

TITLE: The Liveable Superblock

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1.0

ABSTRACT

Driven by the need to use our resources sustainably, increasing density is a viable option. Doing this in an already established city is complex. The models of greenfield development on the fringes of the city or piecemeal infill development is not satisfactory because it does not create a coherent 'whole' city. This project proposes creating superblock development which provides for a mixture of uses and allows buildings of varied typology to stand in relationship with each other in such a way that public place at human scale is developed in addition to private space. In this way density is achieved without losing the characteristic of the indoor outdoor relationship we expect in our environment. This also provides a platform for interaction between people which may develop a sense of invigoration and community. The site chosen for this project is a rundown area on the fringe of the central city and therefore an ideal position to initiate a wave of development outward toward the outer fringes of the city.

*"Human beings are resourceful. Adaptiveness is the essential human quality, enabled by self-conscious intelligence."*¹

Lebbeus Woods

¹ Lebbeus Woods, "Slums the problem," accessed October 10, 2013, <http://lebbeuswoods.wordpress.com/2008/01/18/slums-the-problem/>

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3.0

PREFACE

As the population of Auckland grows, a variety of people, both from within New Zealand and immigrants settle in Auckland. They either integrate into existing communities or form separate enclaves. Immigrants to new cultures tend to find a group of fellow countrymen and often function in relative isolation from the new country which can prevent a re-examination of their own values and belief systems. An alternative to this separation is to mix with people from the host culture and allow this experience to change what you believe and how you operate in a community. This exposure to others is also a factor for people who have come from another place in New Zealand and often from environments other than dense urban environment.

The term “third culture kids” was coined by sociologist Ruth Hill Useem in the early fifties after she spent time in India with her children accompanying her. Initially the term was used to refer to the process of how her children were learning to relate to another culture. However in time the term “Third Culture Kids” (TCK) was used more widely to refer to children who accompanied their parents into a different culture and had to adapt to growing up in and relating to a culture other than their own.² In Auckland there are many young people who are born to parents from foreign cultures, sometimes even two different ones. These young people rub shoulders on a daily basis with people from a variety of cultures. The process of integration of culture comes naturally to them. A more painful process, but one that is possible, is where adults who grew up with a primary culture allow the exposure to people from other cultures, happening naturally in the city, to cause them to review their own beliefs and cultural values. The changes that follow rely on how much they allow themselves to be exposed to other cultures and how much they are open to allowing this exposure to affect their own belief system. It does not mean that old cultures are discarded, but more flexibility allows participation in a multicultural urban environment. Each person has control over where they place themselves on the gradient of interaction versus non-interaction with others.

The sociologist and philosopher, Richard Sennett, states the goal which this generation has vaguely aimed for in its search for a ‘community’ is manifested in a “freedom to accept and to live in disorder”.³ This disorder is a transition phase the younger generation will go through in order to establish a unique culture for Auckland (in this case) which is inclusive of aspects of many cultures. This journey of exploration is described by the psychoanalyst, Erik Erikson when he developed a theory of identity formation which deals with the development of how the

² TCK, “What is a Third Culture Kid?”, accessed May 30, 2013, <http://tckid.com/what-is-a-tck.html>

³ Richard Sennett, *The Uses of Disorder: Personal Identity and City Life* (London: Yale University Press, 2008), xxiv.

'self' functions in a social environment, and the impact of social experience over the lifespan of a person. This theory was further developed to show adolescence is a time for developing identity status by exploration and ultimate commitment.⁴

Since all such social development usually occurs in the environment of buildings, the physical forms of the city provide the platform for the events of development within a place. The question for architects is what does architecture contribute to this process? What aid does it supply by space and form and what if any, are ways in which architecture distorts, blocks or denies this process? If this is an aspirational social objective where can architecture be identified as providing means for these (social) elements to happen?

"Each city must have its own heart or nucleus or Core ... somewhere, whether planned or not planned, a place exists that provides a physical setting for the expression of collective emotion."⁵ The increasing size of cities driven by increased urbanization makes this single collective emotion difficult to achieve and calls for more than one nucleus. Rearranging this idea of a core slightly, many nuclei, expressing collective emotion of varied quality, may enrich the experience of a city.

This project aims to explore how urban architecture can provide within one such core a multiplicity of places for varying levels of social interaction and a means for each individual to control their level of participation in this social interaction recognizing first, that the monoculture of the city's tradition is rapidly changing to absorb new communities.

⁴ Lise Claiborne and Wendy Drewery, *Human Development: Family, Place, Culture* (North Ryde, NSW, Australia: Mc Graw Hill, 2010), 227.

⁵ Jacqueline Tyrwhitt, Jose Sert and Ernesto Rogers eds., *Congres Internationaux d'Architecture Moderne, The Heart of the City: Towards the Humanisation of Urban Life* (London: Lund Humphries, 1952), 103.

4.0

INTRODUCTION

The population of Auckland is growing at a phenomenal rate. In order to keep up with housing supply and do so at an affordable rate, it is necessary to rethink how the urban fabric is designed. There are many brownfield sites within the city boundaries that need to be redeveloped to ensure optimal use of land within the existing boundaries of the city, before consideration can be given to allow greenfield development on the fringe of the city. To allow urban sprawl to continue, when these brownfield sites, often close to the City Centre, are left in a rundown state, is not a hallmark of careful management of our resources. The knock-on effect of sprawl on the infrastructure, for example the motorway system or rates, is too high a price to pay if we want to keep our city affordable.

RESEARCH QUESTION:

Is architecture able to contribute to sustainable management of our resources by the process of regeneration of a rundown area?

5.0 METHODOLOGY

The following methodology was used to investigate the basis for and development of the project.

1. SURVEY:

A selective review of literature was done to inform the project, using library and on-line resources. The review includes aspects of the history of urban design as well as literature relating to general urban planning theory to gain an understanding of the concept and definitions of density. Materials and references drawn from this review are noted throughout the text.

2. QUANTITATIVE DATA ANALYSIS:

Data was gathered from Statistics NZ Census website to inform the demographics of the wider city and applied to the project.

3. SURVEY:

An investigation into the history of Auckland and in particular the site in Morningside as well as the management structures of the Auckland city was done. This informs the political climate in which this project development takes place.

4. SURVEY:

A site analysis was conducted to inform the physical qualities of the site. Particular features of existing buildings, landscape, and condition of the present uses on the site are summarized in the text. Environmental conditions – road use intensity, rail traffic, pedestrian activity, etc., – are also recorded, alongside site topography and micro-climatic conditions.

5. CASE STUDY:

A selection of precedents identified in the literature review were analyzed to inform aspects of design. These examples varied from emotive qualities to ideas about form, and are drawn from a variety of housing cultures.

6. QUALITATIVE ANALYSIS:

A review of relevant literature to gain an understanding of human development, behaviour and culture.

6.0

DEFINE PROJECT

LITERATURE SURVEY = URBAN DESIGN

A site is a place of social interaction. Architecture may enhance or hamper this social interaction. In order to allow people to value the architecture of a site, the site should provide in its master planning not a blueprint, but a canvas. It should be designed in such a way that it allows people to be creative in their use of areas and this in turn will revitalize the site area. Flexibility in how spaces are used is important in keeping cities alive as over determination of visual forms and social functions have a strangulating effect on how user friendly an environment is.⁶

A range of spaces should be provided in order for different types of social interaction to take place. Further to this, within each of these settings a range of possibilities of intensity of interaction should be possible. (Figure 1)

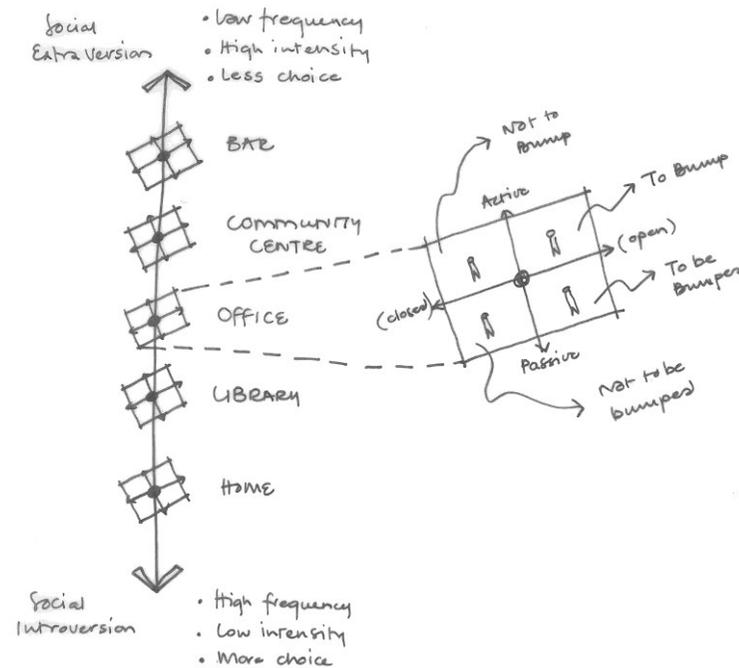


Figure 1: Gradient of interaction

⁶ Richard Sennett, quoted in Edward Ng, *Designing High-density Cities* (London: Earthscan, 2010), 46-47.

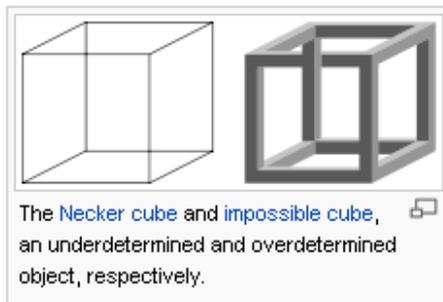


Figure 2: Ambiguity⁷

The condition of ambiguity provides opportunities for interpretation and personalization of space by under determination of boundaries.⁸ (Figure 2)

Small incremental changes with careful observation of the effect each small change makes, can guide the development of a place in such a way that it is most useful for people. They will value the place more because they have participated in the process and have, by their behaviour, guided how the development of the node took place. The architect Nabeel Hamdi describes how a bus stop, in a slum in Sri Lanka, can be a facilitator for the emergence of interaction.⁹ At first the bus stop, which is a natural meeting spot, is enhanced by better lighting, seats, shading trees. This enhanced quality generates a vendors market attracted by the captive audience. From here, better provision is made for the vendors to ply their trade. A place is taking shape, which in turn attracts children to this safer environment. By setting this idea framework, not rigid design, the conditions are created for people to cluster together and the emergence of a variety of interactions may take place. The development satisfies the needs of people and design does not impose on people the way in which they should use a place.

The architect Christopher Alexander states there is a definite process to produce a space that has 'one-ness' or undisturbed 'whole-ness' and he describes fifteen kinds of 'glue' that produces this whole-ness.¹⁰ These fifteen principles can provide guidelines for producing space. The master plan of this project uses these principles to achieve unity in the project. In order not to create sameness, there is no repetition of parts, but care is taken to interlock parts and gradually move through a sequence of spaces and buildings. In this manner the whole master plan is connected together. This variety also allows for a possibility to link the architecture on the site to architecture of varying types in the surrounding area and thereby allow changes to happen around the site over time, without generating a sharp contrast. Design ideas and

⁷ Wikipedia, accessed October 13, 2013, <http://en.wikipedia.org/wiki/Ambiguity>

⁸ Ibid.

⁹ Nabeel Hamdi, *Small Change: About the Art of Practice and the Limits of Planning in Cities* (London: Earthscan, 2004), 73-76.

¹⁰ Christopher Alexander, *The Nature of Order: An Essay on the Art of Building and the Nature of the Universe. Book one: The Phenomenon of Life* (Berkeley: Centre for Environmental Structure, 2002), 144-146.

materiality are repeated, but also in a graduated manner so as to not become the one defining factor in the area. This provides a rich texture of materials, shapes of individual buildings, public space and varying streetscape, gradually defining the components of the master plan. A tone of urban density may be set here and this is certain to have an effect on the surrounding area.

When interlocking happens between parts, they have an effect on each other. Ambiguity arises when viewing these connections from different vantage points where each part can be interpreted either by its own characteristics or that of the interlocking¹¹ parts. Where these ambiguous edges connect, one might say the architect Gordon Cullen's description of serial vision¹² where you move through a city, eyes pointing in one direction, your brain interpreting what you see and tying it together to make sense or personalise it, is how this interlocking ambiguity produces whole-ness. The whole is made up from parts and each part contributes its characteristics to the whole. The whole can therefore be understood by knowledge of the parts. The parts also form a hierarchy in which rules of relative significance apply. This relative significance is ambiguous and open to interpretation when one moves through the space. It therefore is not the thing itself, but the interpretation thereof which gives it value or meaning.

What Cullen describes as sudden contrasts, could be interpreted together with what Alexander describes as centres¹³. These contrasts form points of interest that attract the eye and propel one along, leading to views that may be interpreted. When you stop along the way they could also be calm points for eyes to focus and rest upon.

By breaking up the site into smaller parts and by manipulating these parts in size and the relationship between them, a layering of hierarchy develops which in turn forms a whole. This includes connecting and internal roads and the quality of the movement they generate and the view they lead the eye to. Managing the composition of the components of design creates a rich patina of relationships.

Cullen explains that the composition, formed by buildings in relationship, is affected by scale.¹⁴ Spatial experience may be controlled by controlling this scale. In a city which has higher density, care should be taken with this composition to ensure what is expressed enhances the intention of the project. By compressing the proximity between buildings the experience of people in a space may be intensified. Not just in the way people relate to each other in a smaller space, but also the way people will react to the materiality of a building. It becomes less about what you see and more about what you feel in a space. In a medieval city where the city is compressed into a confined space, the material fabric of a church becomes more relevant than the importance of the building as a monument to a particular denomination.

¹¹ Free dictionary, accessed October 13, 2013, <http://www.thefreedictionary.com/interlock>

¹² Gordon Cullen, *The Concise Townscape*, (Oxford: Elsevier, 2009), 17.

¹³ Alexander, *The Nature of Order*, 54.

¹⁴ Cullen, *The Concise Townscape*, 7&79.

An example of the control of this composition is found in the undulating form of Japanese urban landscapes. In Gokiso, one of the wards in Nagoya city in Japan, superblocks are formed by dividing the city into a grid delineated by wide roads. Grid planning is an ancient method both in Japan and China from where it originated.¹⁵

The terms 'hard shell, soft yolk' is used by Shelton (2012) to describe the street fabric of these Japanese superblocks.¹⁶ (Figure 3)

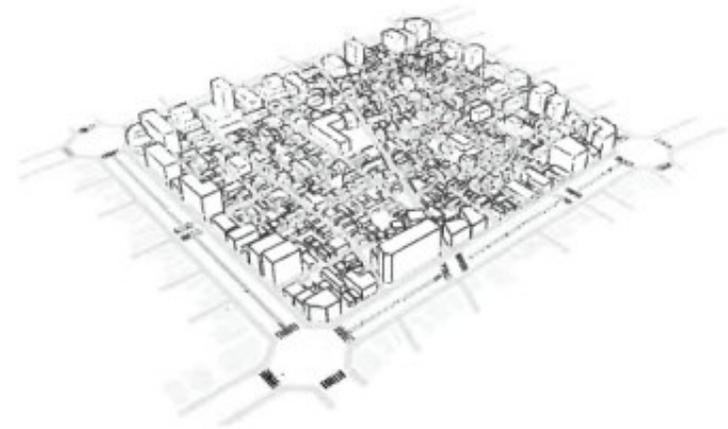


Figure 3: Shell and yolk appearance of superblock¹⁷

The same hierarchy of transition from hard to soft is also used on the transition from grid roads to protected internal streets. (Figures 4-7) As the streets and lanes penetrate the block in depth, there is a change both in street width and flattening of height profile.¹⁸

The cross city roads define the outline of the superblock. (Figure 4)

The first level of streets internal to the superblock crosses over the boundary of the superblock to adjacent superblocks. The pavements on the first level of internal streets within the superblock have the same width and quality as the pavements on the wide, cross city roads. This links superblocks together in a latticework of finer streets. (Figure 5)

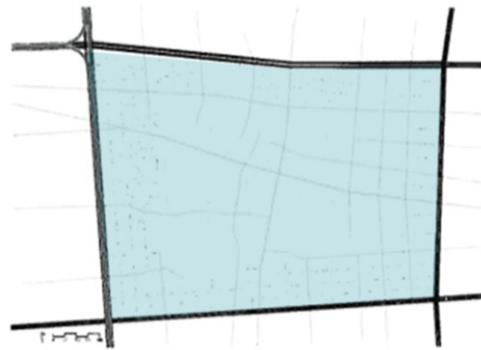


Figure 4: Cross city roads define the superblock¹⁹

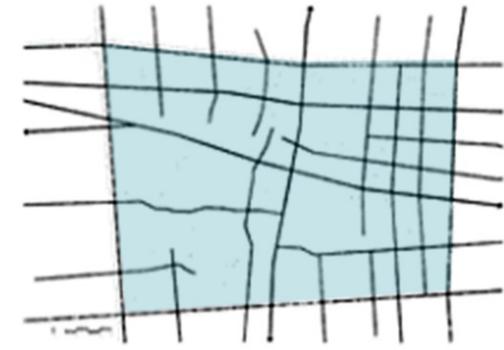


Figure 5: First level streets crossing into adjoining superblocks.²⁰

¹⁵ Barrie Shelton, *Learning from the Japanese City: Looking East in Urban Design* (New York: Routledge, 2012), 142.

¹⁶ *Ibid.* 141.

¹⁷ *Ibid.* 138.

¹⁸ *Ibid.* 153-159.

¹⁹ *Ibid.* 154-156.

²⁰ *Ibid.* 154-156.

The second layer of streets in the superblock starts from the edge of the superblock, but does not cross over to other superblocks. (Figure 6)

The internal streets do not touch the edge of the superblock and are the most intimate streets. This is reflected in their width, height of buildings and lack of pavements. (Figure 7)

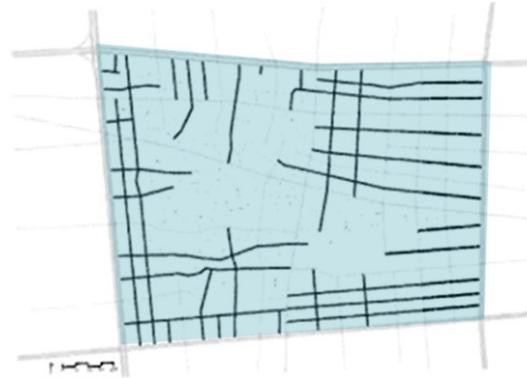


Figure 6: Streets not crossing into adjoining superblocks²¹

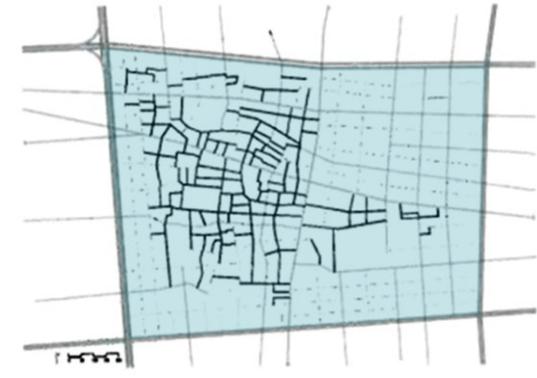


Figure 7: Internal streets²²

In the same hierarchical way, the activities that take place in the layers from 'shell' to 'yolk' are affected by the built form and at the same time the built form is an expression of the activities that take place in 'shell' or 'yolk' conditions. The social activities that take place are regulated by these architectural design strategies.



Figure 8: Oku cell within superblock²³

Even within superblocks, cells that display the hierarchical characteristics described above are possible. These "urban oku", a term used by the Japanese architect Fumihiko Maki to describe these cells, display primary and secondary (greater) levels of depth²⁴. (Figure 8) This implies that such a hierarchy can be applied in a variety of small components of the city.

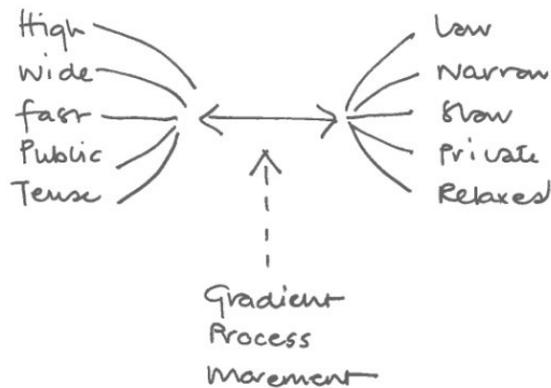
²¹ Shelton, *Learning from the Japanese City*, 154-156.

²² *Ibid.* 154-156.

²³ *Ibid.* 157.

²⁴ *Ibid.* 157.

When comparing the Gokiso superblock to the result of Baron Haussmann's interventions in Paris, a similar result is seen²⁵. However in Paris, these wide boulevards were imposed onto the dense fabric of Paris in reverse to Gokiso where careful development of fine grain within a grid framework took place through a process of accrual. Another comparison in the method of development of a superblock can be made with the one suggested by Le Corbusier²⁶. Whereas the repeated pattern of superblocks, evident in the Japanese city, results in an undulating urban blanket, Le Corbusier's 'Radiant city', despite starting with a grid pattern, would leave self-contained objects in a field that do not relate to each other or the wider fabric of the city. The qualities of urban fabric that provide the possibility of an experience of the built environment is not possible if the relationship between parts cannot be read.



The relationship between parts, the graduation in street width, building height (both the ratio between parts as well as the scale/measurement of each part) and the effects of expansion or constriction this causes, may be used to express an intended level of intimacy. There is a gradient between each of these opposite characteristics and this alters the experience of people inhabiting this area.

Walking either deeper into or emerging from the Gokiso blocks becomes a gradual journey either into calm privacy or emerging from calmness into the public bustle.

Figure 9: Structure & pattern of development

URBAN DESIGN PRINCIPLES:

DENSITY:

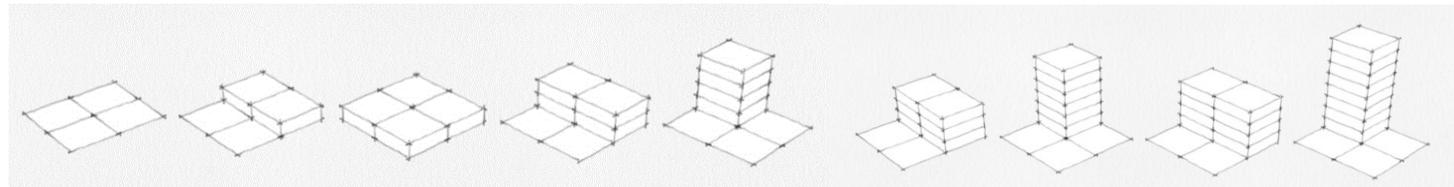
Residential density is defined as number of dwellings per hectare of land. According to AMCORD (Australian Model Code for Residential Development) net residential density "represents the ratio of the number of dwellings to the area of land they occupy including internal public streets, plus half the width of adjoining access roads that provide access, to dwelling".²⁷

²⁵ Jean Dejean, *How Paris Became Paris: The Invention of the Modern City* (New York: Bloomsbury, 2014), 209-211.

²⁶ LeCorbusier, *The Radiant City: Elements of a Doctrine of Urbanism to be Used as the Basis of our Machine-age Civilization* (London: Faber, 1967), 209.

²⁷ AMCORD URBAN, *Guidelines for Urban Housing*, (Canberra: Commonwealth Department of Health, Housing, and Community Services, 1992).

This density can be increased by vertical stacking or by making the units smaller. Stacking allows an increase in density while still providing opportunity for good amenities. The following images describe how you can manipulate site ratio and site coverage by densification. In practice this means stacking units vertically to increase dwelling number without increasing site coverage.



| | | | | | | | | | |
|--|---|-----|------|-----|-----|-----|-----|-----|-----|
| Site ratio: Ratio between gross floor area and site area | 0 | .5 | 1 | 1 | 1 | 1.5 | 1.5 | 2 | 2 |
| Site coverage: % of site area covered | 0 | 50% | 100% | 50% | 25% | 50% | 25% | 50% | 25% |

There is a need for more complex forms than standard semi-detached or short terrace form to achieve a higher or middle level density.

Auckland is not isolated in the burden placed on it by urbanization. Dealing with this growth is challenging. Vienna also experiences urban growth and the architect Gerhard Steixner states that unwelcome types of housing, low ownership rates and increasing rents place a burden on population.²⁸ He notes that bridging the gap between the reality of the constructed city and desires of people is a political issue and needs to be addressed by the careful development of urban policy. In answer to the difficult question of whether it is possible to realize the qualities of single-family housing in high-density construction, Steixner says: “Results show that typological diversity tends to decrease with increasing density, leading to familiar types of development such as slab block, perimeter block or point block.”²⁹ Careful planning is necessary in Auckland to deal with housing affordability and supply in such a way that the city provides acceptable solutions to these problems.

The architect Alexander Seidel states that anxiety about densification is not about the fact that densification is taking place, but about the quality, or lack thereof, of the solutions that are proposed to achieve density in the urban environment.³⁰ The architects Marcus and Sarkisson state that “Perceived housing density is likely to be less if visual and acoustic privacy are protected by design. For example, a lower density is more likely to be perceived if a development is subdivided into clusters of units, with only a small number of units sharing an entrance. This is

²⁸ Gerhard Steixner, *Housing Density: Department for Building Construction and Design – HB2, Vienna University of Technology* (Wien: Springer-Verlag, 2012), 10.

²⁹ Ibid. 16.

³⁰ Steven Fader, *Density by Design: New Directions in Residential Development* (Washington DC: Urban Land Institute, 2000), 1.

in contrast to the same number of units situated in one large mass having one or only a few entrances”.³¹ Maintenance of privacy may be achieved by preventing overlooking of windows, controlling noise both from neighbors and the environment. Design to allow a gradient of privacy from public to the private realm will act as a buffer, as will a design strategy of gradually decreasing the flow of people toward the area at the front door of units which in turn will also protect privacy.

44 AN UNDERSTANDING OF HIGH DENSITY

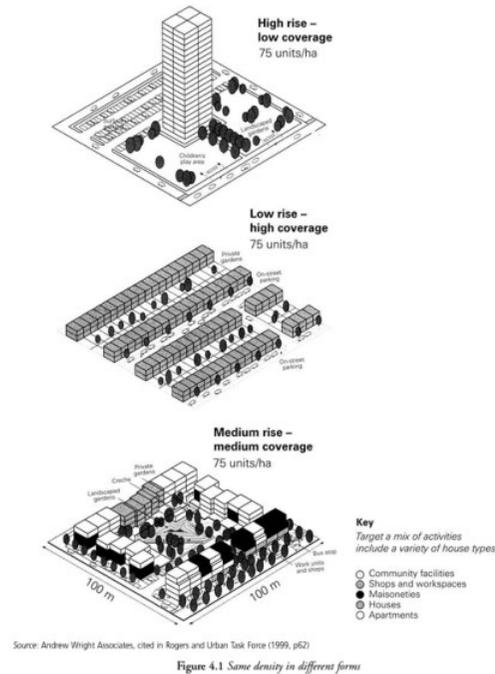
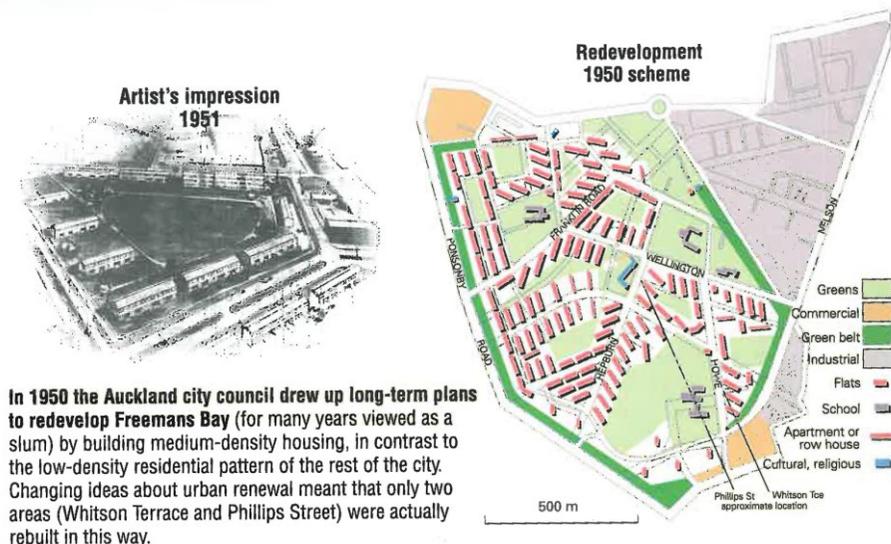


Figure 10: Same density, different typology combinations.³²

Employing a variety of building typologies will achieve the same density for a site whilst creating a different, more acceptable environment. (Figure 10)

The 1950 Auckland City Council proposal for the redevelopment of Freemans Bay, to uplift it from slum conditions, is not an ideal pattern for medium density development today. (Figure 11) In order to create a sought after environment, care should be taken with relationships between buildings to enhance the livability of the environment. Doing this is crucial if the medium density development path is to be successful and these relationships were not carefully considered in this proposal.



In 1950 the Auckland city council drew up long-term plans to redevelop Freemans Bay (for many years viewed as a slum) by building medium-density housing, in contrast to the low-density residential pattern of the rest of the city. Changing ideas about urban renewal meant that only two areas (Whitson Terrace and Phillips Street) were actually rebuilt in this way.

Figure 11: Freemans Bay proposal³³

³¹ AMCORD URBAN, *Guidelines for Urban Housing*, (Canberra: Commonwealth Department of Health, Housing, and Community Services, 1992).

³² Edward Ng, *Designing High-density Cities* (London: Earthscan, 2010), 46.

³³ David Bateman, *New Zealand Historical Atlas* (Hong Kong: Everbest, 1997), plate 75.

With mixed use a variety of amenities can be built into the program. Correct proportions of each type should be achieved to ensure the mix of activities enliven the experience of being in the area at all times. Where possible a mixture of old and new buildings can provide textural richness and show development over time.

The orientation of front and back of buildings needs to ensure the outlook from most used rooms, like living areas, does not contain unsightly areas, for example rubbish bins.

PERMEABILITY:

Permeability may be achieved by creating a variety of high quality pedestrian routes through the site. These routes should be legible. They will bring movement which in turn encourages vibrancy, natural surveillance and economic vitality.³⁴

CARS:

Some level of car access, parking (both short and long term) must also be accommodated, but not hinder flow of or endanger pedestrians. Car parking for inhabitants of the area should be accommodated in such a way that ample space is available with easy access to housing, but not highly visible.

PUBLIC SPACE:

Jane Jacobs said “the lively heart of a real town or city is always where two or more well-used pedestrian thoroughfares meet”.³⁵ With permeability flow of cars and pedestrians is encouraged. The nodes formed where this flow crosses paths, may develop into public space for meeting. Designing these spaces with the principles described by Cullen and Alexander in mind, possibilities for various types of interaction may be shaped giving people choices about how they want to interact in this space.

SECURITY:

Overlooking the street provides security and different activities over the time of day and keeps the street ‘enlivened’.³⁶ The Chinese architect and professor at Hong Kong University, Edward Ng believes access to all areas becomes more difficult or even impassable with very high density.³⁷ Careful choice of varied typologies and the relationships formed by these buildings may negate this impenetrability due to density.

³⁴ David Taylor and Christopher Alexander, “*Understanding Places*” in *The Academy of Urbanism, Learning from Place 2*, ed. Brian Evans, Frank McDonald and David Rudlin (New York: Routledge, 2011), 162-3.

³⁵ Jane Jacobs quoted in Mary Soderstrom, *The Walkable City* (Montreal: Véhicule, 2008), 80.

³⁶ Jane Jacobs, *The Death and Life of Great American Cities* (New York: Vintage Books, 1992), 37.

³⁷ Ng, *Designing High-density Cities*, 29.

APARTMENTS:

Where apartments mix with public buildings and public spaces, careful consideration should be given to the boundary between public and private. The choices regarding design made in finding a balance between contact and protection are often affected by culture and climate.³⁸ Houses in China or Japan often have a hard protective shell to keep the public realm outside altogether and form a protective barrier to an open, private courtyard with rooms situated around it. Japanese houses are small and within the house space boundaries are blurred, while the outside boundaries are defined and strangers seldom venture into these private spaces.³⁹ In this way, the inhabitants live in a spatially open relationship. In contrast dwellings in the West have a gradient from the public realm to private space that is contained within the boundary of the house.⁴⁰ Even within the house opportunities for privacy are allowed for the occupants.

³⁸ Naomi Pollock, *Modern Japanese House* (London: Phaidon, 2005), 57.

³⁹ *Ibid.*, 15.

⁴⁰ Christopher Alexander, *Pattern Language* (New York: Oxford University Press, 1977)

7.0

WIDER CONTEXT OF SITE

THE CITY

Increasingly more and more people live in urban environments. Careful provision of physical forms may contribute to ensure the city is a place where community thrives. According to English Language academic Kimberley DeFazio, culture is in its essence a way of life.⁴¹ The city is the site in which this way of life takes place. The city is both the oldest and the most modern habitat of humans; old because cohabitation has taken place for millennia and modern because it reflects contemporary lifestyles. The city developed with changes in human habitation and expressed this habitation.

The sociologist Richard Sennett describes culture as “a set of practices rather than static representations; culture is made and remade in countless small ways and occasional bursts of innovation.”⁴² Urban space is a functional space for daily life and as such will both reflect life and foster a cultural (an altered or new) way of life which in turn may enliven the city and turn it into a cultural living space⁴³. For a city to stay alive and relevant, it needs to continue to reflect change in society, and this requires a view of the city in cultural terms rather than in terms of sensory stimuli and/or the appearance of city life.⁴⁴ In ancient cities, the materiality of the city is regarded as a place for a variety of people, to labour, to take recreation, think and invent, not merely in terms of the materiality of the city itself.⁴⁵

The history and fate of Baghdad, described by DeFazio, is a reflection of what happened culturally to the people of that place; growing through the labour of the “ancient plural culture of people to the industrial ghettos of capitalism and the ruins of imperialism”⁴⁶. The creation of industrial ghettos which segregates cultures is still a factor affecting our cities today. This idea of history describing the process of what happened to a city when segregation occurs, can be a warning for us not to allow the character of Auckland to be dictated purely by financial drivers, but by the character of the people who live here. Auckland has the potential, through acceptance and accommodation of multiculturalism, to negate the negative urban effects of globalism by allowing people to form communities that know and care for one another. The forming of communities who are proactive in creating the character of their area will, in turn, shape the character of the city.

⁴¹ Kimberley DeFazio, *The City of the Senses: Urban Culture and Urban Space* (New York: Palgrave MacMillan, 2011), 1.

⁴² Richard Sennett, accessed October 14, 2013, <http://www.richardsennett.com/site/SENN/Templates/General.aspx?pageid=40>

⁴³ DeFazio, *The City of the Senses*, 1.

⁴⁴ *Ibid.*, 1.

⁴⁵ *Ibid.*, 2.

⁴⁶ *Ibid.*, 2.

The development of cities all over the world reflected the cultural way of life for that particular place. As such cities were very different from place to place. Even in a globalized world, people still want to express their way of life in the structure of their city. Unique character can make a city stand out and still provide a versatility of living situations. A more subversive urban form is called for, one that is layered and allows for diverse activity and change to take place over a period of time.⁴⁷ This will enable urban sustainability.

AUCKLAND: New Zealand context



Figure 12: View of Auckland over North Head towards Rangitoto Island⁴⁸

New Zealand at the beginning of the 19th century consisted of small rural settlements located around food resources where Maori cultivated crops. With the arrival of European settlers, other primary resources, whales, seals and flax, became more important and settlements were initially formed around these. However, over the course of the twentieth century, a shift of focus by European settlers from rural to urban changed the pattern of settlement of NZ.⁴⁹ The settlement of Auckland came about through a series of private deals made between settlers and Maori around 1835.⁵⁰

The development of Auckland came about by commercial enterprise and as a result there is still a very strong economic energy here.⁵¹ As the city grew, it developed along the ridge lines through a process of accrual. During 1929 to 1933, due to the Great Depression, many people moved away to rural areas⁵², but after the Second World War suburban sprawl became the New Zealand norm and urban areas expanded both in population and in physical size.⁵³

⁴⁷ Kevin Murray, "Looking Beyond the Object," in *The Academy of Urbanism, Learning from Place 2*, ed. Brian Evans, Frank McDonald and David Rudlin (New York: Routledge, 2011), 166.

⁴⁸ Scoop Independent News, "Auckland – A History in Paintings," accessed March 11, 2014, <http://www.scoop.co.nz/stories/CU0904/S00249.htm>

⁴⁹ Statistics NZ, "Urban Rural Profile", accessed June 4, 2013, http://www.stats.govt.nz/browse_for_stats/people_and_communities/Geographic-areas/urban-rural-profile/satellite-urban-areas/people.aspx

⁵⁰ Russell Stone, *From Tamaki-Makau-Rau to Auckland* (Auckland: Auckland University Press, 2001), 151-175.

⁵¹ Regional Growth Forum, *A Place Sought by Many: A Brief History of Regional Planning for Auckland's Growth* (Auckland: Regional Growth Forum, 1997), 40.

⁵² *Ibid.*, 4.

⁵³ Statistics NZ, "Urban Rural Profile", accessed June 4, 2014, http://www.stats.govt.nz/browse_for_stats/people_and_communities/Geographic-areas/urban-rural-profile.aspx

The New Zealand population was 4,433,000 in 2012.⁵⁴ This is an increase of ~12.5% percent from 3,948,500 in 2002 and a projection for the population for 2022 is 4,840,000. The working-age population (those aged 15–64 years) is projected to grow gradually from 2,929,300 million in 2012 to 3.15 million in 2031 and 3.36 million in 2061.⁵⁵ The population aged 40–64 years has been increasing rapidly since the early 1980s as the baby boomers move into this age group, altering the population profile. Since 1970 the main population increase, about four fifths, comes from natural population increase and only one fifth comes from net migration.⁵⁶ Mortality rate of infants is down and an increase in life expectancy is up and this naturally increases population. However due to the trend towards an ageing population, the natural increase of population will be altered as the death rate rises in the future. Net migration fluctuates from negative to positive over time and this ebb and flow minimizes the contribution migration makes to population growth. However, over time, as the population of New Zealand ages, this 4:1 ratio of population growth by net natural versus net migration, will change.⁵⁷

Statistics New Zealand states by 2001 New Zealand was one of the most urban countries in the world.⁵⁸ Between 1926 and 2006 the percentage of people living in Urban areas, as opposed to Rural areas, has grown from 68% to 86%.⁵⁹ The growth rate of Auckland city is at 1.5 percent compared to the next fastest cities, Waikato and Nelson, at 0.8 percent.⁶⁰ Main urban areas also contained the highest percentage of people aged between 15 and 24 years⁶¹. Auckland is the main business centre of New Zealand and has the highest proportion of legislators, administrators and managers⁶² and this is reflected in the fact that main urban areas have the highest percentage of qualified professionals.⁶³ More single people, couples without children and couples without dependent children live here.⁶⁴ Culturally New Zealand's cities have also changed to become much more ethnically diverse in the latter years of the twentieth century.⁶⁵ Inward immigration continued through the

⁵⁴ Statistics NZ, "NZ in profile 2013", accessed March 11, 2014, http://www.stats.govt.nz/browse_for_stats/snapshots-of-nz/nz-in-profile-2013/population.aspx

⁵⁵ Ibid. accessed March 11, 2014.

⁵⁶ Statistics NZ, "Population Tables", accessed March 11, 2014, http://www.stats.govt.nz/browse_for_stats/snapshots-of-nz/yearbook/people/population/yearbook-pop.aspx

⁵⁷ Statistics NZ, "New Zealand's Population is only Growing because of Migration", accessed June 4, 2013, http://www.stats.govt.nz/browse_for_stats/population/mythbusters/population-growing-migration.aspx

⁵⁸ Statistics NZ, "New Zealand: An Urban/Rural Profile", accessed June 4, 2013, http://www.stats.govt.nz/browse_for_stats/people_and_communities/Geographic-areas/urban-rural-profile.aspx

⁵⁹ Statistics NZ, "Population Tables", accessed March 11, 2014, http://www.stats.govt.nz/browse_for_stats/snapshots-of-nz/yearbook/people/population/yearbook-pop.aspx

⁶⁰ Ibid. accessed March 11, 2014.

⁶¹ Statistics NZ, "Main Areas: People," accessed June 4, 2013, http://www.stats.govt.nz/browse_for_stats/people_and_communities/Geographic-areas/urban-rural-profile/main-urban-areas/people.aspx

⁶² Statistics NZ, "Main Urban Areas: Work, Knowledge and Skills," accessed June 4, 2013, http://www.stats.govt.nz/browse_for_stats/people_and_communities/Geographic-areas/urban-rural-profile/main-urban-areas/work-knowledge-skills.aspx

⁶³ Statistics NZ, "Main Urban Areas: People," accessed June 4, 2013, http://www.stats.govt.nz/browse_for_stats/people_and_communities/Geographic-areas/urban-rural-profile/main-urban-areas/people.aspx

⁶⁴ Statistics NZ, "Main Urban Areas: Social Conditions," accessed June 4, 2013, http://www.stats.govt.nz/browse_for_stats/people_and_communities/Geographic-areas/urban-rural-profile/main-urban-areas/social-conditions.aspx

⁶⁵ Statistics NZ, "New Zealand: An Urban/Rural Profile", accessed June 4, 2013, http://www.stats.govt.nz/browse_for_stats/people_and_communities/Geographic-areas/urban-rural-profile.aspx

late 1990s and early 2000s with net inflows peaking in 2002/2003 driven by overseas students particularly from China. Asian immigrants formed 36% of all permanent and long-term arrivals⁶⁶ and immigrants from other countries including UK, India, Philippines, South-Africa and Fiji contributed to the number of immigrants. This offset the outflow of people to Australia during 2008.⁶⁷ Citizenship approvals have almost doubled from 2010 to 2012.⁶⁸ The 2006 Census has identified four main groups in New Zealand and they are in order of size, European, Maori, Asian and Pacific people.⁶⁹ The most growth in population numbers in a particular ethnic group is projected to be from the Asian population.⁷⁰ Of the projected growth for New Zealand between 2006 and 2031, 60% will be focussed on Auckland with 38% of the population living here by 2031.⁷¹

Professor in sociology at Columbia University Saskia Sassen says the city concentrates diversity, both with dominant corporate culture, but also, through immigration, with the multiplicity of other cultures. This multiplicity of cultures imbues the city with an ‘otherness’ of low-wage, nonprofessional jobs and activities which stands in contrast to the corporate economy with highly paid, highly specialized professionals. This leads to polarization of the economic sectors and increased inequality of people. These marginalized people are making claims on the city as well and it is important to take care of them as the corporate economy cannot function without this other group of people.⁷²

AUCKLAND: Super City

The Royal Commission on Auckland Governance, set up in July 2007, recommended the formation of a super city with single governance.⁷³ This was to replace the Auckland Regional Council (ARC) and the region’s seven city/district authorities and combine them into a single Auckland Council, which started operating on 1 November 2010.⁷⁴

⁶⁶ Statistics NZ, “NZ Official Yearbook 2010”, accessed May 15, 2014, http://www.stats.govt.nz/browse_for_stats/snapshots-of-nz/digital-yearbook-collection/2010-yearbook.aspx

⁶⁷ Ibid., accessed November 5, 2013.

⁶⁸ Statistics NZ, “Social Framework Tables”, accessed March 11, 2014, http://www.stats.govt.nz/browse_for_stats/snapshots-of-nz/yearbook/people/population/yearbook-pop.aspx

⁶⁹ Statistics NZ, “NZ Official Yearbook 2010”, accessed November 5, 2013, http://www.stats.govt.nz/New_Zealand_Official_Yearbooks/nz_official_yrbk_2010.pdf.pdf

⁷⁰ Ibid., accessed November 5, 2013.

⁷¹ Ibid.

⁷² Saskia Sassen, *Cities in a World Economy* (Thousand Oaks, California: Pine Forge Press, 1994), 122-124.

⁷³ Parliament NZ, “Royal Commission on Auckland Governance Final Report (March 2009),” accessed May 9, 2014, <http://www.parliament.nz/resource/0000075893>

⁷⁴ Auckland Council, “The Annual Report Summary 2010/2011”, accessed May 9, 2014, http://www.aucklandcouncil.govt.nz/EN/planspoliciesprojects/reports/annual_report/Documents/annualreport20102011summary.pdf

HISTORY: Auckland Development Plan

In the 1949 Auckland Development Plan the future growth of Auckland was estimated to be a maximum of 600,000. The population grew to 350,000 in 1956, showing no signs of abating. The metropolitan area was to be contained by encircling green belts however urban sprawl soon breached these green belts. Post-war rising standards of living resulting in increased automobile ownership, which in turn gave rise to a decentralized residential pattern.⁷⁵ A comparison may be made to cities like London and Melbourne which developed before automobiles were readily available and travel to and from work relied on walking, animals or trains.⁷⁶ The geography of Auckland should also be taken into consideration as the undulating landform could have contributed to the difficulty of building straight railway lines.



Figure 13: Installing Auckland Harbour Bridge 1956⁷⁷

The mode of travel by automobile was favoured instead of public transport which was deemed less flexible and convenient. The trend of reliance on automobile transport however, soon caused congestion. The public transport system based on trams was finally closed down in 1956, mainly because the trams got in the way of the cars. Initially in 1950 the Halcrow-Thomas report, sponsored by the government, recommended the construction of suburban railways to combat traffic congestion, but this proposal was dropped in 1955 with the development of the Master Transportation Plan which was in favour of building more motorways⁷⁸. One of their key arguments was that the population of Auckland would not support the suburban railways and the development of a railway system was sidelined in favour of developing a road based transport system.

The linchpin in this system, the Harbour Bridge, opened in 1959 causing a rapid population growth on the north shore as travelling time to the city from these suburbs showed a very sharp decrease. (Figure 13) This rapid population growth in turn, over time increased traffic and this effected increased congestion.

⁷⁵ David Bateman, *New Zealand Historical Atlas* (Hong Kong: Everbest, 1997), plate 75.

⁷⁶ James Watson, *Links: A History of Transport and New Zealand Society* (Wellington: GP Publications, 1996)

⁷⁷ William Daldy, Image, accessed March 11, 2014, <http://daldy.com/category/history/daldy-saves-harbour-bridge/>

⁷⁸ Regional Growth Forum, *A Place sought by many*, 4-5

HISTORY: Auckland Regional Authority: 1963 – 1989

The Auckland Regional Authority (ARA) was formed in 1963 and took over some area of responsibility from other management bodies. This included, amongst others, bus transport. During 1966 Mangere International Airport opened and again it was recommended, by the de Leuw Cather Transportation Plan, to build a bus/rail system with a Civic Centre terminal as well as, after the public system was completed, building motorways. However, despite this planning, public transport did not gain priority in the planners approach. With a focus on public transport for the whole metropolitan area Sir Dove-Myer Robinson, in late 1960's, proposed a rapid transport system which was not implemented.⁷⁹

Despite the evidence of a growth rate exceeding projections between 1956 and 1971, the ARA still assumed a declining growth rate and policies focused on promoting a lower growth rate and a more consolidated form for Auckland.⁸⁰

HISTORY: Auckland Regional Council: 1989 – 2010

In 1989 Local Government Reform legislated a reduction of the territorial council from 29 to 7 and the ARC started operating as a management umbrella for these seven cities and regions.⁸¹ However its power was restricted to public transport, environmental protection and regional parks. A subsidiary, the Auckland Regional Transport Authority (ARTA) was created in 2004 to develop transport projects like Northern Busway, rail and public transport and finally the electrification of the Auckland railway network. ARTA also supported the case for a CBD rail tunnel and an extension of the rail network to Auckland airport.⁸² It is of interest that since the 1920's the proposal was to link the railway station in Auckland and the CBD with an underground railway running through to Morningside.⁸³ The ARC was subsumed into the Auckland Council in 2010.

HISTORY: Auckland Council: 2010 –

In an attempt to better manage the growth of Auckland, the previously seven separate cities merged in 2010 to become one 'Super City', managed by the Auckland Council.⁸⁴

The main issue currently facing the Auckland Council is the rapid population growth. Provision of affordable housing to accommodate this growth is essential. To address this issue the Auckland Unitary Plan was developed to be a guide, shaping the way Auckland grows.⁸⁵

⁷⁹ Regional Growth Forum, *A Place sought by many*, 6

⁸⁰ Ibid. 7.

⁸¹ Ibid. 10.

⁸² Parliament NZ, "Royal Commission on Auckland Governance Final Report (March 2009)," accessed May 9, 2014, <http://www.parliament.nz/resource/0000075893>

⁸³ David Bateman, *New Zealand Historical Atlas* (Hong Kong: Everbest, 1997), plate 75.

⁸⁴ Parliament NZ, "Royal Commission on Auckland Governance Final Report (March 2009)," accessed May 9, 2014, <http://www.parliament.nz/resource/0000075893>

⁸⁵ Auckland Council, "The Auckland Plan," accessed November 4, 2013,

<http://www.aucklandcouncil.govt.nz/EN/planspoliciesprojects/plansstrategies/theaucklandplan/Pages/theaucklandplan.aspx>

1. POPULATION GROWTH:

According to statistics New Zealand, the percentage of the total population living in urban environments in New Zealand has grown from 68% in 1926 to 86% in 2006.⁸⁶ Auckland is now nationally the largest urban area with a usually resident population of 1,415,550 in 2013.⁸⁷ According to the 2001 statistics, two-thirds of New Zealand's population growth between 2001 and 2026 is projected to be in Auckland region, giving it 37percent of New Zealand's total population in 2026, compared with 31percent in 2001.⁸⁸ This growth also increases the burden on Auckland to provide a means for living for a greater part of the population. As noted in the 2013 statistics, the rate at which Auckland grew between 2011 and 2012 is 1.5 percent compared to 0.8 percent for the next two fastest growing areas, Waikato and Nelson.⁸⁹ Currently the population of Auckland is 1,438,446 and if the current increase of 1.5 percent per year continues, compounded over time, Auckland might face a population of ~2,182,440 in 2040. If the current growth rate of 1.5 percent increase is applied to the fifteen years from 2013, the compound growth we would see in fifteen years is 25%. The issue of linking statistics and planning cannot be ignored, as it was between 1946 and 1971, if Auckland is to cope with its own growth.⁹⁰

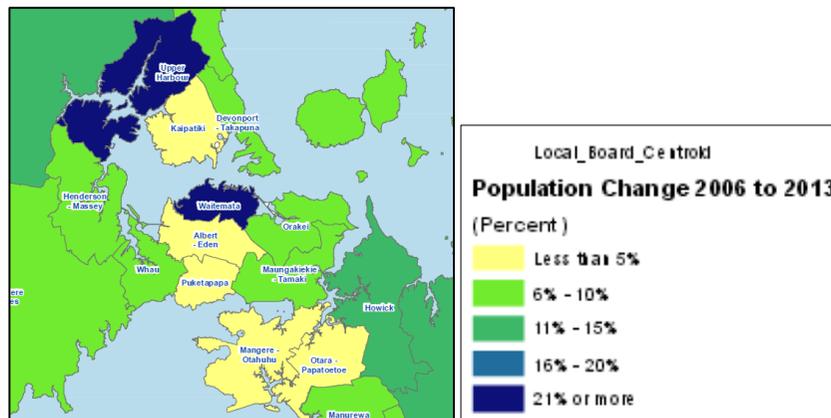


Figure 14: Population change 2006 to 2013

⁸⁶ Statistics NZ, "Population Tables," accessed March 11, 2014, http://www.stats.govt.nz/browse_for_stats/snapshots-of-nz/yearbook/people/population/yearbook-pop.aspx

⁸⁷ Statistics NZ, "2013 Census Population and Dwelling Tables: Auckland," accessed March 11, 2014, <http://www.stats.govt.nz/Census/2013-census/data-tables/population-dwelling-tables/auckland.aspx>

⁸⁸ Statistics NZ, "Subnational Population Projections: 2001 (Base) - 2026," accessed November 4, 2013,

http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/SubnationalPopulationProjections_HOTP0126.aspx

⁸⁹ Statistics NZ, "Population Tables," accessed March 11, 2014, http://www.stats.govt.nz/browse_for_stats/snapshots-of-nz/yearbook/people/population/yearbook-pop.aspx

⁹⁰ Regional Growth Forum, *A Place Sought by Many*, 4.

2. LOCATING MORNINGSIDE IN AUCKLAND'S PATTERN OF GROWTH:

Morningside is situated in a more established, suburban, part of the city that saw less than 5 percent growth of population, compared to the newer developments along the Northern boundaries of the city and the densification of the CBD.⁹¹ (Figure 13). Despite being on the CBD fringe, Morningside has remained a rundown area.

3. HOUSING AFFORDABILITY:

The growth of the Auckland urban area drives up the demand for housing which in turn drives up the cost of housing.

The housing stock of all dwellings has gone up from 424,845 in 2001 to 506,808 in 2013. The average person per house has gone up from 2.9 in 2001 to 3 in 2013.

Statistics New Zealand 2001 reports the average income per person in Auckland to be the second highest in New Zealand (\$19,200, compared with \$18,500 nationally). Auckland, together with Wellington, has a higher income rate than the average for urban areas. However, the margin of income difference is not big enough to compensate for the increasing cost of housing and this affects the affordability of housing in Auckland.

The Australian architect Scott Carver says density may also affect housing affordability as it reduces the cost of producing dwellings if the land price remains constant.⁹²

AUCKLAND UNITARY PLAN:

Suburban sprawl at low density from the past is no longer an acceptable solution to growth and an attempt to define how the city should grow in the future is made by the Draft Unitary Plan. The appearance of the city proposed in this draft plan is vastly different from that which Aucklanders have come to accept as the appearance of 'their city'. With the increased urbanization and consequent intensive growth projected for Auckland, densification of the city is considered a better alternative to urban sprawl and the strain it places on infrastructure. Train and bus services can alleviate the strain on road infrastructure. Densification can considerably shorten travelling time with public transport, allow for more efficient use of public transport and this in turn makes public transport a more acceptable option for commuters. Currently continued development of the road infrastructure is planned as it is the main form of transport in the city.

⁹¹ Auckland Council, "Auckland's Population Growth Map," accessed November 4, 2013, <http://www.aucklandcouncil.govt.nz/SiteCollectionDocuments/ourauckland/news/aucklandspopulationgrowthmap.pdf>

⁹² AMCORD URBAN, *Guidelines for Urban Housing*, (Canberra: Commonwealth Department of Health, Housing, and Community Services, 1992).

8.0 PRECEDENT SURVEY

For a housing-based urban redevelopment project that proposes a “liveable” intensified form of architecture, many individual schemes in other cities across the planet provide precedents. The projects illustrated in this selection include buildings that approximate to NZ housing standards, and that generally indicate 21st century housing designs that are architecturally interesting, and that satisfy density objectives.

AQUA BUILDING, Chicago, U.S.A.:

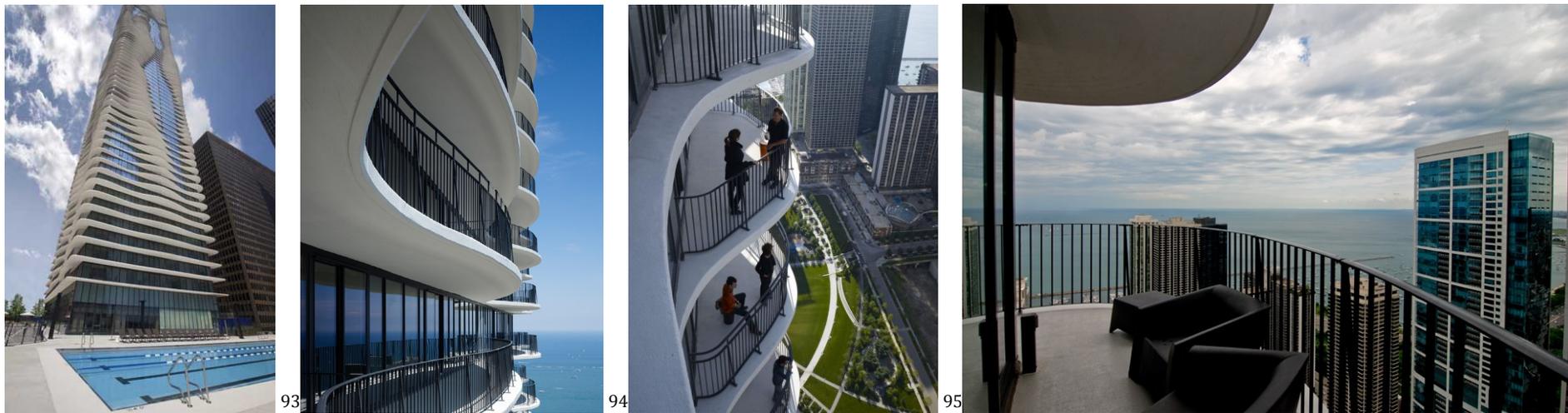


Figure 15: Images of Aqua Tower facade and balconies

The Aqua Building in Chicago is an apartment tower of approximately 60 levels.

Despite the commercial construction methods used, the building manages to create a sense of personalization of the levels by varying the protrusion of floorplates forming cantilevered balconies. The protruding floorplates below and above the outside space create a sense of containment and may be read as a space. This design move creates outside spaces of varying shapes and sizes.

⁹³ Magellan Development, “Aqua Apartment,” accessed April 14, 2014, <http://www.magellandevlopment.com/location/chicago-apartments-aqua/photos-and-videos/>

⁹⁴ Tevami, “Aqua Tower.” accessed April 14, 2014, <http://tevami.com/2009/12/14/aqua-tower-in-chicago/>

⁹⁵ Urban Splatter, “Building Chicago Architecture,” accessed April 14, 2014, <http://www.urbansplatter.com/aqua-building-chicago-architecture/>

The protruding floorplates also ground the inside of the apartment by forming an outside environment which is accessible, thereby enhancing the idea of private inside and public outside space. This pattern of protrusion also breaks up the potential monotony of the building façade and therefore the building is perceived as unique when viewed from afar. It is possible for inhabitants to identify approximately where in the building their apartment is situated.

The principles of articulation of façade to personalize apartments despite using similar construction methods in different buildings is used in this project to enrich visual experience.

BEAUMONT QUARTER, Auckland, New Zealand



Figure 16: Views of Beaumont Quarter⁹⁶

⁹⁶ Photos by Louise Mann (taken October 2013)

Beaumont Quarter mainly consists of residential dwellings although there is some secondary business conducted in some of the street level apartments. There are a variety of building forms and typologies in this project.

There is a relationship between buildings, creating public spaces in between them. An attempt is made with changes in levels in the landscape to define areas, but these do not create cozy spots for people and the layout is more intent on separation and ensuring privacy of dwellings.

Some private and visitors parking is available on internal streets with the bulk of parking in underground parking with central access points.

Walkways, open to the public, but serving the upper level apartments create a thoroughfare where people from the apartments cross paths to and from their apartments. Although any person may go there, there is a strong sense of belonging to the apartments alongside the walkway.

TETRIS SOCIAL APARTMENTS, Ljubljana, Slovenia



Figure 17: Images of Tetris apartments⁹⁷

The Tetris project depicts the individual apartment components as boxes stacked on top of each other. This variety of articulation of the building façade is achieved by the careful detailing of the balconies using form, aluminium screens and varied cladding material. This achieves a personalization of each apartment.

⁹⁷ Archdaily, *Images*, accessed May 2, 2014, <http://www.archdaily.com/3547/tetris-apartments-ofis-arhitekti/>

Care is taken with the shape of balconies to contain privacy of each apartment and the placement of solid walls prevents overlooking. Directing the flow from inside the apartment across the façade instead of outward, internalizes the balcony toward the apartment and so creates an illusion that the balcony is contained within the body of the building.

The design of the apartment floorplan is repeated, however, the façade creates the appearance of individual sections and so breaks up the mass of the block and this articulation, together with the varying balcony design, individualizes each apartment.

BAUFELD 10, HafenCity, Hamburg, Germany



Figure 18: Views of Baufeld 10.⁹⁸

This project contains 25 apartments as well as 2 commercial spaces.

Although the construction is concrete floors resting on columns, these floor levels are not expressed, but blurred by the façade appearing as a panel with apertures cut into it to allow for windows to apartments.

⁹⁸ "Baufeld 10, *Architecture News Plus*," accessed May 11, 2014, <http://www.architecturenewsplus.com/project-images/19774>

This continuation of cladding creates an effect of mass with openings and protrusions. In some places the windows span over two levels strengthening the blurring of the horizontal sectioning of the building.

In some of the balconies the space is not contained, but merely held in position outside the building, lightly defined with glass, in others it appears as an enclosed room protruding out of the building.

The varied shape and irregularity of these protrusions and the shapes of the windows further add to the blurring of reading verticality or horizontality in the building. The roofline, curving over the edge to the façade on one side and the terrace on the other, further reads the building as a sheet of material curving around to contain the space inside.

The only strip of windows which create a vertical element from roof to street level is at the junction between the roof terrace and the apartment on the top. This appears only on one side of the building, creates a tentative separation of the two sections of the building and anchors the building to the ground on the river side. The panel on the underground parking on the river side, being of a different colour and design, reinforces the appearance of the building as a mass, sitting on the ground, held in place by the vertical strip of windows.

9.0

PROJECT DEVELOPMENT: DESIGN/RESEARCH

A site of about 1.7Ha on the north side of New North Road at the end of the Kingsland “strip” (commercial frontage, retail activity and in social core of the neighbourhood) is identified for redevelopment. It is situated in Morningside, a rundown area on the fringe of Auckland central city. The site is large enough to provide a liveable superblock, is in a strategically effective location, and has a clean perimeter that also offers good street access points in several positions. The aim of a “liveable” superblock proposal is to show that larger-scale development (superblocks) can achieve a higher standard of urban design than the typically piecemeal intensification of the city, known in the AUP policy as “infill”.

AIMS OF DESIGN PROCESS

- Allow and encourage movement of people into and through the site
- Provide varied types of public and private spaces
- Foster human interaction
- Increase vitality of the area

SITE ANALYSIS

HISTORY:

Morningside forms part of Mt Albert which has, since 2010, been administered by the Auckland Council.⁹⁹ The borough of Mt Albert was created in 1911 on the outskirts of Auckland city, second only after Remuera.¹⁰⁰ The New North Road, known as Whau Road until 1876 was a toll road and connected the Borough of Mt Albert to the city¹⁰¹. A scattering of farms and cottages marked the early development of the areas along the roads leading from Auckland.¹⁰² Land values rose in and around Auckland. During a boom phase of the 1860’s land buying and selling of potential house sites saw estates subdivided and, during 1865, one hundred and twenty sites of the subdivided Morningside Estate were sold by auction¹⁰³. The settlement was named Morningside. Development took place all over the Mt Albert district and in Morningside a

⁹⁹ Wikipedia, *Mount Albert-New Zealand*, accessed November 2, 2013, http://en.wikipedia.org/wiki/Mount_Albert,_New_Zealand

¹⁰⁰ Ibid.

¹⁰¹ Alexander Reed, *Auckland City of the Seas* (Wellington: AW Reed, 1955), 192-193.

¹⁰² Town Planning Division, *Auckland’s Historical Background: Its relation To Central City Planning* (Auckland: City Development Section, Town Planning Division, 1969), 28.

¹⁰³ Terence Hodgson, *The Heart of Colonial Auckland: 1865-1910* (Singapore: Random Century, 1992), 43.

school was built and the first public hall was opened.¹⁰⁴ The school was built around 1870 on School Road, next to the junction between Western Springs Road and New North Road and this site is still occupied by a school today.¹⁰⁵

The Auckland-Helensville railway was built after 1880 and after much debate, both Morningside and Kingsland got stations. At the same time a horse drawn bus service also began operations.¹⁰⁶ This progress affected development of real estate.

The tramlines were extended from Kingsland to Morningside in 1912 and to Mt Albert in 1915.¹⁰⁷ The last major event serviced by the trams, was the famous 1956 Springbok tour.¹⁰⁸ In 1927 the new Mt Albert Borough council building opened (see Figure15) in Morningside and the brick building housed the council until Mt Albert was amalgamated with Auckland city in the late 1980's.¹⁰⁹ By 1930 Mt Albert borough exceeded a population of 20,000 and became the largest borough in New Zealand.¹¹⁰

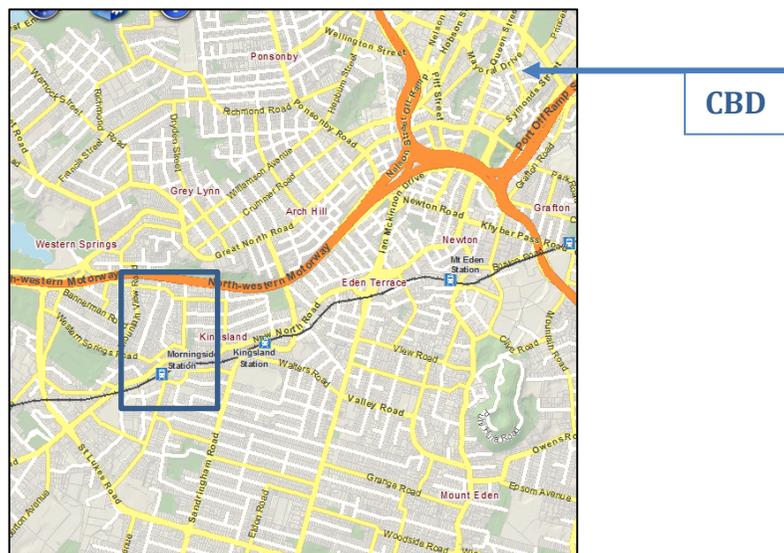


Figure 19: The block marks the extent of the history photos (to follow)¹¹¹

¹⁰⁴ Dick Scott, *In Old Mt Albert* (Auckland: Southern Cross Books, 1983, 1st Ed 1961), 40.

¹⁰⁵ *Ibid.*, 45.

¹⁰⁶ *Ibid.*, 41-42.

¹⁰⁷ Kingsland, *Kingsland History and Timeline*, accessed November 2, 2013, <http://www.kingslandnz.com/Portals/1/Kingsland%20History%20and%20Timeline.pdf>

¹⁰⁸ *Ibid.*

¹⁰⁹ Wikipedia, Morningside-Auckland, accessed November 2, 2013, http://en.wikipedia.org/wiki/Morningside,_Auckland

¹¹⁰ Kingsland, *Kingsland History and Timeline*, accessed November 2, 2013.

¹¹¹ Auckland Council, accessed May 11, 2014, <http://maps.aucklandcouncil.govt.nz/aucklandcouncilviewer/>



1940



1959

In 1980 the north-west motorway was extended from Point Chevalier to the city thus greatly reducing traffic on New North Road.



1996

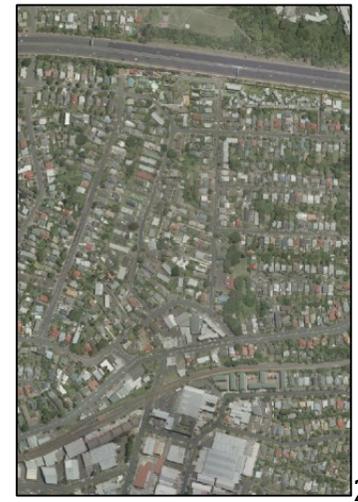
From 1996 only some infill housing, a few warehouses and apartment blocks were built in the area, but since 2006 the area has remained virtually unchanged.



2006



2008



2010

Figure 20: Photos showing history of development over time.¹¹²

¹¹² Auckland Council, accessed May 11, 2014, <http://maps.aucklandcouncil.govt.nz/aucklandcouncilviewer/>

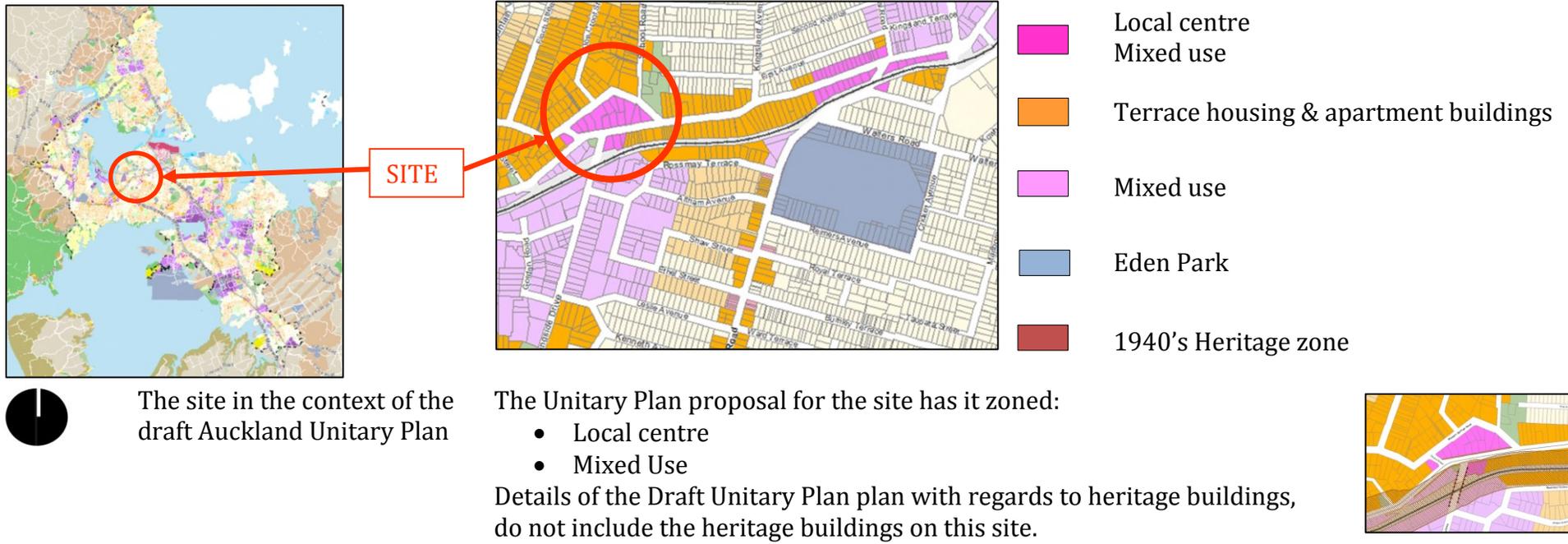
SITE CONTEXT:



Figure 21: Site in context.¹¹³

¹¹³ Google Earth, accessed 11 May 2014.

AUCKLAND DRAFT UNITARY PLAN



The site in the context of the draft Auckland Unitary Plan

The Unitary Plan proposal for the site has it zoned:

- Local centre
- Mixed Use

Details of the Draft Unitary Plan plan with regards to heritage buildings, do not include the heritage buildings on this site.

Figure 22: Images of site as detailed in Auckland Draft Plan¹¹⁴

SITE CONDITIONS:

SUN:

The site contours have an 11 m drop from east to south-west. Because the slope of the site faces south-west, optimizing north sun penetration to all buildings can be problematic. The building shape and placement have to compensate for this. To this end lower buildings are placed on the northern boundary and the buildings on the southern periphery of the site increase in height. Staggering of the height also helps to allow for horizontal penetration of light at various times during the day.

¹¹⁴ Auckland Council, *Auckland Draft Plan GIS Viewer*, accessed 23 June 2013, <http://acmaps.aucklandcouncil.govt.nz/UnitaryPlan/HTMLViewer/index.html>

Consideration is given to the shadows cast by a high rise tower and a skinny tall tower which casts a butterfly pattern during the course of the day allows sunlight to get to the buildings on the opposite side of New North Road.

CONTOURS:

The uppermost contour is 49m above sea level with a gradual drop of 11m across the site from north-east to south-west. In the surrounding areas the contours increase to 60m at Kingsland to the west, Grey Lynn to the north. This allows almost 360 degree views from about level 3 on the lowest side of the site, including unimpeded Waitemata harbour views to the north.

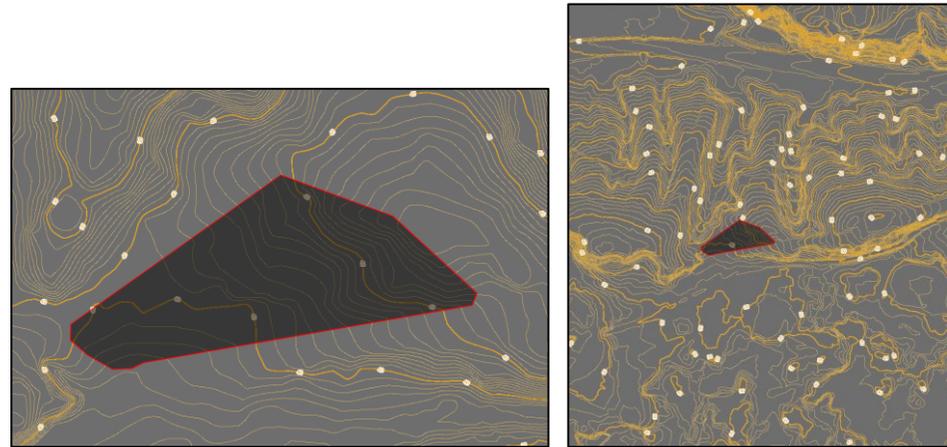


Figure 23: Site outline with contour overlay

VIEWS:

To the north the immediate view is shorter due to the topography of site sloping upward towards the ridgeline; however once above level three, or approximately 56.0m, the views are unimpeded and even Rangitoto may be seen.

Longer views, almost 360 degrees, are possible. Some defining landmarks in this viewscape are westward toward the Waitakere Ranges, across suburbs and Mt Albert, views of the cones of Three Kings and Mt Eden and unimpeded Waitemata Harbour views to the north.

Due to the variation of level across the site from north-east to south-west, there is the possibility of creating views within the site. The change of levels in landscaping provide opportunities for demarcating intimate or private areas within the landscape of the site.¹¹⁶

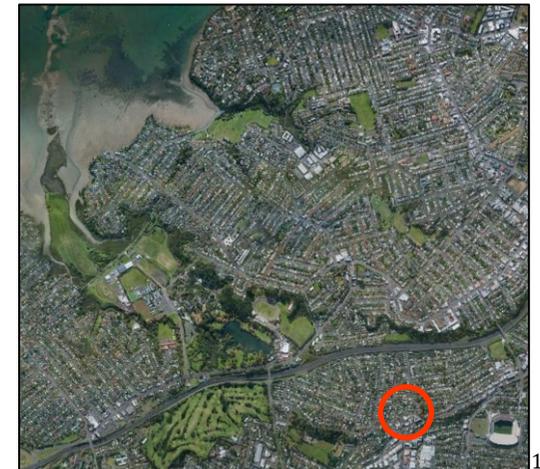


Figure 24: Site in wider view context

¹¹⁵ Auckland Council GIS viewer, accessed 11 May 2014, <http://maps.aucklandcouncil.govt.nz/aucklandcouncilviewer/>

¹¹⁶ Cullen, *The Concise Townscape*, 127-128.

¹¹⁷ Google Earth, accessed 11 May 2014.

This creates both short views that orient one within the site as well as long views from within the buildings to orientate within the wider context of the city.

The scale of the city of Auckland is negated by the undulation of the landscape and this creates an intimacy of areas within the city. Placing a high rise tower in this site, will mark the 'place' of Morningside in the undulating carpet and define the edge of the central city.

WIND:

The main wind direction is west-south-west to south-west. Massing the building on the south-west corner buffers the site against the main wind direction.

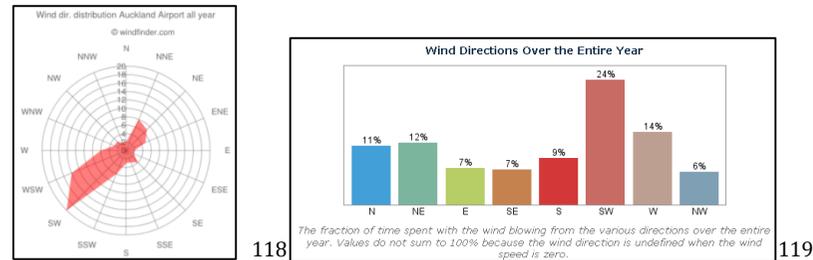


Figure 25: Wind rose & wind directions

CONSTRAINTS:

The contours with negative slope from north eastern corner is the main constraint on this site as this affects the sun penetration into the site.

Other possible constraints that may arise from increased density, are noise or sound control and fire control.

No railway lines directly adjoining site.

The busy main road along the southern border may produce some noise.

POSITIVE ASPECTS:

The site is well connected by roads to adjoining areas (St Lukes Mall, Zoo and Western Springs) as well as to the motorway.

Public transport is provided in the form of a main bus line on New North Road as well as Morningside railway station, which is in close proximity to the site.

¹¹⁸ Windfinder, "Wind and Weather Statistics Auckland Airport," accessed May 11, 2014, http://www.windfinder.com/windstats/windstatistic_auckland.htm

¹¹⁹ Weatherspark. "Average Weather for Auckland, New Zealand," accessed May 11, 2014, <http://weatherspark.com/averages/32738/Auckland-New-Zealand>

DEVELOPING A MASTER PLAN:

The site area is 1.7 hectares. If a density target of 90 dwellings per hectare, the Kingsland standard, is used, there is the potential for 150/155 typical units.

The site is currently divided into separate sections which provide no thoroughfare for either pedestrians or cars through the site. Most of the buildings dating from different times are to be demolished. This would allow a fresh opportunity to plan a more coherent group of buildings and spaces with characteristics that have the potential to invigorate this area and link the different areas along the boundary of the site together. The heritage buildings (shops and old Mt Albert council offices) on the south side of the site will be kept as they link in with the heritage buildings on the opposite side of the road and are in keeping with the character of the streetscape towards Kingsland.

PROGRAM OF BUILDINGS:

The site is designated a “Local Town Centre” in the Auckland Urban draft plan which supports intensification in the Terrace Housing and Apartment Buildings zone. An expanded program includes mixed use development with commercial and retail programs. The Unitary plan designates a height limit up to four storeys for ‘Local Centres’. However, for this scheme some of the buildings will be developed to more than four storeys to increase density while still controlling site coverage. This plan intends to support the wider surrounding suburban residential area with commercial, retail and community buildings as well as providing permeability of the site to encourage movement into and through the town centre. It will make use of its proximity to good connections through the means of road networks, bus and train services.

- Retail – Boutique shops for example manufacturing jeweler, bespoke shoe or clothing manufacturers or artwork.
- Commercial – Secondary commercial for example insurance company, architectural practice, etc.
- Town houses, with shared amenities.
- Apartments with shared amenities.
- Amenities
 - Parking
 - Storage
 - Workshop
 - Swimming pool / gym
 - Shared space – graduated from public to private.

The public space will aim to satisfy both “static possession and possession in movement”¹²⁰ by providing furniture as well as an interesting streetscape of shops. This varied gradient of speed of movement through the area will affect the experience of people in and through the public space and provide an opportunity to generate civic warmth through the gathering of people.¹²¹

According to AMCORD Practice Notes the following definitions are used: ¹²²

1. Row or terrace house:

Three or more attached houses (common walls), each on their own individual lots (no shared land/facilities).

2. Group or cluster housing, including townhouses, villas:

Two or more dwellings on a site sharing part of the site for access and/or open space/site facilities.

3. Flat or apartment (including attached to a shop, office, etc.):

Defined by one of more of the following:

- Units constructed over the top of each other;
- Shared parking/access arrangements;
- Shared communal open space in lieu of or as well as private open space;
- Attached to a detached dwelling (with shared access/site facilities).

PUBLIC CONCERN:

Feedback from the public about the Auckland Unitary Plan includes the following concerns and these have been considered in the master plan of this site:¹²³

- The volume of proposed terraced housing and apartment zones.
This concern is addressed by breaking up the buildings into smaller parts that create a whole.
- The quality of intensification in the terrace housing and apartment zone – the history of ‘leaky buildings’ creates concern that financial gain will drive projects and not provision of a quality built environment.
This concern is addressed by careful consideration of building materials and roof quality. Additional to this, the quality of sun penetration into the buildings and outdoor spaces as well as cross ventilation is carefully considered.

¹²⁰ Cullen, *The Concise Townscape*, 25.

¹²¹ Ibid., 135.

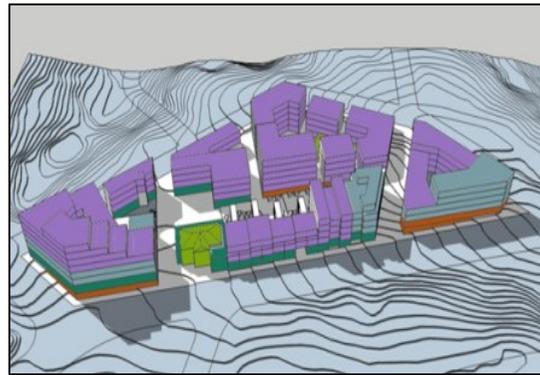
¹²² AMCORD URBAN, *Guidelines for Urban Housing*, (Canberra: Commonwealth Department of Health, Housing, and Community Services, 1992).

¹²³ Auckland Council, *Informal Feedback Overview: Draft Auckland Unitary Plan*, accessed September 24, 2013,

<http://www.aucklandcouncil.govt.nz/EN/planspoliciesprojects/plansstrategies/unitaryplan/Documents/unitaryplanfeedbackoverview.pdf>



Figure 29: Initial proposed layout of buildings on site



Development of program of spaces and initial proposal of program:

- Public space
- Retail
 - Shops
 - Restaurant / Café
- Office
- Apartments
- Parking
- Public facilities
 - Library
 - Short term use space – S/M/L
 - Public toilets

The boundary of the site joins various types of other buildings, suburb typology and contour changes. Ambiguity is the condition that provides a connection with what is currently there, as well as providing a possibility of connections being reinterpreted by development in the surrounding area. To the north of the site low density suburban housing is generally run down. These will in the future be replaced with medium density typologies. In contrast, the southern boundary of the site would probably never see the same intensity of change immediately on the boundary as there are heritage buildings, a main road and the railway on that edge of the site. However a better quality of the urban fabric might develop here due to the boundary of the site making an impact on the strip of land beside the railway. Another factor on this southern boundary is that the neighboring area is a semi-industrial zone. The site becomes a link between the contrasting typologies to north and south. The boundary will facilitate a stronger connection as it becomes integrated in the wider urban fabric as this develops, and this will contribute to the sustainability of the project.

As in the superblock in Gokiso, Japan, using a hierarchy of connections in the master plan will achieve the aims of movement through permeability while still maintaining safety and place for a community.

One of the ways in which the site affects the pattern of the development of the block is the contours. On the northern boundary where the site touches suburban conditions, the slope of the contours upward towards the road bordering the suburb which helps to contain the height of the northern edge. However, the effects of the hard shell of the site towards the suburbs are tempered by the rise of the land which allows for a gentler building height on this edge facing the suburbs.

This pattern of edging the site with 'harder' buildings and locating 'softer' buildings inside the block is employed in this project. The more impenetrable building typologies like multi storey apartment blocks and commercial buildings form the edges that protect the inner soft core of low-rise walk up flats and town houses. One characteristic that emerges from using this method is that connection to the ground is increased as well as a higher sense of protection of the people who use these internal spaces. The safety of people in their environment is one Jane Jacobs highly advocates if a city is to be people friendly.¹²⁴

By developing these principles in this site, the intention is to develop a way of reinvigorating parts of the city, densifying them along the way in such a way that a gentler range of densities are achieved that have the ability to respect the relationship with other, well functioning parts of the city.

HERITAGE BUILDINGS:

The heritage shopfronts form part of the active streetscape on the edge of the block close to the busy New North Road. Connection between the New North Road side and the inner promenade is created by stairs leading between the lower and upper level of the heritage building. This creates a 'front' condition on the back of these buildings, linking them thoroughly with the activities in the public spaces of the site. Apartments above the heritage buildings increase the density of these existing buildings. The new level will be set back from the front edge of the building to minimize the impact of the extension on the heritage facades.

The heritage Mt Albert council offices, currently a mental health community building, will be renovated to provide a new community space. The front will connect with New North Road, while the back will open up to the plaza. This will provide a transparency for public movement and connection into the site. A glass box surrounding the building will put the building and its activities on display. Removing some of the windows of the original building will allow 'leakage' of the inside of this enclosed building into the open box surrounding it. This will give a heightened sense of openness to the closed building and a heightened sense of enclosure to the transparent building, thereby allowing each to affect the characteristic of the other and create a new equilibrium.

¹²⁴ Jane Jacobs, *The Death and Life of Great American Cities*, 29.

ANALYSIS OF THE PROJECT:

Projected Density for project:

1.7ha x factor 1.5 = 2.5ha

The factor of 1.5 shows that a slightly higher density is achievable for this site as it has very limited constraints. The main constraint is the contour sloping southward, but the periphery of the site remains very well connected to roads and there are no other factors in the proximity to affect the desirability of living here.

90dph = This is the standard in neighboring Kingsland.

$\therefore 90\text{units} \times 1.7 \text{ Ha} = 153\text{units} \times 120 \text{ m}^2 = 18,360 \text{ m}^2 + 10\%\text{parking} = \text{TOTAL } 20,196 \text{ m}^2$

Projected People:

153 units : 60% @ 1.5 people per unit & 40% @ 2.2 people per unit

$$= \left(153 \times \frac{60}{100} \times 1.5\right) + \left(153 \times \frac{40}{100} \times 2.2\right) = 138 + 135 = 273 \text{ people}$$

Final analysis of density of this project:

| | | |
|--|-------------------|--|
| Site area = 1.7Ha | | No of dwellings = 168 |
| Site coverage = 42% | | Density per hectare = 99dph |
| Open space = 3,400sqm/Ha | | No of people = 300 60%@1.5 & 40%@2.2 |
| Height of buildings = 2, 3, 4, 8, 20 storeys | | Mix of apartments |
| Total floor area = 26,706 sqm | | 1 Bed = 42 |
| Residential = 48% | | 2 Bed = 113 |
| Retail = 7% | | 3 Bed = 9 |
| Commercial = 24% | | 3+ Bed Penthouse = 4 |
| Parking = 21% | | Parking = 5,496sqm |
| | Car spaces = 180+ | |
| | Cycle spaces = 40 | |



Apartments:
 1 Bed = 6
 2 Bed = 10
 Penthouse 3+ Bed = 1
 Total dwelling = 17 = 1,153sqm
 Parking = 349sqm
 Retail = 228sqm



Apartments:
 2 Bed = 1
 3 Bed = 1
 Total dwelling = 2 = 226sqm
 Retail = 140sqm



Apartments:
 1 Bed = 16
 2 Bed = 21
 3 Bed = 3
 Total dwelling = 40 = 2,352 sqm
 Parking = 584 sqm



Apartments:
 1 Bed = 0
 2 Bed = 19
 3 Bed = 2
 Penthouse 3+ Bed = 2
 Total dwelling = 23 = 1,898 sqm
 Parking = 947sqm



Apartments:
 2 Bed = 2
 3 Bed = 3
 Total dwelling = 5 = 591sqm
 Retail = 283sqm



Apartments:
 1 Bed = 18
 2 Bed & study = 36
 3 Bed Penthouse = 1
 Total dwelling = 55 = 4,122 sqm
 Parking = 1,468sqm
 Amenities = 512 sqm
 Retail = 512 sqm



Office = 999sqm
 Retail = 155sqm
 Parking = 455sqm
 Cycle spaces = 10



Apartments:
 1 Bed = 2
 2 Bed = 2
 Total dwelling = 4 = 362sqm & number
 Retail = 610 sqm (Heritage building)



Community center:
 Total = 510sqm



Office = 4,404sqm
 Apartment: Projected 2-bed = 22 =
 2,064sqm
 Parking = 1,693 sqm
 Cycle spaces = 30 (these may also be
 rented out to bus/train commuters)

CONTROL OF CONTOUR:

Sections through the site show how building design accommodates the rise in contour. Controlling the contours allows for level changes to define areas of public space and create privacy inside apartments.



Section A



Section B

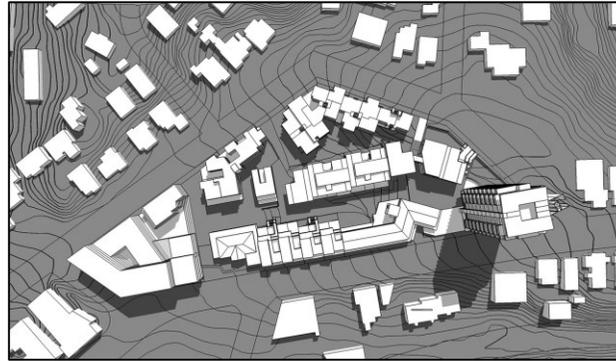


SUN STUDIES:

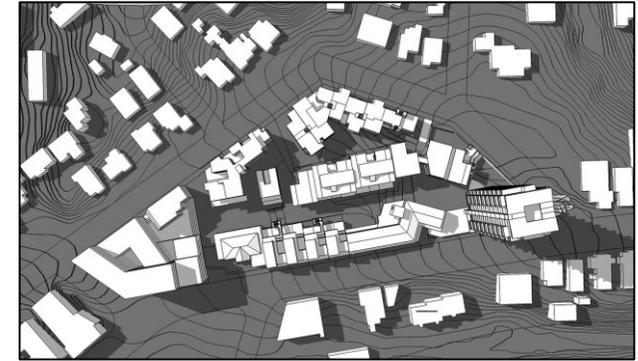
Due to the complexity of the sun penetration angle as it relates to the contour, careful consideration was given to building heights and width between blocks to allow for sun to penetrate into the site and for all buildings and outside areas to receive sunlight for part of the day for most of the year.



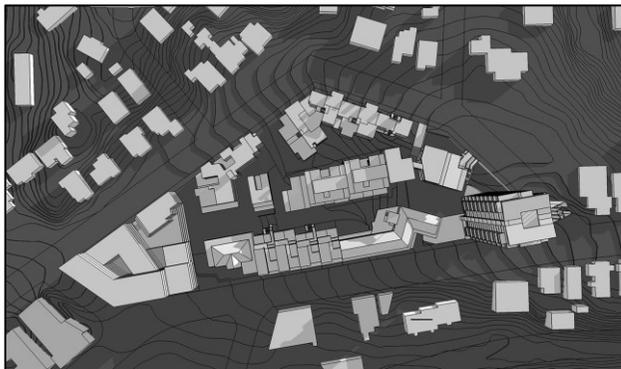
March 8am



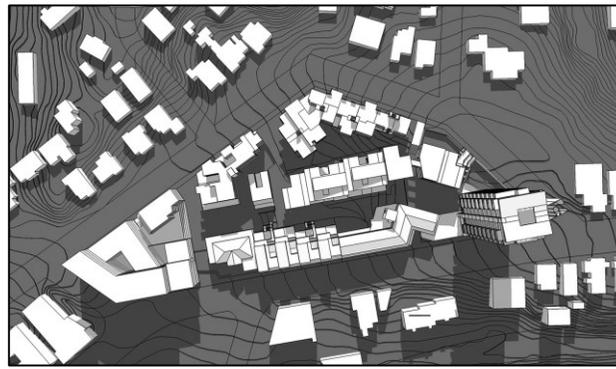
March noon



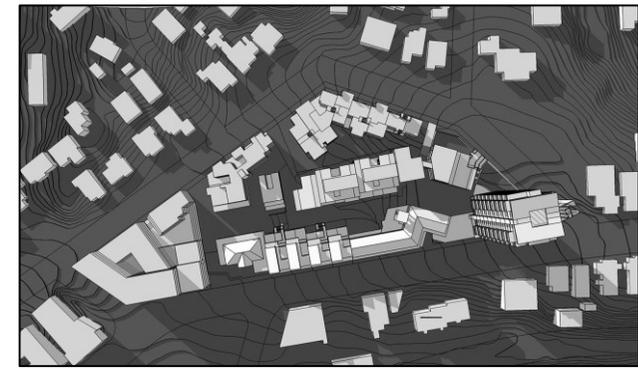
March 5pm



July 8am



July noon



July 5pm

Figure 30: Sun studies summer and winter.

MOVEMENT OF VEHICLES & PEDESTRIANS:

Parking for vehicles is accommodated in underground, single level car parks. This will accommodate both visitors to retail and commercial sites as well as residents. Parking for visitors is on the street.

There is one street for vehicles to gain access to two car parks underneath the apartments and three more car park buildings are accessible from New North Road and Western Springs Road. Having no other internal streets allows maximum space for pedestrians and it is not far to walk from the edge to the middle of the site.

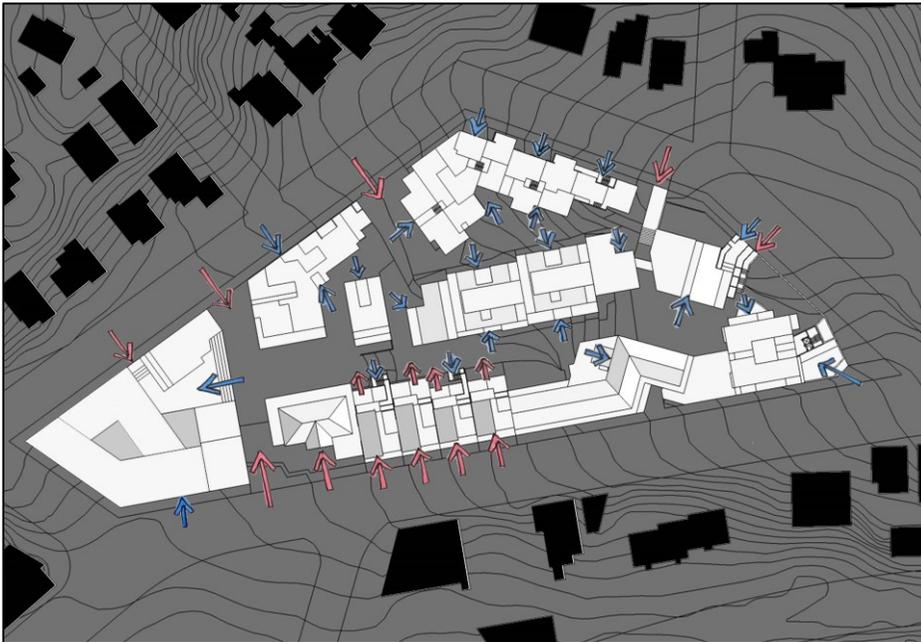


Figure 31: Pedestrian access points. Red = Into site & Blue = Into private spaces

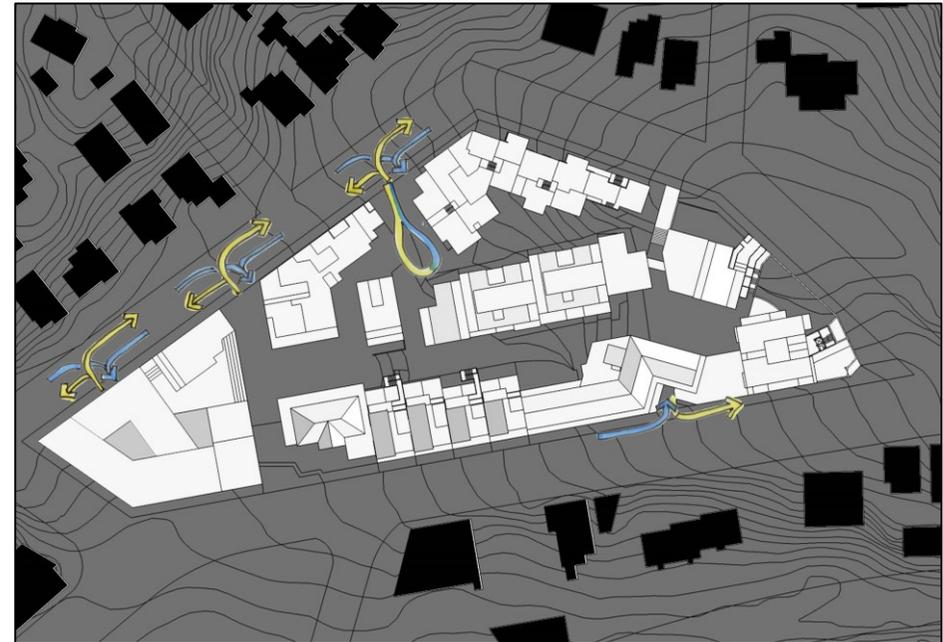


Figure 32: Car access points: Green = Exit & Blue = Entry

A main promenade connects two main plazas to be paved with setts and this provides some texture, but leaves a relatively smooth safe surface. Widening or narrowing, juxtaposition of direction and change in texture of routes guide pedestrians and provide interest along the way. Combining this with retaining walls, planting, benches and trees create interest and stagnation places where the speed of movement through the site can slow down. At these points some degree of privacy may be enjoyed.

PUBLIC SPACE:

There are four main types of public spaces in this project. This creates moderation of human behavior and regulates activities that will take place in these different areas.

1. P1= Public – publicly owned, fully public space. Usually there is a focal point for example a fountain or statue to mark the place and attract people to this point of interest.
2. P2 = Private – privately owned, only used by private owners for private activities.
3. P3 = Privately owned, accessible by public – This is space that is accessible by any person, but is obviously close to and overlooked by privately owned dwellings. Calming landscape design (retaining walls forming corners, trees, benches, etc.) may define the public and private spaces for individuals to enjoy a variety of activities.
4. P4 = Transition space – usually owned by building owner, but it provides a link between the privacy of the building and the public spaces. This may be indicated with a change in paving material, demarcation enclosure with trees or level change.

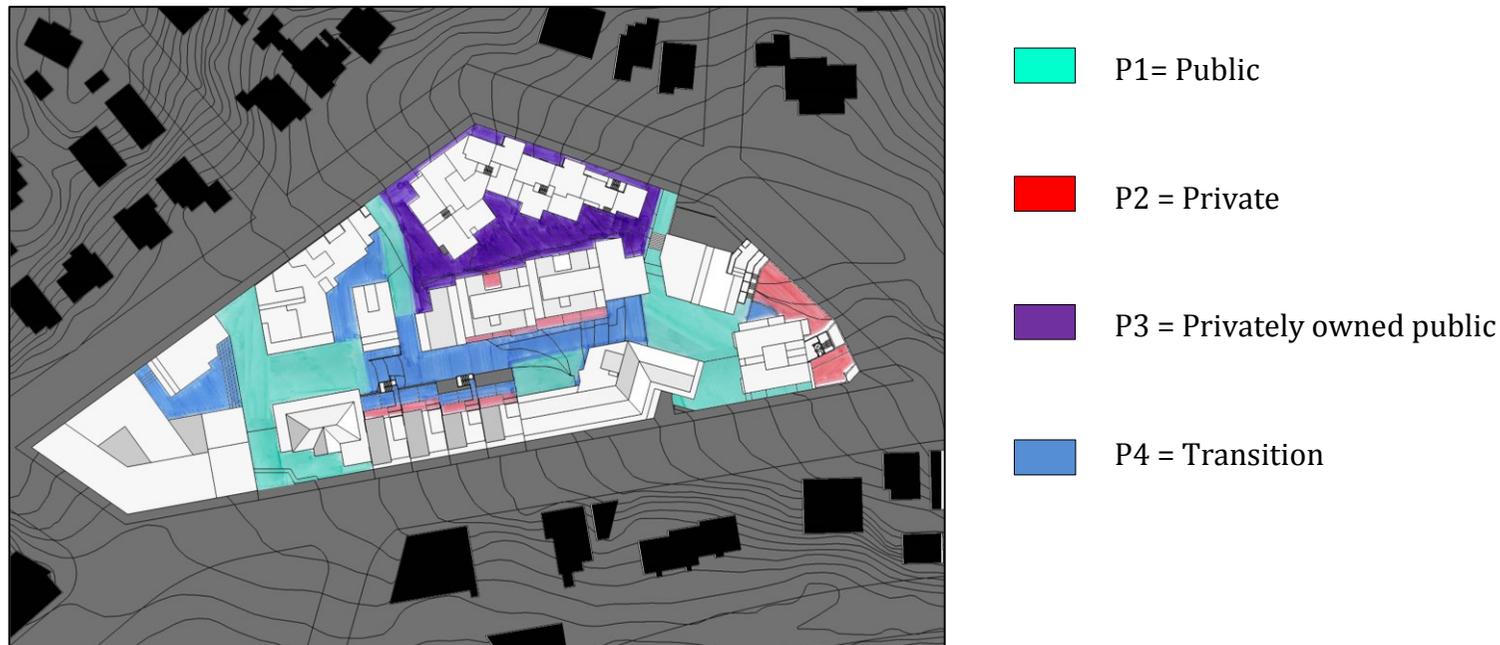


Figure 33: Indication of Public space types P1 to P4

DESIGN & CONSTRUCTION:

Apartments are designed to allow for cross ventilation. A variation in dwelling types and form and control of height above ground level aids in controlling privacy within apartments. Gardening provides another screening to ensure privacy is maintained within apartments despite proximity to walkways and other apartments.

A transition from public to private, starting at the door of the building and continued to the door of the apartment is carried through the entrance into the dwelling to protect the private areas of the home. This is achieved by placement of entrance doors to apartments in such a way that they do not go past bedrooms to get to the lounge areas. In this way private space for withdrawal is ensured.

Green roofs are deployed on most of the lower buildings to support sustainability of the project and provide a better outlook for the tower apartments.

Construction is mainly reinforced concrete slab with columns with external cladding in glass, wood and some blockwork.

10.0

CONCLUSION

The question posed in this document is whether architecture is able to contribute to sustainable management of our resources by the process of regeneration of a rundown area.

Investigating the history of Auckland and the development of the built city shows that it was a product of the inhabitation by people and its design was influenced by human behaviour and human history as well as the shape of the land. Thus, 1950's monocultural development evident in suburbs is a product of time and place. At the time it was thought this model would last forever. However it is now no longer applicable. From this it can be deduced that if the way we live and who we are changes, it should also affect how we continue to arrange the city to suit this new way of being.

The process of research, and then that research extended into a design project has demonstrated ways in which a "liveable superblock" could contribute to sustainable regeneration, and also to import higher densities for further developments of older suburbs such as this. Developments like this transform neighbourhoods socially to integrate disparate communities as well as reflect the ethnic mix of Auckland.

The added complexity of building these changes into an existing environment is a challenging opportunity for architects. This project shows a possible example of how these changes might be addressed in future by using a hierarchy of layers, in particular public to private zones, but also a layering and densification of usage over time by a mixture of residential and commercial functions. The crossover of public space during day to night time to allow a varied group of people to inhabit and interact in these spaces, create optimal use of 'space in the city'. By layering and hierarchical qualities we allow people to create within this environment, patterns of engagement as they see fit. This control over how they interact or withdraw in the environment, together with the advantages brought by closer proximity to others and amenities that dense living provides, would ensure that the tradition of autonomy – being able to make a life that is valued in the quarter acre block model – is maintained in its essential or primary characteristics.

In this form the superblock becomes a liveable environment that has the potential to achieve sustainability in the economic and material sense, and, further, the potential to generate a socially active community.

11.0

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