

APPENDIX FIVE
RESIDENTIAL DESIGN GUIDE OF THE PROPOSED DISTRICT PLAN
(ECM 7565049)

Residential Design Guide

October 2017





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Introduction

To increase housing choice and respond to current and future residential needs the District Plan promotes various forms of residential intensification within New Plymouth's Residential Zone. These range from small-scale infill development (e.g. additional dwelling/s on existing sites) to more intensive multi-unit developments.

Residential intensification introduces housing types that create new development patterns different from those in the existing lower-density residential environment. If not managed well, these new patterns can adversely affect both the existing residential character and streetscape amenity, as well as the amenity of new development. Therefore, ensuring residential intensification is effectively managed is an integral part of providing for residential growth, while maintaining and enhancing the character and amenity of the district.

To achieve this, the Council has introduced the Residential Design Guide. The intent of the Design Guide is to facilitate residential intensification through development of high design quality. This means development that responds to the local context, is attractive and safe, delivers a high level of on-site amenity, respects its neighbours and meets the needs of its residents.

The Design Guide is part of a suite of design guidelines promoted by the Council as tools for improving the quality of design outcomes within the district for developments that require resource consent.

Application and Purpose

The Design Guide applies to new residential development that requires resource consent. In particular, it applies to the range of development scenarios outlined in the District Plan, including small infill housing developments (which may or may not include subdivision) and multi-unit developments in the Residential Zone. The Design Guide should be read and applied in conjunction with the relevant objectives, policies, rules and standards of the District Plan.

The purpose of the Design Guide is to:

- give landowners, developers, architects and designers 'good urban design' principles for infill housing/multi-unit development; and
- outline the type and quality of outcomes the Council is seeking for new residential development within the district, against which resource consent applications will be assessed.

The illustrations in the Design Guide are intended to support the text and illustrate the principles, not to promote specific design solutions.

Throughout the Design Guide italicised text provides explanation and further assistance on the intended application of the guidelines.

How to Use the Design Guide

Relevance and application

Good design is site-specific and responsive to its context as well as to the needs of future residents. This means that not all of the guidelines will necessarily be relevant to every site or type of development. Relevant guidelines for each proposal can be identified and confirmed with the Council in pre-application meetings. The Design Guide does not seek to prescribe specific design solutions, but rather provides a set of design guidelines which developers and designers need to consider and interpret in relation to the site and context characteristics.

Design Guide and consenting process

To be effective, the Design Guide should be considered at the early stages of the design process and inform the initial design concepts. It is important that all of the relevant guidelines are considered in an integrated way, as they are inter-related and reinforce each other.

Applicants are encouraged to attend pre-application meetings to discuss the initial design concepts with Council staff from different disciplines (e.g. planning, design, transportation and engineering). This will help the Applicant understand the key issues and clarify the site-specific outcomes sought by the Council for each development site. It will also ensure that the Applicant receives coordinated, transparent and consistent advice from all Council officers involved in assessing the proposal.

An efficient design and consenting process based on early Council engagement and clarity of Council's expectations are key outcomes sought through the application of the Design Guide.

Information Required

As part of the resource consent process the Applicant should provide a written assessment describing how the relevant design guidelines are addressed. It is recognised that not all proposals will meet all of the guidelines and that sometimes a design outcome may be best achieved by means not anticipated in the Design Guide. In such cases, the Applicant should explain with reference to the guideline/s not met:

- whether site constraints inhibit the ability to address the guideline, and/or
- how the intent of the guideline is met by the proposal, and/or
- whether the proposal represents a better design outcome than that suggested by the guideline.

Residential Intensification – Key Issues

Existing Residential Character

New Plymouth's established residential areas are generally underpinned by the same predominant housing type - detached dwellings (mostly single storey) on individual sites. Generous frontage setbacks and private gardens with mature vegetation and landscaping are common features of existing streetscapes. This low-density open character is often reinforced by street trees and planted berms.



Infill and Multi-unit Development

Multi-unit development, and to a lesser extent infill housing, can create a development pattern that is different and denser from the typical low-density patterns of the existing residential environment.

Increasing residential density can sometimes impact on the character and amenity of established neighbourhoods by altering existing streetscape patterns.

Common issues typically associated with higher-density developments

Scale contrast	'Out-of-scale' buildings that contrast the scale of existing neighbourhoods and fail to express the individual sense of address of each unit - an issue particularly relevant to large-scale developments on large or amalgamated sites.
Integration of parking	Street frontages and internal on-site areas dominated by vehicle areas, parking and garages.
Building relationship to the street	Buildings that turn their sides or backs to the street and/or high impermeable fences resulting in poor relationship between buildings and the street and preventing informal surveillance.
On-site amenity of individual units	Site layouts that do not optimise residential amenity of individual units in terms of privacy, quality private open space, sunlight access or visual amenity for the development as a whole.
Lack of sufficient good quality landscaping	Limited on-site area for planting and lack of effective landscaping to mitigate the effects of increased density.

Compatibility with Existing Residential Character

Increasing residential density through development that is compatible with its local context, while delivering a high level of on-site amenity, is a key outcome sought by the Council.

Through the Design Guide, the Council provides guidance to how compatibility can be achieved while accommodating new housing types and styles and addressing the impact of multi-unit development that is typically larger in scale than existing housing. The ultimate aim is to create development that sits well with its site and locality and provides an underlying sense of 'cohesion' and place, while maximising on-site amenity.

Compatibility of new development with the local character is an important prerequisite for a successful outcome. Achieving compatibility is not about replicating or reproducing the form or styles of neighbouring buildings. Rather, it is about referencing predominant and valued local patterns that define the character of the local street and surrounding neighbourhood. These include setbacks from road frontages, building height and width, building orientation and alignment and sense of scale and visual rhythm. Vegetation patterns are also important, as planting plays a significant role in mitigating effects of increased densities.

Intensification – Types of Development

Residential Density/Housing Typology Spectrum



City Centre Zone	Mixed Housing Residential Zone General Residential Zone Large Lot Residential Zone	Rural Zone
High density mixed-use development	<ul style="list-style-type: none"> More intensive development close to city and local centres Infill development/subdivision Large lot subdivision 	Rural subdivision
Housing Types <ul style="list-style-type: none"> Apartments Terraces houses 	Housing Types <ul style="list-style-type: none"> Mixed typologies (townhouses and small scale terraced houses) Ancillary dwellings, semi-detached houses and townhouses Detached houses 	Housing Types <p>Detached houses on large lots</p>

Different densities suit different housing typologies

Infill/Multi-Unit Housing Types

Ancillary Residential Units



These units are small buildings that share a section with the principal dwelling. They often take the form of a 'granny flat' for extended family living, but could also be used for home office or rental accommodation. Ancillary units are common throughout New Plymouth's Residential Zone.

Semi-Detached Houses



Semi-detached houses consist of pair of identical houses built side by side sharing a party wall. Semi-detached houses have yards to the front, rear and on the side and can be thought of as being halfway between detached houses and terraced houses. Semi-detached houses are found in various locations throughout New Plymouth's Residential Zone.

Town Houses and Terraced Houses



Town houses are attached to adjacent units and are often arranged around a courtyard or shared space. Terraced houses are connected rows of houses that have a similar design and two shared party walls (except for the end-of-terrace house units). Typically, they have front gardens and private open space to the rear. In New Plymouth terraced houses are found near City or Local Centres.

Apartments and Flats



An apartment/flat is a self-contained housing unit that occupies only part of a building. Apartments/flats may share common areas such as corridors, entrance lobbies, stairwells and open spaces. Ground floor units may have a separate entrance and/or attached ground level private open space, while upper level apartments usually have access to a balcony. In New Plymouth, flats/apartments are typically located in City or Local Centres or along main transport routes.

Design Guidelines

1. Context and Character

Developments which respond to the site's conditions and are compatible with the local neighbourhood enhance and reinforce established character and amenity patterns.

The guidelines in this section provide guidance on how compatibility with the existing character can be achieved while increasing development density and accommodating new building types and styles.

Outcome: Developments that take advantage of the site's conditions and are compatible with and integrate well with the character of the local street and surrounding neighbourhood.

Local Context and Neighbourhood Character

- 1.1. Identify and relate to the established and valued patterns that underpin the character of the street and local neighbourhood with reference to:

Primary characteristics:

- Landform and vegetation patterns.
- Building height.
- Building frontage width and siting.
- Frontage setback and building orientation and alignment.

Secondary characteristics:

- Building silhouette and roof form.
- Facade articulation.
- Materials, finishes, textures, colour.

Primary characteristics are the most important determinants of character as they determine the spatial character of the streetscape, the bulk and scale of buildings and their relationship to the underlying landscape and to the street. Depending on the local context, secondary characteristics may be important but are generally of lesser significance.

Site Characteristics

- 1.2. Identify and respond to the site's characteristics and local environmental conditions by responding to:

- Topography and significant vegetation.
- Orientation, solar access, prevailing winds and views.
- Shape of the site and its relationship to adjacent streets.
- Possible vehicle and pedestrian connection points.



Analysis of local neighbourhood context and site characteristics should inform the site planning and design of new development.

- Existing buildings and structures and whether/how they can be incorporated into the development.
- Immediately adjacent buildings and spaces.
- Location of infrastructure connections.

The characteristics of the site and immediately adjacent neighbours should inform the site layout of the development in order to optimise the amenity of the new units and protect the amenity of their neighbours.

Achieving Compatibility

- 1.3. Maintain consistency with the defining patterns of the local street and surrounding neighbourhood with emphasis on the primary characteristics.

Where the local character exhibits consistent patterns the design of new development should aim to reinforce these patterns. This does not imply replicating the form and/or style of existing buildings. Instead, the design should reflect the primary and, where relevant, the secondary characteristics of the local context.

Where the area is diverse and divergent buildings or elements compromise the visual amenity of the area, the precedent set by these elements should not be followed.

Relating to Primary Characteristics of the Local Context

- 1.4. **Landform**

Respond to the character of the landform and minimise the need for large retaining structures. Use landscaping to screen earthworks and any visible retaining walls.

The siting of buildings, accessways and open spaces should be informed by the topography and existing landscape features. Working with the landform will minimise earthworks, reduce the removal of existing vegetation and help the integration of new development into the site.

Retaining walls along the street frontages of new development and/or within visually prominent sites seen beyond the local street can affect the amenity of the wider neighbourhood. Any visible retaining structures should be screened or integrated into the site through landscaping.

- 1.5. **Vegetation**

Retain and incorporate existing mature trees and significant vegetation into the development where practicable. Use landscaping and trees to achieve compatibility in areas where these are unifying elements of the neighbourhood character.

Vegetation within private yards is a characteristic feature of most residential neighbourhoods contributing a sense of cohesion and amenity. Mature trees and large-scale vegetation enhance the visual separation between buildings and aid the integration between natural and built form. Retention of existing vegetation, particularly mature trees and/or planting new trees suitable for the local context, will maintain and reinforce existing patterns. Retention of vegetation is particularly important on sloping sites that are prominent in public views.



Design that combines traditional and contemporary forms and materials can easily integrate into the scale of typical suburban environments.



Consistent patterns of generous frontage setbacks, mature front yard vegetation and low front fencing should be respected by new development.



Riverstone walls and distinctive planting are recurring features in New Plymouth's residential areas that new development should aim to retain.



Example of infill development that responds to local landscape patterns by incorporating existing vegetation into the back yards of proposed units.

1.6. **Building height**

Relate the height of new development to the predominant height of buildings in the immediate area.

Where a development site is within an area of single-storey buildings and the proposed development is much taller, a transition in height between the development and neighbouring buildings may be required (e.g. stepping down the building height close to the boundary with adjacent lower buildings or modeling the building form to reduce its height/bulk at the interface with adjacent buildings, see diagram below).



Stepping down building height close to boundary to provide height transition to adjacent single-storey houses.

1.7. **Building bulk/scale, frontage width and separation distances**

Minimise the scale contrast between new multi-unit development and adjacent detached dwellings by:

- Responding to common patterns of building frontage width and spacing between buildings.
- Using variation in building form and alignment.

This may be achieved through one or more of the following methods:

- Designing large developments to appear as a collection of separate distinct buildings and using a variety of house plans.
- Applying variations in height and setbacks between adjacent units or groups of units and/or introducing gaps between them.
- Providing each unit or group of units with a separate roof form to reflect the scale of adjacent dwellings.
- Using secondary elements such as balconies, bay windows or other projecting elements and/or recessed elements to break up the mass of the building.
- Varying colour, materials and design detail (e.g. balcony profiles and balustrade details).

Large multi-unit developments can become visually dominant in areas characterised by detached dwellings, particularly when the development is comprised of identical units grouped into a single large building. To reduce the visual impact, variation in building form and alignment can be used to break down the mass of the development and achieve a compatible scale relationship with the streetscape. Variation in building form and gaps between units should reflect typical local patterns of building frontage width and separation distances.



Development that uses a variety of house types/plans to reduce impact on the streetscape.

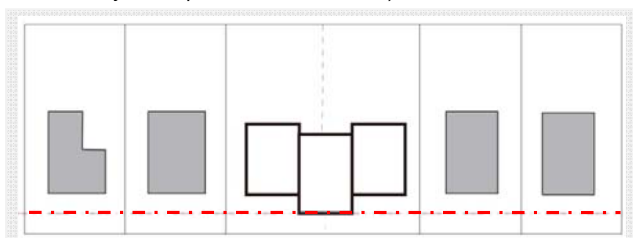


Variation in height, roof form and frontage setbacks between units and use of different materials/colours and detail can help to break down the mass of larger developments.

1.8. **Frontage setbacks and building orientation/alignment**

Use established patterns of frontage setbacks and building orientation/alignment to guide the siting of new development.

Frontage setbacks together with the alignment and orientation of buildings determine the spatial character, safety and visual appeal of the streetscape. Where a development sits adjacent to buildings with frontage setbacks larger than the District Plan provision, a deeper setback at or close to the side boundaries of new development may be required to achieve compatibility (see diagram below, District Plan 'front yard' requirement shown in red).



District Plan 'front yard' requirement

Using setbacks deeper than those in the adjacent street to allow for vehicle movement or parking should be avoided or minimised. This will limit interruptions of existing street frontage planting and reinforce compatibility with the area.

Buildings should be aligned with the street boundary and designed to have their main facades and entrances facing the street. Care should be taken to avoid the appearance of buildings turning their backs or sides towards the street.



Use of colour, gaps between units and façade articulation to reduce building bulk and differentiate adjacent units.

Relating to Secondary Characteristics of the Local Context

1.9. Roof form

Make reference to the predominant pattern of roof type/form where consistency of roof form is a defining characteristic of the local area.

As a general principle, roof design should focus on expressing the scale of the individual units and breaking down the roof line of large developments, rather than replicating the specific roof forms of existing buildings. This is particularly relevant to developments with long frontages comprised of units with repetitive design where mitigating the effect of a long horizontal continuous roof line is an important consideration (see also Guideline 1.7).



Aligning buildings with the street boundary and orientating them to face the street with their main living areas will enhance the quality of the streetscape.

1.10. Façade articulation

Façade design should:

- Refer to common patterns of façade articulation to create facades that complement the scale and proportions of existing buildings.
- Avoid featureless facades that are visible from the street or surrounding public space.

Façade articulation refers to how the façade is broken up through recessed features or projecting elements such as bay windows, balconies, entrance canopies, windows or any other horizontal or vertical elements. Together these features and elements provide visual interest and a sense of scale that enhance the quality of the streetscape.

The aim is to create visually interesting facades that reinforce the residential scale of the local streetscape, not to replicate existing elements, forms or styles. Featureless facades that are visible from the street or surrounding public space should be avoided.



Use recessing and projecting features, and a variety of materials, finishes and colours to achieve façade articulation.

1.11. **Materials, finishes, textures, colours**

In areas characterised by consistency of materials, finishes, textures or colour, incorporate typical or complementary materials into new development, or apply those in combination with other materials.

Incorporating typical or complementary materials in new development will reinforce its relationship to the local context. An equally important design objective is ensuring the use of high quality sustainable materials - this will add to both the visual appeal of the development as well as to the amenity of the street.



Use of good quality materials will enhance the amenity of the development and adjacent streetscape.

2. Site Planning

Site planning refers to the way buildings, open spaces and circulation areas (for cars and people) are laid out within the site. The arrangement of buildings relative to each other is important as it determines the quality of open spaces and establishes conditions of sunlight, daylight and privacy. It also influences how cars and people move within the site and how the development relates to neighbouring properties and to the adjacent street. A comprehensive approach to site planning where buildings, open spaces and circulation areas are designed together can deliver a high level of on-site amenity as well as reinforce the defining character of the neighbourhood.

Outcome: Buildings, open spaces and circulation areas that are planned together to deliver good quality open space, optimise the amenity of the development and its neighbours and contribute to the amenity, safety and visual character of the local street.

Arrangement of Buildings and Open Spaces

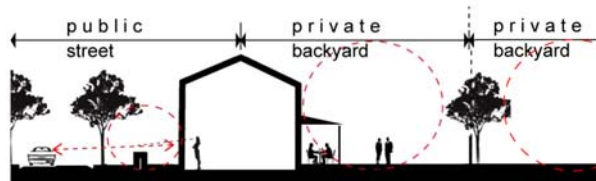
2.1. Integrate the location and design of buildings and open spaces to:

- Define external spaces that allow adequate daylight to dwellings and support privacy.
- Create good quality usable open spaces for outdoor living whether for private and/or shared use.
- Maximise sunlight access to living areas and open spaces.
- Minimise shading of private outdoor spaces and windows to main living rooms.
- Maximise the number of dwellings directly fronting onto adjacent streets or public open spaces.
- Ensure where possible that building fronts face fronts and backs face backs to provide adequate privacy for individual private outdoor spaces.

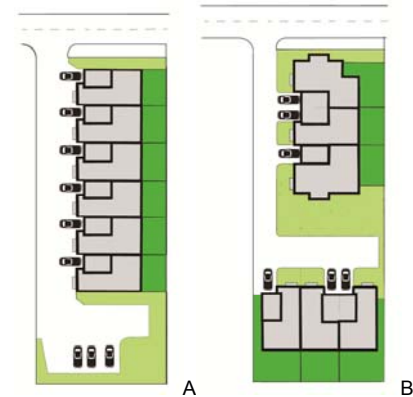
When buildings and open spaces are planned together the quality of both elements is optimised and left-over spaces are minimised.

Maximising sunlight access to main living areas and open spaces will require that habitable rooms, and particularly main living areas and associated open spaces, are oriented towards the east, north and west and that south-only facing rooms are avoided.

Maximising the number of dwellings facing the street and arranging dwellings to have fronts facing fronts and backs facing backs will ensure that adjacent streets and public spaces are overlooked and safe, while the privacy of the rear private spaces is enhanced (see diagram below).



Infill development on a single site:
alternative layouts



Layout **A**: large vehicle areas, limited planting, houses don't face the street, 'left-over' shared open space not visible from houses.

Layout **B**: smaller vehicle areas, more planting, houses front the street, compact shared open space overlooked by houses - improved amenity, better outcome.

Infill development on larger/amalgamated
site: alternative layouts



Layout **C**: large vehicle areas, limited planting, houses don't face the street, units grouped in rows (larger building bulk/no variety), houses in the middle of rows open only on two sides.

Layout **D**: vehicle area providing structure to the layout, more planting, units arranged in smaller groups (semi-detached houses) (better amenity) houses front the street - improved amenity, better outcome.

Driveway, Carparking and Garage Location

2.2. Locate and design driveways, garages and on-site parking areas in a way that:

- Minimises concrete or paved vehicle areas and softens those areas through landscaping and the use of permeable paving.
- Does not dominate either the streetscape or the internal spaces within the development.
- Avoids monotonous repetition of garage doors along the street frontage.
- Positions garages and outdoor parking adjacent or in close proximity to and visible from the unit they serve.
- Minimises intrusion on the privacy of adjacent dwellings.

Garages and on-site parking should be positioned away from the street frontage and behind dwellings or otherwise integrated in a way that does not dominate either the street frontage or the interior spaces of the dwelling (e.g. recessing garages behind the front building line, breaking up large number of garages into small groups and varying their alignment and orientation). Where frontage setbacks allow for parking, hard and soft landscaping should be used to reduce its visual impact and retain the appearance of a 'front garden'.



Streetscape dominated by garages and blank walls.



Integrated garages and planting around garages to reduce their impact.

3. Building Design

Well-designed dwellings provide good living conditions that optimise the amenity of the dwelling without compromising the amenity of its neighbours or the character of the local street. This requires an integrated approach to building design where all building elements are considered together, while taking into account the characteristics of the site and its immediate context.

Outcome: Building design that provides internal living environments that are healthy, attractive, convenient and functional and maintains the privacy between adjacent dwellings while contributing positively to the safety, character and amenity of the local street.

Integrated Building Design

- 3.1. Consider internal planning and external building form and design appearance in an integrated way to maximise the amenity of the dwelling and maintain the amenity of neighbouring buildings and adjacent streets.

Building Frontages

- 3.2. Orientate building fronts, including entrances and windows to habitable rooms, to the street so that people inside the dwelling can view activity on the street.

Development should contribute to the visual appeal, safety and quality of the street. This means that where a dwelling is next to a street or other public space it should include a street entrance and habitable rooms (preferably living areas) with windows facing the street or public space to allow informal surveillance.

Internal Layout and Amenity

- 3.3. Design the internal layout of individual units with the following objectives in mind:
- Optimise sunlight access to the main living areas and locate these adjacent to and with direct access to the outdoor space of the unit.
 - Arrange windows to provide for privacy while optimising daylight and views.
 - Ensure circulation within dwellings is efficiently planned, and internal spaces are designed to be fit for purpose.

Building Entrances

- 3.4. Locate and design entrances to dwellings so that they:
- Are visible from the street or readily accessed from common areas within the development.
 - Are sheltered and visually enhanced via porches, recesses and canopy elements.
 - Are not dominated by service spaces such as



Example of houses with their entrances, living area's windows and balconies facing the street.



The setback position of the garage and the front façade and entrance design reduce the impact of the double garage on the streetscape.



Examples of building frontages facing the street with visually enhanced and sheltered entrances.

rubbish storage areas.

- Allow for personalisation by the occupants of the dwelling.

Privacy for Internal Spaces

- 3.5. Position dwellings and locate and design windows to provide visual privacy between the main living areas of adjacent dwellings within the development or on adjacent sites.

Careful positioning of windows or otherwise restricting direct views is effective in preventing direct overlooking between the main living areas of adjacent dwellings. Windows adjacent to public or shared areas should be positioned to minimise loss of privacy from passers-by looking in, while allowing people inside to look out.

- 3.6. Enhance acoustic privacy between adjacent units by shielding the noise sensitive areas (e.g. bedrooms) from high levels of external noise by distance, planning or construction means.

Acoustic privacy can be most effectively achieved if considered at the planning stages of a development. As a general principle, the quiet areas of one unit should be separated from the service rooms, garages and parking areas of another.

4. Open Space Design

The design of open space has a strong influence on the overall quality of individual dwellings as well as on the amenity of the development and its neighbours. The design of open space, whether for private or shared use, is as important as the design of buildings and its quality becomes even more important as density increases and sites get smaller.

The quality of open space is determined by its size, usability and accessibility from the dwelling, the amount of sunshine it receives and the degree of privacy and shelter it offers.

Outcome: High quality open space that is attractive, sunny and sheltered and provides for the outdoor recreational, service and storage needs of residents, while contributing to the identity of the development as a whole.

Private Open Space

4.1. Provide each unit with a private open space that:

- Is located to receive optimal sun exposure.
- Relates to the main living area of the unit.
- Offers a good level of privacy.

For developments in the Residential Zone the expectation is that private open space will be provided at ground level. Ground level open spaces typically offer greater spaciousness, privacy and landscape opportunities than upper level balconies. However, on sloping sites where ground level open spaces are unusable or overshadowed, and for any above ground units, upper level decks or balconies may be appropriate, provided they are designed to provide privacy and amenity.

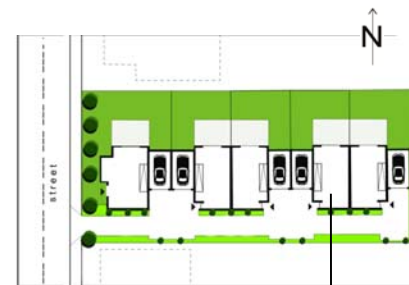
As a rule of thumb private open spaces should receive over a substantial portion of its surface no less than three hours of direct sunlight at mid-winter (21 June) between the hours of 9am and 3pm. This will require that the open space is located to the north, east or west of the dwelling. Where the main open space of a dwelling is located to the south (to take advantage of good views or for other benefits), a secondary open space facing as close as possible to the north should be provided.

4.2. Any ground level private open space should:

- Include a principal area (4mx4m) with a direct access from the main living area.
- Be relatively flat and sheltered.
- Located and shaped to optimise usable space and outlook.
- Developed, where possible, as a back garden (rather than within the front yard) to avoid high 'privacy' fencing along the street frontage.

Usable open spaces are regularly shaped, relatively flat and sheltered and have a minimum dimension of 4m. A single large outdoor area offers more flexibility than a series of smaller physically separated spaces.

Avoiding 'front yard' private outdoor spaces will minimise the need for high 'privacy' fencing along the street frontage and reduce potential impact on the streetscape.



Private open spaces linked to main living areas and arranged to maximise sunlight access and privacy.



Locating private outdoor areas to the back (top image) will avoid the need for high front yard fencing that contributes little to visual character and safety of the streetscape (bottom image).

- 4.3. Where balconies are used to meet the private open space requirements they should be:

- Of usable size (aim for 10m² with a minimum width of 2m).
- Adequately sheltered and provide a good level of privacy.

Balconies should be sized according to the size of the unit. However, their dimensions should make them usable outdoor spaces (e.g. allow for an outdoor table and chairs). Usable balconies are typically in the order of 10m² with a minimum width of 2m. While smaller balconies may be appropriate for smaller units, a balcony width less than 2m will significantly reduce the usability of the space.

Balconies can be cantilevered, semi-recessed or recessed from the building facade. Recessed and semi-recessed balconies can offer a greater degree of privacy and shelter than cantilevered balconies. Recessed and semi-recessed balconies can also be effective in reducing the visual bulk of large buildings by breaking down the facade through shadow lines.

Privacy

- 4.4. Ensure that individual private open spaces are protected from being overlooked from windows and private open spaces of adjacent units (within the development or on adjacent sites). This may be achieved through:

- Separation distances.
- Shape and position of buildings, spaces and windows to avoid or restrict direct views from dwellings to adjacent open spaces.
- Screening devices and landscaping between adjacent ground level open spaces or screening devices on balconies.

Screening devices should be integrated into the design of the building or designed as part of the site's landscaping. Landscape screening should consist of existing vegetation and/or new planting that can provide a good degree of privacy at the time of planting. The provision of screening should be balanced with demand for sun and daylight into the unit and take into account the long-range outlook from neighbouring dwellings.

Shared Private Open Space

- 4.5. Provide good quality shared private open space within developments where the individual units are provided with smaller open spaces or balconies, or in cases where the development is designed for communal living.

Good quality private shared open space is designed as a focal point to the development and has the following characteristics:

- *Is relatively flat or creates usable terraces.*
- *Is sunny, sheltered and easily accessible from all units.*
- *The treatment of its edges provides a good balance between privacy and informal surveillance.*
- *Provides for night visibility through low-glare lighting along shared paths, accessways and open space areas to promote safety and security.*



Example of a sheltered private balcony.



Examples of private open spaces screened through planting and screening elements.



Example of good quality shared open space that is accessible from and overlooked by adjacent houses.

Shared open space should be sized relative to the number of residents and provide for a range of users and activities. Driveways and vehicle turning areas are not defined as shared open space, even though they may contribute a sense of space and openness.

Landscaping

- 4.6. To maximise the benefits of proposed landscaping:
- Ensure the landscaping of the site is designed as an integral part of the site layout.
 - Provide new planting that is suitable for the site's conditions and arrange it to aid the integration of buildings and open spaces, reduce the impact of vehicle areas and enhance the amenity of the development.

Front Yard Boundary Treatments

- 4.7. Ensure front boundary treatment (landscaping, front fences and boundary walls) enables people in the dwelling to see out to the street and contributes to the safety and visual amenity of the street. High solid 'front yard' fences should be avoided.

High solid front fences along the entire frontage of a development compromise the visual quality and safety of the street. Using low (1m high) or visually permeable fences or planting instead of high solid fencing will enhance the dwelling's sense of address and add to the visual appeal of the street. However, solid fencing may be required to provide privacy and/or security of a front yard. In such cases, the solid fence should be partly permeable or not extend along the entire street frontage to ensure the visual connection between the dwelling's interior spaces and the street is maintained.

Service Areas and Facilities

- 4.8. Provide service areas for storage and collection of waste and recycling that are:
- Conveniently accessible from the dwelling or dwellings served (a bin space associated with each dwelling or a shared bin storage space).
 - Located and/or suitably screened to ensure the visual qualities of front yards, the street or shared accessways are not compromised.
- 4.9. Provide suitable space for open-air laundry drying within each dwelling (e.g. incorporated within a service court) or within a shared outdoor area that is easily accessible from the dwellings served, and at least partially screened in views from adjacent streets or public open space.



Use of landscaping to define the street boundary enhances the streetscape.



High fencing at the street frontage reduces amenity/safety of the street.



Permeable fencing allows views to the street while providing a level of privacy.



Example of a well-screened area for rubbish collection.

5. Efficient and Healthy Homes

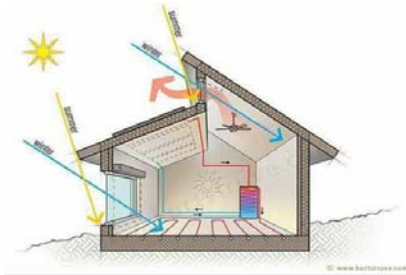
Well-designed buildings make efficient use of energy, water and sustainable materials while providing healthy environments for people to live and work in. Reducing the use of energy and water saves money and reduces the impact of buildings on the environment.

Outcome: Promote sustainable residential development that creates efficient and healthy living environments through minimising the use of energy, water and toxic building materials.

Energy Efficiency

5.1. Design houses so they require less energy for heating and cooling (passive design). To achieve this consider the following:

- Orientate living areas to the north in order to maximise natural light and heat.
- Design with increased insulation, high performance glazing and/or thermal drapes.
- Design eaves on north sides of buildings to let sun in during winter and keep it out during summer.
- Keep south-facing windows to a minimum to reduce heat loss in winter.
- Design and/or shade west-facing windows to prevent overheating in summer.
- Use natural ventilation where practical to cool dwellings.
- Harness energy from the sun using photovoltaic systems (solar panels) or hot water heating systems on roof planes oriented to the north and north-west.
- Ensure that building size is fit for purpose avoiding unnecessary energy use.



Elements of passive solar design

5.2. When selecting materials:

- Consider the total life-cycle of products and materials from their creation to their end of life in terms of resource use, energy use and by-products.
- Minimise the use of new resources (e.g. use recycled products and materials when available and safe).
- Target sustainable local products and materials when available.
- Select products and materials with 'Environmental Choice New Zealand' labelling and energy efficient rated appliances.
- Use internal materials and products that are safe for occupants (e.g. low volatile organic compound paints).



Select products and materials with 'Environmental Choice New Zealand' labelling.

5.3. During the construction stage consider the following:

- Good planning should result in minimal construction waste.
- Ask contractors for their waste management plan to detail how they plan to separate waste streams on site and what they intend on doing with them.
- Use energy saving construction methods (e.g. avoiding the need for heaters to dry wet timber framing).



Example of construction waste management.

Water Use, Conservation and Management

5.4. To reduce use of water resources:

- Plant native species that provide habitat for native fauna and require minimal watering in summer.
- Collect rainwater and/or recycle grey water from your laundry and/or bathroom/s (not toilet or kitchen) for re-use as landscape irrigation.

Waste Minimisation and Recycling (see also Guideline 4.8)

5.5. To facilitate waste minimisation and recycling for occupants of higher density living (e.g. multi-unit developments) provide:

- Each unit with a dedicated, enclosed waste and recycling service/storage space.
- Integrated waste and recycling collection points conveniently accessible by occupants and collection staff.



Examples of rain tanks.

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