

**RESIDENTIAL AND TOURIST DEVELOPMENT CODE**

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## INTRODUCTION

### Land to which this DCP applies

This DCP applies to all residential and tourist development within the Tweed Shire.

### Development covered by this Part

This Part applies to all development associated with the following building types:

- Dwelling Houses,
- Dual occupancy Housing,
- Town Housing (including villas),
- Row Housing (including terraces),
- Shop-top housing and Shop-top Residential Flat Buildings
- Residential Flat Buildings up to three storeys.

### Purpose of this Plan

The purpose of this Plan is to guide the planning and design of development associated with residential and tourist development within Tweed Shire.

### How to use this Part

Development applications must:

- a) nominate the intended building type to be used,
- b) specific building type criteria and general design criteria are to be individually referenced and an assessment of each against the proposal submitted with an application for any building type.

#### Section 1; Building Type Controls

This section defines each of the building types subject to this part. It provides indicative plans to suggest how the Development Controls in Section 2 can be coordinated for each building type and uses some common site types to show a variety of suitable arrangements. The controls associated with each building type must be met in development applications. (refer to the Appendix for Development Application requirements).

#### Section 2; Site and Building Design Controls

This section outlines the key controls to be achieved for all developments subject to this Part. This section defines and explains the objectives for each aspect of a development and how the controls are to be calculated. The controls associated with each aspect of development must be met in development applications.

### Acknowledgements

This Part was prepared for Tweed Shire Council by Ruker and Associates Urban Design in consultation with Council's Strategic Planning Reforms Unit.

**Adoption of this Plan (s.A1 of the Shire wide DCP)**

The following Plans are replaced by this Plan from the date of its adoption:

- Development Control Plan No.6 Multi-dwelling Housing (s.A1 Shire wide DCP).
- Development Control Plan No.28 Marana Park Estate Density Controls (s.B13 Shire wide DCP).
- Development Control Plan No.31 Peter Street (South) Residential Development Controls (s.B14 Shire wide DCP).
- Development Control Plan No.43 Kingscliff (s.B16 Shire wide DCP).
- Development Control Plan No.44 Dual Occupancy Controls (s.A12 Shire wide DCP).
- Development Control Plan No.47 Cut & Fill on Residential Land (s.A14 Shire wide DCP).
- Development Control Plan No.48 Tweed Coast Building Heights (s.B18 Shire wide DCP).
- Fence Height Policy.
- Building Line Policy.

## SECTION 1 BUILDING TYPE CONTROLS

### Introduction

A building type is used to describe a building form and site layout with common characteristics.

Building types are useful for coordinating the desired character of an area and to ensure the building achieves dwelling, site and streetscape amenity.

Building type is a tool used to ensure building and site design controls are coordinated to suit a range of common site and development types.

Building types are important as they guide development to be more specific to the following conditions:

- the site size and allotment proportions,
- the relationship to existing built form, subdivision and block context,
- the relationship to the existing streetscape,
- the site characteristics such as topography, vegetation.

### Tourist development

For the purposes of this Plan tourist development may comprise one or a combination of any building type referred to in Section 1.

### What is a housing building type

There are two main groups of building types; Houses and Residential Flat Buildings. Housing developments generally contain buildings up to 2 storeys in height but may also include an attic. All dwelling houses have access to open space living areas that are located at finished ground level.

### What is a Residential Flat building type

Residential Flat Buildings are three stories in height and contain four or more dwellings.

### Building types

The housing building types identified in this plan are:

- Building Type 1 – Dwelling Houses (Inc. ancillary structures).
- Building Type 2 - Dual Occupancy Housing (including granny flats).
- Building Type 3 - Town Housing (including villas).
- Building Type 4 - Row Housing (including terraces).
- Building Type 5 – Shop-top Housing

The residential flat building types identified in this part are:

- Building Type 5 - Shop-top Residential Flat Buildings (combined with Shop-top Housing)
- Building Type 6 - Residential Flat Buildings.

The controls provided in Section 1 and 2 apply to each building type and are mandatory. They will set the minimum standards and dimensions required.

The building types have been designed and tested using average to small site sizes. Larger sites will generally be able to more easily achieve the minimum controls required.

The translation from a generic building type to a specific building design allows for site specific analysis and design response.

Nothing in this plan prevents a development from comprising any combination of building types if the zoning allows.

### Variation to mandatory controls

The Council may consider a relaxation or variation to a mandatory control only in exceptional circumstances, that is, where it is evident from the detailed variation submission that meeting a control for an appropriately designed building on an 'infill', established dwellings located in subdivisions created prior to the year 2000, highly irregular, topographically or geotechnically constrained site is either unachievable or will result in an unacceptable design. In such cases the proponent must address up-front in the Statement of Environmental Effects the following matters: -

- i. Identify the specific control being varied.
- ii. Explain why the control cannot be met.
- iii. Detail the extent of the variation and impact on the relevant design objective.
- iv. Provide a detailed design of a compliant proposal along with suitable design options (min. two) in support of the variation.
- v. Discuss the impact on all adjoining or potentially affected properties in the context of the variation.
- vi. Detail all design measures implemented to mitigate or 'set-off' any impact of the variation.

For the purposes of this Plan 'infill' development is any allotment that is neighboured or adjoins a property that supports a building, including sites within new subdivisions where that development has already occurred, and to the extent only that an existing building hinders the achievement of the mandatory control.

Any variation to a mandatory control will not be considered unless it is supported with the detail above. Addressing this criteria is not a mechanism for an automatic qualification.

*Advisory note: -*

- o **Carparking and Access** design shall be, notwithstanding any provision of this Plan, in accordance with Section A2 of the Tweed Shire Development Control Plan (DCP No.2 –Site Access and Parking Code) and AS 2890.
- o **Illustrations** provided in this Plan are indicative only and must not be interpreted, used, or referred to as any form of either prescriptive or performance based control.
- o Dwelling houses and Dual Occupancy on rural and agricultural zoned land shall not, for the purpose of this Plan, be restricted to the deep soil zone, setback and carport, garages and outbuildings controls where it is demonstrated that compliance with a particular control would be unreasonable in the circumstances. A variation under this circumstance will not be required to comply with the requirements of the variation to mandatory controls provision of this Plan.



## 1.1 Building Type 1 – Dwelling Houses

A dwelling house is a single residence on an allotment. It is a building and a site containing no more than one dwelling.

Single dwellings can range in height up to two storeys plus an attic.

Single dwellings generally have at least one street frontage; except in the case of battle-axe blocks and some may have a laneway to the rear and in some cases a second street frontage.

The desired character of housing is to provide accommodation with a high level of amenity as well as enhancing the existing character of the street and the local area. The desired character of dwelling houses refers to the complete building, whether this is the result of the construction of a completely new house or of an addition or alteration to an existing house.

### 1.1.1 New dwelling houses

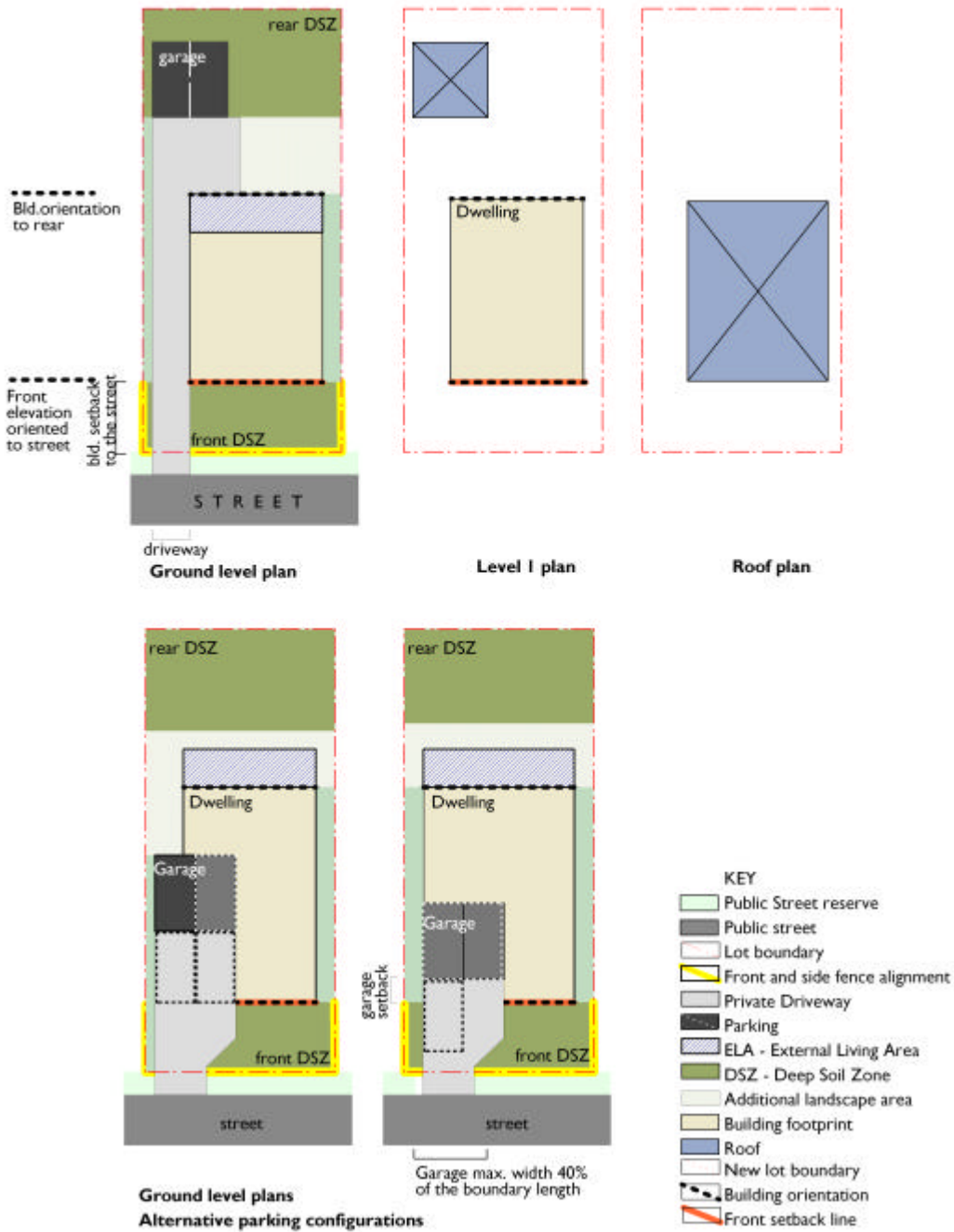
#### *Objectives*

- To be well designed and attractive.
- To be of a residential scale and well proportioned.
- To have a landscape area along the street and to the rear of the lot.
- To provide a high level of amenity for residents.
- To address the street.
- To ensure consistency with the desired future character of low-density housing.
- To ensure compatibility with the existing streetscape.
- To consider neighbouring properties privacy, sunlight and residential amenity.

#### *Controls*

- a. In existing urbanised areas dwelling houses are to be consistent with the scale and character of surrounding dwelling houses.
- b. In new subdivision areas dwelling houses are to be designed to conserve any natural landscape features of the site and surrounding area. Dwellings are to generally reflect their contextual location, for example, coastal, rural, or hinterland environments or advance any design scheme approved for that subdivision.
- c. Dwellings are to address the street, with the front door, windows, balconies or terraces facing the public street with the front entry door clearly visible from the street, where that can be achieved.
- d. The boundary between the street and the building is to provide a landscape setting along the street.
- e. Deep soil areas are to be provided to the front and rear of sites
- f. Dwelling houses are to be a maximum of two storey plus an attic.

- g. Entrances are to be clearly visible from the street and there is to be a clear line of access to the building from the street.
- h. The boundary between public and private space is clearly articulated.
- i. Building design is to be compatible with housing along the street and within the locality.
- j. Dwelling houses have a maximum FSR of 0.55:1.



Illustrative site layout of a dwelling house.

### 1.1.2 Alterations and additions to Dwelling Houses

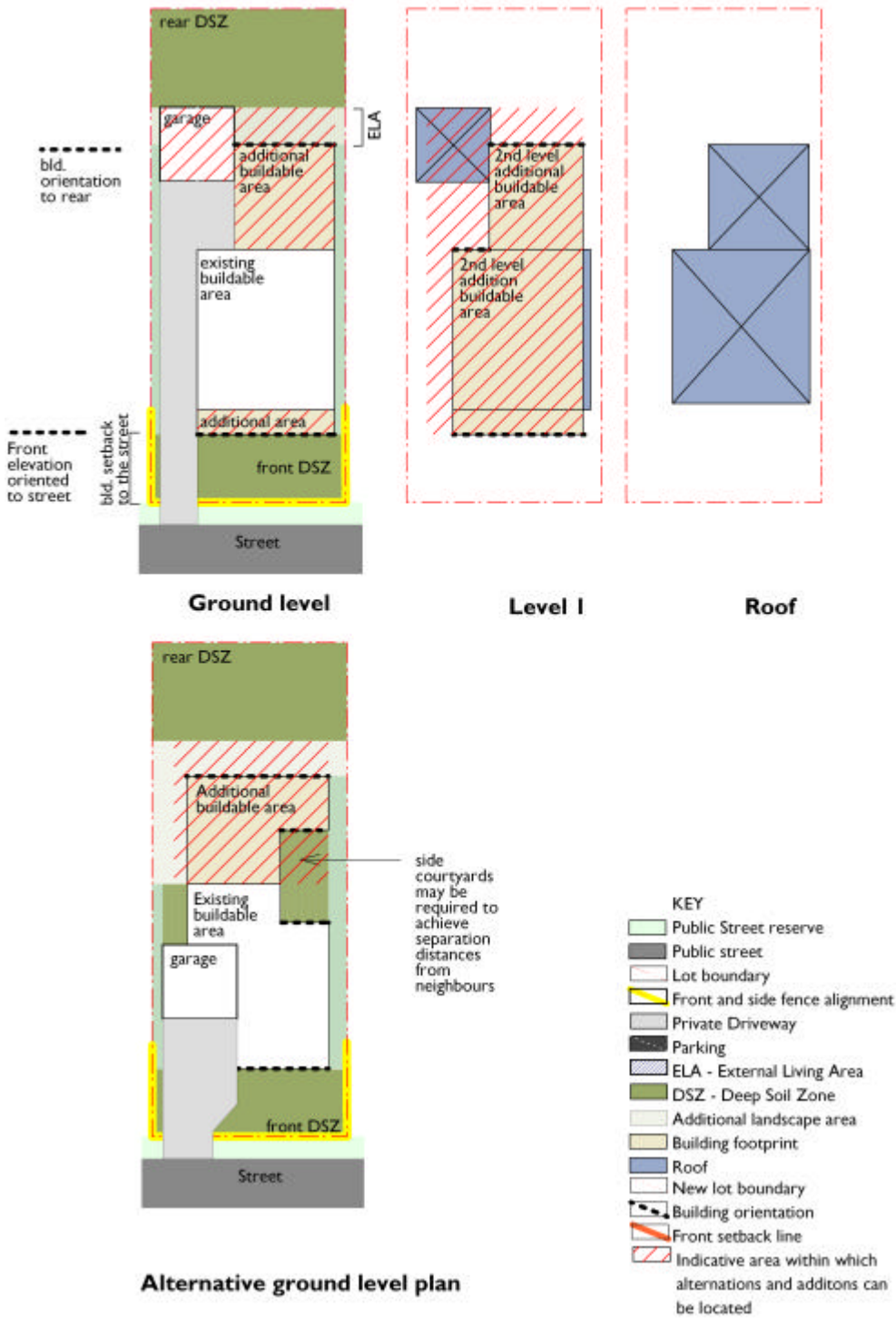
Alterations and additions occurring to existing dwellings can either increase the built area on the site and the dwelling size within the allowable floor space and/or change the internal and/or external configuration of the building and the site to improve the layout and liveability of internal spaces and external areas.

#### *Objectives*

- To ensure that the resultant dwelling is consistent with the character of the area..
- To improve the amenity and liveability of dwellings and sites.
- To ensure that alterations and additions do not detract from the amenity of the area and the existing building.

#### *Controls*

- a. Alterations and additions are generally to be consistent with the design and materials of the existing house.
- b. Alteration and additions are not to have an unreasonable impact on the residential amenity of neighbouring dwellings and sites.
- c. Alterations and additions that are not visible from the street and will not unreasonably impact on any neighbouring or adjoining property may vary the material of construction from that of the existing building.
- d. The maximum FSR of a dwelling house including any alterations and additions is 0.55:1



Illustrative site layout of alterations and additions to a dwelling house.

### 1.1.3 Carports, Garages and Outbuildings

Carports, garages and outbuildings are buildings that are ancillary to the dwelling.

They are small scale detached buildings that are visually consistent both with the design of the dwelling they are associated with and neighbouring buildings.

Examples of outbuildings include boatsheds, workshops, storage sheds, garden sheds, greenhouses, cabanas and gazebos.

Carports, garages and outbuildings are to be single storey, except located on land with either a rural or agricultural zoning. . In exceptional circumstances, that is, where topographic or geotechnical site constraints exist, a variation may be sought under the variation to mandatory control provision of this plan.

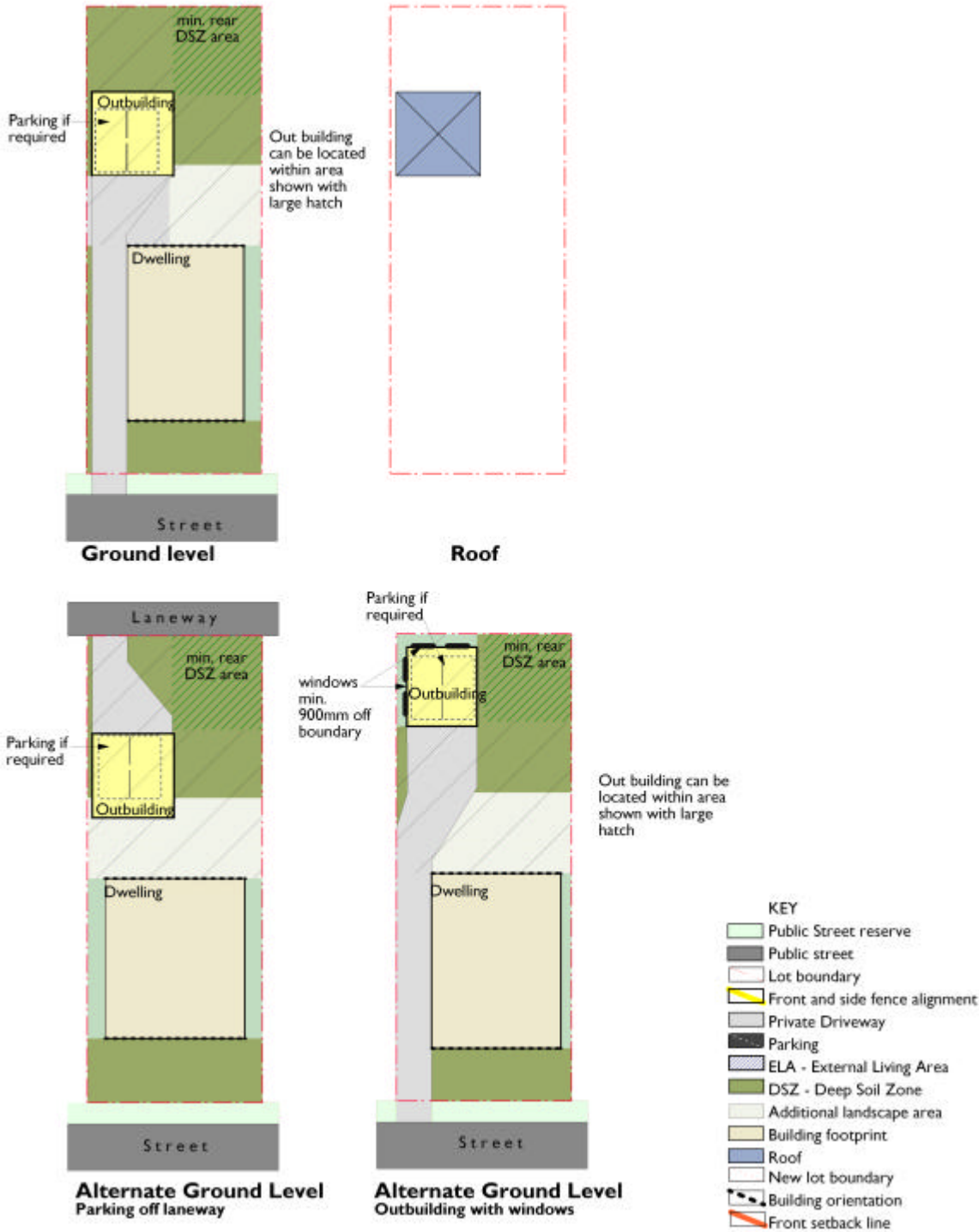
#### *Objectives*

- To provide for uses which are complementary and supplementary to the dwelling.
- To be compatible with the design and materials of the dwelling with which they are associated.
- To have limited visibility from the street or other public spaces.
- To ensure that the amenity of the dwelling or neighbouring dwellings is not adversely affected by outbuildings.
- To ensure that the deep soil zone and planting is not adversely affected by the outbuilding.
- To ensure that outbuildings are of a small scale.

#### *Controls*

- a. Deep soils in accordance with Section 2 of this Plan are to be maintained for the dwelling and cannot be used for the siting of any carport, garage or outbuilding. This control applies to both designated deep soil zones provided in an approved development made under this plan and to existing approved development made under any earlier planning scheme where no such requirement previously existed.
- b. A carport, garage or outbuilding shall not be used as a dwelling.
- c. The erection of a carport, garage or outbuilding will not be permitted unless it is compatible with the residential use of the dwelling.
- d. The total area for all carports, garages and outbuildings on a site is 45m<sup>2</sup> for lots up to 500m<sup>2</sup> and for lots greater than 500m<sup>2</sup> up to 60m<sup>2</sup>, except on large lot rural or agriculturally zoned land
- e. Carports, garages and outbuildings cannot be erected between the street alignment and the front building alignment of the existing dwelling. The minimum set back behind the front building alignment is 1m.
- f. The design and material selection for outbuildings is to be compatible with the existing dwelling, except where it is not visible from the street and where it will not unreasonably impact on neighbouring or adjoining properties. Material selection is to avoid reflective surface finishes.
- g. A garage or outbuilding may contain a toilet, shower and hand basin or bar sink, but cannot contain a kitchen sink or any other kitchen facilities.

- h. Carports, garages and outbuildings are to be single storey, except located on land with either a rural or agricultural zoning, with a maximum eave height of 2.7m and a maximum overall building height of 3.5m for a flat roof and 4.5m for a pitched roof.
- i. Outbuildings may be located adjacent to the side or rear boundaries, and if located less than 450mm from that boundary shall have a high impact strength and low maintenance finish.
- j. Carports, garages and outbuildings are to comply with BCA.



Illustrative site layout of an outbuilding.



## 1.2 Building Type 2 – Dual Occupancy Housing (including granny flats)

Dual Occupancy housing is the development of two dwellings on a single site, either detached or attached.

Dual Occupancy housing occurs throughout the Tweed Shire within residential areas on larger lots.

Dual Occupancy buildings provide for greater residential densities whilst being consistent with the general low-density residential character of the area. Careful consideration needs to be given to streetscape presentation, building scale and form, open space, driveways and footpath crossings.

There are two configurations for dual occupancy housing including:

1. attached; side by side facing the street with a common wall (duplex housing),
2. detached; one dwelling to the street, one to the rear of the lot.

The key outcome of successful dual occupancy development is to maintain the context of detached buildings both along streets, internally on sites; particularly to the rear of the lot and between sites.

A detached dwelling in the backyard within a context of single dwellings on average size lots may have adverse impacts on the provision of trees, private open space and privacy to the rear of lots. This can be avoided by selecting an attached building form which has a more compact building footprint.

Granny flats occur when there is a part of a dwelling that is used as a separate residence without strata or any other type of subdivision.

### *Suitable locations for dual occupancy housing*

Attached dual occupancy housing is suitable within most residential locations and will suit average to small lot sizes. As a guide detached dual occupancies are generally not suitable for lots shorter than 30m.

### *Objectives*

- To provide an alternative form of low-density housing.
- To be compatible with the desired character of dwelling houses generally.
- To be compatible with the streetscape.

### *Controls*

#### *Dual Occupancies*

- a. Dual occupancy developments on residentially zoned land must be located:
  - on sites with a minimum area of 900m<sup>2</sup>, or
  - if the land is within 300 metres walking distance of a business centre listed under Schedule 8 of Tweed Local Environmental Plan 2000 it has a minimum site area of 500m<sup>2</sup>, or
  - if the land is within the 2(b) zone it has a minimum area of 450m<sup>2</sup>; and
- b. Dual occupancy developments must not be located on battle-axe lots, and
- c. Dual occupancy developments must be located on significantly regular, rectangular or square, shaped lots,

- d. The minimum lot dimension for an attached Dual Occupancy development with both dwellings facing the street is 20m wide, and for wider lots a minimum 30m deep.
- e. Attached Dual Occupancy dwellings with only one dwelling facing the street, that is, in a back to back configuration, is not permitted, except where it can be demonstrated under the variation to mandatory controls provision of this Plan that a detached configuration is not achievable or practical due to an identified site constraint, in which case the minimum lot dimensions are those specified for detached (back to back) dual occupancies in Control (e).
- f. Detached dual occupancy with both dwellings fronting the street is not permitted, except on corner lots, where the average lot width is a minimum 25m and for wider lots a minimum 30m deep.
- g. The minimum lot size for detached Dual Occupancy dwellings with only one dwelling facing the street, that is, in a back to back configuration, is 16m wide and for wider lots a minimum 40m deep.
- h. The maximum FSR for Dual Occupancies are as follows:
  - 0.45:1 for two single storey dwellings,
  - 0.5:1 for one single storey dwelling and one double storey dwelling.
  - 0.55:1 for two double storey dwellings..
- i. All dwelling houses have access to open space living areas that are located at finished ground level.
- j. Dual Occupancy dwellings are a maximum in height of two storeys plus an attic.
- k. Each dwelling with a street frontage is to be designed so that the access to the front door and the front door is clearly identifiable from the public street.
- l. The subdivision of dual occupancy development by Torrens Title, Strata or otherwise must result in each new subdivision lot comprising a minimum area of 450m<sup>2</sup> per dwelling, less any community area utilised for shared access. For example, a subdivision of a dual occupancy in the 2(a) zone must result in two lots each having a minimum site area of 450m<sup>2</sup>, less any part of a shared access.
- m. Allotments already nominated in an approved Council subdivision will be deemed to comply with the lot size, dimension and configuration Controls a, b, c, d, f & g for a period of five years from the date of adoption of this Plan.

#### *Dual Occupancy as Granny flats*

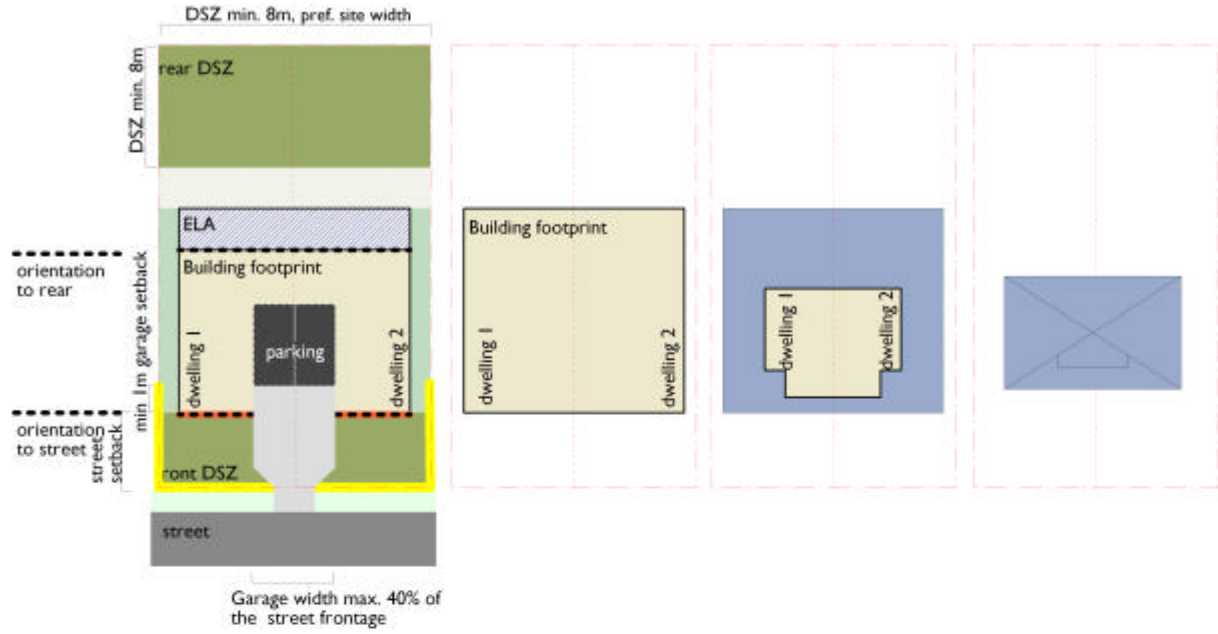
- a. The provisions of this Plan shall not apply to dual occupancy development that meets the following criteria:-
- b. The gross floor area of one of the dwellings does not exceed 50m<sup>2</sup>; and
- c. Subdivision of the development, including strata subdivision, is not proposed.
- d. A granny flat must comply with the requirements of the Building Code of Australia for Class 1 or Class 2 where appropriate.

*Advisory Notes*

- *A condition requiring the creation of a restriction as to user on the Lands tTitle, in accordance with the Conveyancing Act 1919, for the purposes of prohibiting subdivision of the development will be imposed on any development consent.*
- *Dual occupancy as Granny Flats are exempt from payment of contributions in accordance with Section 94 of the Environmental Planning and Assessment Act, 1979 and Section 64 of the Water Supply Authorities Act, 2000.*

*Design Guidelines*

- o *Dual occupancy housing is to have a low density residential building character.*
- o *Dual occupancy housing is to be compatible with the streetscape character.*
- o *Street setbacks and the design of the front setback for Dual Occupancy Housing are to create a residential setting along the street.*

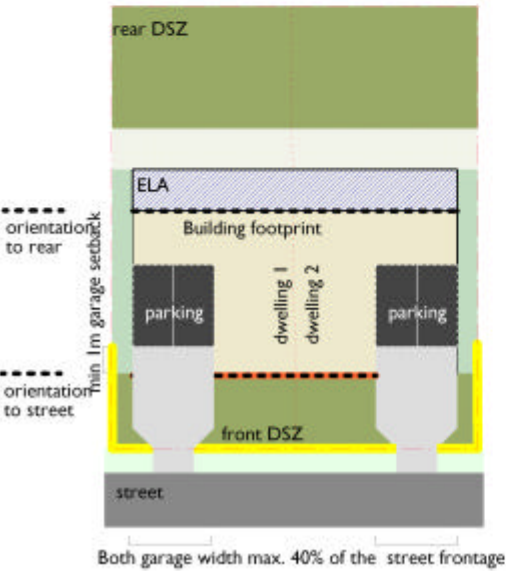


Ground level

Level 1

Attic level

Roof



- KEY**
- Public Street reserve
  - Public street
  - Lot boundary
  - Front and side fence alignment
  - Private Driveway
  - Parking
  - ELA - External Living Area
  - DSZ - Deep Soil Zone
  - Additional landscape area
  - Building footprint
  - Roof
  - New lot boundary
  - Building orientation
  - Front setback line

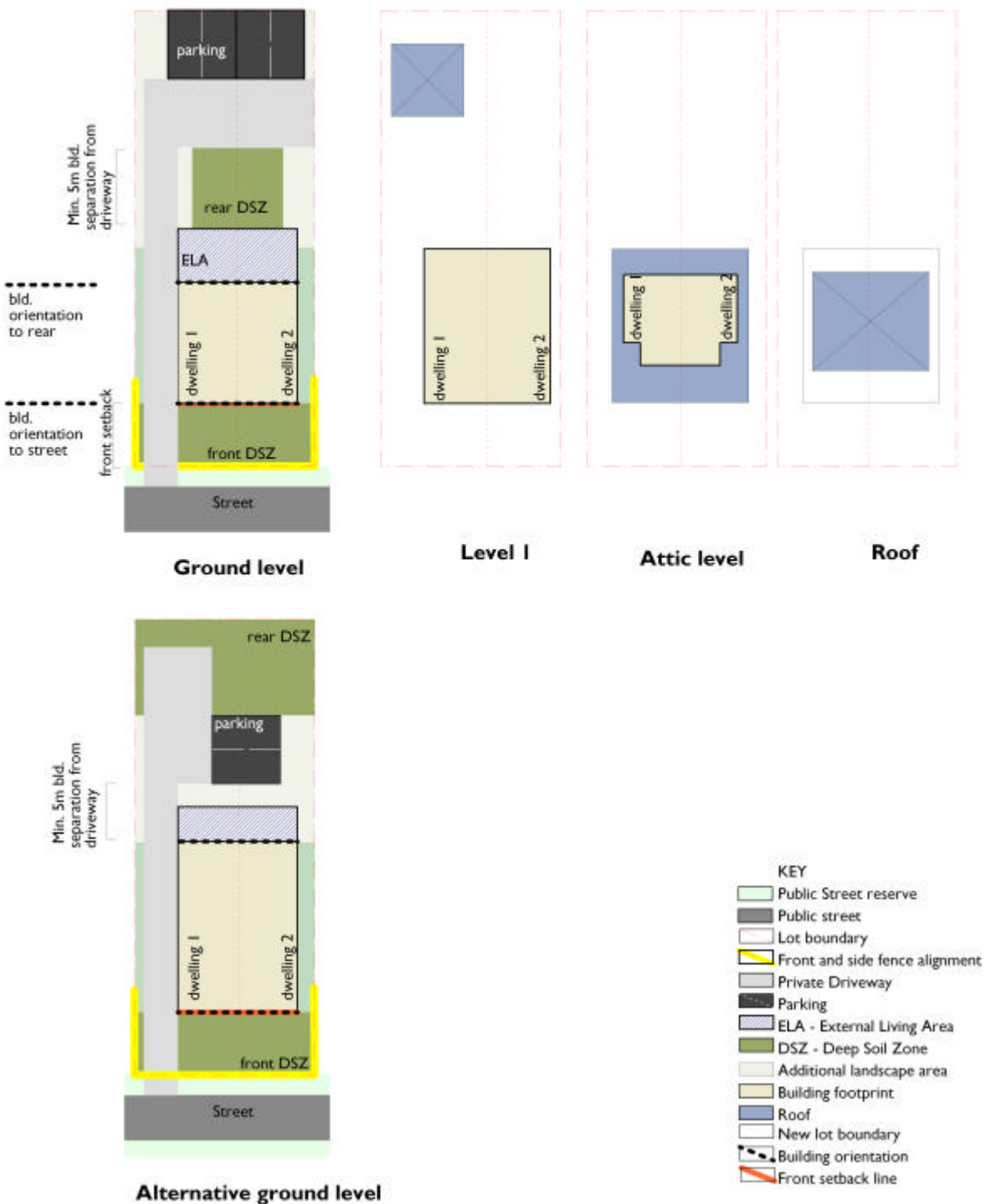
Illustrative site layout of an attached Dual Occupancy housing type with a wide site and carparking to the front



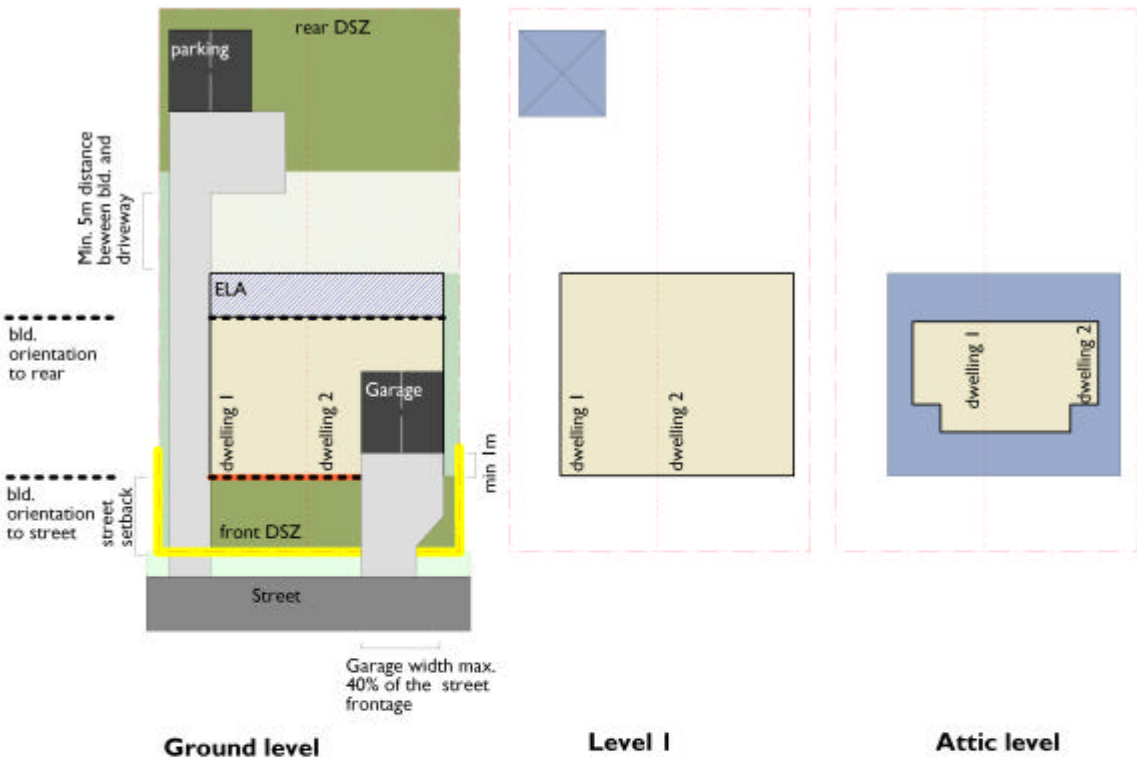
Dual Occupancy Housing has windows, doors, front gardens and the buildings elevation addressing the street.



Dual Occupancy Housing has its carparking set well back from the buildings front elevation so as not to dominate the streetscape.

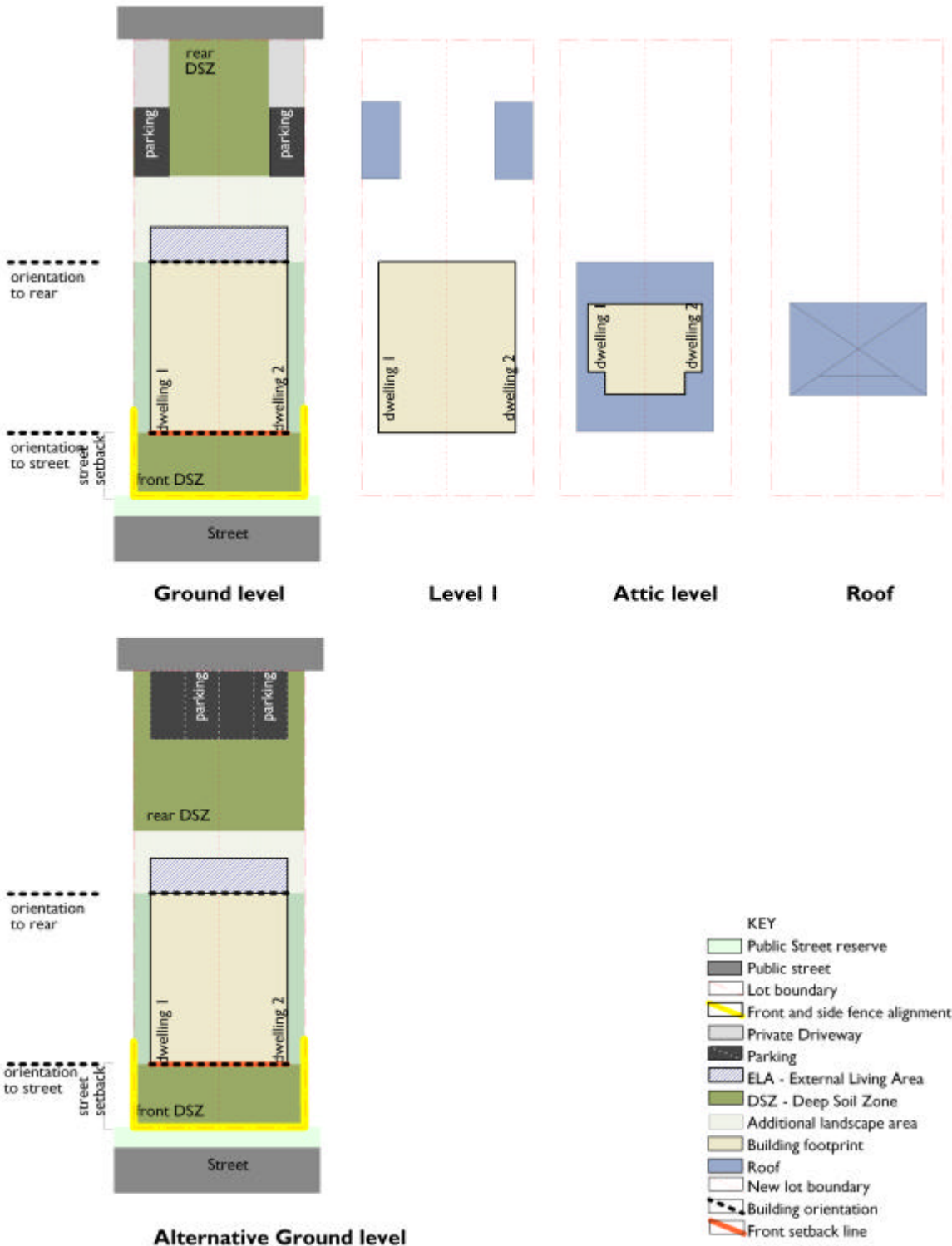


Illustrative site layout of an attached Dual Occupancy with carparking to the rear of the site.



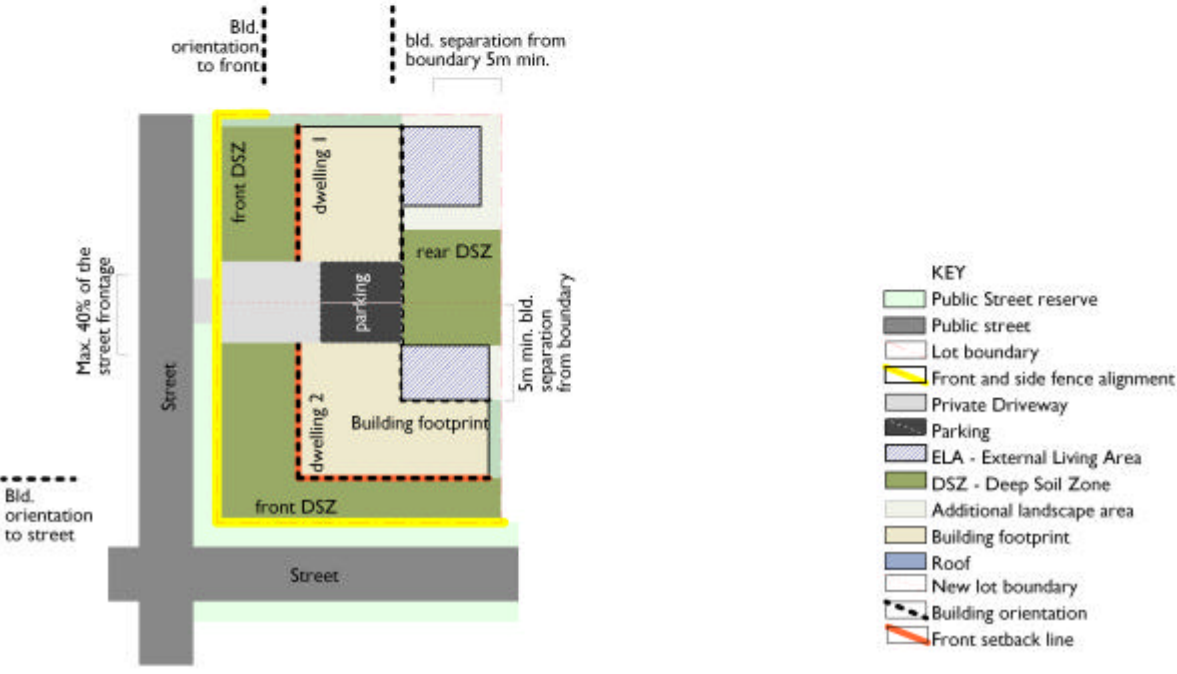
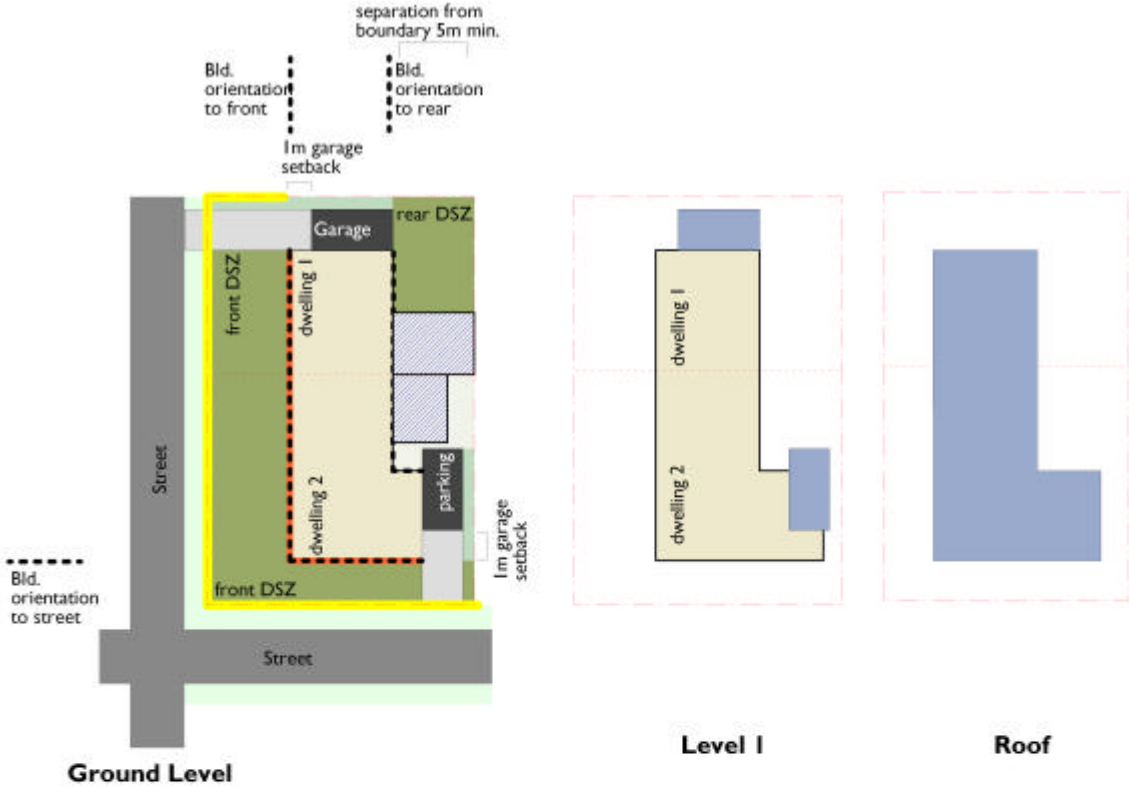
Illustrative site layout of an attached Dual Occupancy with carparking to the front and the rear of the site



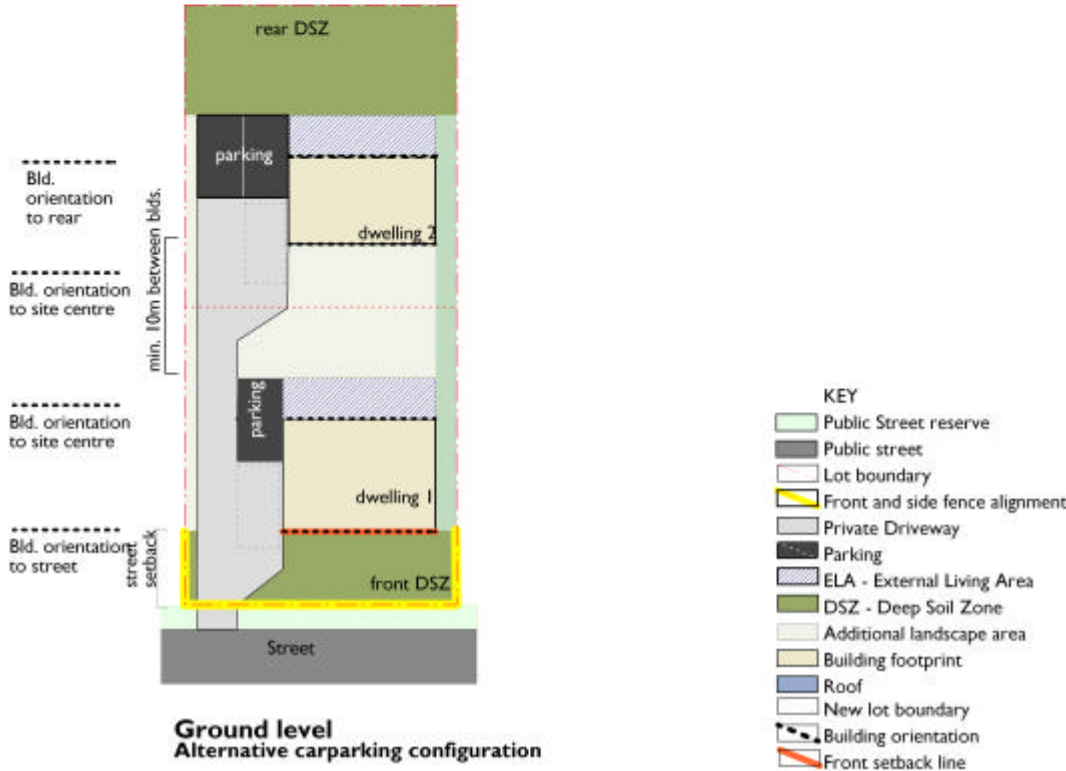
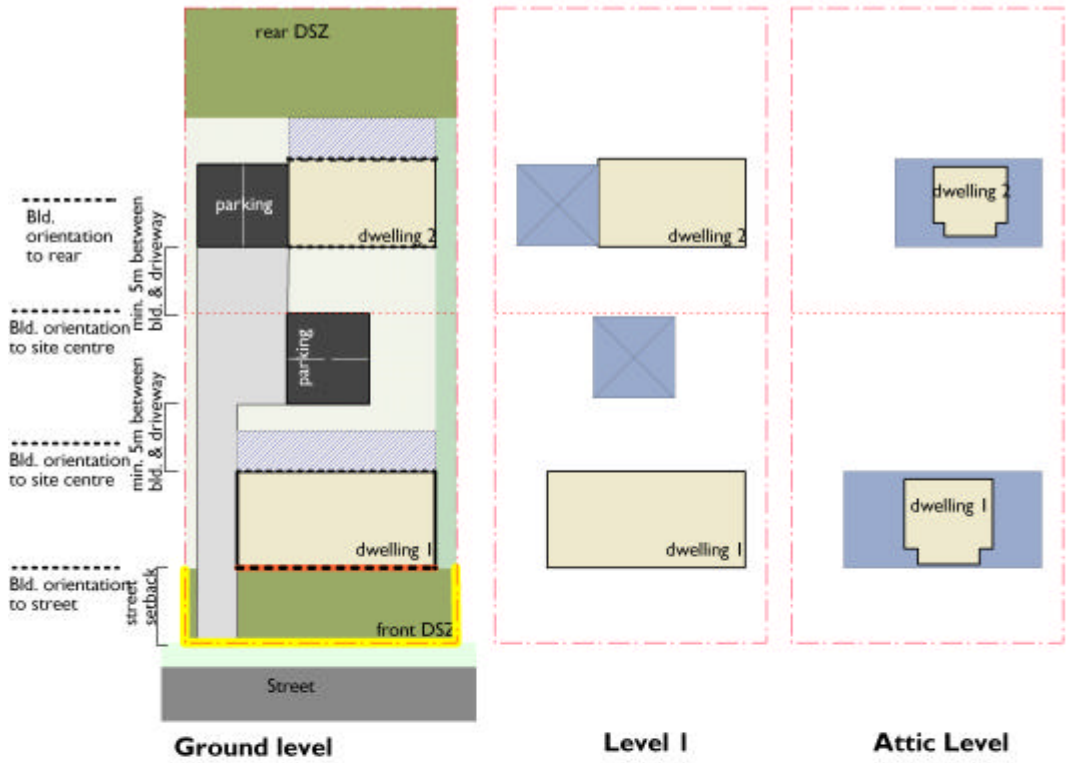


Illustrative site layout of an attached Dual Occupancy with a laneway and carparking off the laneway

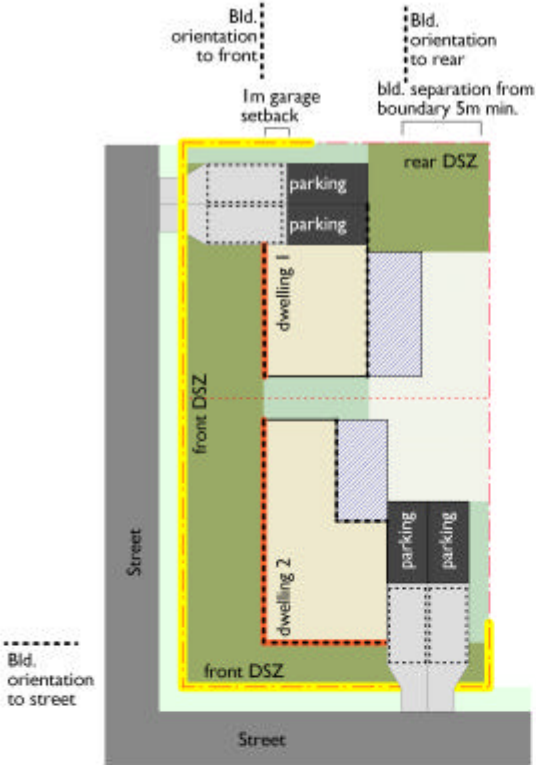




Illustrative site layout of an Attached Dual Occupancy with two street frontages.



Illustrative site layout of a Detached Dual Occupancy development.



**Ground Level**  
Alternative larger site



**Ground Level**

**Level 1**

- KEY**
- Public Street reserve
  - Public street
  - Lot boundary
  - Front and side fence alignment
  - Private Driveway
  - Parking
  - ELA - External Living Area
  - DSZ - Deep Soil Zone
  - Additional landscape area
  - Building footprint
  - Roof
  - New lot boundary
  - Building orientation
  - Front setback line

*Illustrative site layout of a corner lot Detached Dual Occupancy*

### 1.3 Building Type 3 – Town Housing (including Villas)

Town Housing is the development of 3 or more dwellings to a parent lot. Town Housing occurs throughout the Shire within residential areas on larger lots.

Town Housing provides for larger lots to have a commensurate development capacity whilst being consistent with the scale and character of low density residential areas.

The configuration of Town Houses on a lot is specific to the configuration of the lot but will generally feature a mix of attached and detached housing forms.

Villas are the same as Town Houses except they are one storey only. Therefore for the purposes of this Part the term 'villa' is not used and is to be replaced with the term 'Town Housing' which can be either one or two storeys plus and attic level.

#### *Suitable locations for Town Housing*

Town Housing is suitable for all areas where the context is suburban with buildings up to two storeys. Town Housing is generally not preferable in areas with a more urban context such as in areas that have or will have residential flat buildings or shop-top as the predominant building type.

#### *Objectives*

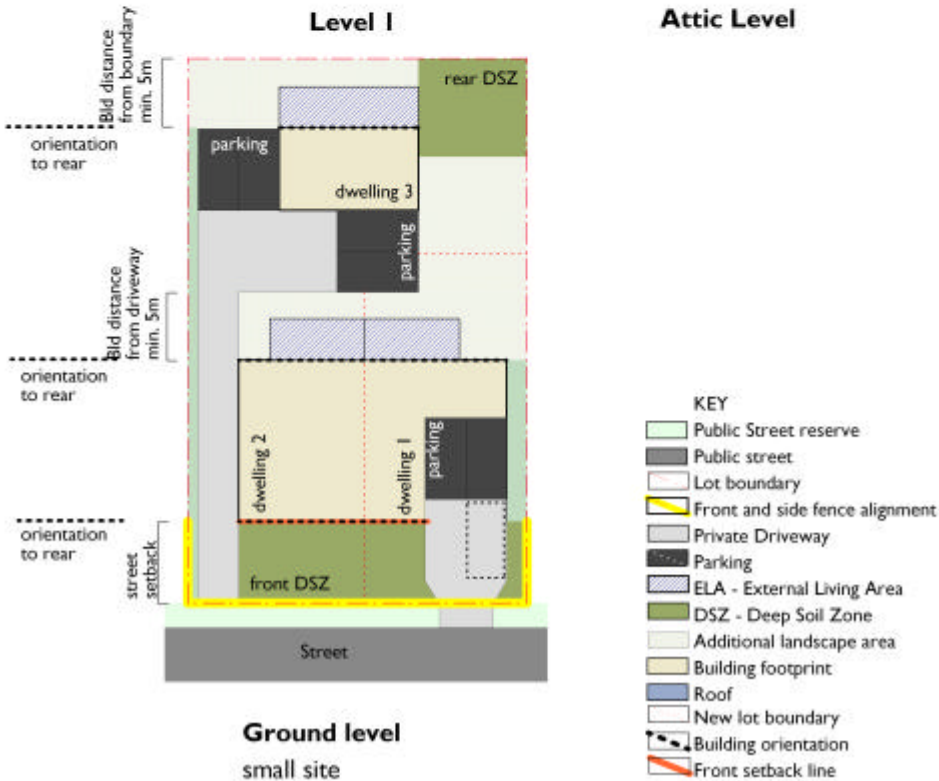
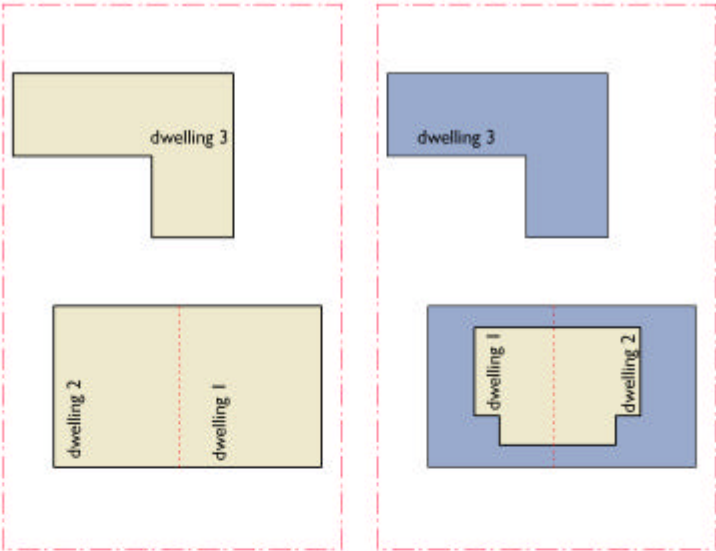
- To provide development capacity on larger lots within residential areas.
- To retain the residential character in streets and suburbs.
- To create or retain quality residential and pedestrian friendly streetscapes.
- To provide an alternative form of medium density housing.
- To have a residential building character.

#### *Controls*

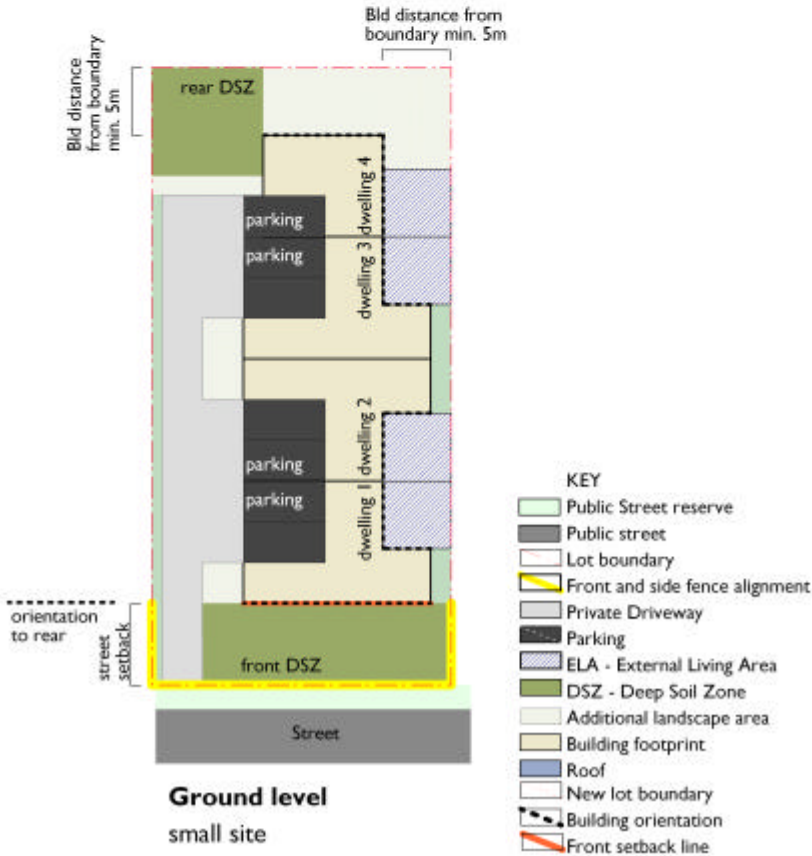
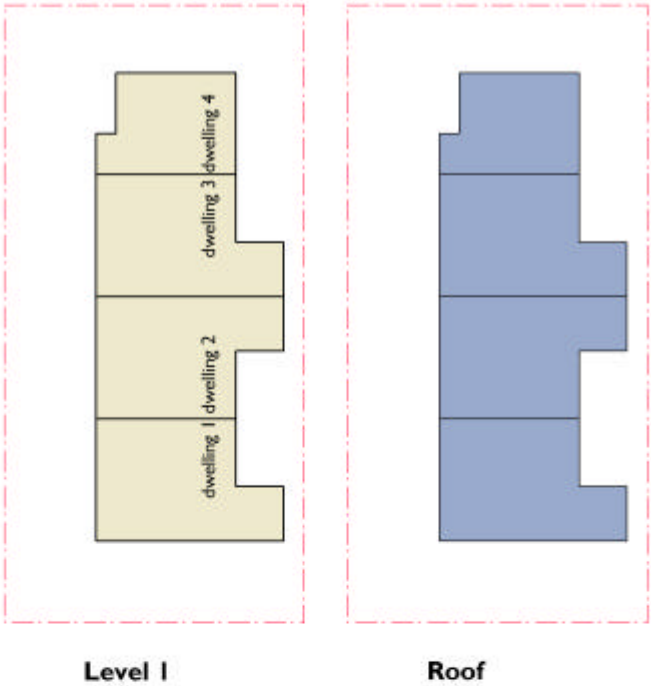
- a. Town housing is permissible in 2(a), 2(b) and 2(c) zones.
- b. In 2(a) zone lot size min. 1350m<sup>2</sup>, depth min. 40m, development lot area of 250m<sup>2</sup> each.
- c. In 2(a) zone within 300m walking distance of a business centre (listed in schedule 3 of Tweed LEP) lot size is min. 1000m<sup>2</sup>, depth min. 40m, development lot area of 250m<sup>2</sup> each.
- d. In 2(b) and 2(c) zones min. 1000m<sup>2</sup>, depth min. 40m.
- e. In 2(d) zones min. 1500m<sup>2</sup>, depth min. 40m, development lot area of 250m<sup>2</sup> each.
- f. In 2(d) zones within 300m of a business centre (listed in schedule 3 of Tweed LEP), min. 1500m<sup>2</sup>, depth min. 40m, development lot area of 250m<sup>2</sup> each.
- g. Each dwelling in a Town House development must have a ground level building footprint (carparking is not to be included as a ground level).
- h. Each dwelling that has a street frontage is to be designed so that access to the front door is clearly identifiable and visible from the public street.
- i. Town House dwellings are a maximum in height of two storeys plus an attic.
- j. Maximum FSR of 0.8:1

#### *Design Guidelines*

*Town Housing is to be compatible with the existing or desired future streetscape character. Fencing, landscaping and buildings addressing the street with front doors and elevations are to be designed to enhance the streetscape character.*



Illustrative site layout of Town Housing, on a small lot with three dwellings.



Illustrative site layout of Town Housing, on a small lot with four dwellings.



Illustrative site layout of Town Housing with five and eight dwellings.



## 1.4 Building Type 4 – Row Housing (terraces)

Row Housing is the development of three or more dwellings to a parent lot. Row Housing results in each dwelling having a ground level and its own entry from the street.

These buildings are characterised by their consistent alignment along the street and zero side setbacks. These buildings are two storeys with an optional attic level and have carparking to the rear of lots and are oriented to the street and the rear of the lot, not the side boundaries.

They are only located directly adjacent to commercial buildings in a commercial Main Street where the existing or desired character is:

- to reinforce a built edge along a street or open space,
- to provide residential buildings with a consistent alignment to the street to complement buildings in a Main Street, and
- to create a transition from commercial to residential buildings.

This is a flexible building type and easily incorporates changing use from residential to retail or commercial on ground level to accommodate the growth of Main Street centre or to add additional mixed use commercial and residential floor space to enhance the mix of commercial uses along the Main Street.

Row Housing is suitable for layouts to suit both residential, commercial or home/office uses on the ground level.

Row Houses are identical to terraces. For the purposes of this Part the term 'terraces' is not used rather the general definition of Row Housing describes this building form.

### *Suitable locations for Row Housing*

This situation occurs in the transitional area between the commercial and the residential components of a Main Street where the predominant scale is two storeys.

This building type is not appropriate for sites within residential and suburban streets.

### *Objectives*

- To create an urban building form and strong built edge along the street.
- To define the street space.
- To provide a building form that makes a transition from commercial to residential.
- To provide flexible living and working buildings.
- To extend and complement the commercial uses along the Main Street.
- To provide more compact housing in proximity to centres.

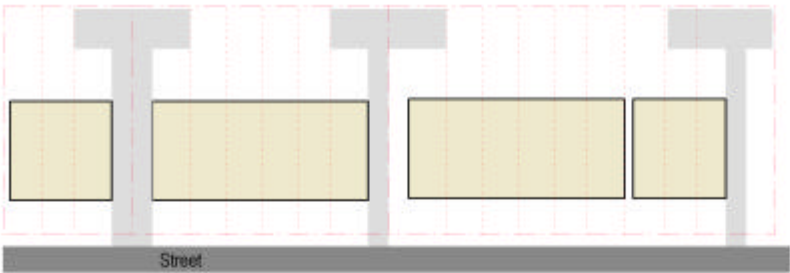
### *Controls*

- a. Row Housing shall not be permitted on any lot outside the transition area that exists between a commercial or shop-top building and a residential building of another kind.
- b. Maximum of 6 buildings in a row with party walls before a 3m separation is to occur.
- c. FSR of 0.8:1.  
The minimum internal width of a dwelling is 5m. The maximum internal depth of dwelling from glass line to glass line is 15m. The ratio of dwelling internal width to depth is to be 1:3.
- d. Row Housing is to be two storeys plus an optional attic level.

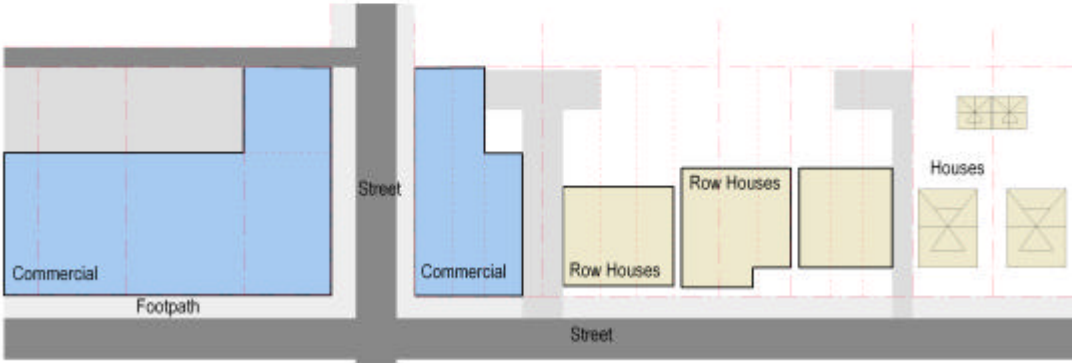


- e. Row Housing must be oriented to the street and to the rear not the side boundaries.
- f. Parking is to be to the centre or the rear of lots.

*Design Guidelines*  
The street elevations of Row Housing are to reflect the existing or desired future character of other buildings in the Main Street including: height, vertical and horizontal proportions, height, materials and roof form.  
The street setbacks for Row Houses are to create a transition between commercial and residential buildings.



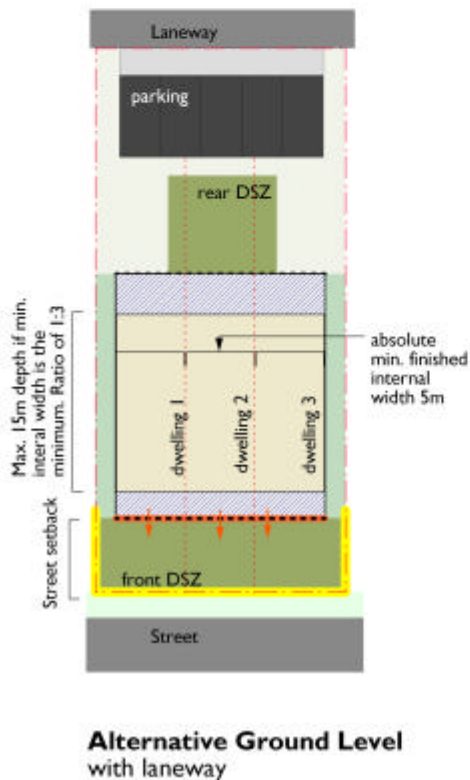
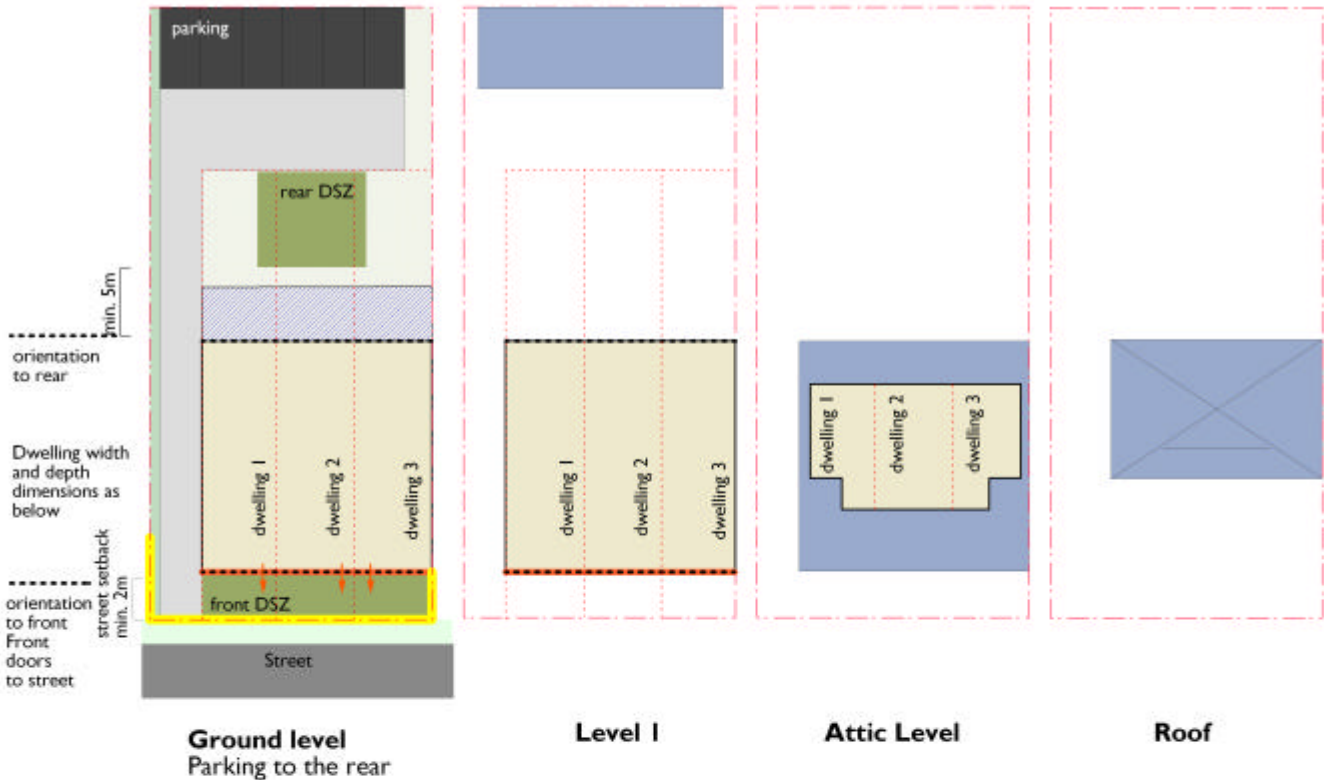
**Block plan - Town Housing with 3, 6 and 9 modules**



**Block plan - Row Housing transition from commercial to residential**

*Illustrative block plan show row housing between commercial and residential buildings.*





- KEY**
- Public Street reserve
  - Public street
  - Lot boundary
  - Front and side fence alignment
  - Private Driveway
  - Parking
  - ELA - External Living Area
  - DSZ - Deep Soil Zone
  - Additional landscape area
  - Building footprint
  - Roof
  - New lot boundary
  - Building orientation
  - Front setback line
  - Entries to street

Illustrative site layout Row Housing.

## 1.5 Building Type 5 – Shop-top Housing & Shop-top Residential Flat Buildings

Shop-top describes a building type with residential dwellings above commercial; in most cases retail, space. Generally this building type occurs on land zoned for commercial purposes. Shop-top accommodation can be either:

- Shop-top housing; 1 to 3 dwellings associated with a ground level commercial space or
- Shop-top Residential Flat Building; 4 or more dwellings associated with a ground level commercial space.

Shop-top provides accommodation in proximity to the amenity, conveniences and activities offered by centres such as entertainment and dining and social benefits such as public transport and community services.

Shop-top is either two or three storeys in height with the commercial component occupying the whole of the ground level of the building and in some cases the first level as well.

Apartment layouts on the first level are designed to support home/office or future commercial uses.

These buildings are characterised by being built to the street alignment and the side boundaries and are oriented to the street front and the rear of the lot. Their elevations have a high level of consistency between all buildings along the street and they strongly define a built edge to the street space.

The challenge for shop-top is to ensure it does not preclude quality and flexible commercial space nor stifle the growth and development of the place as a commercial and civic centre. The primary and overriding purpose of land within centres is to provide for the current employment, commercial, entertainment and civic needs of the community therefore development is to safeguard the flexibility and growth opportunities of the centre.

As such residential uses are of secondary importance to the commercial component of this building type and it is not to be considered a back door way of achieving medium density residential development.

This building type is to result in economically viable commercial spaces for the occupants and future owners in the immediate and longer term and to enliven the centre.

### *Objectives*

- To provide a building form that complements commercial uses.
- To provide more compact housing in proximity to centres.
- To create an urban building form and strong built edge along the street.
- To define the street space.
- To provide flexible living and working buildings.

### *Suitable locations for Shop-top*

Shop-top is to be located in centres, generally along main streets.

Shop-top may not be appropriate for locations in proximity to civic, entertainment or community uses that generate noise, light spill or a high degree of activity during the day or the night.

### Controls

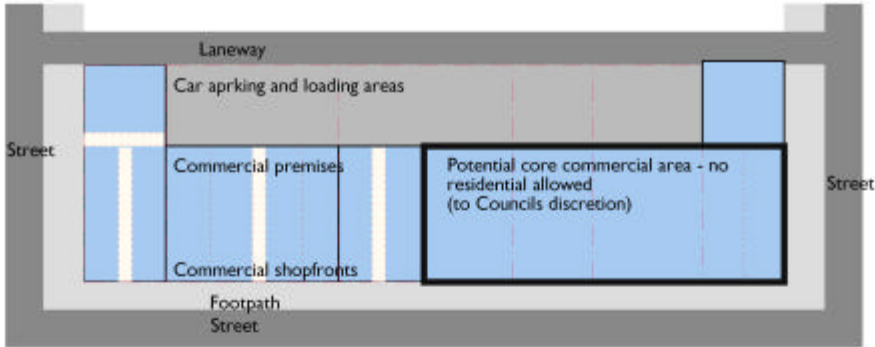
- a. Shop-top development is to have a street elevation consistent with other buildings in the street in terms of; height and vertical and horizontal proportions. The buildings street elevation is to be designed to give emphasis to the alignment along the street edge.
- b. Colonnades are generally not acceptable along main streets unless there is a historic precedent of colonnades along the street.
- c. Uses on ground level are to be commercial only apart from circulation spaces used to access upper level dwellings.
- d. Shop-top Housing is 2 storeys.
- e. Shop-top Residential Flat Buildings are 3 storeys.
- f. Shop-top Housing and Residential Flat Buildings have a maximum FSR of 2:1.
- g. The internal space of the ground floor of the development is to be at the ground level of the street.
- h. Basement car parking is to be fully underground.
- i. No building elements above ground level are permitted beyond the site boundaries.
- j. Footpath trading must comply with the procedures and guidelines contained in the Tweed Footpath Trading policy.

### Design Guidelines

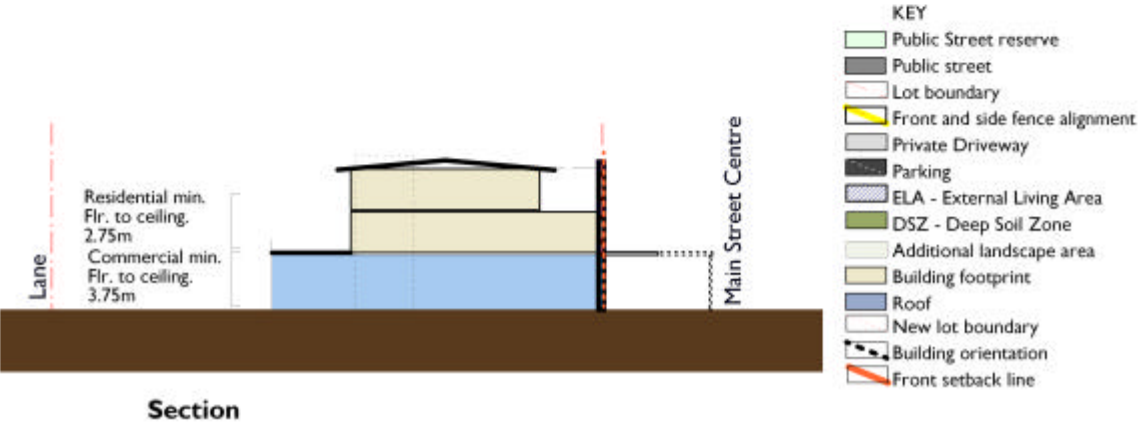
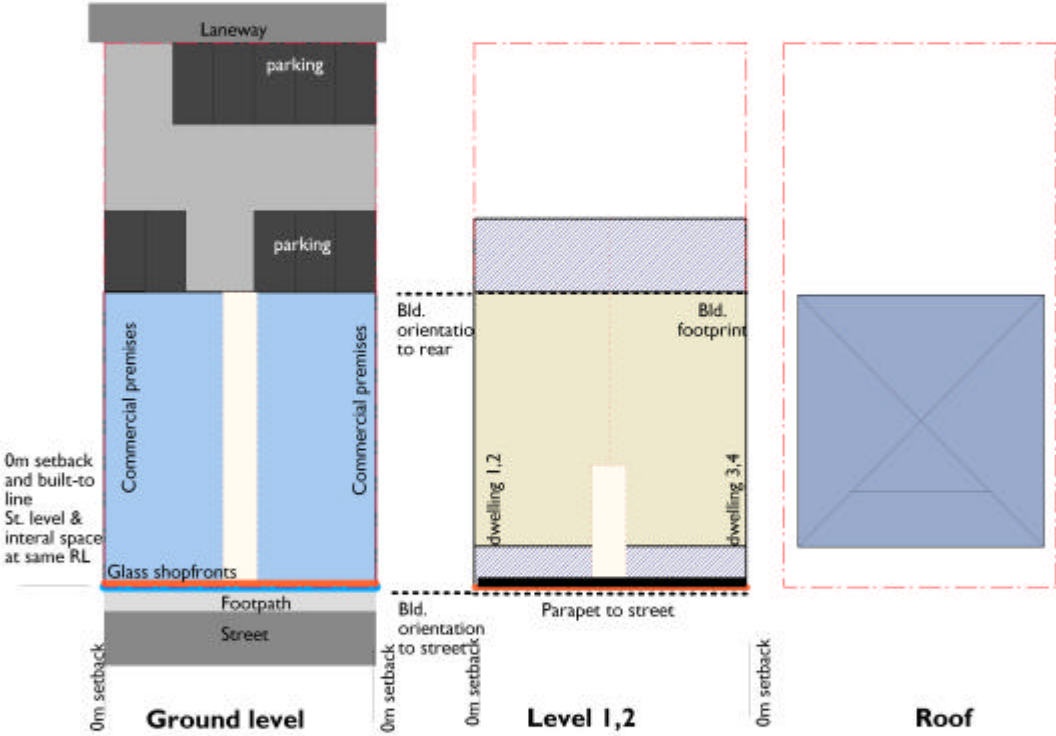
- o Shop-top developments are to create a strong built edge to the street.
- o Shop-top is to relate to and complement the height of other buildings in the street.
- o The design and layout of commercial spaces is to demonstrate:
  - the intended type of commercial uses proposed and the suitability of the building design to accommodate these uses,
  - the immediate and long term economic feasibility of proposed commercial space,
  - the way in which the proposed commercial space complements and extends the quality and attractiveness of the existing centre.



*Two storey Shop-top housing and three storey Shop-top Residential Flat Buildings.*



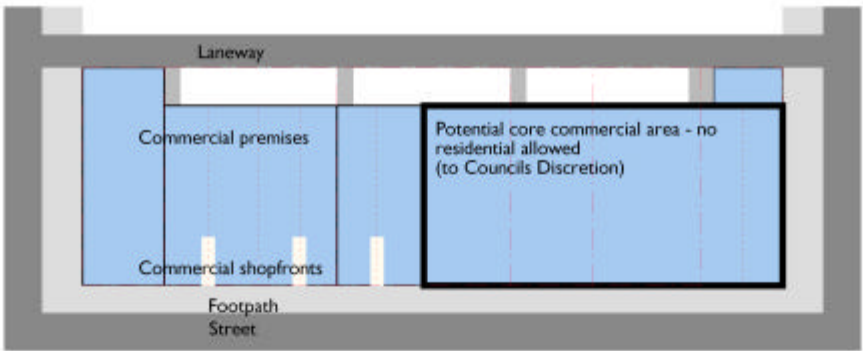
Indicative block and street plan



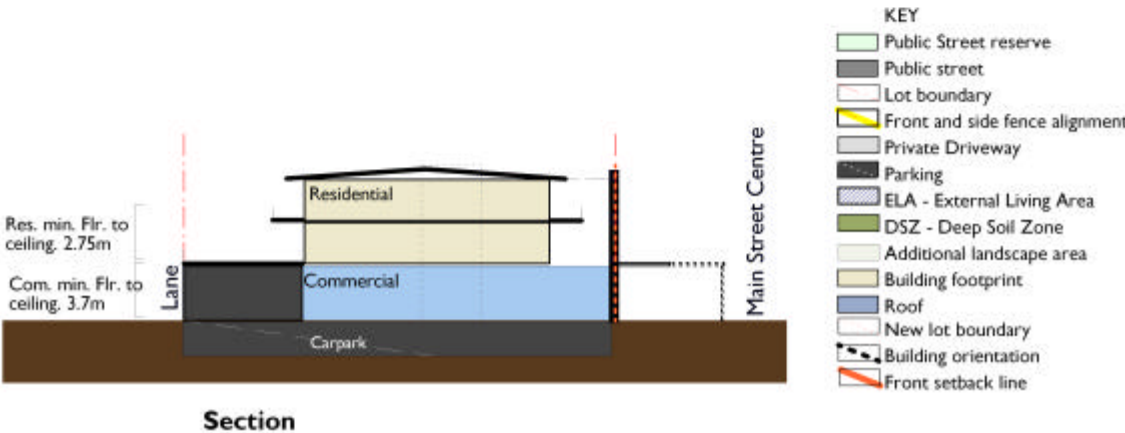
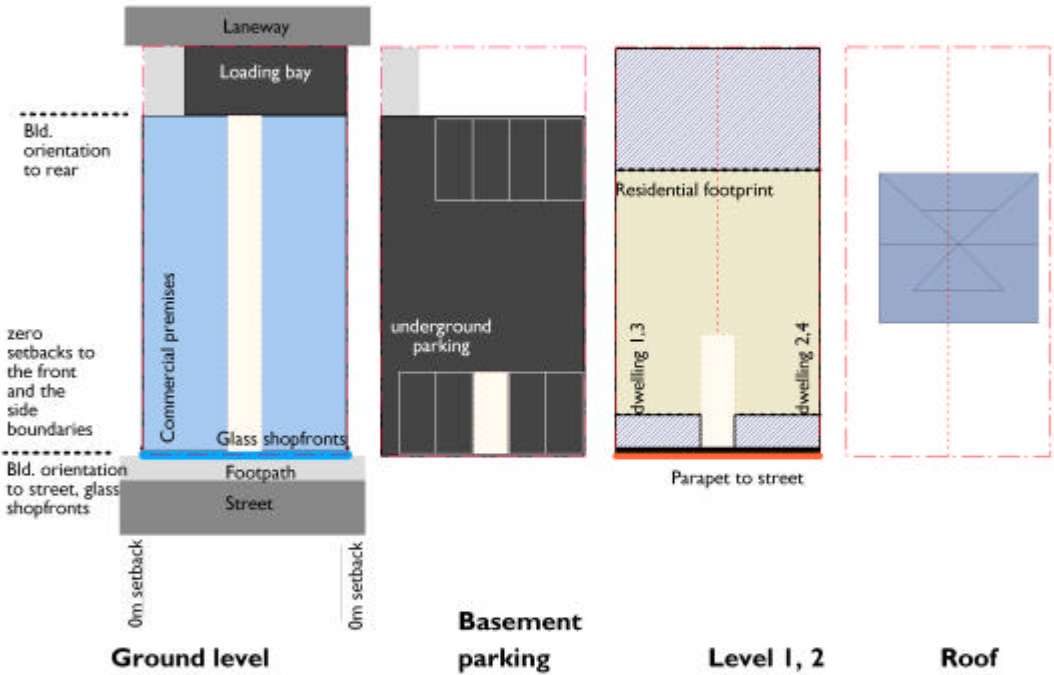
Illustrative site layout Shop -top Residential Flat Building with carparking on the ground level.

- KEY
- Public Street reserve
  - Public street
  - Lot boundary
  - Front and side fence alignment
  - Private Driveway
  - Parking
  - ELA - External Living Area
  - DSZ - Deep Soil Zone
  - Additional landscape area
  - Building footprint
  - Roof
  - New lot boundary
  - Building orientation
  - Front setback line

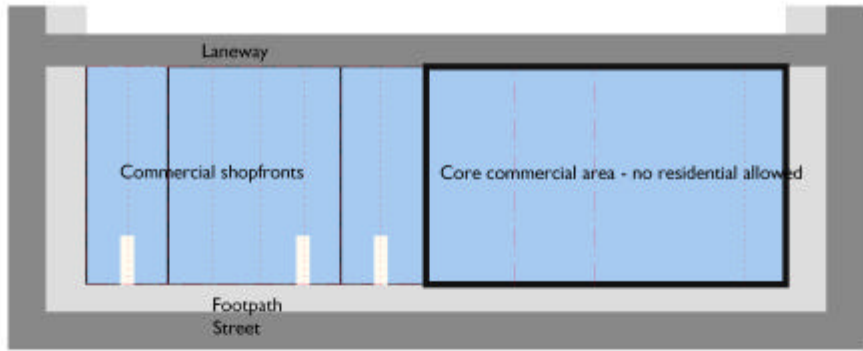




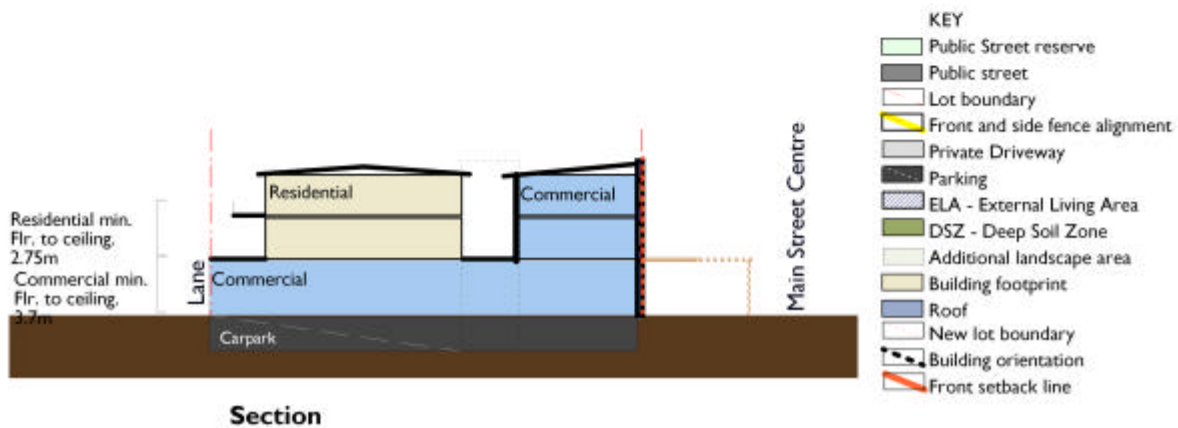
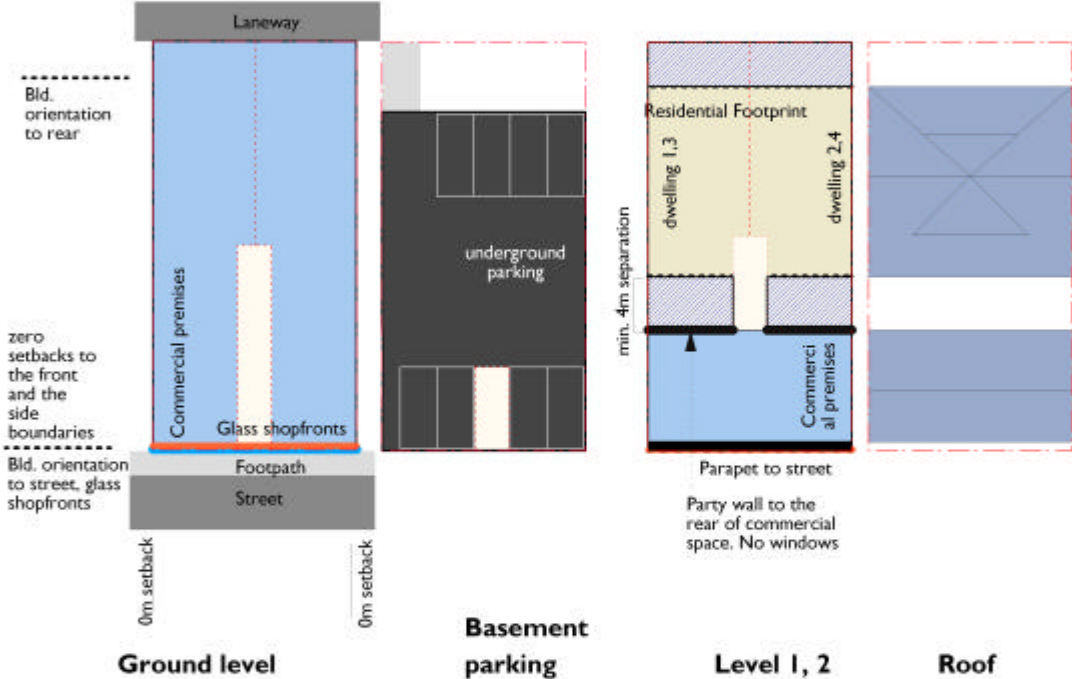
Indicative block layout



Illustrative site layout Shop -top Residential Flat Building with underground carparking.



Indicative block layout



Illustrative site layout shop-top housing with underground carparking. The residential component is set back to provide greater separation from noise and other environmental impacts.

## 1.6 Building Type 6 – Residential Flat Buildings

Residential Flat Buildings are buildings with three or more levels and four or more dwellings.

Residential Flat Buildings provide more compact forms of housing which:

- provides housing choice,
- provides for more people to live close to services and amenity,
- can enliven and urbanise an area such as town and village centres,
- can support local services and commercial operations such as shops, entertainment facilities and public transport,
- can provide residential densities that support economic growth and employment.

Residential Flat Buildings are an important component in supporting vibrant and economically viable local centres and reducing car dependency.

The location and type of Residential Flat Buildings needs to be carefully considered to ensure they support the physical vision for the future character of the area and that this is based on recognising and protecting the present character and environmental context.

Given the larger scale and site coverage of Residential Flat Buildings it is important that the design of the building where it is visible from the street and other public areas supports the character of the area and the street and is of a high quality design.

### 1.6.1 Small Residential Flat Building

A Small Residential Flat Building is apartment 3 storeys in height. Small Residential Flat buildings usually contain six dwellings, two per floor however they may contain a variation to this configuration. Carparking is generally underground and the buildings circulation spaces are located centrally within the buildings providing all dwellings with three external sides.

This building type is designed for an area that will eventually all be Residential Flat Buildings. The controls are designed to ensure each building works together across the block to ensure an equitable level of privacy, sunlight between lots and dwellings. Each building should also contribute to creating a quality streetscape by ensuring landscaping, fencing, driveways, setbacks and elevation design have similar characteristics.

#### *Objectives*

- To provide a more compact housing types within a small scale Residential Flat Building form.
- To provide more compact housing in proximity to centres.
- To create an urban building form and strong built edge along the street.
- To more efficiently use land in proximity to services and centres.

#### *Suitable locations for Small Residential Flat Buildings*

This building type is located on allotments originally designed for a single dwelling but only in areas identified for higher density residential development.

They are also not ideal for sloping sites as the building will step down the site resulting in the appearance of a 4, 5 or more storey building on the low side, the Big House Residential Flat building should be used on these sites.



*Controls*

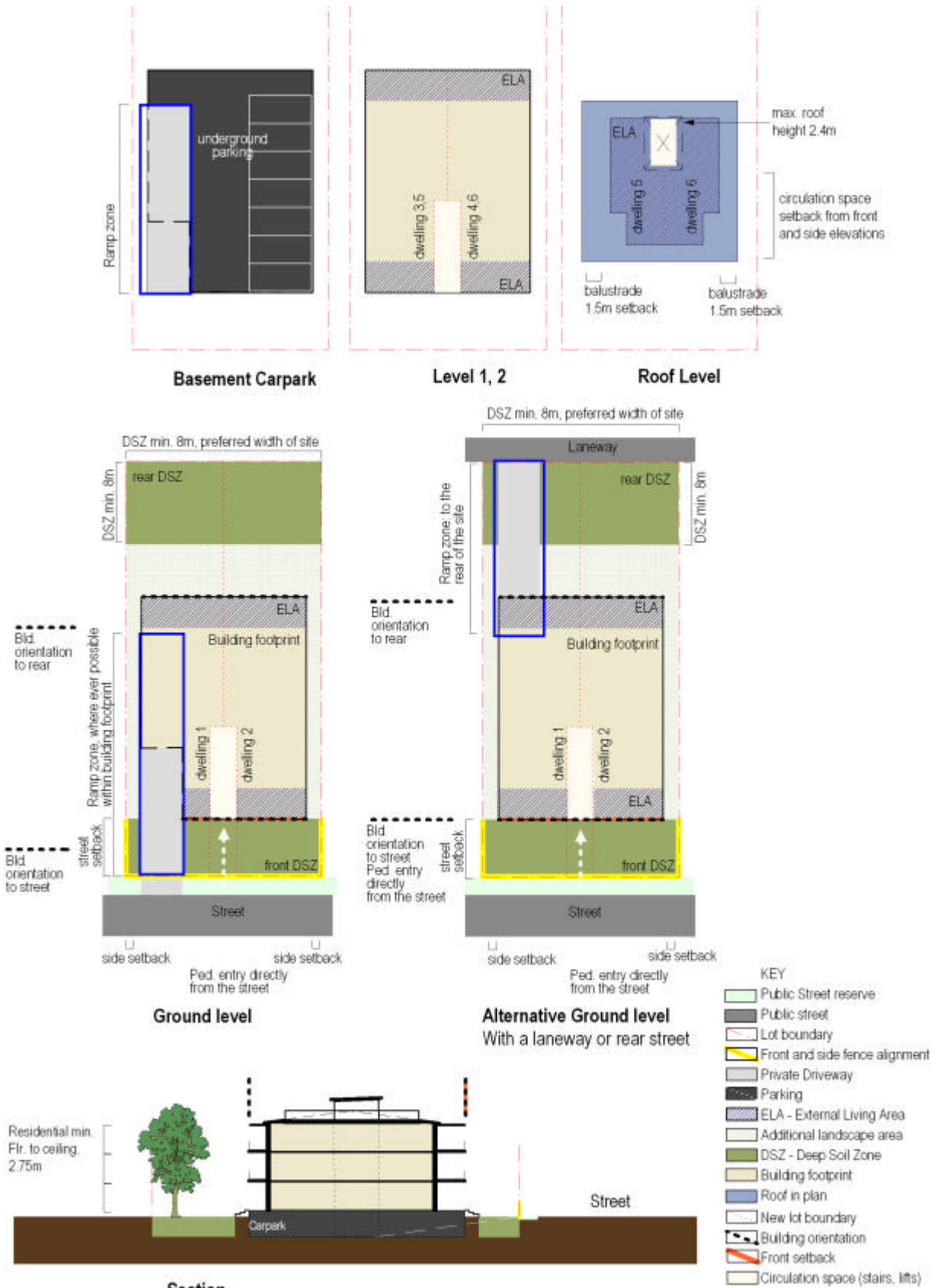
- a. A pedestrian entry to the building is to be provided from the street to the building and is to be clearly visible from the street.
- b. Ground level dwellings with a street frontage are to have a pedestrian access from the street.
- c. The internal space of the ground floor is to have pedestrian connection to ground level external spaces.
- d. Undetermined ground level spaces are to be avoided. All ground level external spaces are to be part of ground level dwellings unless designed for a specific communal such as; communal utility areas, communal circulation spaces or communal recreational spaces.
- e. The development is 3 storeys.
- f. The maximum FSR is 1.2:1.
- g. Deep soil areas are to be provided at the rear and the front of sites.
- h. Front fencing is to be provided along the length of the street boundary.
- i. The front setback for sites with no neighbouring buildings is to be 6m.
- j. Residential Flat Buildings are to provide for a landscape setting along the street.

*Design Guidelines*

- o *The street front and rear elevations of the building are to be the orientation for the majority living area windows and external living spaces.*
- o *The side elevations of the building are to be the orientation for the majority of windows of ancillary rooms.*



*Indicative block layout for the Small Residential Flat Building*



Indicative layouts for a Small Residential Flat Building with two dwellings per floor.

## 1.6.2 Big House Residential Flat Building

A big house apartment building is a residential flat building which has the proportion and scale of a large detached dwelling. It is a freestanding building in a landscape setting. The big house can range in size from one to three dwelling units per floor and is three storeys high. The big house can also be an existing large house, internally subdivided into separate apartments.

This building type is designed to suit situations where;

- the topography and visibility of sites prohibits large or long building forms in preference to smaller envelopes within a landscaped setting,
- the context is detached dwellings or similar architectural forms and are likely to remain,
- the character of the street, in terms of consistent building form and front gardens, is to be maintained,
- rear landscape areas and mature tree plantings are desired.

In big house apartment developments building and landscape design elements are of a residential scale and character. They are designed to match steep changes in level and maintaining the first floor connection with the ground level and landscaped areas.

### *Objectives*

- To provide a residential flat building suitable for infill sites within a detached dwelling area.
- To provide a residential flat building type for steep sites.
- To provide greater residential densities.

### *Suitable locations for big house residential flat buildings*

Big house residential flat buildings are use in the following contexts;

- on sloping sites,
- infill sites within single dwelling residential areas,
- on larger sites that can accommodate larger side boundary setbacks and landscaping,
- on sites that require a high level of landscaping to fit within the existing streetscape character,
- where smaller building footprints are desirable.

### *Controls*

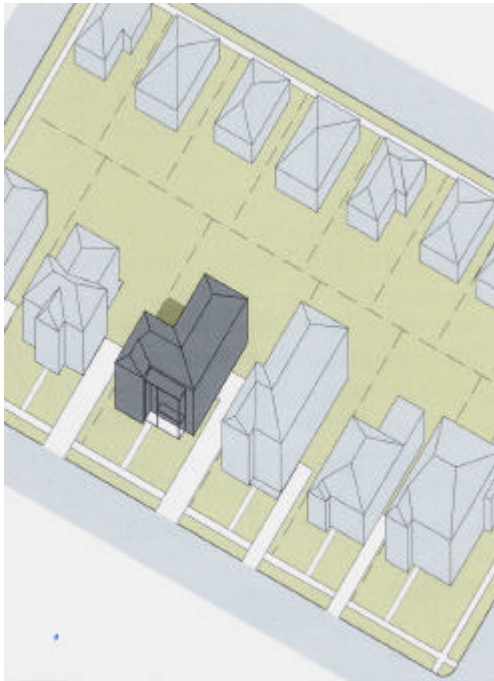
- a. Front doors, windows and entry areas are to face the street.
- b. Ground level dwellings with a street frontage are to have a pedestrian access from the street.
- c. Car parking areas are located to the rear or the centre of lots away from the street front or underground.
- d. The development is 3 storeys.
- e. The maximum FSR is 1.2:1.
- f. Deep soil areas are to be provided at the rear and the front of sites.

*Design Guidelines*

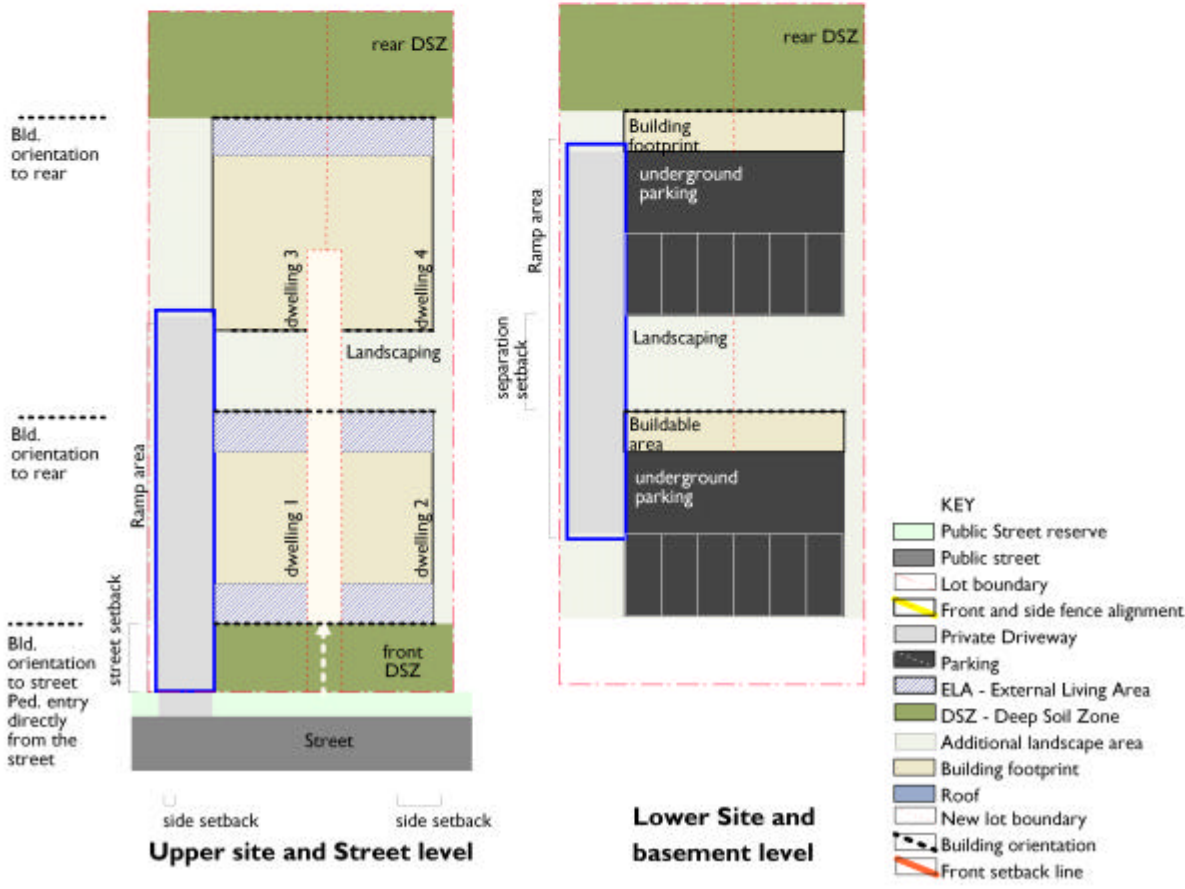
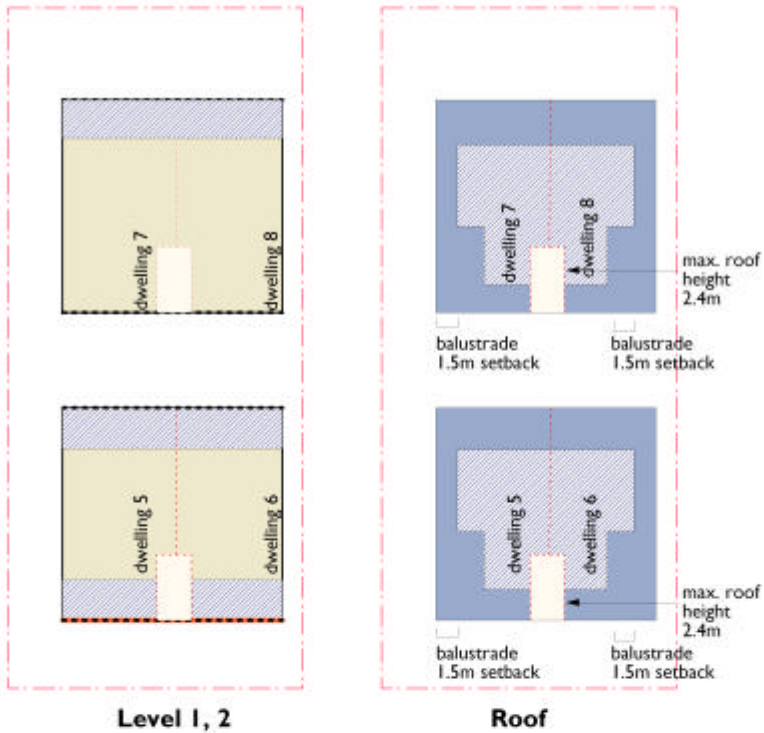
- *The massing of the building and the design of elevations is to be similar in scale to larger residential houses.*
- *Front fencing and landscaping is to be provided within the front setback and is to enhance the residential character of the street and the building.*
- *Facade articulation is proportioned to a residential scale and to other buildings along the street.*



*At the block and precinct scale the big house apartment building type results in a high degree of landscaping and open space.*

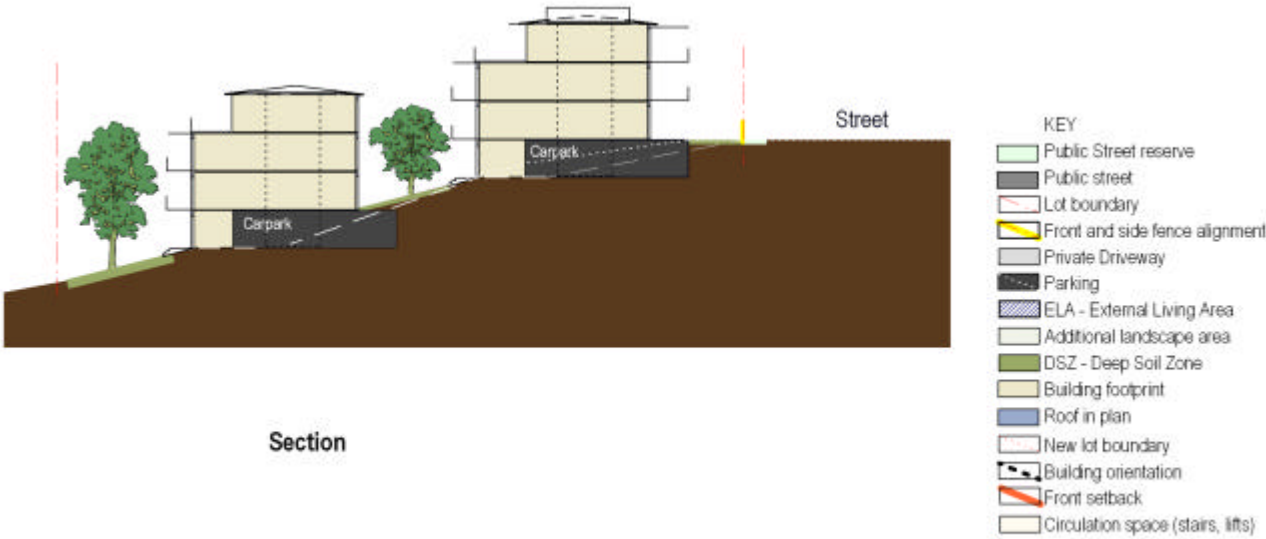


*A big house apartment has the proportions and scale of a large house (Image from the Residential Flat Design Code).*



Illustrative plan of the big house residential flat building type on a steep site.





Section

Illustrative section of the big house residential flat building type on a steep site



Illustrative elevation and street plan of the big house residential flat building type (Image from the Residential Flat Design Code).

### 1.6.3 Block Edge Residential Flat Building

These buildings are characterised by being large developments either as a result of amalgamating more than two lots or are located on larger scaled lots generally over 2000m<sup>2</sup>.

These buildings are three storeys are located in areas zoned for higher density residential development generally only within proximity to centres where the built form is relatively urban.

This is a flexible building type and can easily incorporate a mix of uses within the same building.

Block edge apartments can be limited in height as a walk-up or have lifts. They can also be street-edge aligned or set back within a landscape.

These buildings types can have a variety of different layouts depending on the site size, topography and street character as long as they meet the building and site design controls for residential flat building development. The main issues for Block Edge buildings are to ensure the building mass is broken down along the street and to ensure ground floor dwellings have an address to the street.

#### *Suitable locations for Block Edge Residential Flat Buildings*

Locations generally include:

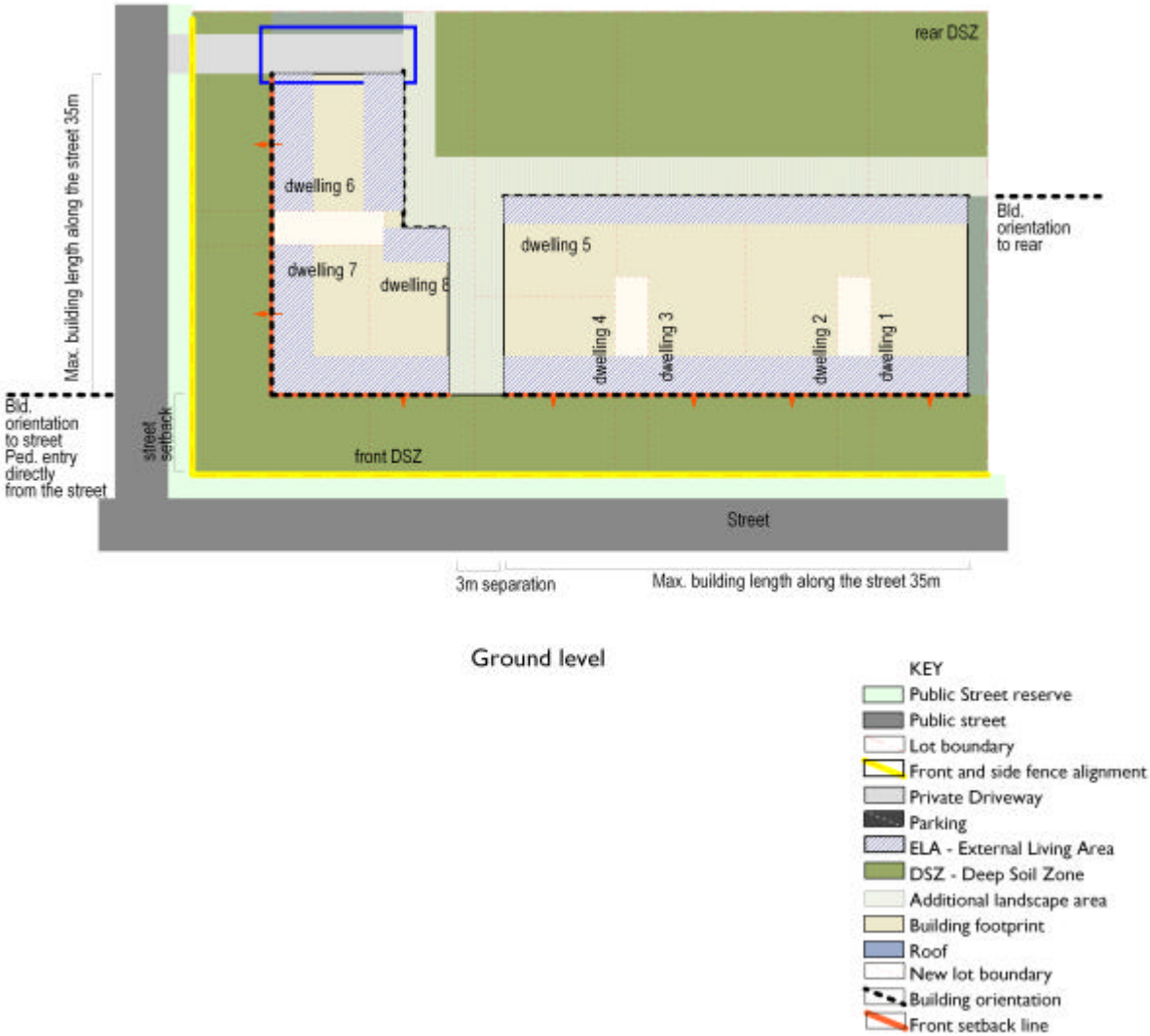
- along main streets,
- in urban precincts in walking proximity to centres
- a larger development site requiring a long block edge building,
- a perimeter block urban form is intended,
- a vertical rhythm is desired to reinforce the street.

#### *Objectives*

- To ensure larger developments are well proportioned and scaled.
- To provide more compact housing in proximity to centres.
- To create an urban building form and strong built edge along the street.
- To define the street space.

#### *Controls*

- a. Maximum building and elevation length along the street 35m.
- b. Minimum lot size 2000m<sup>2</sup>.
- c. The buildings street elevation is to be articulated to have a base, middle and top.
- d. Front doors, windows and entry areas are to face the street.
- e. Ground level dwellings with a street frontage are to have a pedestrian access from the street.
- f. Front fencing and landscaping is to be provided within the front setback and is to enhance the character of the street and the building.
- g. Car parking areas are located to the rear or the centre of lots away from the street front or underground.
- h. The development is to be 3 storeys.
- i. The maximum FSR is 1.2:1.



Illustrative site layout of a Block edge Residential Flat Building



Illustrative block layout showing how the larger block edge developments define the street edge and relate to one another and create vegetation corridors to the rear of sites.



## SECTION 2 SITE AND BUILDING DESIGN CONTROLS

### Introduction

This section of the document provides an explanation of the 9 key controls used to define aspects of development to be achieved when preparing a design for a site and when submitting a Development Application.

All 9 key controls have been designed to ensure that they correlate with one another and result in quality development. The building types as defined and illustrated in Section 1 of this document indicate how the 9 controls can be coordinated on a range of site types.

The explanations associated with each Design Control are to assist the building and site designer to understand the intent of each control and to ensure there is consistency in the application of the controls across all sites in the Tweed Shire.

The 9 Site and Building Design Controls are:

Design Control 1	Public domain amenity
Design Control 2	Site configuration
Design Control 3	Setbacks
Design Control 4	Carparking and access
Design Control 5	Building footprint, orientation and separation
Design Control 6	Height
Design Control 7	Floor space ratio (FSR)
Design Control 8	Building amenity
Design Control 9	Internal building configuration
Design Control 10	External building elements
Design Control 11	Building Performance

## 2.1 Design Control 1 – Public domain amenity

Public domain relates to those aspects of the urban environment which are either owned publicly or accessible to and enjoyed by the public.

In residential areas this includes:

- Streetscape, and
- public views and vistas.

New developments can help to enhance amenity within the public domain. In established residential areas it is important to recognise and respect the existing qualities and unique characteristics of the place. In locations where the character is either not well established or needs improvement new development can contribute to strengthening and creating character.

### 2.1.1 Streetscape

Streetscape refers to the spatial arrangement, extent and appearance of elements within a street, including those within private properties adjoining the street

Streetscape is concerned with ensuring there is consistency in built and landscape form along streets. Streets may have different characteristics, however it is more common for streets within a particular area to have similar built form and landscape characteristics. The primary elements that create streetscape character include:

- the alignment of the street relative to the topography,
- the width, layout, landscaping and materials of the street including street tree planting and footpaths, fencing, driveways, road surfaces, street furniture, walls and traffic devices.

Aspects of development that help to create quality streetscapes include;

- front and side boundary landscaping including boundary fences and walls,
- access and driveway design; widths, materials and location,
- the buildings front elevation and roof form.

#### *Objectives*

- To ensure the existing landform and topographic setting along the street is respected.
- To ensure new development is compatible with the positive characteristics of the existing streetscape.
- To ensure new development enhances the character of the existing streetscape.
- The street front façade is to have a high level of visual interest
- To encourage dwellings to be well designed.
- To ensure streets provide a high level of pedestrian amenity, access and safety.

#### *Controls*

- a. Site design, building setbacks and the location and height of level changes are to respect the existing topographic setting of other buildings and sites along the street, particularly those that are older and more established.
- b. The design of front gardens is to complement and enhance streetscape character by:

- providing sufficient space for soft landscaping; lawn, trees and shrubs, between the street boundary and the dwelling,
  - reflecting the character and height of fences and walls along the street, or the lack of front fences,
  - reflecting the character and layout of established front gardens of other allotments in the street, particularly the older or original front garden landscapes,
  - retaining, protecting or replacing existing vegetation and mature trees,
  - ensuring no damage occurs to trees on neighbouring properties or on the street.
- a. Dwelling design is to enhance the streetscape by:
- having front doors and living room windows facing the public street to ensure entries are readily apparent from the street and that the development conveys a sense of address,
  - ensuring that entrances located to the site are clearly visible and identifiable from the street,
  - having elevation design, roof form and detailing that complements the scale, proportions, massing and elevation composition of the street.
- c. Carports and garages visible from the public street are to;
- be compatible with the building design, including roofs,
  - be set back behind the residential buildings front elevation.
- d. Minimise driveways and hardstand areas to increase the area for deep soil zones and landscaping and to reduce the visual impact of driveways and hard surfaces from the street.

### 2.1.2 Public views and vistas

Public views and vistas are enjoyed from public places such as foreshores, parks and along streets. Views are generally contained by urban form ie. views down a residential street, whilst vistas are long wide views from afar generally across a locality. Vistas are generally defined by ridgelines, natural or built features, or the water.

#### *Objectives*

- To ensure existing public views and vistas particularly those of important natural features such as ridgelines, water or bushland are retained, in so far as it is practical to do so.
- To ensure public view corridors, particularly those down street and between buildings, are not unnecessarily reduced or obliterated. .
- To ensure public views of important public places or buildings are protected.

#### *Controls*

- a. The location and height of new developments is not to significantly diminish the public views to heritage items, dominant landmarks or public buildings from public places.
- b. The location and height of new development is to be designed so that it does not unnecessarily or unreasonably obscure public district views of major natural features such as the water, ridgelines or bushland.

- c. The location and height of new development is to be designed so that it does not unnecessarily or unreasonably obscure public view corridors, for example, down a street.
- d. The location and height of new development is to be designed to minimise the impact on public views or view corridors between buildings.

## 2.2 Design Control 2 – Site configuration

Site configuration deals with the way in which the intended uses are accommodated to suit the particular site and local context.

Site configuration includes:

- Development Lots,
- Deep Soil Zones,
- Impermeable Site Area,
- External Living Areas,
- Communal Open Space,
- Landscaping,
- Planting on structures and,
- Topography, cut and fill.

### 2.2.1 Development lots

Development lots are created by the subdivision of the site or the original lot. This usually occurs with Dual Occupancy, Town House and Row House Developments.

#### *Objectives*

- To enable the concurrent application of building and subdivision development.
- To promote appropriate subdivision design for medium density developments.

#### *Controls*

- a. The subdivision type must be nominated; eg. Strata or Torrens.
- b. Torrens Title subdivisions must be designed in accordance with Councils Subdivision Manual - DCP 16.
- c. The DA submission must:
  - have a subdivision layout plan with the site and building layout overlaid,
  - prescribe each lot size per dwelling.
- d. Refer to each building type for the minimum lot sizes.

### 2.2.2 Deep Soil Zones

Deep soil zones are areas of soil suitable for the growth of vegetation and mature trees. Deep soil zones are landscaped and are not covered with hard surfaces such as concrete, asphalt or pavers. They are also not contained within or located over a carpark.

Most sites have two deep soil zones, one located to the rear and one to the front of the lot. The rear deep soil zone is designed to accommodate at least one mature tree and vegetation. The planting of endemic species is encouraged.

Deep soil zones have significant environmental benefits including:

- promoting healthy growth of large trees and protecting existing mature trees,
- to retain the natural hydrological structure of the area,
- assisting with management of water quality and mitigate global warming,
- improving the amenity of developments through landscaping that improves microclimatic conditions.
- assisting in the creation of vegetation corridors within and through the locality.

*Objectives*

- To ensure that land retains its ability to permeate water.
- To ensure that each building lot has a deep soil zone.
- To provide a minimum area for a deep soil zone.
- To retain and enhance fauna and flora corridors throughout suburban areas.
- To provide space for mature tree growth and vegetation.
- To retain existing mature vegetation.

*Calculation rules*  
Two dimensions are used to measure deep soil zones; depth and width.  
*Depth:* Depth is measured perpendicular to the boundary (front or rear) towards the centre of the site to the edge of the building footprint.  
*Width:* width is measured as a percentage of the length of the boundary (front or rear).



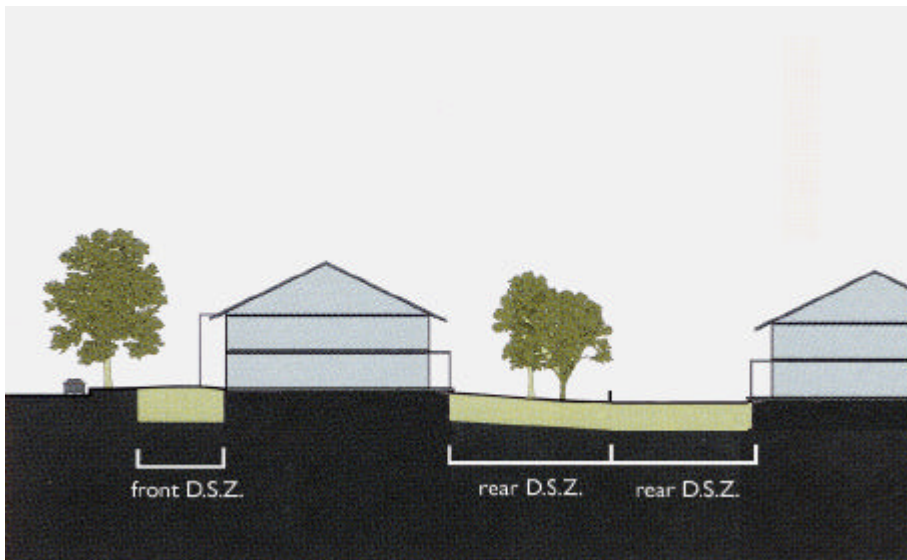
*At a suburban scale Deep Soil Zones provide connected flora + fauna corridors*



*At the block scale contiguous green space is consolidated to the rear and front of lots.*



Existing mature trees are generally located to the rear of lots, by locating the Deep Soil Zone here it is possible to retain mature trees.



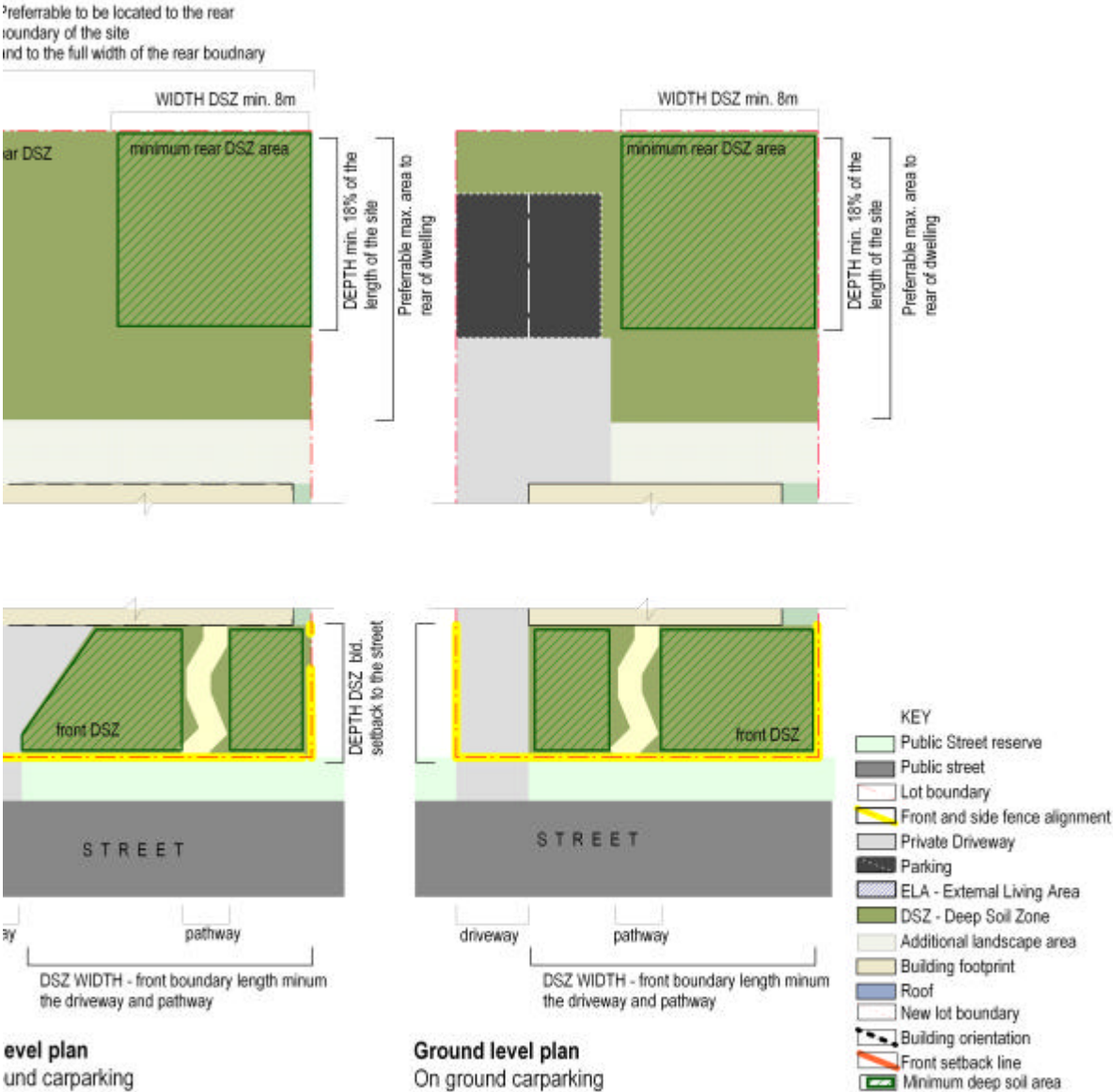
Deep soils zones fit neatly around the building without obstruction either above or below by built elements such as carpark ramps, impervious surfaces or terraces.

#### Controls

- a. The minimum Deep Soil Zone areas must be retained for all building types.
- b. All building types except shop-top are to have two Deep Soil Zones, one to the rear and one to the front of the lot.
- c. Rear Deep Soil Zones are to have minimum width of 8m and a minimum depth of 18% of the average length of the site.
- d. Rear Deep Soil Zones are to have soft landscaping; at least one mature tree and vegetation.
- e. Front Deep Soil Zones are to be the width of the site boundary minus the driveway width and the pathway width by the front setback depth.
- f. Front Deep Soil Zone areas to have soft landscaping; trees and vegetation.

- g. Deep Soil Zones cannot be covered by impervious surfaces such as concrete, terraces, outbuildings or other structures.
- h. Deep Soil Zones cannot be located on structures such as car parks or in planter boxes.

*Design Guidelines*  
 It is preferable that rear deep soil zones on the rear boundary, this is generally where mature vegetation and trees may already exist on sites.  
 It is preferable that rear deep soil zones extend along the length of the rear boundary.



Front and rear deep soil zone diagram showing a site with underground parking (left image) and on grade parking (right image)



### 2.2.3 Impermeable Site Area

The impermeable site area is the total area of impervious surfaces within the site following completion of the development.

Impermeable areas on a site reduce the volume of stormwater discharged from the site and help to retain the ability of the land to infiltrate water in storm events.

#### *Objectives*

- To promote residential development that is sympathetic with the existing topography, water cycle and amenity of the site and neighbourhood.
- To retain the lands ability to infiltrate stormwater.

#### *Controls*

- a. Internal runoff shall be dispersed onto grassed, landscaped or infiltration areas unless this is inconsistent with the geotechnical stability of the site or adjacent/downstream land.
- b. The concentration, collection and piping of runoff to the street gutter or underground stormwater system shall be minimised unless this is inconsistent with the geotechnical stability of the site or adjacent/downstream land.
- c. Roof runoff shall be collected in tanks and reused.
- d. Site surface depressions in landscaping are to be utilised for on site detention and infiltration unless this is inconsistent with the geotechnical stability of the site or adjacent/downstream land.
- e. Runoff is to be minimised, delayed in its passage and where possible accommodated within the landscape of the development site unless this is inconsistent with the geotechnical stability of the site or adjacent/downstream land.
- f. The maximum areas for impervious surfaces are:
  - Single dwellings, dual occupancies, town houses (lot size less than 500m<sup>2</sup>) - 70%.
  - Single dwellings, dual occupancies, town houses (lot size between 500m<sup>2</sup> and 750m<sup>2</sup> inclusive) - 65%.
  - Single dwellings, dual occupancies and town houses (lot size greater than 750m<sup>2</sup>) - 60%.
  - Row Houses and Residential Flat Buildings - 85%.
  - Shop-Top Housing and Shop-Top Residential Flat Buildings - 100%

<i>Surface type</i>	<i>Material</i>	<i>Impermeable factor</i>
Roof surfaces	Metal, Tile, slate and other impermeable materials "Green roofs"/roof gardens	1.0 0.5
Ground surfaces	Concrete/ paving (non-porous) Gravel Porous paving Grid pavers Seep Soil Zones Landscaping/vegetation Planting on structures	1.00 0.75 0.50 0.20 0.0 0.0 1.0
Decks	Concrete/ paving (non-porous) Timber (over natural soil)	1.00 0.50
Swimming pools	All types	0.50

*Calculation Rules*

*The impermeable site area is calculated by adding up the area (in square metres) for each different type of ground surface that does not allow natural infiltration of rainwater. As some types of surfaces are only partially impermeable, it is necessary to multiply the area of the surface with an appropriate 'impermeability factor' as indicated.*

## 2.2.4 External Living Areas

External living area is space that extends the internal space of the building, particularly living areas. External living areas are generally paved or decked and may be covered.

An external living area is part of the private outdoor recreational and relaxation space for a dwelling. External living areas can take the form of terraces, decks and the like and can be located either on ground or above ground. Small balconies and similar structures from bedrooms are not considered external living areas.

External living areas should not adversely impact on the amenity of neighbours. The location of the external living area needs to be carefully considered with regard to achieving privacy.

The location of external living areas can assist in controlling sun access by promoting daylight access in winter and shade in summer.

External living areas are to be designed to avoid facing the side boundaries, as far as it is practical, as this can lead to privacy problems with neighbouring properties.

### *Objectives*

- To provide an external living area for each dwelling.
- To enhance the amenity of internal living spaces.

### *Controls*

- a. An external living area is to be provided for each dwelling.
- b. External living areas are to be located adjacent to the internal living area so that they extend the internal ground level living spaces.
- c. External living area is to be screened to achieve visual privacy if located less than 4m from a side boundary.
- d. An external living area is additional to deep soil zones to be provided on a lot.
- e. External living areas can be located on the roof of developments.

### **Ground level external living areas**

Ground level external living areas include patios, terraces and decks.

Ground floor dwellings offer the potential for direct access from to ground level spaces providing the opportunity for some dwellings to have gardens and larger external living areas. They may also provide in some cases opportunities for a building and its landscaping to give the street and the building a residential and pedestrian scale.

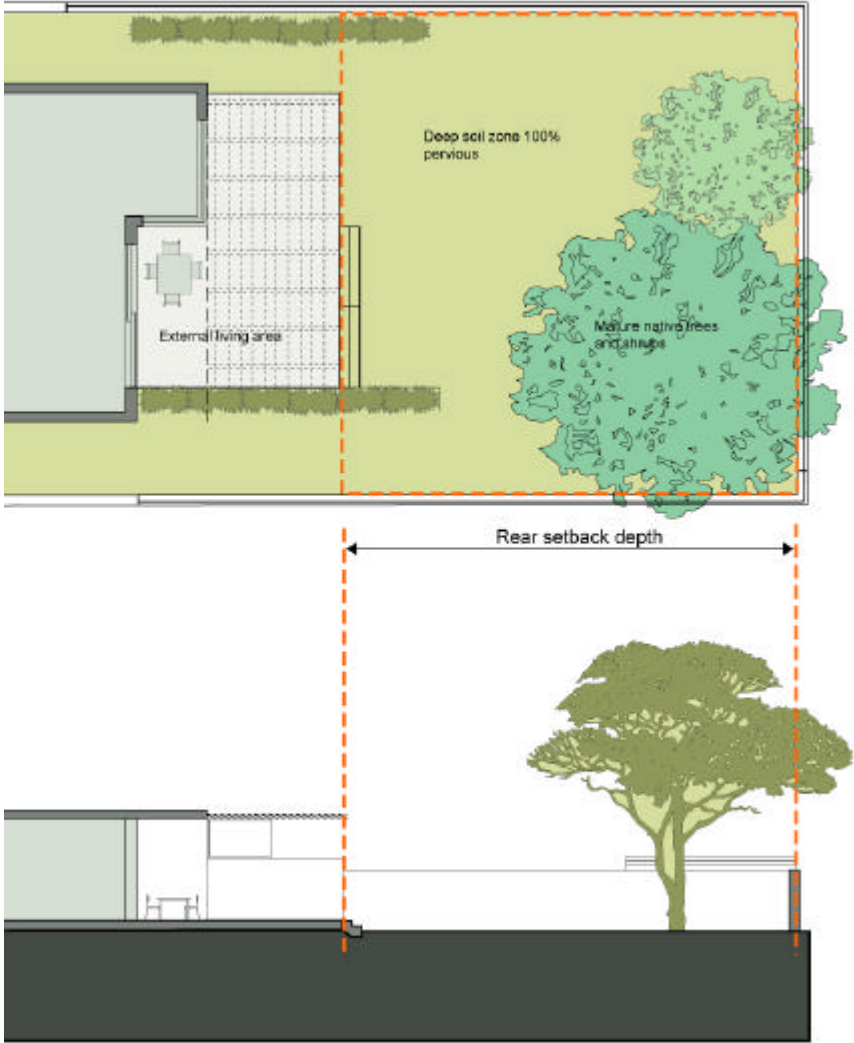
This can provide greater housing choice by providing dwelling level with the street and therefore accessible for the elderly and/or disabled. Gardens provide housing choice for families that may desire garden areas for children's play. Ground floor external living areas extend the lifestyle choices available in residential buildings by facilitating activities, such as gardening, play and pet ownership.

*Objectives*

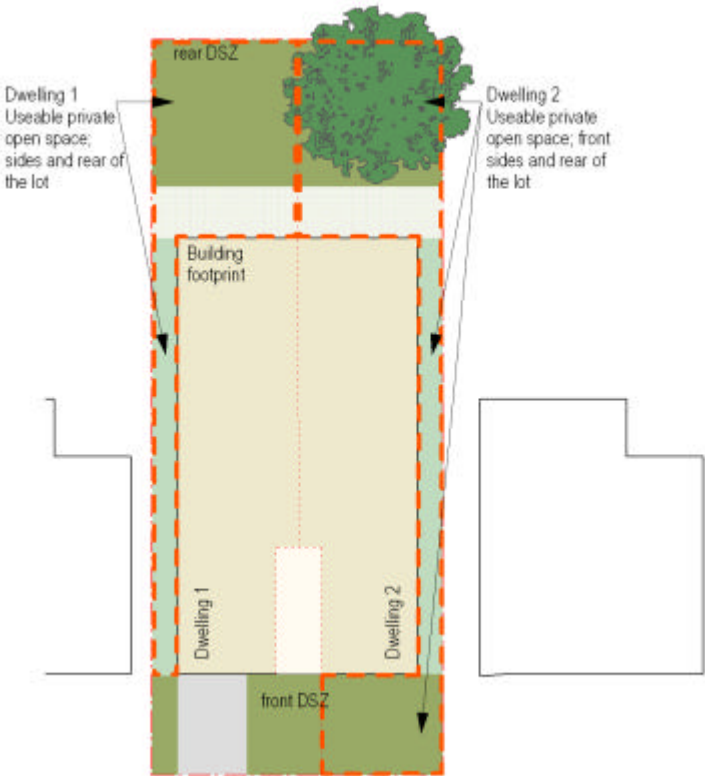
- To provide accessible and a diverse range of external living environments that can accommodate a broad spectrum of lifestyles through the life of the development.
- To contribute to the desired streetscape of an area.
- To provide useable and functional ground level external areas.
- To contribute to the streetscape and assist with casual surveillance of the street.

*Controls*

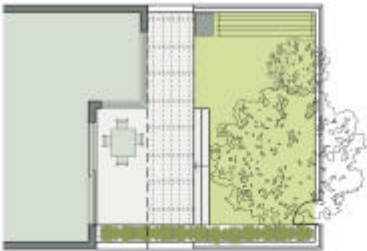
- a. Each ground level dwelling is to have a ground level external living area with a minimum dimension of 3m and a minimum area of 20m<sup>2</sup>.
- b. External living areas are to be no closer to the side boundaries than 900mm.
- c. Incorporate ground level external spaces into the useable external space for ground level dwellings.
- d. Coordinate the design of Deep Soil Zones, external living areas and other ground level spaces to provide useable private external spaces for ground level dwellings.
- e. Provide ground floor dwellings with access to ground level external spaces.
- f. Enhance external spaces by providing soft landscaped areas in addition to external living areas.
- g. Provide direct access from the street to ground level dwellings along the street.
- h. Ensure that fencing, lighting and/or landscaping of the outdoor space contributes positively to the streetscape.
- i. External living areas are to be designed to prevent the entry of water into the dwelling.



*Diagram of an External Living Area to the rear of the site provides direct connection between the internal space of the dwelling and the garden or Deep Soil Area. Privacy screening may be required to the sides of the space. Ground level external living areas are to be located so as to retain mature trees, mature vegetation and significant landscape features.*



*Illustrative plan of a Six Pack RFB. The developments ground level spaces are to be useable and incorporated into the private open space for ground level dwellings.*



*Illustrative plan and section of a Residential Flat Building. Landscaped private rear gardens and courtyards extend the liveable space of the dwelling and provide a variety of paved and soft landscaped areas. Utility functions such as clothes drying can be provided as well as deep soil zones.*

## Above ground external living spaces; balconies and terraces

Balconies and terraces are outdoor rooms, which enhance the amenity and lifestyle choices of residents. They provide private open space, extend the living spaces of the dwelling and capitalise on the temperate climate. Balconies and terraces are also important architectural elements, contributing to the form and articulation of buildings.

### Objectives

- To ensure balconies and terraces are functional and responsive to the environment thereby promoting the enjoyment of outdoor living for residents.
- To ensure that balconies and terraces are integrated with overall architectural form and detail of buildings.
- To contribute to the safety and liveliness of the street by allowing for casual overlooking and address.

### Controls

- a. Provide each dwelling with at least one external living area; balcony or terrace.
- b. Above ground external living areas are to have a minimum depth of 3m and a minimum area of 15sq.m.
- c. Above ground external living areas are to be;
  - located adjacent to the main living areas, such as living room, dining room, kitchen to extend the dwelling living space,
  - sufficiently large and well proportioned to be functional and promote indoor/outdoor living to fit a dining table and four chairs.

### Design Guidelines

- *Detail and design balconies or terraces in response to the local climate and context, thereby increasing their usefulness. This may be achieved by;*
- *locating balconies and terraces facing predominantly north or east,*
- *utilising sun screens, shutters and operable walls to control light and wind,*
- *providing balconies or terraces with operable screens, Juliet balconies or operable walls/sliding doors with a balustrade may be preferable in special locations where noise or high winds prohibit other solutions,*
- *choosing cantilevered balconies, partially cantilevered balconies and/or recessed balconies in response to daylight, wind, acoustic & visual privacy,*
- *design balustrades to allow views and casual surveillance of the street while providing for safety and visual privacy. Design considerations may include;*
  - *detailing balustrades using a proportion of solid to transparent material to address site lines from the street, public domain or adjacent development (full glass balustrades do not provide privacy for the balcony or the dwelling interior),*
  - *detailing balustrades and providing screening from the public, for example, for a person seated looking at a view, for clothes drying areas, bicycle storage and air conditioning units.*
- *Coordinate and integrate building services, such as drainage pipes, within the overall façade and balcony design.*
- *Secondary balconies (including Juliet balconies or operable walls with balustrades) may be provided to increase residential amenity and dwelling choices, in larger dwellings, adjacent to bedrooms.*
- *Screen balconies or terraces off laundries or bathrooms from the public domain.*

## 2.2.5 Communal Open Space

Communal open space is space within the development for the use of all residents. This could include swimming pools, barbeque areas, and landscaped relaxation areas, clothes drying areas or a gym. Generally only larger development with more than 6 dwellings will have communal open space. Communal open space is not to be made up of left over spaces.

### *Objectives*

- To provide a space where residents can participate in shared activities.
- To enhance the lifestyle of residents.
- To be functional.

### *Controls*

- a. Communal open space is not to be located such that solar access, privacy and outlook to dwellings is reduced.
- b. Communal open space is to be designed to be for specific functions that enhance the liveability of the development for residents.
- c. Communal opens pace must still achieve the minimum separation distances and minimum areas for external living areas.

### *Design Guidelines*

- o *Communal open space is to be designed such that its size and dimensions allow useable spaces,*
- o *Communal open space may be provided on roofs.*





*Communal open space areas can provide a pleasant outlook for dwellings and shared facilities such as pools and gardens.*



## 2.2.6 Landscaping

Landscaping is concerned with the planning, design, construction and maintenance of all deep soil zones, external living areas, garden, surface vehicle access and parking areas and utility areas including both soft and hard landscape areas.

Quality landscaping retains significant landscape natural features and mature trees.

It also ensures that landscaping and buildings are considered together to result in greater aesthetic quality and amenity for occupants. As such landscape areas should not be generated by left-over spaces resulting from building siting.

Landscape design builds on the site's natural and cultural features to contribute to a development's positive relationship to its context and site. Landscape design should optimise usability, privacy and social opportunity and respect for neighbours' amenity.

### *Objectives*

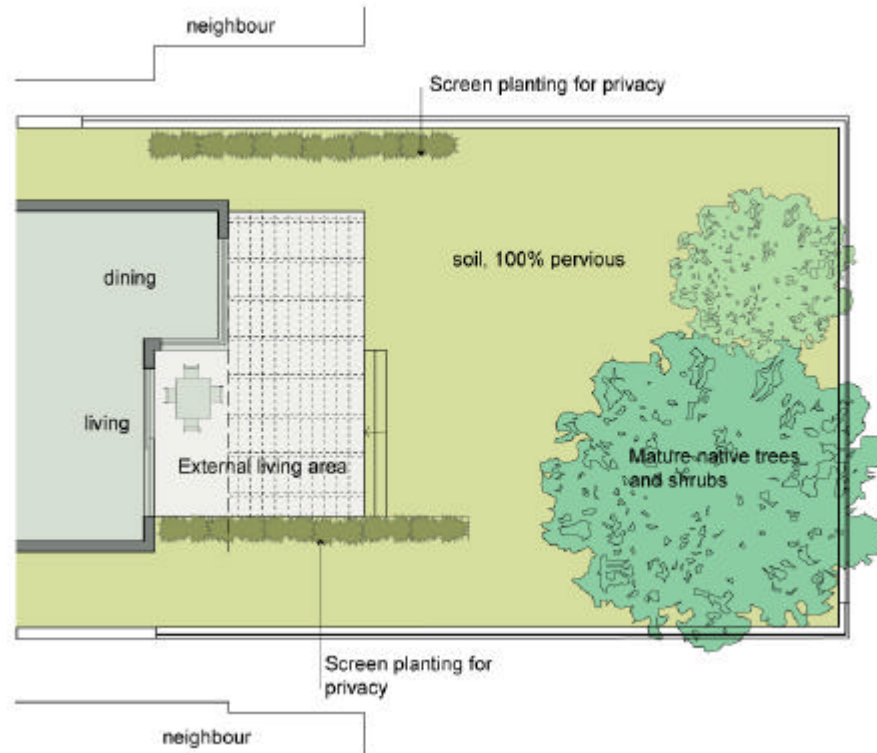
- To ensure that landscaping enhances the appearance and amenity of development.
- To enhance the landscape character of the locality and the streetscape.
- To ensure that existing important landscape features are retained.
- To enable privacy between adjoining sites.
- To provide a pleasant outlook from within the dwelling.
- To enhance the amenity of the development.
- To contribute to the improvement of stormwater quality and reduction in quantity.
- To contribute to improving microclimatic conditions on sites and the solar performance of dwellings.
- To contribute to improving urban air quality.

### *Controls*

- a. Enhance existing landscape elements on sites by retaining existing bushland and landforms such as natural rock outcrops, watercourses, dune vegetation, vegetation generally and mature trees.
- b. On lots adjacent to bushland ensure indigenous native vegetation on the site or adjoining land is not damaged and use native indigenous plant species.
- c. Major existing trees are to be retained.
- d. Buildings are not to be sited under the drip line of an existing tree.
- e. Use plant species as specified in Council's species list.

*Design Guidelines*

- *Provide useful outdoor spaces for liveability by coordinating the design of driveways, parking areas, communal drying areas, swimming pools, utility areas and other private open spaces with the design of the dwelling.*
- *Improve the energy and solar efficiency of dwellings and the microclimate of private open spaces. Design solutions include:*
  - *providing trees for shading low-angle sun on the east and western sides of a dwelling,*
  - *providing trees that do not cast a shadow over solar collectors at any time of the year,*
  - *providing deciduous trees for shading of windows and open space areas in summer,*
  - *locating evergreen trees away from the building to allow winter sun access,*
  - *varying heights and species of trees or shrubs to shade walls and windows,*
  - *locating pergolas on balconies and courtyards to create shaded areas in summer and private areas for outdoor living,*
  - *locating plants appropriately in relation to their size at maturity.*
- *Design landscapes to contribute to water and stormwater efficiency by:*
  - *using plants with low water demand to reduce mains consumption,*
  - *using plants with low fertilizer requirements, utilising permeable surface,*
  - *using water features, incorporating wetland filter systems.*



*Illustrative plan showing the collocation of External Living Areas, Deep Soil Zones and landscaping*

### 2.2.7 Planting on structures

Quality landscape design and open space amenity relies in part on the quality and health of plants. Plants grown on structures are grown in containment with artificial soils, drainage and irrigation. Plants grown in such situations are subject to a range of environmental stresses that affect the health and vigour of the plants, and ultimately their survival.

Planting on structures should be avoided in dwelling houses, dual occupancies, town houses and row housing. Carefully considered planting on structures can occur in larger developments where the ground level site area is restricted such as in Shop-top residential flat buildings.

#### *Objectives*

- To contribute to the quality and amenity of communal open space on roof tops, podiums and internal courtyards.
- To encourage the establishment and healthy growth of trees in urban areas.

#### *Controls*

- a. Planting on structures is not to occur in areas that cannot be easily accessed either from dwelling external living areas or communal areas.

- b. Planting on structures is to occur only in Residential Flat Building developments.
- c. Optimise plant growth by:
- d. providing soil depth, soil volume and soil area appropriate to the size of the plants to be established,
- e. providing appropriate soil conditions and irrigation methods,
- f. providing appropriate drainage.

*Design Guidelines*

- o *Design planters to support the appropriate soil depth and plant selection by:*
  - *ensuring planter proportions accommodate the largest volume of soil possible. [minimum soil depths will vary depending on the size of the plant however, soil depths greater than 1.5 metre are unlikely to have any benefits for tree growth],*
  - *providing square or rectangular planting areas, rather than long narrow linear areas.*
- Increase minimum soil depths in accordance with:*
  - *the mix of plants in a planter for example where trees are planted in association with shrubs, groundcovers and grass*
  - *the level of landscape management, particularly the frequency of irrigation*
  - *anchorage requirements of large and medium tree soil type and quality.*
- o *Provide minimum soil depths in accordance with the following:*
  - *large trees such as figs (16 metres canopy diameter at maturity); minimum soil volume 150 cubic metres, minimum soil depth 1.3 metre, minimum soil area 10 metre x 10 metre area or equivalent.*
  - *Medium trees (8 metre canopy diameter at maturity); minimum soil volume 35 cubic metres, minimum soil depth 1 metre.*
  - *Shrubs; minimum soil depth 500-600mm.*
  - *Ground cover; minimum soil depth 300-450mm.*
  - *Turf; minimum soil depth 100-300mm.*
  - *Any subsurface drainage requirements are in addition to the minimum soil depths quoted above.*

## 2.2.8 Topography, cut and fill

Tweed Shire has significant and varied topography both along the coastal edge and further inland.

The topography gives places their character. It provides for a variety of views and vistas, both local and distant, from public and private domains but also makes developments more prominent, higher and larger particularly when viewed from the low side.

The retention of the existing topography means that buildings in the streetscape retain a consistent relationship to the natural topography. This relationship provides an important visual link between buildings in a streetscape, as well as reducing the impacts of new development on neighbouring lots.

Deep excavations can substantially alter the pattern of subsoil water flow and soil stability which may adversely affect neighbouring properties and the natural environment.

- Alternatives to slab on ground construction are to be encouraged where it is obvious that due to the gradient and characteristics of the site, major excavation or filling as a result of raft slab construction would be inappropriate.

#### *Objectives*

- To retain the existing landform.
- To create consistency along streetscapes with significant topographic conditions.
- To limit the extent of excavation.
- To moderate the effects of building height and bulk on sloping land.
- To minimise the extent of earth works on residential land and earthworks associated with residential development.
- To ensure that the building design is appropriate for site topographical conditions and with consideration given to the stability and privacy of the adjoining properties;

#### *Controls*

- a. Building form and siting is to be designed to relate to the original form of the land.
- b. Developments on slopes greater than 10% are not to be constructed on a contiguous slab. Developments on such land are to be of pole or pier construction or multiple slabs or the like to minimise the extent of cut and fill.
- c. Basement carparking is to protrude no more than 1m above finished ground level.
- d. Retaining walls are to be designed so that they do not prevent the flow of stormwater.

#### *Cut and fill*

- e. The maximum level of cut is 1m and fill is 1m.
- f. Retaining walls are to be a maximum of 1m.
- g. Cut areas are to be set back from the boundaries at least 900mm; fill areas are to be setback from the boundary a minimum of 1.5m.
- h. Cut and fill batters shall not exceed a slope of 1:2 (v:h) unless geotechnical reports result in Council being satisfied with the site stability. All batters are to be provided with both short term and long term stabilisation to prevent soil erosion.
- i. Filled areas are to be located where they will not impact on the privacy of neighbours.
- j. Stormwater or surface water runoff shall not be redirected or concentrated onto adjoining properties so as to cause a nuisance and adequate drainage is to be provided to divert water away from batters.
- k. Excavations in excess of one metre within the confines of the building and on driveways may be permitted, to allow for basement garages providing the excavations are adequately retained and drained, in accordance with engineering details.
- l. The top of any battered cut (or retaining wall) and the toe of any battered fill (or retaining wall) is not to be closer than 900mm to any property boundary, where the overall height at any point exceeds 500mm.

#### *Variations to Cut and Fill Design*

- m. Variations to the requirements above will be permitted to create a flat yard space not exceeding 15% of the area of the lot for the purposes of outdoor living, recreation, clothes drying, swimming pool and the like

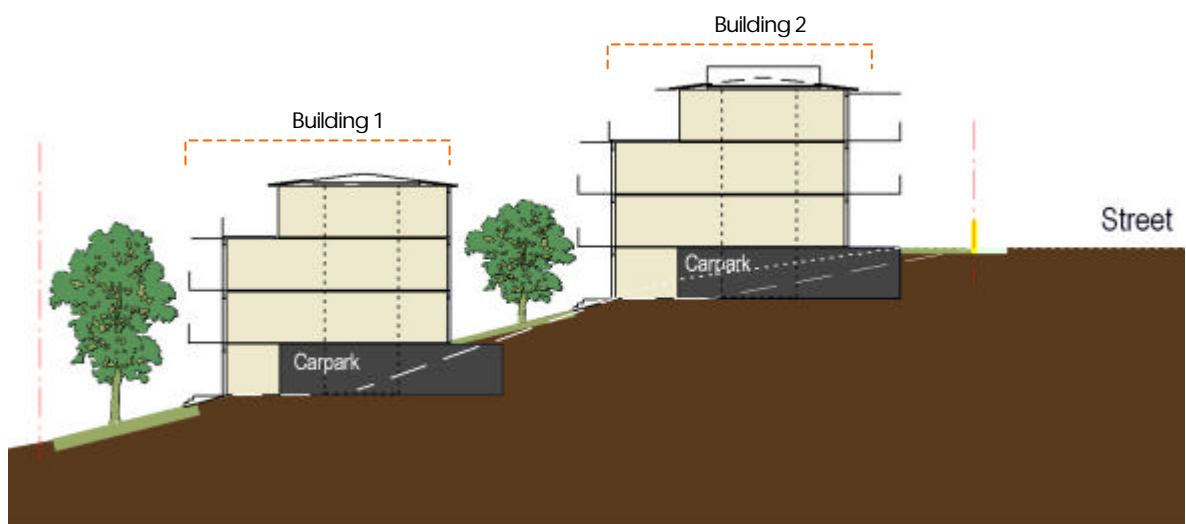
- n. Proposed variations to the controls must demonstrate that the excavation or filling of the site is in harmony with the natural landform/environment and will not adversely affect the adjoining properties. .
- o. Where a property is burdened by stormwater or water and sewerage mains then Council will generally preclude any excavation or filling within that easement.

*Design Guidelines*

- o *On sloping sites building will generally need to step down the site in order to remain under the height and storey limit and in order to avoid excessive cut and fill.*
- o *Suggested design solutions to use when dealing with topography in streets and on lots includes:*
  - *a series of small terraces or stepped retaining walls,*
  - *incorporating the retaining wall into the building elevation,*
  - *incorporating the retaining wall into the boundary fence along the street.*
- o *Splitting the development into two buildings allows for the building to step down the site whilst reducing bulk and height particularly when viewed from the side boundaries and low side of the lot.*
- o *Splitting the development into two buildings allows for more landscaping on the site and to minimise cut and fill.*

*Examples of alternative construction for sloping sites include:*

- *Bearer and joist construction.*
- *Deepened edge beam.*
- *Split level design.*
- *Suspended slab design.*



*Illustrative section of a Big House Residential Flat Building. Steep sites suit smaller building footprints to minimise cut and fill, reduce bulk and allow for more soil areas and landscaping.*

## 2.3 Design Control 3 – Setbacks

Setbacks are important as they set the buildings location in relationship to the lot boundaries, the street and neighbouring buildings. Setbacks allow space for landscaping and to achieve privacy between dwellings in residential areas. In commercial areas setbacks are used to define the street space and create an urban building form.

*Calculation rules:*

*A setback is the distance between a building elevation and a lot boundary. It is the measurement of the horizontal distance between the property boundary (or other stated boundary) measured at 90 degrees from the boundary and:*

- *a building wall or load bearing columns used instead of a wall*
- *the outside face of any balcony, deck or the like or*
- *the supporting posts of a carport or verandah roof,*

*If either the boundary or the structure is irregular then shortest distance is the setback distance.*

### 2.3.1 Front setbacks

Except where otherwise stated in this Plan the front setback for any building is six metres from the primary frontage.

The setback from the front boundary establishes the location and alignment of the buildings front elevation.

Front setbacks help create the proportions of the street and contribute to the public domain by unifying streetscape character and the continuity of street elevations. Street setbacks enhance the setting for the building as they provide for landscape areas, entries to the dwelling and deep soil areas in residential areas. In commercial areas zero setbacks create a direct relationship between the internal ground level of the building and the street which provides an optimum arrangement for a pedestrian shopping and dining street.

#### *Corner Allotments*

In the case of a corner allotment where a development site has two street frontages, the minimum building line setbacks to the secondary frontage is 3m, except where otherwise specified in this Plan.

#### *Objectives*

- To establish the desired spatial proportions of the street and define the street edge.
- To enable a transition between public and private space.
- To create a landscape setting for residential buildings.
- To ensure that front setbacks are compatible with other buildings in the street.
- To allow for front garden landscaping in residential areas.
- To define the street space in commercial areas.

#### *Controls*

- a. Garages and carports are to be setback a minimum of 1m from the buildings front elevation.



- b. Outbuildings must be located to the rear of the dwelling.
- c. In new areas Dwelling Houses, Dual Occupancy Housing and Town Housing is to be setback from the street boundary by 6m. On corner sites the setback along the secondary street (the street to which the dwelling has its secondary frontage) is 3m.
- d. In new areas Shop-top Housing and Shop-top Residential Flat Buildings are to be built to the street alignment.
- e. In new areas Row Housing is to make a transition from commercial to residential setbacks. The minimum setback is 3m for a maximum of 3 dwellings (adjacent to commercial or mixed use buildings with zero street setbacks) then 6m for all other dwellings (adjacent to residential buildings).
- f. In new areas Shop-top Housing and Shop-top Residential Flat Buildings are to be built to the street boundary.
- g. In new areas Residential Flat Buildings are to have a street setback of 6m.
- h. In established areas and on infill sites Dwelling Houses, Dual Occupancy Housing and Town Housing are to be consistent with the setback distance of neighbouring buildings and are to be the average of the setbacks of neighbouring dwellings on either side. This setback can be varied plus or minus 1m.
- i. In established areas Row Housing is to make a transition from commercial to residential setbacks. The minimum setback is 3m for a maximum of 3 dwellings (adjacent to commercial or mixed use buildings with zero street setbacks) then 6m for all other dwellings (adjacent to residential buildings) or the same setback as the adjacent residential building plus or minus 1m.
- j. In established areas Shop-top Housing and Shop-top Residential Flat Buildings are to be built to the street boundary.
- k. In established areas Residential Flat Buildings are to be setback from the street boundary by 6m with a variance of plus or minus 1m (ie. between 5m to 7m).

*Calculation rules*

*The front setback is measured from the lot boundary along the street to the outer most edge of the building elevation (not to the garage or car parking area).*

*Setbacks are measured at 90 degrees to the lot boundary and include any articulation to the buildings elevation as well as including roofed or enclosed external living areas.*

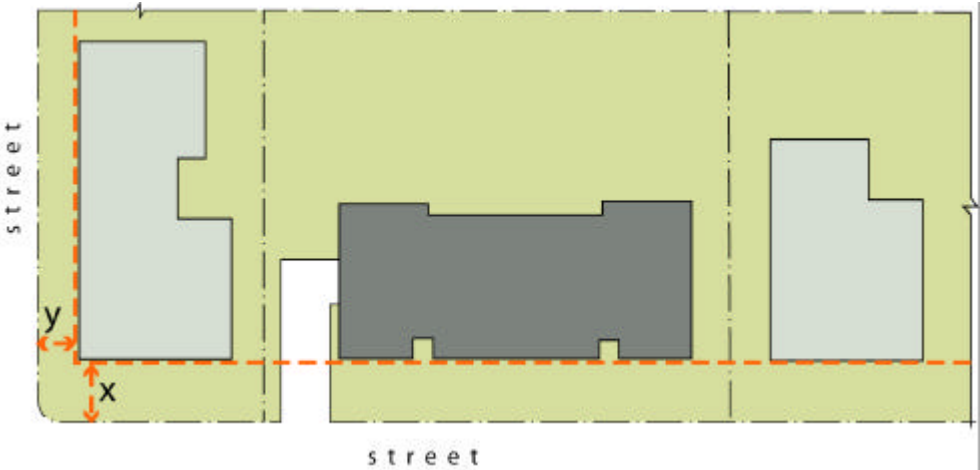
*This setback is not a minimum or maximum distance from the street but rather the building is to be built along the alignment of the front boundary setback.*



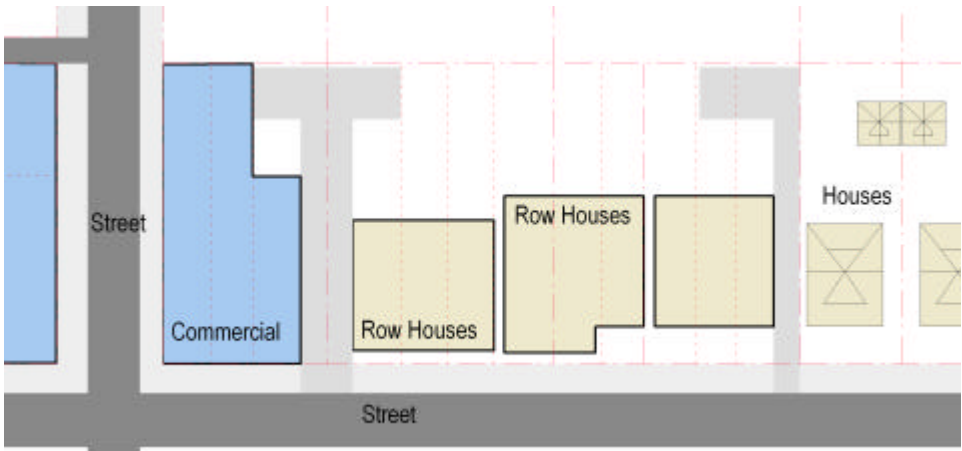
Setbacks are designed to provide a consistent alignment along the street.



In situation where there is not a predominant setback line new buildings are to be an average of the setback distances on neighbouring sites with a variation of up to 1m.



Corner buildings may have different setback distances to define the primary and secondary street.



The front setback distances for Row Housing relates to buildings on either sides of the development.



Front setbacks allow for landscaping and fencing.



*The front setback allows for landscaping, fencing to enhance the residential quality of the street and provide greater privacy for ground level dwellings.*

### 2.3.2 Side setbacks

Side setbacks are designed to allow buildings to have the minimal distances between the building and the side boundary.

Minimising side boundary setbacks allows the building to have a wider street and rear building frontage. This gives a greater elevation length for habitable room windows to be oriented to the front and the rear of the lot.

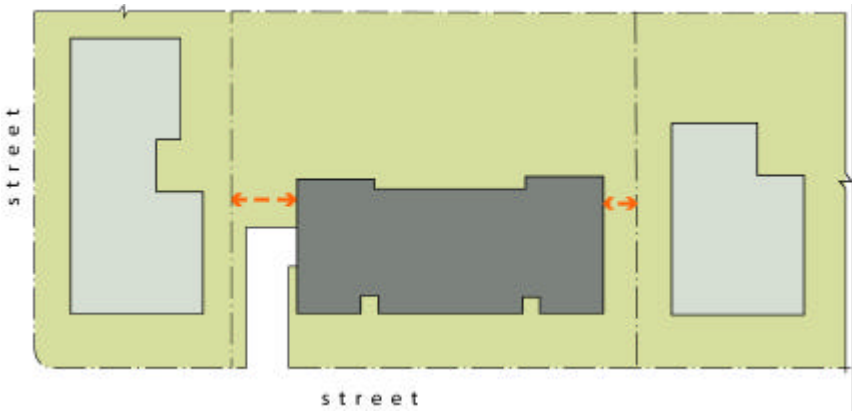
By orienting habitable rooms along the front and rear elevations rather than the side boundaries separation distances for privacy, light and air can more easily be achieved between neighbouring dwellings.

#### *Objectives*

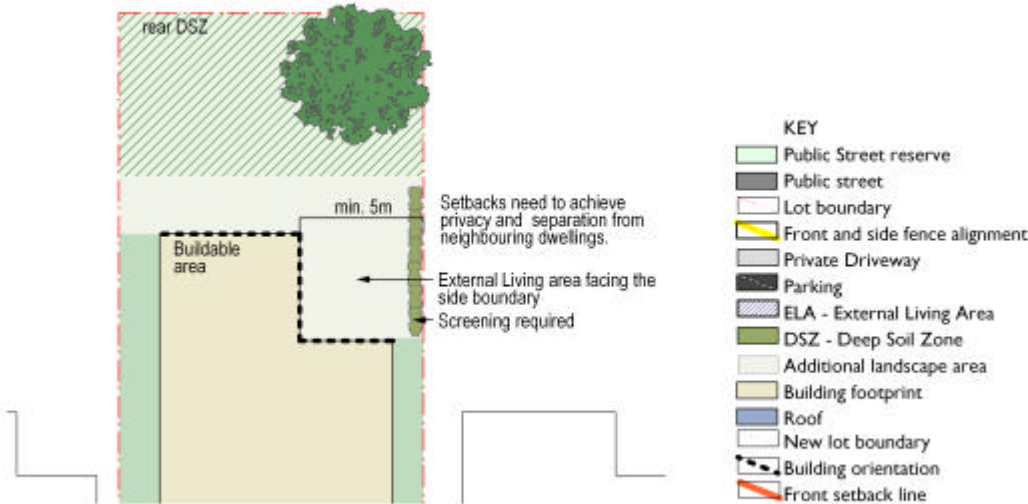
- To enable building siting to respect the existing character of the area.

- To provide an orientation for windows of ancillary rooms.
- To provide car access.
- To offer a pedestrian link to the rear of the lot.
- To facilitate visual and acoustic privacy between neighbouring lots.

*Calculation rules*  
 Side setbacks are measured from the lots side boundary to the outside edge of the building elevation. Setbacks are measured at 90 degrees to the lot boundary and include any articulation to the buildings elevation but do not include external living areas.



Side setbacks are measured between the building and the lot boundary.



On Dual Occupancy and Town Housing lots with north to the side boundary living room windows can face the side boundary if set back.

*Controls*

- a. Single storey Dwelling Housing, Dual Occupancy Housing and Town Housing are to be set back a minimum of 900mm from the boundary line. Guttering, eaves, hoods and other similar structures may be constructed within the 900mm but not closer than 600mm from the boundary.
- b. 2 storey Dwelling Housing, Dual Occupancy Housing and Town Housing are to be set back a minimum of 1.5m from the boundary line. Guttering, eaves, hoods and other similar structures may be constructed within the 1.5m but not closer than 600mm from the boundary.
- c. Row Housing can have a maximum of 6 attached dwellings after which a 1.5m side setback is required for each dwelling or 3m separation between dwellings.
- d. Shop-top Housing and Shop-top Residential Flat Buildings are to have zero side setbacks.
- e. Residential Flat Buildings are to have a minimum of 1.5m setbacks.

*Primary windows of living rooms facing the side boundaries*

- f. For Dwelling Housing, Dual Occupancy Housing, Row Housing, Town Housing and Shop-Top Housing with walls containing the primary living rooms facing the side boundaries windows are to be setback a minimum of 5m to the boundary and meet the minimum separation distances.
- g. Shop top Residential Flat Buildings and Residential Flat buildings with the primary orientation of living rooms facing the side boundaries windows are to be setback a minimum of 6m and meet the minimum separation distances.

*Garages and basement parking*

- h. Garages may be located adjacent to a side boundary.
- i. Carports may be located adjacent to a side boundary.
- j. Basement garages are to be set back a minimum of 1.5m from the side boundaries or in line with the building above.
- k. Driveways may be located adjacent to the side boundaries only where front fences have 60% openness ratio for the first 2m along the boundary adjacent to the driveway to achieve sight lines as set out in AS2890.

### **2.3.3 Rear setbacks**

Rear setbacks are important for achieving open space to the rear of the lot for mature tree growth, water percolation areas as well as private areas for recreation and relaxation. Rear setbacks allow separation distances between neighbouring dwelling to ensure visual and acoustic privacy in dwellings.

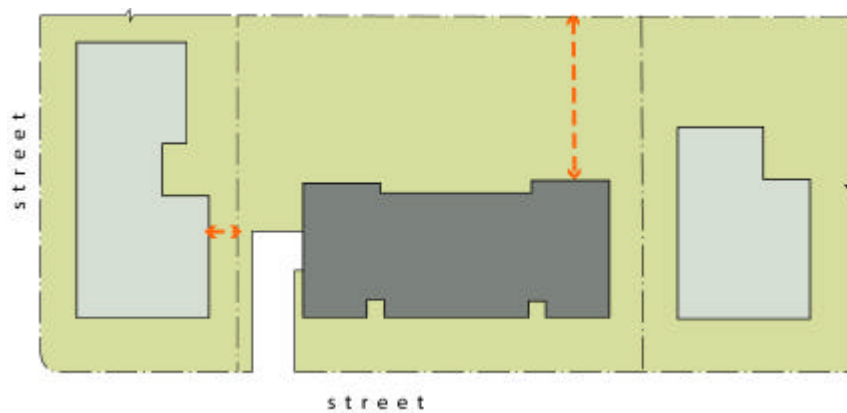
*Objectives*

- To provide an area for private outdoor recreation and relaxation.
- To allow space for vegetation and mature trees.
- To separate dwellings to achieve privacy.

*Controls*

- a. Garages, carports and outbuildings may be located adjacent to the rear boundary.

- b. For Dwelling Houses, Dual Occupancy, Town Housing and Row Housing the minimum rear boundary setback is 5m. The minimum building separation distances must be met. Minimum rear deep soil areas must also be accommodated.
- c. For Residential Flat Buildings the rear of the dwelling the minimum rear boundary setback is 8m. The minimum building separation distances must be met. Minimum rear deep soil areas must also be accommodated.
- d. For Shop-top Housing and Shop-top Residential Flat Buildings the rear setback can be a minimum of zero.
- e. For Dwelling Houses, Dual Occupancy, Town Housing, Row Housing and Residential Flat Buildings mature trees within 6m of the rear boundary are to be retained.



*Rear setbacks are measured from the lot boundary to the rear elevation of the building.*

*Calculation rules*

*Rear setbacks are measured from the rear boundary to the outside edge of the building elevation. Setbacks are measured at 90 degrees to the lot boundary and include any articulation to the buildings elevation but do not include external living areas.*

*The rear setback will include the rear Deep Soil Zone and can include external living areas and any additional landscape areas.*

### 2.3.4 Canal Frontages

The building line from any canal frontage shall be:

- a. 5.5metres from the alignment of the canal frontage where the boundary of the property is on the canal side of a revetment wall, or
- b. 3.4 metres from the revetment wall where the wall is on the boundary of the property, and
- c. that no structure other than fences to 1.2 metres high, swimming pools, retaining walls or suspended decks ,that do not exceed the level of the allotment at the top of the batter, and boat ramps are to be constructed within this area , except:
  - (i) For those allotments with canal frontages and facing Gollan Drive and Jacaranda Avenue, Tweed Heads West where the building line to the canal frontage shall be two decimal five (2.5) metres.
  - (ii) Lots 1, 2 3 and 4 Crystal Waters Drive, Tweed Heads West where normal building setbacks shall apply along the canal frontage.

#### *Controls*

- a. The underside of any suspended deck fronting a canal is to be screened, except in cases where giving effect to this control would result in adverse impact to flood waters.





Rear setbacks include deep soil zones and other landscape areas. The setback is to the buildings footprint so it does not include External Living areas, balconies, decks or bay windows.

## 2.4 Design Control 4 - Carparking and access

The location and design of car access, movement and parking areas is an important consideration to ensure that the site is not dominated by car related uses. Vehicle areas must not dominate the streetscape or compromise the privacy and amenity of the site or neighbouring dwellings.

Carparking is to be convenient and is to be designed to meet the needs of residents. The design of carparking is to integrate with the overall site design to minimise visual and environmental impacts.

### *Objectives*

- To provide on site car access, parking and manoeuvring areas.
- To minimise the physical and visual dominance of vehicles on sites.
- To minimise footpath and street reserve crossings.
- To provide for the needs of occupants.

### 2.4.1 Carparking generally

#### *Controls*

- a. Carparking is to be in accordance with DCP 2 – Site access and parking.
  - These spaces can be either in an enclosed structure (a garage or basement) or an open roofed structure (a carport).
- b. Carparking cannot be located along the street frontage of the lot.
- c. Car park entries are to be located off minor streets or laneways where these occur.
- d. The driveway width from the street to the property boundary is to be minimised, and in accordance with AS2890.
- e. For Dwelling Houses, Dual Occupancies and Town Houses garage doors along the street cannot be more than 40% of the street frontage.
- f. For Row Housing, Shop-top housing and Shop-top Residential Flat buildings garage doors are not to be located along the street front.
- g. For Residential Flat buildings garage doors along the street cannot be more than 6m wide or 40% of the lot width whichever is the lesser.
- h. Vehicular movement and parking areas should be designed to minimum dimensions;
  - to reduce hard surfaces on the lot, and
  - to increase the area available for landscaping.

#### *Design Guidelines*

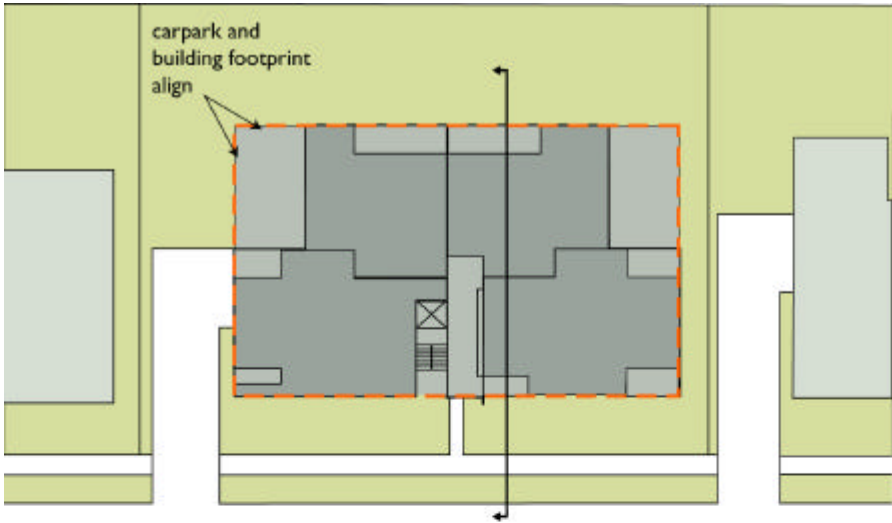
- Preferably keep car areas and hardstand parking to the centre or rear of the site whilst avoiding deep soil zones.
- Where possible, couple car entries to minimise footpath crossings and hard stand areas crossing the street reserve.
- Pave driveways where possible with permeable materials.
- Design car access, turning and parking areas to minimise the extent of hard surfaces. These areas should be well designed to avoid creating 'leftover' spaces.

### 2.4.2 Basement carparking

Some developments particularly on sloping sites or higher density developments require basement parking.

Basement parking needs to be carefully designed to ensure the building is not raised unnecessarily high above ground level and provides direct physical connection between the dwelling and the ground. The location and size of ramps requires special consideration to ensure the streetscape is not impacted upon. Landscaping and the selection of materials can help to soften the impact of ramps and basement walls.

Car park ramps are best located where possible within the building footprint and/or behind the buildings front elevation to avoid retaining walls within the front garden.



The maximum extent of basement car parking is the outermost edge of the building footprint.

Controls

- a. Basement carparking cannot extend more than 1m above ground level.
- b. Ramp entering off a public street must start behind the boundary. Ramps cannot be located on public land.
- c. Ramps cannot be more than 4m in width except where in conflict with AS2890.
- d. The walls of basement carparks are to be best located in line with the buildings footprint. Basement carparking is not to extend outside the external line of terraces, balconies and porches.
- e. Shop top basement parking adjacent to the street must be fully below ground.
- f. All other carparking requirements and parking numbers are to accord with DCP 2.



Garages are to be set back a minimum of 1m behind the front building elevation and a minimum of 0.75m off the side boundaries.

2.4.3 Garages

Controls

- a. Garages are to be set back at least 1m from the buildings front elevation.
- b. For Dual Occupancy Housing limit the width of garage doors along the street to a maximum of 40% of the building elevation.
- c. The design and materials used for garages must be in keeping with the main dwelling.

- d. Detached garages are to have an eave height of no more than 2.7m and a maximum overall building height of 3.5m for a flat roof and 4.5m for a pitched roof.
- e. Town Housing and Shop-top on grade carparking cannot be located closer than 6m from the street boundary.

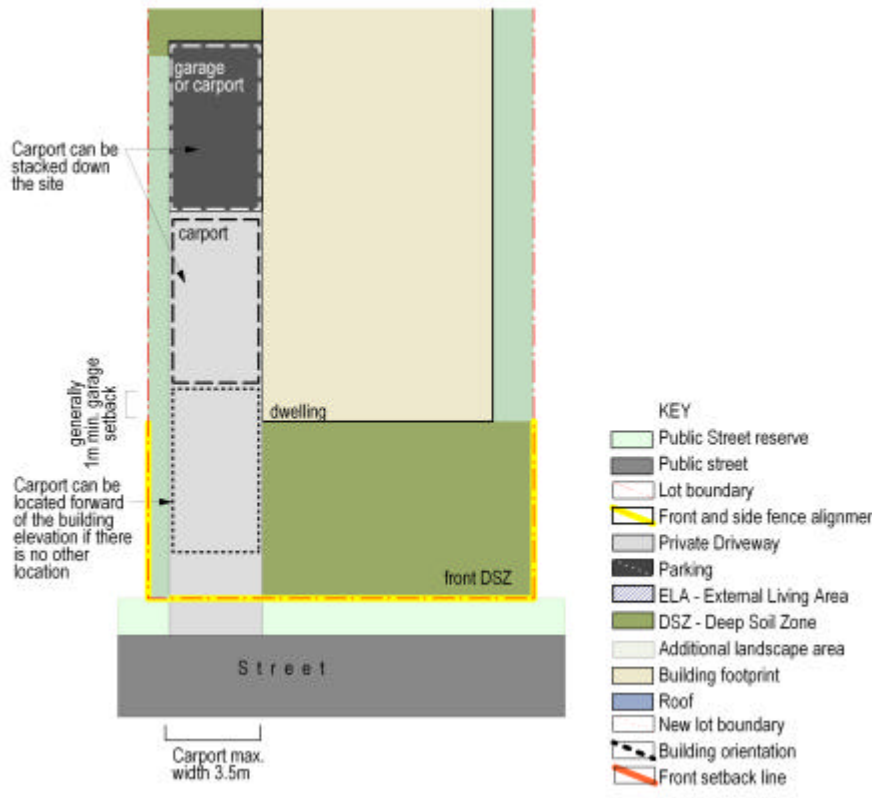


*Garages and car parking areas should be visually recessive to the buildings elevation, fencing and landscaping along the streetscape*

#### **2.4.4 Carports**

##### *Controls*

- a. Carports cannot be wider than one car space width or 4m where other means of undercover parking is provided on-site.
- b. A maximum of two carport spaces can be stacked down the site.
- c. Carports must be setback 1m from the buildings front elevation unless located adjacent to a side boundary in which case they can be located within the front boundary setback to a maximum distance of 2 metres.
- d. Carports can be located on the side boundary.
- e. Carports must not necessitate an extra driveway additional to the driveway for a garage or other parking structure.
- f. The design and materials used for carports must be in keeping with the main dwelling.
- f. Carports are to have a eave height of no more than 2.7m and a maximum overall building height of 3.5m for a flat roof and 4.5m for a pitched roof.
- g. wall plate height of no more than 2.7m and an overall building height of no more than 3.5m for a flat roof or 4.5m for a pitched roof.
- h. The carport must not be enclosed on any of its sides.
- i. Carports cannot have rooms within the roof.



Carports can be stacked and are to be located adjacent to the side boundary.

## 2.5 Design Control 5 – Building Footprint, Orientation and Separation

### 2.5.1 Building Footprint and Attics

A building footprint is a two dimensional area that sets the extent of a building in relation to the site boundaries. It defines the width and depth of the overall buildable area within which a future building can be located.

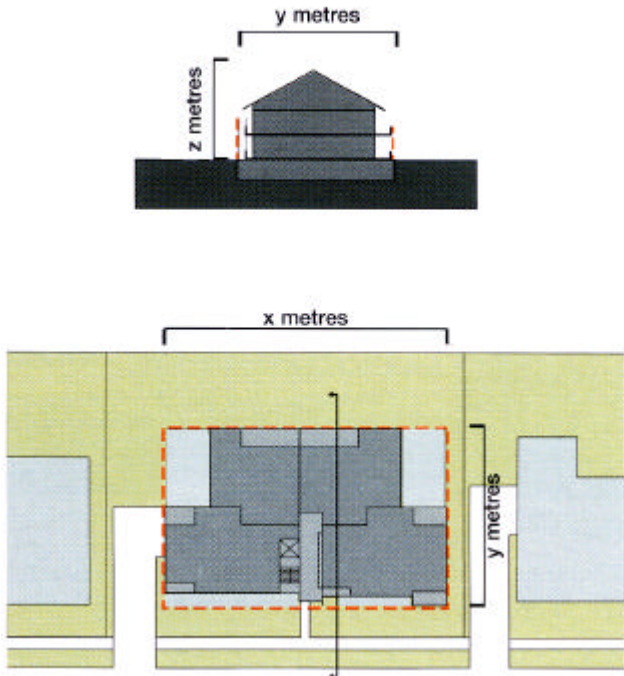
The building footprint sets the appropriate location and alignment of future development in relation to the street layout, block and lot size in a particular location.

Building footprint is used to control residential amenity in terms of light, ventilation, privacy, outlook, security and consolidated landscaped areas across the lot. It also provides a setting for the building on the street consistent with the streetscape.

Attics can provide additional floor space whilst helping to reduce the overall height and bulk of buildings. An attic is a space that is contained within a pitched roof of a building. Attic rooms will require either skylights or dormer windows for light and air.

#### Objectives

- To ensure that the bulk of the development is in scale with the existing or desired future context.
- To provide adequate amenity for building occupants in terms of sun access and natural ventilation.



*Building footprint y measurement is the building depth. Building footprint x measurement is the buildings width.*

*Calculation rules*

- o *Building footprint depth refers to the dimension measured from the buildings front or street elevation to the back elevation (rear of the site). Building depth includes the internal plan depth of the dwelling; it does not include external living areas.*
- o *Building footprint width is measured from side building elevation to side elevation. Building width is set by the width of the site minus the required side setback (including driveways)*
  - *Building footprint does not include external living areas.*
- o *Where buildings are not oriented to the street and the rear boundary then the footprint depth will be the dimension of the shorter axis. Mixed-use buildings may have a deeper ground level footprint to accommodate commercial uses with a narrower residential footprint above.*
- o *Some site may have irregular site conditions such as topography or site shape. Such sites may require particular footprint design solutions that address such irregularities. For example buildings on shallow sites may require slender footprints to protect the amenity of neighbouring sites and to achieve the required setbacks. Sites on steep topography may require detached building footprints to account for the differences in grade and to retain vegetation to maintain ground stability.*

*Controls*

- a. For buildings that only have daylight access to two and opposite sides of the building the maximum building footprint depth is 15m.
- b. The maximum internal plan depth of a building should be no greater than 18 metres (measured from glass line to glass line). Freestanding buildings may have greater depth than 18 metres only if they still achieve satisfactory daylight and natural ventilation.
- c. Attic spaces cannot be more than 50% of the building footprint.



## 2.5.2 Building orientation

Building orientation is a term used to describe the primary aspect of the buildings elevation containing the windows of the living areas of a dwelling and external living areas. The buildings orientation is defined in relation to the site boundaries.

Building orientation is essential in ensuring privacy and outlook for new dwellings and to protect the amenity of neighbouring dwellings. Orientation is a key aspect in ensuring that new development respects and responds to the streetscape.

In existing residential areas the established orientation of dwellings is to the front and the rear of lots. It is important that new development respect and replicate this pattern so as to fit within the established context.

Locating the primary windows of living areas facing the street boundary and/or the rear boundary allows the side boundaries to have mainly windows to ancillary rooms. This allows the building to be located closer to the side boundaries where separation distances for ancillary rooms are not as stringent. This gives a great length or frontage to the front and rear elevations where privacy and outlook are easily achieved given the separation distances created by the front garden and street to the front of the lot and rear gardens to the rear of lots.

### *Objectives*

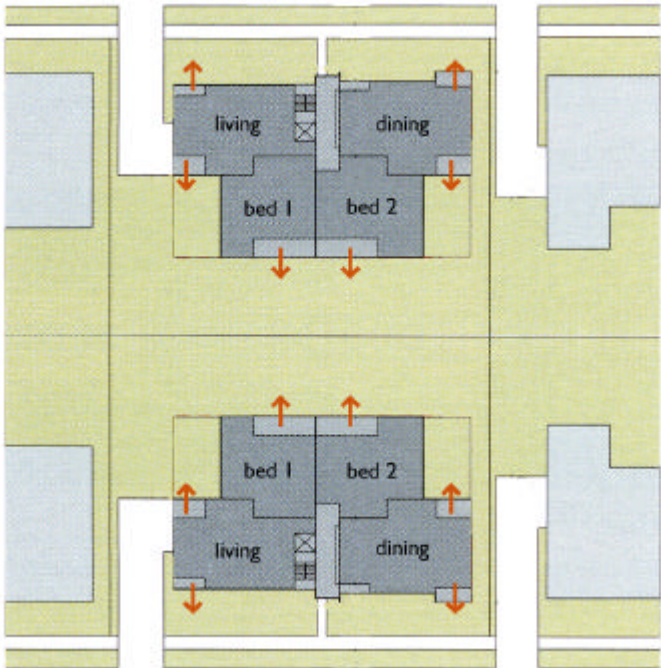
- To easily achieving setback distances for privacy and outlook.
- To co-locate living rooms with external spaces and gardens.
- To provide a level of surveillance over the street.
- To provide a frontage and clear entry facing the street.
- To avoid overlooking neighbouring dwellings.
- To prevent development from relaying on neighbouring lots for privacy, sunlight access or outlook.

### *Controls*

- a. All dwellings with a street frontage(s) are to be oriented to and address the street(s).
- b. Blank walls are not to front public streets.
- c. Ensure that the pedestrian entry to the building is clearly visible and accessible from the street.
- d. Where possible orient bathroom, laundry and other ancillary room windows to the side boundaries.
- e. Dwelling Houses, Row Houses, Shop-Top Housing and Residential Flat Buildings must orient the primary windows of living rooms to the front or the rear of lots.
- f. Dwelling Houses, Row Houses, Shop-Top Housing and Residential Flat Buildings must orient the external living areas to the front or the rear of lots.



*In established residential areas all buildings are oriented to the front and rear of lots so that privacy and outlook are coordinated across the block, the street and between neighbouring buildings.*



*Living rooms and external living areas are to be oriented to the front and rear of the site.*

- Calculation rules*
- o *Building orientation refers to the direction that the primary windows of living rooms and external living areas face.*
  - o *Orientation to the front means that the primary windows of living rooms and external living areas face the street and are generally parallel to the front boundary.*
  - o *Orientation to the rear means that the primary windows of living rooms and external living areas are generally parallel to the rear boundary.*



*This town house development addresses the street with its front door, living room windows, low height fencing and elevation design*



*These residential flat buildings all have their primary orientation to the street with external living areas, low height fences, entries, windows and doors.*



*These Row Houses have been designed to orient to and address the street.*

### 2.5.3 Building Separation

Achieving adequate separation between buildings and driveways is an important consideration when increasing densities in existing and established residential areas. It ensures that both existing and new residents can enjoy privacy both to internal and external spaces.

Ensuring the orientation of primary windows to habitable rooms is to the front and the rear of sites is fundamental to achieving an efficient site layout and achieving or exceeding minimum separation distances.

Separation distances are to enhance the liveability of the dwelling by providing useable outdoor space generally associated to living space with the dwelling.

#### *Objectives*

- To maintain privacy between dwellings primary rooms.
- To enhance the liveability of dwellings.

#### *Controls*

- a. Avoid orienting the primary windows/doors of living rooms to the side boundaries.
- b. 5m min separation between walls containing primary windows/doors of living rooms (on any level of the building) the side boundaries.
- c. 4m minimum separations between the primary windows of living rooms (on any level of the building) and walls containing no windows.
- d. 5m minimum separation between the wall containing primary windows/doors of living rooms (on any level of the building) to shared driveways.
- e. 5m minimum separations between the wall containing primary windows/doors of living (on any level of the building) to carports and garages.
- f. 3m minimum separation between the wall containing primary windows/doors sleeping rooms (on the ground level only) to shared driveways, carports and garages.
- g. 3m min separation distance between the windows/doors of non-habitable rooms (on any level of the building). This distance can be measured diagonally.
- h. For Dwelling Houses, Dual Occupancy Housing, Town Housing and Row Housing 10m minimum separation between the wall containing primary windows/doors of living rooms (on any level of the building) to the wall of an adjacent building containing primary window/doors of living rooms.
- i. For Dwelling Houses, Dual Occupancy Housing, Town Housing and Row Housing 7m minimum separation distance between primary windows/doors (on any level of the building) of living rooms to windows of non-habitable rooms.
- j. For Shop-top Residential Flat Buildings and Residential Flat Buildings 12m minimum separation between the wall containing primary windows/doors of living rooms (on any level of the building) to the wall of an adjacent building containing primary window/doors of living rooms.
- k. For Shop-top Residential Flat Buildings and Residential Flat Buildings 9m minimum separation distance between the wall of a building containing primary windows/doors of living rooms (on any level of the building) to the wall of an adjacent building containing windows of non-habitable rooms.

**Calculation rules**

Separation distances are measured between building that can either be on the same lot or on neighbouring lots.

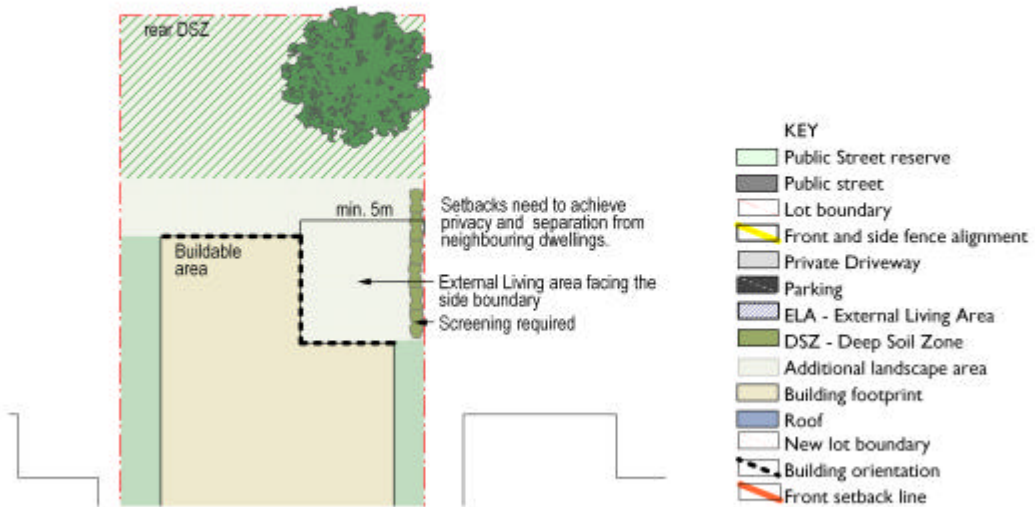
Separation distance is measured at 90 degrees from the primary windows of living rooms;

- to the edge of a common driveway,
- to the primary windows of living rooms of neighbouring dwellings either in the same or adjoining developments.

Orienting the living rooms and external living areas of dwellings to the street and or to the rear of the side easily allows the minimum separation distances to be achieved.

Primary windows and doors are those that give the rooms its outlook, light and air.

Secondary windows and doors can also provide outlook, light and air to the room but in the case that greater privacy is required for either the dwelling or neighbouring dwellings these windows/doors can be of opaque material, fixed, shaded or small in size and are not the primary source of outlook, light and air.



*Lots with North to the side boundary can be oriented to the side boundary. A courtyard and setbacks to the boundary are required to ensure privacy on neighbouring lots.*

*Orientation diagram.*

## 2.6 Design Control 6 – Height

### 2.6.1 Building height

Height is an important control to ensure that future development responds to the desired scale and character of the street and local area and to allow reasonable daylight access to existing developments as well as the public domain.

The height controls are intended to work with existing buildings in the street as well as the desired future character of the area.

Height controls on individual sites are to be further refined by decisions about daylight access, roofs, residential amenity, setting and topography of particular locations and streets.

#### *Objectives*

- To scale new development appropriate to the existing building scale in the street and the local area.
- To ensure new development maintains an appropriate residential character.
- To allow adequate daylight, sunlight and air to new and existing developments.
- To encourage the sharing of views.

#### *Controls*

- a. 9m is the maximum overall building height for Dwelling Houses, Dual Occupancies, Town Housing and Row Housing.
- b. 8m is the maximum wall plate height for Dwelling Houses, Dual Occupancies, Town Housing and Row Housing.
- c. Maximum 2 storeys plus an attic for Dwelling Houses, Dual Occupancies, Town Housing and Row Housing.
- d. 13.6m is the maximum overall building height for Shop-top Housing and Shop-top Residential Flat Buildings.
- e. 11m is the maximum wall plate height for Shop-top Housing and Shop-top Residential Flat Buildings.
- f. 2 storeys plus an attic is the maximum number of storeys for Shop-top Housing.
- g. 3 storeys is the maximum number of storeys for Shop-top Residential Flat Buildings.
- h. 12.2m is the maximum overall height building height for Residential Flat Buildings.
- i. 9.6m is the maximum wall plate height for Residential Flat Buildings.
- j. 3 storeys is the maximum number of storeys for Residential Flat Buildings.

*Calculation rules*

*Height is measured in an overall building height, wall plate height, and in storeys.*

*Overall building height is the vertical distance between finished ground level at any point to the highest point of the building, including plant and lift overruns, but excluding communications devices, antennae, satellite dishes, masts, flagpoles, chimneys flues and the like. The measurement of overall building height includes all roofs and all roof elements. The height as specified is the maximum allowable.*

*Wall plate height is the vertical distance between finished ground level to the highest point where the wall joins the roof.*

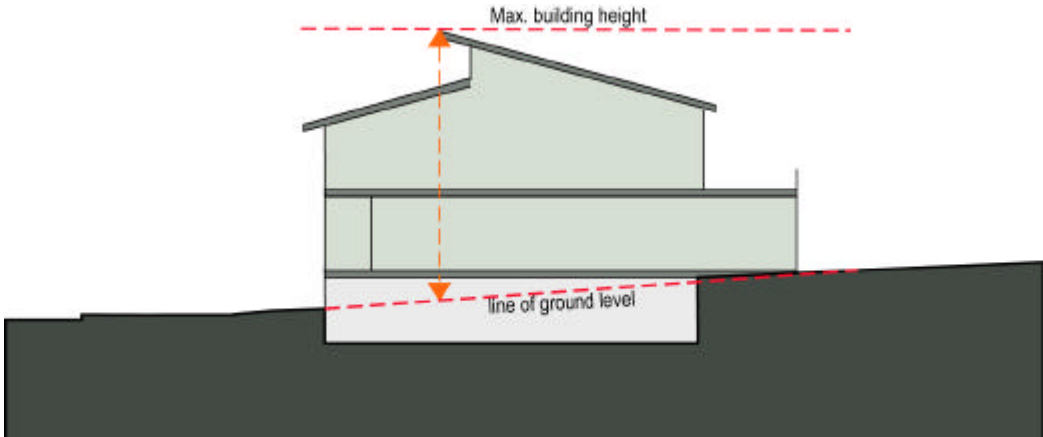
*A storey is the space between two floors of a building or the space between a floor and any ceiling or roof immediately above it. Storeys include habitable floors. Storeys include foundation areas, garages, workshops, storerooms and the like, where the height between natural ground level and the top of the floor immediately above them is 1000mm or more. The storey measurement allows for more generous floor to ceiling heights if desired without losing development capacity.*

*Attics are not considered a storey.*

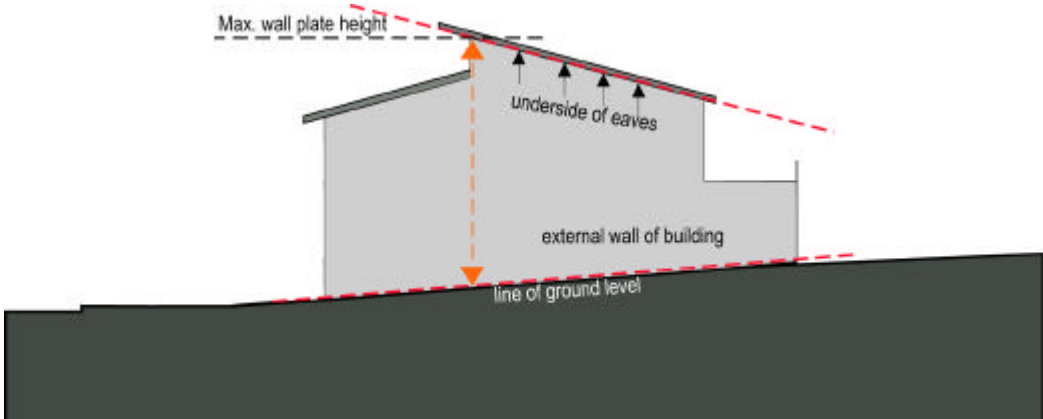
*Ground level (existing): means the existing level of a site at any point.*

*Ground level (finished): means, for any point on a site, the ground surface after completion of any earthworks (excluding any excavation for a basement, footings or the like) for which consent has been granted or which is exempt development.*

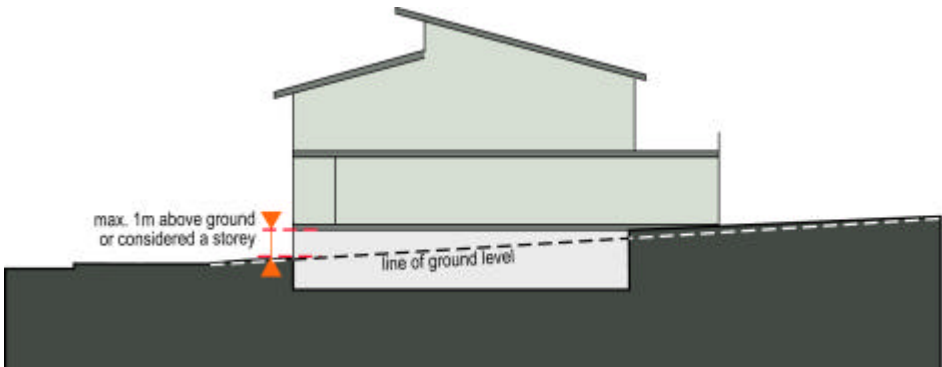




Overall building height is measured from the finished ground line, shown dotted.



The wall plate height is measured to the underside of the eaves.



Basement car parking is included as a storey if it extends more than 600mm above ground level.

## 2.6.2 Ceiling height

Higher ceilings can create better proportioned internal spaces. Generous ceiling heights are particularly important in buildings with small, deep rooms or in rooms that have little sun penetration such as those facing south.

### *Objectives*

- To increase the sense of space in dwellings.
- To contribute to well proportioned rooms.
- To promote the penetration of daylight into dwellings.

### *Controls*

- a. Comply with the following minimum finished floor to ceiling dimensions:
- 3.5m minimum for ground level Shop-top developments,
  - 2.75m minimum for habitable rooms,
  - 2.1m minimum for non-habitable rooms.

### *Calculations rules*

*Ceiling heights are measured from finished floor level to finished ceiling level.*

*A storey is:*

- *the space between two floors, or*
- *the space between a floor and any ceiling or roof immediately above it, or*
- *foundation areas, garages, workshops, storerooms and the like, excluding access paths to basement areas, where the height between the finished ground level and the top of the floor immediately above them exceeds 600mm in height.*

*A storey which exceeds 4.5 metres for residential buildings is counted as two storeys.*

*A storey which exceeds 5 metres for commercial buildings is counted as two storeys.*

*For the purpose of counting the number of storeys in a building, the number is to be the maximum number of storeys of the building which may be intersected by the same vertical line, not being a line which passes through any wall of the building.*

*Basement levels projecting more than 1m above ground are considered a storey.*

*Double height spaces with mezzanines are counted as two storeys.*



*Double height ceiling spaces can significantly increase light penetration into narrow or one-sided apartments as well as add to the quality of the internal space.*

## 2.7 Design Control 7 – Floor space ratio (FSR)

Floor space ratio (FSR) control provides a guide as to the allowable densities for an area. FSR is not to be the sole determinant of future built form; it needs to be linked with all other building envelope controls to support the desired building-massing outcome. FSR is an absolute maximum, which may not be wholly achievable on all sites due to other design considerations.

### Objectives

- To match building scale with the capacity of the site and the local area.
- To define the allowable development density for sites.

### Calculation rules

*The maximum FSR will not always be achievable on all sites. It is the generic way of defining the density of the site and is to be measured once all the other Design Controls have been achieved.*

*Floor space ratio is the ratio of the gross floor area of all buildings on a site to the site area.*

*Gross floor area: means the sum of the floor area of each storey of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4 metres above the floor, and includes:*

- *the area of a mezzanine within the storey,*
- *habitable rooms in a basement,*
- *any shop, auditorium, cinema, and the like, in a basement or attic,*

*but excludes:*

- *any area for common vertical circulation, such as lifts and stairs,*
- *basements projecting more than 1m above finished ground level,*
- *storage areas,*
- *vehicular access, loading areas, garbage and services,*
- *plant rooms, lift towers and other areas used exclusively for mechanical services or ducting,*
- *car parking to meet any requirements of the consent authority (including access to that car parking),*
- *any space used for the loading or unloading of goods (including access to it),*
- *external living areas, terraces and balconies with outer walls less than 1.4 metres high,*
- *voids above a floor at the level of a storey or storey above.*

### Controls

- a. The maximum FSR for dwelling houses is 0.55:1.
- b. The maximum FSR for Dual Occupancy housing is:
  - 0.45:1 for two single storey dwellings,
  - 0.55:1 for two double storey attached dwellings both fronting the street,
  - 0.5:1 for one single storey and one double storey.
- a. The maximum FSR for Town Housing is:
  - 0.8:1.
- c. Shop-top housing and Shop-top Residential Flat Buildings 2:1 maximum FSR.
- d. Residential Flat Buildings is 1.2:1 maximum FSR.

## 2.8 Design Control 8 – Building amenity

Building amenity is the way in which the building provides a high quality of life for residents. This is concerned with the ability of spaces to adequately provide for their intended function and level of activity. The key aspects of building amenity include:

- daylight and sunlight access,
- visual privacy,
- acoustic privacy, and
- view sharing,
- well proportioned spaces,
- well planned site and building layouts to optimise residential quality.

### 2.8.1 Sunlight access

Daylight consists of both diffuse and direct radiation from the sun. It changes with the time of day, season, and weather conditions. This variability contributes to the pleasant environments in which to live and work. Within a dwelling, access to daylight reduces reliance on artificial light, improving energy efficiency and residential amenity. Solar penetration within dwellings is also important.

The heat load resulting from direct solar penetration into buildings during the hotter part of the year can be a major problem, and so it is important the building is designed to optimise the benefits of sunlight, whilst minimising negative effects.

#### *Objectives*

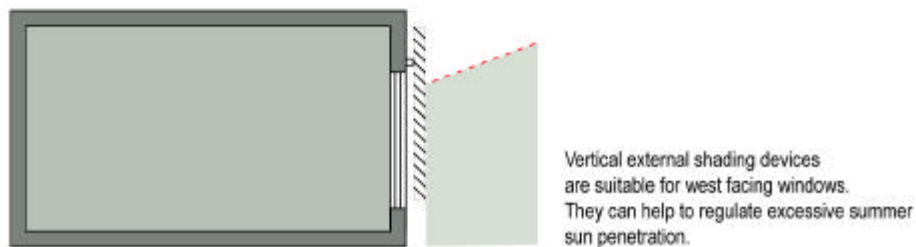
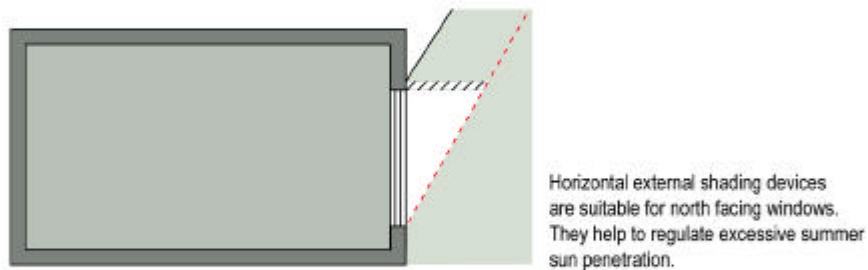
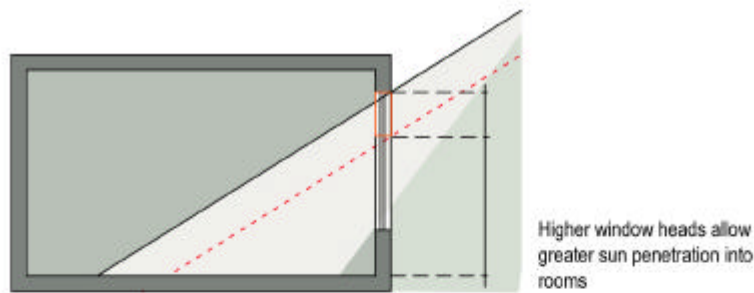
- To ensure that daylight access is provided to habitable rooms and open spaces within the development.
- To minimise the need for artificial lighting during daylight hours.
- To provide residents with the ability to adjust the quantity of daylight to suit their needs.

#### *Controls*

- a. Where the neighbouring properties are affected by overshadowing private open space, external living areas and windows to living areas must receive a minimum of 3 hours sunlight between 9am and 3pm on 21 June.

#### *Design Guidelines*

- o *Design for shading and glare control, particularly in summer by:*
  - *using shading devices, such as eaves, awnings, colonnades, balconies, pergolas, external louvers and planting,*
  - *optimising the number of north-facing living spaces,*
  - *providing external horizontal shading to north-facing windows,*
  - *providing vertical shading to east or west windows.*
- o *Design opportunities include;*
  - *using skylights, clerestory windows and fanlights to supplement daylight,*
  - *providing higher ceiling heights and higher window head heights to facilitate daylight access to living rooms and private open spaces on the ground level,*
  - *use minimum 2.4m head height for windows of habitable rooms to increase the penetration of light into dwellings.*
  - *locate habitable room windows to face a court or other outdoor space open to the sky.*
  - *Locate living spaces predominantly to the east and north wherever possible.*



## 2.8.2 Visual Privacy

Visual privacy protects a resident's ability to carry out private functions within all rooms and private open spaces without compromising views, outlook, ventilation and solar access or the functioning of internal and external spaces. It relates to the adjacent context, site configuration, topography, the scale of the development, and the layout of individual dwellings.

Degrees of privacy are influenced by a number of factors including;

- the nature of activities in areas,
- the times and frequency of use of the spaces,
- an occupant's expectations of privacy and their ability to control overlooking.

### *Objectives*

- To provide visual privacy for internal and externally spaces.

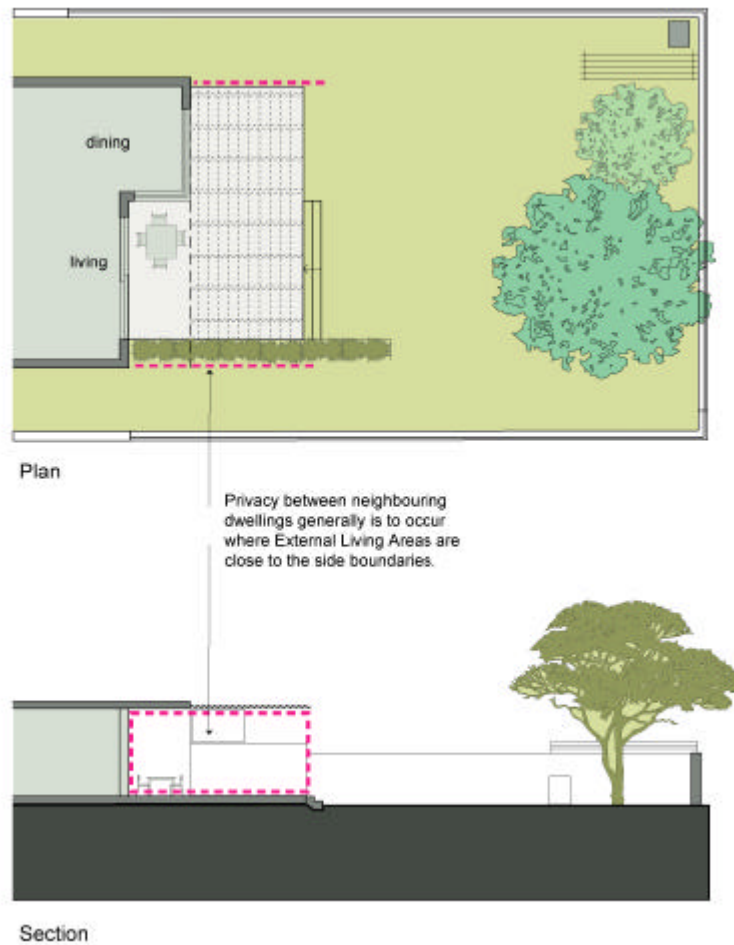
- To facilitate outlook and views from principal rooms in dwellings and private open spaces without compromising visual privacy.

*Controls*

- a. Ensuring windows are offset by distances sufficient to avoid visual connection between windows.
- b. Provide adjustable screening devices, vegetation or other devices to screen External Living Spaces where they are closer than 3m from a neighbouring External Living Area or living room windows.

*Design guidelines*

- o *To increase privacy without compromising access to light and air consider;*
  - *using vertically proportioned windows on side walls,*
  - *designing low sill heights,*
  - *recessing balconies and/or vertical fins between adjacent balconies/terraces,*
  - *using solid or semi-solid balustrades to balconies,*
  - *using louvres or screen panels to windows and/or balconies,*
  - *providing appropriate fencing,*
  - *providing vegetation as a screen between spaces,*
  - *incorporating planter boxes into walls or balustrades to increase the visual separation between areas,*
  - *utilising pergolas or shading devices to limit overlooking of lower dwellings or private open space.*



*External Living areas requiring screening for privacy when located closer than 3m from a side boundary.*

### 2.8.3 Acoustic Privacy

Acoustic privacy is a measure of sound insulation between individual dwellings, and between external and internal spaces. Designing for acoustic privacy relates to the location and separation of buildings within a development and between developments, the arrangement of individual occupancies, both residential and non-residential, and internal spaces within dwellings. The proximity of the building to major external noise sources such as busy roads is also a major consideration.

Setbacks and separation between dwellings give the primary method of ensuring acoustic privacy.

#### *Objectives*

- To provide a high level of acoustic privacy.
- To minimise the impacts of noise generating uses such as traffic, service & loading vehicles, air conditioners and other mechanical plant.

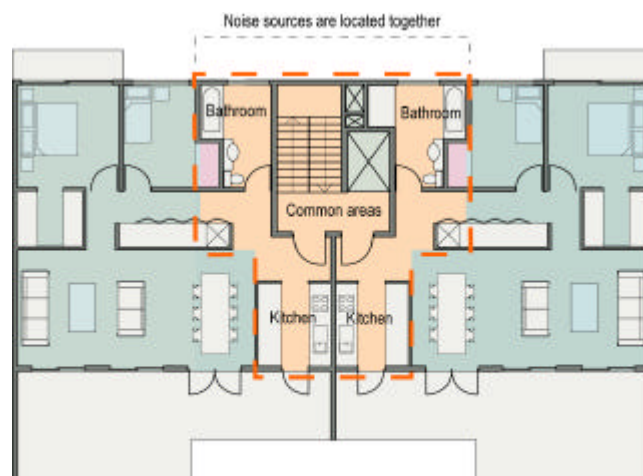
#### *Controls*



- a. Pay particular attention to the location of air conditioning units and the design and layout of entry areas.
- b. Conflicts between noise, outlook and views are to be resolved by using design measures such as double-glazing, operable screened balconies and continuous walls to ground level courtyards/gardens where they do not conflict with streetscape or other amenity requirements.

*Design guidelines*

- o *In Dual Occupancy developments arrange dwellings within a development to minimise noise transition by;*
  - *locating busy, noisy areas next to each other and quieter areas next to other quiet areas, for example, living rooms with living rooms, bedrooms with bedrooms,*
  - *using storage or circulation zones to buffer noise from adjacent dwellings, mechanical services or corridors and lobby areas,*
  - *using service areas/corridors to buffer 'quiet' areas such as bedrooms from noise generators including traffic, service and loading vehicle entries,*
  - *reduce noise transmission from common corridors or outside the building by providing seals at entry doors.*



*In this duplex the 'noisy' areas of both dwellings are located together to separate the noise source from quieter areas in the dwellings*

*Coupling uses allows for better acoustic isolation.*

## 2.8.4 View sharing

View sharing is where new dwellings are designed so as to retain the private views enjoyed from existing dwellings on neighbouring sites.

*Objectives*

- To ensure new dwellings endeavour to respect important views from habitable rooms within existing dwellings.

*Controls*

- a. Building siting is, as far as it is practical, to be designed to minimise the impact on view sharing between properties.

**2.8.5 Natural ventilation**

Natural ventilation is the circulation of sufficient volumes of fresh air through dwellings and other building spaces to create a comfortable indoor environment. Designing for natural ventilation exercises sustainable practice by responding to the local climate and by reducing or eliminating the need for mechanical ventilation. To achieve natural ventilation the design concept must address the building's orientation, the configuration of the dwelling or other facility, and the external building envelope.

*Objectives*

- To ensure that residential and other buildings are designed to provide all habitable rooms with direct access to fresh air and to assist in promoting thermal comfort for occupants.
- To provide natural ventilation in non-habitable rooms, where possible.
- To reduce energy consumption by minimising the use of mechanical ventilation, particularly air conditioning.

*Controls*

- a. All dwelling are to have natural ventilation.
- b. Provide a minimum of 50% of kitchens with access to natural ventilation.

*Design Guidelines*

- *Plan the site to promote and guide natural breezes by;*
  - *determining prevailing breezes and orienting buildings to maximise use*
  - *locating vegetation to direct breezes and cool air as it flows across the site*
- *Use the building layout and section to increase the potential for natural ventilation. Design solutions include;*
  - *facilitating cross ventilation by designing narrow building depths and providing dual aspect dwellings,*
  - *facilitating convective currents by designing units which draw cool air in at lower levels and allow warm air to escape at higher levels.*
- *Design the internal layout of dwellings to promote natural ventilation by;*
  - *grouping rooms with similar usage together, for example, keeping living spaces together and sleeping spaces together. This allows the dwelling to be compartmentalised for efficient summer cooling or winter heating.*
- *Explore innovative technologies to naturally ventilate internal building areas or rooms such as bathrooms, laundries and underground car parks (eg using stack-effect ventilation or solar chimneys).*

## 2.9 Design Control 9 – Internal building configuration

### 2.9.1 Use

It is expected that the building types covered in this DCP may at some time over the life of the dwelling be used to provide tourist or residential accommodation.

In order to ensure quality medium density accommodation throughout the Tweed area the design requirements are the same for short and long-term accommodation.

The types of tourist accommodation that can be regulated to ensure only short-term use occur includes hotels, motels and caravan parks. These building types are not covered by this DCP.

For all the building types covered in this DCP the site, building and dwelling design requirements are identical and interchangeable between residential and tourist accommodation uses. For instance many apartments are let out as holiday accommodation as well as a Dual Occupancies.

Some of the tourist and visitor accommodation uses that can occur within any of the building types covered in this DCP are temporary or short-term accommodation on a commercial basis including serviced apartments, bed and breakfast accommodation and backpackers' accommodation.

In regard to commercial areas it is important that some key sites within each centre is retained solely for commercial uses. This is to ensure that the centre has the capacity to grow and change in response to demand and has the ability to continue to service the needs and requirements of present and future communities. This is particularly important for Shop-top Residential Flat Building developments where strata titling means the site will never have the potential to redevelop, thereby precluding opportunities for growth and change that may need to occur to ensure the centre retains its function and attractiveness.

#### *Objectives*

- To provide a high standard of accommodation for both short and long term residents.
- To ensure centre retain their capacity to service the social, commercial, cultural and civic needs of the community.

#### *Controls*

- a. Some key sites in centres may be identified by Council as unsuitable for residential development.
- b. Permanent and temporary accommodation uses are interchangeable throughout all building types covered in this DCP.
- c. The commercial component of Shop-top developments is to be designed to be suitable to accommodate commercial uses.

## 2.9.2 Dwelling layout and design

The internal layout of a dwelling establishes the spatial arrangement of rooms, the circulation between rooms, and the degrees of privacy for each room. In addition, the layout directly impacts the quality of residential amenity, such as access to daylight and natural ventilation, and the assurance of acoustic and visual privacy. The dwelling layout also includes private open space. This is particularly important for apartments in flat buildings where densities are higher than for terraces and detached dwellings.

### *Objectives*

- To ensure that dwelling layouts are efficient and provide high standards of residential amenity.
- To maximise the environmental performance of dwellings.

### *Controls*

- a. Design the internal layout of dwellings to:
  - accommodating a variety of furniture arrangements,
  - providing for a range of activities and privacy levels between different spaces within the dwelling,
  - utilising flexible room sizes and proportions or open plans,
  - ensuring circulation by stairs, corridors and through rooms is planned as efficiently as possible thereby increasing the amount of floor space in rooms.
- a. Single aspect dwellings are to be limited in depth to 8m from a window.
- b. The back of the kitchen should be no more than 8m from a window.

### *Design Guidelines*

- o *Design dwellings layouts to respond to the natural environment and optimise site opportunities by;*
  - *locating main living spaces adjacent to main private open space,*
  - *locating habitable rooms, and where possible kitchens and bathrooms, on the external face of the buildings thereby maximises the number of rooms with window.*

## 2.9.3 Internal circulation

Lobbies, stairs, lifts and corridors make up the common circulation spaces within a building. Important design considerations include safety, amenity and durability. In addition, the number, location, and proportion of these elements have a direct relationship with the building's form, layout and articulation.

Designing buildings with multiple cores to:

- ensure the number of units off a circulation core on a single level is limited,
- assist in providing better apartment layouts,
- increase the number of entries along a street,
- increase the number of vertical circulation points,

- give more articulation to the facade.

#### Objectives

- To create safe and pleasant spaces for the circulation of people.
- To encourage interaction and recognition between residents to contribute to a sense of community and improve perceptions of safety.
- To facilitate quality apartment layouts, such as dual aspect apartments.
- To contribute positively to the form and articulation of the building façade and its relationship to the urban environment.

#### Controls

- a. Limit the number of units accessible from a single core/corridor to eight.
- b. Avoid double loaded corridors.
- c. Avoid long corridors.
- d. Increase amenity and safety in circulation spaces by;
  - providing generous corridor widths (min. 2.5m) and ceiling heights (min. 2.7m), particularly in lobbies, outside lifts and apartment entry doors,
  - providing appropriate levels of lighting, including the use of natural daylight,
  - minimising corridor lengths to give short clear sight lines.



*The design of the front setback and front of the building has created a distinctive entry area and landscaping, and creatively resolved service requirements to give the development a quality address to the street.*

## 2.9.4 Storage

Providing storage space for items ancillary to people's living needs is particularly important in residential developments where the size of dwellings and their configuration are constrained. Storage is conventionally calculated in proportional to the size of the dwelling.

### *Objectives*

- a. To provide adequate storage for everyday household items within easy access of the dwelling.
- b. To provide storage for sporting, leisure, fitness and hobby equipment.

### *Controls*

- a. In addition to kitchen cupboards and bedroom wardrobes, provide accessible storage facilities at the following rates as a minimum requirement;

- studio	6m <sup>3</sup>
- one-bedroom	6m <sup>3</sup>
- two-bedroom	8m <sup>3</sup>
- three plus bedroom	10m <sup>3</sup>
- b. The above minimum storage areas shall be excluded from dwelling size calculations.
- c. Locate storage conveniently for dwellings. A minimum of least 50% of the required storage within each dwelling is to be accessible from either the hall or living area.

## 2.10 Design Control 10 - External building elements

External building design elements include;

- fences and walls; front, side and rear,
- roofs,
- elevations visible from the public domain,
- corner building elevations,
- awnings, canopies, storm blinds and signage,
- air conditioning units and,
- minor elements.

These external building elements are highly visible from the street and as such form contribute to the character of the streetscape and the local area.

The design of external building elements is to make a positive contribution to the attractiveness of the streetscape and the local area and to contribute to a consistent built character along the street.

### 2.10.1 Fences and walls; front, side and rear

Fences and walls include all built vertical landscaping elements designed to define boundaries between one space and the next or to accommodate a change in level.

The design of fences and walls has an impact on the real and perceived safety and security of residents as well as on the amenity of the public domain and the streetscape character.

The visual impact, scale and design of fences all need to be carefully considered.

Front boundary fencing should also be designed in a manner that facilitates access to the water metre servicing the property at all times, except where an alternative meter reading facility is accommodated on site, that is, an electronic reader or bar scanning system.

#### *Objectives*

- To define the boundaries between public and private land.
- To define the boundaries between neighbouring properties.
- To contribute to the streetscape appearance.
- To enhance the usability of private open space.
- To offer acoustic and visual privacy on busy roads.

#### *Controls*

##### *Front fences and walls (where provided)*

- a. Must clearly demarcate private from public domains by designing fences and walls which provide an element of security whilst not eliminating views, outlook, light and air.
- b. Fences and walls are to be constructed of materials compatible with the house and/or with other fences and walls within the streetscape.
- c. Front fences maximum solid fence height or retaining walls of 1.2m measured from finished ground level.

- d. Front fences are to have a total maximum height of 1.5m. The solid wall height can be up to 1.2m. Above the solid wall the fence is to have a min. openness ratio of 60%.
- e. No Colorbond or timber paling for front fences, except where integrated into a design theme that is consistent with the character of the dwelling and streetscape and incorporates appropriate articulation to allow for landscaping.
- f. Fences and walls are not to impede the natural flow of stormwater runoff.
- g. If located in a bushfire prone area fences and walls are to comply with AS3959 and Planning for Bushfire Protection 2001.
- h. Return fences within the building line are to be no higher than the front or side fences.
- i. A solid front wall may be higher than 1.2m where the topography means a retaining wall is necessary. The height of the retaining wall is to be minimised and is to be compatible with the positive characteristics of the existing streetscape.

#### *Side and rear fences*

- a. Side fences are measured from behind the building line to the rear boundary. Maximum fence height of 1.8m.
- a. No chain wire fences are to exceed 1.2m in height.
- b. May include timber paling, metal or Colorbond material.
- c. For tennis courts or other similar areas, chain wire fences shall be black or dark green plastic coated mesh. Solid fences enclosing these facilities shall not be permitted over 2.0m.
- d. Fences and walls are not to impede the natural flow of stormwater runoff.

#### *Calculation rules*

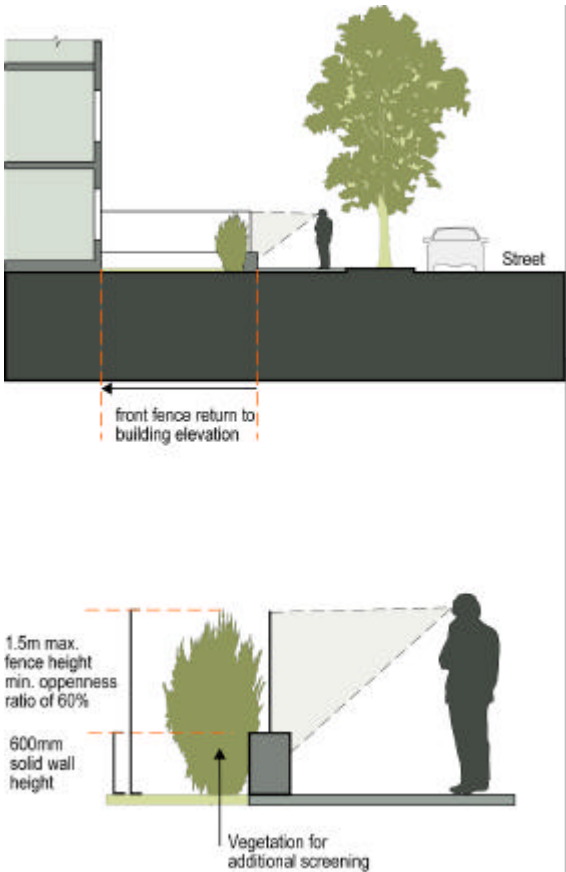
*Front fences and walls are fences and walls located on the street frontage. Controls for front fences and walls are to include the length of side fencing returning to the front elevation of the building. The height of a fence on the street alignment is to be measured above existing natural ground level. Controls for front fences and walls also apply to secondary street frontages on corner lots measured for the length of the dwelling.*

### **Specific Provisions for Greenbank Island**

- a) Approval is to be obtained from Council prior to the erection of any fencing on Greenbank Island.
- b) Fencing behind the six (6) metre building line shall not exceed 2000mm in height.
- c) The fencing is to be constructed of brick, stone, masonry block or such other material as is approved by the Director, Environment and Community Services.
- d) The design and method of construction is to be to the satisfaction of the Director, Environment and Community Services.

Note: Fencing in excess of 2.0m in height or fencing in excess of 1.2m in height and proposed to be constructed of masonry, brick or fencing of any height, where constructed of pre-cast concrete panels, will require development consent from Council prior to construction.





Indicative front fence design with a low wall, open fencing above and landscaping.





*Low fences and informal coastal landscaping in this example contribute to a distinctive residential streetscape.*



*This fence returns down the side boundary, combines landscaping, open fencing and low walls to create a fence that enhances the pedestrian scale and residential qualities of the street.*

## 2.10.2 Roofs (including skylights and dormer windows)

The roof is an important architectural element for the overall composition and expression of a building. The shape and form of a roof and its associated elements responds to the environment and the context. Quality roof design responds to various viewpoints within the local context, such as the roofscape observed from higher locations and the silhouette viewed from the street. In some areas the roof forms part of a distant view and sits within a larger skyline vista.

Roofs on Residential Flat Buildings may have an unenclosed useable external area.

### *Objectives*

- To contribute to the design and performance of buildings.
- To integrate the design of the roof into the overall elevation and building composition.
- To contribute to a consistent and attractive streetscape.
- To provide shading and weather protection.

### *Controls*

- a. Relate roof design to the desired built form by;
  - articulating the roof,
  - providing eaves to roof edges,
  - using a similar roof pitch and material to adjacent buildings,
  - ensuring the roof height is in proportion to the wall height of the building.
- b. Driveways are not to be roofed.
- c. Accessible roof areas or roof decks are to have a balustrade setback 1.5m from the external wall of the level below.
- d. Dormer windows are not to face the side boundaries. Dormer windows are not to be greater in length than 30% of the length of the roof within which they are located.
- e. Dormer windows are to be designed to match the roof of the dwelling in terms of materials and detailing.
- f. The edge and balustrade of useable roof areas are to be setback from the edges of the side elevations of the building by 1.5m.
- g. Useable roof areas cannot be enclosed.
- h. Skylights are:
  - not exceed 1m<sup>2</sup> in area.
  - not more than one installation per 25m<sup>2</sup> of roof area.
  - to be located not less than 900mm from a property boundary and not less than 900mm from a wall separating attached dwelling houses,
  - not to reduce the structural integrity of the building or involve structural alterations,
  - to be adequately weatherproofed,
  - to be installed to the manufacturer's instructions.

*Design guidelines*

- *Design roofs to respond to the orientation of the site, for example, by using eaves and skillion roofs to respond to sun access.*
- *Minimise the visual intrusiveness of service elements by integrating them into the design of the roof. These elements include lift over-runs, service plants and vent stacks.*
- *Generally avoid flat roofs wherever possible. Pitched roofs with eaves will generally fit within the existing built context of Ryde Council area.*
- *Provide eaves where e ver possible.*

### 2.10.3 Elevations visible from the public domain

The architectural quality of buildings frontages and partially the side elevations contribute to the character and design of the streetscape.

High architectural quality requires the appropriate composition of building elements, textures, materials and colours and reflects the use and internal layout of buildings.

The composition and detailing of the building elevation has an impact on its apparent scale as well as its appearance. The pattern or rhythm established by the proportions of the elevation, the modulation of the external walls, the design of elevation elements, their materials and their detailing are all important considerations.

#### *Objectives*

- To promote high quality residential building design.
- To define and enhance the public domain and street character.
- To ensure that ancillary building elements are integrated into the overall building form and elevation design.

#### *Controls*

- a. For Residential Flat Buildings and the residential component of Shop-top Housing and Shop-top Residential Flat Buildings provide sun-shading devices along the external edge of all External Living Areas.
- b. Design important elements such as front doors and building entry areas to have prominence in the building elevation and to be clearly identifiable from the street.
- c. Select materials and building elements to relate to the predominant character of other buildings in the street with particular regard for the more established and original buildings.
- d. Use proportions, materials, windows and doors types that are residential in type and scale.
- e. Design elevations to reflect the orientation of the site using elements such as sun shading, light shelves and bay windows as environmental controls.
- f. Coordinate and integrate building services, such as drainage pipes, with overall elevation and balcony design.
- g. Coordinate grills/screens, ventilation louvres, carpark entry doors with the elevation.
- h. Integrate the design of garage entries with the building elevation design, locating them on secondary streets where possible.

#### *Design Guidelines*

- o *Compose elevations with an appropriate scale, rhythm and proportion which responds to the building's use and the desired contextual character by;*
  - *defining a base and top related to the overall building proportion,*
  - *expressing building layout or structure, such as bays or party walls,*
  - *articulating building entries with awnings, porticos, recesses,*
  - *selecting balcony types with a residential scale which respond to the street context, building orientation and residential amenity,*
  - *detailing balustrades to reflect the residential nature, type and location of the balcony and its relationship to the elevation detail and materials,*
  - *using a variety of window types to create a rhythm or express the building uses, for example, a living room versus a bathroom,*
  - *incorporating architectural features which give human scale to the design of the building at street level, including entrances, awnings, pergolas and fences,*
  - *using recessed balconies and deep windows to create articulation and define shadows, thereby adding visual depth to the elevation.*



*Operable and moveable louvers allow the amount of visual privacy, outlook and sun penetration to be controlled by the residents to suit different personal requirements and times of the day or night.*

**2.10.4 Corner building elevations**

In addition to the controls for building elevations ensure that corner buildings, which are by their location often highly visible, are well designed and respond to the different characteristics of the streets they address.

*Controls*

- a. Corner building (buildings with two street frontages) elevations are to reflect the architecture, hierarchy and characteristics of both streets.
- b. Building elevations on corner sites are to be oriented to both streets by having windows and doors addressing both streets.
- c. Landscaping, fence and wall treatments on the secondary street frontage are to be similar to the primary street frontage for the length of the building.



*This mixed use building provides addresses the corner with an outdoor seating area and a shop.*

### 2.10.5 Awnings, canopies, pergolas, storm blinds, sails and signage (other than on single dwellings and dual occupancies)

In commercial main streets awnings increase the usability and amenity of public footpaths by protecting pedestrians from sun and rain. They encourage pedestrian activity along streets and, in conjunction with retail frontages; they support and enhance the vitality of commercial areas. Awnings, like building entries, provide a public presence and interface within the public domain thereby contributing to the identity of a development.

Signage is an important consideration in the design of buildings located in mixed-use areas such as commercial centres. Where signage is required for business identification its design should be compatible with the desired streetscape character, with the scale, and proportions of the development and without obscuring or dominating important views.

In residential buildings awnings, canopies, pergolas and blinds can significantly improve the liveability of dwellings. Particularly in multi-dwelling housing operable blinds such as louvers can greatly improve the privacy and thermal efficiency of both external and internal spaces.

Pergolas are generally located on the ground level and offer opportunities for providing privacy from upper level dwellings that may look down onto ground level dwellings.

#### *Objectives*

- To provide shelter for public streets in mixed-use areas.
- To provide shelter from sun, wind and rain for private external spaces.
- To ensure signage is in keeping with desired streetscape character and with the development in scale, detail and overall design.
- To encourage pedestrian activity on streets by providing awnings to retail/commercial strips and in other highly trafficked areas.

#### *Controls*

##### *Awning on commercial main streets*

- a. For the commercial component of Shop-top Housing and Shop-top Residential Flat Buildings provide awnings along the commercial main street.
- b. Awnings are to provide adequate protection from sun and rain.
- c. Awnings are to follow the general alignment and pattern of existing awnings in the street and complement the height, depth and form of the desired character or existing pattern of awnings.
- d. Awnings are to enhance pedestrian safety by providing under-awning lighting.

##### *Awnings, canopies, storm blinds and sails on residential buildings*

- e. Residential entries in Residential Flat Buildings are to have awnings.
- f. Awnings, canopies and storm blinds are to be wholly within the lot boundaries at least 900mm from the site boundaries.
- g. Must observe and maintain existing building line setbacks.
- h. If erected in a bushfire prone area, they are to comply with the requirements of AS3959 and Planning for Bushfire Protection 2001.
- i. Provide adjustable awnings or blinds in line with the external face of the building to all dwellings facing the street and dwellings oriented North and West.

##### *Pergolas*



- j. Pergolas must not be located closer to a boundary than 900mm.
- k. Pergolas are to be no higher than the ceiling height of room with which they are associated or if located elsewhere on the site then no greater than 2.75m.

*Signage*

- l. Integrate signage with the design of the development by responding to scale, proportions and architectural detailing.
- m. Ensure that signage provides clear and legible way-finding for residents and visitors.



*Awnings significantly improve the liveability and pedestrian scale of commercial streets and protect pedestrian from harsh environmental conditions rain, sun and wind.*

## 2.10.6 Air conditioning units

*Controls*

- a. Air conditioning units are to be located more than 6m of a habitable room of an adjacent property unless they have an acoustic enclosure that reduces the noise level so that it is no greater than the background noise level.
- b. Air conditioning units are to be located more than 3m off any property boundary.
- c. Noise levels are not to exceed 5dB(A) above ambient background noise levels measured at the property boundary.
- d. Air conditioning unit installation must not reduce the structural integrity of the building.
- e. Openings created by the installation of air conditioning units must be adequately weatherproofed.
- f. Air conditioning units are not to be visible from streets.

### 2.10.7 Minor elements

Minor structures include those buildings elements that are associated with the use of the dwelling for residential purposes. Minor structures include:

- i. aerials, antennae, microwave antennae and satellite dishes,
- j. barbeque areas,
- k. aviaries,
- l. clothes hoists/lines,
- m. flagpoles and,
- n. letter boxes,
- o. outdoor security lighting.

#### *Controls*

- a. Aerials, antennae, microwave antennae are to be:
  - for domestic use only,
  - no more than 6 metres in height from finished ground level adjacent to the structure,
  - a maximum of one per single dwelling house,
  - a maximum of one per 10 dwellings in a multi-dwelling development.
- b. Ground mounted satellite dishes are to be:
  - a Maximum height of 1.8 metres,
  - a Maximum diameter 1 metre,
  - limit of one per dwelling house on lots less than 5,000 square metres,
  - located so as not to be visible from a public place,
  - a minimum of 900mm from a property boundary.
- c. Roof Mounted satellite dishes are to be:
  - A maximum diameter of 600mm,
  - suitably coloured to blend in with the building,
  - structurally stable,
  - one per dwelling house on lots less than 5,000 square metres,
  - located on the rear section of the roof and not visible from the street.
- d. Barbeque areas are to be:
  - used for domestic purposes only,
  - no more than a maximum area of 3 m<sup>2</sup>,
  - no more than a maximum height of 2.6 metres,
  - no closer than 900mm to a property boundary,
  - located in the rear yard or no closer to the front of the property than 900mm behind the buildings front elevation,
  - located with consideration to the impact upon adjoining properties.
- e. Aviaries are to be:
  - used for domestic purposes only,
  - not for the keeping of poultry,

- located no closer than 10 metres from a dwelling house on any adjoining property,
  - a maximum area of 10 m<sup>2</sup>. If lot is more than 5,000m<sup>2</sup> this area can be increased to a maximum of 25m<sup>2</sup>,
  - maximum height of 2.4 metres,
  - located in the rear yard and not closer than 900mm to an adjoining property boundary measured to any part of the building,
  - structurally sound.
- g. Clothes hoists/lines are to be:
- located in the rear yard or no closer to the street than the front elevation of the building,
  - if located on the side of the dwelling or in multi-dwelling developments they are to be screened from view from all dwellings and the street.
- h. Flagpoles are to be:
- a maximum height of 6m above finished ground level,
  - a maximum area of 1m<sup>2</sup>,
  - must be structurally sound,
  - must not project beyond the property boundary.
- i. Letterboxes:
- are to be a maximum height of 1.2m above the ground,
  - in multi-dwelling developments letterboxes must be located on common property; be contained in one structure, contain sufficient boxes, one for each dwelling, including one for the body corporate.
  - are to have numbering corresponding with the dwelling number,
  - are to be structurally sound,
  - are to be designed as part of the building and its landscaping using similar materials and finishes.
- j. Outdoor security lighting is to be located and designed:
- so as to avoid light spill into the living and sleeping areas of the dwelling,
  - to confine light spill to the source property,
  - so it does not adversely impact on adjoining properties or dwellings.



## Design Control 11 – Building performance

### 2.11.1 Energy Efficiency

The ability of the development to optimise thermal performance, thermal comfort and day lighting will contribute to the energy efficiency of buildings, providing increased amenity to occupants and reduce greenhouse emissions and, with them, the cost of supplying energy.

#### *Objectives*

- To reduce the necessity for mechanical heating and cooling.
- To reduce reliance on fossil fuels.
- To minimise greenhouse gas emissions.
- To support and promote renewable energy initiatives.

#### *Controls*

- a. All developments are to obtain BASIX certification.

#### *Design Guidelines*

*Refer to BASIX to supplement these guidelines*

*Incorporate passive solar design techniques to optimise heat storage in winter and heat transfer in summer by:*

- *maximising thermal mass in floor and walls in northern rooms of dwellings,*
- *limiting the number of single aspect apartments,*
- *insulating roof/ceiling external walls and the floor.*

*Improve the control of mechanical space heating and cooling by:*

- *designing heating/cooling systems to target only those spaces which require heating and cooling, not the whole dwelling,*
- *designing apartments so that entries open into lobbies or vestibules and are isolated from living areas by doorways,*
- *allowing for adjustable awnings and blinds to be attached to the outside of windows to keep the heat out in summer,*
- *providing reversible ceiling fans for improving air movement in summer and for distributing heated air in winter.*

*Consider planning for future installation of photovoltaic panels by:*

- *designing the roof so that photovoltaic panels can be mounted parallel to the roof plane,*
- *locating trees where they will not shade existing or planned photovoltaic installations.*

*Improve the efficiency of hot water systems by:*

- *insulating hot water system,*
- *installing water-saving devices.*

*Reduce reliance on artificial lighting by:*

- *providing a mix of lighting fixtures, including dimmable lighting, to provide for a range of activities in different rooms,*
- *designing to allow for different possibilities for lighting,*
- *using separate switches for special purpose lighting,*
- *using high efficiency lighting,*
- *using motion detectors for common areas, lighting doorways and entrances, outdoor security lighting and car parks,*

*Maximise the efficiency of household appliances by:*

- *selecting an energy source with a minimum greenhouse emissions,*
- *installing high efficiency refrigerators/freezers, clothes washers and dishwashers,*
- *providing areas for clothes to be dried through natural ventilation.*

## 2.11.2 Waste management

The minimisation and management of waste from development can contribute to the visual and physical amenity of the building as well as limiting potentially harmful impacts on the environment. Minimising waste is relevant to all stages of the building's life cycle, from construction to demolition. It also includes the way in which waste is stored and collected.

### *Objectives*

- To plan for the types, amount and disposal of waste to be generated during demolition, excavation and construction of the development.
- To encourage waste minimisation, including source separation, reuse and recycling.
- To ensure efficient storage and collection of waste and quality design of facilities.

### *Controls*

- a. Any application for development that involves the demolition of existing structures is to provide a schedule of how on-site materials are to be reused or recycled as part of the project.
- b. Excavation that will result in waste material having to be transported off-site must be minimised through the use of site response building design. Where practical excavated material should be reused on-site.

### *Design Guidelines*

- *Incorporate existing built elements into new work, where possible.*
  - *Recycle and reuse demolished materials, where possible.*
  - *Specify building materials that can be reused and recycled at the end of their life.*
  - *Integrate waste management during the design stage by:*
    - *reducing waste by utilising the standard product/component sizes of the materials to be used,*
    - *incorporating durability, adaptability and ease of future services upgrades.*
  - *Prepare a waste management plan for green and putrescent waste, garbage, glass, containers and paper.*
  - *Locate storage areas for rubbish bins away from the front of the building so as to minimise negative impacts on the streetscape, on the visual presentation of the building entry and on the amenity of residents, building users and pedestrians.*
  - *Provide every dwelling with a waste cupboard or temporary storage area of sufficient size to hold a single day's waste and to enable source separation.*
- Incorporate on-site composting, where possible, in self contained composting units on balconies or as part of the shared site facilities.*

### 2.11.3 Water Conservation

Water is our most precious resource. Dwelling design can contribute to environmental sustainability by integrating measures for improved water efficiency. Water can be conserved in two ways; by reducing water demand from the mains and by re-using water which would otherwise be lost as run off or waste water.

#### *Objectives*

- To reduce main consumption of potable water.
- To reduce the quantity of urban stormwater run off.

#### *Controls*

- a. All developments are to obtain BASIX certification.

#### *Design Guidelines*

*Use AAA rated appliances to minimise water use.*

*Encourage the use of rainwater tanks.*

*Collect, store and use rainwater on site. This may be used for car washing, watering the garden, toilet flushing, laundry and clothes washing. Once treated, rainwater can also be used for potable supply.*

*Incorporate local indigenous native vegetation in landscape design.*

*Consider grey water recycling.*

*Some building sites may be suitable for reuse of treated effluent.*

### 2.11.4 Maintenance

Detailed design and material selection support long-term maintenance of developments. This is particularly important in relation to corrosion issues in coastal areas. On-going maintenance ensures the longevity of quality architectural and landscape design, sustains and increases the value of property and minimises the life-cycle cost of a development to owners.

#### *Objectives*

- a. To ensure long life and ease of maintenance for the development.

#### *Controls*

- a. Design windows to enable cleaning from inside the building, where possible.
- b. Select manually operated systems, such as blinds, sunshades, pergolas and curtains in preference to mechanical systems.
- c. Incorporate and integrate building maintenance systems into the design of the building form, roof and facade.
- d. Select durable materials, which are easily cleaned and graffiti resistant.

- e. Select appropriate landscape elements and vegetation and provide appropriate irrigation systems.
- f. For developments with communal open space, provide a garden maintenance and storage area, which is efficient and convenient to use and is connected to water and drainage.

## APPENDIX

### Definitions

**Access handle:** a strip of land forming part of a site whether in fee-simple or right of way, which has the principle function of providing a property access.

**Amenity:** the liveability or quality of a place which makes it pleasant and agreeable to be in for individuals and the community. Amenity includes elements such as sunlight, views, privacy, ambiance and the like.

**Attached dual occupancy:** means two dwelling-houses that are physically attached by way of a common or shared wall (between internal living areas) or garage but does not include carport, breezeway or other like open structure.

**Attic:** a habitable area within a roof space, where the roof pitch does not exceed 36 degrees, above the ceiling of the topmost floor that comprises a storey within a building.

**Balcony:** an outdoor, open or partially enclosed area that is either partially integrated into or protrudes entirely from the outer enclosing walls of a building as a means of providing private open space.

**Basement:** a space of a building where the floor level of that space is predominantly below ground and where the floor level of the storey immediately above is less than 1-metre above finished ground level.

**BASIX:** introduced as part of the NSW planning system, BASIX (the Building Sustainability Index), is a web-based planning tool that measures the potential performance of new residential dwellings against sustainability indices.

**Battleaxe:** refers to an allotment that relies on an access handle as a means of access to a public street and as such the lot does not have a frontage to the street.

**Bed and breakfast accommodation:** a single dwelling house which, in addition to its use as a primary place of residence, provides: a) accommodation for people away from their normal place of residence and; b) meals and ancillary services by the permanent resident of the dwelling house.

**Building:** has the same meaning as it has in the Environmental Planning and Assessment Act 1979.

**Building envelope:** a three dimensional zone determined by height, width, depth and setbacks that defines the buildable area on a site.

**Building height:** (or height of building) means the vertical distance between the finished ground level at any point to highest point of the building, including plant and lift overruns, but excluding communication devices, antennae, satellite dishes, masts, flagpoles, chimneys, flues and the like.

**Building line or setback:** means the horizontal distance between the property boundary or other stated boundary (measured at 90 degrees from the boundary) and:



- a building wall, or
- the outside face of any balcony, deck or the like, or
- the supporting posts of a carport or verandah roof, whichever distance is the shortest.

**Building elevation:** the external wall of a building.

**Build-to line:** see building line or setback.

**Circulation core:** common areas within a development that provide vertical pedestrian movement within the building.

**Climate:** in the context of this Plan refers to the climatic zones attributed to the Tweed Shire LGA by the Bureau of Meteorology, comprising subtropical (warm humid) and temperate zones.

**Cluster housing (integrated housing):** is the making of a proposal that comprises;

- the concurrent subdivision of land into two or more lots and the erection of at least one dwelling on each allotment; or
- the subdivision of buildings upon the land by strata, community title or neighbourhood plan; and
- the erection of dwellings prior to the issue of a subdivision certificate, or
- the erection of dwellings prior to the issue of a subdivision certificate for each stage of a staged development.

**Communal open space:** a designated shared open space area available to the occupants of more than one residential / tourist dwelling and which is under the control of a body corporate or equivalent.

**Colonnade:** a semi enclosed sidewalk (the pedestrian part of a public street) enclosing on the top and one side by buildings. The colonnade generally has columns that support the building over the sidewalk located between the sidewalk and the carriageway (the vehicular part of the street).

**DCP:** refers to a Development Control Plan prepared in accordance with the Environmental Planning and Assessment Act 1979.

**Deck:** refers to an external platform, usually elevated, located alongside and accessible from an interior space.

**Deep soil landscape area:** means that area of a site with no above ground, ground level or subterranean development, including driveways, paved surfaces, pathways, or like surface, that serves principally for larger tree and landscape plantings.

**Demolition:** refers to the damaging, defacing destruction, deconstruction, pulling-down, removal or the like of a building in whole or in part.

**Development:** has the same meaning as it has in the Environmental Planning and Assessment Act 1979.

**Double loaded corridor:** is a corridor in a Residential Flat Building with apartments on both sides. These buildings have most apartments with one orientation only.

**Dual occupancy:** means 2 dwellings (whether attached or detached) on one lot of land, but may also include more than one lot of land where lot consolidation is proposed.

**Dwelling:** means a room or suite of rooms occupied or used or so constructed or adapted as to be capable of being occupied or used as a separate domicile.

**Dwelling house** (or single dwelling house): means a building and allotment containing one but no more than one dwelling.

**Excavation:** means the removal of soil or rock, whether moved to another part of the same site or to another site, but does not include garden landscaping that does not significantly alter the shape, natural form or drainage of the land.

**Façade:** refers to building elevation.

**Finished ground level:** has the same meaning as it has in the Tweed Local Environmental Plan 2000.

**Floor:** refers to the space within a building that is situated between one floor level and the next level above or, if there is no floor above, the ceiling of or roof above.

**Floor space ratio:** means the ratio of the gross floor area of all buildings on a site to the site area.

**Front fences and walls:** refers to fences and walls situated forward of the building façade or within the nominated front building line (setback), whichever is the greater, that are located on the site.

**Frontage or primary frontage:** refers to the area of abutment between a boundary line between a site and a public street, and in the case of a multi-frontage site the boundary at which the property is addressed.

**Gross floor area:** has the same meaning as it has in the Tweed Local Environmental Plan 2000.

**Habitable:** means a space, room or any combination of areas used for domestic activities including:

- bedroom, living room, dining room, recreation room, theatre room, study room, sun room, home office or the like, but does not include:
- bathroom, laundry, water closet, pantry, walk in wardrobe, lobby, or any other like room or space of a specialised nature that is not occupied frequently or for extended periods.

**Impervious area:** means a surface area that does not allow rainwater to penetrate through into the underlying ground.

**Indigenous species:** refers to a plant or animal species that occurs at a place within its historically known natural range and that forms part of the natural biological diversity of a place.

**Landscaped area:** means a part of a residential site used for growing plants, grasses and trees, but does not include any building, structure or hard paved area.

**Left over spaces:** unusable or inaccessible small areas generally on the ground level of a site.

**Lot:** see site or site area.

**Multi dwelling housing:** refers to a development with more than 3 dwellings to a site.

**Open space:** means an area external to the building footprint.

**Operable screening device:** refers to sliding, folding or retractable elements on a building designed to provide shade, privacy and protection from natural elements.

**Parking space or car park:** means a space dedicated for the parking of a motor vehicle, including any manoeuvring space and access to it.

**Passive solar design:** refers to a design or modification to a building to minimise energy consumption by taking advantage of natural heating and cooling methods.

**Private open space:** means an area on the site external to the building footprint

**Rainwater tank:** means a tank designed for the storage of rainwater gathered on the land on which the tank is situated.

**Residential accommodation:** means a building or place used as a place of residence, but does not include tourist and visitor accommodation.

**Roof terrace:** refers to the flat roof of a building (or part thereof), which is designed to be used or adapted for open space or recreation purposes for one or more of the occupants of the building, and which is open to the sky.

**Secondary street frontage:** means the boundary of an allotment comprising an additional frontage to a street, over the primary frontage, where the property is not addressed to.

**Setback or building line:** refers to the horizontal distance measurable from the outermost point of a buildings elevation (above ground or otherwise), perpendicular, to the site boundary.

**SEPP:** refers to a State Environmental Planning Policy.

**Shadow diagram:** refers to a plan illustrating the extent of shadow cast by a specified object or building at predetermined times of the day and year, and that are based on a longitude and Latitude for that site.

**Site and site area:** refers to an allotment or group of allotments of land on which a development either exists or is proposed, and which is identifiable by a 'Folio Identifier' (property title).

**Swimming pool:** has the same meaning as in the Swimming Pools Act 1992. Swimming pool means an excavation, structure or vessel:

- that is capable of being filled with water to a depth of 300 millimetres or more, and
- that is solely or principally used, or that is designed, manufactured or adapted to be solely or principally used, for the purpose of swimming, wading, paddling or any other human aquatic activity, and includes a spa pool, but does not include a spa bath, anything that is situated within a bathroom or anything declared by the regulations made under the Swimming Pools Act 1992 not to be a swimming pool for the purposes of this Act.

**Tourist accommodation:** refers to, for the purposes of this Plan, a building that provides temporary or short-term accommodation on a commercial basis.

**Tweed LEP 2000 or TLEP:** refers to the Tweed Local Environmental Plan 2000.

**Window:** includes a roof skylight, glass panel, glass brick, glass louvres, glazed sash, glazed door, translucent sheeting or other device which transmits natural light from outside a building to the interior.

## Pre-Development Application submission recommendations

Material recommended for submission by the applicant to Council at pre-DA stage includes:

### ***Applications generally***

The application is:

- to nominate the proposed building types as defined under this plan and
- to be referenced to the application of the specific building type criteria and general site and building design criteria.

### ***Scale - Local***

Submission - Local context sketch plan at 1:5000 showing:

- the site to be developed,
- significant local features such as water courses, heritage items, buildings and construction areas,
- existing buildings, shopping and employment areas,
- traffic and road patterns, pedestrian routes and public transport nodes,
- parks, community facilities and open space,
- existing development controls,
- Streetscape elevations,
- photographs for at least 50m in both directions, or the three adjacent properties in both directions, whichever is the lesser,
- for sites with multiple street addresses, photographs should be prepared for each separate address,
- properties opposite the site should also be documented in the same manner.

### ***Scale - Site***

Submission - Existing site plan at 1:100 or 1:200 Showing:

- site boundaries,
- spot levels and contours,
- existing significant vegetation , built and topographic features,
- location and height of adjacent buildings, their window locations and private open space.

Submission - Analysis

- A drawn and written explanation of the local and site constraints and opportunities revealed through the above documentation.

Submission - Sketch concept plan showing:

- the indicative footprint of the proposal,
- site entry points,
- areas of communal open space and private open space,
- indicative ground plane treatment, indicative locations of planting and deep soil zones
- any proposed site amalgamation or subdivision.

Submission - Geotechnical Requirements (for sites with slopes greater than 10% and where cut/fill exceeds 900mm)

Council requires an approved geotechnical and structural engineers report for earthworks in:

- areas where there is a risk of landslide; or
- lots that are supported by, or adjoin higher lots that are supported by - existing retaining walls or cut/fill batters that exceed 1 metre in height, and the new work may affect the integrity of the wall or batter; or
- lots where proposed earthworks batter slope exceeds 1:2 (v:h); or
- proposals where the height of cut or fill will exceed one metre in height.

Council will assess the suitability of any cut or fill within these areas dependent upon the recommendation contained in the above reports.

The geotechnical and structural engineers report shall include:

- an assessment of the stability of the proposal (for both the subject lot and adjoining land);
- recommended design criteria for earthworks, retaining walls and associated drainage;
- recommended location and design criteria for underground services in the zone of influence of the earthworks;
- recommended periodic maintenance requirements for earthworks, drainage and retaining structures by property owners.

Submission: topography, cut and fill

The plans that accompany development applications for development subject to this plan must show:

- The plan location of cut and fill earthworks.
- Location of top and bottom of cuttings, fill embankments, and associated batters and/or retaining walls and proximity to allotment boundaries.
- Pre and post development ground levels on the allotment. Where cut and fill is in excess of one metre in height, or where earthworks are within one metre of an allotment boundary, the levels shall extend at least two metres (horizontally) into adjoining land (so that the impact on adjoining land may be assessed).
- Details of associated retaining walls, safety railings, batter treatment, drainage and landscaping. Drainage plans must demonstrate compliance with 2.3.4.
- Locations and depths of service trenches in areas affected by cut and fill.
- Water management plan.

### **Scale - Building**

Submission - Building organisation sketch showing:

- indicative dwelling location, size and orientation.

Submission - Sketch building mass elevations showing:

- basic massing of the proposal in the context of the three adjacent,
- properties in each direction, or 50m in each direction, whichever is more appropriate, on each elevation,
- building separation along the street,
- the profile of any existing buildings.

Submission - Sketch sections showing:

- the proposal and adjacent buildings,
- the relationship of the proposal to the ground plane, streets and open spaces.

Submission - Schedule

p. Indicative density/number of apartments or shops, etc.

Submission – Statement of the developments concept or brief.

## Development Application Submission Requirements

Material to be submitted by the applicant at DA stage includes:

### **Scale - Local**

Submission - Local context sketch plan at 1:5000 showing:

- the site to be developed,
- significant local features, parks and open space, heritage items and buildings,
- existing buildings on site,
- traffic and road patterns, pedestrian routes, bus stops,
- shopping and employment areas and community facilities,
- significant natural features and water courses, conservation areas, sensitive natural areas and their setbacks,
- any future infrastructure works at or adjacent to the development site as established from Council that will affect the proposal.

Submission - Streetscape elevations

- Drawings or photomontage for at least 50m in both directions, or the adjacent three properties in both directions, whichever is more appropriate.
- For sites with multiple street addresses, photographs should be prepared for each separate address.
- Properties opposite the site should also be documented.

### **Scale - Site**

Submission – subdivision

- a subdivision layout plan with the site and building layout overlaid,
- dimensions and size of each lot per dwelling,
- the prescribed subdivision type eg. Strata, Torrens etc.

Submission - Existing site plan at 1:100 or 1:200 showing:

- site boundaries,
- spot levels and 1 metre contours,
- existing significant vegetation, built and landscape features,
- location and height of adjacent buildings, their window locations and private open space.

Submission - Existing site sections at 1:100 or 1:200 showing:

- at least 50m beyond the site in 2 directions, or showing three adjacent ,
- properties in either direction, whichever is more appropriate,
- building heights,
- existing vegetation.

Submission - Analysis at 1:500

- A drawn and written explanation of the local and site constraints that demonstrates the opportunities and constraints of the site supporting the broad site planning principles

and design decisions, and responding to reports relating to traffic, site drainage, daylight access, environmental design, etc.

Submission - Site plan at 1:100 or 1:200 showing:

- the indicative footprint of the proposal,
- site entry points and areas of communal open space,
- private open space, indicative locations of planting,
- indicative ground plane treatment and deep soil zones,
- any proposed site amalgamation of subdivision.

Submission - Shadow diagrams showing:

- solar access to the site and adjacent properties at summer solstice (Dec 21), winter solstice (June 21) and the equinox (March and September 21) 9.00am, 12.00 midday, 3.00pm and 6.00pm,
- shadows across key elevations,
- shadows cast by approved and/or existing development.

Submission - Landscape plan at 1:100 or 1:200 accurately showing:

- building footprint of the proposal,
- proposed site entries,
- ramps, stairs and retaining wall levels,
- lines of fencing, security and access points,
- built elements (pergolas, walls, planters, water features),
- details of public, communal and private open space,
- trees to remain and proposed trees/planting including species and size. Trees to be removed shown dotted
- deep soil zones
- detailed ground plane treatment with general materials and finishes,
- indicated site lighting,
- stormwater management plan.

Submission - Access

- a long section of driveways from kerb to garages and basement finished floor level at scale of 1:20 and template from DCP 18 overlain on the site at 1:200 for swept paths for 99 percentile vehicles.

### **Scale - Building**

Submission - Floor plans - 1:100 or 1:200 showing:

- apartment layouts, corridors, lifts and stairs,
- pedestrian accessibility and entries,
- vehicle and service access,
- parking,
- communal facilities, services,
- fenestrations, balconies etc.

Submission - Elevations - 1:100 or 1:200 showing:



- height and key datum lines,
- building length and articulation,
- the composition of the façade,
- roof design,
- existing buildings on the site,
- building entries (pedestrian, vehicular and service)- profile of buildings on three adjacent properties in each direction or for 50m in each direction, whichever is most appropriate.

Submissions - Sections - 1:100 or 1:200 showing:

- adjacent buildings
- the relationship of the proposal to the ground plane, the street and open spaces
- the location and treatment of car parking
- building separation within the development and between neighbouring buildings
- ceiling heights

Submission - Materials and finishes board showing:

- representative materials, samples and colours of the proposal.

Submission - Statement of Environmental Effect

- In written form, a table of description of the compliance of the development proposal with the objectives and controls laid down in this DCP.
- Reference to any relevant planning policies, SEPPS, regional environmental plans.
- Reference to any draft plans.

Submission - Design verification.

For proposals subject to the provisions of SEPP 65, a Design Verification submitted by a qualified Architect is required. This design verification is to include the designing Architects name, business location and registration number.

## Preparing a site analysis

A site analysis is to be submitted with the development application. Minor work may not require a site analysis and the applicant should check with Customer Service. A landscape plan is also required to be submitted.

A site analysis is necessary to ensure that the development is of high quality, sensitive to its environment and positively contributes to its context. A thorough site analysis will ensure that site layout and building design addresses existing and possible future opportunities and constraints of both the site and its surrounds.

An analysis of the site and context is a fundamental stage of the design process, and should support many key design decisions relating to the proposal. The site analysis is to assist in minimising issues relating to noise, overshadowing, safety, access, views and privacy.

Site analysis and design comprises two parts. Look at and map the qualities and characteristic of the site and its local context. Then, develop a design that addresses and applies the objectives and controls of each building and site design control.

The Applicant must demonstrate to the consent authority that the site analysis has been utilised in preparing the design for the site and that due consideration has been given to the sites opportunities and constraints. The analysis may then be used to critically assess the success of the proposal in its response to the features of the site and its context.

A site analysis drawing must be based on a survey drawing produced by a qualified surveyor and contain a reference number and date. Site analysis should include plan and section drawings of the existing features of the site, at the same scale as the site and landscape plan, together with appropriate written material. Information required in a site analysis may include but is not limited to the following.

### *The site's context*

- Form and character of adjacent and opposite buildings in the streetscape and adjacent sites; architectural character, front fencing, garden styles,
- neighbouring properties; location, height, use,
- privacy; adjoining private open space, living room windows overlooking the site, location of any facing doors, windows and external living areas,
- walls built to the sites boundary; location, height, materials,
- difference in levels between the site and adjacent properties,
- views and solar access enjoyed by neighbouring properties,
- major trees on adjacent properties, within 9 metres of the subject site,
- street frontage features; poles, trees, kerb crossovers, bus stops, other services,
- heritage features of the surrounding locality and landscape,
- direction and distance to local facilities; local shops, schools, public transport, recreation and community,
- public open space; location, use,
- adjoining bushland or environmentally sensitive land,
- sources of nuisance; flight paths, noisy roads or other significant noise sources, polluting operations.

*The site and the building(s)*

- Site dimensions, site area and north point,
- location, use, overall height (in storeys and metres) and important parapet/datum lines of adjacent buildings,
- street trees, identified by size, botanical and common names
- topography, showing spot levels and contours 0.5 metre intervals for the site, adjoining streets and land adjoining the site,
- views to and from the site, prevailing winds,
- geotechnical characteristics of the site and suitability of development,
- pedestrian and vehicular access points; existing and proposed,
- location of utility services, including electricity poles, stormwater drainage lines, natural drainage, kerb crossings and easements,
- location of the existing sewer mains and fittings; manholes and junctions, within the vicinity of the development site,
- location of the existing water mains and appurtenances; hydrant, stop valves etc., along the frontage of the development site as well as the existing water meter position and size,
- assessment of site contamination, proposed remediation strategy and a statement from a recognised expert that the site can be remediated.