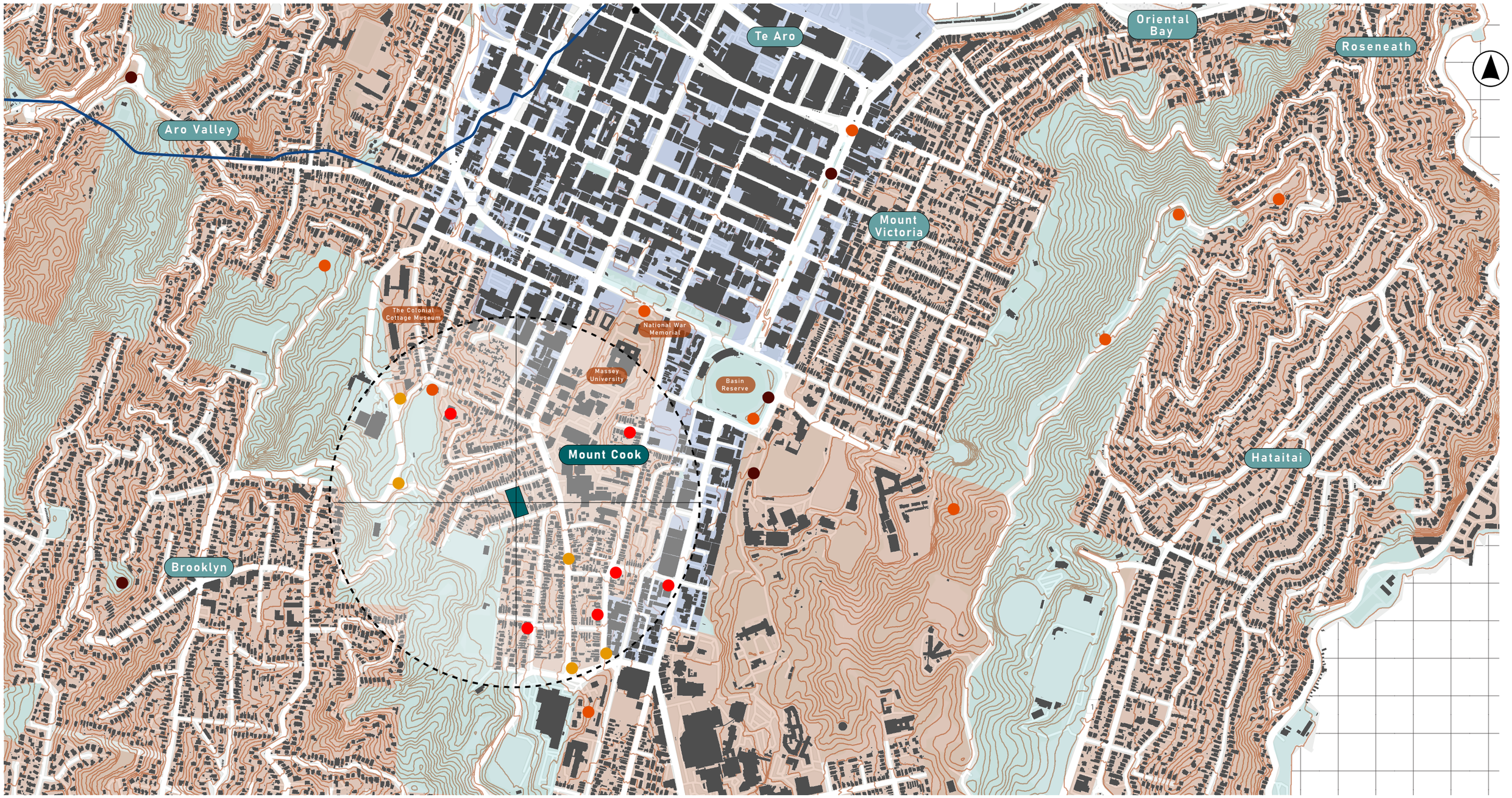
PART A MACRO Site Context + Analysis

SCALE 1 : 10000

0 0.2 0.4 0.8 km



Macro Scale Key Identifications

- Site
- Buildings
- Heritage Structures - Proposed District Plan (PDP)
- Heritage Buildings - Proposed District Plan (PDP)
- Sites of Significance to Māori (Points) - Draft District Plan (DDP)
- Primary Bus Stops to Central Wellington

Envrionmental Context

- GWRC Contours 5m
- 10km Site Surroundings
- Waimapihi Stream (the Te Aro Stream)
- Ocean
- Roads

Zones - Proposed District Plan (PDP)

- Residential Zone
- City Centre Zone
- Natural Open Space Zone

The Kainga Ora Rolleston Street social housing apartments are located in central Mount Cook.

Mount Cook is an inner suburb of the metropolitan area of Wellington, 1.74 km south of Wellington's Central Business District. The suburb stands on the southern fringe of the central city alongside Te Aro and to the north of Newtown.

PART A MICRO Site Context + Analysis

SCALE 1 : 2000

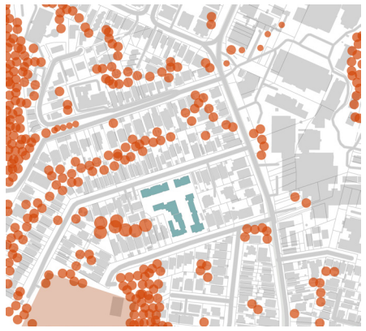
0 0.04 0.07 0.15 km

Extraction 1.1

Transport Traffic Circulation

Extraction 1.2

Vegetation/Green Massing



Extraction 1.3

Building Height Spread

Micro Scale Key Identifications

- Buildings
- Wind Movement
- Sun Path
- Primary Access Roads
- Rolleston Development
- Flood Hazard Flowpath - Proposed District Plan (PDP)

Envrionmental Context

- Property Boundary Lines
- GWRC Contours 5m
- 60 Contour Ground Heights
- Roads

Zones - Proposed District Plan (PDP)

- City Centre Zone
- Medium Density Residential Zone
- High Density Residential Zone
- Special Purpose Zone (Multiple Zone Purposes)

+ The immediate surrounding streets around the development (Rolleston, Hargreaves, Bidwil, and Wallace) form a linear square pattern of 90 degree meetings.

+ Contours surrounding Rolleston show a moderate slope to the east, however overall even landscape.

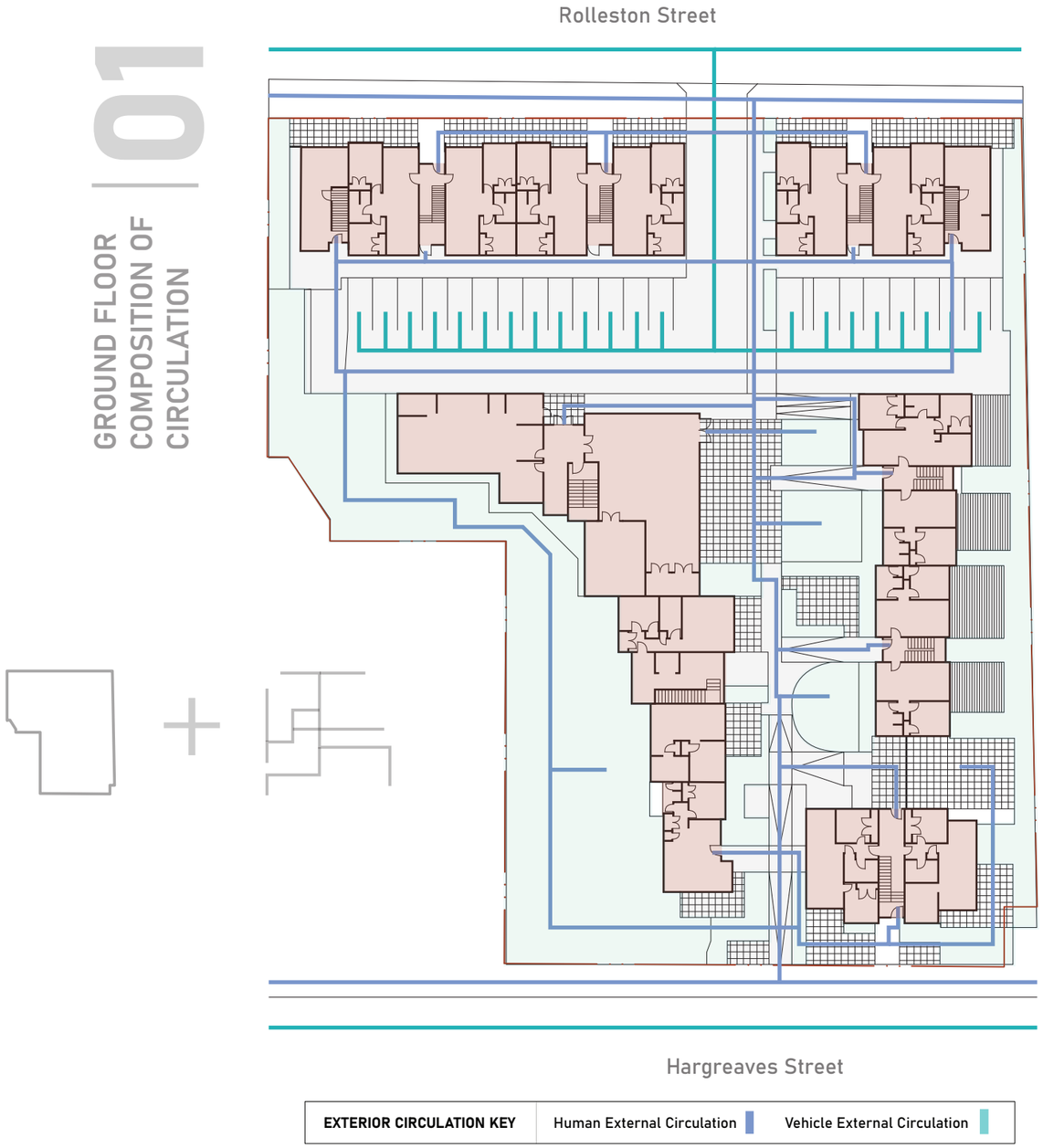
+ The development site itself rests on a elevation gradient of 40-50m west.

PART B Rolleston Housing Development Analysis

SCALE 1 : 400

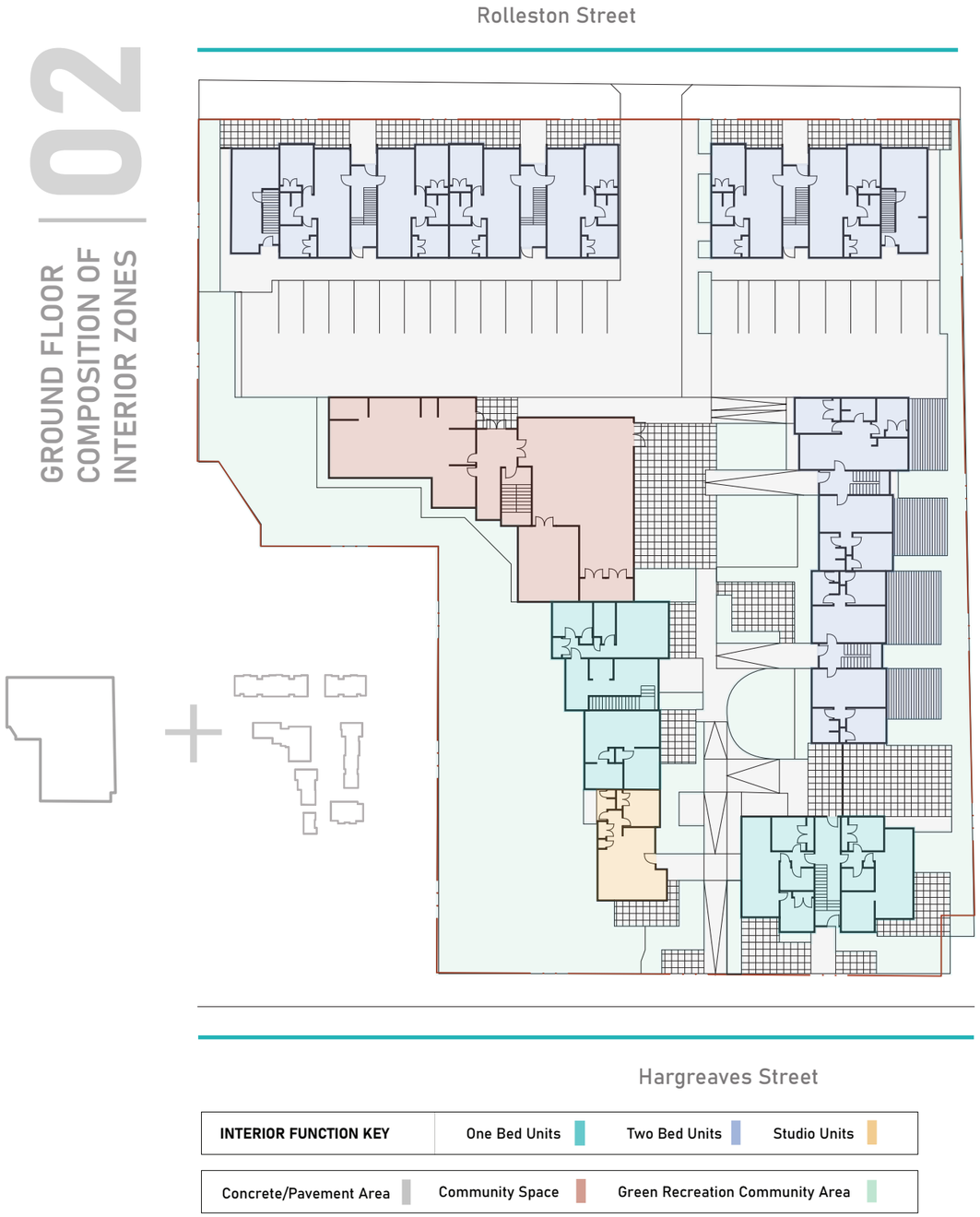
0 0.01 0.01 0.03 km

01 GROUND FLOOR COMPOSITION OF CIRCULATION



01 Analysing the human and vehicle circulation patterns among the ground floor reveals the external to internal flow paths throughout the site. Circulation pathways branch off of the central axis lines which connect movement from Rolleston St to Hargreaves St.

02 GROUND FLOOR COMPOSITION OF INTERIOR ZONES



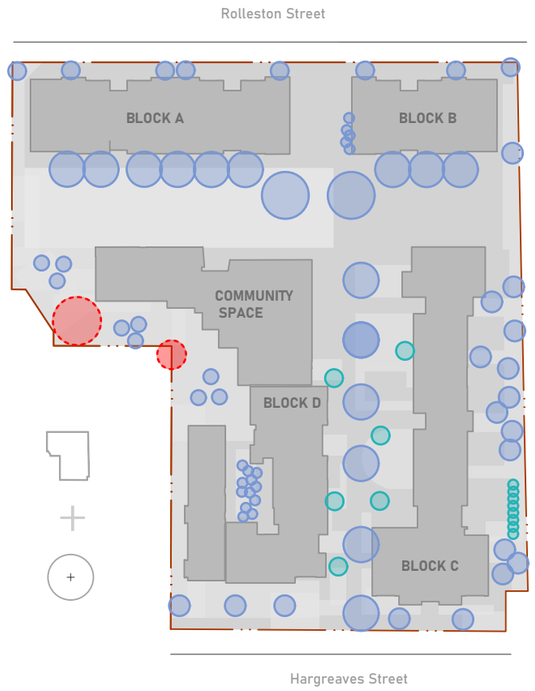
02 Analysing the composition of ground floor interior and exterior spaces presents the connection between apartment occupation types, block location, and exterior landscaping.

PART B Rolleston Housing Development Analysis

SCALE 1 : 1000

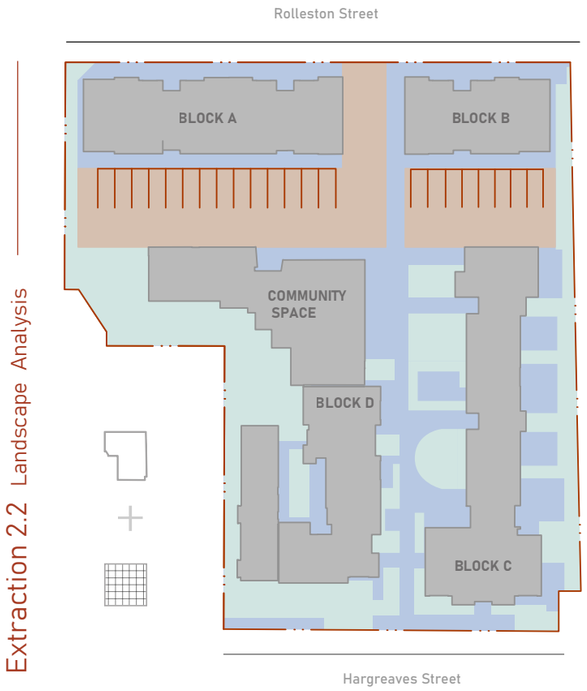
0 0.02 0.04 0.07 km

Extraction 2.1 Vegetation Analysis



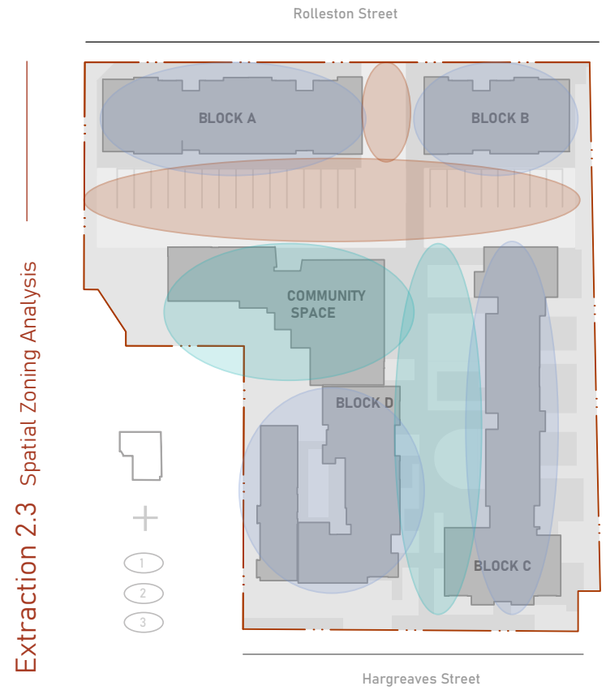
PLANTING KEY | Fruit Trees | Existing Trees | General Trees

Extraction 2.2 Landscape Analysis



LANDSCAPING KEY | Grass Area | Carparking/Driveway | Concrete/Paving

Extraction 2.3 Spatial Zoning Analysis

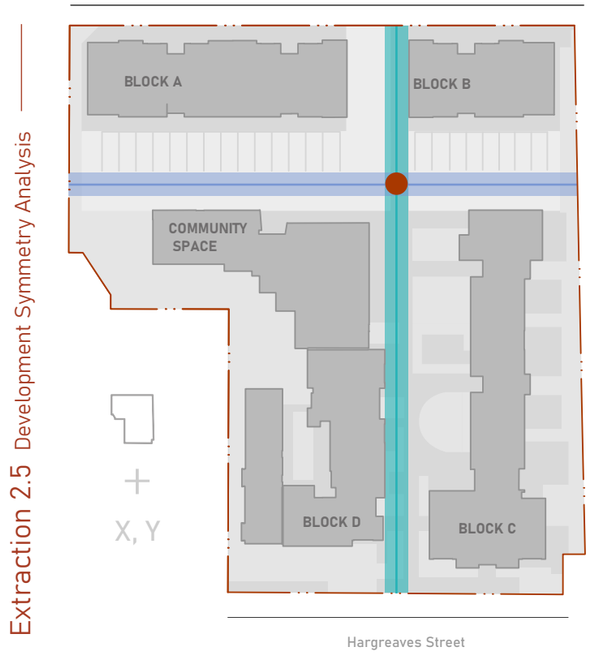


SPATIAL ZONING KEY | Private Space | Functional Space | Public Space

Extraction 2.4 Building Connection Analysis

CONNECTION KEY | Facing Facades | Building Connectivity | Sight lines

Extraction 2.5 Development Symmetry Analysis



SYMMETRY KEY | Y Axis Line of Symmetry | X Axis Line of Symmetry | Central Intersection

2.1 Vegetation on the site, specifically trees, allow for an increased green presence. Additionally few of the trees provide fruit for the community, fostering connectivity and sustainability.

2.2 Extensive landscaping on the site transform the site to create a functional, practical, usable space with a degree of green porosity. The landscaping creates community space interactions.

2.3 Despite the development having a public housing target, public spaces are essential for human connection and community. These zones are located centrally on the site for optimal space use.

2.4 As the public housing development holds numerous tenants who desire a level of privacy, lines of sight need to be carefully designed. These connections are spread across communal spaces of the site. Lines of sight reach across the carparks for tenant security.

2.5 A sense of symmetry on the site creates balance and clear axis of movement and spatial orientation. A central point of connection falls evenly between all of the structures along the x and y axis.

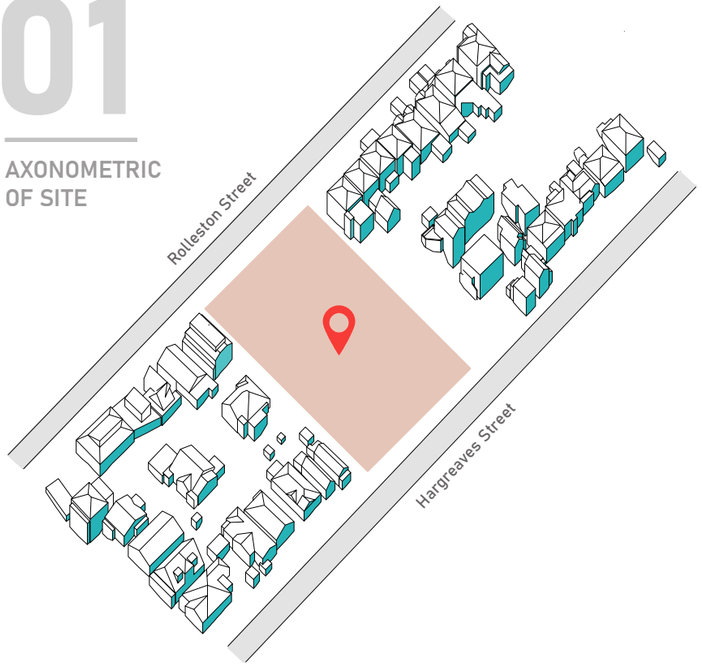
PART B Rolleston Housing Development Analysis

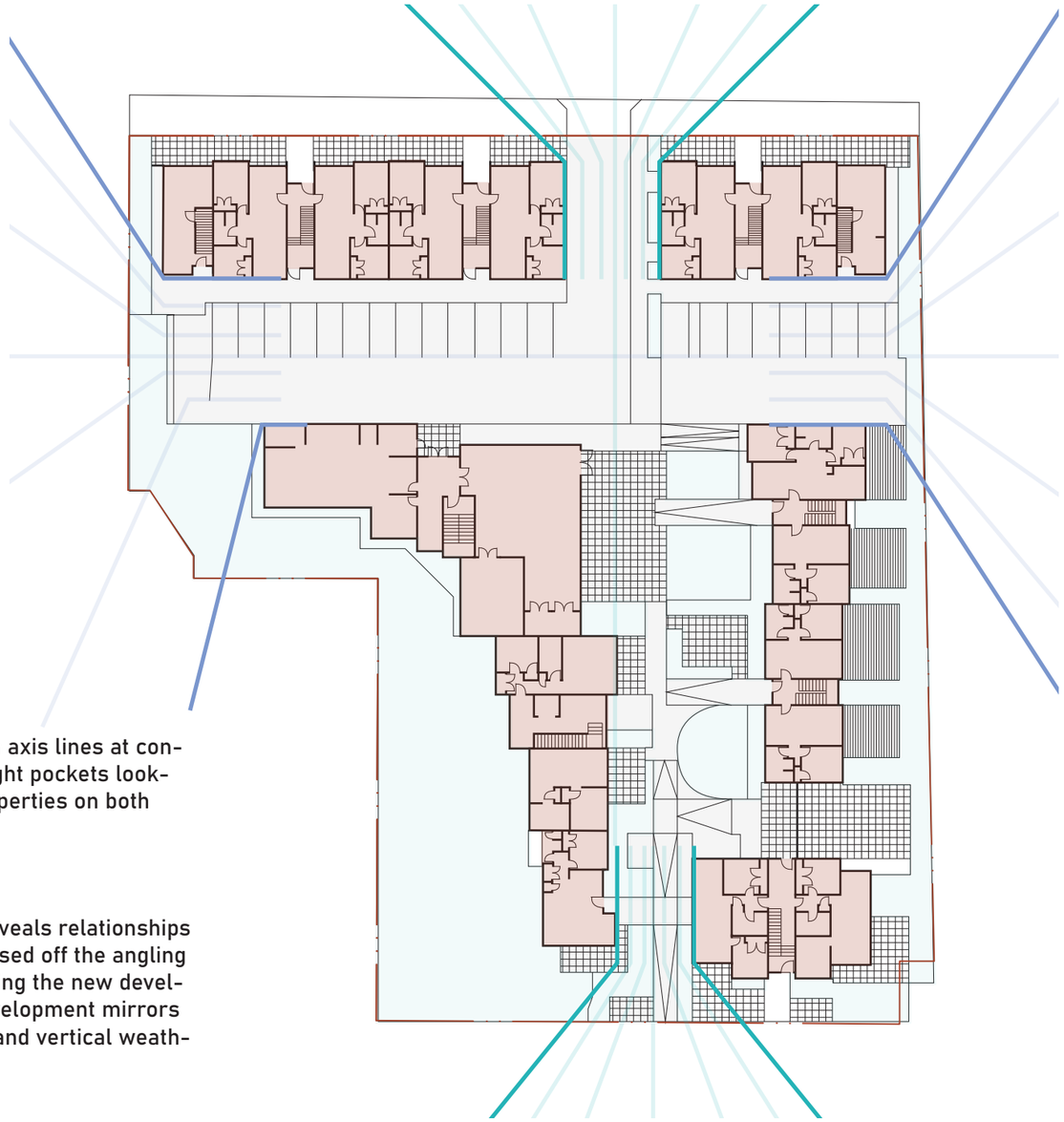
SCALE 1 : 400

0 0.01 0.01 0.03 km

01

AXONOMETRIC OF SITE





The Rolleston development holds the largest property boundary on the street, which makes in a central focus of the streets community.

Lines of Sight on Rolleston Development

The Rolleston development is arranged on two main axis lines at connected right angles. This produces four primarily sight pockets looking offsite. These lines of sight face neighboring properties on both Rolleston and Hargreaves Street.

2.6 Analysing the Rolleston Development structure across a wider scale of the surrounding streets buildings reveals relationships between the new design and the pre-existing neighboring buildings. Rolleston street forms a gradual hierarchy based off the angling slope of the topography. This creates a sense of uniformity and cohesion across the Rolleston street facade, allowing the new development to tie into the Mount Cook community. Continuing the pitched Victorian style roof on the public housing development mirrors that of the neighbors, and ensures the gradient is continued. Additionally, surrounding buildings utilise horizontal and vertical weatherboards as a primary cladding, which inturn motivated the cladding choice of the new design.

Rolleston Street Elevation

PART C Urban Design Evaluation

01 | RESPONDING TO THE NATURAL ENVIRONMENT

WELLINGTON CITY COUNCIL RESIDENTIAL DESIGN GUIDE

1.1 Responding to Whakapapa of Place

- The site's natural form
- The history of the site's development

1.2 Vegetation and Planting

- Planting within new development of appropriate mature scale when fully grown and is suitable
- Existing trees should be retained

1.3 Carbon Reduction - Natural Environment

- Planting specimen trees to provide shade, to reduce the overall heat island effect of the city.

1.4 Designing for the Topography

- A site-specific response to design that works with the land helps maintain visual amenity and an authentic sense of place

+

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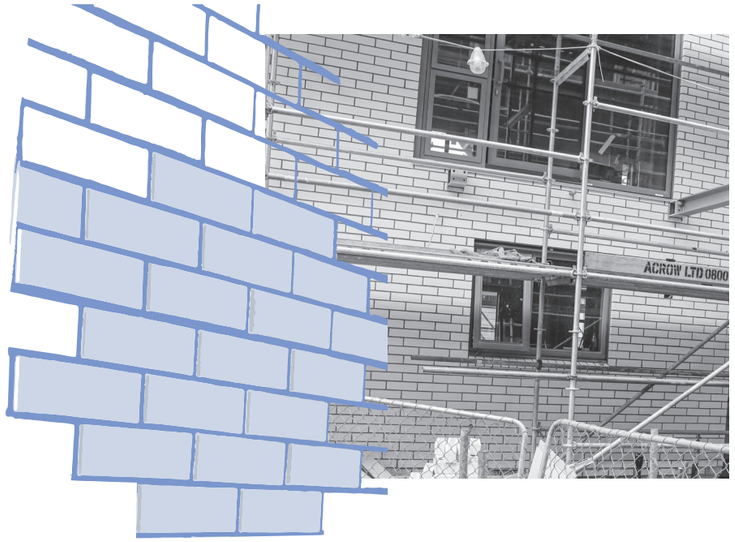
1.4 Designing for the Topography

\+ The new development was designed to the sloping topography of Mount Cook, specifically the gradient of Rolleston Street. The development follows to gradient of the ground and roofine of pre-existing neighboring buildings

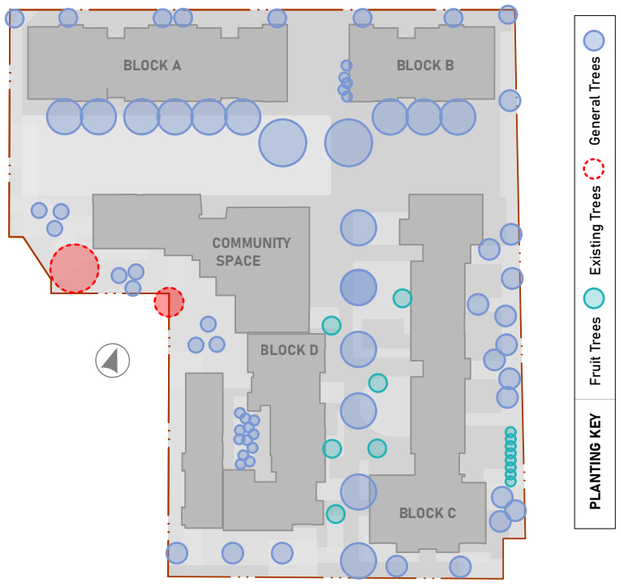
1.1 Responding to Whakapapa of Place



\+ The new development responds to the history of the site. The site previously was a social project in the 40's made of brickyard, and therefore inspired the choice of brickwork as a exterior cladding and interior feature wall material in the new design.

1.2 Vegetation and Planting + 1.3 Carbon Reduction - Natural Environment

SCALE 1:400



\+ The new development was able to maintain two pre-existing trees and protect their prosperity throughout construction works. Additional trees are to be planted on the site to enhance the landscape in an appropriate scale.

Selected Non-Fruit Trees for Planting

\+ Trees aim to provide shade to reduce the heat island effects of wellington while simultaneously providing green aesthetic. The vegetation aims to absorb carbon emmisions and create a welcoming soft landscape.

PART C Urban Design Evaluation

02 | EFFECTIVE PUBLIC-PRIVATE INTERFACE

WELLINGTON CITY COUNCIL RESIDENTIAL DESIGN GUIDE

2.1 Ground Floor Interface and Facade

- Give a sense of human scale
- Contribute to the adjacent street's amenity, vibrancy, and safety.
- Ensure the site layout orientates residential units to face communal open space of the development.
- Ground floor residential must have a strong public-private threshold, and utilize internal design and landscaping.
- Developments with wide street frontages should provide frequent pedestrian connections to the street.

2.2 Facades

- Provide visual interest on new facades, articulating or eliminating wall surfaces that are featureless or plain

2.3 Fencing

- Ensure front fences and boundary walls enable people in the dwelling to see out to the street.

2.4 Passive Surveillance

- Maintain visual connections between building interiors and the public realm to ensure passive surveillance is achieved.

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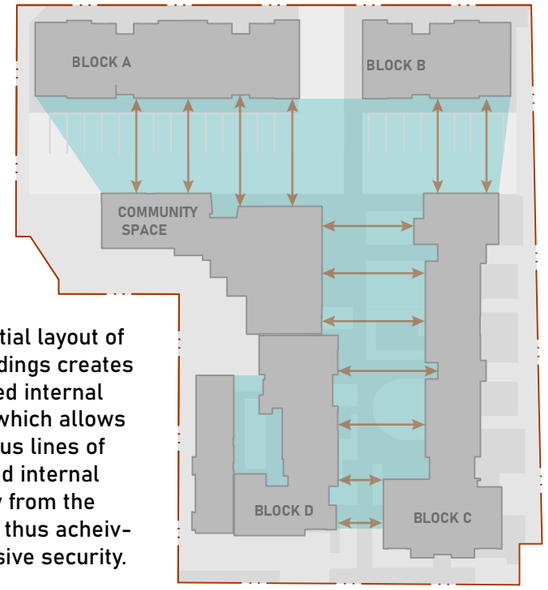
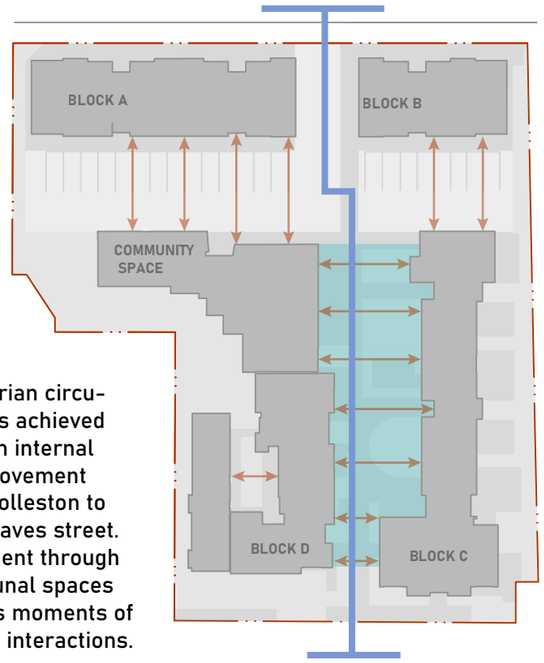
2.4 Passive Surveillance



The spatial layout of the buildings creates sheltered internal zones, which allows numerous lines of sight and internal security from the streets, thus acheiving passive security.

2.1 Ground Floor Interface and Facade

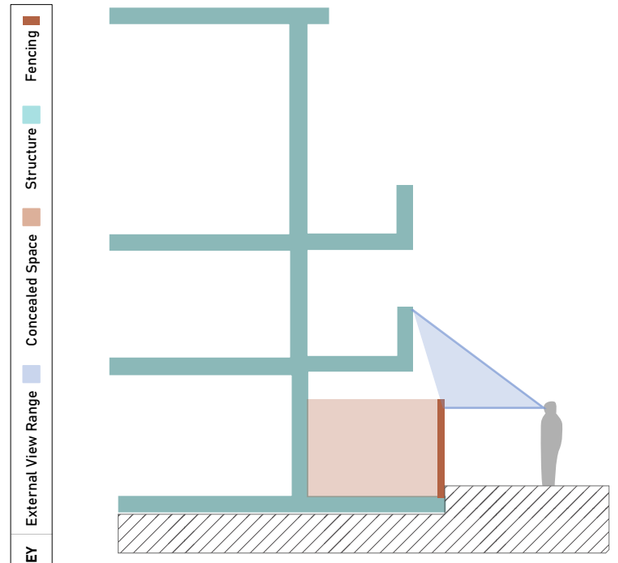


Pedestrian circulation is achieved through internal path movement from Rolleston to Hargreaves street. Movement through communal spaces creates moments of vibrant interactions.

2.2 Facades

The new development introduced a design that has interesting exterior form and cladding variety to create visual stimulation of the public and residents. Keeping a sense of continuity across the structures, while introducing small varities in configuration produces balanced facades.

2.3 Fencing



Slatted upper fence to allow for natural light and solid lower fence to achieve privacy from the public street view.

PART C Urban Design Evaluation

03 | WELL-FUNCTIONING SITES

WELLINGTON CITY COUNCIL RESIDENTIAL DESIGN GUIDE

3.1 Connections for people

- Create new publicly accessible pedestrian links through a site
- Place windows from occupied spaces to overlook pedestrian routes to ensure passive surveillance is achieved
- Pedestrian-only routes should be wide enough for two people pushing a stroller to pass each other comfortably

3.2 Vehicle Crossings

- The frequency, design and width of vehicle crossings must not undermine the pedestrian experience of the street

3.3 Grouped carparking and shared access at grade

- Ensure that parking or vehicle maneuvering areas provide pedestrian access that differentiates safe walking paths.
- Car parking must not be located at the street front.
- Carparking should be grouped to improve frontage relationships

3.4 Legibility

- Provide shared internal circulation within developments that are efficient, convenient and understandable.

3.5 Carbon reduction

- Designing spaces to facilitate easy access to and from nearby public transport stops or mass transit stops.

3.6 Communal open space

- Have a direct or easy connection to all dwellings.
- Be located and oriented to receive sun and shelter at times of highest use
- Provide communal spaces for social interaction and outdoor activities.

3.7 Balconies

- Provide passive surveillance over streets and access ways while obtaining an appropriate level of privacy
- Optimise exposure to sunlight and are sheltered from wind and rain

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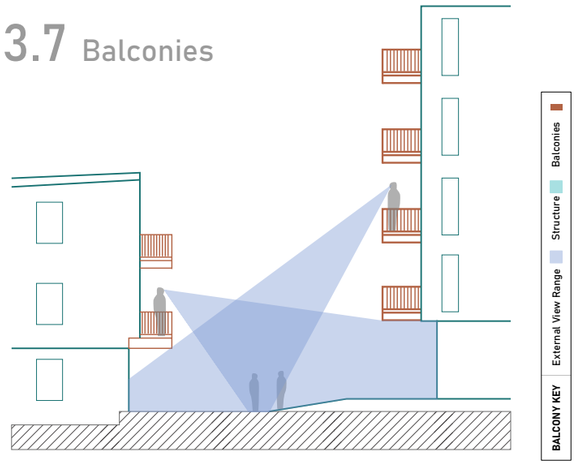
3.7 Balconies

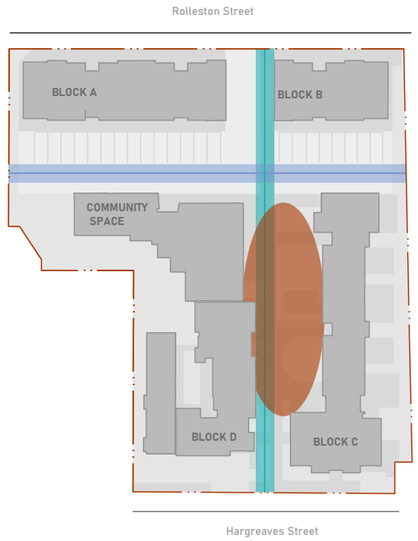


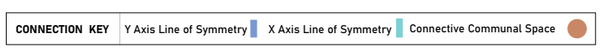
The spatial layout of the buildings and internal balconies of the apartments creates protected internal zones, which allows numerous lines of sight for security.

3.6 Carbon Reduction

The close proximity of many bus stops promotes the use of public transport in the face of carbon reduction. Cheaper, environmental transport is being encouraged by the development in the efforts to move away from individual transport of cars.

3.1 Connections for people + 3.6 Communal Open Space + 3.4 Legibility



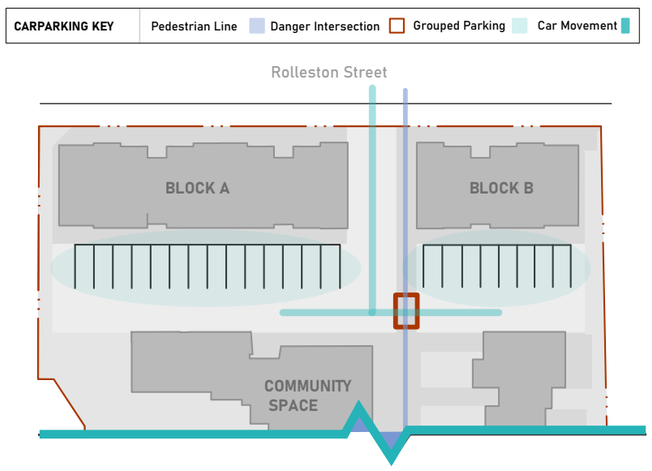


The site is arranged around two linear axis which form at 90 degree angles to create a uniform, balanced sense of logic in the plan. This allows for legibilty of space when naviagting the structures.

The central communal space is the heart of the spatial layout, and sparks interactions between residents in an outdoor/indoor environment. Additionally, the internal communal space promotes socialisation.

Pedestrian links between the buildings are made simple from clear human pathways.

3.2 Vehicle Crossings + 3.3 Grouped Carparking and shared access at grade



Carparking movement forms a 'T' shape which intersects the pedestrian circulation. This causes a danger zone where pedestrain safety can be a concern.

Carparking is away from the roads for security and grouped together to improve relationships and social interactions.

PART C Urban Design Evaluation

04 | HIGH QUALITY BUILDINGS

WELLINGTON CITY COUNCIL RESIDENTIAL DESIGN GUIDE

4.1 Architectural context

- Ensure the same architectural composition and roof form
- Ensure cohesive materials, finishes and textures

4.2 Architectural coherence

- Ensure the design and composition of any building has an overall coherence

4.3 Circulation

- Ensure circulation and spaces within dwellings are efficiently planned and wide enough to optimise amenity, accessibility and flexibility in use and provide legible wayfinding.

4.4 Communal Internal Amenity

- In large multi-unit developments, provide a functional multipurpose internal communal room to be utilised for social gatherings

4.5 Accessibility

- Ensure developments are inclusive of people of all ages and abilities, including the ageing population, children and pregnant women or parents with infants and toddlers.

4.6 Carbon reduction - buildings

- Consider compact housing typologies that are more en ergy efficient, such as terraced houses or apartments.

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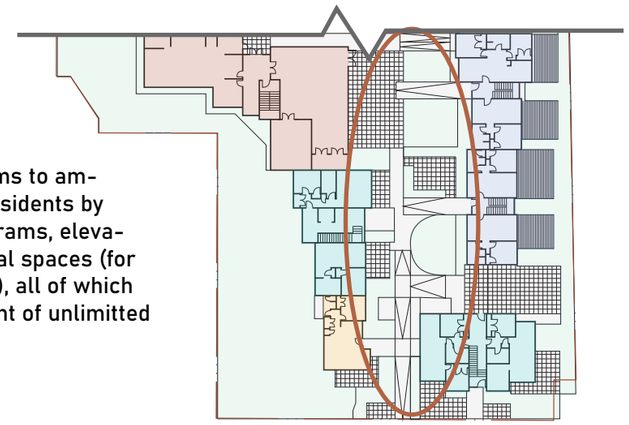
4.5 Accessibility

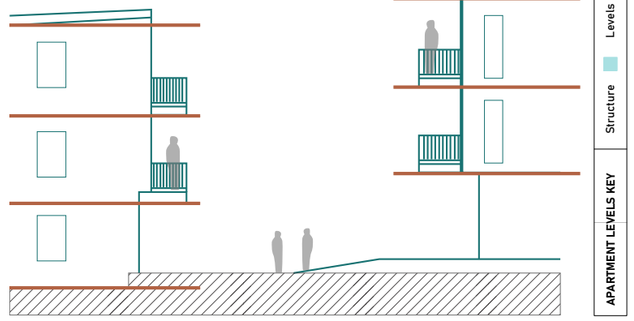


The public housing aims to am-modate all types of residents by supported living programs, elevators, ramps, communal spaces (for emotional connection), all of which fosters an environment of unlimitted accessability.

4.6 Carbon Reduction - Buildings

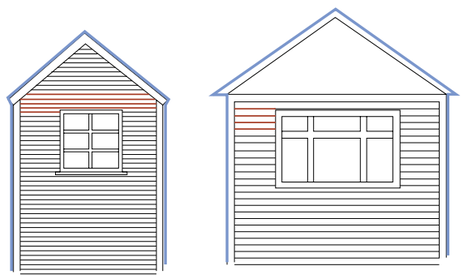
The public housing development embodying the structural typology of an apartment.

As a result the development achieves medium density housing, which allows for more residential ocupants on a smaller land footprint.



4.1 Architectural Context + 4.2 Architectural Coherence

Rolleston Building Facade



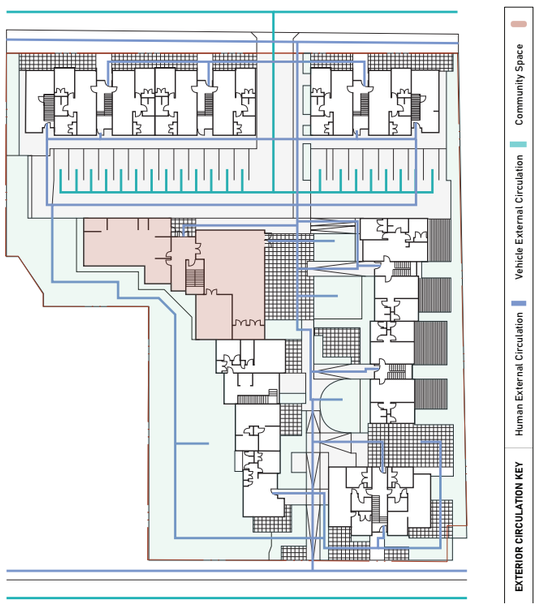
Neighboring Building Facades

The new Rolleston development ensured cohesive design through incorporating the style and forms of pre-existing surrounding buildings.

The use of weatherboard cladding (horizontal and vertical) are used both in neighboring builings andd the Rolleston Apartments.

Continuing the pitched Victorian style roof on the public housing development mirrors that of the neighbors, and ensures the overall roofline gradient is continued.

4.3 Circulation + 4.4 Communal Internal Amenity



By providing a large internal community space, that is accessable for all residents and the direct community of Mount Cook (non-residents), a sense of unity and socialisation is built which can be essential for people living in singular complexes.

Human circulation throughout the ground floor of the structures is based off of the two linear axis's from which sub-movement breaks off of. Notable circulation (of public and private) through the site from Rolleston and Hargreaves street produces increased engagement in the communal spaces (outdoor and indoor).

Vehicle circulation on site is simple and accessable. The 'T' zone intersection between entrance and grouped parking is effective and has minimal disturbance to pedestrians.

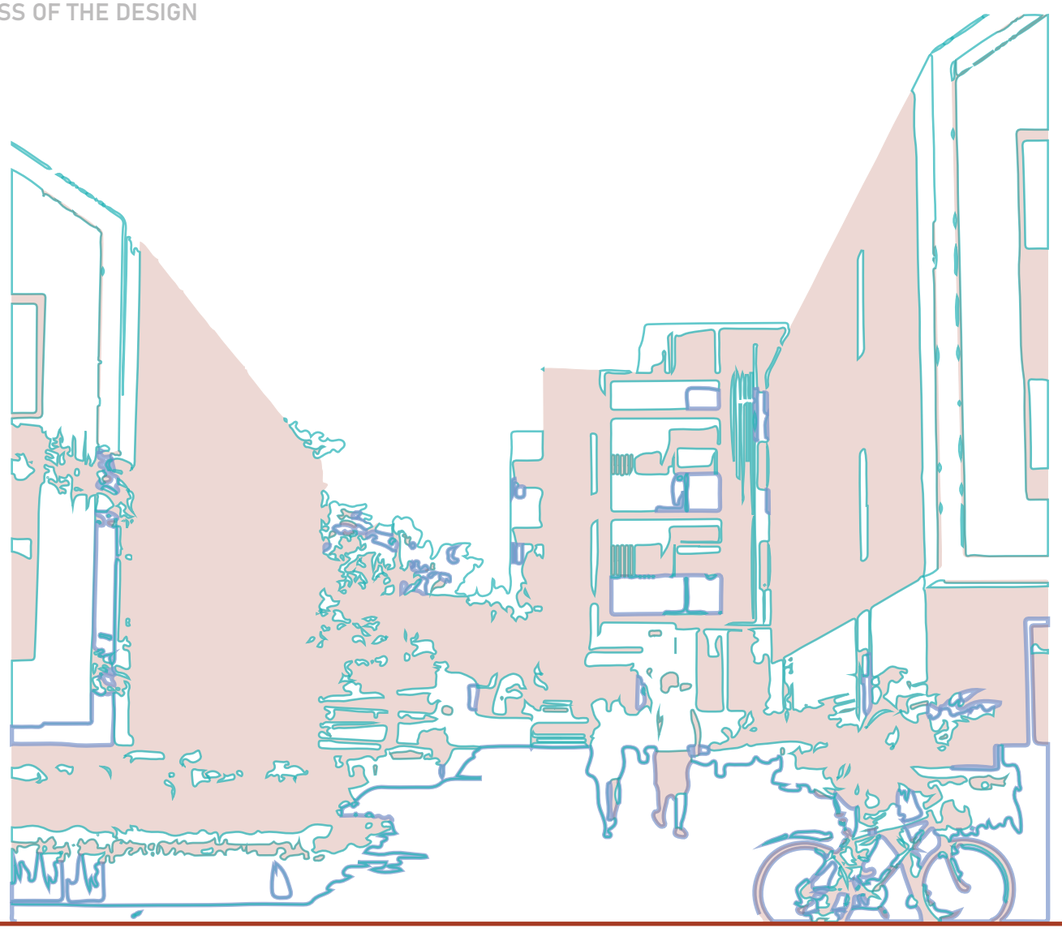
DESIGN REFLECTION

05 | FINAL CONCLUSION ON ROLLESTON APARTMENTS

ABRIDGING SUMMARY OF THE SUCCESS OF THE DESIGN

CONS OF DESIGN

- Lack of Connection to Mana Whenua
- Minimal Connection to Whakapapa of Site
- Car Movement and Pedestrian Circulation Intersects
- Insufficient Sustainable Presence
- Limitted Carparking Compared to Number of Residents



PROS OF DESIGN

- Communal Spaces to Foster Social Unity
- Vegetation and Planting (green presence and carbon reduction)
- Design to the Topography
- Unity and Cohesion with Surrounding Buildings
- Passive Surveillance
- Effective Fencing and Balconies
- Human Connection
- Circulation
- Medium Density Housing
- Accessability
- Proximity to Public Transport (carbon reduction)
- Accomodates for various lifestyles
- Sense of Human Scale

The overall analysis of the Rolleston Public Housing Development emerges as viable and positive for the majority. The design is effective, cohesive and appropriate for the site and programme of the structures. When conducting a details comparison of the design to the Wellington City Council Residential Design Guides, there is significant corrolation. The architecture, interior, landscape and structural integrety mirror the design guides (with only a few significant missed points). Despite all the overarching positives, the failure to incorporate mana whenua and whakapapa connection is a significant lack in the design.

Overall, the design can be evaluated as a successful embodiment of medium density housing in Mount Cook and will benefit the community of Wellington.