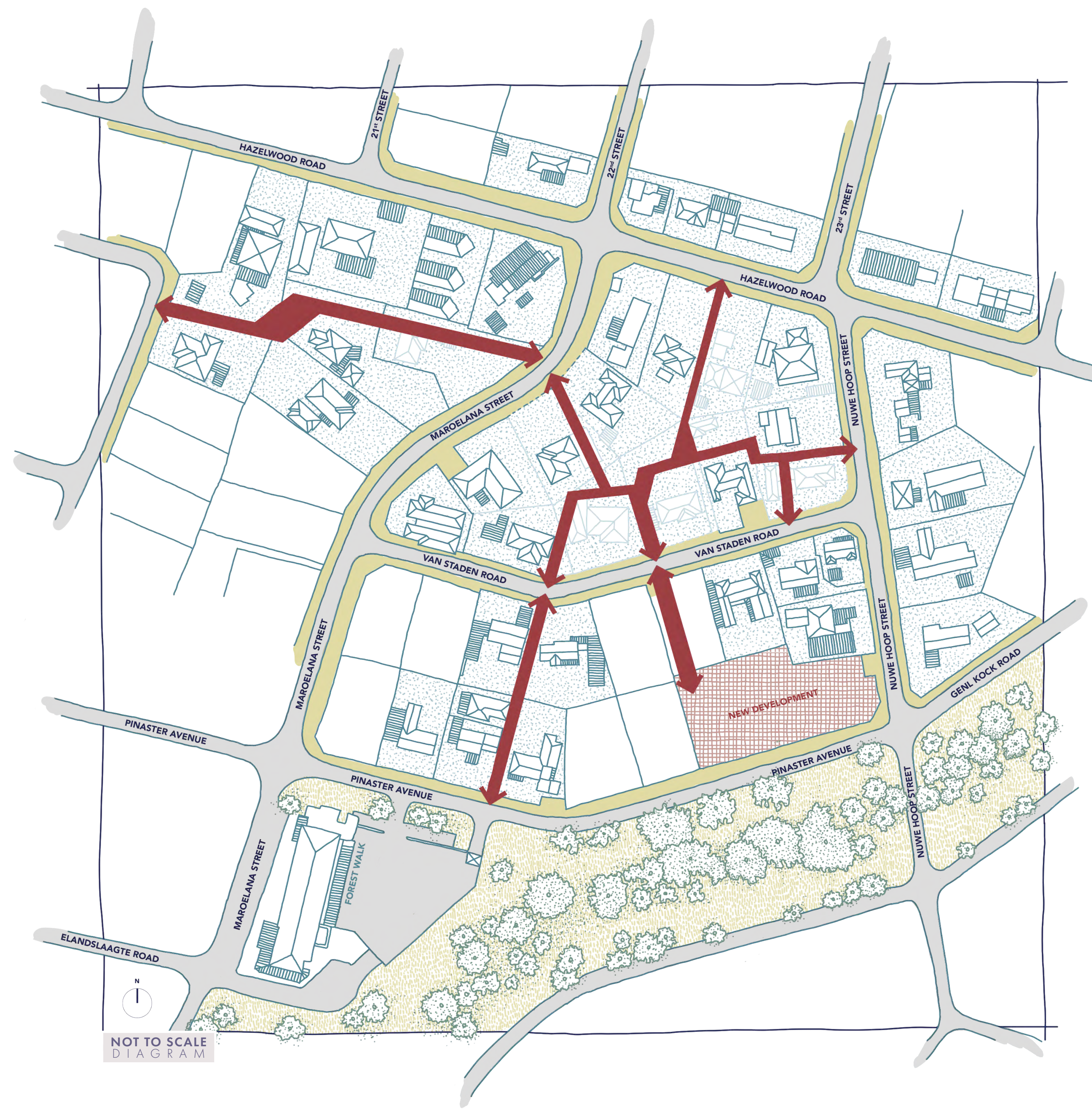
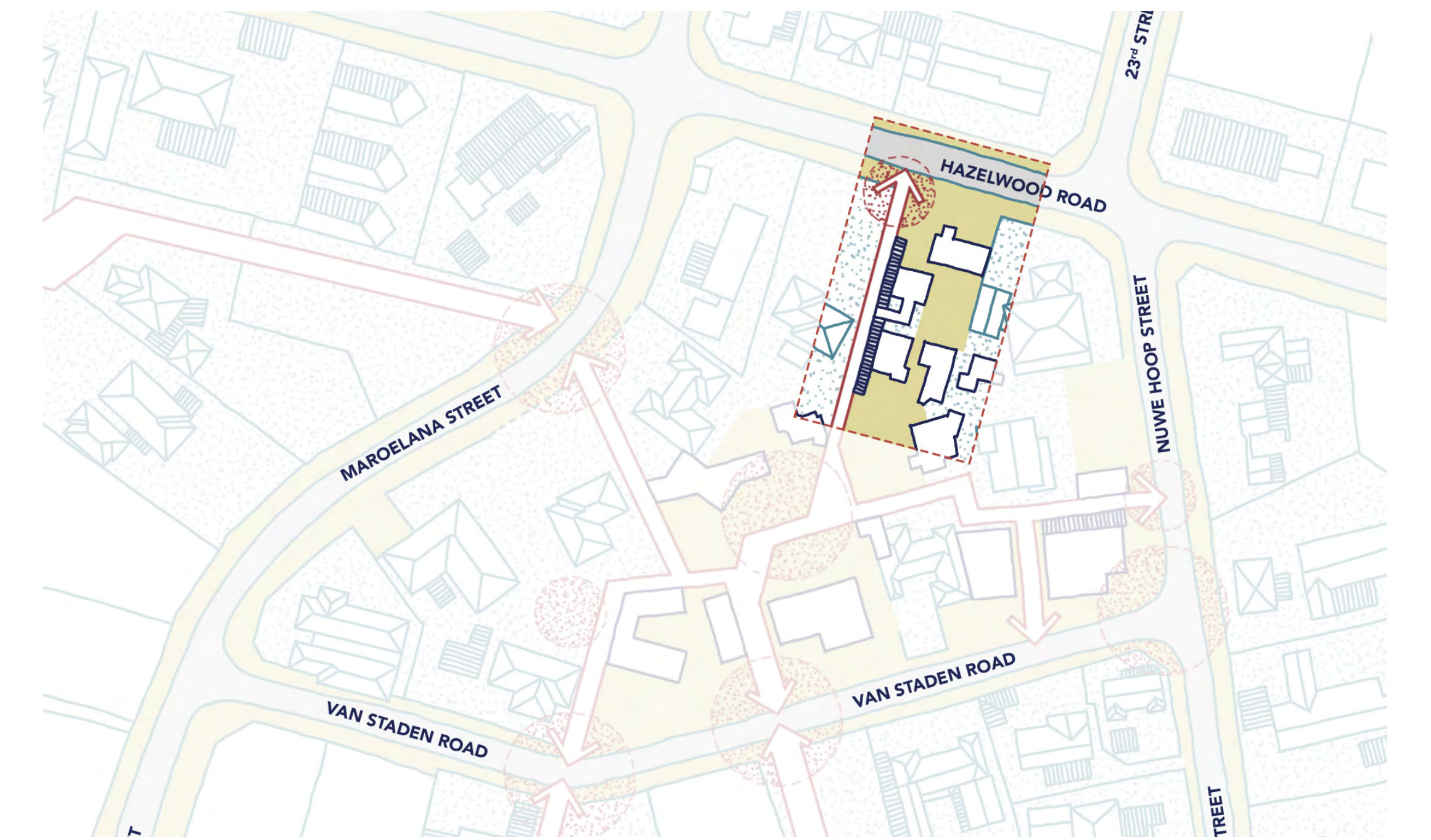
## ITERATION 4

*the final iteration designed the route first, to identify desire lines and points of interest*

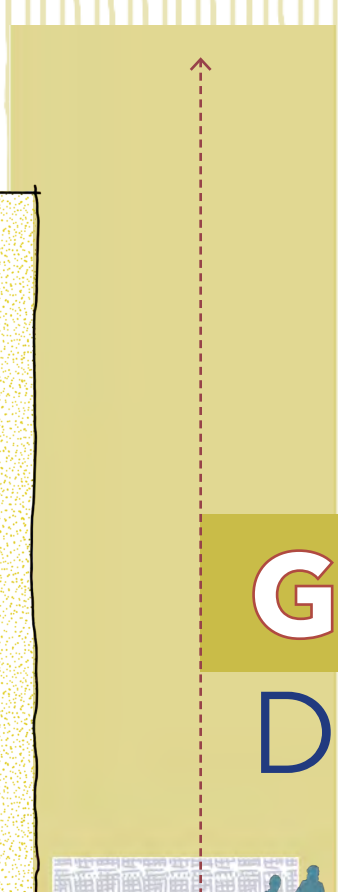
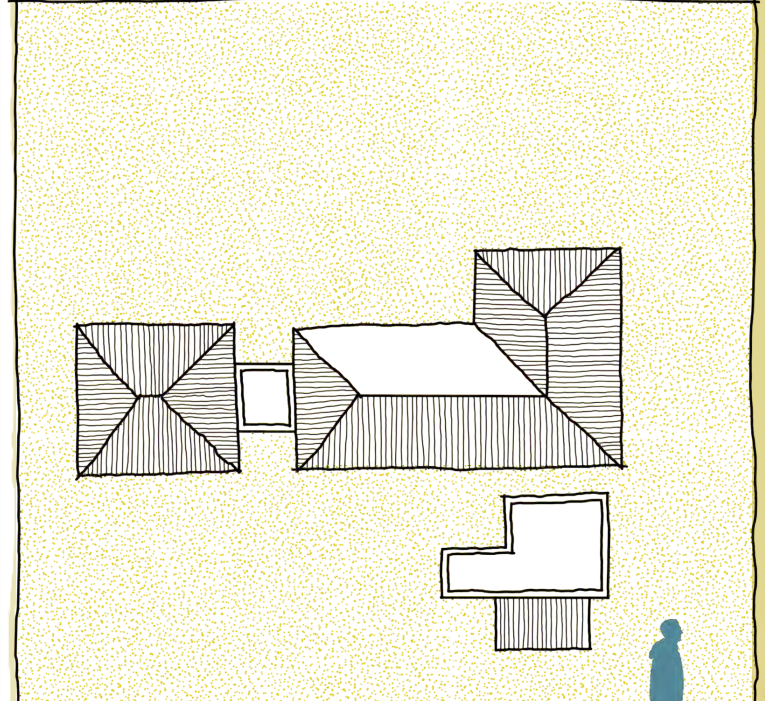
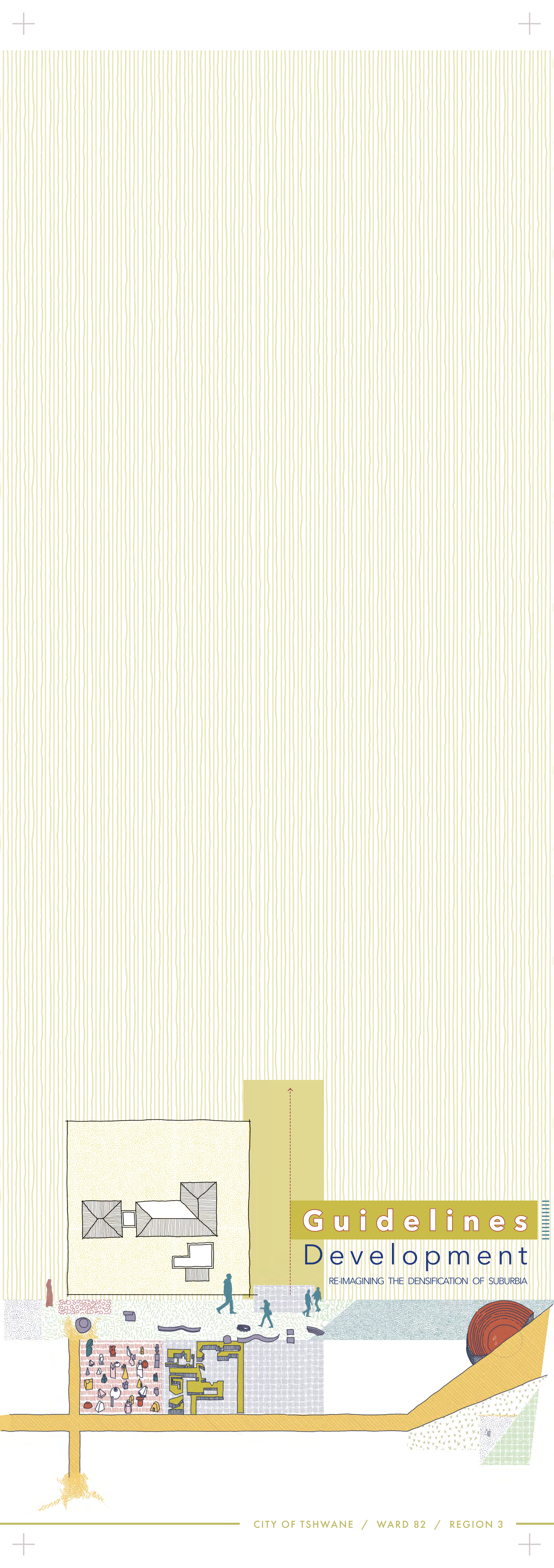
The pedestrian spine route was used as the design driver to identify where the infill units should be positioned. The route links to the existing Forest Walk development, the new development on Pinaster Ave. and to the streets bordering the residential block. The infill buildings follow radial and linear axes to allow easier navigation.

- new infill buildings
- green areas adjacent to the spine
- pedestrian route
- existing context

SUBURBAN VISION / MESO SCALE

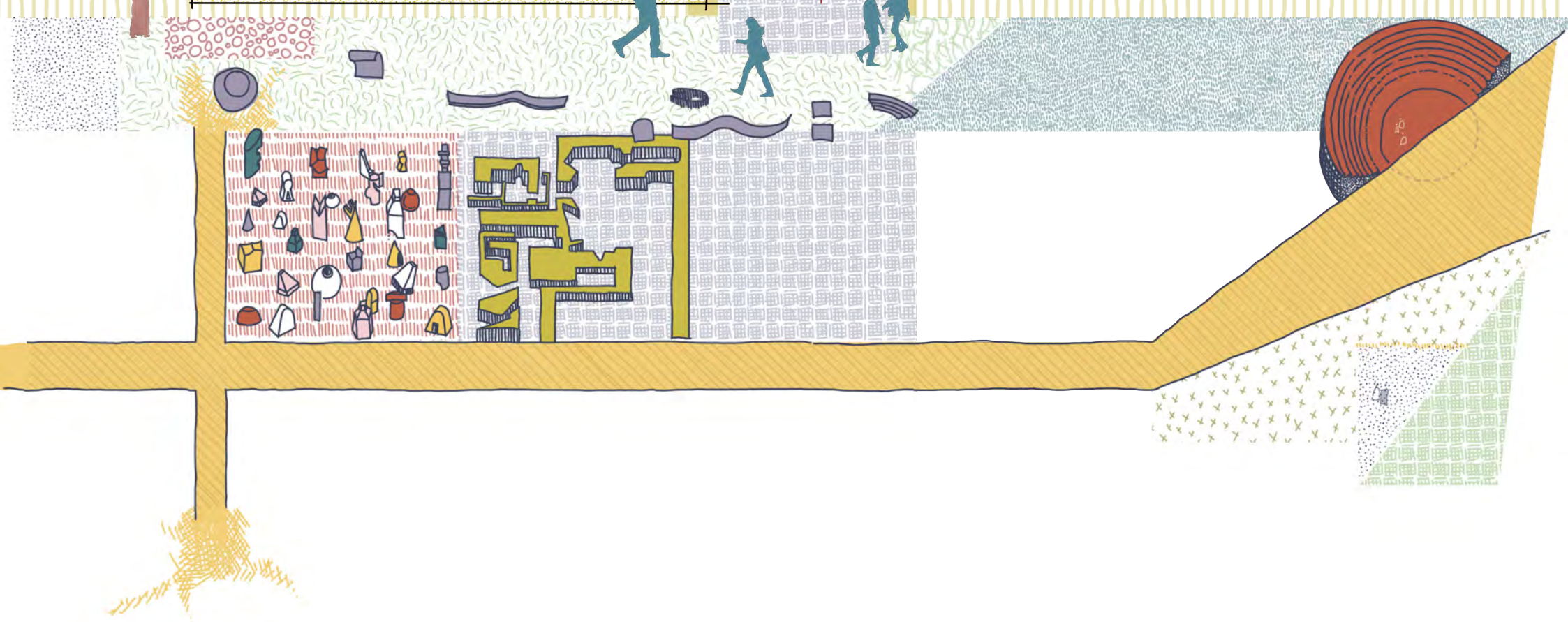




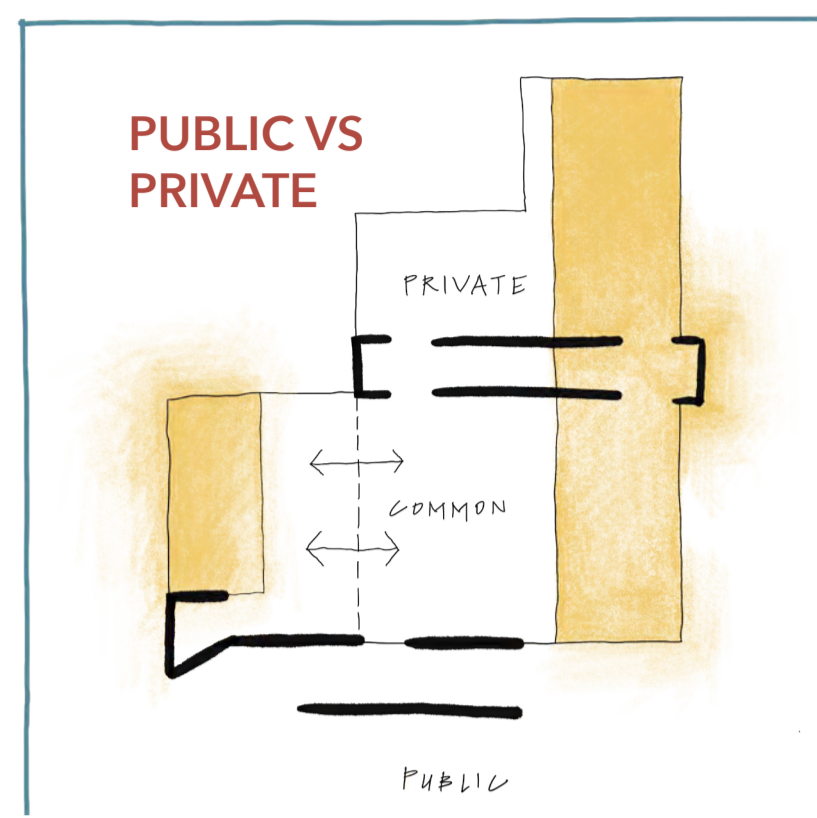


# Guidelines Development

RE-IMAGINING THE DENSIFICATION OF SUBURBIA

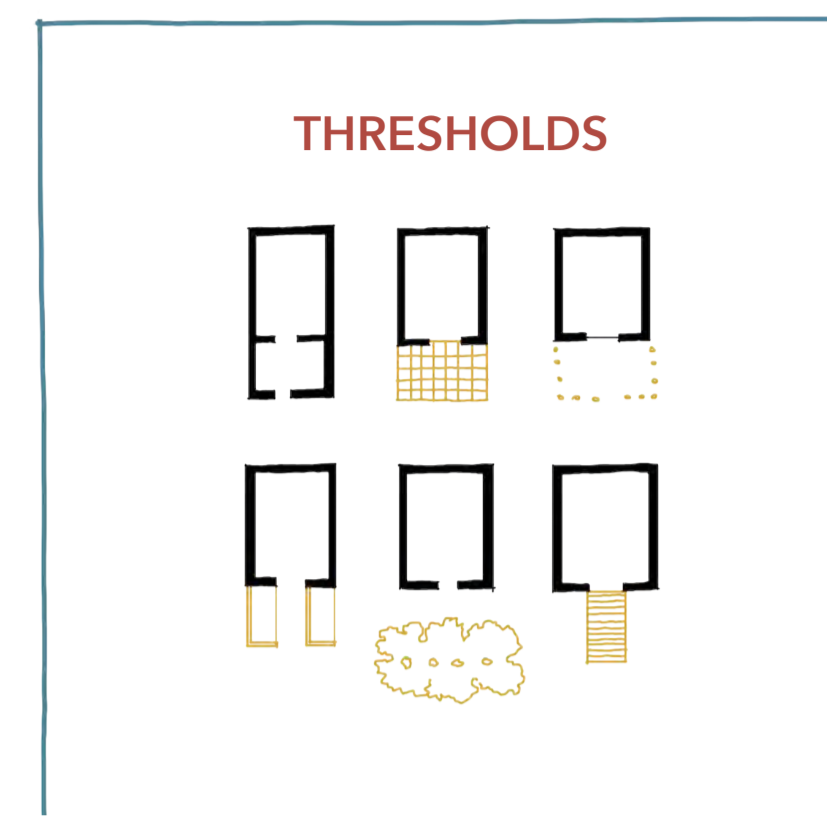


## DESIGN GUIDELINES



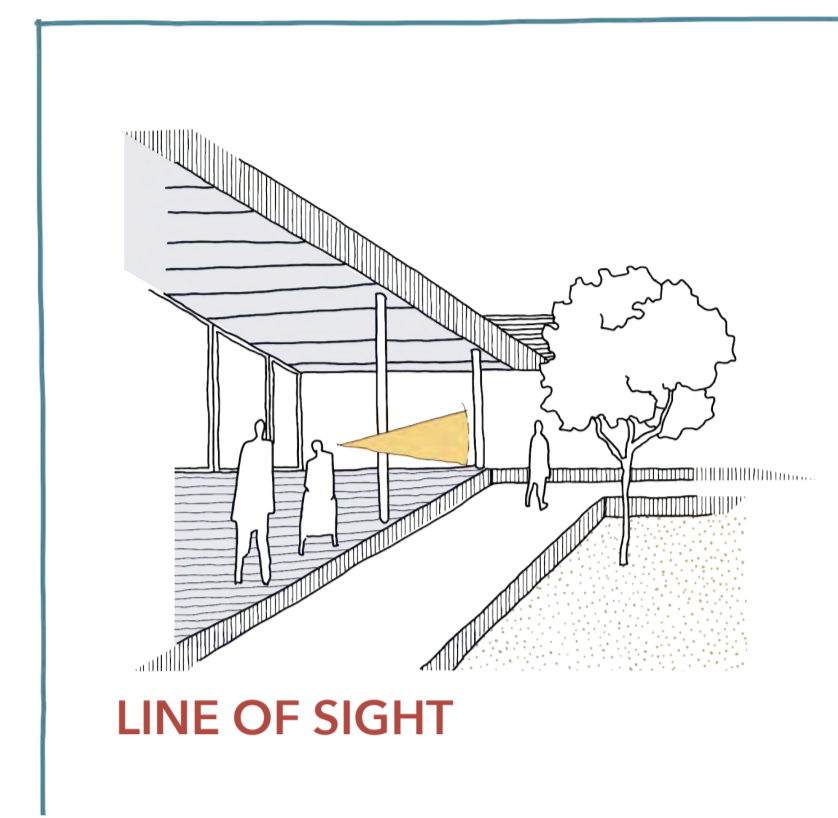
GUIDELINE 1

Blurring the line between public and private areas.



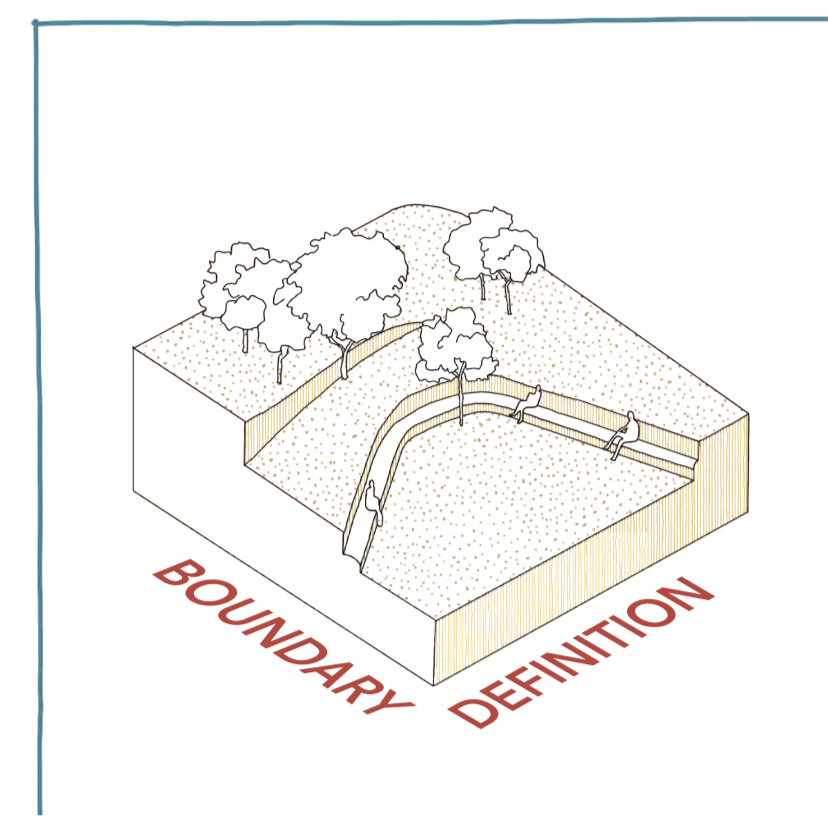
GUIDELINE 2

Emphasis on defining thresholds between spaces.



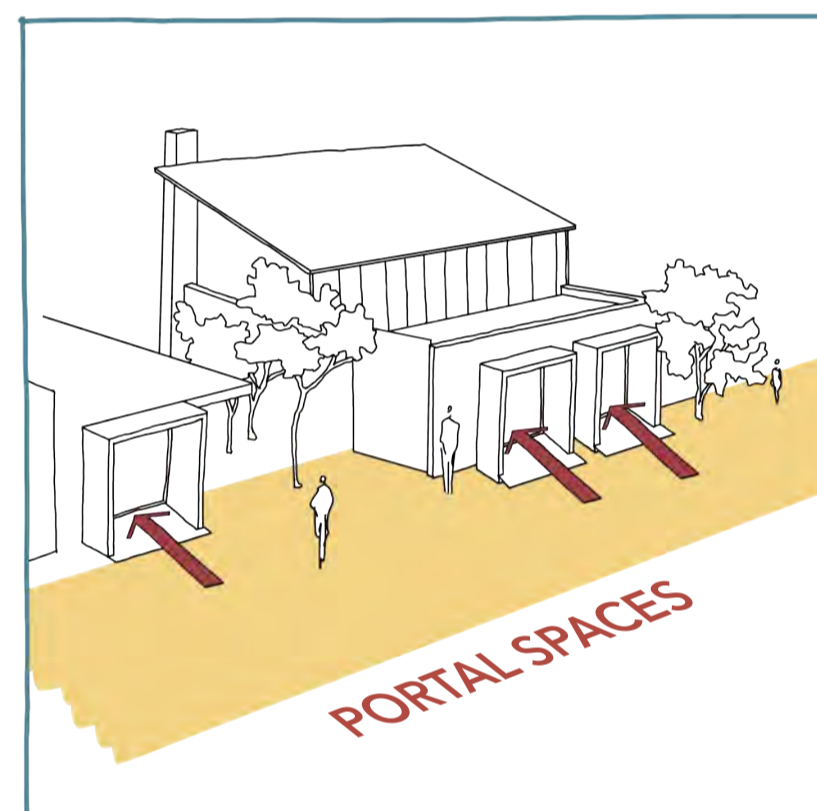
GUIDELINE 3

Consideration of visual lines of sight for user orientation.



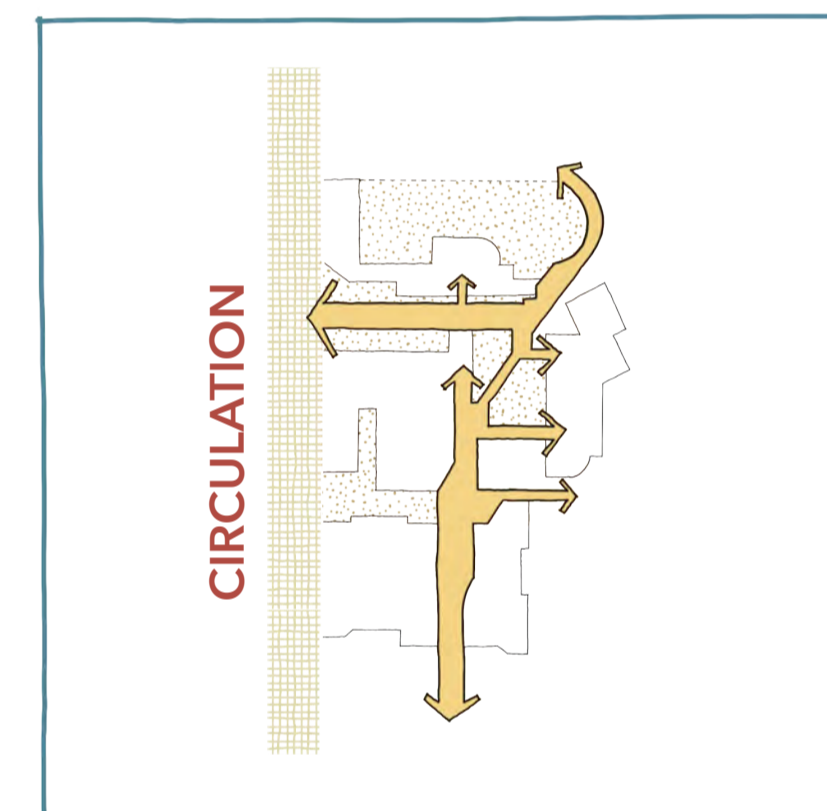
GUIDELINE 4

Boundary definition, not limited to applications of brick walls.



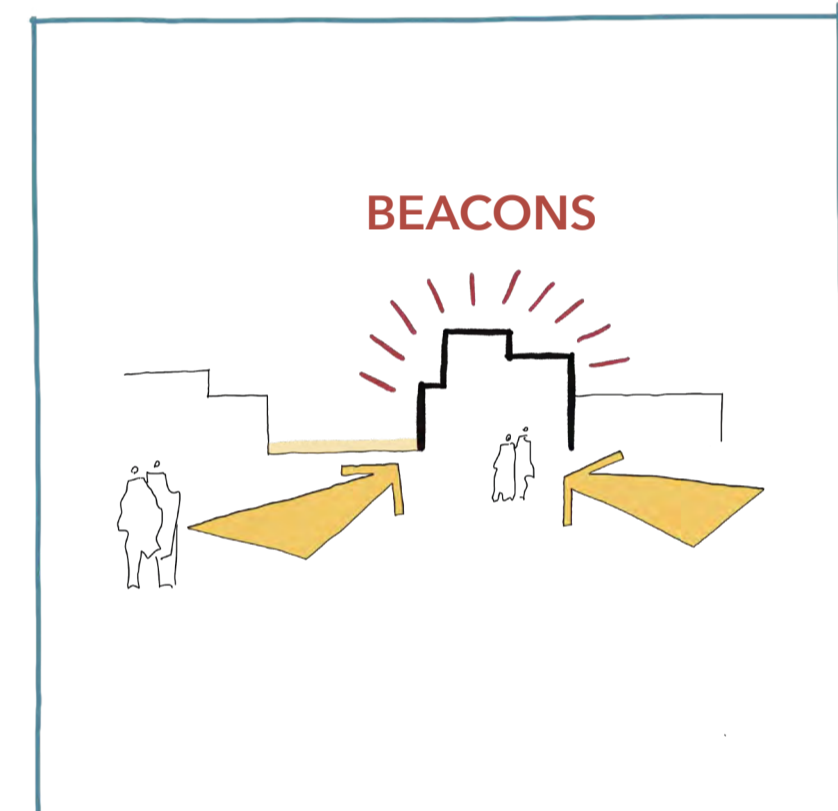
GUIDELINE 5

Creation of portal spaces.



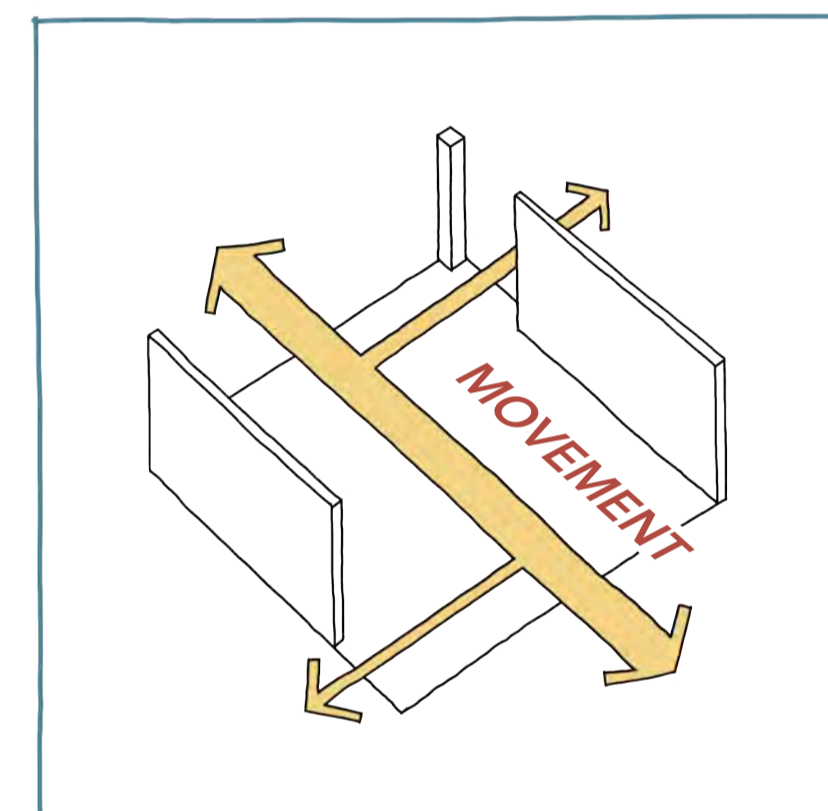
GUIDELINE 6

Efficient circulation within corridors, connecting to the existing surroundings.



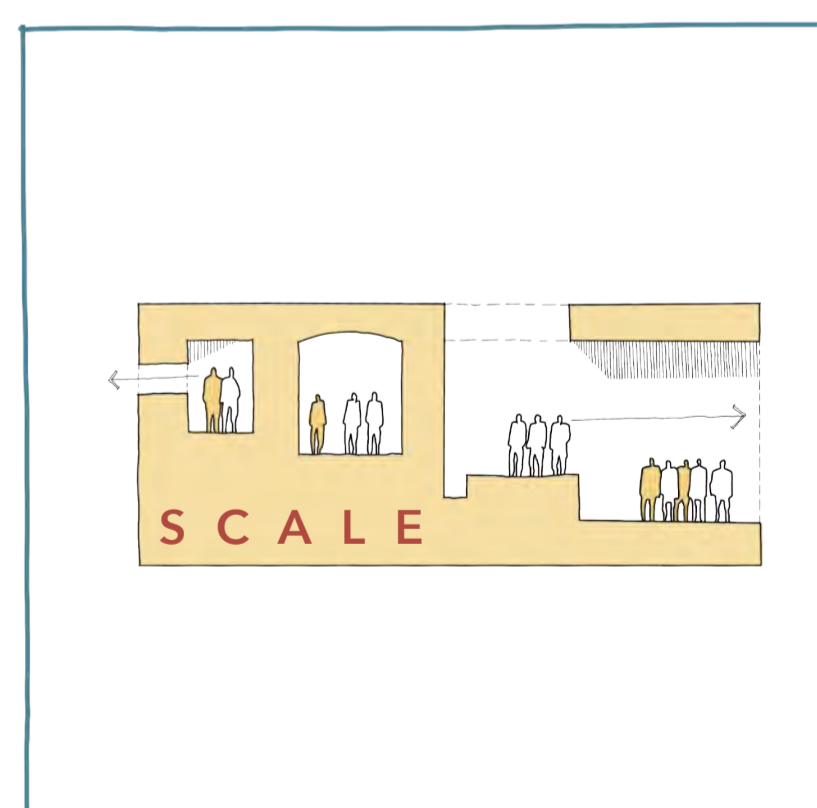
GUIDELINE 7

Enhancing legibility to avoid monotony and provide landmarks.



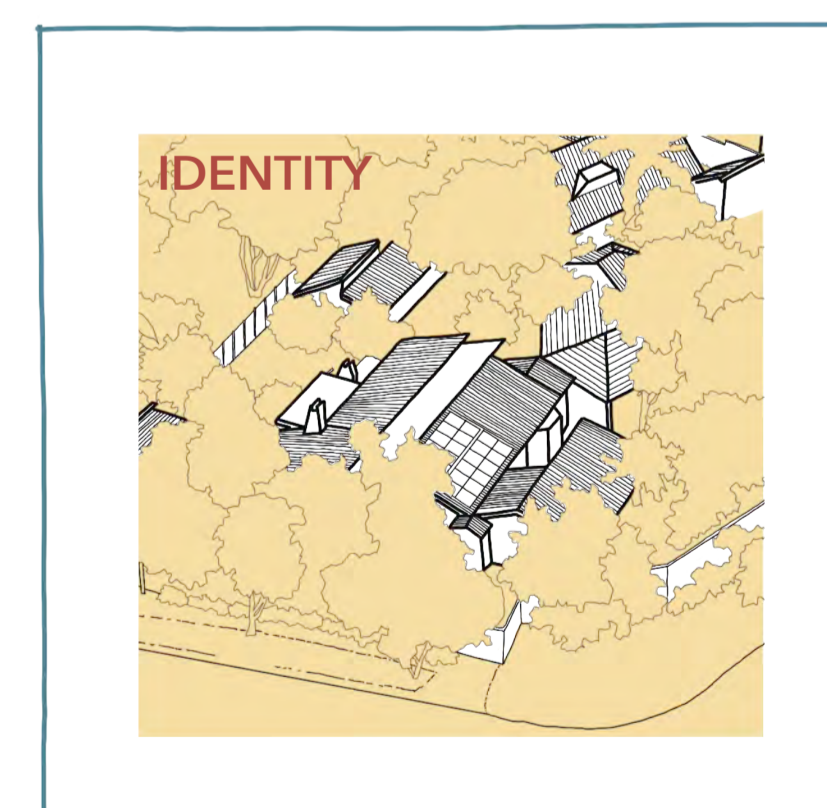
GUIDELINE 8

Focus on pedestrian movement patterns within internal corridors.



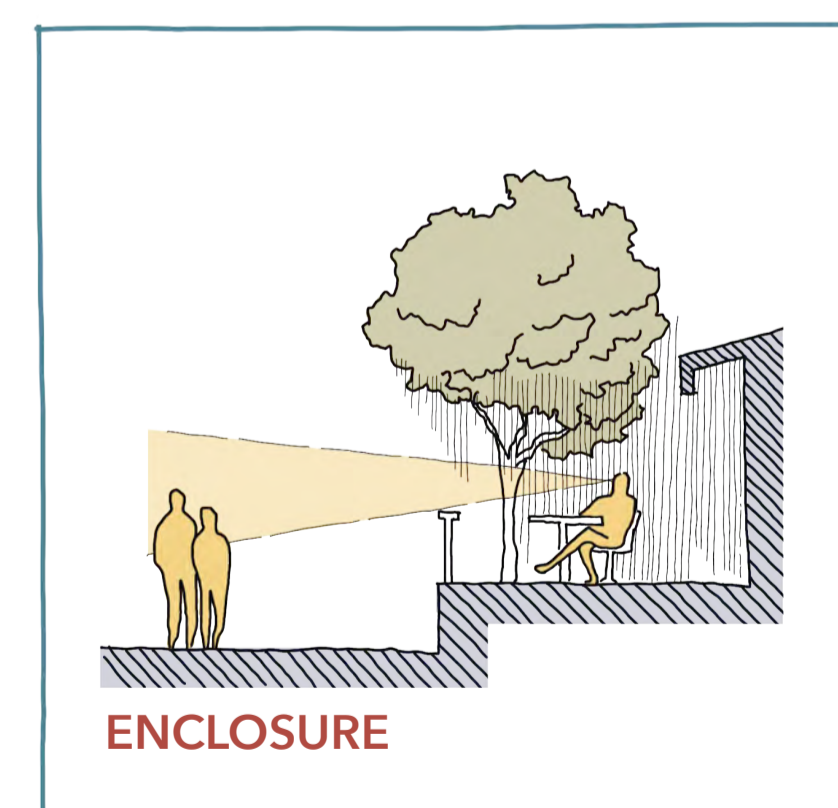
GUIDELINE 9

Scale - elements of known within visual context of a plane, aids in perception of size & scale.



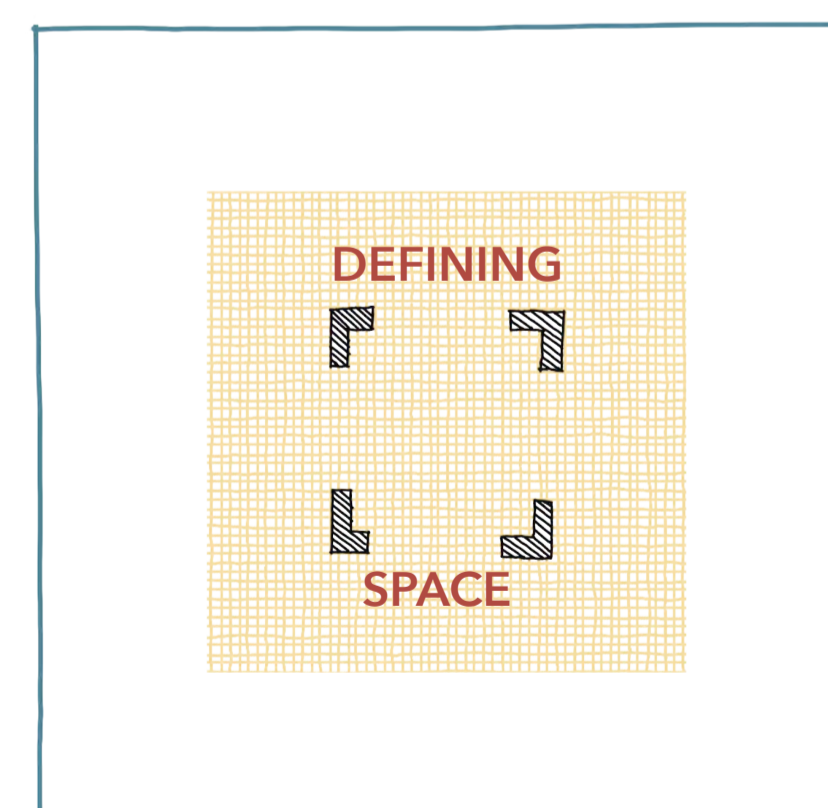
GUIDELINE 10

Recognising the identity of Menlopark as a suburb, going beyond mere building structures.



GUIDELINE 11

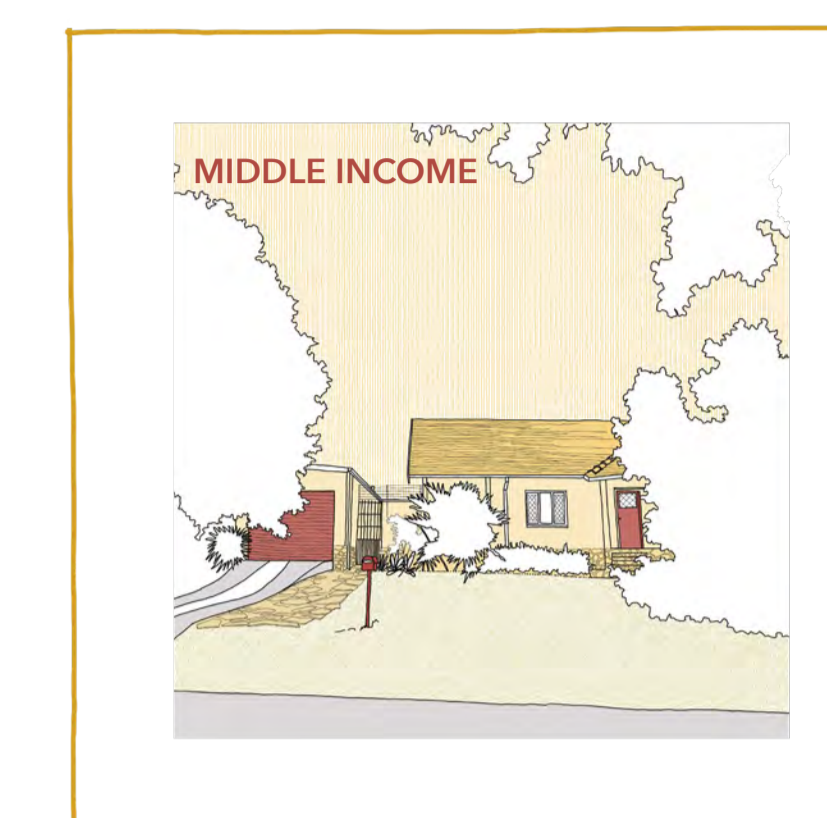
Prospect and Refuge: enclosure + screening to provide a sense of refuge.



GUIDELINE 12

African space definition: public until defined as private.

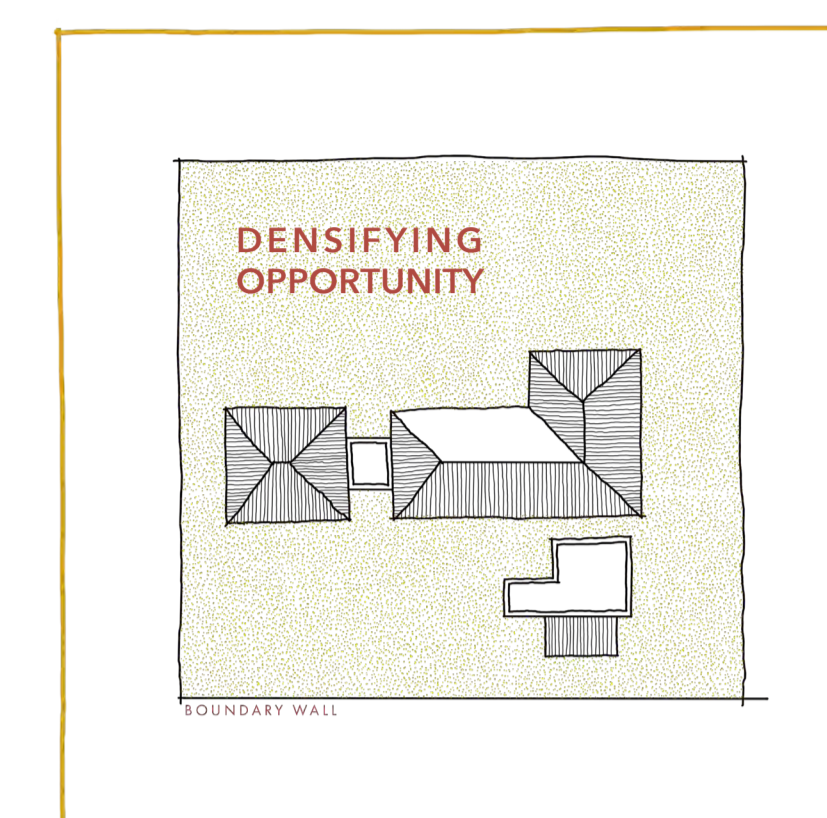
## SITE SELECTION CRITERIA



GUIDELINE 1

middle income earning neighbourhood

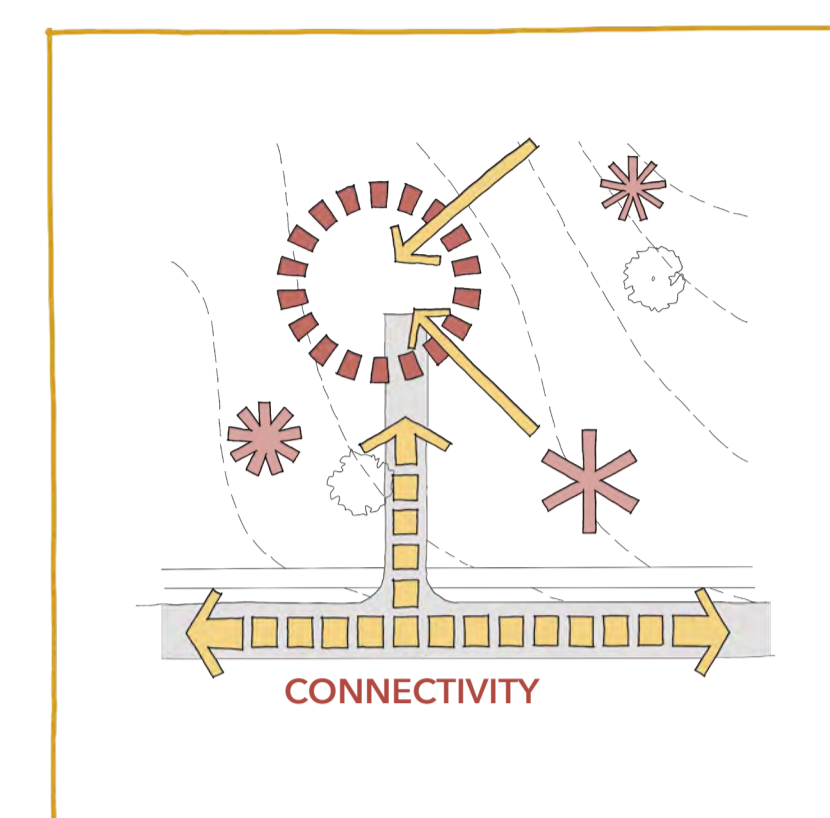
The location should be situated in a middle-income neighborhood predominantly inhabited by families.



GUIDELINE 2

larger residentialerven

The residential properties must have ample space around the primary single-family dwelling to accommodate up to two additional interventions. The residential blocks will be better suited if they are not fully geometric.



GUIDELINE 3

centrally located + well connected

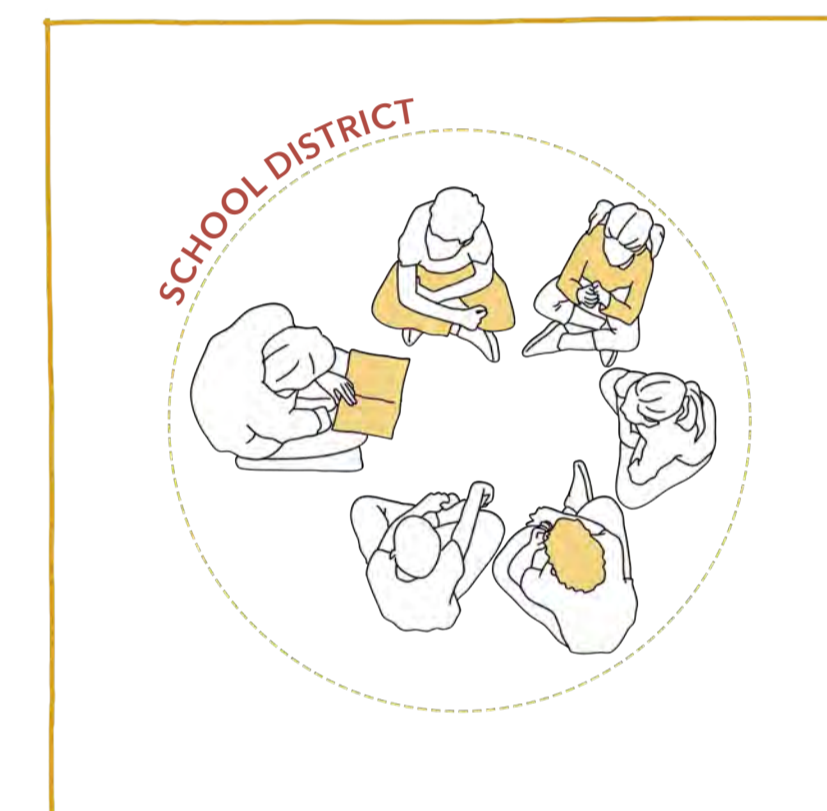
Convenient access to transportation routes, including public transport and vehicular routes.



GUIDELINE 5

medium to large residential block

The chosen residential block must be of medium to large size to facilitate the integration of a finer-grained pedestrian corridor.



GUIDELINE 6

located within a school district

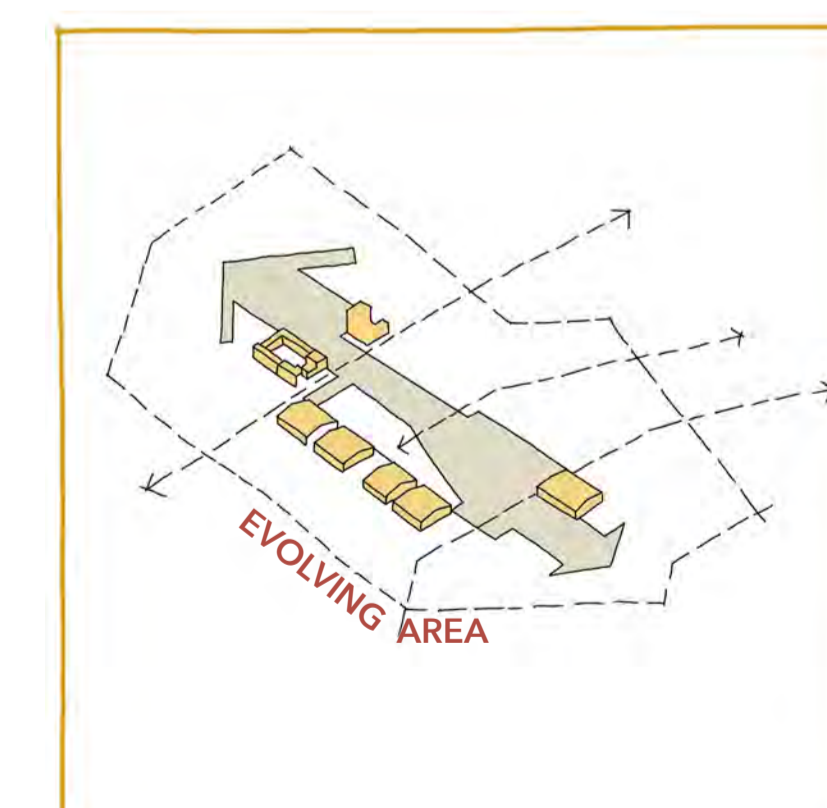
There's a perception that residing within a school district ensures safer and quieter streets, fostering a sense of community.



GUIDELINE 7

close to public green spaces

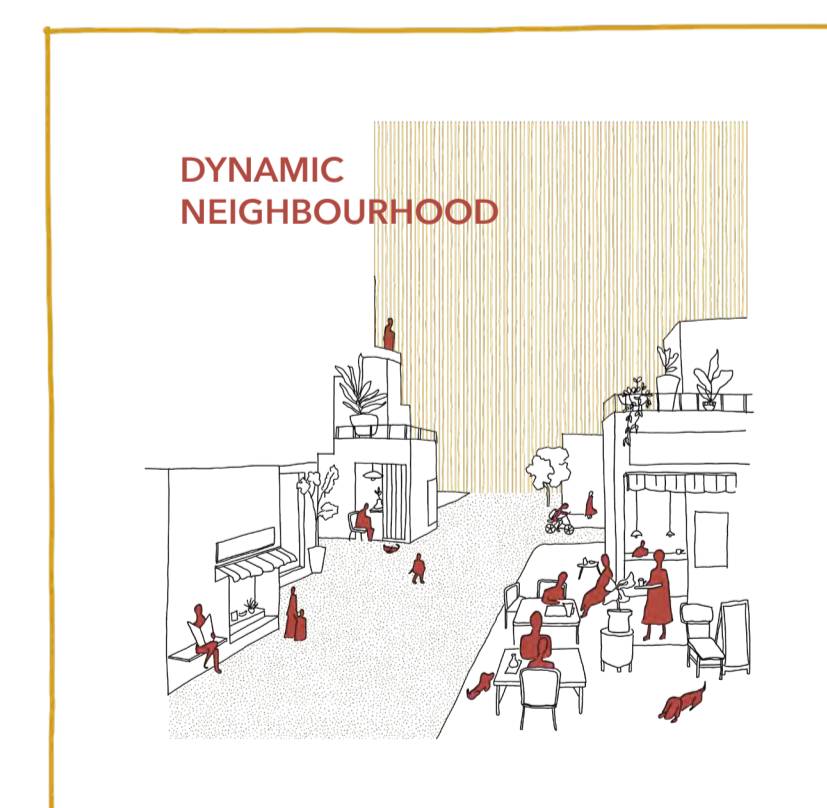
In proximity to green spaces, whether restricted or open-access. The new development should serve as a link between the existing green areas.



GUIDELINE 4

within an area undergoing change

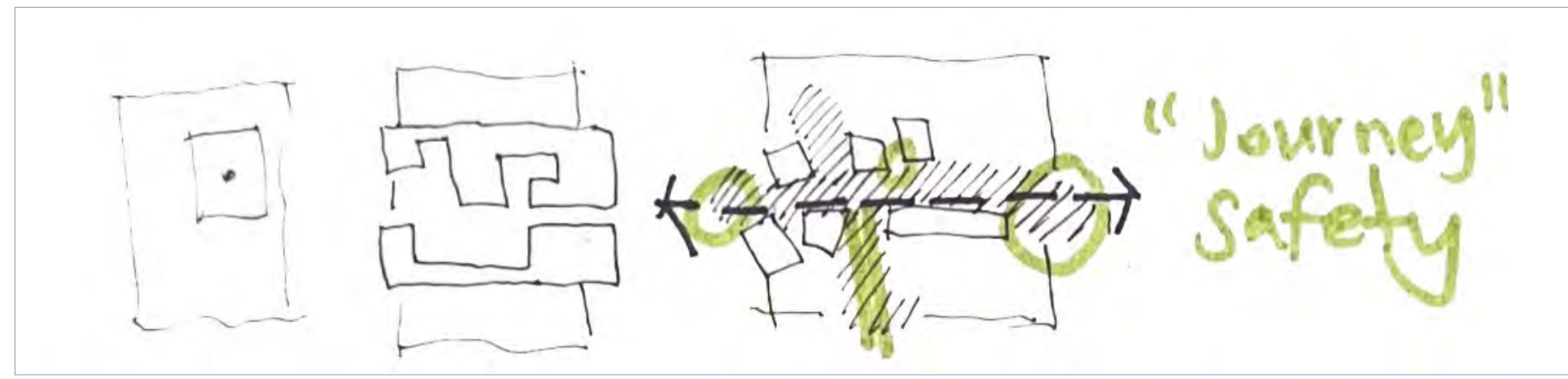
Close proximity to existing / evolving commercial activities in the area.



GUIDELINE 8

within an evolving neighbourhood

A suburb on the verge of transitioning into a mixed-use area, ripe for new ways of development.

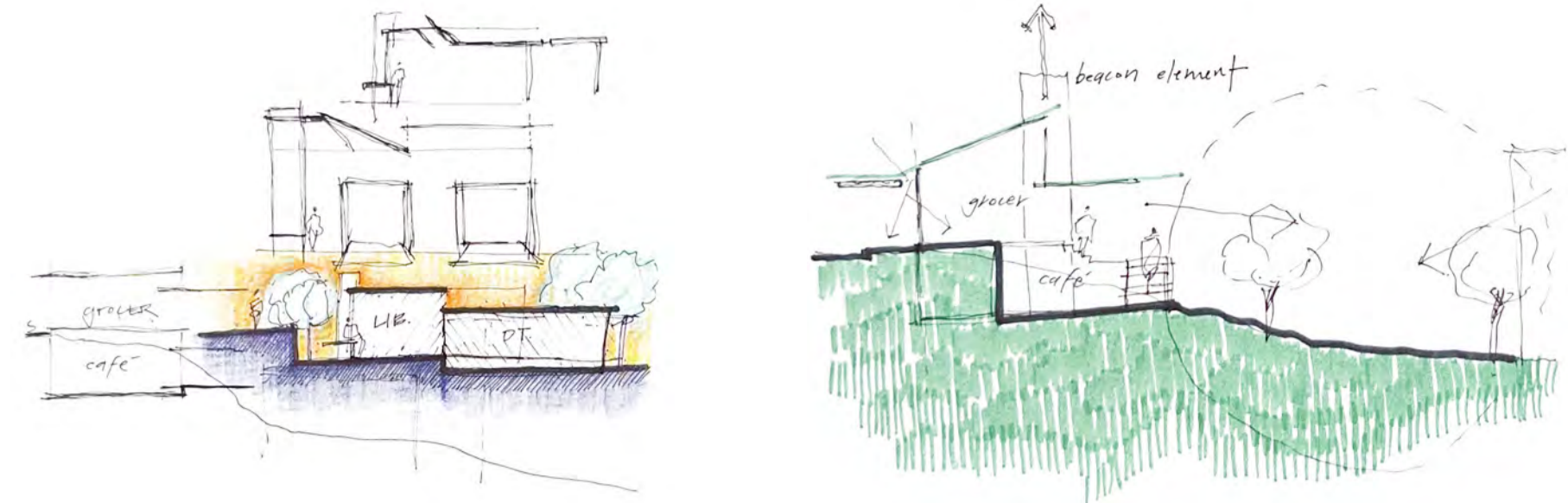


In the process of refining the safety concept, multiple iterations were undertaken to meticulously craft building forms that would best serve the overarching goal. The primary aim is to create an environment where safety is paramount, offering users a clear and easily navigable path. This involves designing spaces with unobstructed sightlines, allowing individuals to see through the area and have a comprehensive understanding of their surroundings as they traverse the space. Every aspect, including building edges, overhead planes, and interstitial spaces, undergoes careful consideration to prevent any elements that might contribute to a sense of alienation for users as they move through the project. This thorough approach ensures that the safety concept is not only a theoretical consideration but a tangible and integral part of the project's design.



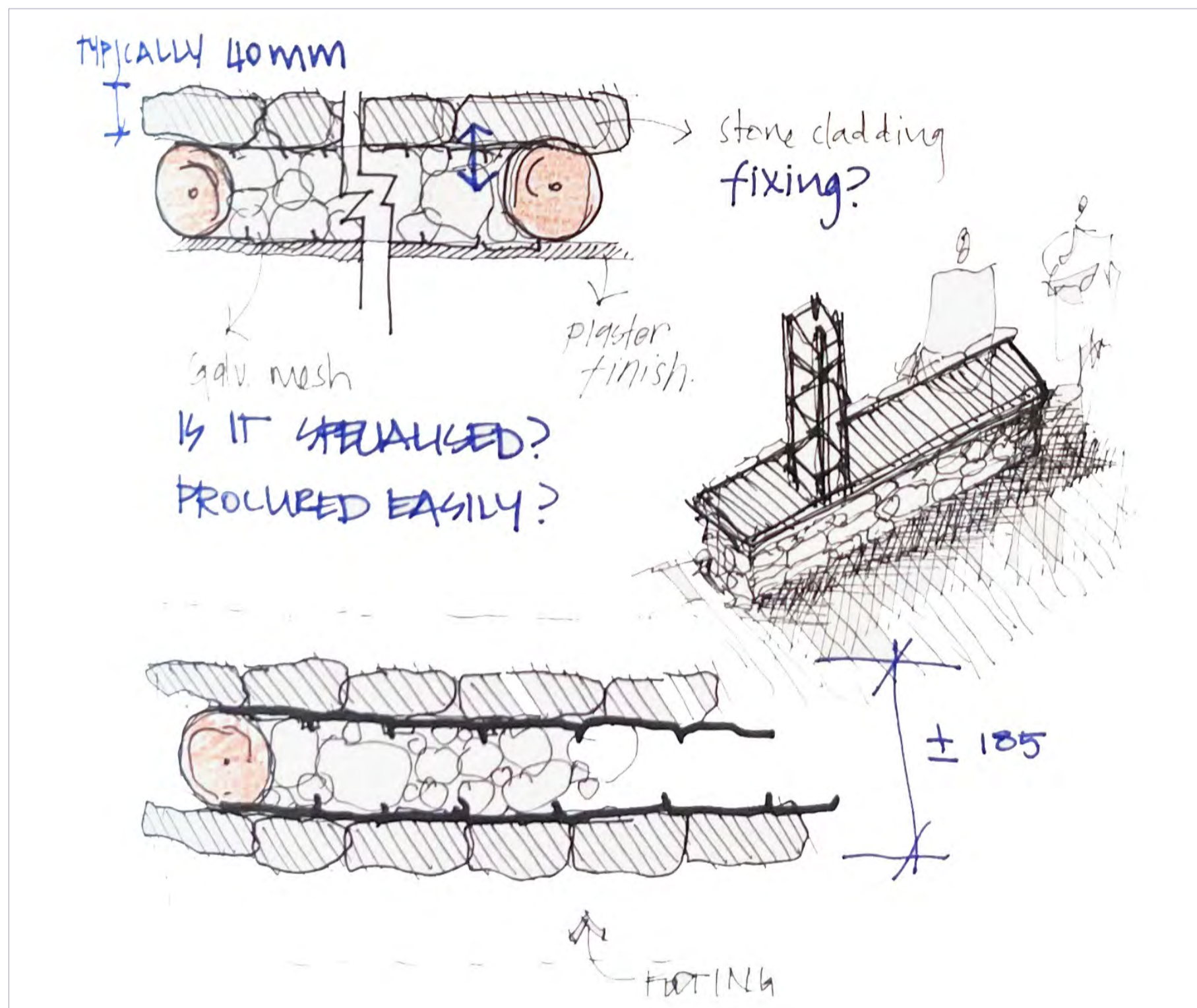
The difference in creating a sense of safety; walls versus passive surveillance.

The sketch shows the development of the portal spaces.

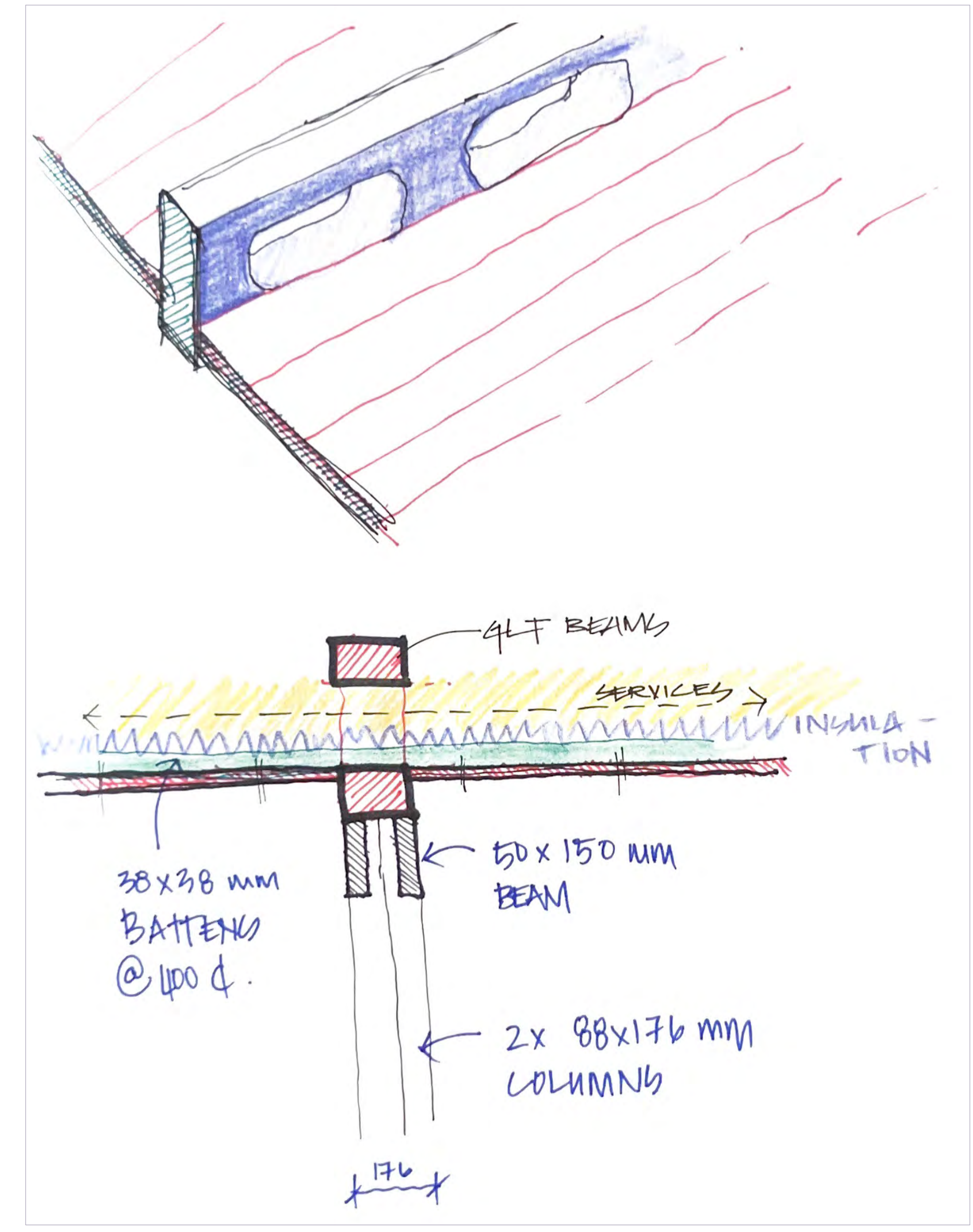
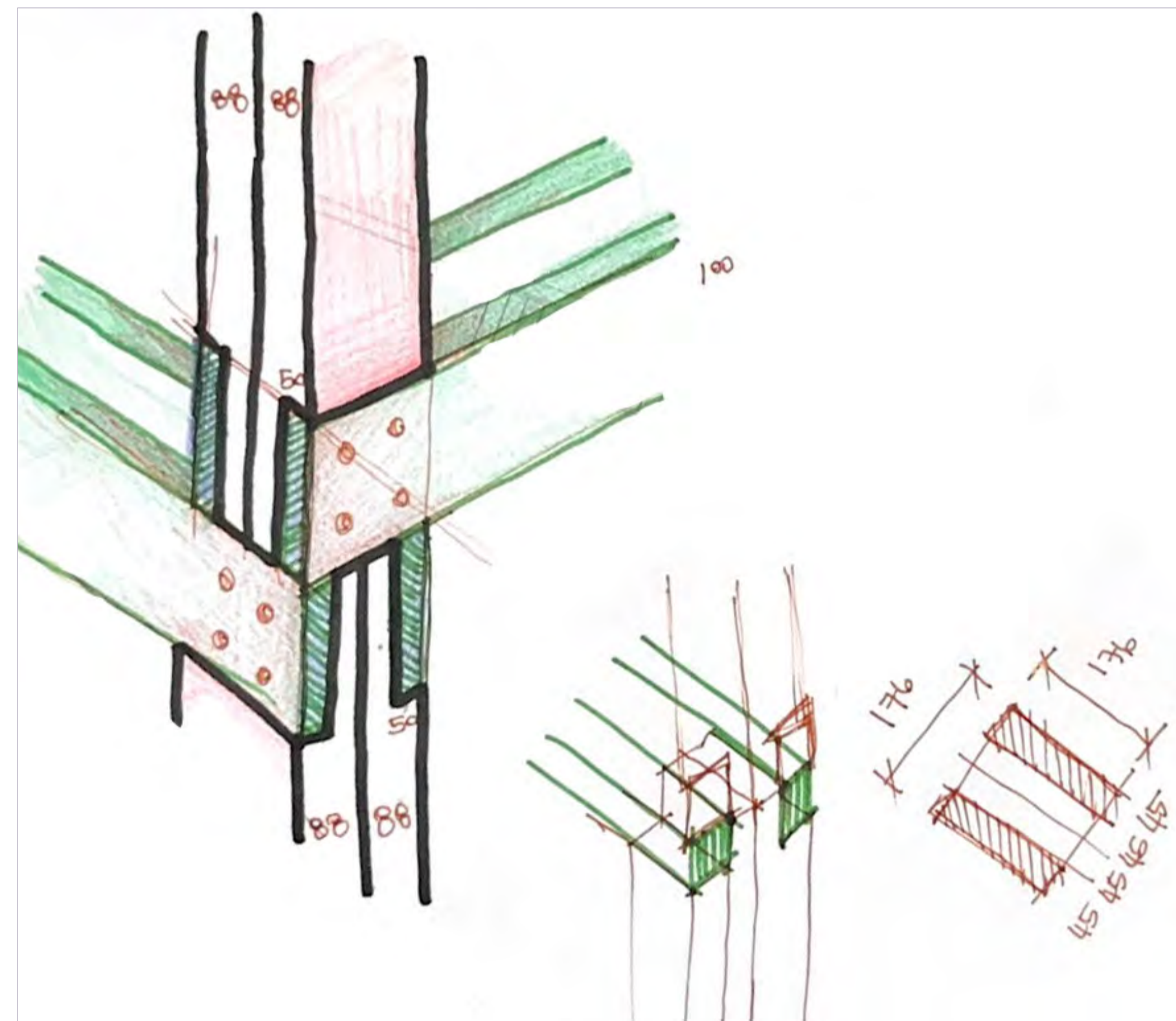
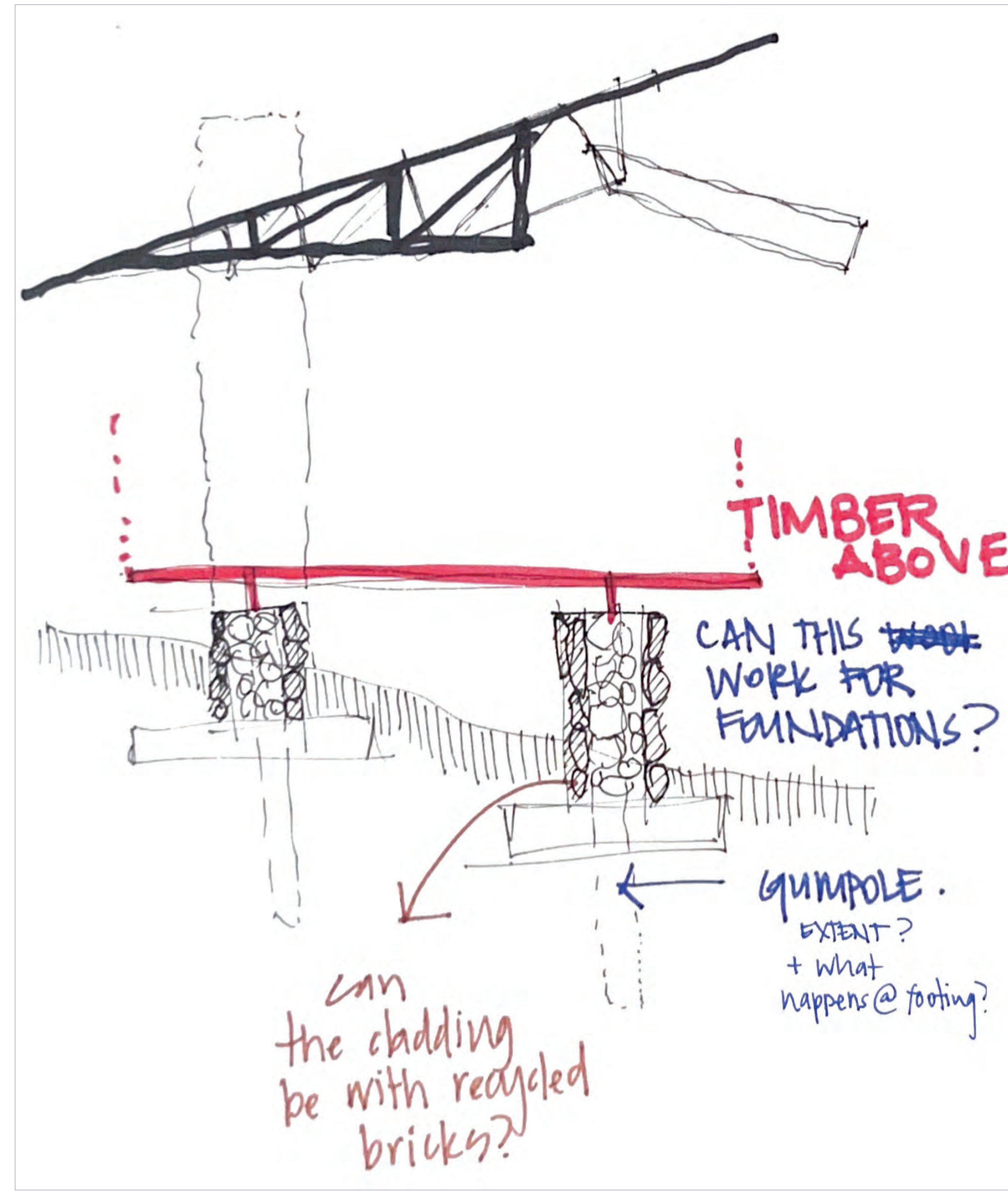
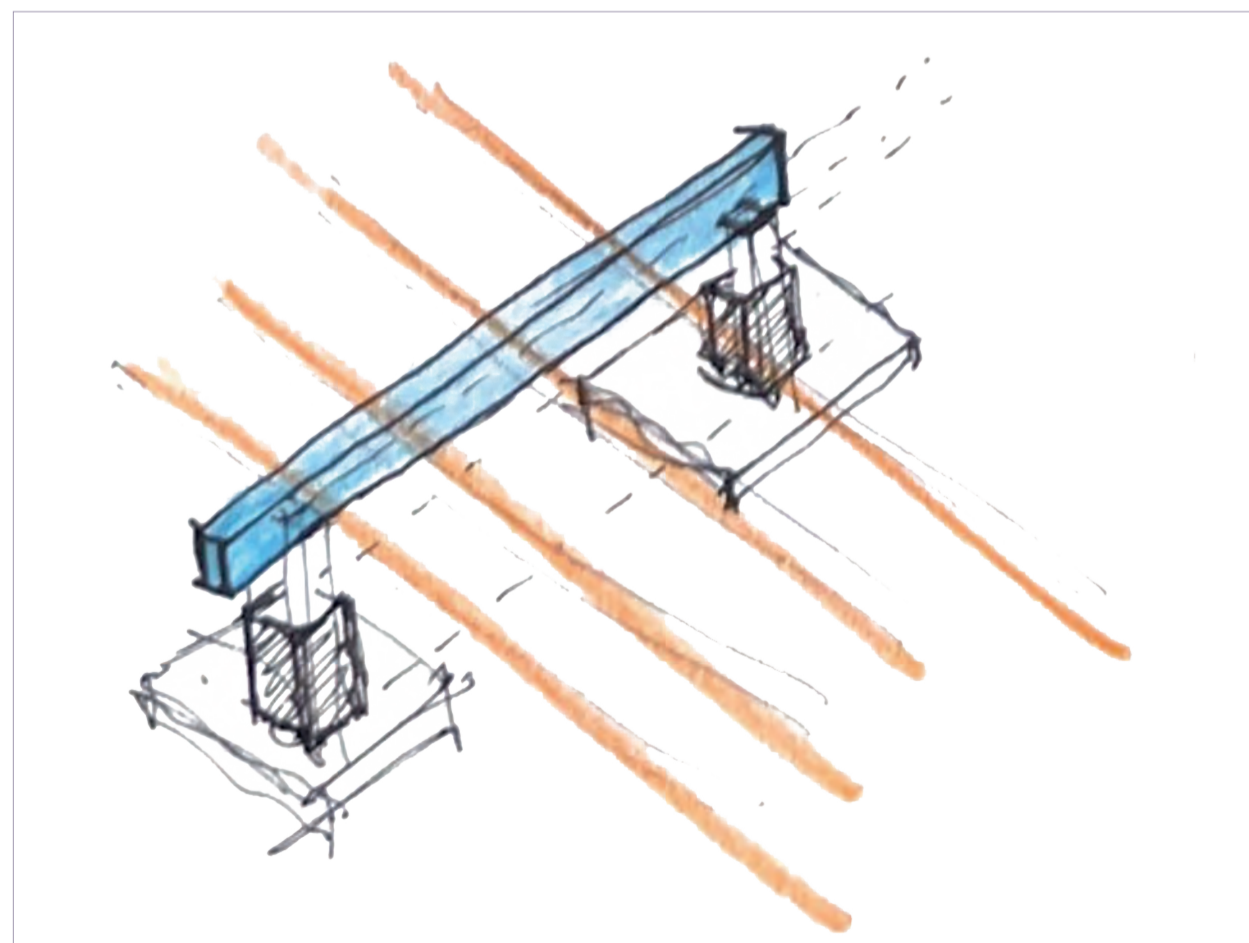


This early sketch explored the relationship between the buildings along the slope of the existing landscape. It also starts considering the blocked portal features which will be used as a design language throughout the development.

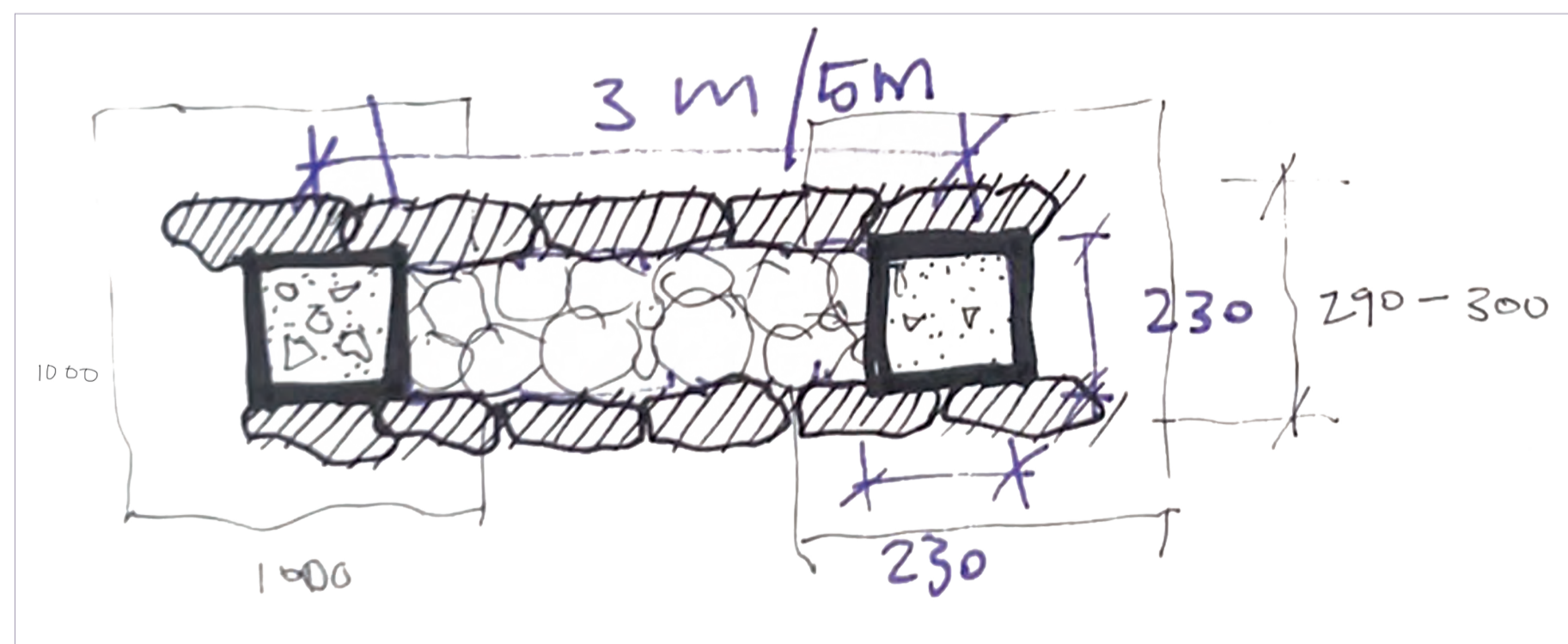
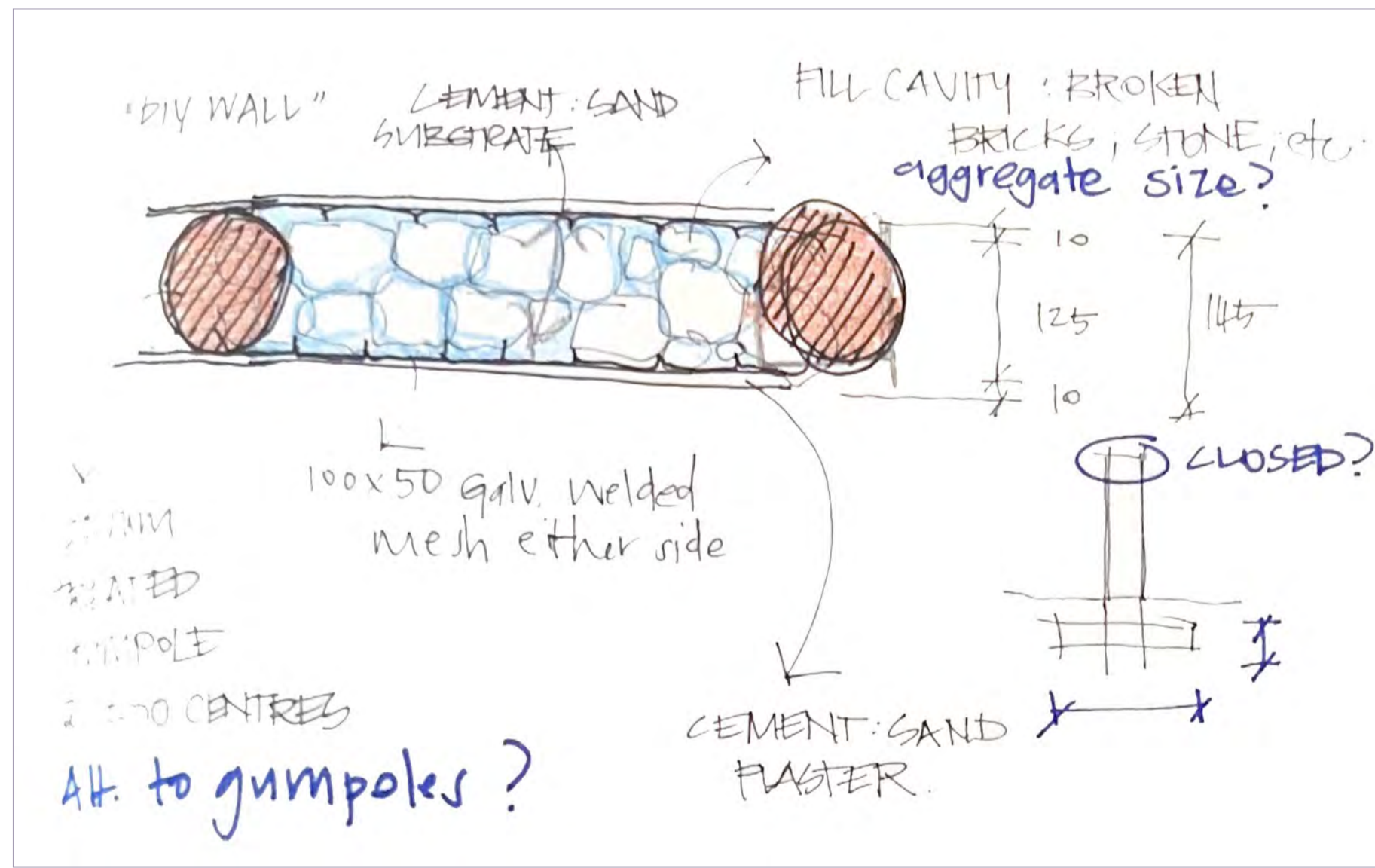
This early sketch explored the relationship between the buildings along the slope of the existing landscape. The sketch communicates the considerations of vertical elements to aid user navigation throughout the pedestrian corridor.

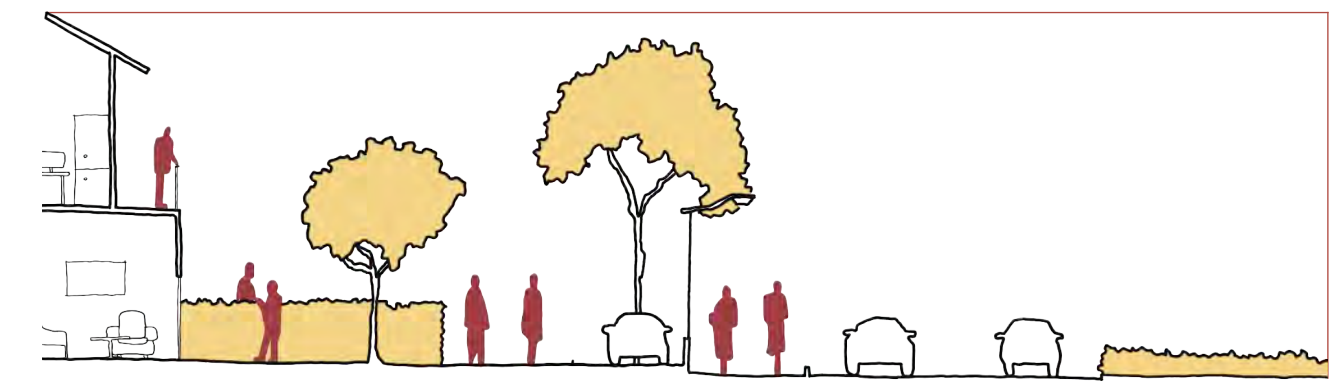
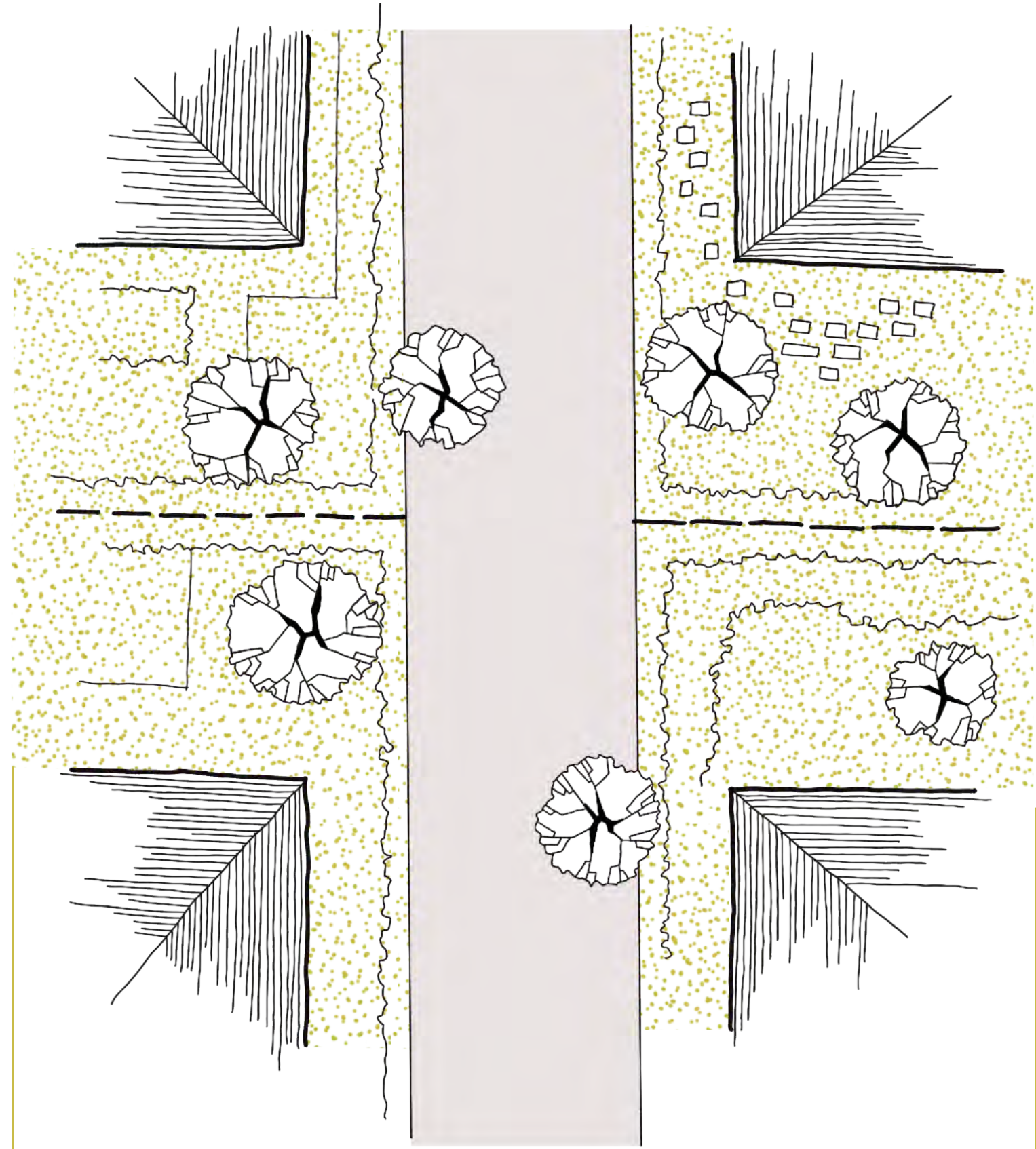


Illustrating the construction strategies employed for the interventions. The left sketch depicts the layering of the timber framing structure, with columns constructed from two identical 88 x 88mm SAP laminated timber sections. The construction approach avoids overly complex timber techniques to ensure ease of replication during the densification process. Beams, measuring 50 x 100mm and 50 x 150mm SAP sections, are arranged in a lattice grid configuration for structural stability. The right sketch explores ways to repurpose materials from demolished masonry boundary walls. Brick rubble could be utilized as filling materials, creating small walls within the landscape to define the living street condition in the pedestrian spine. Additionally, the option to use gum poles for structural stability in the interventions is considered.

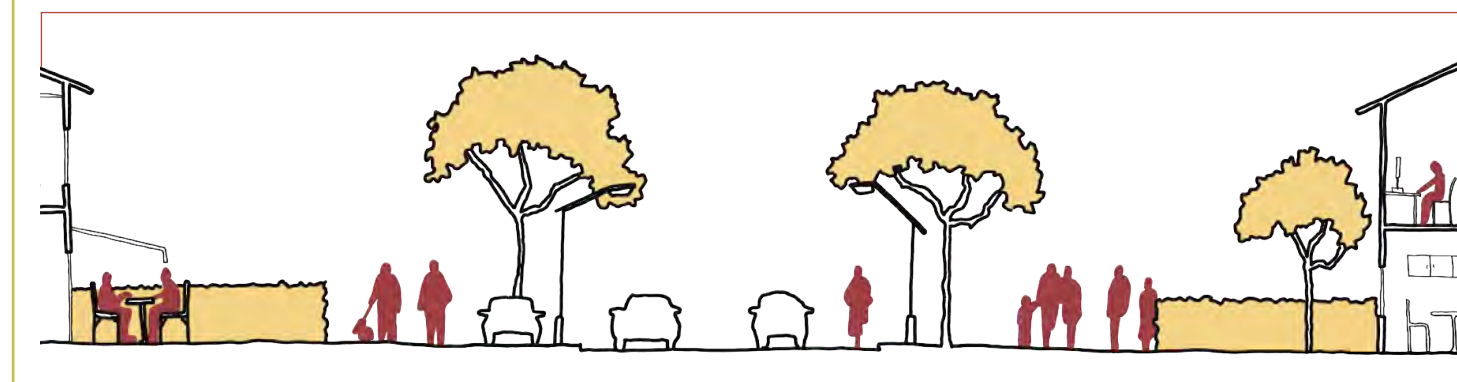
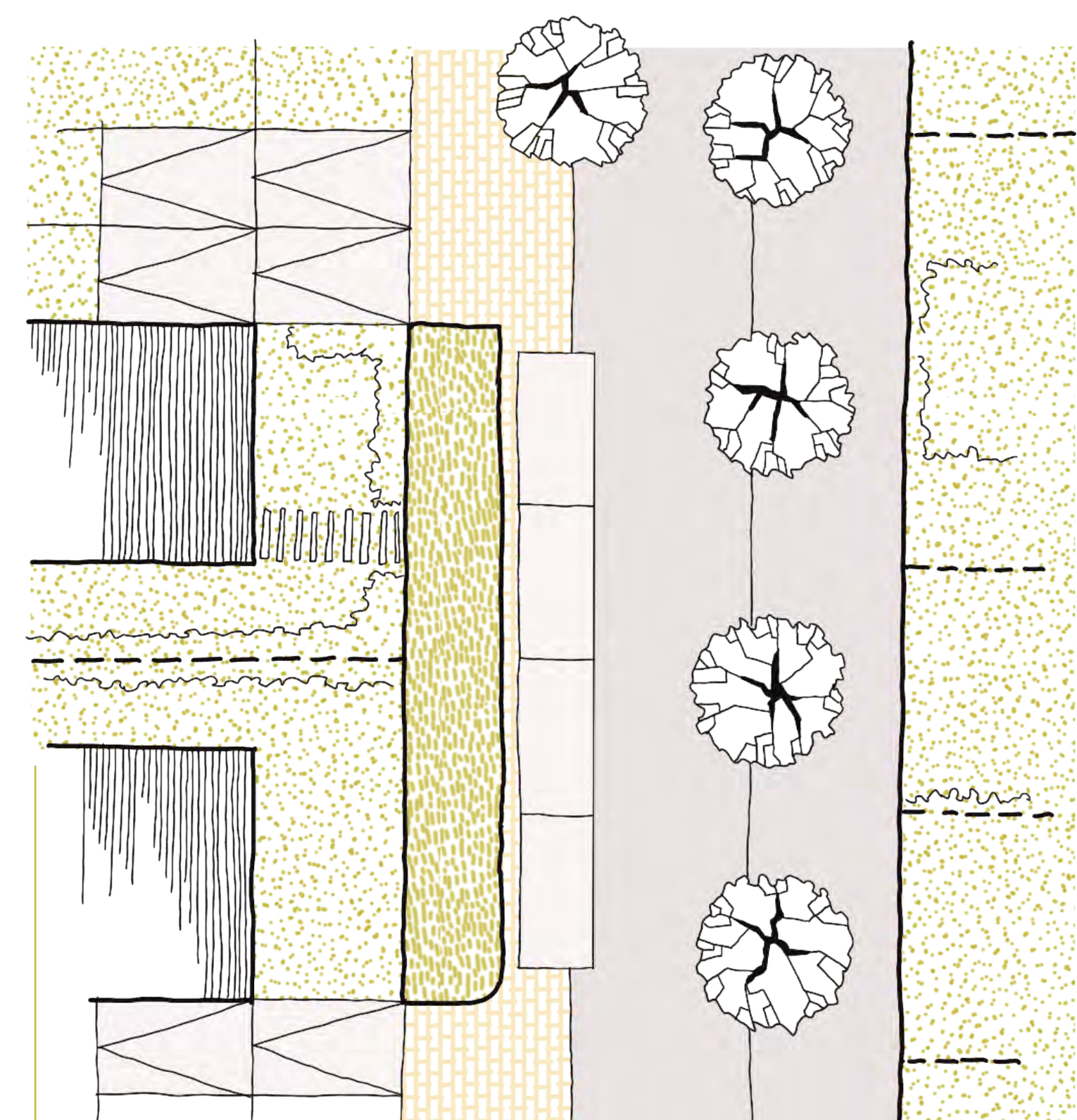


The office spaces demanded thoughtful planning for adaptability and service provisions. To address this, a strategic choice was made to incorporate structural beams that have been cored. This not only accommodates the necessary space for service reticulation and insulation installation but also enhances the aesthetic appeal of the roofing system when viewed from below.

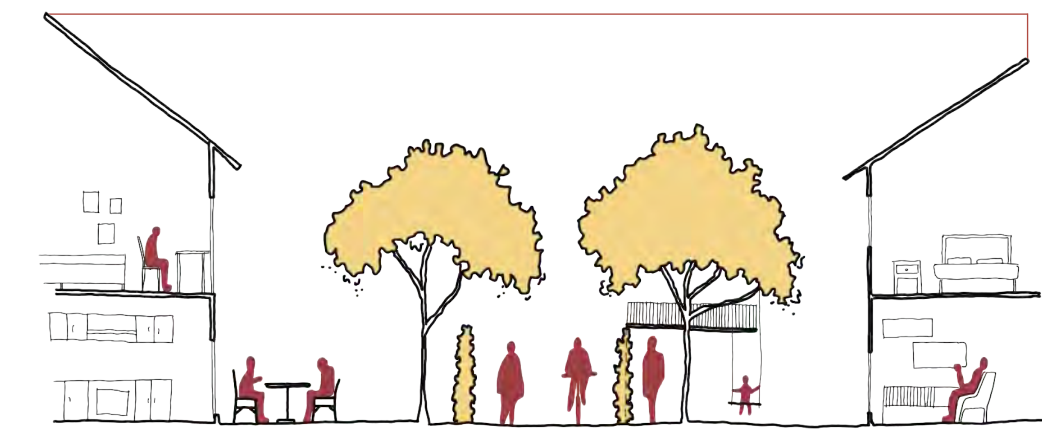
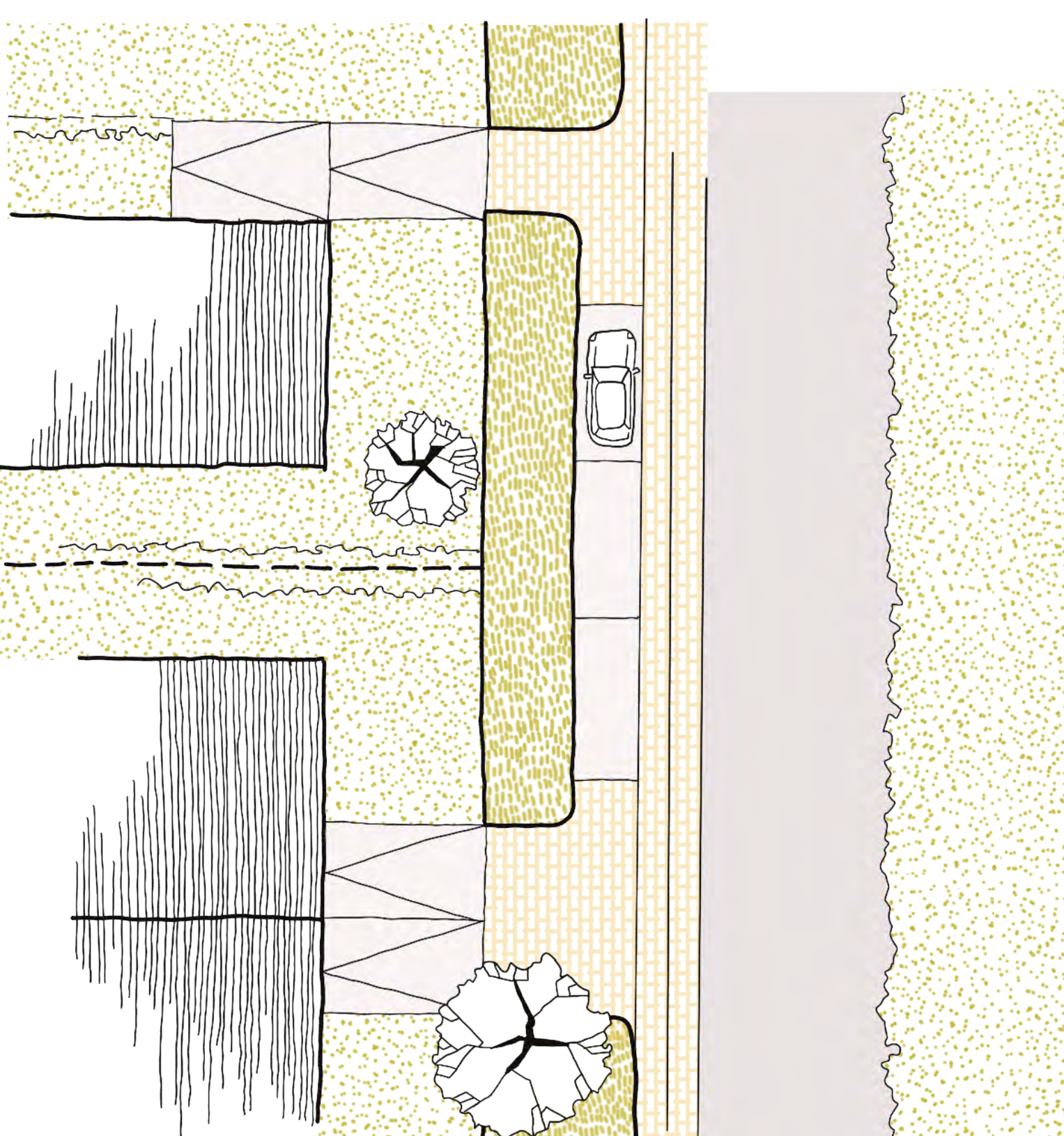




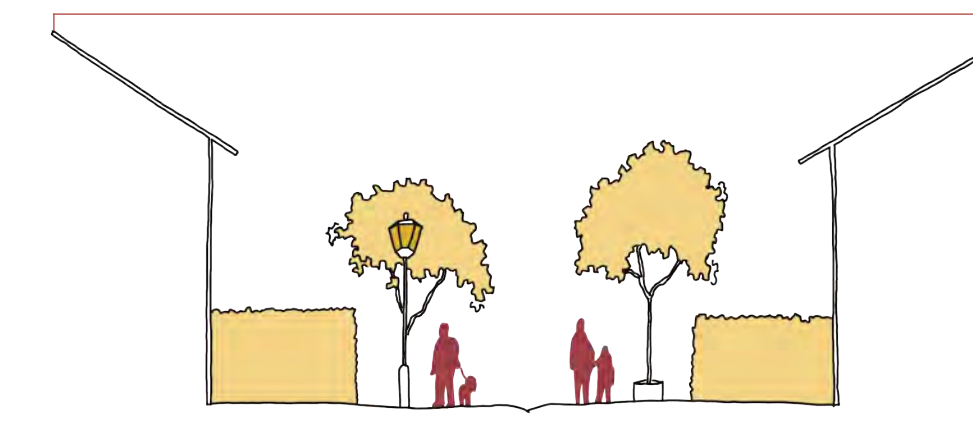
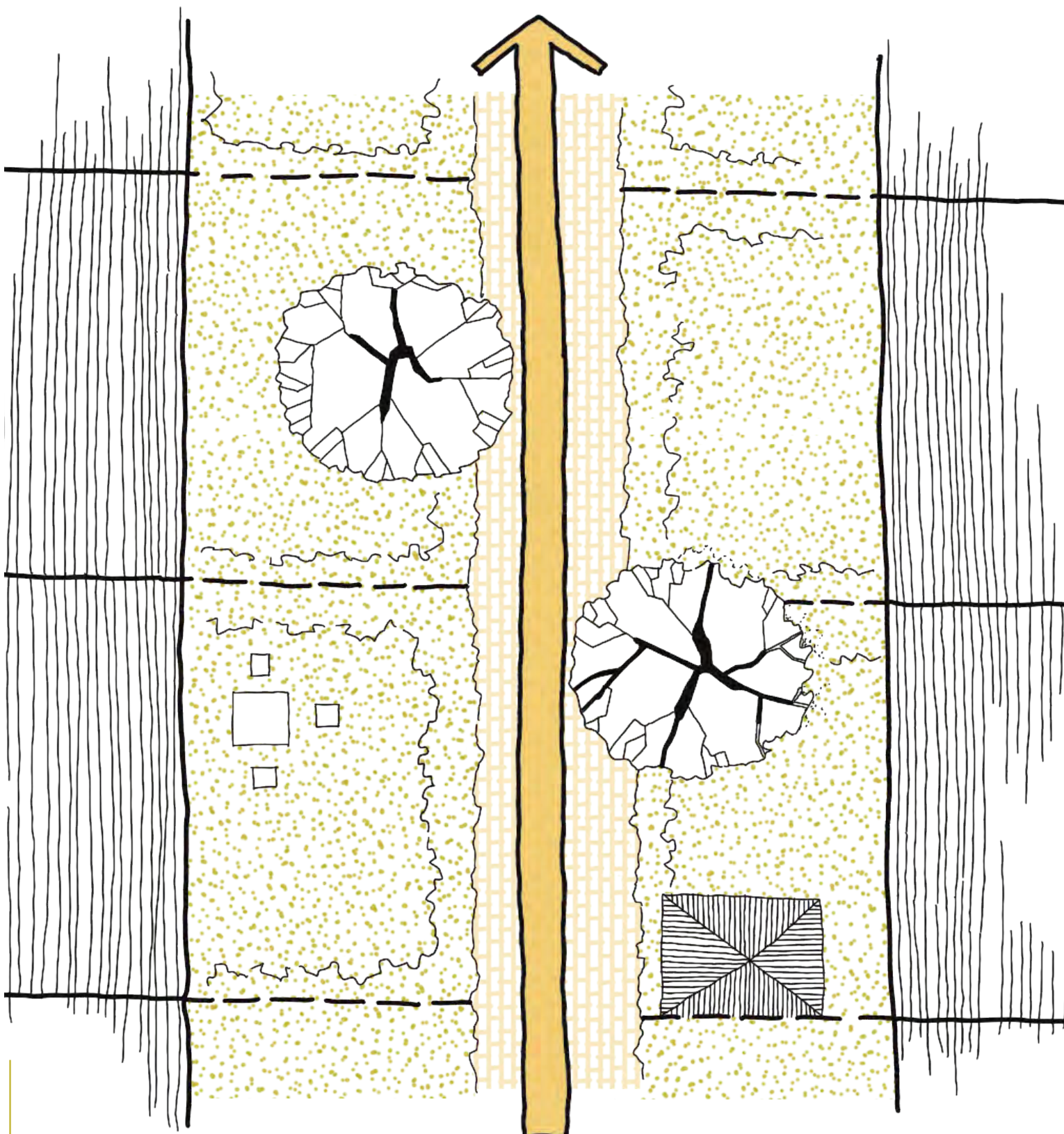
Street Section - showing the different transition zones from the street to the building



Street Section - showing the different transition zones from the street to the building



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Street Section - showing the different transition zones from the street to the building

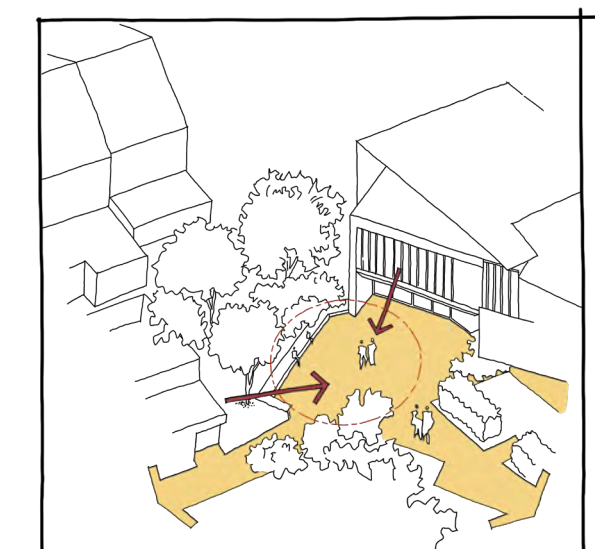


Diagram 1: pedestrian environment overlooked by surrounding buildings

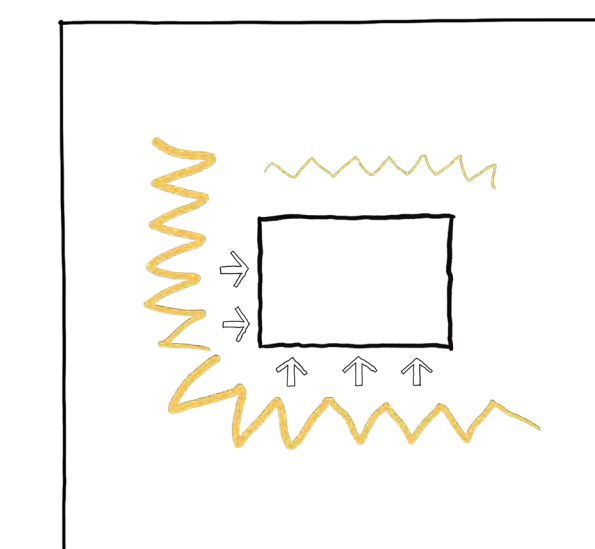


Diagram 2: multi-sided experience of the building, no inactive frontages

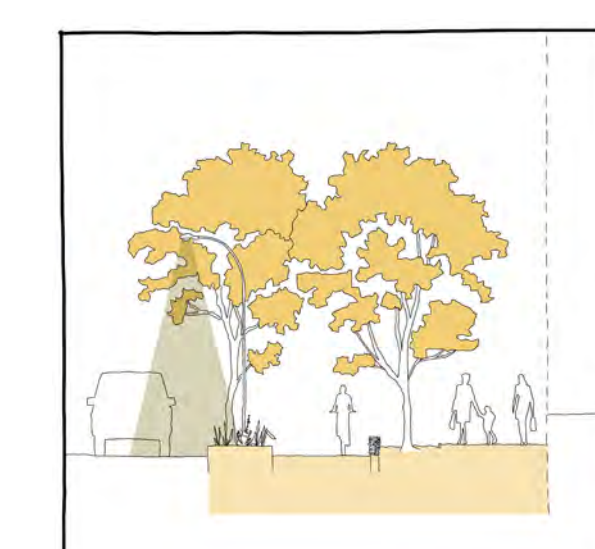


Diagram 3: lighting requirement to ensure visibility for pedestrian movement

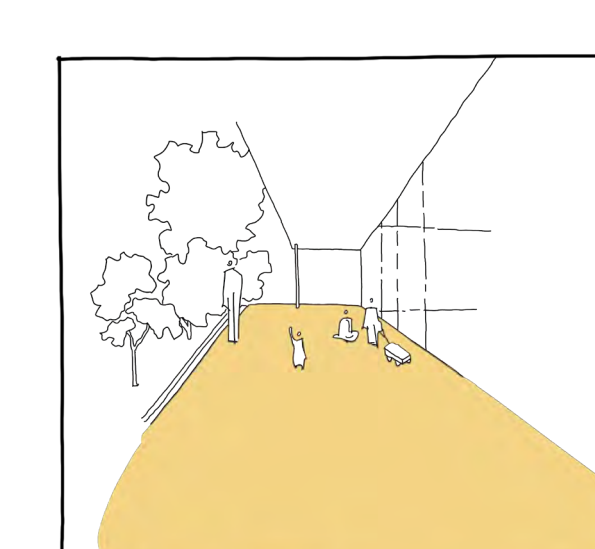


Diagram 4: overhead transitional element to identify owned spaces

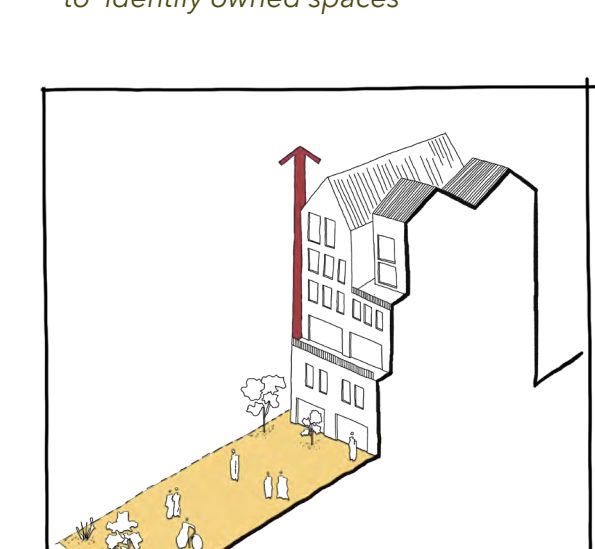


Diagram 5: non-identical design language to allow user to orientate themselves

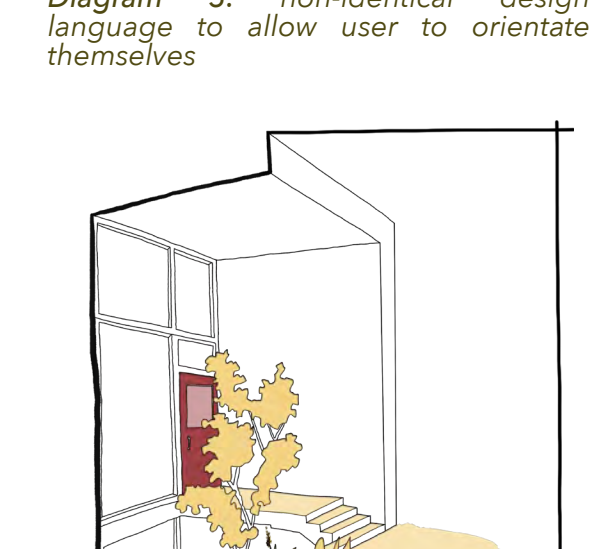


Diagram 6: residential units having front doors accessible from the communal open green spaces is important

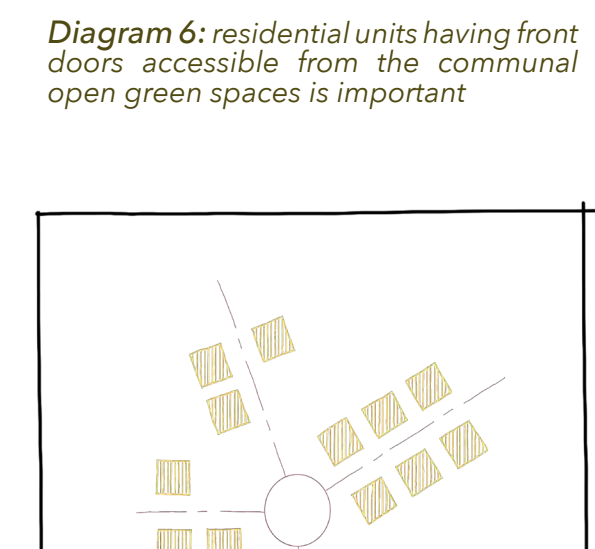


Diagram 7: radial arrangement allows for more variety within the buildings in the context

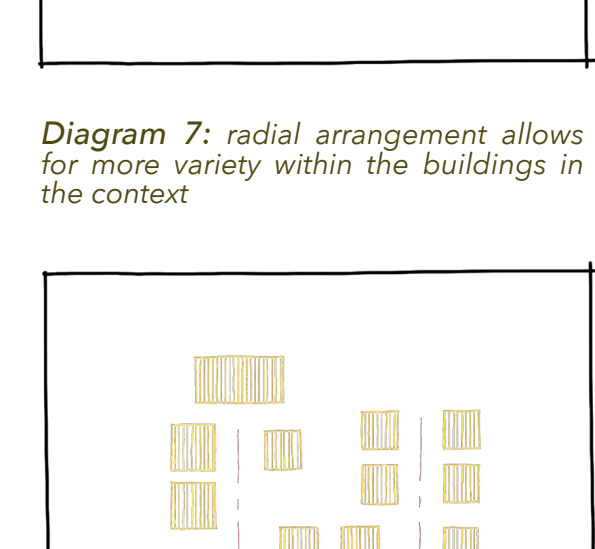
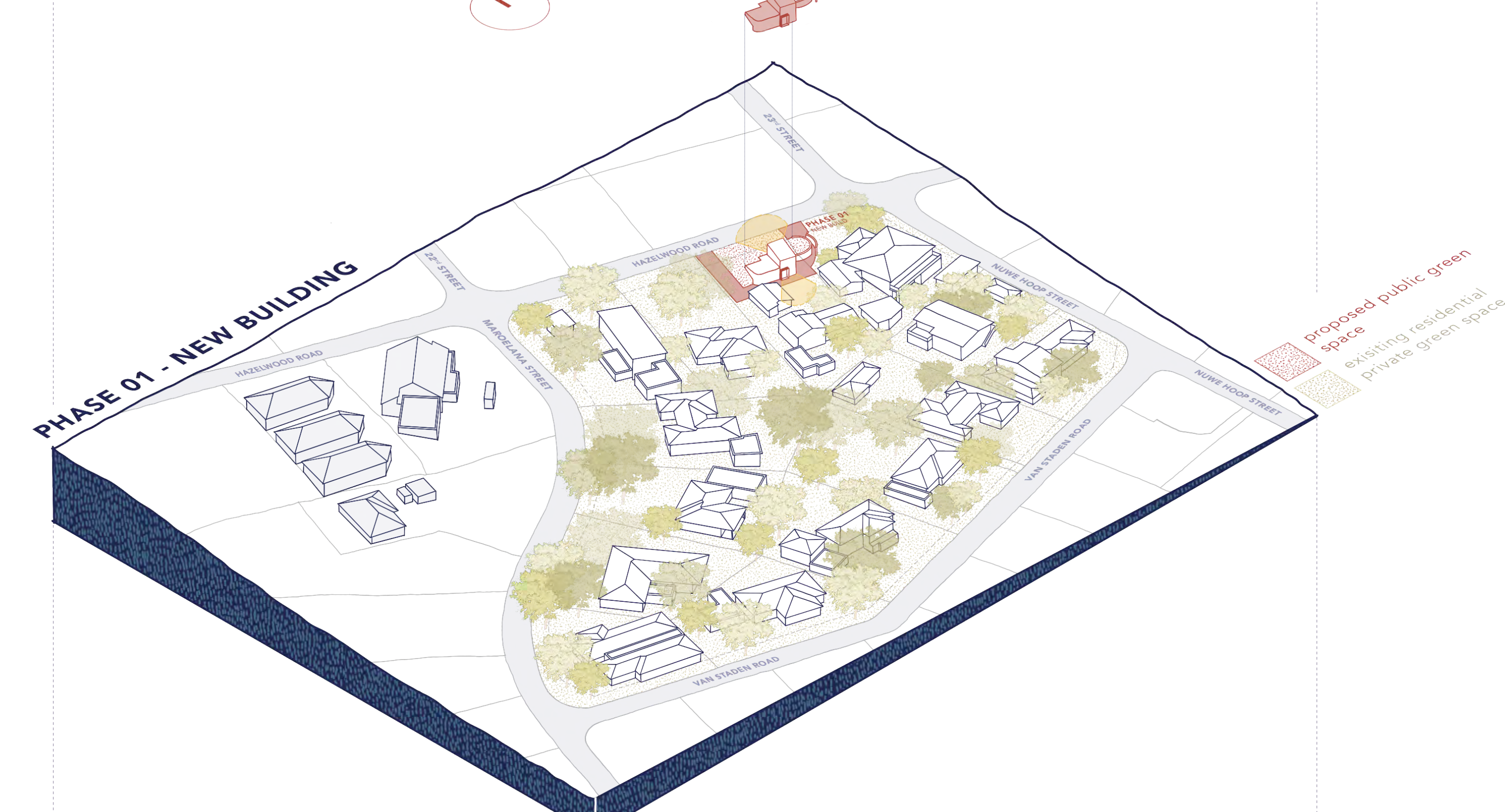
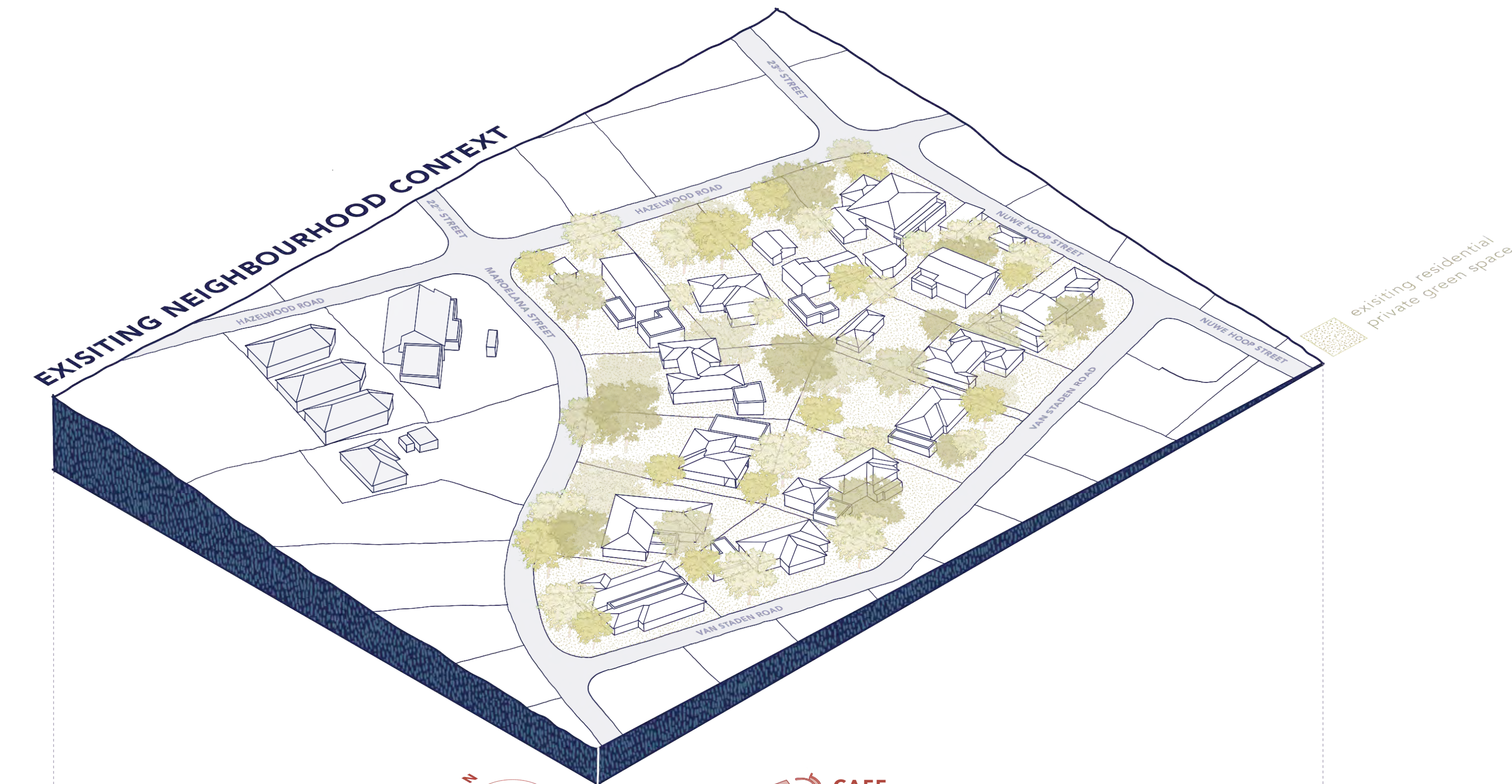
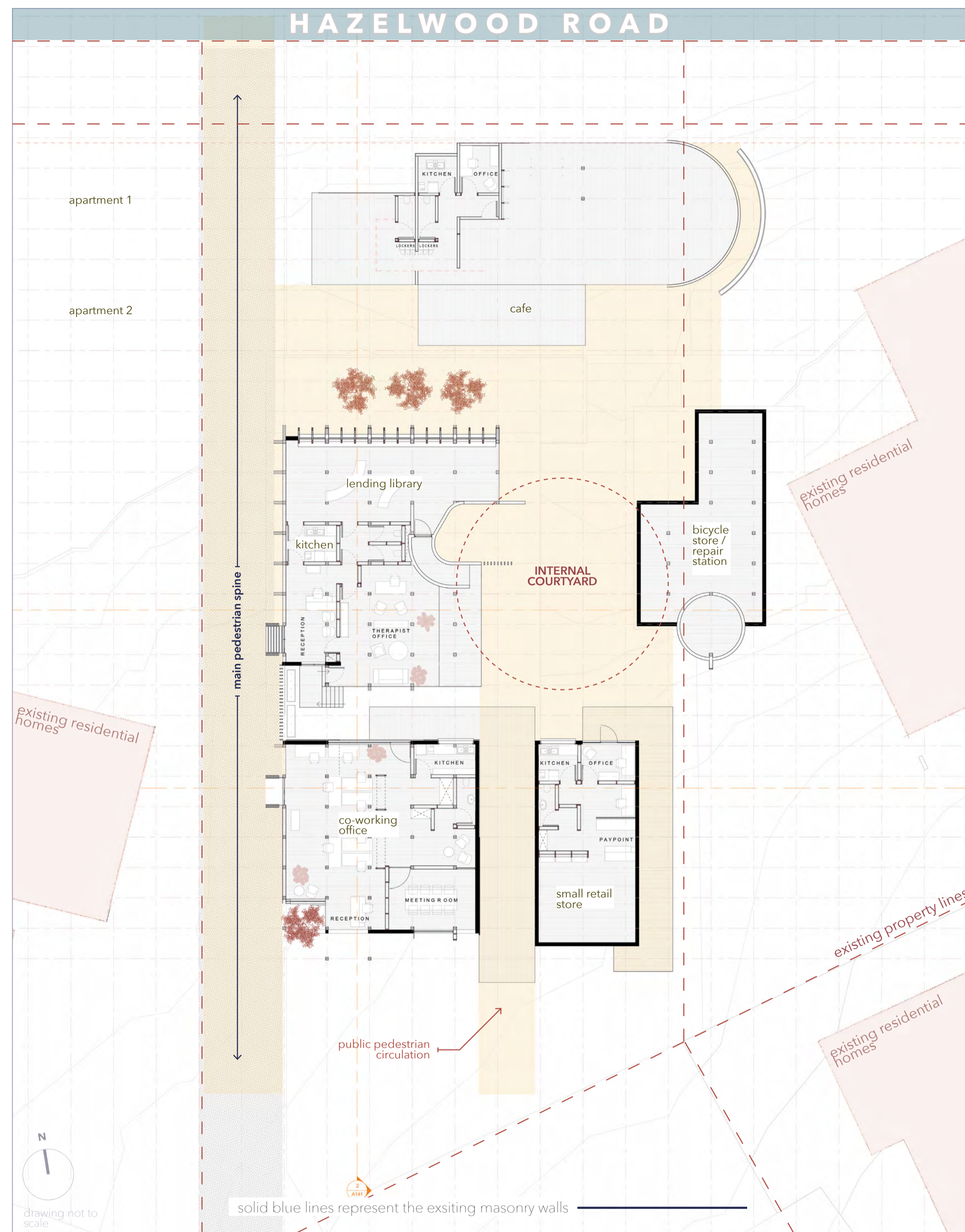


Diagram 8: linear axial arrangement of buildings allow easy navigation for users



These amendments aim to create a more supportive and conducive regulatory environment for facilitated self-builders, empowering individuals, and communities to actively participate in the construction of their environments.



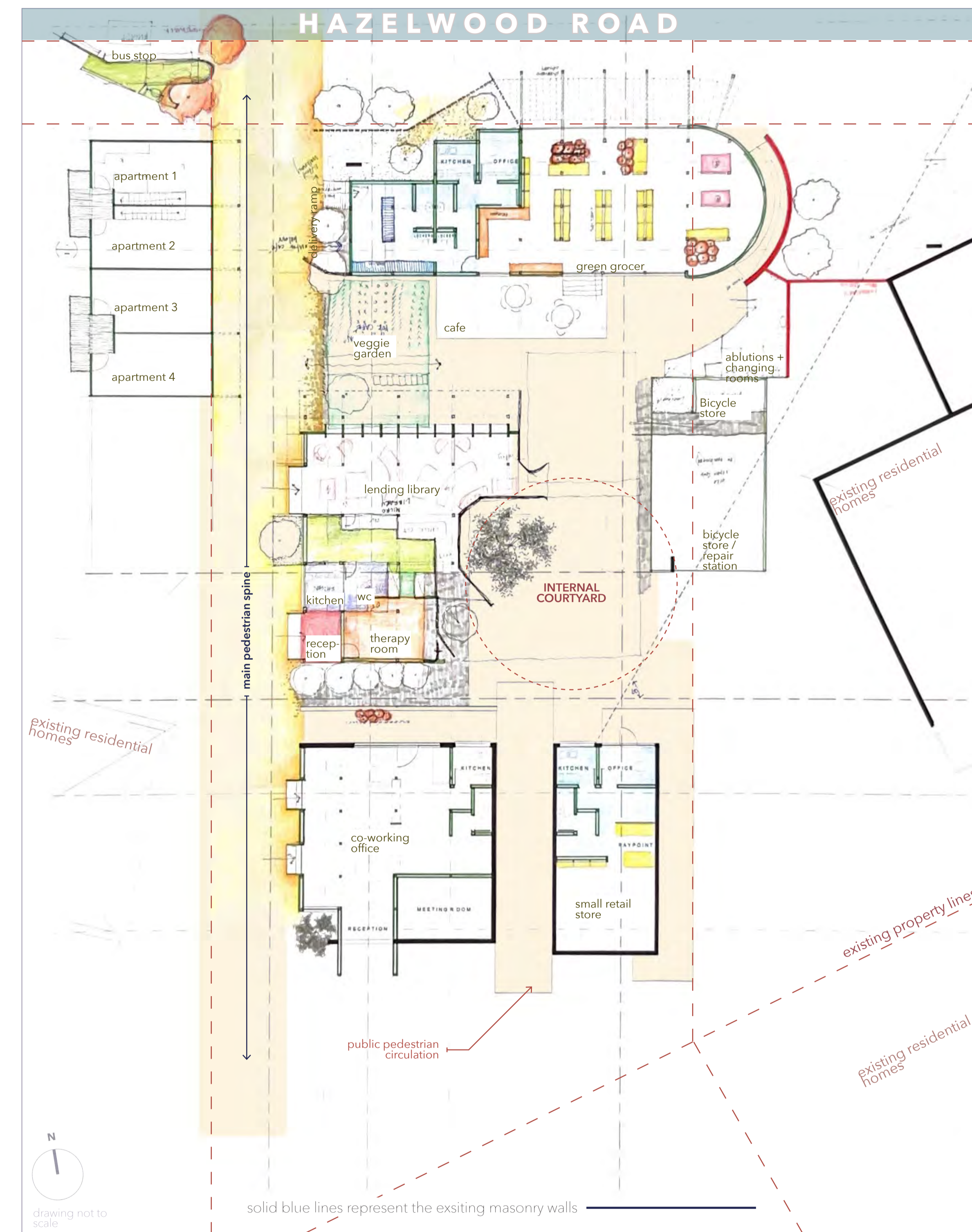
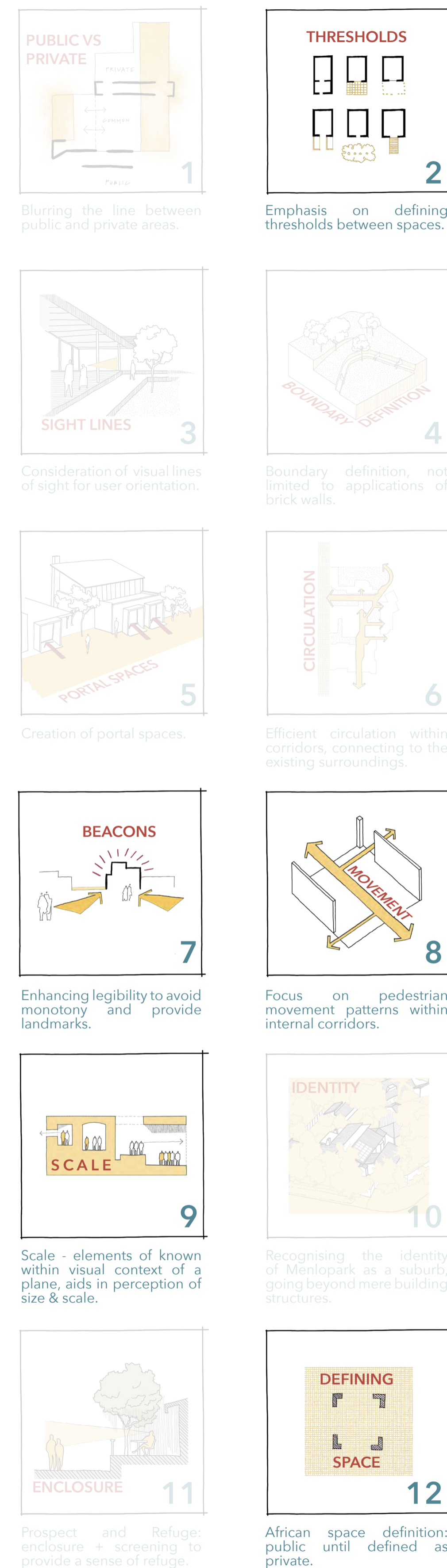
## ITERATION 2

a conservative approach to altering the existing residential buildings - the existing footprints were largely retained.

The second iteration of the ground plane involved analysing the footprint of the existing residential buildings. The proposed new building, situated to the north and designated for the green grocer, is the only entirely new construction in the study area. This placement was chosen to ensure easy access during the construction process and because it represents the initial building to be constructed in the first phase of densification.

The four other buildings already exist within the block and will be modified to accommodate various programs, including a counseling center, a bicycle repair workshop, co-working office space, an intimate lending library, and a small retail store. These buildings' foundations and some masonry walls are retained during the alteration process. These programs were chosen to encourage the celebration of daily life, as they involve activities that users can engage with on a regular basis. Additionally, they support the shift towards more active transportation methods, such as cycling. The bicycle repair workshop, in particular, provides options for bicycle storage and changing rooms for those commuting to work by bicycle.

## DESIGN GUIDELINES



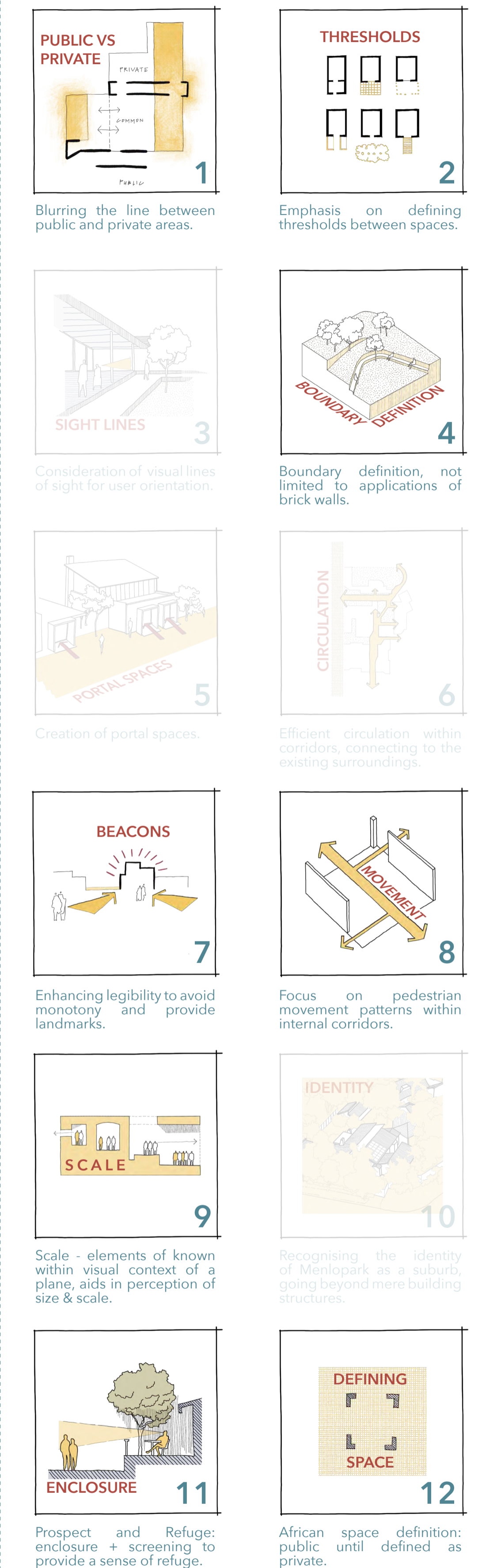
## ITERATION 3

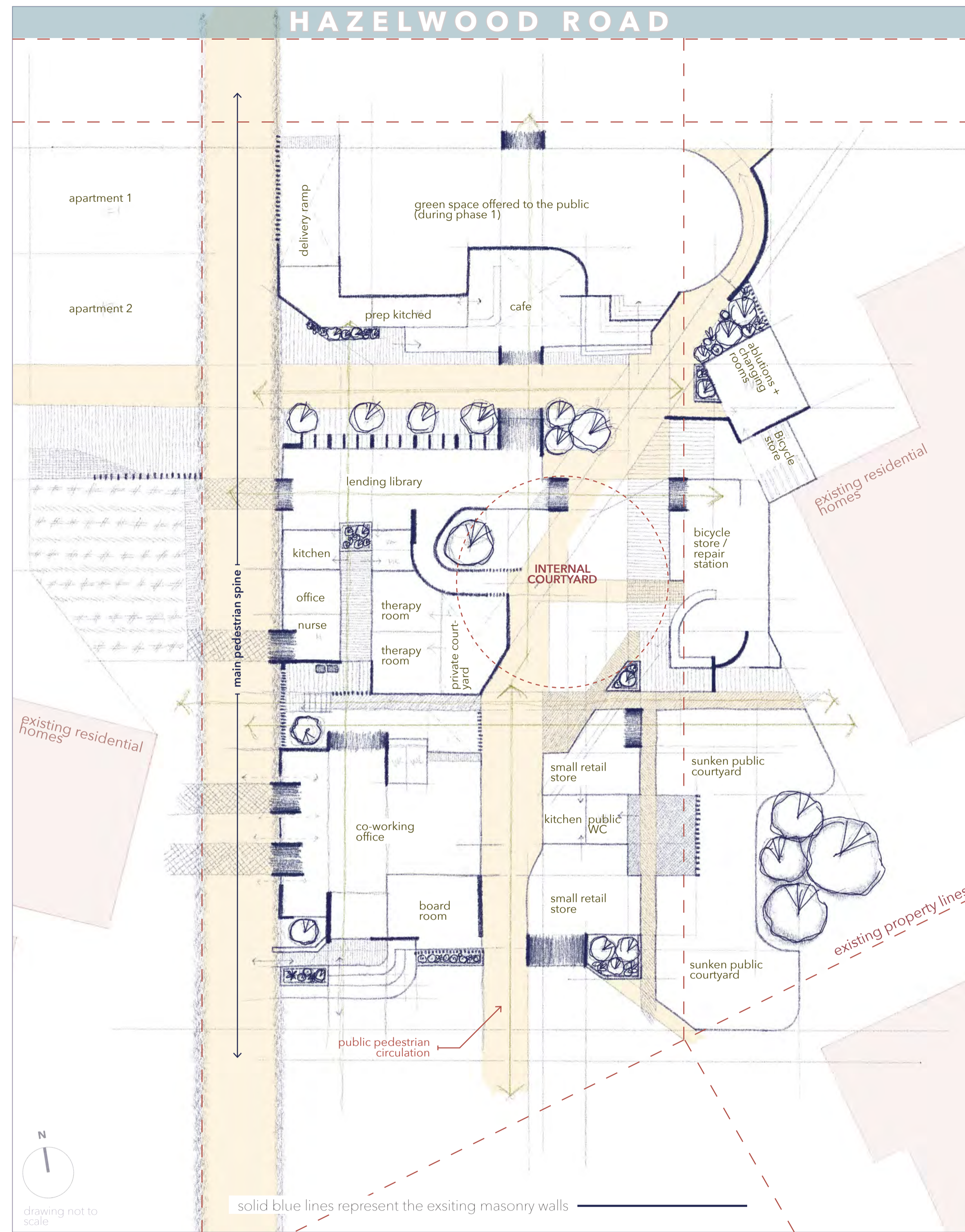
Iteration three adopted a more assertive approach to enhancing the environment

The third iteration revisited the design guidelines established during the initial research phases of the project. The audit revealed a need for increased emphasis on blurring the lines between public and private spaces, along with exploring opportunities presented by incorporating existing foundations and some masonry walls. Iteration three adopted a more assertive approach to enhancing the environment, with the spaces created in this version designed to be more intimate than those in the previous iteration.

The addition of a bus stop at the northern junction point of the pedestrian corridor and the vehicular road aimed to establish an activity point that could further encourage users and passers-by to enter the development and engage with the programs housed within. While this iteration demonstrated improvements in alignment with the design guidelines compared to the previous one, there remains a need for further refinement in circulation, visual lines of sight, and the careful creation of portal spaces. These portal spaces play a crucial role in mediating the transition between public and private spaces within the buildings.

## DESIGN GUIDELINES





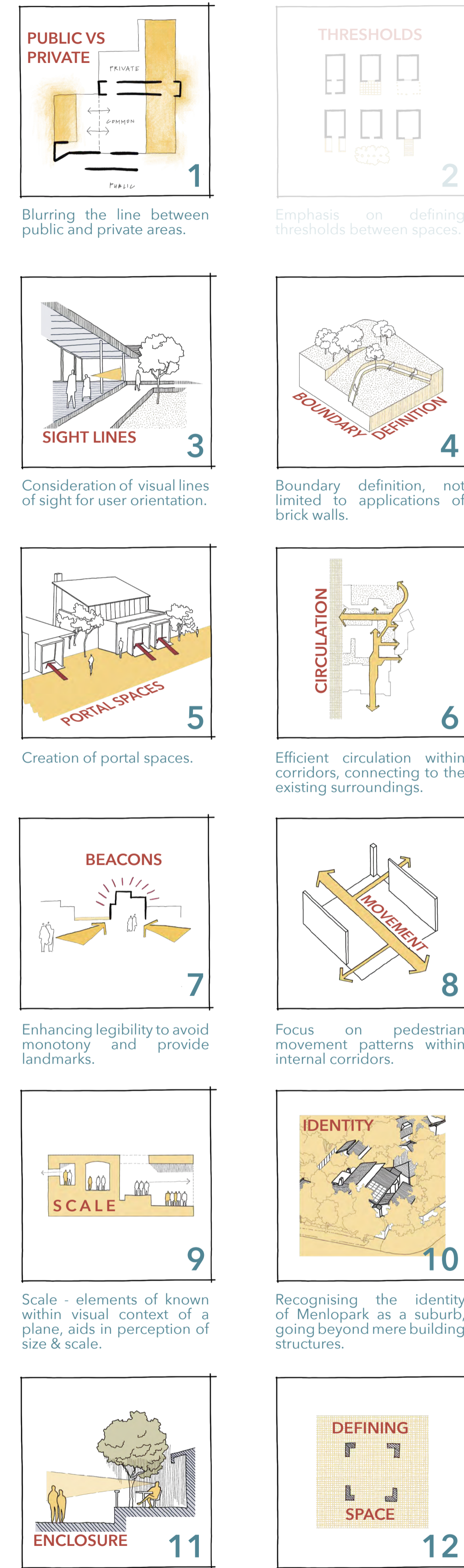
## ITERATION 4

In this iteration, emphasis was placed on the pedestrian experience and how the ground plane would be perceived.

In the fourth iteration, a more refined approach to project phasing was adopted. The decision was made to introduce the cafe, located beneath the green grocer, as the initial addition in the first phase of densification. Positioning the cafe as the first addition serves as a catalyst, attracting users to the densified area. The space earmarked for the future green grocer is dedicated to the public realm, providing a green space for social exchanges. The curved ramp facilitates a deliberate entrance for users directly from the street, descending into the prospective internal courtyard.

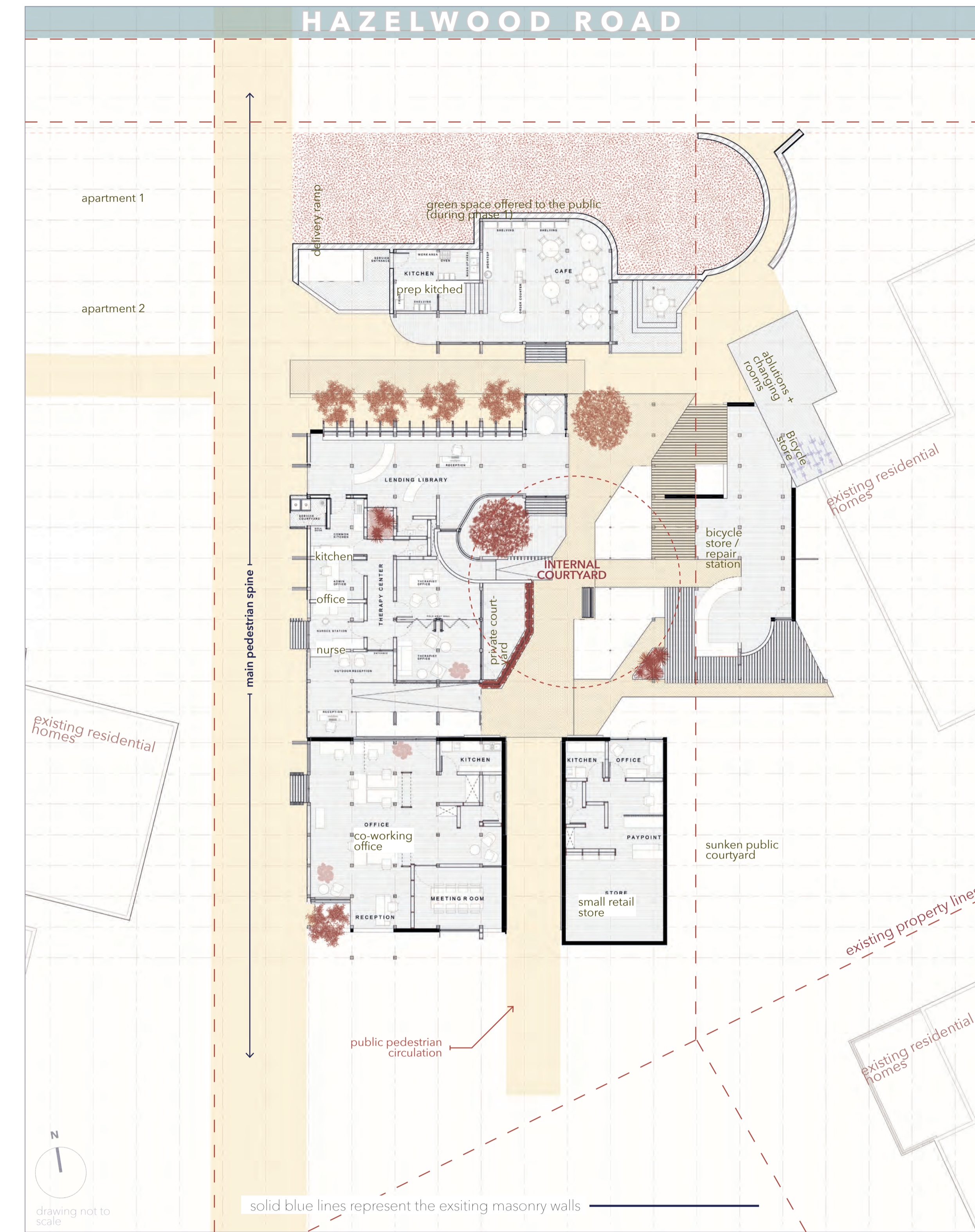
This iteration successfully enhanced visual connection lines throughout the project, realizing the concept of internal corridors on a smaller scale and improving the overall user experience. Further consideration was given to the scale of the space created. The project's goal of populating the pedestrian corridor with small-scale interventions facilitating more intimate interactions was achieved in this iteration. For instance, the therapy centre was subdivided into two smaller therapy rooms, a nurse's station, and an additional office, utilizing the available space more effectively. Similarly, the retail store was divided to accommodate two small retail stores or kiosks, contributing to the better realization of the economy of scales aspect of the project.

## DESIGN GUIDELINES



Prospect and Refuge: enclosure + screening to provide a sense of refuge.

African space definition: public until defined as private.



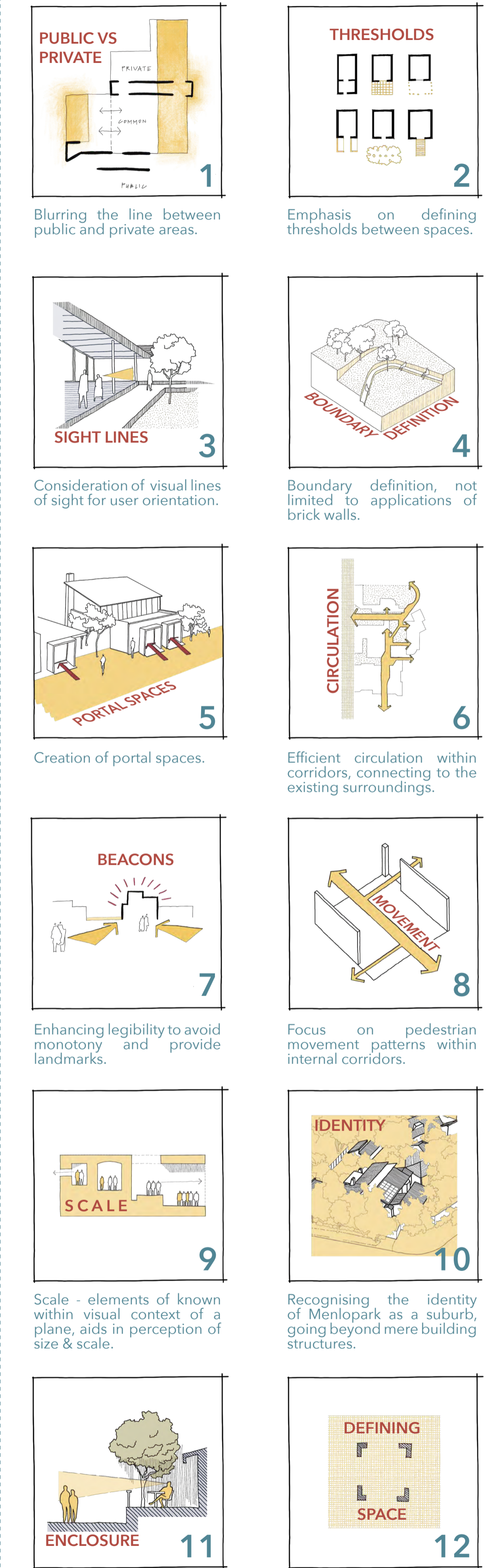
## ITERATION 5

This approach challenges Western spatial norms imposed on African cities and promotes flexible spaces.

The intention of this proposed plan is not to impose large-scale architecture that would overshadow the modest scales of the current residential surroundings. Instead, it incorporates vertical beacon elements to help users visually navigate pedestrian corridors. Throughout the iterative design process, the focus was on maintaining ongoing physical integration to keep the local residents receptive to the alterations in the residential area and to foster a sense of ownership among them. The goal is to establish a closely integrated network of small architectural improvements that benefit the community and add socio-cultural diversity to the otherwise uniform suburbs.

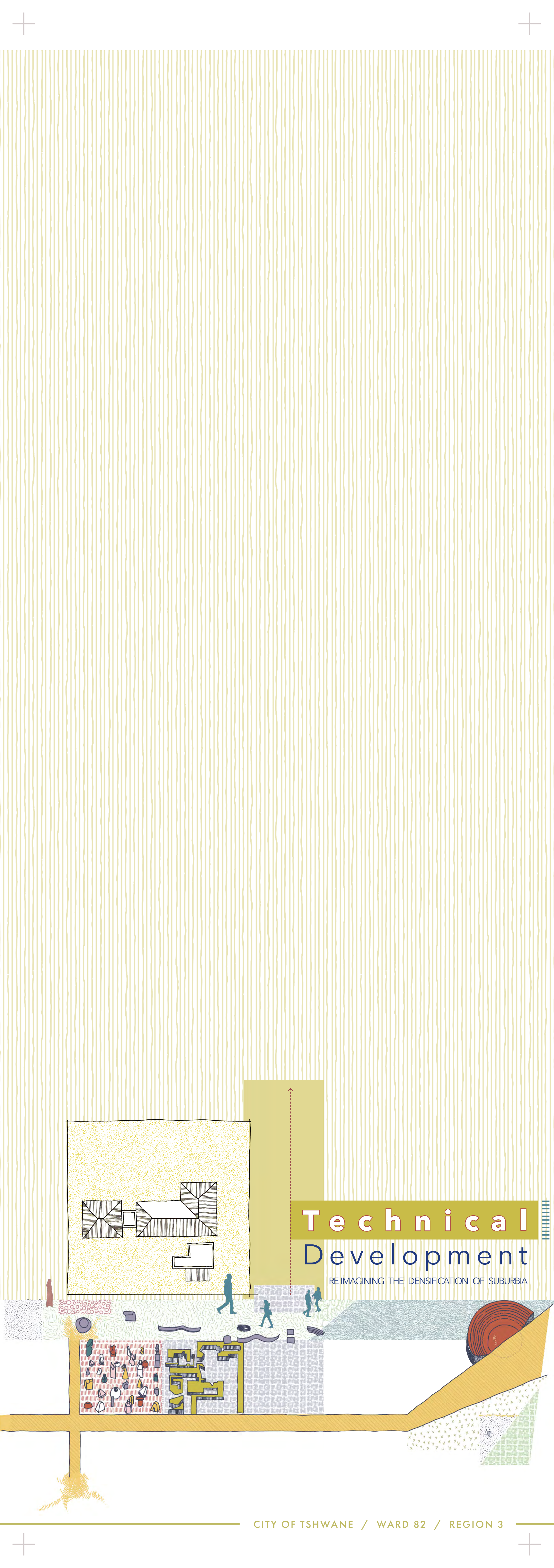
To enhance suburbia, a crucial aspect is reimagining open spaces between buildings, transforming them into dynamic, socioculturally enriched areas integral to urban life. This approach challenges Western spatial norms imposed on African cities and promotes flexible spaces with "sanctioned impermanence," encouraging diverse social uses, communal ownership, and cultural integrations.

## DESIGN GUIDELINES



Prospect and Refuge: enclosure + screening to provide a sense of refuge.

African space definition: public until defined as private.

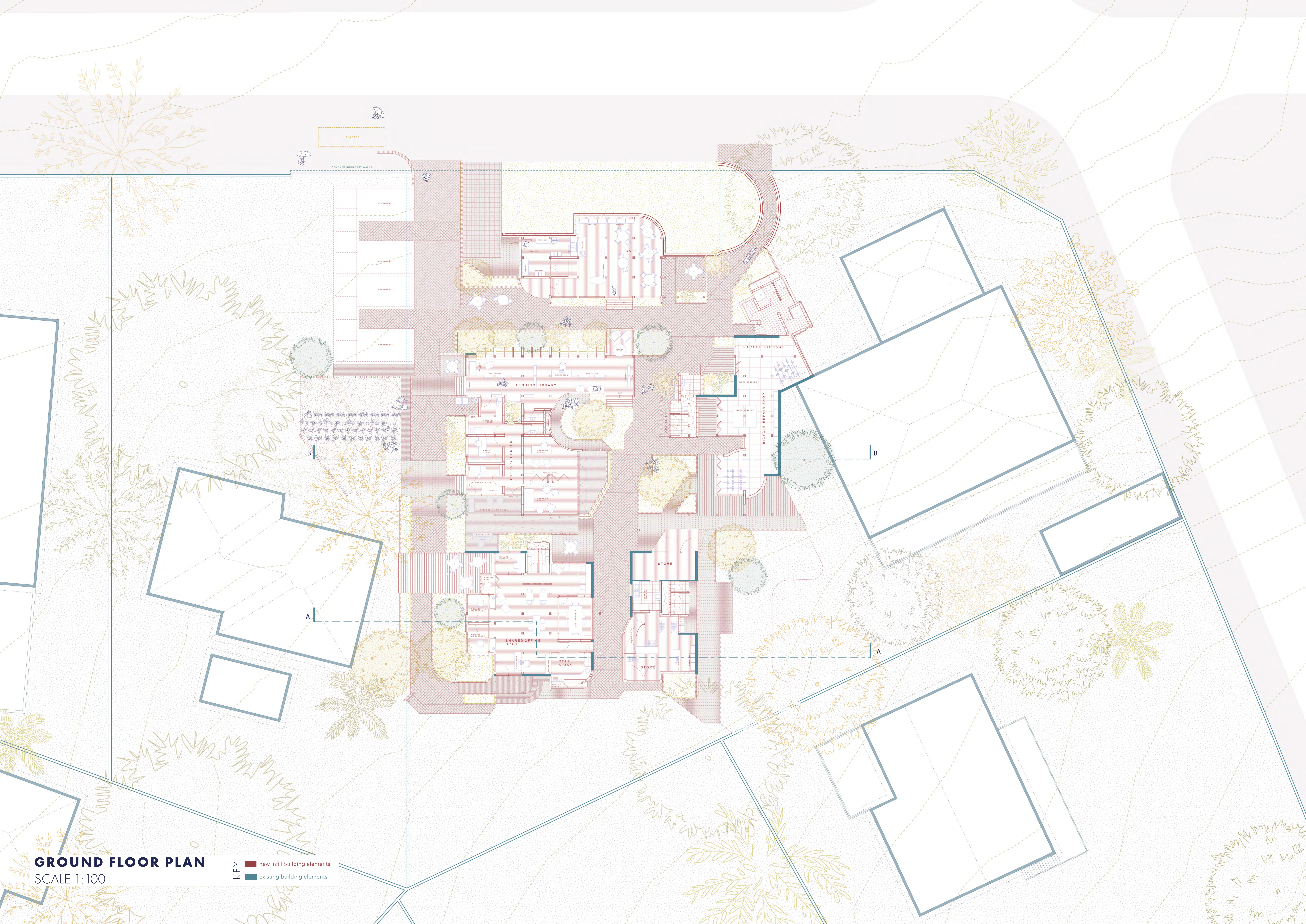


# Technical Development

RE-IMAGINING THE DENSIFICATION OF SUBURBIA

**GROUND FLOOR PLAN**  
SCALE 1:100

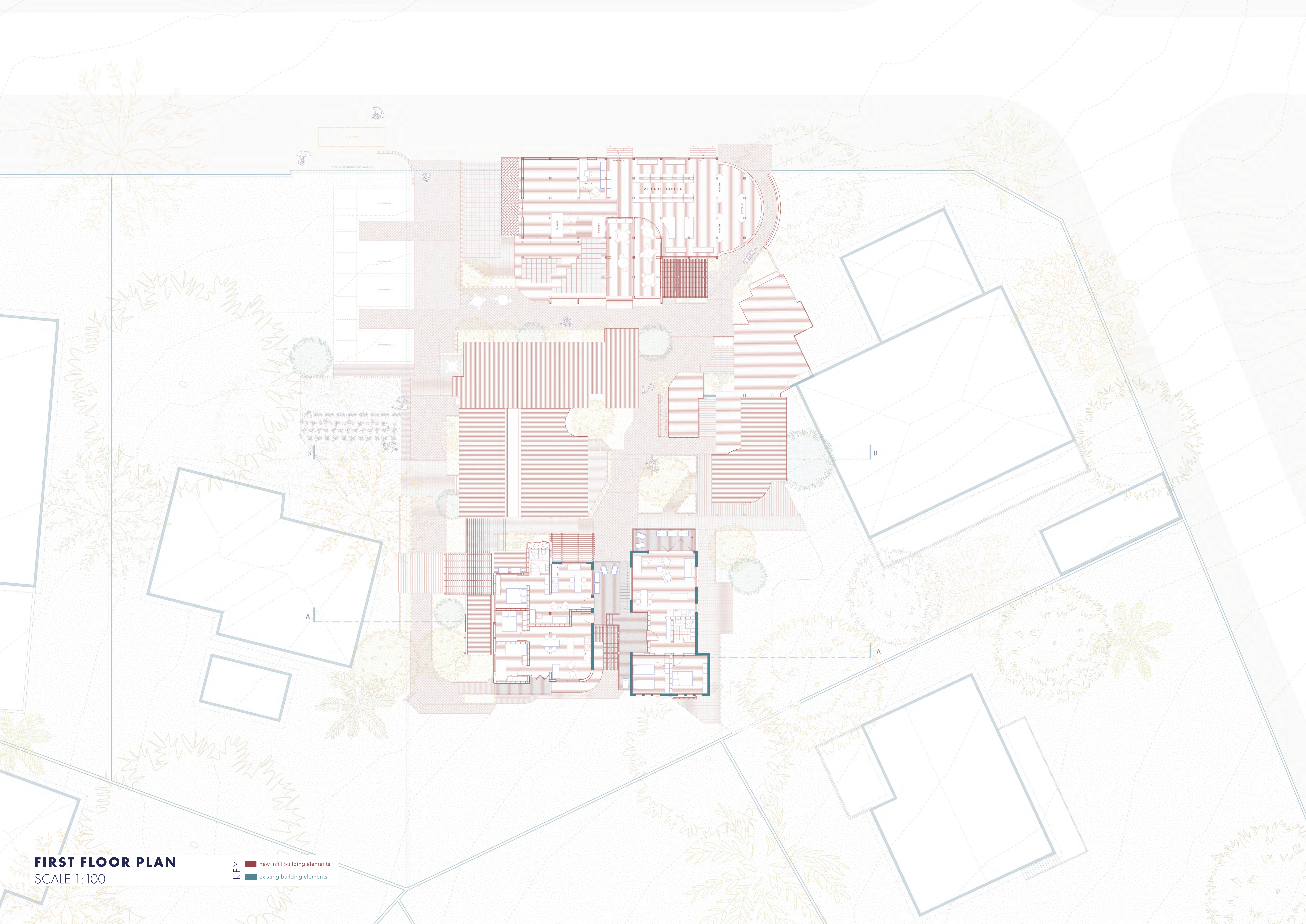
KEY ■ new infill building elements  
■ existing building elements





**FIRST FLOOR PLAN**  
SCALE 1:100

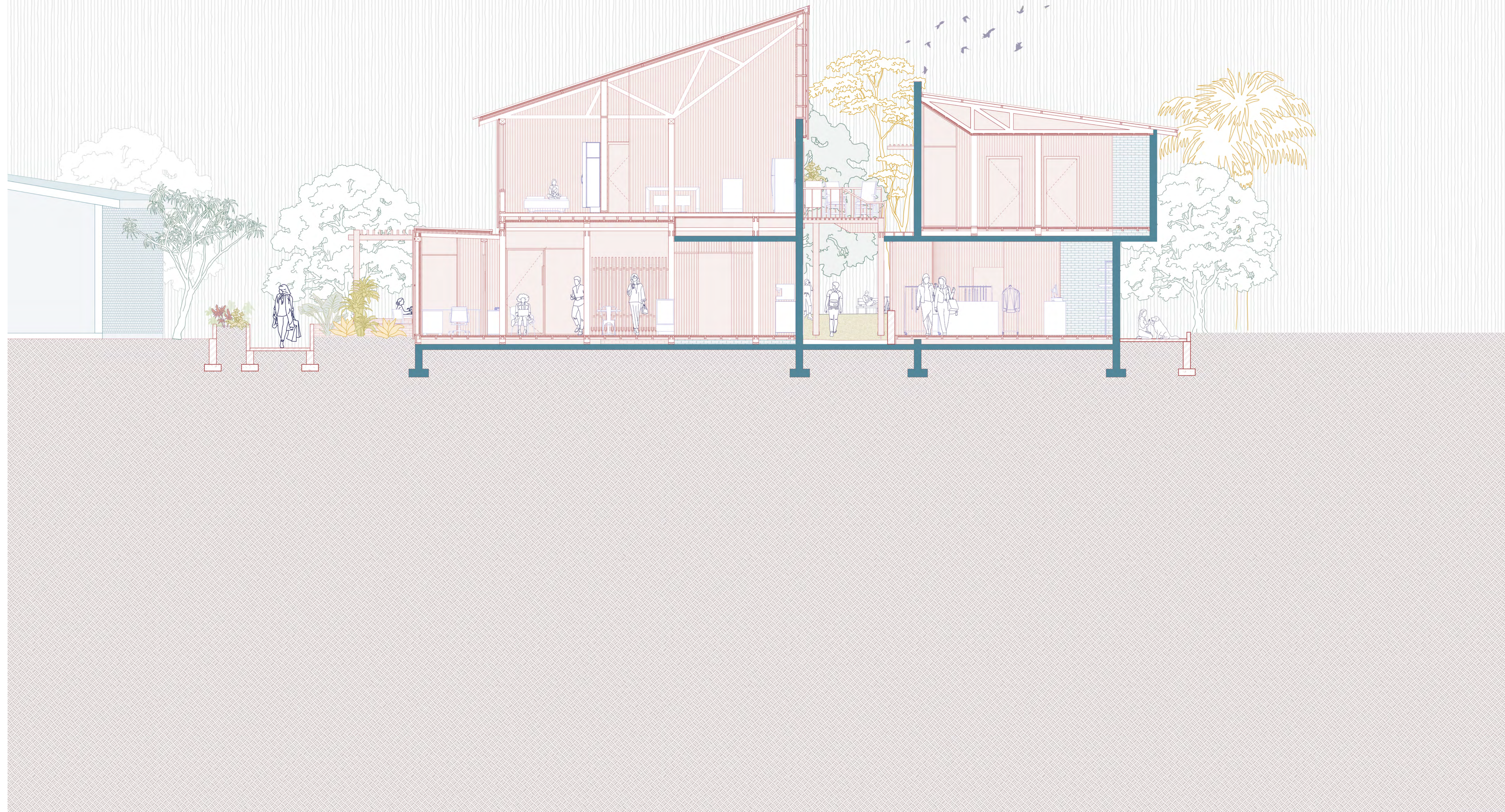
KEY  
■ new infill building elements  
■ existing building elements

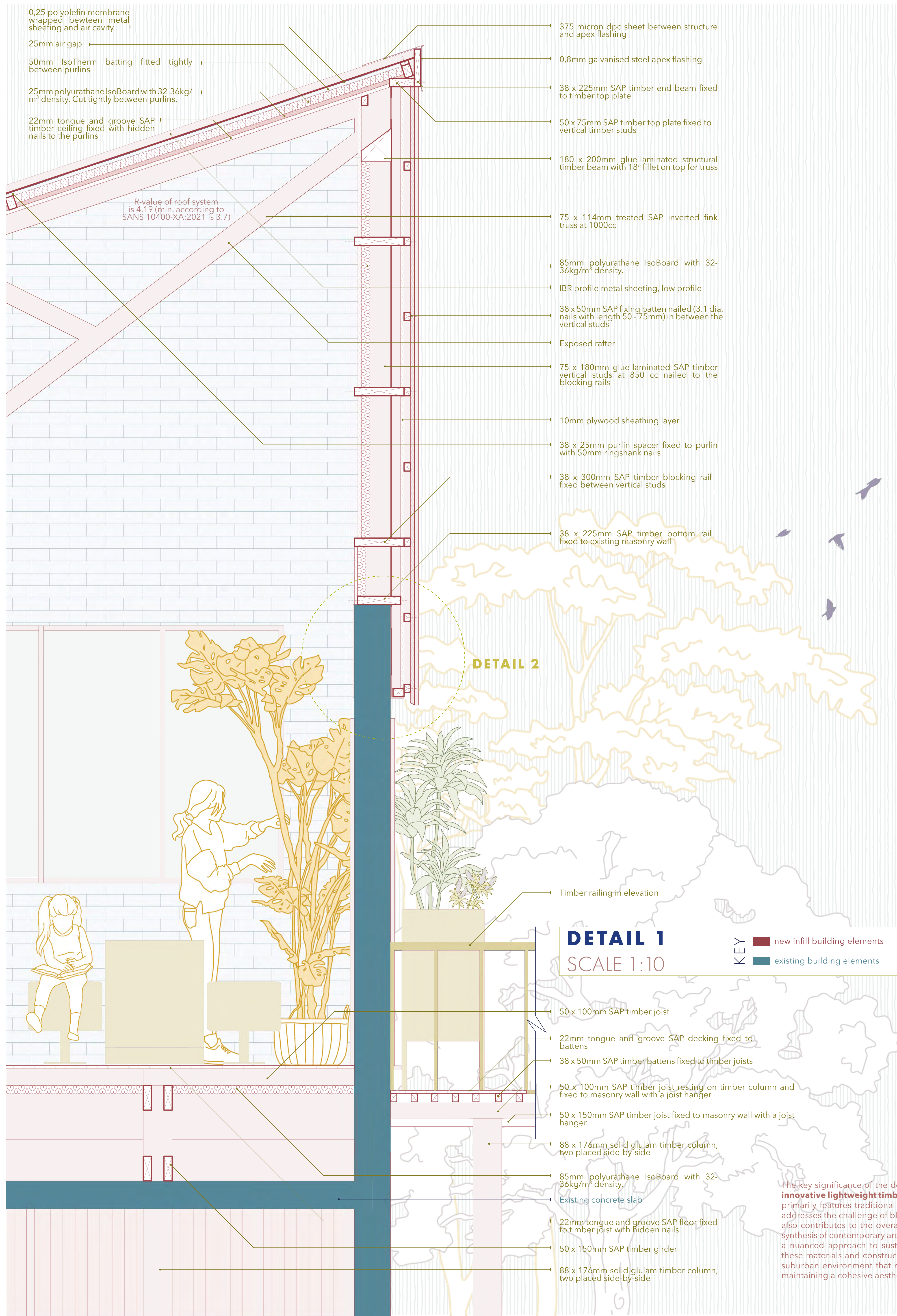


**SECTION A-A**

SCALE 1:50

KEY ■ new infill building elements  
■ existing building elements

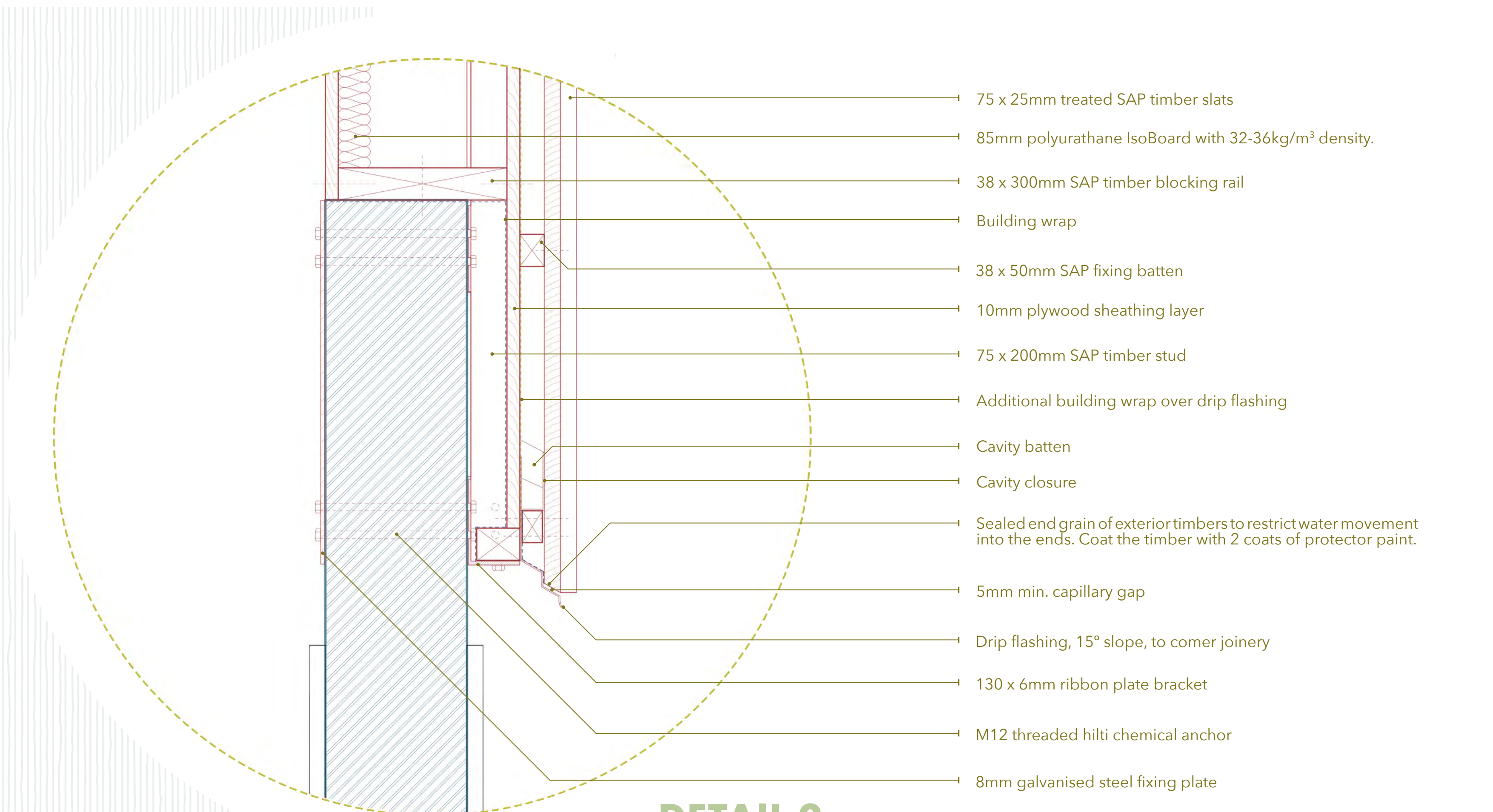




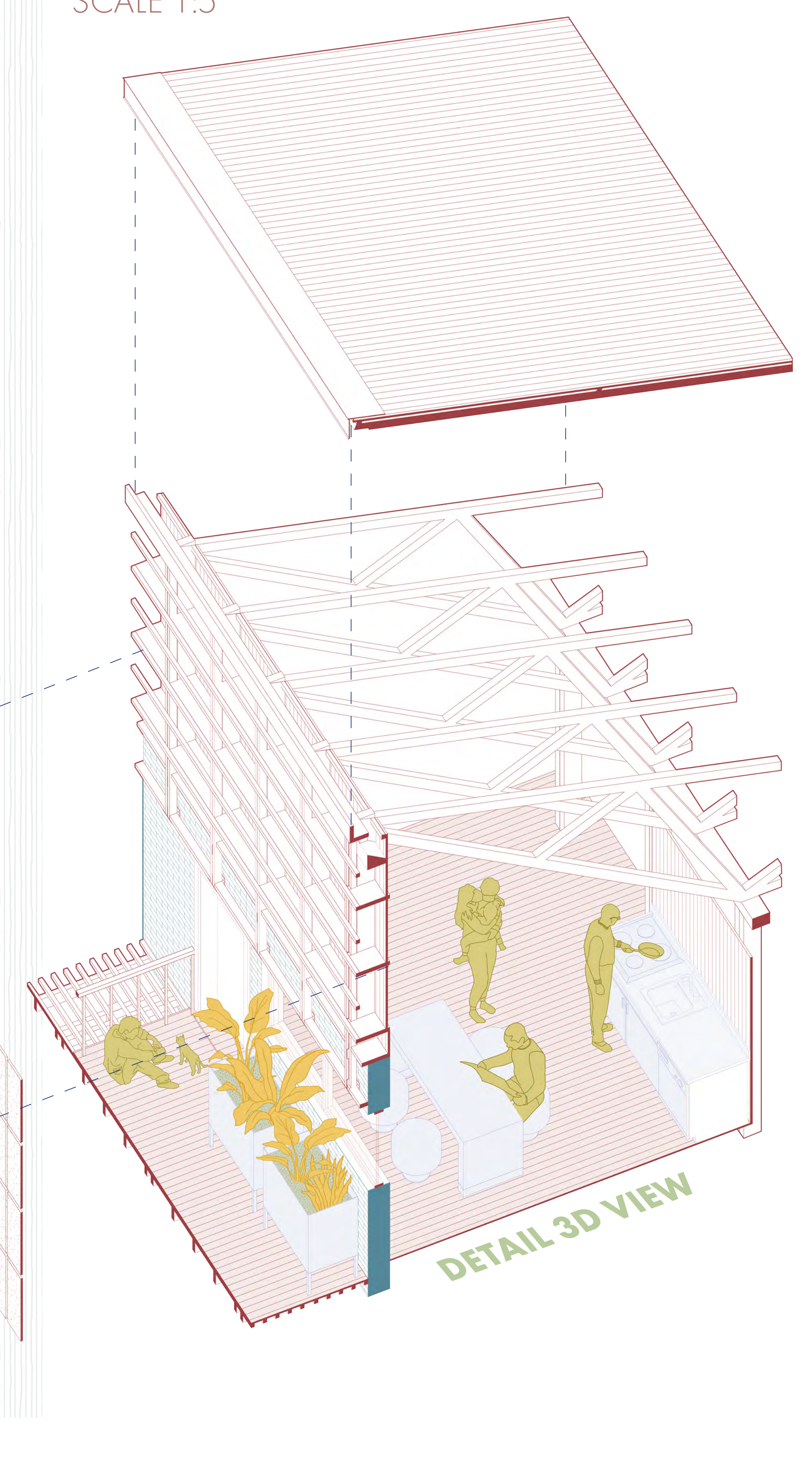
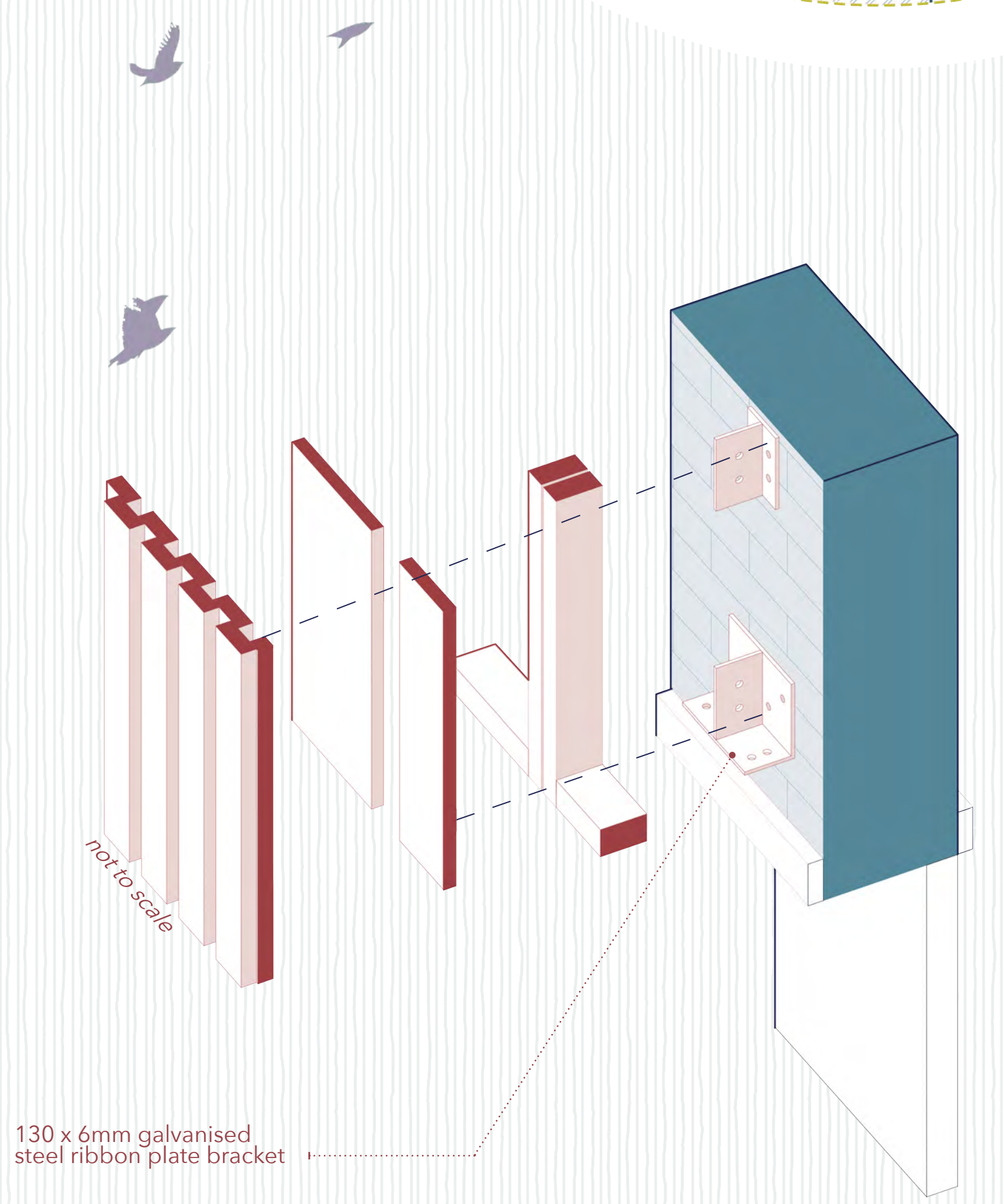
DETAIL 2

DETAIL 1  
SCALE 1:10

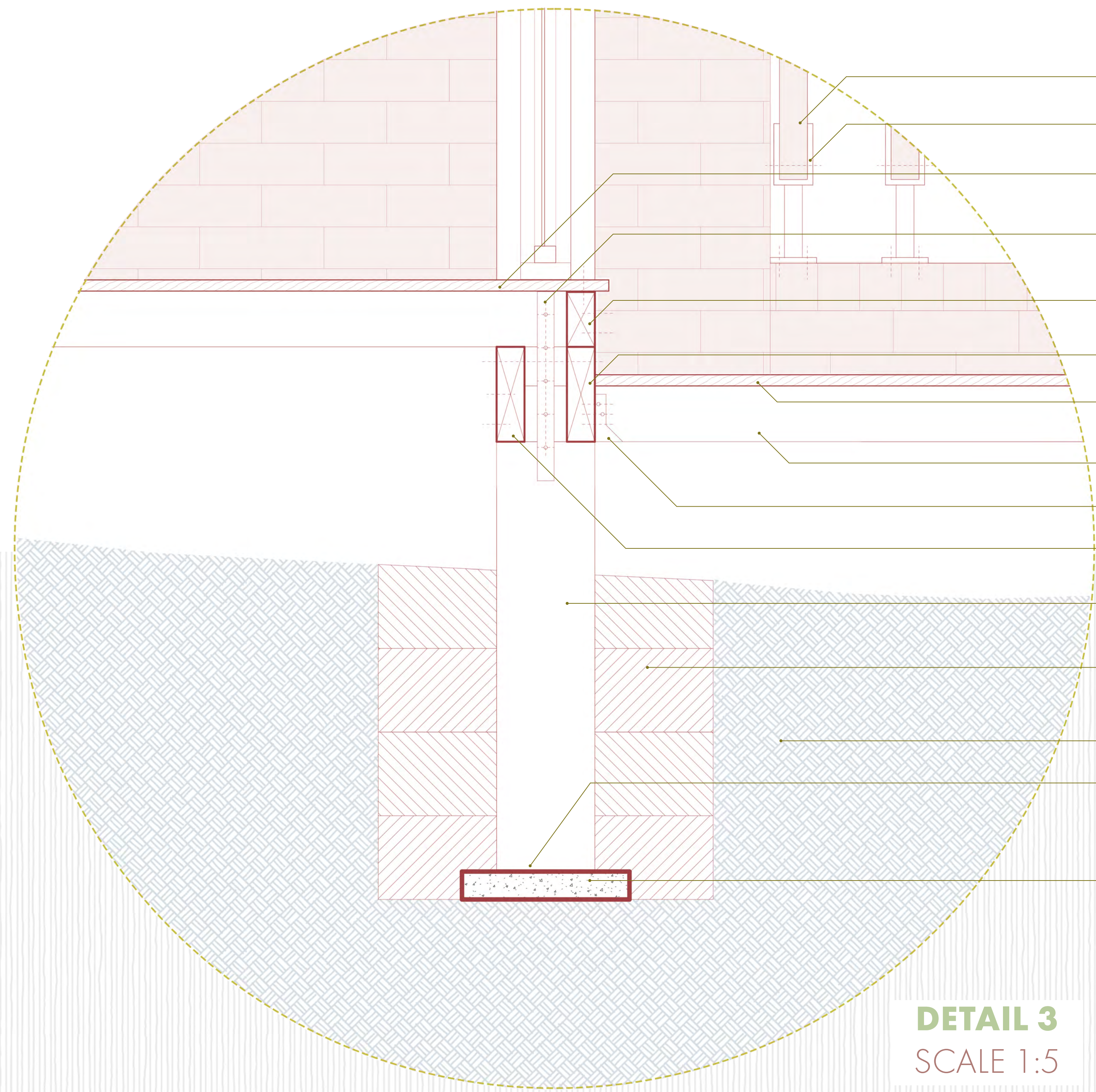
- KEY
- new infill building elements
- existing building elements



DETAIL 2  
SCALE 1:5



The key significance of the design project is underscored by its ability to **seamlessly integrate innovative lightweight timber interventions into the prevailing residential landscape**, which primarily features traditional masonry brick walls and concrete slabs. This integration not only addresses the challenge of blending novel construction methods with established structures but also contributes to the overall transformative vision of the project. It represents a harmonious synthesis of contemporary architectural practices with the existing built environment, showcasing a nuanced approach to sustainable and adaptable urban development. The juxtaposition of these materials and construction techniques is pivotal in creating a distinctive and progressive suburban environment that responds effectively to the evolving needs of its inhabitants while maintaining a cohesive aesthetic and functional unity.

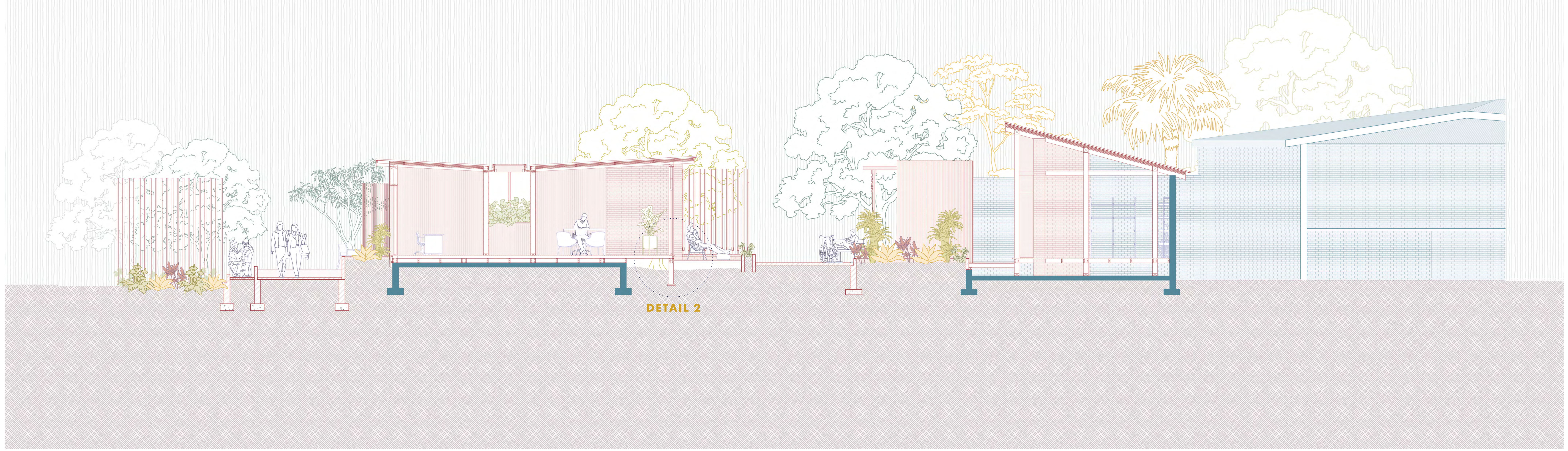


- 50 x 150mm timber slats bolted to the post bracket
- Galvanized mild steel post bracket bolted into masonry wall
- 22mm tongue and groove SAP floor fixed to timber joist with hidden nails
- 1,6mm x 30mm U-shaped galvanized mild steel holding-down strap nailed to both sides of the post
- 50 x 100mm end capping
- 50 x 150mm SAP timber bearer beam bolted to timber column
- 22 x 102mm eucalyptus deck board nailed flush to timber joists with 44mm galvanized nails. Holes to be pre-drilled 70% of the nail shaft thickness. Decking board has 5mm gaps
- 50 x 150mm SAP timber joists at 400cc bolted to truss hangers, inside the bearer beams
- Galvanized mild steel truss hanger bolted to bearer beam
- 50 x 150mm SAP timber girder at 400cc bolted to timber column, inside the bearer beams
- 176 x 176mm solid square eucalyptus timber post, treated with CCA to exposure class H4, according to SANS 1288
- 150mm compacted backfill G7 medium layers, each layer needs sufficient compaction before the next layer is inserted.
- Undisturbed earth
- 1,6mm anti-split plate nailed into the end of the post and an additional CCA treatment impregnated at the post's end
- 300 x 300mm precast concrete footing, 50mm thickness. Placed in a 600 dia. hole dug for the post planting.

**DETAIL 3**  
SCALE 1:5

**SECTION B-B**  
SCALE 1:50

KEY  
■ new infill building elements  
■ existing building elements



**DETAIL 2**