# Appendix 11.5 North

## Appendix 11.5.1 Albany Centre

**Albany Centre street cross sections**

**Figure 1: Collector (Main street)**

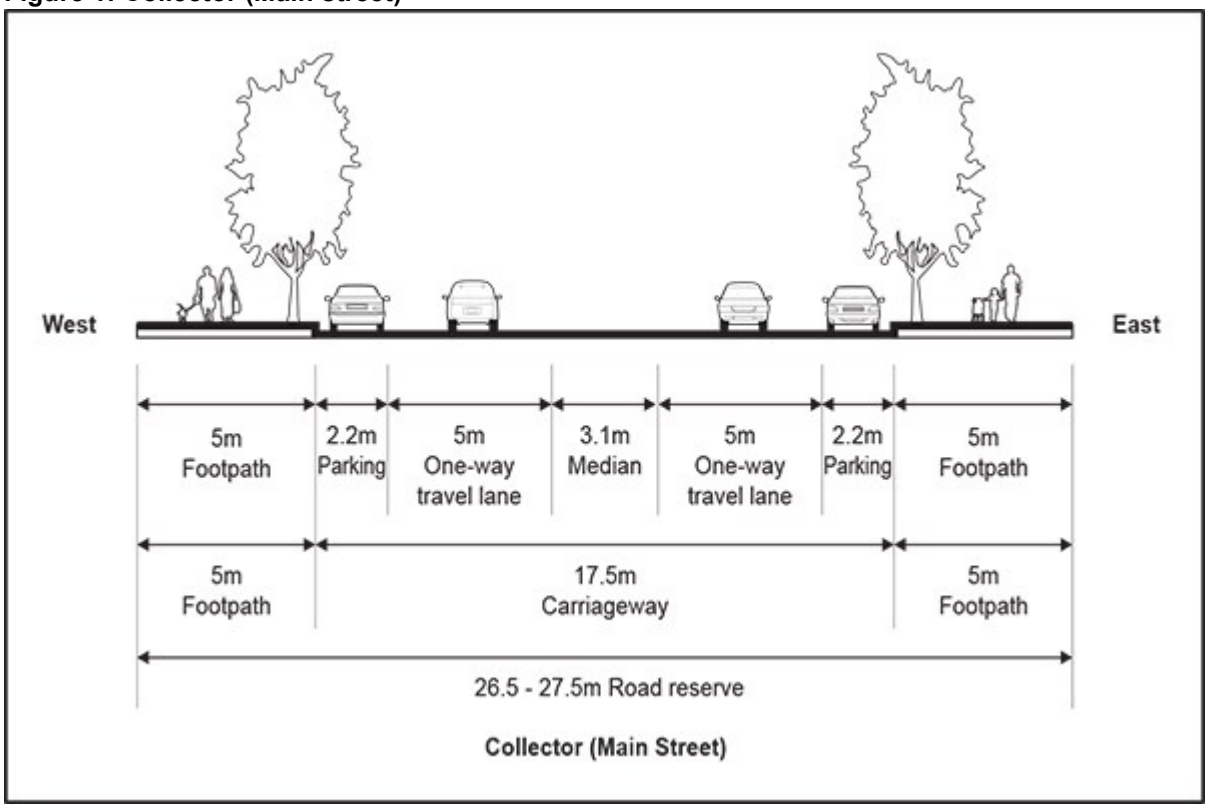



**Figure 2: Collector (Main street) - pedestrian crossing**

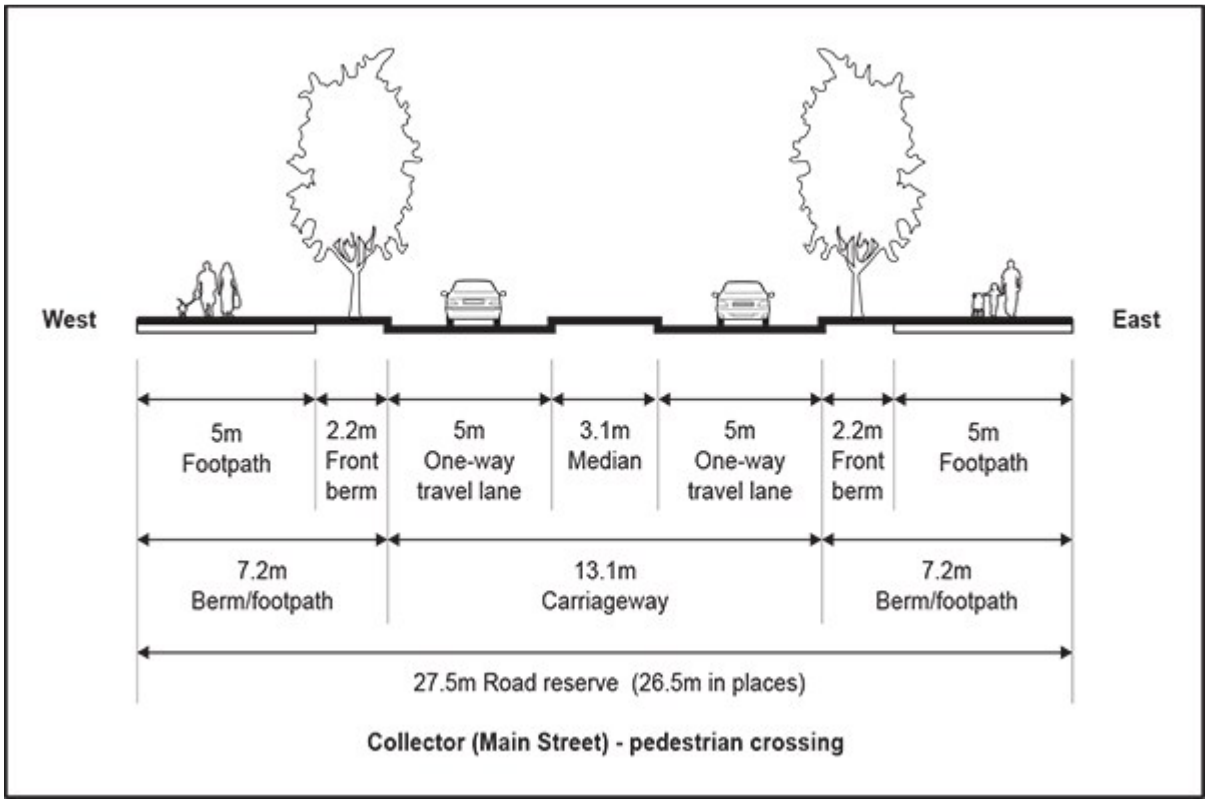



**Figure 3: Local street (Main street)**

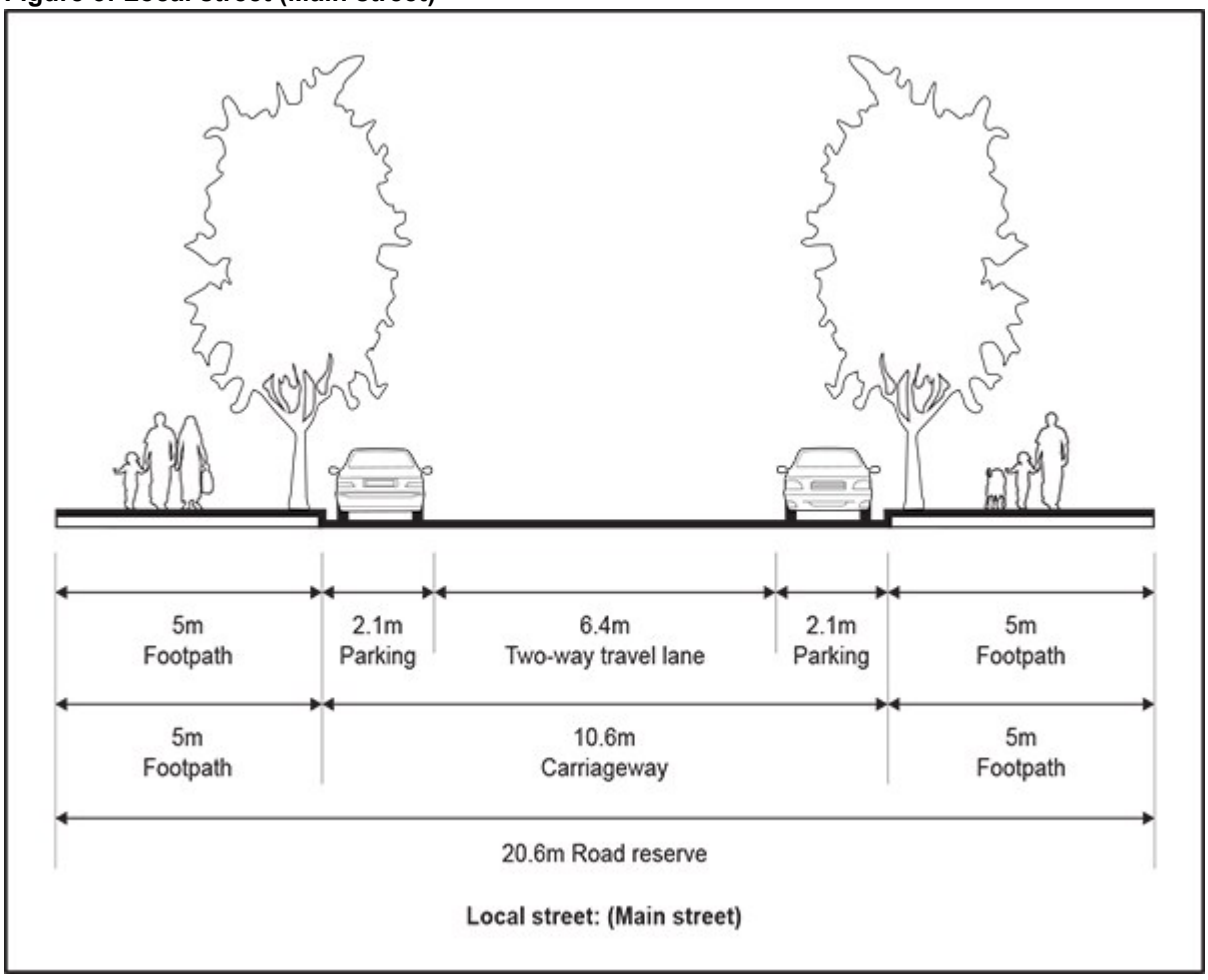



**Figure 4: Local street - North entry (Munroe Lane)**

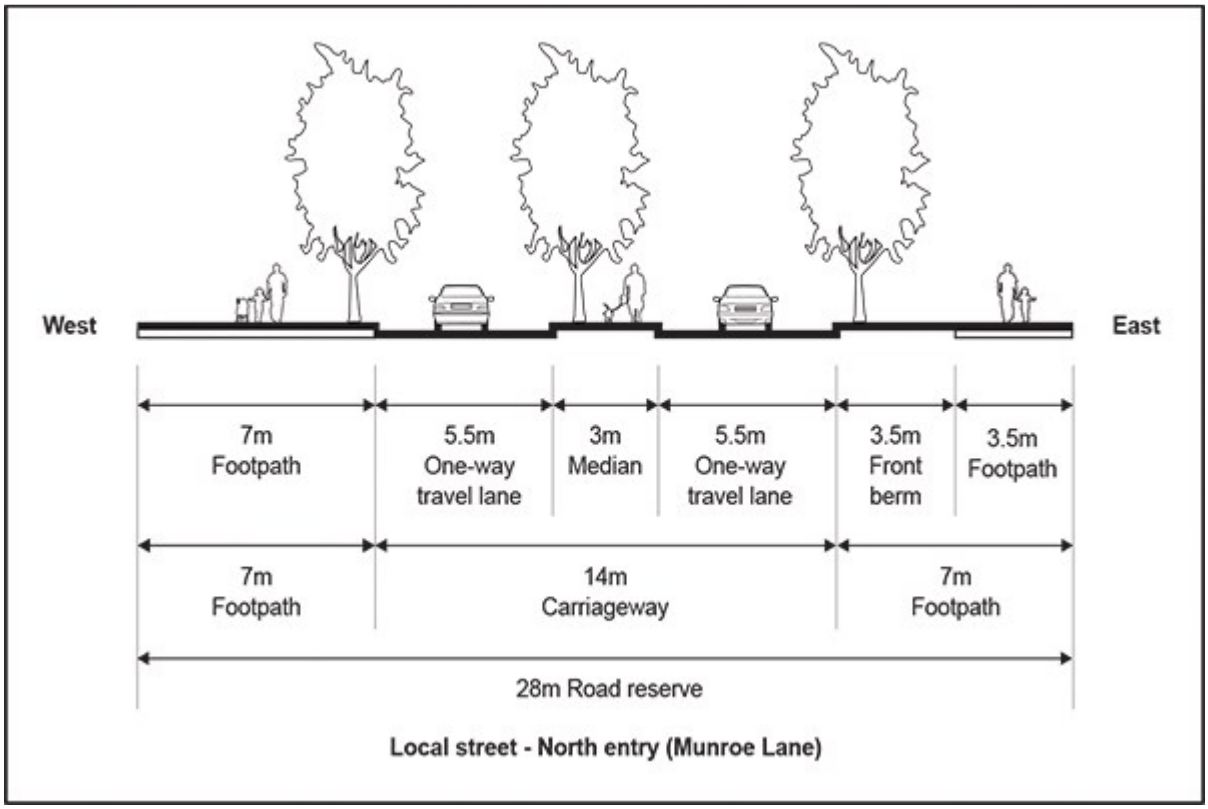



**Figure 5: Local street - East-West / Sub-precinct B to Cornerstone drive**

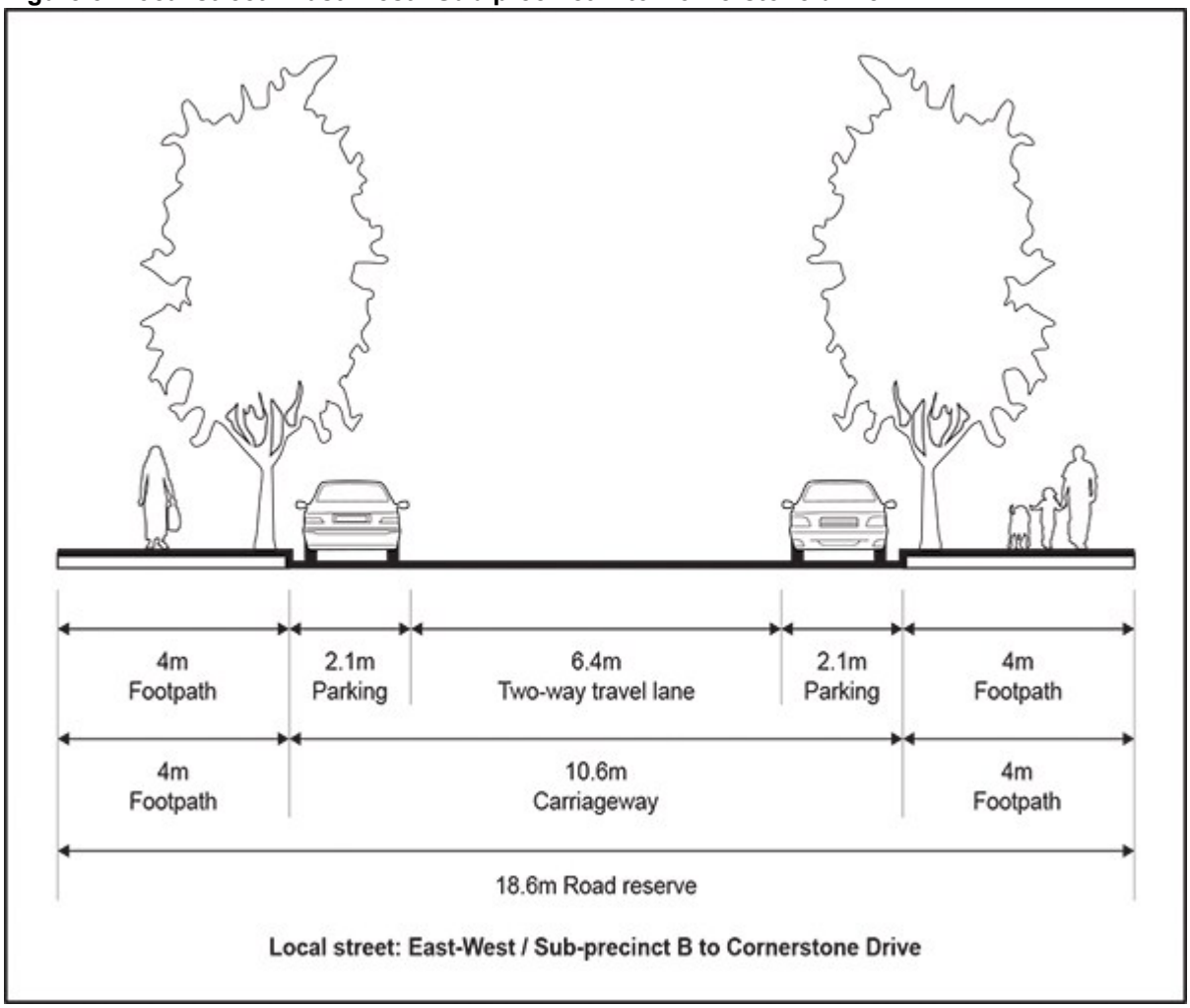


**Figure 6: Local street - Sub-precinct A**

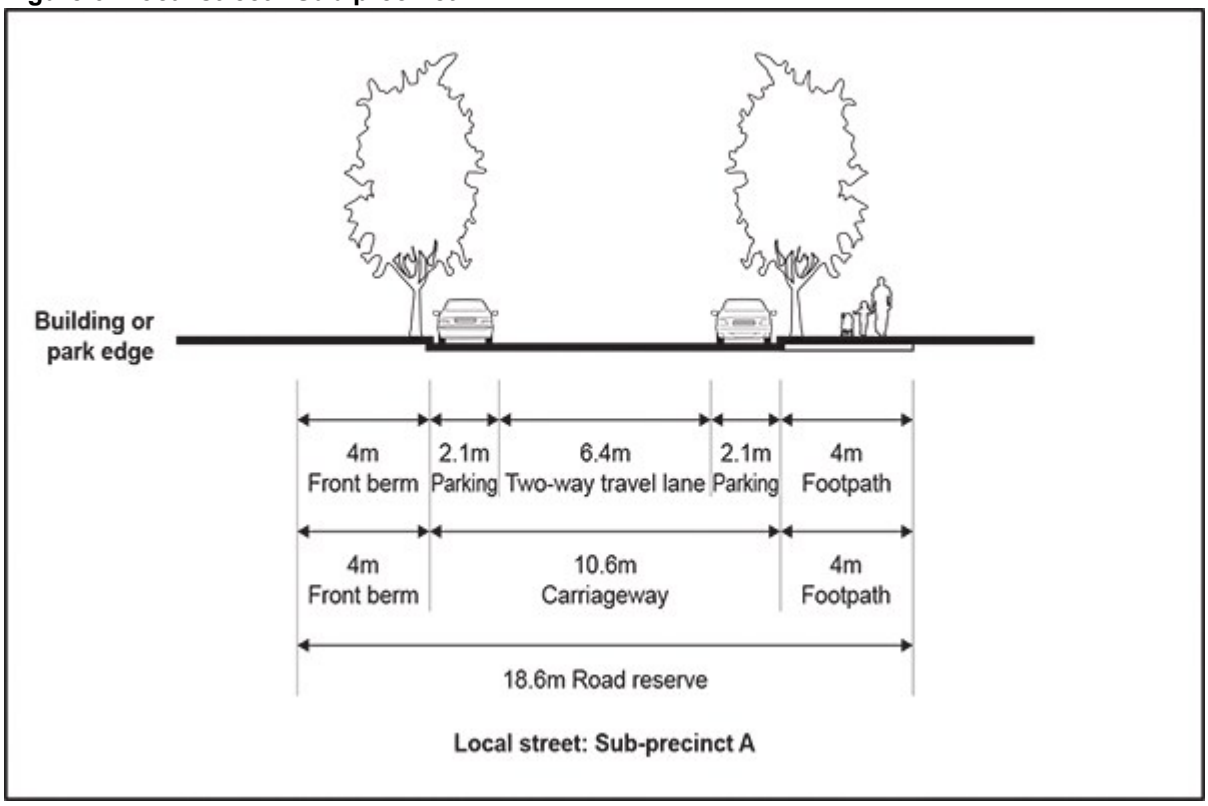



**Figure 7: Local street - Northern park edge**

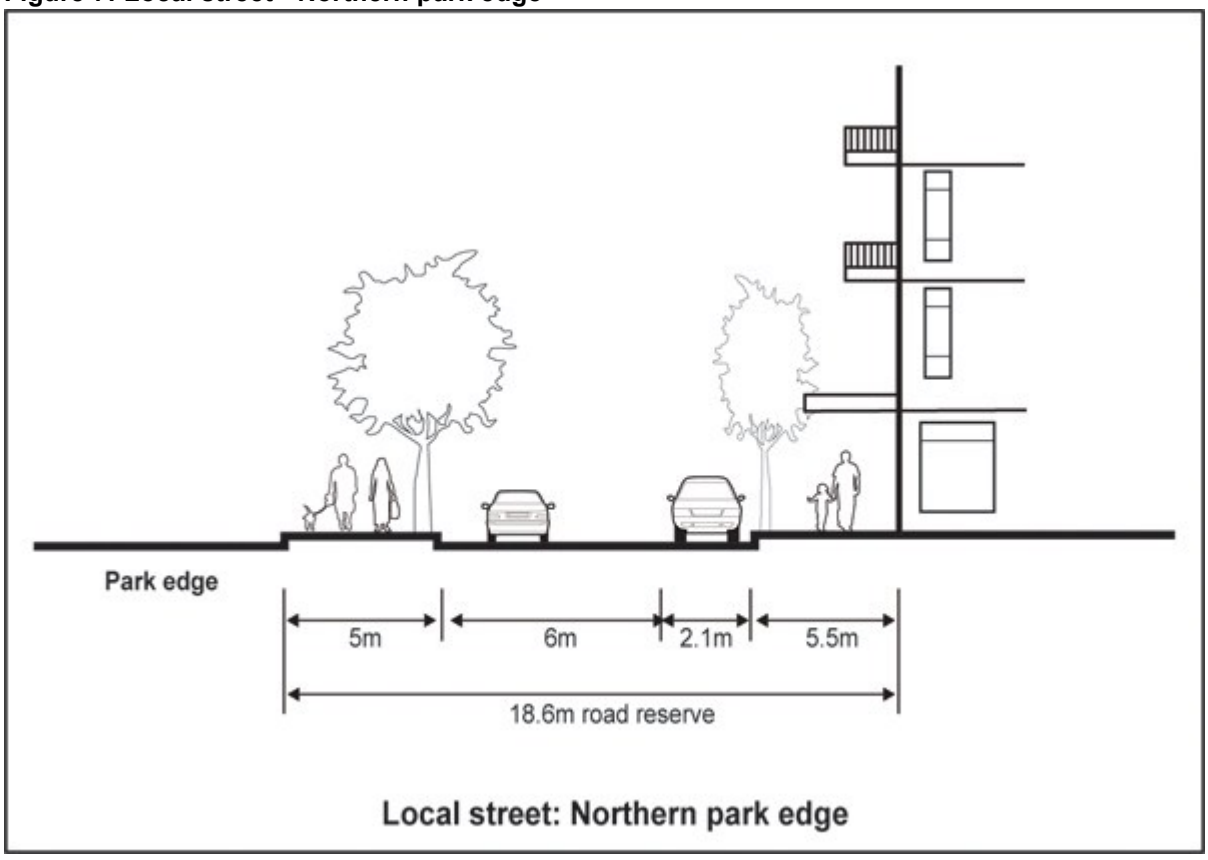


**Figure 8: Other local streets private accessways over 50m**

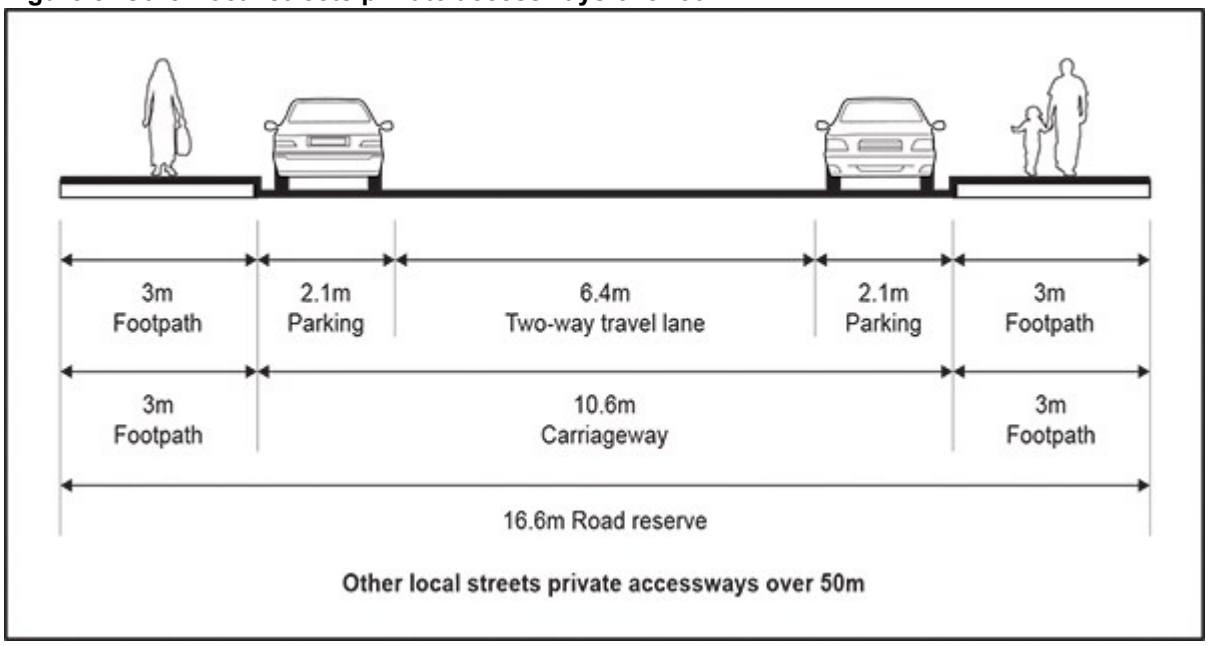
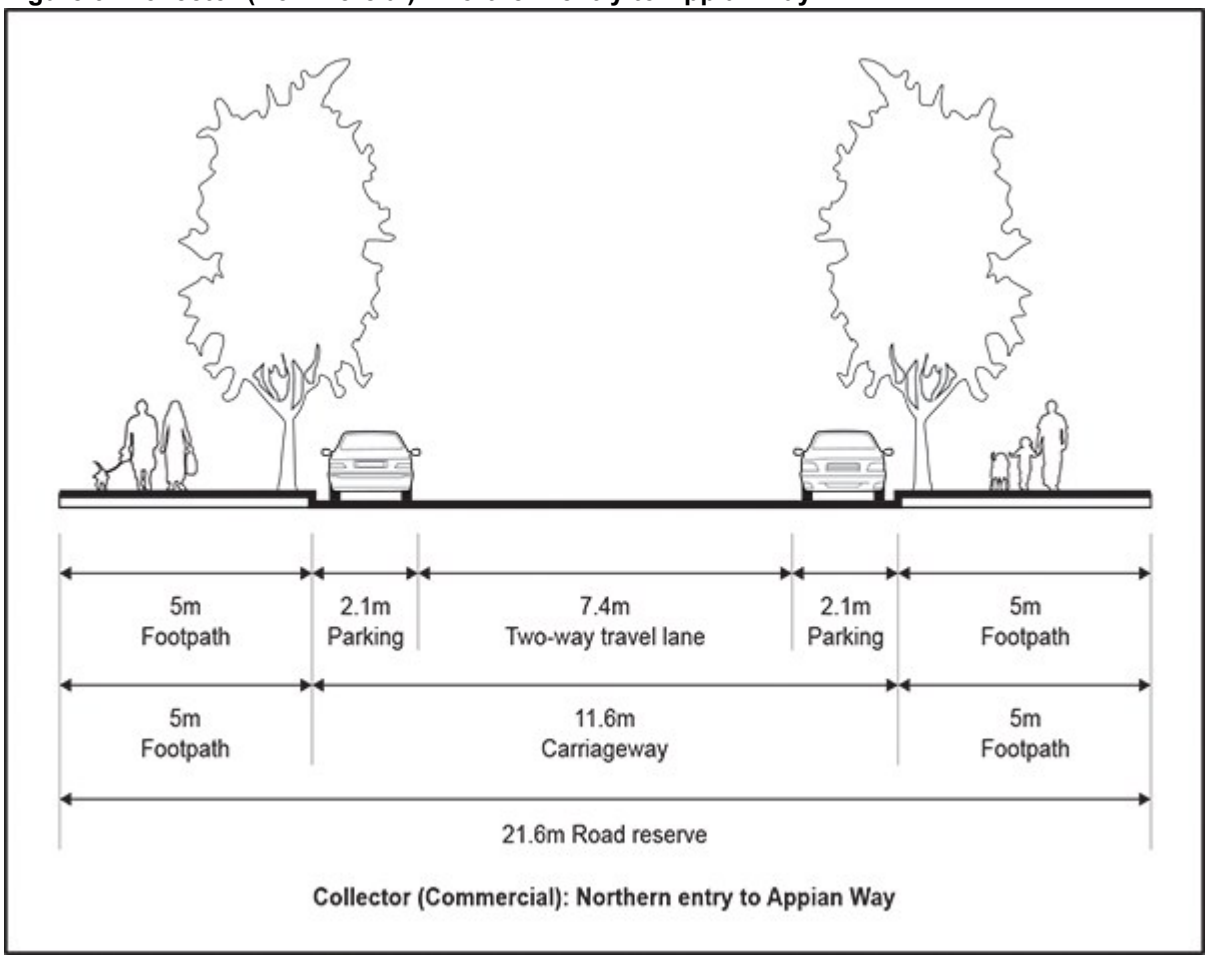



**Figure 9: Collector (Commercial) - Northern entry to Appian way**



## Appendix 11.5.2 Dairy Flat

### Appendix 11.5.2.1 Tree species

| | |
|---|---|
| **Fast growing species** | |
| Alnus | Alder |
| Cordyline | Cabbage tree |
| Kunzea ericoides | Kanuka |
| Populus | Poplar |
| Salix | Willow |
| Pittosporum spp. | Pittosporum |
| Hoheria | Lacebark |
| Pinus spp | Pine |
| **Shrub species** | |
| Hebe | Hebe |
| Griselinia littoralis/lucida | Broadleaf |
| Ngaio | Ngaio |
| Phormium cookianum/tenax | Flax |
| Senecio | NZ daisy |
| **Canopy species** | |
| Dacryocarpus | Rimu |
| Fraxinus | Ash |
| Metasequoia | Dawn redwood |
| Quercus | Oak |
| Taxodium | Swamp cypress |
| Liquidambar | Liquidambar |
| Beilschmiedia | Taraire |
| Podocarpus totara | Totara |
| Podocarpus Dacrydiodes | Kahikatea |

### Appendix 11.5.2.2 Covenant

Click here for PDF

**APPENDIX 2**

**DEED OF LAND COVENANT**

between

[ ]

and

[ ]

**THIS** DEED dated the day of [ ]

**BETWEEN [ ] (Covenantor)**

**AND [ ] (Beneficiary)**

**BACKGROUND**

A. The Covenantor is registered as proprietor of an estate in [ ] in the land more particular described in the First Schedule (**First Land**).

B. The Beneficiary is registered as proprietor of, or is entitled to occupy and use the land more particularly described in the Second Schedule (**Second Land**).

C. The Beneficiary carries out Aircraft Operations from the Second Land, which results or is likely to result in adverse effects being experienced by people in the vicinity of the Second Land. These adverse effects may be generated by noise, vibration, and other usual incidences of Aircraft Operations, which may have consequences beyond the boundaries of the Second Land, including on the First Land.

D. The current zoning of the Second Land provides for Aircraft Operations.

E. Residential activity is provided for on the First Land pursuant to the current zoning of the First Land. The development of residential activity on the First Land in a manner that provides an acceptable level of amenity to the residents may require the adoption of special management techniques, operational features or design elements in order to mitigate adverse effects from the Beneficiary's Aircraft Operations activities carried out on the Second Land.

F. The Covenantor has agreed with the Beneficiary:

(a) to accept for itself and its successors in title to the First Land and any party of or interest in the First Land a restriction (in accordance with the terms of this deed) on any ability to object to any Aircraft Operations activities carried out on the Second Land.

(b) to enter into this deed on the terms and covenants contained herein; and

(c) to register this deed against the computer freehold register(s) and computer interest register(s) to the First Land.

**IT IS AGREED:**

**1. INTERPRETATION**

In this deed the context indicates otherwise:

***1.1*** *Definitions:*

*Aircraft Operations:* ***Includes:***

- ***landing and take-off of any aircraft;***
- ***aircraft taxiing;***
- ***aircraft flying along any flight path identified in the district plan or the Civil Aviation Authority of New Zealand ;***

***activities ancillary to any of the above***

***1.2*** *Defined Expressions:* ***expressions defined in the main body of this deed have the defined meaning in the whole of this deed including the background;***

***1.3*** *Gender:* ***words indicating one gender include the other genders;***

***1.4*** *Headings:* ***section, clause and other headings are for ease of reference only and will not affect this deed's interpretation;***

***1.5*** *Negative Obligations:* ***an obligation not to do anything includes an obligation not to allow that thing to be done;***

***1.6*** *Parties:* ***references to parties are references to parties to this deed;***

***1.7*** *Persons:* ***references to persons include references to individuals, companies, corporations, partnerships, firms, joint ventures, associations, trust, organisations, governmental or other regulatory bodies or authorities or other entities in each case whether or not having separate legal personality;***

***1.8*** *Plural and Singular:* ***words indicating the singular number include the plural and vice versa;***

***1.9*** *Schedules:* ***the schedules to this deed and the provisions and conditions contained in the schedules have the same effect as if set out in the body of this deed;***

***1.10*** *No Limitation:* ***references to anything of a particular nature either before or after a general statement do not limit the general statement unless the context requires;***

***1.11*** *Sections, Clauses and Schedules:* ***references to sections, clauses and schedules are references to this deed's sections, clauses and schedules.***

***1.12*** *Statutes and Regulations:* ***references to any statutory provision include any statutory provision which amends or replaces it, and any subordinate legislation made under it; and***

***1.13*** *District Plans:* ***references to any District Plan include any instrument that amends or replaces it.***

2. **Acknowledgement of effects:** The Covenantor acknowledges that the First Land is in close proximity to the Second Land on which the Beneficiary undertakes Aircraft Operations. The Covenantor also acknowledges that the carrying on of the Aircraft Operations during times authorised by the district plan or a resource consent and may involve noise, vibration and light spill, which may generate adverse environmental effects, which residents of the First Land may find disturbing and inconvenient.

3. **Entitlement to carry out activity:** The Covenantor acknowledges that the Beneficiary is entitled to carry out Aircraft Operations on the Second Land.

4. **Noise levels:** The Covenantor acknowledges that the Beneficiary's Aircraft Operations operate and may continue to operate at night creating very loud noise, significantly above $L^{dn}$65dBA.

5. The Covenantor for itself and its successors in title to the First Land (or any part of it) hereby covenants, acknowledges and agrees with the Beneficiary and its successors in the title to the Second Land or any part of it as a positive covenant for the benefit of the registered proprietors and users from time to time of the Second Land, that the Covenantor will henceforth and at all times hereafter observe and perform all the stipulations and restrictions contained in the Third Schedule and this deed to the end and intent that each of the stipulations and restrictions shall, in the manner and to the extent prescribed, forever enure for the benefit of, and be appurtenant to, the whole of the Second Land and every part thereof.

6. The Covenantor acknowledges that the terms and covenants contained in this deed shall bind and run with the First Land and the Covenantor shall do all things necessary to effect registration of this deed against the computer freehold register(s) and computer interest register(s) to the First Land.

7. **Separate interests:** Where the Covenantor is the registered proprietor or proprietor of an estate in leasehold which is of a separate and definable interest in the First Land in respect of which a separate instrument of title has issued (separate interest), the obligations of the Covenantor set out in this deed will relate only to the Covenantor's separate interest and not a separate interest of any other registered proprietor of the First Land or any part of or interest in the First Land.

8. **Indemnity:** The Covenantor agrees that it will at all times indemnify the Beneficiary from all proceedings, costs, claims and demands in respect of breaches by the Covenantor of the terms and covenants contained herein and implied on behalf of the Covenantor which occurred while the Covenantor was the registered proprietor of the First Land.

9. **Conduct of Aircraft Operatons:** The Beneficiary must conduct its Aircraft Operations in accordance with the provisions of any relevant plan and/or resource consent granted to it, and/or any existing use rights, in relation to Aircraft Operations.

Executed as a deed.

**SIGNED** by **[ ]** as Covenantor:

| | |
|---|---|
| _____ | _____ |
| Full name of directors/authorised signatory | Signature of director/authorised signatory |
| _____ | _____ |
| Full name of directors/authorised signatory | Signature of director/authorised signatory |

Witness:
(*if other than two directors sign)*

_____
Signature of witness

_____
Full name of witness

_____
Occupation of witness

_____
Address of witness

**SIGNED** by **[ ]** as the Beneficiary:

| | |
|---|---|
| _____ | _____ |
| Full name of directors/authorised signatory | Signature of director/authorised signatory |
| _____ | _____ |
| Full name of directors/authorised signatory | Signature of director/authorised signatory |

Witness:
(*if other than two directors sign)*

_____
Signature of witness

_____
Full name of witness

_____
Occupation of witness

_____
Address of witness

## FIRST SCHEDULE

## (Land)

The **[ ]** interest(s) in computer freehold register/computer interest register [ ] being [ ].

## SECOND SCHEDULE

**(Second Land)**

***Describe the Second Land***

## THIRD SCHEDULE

## (Covenants)

The Covenantor agrees that it shall not lodge or permit to be lodged with the Environment Court, the High Court, Auckland Council or any other authority having jurisdiction, any objection to the Beneficiary carrying out its Aircraft Operations from the Second Land. In that regard the Covenantor agrees it shall not:

1. Lodge, permit to be lodged or encourage any other party to lodge with the Auckland Council, the other authority having jurisdiction any submission in opposition to any application by or on behalf of the Beneficiary for resource consent to carry out Aircraft Operations on or in connection with the Second Land or for a change to the terms and conditions of any such resource consent.
2. Lodge, permit to be lodged or support or encourage any other party to lodge or support any complaint with the Auckland Council or other authority having jurisdiction regarding the carrying out by the Beneficiary, its servants or its invitees of Aircraft Operations on or in connection with the Second Land.
3. Make, support, permit to be made or encourage any other party to make or support any application to the Environment Court for a declaration or enforcement order regarding the carrying out by the Beneficiary, is servants or its invitees of Aircraft Operations on or in connection with the Second Land.
4. Make, support, permit to be made or encourage any other party to make or support any application to the High Court or any other judicial body for an injunction, declaration or other order concerning the carrying out by the Beneficiary, its servants or its invitees of Aircraft Operations on or in connection with the Second Land.

## Appendix 11.5.3 Huapai North

**Huapai North design guidelines**
Click here for PDF

# HUAPAI NORTH DESIGN GUIDELINES

## 1.0 INTRODUCTION

The following design guidelines are to be utilised by landowners and planners at the early planning stages of land development and also by Resource Consent Processing Planners when assessing applications for development concept plans, subdivision and land use. Many of the concepts are general design principles and others are more specific to the Huapai/Kumeu context.

## 2.0 THE DESIGN PRINCIPLES

The design principles have been divided into the following categories for ease of reference:

2.1 Context & Site Appraisal
2.2 Density
2.3 Layout
2.4 Built Form
2.5 Landscape Design
2.6 Sustainable Principles
2.7 Local Shops

For ease of reference a checklist has been included after each section. This gives guidance to any assessment, however, the entire section should be read for a full understanding of the design concepts.

## 2.1 Context & Site Appraisal

Historically, the Kumeu-Huapai area has been an important river and portage route for Maori and others involved in trade. Throughout the nineteenth century the area has seen the development of smaller land holdings involved in a wide variety of farming and market gardening activities. More recently (since the 1950's), the area has become well known for its vineyards, horses, orchards and exotic food production. From this background the local population has developed a strong sense of community and independence.

The Huapai North sub-precincts plan for Huapai provides the framework for future development but does not replace the need for the constituent developments to evaluate and understand the context for the development and site character. Understanding the relationship of the development to its neighbours and broader community should ensure that the design response is sympathetic to the physical and social environments. The following points highlight the issues that should be taken into account BEFORE generating a design solution.

What is the character of the setting of the site e.g. to what extent is the site visible on approach and what is the outlook?

- What is the surrounding landscape like as well as the pattern of surrounding development?

- How is the site approached and what connections are there to the broader locality?

- What are the site boundaries like and how will the proposal relate to neighbours – privacy/views?

- Does the site have natural features such as trees, hedgerows and water courses that can be used to inform the design and add maturity and richness to the final scheme?

- What is the landscape form (contours) like and how does this influence the design approach.

- Are instances of cut and fill able to be minimised and groundwater and natural water courses protected from sediment and contamination.

- Are there natural habitats and watercourses to be protected?

Huapai North greenways/watercourses seek to reinforce the natural topography and generally should not be significantly modified as they form the backbone to Huapai North and link the Huapai Reserve with the River


In addition to the basic structure of streets, public spaces and infrastructure taking account of the natural landforms and ecosystems, the landscape treatment within the subdivision can reinforce the natural setting and provide a sense of place and character within the development. The development is intended to be a rural garden village scheme relative to the surrounding parklands and green corridors while also being a community with a heart in the form of its own small local shops and park. The Kumeu River and Riverhead Forest form dominant features within the outer edges of the development and over time connecting green corridors will enhance the rural character of the Kumeu-Huapai area. As such, it is intended that the scheme will optimise both the physical and visual connectivity with the river and forest.

## Checklist:

✓ / X

(a) Does the proposal work with existing contours and topography rather than undertake extensive earthworks? ☐

(b) Are there any existing features such as view shafts or vegetation that are able to be retained to add to and enhance the character of the area? ☐

(c) Are natural watercourses retained and protected where possible? ☐

(d) Does the development reflect the existing character and setting of the site? ☐

(e) Is appropriate connectivity provided, and does the development respond to the setting of the site? ☐

## 2.2 Density

Within the precinct the Council has identified a range of housing densities for different policy areas. The purpose of this approach is to achieve an overall development that relates well to the rural environment of Huapai but also creates additional housing choice for a variety of needs and desires. The majority of the allocation of housing density sits within the 700m$^2$ – 900m$^2$ section size, as this is the most common size to the surrounding area and therefore in design terms provides the characteristic development 'grain'. Larger 'transitional' areas of 1500m$^2$ plus to reflect the more historic rural village sites are located adjoining the rural edge. There are other areas within the Plan however that advocate a higher density approach for sites 450m$^2$ – 600m$^2$. These locations have been selected to take advantage of areas of extensive open space, along main streets and within walking distance of the Huapai town centre. It is considered that density greater than this will have adverse effects on the rural village character of the area.

Sustainable subdivision emphasises a more site-responsive design and an urban structure which encourages more walkable neighbourhoods, offering people the opportunity to be less dependant on cars and more able to meet their needs at a local level.

Whatever the defined policy area and corresponding density the proposal is located within, there are similar questions that must be answered by the successful design.

*Sketch elevation showing different housing densities but where the same proportional relationship of building to site area has been applied.*

Those lots 450m$^2$ – 600m$^2$ in site size are able to create an active edge to the Huapai Reserve and other selected areas within the Huapai Medium Intensity Residential Policy Area providing passive surveillance to these areas.

## Checklist:

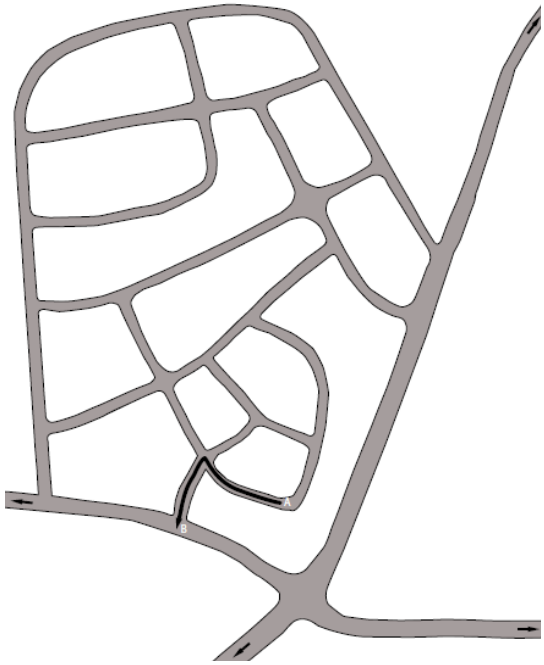
✓ / X

(a) Are areas identified for sites less than 600m$^2$ located so that all sites front areas of open space? ☐

(b) Do sites within those areas identified for Low Intensity Residential development maintain a site size equivalent or close to 1500m$^2$ and retain the rural village character of the area? ☐

## 2.3 Layout

Conventional post-war subdivision has increasingly been designed to accommodate cars, disadvantaging pedestrians and in turn, perpetuating the need for more car dependence. Sustainable design acknowledges that people need to drive and park cars but that streets can be designed to encourage not deter pedestrians, which also makes it safer and more convenient for people walking to catch passenger transport. A street network that is more connected makes a place easier for a pedestrian to navigate, by providing a choice of routes to move between designations, creating shorter and more direct journeys than is acceptable by car.



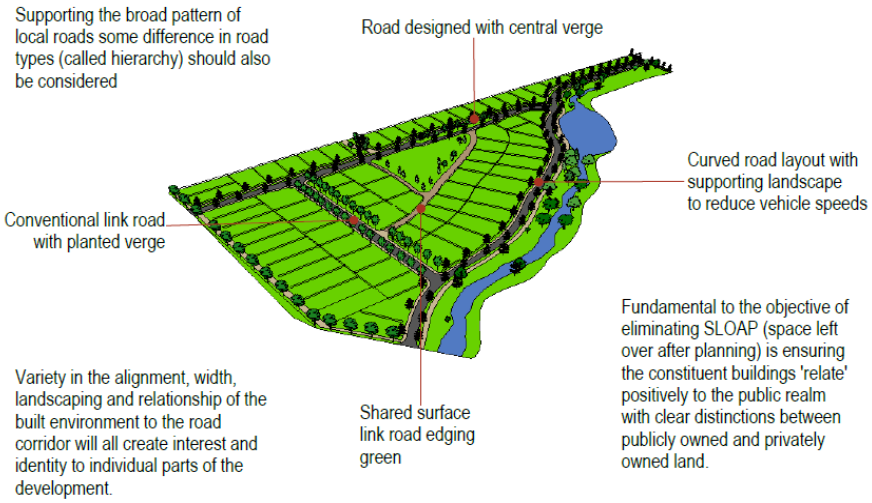
☒ Getting from point A to point B in this type of layout is lengthy and therefore time consuming for the pedestrian. With this sort of layout high levels of car dependence even for local trips is likely.

☑ This layout creates more convenient connections reducing the reliance on cars and encouraging walking for short trips.

Road layouts that allow multiple routes and real choice for all modes of transport, with residential blocks generally of no greater than 120m length, remains the best approach to avoid adverse effects and provide for wellbeing.

Supporting the broad pattern of local roads, some difference in road types (called hierarchy) should also be considered. The indicative road widths provide the pattern for the main local roads but there will, below this layer, be smaller roads which service development clusters. Variety in the alignment, width, landscaping and relationship of the built environment to the

road corridor will all create interest and identity to individual parts of the development as well as help to reduce vehicle speeds.




The number of dwellings that the road serves as well as the intended road speed will assist in decision making on the minimum road widths, footpath widths, proposed tree planting, the use of swales and whether traffic calming measures are required. Swales also add to the character of roads. The sketches attached to this design guideline show a variety of road types that together form a hierarchy. These include the following road types:

- Linkage Road
- Collector Road
- Neighbourhood Road
- Local Road
- Greenway Road

The location of these road types within the Huapai North area are outlined on the Huapai North road layout and open space plan. At one end of the hierarchy, the linkage road is a wider road which incorporates wide reserve areas to provide an area of high amenity between Matua Road and the local shops area. At the other spectrum of the hierarchy, the greenway road is a narrower road which fronts areas of open space.

In addition to the road 'hierarchy' the layout of the houses or local shops will strongly influence the character of the development and create points of visual interest within the broader development. The integration of housing layout, road hierarchy and landscaping (see later section) is crucial to achieving a coherent form of development and avoiding 'left over spaces'. Such areas are often referred to as 'Space Left Over After Planning' (SLOAP) and are characterised as areas which neither rest comfortably as part of the public realm (publicly owned) or private. Thoughtful design will eliminate these areas and ensure that all parts of the proposal rest somewhere within the spectrum of public – privately owned space.

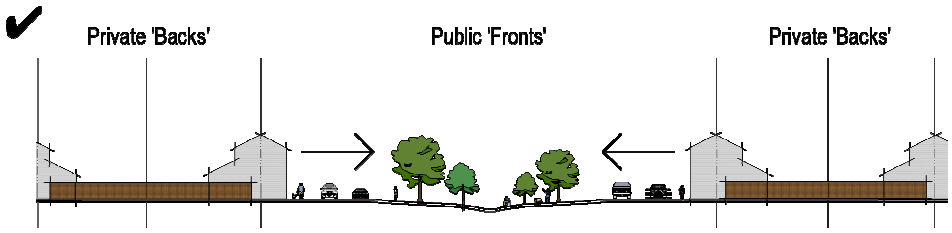
Fundamental to the objective of eliminating SLOAP is ensuring the constituent buildings 'relate' positively to the public realm with clear distinctions between publicly owned and privately

owned land. Positioning buildings so they overlook public areas including roads guarantees not only a measure of overlooking and therefore perceived security for pedestrians but also an understandable built edge for people. Developments which do not 'address' the street are confusing, especially for visitors and deliveries, and are contrary to the established character of our settlements. The drawings and photographs below illustrates the approach of positioning houses where their 'front' addresses the street and clearly defining ownership and responsibility.

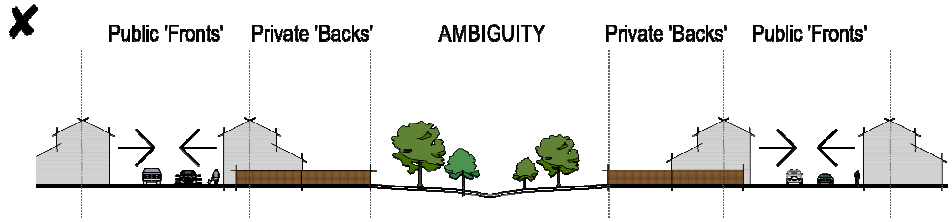
Open spaces can also critically offer a protected outlook from surrounding sites that if marketed will can add value through their guarantee of never being built-out. Where possible the integration of existing vegetation and waterways into open space and movement networks is encouraged as it builds on the character of an area.

*When land uses relate well to public open spaces they provide a greater feeling of safety due to the number of potential 'eyes on the street' that act to discourage crime from occurring.*

## Public Fronts and Private Backs




ORGANISED – Users will have little doubt over who is entitled to use which space. Activity is focused towards public spaces offering the safest, highest-amenity environments possible.




DISORGANISED – Users are less likely to use some parts of space due to poorly defined 'ownership'. Many public spaces are treated with weak interfaces, poor lighting, and so on. Safety and quality declines, as does social interaction.

## Streetscape

The design vocabulary (forms, scale, colours, rhythm, textures and materials used for buildings, signage, lighting, seating, paving, planting and other street elements) shall be developed to repeat or complement existing adjacent or adjoining residential development, while noting that excessive repetition of building forms and other features which can create visual monotony. It is therefore important that roads, buildings and other key streetscape elements provide variety and contrast.

Existing and new vegetation can be used to soften the mass of buildings as viewed from off site. A continuous planting theme of a certain species on a street or streets that form a single level in the roading heirarchy can provide an indicator of a different street environment i.e. local road v's lane or collector road. Co-ordinated street planting can also assist in the legibility of an environment and enhance a feeling of neighbourhood.

## Lot Shape

Generally narrower deeper lots that allow for usable backyards are preferable to wider shallower lots that have little or no back yards.


## Avoid Internal Address Driveways

Higher density housing often fills the most awkward sites left over after subdivision – commonly land locked sites

in deep blocks with limited site access. Avoid dwellings that have an internal address to a driveway. In Huapai North the higher density sites (450m$^2$ – 600m$^2$), are to be located within sub-precinct B which is located adjacent to parks and areas of amenity. These are strips of land rather than large blocks and as such will not lend themselves to large internal type developments. Rather these developments will frame the park edge and provide passive surveillance of the area.

## Checklist:

✓ / X

(a) Are recreation amenities located so that awareness of them and pedestrian access to them is obvious and easy? Are public spaces clearly public and private spaces (backyards) clearly private? ☐

(b) Are open spaces directly fronted by a public road, and is passive surveillance from dwellings overlooking the space provided? ☐

(c) Is private open space obvious and prominent? ☐

(d) If there are any natural areas or cultural features in the area, have these been incorporated into open spaces? ☐

(e) Do roads allow views of surrounding countryside or internal green spaces to contribute to legibility and orientation around the street network? ☐

(f) Does the proposal deliver a connected street network that provides a variety of direct routes for pedestrians along the network and includes traffic calming measures where appropriate? ☐

(g) Is the roading network well connected and does it minimise the use of cul-de-sacs and minimise residential block length? ☐

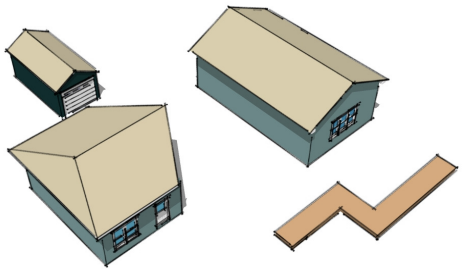
(h) Are walkway and / or cycle networks provided as a part of the street network and do these link with areas of open space? ☐

(i) Does the proposal create a road 'hierarchy' to support the development of distinct character areas within the development? ☐

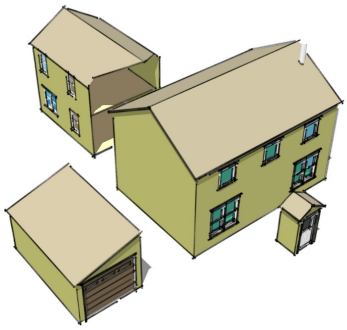
## 2.4 Built Form

The way that buildings relate to one another is important to create points of visual interest, develop a measure of street enclosure and provide a gentle continuity, without excessive repetition of building forms and other features which can create visual monotony.

Simple rectangular forms of building provide the built character of much of the surrounding area. These simple forms can be added to provide additional elements such as extra rooms, garages or porches and verandahs. Simplicity in building design generally produces a harmonious street scene which when combined with landscape elements people find comfortable.



Simple forms of building of relative proportion and scale can be combined to achieve generous floorspace and coherent building design.



Double storey building using the same design principles.

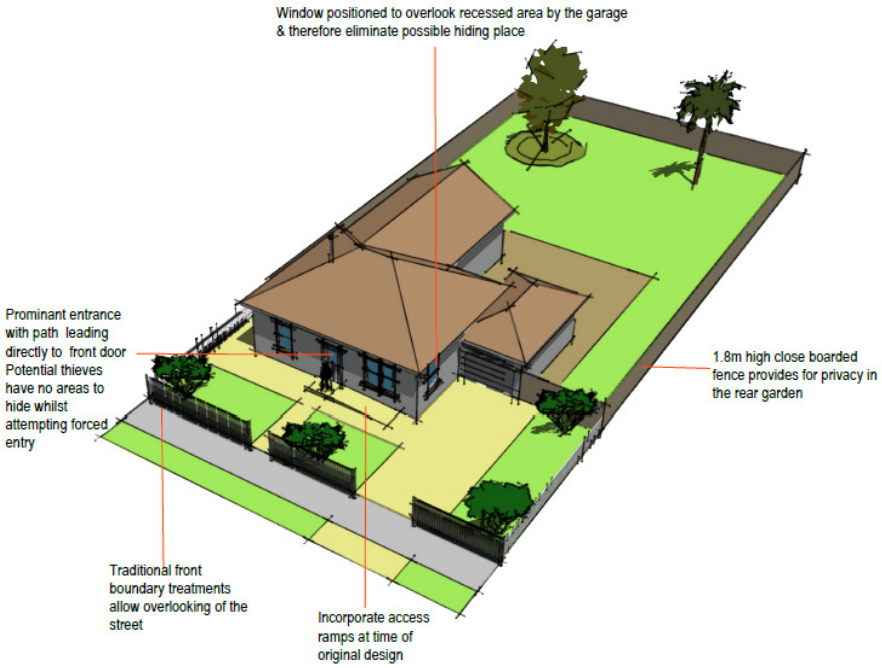
Projecting recessive secondary elements can be used to break down the scale of a larger block. Additive forms can reduce the scale of a larger block. A cluster of roofs reduces the scale of a larger block.

### Façade Design

Largely irrespective of architectural 'style' the organisation of building facades often share similar characteristics which help in creating a logical and rhythmic street scene. Generally buildings in more urbanised locations will be organised with a vertical emphasis (in response to narrower sections) in the organisation of the buildings elevation whilst in suburban and rural areas there is more of a tendency towards balanced or horizontal emphasis. The sketches below illustrate the differences between the three approaches. With the exception of perhaps the area within the plan shown for local shops the organisation of residential facades should be balanced or horizontal in emphasis.

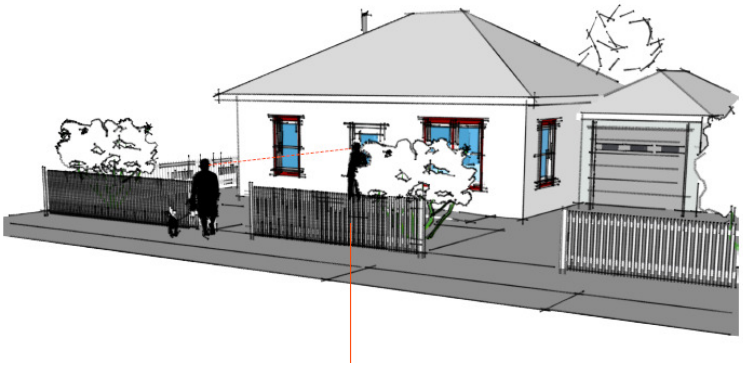
## Connection – Front doors

Residential properties should create adequate connection to streets and public spaces. This will ensure outcomes that convey a sense of safety, interest, activity, quality, and value. Emphasising the front door within the dwelling frontage, preferably including a canopy or other cover, helps direct visitors. A direct path or connection between the front door and the street should be provided to reinforce this. Clearly defined approaches deny opportunity for thieves to excusably access private parts of a site looking for entry.

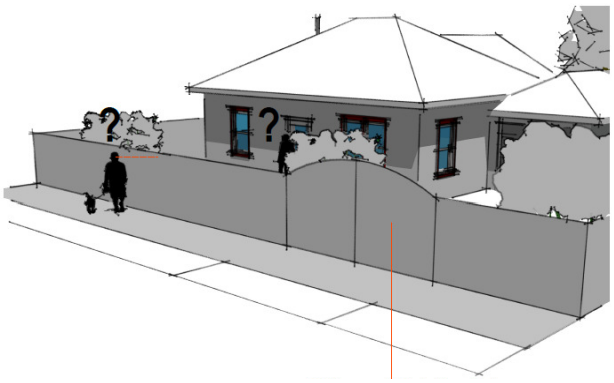



## Surveillance – Active front room

Maximising the amount of glazing from an active living room (a kitchen, dining room, lounge or family room) on the front elevation helps to reinforce a sense of surveillance and security to and from the street or public space. This again helps ensure a sense of personal safety for all users. Upper floors should also have windows overlooking the space, with elements such as balconies or bay windows to add interest and articulation to the façade.



*Traditional boundary treatments guarantee a degree of connection between the house and the street. This simple relationship allows for casual overlooking and for the house to be connected to the community.*




*Solid fences create a barrier between the house and the street preventing casual overlooking and therefore 'policing' of the street. Such design measures whilst effective in achieving privacy, start to remove the house from its surrounding community and can also be a target for 'tagging'.*

## Roof Design

Just as the overall massing of buildings should be simply organised into 'additive' elements, the roof design should follow the same organising principles. Generally this will mean that the ridge of the main roof will be parallel with the direction of the street. Gables are often an element which can help reduce the overall scale of large roofs.

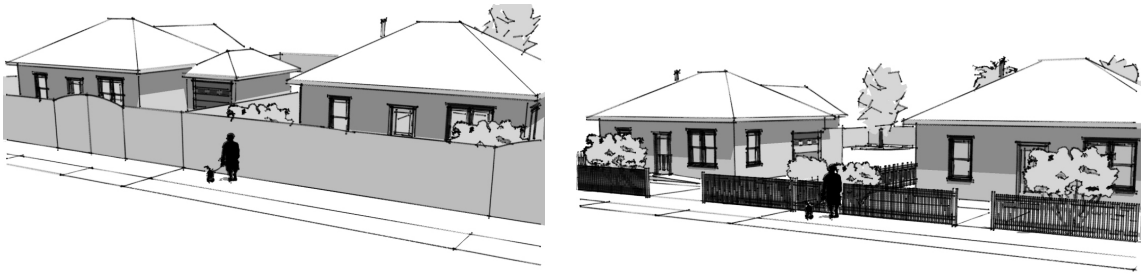
*Sketch showing a variety of roof types and their inter relationship with one another.*

*Individual gabled roofs, changes in materials and projecting elements can be carefully combined, particularly in multi unit housing, to break down the front elevation and reduce the 'bulky' appearance of buildings.*

## Yards and Boundary Definition

Front yard treatments (both "hard" surfaces and green landscaping) play an important role in the attractiveness of a neighbourhood. Planting and fences should contribute to a street, rather than create a hostile barrier, and ensure visitors and passers-by feel safe and welcomed, whether arriving by foot or car.

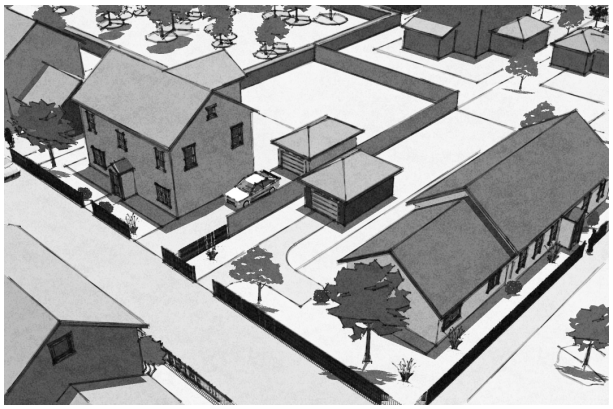
Front yard landscaping – To maintain easy visibility between the street and the house, fences should be kept below a maximum height of 1.2m. Taller side fences should stop at or behind the façade of the house, with any gates to side or rear yards also behind the line of the façade. Low front fencing can be extended perpendicular to the street to meet the side fence and/or to fence front yards or paths from driveways. Low fences at the front of the house should maximise visual permeability between the house and the street.



*Single storey buildings should generally sit no less than 1.3 metres from the side boundary inclusive of eaves.*

## Outdoor Spaces - Private

Private outdoor spaces function best when located to the side (set back from the front elevation) or rear of a house, with the building forming a visual barrier to the public realm. Solid fences over 1m high around the sides and rear of a property are appropriate, but not for front gardens. Front boundaries should be defined by fences no higher than 1m to ensure the house still maintains a visual connection to the street.

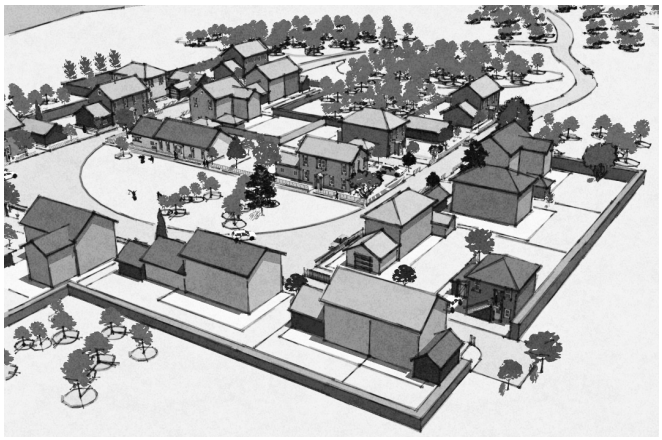


*Lower boundary to the front and taller and more solid boundary definition to the side and rear of the house creates a balance between overlooking the street and having private outdoor space.*

## Garage location

Designing to accommodate garages and parking needs to be considered in light of not only the individual site but the collective impact on the street scene. In comparatively low density environments such as Huapai garages and parking can easily be accommodated within the section.


Location within the section however is still important with the most successful solutions ensuring that the garage door elevation is set back form the house façade (see sketch below). On larger sites garages can if carefully detailed sometimes be positioned successfully to help define the public and private realm (see sketch).



*Garages are located and detailed to be subservient to the street scene.*

A final consideration with regard to garages is also to consider the width of driveways. Modern two car garages can result in very wide driveways that have a detrimental effect on the street scene compromising other measures of creating pedestrian scale and enclosure.

## Checklist:

✓ / X

(a) Have walls, fences and windbreaks on front boundaries been designed in such a manner that they reduce physical bulk and allow visual connection with the street? ☐

(b) Have garages been setback from the front façade of the building and designed to allow carparking on site in front of the garage? ☐

(c) Are front doors clearly visible from the street and is there a living room fronting the street with glazed areas to provide passive surveillance? ☐

(d) Have private fenced outdoor living areas been provided at the rear or side of the dwelling and has the building been set back from the side yard at least 1.3m? ☐

(e) Have generally narrower, deeper lots been provided to enable useable back yards to be created? ☐

(f) Do houses front the street and or park area rather than an internal private access? ☐

(g) Does the building design avoid garages taking up more than 35% of the building's front elevation and avoid blank frontages with only doors at ground level? ☐

(h) Is the length of rear vehicle lanes minimised and garage doors off set from the driveway or rooflines and/or materials altered to reduce visual impact? ☐

(i) Has the façade been broken down into base, middle and top sections to reduce the scale of the building and have varying secondary elements such as bay windows or projecting features and varying roof forms been incorporated to define each house? ☐

(j) Are any terraced housing blocks limited to 40 metres, does the block run along the existing contours post subdivision and does the space between the blocks include a street or an area of open space? ☐

## 2.5 Landscape Design

Public open space which is well-located and thoughtfully designed can add to the amenity of a neighbourhood, and provide an attraction for the wider community. Parks can no longer be arbitrary left-over spaces with limited public surveillance, but need to be visible from streets and overlooked by surrounding development. Residential neighbourhoods still require local community spaces accessible to and usable by local residents. These can be combined with natural areas and contours, but useable spaces for informal recreation need to be incorporated as well. Smaller local purpose open spaces provide visual amenity for neighbourhood and passers by, as well as gathering and playing space for nearby residents.

Crime prevention through environmental design (CPTED) provides a set of guidelines for the design and management of public spaces to reduce opportunistic crime and provide a sense of safety for users. Perceptions of safety on a street or park is greatly increased when there are windows or activities overlooking the public space – a sense of "eyes on the street" or ownership. Well-maintained public and private spaces give the impression of "zero-tolerance" for anti-social behavior and a sense of pride and community ownership, which adds to passers-by perception of a safe and welcoming place.

Public open spaces should consider the balance between conservation and active and passive recreational uses in the district, neighbourhood and local open space.

The public open space structure must be highly legible, provide a co-ordinated design vocabulary and offer an inter-connected network of spaces that link directly with the wider surrounding open space network.

Public open space should be a reflection of the historic/rural feel of the Huapai township and be accessible to all users.

### Parks as focal points:

- Creating views to the surrounding countryside and internal green spaces will also contribute to greater legibility and orientation around the street network.
- The principle entrance to the neighbourhood including a significant green space will also contribute to greater legibility and orientation around the street network and reinforce the rural feel and importance of the green spaces within the community fabric.

## Natural areas and cultural features:

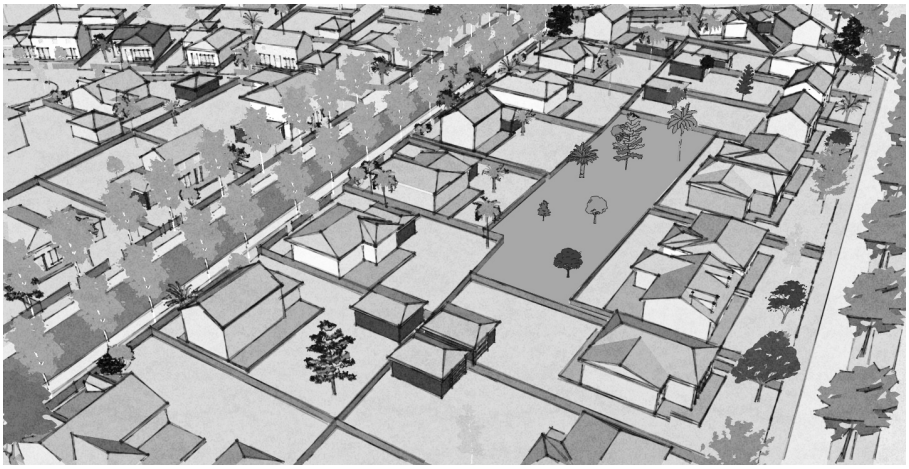
- Where the opportunity exists natural and cultural features should be incorporated into neighbourhood and district parks.
- The cultural and heritage features include places, pathways and structures of historic and spiritual significance to Maori and Europeans.
- Protection of ecological corridors being integrated into the design of pedestrian networks.

*Active cross section through a green corridor.*

## Location of Public Open Spaces & Surveillance

Subdivisions commonly create new open spaces but other key land uses such as corner shops, community facilities, and schools will also be provided. The location and relationship of these amenities to activities and networks around them will influence how well and efficiently a neighbourhood can meet its needs.

Recreation amenities that are located so that awareness of them and pedestrian access to them is obvious and easy, provide the best opportunities for healthy lifestyles.



*POOR LOCATION - Amenities like this often operate as de-facto communal private space benefiting only a few local residents (the only people who know the amenity exists).*

*PREMIER LOCATION - The contribution open spaces and amenities can make to promoting community wellbeing is maximised when they are prominent, easy to find/use, and add to the sense of 'place'*

Casual contact between pedestrians is also a key building block in achieving a sense of community. People knowing each other then helps lead to neighbours exhibiting guardianship. In turn a wider sense of public safety can be developed.

## Landscaping

Open space frameworks can contribute to a sense of identity through:

- the use of species and planting combinations characteristic of the local area taking cues from existing species and patterns of vegetation.
- where contour modification is necessary for building platforms and access roads use planting to soften visual impacts.
- Use planting around building sites to screen and soften structures and to create shelter and private space.
- Developments should maintain streams, wetlands, and associated vegetation and ensure the quality and quantity of water associated with streams and wetlands will be unchanged by development retaining, where appropriate, traditional boundary markers such as old shelter belts and groups of exotic trees.
- Planting schemes should be designed to offer year round visual interest, reflect the historic, cultural and ecological characteristics of the area and achieve a high level of amenity.
- Existing trees and shrubs of appropriate form, condition and species should be retained to help provide a more established look to new development.

## Checklist:

✓ / X

(a) Are recreation amenities located so that awareness of them and pedestrian access to them is obvious and easy? Are public spaces clearly public and private spaces (backyards) clearly private? ☐

(b) Are open spaces directly fronted by a public road and is passive surveillance from dwellings overlooking the space provided? ☐

(c) Is public open space obvious and prominent? ☐

(d) If there are any natural areas or cultural features in the area, have these been incorporated into open spaces? ☐

(e) Do roads allow views of surrounding countryside or internal green spaces to contribute to legibility and orientation around the street network? ☐

(f) Does development utilise local characteristics such as topography through the careful location of street, open spaces and building types to fit the existing landform? ☐

(g) Has planting been proposed to 'soften' the visual environment and to create private spaces and shelter and have landforms, suitable trees and other features been retained where possible? ☐

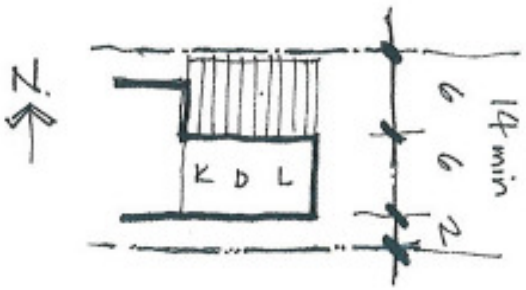
(h) Do planting schemes provide year round visual interest and reflect the historic, cultural and ecological characteristics of the area and result in high amenity? ☐

## 2.6 Sustainable Principles

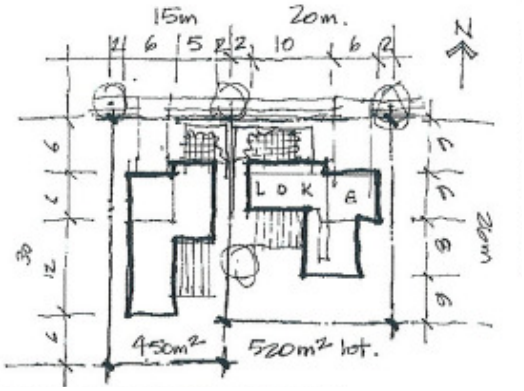
### Design for climate

The layout of buildings on sites and the groupings and design of buildings themselves can have significant impact on the energy efficiency of dwellings and on internal comfort levels. Layout design should consider:

- Positioning of buildings so that the long axis extends in an east-west direction.
- Sun penetration into the living areas of the house is controlled so that this can be screened off during summer months and allowed to penetrate during the cooler months.
- Protection of east and west walls from direct sun penetration where possible.
- Where possible dwellings should be accessed from the south and have private open space and living areas with a north or north-west facing aspect.



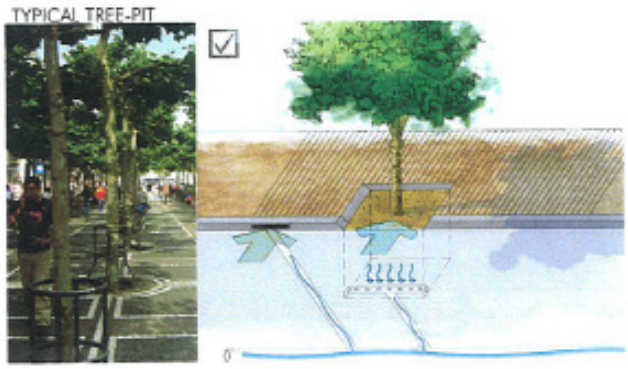

*North facing side yard.*




*North facing front yard*

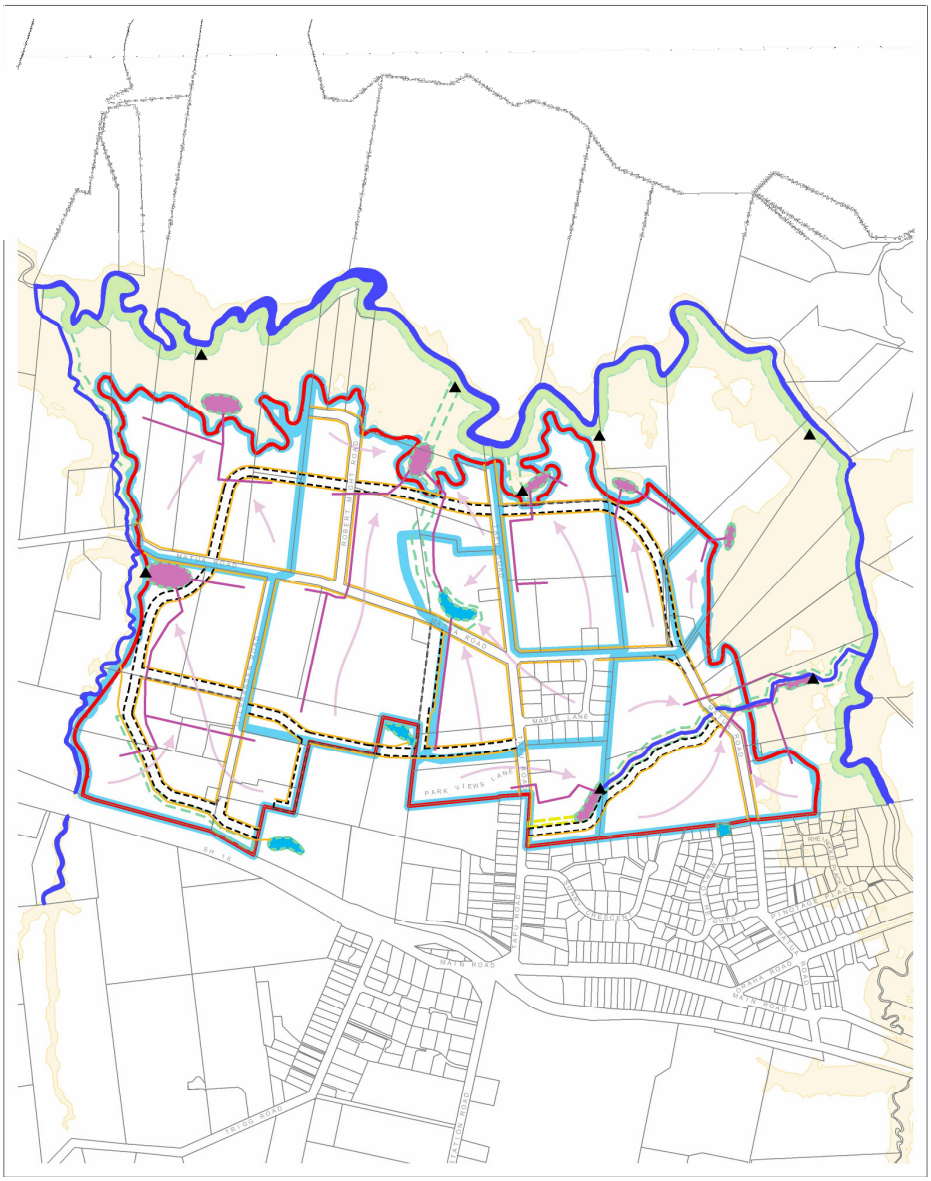
For detached houses, lots with north facing rear yards can be narrower as the living spaces can be located along the back of the house. Lots with north facing side yards should be wider than 14 metres to allow for living spaces a minimum 6 metres wide outdoor space.

North facing front yards are the most difficult sites to plan as the sunny side of the house faces the public street. A 15 metre wide site should be the minimum to allow for double garaging, side yards and outdoor terrace connected to a living space. A 20 metre wide site will allow the kitchen, dining and living spaces to open to both the front and back yard.



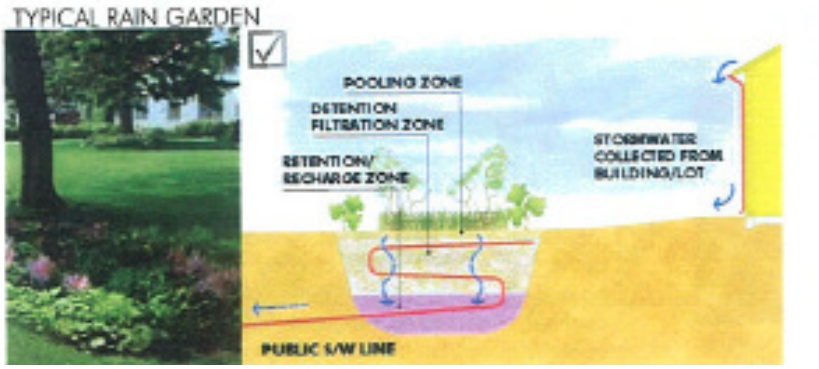

Stormwater discharge should be carefully managed to avoid (often cumulative) problems of flooding, the erosion or pollution of water bodies and our coastal environment. They can help reduce heat build-up in denser urban areas. Water systems should attenuate stormwater flow / volume and optimise interception, detention and removal of waterborne pollutants prior to downstream water discharge. This can include making vehicle carriageways as narrow and permeable as operationally practical.


It is important for landowners to work together to discharge stormwater into a catchment management pond that serves a number of properties. The plan below shows a likely arrangement of catchment management ponds and the land which they could serve.


CONCEPT PLAN STORMWATER MANAGEMENT HUAPAI NORTH
Legend
N
Existing Wetland/Pond
Proposed Wetland/Pond
Contributing Catchments for Wetlands/Ponds
Existing 100 Year Flood Extent
Esplanade Reserve
Utility Reserve
Indicative Linkage Reserve
Residential Zoning Boundary
Indicative Road
Swale
Permanent Stream
Possible SW main
Direction of flow
Potential Discharge Location
Scale 1 : 8 000
0 50 100 150 200 250 300
Metres

Water sensitive urban design is becoming increasingly critical for managing both the quality and quantity of stormwater, reducing the impact on streams and waterways and the receiving environment.

A range of techniques are available that can collectively provide significant mitigation. Some relate to site treatments including swales, permeable paving, or rain gardens. Others relate to building elements, including water tanks for the re-use of captured water by washing machines and garden irrigation. The overall cost for low impact infrastructure is typically comparable with traditional piped services. The main difference is that low impact solutions pay for improved 'off site' environmental betterment with the 'on site' cost of more regular maintenance needs. Planted roofs offer the additional benefit of improved insulation of buildings resulting in lower heating costs.




Every engineered asset needlessly created will add to the overall maintenance cost of the environment for users. While energy efficiency initiatives can at face value increase development costs, they will typically pay for themselves over time. The positive externality of improved environmental outcomes may also justify the use of low-impact design being considered as a positive effect and cumulatively significant mitigation in the resource management process.

## Checklist:

✓ / X

(a) Have buildings been positioned so that the long axis extends in an east-west direction? ☐

(b) Where possible are dwellings accessed from the south and have private open spaces and living areas with a north or north-west facing aspect? ☐

(c) Are lots with north facing side yards wider than 14 metres to allow for outdoor living spaces? ☐

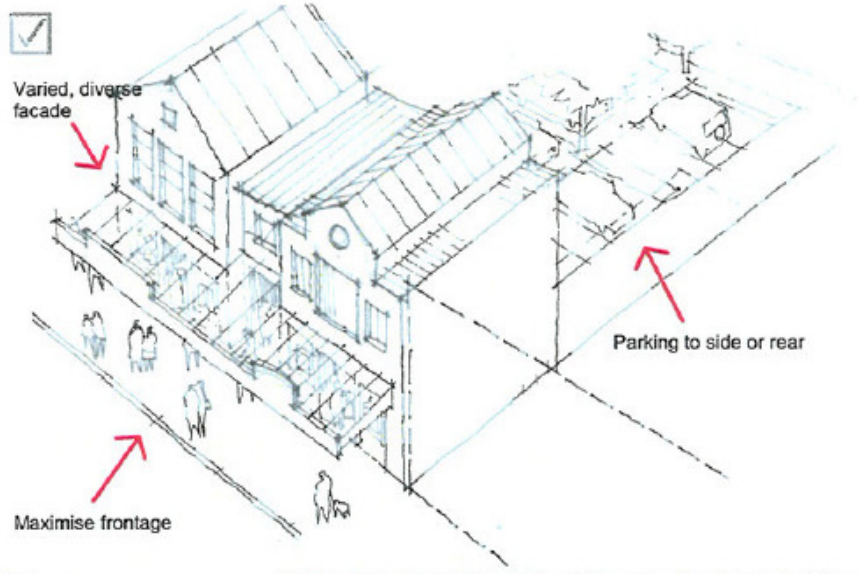
(d) Has the application of low impact design such as swales, permeable paving, rain gardens, planted roofs and re-use of collected water for washing machines and garden irrigation etc been considered for application in the subject area? ☐

(e) Are there significant environmental benefits to be achieved through the use of low impact designs? ☐

(f) Are the use of these low impact designs appropriate for character or landscape reasons? ☐

## 2.7 Local Shops

### Flow on Effects 'Chance Encounters' and Economic Multipliers




Successful shopping areas feature a number of key design elements. Critically these relate to an energised public realm that, aside from facilitating 'core' economic transactions, facilitate as much as possible the opportunities for additional exchange in the form of economic multipliers and 'chance encounters'. As an example, a couple walking to a shop to pick up a loaf of bread and a newspaper in the morning may be enticed on their journey to have breakfast in a café, then buy a new pot plant, then run into an old acquaintance and organise a casual dinner to catch up.

The value of these flow-on transactions to enabling wellbeing can be greater than just being able to undertake the initial 'core' transaction in the first place. They cannot occur in vehicle dominated spatial patterns where only origin and destination points (typically in controlled private spaces) allow exchanges to occur.

### Layout and Building Design

The local shops area in Huapai North is small only taking in 3 – 4 shops, however it is important to create tight, continuous building frontages with pedestrian shelter from the elements – such as canopies.
Narrow, varied shop facades do encourage pedestrian trips as a combination of small individual movements rather than one daunting, long single building.

It is important to 'activate' space through the use of entrances, areas of glazing, and reception / checkout spaces facing the street where people in both public & private spaces can readily 'see & be seen' to create a sense of safety.

Balance car parking – on-street parking is often essential to allow 'passing trade' to conveniently stop; on-site parking needs to be managed to avoid separating buildings from the street, maintaining good pedestrian appeal. On site car parking should never determine design outcomes.

Lighting, surveillance and an appropriate mix of land use activities can also encourage safe movement and connections at night time.

*The above picture is a good example of a town centre mixed use development including Residential units above complementary ground floor commercial uses.*

## Residential Component

The residential component of any development should never occupy ground floor of retail buildings and additionally should never be built to the common boundaries where future redevelopment of adjoining sites could compromise amenity. The use of a ground floor for residential uses does not contribute to vitality, and will also often create privacy and security issues for residents.

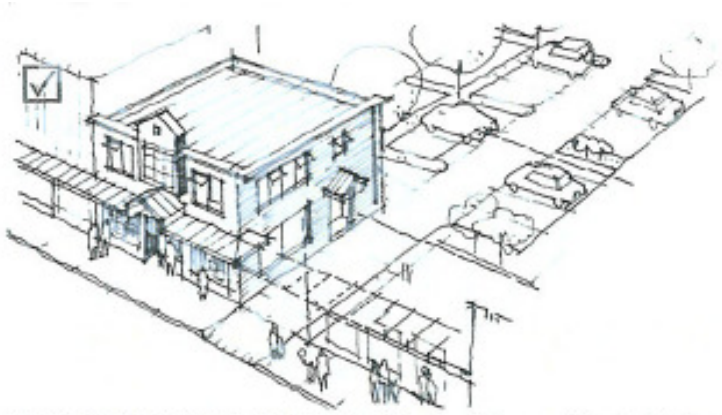
Ideally ground floors will have a stud height of between 3.5m – 4.0m to suit commercial uses.

## Car Parking and Strong Street Frontage

The provision of large at-grade car parking areas between the public realm and land uses will adversely affect local character and amenity. They can often be proposed along a frontage, reflecting a perception that a vehicle-orientated customer catchment will not be engaged without a number of obvious, clearly located dedicated spaces for them. This connection between drivers on the street and parking spaces is often justified due to our overall low density settlement pattern.

But providing parking is only one dimension of a good development: Wellbeing is not improved if development serves passing traffic but fails to contribute to 'place' or appeal to other modes (most obviously pedestrians). At grade parking is chosen because it is usually overwhelmingly cheaper per space than structured or underground parking.

Visually obvious and conveniently accessible parking spaces can be accommodated readily at the side or rear of sites. Often one aisle of parking along the frontage for very short-stay, courier drop off, and operation mobility cardholder spaces will still allow an effective street connection to occur. Safety in parking areas is an overriding concern. Tools such as clear signage and sightlines, logically located activity anchors or generators, and the careful location of long and short term parking are valuable.



*MAXIMISE MAINSTREET CONTINUITY – Providing parking behind uses accessed by narrow lands (4m maximum width)*
*can minimise disruption of street-based business uses. This helps maintain pedestrian amenity.*

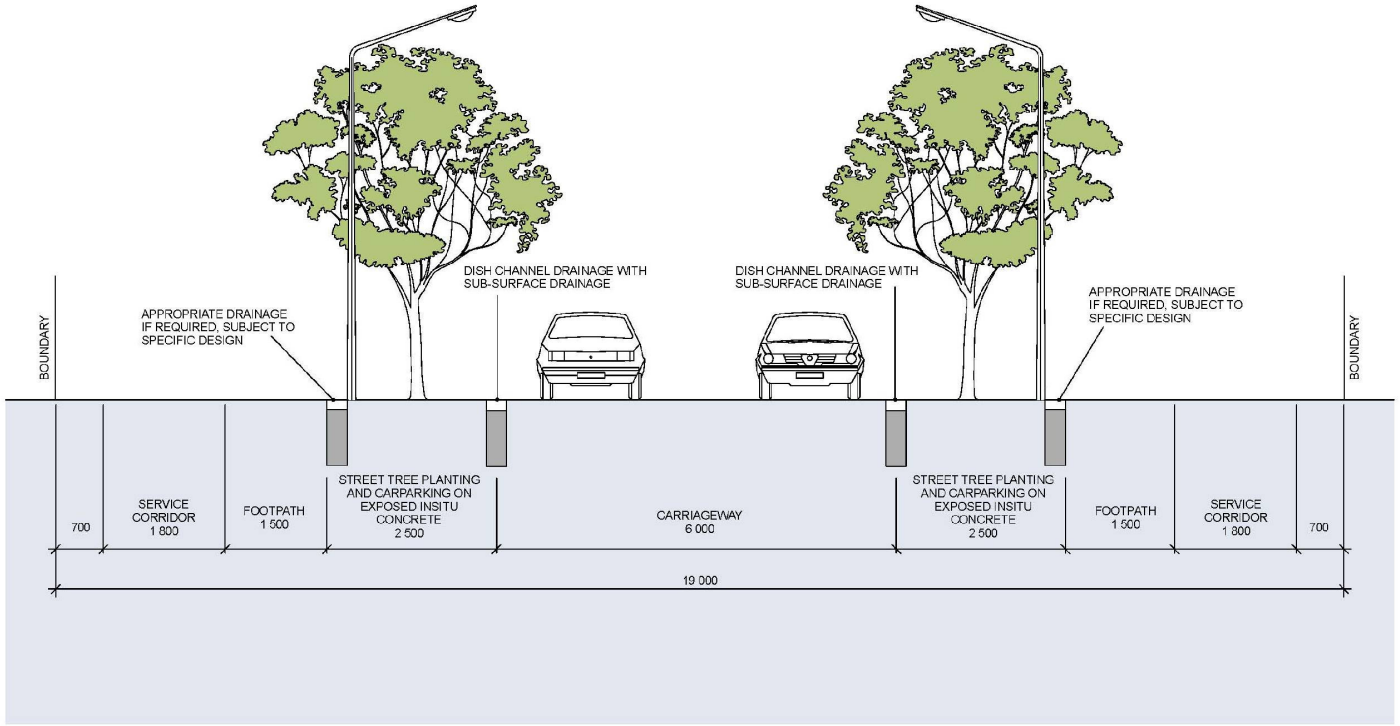
## Checklist:

✓ / X

(a) Does the building form include tight continuous building frontages with pedestrian shelter, incorporating narrow varied shop facades? ☐

(b) Has a high level of glazing been utilised for shop fronts on the ground floor and have any carparking areas been located at the rear of the building, other than on street parking? ☐

(c) Have residential uses been restricted to above ground floor? ☐




## LOCAL AND GREENWAY ROADS

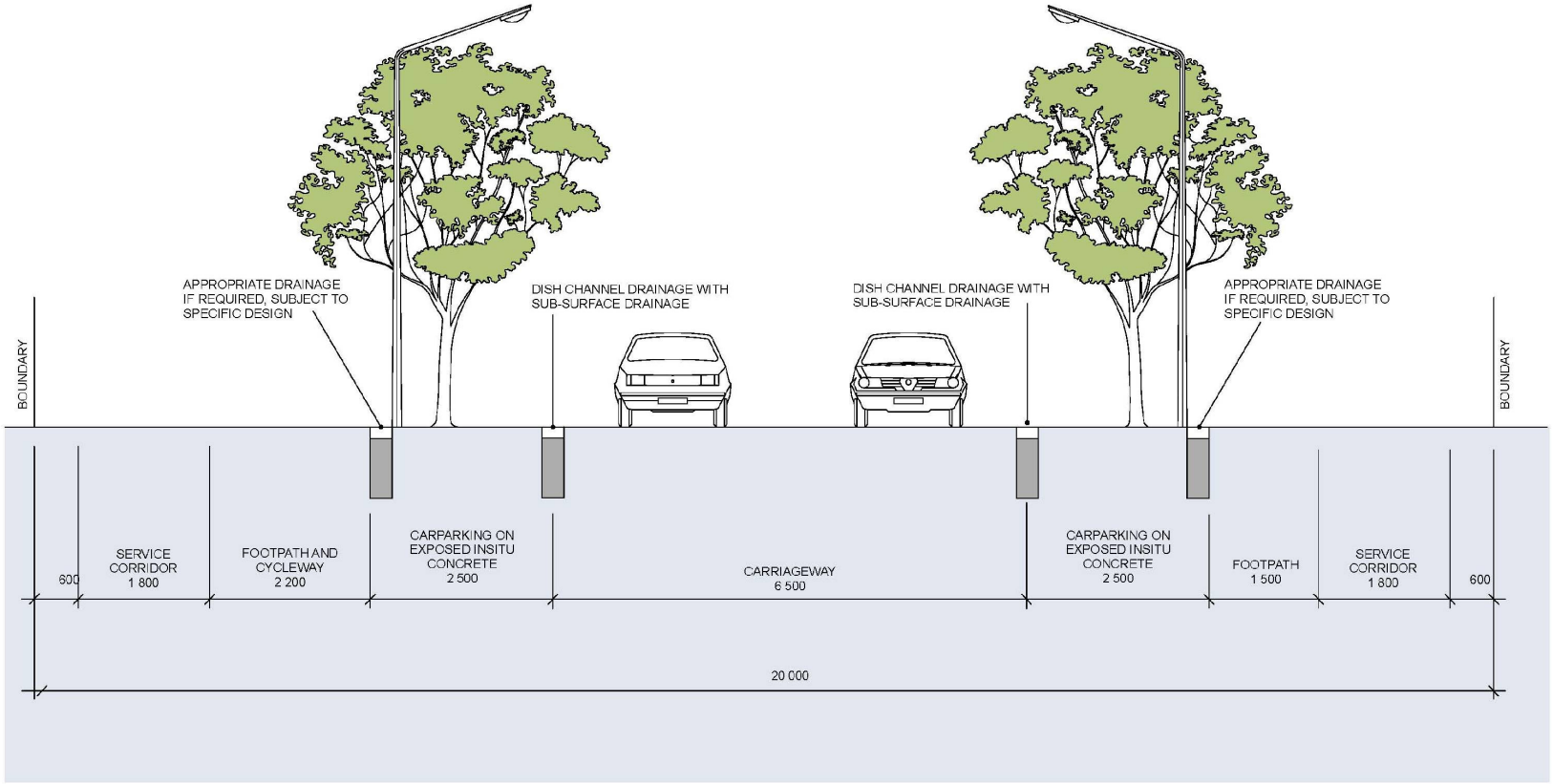
0 1.0 2.0 5.0m

Kerb and channel should be kept to a minimum but may be appropriate in some areas such as steep topography and to define some intersections.

All measurements in millimetres (mm) and drawing not to scale.

This road cross-section sets out the layout and arrangement of the road corridor at a concept level and is not intended to replace detailed engineering / construction drawings.

Insitu concrete to use standard crushed basalt aggregate with 4kg black oxide per cubic metre.




## COLLECTOR AND NEIGHBOURHOOD ROADS

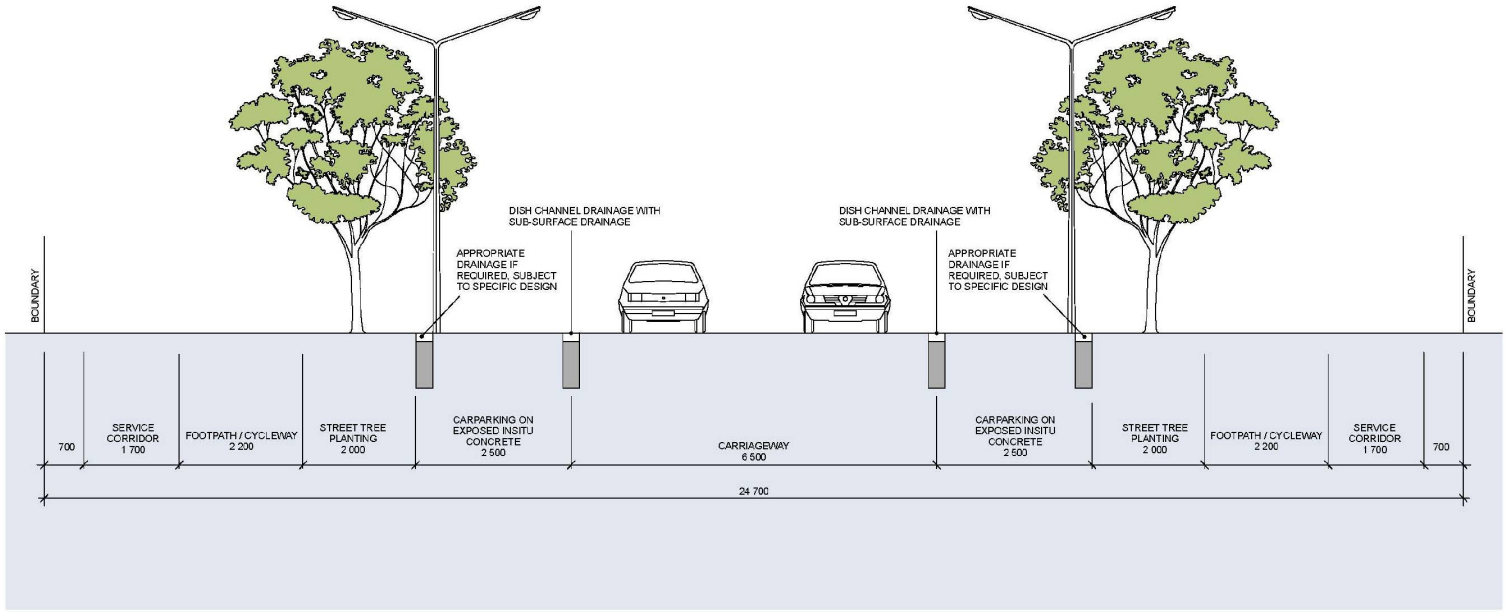
0 1.0 2.0 5.0m

Kerb and channel should be kept to a minimum but may be appropriate in some areas such as steep topography and to define some intersections.

All measurements in millimetres (mm) and drawing not to scale.

This road cross-section sets out the layout and arrangement of the road corridor at a concept level and is not intended to replace detailed engineering / construction drawings.

Insitu concrete to use standard crushed basalt aggregate with 4kg black oxide per cubic metre.




## LINKAGE ROAD

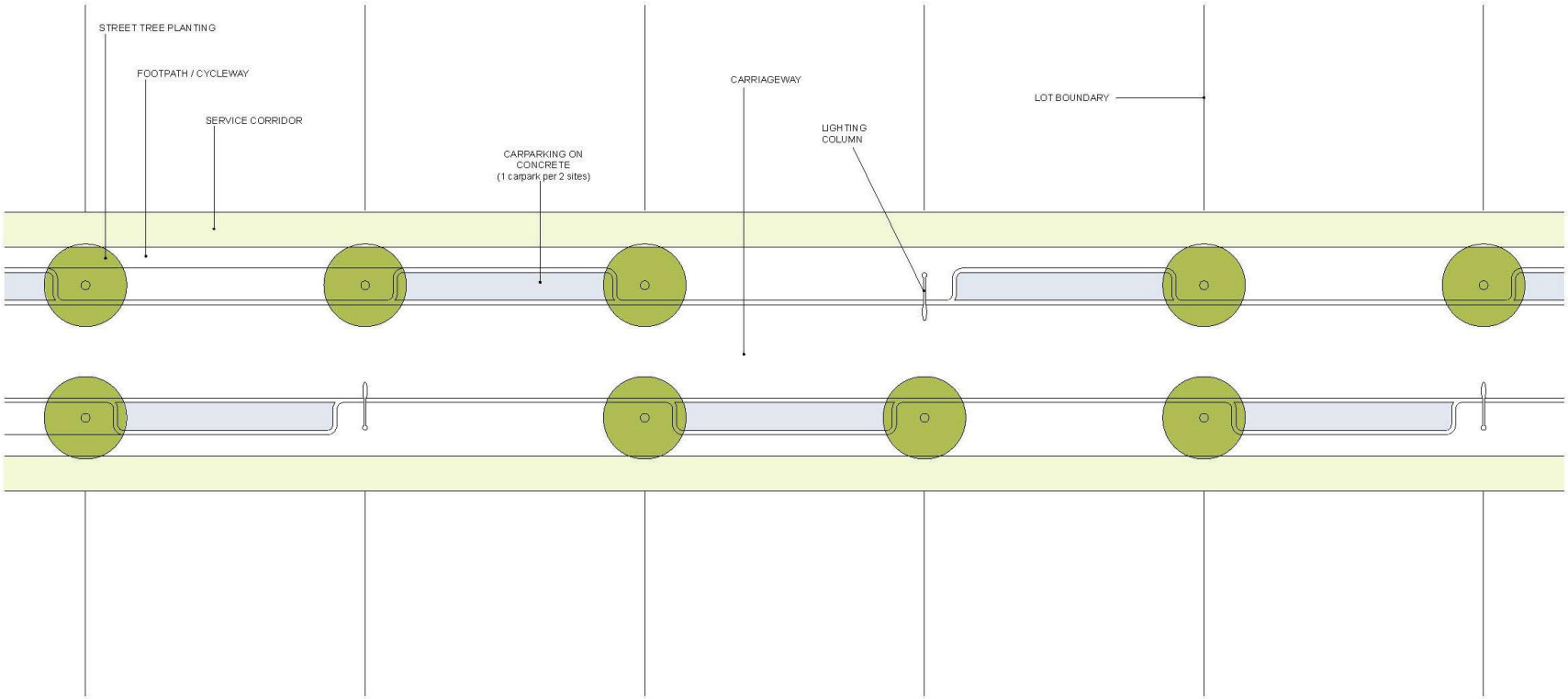
0 1.0 2.0 5.0m

Kerb and channel should be kept to a minimum but may be appropriate in some areas such as steep topography and to define some intersections.

All measurements in millimetres (mm) and drawing not to scale.

This road cross-section sets out the layout and arrangement of the road corridor at a concept level and is not intended to replace detailed engineering / construction drawings.

Insitu concrete to use standard crushed basalt aggregate with 4kg black oxide per cubic metre.




# PLAN VIEW OF COLLECTOR AND NEIGHBOURHOOD ROADS

Drawing not to scale

0 5 10 20m

Kerb and channel should be kept to a minimum but may be appropriate in some areas such as steep topography and to define some intersections.

All measurements in millimetres (mm) and drawing not to scale.

This road plan sets out the layout and arrangement of the road corridor at a concept level and is not intended to replace detailed engineering / construction drawings.

Insitu concrete to use standard crushed basalt aggregate with 4kg black oxide per cubic metre.

On-street car parking may be provided at a level greater than 1 carpark per 2 sites.

The location of on-street car parking shall be designed to enable sufficient space for vehicle access to a site. The location of driveways shall not encroach on on-street carparking.

## Appendix 11.5.4 Matakana 1

**Matakana Commerical design guidelines**
Click here for PDF

# APPENDIX

# MATAKANA COMMERCIAL – URBAN DESIGN GUIDELINES

## 1.0 INTRODUCTION

The following urban design guidelines are to be utilised by landowners, planners and other persons involved in development at early stages of development and also by resource consents processing planners when assessing applications for development.

These guidelines have been produced to ensure that new development within Matakana is sensitive to the existing or preferred future character of Matakana Village. The guidelines relate to the Local Centre zone and Light Industry zone and provide guidance on the siting, design, scale and appearance of commercial buildings within Matakana.

## 2.0 CHARACTER

The character of existing development within Matakana Village is reflected in an eclectic range of building types and architectural styles. However, buildings in the village include a number of distinguishing features and unifying characteristics, which includes:

- A cohesive and distinctly identifiable commercial centre/village heart
- View lines to the north which converge into a rural backdrop
- A low rise 'human' scale building character of one to two storeys
- Buildings that have an informal or rural country village feel at the streetscape level
- A significant number of timber buildings which are clad in natural material or timber weatherboards with iron roofing and timber joinery and doors
- Some common built form elements such as canopies or awnings, post supported verandahs and first floor balconies and balustrades
- A number of old and historic buildings (mostly houses or former houses constructed in timber weatherboards with iron roofing) which provide a basis for identifying past built form elements

These features provide a basis for establishing the existing character of the village as well as developing a preferred character for future development in the face of likely change.

## 3.0 Local Centre ZONE

New development within the Local Centre Zone at Matakana should preserve the understated low scale character of buildings, many of which have a rural and historic country village feel.

The following design elements are deemed to contribute to this built character:

- Architectural style and appearance
- Built form
- Materials and colours
- Streetscape, public spaces and landscaping
- Advertising signage

## 3.1 Architectural Style and Appearance

Architecture that reflects the ‘rural’ or historic character of a small country town in New Zealand rather than modern commercial buildings with a hard urban edge that might typically be found in a newly developing commercial area.

Architectural style that has an elegance reflected in its simplicity and lack of adornments.

High quality visually interesting architecture, with buildings that are well articulated and have a lightweight image rather than an appearance of mass, weight and bulk. Buildings that have a ‘boxy’ appearance and blank unarticulated walls are strongly discouraged

Articulated side walls where they are visible to the street or public viewing areas. Examples include the use of glazing, recesses, material variation and wrapping balcony features around corners.

The use of pitched roofs, preferably gables or pyramid rooflines rather than flat roofs and parapet walls is recommended.

Buildings that have a fine grained scale and appearance, emphasising horizontal and vertical divisions between floors and making use of balustrades, post and rail verandahs, roof forms; building recesses and arrangement of windows to create interest and articulation.

Buildings that maintain or enhance their relationship to adjoining buildings, particularly where the materials and architectural details of existing buildings are consistent with the character or preferred character identified for the sub-precinct D.

## 3.1 Built Form

Building heights that are scaled and setback at first floor level (if appropriate) to maximise sunlight penetration to pedestrian areas.

Roof planting and building services such as air conditioning units that are concealed or located to the rear of the building

A non continuous building mass to achieve varied streetscape forms with occasional setbacks along the streetscape to act as suntraps and activity areas.

Roof elements on buildings visible from the adjacent street that have a pitch between 25 to 30 degrees.

Post supported verandahs and decks that provide shelter and character, but not necessarily a continuity of verandas to allow for a diversity of facades and sunlight penetration to pedestrian areas depending on the location or orientation of the site.

## 3.2 Materials and Colours

Buildings that use weatherboards and other natural materials and finishes with timber joinery and iron roofing rather than concrete slab construction and modern reflective window frames and doors.

Pale or muted colours as opposed to strong or bold colour schemes. Colour palettes and finishes will take their cues from the existing urban or natural environment.

## 3.3 Streetscape, Public Places & Landscaping

Buildings that establish an active and vibrant frontage to the street.

Where appropriate, the provision of seating and outdoor dinning areas within the front setback (especially for restaurants and cafes).

Planting (where possible or appropriate) to create a landscaped character to the street, soften the urban appearance of the development and improve pedestrian ambiance.

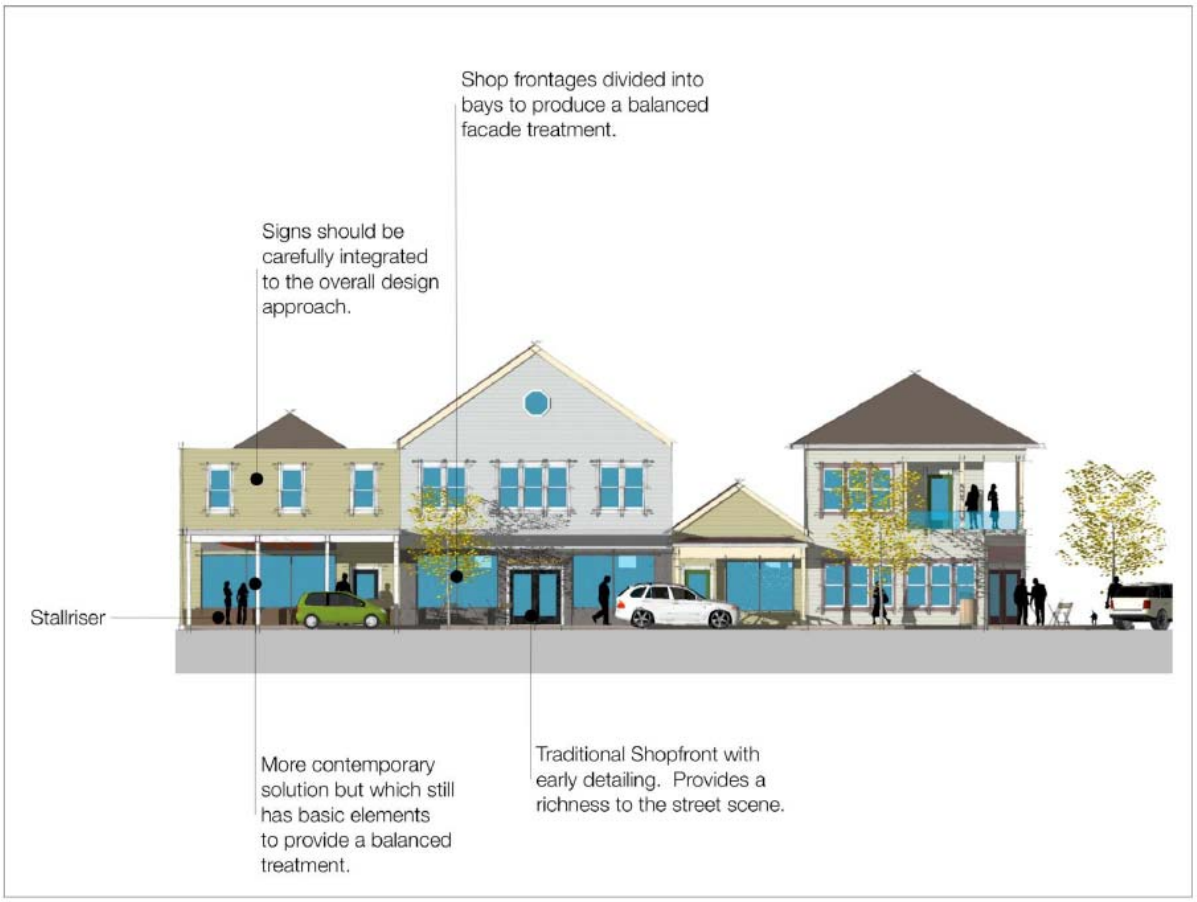
Parking areas are softened through the use of landscaping and planting to minimise the visual impact of car parks.

Buildings that maximise opportunities to provide solar access to pedestrian areas and community resting or gathering places.

## 3.4 Advertising & Signage

Advertising signage should be understated, subtle and complementary to the preferred architectural style and appearance of buildings within Matakana. The following design elements are deemed to achieve this outcome:


- integral part of design theme of the building;
- intended for business identification rather than product advertising;
- proportional to the size of the building;
- confined to the front of the building;
- not internally illuminated; and
- avoids the use of visually dominant or eye catching corporate colours.


## 4.0 LIGHT INDUSTRY ZONE

New service businesses and light industrial development in the Light Industry zone in Matakana should protect the low rise scale and visual character of the village particularly

where it interfaces with Matakana Valley Road. Future development should also protect the amenity and environmental quality of adjacent non-industrial uses.

The following design elements are deemed to contribute to this built form character:

- building form and siting
- interface with other zones
- landscape treatment
- parking and access loading and service areas
- outdoor storage
- fencing
- advertising

## 4.1 Building Form & Siting

Building frontages that are orientated to front the street and more 'people' intensive uses such as the office component positioned to the front of the building.

Building colours that are subdued or recessive as opposed to bright, reflective eye catching colours.

Buildings along Matakana Valley Road should have frontages to an internal access road will achieve a high quality design that complements development in the Village Heart and will not detract from visual character of Matakana Valley Road when entering and leaving the village from the west.

High quality visually interesting architecture, with buildings that are well articulated and have a lightweight image rather than an appearance of mass, weight and bulk. Buildings that have a 'boxy' appearance and blank unarticulated walls are strongly discouraged.

Building with sides facing the street that are designed to provide articulated human scale articulation form rather than smooth blank walls with little or no articulation.

Corner buildings with facades that address both streets and include clear strong architectural features that emphasis the corner (e.g. glazing, recesses, material and colour variation).

Buildings that are designed to:

- project human scale
- provide interest in elevations with detail and articulation that will avoid the appearance of mass, weight and bulk
- identify and emphasis the main entrance
- make use of glazing, architectural features and a variety of materials and finishes to provide for articulation of walls which are visible from streets
- have a lightweight, disaggregated appearance where visible from all roads
- allow for signage to be integrated within the structure

Buildings that have storage and utility areas integrated into the overall design.

Antennae, communication attachments and building services that are designed and located on the building so as not to detract from its appearance or be visible for pedestrians in the street.

Rooftop planting, lift over-runs, service entries, communication devices and other technical attachments that are concealed and/or treated as part of the overall design.

Exterior components of plumbing heating, cooling and ventilation systems that are integrated into the architecture and not visible from the street.

## 4.2 Interface with Other Zones

Development within the Light Industry zone adjacent to another zone should provide an appropriate building scale and be designed to minimise any adverse visual and/or noise impacts and protect the amenity and environmental quality of non industrial zones and land uses. The following design elements are deemed appropriate to achieve this outcome;

- Development of land abutting another zone that has a minimum 3m wide landscaped amenity buffer to Matakana Valley Road and Matakana Village residential areas.

- Development that will not have an adverse impact on solar access and daylight and will not have an overbearing scale impact where adjacent to any residential property.

- Buildings that are considered to minimise noise transfer through the use of sound attenuation barriers or masonry, brick and similar noise attenuating materials.

- Carparks, accessways, loading areas and outdoor storage areas that are located and screened to minimise impacts on the visual and acoustic amenity of adjoining residential properties.

- Lighting that is designed to prevent over-spill into adjacent properties where this may cause annoyance or detrimental impact.

## 4.3 Landscape Treatment

Development within the Light Industry zone in Matakana should respect the overall landscape character of the surrounding area having an emphasis on environmental values, particularly the adjacent Matakana River environs. This will be achieved by integrating the built form and landscape into a coherent environment, providing planting to reinforce site components such as entry points and circulation routes and to enhance the visual amenity of the built environment.

- Landscape works should be designed with buildings and works to create an integrated development (not simply 'screen' it).

- Landscaping of large multi-building developments must be designed to unify the overall development.

- A landscaped strip in the front setback areas should be provided for in order to 'frame' the building rather than screen it. This will also contribute to creating a 'human scale' by reducing the apparent bulk or mass of the building when viewed from the street.

- Landscaped planting should be designed to survive microclimatic conditions.

## 4.4 Parking and Site Access

Parking spaces should not be visually prominent or detract from the amenity of the streetscape. They should be softened through the use of landscaping and planting to minimise their visual impact. They should also seek to minimise pedestrian/ vehicle conflicts and limit the reliance on on-street Parking spaces.

Parking areas should be designed to minimise the visual impact on the street and adjacent properties by having a minimum setback of 3.0m from the front boundary and setback of 1.5m from other boundaries.

Site access points must be located to provide for safe vehicle movements and minimise conflicts with through-traffic, intersections and pedestrian routes.

Parking spaces should be designed to minimise the number and width of crossovers per site frontage and avoid the removal of on-street parking spaces.

Passenger vehicle parking and access should be designed to enable vehicles to entre and exit the site in forward motion.

## 4.5 Loading and Service Areas

Loading areas should be safe and efficient while minimising adverse visual impacts and conflicts with the streetscape and the vehicle and pedestrian function of the street.

They should be designed to allow all loading and servicing to be contained within the site and without disruption to traffic flows on the surrounding road network. And should be designed to accommodate the largest vehicle likely to use the facility.

In larger scale developments, loading and service areas and associated manoeuvring and circulation areas.

## 4.6 Outdoor Storage Areas

Goods and materials should be stored indoors unless this is impracticable or unsafe. Any outdoor

storage should be designed so as not to be visible from roads or publicly accessible areas, for instance to the rear of buildings, outside designated front and side setback areas and outside landscaped buffer areas.

Storage of hazardous materials should be carefully located to avoid potential conflict with other on-site or adjoining land uses.

Refuse storage areas should be:

- Large enough to contain all refuse generated on site between refuse collections;
- Located to provide clear and convenient access for refuse collection vehicles, and a convenient depository for refuse generated on site;
- Screened from view from roads or publicly accessible areas.

## 4.7 Fencing

Fencing visible from the street should:

- blend with the building design detail
- not be over bearing in scale
- complement the existing or proposed landscape

Screen fencing should be designed to:

- complement the streetscape; and
- be and effective height to achieve the screening desired.

Boundary fencing should be unobtrusive and visually recessive.

Where possible, fences on street frontages should be set back in line with the front side wall of the building.

Security fencing not on a street frontage should be:

- unobtrusive, such as black or olive green PVC coated wire and matching painted gates, posts and strainer wires and assembles;
- not reliant on vegetation growth for its effectiveness;
- integrated with landscaping to reduce its visibility.

## 4.8 Advertising Signage

Signage should be predominantly integrated for business identification rather than product advertising.

Primary corporation identification signage should be fixed to the front face of the building and should avoid the use of side walls.

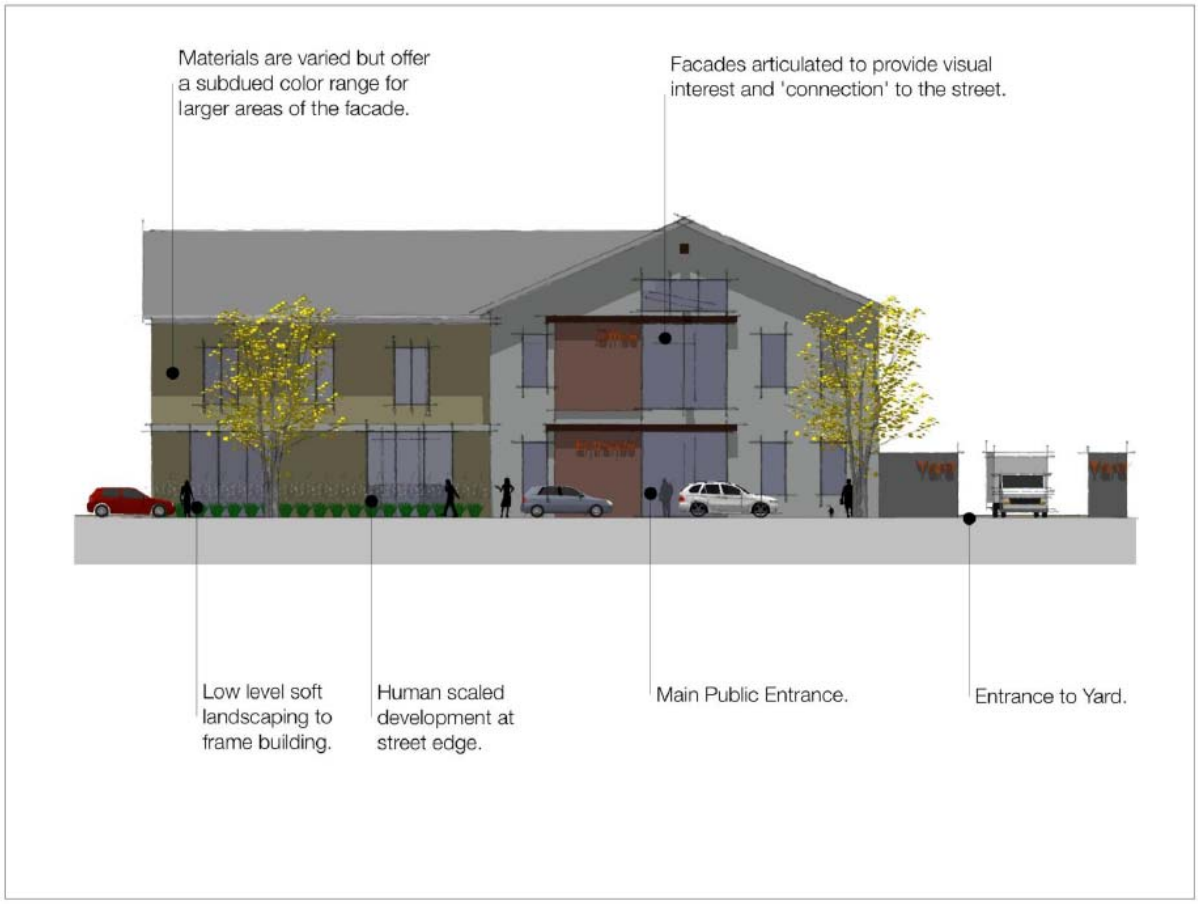
Signage should be proportional to the size of the building, should not obscure architectural features and supporting structures or be visually dominant.

Freestanding signs along the front boundary should be avoided as such internally illuminated signs, freestanding pole signs, above veranda signs and visually dominant or eye catching corporate colours.

For multiple occupancy buildings or sites:

- grouped signage should be displayed at entry with signs of uniform shape and composition, but allowing for individual corporate identity to be presented; and
- individual company signage should be placed consistently on separate buildings.


Workshop/Yard area behind Admin or Office element of the business.
Loading and storage areas are hidden from view from the street frontage.
Publicly accessible parts of the building define street edge and relate to street.
Entrance to Yard area clearly marked at street edge with fencing in line with building frontage.
Signs integrated with design.
Footpath priority across drive way.


Materials are varied but offer a subdued color range for larger areas of the facade.
Facades articulated to provide visual interest and 'connection' to the street.
Low level soft landscaping to frame building.
Human scaled development at street edge.
Main Public Entrance.
Entrance to Yard.

## Appendix 11.5.5 Orewa 1

**Orewa design guidelines**
Click here for PDF

# OREWA DESIGN GUIDELINES

## Introduction

The following guidelines should be used to inform the character of the urban, architectural and landscape design of the Orewa precinct, and to form the basis of Council's consideration of future resource consent applications within the precinct. The guidelines are intended to promote the extension of the existing coastal vernacular architectural style and open space character across the entire site.

Many of the photos contained herein illustrate existing development within the Orewa precinct. They are provided to illustrate the design principles and features promoted by the guidelines.

Two types of sub-precinct are provided for within the Orewa precinct. These are:

- Sub-precincts 1-5: Residential uses
- Sub-precinct 6: Mixed-use

*Examples of existing buildings, streetscapes and landscape treatment at the Orewa precinct.*

**Building Typologies**

The following explains the built form typologies provided for by the Orewa Masterplan.

**Kensington House**

The Kensington House is generally a two storey stand alone house with a double garage and living areas located on the ground floor, and bedrooms located on the upper floor. Each house is typically provided with external private open space at ground level.

**Hill Top House**

The Hill Top House is generally a three storey stand alone or duplex house with a semi-excavated double garage forming the ground floor, with living and bedrooms on the upper floors. External private open space is typically provided by way of balconies.

**Townhouses**

Townhouses can be two or three storeys in height, and in an attached terrace formation. Typically they provide for ground floor living areas, and bedrooms above, with external private open space in the form of balconies.

**Walk-up Apartments**

Walk-up apartments are located in single buildings designed to appear as a large house or duplexes, but which contain several apartment units. Depending on accessibility, these may contain lifts. Private open space is provided by way of ground level courtyard/gardens and/or balconies.

**Type 'A' Apartment Buildings**

Type 'A' apartment buildings generally have 2-6 apartments per floor, and are 3 or 4 levels in height plus a common semi basement carpark. They provide a common lobby entered from the street and lift access is provided. Some of the ground floor apartments may also have direct ground level access. Apartments are a mix of sizes depending upon their location on the site and proximity to communal activity spaces. Each apartment is provided with a balcony(ies) or a terrace(s) for private open space.

**Type 'B' Apartment Buildings**

Type 'B' apartment buildings are larger buildings and generally have 6-10 apartments per floor, and are 4 or 5 levels in height plus a common semi basement carpark. They use a common lobby entered from the street and lift access is provided. Some of the ground floor apartments may have direct ground level access from the street, if this is possible, or onto an open space area. Apartments are a mix of sizes depending upon their location on the site and proximity to communal activities spaces, and are provided with a balcony(ies) or a terrace(s) for private open space.

# Sub-precincts 1-5 – Residential uses – design guidelines

## 1 Introduction

Sub-precincts 1-5 are designed to provide for residential uses in a variety of building forms and sizes across different parts of the site. These sub-precincts encompass the majority of the Orewa precinct.

The primary structuring element within sub-precinct 1-5 is the existing central reserve located to protect the mature Puriri trees, which are a distinguishing feature of the site. This reserve should be provided with roads directly adjacent to its perimeter on a minimum of three sides. The central open space corridor should extend north over the pond area to connect visually and physically to Alice Eaves Bush Reserve.

Perpendicular to the central reserve and near to the Puriri trees a communal activities green open space should be provided up the hill to connect into Ngahere Jelas Reserve. This will ensure that the main open space / reserve areas within the precinct provide visual and physical linkages beyond the precinct, enabling public access through the Orewa precinct and establishing useful recreational and pedestrian access routes connecting to the wider local area.

Taller buildings should be placed close to communal activity spaces with building bulk and height receding toward residential neighbours beyond the precinct. Stand-alone houses are generally proposed against neighbouring sites, placing like by like and buffering existing residential neighbours from the greater height and density contained within the core of the precinct. This principle has been applied to the existing houses that have been built along Kensington Drive and recognises the appropriateness of more dense and active façades fronting a street with reserves or communal activity space.

Located near the entry to the Orewa precinct is an existing clock tower, called the eastern clock tower. A similar tower located to the west of the site and on axis with Puriri Boulevard and Puriri Avenue will mark a significant linkage across and up the site to link into Ngahere Jelas Reserve. These towers and the associated view corridor form the second significant urban design structuring element axis within the site. The second tower will provide an important linkage to connect various points within the site and will be seen from well beyond the site, including from further east along Puriri Avenue near the ocean.

Together these primary and secondary elements generate the main development pattern for sub-precincts 1-5.

## 2 Building Layout

### 2.1 Buildings should address the street

Streets should be laid out in general accordance with the Orewa MasterPlan.

Buildings should address and front onto the street. Where possible they should be built parallel to the street.

Variations in the depth of set-back from the street edge should be provided with various recessed elements, doors and windows, while providing overall continuity in the street elevation. Buildings will generally be benched parallel with the fall of the site and the location of the indicative roads.

Where possible, more active spaces such as entry points, porches, terraces, decks, lounges, dining rooms and kitchens should be located to address the street providing for passive surveillance. However, where this would result in south facing solutions this principle should be relaxed with good orientation to the sun and outlook / views generally given precedence.

Where a building faces a communal activities area or the Nukumea Stream, apartments should address the stream, communal activities spaces and north in preference to its road frontage where the road is located to the south, although in some circumstances it may be possible to locate the living areas on the 'corners' of apartments to address both the communal activities area (to the east or west) and the street (to the south). When it is not possible for south-facing apartments to address the street, apartments located on the opposite (south) side of the road should have their balconies and main living spaces facing north over the road to better address the street. This will result in a balanced approach to passive surveillance of the street whilst also giving good frontage and surveillance of the other parts of the site with public access. South facing street elevations should however retain good modulation and present a quality façade to the street in keeping with the overall character of Orewa.

To avoid monotony or a more institutional appearance, façades should be broken through building separation and/or significant variation in height, form and/or design.

Adequate consideration should be given to the mix of housing typologies across the site so that one particular type does not dominate.

Examples of existing buildings at Orewa precinct that address the street

## 2.2 **Street Level**

Building frontages at street level should provide pedestrian interest and public safety at all times. Street level floors of buildings should provide visually 'active edges' for pedestrians to walk past. Residential activities should generally be located above the street level where possible.

Entry points to homes should generally be provided with weather protection.

2.3 **Middle Levels**

Architectural design that differentiates middle levels from street and upper levels is encouraged.

Building frontages at middle levels should exhibit architectural richness, interest and depth. This may include architectural detail and balconies fronting on to streets and public open space. Blank walls fronting the street or other communal / public space are strongly discouraged.

2.4 **Upper Level**

Architectural design that differentiates upper levels from middle and street levels is encouraged.
In particular, five storey buildings fronting on to Puriri Boulevard, Hibiscus Drive, and Eaves Bush Parade shall be architecturally proportioned, articulated and modulated to achieve a composition which addresses their height, mass and scale. Design techniques to achieve this outcome may include varying the architectural treatment of one or more of the levels (including the upper levels) within the façade, whilst retaining an overall sense of a coherent and unified façade composition within the building. Techniques to achieve variation may include physical stepping, variation of materials, different proportions of glazing to solid façade, use of fenestration and/or detailed design elements.

Consideration should also be given to the compositional arrangement of each five storey building to its neighbour(s) to achieve variety within an overall coherent pattern and scale of urban form, contributing to a visually interesting streetscape that complements the surrounding neighbourhood character.

Large, upper level expanses of blank walls shall be avoided on streets and other public open space frontages. Servicing elements shall not be placed on these façades unless integrated into the façade design.

2.5 **Rooftops**

Roofs should be designed as part of the overall three-dimensional building form and contribute to the architectural quality of the skyline when viewed from both ground level and higher surrounding land/buildings. Plant, exhaust and intake units and other mechanical and electrical equipment shall be fully integrated into the overall roof design so that they are not generally visible.

2.6 **Street Corners**

Buildings on street corners should include elements that visually punctuate, reinforce and allow the building to respond to and turn the corner in a variety of interesting ways. The use of features such as balconies, windows, bay windows or otherwise, which enable the building to address both street frontages, is encouraged.

The architectural language deployed on street corners should be bought down to the ground to provide a vertical proportioning emphasis to the corner.

Additional height could be provided to further articulate the street corner. Variations in

material, shape and texture, together with a finer grain of detail could also be provided.

Where appropriate and practical, consideration should be given to locating balconies on corners. These provide visual interest and reduce the apparent mass of a building when viewed at an angle to the façade. Corner balconies also provide a 'serrated' effect to the façade when viewed against the sky or trees and they visually 'activate' the corner.

## 3 Public/private spatial transition against a public street

To avoid privatising adjoining streets and/or publicly accessible open spaces, particular attention should be paid to how a building interacts with a public street, especially with residential uses at street level.

All street edges should be designed to provide a transition between the public and private realms. This transition will be required to manage the interrelationship between private space, semi-private open space and public open space.

The public-private space transition should provide an attractive and psychologically comfortable street edge for the public on both sides of the street.

Safe and convenient pedestrian/vehicular interaction with on-street parking must be provided. It is not necessary to put footpaths down both sides of every street, particularly the smaller streets on the hill slope. Footpaths should be logically located to facilitate access and be aligned along the side of the street most likely to be used by pedestrians.

### 3.1 Public/private interface – front yards

To ensure an appropriate transition from public space to a residential use, a combination of one or more of the following elements: fences, planting, steps, terraces, loggias, balconies, decks and changes in level should be provided.

The residential boundary to the street shall be defined. Techniques to provide this include:

1. A visually permeable fence no higher than 1.2m with a minimum of 70% permeability.
2. A solid fence no higher than 0.8m.
3. Visually permeable planting with a variety of plants with a minimum of 70% permeability, or if comprising a hedge no higher than 1.2m.
4. A terrace no higher above ground level than 1.5m on a flat site or no higher than 2.0m on a steeply sloping site where the average achieves 1.5m.
5. Preference shall be given to terraces no higher than 1.2m above ground level where this solution is practicable.
6. A combination of the above, in order to achieve visual interest and permeability.


Public - private street interface at Orewa precinct.

To provide privacy within a residential use, the floor level of street facing residential space/s should be raised above the street by approximately 1.2m or the building set back 5.0m from the street, or a combination of the two.

Due to the sloping nature of the site, a number of locations will result in the main living floor level being below the road level. Where possible this change in level should be kept to a maximum of 1.5m and the distance between the road reserve and the building façade increased to allow for appropriate screen planting to occur. It may also be appropriate to locate less important or sensitive residential uses in these locations.

Steps providing access into residential uses should be generous and able to be sat on. Balustrades and handrails should achieve a minimum of 70% visual permeability.

Each household should have a street address easily recognisable by a street number on a letterbox, and a front door visible and directly accessible from the street.

Residential apartments may share a common entry.

Residential apartments above street level should generally be provided with a letterbox at the main entry door to the apartment building.

Front yards should be visible from the average eye level height (1.5m) when walking along a footpath.

Buildings constructed up to the road reserve are permitted but in such circumstances they should also provide terraces or loggias at street level as a means of managing the important transition from the public to the private realm.

Where loggias are provided they should be well proportioned and have a variety of cantilevered and supported elements.

The design of letterboxes should be consistent with the architectural design and character of the Orewa precinct. They should provide for a bespoke solution with consistency of style.

In order to activate the street and to provide enhanced passive surveillance of the public realm, street level apartments should be provided with a pathway and / or steps for direct access to the street, wherever practicable.

## 4 Passive surveillance

All buildings should be designed in accordance with Crime Prevention Through Environmental Design (CPTED) principles.

Buildings should seek to maximise passive surveillance of the public realm through the use of passive surveillance.

Front doors should be clearly visible, address the street, provide for a letterbox, street number and achieve CPTED guidelines.

Where practicable, integrate private open space with the street network and relate main living spaces to the sun and (where practicable) to the street.

Public open spaces should preferably be edged by streets, which are directly overlooked by terraces, balconies or decks directly accessible from living, eating and/or kitchen spaces.

Where private spaces directly overlook public open spaces, then in addition to living, eating and/or kitchen spaces, bedrooms and study spaces may also be included. Where practical, 'juliet' balconies should be added to these spaces to encourage and assist passive surveillance near ground level.

The landscape, including fencing and planting should be designed to ensure views to and from public spaces are largely clear and visually permeable. In general, clear stemmed trees with lower level ground cover planting are preferred to denser shrub vegetation that can obscure views or provide places to hide from view.

## 5 Visual permeability

Permeability is an important landscape characteristic, which can improve passive surveillance and internal views. Physical linkages should be provided to protect and enhance view shafts within and between sub-precincts and to assist with visual legibility, orientation and way finding.

## 6 Side yards

Side yards should be integrated with the development of each area within the residential sub-precincts to avoid left over space and spaces 'split' by inappropriately located planting fencing or other structures.

Side yards should be integrated with the overall spatial structure/layout of the sub-precinct and may include zero lot lines.

## 7 Landscape design

Landscape design should complement the high quality amenity of the residential sub-precincts with the inclusion of appropriate fruit trees, including plum, feijoa, and citrus trees, olive trees and vegetable gardens integrated as companion planting solutions.

Planting should be designed to provide an appropriate level of building separation and/or screening, whilst allowing passive surveillance of the public realm from upper

levels.

Hard landscape, similar to that already provided at Orewa precinct, should facilitate use of the open space areas by residents and the wider public / local community and be integrated with the provision of public facilities including BBQ and picnic spaces.

## 8 Services

### 8.1 Lighting

External lighting and street lighting shall be similar to that already existing within the Orewa precinct. Consideration should be given to lighting appropriate to pedestrian amenity as well as that required to meet roading and other regulatory standards. Lighting should be designed and implemented to avoid glare, spill and unwanted light pollution.

### 8.2 Services

All services should be integrated within the design. Some elements that require careful design and location consideration include:

1. Fire Alarm panels – to be appropriately located and integrated within the design of buildings

2. Sprinkler inlet value sets – to be appropriately located and integrated within the design of buildings

3. Rubbish and recycling collection areas – to be located in the rear lanes, screened and integrated, or in basements

4. Transformers – to be appropriately located and integrated within the design of buildings, or landscaping.

5. Satellite dishes to be located at the rear of buildings, away from any streets, lanes and other public spaces from which they could be seen.

Services should be located to the side of the street elevation of a building rather than on or in front of the street elevation. Provide for easy, unrestricted access for meter readers.

### 8.3 Rubbish collection services

Orewa precinct has an established communal rubbish collection system. Future residential sub-precincts will be required to make use of the same system.

### 8.4 Mail services

New Zealand Post mail services will be provided to all street addresses. Orewa precinct is not a gated community, hence public and service access is provided to all streets and properties.

## 9 Car parking

Visitor parking should be accommodated in parallel parking on the street.

All street parking should be short-term visitor parking.

The surface materials and texture of street parking spaces should be similar to that of the adjacent carriageway whilst also adequately visually differentiated.

All street kerbs should be similar to those already provided on site.

Any perpendicular (90 or 45 degree) carparks should be located in back lanes (only) and be defined with standard kerbs. An exception to this relates to the manager's and café staff parking area.

Accessible and pram carparks should be provided near communal activity spaces.

Parallel car parking bays should be no longer than 3 car parking spaces long, with specimen trees located between bays.

Tandem (stacked) parking should not be provided at street level. Where necessary, such parking should only be provided as garages below town house and apartment living options where it is used to reduce the visual impact of a large number and size of garage doors facing the street.

A wide, raised 'pedestrian table' crossing the street should be provided to enable easy and safe access across roads where communal activity spaces continue on both sides of a road.

Traffic-calming mechanisms near the entry to the site have been provided. Since the speed limit within the site is 30km/hr (imposed by the Kensington Park Residents Association) these should not be removed.

Accesses to basement car parking areas should be inset or provided with shading devices to minimise the visual dominance of the garage doors.

Specimen trees should define both sides of a basement car park access point.

Where garage doors front onto a street, the doors should be indented in plan or set back from the structure above to provide shadow and ensure garage doors do not visually dominate the streetscape.

## 10 Building design

The design of all buildings should consider the residential design guidelines applicable to the Orewa precinct in order to maintain the now established high quality and distinctive architectural, urban design and landscape character of the Orewa precinct.




Examples of existing Orewa precinct façade modulation and front entrance design.

10.1 **Building form**

Buildings should acknowledge, respond to and reflect the existing architectural, urban design and landscape design character of Orewa precinct.

Buildings should be simple in form and incorporate/exhibit elegant proportions.

10.2 **Façade design**

Façades should consider the context within the Orewa precinct. Elevations facing public streets and communal activity spaces should be restrained, dignified, relatively formal and include proportionately larger number of decks, terraces, porches, balconies or loggia spaces.

Elevations facing rear yards may be more varied, individual, relaxed and informal in character.

Building elevations should tend toward verticality in their emphasis, proportioning and composition.

Internal habitable spaces should be provided with a generous stud height. This has generally been set at a minimum of 2.700m in the 'public'/living spaces in a home and a minimum of 2.4m in the private or service spaces. This guideline will assist in providing adequate façade modulation including a variety of window sizes, shapes, proportions and details.

The proportioning, placement and relationship of windows and doors on flat sections of elevations is to be carefully considered whereas the same characteristics of similar

elements placed on elevations not visible from public space (including streets and lanes) may be more relaxed.

### 10.3 **Roof design**

Large eaves and/or deep balconies should generally be provided, especially to the north, east and west side of buildings. The majority of buildings should be provided with substantial eaves around much of their perimeter.

Mansard roofs are not generally considered to be appropriate to this residential sub-precinct.

Where buildings turn a corner the roof should be integral with and define this change in directional orientation.

### 10.4 **Terraces, decks and verandahs**

Covered outdoor spaces should be of adequate depth to accommodate outdoor seating and be of sufficient height to allow sun access. A minimum depth of around 3m, with a minimum of 2.4m for smaller apartments, is considered appropriate.

There should be a mix of supported and cantilevered private outdoor spaces, constructed of materials appropriate to the particular building and the established character of the Orewa precinct.

Horizontal or inclined glass or translucent canopies are to be avoided. Any canopies using non-permanent materials such as canvas, etc within public view are to be avoided.

A variety of spaces with and without soffits should be provided. Each should integrate well with the design of the building/s. Lighting under these spaces should be carefully considered to provide adequate light at night without causing glare to other residents.

### 10.5 **Basement ventilation**

The residential sub-precincts will have a number of apartment buildings resulting in an integrated basement parking solution. Ventilation systems should be designed to mitigate noise and the discharge of air, and be located to integrate with the buildings and their architectural character, and to avoid the discharge of air on to footpaths at pedestrian level. Where appropriate, planting should be used to soften the interface with above ground basements and reduce their visual impact / scale in relation to the public realm.

### 10.6 **Materials and colours**

Materials and colours should be consistent with the existing Orewa precinct palettes.

### 10.7 **Shadow**

Shadow is a large part of the design vernacular palette at the Orewa precinct and its value should inform the design process.

## 11 Rear lanes

Where appropriate, rear lanes should be provided to reduce the visual impact of garage doors on the character of the street. Lanes have been successfully used within the precinct already. Ensure adequate passive surveillance of this area is achievable. When providing rear lanes, ensure building materials return around the corners to maintain the design quality of the street façade. Provide adequate modulation to the lane to avoid a pared back, flat appearance to the elevations. Provide a variety of materials and paint colours that relate to individual residential units within the context of the Orewa precinct Palette.

Existing rear lanes at Orewa precinct showing, on the right, how cladding has been returned around the corner into the rear lane.

## 12 Cleaning buildings

Building design should take account of the need for cleaning the buildings, particularly given the coastal environment. Where possible, cleaning systems attached to the roof should be avoided as this solution will conflict with the provision of the desired deep eaves.

## 13 Signage

Street signage should be similar to that already provided.

All other signage shall comply with the provisions in the Unitary Plan, and shall be limited to signage attached to an existing building or structure. Freestanding signage, sandwich boards and flags shall be avoided. Street numbers should be clearly defined. Where desired, the building name and date of construction may be discretely integrated into significant elements on the street elevation.

## Sub-precincts 6 – Mixed uses – design guidelines

### 14 Introduction

Sub-precinct 6 has been designed as a mixed use area where a number of uses, including residential, may occur. This sub-precinct is considered the most appropriate for mixed use as it provides linkages to the wider Orewa environment, it faces north on to park areas and has Orewa North Primary School as its southern boundary neighbour.

This sub-precinct is located to the south of three existing Orewa precinct dwellings that mark the right hand side entry to Orewa precinct. The design of future mixed use buildings opposite these dwellings will need to respect their privacy and architectural 'style'.

The eastern clock tower marks the main entry point to the Orewa precinct. This point should be recognised within the mixed use area and the existing linkage provided below the clock tower maintained.

This sub-precinct will also contain a variety of compatible uses. The architectural design within this sub-precinct should therefore have a greater variety to enable the various activities to display an individual character while also respecting the wider unified context of the Orewa precinct architectural style.

Sub-precinct 6 area, (to the right of Puriri Boulevard) as seen from the upper part of the site.

### 15 Building layout

#### 15.1 Buildings to address the street

Streets shall be constructed in general accordance with the Orewa MasterPlan.

Buildings should 'address' and 'front on to' the street, and be built parallel to the street boundary in order to create a legible and spatially well contained street edge. Minor variations in the depth of any set-backs from the street edge may be provided with various recessed or projecting elements, doors and windows, while providing overall continuity in the street elevation.

Buildings should be located around as much of the perimeter of the sub-precinct as possible with service spaces located within the blocks, not on the street frontage or visible from public space (including streets and lanes).

To avoid monotony and a more institutional character, façades should be broken up through building separation and/or significant variation in height, form and/or design.

Interior habitable spaces on the edges of sites should overlook neighbouring streets and publicly accessible spaces.

15.2 **Street level**

Building frontages at street level should provide for pedestrian interest and public safety at all times.

Street level floors of buildings should provide 'active edges' for pedestrians to walk past. These edges should be attractive and provide the ability to see into the building at all times.

A minimum of 70% of the length of the street level frontage should be clear glazed for a minimum of 75% of the finished internal floor-to-floor height of the street level units.

Visually non-permeable shelving and display stands backing on to windows and the use of adhesive film for advertising on more than 10% of area of windows and glazed doors facing the street should be avoided.

Verandahs shall be provided along public streets. These will provide weather shelter for pedestrians and provide a consistent, horizontal building element that will functionally connect individual buildings in the pedestrian area. Vertical and horizontal clearances shall be set to avoid damage through vandalism or from passing vehicles.

Examples of existing covered and partially covered – pergola terraces / outdoor living areas at Orewa precinct

15.3 **Middle levels**

Architectural design that differentiates middle levels from street and upper levels is encouraged.

Building frontages at middle levels should exhibit architectural richness, interest and depth. This may include architectural detail and balconies fronting on to streets and public open spaces. Blank walls are strongly discouraged on street and public open space frontages, and on walls that can be viewed from public space (including streets and lanes).

15.4 **Upper levels**

Architectural design that differentiates upper levels from middle and street levels is encouraged.

Large, upper level expanses of blank walls shall be avoided on streets and other public open space frontages, and on walls that can be viewed from public space (including streets and lanes).

Servicing elements shall not be placed on these façades unless integrated into the façade design.

15.4 **Roofs**

Roofs should be designed as part of the overall three-dimensional building form and contribute to the architectural quality of the skyline when viewed from both ground level and higher surrounding land/buildings. Plant, exhaust and intake units, and other mechanical and electrical equipment, shall be fully integrated into the overall roof design so that they are not visible from outside the site.

Examples of varying northern European roof forms, where the significant variety of roof forms contributes to a cohesive whole.

15.5 **Street Corners**

Street corners should have special architectural elements that visually punctuate, reinforce and allow the building to respond to and 'turn' the corner in a variety of interesting ways.

The tops of buildings on street corners should be designed to be an integral part of the corner element, but to distinguish themselves from other parts of the façade.

In order to provide an attractive and distinct verticality to the corner element, a consistent architectural design language should be deployed from the rooftop all the way down to the ground.

Additional height could be provided on a street corner. Variations in material, shape and

texture could also be provided. A finer grain of detail should also be provided.

Where appropriate and practicable, consideration should be given to locating balconies on corners. These can provide visual interest and reduce the apparent mass of a building when viewed at an angle to the façade. Corner balconies also provide a 'serrated' effect to the façade when viewed against the sky or trees and they visually 'activate' the corner.

## 16 Public/private spatial transition

To avoid privatising adjoining streets and/or publicly accessible open spaces, particular attention needs to be paid to how a building interacts with a public street, at or near street level.

Where residential activities extend to ground level within sub-precinct 6, all street edges should be designed to provide a transition between the public realm of the street and the private realm of the residential interior. This transition will be required to manage the interrelationship between private space, semi-private open space and public open space.

The public-private space transition should provide an attractive and psychologically comfortable street edge for the public on both sides of the street, and for the occupants of the building interior.

Safe and convenient pedestrian/vehicular interaction with on-street parking must be provided.


Northern European examples of the private - public transition precinct for a residential use integrated with commercial uses.

16.1 **Public/private interface front yards – commercial use**

Commercial uses should be setback from the kerb delineating the boundary between the carriageway and the footpath by a minimum of 5m of high quality paving. This will provide an area of privately owned but publicly accessible land alongside and visually extending the apparent width of the footpath for a variety of public activities to occur, including the provision of external café tables and seating as well as public seating areas and appropriate amenity (specimen tree) planting.

Commercial uses should be provided with level threshold access and visually permeable exterior façades with a minimum of 70% of the length of the street level frontage should be clear glazed for a minimum of 75% of the finished internal floor to ceiling height of the street level commercial units.

Where security screens are provided these should be secure but visually permeable 24 hours of the day. They should be located on the inside of glazing. Security lighting should remain on at night without causing adverse glare effects.

Examples of successful active retail façades in Botany Town Centre.

16.2 **Public/private interface front yards – Residential use**

To provide the transition to a residential use a combination of fences, planting, steps, terraces, loggias, balconies, decks and changes in level should be provided.

The boundary to the street shall be defined. Techniques to provide this public space/private residential use definition include:

1. A visually permeable fence no higher than 1.2m with a minimum of 70% permeable over its full height.
2. A solid fence no higher than 0.8m.
3. Visually permeable planting with a variety in height but no higher than 1800mm used sparingly (min 70% permeable), or if comprising a hedge no higher than 1.2m
4. A terrace no higher above ground level than 1.5m on a flat site or 2.0m on a steeply sloping site where the average achieves 1.5m.
5. Preference shall be given to terraces no higher than 1.2m above ground level where possible.

6. A combination of the above, in order to achieve visual interest and permeability.

To provide privacy within a residential space the street level floor of the residential space should be raised above the street by approximately 1.2m or setback 5.0m from the street, or a combination of the two.

Steps providing access into residential uses should be generous, and easily able to be sat on. Balustrades and handrails should be visually permeable.

16.3 **Public/private interface front yards – generally applicable to all uses**

Uses at street level should have a street address, street number, letterbox and front door directly visible and accessible from the street.

Uses above the street will generally be residential and may share a common entry.

Front yards, where provided, should be visible from the average eye level height (1.5m) when walking along a footpath.

Buildings constructed up to the road reserve should be permitted but should also provide for terraces or loggia as a means to manage the transition from the public to the private realm.

Where loggias are utilised they should be well proportioned and have a variety of cantilevered and supported elements.

The design of letterboxes should be consistent with the architectural design and character of Orewa precinct.


Examples of ground floor retail spaces with variously styled residential activity above.

## 17 Passive surveillance

All buildings should be designed in accordance with Crime Prevention Through Environmental Design (CPTED) principles.

Buildings should seek to maximise passive surveillance of the public realm.

Private spaces that directly overlook public space should include, on at least one side of the street; living, eating and/or kitchen spaces with direct access to terraces, balconies or decks that overlook the public space.

Private spaces that overlook public open spaces on the other side of the street, in addition to living, eating and/or kitchen spaces, may also include bedrooms and studies. Where practical, 'juliet' balconies should be added to these spaces to encourage and assist passive surveillance near the ground.

Building design should minimise any dark, deeply recessed or concealed areas while providing for a variety of setbacks.

Fencing, planting and hard landscaping should be designed to ensure views to and from public spaces are clear and legible.

Commercial spaces at ground level should maintain visual permeability; avoid dark corners, sharp negative junctions or recesses that result in concealed spaces.

## 18 Visual permeability

Visual permeability is an important means of improving passive surveillance and internal views. Physical linkages should be provided to develop viewshafts within the sub-precinct and between the multi-use and other sub-precincts. It can also assist orientation and way-finding.

## 19 Side yards

This sub-precinct is an integrated environment. Side yards shall be integrated with the development of each area within the sub-precinct to avoid left over space and spaces 'split' by inappropriately located planting, fencing or other structures. Side yards should be integrated with the sub-precinct as a whole and may include zero lot lines.

## 20 Landscape design

Landscape design shall complement the high quality urban amenity of the sub-precinct and the entry to the Orewa precinct. Planting will also be required to create an appropriate level of screening and separation, whilst allowing passive surveillance from upper levels particularly along the interface with the school to the south. The landscape within the public realm will be predominantly hard-surfaced, with quality pavement in pedestrian dominated areas, seating and other elements to encourage and provide attractive and comfortable public use.

Planting within the sub-precinct will generally be located over a podium. The provision of an adequate soil depth for trees and other planting must be incorporated into the

podium design.

A hedge (associated with a permeable fence) together with spaced specimen trees of a scale sufficient to define the boundary and provide an edge to the adjacent Orewa North Primary School grounds should be planted along the southern boundary to the school. This will provide screening at ground level and definition to the site / school interface.

Examples of planting along Puriri Boulevard, viewed from the Orewa sub-precinct 6.

## 21 Services

### 21.1 Lighting

External lighting and street lighting shall be similar to that already existing within the Orewa precinct.

### 21.2 Services

All services should be integrated within the design. Some elements that require careful design and location consideration include:

1. Fire Alarm panels – to be appropriately located and integrated within the design of buildings

2. Sprinkler inlet value sets – to be appropriately located and integrated within the design of buildings

3. Rubbish collection areas – to be located in the rear lanes, screened and integrated

4. Transformers – to be appropriately located and integrated within the design of buildings, or landscaping

5. Satellite dishes to be located at the rear of buildings, away from any streets, lanes and other public spaces from which they could be seen.

### 21.3 Rubbish collection services

Orewa precinct has a rubbish collection system. Sub-precinct 6 will make use of the same system.

### 21.4 Mail services

New Zealand Post mail services will be provided to all roads and private streets.

## 22 Car parking

Car parking in this sub-precinct is necessary to ensure the commercial viability of the mixed use activities including street level local shopping as well as providing some on street visitor parking for residents.

All street parking should be short-term visitor parks.

The surface materials and texture of street parking spaces should be similar to that of the adjacent carriageway but adequately visually differentiated to define the parking spaces.

All kerbs fronting public streets should be similar to those already provided on site.

All perpendicular (90 or 45 degree) carparks should be located in the back lanes and be defined with standard kerbs.

Accessible and pram carparks should be provided near the transition from the back lanes to the public streets on both sides of the lane.

Parallel car parking bays should be no longer than 3 car parking spaces long, with a specimen tree located between bays. Perpendicular bays should generally be 3 car parking spaces wide with a specimen tree located between bays. However, a small number of 4-5 car parking bays may be appropriate, depending upon their location and detailed design.

Tandem (stacked) parking should not be provided at street level.

A wide, raised 'pedestrian table' should be provided across the street to enable easy and safe access to the main reserve areas on the opposite (north) side of Puriri Boulevard.

Traffic calming mechanisms near the entry to the site have been provided. Since the speed limit within the site is 30km/hr these should not be removed.

Access to basement car parking should not be across public streets in this sub-precinct. Basement access ramps should be located some distance down the private lanes with a clear definition of entry to this point incorporating at least a 5.0m deep and 6.0m wide recess, high enough to avoid the effect of a dark recess forming an edge to the street.

Specimen trees should define both sides of the basement access points.

Loading and unloading of service vehicles including loading docks, should be located to the rear of the buildings.

## 23 Building design

All building designs should take account of the residential design guidelines applicable to the Orewa precinct in order to maintain the architectural, urban design and landscape character of the Orewa precinct, while appreciating this more urban, intensive sub-precinct and the existing parks and residences on the opposite side of Puriri Drive.

### 23.1 Building form

Buildings should acknowledge, respond to and reflect the existing architectural, urban design and landscape design and character of the Orewa precinct.

Buildings should be simple in form and incorporate / exhibit elegant proportions.

Commercially branded forms, materials and/or colour schemes should not generate design character, style or building shape and are not acceptable.

### 23.2 Façade design

Façades should consider the context within the Orewa precinct while acknowledging and responding to this mixed use sub-precinct.

Elevations facing public streets and communal activity spaces should be restrained, dignified, and relatively formal. They should include a proportionately high number of decks, terraces, balconies or loggia spaces.

The façades opposite the three residential dwellings to the north of Puriri Boulevard should recognise this specific existing context. They will need to respect their privacy and architectural 'style'.

Images of the existing dwellings in Puriri Boulevard, opposite sub-precinct 6.

Elevations facing communal open space and rear yards may be more varied, individual, relaxed and informal in character.

Building elevations should tend toward verticality in their proportioning and compositional emphases.

Examples of elevations expressing well proportioned vertical façade emphases.

Buildings should be provided with a variety of stud heights to allow façade modulation to occur from the highest, ground floor level, to the shortest, upper floor level.

Building façades within the sub-precinct should be more detailed where they turn corners.

The proportioning, placement and relationship of windows and doors on flat sections of elevations is to be carefully considered whereas the same characteristics of similar elements placed on elevations not visible from public space (including streets and lanes) may be more relaxed.

### 23.3 Roof design

Large eaves and/or deep balconies should generally be provided, especially to the north, west and east side of buildings.

Mono-pitch roofs may be more predominant in this sub-precinct with a lower pitch than in other sub-precincts.

Mansard roofs are not generally considered appropriate to the Orewa precinct architectural design character and should only be used with great design care.

Where buildings turn a corner the roof should be integral with and define this change in directional orientation.

Examples of buildings with varying roof forms and significant eave overhangs. (Examples from Seaside, Florida).

### 23.4 Verandah protection

Verandahs should be included over all footpaths adjacent to retail or restaurant uses.

Verandahs should be of adequate depth to permit covered outdoor seating to occur where appropriate, i.e. a café, while at a height to allow sun access.

They should be a mix of supported and cantilevered verandahs, constructed of materials appropriate to the Orewa precinct.

Horizontal or inclined glass or translucent canopies and non-permanent materials such as canvas, etc are to be avoided.

A variety of verandahs, with and without soffits, should be provided. Each should integrate well with the design of the building/s. Supported canopies may well have residential balconies above.

Lighting under canopies should be carefully considered to provide adequate light at night without causing glare to the occupants of nearby residences.

Examples of verandahs with and without structural elements 'grounding' their design. Note the integrated signage solutions and 'active' façades above the retail.

## 24 Basement and retail ventilation

This sub-precinct will have a high proportion of basement parking to provide adequate car parking to residences located above the retail spaces. Ventilation systems should be designed to mitigate noise and the discharge of air, and be appropriately located to integrate with the buildings and their architectural character, and to avoid discharging air on to footpaths at pedestrian level.

## 25 Cleaning of the buildings

Building design should take account of the need for cleaning of the buildings particularly given the coastal environment. Where possible cleaning systems attached to the roof should be avoided as this solution will conflict with the provision of the desired deep eaves.

## 26 Signage

Signage should be low key, well designed, integrated within a unified style and character for the sub-precinct, and exhibit the following design characteristics:

It should be clear, concise and elegant, and without back lighting or other forms of illuminated lettering / type.

It should include clearly defined street numbers.

It should not visually dominate the sub-precinct.

It may include the building name and its date of construction on a significant element but not a predominance of commercial signage.

Identification of businesses should be restricted to within the façade of the shop or a hanging sign under the verandah.

Signage should be integrated within the building profile to provide a coherent signage solution. Freestanding signage, sandwich boards and flags shall be avoided.



Examples of effective integrated signage solutions for retail uses from Botany Town Centre.

## 27 Boundary with Orewa North Primary School

A visual amenity corridor is provided at each of the southern ends of Parkside Drive and Hibiscus Drive. These linkages are extensions of public streets that should transition to form private streets and should maintain strong visual axes to / from the site. At least one point of access to and from the school at least is to be provided.

Buildings along the Orewa North Primary School boundary shall be well modulated and up to a maximum of four stories in height above ground level. Where possible, to address the request of the adjacent school / Ministry of Education representatives, the main habitable spaces (including balconies) of apartments should be orientated towards the north, east or west, rather than directly south over the school and its grounds.

Building façades orientated towards the school, particularly those generated by predominantly bedrooms, bathrooms and utility rooms, should be appropriately

modulated and articulated in order to mitigate the possible perception of building 'backs' and/or excessive/inappropriate building bulk. Appropriate methods can include distinguishing the top floor of buildings by using a finer grain of detail to that of lower floors, providing balconies, or a lighter visual aesthetic (such as larger areas of glass potentially shuttered to limit outward and downward views).

A suitable boundary fence (a permeable fence with hedge is proposed) and landscaped yard should be provided in consultation with Orewa North Primary School as an interface between the proposed buildings and the Orewa North Primary School, with regularly spaced specimen trees replacing the existing bamboo. Such planting should have regard to the existing large trees within the school grounds, which are to remain.

## Appendix 11.5.6 Riverhead 1

### Appendix 11.5.6.1 Riverhead 1 (Appendix 1)

1. Any combustion process (not being combustion processes for the drying of grain) involving fuel burning equipment, including flaring or incineration of trade wastes or refuse, which singly or together can be used to burn any combustible matter:
   a. at a rate of heat release exceeding 50MW; or
   b. at a rate exceeding 500 kg an hour where pathological material, garbage, refuse, or trade wastes are incinerated; or
   c. at a rate of heat release exceeding 500KW where the products of combustion are used:
      i. to stove enamel; or
      ii. to bake or dry any substance that on heating releases dust or other air pollutants; or
      iii. to maintain reducing conditions in any manufacturing process; or
   d. at a rate, where the combustible matter is a combination of combustible materials which contain sulphur or arsenically treated wood or rubber or oil sludge or pitch or paint residues, that will incinerate in excess of 100 kg an hour of :
      i. sulphur; or
      ii. arsenically treated wood; or
      iii. rubber; or
      iv. oil sludge; or
      v. pitch; or
      vi. paint residues; or
   e. at a rate, where the combustible matter is a combination of combustible materials which contain chemicals, plastics, or fibre in which fluorine, chlorine, phosphorous, or nitrogen has been chemically combined, that will incinerate in excess of 25 kg an hour of such chemicals, plastics, or fibre.
2. Any industrial chemical processes, excluding electro-plating processes, having as a product or by-product or emission any substance that can cause air pollution, including any processes used in:
   a. bodying of natural oils or manufacture or creation of monomers for production of synthetic resins, varnishes and plastics; or
   b. production of soap, grease, detergents, and surface active agents; or
   c. synthesis or extraction of organic chemicals, including formulation of insecticides, weedicides, plant hormones, and like toxic or offensive organic compounds; or
   d. production of inorganic chemicals, including concentration of acids and anhydrides, ammonia, and alkalis; or
   e. production of phosphatic or nitrogenous synthetic fertilisers, including granulation of single or mixed fertilisers; or
   f. any chemical manufacturing processes using or producing chlorine and any industrial processes using chlorine but only for other than water sterilisation and at rates exceeding 5 kg an hour; or
   g. separation or concentration for manufacture or disposal of any uranium metal or compound or any radioactive substance.
3. Any animal or plant matter processes having singly or together a raw material capacity in excess of:

a. 0.5 of a tonne an hour, and being processes for rendering or reduction or drying through application of heat to animal matter (including feathers, blood, bone, hoof, skin, offal, whole fish, and fish heads and guts and like parts, and organic manures, but not including milk or milk products); or

b. 5 tonnes an hour, and being processes for deep fat frying, curing by smoking, roasting of berries or grains or where organic matter including wood is subject to such temperatures or conditions that there is partial distillation or pyrolysis.

4. Any processes involving the pulverising, crushing or screening of dry minerals (including coal, coke and carbon) or the drying or heating of minerals which on heating release dust or any air pollutant and which singly or together:
   a. have a raw materials processing capacity in excess of 200 tonnes an hour, or require a rate of heat release in excess of 2,000 KW; or

   b. are part of a manufacturing process of portland or similar cements and pozzolanic materials; or

   c. are part of a manufacturing process for the sintering, calcining, or roasting of metal ores in preparation for smelting or for burning of calcium or calcium-magnesium carbonates to produce calcium or magnesium oxides or hydroxides, or the expansion or exfoliation of minerals, or the dehydration of gypsum; or

   d. are part of a manufacturing process for making hot-mix asphalt paving mixes; or

   e. are a part of a manufacturing process for making glass or frit from raw materials or making mineral wool or glass fibre, including application of any surface coating to the fibres.

5. Any industrial metallurgical processes, including associated foundry practices, which involve:
   a. the extraction, including electro-chemical methods of reduction, of any metal or metal alloy from its ore, oxide, or other compound; or

   b. the making of steel or the refining of any metal or modification of any alloy in the molten state by blowing with air, oxygen, or oxygen enriched air, or chlorine or other gases, or by addition or reactive chemicals or volatile fluxes and the use of oxygen lancing in scarfing and similar operations; or

   c. the manufacture of silicon or of ferrous silicon or of metal powders or of alloys rich in any metals specified or described here:
      i. radioactive, carcinogenic, teratogenic, or mutagenic substances.

      ii. antimony, arsenic, beryllium, cadmium, lead, mercury, thallium, selenium, uranium, and their compounds.

      iii. boron, chromium, cobalt, copper, magnesium, manganese, nickel, potassium, sodium, tellurium, tin, vanadium, zinc, and their compounds; or

   d. the melting of any metal or metal alloy, including secondary melting, and the sweating of scrap metal where the aggregated melting capacity exceeds one tonne an hour; or

   e. hot dip galvanising or other processes for the protection of surfaces by metal coating using fluxes.

6. Any industrial carbonising or gasification processes in which natural gas, petroleum oil, shale, coal, wood or other carbonaceous material is subject to:
   a. pyrolysis, carbonisation, or destructive distillation, the solid liquid or gaseous products being recovered; or

   b. gasification by partial combustion with air or oxygen or reaction with steam.

7. Any process (not being the purification by distillation of dry-cleaning solvents at retail outlets) for the

refining, purification or reforming of hydrocarbons in or derived from natural gas, petroleum, shale, coal, wood, or other organic substances and, including:

a. hydrocarbon separation or recovery by distillation or absorption and desorption or removal of carbon dioxide or condensable hydrocarbons from natural or manufactured gas; or

b. reforming including viscosity breaking by thermal and catalytic cracking and hydrogenation and alkylation and like processes, including preparation of ethylene or other feed stock for chemical synthesis; or

c. refining to reduce sulphur or to improve other qualities with the aid of any substance specified here:

i. radioactive, carcinogenic, teratogenic, or mutagenic substances.

ii. antimony, arsenic, beryllium, cadmium, lead, mercury, thallium, selenium, uranium, and their compounds.

iii. boron, chromium, cobalt, copper, magnesium, manganese, nickel, potassium, sodium, tellurium, tin, vanadium, zinc, and their compounds.

iv. dust containing asbestos, quartz, or other of the pneumoconiosis inducing or asthmagenic substances.

v. dusts and fumes, containing metallic elements; and dusts, and fumes containing organic and inorganic materials including fertilisers, coal, coke, carbon, soot, tars, wood, fibres, and pathogenic substances.

vi. sulphur, sulphur oxides, and sulphur oxyacids, carbon di-sulphide, hydrogen sulphide, di-sulphides, polysulphides, mercaptans, and other acidic, toxic or odorous sulphur compounds.

vii. nitrogen oxides, nitric acid, ammonia, and hydrazine, and their compounds, volatile amines, cyanides, cyanates, di-isocyanates or other toxic or odorous compounds of nitrogen.

viii. fluorine, chlorine, bromine, iodine, and their compounds.

ix. phosphorous and its oxides, acids, and organic compounds.

x. alkyl, carbonyl, and other toxic organo-metal compounds.

xi. hydrocarbons and their partially oxidised or halogenated derivatives, particularly acrolein, esters or acrylic acid, formaldehyde, and volatile carboxylic acids, and anhydrides and industrial solvents.

xii. ozone, carbon monoxide.

xiii. or by air blowing.

8. Any industrial wood pulp or particle board processes in which:

a. wood or other cellulose material is cooked with chemical solutions to dissolve lignin and the associated processes of bleaching and chemical and by-product recovery; or

b. hardboard or particle board or wood pulp are made by processes involving emission of air pollutants.

i. any use of geothermal steam at a rate of heat release exceeding 5 MW.

ii. any industrial or trade processes involving the use of:

- di-isocyanates at a rate exceeding 100 kg an hour; or
- organic plasticisers at a rate exceeding 100 kg an hour.

c. any process for the composting of organic waste having a raw materials capacity in excess of 10

tonnes per day.

## Appendix 11.5.6.2 Riverhead 1 (Appendix 2)

1. Any combustion processes involving fuel-burning equipment, including flaring or incineration of trade wastes or refuse, not otherwise specified or described in this Appendix but which singly or together can be used to burn combustible matter:
   a. for any purpose at a rate of heat release exceeding 5 MW; or
   b. for the purpose of:
      i. the recovery of metals from insulated cable, motor vehicles, or any other mixture or combinations of metals and combustibles; or
      ii. the cleaning of drums or containers.
   c. at a rate exceeding 50 kg an hour, but not exceeding 500 kg an hour, where pathological material is incinerated or where garbage, refuse, or trade wastes, are incinerated; or
   d. at a rate, where the combustible matter is a combination of combustible materials which contains sulphur or arsenically treated wood or rubber or oil sludge or pitch or paint residues, that will incinerate in excess of 25 kg an hour but not in excess of 100 kg an hour of:
      i. sulphur; or
      ii. arsenically treated wood; or
      iii. rubber; or
      iv. oil sludge; or
      v. pitch; or
      vi. paint residues; or
   e. at a rate, where the combustible matter is a combination of combustible materials which contain chemicals, plastics, or fibre in which fluorine, chlorine, phosphorous, or nitrogen has been chemically combined, that will incinerate in excess of 5 kg an hour but not in excess of 25 kg an hour of such chemicals, plastics or fibre. Any industrial or trade processes (not otherwise specified or described in this Appendix) for the blending, packaging or handling of air polluting substances specified here:
      i. radioactive, carcinogenic, teratogenic, or mutagenic substances.
      ii. antimony, arsenic, beryllium, cadmium, lead, mercury, thallium, selenium, uranium, and their compounds.
      iii. boron, chromium, cobalt, copper, magnesium, manganese, nickel, potassium, sodium, tellurium, tin, vanadium, zinc, and their compounds.
      iv. dust containing asbestos, quartz, or other of the pneumoconiosis inducing or asthmagenic substances.
      v. dusts and fumes, containing metallic elements; and dusts, and fumes containing organic and inorganic materials including fertilisers, coal, coke, carbon, soot, tars, wood, fibres, and pathogenic substances.
      vi. sulphur, sulphur oxides, and sulphur oxyacids, carbon di-sulphide, hydrogen sulphide, di-sulphides, polysulphides, mercaptans, and other acidic, toxic or odorous sulphur compounds.
      vii. nitrogen oxides, nitric acid, ammonia, and hydrazine, and their compounds, volatile amines, cyanides, cyanates, di-isocyanates or other toxic or odorous compounds of nitrogen.

viii. fluorine, chlorine, bromine, iodine, and their compounds.

ix. phosphorous and its oxides, acids, and organic compounds.

x. alkyl, carbonyl, and other toxic organo-metal compounds.

xi. hydrocarbons and their partially oxidised or halogenated derivatives, particularly acrolein, esters or acrylic acid, formaldehyde, and volatile carboxylic acids, and anhydrides and industrial solvents.

xii. ozone, carbon monoxide;

including grain elevators or seed dressing plant, but not processes solely concerned with retail distribution or with distribution of fuels.

2. Any industrial or trade animal or plant matter processes having singly or together a raw material capacity in excess of 0.5 of a tonne an hour, and being processes for rendering or reduction or drying through application of heat to animal matter (including feathers, blood, bone, hoof, skin, offal, whole fish, and fish heads and guts and like parts, and organic manures, but not including milk or milk products) but having a raw material capacity not in excess of 0.5 of a tonne per hour; or

3. Any industrial or trade animal or plant matter processes having singly or together a raw material capacity in excess of 5 tonnes an hour, and being processes for deep fat frying, curing by smoking, roasting of berries or grains or where organic matter including wood is subject to such temperatures or conditions that there is partial distillation or pyrolysis but having a raw material capacity in excess of 250 kg an hour but not in excess of five tonnes an hour.

4. Any industrial or trade mineral processes involving the pulverising, crushing or screening of dry minerals (including coal, coke and carbon) or the drying or heating of minerals which on heating release dust or any air pollutant and which singly or together has a raw materials processing capacity in excess of five tonnes an hour but not in excess of 200 tonnes an hour, or requiring the burning of combustible matter as part of the process at a rate of heat release less than 2,000 KW.

5. Any industrial or trade processes for manufacture of flock or for the teasing of textiles or shredding of paper or for cleaning sacks or crushing or separating dags from wool.

6. Any industrial or trade process which is not otherwise specified or described in this Part of this Appendix and which involves abrasive blasting.

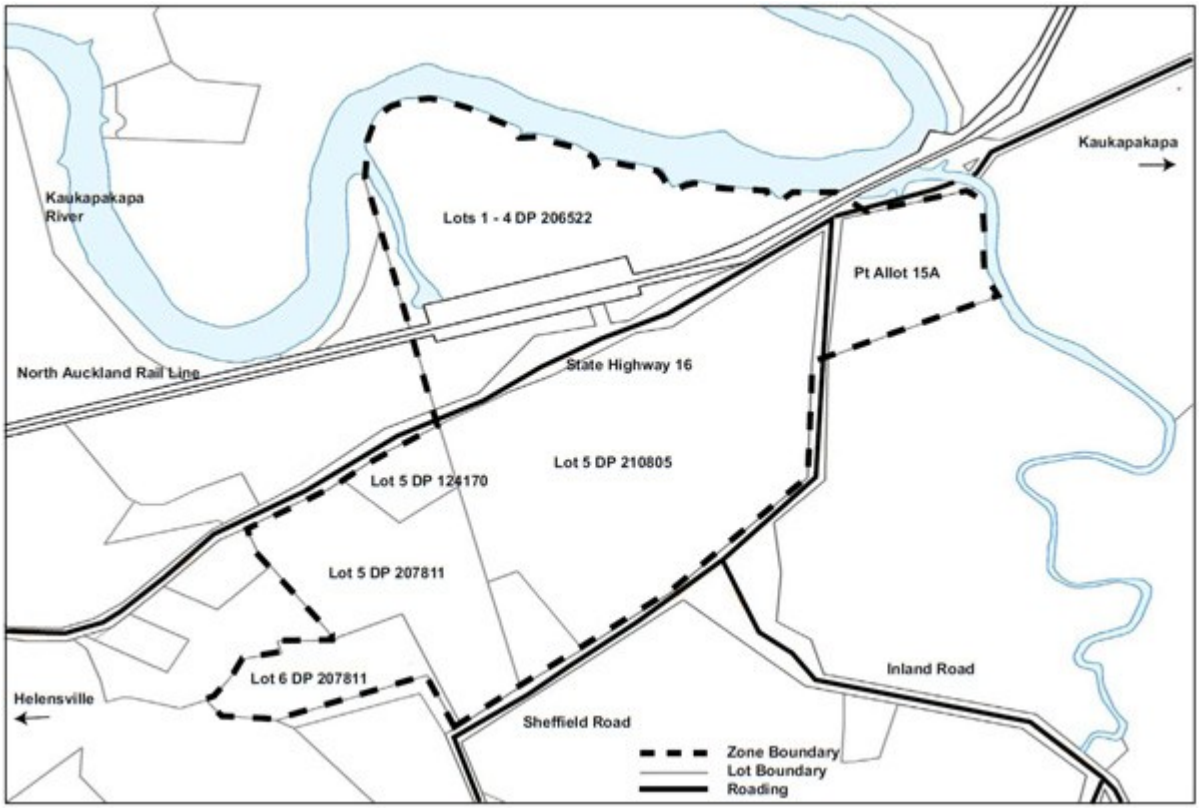
7. Any industrial or trade processes using di-isocyanates at a rate between 10 and 100 kg an hour for the manufacture of foam plastics.

8. Storage, preservation and drying of skins.

# Appendix 11.5.7 Rodney Thermal Energy Generation

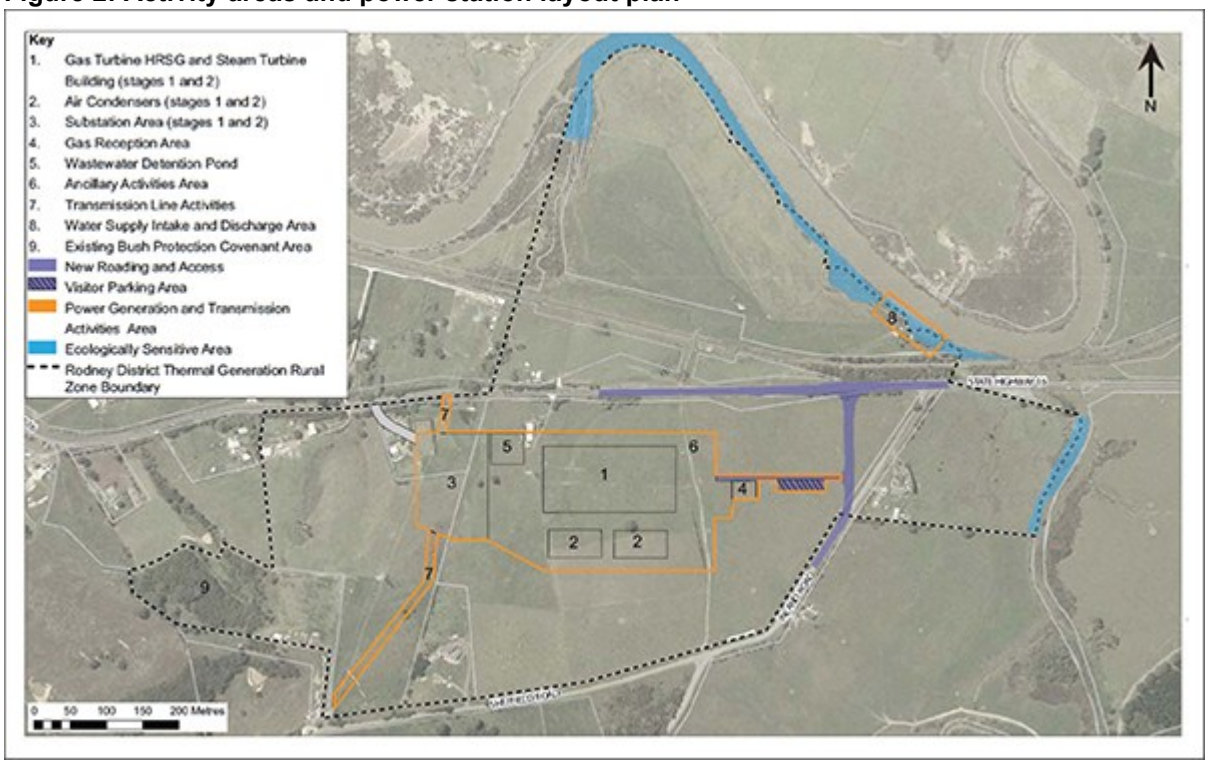
## Appendix 11.5.7.1 Location of Rodney Thermal Energy Generation precinct - showing lot boundaries

**Figure 1: Lot boundaries**



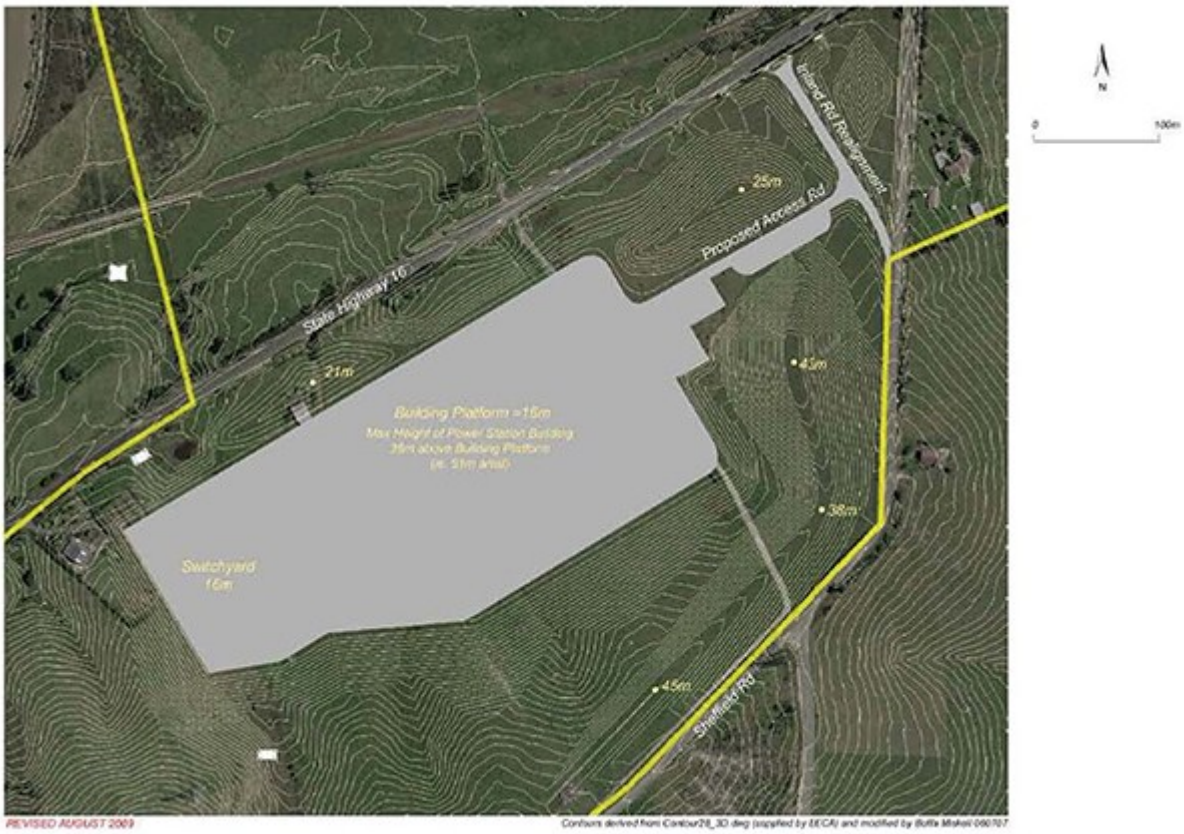

## Appendix 11.5.7.2 Location of Rodney Thermal Energy Generation precinct - activity areas and power station layout

**Figure 2: Activity areas and power station layout plan**



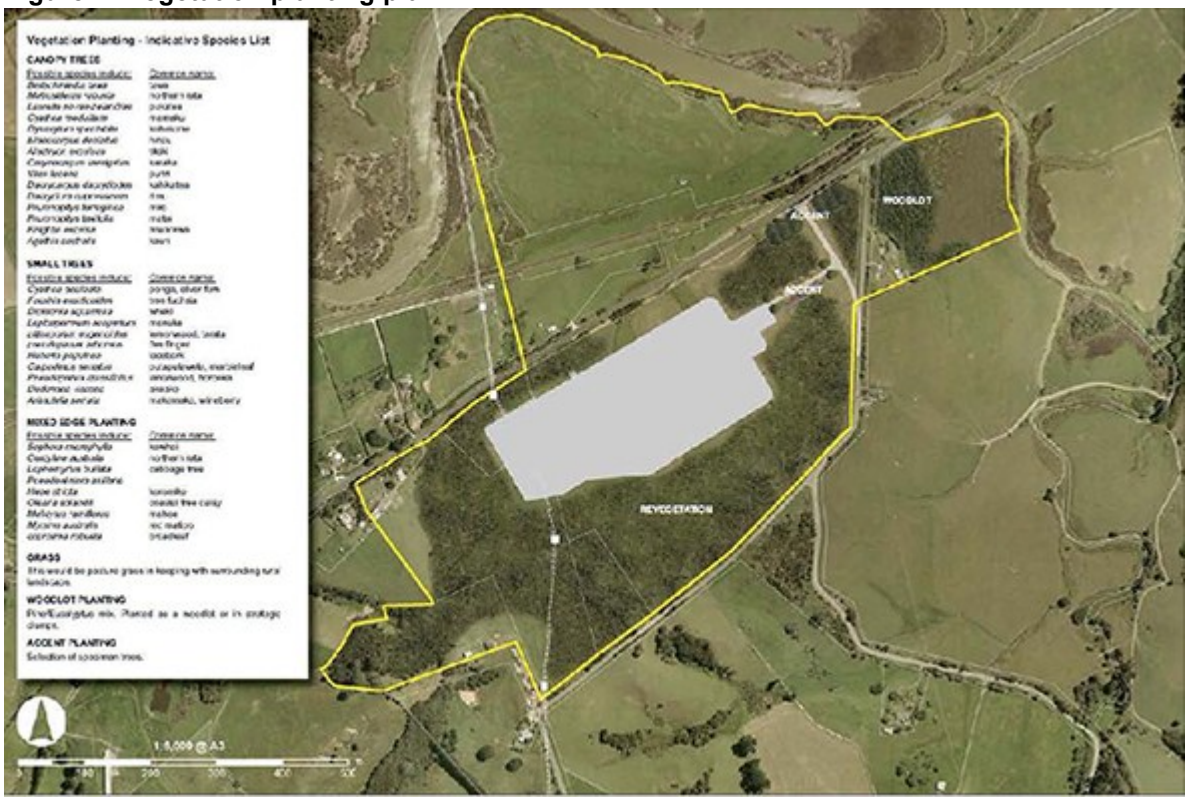
## Appendix 11.5.7.3 Rodney Thermal Energy Generation precinct - landforms and contour plan

**Figure 3: Landforms and contour plan**




## Appendix 11.5.7.4 Rodney Thermal Energy Generation precinct - vegetation planting plan

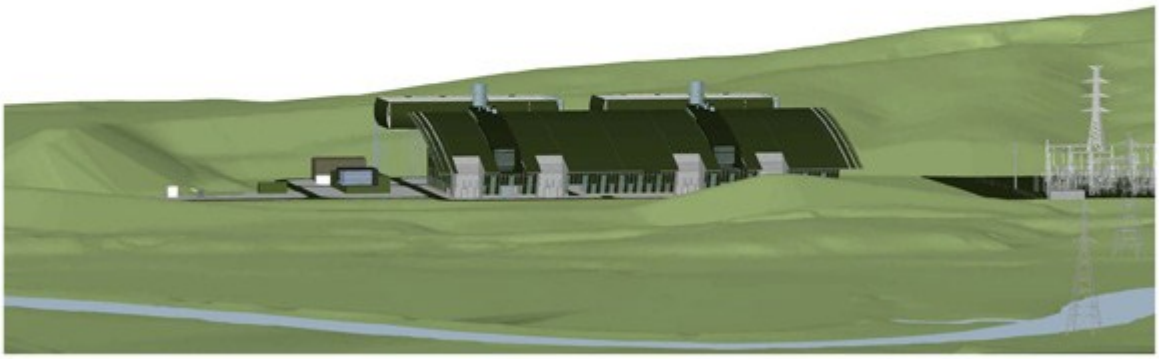
**Figure 4: Vegetation planting plan**



## Appendix 11.5.7.5 Rodney Thermal Energy Generation precinct - development concept plan: building

The main power station is shown for the completed development but will be constructed in stages.

**Figure 5: Building - perspective 1**

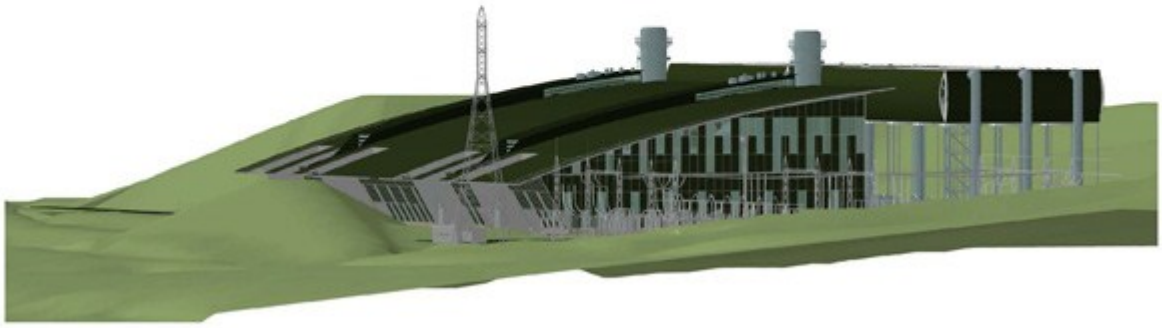


The main power station building is shown for the completed development but will be constructed in two stages

**Figure 6: Building - perspective 2**

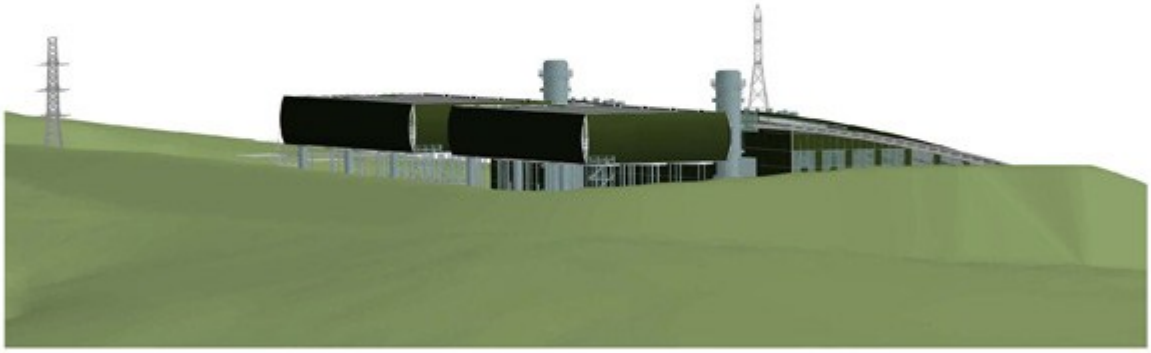
The main power station building is shown for the completed development but will be constructed in two stages

**Figure 7: Building - perspective 3**



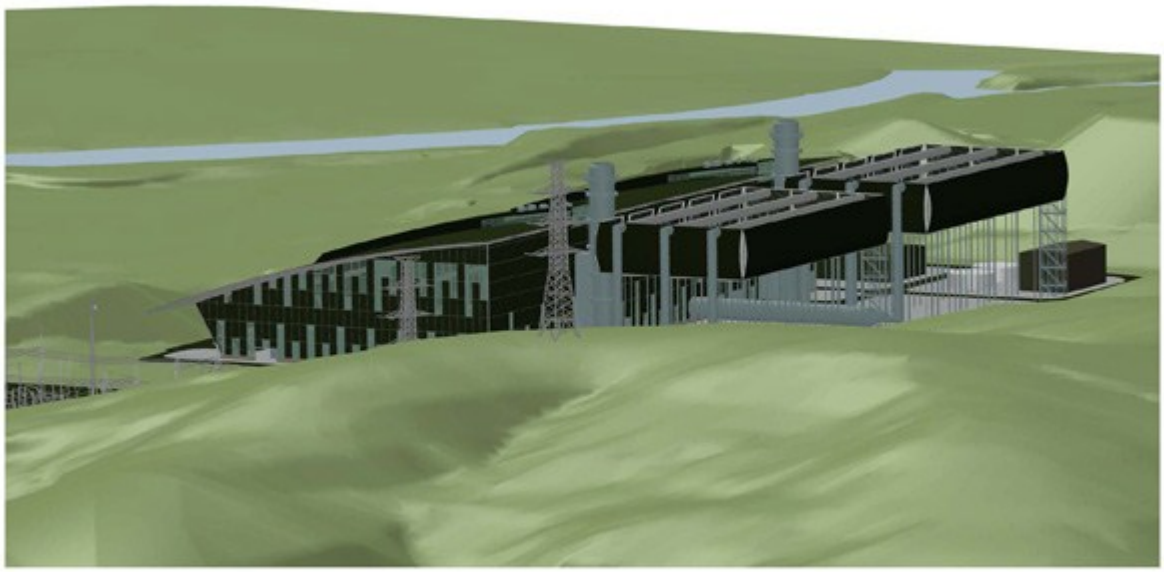
The main power station building is shown for the completed development but will be constructed in two stages

**Figure 8: Building - perspective 4**



The main power station building is shown for the completed development but will be constructed in two stages

**Figure 9: Building - perspective 5**



The main power station building is shown for the completed development but will be constructed in two stages

## Appendix 11.5.7.6 Rodney Thermal Energy Generation precinct - development concept plan: substation

**Figure 10: Substation - perspective 1**

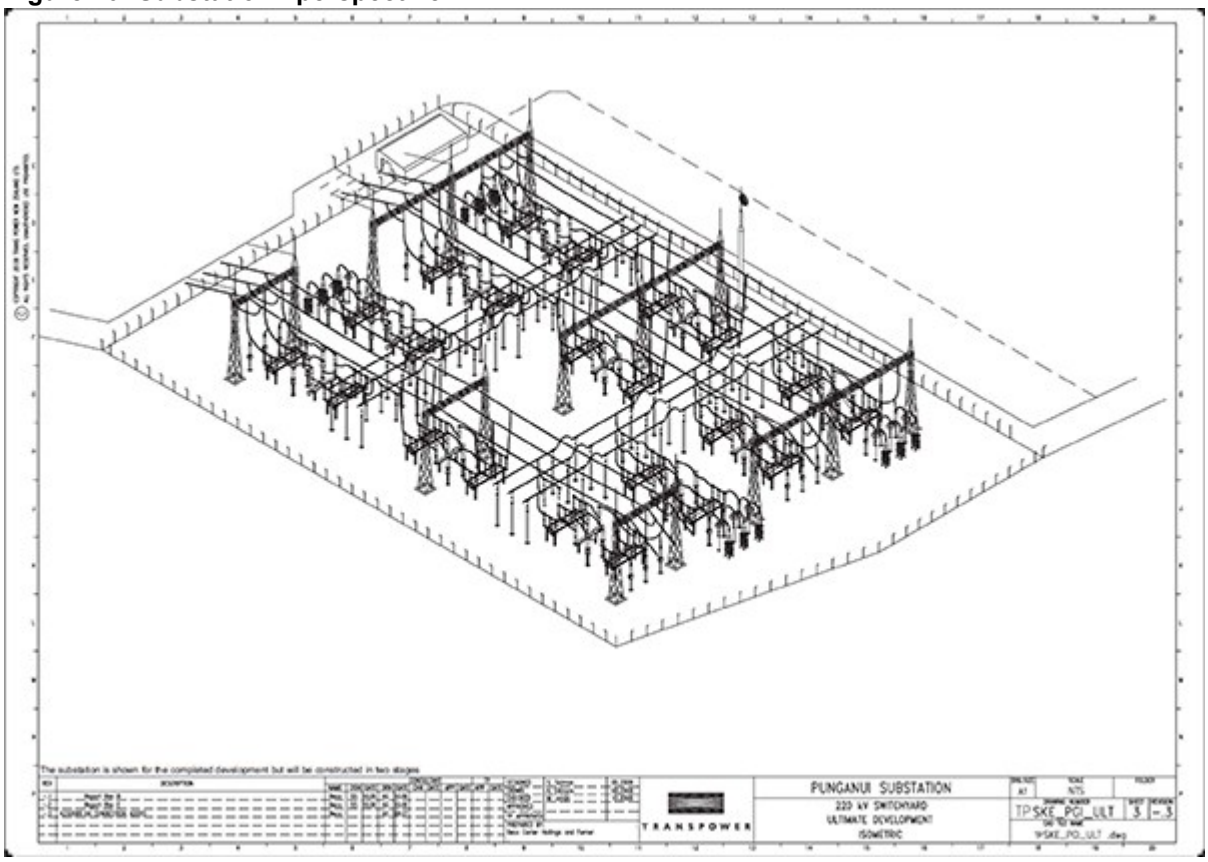


**Figure 11: Substation - perspective 2**

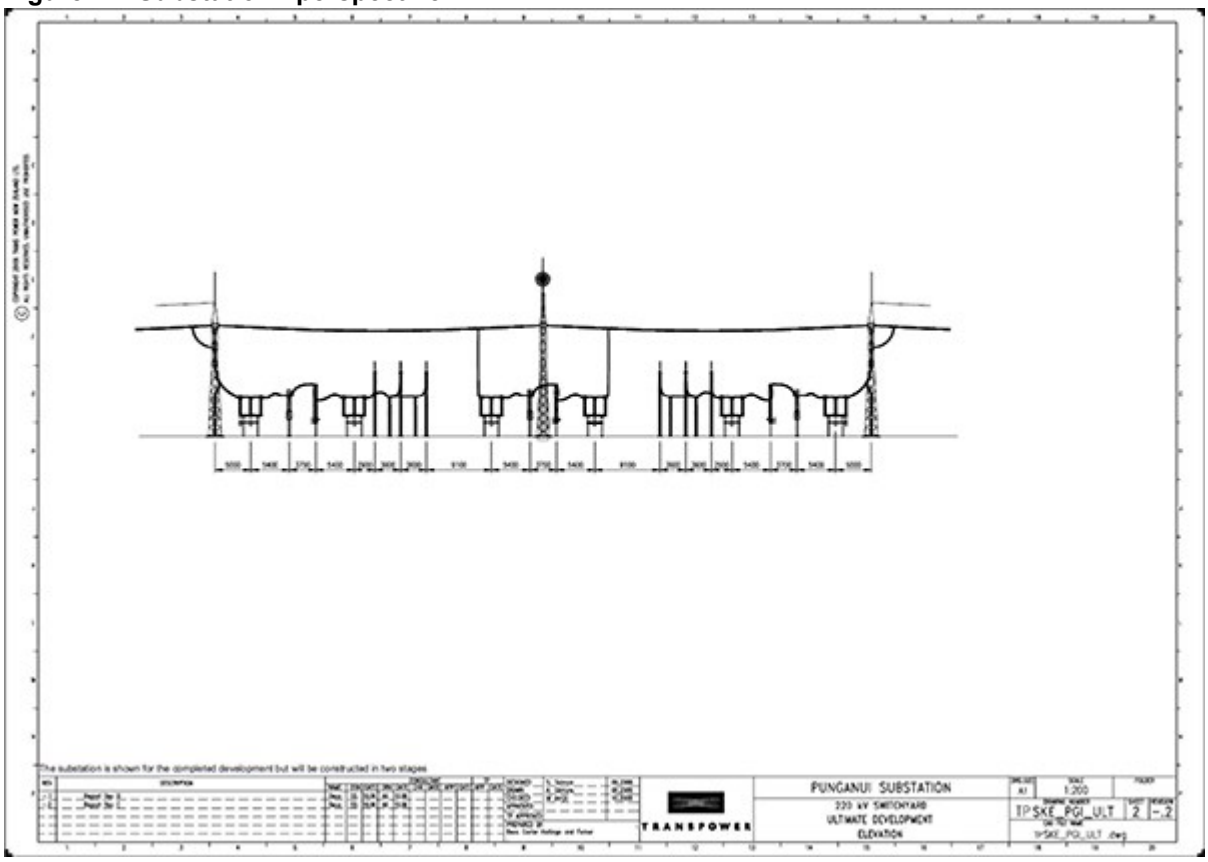
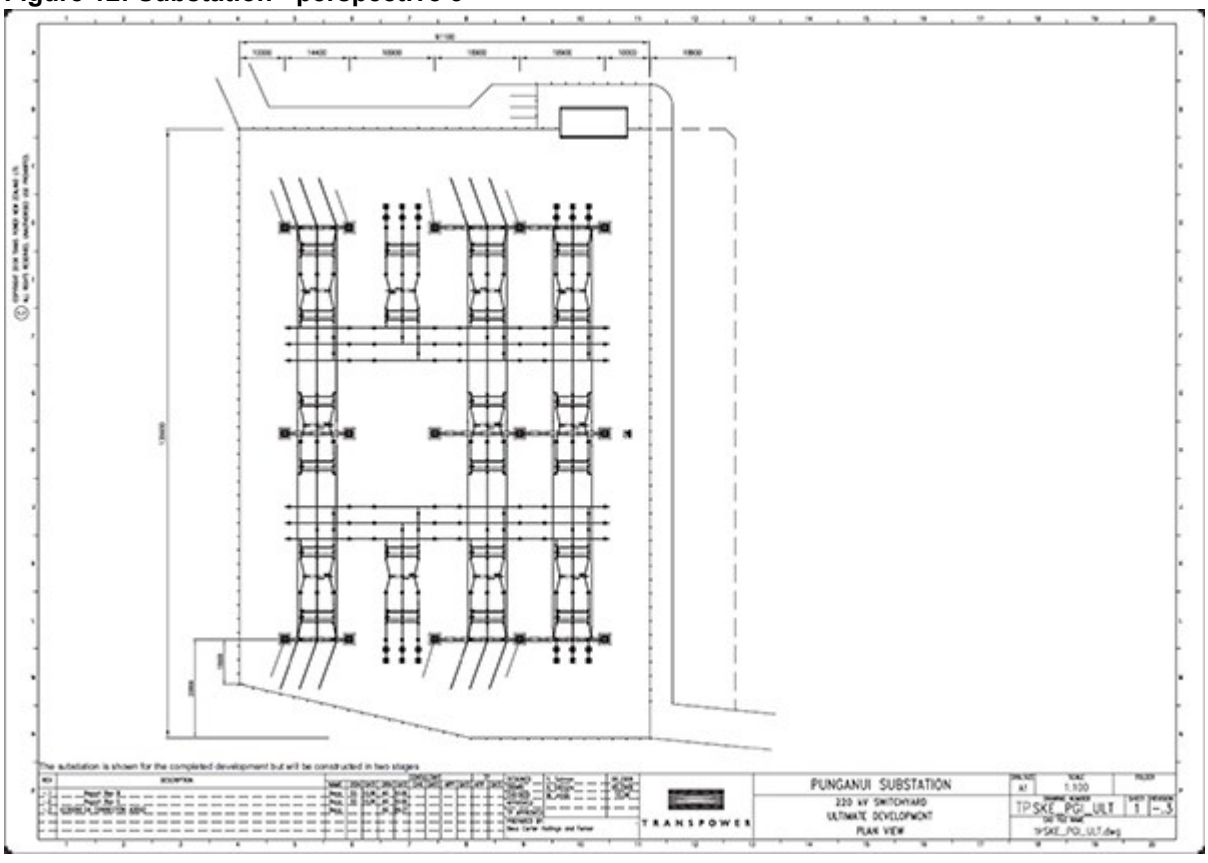
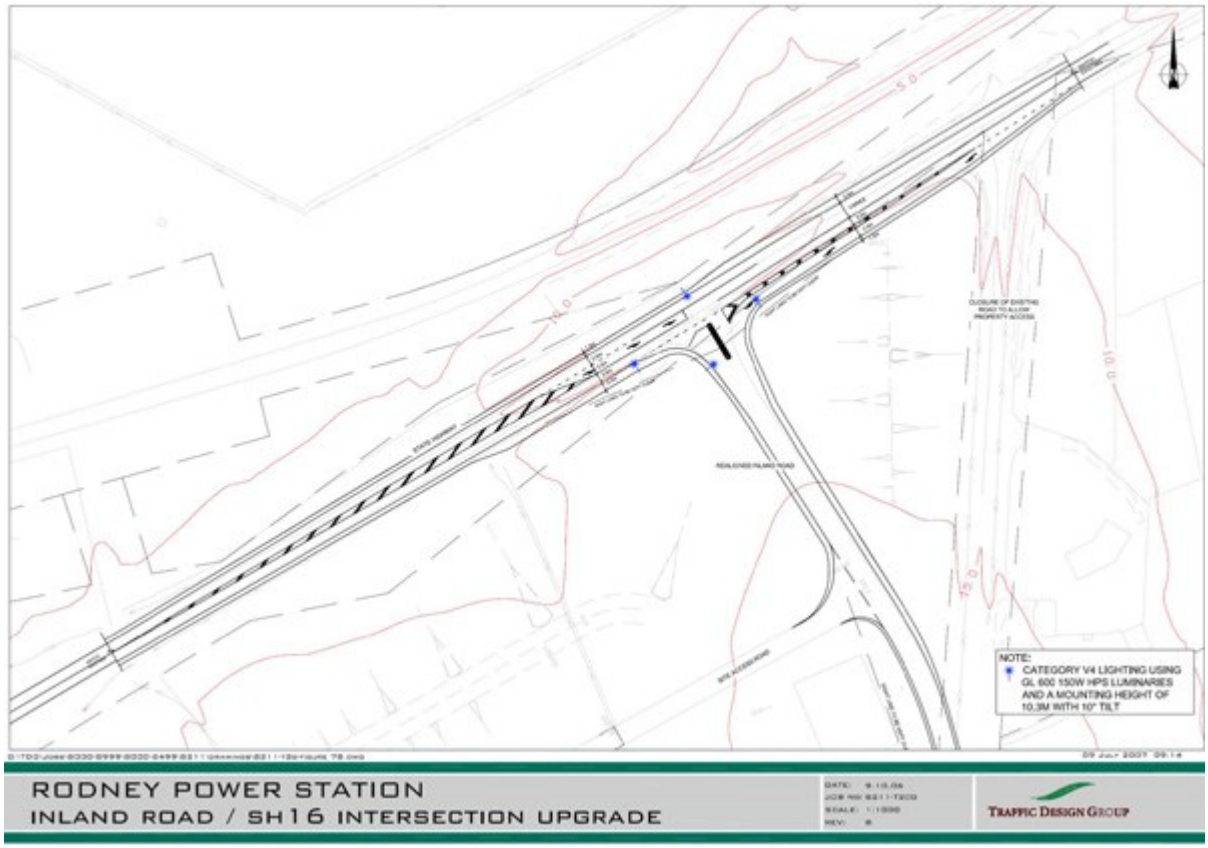



**Figure 12: Substation - perspective 3**




## Appendix 11.5.8.7 Rodney Thermal Energy Generation precinct - realignment of Inland Road and alterations to State Highway 16

**Figure 13: Realignment of inland road and alterations to State Highway 16**



## Appendix 11.5.8 Silverdale North

**Silverdale North design guidelines**
Click here for PDF

# SILVERDALE NORTH DESIGN GUIDELINES

## Part 1.0 Structure of Design Guidelines

Part 1.0 describes key elements underpinning Auckland Council's "Single House" vision for Silverdale North. Part 2.0 of the guidelines outlines desired information in a Framework Plan. This optional information is above the minimum requirement listed in the rules. The Framework Plan is the most important part of the guidelines as the road pattern and the size and shape of lots largely determine the character of an area long before the first house is designed. A summary of urban design concepts underpinning the structure plan is included as a guide to preparing a Framework Plan.

Parts 3.0 & 4.0 contain guidelines for streetscapes and site design for residential areas. These two matters are important to create high quality external spaces as part of the Single House concept.

Parts 5.0, 6.0 & 7.0 examine common medium density house types, building elements and visual character. Part 8.0 contains design guidelines for the commercial and business zones. Part 9.0 contain outlines street types.

The guidelines are not to be treated as a checklist for design with every "box requiring ticking". In fact some elements may be contradictory and any design should be assessed against the "body of ideas" contained in the guidelines. Where designs contradict the guidelines then the applicant should outline reasons for doing so.

Some photographs and diagrams contain ticks which indicate a preferable example, or crosses which indicate examples to be avoided.

[Footnotes i to xii are at the end of Silverdale North Design Guidelines]

## Part 1.1 Single House, Sub-Precinct B Policy Area

Single House is the zoning to emphasise Auckland Council's vision for the Silverdale North area. Recent residential development throughout Auckland has been characterized by larger houses being built on smaller sites. This has led to decreased area for planting around houses and dominance of the landscape by buildings. To achieve a Single House neighbourhood the design guidelines focus on four key areas.

## The Street & The Public Realm

Open space and major streets in Silverdale North are largely the responsibility of Council. Street types have been designed to create memorable spaces for walking, cycling and driving. Street types and services locations have been designed to allow planting of large trees in the road berm. High quality streets and landscaping will go a long way to establishing a single house character. Those streets that are "required" by Council are contained in the Rules. Part 9.0 describes the local street type to be constructed by developers.

## Indoor/Outdoor Flow

Encouraging residents and developers to landscape their properties is important in creating a Single House suburb. Properties with indoor/outdoor flow from living spaces to terraces encourages outdoor living. If people spend more time outside they are more likely to want attractively landscaped spaces.

Therefore the Design Guide reinforces the Residential rules that encourage lot shape, site planning and architectural design that creates indoor-outdoor flow to exterior living spaces.

A key outcome desired by the rules package is usable outdoor space on sections smaller than 650m². This is the reason for the higher height to boundary rules for smaller sites and when building closer to the road in the 450-650m² sites. Encouraging two-storey houses to be built closer to the road and side boundaries allows larger private backyards and better opportunities for exterior living space and landscaping.

## Multi Unit Design

Council intends to ensure that multi-unit housing is designed to a high standard and will complement the Single House living environment. Effects on streetscape amenity, pedestrian friendly internal streets and architectural design for multiunit housing are addressed in the guidelines.

### *Variety*

Houses constructed in new subdivisions are frequently built by a few companies and many of the houses look the same. A variety of building types or designs avoids the monotony of repetitive detached or multi-unit housing. In the Resource Consent process building elements are analysed to encourage variety rather than restriction to an architectural style. Houses or apartments with different numbers of bedrooms are encouraged in multi-unit housing so that an area is not dominated by one social or demographic group. This encourages variety so that a neighbourhood does not experience a marked rise and decline as a dominant social or demographic group ages.

# Part 2.0 Framework Plan

This section outlines the key urban design issues to be addressed in a Framework Plan and/or the Subdivision Plan.

A good Framework Plan will show how the opportunities and constraints of the site and context are resolved into a coherent whole. It is preferable that the following layers are isolated as individual drawings then combined into an overall plan.

Existing Site Analysis:

A list of contextual elements e.g. existing contours, landscape and heritage features, significant vistas, environmental features, major roads, walkways, open space and community facilities.

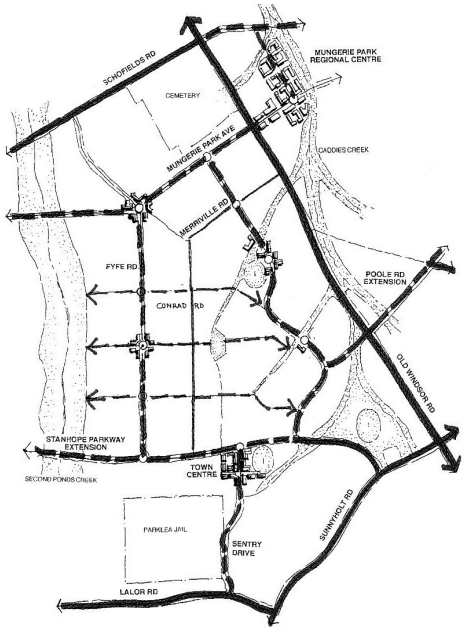



Figure 1: Movement Network

Movement Network:

The Framework Plan must show local roads and the blocks that they create. This shows if a connected street layout is proposed. Pedestrian and cycle links are desirable features to assess movement for all transport modes. The Framework Plan should also indicate connections to existing and likely future roads and paths. It should also indicate which street types are planned in all locations.
(Figure 1). Refer to Figure 14 for the Millwater Parkway and Figure 15 for the Greenway.

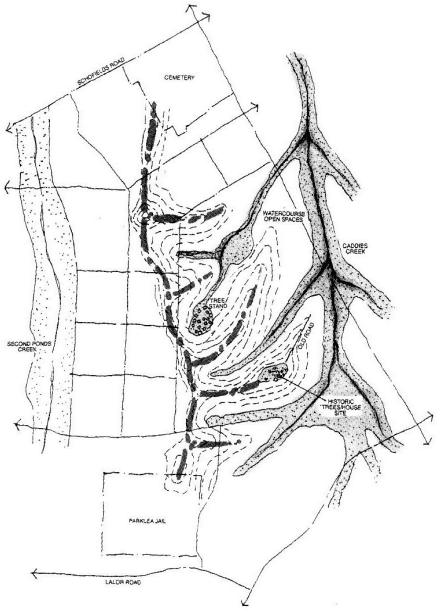



Figure 2: Open Space Network

Open Space Network:

This plan must show the location and type of open space, local reserves, wetlands, stormwater ponds, or other devices. Streetscape landscaping, connections to other community facilities, council owned open space and active edges to local reserves will be assessed (Figure 2).

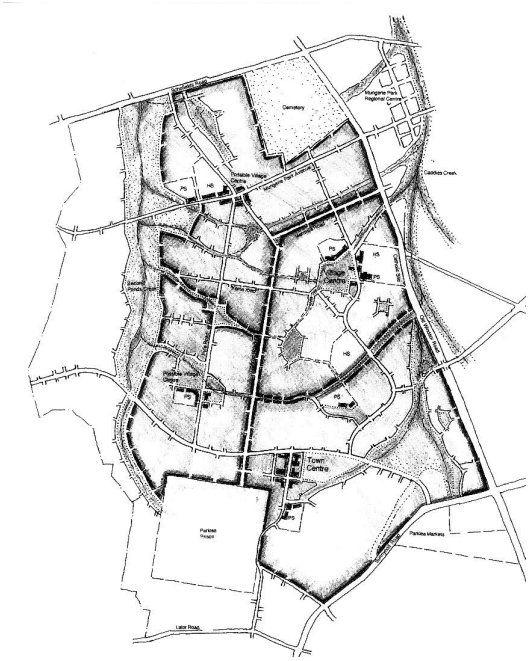



Figure 3: Urban Structure[i]

Urban Structure:

This must show finished contours and location of major retaining walls. Location of various density developments must be shown as described in the rules.

Block dimensions or lot sizes for the areas below 650m² will be useful to assess lot size and orientation more quickly. Location of Multi-unit sites will be assessed against the criteria in Part 4. (Figure 3)

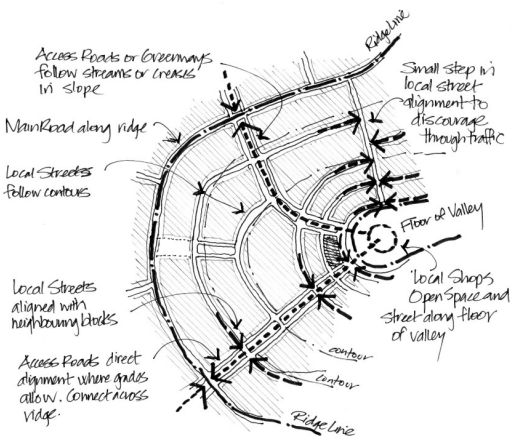



Figure 4: Topography influence on Urban Structure

Existing Topography:

Silverdale North's rolling topography may not be conducive to a square grid street pattern that is typical of connected street networks. Additionally, streets that minimize earthworks will probably follow the contours so will have curving alignments.

The curving streets can run along the contour lines as long as they connect into streets that run up the slopes at regular intervals i.e. the greenways are one example. So although the block shapes are different and the block sizes are larger, this type of layout is likely to be connected and minimizes earthworks (Figure 4).

The streets running up the slopes should also follow sub-ridges or creases in the slopes to minimise earthworks. Otherwise they should be as straight as possible to allow for legibility of the street network. Streets that arbitrarily curve up the slope will be disorienting when used in conjunction with the streets that run along the contour lines.

Urban Design Concepts:

The key urban design concepts underpinning the Outline Plan are outlined here to assist in the preparation of Framework Plans.

Landform:

Metropark East takes advantage of flat land at the water's edge to create public open space and sports grounds that serve both Silverdale North and the wider community. Metropark West utilizes a natural bowl to form more passive outdoor space

Ridges and valleys are the dominant landscape form in Silverdale North. The existing ridge roads are maintained and extended forming a top edge to each valley. Streams sit at the centre of each of these valleys providing a focus for a neighbourhood centered on each valley (Figure 5).

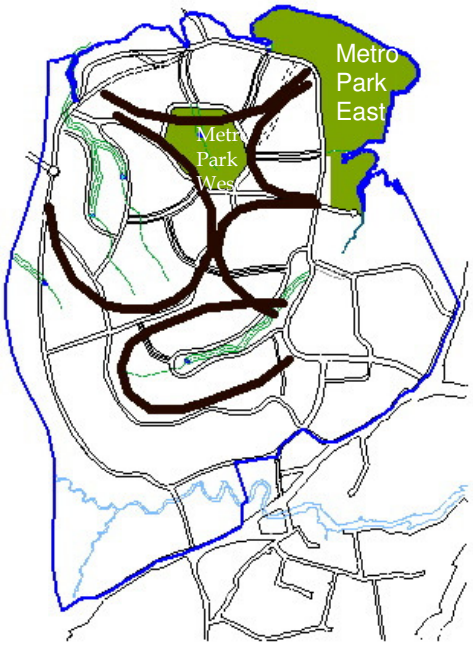



Figure 5: Landform Context.

Neighbourhood Structure:

The ridge roads run along the top of the valleys (yellow lines). The Millwater Parkway (red line) is located along the flat perimeter connecting Metropark East and other foreshore areas. It also forms the bottom boundary to each valley or neighbourhood. The pattern of ridge roads and the Millwater Parkway reinforce the valley landform and neighbourhood boundaries. The larger streets border and define each neighbourhood. They also direct vehicles away from the quieter centre of the neighbourhoods.

The Greenways are placed on the streams at the centre of most valleys and emphasise the centre of each neighbourhood. Therefore the Greenways are important linear open spaces as well as local roads (Figure 6).

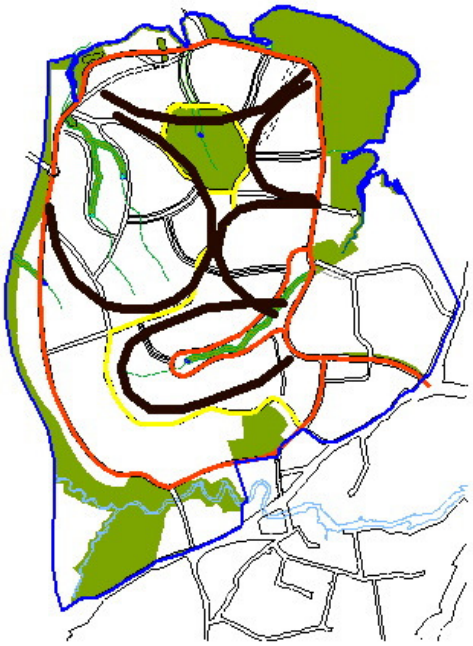


Figure 6: Neighbourhood Urban Structure

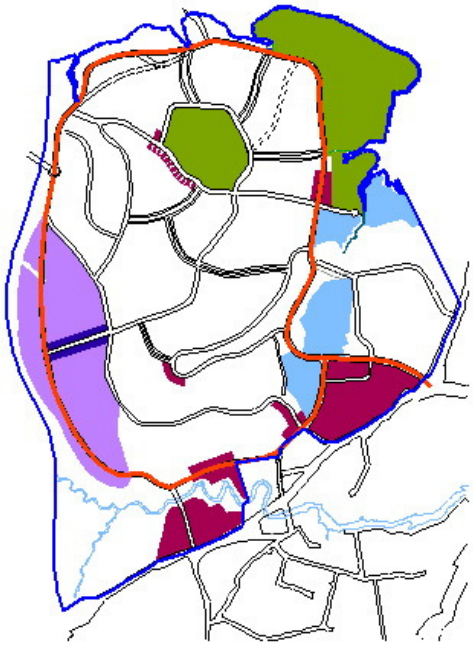


Figure 7: Community Facilities

Community Facilities:

Millwater Parkway and the major streets also link schools, Sub-precinct A (Business), Sub-precinct D (Town Centre) and Silverdale Village. Most community facilities should be located along the Millwater Parkway to create a coherent and legible layout, making it easy to find your way around.

Locating community facilities on major streets also allows sharing of parking. People can park in one place and walk to different facilities (Figure 7).

Figure 8: Millwater Parkway

Millwater Parkway is designed with wide cycling & walking paths, with on-road cycling and boulevard planting to create high quality pedestrian and cycling streets (Figure 8). Parking bays are inset to keep the carriageway narrow, which will encourage reduced vehicle speeds.

Figure 9: Greenway Street & Open Space

The "greenways" are as important as the Parkway. They are linear open spaces that link the ridge roads to the Millwater Parkway (Figure 9). Locating playgrounds and local shops along the greenways makes them a focal point in each neighbourhood valley. By making a feature of stormwater treatment and ecosystem maintenance they demonstrate a new relationship between greenfield subdivisions and the environment.

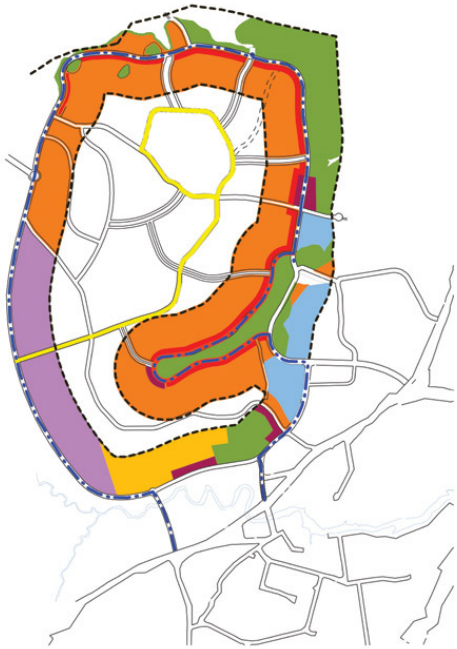


Figure 10

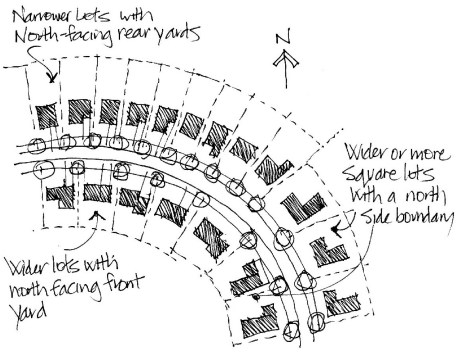



Figure 11: Lot Orientation in curving streets

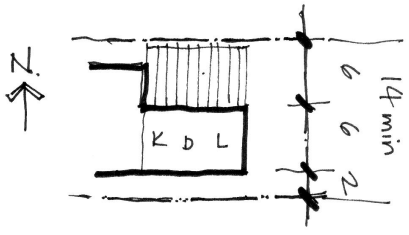



Figure 12: North facing side yard

Public Transport:

Millwater Parkway has also been designed to accommodate future bus services. The road width allows for full lay-bys so that bus stops do not inconvenience passing traffic.

Locating most community facilities on the Millwater Parkway and creating a high amenity pedestrian environment encourages use of bus services.

The Silverdale North rules do not prescribe higher density areas but one criteria is to locate multi-unit developments within a 200-metre walk of bus services. The shaded areas in Figure 10 show this 200-metre catchment along the Millwater Parkway and into the valley below Wainui Road.

The diagram also shows how a bus service on Millwater Parkway can link employment areas and Silverdale Village.

Lot Orientation – Detached Housing:

Individual lot boundaries are not required in a Framework Plan, but drawing the individual lots will show if they are sized and shaped to allow indoor/outdoor flow and landscaping. Therefore applicants are encouraged to show individual lots for sites smaller than 650m². The objective is to encourage lots that are shaped to allow a sunny outdoor living space (Figure 11). The curving streets in Silverdale North will have lots with varying orientation on the same street.

For detached houses lots with north facing rear yards can be narrower as the living spaces can be located along the back of the house.

Lots with north facing side yards should be wider than 14 metres to allow for living spaces and a minimum 6-metre wide outdoor space. (Figure 12).

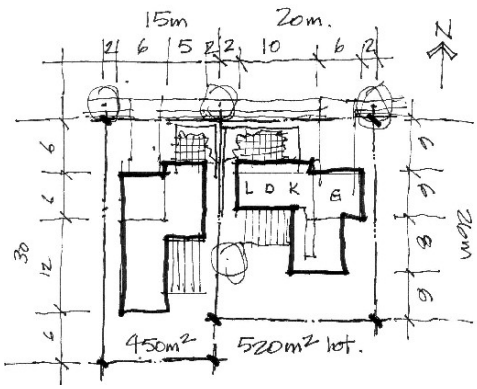


Figure 13: North facing front yard

North facing front yards are the most difficult sites to plan as the sunny side of the house faces the public street. A 15 metre wide site should be the minimum to allow for double garaging, side yards and outdoor terrace connected to a living space. A 20 metre wide site will allow the kitchen, dining and living spaces to open to both the front yard and back yard (Figure 13).


Figure 14

Lot Shape – Detached Housing:

Generally narrower deeper lots that allow for usable backyards are preferable to wider shallower lots that have little or no back yards (Figure 14).

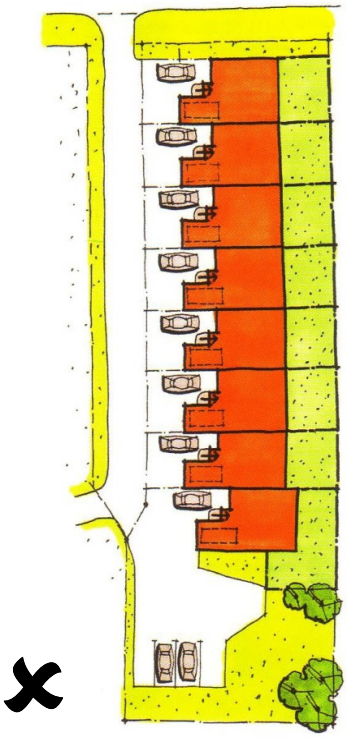


Figure 15: Bad example of multi-unit housing

Comprehensive Sites:

Drawing internal public streets and site dimensions are desirable to access Multi-unit Development areas in a Framework Plan. For example the narrow site in Figure 15 has poor internal amenity and street frontage. The internal access has a fence down one side and is dominated by garages on the other. Refer to Part 4.0 for further discussion. Multi-unit Development sites should be wider than 38 metres to allow for two sites (15 metres minimum depth each) facing each other across an 18 metre wide street. Any Comprehensive Design site deeper than 30 metres from a road frontage will have rear lots and therefore must indicate the street layout as part of the Framework Plan application. House fronts should face house fronts, not back fences.

Whilst it is not necessary to show individual lots, the depth of the sections along a street is useful to assess if the proposal is minimizing earthworks and creating a good street pattern. Retaining walls are likely in Silverdale North because of the steep topography and it is preferable that they occur on back-to-back rear boundaries.

Therefore cross sections are also desirable to show the extent of earthworks, batters or retaining walls especially along back or front boundaries as shown in Figure 16.

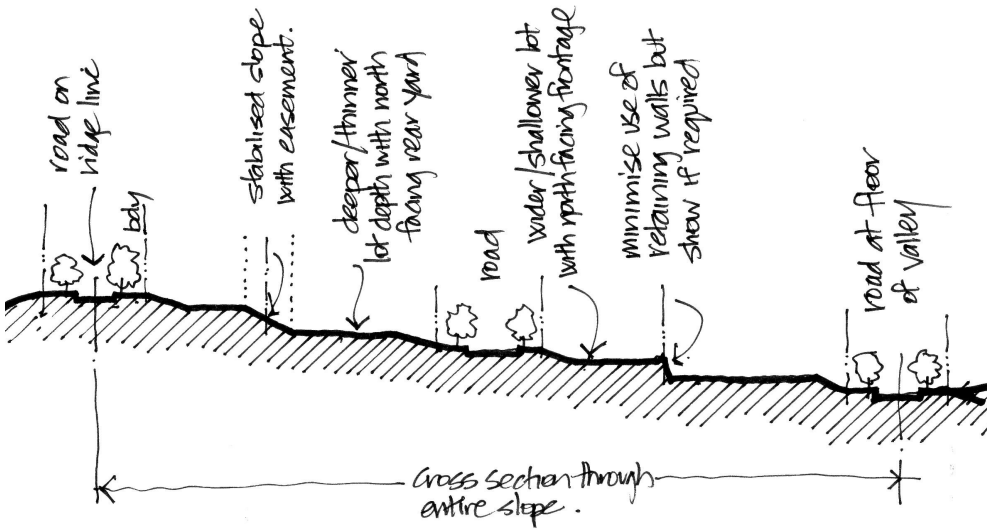



Figure 16: Cross Section from ridge to floor of valley showing proposed roads and earthworks at boundaries.

Part 3.0 **Residential Streetscape**

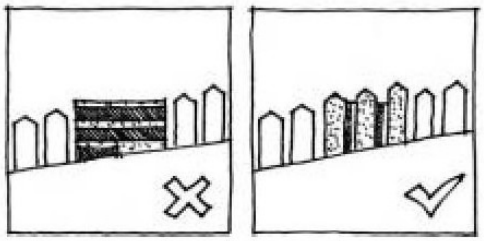


Figure 17[ii]

The streetscape is more than the road reserve; it stretches from building to building and creates neighbourhood character and a shared "public realm". It is important that streets are pleasant and conducive to walking and cycling. The street types in the Rules & Part 9.0 must be adhered to as they establish services berms that leave the edge berm free for tree planting.

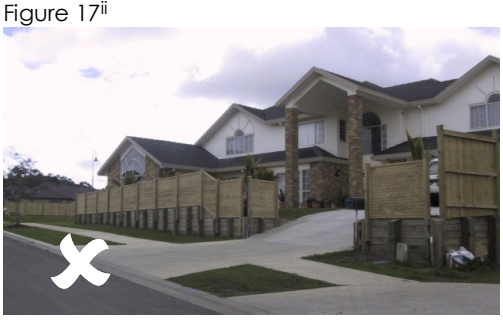


Figure 18

House frontages are important to creating street character. The depth of front yards and building height defines the enclosure or openness of the street. The position of buildings relative to side boundaries creates a visual rhythm for the street. (Figure 17).

Figure 19

Cross sections are requested for the Framework Plan to determine where retaining walls are to be located. Locating retaining walls on rear boundaries avoids examples such as Figures 18 & 19, which offer little visual interest and amenity for the street.

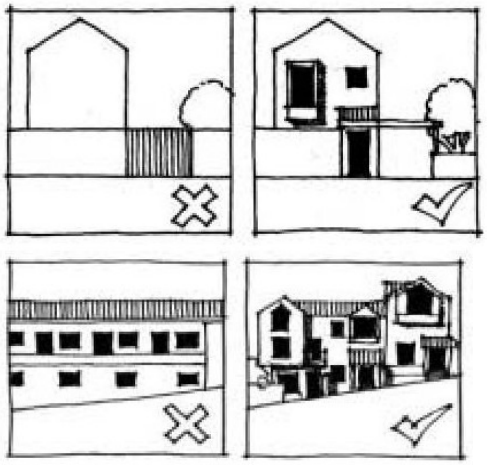


Figure 20[iii]

Buildings in Multi-unit developments must face and align with public streets (including new internal streets). Front doors must be accessed from streets with defined carriageways, planted berms and footpaths. Refer Figure 34 for an internal driveway that will not be acceptable. The local road type in Part 9.0 is one acceptable solution with variations to be approved. Multi-unit housing is not to be accessed from roads with no footpaths. The scale of multi-unit developments must respond to the character and scale of the single house context.

Expressing individual houses vertically or adding secondary elements for apartments can address scale issues. Blank walls or banks of garages facing the street should be avoided. (Figure 20).

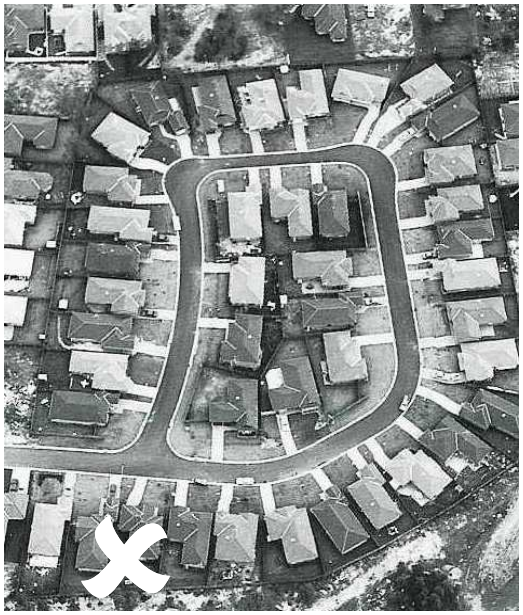


Figure 21: Large front yards at the expense of usable backyards.

Figure 22: 6m front yard on 550m² site

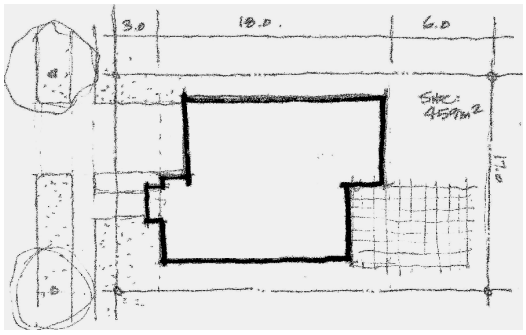



Figure 23

Good site planning of detached houses achieves a balance between quality public domains and private backyards in which to live.

Front yard setbacks derived from low-density rules are frequently misapplied to smaller lots, severely compromising space in the backyards and privacy (Figure 21). Large setbacks and sweeping front lawns can create the illusion of a grander house (Figure 22), but at the expense of a decent sized backyard if the lot size is too small.

Street presentation is important to development, but should not be the determining factor in site layout. The size of the front yard should not compromise a liveable backyard size.[iv]

The house in Figure 22 has a 6 metre front yard in addition to the street berm. The 6-metre front yard is excessive if it compromises the liveability of the backyard.

Lots should be deeper and narrower rather than wider and shallower to achieve better exterior private space. For detached housing, lots shallower than 27 metres will be difficult to plan with a 6 metre deep backyard (Figure 23).

Detached Housing:

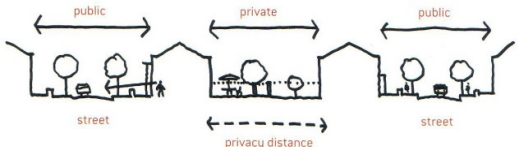


Figure 24: Backyards for detached housing

Site planning for detached housing is largely concerned with the creation of usable private outdoor space. The backyard becomes more important than a front yard on smaller sites. Backyard should adjoin backyard to enhance private space for neighbours (Figure 24).


Figure 25

The houses in Figure 25 are on sections smaller than 450m² yet still have 7 metre deep backyards. This is achieved by smaller front yards of 3 metres and higher height to boundary rules for the side boundary at the front of the site.


Figure 26

Two storey houses built closer to the street front is a desired outcome to increase backyard space (Figure 26). This is why the height to boundary rule is higher for the front 14 metres of 450-650m² sites. Figure 27 is a view of the back yard in the same development.


Figure 27

Figure 28

Figure 29

Figure 30: Side yard of single level homes

Figure 31: Rear yard of single level homes


Figure 32: North facing front yard designs

All the sites in this Botany Downs street (Figure 28) are in the 300-450m² range. The two storey houses on the right have a reasonable size back yard of 6-metres deep (Figure 29).

But the single level homes on the opposite side of the street cover the site so that there is little side yard (Figure 30) or rear yard. Figure 31 is a photograph looking over the rear fences of the same houses giving an impression of the backyard (or lack of).

These examples show that market forces do not determine whether a single or two level home is a better option on smaller sites.

Therefore the rules for Silverdale North encourage two storey homes on smaller sites by varying height to boundary planes at the front of the site and maintaining private open space requirements on the smaller lot sizes. The effective higher percentage of rear yard required will encourage two-level development.

The one exception to this is principle is houses with north facing front yards. The rules for 450-650m² sites allow for a large enough outdoor space so that sunlight reaches over the top of a single floor building to the backyard. The other options for two storey houses include

- Living spaces that open to both the rear yard and a north-facing terrace (Figure 32).
- Narrow fronted or L shaped plans that create deeper north-facing outdoor space (Figure 32).

Figure 33 Housing not facing a public street

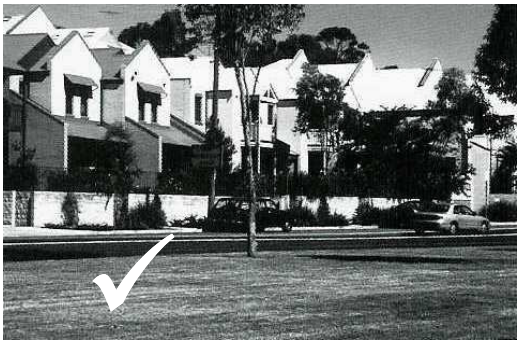


Figure 34 Housing with good street frontage

Multi Unit Housing:

Higher density housing often fills the most awkward sites left over after subdivision – commonly land locked sites in deep blocks with limited site access. Avoid dwellings that have an internal address to a driveway (Figure 33).

Higher density housing should be located around special places of amenity including parks, neighbourhood centres and public transport routes (Figure 34). This gives people without big gardens a pleasant outlook and proximity to open space. It also provides passive surveillance over public spaces. Each house or apartment should have a front door to the street and a street address.[v]

There are no fixed areas within the Single House Zone for multi-unit developments within the Silverdale North Structure Plan.

The only control on locating multi-unit developments is in Table 2 Activities in Sub-precinct B.

Rule 4.2.3 sets a percentage range of higher density housing within any single precinct. This approach encourages higher density housing to be spread throughout the area, and to create variety in housing form and neighbourhood appearance.

Generally multi-unit developments should be located close to open space, to the town centre and to likely bus routes. This allows the dweller to utilise public open space, public transport and communal facilities to offset any loss of private amenity.

Garages:

With terraced houses planning for cars requires careful consideration. Mixing of cars and pedestrians in a normal street type is encouraged.


Figure 35


Figure 36: Rear vehicle access

The intention is to stop developments such as Figure 35 that have blank fronts with only doors at ground level.

Figure 37: Shared open space linking front doors in terraced housing development

Narrower sites in multi-unit developments may require rear vehicle access (Figure 37) with either streets or open space linking front access (Figure 36).

Figure 38: Small courtyards for garaging

Design for the rear vehicle lanes is also important. They should not be too long and be designed with pedestrian safety in mind. Creating turning courts offsets the garage doors from the driveway reducing their impact when looking from the street (Figure 38). A smaller offset along a driveway and changing the rooflines or materials can also improve their appearance (Figure 39).

Figure 39: Garage mews for terraced housing.

Detached Housing:

Figure 40

Conventional height to boundary rules combined with larger houses on small sites has led to rows of "pop-top" houses as they build up to the allowable envelope (Figure 40). It is a house form encouraged by development rules more suited to larger sites. There is nothing inherently wrong with this house but existing rules encourage mass repetition of this solution. Imaginative planning rules encourage variety of housing forms.

Figure 41

When the height to boundary rules are adjusted to suit different size sites different building types become possible. The 5m + 45° height plane for the first 14 metres of the 450-650m² sites is intended to encourage a variety of two storied houses. Figure 41 is a home on a 350m² site. The house has a stronger two-storey form and gabled roof. However the pop-top house is still possible under this rule, so a variety of houses are still possible.

Figure 42

Allowing an increased height to boundary for the front 14 metres will allow larger backyards. Figure 42 is the rear yard to the house above on a 350m² site.

Figure 43

The house from Figure 39 is located in the street to the left. An unrelenting row of any house type creates an uninteresting streetscape (Figure 43). Yet on the opposite side of the street a variety of houses create a far more interesting streetscape (Figure 44). All sites in the street are in the 450-550m² size range.

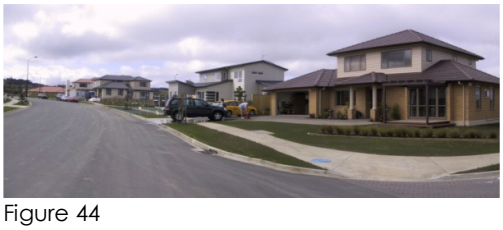


Figure 44

Figure 45

Corner Sites & Houses:

Corner sites are important in establishing character in an area and entrances to streets. Corner sites should be as large as possible to allow private open space and good designs. The house in Figure 45 is on a 550-650m² site.

Multi-unit Developments:

Multi-unit or multi-site developments should include a variety of housing types so that various households, including older people, single people and families can form a genuine community. Different housing types will lead to a variety of building forms and avoid the monotony of tract suburbs.[vi]

Perimeter block developments (multi unit developments that extend around all the frontages of a small block or significant part of a block) are one good solution for multi-unit developments. They maintain street edges and can enclose generous communal courts.[vii]

Balconies:

Balconies become important in higher density housing. They should offer privacy and shelter from wind so cantilevered balconies with balustrade height surrounds are discouraged. Recessed balconies or cantilevered balconies with side walls are preferred.

Front Doors:

Figure 46: Bad example front door design.

Gardens to the side of the front path can be screened for privacy but front doors should be visible to provide security for visitors and residents returning at night.

Recessed entries, projecting porches and entrance canopies porches are useful elements to avoid unwelcoming entries (Figure 46).

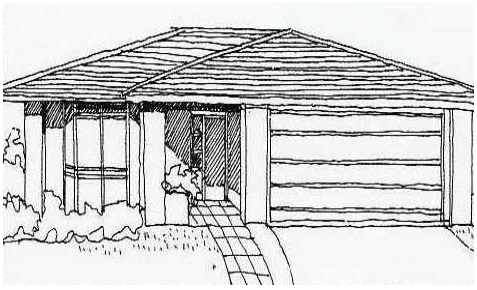


Figure 47

Garage Doors:

Garages that project in front of the house proper dominate the streetscape and create unfriendly places. Double garages on narrower lots exaggerate this effect. Double garages can also dominate single storey houses with shallow pitch hipped roofs. A developer of a number of detached houses in a street must seek to avoid these problems by recessing the garage doors, placing garages below second levels, or varying roof lines above the garage.

In townhouses or narrow lot housing rear or side access to garages removes garage doors from the street elevation. Rear access garages from lanes or car courts for cluster houses are preferred for multi unit developments.[viii]

Detached Housing:

Variety:

Figure 48

No more than three <u>detached</u> houses in a row can use essentially the same plan, building shape and materials.

Even well designed houses with no differentiation create a mundane streetscape and living environment Figure 48 has a number of well-planned houses and streetscape, but the repetitious shapes and materials lead to a mundane streetscape.

Figure 49

Figure 49 is the second stage of the same development and a variety of building shapes and materials have been used. The result is a more interesting streetscape.

Breaking up Building Mass:

Figure 50: Terraced housing roofs and materials

Terraced houses should be expressed as individual entities to reduce the scale of the whole block. Material changes and individual roofs are used in Figure 50 to achieve this. Compare with the one finish used in Figure 51.

This design in Figure 50 also uses recessive and projecting elements to break up long flat elevations. The secondary elements use different materials and colour to articulate entries, balconies etc.

Multi-Unit Housing:

Figure 51

Division of the façade into a base, middle and top sections breaks down the scale of multi-unit housing. Monolithic claddings of one finish are discouraged especially for multi-unit housing. Terraced housing involves the repetition of similar plans and the building appearance will include some degree of repetition.

Figure 52

Successful design balances the repetition with varying secondary elements such as the bay windows in Figure 52. Figure 53 uses gable roof forms to define each terraced house and break down the development's scale.

Figure 53[ix]

The flat roofs project forward to break down the front elevation's scale and provide privacy for the balconies. Both figures 53 & 54 have individual gabled roofs, changes in materials and projecting elements but Figure 54 looks more repetitious. This shows how all elements must be carefully combined in multi unit housing. Figure 54 has changing materials but the front face is flat and uninteresting.

Figure 54

Figure 55 has projecting elements but they only emphasise the garage door. The materials have no variation. Overly complicated forms can remove any human scale in terraced housing and make a development seem denser (Figure 56).

Figure 55

The long line of terraced houses running up a slope is another negative element in Figures 54 & Figure 55. This is the reason for the rule limiting the length of terraced houses to five units or 40 metres.

Figure 56

Blocks of terraced houses should run along contours, and the space between blocks should contain a street or open space. The end units should be designed to take advantage of the free end wall with windows and changes in materials or shapes.

Scale:

Projecting or recessive secondary elements can be used to break down the scale of a larger block. Roofs of each unit can be expressed in terraced housing, or the secondary projecting gable hides the long connecting ridge (Figure 57).

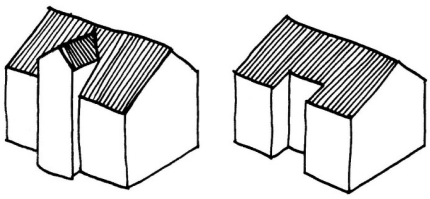


Figure 57[x]

Additive forms to can reduce the scale of a larger block (Figure 58). A cluster of roofs reduces the scale of a larger building if it neighbours smaller scale detached housing (Figure 59). The simple volume in Figure 60 retains its size even with the recessive areas cut out of the larger volume.

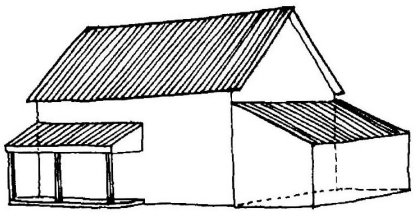


Figure 58

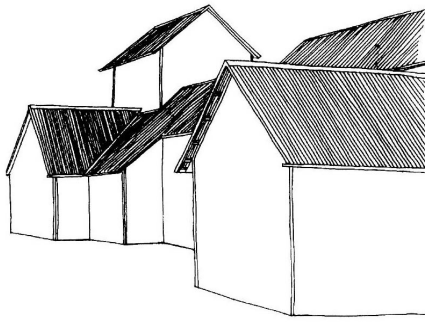


Figure 59

Figure 60

Figure 61

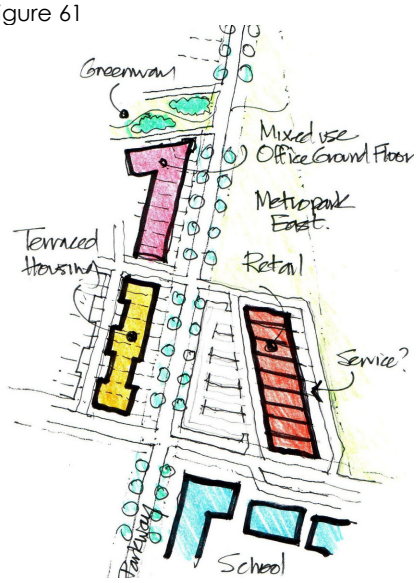



Figure 62

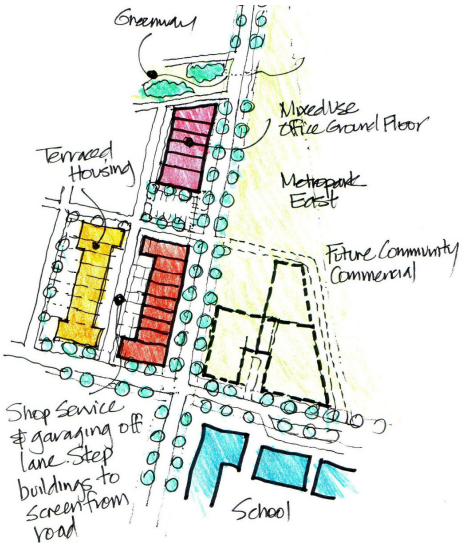



Figure 63

Silverdale North Town Centre, Sub-Precinct D:

The intention is to create a village centre not a shopping centre. Therefore various activities such as schools, childcare centres, community facilities and parks are located with shopping to create a village centre. Large unattractive areas of carparking (Figure 61) between the street and shops degrade the areas around a town centre and deter pedestrian movement.[xi]

Community facilities are co-located to encourage walking and cycling trips. The walk from the shops to schools and Metropark East should be along active building fronts and landscaped streetscape.

Considering other neighbourhood shopping centres no more than 10-12 shops seem to be commercially feasible in the town centre. This is too few to form a reasonable length double-sided mainstreet both commercially and visually. Therefore the main design question will be which side of the Millwater Parkway to develop a single sided retail strip.

Locating the shops on the Metropark East side gives direct access to the park. The design problem is if the shops address the Millwater Parkway or the park. Utilitarian rear faces toward Metropark is unacceptable (Figure 62). Locating the shops on the western side of the Millwater Parkway allows the shopfronts to look over Metropark. Design of the rear faces looking toward what is likely to be a multi-unit housing requires care. However, a rear service lane and fencing is palatable to housing but not to the park (Figure 63).

Carparking should not dominate the town centre whichever side of the Millwater Parkway is developed. Carparking should be on the Millwater Parkway and behind stores or better still in smaller lots between buildings.

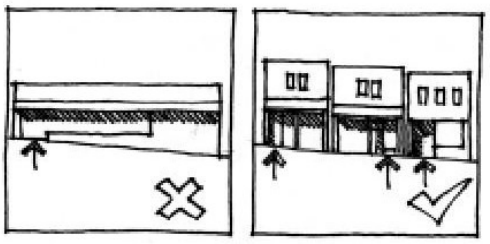


Figure 64 – Massing commercial buildings[xii]

A vertical rhythm of narrower shops will give a more intimate scale for the town centre. Any building wider than 8 metres should be designed to appear as a pair or group of independent buildings. Recesses at the junction and changes in material will help create this effect (Figure 64 & 65).

Figure 65

The corner stores at each end are critical to establishing good amenity for the town centre. These stores should address both street frontages with shopfronts. The roofline and possibly secondary elements such as drums should mark the corner location.

Sub-precinct A (Business):

Framework Plan - Landscape Concept:

An overall landscape concept is required with the Framework Plan. The landscape concept plan should address the large-scale visual effects of the business park. The critical issues are the views from the motorway and local roads within the business park.

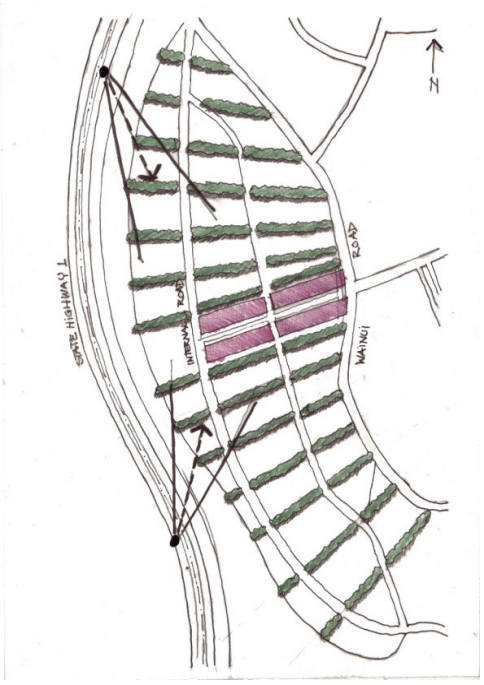



Figure 66

An early concept for the area proposed a series of "shelterbelts" running down the slope. These tree lines are at right angles to the motorway so stopped the commercial buildings from completely dominating the landscape. The intention is to avoid the effect that the commercial buildings have at Albany. The landscape concept must address this issue and demonstrate the solution with photomontages of the actual landscape (Figure 66).

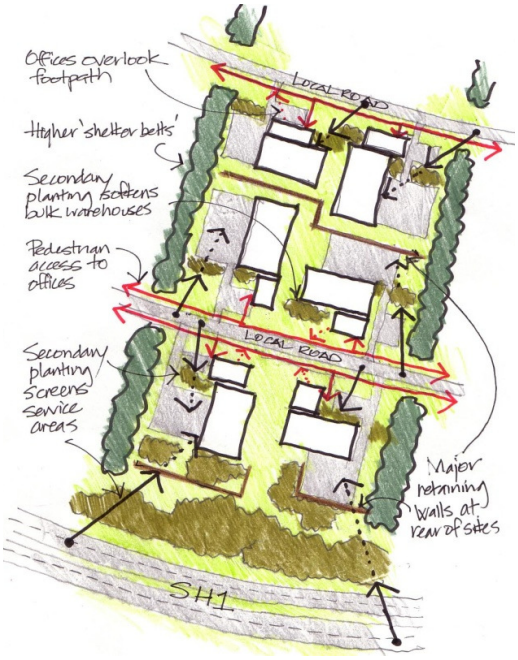



Figure 67

The second issue is the view from local roads and between shelterbelts from the motorway. Loading docks and outdoor storage should be placed in the rear of the site away from the local road. Lots at the bottom of the slope should also screen docks and storage from the motorway. The motorway landscape buffer was conceived for this purpose, but should be checked for each site.

Framework Plan – Earthworks:

Cross sections are desirable for quick assessment of Framework Plans. These will show major retaining walls. The intention is to locate major retaining walls on rear/side boundaries and minimise retaining walls on front boundaries (Figure 67). Retaining walls in the front yard must be formed with concrete or block systems and integrated with the landscaping. Timber retaining walls will not be accepted in the front yard.

Active Frontages/Pedestrian Amenity:

Rear lots are discouraged as the combination of kerb crossings and long driveways detract from streetscapes.

Whilst screening of carparking is encouraged the buildings themselves should be placed as close to the street as possible. Pedestrians will feel unsafe at night if densely planted front yards obscure the buildings (Figure 65). Walking and cycling to the mixed-use town centre are to be encouraged.

Building design should pay particular attention to the facades visible from the street. Paving should connect the entry to the street footpath as well as the visitor parking.

Swales or rain gardens are encouraged as stormwater treatment for paved areas. Swales are also effective in breaking up the visual effects of parking areas.

Roof Services:

Roof mounted services are to be screened from the street and motorway.

Mixed Use Village:

The intention is to create a village centre for the business park. The Framework Plan should be guided by:

- Arrange units directly on a public mainstreet with minimum 3 metre footpath, with trees and kerbside parking.
- Reduce the scale of buildings by expressing each unit individually with recessed joins and varied shapes/materials.
- Ground floors are to be retail space with the majority of front glazed at ground level.
- Rear service lanes for tenant vehicle parking/loading are encouraged to avoid conflict with the mainstreet.
- Break up the length of units running up the hill with the use of side streets and pocket parks.

Part 9.0 **Street Types**

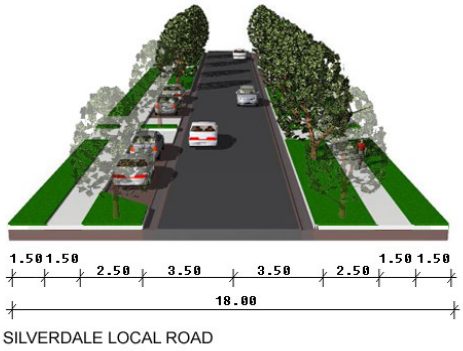



Figure 68

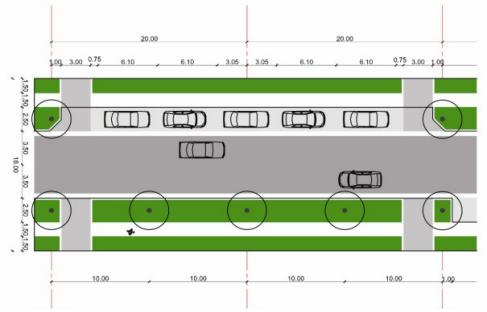


Figure 69

Millwater Parkway, Ridge Roads and the Greenways are outlined in the Rules sections, as Council requires them. The Local Roads (Figures 68 & 69) are built by developers and therefore is discussed in the guidelines.

The overall landscape concept is to create streets of different character and encourage walking and cycling.

- Millwater Parkway will be heavily planted to create the premier boulevard linking town centres, schools, Metropark East and neighbourhoods.
- The Greenways are split one-way roads each side of streams and create linear parks at the centre of each neighbourhood valley. Greenways largely connect Ridge Roads and the Millwater Parkway.
- Ridge Roads have large trees planted on one side to emphasize their topographical position especially when viewed from neighbouring areas.
- The Local Road type has been agreed with developers and includes a dedicated services strip, indented parking to keep carriageways narrower and tree planting.
- The services strip leaves the edge berm free for planting. Tree lined local roads are important in creating a Single House neighbourhood.

[i] DUAP sketch
[ii] Sketch from Multi Unit Design Guide, Wellington City Council.
[iii] Sketch from Multi Unit Design Guide, Wellington City Council
[iv] UDAS Residential Subdivisions, pages 58 & 59
[v] UDAS Residential Subdivisions, page 41
[vi] UDAS Residential Subdivisions, page 4.
[vii] UDAS Better Urban Living, page 24
[viii] UDAS Residential Subdivisions, pages 52 & 53
[ix] Photograph courtesy Fulton Hogan & Chris Prebble Architect.
[x] Figures 55-58 taken from Christchurch City Design Guides.
[xi] UDAS Residential Subdivisions, pages 40 & 41
[xii] Sketch from Thorndon Design Guide, Wellington City Council, p14

## Appendix 11.5.9 Te Arai North/South, Omaha Flats and Riverhead 2, 3, 4

## Appendix 11.5.9.1 Guidelines for the field assessment of native bush quality

This appendix contains a standard set of guidelines for assessing the quality of native bush.

The guidelines are designed to be capable of implementation by lay people with a limited knowledge of bush quality or indigenous bush species. The guidelines comprise a field sheet to be used for field assessment of bush stands, along with a set of instructions and background information.

A dual-scale system is used. The first scale focuses on bush quality and the second on additional features. Point scores on the first scale are supplemented where necessary by point scores on the second scale to obtain a final total, allowing the person evaluating the area of bush to accept it as qualifying as a "significant stand of native bush", or reject it.

The dual system allows an initial score to be quickly obtained from the first scale, and means that "obviously suitable" patches of bush can be quickly dealt with. These patches fall into the category of "significant stands of native bush". Where bush stands are of a marginal nature, the second scale can be employed. This allows other important criteria besides those of simple bush quality to contribute to the overall score of the bush stand allowing for the inclusion of "significant natural features". Where some other important feature exists, but bush quality is low, protection of the area by fencing subsequent to covenanting is most likely to ensure rapid improvement of bush quality in the following years.

On the bush quality scale the characters used in scoring incorporate the factors which contribute to them rather than each factor being included separately (for example, grazing of understorey species by ruminants affects the understorey's open/closed status; similarly, grazing by opossums affects the status of both understorey and canopy species). This reduces the time and background information needed to assess the bush stand.

1. Field assessment system
   This section of the appendix gives the field assessment sheet (attached), along with directions and guidelines for its use. These include field instructions and criteria by which proposed subdivisions can be accepted or rejected. A separate section of the appendix provides a brief explanation of the guidelines, describing the factors relevant to each scale characteristic.
   a. assessment characteristics:
      On the first scale the characteristics contributing to bushquality are:
      i. canopy composition (native or exotic)
      ii. degree of canopy closure
      iii. canopy species richness
      iv. canopy maturity
      v. understorey composition (native or exotic)
      vi. understorey density
      vii. understorey species richness

      On the second scale the features which can contribute to the "value" of a site include:
      viii. presence of rare or endangered species
      ix. presence of unusual numbers of native birds
      x. importance of the site as a corridor to other native bush stands
      xi. lot size

xii. aesthetic or unusual value.

b. assessment method:
Scoring of the bush quality characteristics on Scale 1 should be based on first-hand field assessment, backed up where necessary by additional data (such as aerial photographs to aid in assessment of percentage bush cover).

Assessment of bush quality should be made at least 15 metres from the edge of the bush, to allow for differences in species composition related to edge effects. At least three separate assessments should be made, at positions 30 metres or more apart, to allow for a representative coverage of the lot. From each of the three (or more) positions, characteristics on Scale 1 should be scored based on an area within a radius of 15 metres of each assessment position. The three (or more) scores can be used to obtain an average bush quality assessment of the proposed subdivision.

The Scale 2 characteristics can only be scored 0, 5 or 10. No intermediate score is permitted. This forces either a high or a low score, and is intended to eliminate the possibility of achieving an intermediate "so-so" score on several of these characteristics, which when added to the final Scale 1 score would be sufficient to allow acceptance of the proposed subdivision.

c. acceptance criteria:
On the first scale the bush quality score must be 20 of a possible 28 points, based on its position on the rank of 0 to 4 for each character, for the proposed subdivision to be accepted. Numerical or percentage scores relating to each rank score are provided on the field sheet. Where a bush stand scores zero for any of the canopy characteristics, or has a total Scale 1 score of less than 10, it is automatically rejected. If it scores between 10 and 20 the supplementary points system of Scale 2 is used, allowing other important features to contribute to the total score.

2. Explanation of Guidelines

a. scale 1:

i. canopy composition:
The score for this characteristic should be based on the percentage of the proposed covenanted area covered by a canopy of native species.

Native species found in bush patches in the Riverhead precinct include:

- regenerating podocarps such as kauri, kahikatea, rimu, totara, tanekaha with kanuka, manuka and tree ferns
- remnant mixed hardwood - podocarp bush
- lowland mixed bush dominated by taraire
- coastal bush of pohutukawa, taraire, kohekohe, puriri, karaka
- totara remnants along rivers
- kahikatea swamp areas
- other species including nikau, pigeon wood, kowhai, tawa, miro, northern rata, hohere, titoki, pukatea, hinau, kawakawa, hard beech (McEwen, 1987).

Exotic species may include wattle, pines, macrocarpa, willows, poplar, tobacco plant, privet, moth plant and gorse, among others.

ii. canopy height:
This characteristic should be scored on the basis of the height of the native trees in the

canopy, as an estimated percentage of an "adult height" of 10 metres. Height is used here as an indicator of maturity. Well-developed regenerating hardwood/podocarp bush is likely to have a canopy of large trees, (though depending on the age of the stand these may still be in their pole or juvenile state). Bush with large trees scores highly. Well-developed manuka or kanuka canopies score no higher than two (their potential is generally as nurse or shelter species for regeneration of hardwood and/or podocarp species) but in some areas (eg. on the dune soils of South Head), they represent the climax vegetation and their value may have to be adjusted upwards to recognise that this is the only bush likely to survive in these areas. (See footnote to score sheet.) Where the cover is predominantly grassy or composed of very small scrub less than three metres in height, the score is lowest.

iii. canopy closure:
The percentage of the ground or understorey closed to the sky forms the scoring criterion for this characteristic. In a well-developed bush, few gaps in the bush canopy should be evident. The degree to which the canopy is closed affects the light quality beneath the canopy, and hence the types of species that will germinate and flourish. Even where the canopy is not composed entirely of native species, the degree of closure is likely to affect the development of the understorey. The score thus relates to the canopy in general, including exotics, rather than to natives alone.

iv. canopy richness (number of species):
Canopy richness is scored on the basis of the total number of species present in the canopy.

Although there is potential for bush stands such as coastal pohutukawa bush to be dominated by very few canopy species, and thus to have a low score for this character, high scores on other characters should ensure that important bush stands are not excluded by this criterion. (See also footnote to score sheet.) Bush with an unusual canopy composition are provided for under the Scale 2 criterion "Aesthetic or Unusual Value".

v. understorey composition (% indigenous species):
Scoring of understorey composition, (the number of species forming a separate layer below the canopy), is based on the percentage of shrubby understorey species, seedlings and saplings beneath any existing canopy. As well as seedlings and saplings of the species listed above, natives in the shrubby understorey may be numerous. Examples are Coprosma species, Pittosporum species, tree ferns, kauri grass, smaller ferns, sedges. Workers without a comprehensive knowledge of the native flora will probably find it easiest to check for the presence of well-known exotics in the understorey rather than trying to make positive identification of natives. Larger exotics in the understorey may include blackberry, gorse, tobacco weed, moth plant, privet, young pines, wattle. Pasture grasses and introduced weedy species are likely to be found in the more open sites.

vi. understorey closure:
This characteristic is scored on the basis of the density or percentage cover of the shrubby

understorey. In a well-developed native bush, the understorey is likely to be dense, and few bare patches of ground should be present. Many different shrubby species and young seedlings and saplings of canopy species growing together lead to a rich vegetation.

vii. understorey richness:
The score for understorey richness is based on the number of native species found in the understorey layer(s) beneath the canopy. These include shrubby species, seedlings and saplings as above.

b. scale 2:

i. rare/endangered species:
The presence of species considered to be rare or endangered according to sources such as The Red Data Book of New Zealand (1981), Wilson and Given's Threatened Plants of New Zealand (1989), Department of Conservation New Zealand Threat Classification Lists (Hitchmough 2002) and De Lange et al (2004), Threatened and uncommon plants of New Zealand (New Zealand Journal of Botany, Vol 42:45-76), or a species listed in an approved data base as a regionally rare or endangered species should be documented. Information about the occurrence of such species is sparse, and their discovery relies on reports from interested land owners, and local field botanists. The weight scale allows inclusion of even relatively poorly bushed areas as appropriate sites for subdivision and covenanting where rare or endangered species are found, or have been reported.

ii. corridor importance:
Removal of bush remnants and drainage of wetland areas has meant that patches of native vegetation are far apart. Where this is the case, movements of native bush and/or wetland bird species between stands may be limited, and this has consequences not only for the numbers of bird species but also for dispersal of bush plant seeds. Where there is a perception that few bush stands remain in an area, the weighting system allows inclusion of lower quality bush within the acceptance levels. To allow for reasonable bird (and seed) movement between bush stands, the weighting system accords a higher importance to a stand where it is the only bush area within one square kilometre.

iii. lot size:
The larger the size of a discrete bush stand, the better its buffering capacity against both natural and human disturbance. The ability of plant and animal species to maintain viable breeding populations is also likely to be much higher where the bush patch is large. In its inventory of bush areas in New Zealand, the New Zealand Wildlife Service allowed an area of 10 hectares as the minimum for inclusion of a bush stand. Although the number of species present will not necessarily increase significantly between bush stands of two hectares and 10 hectares, the population stability of each species is likely to be greatly improved. Therefore, where the bushed lot proposed for subdivision is much larger than the base level of two hectares (ie. eight hectares or more) it accrues additional points under the weighting system, based on the potential for increased species stability.

iv. lot adjoining protected area:
A further criterion for the weighting of bush stands based on corridor importance or lot size relates to large areas of bush that are currently reserved or otherwise protected. Additional value can be accorded to a bush stand where it directly adjoins reserved or protected bush. As noted above, species richness and diversity is related to bush area, and the addition of even fairly marginal pieces of land in the early stages of regeneration can improve the species composition of the flora and fauna of the reserve.

v. aesthetic or unusual value:
Perception of a bush stand as an attractive feature may be due to a number of factors. If the stand is situated in a hilly area, where it is easily seen from nearby roads, if it has running water/waterfalls, or an unusual composition (windshorn trees; a heavy tree-fern canopy; a stand of scattered mature pohutukawa, or totara) it may well be appreciated for its physical beauty. Although it is desirable to have stands of reserved bush visible to the public, patches of bush that are hidden from the road should not be excluded from this category. Decisions about aesthetic or unusual value are qualitative, but the weighting scale allows bush patches with unusual beauty or unusual features to fall within the acceptance levels for subdivision and covenanting.

vi. potential:

Some areas of bush of marginal quality have the biological capacity to improve to an acceptable standard in a reasonably short time, particularly if influences which depress their quality are removed. Examples are bush areas which have lost quality through being grazed, or which contain an excessive proportion of gorse, or which are in the early scrubby stages of regeneration. Where the adverse influences can be removed through actions that can be taken as part of the subdivision approval or covenanting process, or where regeneration is clearly well under way, such areas of bush may be given additional points under Scale 2.

3. Bush quality field assessment sheet:
   Click here for PDF

**Instructions for use with the field assessment sheet**

**1. Scoring of bush lots proposed for subdivision**
a. Scoring on Scale 1 should be completed first, the total evaluated, then scoring on Scale 2 should proceed if necessary.
b. Information for Scale 2 scoring may be obtained from maps, aerial photographs, and records.
c. Note that depending on the score obtained, acceptance or rejection of the proposed subdivision can take place either on completing evaluation of Scale 1 or on completing evaluation of Scale 2.

**SCALE 1**

**Scoring:**
1. Go to at least 15 metres within the bush.
2. In column for Site 1, record the score (0 to 4) for each of the canopy characteristics, based on the percentages and numbers displayed.
3. Go to a second site, at least 30 metres from the first, and at least 15 metres in from the edge of the bush.
4. Repeat step 2, recording the scores in column for Site 2.
5. Go to a third site, at least 30 metres from each of sites 1 and 2, and at least 15 metres from the bush edge.
6. Repeat step 2, recording the scores in column for Site 3.
7. Record the position of all three sites on a plan and attach it to the Bush Quality Assessment Field Sheet.

**Calculation:**
8. Add the scores in column for Site 1. This is Total 1.
9. Repeat for columns for Sites 2 and 3. These are Totals 2 and 3.
10. Average the three totals. This is TOTAL A.

**Evaluation:**
11. If TOTAL A is greater than or equal to 20 Accept
12. If TOTAL A is less than 10 Reject
13. If any of the canopy characteristics (1, 2, 3 or 4) is zero at all three sites (columns 1, 2 and 3) Reject
14. If TOTAL A is less than 20 but greater than 10 Go to Scale 2

**SCALE 2**

**Scoring:**

15. For each of the six characteristics, score 0, 5 or 10, recording the scores in the column.

**Calculation:**

16. Add the scores on Scale 2. This is TOTAL B.

**Evaluation:**

17. Add TOTAL A and TOTAL B. This is TOTAL C.
18. If TOTAL C is greater than or equal to 20 Accept
19. If TOTAL C is less than 20 Reject

**BUSH QUALITY ASSESSMENT FIELD SHEET**

LOT NUMBER _____
SCORE _____
APPLICATION ACCEPTED
REJECTED

**SCALE 1**

| **RANK** | **4** | **3** | **2** | **1** | **0** | ***COLUMN*** ***Site 1*** | ***Site 2*** | ***Site 3*** |
|---|---|---|---|---|---|---|---|---|
| CANOPY | | | | | | | | |
| 1.% of natives | 81-100% | 61-80% | 41-60% | 25-40% | <25% | | | |
| 2.% of canopy closure | 81-100% | 61-80% | 41-60% | 25-40% | <25% | | | |
| 3.Number of species | <12 | 8-11 | 4-7 | 2-3 | 1 | | | |
| 4.Height | <8m | 6.1-8m | 4.1-6m | 3.1-4m | <3m | | | |
| UNDERSTOREY | | | | | | | | |
| 5.% of natives | 81-100% | 61-80% | 41-60% | 25-40% | <25% | | | |
| 6.% ground cover | 81-100% | 61-80% | 41-60% | 25-40% | <25% | | | |
| 7.Number of species | <12 | 8-11 | 4-7 | 2-3 | 1 | | | |
| | | | | | | | | |

**TOTALS 1, 2 AND 3**

**TOTAL A** _____
(average of Totals 1, 2 and 3)

**SCALE 2**

| **WEIGHT** | **10 or 0*** | **5** | **0** | ***COLUMN*** |
|---|---|---|---|---|
| 1.Rare/endangered species | Present | - | Absent | |
| 2.Only bush within 1km$^2$ | - | Yes | No | |
| 3.Lot size >8 hectares | - | Yes | No | |
| 4.Lot adjoining protected areas | - | Yes | No | |
| 5.Aesthetic/unusual value | - | High | Low | |
| 6.Potential | - | High | Low | |

* 10 if subdivision will protect rare or endangered species
0 if subdivision will not do so.

**TOTAL B** _____

**TOTAL A + TOTAL B = TOTAL C** _____

**FOOTNOTE**: Where an area of bush scores poorly on Scale 1 because the nature of the bush at climax vegetation stage does not conform to the mixed podocarp bush stereotype on which Scale 1 is based (eg. comprises coastal pohutukawa, kauri, or kahikatea bush, or manuka/kanuka bush on sand-dune derived soils or gumlands) the assessor may have to use his/her own judgement as to the quality of the bush. The factors (not the numbers) in Scale 2 can be applied to this assessment of quality where necessary.

## Appendix 11.5.9.2 Guidelines for the field assessment of native wetland quality

This appendix contains a standard of guidelines for assessing the quality of the wetland and whether subdivision would be allowed. The wetland proposed for subdivision needs to comply with at least one of the criteria in order to be considered to be a significant native wetland. If compliance with the criteria is relying on potential then at least one other of the criteria needs to be substantially met.

**Note:**

Any wetland which has:

a) been identified for protection in the Protected Natural Areas (PNA) Programme

b) been identified for protection by the Forest Heritage Trust, the former Auckland Regional Council or the Department of Conservation

c) been designated in the Sites of Special Wildlife Interest (SSWI) or Wetlands of Ecological and Representative Importance (WERI) inventory for protection

d) an international, national, or regional significance rating.

Any wetland where the values have not changed since the survey or identification for protection was done, will automatically be treated as sufficient quality to justify a subdivision.

1. Definition of native wetland

   Wetlands include permanently or intermittently wet land, shallow waters, and land-water margins that support a natural ecosystem of native plants and animals that are adapted to living in wet conditions.

   Wetlands may be freshwater (eg. swamps, lake and river margins), brackish (eg. lagoons) or saline (eg. saltmarsh, mangroves, estuarine shrub swamps (marsh ribbonwood, rushes, sedges).

   In terms of meeting the criteria for significance ‘natural ecosystem’ implies that native species should be dominant and that the system should function hydrologically as naturally as possible.

   Areas associated with a wetland but not actual wetland, eg buffers between the wetland and fences, should not be included in any calculation of the size of the native wetland. They are considered to contribute to a native wetland’s significance but are not wetland. Native bush areas that are adjoining or adjacent to wetland and form part of the integral functioning of the wetland ecosystem should be protected at the same time as the wetland is protected, however bush areas that are not integral to the functioning of the wetland may remain uncovenanted. In general a riparian area of 20 metres in width around the perimeter of the wetland area should be protected where there is native bush / vegetation adjoining the wetland. Areas outside this may be used for consideration of a bush protection site subject to meeting the size and quality standards.

2. Criteria
   The characteristics contributing to native wetland quality on which the appropriateness of subdivision will be judged are:
   a. diversity

   b. naturalness/long term viability/Representativeness

   c. Rarity of species

   d. Wildlife habitat

   e. Linkages/buffering/corridors

f. Potential for improved wetland habitat

These are described in more detail below.

**Diversity**
Wetland vegetation can occur in a sequence (ie. ecotone) from aquatic floating plants (eg. duckweed and native Azolla) to rooted emergent species (eg. eelgrass, horse's mane weed) to sedges, ferns, grasses and raupo, to drier margin species such as kahikateas, ferns, cabbage trees and manuka.

Therefore, although a plant community might be sparse, there is usually a large diversity across the ecotone. Wetlands also act as habitats for a diversity of animal species such as fish, eels, amphibians, reptiles and insects. Wetlands which have a diversity of native animal and plant species will be regarded as having value that will give added weight for subdivision and covenanting.

The diversity criteria refer not only to native species but also to the vegetation types and sequences.

**Rarity**
Rarity is a measure of the paucity of numbers or occurrences of elements of natural diversity (e.g. species, communities). Individual threatened species in New Zealand have been classified using International Union of Conservation of Nature and Natural Resources (IUCN) criteria. Threatened species can be in the following categories: endangered, vulnerable, rare, local and indeterminate.

Wetlands often constitute a habitat for nationally and locally threatened plant and animal species. This is not dependent on the overall quality of a wetland, which might be poor. Consideration should be given not only to whether or not any listed rare or endangered native species are present in a wetland but also to whether or not any have been identified here in the past, distributional limits of native species, rarity of the wetland type itself or the communities and vegetation types it contains.

Relatively poor quality wetlands could be included for subdivision and covenanting where locally, regionally or nationally rare species are found, or have been reported, as defined by the Department of Conservation in the Conservation Management Strategy, or the Red Data Book of New Zealand (1981), or Wilson and Given's Threatened Plants of New Zealand (1989), or a species listed in an approved database as regionally rare or endangered species.

**Wildlife Habitat**
Wetlands are important in providing habitats for indigenous plants and animals. Wetlands provide a major habitat for at least eight species of indigenous freshwater fish as well as frogs, birds and invertebrates and are the primary habitat for 1/5th of New Zealand’s native birds.

Note: Native frog species do not generally inhabit wetlands, rather preferring densely forested streams with flowing water.

Those wetlands which:
a. are important habitat for indigenous wildlife species at different stages in their life cycle, eg. breeding, spawning, feeding, roosting

b. are important as habitat for migratory wildlife species

c. contain significant populations of native wildlife characteristic of and adapted to live in wetland ecosystems would be regarded as appropriate for subdivision and covenanting. If the breeding or migratory population is of an endangered species then further weight is given to the protection of the wetland

**Naturalness/Long Term Viability/Representativeness**
Many wetlands within the precinct have been wholly or partially modified. Often a sequence of native plant species (ie. ecotone) is an indication of the naturalness and quality of a wetland, including the extent to which an area represents or exemplifies the components of the natural diversity of an ecological district, or representation of the original natural landscape.

The presence of aquatic species is an indication of water quality and the long term sustainability of a site.

Wetlands which support viable populations of terrestrial and aquatic native plants and animals characteristic of the wetland type, and/or which are largely unmodified from their original natural character, will be given added weight for subdivision and covenanting.

Natural hydrology is extremely important for the maintenance of the structure and function of wetlands, and in determining the flora and fauna that live there. Artificial drains, ponds, culverts and other structures impede the natural flow of water and impact on the state and type of wetland to be found. Structures within watercourses can be the determining factor in whether or not native fish inhabit an area.

Naturalness would ideally refer to ‘pre — European, however this would be very rare and therefore naturalness should be discussed with reference to external pressures such as farming activities and invasion by exotic plant and animal species.

Long term viability will be influenced by many factors, including each of the criterions discussed. Size and shape will be one important aspect — large compact areas tend to be better buffered against disturbance and suffer less edge effects relative to size.

Representative wetland types for the precinct include:
a. swamp forests (kahikatea, swamp maire, cabbage tree, pukatea)
b. raupo reedlands
c. manuka scrub/shrubland
d. flax / cabbage tree swamps
e. rushland/sedgeland
f. coastal wetland types (saltmarsh, mangroves)
g. dune lakes with associated wetland vegetation

**Linkages/Buffers/Corridors**
Wetlands which:
a. adjoin a Significant Ecological Area or protected area (eg. native forest) and through this connection add significantly to the spatial characteristics of the protected natural area network in the ecological district, or
b. provide or contribute to a habitat corridor or connection which facilitate movement of native wildlife species will be given added weight for protection.

In addition, if the wetland is buffered by native forest or other native vegetation additional weight will be given to protecting the area. The reason for this is that buffering reduces the edge effects of pest plant species. The smaller the areas to be preserved the greater the importance of a buffer zone.

The ability of plant and animal species to maintain viable breeding populations is also likely to be much higher where there is native vegetation adjacent to the wetland or the wetland vegetation is large.

**Potential**
Some areas of wetlands of marginal quality have the biological capacity to improve to an acceptable standard in a reasonably short time, particularly if influences which depress their quality are removed. Examples are wetlands which have lost quality through being grazed, or which contain an excessive proportion of pest plant species. Any assessment should contain a statement or quantification regarding the percentage of pests to native plant and animal species. Where the adverse influences can be removed through actions that can be taken as part of the subdivision approval or covenanting process, and where the wetland meets another of the criteria consideration will be given to the protecting of such wetlands.
Where a wetland is marginal but could be improved to a significant standard within 2-3 years it may be appropriate to offer the application on the basis of a comprehensive rehabilitation programme under this criterion. However an application should not rest on an areas' potential, rather it should have quality or importance in terms of at least one other of the criteria listed and the 'potential' criterion should tip the balance.

NB: Generally, wherever an application is made relying on the 'potential' criterion, an active rehabilitation plan for the wetland area including planting will be required.

The council will reserve the right to impose conditions in order to improve the potential.

## Appendix 11.5.9.3 Minimum protection requirements

1. Riparian margin protection standards
   a. all stream and river margins must be protected in the following manner:
      i. a stock proof fence must be erected the following distance from the top of the bank of the stream or river:
         - a minimum of 10 metres each side of the stream (including ephemeral streams) where the stream is an average width across the property of less than 3 metres; or
         - a minimum of 20 metres each side of the stream where the stream is an average width across the property of greater than or equal to 3 metres; unless a complete riparian margin analysis of the site is undertaken by an appropriately qualified person in accordance with the Auckland Regional Council Riparian Zone Management Strategy and Guideline is submitted with the application . In that case the appropriate standard must be determined by assessment and must be the subject of a condition of consent.

      ii. a minimum of 10 metres from the stream or river must be planted in native vegetation in compliance with the native revegetation planting standard, except that where the distance between the stream or river and the stock proof fence is less than 10 metres it is only the area between the stream or river and the stock proof fence that is to be planted in native vegetation. The native vegetation must be for the purpose of riparian margin protection and must not be clear felled or removed. 10% of the required native planting may be substituted with exotic specimens provided that the native revegetation planting standard is applied as if the planting were 100% native.

      iii. a covenant providing for the permanent protection of the native vegetation in the planted area must be kept free of stock.

      iv. the planted area must be kept free of stock.

      v. the requirements under 1 to 4 above must not apply where the land within 20 metres of the stream/riverbank is to be vested as public reserve in the same application for subdivision.

      vi. where exotics are included in a planting plan, written confirmation should be provided from a person qualified and experienced in vegetation restoration, that the exotic species will not compromise the long term sustainability of the native planting. Willow and Poplar species must be avoided unless their use can be demonstrated as being necessary to control actively eroding sites exhibiting signs of severe erosion.

      vii. where a stream/river forms the boundary of a rural residential site and the boundary is common to the proposed rural residential site and the parent site, both sides of the stream/river must be fenced and planted, otherwise only that side within the proposed rural residential site must be fenced and planted.

      viii. for the purposes of this rule an ephemeral stream is a channel (including grassed channels) indicative of recurrent water movement of reasonable frequency.

2. Native revegetation planting standards
   a. the planting of native vegetation must meet the following standards:
      i. a survival rate such that planting will be established to minimum 90% of the original density specified before the project is signed off as complete;

      ii. a density of 1.4 metre centres (5,100 stems per hectare) reducing to 1m centres (10,000 stems per hectare) in kikuyu and wetland environments, and riparian margins;

      iii. a stock proof fence must be erected on the periphery of the planting or at the distance specified in the riparian margin protection standards.

iv. the area must be permanently protected via covenant from any activity which could adversely affect the planting;

v. all plants must be sourced from the ecological district and to be appropriate for the soil, aspect, exposure and topography;

vi. at planting each plant must be fertilised in accordance with the recommendations of the revegetation report submitted as part of the planting plan assessment; and

vii. planting undertaken must reflect the composition of former natural vegetation likely to have occupied the site and have regard to natural processes of succession.

b. the maintenance of native plantings must meet the following standards:

i. maintenance must occur for a minimum of five years or until canopy closure has recurred within 5 years;

ii. maintenance must include the ongoing replacement of plants that do not survive;

iii. all invasive weeds must be eradicated from the planting site both at the time of planting and on an ongoing basis and plants released from kikuyu as necessary to ensure adequate growth;

iv. animal pest control must occur.

c. applicants must clearly and accurately provide information on the following:

i. pre-planting site assessment

- the ecological district of the site.
- the characteristics of the soil (ie. clay, silt, loam etc.).
- soil drainage.
- topography of the area to be planted.
- aspect of the area to be planted.
- exposure of site to wind, frost, sunlight and salt spray.
- presence of animal pests and weeds.
- extent of existing bush or native vegetation on the site and its species composition.
- distance from established bush and the state of the established bush if there is none on the site.
- any restrictions on planting, such as safety issues, maintenance of views, etc.

ii. planting plan assessment

This must contain the following information:

- purpose of the planting, including hill country erosion control, streambank erosion control, habitat restoration, ecological corridor creation, buffer planting to protect edges of existing bush, water quality enhancement, retirement of marginally economic land, remove or amenity/landscape planting, riparian margin and wetland restoration and coastal margin restoration.
- location and extent of planting on a plan.
- site preparation for planting, including stock-proof fencing of planting areas, weed and animal pest control.
- site planting, including species to be planted, size of plants, and where they are to be planted, density of planting, and sourcing of plants and fertilising.

- maintenance of planting, including releasing plants, fertiliser, animal pest and weed control and mulching and replacement of plants which do not survive.

iii. monitoring programme
To be undertaken for a minimum of five years (6 monthly for the first 18 months then annually) at which point council will review the planting. The monitoring report (to be undertaken by a person with appropriate experience and qualifications) must include information on the following:

success rates, including growth rates and number of plants lost (including an analysis of the distribution of losses).

canopy closure, beginnings of natural ecological processes – natural regeneration in understory, use by native birds, etc.

a running record of fertilisation, animal and weed pest control and replacement of dead plants.

recommendations for replacement of dead plants and implementation of these recommendations. Any remediation action must specify a start date and be the subject of a progress report 6 months from that date (If remedial action is beyond the first 18 months the report must be independent of the annual report).

state of the fencing and recommendations for maintenance to be undertaken.

The vegetation must be established for the purposes set out in the Planting Plan Assessment and must not be clear felled or removed.

Remedial action must be required where monitoring indicates the specified standards are not being met.

3. Management of Overland Flows
   a. all applications must clearly and accurately provide information on the present site conditions and the proposed development and its effects on stormwater, including, but not necessarily exclusively:
      i. pre-development site assessment:
         - size of site
         - topography and steepness of site
         - extent of existing vegetation, land cover and land use
         - existing drainage patterns and streams
         - where the site is in relation to the catchment area.
      ii. development proposal assessment:
         - number and size of proposed lots
         - roading pattern (if required)
         - location of buildings on all proposed lots
         - estimated likely total area of impervious surface including driveways, roofs, etc
         - interference with existing drainage patterns (drains and overland flow paths).
      iii. hydrological neutrality assessment:

- Calculation of pre-development flow, volume and time of concentration using Auckland Council's TP108 Guidelines for Stormwater Runoff Modelling in the Auckland Region.
- A detailed description of proposed stormwater management methods for each lot, including the following design principles:

  overland flow disposal must mimic as far as possible the natural drainage process of an area

  modification to existing drainage patterns must be kept to a minimum

  overland flows must not be discharged directly into streams from a piped system

  impervious areas must be kept to a minimum

  appropriate methods of stormwater detention must be employed before dispersal into waterways including but not exclusively:

  swales and depression landscaping

  dispersion into vegetative filters

  dispersal trenches

  detention ponds

  detention tanks

  vegetation planting

  water reuse.
- calculation of post development flow, volume and time of concentration to show "Hydrological Neutrality" criteria will be met by the methods proposed.

4. Exotic revegetation planting standard
   a. the plantings of exotic vegetation must meet the following standards:
      i. a survival rate of 90%.

      ii. an appropriate density and choice of species as set out in a report by a person qualified and experienced in erosion management and vegetation restoration.

      iii. a stock proof fence to be erected on the periphery of the planting or the distance specified in the riparian margin protection standards.

      iv. the area to be permanently protected via covenant.

      v. where willows or poplar species are used, the following additional standards must apply:
         - planting must be restricted to areas exhibiting signs of severe erosion and other exotic species are shown to not be suitable for effective erosion control;
         - no invasive species must be planted. In the case of willows flexible branch of male and sterile female varieties must be used;
         - willows or poplar species must not be used for stream bank planting unless demonstrated necessary as per (i) above;
         - poplars must not be used for wet open planting in areas of native wetland vegetation.

      vi. the maintenance of the exotic plantings must meet the following standards:
         - maintenance must occur for five years;
         - all invasive weeds must be eradicated from the planting site.

b. applicants must clearly and accurately provide information on the following:
   i. pre-planting site assessment
      - the characteristics of the soil (ie. clay, silt, loam etc.).
      - soil drainage and wetness.
      - topography of the area to be planted.
      - aspect of the area to be planted.
      - exposure of site to wind, sunlight and salt spray.
      - presence of animal pests and weeds.
      - any restrictions on planting, such as safety issues, maintenance of views, etc.

   ii. planting plan assessment
   This must contain the following information:
      - purpose of the planting, including hill country erosion control, streambank erosion control, buffer planting to protect edges of existing bush, water quality enhancement, retirement of marginally economic land.
      - location and extent of planting.
      - site preparation for planting, including stock-proof fencing of planting areas, weed and animal pest control.
      - site planting, including species to be planted, size of plants, and where they are to be planted, density of planting, and sourcing of plants.
      - maintenance of planting, including releasing plants, fertiliser, animal pest, weed control and pruning. [In relation to fertiliser, consideration must be had to potential effects on waterways].

   iii. annual monitoring programme
   Monitoring must be undertaken for five years at which point council will review the planting. The monitoring report must include information on the following:

   success rates, including growth rates and number of plants lost

   recommendations for replacement of dead plants.

   The vegetation must be for the purposes set out in the Planting Plan assessment and must not be clear felled or removed.

5. Conservation subdivision plan requirements
   a. all subdivision applications require a Conservation Subdivision Plan which must identify the following in a site analysis plan:
      i. Primary Conservation Areas: Primary Conservation Areas are areas whose development is severely constrained for reasons associated with natural hazard or which have implications for human safety such as wetlands, floodplains, unstable land, steep land (generally over 1:5), and land unsuitable for sewage effluent disposal.

      ii. Secondary Conservation Areas: Secondary Conservation Areas identify ‘noteworthy’ natural features of the environment to which development has the potential for significant adverse effect such as areas of native forest, bush and wetlands including any actual or potential Significant Ecological Areas (SEAs), wildlife habitats, groundwater recharge areas, first and second order streams, heritage sites, and significant view shafts from public roads, reserves and proposed house sites, and important rural and coastal landscape features such as

ridges, knolls and headlands, outlooks and open space).

iii. a development sketch plan that overlays the site analysis plan and supporting statements should then be prepared illustrating how the adverse effects on the constraints and values identified in phases 1. and

iv. above have been avoided, mitigated and/or protected (including permanent protection by means of covenant and/or stock-proof fencing where warranted) and must also identify:
- proposed house sites
- access roads
- walking, horse and bike trails
- proposed lot boundaries around house sites.

The Council reserves the discretion to require professional assessment of ecological values, the potential for adverse effects from proposed development and any proposed measures for their protection, restoration and management.

v. neither the site analysis or development sketch plans are required to be to survey standard. Each should reasonably accurately depict all of the features specified above.

(Note: One means of presenting the information required by this rule would be by way of a vertical aerial photograph at a scale appropriate to show the details required).

vi. the Conservation Subdivision Plan required by this precinct must be submitted with the relevant plan of subdivision.

## Appendix 11.5.9.4 Requirements for consent conditions

**Subdivision for the protection of natural areas**

1. Subdivision for the protection of native bush and SEAs
   a. Every resource consent based on the protection of any native bush meeting the criteria in Appendix 1 or SEA must include a condition or conditions providing for the effective and permanent protection of that native bush or feature.

   b. Such conditions must include a requirement that a permanent fence (minimum seven wire post and batten fence with no gates) capable of preventing browsing or other damage by farmed animals must be erected (and maintained) around the perimeter of the area to be protected, unless an exemption is provided below. No grazing of animals must be permitted within the fenced area.

   c. Exemption from the fencing requirement applies in the following circumstance:
      i. Where a natural feature, eg a cliff edge, will provide an effective barrier to stock access, a waiver of the fencing requirement may be considered, provided it is demonstrated that this will not result in a lesser standard of protection than adhering to the fencing requirement.

   d. The area of native bush or SEA must be made free of plant pests, and maintained in that state.

   e. A pest control programme must be prepared indicating how pests including possums, goats, deer and rats are to be controlled to physically protect the legally protected area of native bush or other natural feature.

   f. Any conditions for the protection of native bush or SEA must be complied with on a continuing basis by the subdividing owner and subsequent owners and must be the subject of consent notices to be registered under the Land Transfer Act 1952.

2. Subdivision for the protection of significant wetlands
   a. Every resource consent involving the protection of a wetland must include, in addition to any other appropriate conditions, a condition or conditions providing for:
      i. the effective and permanent protection of that wetland.

      ii. a requirement that a permanent fence (minimum seven wire post and batten fence with no gates) capable of preventing browsing or other damage by farmed animals must be erected (and maintained) around the wetland to be protected. Any such fence must be setback a minimum distance of 10 metres from the wet area of the wetland in instances where there are no adjoining areas of native bush. No grazing of animals must be permitted within the fenced area.

   b. The area of wetland must be made free of plant pests, including other plant and tree species that are detrimental to wetlands i.e. willows, poplars and invasive terrestrial plant species, and maintained in that state.

   c. Any conditions for the protection of the wetland must be complied with on a continuing basis by the subdividing owners and subsequent owners and must be the subject of consent notices to be registered under the Land Transfer Act 1952.

3. Subdivision for the creation of additional public reserve land
   a. Where the site contains significant native bush over 1 hectare in one area or a Significant Ecological Area or a wetland greater than 200m2 in one area, the subdivision consent must, in addition to any other appropriate conditions, include:
      i. a condition or conditions providing for the effective or permanent legal and physical protection of that native bush

      ii. requiring a permanent fence (minimum seven wire post and batten fence) capable of preventing browsing or other damage by farmed animals. The fence must be erected (and maintained) around the perimeter of the area of native busy or wetland to be protected.

4. Any conditions for the protection of significant native bush or a Significant Ecological or a natural feature must be complied with on a continuing basis by the subdividing land owner and subsequent owners and must be the subject of consent notices to be registered under the Land Transfer Act 1952

## Appendix 11.5.9.5 Guidelines for native revegetation plantings

These guidelines explain what specific information is needed for the above, why the information is necessary and why council expects certain actions to be undertaken to ensure this survival rate. When applying to council for consent to subdivide based on the replanting of native vegetation (see Rule *), council requires the following:

- pre-planting site assessment
- planting plan assessment
- annual monitoring programme.

1. Pre-planting plant assessment
   Plants are adapted to survive in specific areas. Not every plant will do well in the same environment. In order to ensure the survival of revegetation planting, it is important that the appropriate plants are selected for the site. There are two aspects to selecting appropriate plants for a site. They are:
   a. sourcing from the Ecological District (ie. eco-sourcing):
      New Zealand has been divided into ecological districts based on the underlying geology, landforms, and soils which affect the plant species found within an area. Within theses ecological districts the same plant species often have slight variations, which are adapted to the specific conditions of the area. In order to retain these variations and in essence the genetic diversity, it is important that plants which are sourced in the specific ecological district are used.

   b. appropriate plants for the locality of the planting:
      Plants grow best on sites for which they are best adapted. Therefore, in order to ensure the success of a revegetation programme it is important that plants which are used are appropriate to the following:
      i. slope (ie. steepness affects the species which will survive)
      ii. characteristics of the soil (ie. certain species do not grow well in certain soils)
      iii. wind (ie. certain species are not wind tolerant
      iv. aspect (ie. direction the slope faces, as this affects the dryness of a slope),
      v. degree of shading (ie. certain species are light intolerant (ie. secondary succession plants such as nikau and ferns), whereas others cannot survive in low light conditions, (ie. primary succession plants such as manuka and kanuka)
      vi. distance from the coast (ie. this affects salt spray and wind conditions. Many plants are not tolerant to salt spray and therefore struggle to survive in coastal environments), and
      vii. wetness of the site (ie. many plants either do not grow in wet conditions (eg. kauri) or only grow in wet soil conditions (eg. kaihikatea)
      viii. frost Zones (certain species are frost intolerant).

      In order for the Council to ensure that appropriate plant species are being selected for planting the Council expects a Pre-planting Plant Assessment with the following information to be provided with each application for native revegetation plantings:
      ix. the ecological district of the site
      x. the characteristics of the soil (ie. clay, silt, loam etc)
      xi. soil drainage
      xii. topography and aspect of the area to be planted
      xiii. exposure of the site to wind, frost, sunlight and salt spray

xiv. extent of existing bush or native vegetation on the site and its species composition

xv. distance from established bush and the state of the established bush if there is none on the site.

Points xiv. and xv. above will assist the council in determining what plants would grow naturally on the site and therefore what species should be in the Planting Plan Assessment.

2. Planting plan assessment

In order to assist the council in establishing whether a planting is adequate a Planting Plan Assessment needs to be produced containing the following information:

- purpose of the planting, including hill country erosion control, stream bank erosion, habitat control, habitat restoration, ecological corridor creation, buffer planting to protect the edges of exiting bush, water quality enhancement
- location and extent of planting on a plan
- site preparation for planting, including stock-proof fencing of areas, weed and animal pest control
- site planting, including species to be planted, size of plants and where they are to be planted, density of planting, sourcing of plants and fertilisers
- maintenance of planting, including fertiliser, releasing plants, animal and plant pest control, and mulching

The reasons for the detail required in the Planting Plan Assessment are discussed below under the following headings:

- site preparation (including identifying and removing weeds, animal pest control, and stock control)
- site planting (including canopy closure and plant spacing, fertiliser, size of plants to be planted, time of planting) and
- site maintenance (including mulching and animal and plant pest control).

a. site preparation:

Many of the areas that are to be replanted have relatively harsh conditions for native plants to grow because of animal pests, stock and weeds and grasses, which compete with the new plants. Therefore, it is important to ensure that the effects of these are minimised. This includes the following:

i. identifying and removing weeds:

Weeds compete with native plants which are planted by reducing moisture and nutrients available. Because the weeds are usually better able to do this than many natives, especially in open and exposed situations, they need to be removed, either manually or with sprays before planting occurs. Continual management needs to occur after the planting to ensure that the replanting site is not re-infested. Then it is important that canopy closure occurs as soon as possible after planting, as most weed species do not survive in shady conditions.

Kikuyu is wide spread throughout the precinct. A good proportion of native plantings occur directly into kikuyu. It is one of species which competes vigorously with native plants. It also suppresses their growth through the release of a chemical into the soil, which reduces root growth. Therefore it is very important that kikuyu is removed from the site of the hole for of each plant and that the plants are released regularly after planting (ie. kikuyu is removed from around the base of planted native trees) so that the new plantings are not straggled. Canopy closure is the best mechanism in the long tem of controlling kikuyu as it is a shade

intolerant species.

Mulching can an effective means of suppressing weed growth in the initial phases of the revegetation, reducing the need for weed control (see section 3.3(a) of this Appendix).

The Auckland Council has a number of pamphlets on weed species and various techniques for their removal.

ii. animal pest control:
Browsers, such as possums, feral goats and feral deer are a large threat to native plantings. Therefore it is important that they are controlled and eliminated to levels where the plantings are not severely affected. In the case of possums this entails eradicating them using bait stations, trapping or shooting. In the case of feral deer and goats this entails fencing the area around the plantings to keep them out or eradicating them.

After the planting is established it is important that animal pest control continues in order to ensure the long-term survival of the plants and also so that undergrowth can generate beneath the planted species.

The Auckland Council has a number of pamphlets on animal pest control and eradication.

iii. stock control:
Stock can cause a huge amount of damage to native planting through the browsing of the plants or trampling them. Therefore it is important that the planting area is fenced with a stock proof fence to keep the stock out.

The fence needs to be maintained in the long term to prevent stock entering into the area so that under growth regeneration can occur, allowing for a diversity of species to establish.

b. site planting:

i. canopy closure and planting spacing:
Once the site preparation has occurred then the plants can be planted. Ensuring canopy closure as quickly as possible is vital. Canopy closure has the following advantages:

- many weeds and kikuyu are more easily suppressed and controlled, as they tend to be shade intolerant.
- summer water stress is greatly reduced.
- frost intensity is greatly reduced or eliminated.
- the problems caused by wind is reduced (ie. wind and cold).
- a closed canopy is more likely to attracted seed eating birds which nest and roost in trees and therefore increases the number of seeds deposited in the floor beneath the trees.

All of the above results in greater species diversity, especially for sensitive plants which require shade and conditions free of extreme conditions such as wind and frost. Plant species are more likely to survive once they germinate as well.

In order for there to be rapid canopy closure the native plants should be planted at a density of 1.4 metre centres (5,100 stems per hectare), except when planting into kikuyu.

In the case of planting into kikuyu plants should be planted at 1 metre centres (10,000

stems per hectare) to shade out the kikuyu and ensure the long-term survival of the native trees. Canopy closure should occur within 3 years in this situation. Where it can be demonstrated that blanket spraying of the kikuyu with a bio-degradable herbicide prior to planting or suppression by physical means will be an effective means of control and that such control is suitable for use on the subject site, then the density of 1 metre centres (10,000 stems per hectare) might be relaxed to a maximum of 1.4m centres (5,100 stems per hectare).

ii. size of plants:
The size of plants affects their ability to survive when planted out. Very small plants are less likely to survive, as their root system is not well established. Very large plants are also less likely to survive because of the physical conditions of most revegetation sites, including wind and salt exposure, extremes of conditions, drought and damp conditions. Larger plants take longer to establish extensive root system to anchor the plants and to provide nutrients for growth, often resulting in their being toppled over by wind or damaged.

Based on the above, the most appropriate sizes for planting out are considered to be root trainers, PB3/4 or PB2s and PB5s.

iii. fertiliser:
The decision to apply fertiliser, what type and in what quantity, will vary depending on the site. The following are basic considerations:

The application of a suitable fertiliser can proactively assist the native plants to establish, grow quickly and close the canopy, especially in coastal environments or where they are planted into kikuyu. Too much fertiliser however can be toxic to native plants and can lead to poor growth.

In many cases the ground will already be quite fertile and support good growth. It is worth considering however, that although many areas where native revegetation is occurring have been fertilised in the past for pasture growth, this is not appropriate for native tree establishment as these fertilisers tended to be nitrogen based. Trees require trace elements, minerals and phosphorous based fertilisers.

Certain environments will be adversely affected by the application of fertiliser. Consideration should be given to the proximity of plantings to waterways and riparian areas. In some circumstances there will be good reason to avoid the application of fertiliser or a particularly cautious approach adopted.

A conservative method for the application of fertiliser is the use of slow release tablets in each planting hole. The advantage of this method is the utilisation of the soil as a natural filter.

A cautious approach needs to be applied where fertiliser is to be a side dressing. In particular, the timing of application needs to be considered. Application should coincide with the plants growth spurts during spring and autumn to maximise nutrient uptake and prevent nutrient enrichment of receiving water bodies.

iv. time of planting:
The timing of the planting is important. Late autumn and winter (ie. late April to September) are the best months as most native plants are adapted to moist conditions and watering is required at the time of planting. Rainfall is the best means of ensuring adequate watering as it encourages the development of deep roots. Hand or surface watering can encourage the development of surface roots, resulting in the plants being more adversely affected in low

rainfall periods.

However, the disadvantage of planting in winter is the exposure to frost, particularly on level, exposed site in inland areas. Therefore it is important to use hardier pioneer species to provide shelter before planting more sensitive species.

It should be noted that mulching greatly increases the chances of survival as it assists in retaining soil moisture by reducing evapotranspiration.

c. maintenance planting:

i. mulching:

Mulching involves spreading permeable material around newly planted trees to.

- protect the roots,
- reduce moisture loss from the soil,
- insulate the soil, thus stabilising soil temperatures and
- suppress weed growth

Mulches can be either organic (eg. straw, sawdust, bark chip, wood shavings, compost, grass, leaves) or synthetic (eg. wet paper / cardboard, and tar paper)

Mulching greatly increases the chances of survival for plants on dry, open, exposed sites.

The disadvantages of mulch are that they can:

- introduce plant diseases or insect pests to the site
- introduce weed species
- prevent water from reaching the roots and therefore it is important to wet the soil before applying mulches
- increase costs

Certain mulches also can be toxic to plants, such as sawdust and bark chip which need to be well rotted down.

Mulches comprising compost and grass clippings should be treated with caution. Unless temperatures high enough to ‘cook’ the seeds have been reached the mulch has the potential to introduce unwanted weed species to the area.

Cheap mulches should be treated with caution. They have a tendency to rob the soil of nitrogen, stunting adjacent plant growth unless compensated for with fertiliser application.

ii. weed control and animal control:

This involves the ongoing plant and animal pest control to ensure the survival of the planting

iii. monitoring programme:

Monitoring needs to be undertaken for 5 years, as it takes between 3-5 years before native replanting are well established and their certainty of survival is assured. The following needs to be monitored:

- survival rates: this is because the council requires a 90% survival rate which is thought to appropriate to ensure that the replanting will become ecologically viable.

- size of plants: this is an indication of the health of the plantings. The greater the growth, the healthier the planting and therefore the more likely a planting is to survive.
- canopy closure: if a planting is healthy, canopy closure should occur at year 3, although it can take to year 5 if the conditions of the site are particularly harsh. Therefore, this is an important indication of the health of the planting.

  Replacement of plants which do not survive is important to ensure that gaps are not created which could allow weeds to enter the planting and to ensure that there is an adequate canopy cover in the long term.

## Appendix 11.5.10 Warkworth 1

**Indicative site development plan**
Click here for PDF

**Indicative landscaping regime**

| Landscape regime | Design purpose | Physical form and feature characteristics | Typical plant species |
|---|---|---|---|
| Type 1: Riparian margin (Mahurangi River edge) | - Enhance pedestrian movement along the esplanade reserve<br>- Enhance amenity value of existing native riparian vegetation<br>- Riparian margin stabilisation | - Natural ambience<br>- Mixed height canopy (mature trees, understorey, and ornamental)<br>- Walkways, park benches and furniture | - Mixed tall and medium height native tree species<br>- Native shrubs and grasses (eg titoki, rewarewa, ponga, nikau, tea tree) |
| Type 2: Avenue (Mansel Drive and Riverside Road corridor) | - Create an avenue of trees<br>- Create a sense of enclosure to reduce traffic speed<br>- Visually guide vehicular and pedestrian traffic | - Strong linear element of tall trees lining Mansel Drive avenue and Riverside road corridor<br>- Strong linear internal pedestrian / park axis<br>- Tough fast-growing, attractive specimens<br>- Pairs of tall trees used to strengthen visual axis on Mansel Drive<br>- Single tall trees at regular spacings used to strengthen visual axis on Riverside road corridor | - Pohutukawa (Mansel Drive)<br>- Kauri (internal pedestrian axis) |
| Type 3: Visual screening (Eastern service road corridor) | - Improve and soften the appearance of roadside frontages and site edges<br>- Visually screen buildings from outside views of the site | - High and dense visual screen | - High dense coverage, rapid growing screen trees and plants (eg pittosporum, akeake with flax and grasses as understorey infill) |

| Landscape regime | Design purpose | Physical form and feature characteristics | Typical plant species |
|---|---|---|---|
| Type 4: Amenity Planting (Woodcocks Road and throughout) | - Local parks<br>- Car parking area landscaping<br>- Create more intimate spaces<br>- Shelter<br>- Improve and soften the appearance of road frontages and site edges<br>- Stormwater attenuation and treatment. | - Range of mixed trees, shrubs and flowers of varying heights and sizes<br>- Regional floral complementarity<br>- Interspersed<br>- Ornamental<br>- Low maintenance<br>- Layer of shelter planting of mixed heights and sizes to provide wind and sun shelter<br>- Allow clear sightlines to ensure adequate pedestrian and traffic safety within the car parking area<br>- Ground cover and small plants and shrubs to 0.5m high.<br>- Paved areas with seating for shoppers<br>- Park and garden furniture<br>- Raingardens, swales or stormwater ponds (eg in carparking areas) as appropriate. | - Numerous and various species including cabbage tree, kowhai, hebe, kaka beak, puka, coprosma etc.<br>- Ornamental exotic trees (eg maple and birch)<br>- Small plants and shrubs (eg grasses, flax, hebe) |


Auckland Council
Te Kaunihera o Tāmaki Makaurau

**Indicative Site Development Plan**

## Appendix 11.5.11 Hobsonville Point

**Catalina design guidelines**
Click here for PDF

HOBSONVILLEPOINT

Design Guidelines

# Catalina Sub Precinct, Hobsonville Point

**July 2013**

# 1

# CATALINA SUB PRECINCT DESIGN GUIDELINES

## 1.1.1 INTRODUCTION TO DESIGN GUIDELINES

### Purpose

- Retain and/or enhance existing features, including Notable buildings and spaces of heritage value.
- Ensure new development is of a coordinated, high quality that interacts positively with the public realm.
- Make provision for a choice of living environments, (including affordable typologies) commercial, social and community facilities and employment opportunities.
- Achieve a high standard of pedestrian amenity through design.
- Pursue principles of urban sustainability and excellence of urban form, including the maintenance of amenity values.

The Design Guidelines articulate the development vision for the Catalina Precinct, and prompt a considered design response to all subsequent development. They explain the character and standard of the detailed design that is expected of individual buildings and landscapes, while allowing flexibility and innovation.

### Application of Design Guidelines

The assessment criteria for the construction of dwellings require consideration against the guidelines. In recognition that competing drivers can result in some specific design matters in these guidelines being achieved better than others, the assessment criteria requires an overall judgement as to whether an appropriate design outcome is achieved.

### Objectives of the Design Guidelines

The overall objective is to provide a guide for developers and design consultants on design matters to be considered in the development of housing designs and as guidance for the Council's (or delegates) assessment of any application submitted.

The guidelines provide for the development of a specific Hobsonville Point character.

### Document Structure

The Design Guidelines are structured in five parts as follows:

1. Introduction
2. Overall Design Approach
3. Architecture
4. Landscape
5. Heritage

## 1.2.1 HOBSONVILLE POINT DESIGN VALUES

Hobsonville Point will become a vibrant, relatively densely populated coastal settlement, bounded by the upper Waitemata Harbour. The architecture and landscape of all developments should celebrate the special qualities of the peninsula, which include access to the coastal edge and deep water, outlook over the harbour, and features which reveal its historical use as an airbase.

The casual, friendly characteristics of a coastal settlement are interpreted through integrated yet distinctive neighbourhoods, and a quality design approach that caters for lifestyle rather than just style. It calls for an expression of relaxed outdoor living through design values that are associated with a coastal village, including:

| | |
|---|---|
| **Directness** | honesty and authenticity expressed in contemporary building styles |
| **Openness** | a relaxed relationship between buildings and open space |
| **Lightness** | the appearance of lightness rather than massiveness in building form and materials |
| **Informality** | the impression of a relaxed, open plan living style |
| **Variety** | individuality, complexity and richness created within each building, street or neighbourhood |
| **Connectedness** | making linkages to and around the coastal edge with streets and parks |
| **Greenness** | an overall impression of greenness, reinforcing coherence within the street |
| **Setting** | responsiveness to context and topography |

## 1.2.2 HOBSONVILLE POINT BUILT ENVIRONMENT CHARACTERISTICS

These characteristics apply equally to the character and quality of both the architecture and landscape of Hobsonville Point.

### Design for Community

The value of community is implicit in the design characteristics intended for the coastal settlement of Hobsonville Point. In this context, community relates particularly to matters of urban form and responsibility to the public realm.

The application of best practice urban design principles will ensure that buildings are good neighbours to one another, and contribute to safe, integrated living environments with a sense of identity and community. For architecture, this includes the way in which buildings address the street or an adjoining open space, and their contribution to the quality of the public realm through detailing and variation in form. For landscape, it includes the consistency and legibility of the public realm that contributes to the character of a place.

Distinctive urban design elements are required to define neighbourhoods, assist with orientation and reinforce the character of Hobsonville Point. Buildings that define key streets, corners and intersections have a particularly important role to play in this.

Openness, lightness and outdoor living are attributes that are appropriate to a coastal settlement and the Kiwi way of living. To achieve openness, the demarcation between public and private must be clear, with defined edges between private and public space.

A textured and defined interface at the street edge allows for an extension of living space, while still maintaining surveillance and outlook to the street. Front yards overlook the street and contribute to a sense of community and being neighbourly.

A wide range of housing prices is encouraged for the area, from quality, simple, small and affordable homes to large high value homes.

### Design for Living

The expression of a casual and relaxed outdoor living style is intrinsic to Hobsonville. This means creating functional features that allow open plan living, such as verandahs and terraces, and functional entrances and front yards that are open and welcoming. Attention to sustainable design requirements will give an overall impression of directness, usefulness and authenticity. These considerations cater for lifestyle, rather than just ‘style’.

A feeling of space rather than crowding can be created by orientation of the house on the lot to minimise overlooking, and to provide outlook to borrowed views and public space.

### Design for Quality

A combination of visual richness and coherence is created by an appropriate architectural language and composition, construction systems, materials, finishes, colour and detail that together provides a sense of quality.

Architectural elements should be honest, direct, functional and an integrated part of the built form. Combinations of materials and their careful application are important to create rich textures and contrast. Individuality and personalisation are encouraged.

Therefore, with the exception of some excluded materials that do not meet requirements for quality and longevity, the Design Guide will primarily control the application of materials to achieve quality detailing. Materials should be used in a way that reveals their integrity and permanence, with current technology and sustainable design principles informing material choice and performance.

## 1.3.1 ARCHITECTURAL VALUES

The following architectural values are regarded as distinctive and appropriate to the Hobsonville neighbourhood. They are to be achieved by all buildings and peripheral elements whether they front onto streets, parks, or rear lanes.

### Directness

Directness is expressed in the way building components are selected and put together. Architecture should be contemporary in style, technology and materials, except in special cases to be agreed. Historicist reconstructions and fake facades are not appropriate. Buildings and groups of buildings should be visually coherent.

### Openness

Openness is expressed in the relationship of buildings to private open space, to streets, to parks and to the larger context. An easy and relaxed relationship is appropriate. This affects the architectural gestures which building forms make, and the architectural vocabulary used.

Appropriate examples include:

- open gable roof forms addressing the street
- cantilevered roofs and floors
- prominent balconies and verandahs
- strong modelling of walls
- emphasising solid and void, as in recessed doorways
- added pergolas , awnings, window boxes
- openable windows and doors (natural ventilation preferred over air conditioning)
- emphasis on passive ventilation as part of an over-all environmental performance strategy for Hobsonville.

### Lightness

Lightness is expressed in structure and material, physically and visually. Generally, an appearance of lightness rather than massiveness is favoured. This does not exclude the possibility of a structure which appears to float over a solid base, or other cases in which lightness is intensified by contrast with solidity.

Examples include:

- roofs which visually 'float' above walls.
- framed structures with panel infill.
- use of glass to separate and visually lighten more solid elements.

### Informality

Informality is expressed through a relaxed architectural manner rather than a formal one. Incorporation of mock-formal architectural statements, such as Greek porticos on applied columns for example, is not appropriate.

### Variety

Variety is expressed in form, colour and material. Individual buildings require the considered and coherent use of material and colour, but with a higher degree of variety than is usual in most housing developments. Generally, crisp contrasts in colour will help achieve the required sense of lightness and openness, and will more successfully evoke seafront associations than sombre colours of similar hue.

### Setting

Setting is honoured through the form, colour, material and positioning of a building on the lot and how it addresses its frontages. As with 'openness' it is expressed through the relationship of the building to the street and any adjacent public open space. Further to this, the design of a building should carefully consider the topography of the site, the neighbouring dwellings (which may or may not be built at the time), views and sunlight, along with proximity to and association with buildings and spaces of heritage value.

## 1.3.2 DESIGN FOR COMMUNITY

### Facade diversity

Façades are described as the street frontage or frontages of any building. Façades should be designed to:

- create a diverse, interesting street appearance,
- avoid excessive building mass,
- include variation in the use of materials.
- provide a strong and coherent human scale street frontage

### Facade composition and scale

Facade composition includes the arrangement of windows, doors and architectural detailing to provide variety and rhythm to a facade.

The design of facades should emphasise the width of individual residential units. For example, where a building contains more than one unit the facade should be designed to articulate the individual units and in this way break the facade into smaller vertical elements.

### Building scale and hierarchy

The principal façade of a commercial or mixed use building should be articulated in a way that visually diminishes the overall bulk of the building, and provides balanced proportion and scale relative to height.

### Roofscape

The roofscape is described as the part of the building above the eave or projected ceiling line of any building

- Buildings should be designed to provide a varied roofline.
- The profile of the roofline against the sky should have interest and variety.
- The construction of attic spaces and useful roof space is to be encouraged and should be visually apparent through windows and roof vents.

### Building line variation

Buildings will be sited to a building line determined by front setbacks. Building line variation is defined as the portion of the building form that must be separated from the primary frontage on the building line.

Some secondary elements may extend beyond the building line, including:
Chimneys, bay windows, balconies, entrance canopies, sun shade devices, louvres, eave depths up to 600mm, rainwater goods (gutters, downpipes, rainwater heads).

*Facade diversity*

*Facade composition and scale*

*Roofscape*

*Building line variation*

## 1.3.2 DESIGN FOR COMMUNITY continued.

**Buildings at T-Road intersections**

Buildings at important intersections should provide some special architecture features to take advantage of the terminating vistas at these alignment points.

**Rear and side elevation treatments**

Special architectural attention should be given to the side and rear elevations of buildings that are visible from streets, parks, institutional sites, open spaces, public walkways and commercial blocks. The architectural treatments of these elevations should maintain the same quality as the front elevation in respect of materiality, placement of windows and other architectural elements.

**Buildings fronting open spaces and pedestrian walkways**

Buildings fronting an open space or walkway should be regarded as an occupied frontage and should be treated in the same way as buildings which directly address the street. There should be no 1.8m privacy fencing to park frontages, and the building frontage should be kept as open as possible to provide good informal surveillance. Refer to Coastal Edge and Public Open Space Fencing in the Landscape section for fence heights.

**Upper Level Setback**

In some cases it may be appropriate to set back upper levels, on a building over 4 stories, from the building facade. A recommended upper level setback is 3m. Secondary architectural elements such as balconies, cornices or other detail protrusions within the set back may be deemed appropriate in the context of the buildings overall design and shall be subject to consideration by the Design Review Panel.

The intention of the upper level setback is to maintain a human scale building frontage without restricting the overall height and consequent intensity and land value.

*Buildings at T-Road intersections*

*Rear and side elevation treatments*

### Marker buildings

Marker buildings should be located at key street junctions where sightlines down a street terminate or change direction creating a focus of view, they should also be located at key positions on the coastal edge and on the edge of heritage open space. The Catalina Precinct should contain a hierarchy of Marker Buildings, based on their location, bulk and form.

A marker building is a complete building design that sets itself apart from its surroundings. It can be achieved through a stronger articulation of existing context or the development of a new form. In all cases, the architectural form should be clear and coherent, the building may increase in scale and the public and private interface is critical.

Marker buildings play an important role in a community:

- They provide a natural reference point to act as an organiser for one's mental map of the area;
- They have the potential to be functionally different (all or in part) from a more general surrounding function;
- They have the ability to heighten a sense of connection and community for the inhabitants of the area;
- They have the ability to shape and organise adjacent buildings and public open space.

A marker building should therefore receive added prominence by:

- Being "obvious" in its makeup and placement within the spatial framework;
- Being able to accommodate activities other than, or in addition to, nearby largely residential occupancy;
- Evoking a distinctive, high quality and well-articulated building form;
- Demonstrating a clear appreciation of the urban context unique to its setting

All marker buildings should have regard for their specific location and should be designed to:

- display added prominence through their building form and/or height and to enhance existing site qualities.
- ensure that ground floors have additional ceiling height;
- achieve a positive interface with the adjacent public realm;
- be architecturally superior through high quality design and detailing;
- be skillfully integrated into its setting by careful consideration of the space around.

It may also be appropriate for marker buildings to exceed the standard specified building heights.

The maximum floor to ceiling height for an additional floor in a marker building should not exceed 3.5m.

Three general location categories for marker buildings have been identified:

Where a marker building occurs on the coastal edge, it should be considered as a focal point within a significant natural surrounding landscape. It should have an obvious "object-in-the-landscape" design approach and should benefit from space or run-up surrounding the building.

Where a marker building is a new building close to identified heritage features it should demonstrate a sympathetic response to such buildings or spaces. It should have regard to scale, proportion and setting, but should employ a contemporary design approach to materials and detailing to compliment identified heritage and architectural values.

A marker building occurring at a junction should address and activate all its street frontages and should observe the minimum allowable setback. The design of the building should acknowledge the significance of the corner location and it may have a minimum additional height (all or in part) of 1.5m above the roof line of adjacent buildings.

## 1.3.2 DESIGN FOR COMMUNITY continued.

### Corner lot treatment

Buildings on corner lots should be designed to address both street frontages. These buildings should have some special architectural features to reinforce the corner. Impermeable privacy fencing of these lots should only be used to screen rear yards.

### Rear lots

Hobsonville Point is masterplanned to provide street and lane based housing. “Jointly owned access lots” or “Rights of Way” created for the access to individual or small groups of rear lot housing are to be discouraged. All attempts should be made in the masterplanning of the final roading and lot layout design to discourage these forms of development and create street fronted lots.

### Block sizes

Perimeter blocks should be modestly sized in order to preserve permeability and the creation of walkable neighbourhoods.

### Street frontage

Street frontage is described as being the parts of a building that are specifically designed to overlook the street and thereby create a positive frontage. As a minimum street frontages should include windows from a habitable room, e.g. lounge or kitchen, overlooking the street. On corner sites the front door access should face the street with the highest priority. In situations where the two intersecting streets have the same priority (such as two local / minor streets), the main entry may directly face the corner or either of the two street frontages, but the approach should be varied for each corner lot. The building form and architectural detailing of street frontages should be articulated to clearly define entrances.

*Corner lot treatment*

*Street frontage*

### Group Carparking

Off street group car parking areas may be associated with apartments, retail activities, schools and other similar land use activities. The following design principles relate to both public and private group car parking:

- A positive frontage should be presented to the street with high quality boundary landscaping treatment such as permeable fencing and hedge planting less than 1.5m in height to screen cars but allow for passive surveillance from the street
- Adequate space for landscaping should be provided, including a recommended 1 medium scale tree and groundcover planting for every 3 car park spaces where carparks occur in a single row, or every 6 car park spaces where carparks occur in a double row, back to back.
- Shared surfaces may be used to indicate equal status for vehicles and pedestrians, footpaths may not be required
- Vehicle speeds may be reduced through the use of landscaping and tree planting for enclosure. Changes in surface material that differentiate parking bays from manoeuvring aisles will also assist.
- Lighting should be provided for security
- Permeable surface materials and Low Impact Design [LID] treatment should be used where possible
- Adjacent buildings should be designed with an active frontage to car park areas
- If physical speed restrictions are required these can include vertical displacement e.g. raised tables and horizontal displacement e.g. narrowing at entry and exit points

**Marine Industry Precinct Interface**

The Marine Industry Precinct (MIP) has southern and western boundaries adjacent the Residential zoned land of the Catalina Precinct.

This interface requires careful consideration because of the dissimilar land use and building typologies adajacent to one another. The Catalina Precinct edge presents a residential frontage that can range between 1 and 3 floors, depending on building typology. That equates to a height range of between 4 - 10.5m (as seen from the street), 1-3 storeys lower than the MIP edge which has a height range of between 12 and 15m proximate to the street boundary.

The residential frontage on the south edge has a northerly aspect onto the MIP which presents issues of sensitivity to some extent in that primary living spaces and balconies are likely to face the MIP to achieve solar gain. Street activation, screening and overlooking must therefore be carefully considered in that these face onto a predominantly marine shed and carparking frontage. The aspect of the buildings fronting the western edge of the MIP is such that private open space could be located away from the MIP interface, however street activation through positive frontage will still be important.

There is however, a landscape buffer proposed along the boundaries which should go some way to mitigate these issues.

Outcomes sought for MIP interface streets:

- Buildings that are at the upper end of the height scale for the zone so as to give a strong and balanced edge condition to both sides of the street and provide as much screening of the MIP sheds from the surrounding area as possible.
- Buildings that offer visual interest and richness of materials, textures and colours as a counterbalance to the marine sheds.
- Buildings that offer good levels of surveillance from balconies and living spaces.

**Bomb Point Interface**

It is important that apartments at the eastern end of Catalina have a positive relationship with the Bomb Point landscape.

Buildings are best orientated in an east west alignment to maximise views from and between them. Taller buildings should be located in the centre along the parkway character street. This helps to frame views out to Bomb Point and the harbour, creating a sense of approach and arrival for visitors, as well as maximising opportunity for views from the upper floor apartments over potential surrounding buildings.

Facades of apartment buildings adjacent Bomb Point should incorporate shadow, change of material and other architectural treatments that enable the buildings to feel finely grained and textural in their appearance. This ‘grain’ should be at a scale complimentary to the individual buildings and bunkers on Bomb Point. Apartment buildings should give the impression they are made up of many individual units, any feeling of excessive building mass is to be avoided.

Apartments at street level should have their own private access off the street, apartments above may share an access lobby and/or elevator well, or be accessible by individual ‘walk up’ entrances.

## 1.3.3 DESIGN FOR LIVING

### GENERAL

Architectural character will in part be determined by functional requirements of the housing types described in this document, rather than by exterior styles. An example is the relation of house units to private open spaces, and to the street or other public space . Another is making the best use of the sun's energy through passive solar design. Following are specific requirements affecting form and the appearance of buildings, in context:

### Environmental response

Good environmentally responsive design will generate –

- Creative architectural forms, which are functional and useful.
- Economic viability for the duration of Hobsonville.
- Comfortable light and energy efficient homes through the application of passive solar design principles.
- Reduced environmental impact and running costs through energy and water efficiency and the use of environmentally preferable materials.

Examples - orientation of living spaces to the north, the use of eaves and other external shading structures to avoid overheating, good insulation and applied mechanisms such as water tanks and solar collectors.

### Private open space

Demarcations apply to front yards and between adjoining private open spaces at ground level. Visual separations should be constructed between adjoining balconies or terraces to separate upper level houses or apartments.

Private open spaces should be directly accessible from main living areas, and whether at ground floor or at upper levels (balconies and verandahs), should be proportioned to comfortably accommodate outdoor living functions.

Outdoor living areas should be partly covered for shade and rain protection, preferably from the access doors outward.

*Environmental response*

*Private open space*

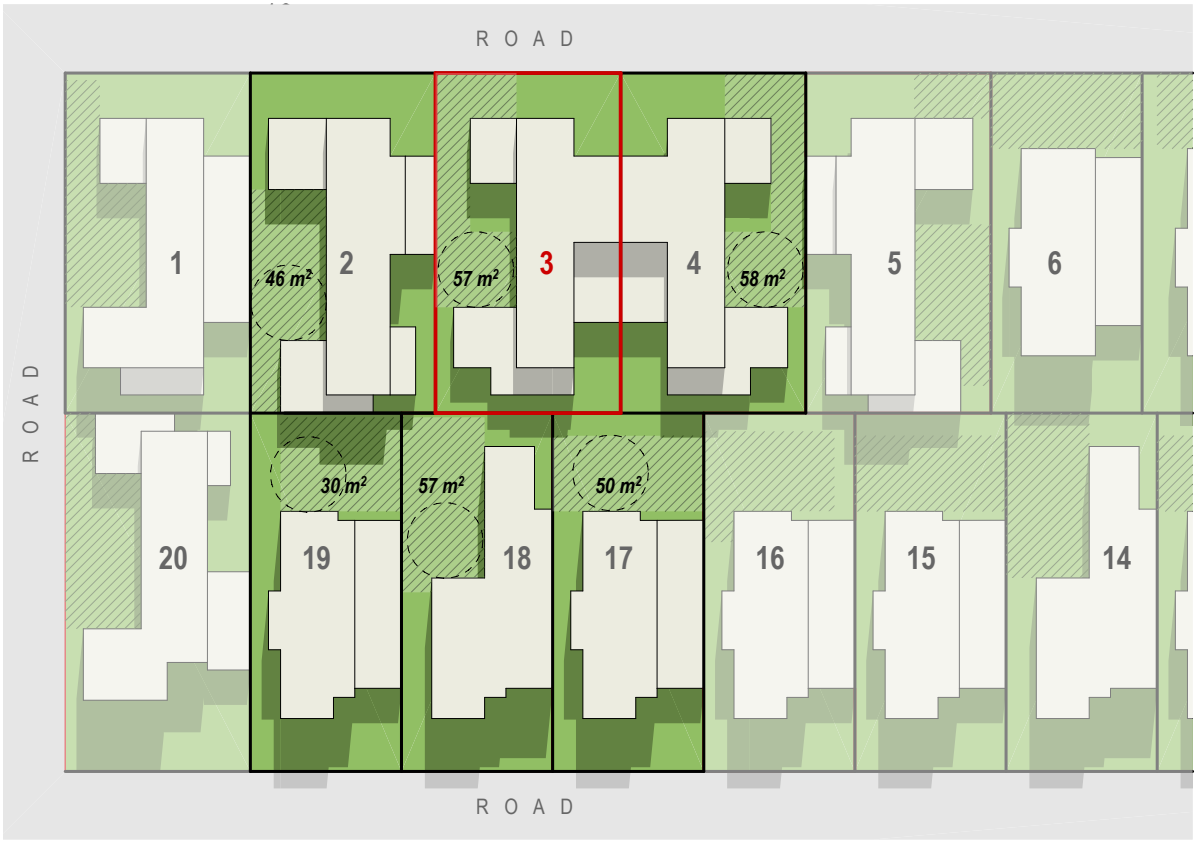
### Solar access to private open space

Explanation
Buildings should not significantly overshadow private open spaces (including neighbouring private open spaces) or significantly obstruct daylight into habitable room windows of adjacent buildings. Buildings should be designed to allow private open spaces to receive at least 3 hours of sunlight on June 21st for at least 50% of the private open space area, or 5 hours on 21st September for at least 50% of the private open space area. This should be demonstrated by shadow diagrams that include neighbouring sites. Private open space should not be located in the south east / south west quadrant of a site.

### Shadow diagrams

Shadow diagrams should be used to illustrate the shadows cast on private open spaces by the proposed buildings at hourly intervals.
Shadow diagrams are to be provided for the site and neighbouring sites and are to include the following information:

- Extent of building bulk
- Location and extent of private open spaces
- Area or percentage of private open space that receives direct sunlight at hourly intervals




Legend

- Building bulk
- Private open space
- Extent of private open space in shadow
- 57 m² — Extent of private open space receiving sunlight

**SHADOW DIAGRAM SUMMARY - 21 SEPTEMBER 12pm**

| | Unit 2 | Unit 3 | Unit 4 | Unit 17 | Unit 18 | Unit 19 |
|---|---|---|---|---|---|---|
| POS area | 60m² | 60m² | 60m² | 50m² | 60m² | 50m² |
| Area in sun | 46m² | 57m² | 58m² | 50m² | 57m² | 30m² |
| >50% in sun | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |

## 1.3.3 DESIGN FOR LIVING continued.

### Building entrances

Entrances to houses or housing should be protected from rain, and preferably recessed from the general wall plane. They should be sited so they are not compromised by pedestrian and vehicular traffic.

### Garages and car parking

Minimising the visual impact of car parking and garage doors is a priority, particularly at street frontages.

### Heat gain and loss

Windows and doors should be sized and positioned to control excessive heat gain and loss, and external shading provided to assist this where appropriate. This should reduce dependence on the need for internal control of solar heat gain (e.g. by curtains or blinds) .

### Natural ventilation

All habitable rooms should be naturally ventilated with opening windows and/or doors or vents. Cross-ventilation is highly desirable. A proportion of windows must be able to be left open without compromising security to allow for cross ventilation. This can be achieved through high level windows or security stays.

Artificial ventilation or air-conditioning is not encouraged.

### Service areas

Service areas for rubbish bins, clotheslines and garden storage should be sited in rear or side yards, so as not to compromise private outdoor space or be visually obtrusive. Clotheslines should be linear and retractable or fold away. Care must be taken to ensure areas are large enough for wheelie bins for rubbish, recycling and garden rubbish. Bins should be able to be stored out of the rain, and out of the view of the public when seen from the street.

**Waste-water plumbing, drainage pipework and other services ducting** should generally be concealed from view from the street.

**Rain-water pipes and tanks** should be as unobtrusive as possible, and down-pipes run with minimum bends. A mid-range neutral paint colour is appropriate. Unpainted upvc is unacceptable.

*Heat gain and loss*

*Natural ventilation*

**Television and radio antennae.** The development will be providing fibre for triple play services (internet, telephone and television) to every building. This should ensure that there is no need for external antennae. Dwellings should be wired to supply at least one data point per level. If antennae are installed they should not be visible from the street. They should be mounted in a way which does not compromise the weatherproofness of the roof (i.e. with flashed brackets, or with raised pads in low-pitch membrane roofs).

**Heat Pumps pool pumps, and other mechanical plant** should be sited out of public view, and positioned to minimise noise nuisance to neighbours.
Water Tanks and associated pipework should be unobtrusive. Tanks may only be sited in front yards if they are underground.

**Signs** should fit their architectural context, and the total area of all signs should be no greater than 0.10 square meters for any home occupation or 0.25 square metres for any other premise.

**Outlook and Privacy**

Designs should encourage an attractive interface between public and private realms that facilitates outlook and social interaction whilst balancing the need for privacy.

Care must be taken to provide privacy for occupants, particularly when the separation distance between windows is less than 6m. In general, directly facing windows should be avoided where the separation distance is less than or equal to 6m. Any sense of being observed while going about one's daily life in the house or apartment must be minimised. This applies to being overlooked from both the street and adjacent dwellings.

Direct views into adjacent private open spaces and habitable room windows of adjacent dwellings should be avoided. If a private open space area cannot deliver an appropriate level of visual privacy for occupants (e.g. the space is on the street frontage and is overlooked) a secondary secluded private space area may be required for that dwelling.

Windows should be located and sized to provide outlook and also offer appropriate visual privacy using a combination of:

- screening, including curtains and blinds
- planting
- separation distance
- offset windows a min of 1m
- have sill heights above 1.6m
- have fixed obscure glazing in any part of the window below 1.6m or:
- be behind a fence if on the ground floor.




*Overlooking*

## 1.3.3 DESIGN FOR LIVING continued.

**Lanes**

Rear access lanes provide access to garages and parking spaces at the rear of properties. They are typically associated with attached housing and some apartment style housing. Whilst their primary function is one of access, they also play an important communal role as “shared” community spaces for the participating residents, and are part of a wider network of connections for the local community.

To ensure a good design outcome for rear lanes, the following design principles are proposed:

- Gateway buildings should be provided at the entrance point to rear lanes, to overlook the laneway. These may take the form of individual buildings or loft apartments over garages [not a separate dwelling].
- Shared surfaces should be used to indicate equal status for vehicles and pedestrians, so that footpaths will not be required.
- Garage setbacks should be varied to provide variety to the streetscape, and trees, shrubs and surfaces will add visual interest.
- Opportunities for the provision of lofts over garage units (in addition to gateway buildings) are encouraged to improve surveillance.
- Semi-transparent fencing may be used in rear lanes to provide privacy with a degree of overlooking of lanes.
- Adequate space for quality landscaping should be provided.
- Gateways to properties should be provided within the rear fence and the garage unit.
- Lighting should be provided along lanes.
- Vehicle speed will be lowered through reduced carriageway widths and block lengths, and the use of tree planting and building height to create enclosure.
- If physical speed restrictions are required, these can include vertical displacement - eg speed tables, horizontal displacement, chicanes and road narrowing, and permitting on-street parking in combination with narrower roads.
- All rear lane accesses should provide a continuous connection through their respective blocks to ensure permeability, and to allow rubbish truck access for refuse collection from individual homes.

Since rear lanes perform several functions, accommodating pedestrians as well as vehicles, it is important that they are pleasant places to be in. For this reason a number of architectural devices are appropriate to enliven lanes and improve safety:

- A pleasing mix of garage doors is desirable in conjunction with gateways, fences, and trees.
- No more than two adjoining double garage doors should be located without some intervening break.
- The material and patterning of garage doors should be designed to reduce their blandness and bulk.
- Verandahs or balconies serving accommodation built over garages should be used to increase surveillance of lanes, and add formal variety to the public space.
- Careful attention should be given to the size, setback and detailing of gates to allow good pedestrian access combined with ease of access for items such as wheelie-bins.
- The practical and aesthetic standards which apply to buildings and fences in general, apply also to lane frontages.

*Lanes*

**Homezones**

A homezone is a communal lane which provides for the gathering of residents and a safe play area for children. The physical layout and design of the homezone will encourage reduced vehicle speeds to 20 kph and below, without the need for signage or road markings.

Homezones and shared surface streets are part of the public realm and will be designed and approved at the superlot subdivision stage. There will need to be a review of these types of streets at the time the adjoining lot development is designed. This may require some changes made to the original street designs prior to construction. It will be critical that the Council or its delegate review the Homezones and shared surface street designs when the adjoining lot development is detailed to ensure integrated design is achieved between the street and the adjoining buildings.

Unlike lanes, homezones will function as the front address for some, if not all, of the units located on them.
They should be designed in accordance with the principles related to lanes, and in addition to these, homezones also require careful consideration of the following:

- Letterboxes should be incorporated where the homezone is the unit's front address.
- Street elements should be used to create a more accentuated horizontal shift in vehicle paths, helping to reduce traffic speeds.
- Gateway treatments at entrances to homezones set the tone and character for each zone and should include feature planting along with more prominent architectural form.
- Ensure entrances to units are clearly articulated, not compromised by pedestrian or vehicular traffic and suitably sheltered to function as the building's front door, especially where the homezone operates as the unit's front address.
- Buildings should be designed to ensure positive street frontage and overlooking to the homezone.

## 1.3.3 DESIGN FOR LIVING continued.

### APARTMENTS

In addition to the Design for Living requirements relating to all housing typologies, there are some design requirements that apply specifically to apartments. Apartment style living requires an exceptional level of amenity based on a strategy of place-making. Proximity to services, schools, public transport, convenience shopping, open spaces and social infrastructure are fundamental considerations.

The following additional requirements for apartments affect form, function and appearance, and should be taken into consideration

### Overshadowing

Environmentally responsive design should explore creative architectural forms that avoid overshadowing and optimise solar access for dwellings, both within the development and on neighbouring sites.

### Ground level design

The ground level in all units is significant because it offers the potential for a different set of amenities to both the residents and the public realm over that of the upper levels. To maximise the opportunities of the ground level the following principles should be considered:

- Maximise the number of individual entrances at ground level in order to contribute to safe and active streets and provide visual interest to the public realm.
- Provide clear demarcation between private, semi public and public space, particularly at ground level.
- Provide outlook from living rooms fronting streets and open spaces while maintaining visual privacy for occupants by the use of appropriate fencing, landscape treatment and changes in level.
- Incorporate universal design principles (i.e. accessible for all).
- Avoid blank facades and ground floor parking beneath apartment buildings visible from the public and semi public realms.

### Building Access

Access to apartment buildings should:

- ensure that buildings are accessible for all (including able bodied and mobility- or sensory-impaired people),
- create legibility and contribute to the street quality by ensuring entrances are integrated yet identifiable elements,
- ensure pedestrian entrances are well lit, highly visible, and sheltered from the elements,
- provide separate pedestrian and vehicular access for residential and other activities to ensure security and safety for all users and to animate the street, and
- minimise the number and width of vehicle entry/exit points in order to maximise the potential for active street frontages, and
- where possible, organise vehicle access points off side streets or lanes.



*Ground level design*



*Building access*

### Communal open space

Communal open space should be considered in terms of the urban context and proximity of public open space. Communal spaces should be clearly defined from private and public open spaces. Trade-offs can be considered between the amount of communal and private open space.

The massing, location and orientation of apartment buildings should enhance the quality of communal open space areas. Communal open space should be located to optimise solar access to buildings and the open space, to minimise overshadowing and provide outlook from units. At the same time, such spaces should themselves have ample access to sunlight.

### Visual and Acoustic Privacy:

Apartment units should be arranged within a development to minimise noise transmission between units, by:

- grouping noisy areas next to each other and away from quieter areas,
- locating storage or circulation zones to buffer noise from adjacent units, and
- minimising the quantity of inter-tenancy walls.

Visual privacy for apartments can be optimised without compromising view, outlook or ventilation. Visual privacy should be achieved between buildings both within the site and between neighbouring properties by:

- ensuring adequate building separation and setback internally,
- providing adequate separation between apartment windows and communal open space and through-site access routes,
- utilising changes in level between ground floor apartments and public space, and
- using building design elements such as: recessed balconies, vertical fins, screen panels, etc.

### Above ground private open space

Balconies may be used to meet the provision for private open space in the upper levels of apartment buildings (i.e. all levels above the ground floor). However, alternative solutions are encouraged to provide variation and diversity, for of both outdoor living options and the visual appearance of the building. For example, some above ground private open space may be recessed back from the building facade, providing integrated solutions for shade and shelter.

*Communal open space*

*Visual and acoustic privacy*

*Above ground private open space*

## 1.3.3 DESIGN FOR LIVING continued.

### SMALL HOUSES

In addition to the Design for Living requirements relating to all housing typologies, there are some design requirements that apply specifically to small houses. The intent is to create high quality, high amenity, small houses on small lots, arranged to create positive social dynamics including; active street frontage; sunny outdoor space with good indoor-outdoor flow; well integrated into the wider Hobsonville Point development.

### Living Amenity – Indoor-Outdoor Flow

To ensure a high level of living amenity for small houses on small lots, principal internal living spaces should open directly to the allocated private outdoor space, with the private outdoor space located in a part of the site that receives good solar access.

To make the best use of the site it is recommended that the long side of the house is positioned on the zero lot side boundary where possible, enabling the dwelling to be used as a fence.

### Private Outdoor Space

Designs for small houses on small lots should take into account the location and arrangement of private outdoor space, and the elements within it to optimise visual and acoustic privacy between neighbouring properties. Visual and acoustic privacy can be optimised through careful consideration of the arrangement of fencing &/or planting &/or the grouping of external storage elements.

To encourage an active street frontage, soft landscape elements e.g. low level planting should be considered to demarcate the front boundary in lieu of fencing. Soft landscaping elements can also be used to demarcate rear and side lot boundaries & private outdoor space where privacy is not paramount, to facilitate a more shared approach to outdoor space.

Outdoor space may be located in the front yard where this makes good use of a sunny aspect.

### Group Size & Variety

The group size and variety of small house typologies within a grouping is significant because it offers the potential for establishing a community of different household make-ups in close proximity, and enables a cohesive spatial group to be formed. Layouts should take into account an optimum amount of variety to avoid complete repetition in a group, and to avoid 'one of everything' creating lack of cohesion.

Limiting the group size will avoid the creation of 'precincts' of small houses. To limit the creation of 'precincts' a maximum of six small houses in a group is recommended.

### Massing & Arrangement

The massing and arrangement of small houses is significant because it influences how the small houses can positively effect the quality of the overall development, create good urban form outcomes, and ensure good solar access and amenity to each house.

Small houses should be aligned to face the street or lane, taking into account how groupings of small houses 'turn corners' to enable both streets to be activated by building frontage.

It is important that designs take into account the mix, massing and arrangement of stand-alone, duplex, &/or terraced; single and two-storey houses in relation to surrounding built form context to:

- orientate small houses for good solar access;
- ensure good solar access to the individual lots;
- avoid overshadowing of neighbouring houses;
- avoid overbearing by neighbouring houses.
- provide consistency of streetscape appearance in terms of height, scale and rhythm of buildings.

### Car Parking

Car parking for small houses can be provided on site by way of garage, carport or car pad. Regard should also be given to the potential for car parking to be provided in small groups nearby, as part of the overall site master plan, enabling the small houses to be moved forward on their individual lots to maximise solar access to private outdoor space.

When designing small houses developments, carparking can have the potential to have adverse visual effects on the streetscape. Careful design needs to be completed to ensure the building mass, entries to the house and carparking are fully integrated with the landscape treatment for the site and the streetscape. Limiting the number of carparks in a row, ensuring good landscape treatment to reduce visual impact and integrating with the existing street trees should all be encouraged to help avoid any adverse visual effects.

### External Storage & Service Areas

It is recommended that external storage units, rain water tanks and clotheslines are grouped together where practicable, and located within the rear or side yard of the small house lot.

Designs should take into account opportunities where these elements can be arranged with neighbouring properties to help with privacy and fencing between lots.

A minimum of 6m³ of storage should be provided per small house lot. This may be provided externally or could also be provided internally, such as within a garage.

## 1.3.4 DESIGN FOR QUALITY

The visual richness and coherence of Hobsonville will be affected by a combination of architectural language and composition, construction system, materials, finishes, colour and detail. This applies equally to peripheral elements such as fences and letterboxes.

**Coherence and variety**

Care should be taken in the design of the architecture to reinforce the urban design intentions. The Design Guidelines for Catalina Precinct have been carefully formulated to ensure that built form contributes to the creation of street spaces and groups of buildings with specific qualities and differing scales. Each building should be designed with consideration for its setting within the group, so as to ensure a sense of overall coherence. Within each group, variety in detail and the use of materials will create an environment of richness without forced variety. It will not be appropriate to design different facades for adjacent buildings which are of the same form, where these occur in large numbers.

There will be occasions where coherence may be achieved by a single façade treatment which continues the length of a block on one or both sides of a street. In other cases, the facades may vary as they progress along the block. As with any city which has developed over generations, both will be acceptable as long as the other requirements listed in this Design Guide are incorporated. In all cases, the individuality of each unit or residence within the block should be expressed.

In many cases blocks will incorporate distinctive 'gems' in previously identified locations, such as corner sites . Here the architectural language may vary in accordance with the location and form.

The compositional possibilities for each site or block should be discussed by the designer/developer with the Design Panel before the design stage begins. Pre Design briefings by the Design Panel will assist with this process.

**Construction systems**

Buildings are to be constructed using contemporary systems and materials. Materials should be incorporated in such a way as to reinforce the expressive gestures of the building – for example: solid forms will suggest the use of solid materials, lighter more open forms will suggest visually lighter materials. Functional and sustainable detailing is expected, to ensure durability of the resulting building.

**Materials**

Materials should wherever possible express what they are, rather than attempting to represent another material. The intention is to maintain quality standards for the development. The extent to which certain materials are used, and manner in which they are detailed, should be thoroughly considered by the designers. Materials such as upvc weatherboarding, pressed metal roofing tiles, and fibre-cement products must be shown to be appropriate for the circumstances of their use, and may not be specified if the way in which they are to be used results in lowering the overall quality of the development. Certain materials and systems are excluded for aesthetic and/ or practical reasons.

These are:

- Timber or steel framed wall constructions supporting monolithic plaster systems. (Plaster is acceptable on concrete and masonry, including brick veneer)
- Pre-rusted steel cladding panels as weatherproofing skins
- Expanded polystyrene panel systems covered with high build paint.
- Exposed tanalised pole retaining walls. (Visual impact to be mitigated by planting and or screening)
- Lead.
- Galvanised and zinc/aluminium-coated steel internal guttering
- Aggregate chip-coated waterproofing membranes to gutters
- Aggregate chip-coated roofing tiles
- Fibre cement fencing of any profile or sheet form
- Unpainted or unstained Pine timber walls, fencing, or ancillary structures

Combinations of colour, texture and materials to achieve variety and interest along a street and express a sense of place

# 1.4 LANDSCAPE

## 1.4.1 LANDSCAPE VALUES

The landscape values of connectedness, greenness and setting are regarded as distinctive and appropriate to the Hobsonville neighbourhood. These are to be achieved through the design of both the public, and private realms where these are visible from public spaces (i.e. the way that front yards interface with streets and open spaces should reinforce the character of the peninsula).

The design principles for the public realm are explained further under Design for Community and apply to:

- streets
- the coastal edge
- neighbourhood open space
- heritage landscapes

The design principles for the private realm are explained further under Design for Living and apply to:

- detached housing
- heritage buildings
- attached housing
- apartments and communal open space

The landscape values are reinforced through planting themes that define street and open space character areas; (Refer to Street and Lot Frontage Planting Themes Plan and associated explanation on the following page).

**Connectedness**

Connectedness is achieved by developing a logical network of streets and open spaces that allow pedestrians to easily access the coastal edge and neighbourhood services. Connected networks maximise recreational use and enjoyment of the entire peninsula, and provide for functional ecological corridors across the peninsula and around the coastal edge.

The landscaping of front yards contributes to the continuity of planting themes in character areas.

Connectedness with the past (i.e. the former use of the site as an airbase) is achieved through preservation, enhancement, interpretation and design reference to historical features. Heritage landscapes and buildings will be embedded into the character of the development, and should be referenced in the design of streets and parks

**Greenness**

The quality of the landscape and an overall impression of greenness created by street tree planting and front yard landscaping will result in an overall consistency and character for each neighbourhood.

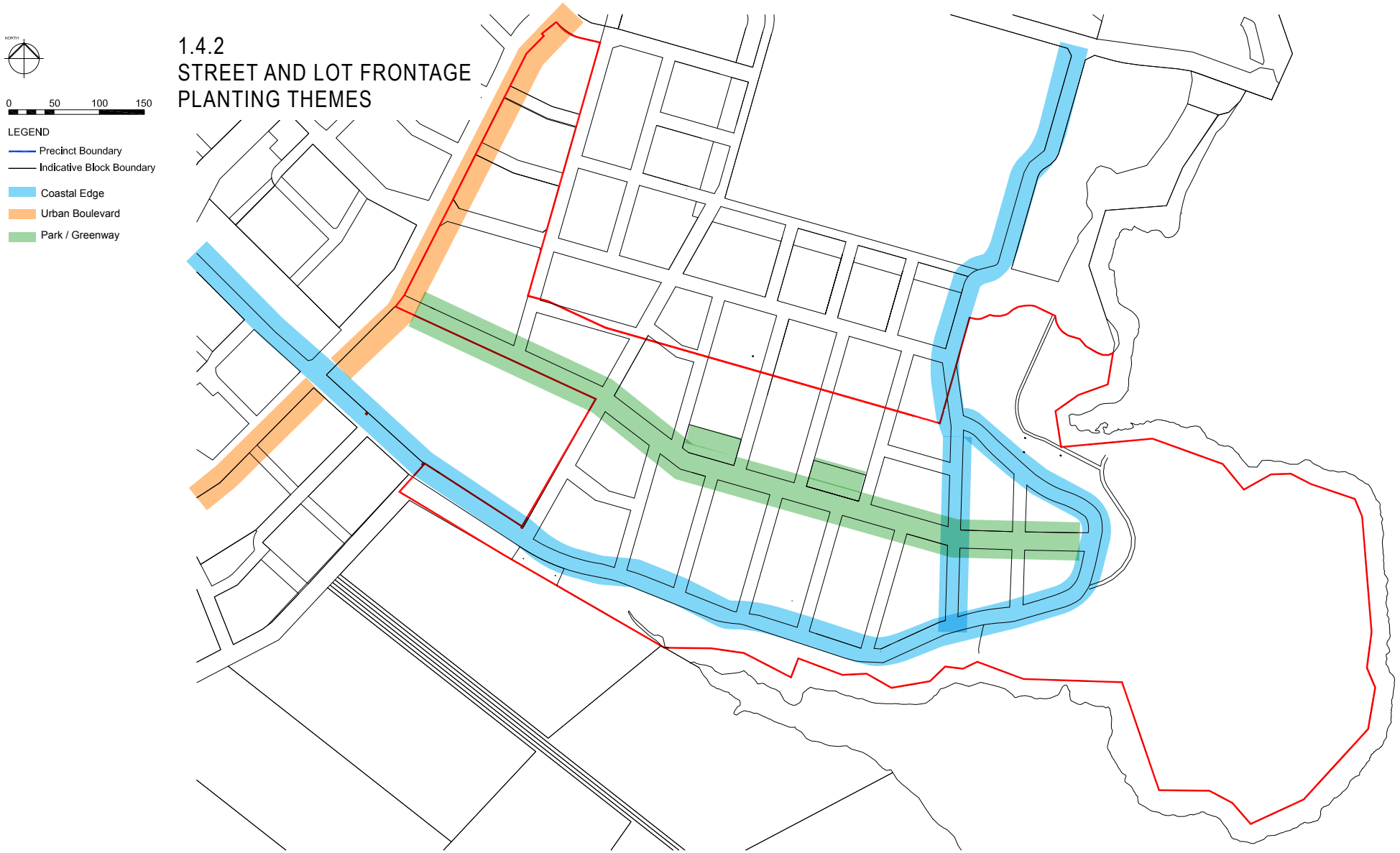
The landscaping of private front yards can be used to supplement the street tree and public realm planting, while clearly differentiating private and public space. (Refer to Street and Lot Frontage Planting Themes Plan and associated explanation on the following page).

**Setting**

Setting overlaps both ‘connectedness’ and ‘greenness’. In Landscape it is honoured and reflected particularly through vegetation species selection, the configuration of the site whether public or private and fence/wall heights. Designs should take into account their context in relation to cultural and social features (including buildings and spaces of heritage value) alongside their landscape context including topography, the coastal edge etc.

Plant selection, in particular tree selection should be considered carefully to ensure appropriate species are used in the right location. Character zone, size, sightlines, views and solar aspect, growing conditions and leaf drop should all be taken into account.

## 1.4.2 STREET AND LOT FRONTAGE PLANTING THEMES



## STREET AND LOT FRONTAGE PLANTING THEMES- EXPLANATION

### Coastal edge

- Tree and plant species in this zone should be native coastal species.
- Trees with native bird attracting properties should be given preference over those without.
- Species should be ecologically appropriate for use in Auckland's upper harbour

### Park / Greenway

- Fronts of lots should be hedged
- Street and park trees should include native bird attracting species e.g. Vitex lucens, puriri
- Native species should be considered a priority but exotic species may be used.
- Shrub planting should be 'lush' and 'glossy green' in character and should include shrubs with large glabrous, leaves
- Alpine or desert species are not acceptable
- More traditional flowering shrub or hedge species such as Camellia spp. are appropriate in this theme provided they are green and lush in their aesthetic.
- Trees in front yards should include fruit trees where possible

### Urban boulevard

- Large scale deciduous street trees: Liriodendron tulipifera
- Planted berms to contain robust shrub species with architectural form e.g. Phormium spp
- The large pohutukawa tree on Hobsonville Point Road should be retained in its current position, gardens (including front of lots) adjacent this tree are to have native coastal shrub planting to create a feature node of coastal character in street

### Notes

- Refer: *Native to the West, A guide for planting and restoring the nature of Waitakere City* for guidance on selection of appropriate native species.
- Where native species are used, eco-sourced plants (grown from local seed) should be used wherever possible to maximise ecological outcomes.

## 1.4.3 DESIGN FOR COMMUNITY

The following design principles relate to the way in which the consistency and legibility of the public realm contributes to the character and urban form of Hobsonville, and includes:

- streets
- the coastal edge
- neighbourhood open space
- heritage landscapes

**Streets**

The urban form for Hobsonville Peninsula is 'street based'. This means that the concentration of density, energy and activity is focussed along key avenues or urban boulevards, with priority given to Hobsonville Point Road. Therefore, attention to the quality and detail of these streets is critical to achieve the landscape characteristics of connectedness and greenness, and to reinforce the distinctive character intended for specific streets.

The following principles apply for street planting:

- Where relevant, street trees should be selected to achieve the effect intended by the Street and Lot Frontage Planting Themes Plan.
- At maturity, trees should reach a scale that is appropriate for the width and proportion of the street, and the height of the building frontage to the street.
- The number of tree species used in any street should be limited to achieve continuity and a discernible character for that street. Streets are to have one species of street tree unless otherwise specified by the Street and Lot Frontage Planting Themes Plan.
- Street gardens (e.g. planted berms where indented carparking occurs) are to have one species of shrub consistent for the length of the street.
- Growing conditions (including the size of the tree pit) should be optimised for all street trees to ensure successful establishment and growth.
- The spacing of trees should be minimised to achieve an avenue effect contributing to a high amenity urban environment. This should result in at least one tree per street garden (i.e. where indented carparking occurs).

*Example of minor street under construction (Buckley Precinct)*

*Street trees and street gardens as consistent species.*

### Coastal Edge Streets

Coastal edge streets require individual and specific design at the time of development to ensure their functional performance is consistent with the development occurring around them, while also allowing access to the coastal edge and coastal walkway for both residents and visitors.

- They should include special carriageway treatment (raised and/or flush) in the form of material and finish, to encourage pedestrian crossings.
- They may also be flush with the coastal walkway for portions.
- Permeable surface materials and Low Impact Design [LID] treatment should be used in these areas where possible.
- Views to the harbour that are opened through vegetation removal must be maintained.
- Any street trees should be native coastal species, in particular pohutukawa.

### Coastal Edge Streets: Bomb Point Interface

The street between the apartment zoned land and Bomb Point Reserve requires a high level of individual and specific design .

In addition to the guidelines outlined for coastal edge streets, it should also:

- Be at a level higher than the landscape to allow outlook over Bomb Point.
- Incorporate a footpath only on the inside edge so as to promote the development and use of a pedestrian promenade set into the bank between it and the main body of Bomb Point.

### Park / Greenway Streets

The Park/Greenway streets

The Park/Greenway helps create a 'green core' to the Catalina Precinct with a community and pedestrian focus.

- Neighbourhood open space should be located on a Park/ Greenway street
- It should be depicted by way of signage, a change in pavement treatment and or street furnishings, in addition to the asymmetrical street design.
- Raised crossings or special carraigeway treatment should be provided for pedestrians on the Park/Greenway street, wherever it crosses another street typology.
- Permeable surface materials and Low Impact Design [LID] treatment should be used in these areas where possible.
- Street trees and planting shall be in accordance with the Street and Lot Frontage Planting Theme

## 1.4.3 DESIGN FOR COMMUNITY continued

**The coastal edge**

The continuous vegetated character of the harbour edge is critical to the character of the peninsula, and the integrity of its ecological functions. In addition the following design principles apply:

- An ongoing programme of weed removal and supplementary revegetation planting should be implemented.
- Outlook to the harbour should be provided where feasible along the coastal walkway.
- Plant species should be selected to achieve the effect intended by the Street and Lot Frontage Planting Themes Plan.
- Multiple entry and exit points should be provided to the coastal walkway.
- Passive surveillance (overlooking provided by adjoining houses and streets) should be provided for the coastal walkway where possible, without detracting from the natural experience. Where possible, a minimum of 2m either side of the walkway should be kept open (e.g. no, or only low vegetation present) to provide for passive surveillance and visibility. Alternate walking routes may be provided to access any special features along the walkway.
- Lighting should not be provided for the coastal walkway except in circumstances where there is already partial ambient lighting from adjoining streets, or where full lighting is required for pedestrian safety. A clear entry and exit point exists for this section of walkway.
- Open spaces on headlands should be landscaped to include picnic spaces and allow views of the harbour, the coastal walkway and native coastal vegetation, with some open areas of lawn to allow passive and informal recreation activities.
- Where possible there should be a small carpark at the end of each road adjoining a headland open space to allow access to the coastal walkway for visitors transporting children, bicycles, elderly people etc.
- Seating should be located along the coastal walkway to take advantage of sun and shade, and should include a range of seating options for all ages and abilities, including benches and seats with backs and arms. These should be located with appropriate surrounding space so as not to impede walkway activity when in use.
- The coastal walkway should have its own suite of park furniture and signage, different from that of neighbourhood open space and standardised across all coastal reserves, unless incorporated into low walls and other features that are specific to the design of a space.




### Neighbourhood open space

The open space network shall be a connected series of spaces which together perform a variety of functions, including providing for:

- active and passive recreation,
- pedestrian access to the coastal edge
- community and public gatherings
- community groups (i.e. community building)
- amenity for intensive urban areas
- stormwater collection and treatment
- the preservation of heritage features and significant existing vegetation
- ecological linkages

Neighbourhood open spaces are those which cater for the immediate local area and are within an easy 5 minute walking distance of surrounding houses. This excludes the harbour edge, and heritage landscapes. The following general design principles apply to neighbourhood open space:

- Large existing trees in healthy condition should be incorporated for their character, scale and shade value where possible

- New trees should be planted to achieve character, scale and shade, and may be used as a landscape structuring device e.g. to denote entrances, frame views etc.

- Open lawn areas designed for informal ball sports should be of an appropriate size and proportion, and adequately drained to ensure suitability for the intended level of use.

- Seating should be located to provide options for sun and shade and should include a range of seating options for all ages and abilities such as benches and seats with backs and arms.

- Footpath access should be provided along desire lines, providing logical connections between park features, road crossings and other local services, and should be of a width and surface material that is appropriate for its intended use.

- Universal access should be provided on sloping sites (i.e. where there are steps into a park, an alternate ramped access must also be provided).

- Hard spaces (other than footpaths) should only be incorporated for a specific function (such as ball courts, skate areas, plaza space located on Hobsonville Point Road etc), and should be rationalised across the open space network so that provision is justified in specific locations.

- Perimeter fencing and bollards should be limited in use, particularly where other design features such as planting or earth contouring may be used to deter vehicles.

- All planting when mature and fully maintained (e.g. hedges), should maintain sightlines into and out of open spaces for passive surveillance.

- Any play spaces should be located near other community facilities where possible, and designed to cater for a range of age groups and abilities, and incorporate shade, seating and containment for junior play equipment.

- Areas of planting should be designed to contribute to ecological linkages or neighbouring heritage landscapes where applicable.

- Park furniture should be standardised across neighbourhood open spaces, unless incorporated into low walls and other features that are specific to the design of a space.

- Lighting may be provided along main pedestrian routes and where partial ambient light from adjoining streets may create CPTED issues. Feature lighting may be incorporated into plaza spaces or used to highlight special park features.

*Planting contributing to ecological linkages.*

*Play spaces for a range of ages.*

*Incorporate large existing trees.*

### Heritage landscapes

The design and management of Bomb Point will be subject to a specific landscape and heritage management plan. It must respect and reflect the heritage character of the landscape and built features within it.

## 1.4.4 DESIGN FOR LIVING

**Detached housing typologies**

Detached housing typologies typically have a greater setback between the building frontage and the street than attached housing typologies or apartments. Building setbacks are also likely to be greater on north facing sections, to allow for private outdoor living space.

A front yard is the realm between public and private and shares elements of both, i.e:

Semi-public: Front yards overlook the street and contribute to a sense of community and being neighbourly. Tree planting in front yards helps to reinforce an overall impression of greenness and consistency relating to the character and scale of street tree planting.

Semi-private: Front yards are an extension of the house and reflect the lifestyle of the people living there. Front yards are personalised by planting, and reflect a keen interest in gardening and outdoor living.

The following design principles apply to the front yards of detached housing (i.e. private yards that are visible from the public realm):

- Where fences and walls are used to demarcate front yard boundaries, the height and location of these elements must provide a degree of privacy while still allowing outlook and surveillance of the street. The distinction can be assisted with planting, changes of level and surface material.
- Corner lots require special treatment. Where a lot has two frontages they should both positively address the street. In these situations the front yard treatment should extend around the corner for at least the same distance as the lot width. Semi - transparent fencing and screen planting must be used for the rear yard.
- North facing front yards should accommodate private outdoor living areas that do not necessitate high fences on the front boundary, including corner sites. This can be achieved with planting and/or pergolas, partially enclosed decks and verandahs, changes in levels, or other architectural structures set back from the street and associated with the house.

Further detail on private outdoor living is provided in the Architecture section of this document.

*Low fence on corner lot extends around corner.*

### Attached housing typologies

Attached housing typologies typically have a small front yard that is predominantly planted, and may include a change in level, and/or a low wall or fence to demarcate the front yard boundary and create a distinction between public and private space. As with the detached housing, building setbacks are likely to be greater on north facing sections, to allow for private outdoor living space.

For attached dwellings, particular attention is required to address privacy, overlooking, connection to a living area, and sunlight access to private outdoor living areas. This is covered in more detail under 1.3 Architecture.

The following design principles apply to the front yards of attached housing (i.e. private yards that are visible from the public realm):

- Front yard landscaping may provide some coherence to a block of attached dwellings, with repetition of some elements. However the individuality of each unit should also be expressed in the design of each yard.
- Corner lots require special treatment where a lot has two frontages that must positively address the street. In these situations the front yard treatment should extend around the corner for at least the same distance as the lot width. Semi - transparent fencing and screen planting should be used for the rear yard.
- Where possible, north facing front yards should have architecturally designed solutions for private outdoor living that are integrated parts of the building, such as a raised terrace or front verandah.

*Front yard landscaping provides coherance along block.*


*Smaller front yard planted to boundary.*

## 1.4.4 DESIGN FOR LIVING continued

**Apartments and communal open space**

Apartment open space and landscaping should improve the overall living environment for residents, and enhance the amenity of the development for both residents and the public. Open space may be private, public, or communal, and a clear distinction should be made between each of the different types of ownership.

Private open space may be provided in the form of a balcony, deck, terrace, ground level courtyard garden, or roof terrace. For the private open space of apartments, particular attention is required to protect privacy, minimise overlooking and overshadowing, and optimise sunlight access. This is covered in more detail under 1.3 Architecture.

Where open space is visible (and possibly accessible) from the public realm it should help to integrate the development into the surrounding area. The following design principles apply:

- Where an apartment frontage is set back from the front boundary, landscaping should contribute positively to the overall coherence and character of the street.
- Where the building frontage incorporates separate entrances to ground floor units, these entrances should be individually defined by landscaping.

Communal open spaces are shared by residents and allow community identity to develop. In addition to the design principles for communal open space covered under 1.3 Architecture, the following design principles apply for landscaping:

- The size and proportion of the communal open space should be proportionate to the scale of the building, and configured to be usable and accessible for all ages.
- Good connections, layout, and internal way finding should be provided
- Good passive surveillance should be provided
- An appropriate balance of both hard and soft landscaping should be provided, incorporating trees that are of an appropriate scale in relation to the building, and providing an attractive outlook for residents.
- Seating, shade and lighting should be provided as a minimum.
- An outdoor children's play area may be required as part of a communal space, depending on the size of the apartment development and the proximity of public open space with play equipment.

*Passive surveillance*

*Seating and shade*

## 1.4.5 DESIGN FOR QUALITY

The character and amenity of a street or neighbourhood is affected by the quality of planting and hard landscaping in both the public and private realm. Each street should have a coherent spatial composition and use consistently high quality plants, materials, finishes and construction methods. Front yards also introduce variety, personality, visual richness and texture to the street through planting, fencing and paving.

The quality of open space, both public and private, is critical for neighbourhood amenity, image and liveability. All landscape elements should:

- reinforce the character of the street or open space,
- provide coherence as well as variety and interest,
- contribute to the connectedness and greenness of the neighbourhood.

The design principles for public areas, i.e. streets and open spaces, are included under Design for Community. The following design principles apply as a benchmark for the quality of private front yards where visible from the street.

**Trees**

- At maturity, trees should reach a scale that is appropriate for the width and proportion of the street and the height of the building frontage to the street.
- The selected tree species should be appropriate for the character of the street, e.g. where existing trees influence character, or to complement a chosen street tree theme.
- Where applicable, tree species should be in keeping with the Street and Lot Frontage Planting Themes Plan in this document.
- Trees planted in front yards should be accommodated inside the front boundary where the setback clearance between the front wall / fence and the building is 2m or greater in distance. Care should be taken not to plant trees in conflict with buildings or other structures, or hedges.
- Trees planted in front yards should be a minimum size of Pb 150 (exceptions may be considered subject to availability for particular species such as fruit trees)
- Trees are best integrated within the front yard planting, with shrubs or groundcovers at their base so as not to compromise usable lawn space on lots with larger setbacks.
- If Nikau or Cabbage trees are chosen as front yard trees, these would be planted in groups, with multiple trees per lot where possible.
- Streets are to have up to three species of trees in front yards.
- Trees in front yards in a non themed area may include fruit trees where practical

*Coherence and variety in streetscape*

*Evergreen trees in front yards compliment deciduous street trees*

*Trees to be located inside front boundary fence and/or hedge with shrub planting at base.*

*Nikau in group of three*

## 1.4.5 DESIGN FOR QUALITY continued.

### Front yard planting

Front yard planting must define front boundaries, reinforce entrances, soften hard surfaces, screen services, and provide privacy and separation between each lot. Where front yards are being actively used as private living spaces such as courtyards for seating and eating, designs should enable the creation of spaces that help reinforce these activities. E.g. through incorporating raised courtyards, simple hedges up to 1.2m and deeper shrub planting beds that help create a feeling of privacy without unduly screening the area completely from view.

Planting should be designed to create layers of height, texture and colour.

All front yards with a setback of less than 3.5m should be entirely planted (as opposed to lawn) where soft landscaping is required.

Where applicable, plant species should be in keeping with the Street and Lot Frontage Planting Themes Plan in this document.

All front yard planting (excluding trees) must be:

- limited in overall height to maintain outlook to the street
- mass planted to achieve a continuous and even coverage once mature.
- a minimum grade of PB12 for hedges and screen planting, and min Pb5 elsewhere
- a single species used for hedges
- selected and sited for optimum growing conditions (e.g. for shade /shelter)
- appropriately selected for intended purpose (e.g. larger shrubs for screening)

### Fences and walls

Fences and walls on the front boundary should not be more than 900mm in height, with the exception of heritage buildings and their yards where fences may be up to 1500mm in height.

All lots should have a front fence or low wall combined with planting on the boundary line, except in the following circumstances:

- Where the building is within 1.5m of the front boundary and separation is created by planting or other architectural elements (e.g. steps, terrace, verandah).
- At the front yard interface with the Coastal Edge character area where the Coastal Edge boundary setback is 5m or greater.

*Layers of height, texture and colour.*

*Outlook to street maintained.*

*Hedges of consistent species.*


*Setbacks less than 3.5m are entirely planted.*

*Setbacks more than 3.5m can include lawn.*

When designing the style of front yard fencing, care should be taken to avoid:

- long stretches of the same fencing type along a street,
- a different type on every lot, or
- predictable and repeated patterns of fencing types.

Front yard fencing should be designed to:

- be in keeping with the architectural character of the house without needing to match it in appearance, colour or materials,
- achieve an appearance of substance and depth, using high quality detailing, construction and materials (i.e. not sheet panels)

Service plinths may be integrated with, recessed within, or placed behind the front fence so that they are not prominent in view. Where a fence or wall is set back from the front boundary (typically by 0.6m) to allow for a service plinth, planting should be incorporated in front of the wall to assist with screening.

Where a 1.8m high privacy fence is visible from the public realm (e.g. corner lots and rear lanes), the top 0.5m portion of the fence should be semi-transparent.

**Coastal Edge and Public Open Space Fencing**

Where a boundary is shared with an open space, fences and or walls are encouraged to be not more than 900mm high regardless of front, side or rear boundary situation. Where this is not practical, a higher fence may be constructed provided it is visually permeable. Fences and walls on a boundary shared with an open space or the coastal edge should not be higher than 1.5m and should be permeable when higher than 1.2 (refer definition diagram in Technical Annexures).

- Fencing should be treated similarly to street front fencing in design and materials.
- Lots interfacing with the coastal edge character area should reinforce it by extending planting themes into front yards to maintain a natural and informal interface, and should,
- use low planting to allow passive surveillance of the walkway,
- have a similar or complementary theme to the adjoining coastal edge or public open space planting.

*Service covers located in 600mm strip in front of fence, planting to screen.*

*Example of low wall on Buckley Ave.*

*Examples of low fences with good level of detailing.*

*Privacy fence with permeable top.*

## 1.4.5 DESIGN FOR QUALITY continued.

### Gates

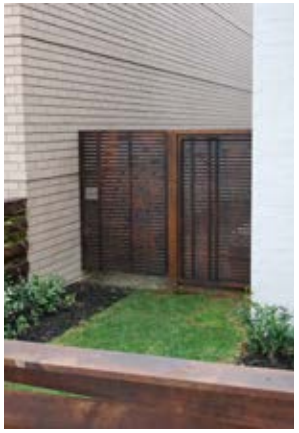
- Gates may be incorporated into fences and walls for pedestrian entrance paths or across driveways. The gate should be in keeping with the scale of the fence or wall with which it is associated, and should be permeable (semi-transparent).
- Gates to back yards visible from the street should appear seamless with privacy fences separating front and back yards.
- Where a property is located on a boundary with public open space, for example the coastal edge, a gate may be located within the boundary fence allowing access from the yard. This gate should appear seamless with the fence.

### Retaining walls

- Timber pole retaining walls to the front yards should be planted, or screened from view. Treated pine walls should be stained or painted black.

### Letterboxes

- Each house or attached unit should have an individual letterbox, with the exception of apartment blocks which may have grouped postal boxes. Letterboxes must be located on the front boundary and accessible from the path or driveway providing access to the front door.
- Letterboxes should be fit for purpose and functional, and designed with balanced proportions and robust, quality materials. House numbers should be clearly visible from the street.
- Letterboxes should be integrated with a blade wall or fence.

*Gates to back yards incorporated in privacy fences.*

*Concrete block retaining wall to front boundary with planting to screen.*

*Examples of letterboxes incorporated into walls.*

### Driveways

- The material should be concrete paving or a similar material with a high quality finish and sawcut pattern. Black oxide should be added to the concrete mix to soften its appearance when constructed.

### Entrance paths

- Paths should be provided for each house or unit and should be connected to the footpath in the adjacent street or park. Steps, terraces or other architectural features may replace paths where there is a reduced setback and where a change in level is created.
- The path width should be appropriate for the building type and its intended use i.e. the path width may be wider for an apartment building than for a townhouse.
- The material and finish may vary, however a durable paved surface should be used (as opposed to loose material).

### Signage

- All signs should be visually appropriate to the amenity and heritage values and neighbourhood character of the surrounding environment.
- Signs should avoid creating any situation hazardous to the safe movement of traffic.
- Signs should avoid dominating the neighbourhood and nearby structures.
- Sensitive design is required for any signage associated with existing heritage buildings and places.

*Driveway width = garage door width.*

*Examples of suitable entrance paths.*

# 1.5 BIODIVERSITY MANAGEMENT

The retention and enhancement of the existing coastal and stream network is key. Development should seek to enhance the biodiversity of the site by creating an enhanced ecological environment where rare or threatened species can exist or obtain passage through, while at the same time providing an attractive environment for communities to recreate thorough active and on-going participation.

The management of biodiversity will be addressed at subsequent resource consenting stages for physical works within the application site, including future open space areas. This will include a variety of plans/initiatives e.g. a coastal revegetation plan, weed and pest management, general landscaping plans, lizard management plan etc.

Threatened species and habitats are to be enhanced throughout the proposed local reserve network, particularly along the coastal edges and within riparian areas of the site. The development of walkways, infrastructure and associated structures shall be undertaken in a manner that maintains and enhances the biodiversity potential of these environments.

This network of green space should create connections between habitat nodes along existing natural coastal and stream networks allowing for safe passage of wildlife populations. The quality and quantity of stormwater inputs in to the harbour receiving environment will be enhanced. In addition, an integrated network of public open space will provide local communities with the opportunity to explore and enjoy the natural environment.

Any walkways or board walks should be designed to avoid or minimise adverse effects on the plant and animal communities that are present.

Where possible all permanent streams should be retained and enhanced to provide suitable fauna habitat. Where this is not possible, any loss of fresh water habit will need to be mitigated.

There is the presence of a range of notable plants at Hobsonville Point. In addition, there are a number of threatened plant species in the area.

The careful consideration of these species should be an integral part of area specific landscaping/development plans with their retention and enhancement being the key aims.

It is noted that saltmarsh habitats may contain locally uncommon plants. These are important components of the overall biodiversity, and provide the interface between the coastal edge and CMA, and as a result may require site-specific management strategies.

The coastal edge provides important habitats generally to avifauna and there is need for site-specific management in some areas (e.g. predator control adjacent to rushmarsh used by banded rail – as in Catalina Bay).

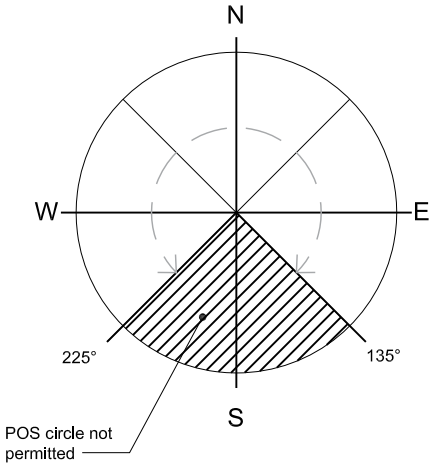
A lizard survey has been undertaken and this will include the development of a lizard management plan for the site.

The above matters will need to be addressed through the subsequent resource consenting phase for physical works.

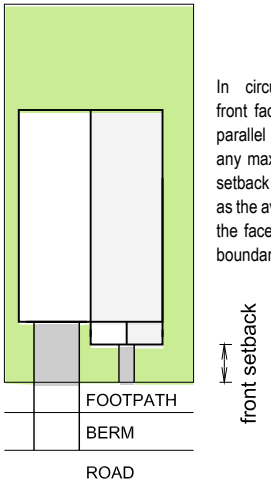
# 2

# CATALINA SUB PRECINCT TECHNICAL ANNEXURES

## 1. LOCATION OF PRIVATE OUTDOOR SPACE

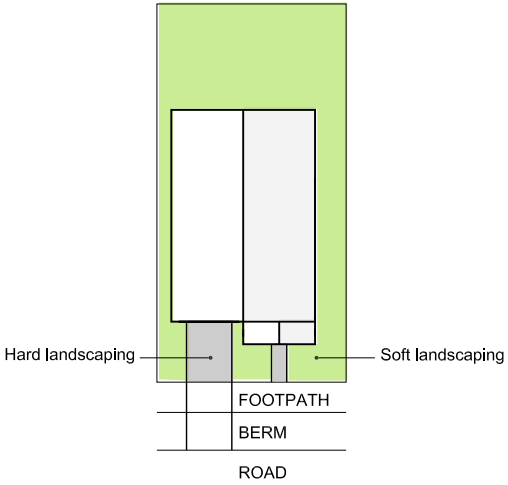



## 2. FRONT SETBACK

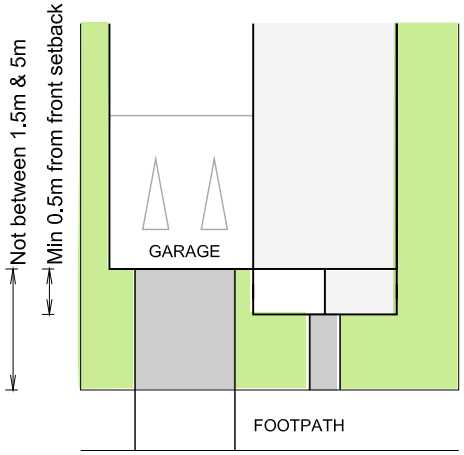



In circumstances where the front face of the building is not parallel with the front boundary, any maximum or minimum front setback dimensions shall apply as the average distance between the face of the building and the boundary.

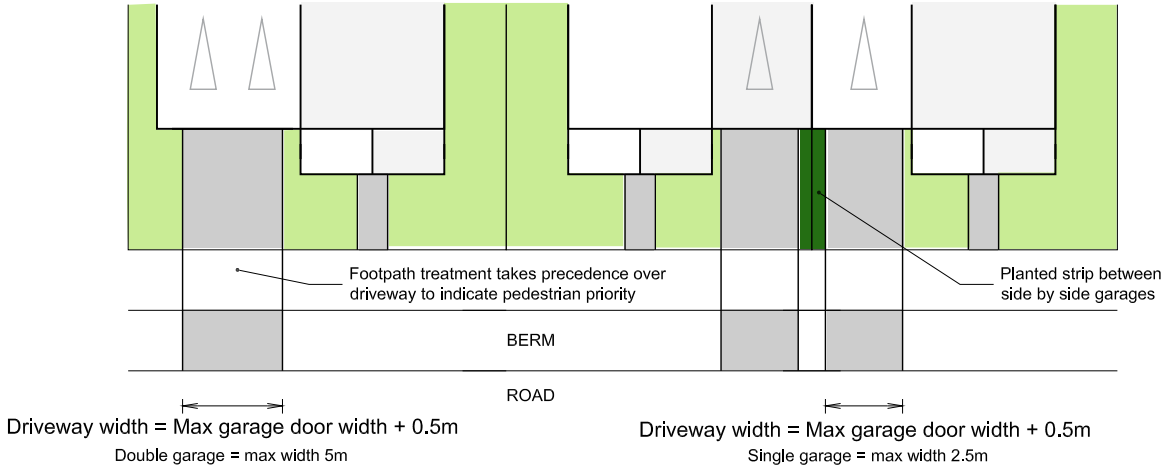
## 3. FRONT YARD LANDSCAPING



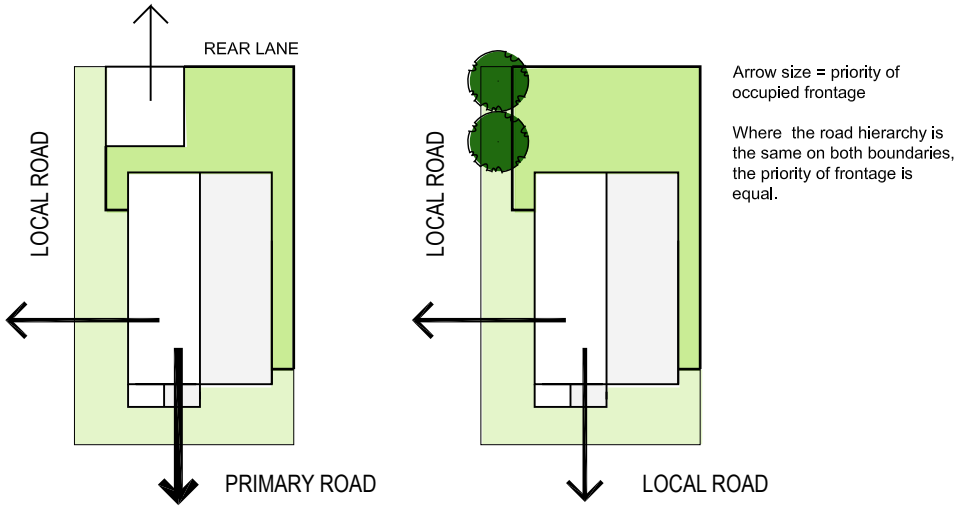
## 4. GARAGE SETBACK




## 6. DRIVEWAY CROSSINGS



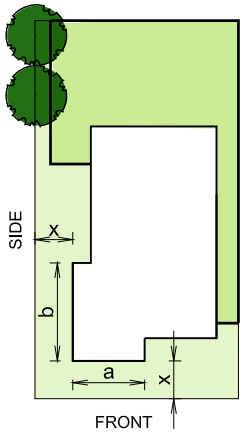

## 5. OCCUPIED FRONTAGE




Arrow size = priority of occupied frontage

Where the road hierarchy is the same on both boundaries, the priority of frontage is equal.

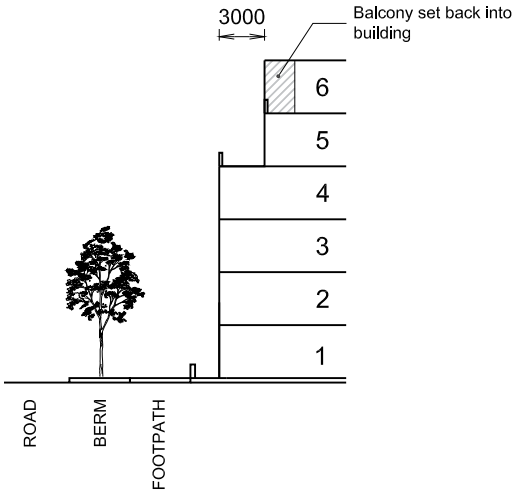
## 7. CORNER HEIGHT AND SETBACK



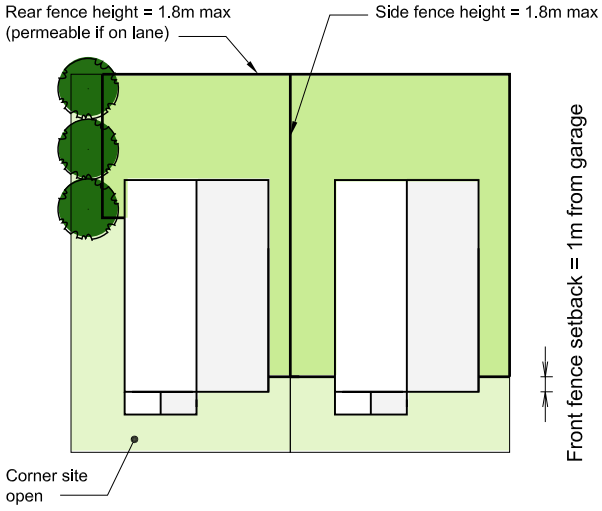

For corner buildings, the side setback is to continue at the same dimension as the front setback (x = x) for at least the same distance as the building frontage (b ≥ a).

Building height is also to continue at the same dimension as the front height for at least the same distance as the building frontage (b ≥ a).

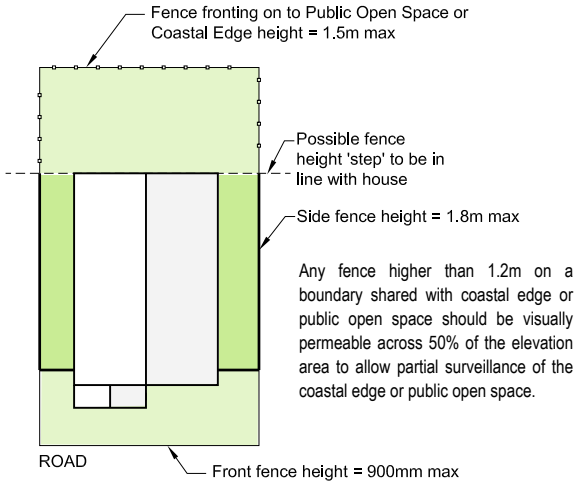
## 8. BUILDINGS >4 FLOORS HIGH



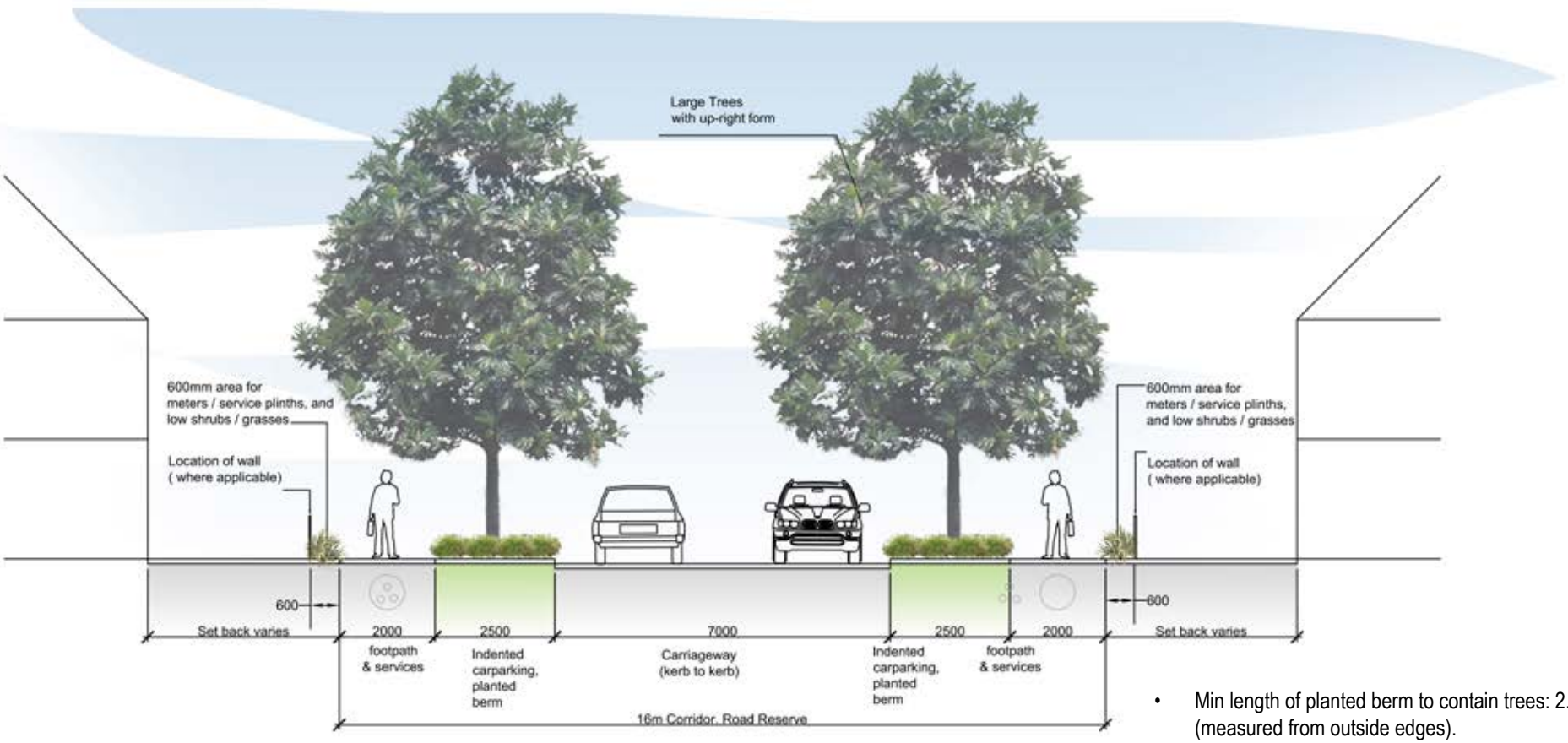

## 9. FENCING




## 10. FENCING - LOTS ON COASTAL EDGE OR PUBLIC OPEN SPACE BOUNDARY

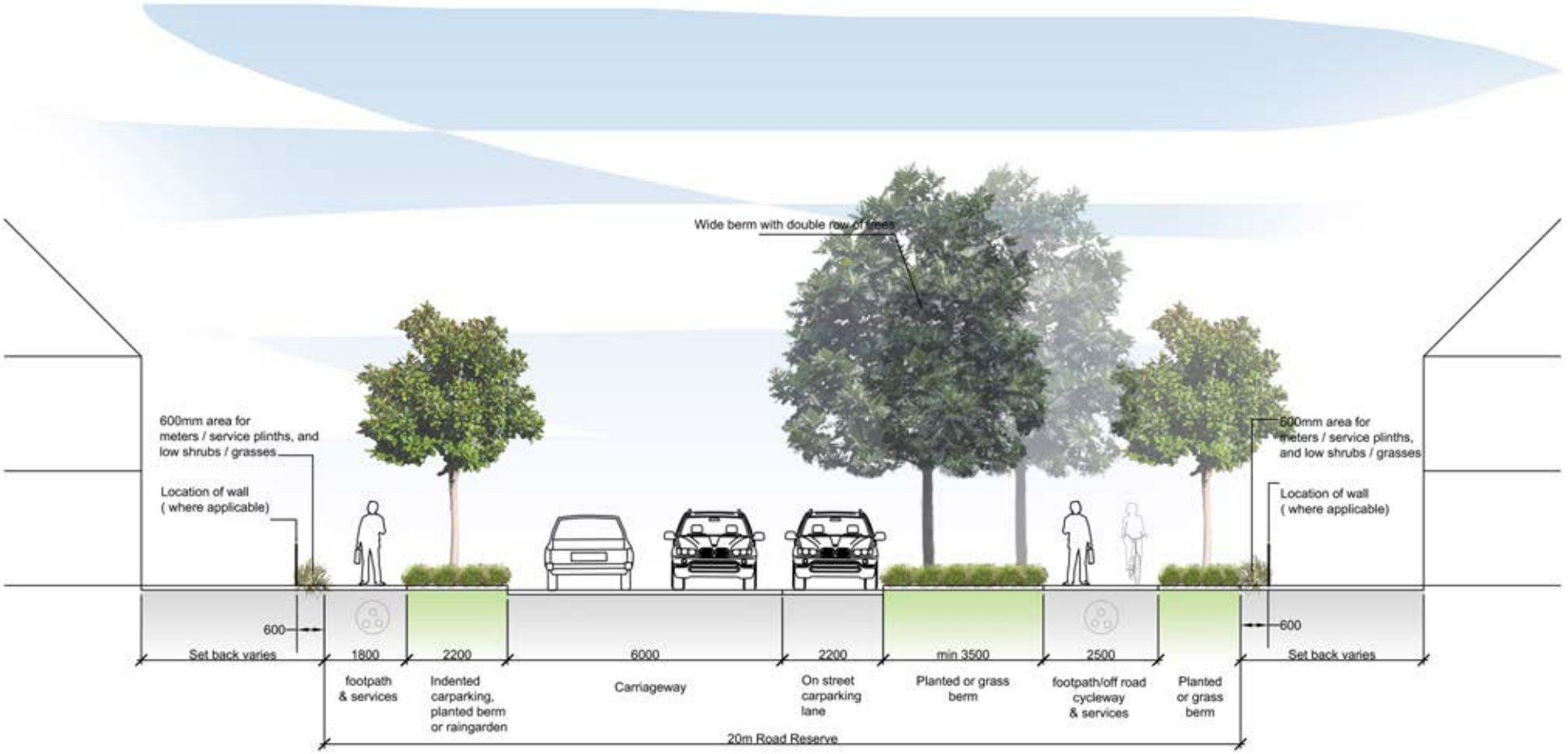


## INDICATIVE STREET CROSS SECTION - SECONDARY ROAD



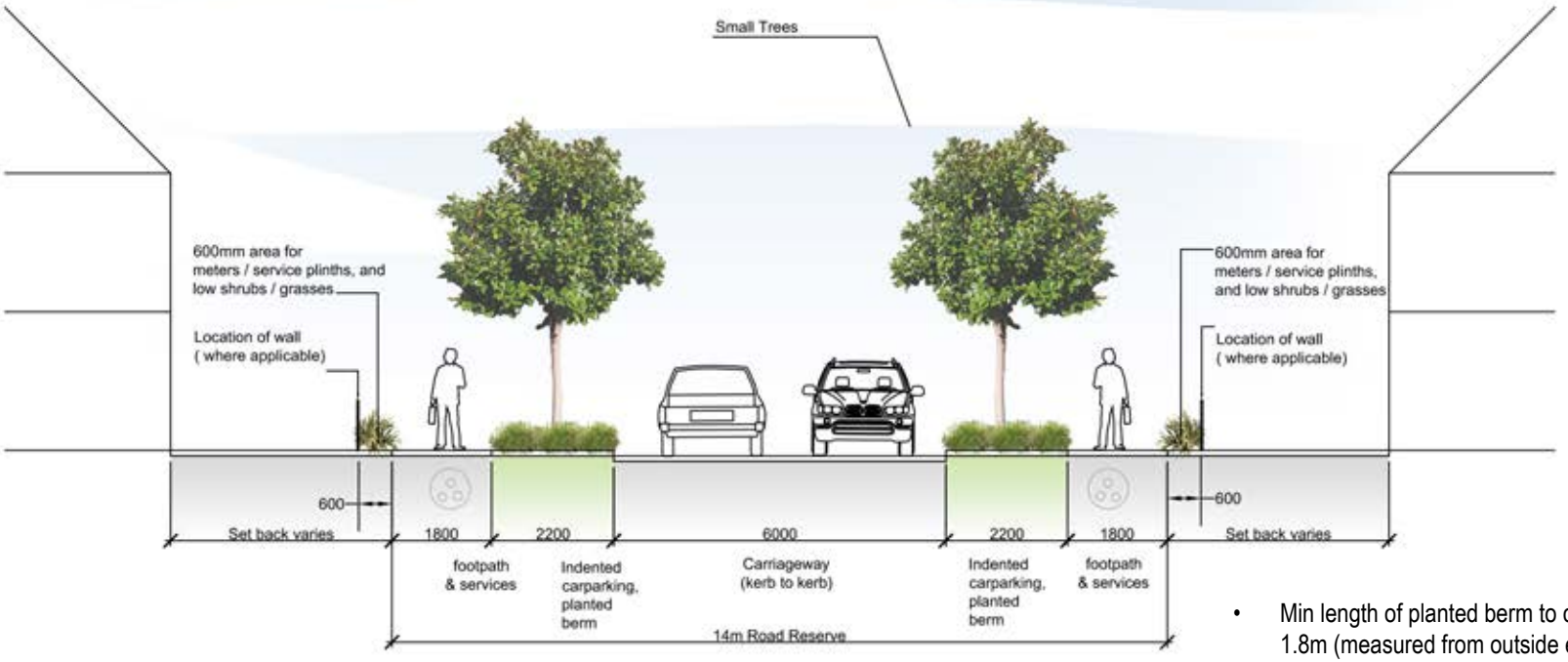

- Min length of planted berm to contain trees: 2.5m (measured from outside edges).
- 600mm area for plinths to be within private property with access by utility companies (no walls to be allowed in front of 600mm area).
- Mountable kerbs to be used for indented carparking.

## INDICATIVE STREET CROSS SECTION - SPECIAL CHARACTER LOCAL ROAD



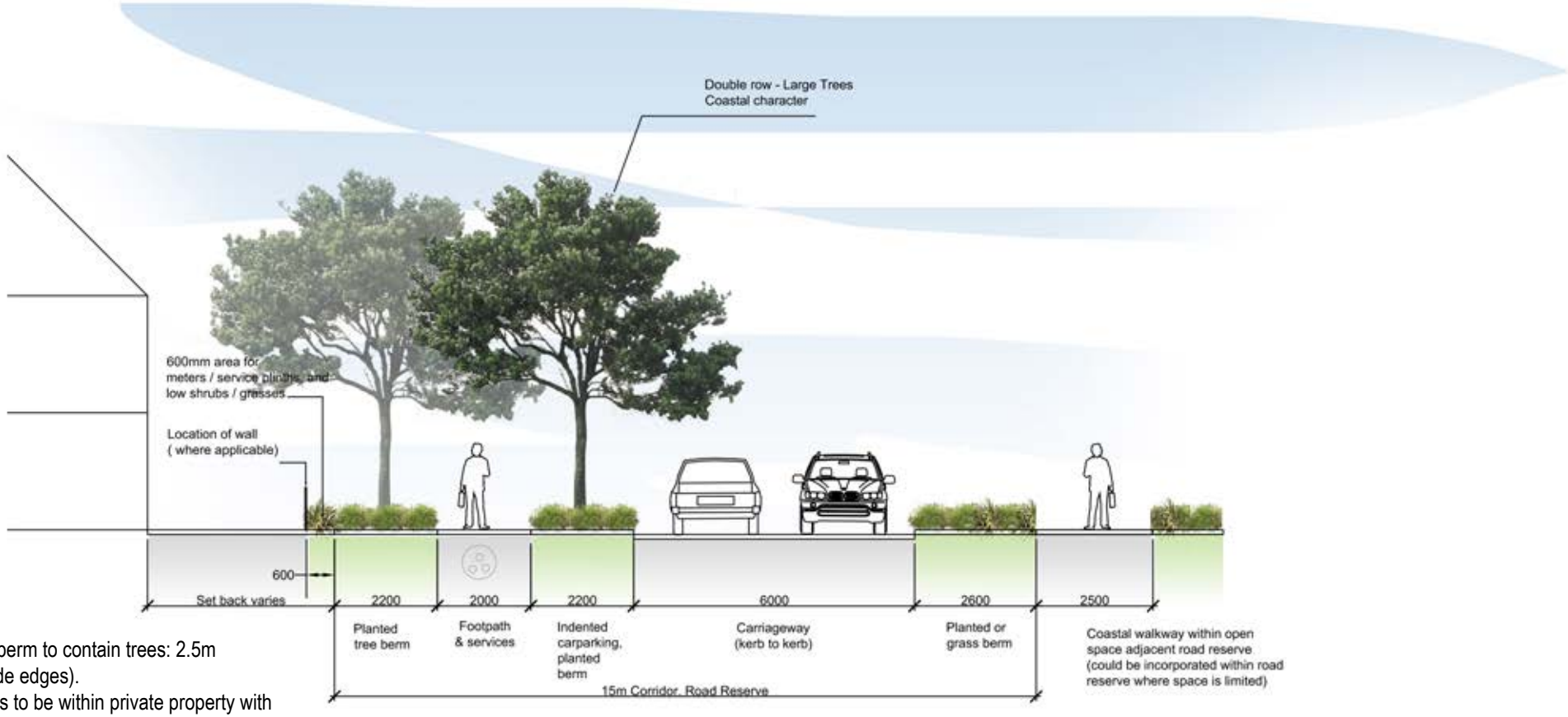

- Min length of planted berm to contain trees: 1.8m (measured from outside edges).
- 600mm area for plinths to be within private property with access by utility companies (no walls to be allowed in front of 600mm area).
- Mountable kerbs to be used for indented carparking.
- Stormwater low impact design devices may be incorporated and carriageway, parking and planting dimensions may be adjusted accordingly.

## INDICATIVE STREET CROSS SECTION - LOCAL ROAD



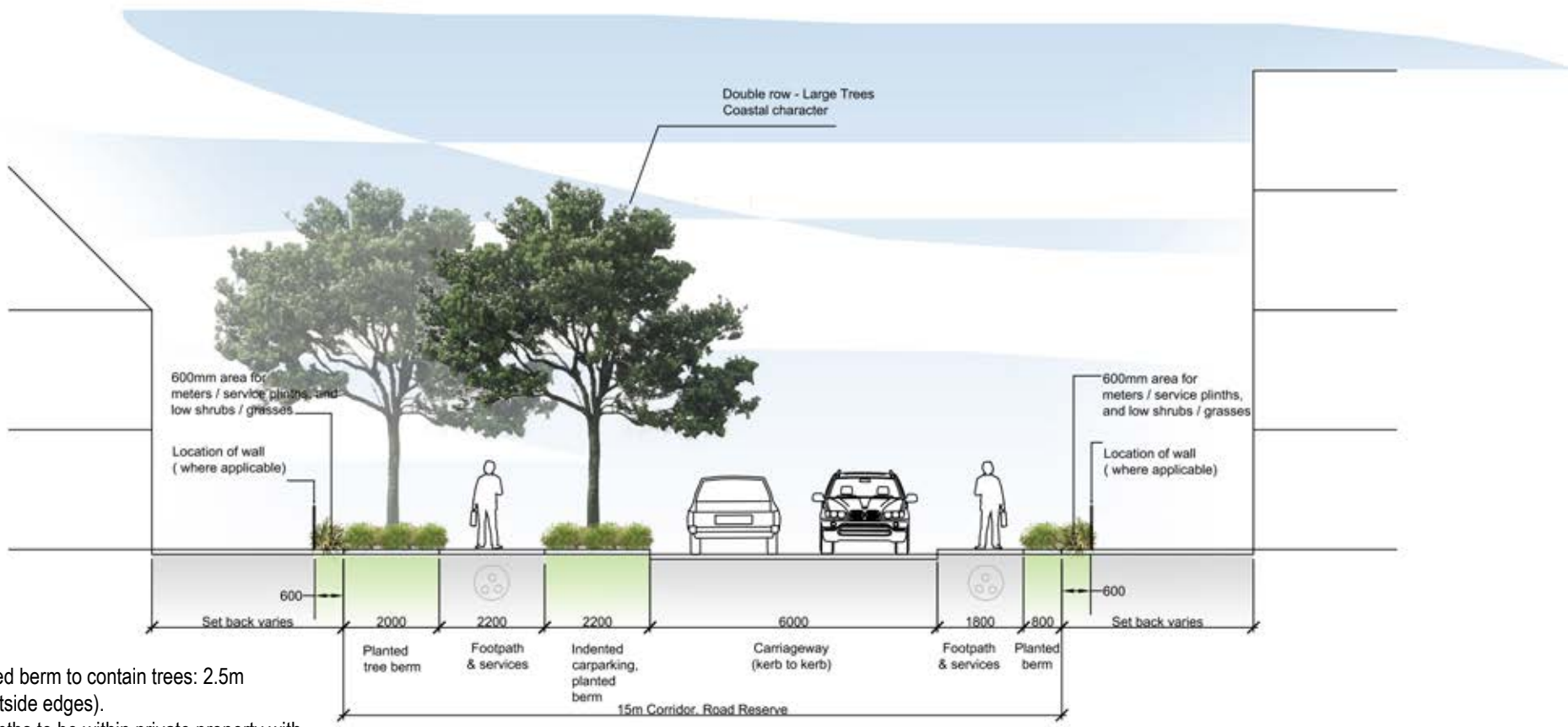

- Min length of planted berm to contain trees: 1.8m (measured from outside edges).
- 600mm area for plinths to be within private property with access by utility companies (no walls to be allowed in front of 600mm area).
- Mountable kerbs to be used for indented carparking.

## INDICATIVE STREET CROSS SECTION - COASTAL DRIVE (ADJACENT COASTAL WALKWAY)




- Min length of planted berm to contain trees: 2.5m (measured from outside edges).
- 600mm area for plinths to be within private property with access by utility companies (no walls to be allowed in front of 600mm area).
- Mountable kerbs to be used for indented carparking.

## INDICATIVE STREET CROSS SECTION - COASTAL DRIVE (BETWEEN SUPERLOTS)




- Min length of planted berm to contain trees: 2.5m (measured from outside edges).
- 600mm area for plinths to be within private property with access by utility companies (no walls to be allowed in front of 600mm area).
- Mountable kerbs to be used for indented carparking.