RESIDENTIAL AND TOURIST DEVELOPMENT CODE

DRAFT J

Tweed Council

Tweed Development Control Plan Section A1

Prepared by

ruker and associates **| urban design**

www.rukerurbandesign.com ph: 02 95575833 fax: 02 95575933 L2/17 Federation Road Newtown Sydney NSW 2042 AUSTRALIA

for Tweed Shire Council's Strategic Planning Unit

Tweed Development Control Plan
Section A1 - Residential and Tourist Code

PRELIMINARIES

AREA SPECIFIC DEVELOPMENT CONTROLS

PART A **Dwelling Houses, Alterations and Additions to Dwelling Houses, Garages, Outbuildings, Swimming Pools, Tennis Courts**

PART B **Dual Occupancy Housing, Granny Flats, Town Houses and Row Houses**

PART C **Residential Flat Buildings and Shop-top Housing**

PRELIMINARIES

INTRODUCTION

Land to which this Section Applies

This Section applies to all residential and tourist development within the Tweed Shire, except to the extent of inconsistency with a site specific development provision contained in the Tweed LEP or adopted area specific locality/development control plan, masterplan, or concept plan.

Development of this Document

Tweed Shire Council's Strategic Planning Reforms Unit has been developing this document for nearly two years. Over this period it has undergone three major stages of consultation. During the early stages of its development representatives from the design and development professions provided invaluable input and advice on the structure and direction of the document and the appropriateness and usability of the controls.

On the 28th November 2006 Council resolved to exhibit the first draft of the document for 90 days. Subsequent to that the comments and feedback were collated and changes made to the document. Council resolved on the 21st August 2007 to exhibit the second draft of the document for 60 days after which time again changes were made to amend and improve the document.

Development Covered by this Section

This section is in several Parts and applies to all development associated with the following Building Types:

PART A Dwelling Houses, Additions to Dwelling Houses, Garages, Carports, Outbuildings, Swimming Pools and Tennis Courts.

PART B Town Housing (including villas), Dual Occupancy Housing and Row Housing (including terraces)

PART C Shop-top housing, Shop-top Residential Flat Buildings, and Residential Flat Buildings

Purpose of this Part

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

How to Use This Section

Development applications must:

a) Nominate the intended building type to be used.

b) Specify how the building type and site and building design objectives and controls have been achieved.

Each Part has controls divided into two Sections; Building Type Controls and Site and Building Design Controls

Building Type Controls: Defines each of the building types subject to this part.

It provides indicative plans to suggest how the Development Controls 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.

Site and Building Design Controls: 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 Section (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.

Reference to Other Policies – Carparking and Access

All proposals must be designed to comply with all other Sections contained within this DCP.

Carparking and Access design shall be, notwithstanding any provision of this Plan, in accordance with Section A2 of the Tweed Shire Development Control Plan.

Mandatory Controls

Only in exceptional circumstances will Council consider a relaxation or variation to a mandatory control.

A variation or relaxation will only be considered where it has been demonstrated (through architectural and/or landscape drawings) how and why the mandatory controls cannot work on a particular site. This requires the applicant to design a solution using the mandatory controls.

Generally Council will only consider a relaxation or variation to a mandatory control due to excessive constraints including;

- the site being located as an 'infill' *(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*),
- established dwellings located in subdivisions created prior to the year 2000,
- sites with highly irregular geometry,
- sites with major topographical or geotechnical constraints,

In such cases the proponent must address up-front in the Statement of Environmental Effects the following matters:

1. Identify the specific control being varied.
2. Demonstrate using drawings why the control cannot be met.

3. Detail the extent of the variation and impact on the relevant design objective.
4. Provide a detailed design of a compliant proposal along with suitable design options (min. two) in support of the variation.
5. Demonstrate (through drawings) the impact on all adjoining or potentially affected properties in the context of the variation.
6. Detail all design measures implemented to mitigate or 'set-off' any impact of the variation.

Any variation to a mandatory control will not be considered unless it is supported with the detail above.

Addressing these criteria is not a mechanism for an automatic qualification.

Non Urban Zoned Land

Development on non urban 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.

Pre Development Application Lodgement Meeting

Applicants for any development the subject of Part B or C of this Plan, comprising Residential Flat Buildings, Shop-top Residential Flat Buildings, Shop-top Housing, Town Housing, Row Housing or any one of these building types for tourist accommodation, that either includes a variation to a mandatory control or where the proponent perceives that a design issue may arise, is strongly recommended to arrange and attend a Pre Development Application Lodgement Meeting with Council's Development Assessment Panel; these meetings take place prior to the lodgement of an application.

The recommended requirements for a Pre Development Application Submission are provided in the Preliminaries section of this Plan.

The matters arising from a DAP Meeting must be addressed in the development application statement of environmental effects under the heading "*DAP – Matters Arising*".

PLANNING PRINCIPLES

The following principles are extracted from recent court cases from the Land and Environment Court of NSW.

They are provided here as guidance to the applicant on aspects of development that have been debated in court and decisions made. These principles form precedence for subsequent applications brought before the court that may have similar planning issues.

Although they do not form part of the development controls they will assist the applicant in the preparation of proposals and the recognition of the broader planning issues set out by state authorities such as the Land and Environment Court of NSW.

Principle 1 – View Sharing

The notion of view sharing is invoked when a property enjoys existing views and a proposed development would share that view by taking some of it away for its own enjoyment. Taking all views away cannot be called view sharing, although it may, in some circumstances, be quite reasonable.

To decide whether or not view sharing is reasonable, a four-step assessment is adopted by this Plan. Proponent s of development and the Consent Authority shall have regard to this principle where issues of view sharing arise.

A. The **first** step is the assessment of views to be affected. Water views are valued more highly than land views. Iconic views (eg of Mount Warning, Point Danger, Razorback,) are valued more highly than views without icons. Whole views are valued more highly than partial views, eg a water view in which the interface between land and water is visible or where an island or structure is wholly visible are more valuable than one in which it is obscured.

B. The **second** step is to consider from what part of the property the views are obtained. For example the protection of views across side boundaries is more difficult than the protection of views from front and rear boundaries. In addition, whether the view is enjoyed from a standing or sitting position may also be relevant. Sitting views are more difficult to protect than standing views. The expectation to retain side views and sitting views is often unrealistic.

C. The **third** step is to assess the extent of the impact. This should be done for the whole of the property, not just for the view that is affected. The impact on views from living areas is more significant than from bedrooms or service areas (though views from kitchens are highly valued because people spend so much time in them). The impact may be assessed quantitatively, but in many cases this can be meaningless. For example, it is unhelpful to say that the view loss is 20% if it includes one of the sails of the Opera House, obscurity of half of Mount Warning or the water interface of a headland. It is usually more useful to assess the view loss qualitatively using everyday terms as negligible, minor, moderate, severe or devastating.

D. The **fourth** step is to assess the reasonableness of the proposal that is causing the impact. A development that complies with all planning controls would be considered more reasonable than one that breaches them. Where an impact on views arises as a result of non-compliance with one or more planning controls, even a moderate impact may be considered unreasonable. With a complying proposal, the question should be asked whether a more skilful design could provide the applicant with the same development potential and amenity and reduce the impact on the views of neighbours. If the answer to that question is no, then the view impact of a complying development would probably be considered acceptable and the view sharing reasonable.

Example:

The proponent wishes to erect a three storey building of 8.5m with minimum setbacks in an area with a design height of 9m and a two storey height control. The adjacent two storey property enjoys uninterrupted views to a well known headland from both levels. The proposed development obliterates the standing views from the ground level and a severe impact on the second floor sitting position of the existing property.

Applying the principles above to the existing property, the view to the headland can be classified as highly valuable and the proposed impact as severe from both a sitting and standing position. The reasonableness of the proposal falls firstly to its level of compliance, which demonstrates a breach to the two storey development control, notwithstanding its compliance with the 9m height limit. The height limit maximum does not entitle the applicant to a building height of 9m over the entire site. A more skilful design that complies or even partially complies with the two storey control when combined with greater building setbacks and articulation could preserve the upper floor views to a partial sitting, predominantly standing, position and provide a reasonable level of view sharing from the ground level of the adjoining building. It could be reasonable that a compliant design devastates the ground floor level views, but, does not impact the upper level view of the adjacent building (this would depend on the service nature of the room affected). The proposal would otherwise be classified as unreasonable on the basis of an unacceptable amenity impact.

Reference: *Tenacity Consulting v Waringah [2004] NSWLEC 140*

BUILDING TYPES

Building Types

A building type is used to describe building forms and site layouts with common characteristics.

Building types are useful for coordinating the desired character of an area and to ensure buildings achieve 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 and vegetation.

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

There are two main groups of building types; Houses and multi unit 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.

The housing building types identified in this plan are:

- Dwelling Houses (Inc. ancillary structures).
- Dual Occupancy Housing (including granny flats).
- Town Housing (including villas).
- Row Housing (including terraces).
- Shop-top Housing.

Residential Flat Buildings are three stories in height and contain three or more dwellings. In exceptional circumstances, such as on land with extreme slope, a greater number of storeys may be permissible.

The residential flat building types identified in this part are:

- Shop-top Residential Flat Buildings (combined with Shop-top Housing).
- Residential Flat Buildings.

Building Type Controls

The controls provided under each building type are mandatory. They set the minimum and maximum standards and dimensions required for that building type.

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.

This plan encourages developments to be comprised of any combination of building types if the zoning allows.

Use of Diagrams within the DCP

Illustrations provided in the DCP are indicative only and provided to extrapolate on certain aspects of the plan. The diagrams must not be interpreted, used, or referred to as any form of either prescriptive or performance based control.

Hybrid Development

Some developments may be a combination of building types. This can occur on larger sites where a range of building types will be proposed or where the design of a building takes on the characteristics of two building types such as a residential flat building layout that is two storeys ie. a town house.

In such cases and where it is unclear as to what controls to apply the design of the development must automatically work to the most stringent control, such as the example above where the residential flat building controls, notwithstanding its two storey design, would apply.

It may be at the discretion of Council's Development Assessment Panel to advise when to use the less stringent controls; exercising its judgement based on the site and its particular circumstances.

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 the like, open or detachable 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 (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 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 Zone: 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), which ever 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.

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.

Infill: 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.

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 on a site external to the buildings on a site.

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 (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.

DEVELOPMENT APPLICATION SUBMISSION REQUIREMENTS

Development Application Submission Requirements - Dwelling Houses, Duplexes and Granny flats

NOTE: all levels to be based on RL metres AHD.

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,
- 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.

Scale – Site

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,
- 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),
- trees to remain and proposed trees/planting including species and size. Trees to be removed shown dotted
- deep soil zones
- stormwater management plan.

Scale - Building

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

- dwelling layouts, corridors, lifts and stairs,
- pedestrian accessibility and entries,
- vehicle and service access,
- parking,
- 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)

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 - Statement of Environmental Effect

- In written form, a table of description of the compliance of the development proposal with the objectives and controls set out in the relevant sections of this plan.
- Reference to any relevant planning policies, SEPPS, regional environmental plans or the like.
- Reference to any relevant draft plans.

Pre-Development Application submission recommendations for Town Houses, Row Houses and Residential Flat Buildings

The material recommended for submission by the applicant to Council at pre-DA stage includes a preliminary or draft of the following information:

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 or represents a more complete contextual reference,
- 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 landslip; 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.

Development Application Submission Requirements- Town Houses, Row Houses, and Residential Flat Buildings

Material to be submitted by the applicant at DA stage (a PDF of the architectural drawings as additional to the hard copy) includes:

Scale - Local

Submission - Local context sketch plan at 1:2500 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,
- 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.

Scale – Site

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,
- 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),
- trees to remain and proposed trees/planting including species and size. Trees to be removed shown dotted
- deep soil zones
- stormwater management plan.

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,
- 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)

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 - 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, SEPP's, regional environmental plans, or the like.
- Reference to any relevant draft plans.

Preparing a Site Analysis

A site analysis is to be submitted with the development application. Minor work (such as extensions, minor renovations) may only require a partial site analysis for the affected area of the site. 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 on sites 10% or less 0.5 metre intervals and on sites +or less than 20% 1m intervals and site greater than 20% 2m intervals for the site, adjoining streets and land adjoining the site,
- spot levels and RL's must match in location,
- 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.

Table of Contents

AREA SPECIFIC DEVELOPMENT CONTROLS

INTRODUCTION

Each area has been identified because….

Objectives

- *To*
- *To*
- *To character.*
- *To*

PART A - Dwelling Houses, Alterations and Additions to Dwelling Houses, Garages, Outbuildings, Swimming Pools, Tennis Courts

Table of Contents

CHAPTER 1 – BUILDING TYPES

Dwelling Houses

A dwelling house has only one dwelling per allotment.
Dwelling houses generally have a single street frontage and in some cases two street frontages. They are accessed by means of a road, laneway or right of way. Some dwellings have no street frontage when located on battle-axe blocks.
Quality dwelling houses provide a high level of residential amenity for residents whilst also contributing to the character of the street, the surrounding suburb and not unduly affecting neighbouring dwellings or lots.

Quality dwelling houses are those designed to minimise the consumption of energy and non-renewable resources through appropriate material selection, building orientation, insulation/building mass, recycling and, above all, incorporating passive temperature regulating methods that capitalize on natural systems such as breezes and shade trees.

The dwelling house building type refers to a complete building and its site, whether new, existing or an addition or alteration to an existing building.

Objectives

- *To be well designed and attractive.*
- *To be of an appropriate scale relative to the existing or desired future pattern of development.*
- *To provide landscaped and deep soil areas on the lot.*
- *To provide amenity for residents without compromising the amenity of neighbouring properties.*
- *To address the street and to make a positive contribution to its established or envisaged streetscape character.*
- *To maximise the sustainability of the building during its lifecycle.*
- *To minimise the impact on the natural environment.*
- *To minimise the impact on the natural landscape through inappropriate or unnecessary cut and fill.*

Controls

a. Dwelling houses in existing urban areas must be consistent with the scale and character of surrounding dwelling houses or as envisaged through an adopted concept plan, locality plan, design statement or the like.

b. In new subdivision areas dwelling houses are to be designed to conserve any natural landscape features of the site and surrounding area.

c. In new subdivision areas dwellings must be consistent with any design scheme adopted for that subdivision.

d. Deep soil areas are to be provided to the front and rear of sites in accordance with this Part.

e. Entrances are to be clearly visible from the street, where the allotment has a street frontage, and there is to be a clear line of access to the building from the street.

f. Dwelling houses are to meet the controls as set out in this Part A: Site and Building Design Controls.

g. Dwelling houses on non urban 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.

Parking to the rear of the lot **Parking to the middle of the lot** **Parking to the front of the lot**

Generic characteristics of a dwelling house showing a range of car parking configurations.

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 impact on the amenity of neighbouring property.*
- *To be of an appropriate scale and character relative to the existing context.*

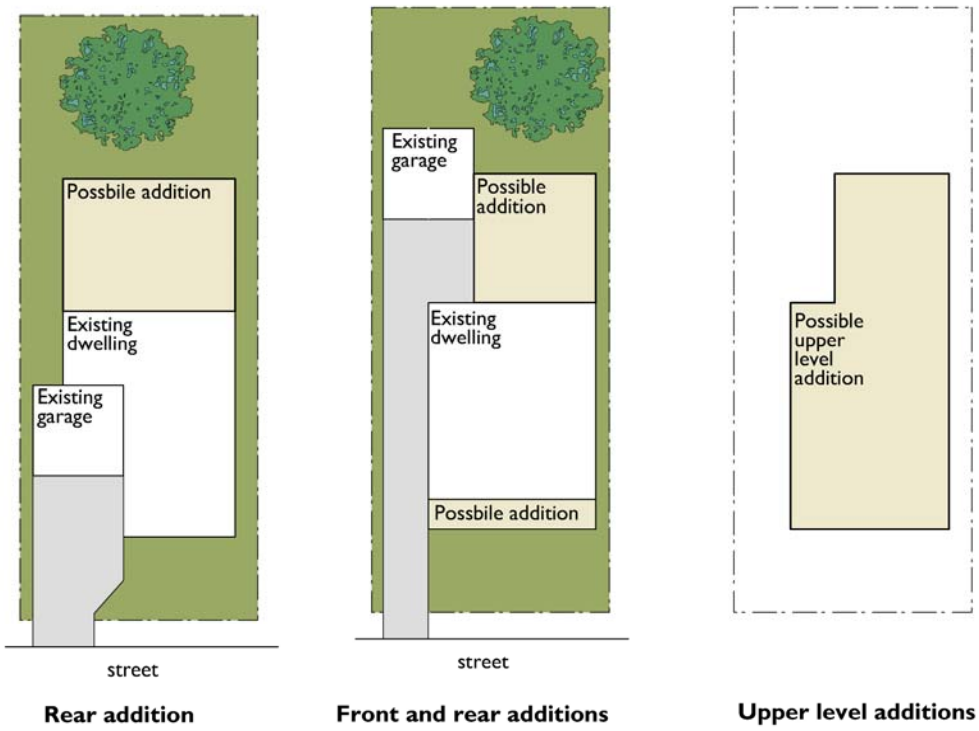
Controls

a. The design and materials selected for alterations and additions are to be generally consistent with those of the existing house, except where it is demonstrated that an alternative provides a better environmental outcome without compromising the general character of the dwelling and surrounding area.

b. Alterations and additions are not to unreasonably impact on the amenity of neighbouring properties.

c. Alterations and Additions are to improve the amenity and liveability of dwellings and site including practical and useable external spaces.

d. Alterations and Additions are to meet the controls for dwelling houses as set out in this Part, Part A: Site and Building Design Controls.



General characteristics of alterations and additions to a dwelling house.

CHAPTER 2 – SITE AND BUILDING DESIGN CONTROLS

Introduction

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

All the controls have been designed to ensure that they correlate with one another and encourage quality development.

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 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	Height
Design Control 6	Building Amenity
Design Control 7	External Building Elements
Design Control 8	Building Performance
Design Control 9	Outbuildings
Design Control 10	Swimming Pools and Spas
Design Control 11	Tennis Courts
Design Control 12	Floor Space Ratio (FSR)

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. For the purposes of this DCP 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.

Streetscape

Streetscape refers to the spatial arrangement, extent and appearance of elements within a street, which includes some elements on private properties adjoining the street. Streetscape design is concerned with ensuring there is consistency in built and landscape form along streets on private sites.
Streetscape controls seek to ensure that dwellings and gardens relate well to each other and to the landscape setting along the street. The primary elements that create streetscape character are:

- the relationship of street to the topography of the land on either side of the street,
- the width, layout, landscaping and materials of the street, footpaths and front gardens,
- buildings, building setbacks, building height,
- relationship of buildings to the topography and to other buildings in the streetscape.

The aspects of a development that help to create quality streetscapes, when well considered and designed include;

- front and side boundary landscaping including boundary fences and walls,
- access and driveway design; widths, materials and location,
- the building's size and shape as seen from the street, 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.*
- *To encourage dwellings to be well designed.*
- *To ensure streets provide a high level of pedestrian amenity, access and safety.*
- *To ensure garages do not dominate the street.*

Controls

a. Site design, building setbacks and the location and height of level changes are to consider the existing topographic setting of other buildings and sites along the street, particularly those that are older and more established.

b. The design of the front deep soil zone and boundary interface to the public domain is to complement or enhance streetscape character by:
   - providing for landscaping; lawn, trees or shrubs characteristic with existing properties or of such design as to enhance the quality and appearance of the dwelling and surrounding area,
   - reflecting the character and height of fences and walls along the street, or of such design as to enhance the quality and appearance of the dwelling and surrounding area,
   - reflecting the character and layout of established front gardens of other allotments in the street, particularly older and well established garden landscapes,
   - retaining, protecting or replacing existing vegetation and mature trees,

c. Carports and garages visible from the public street are to;
   - be compatible with the building design, including roofs,
   - be setback behind the dwellings 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.

e. Facades visible from the public domain are to be well designed by:

- having important elements such as front doors and building entry areas prominent in the building facade and clearly identifiable from the street,
- coordinating and integrating building services, such as drainage pipes, with overall facade design,
- integrating the design of architectural features, including stairs and ramps, and garage/carport entries with the overall facade design, and by locating car parking structures on secondary streets where possible,
- ensuring corner buildings have attractive facades which address both streets frontages, including the careful placement and sizing of windows,
- ensuring entrance porticos are single storey or of a scale relative to the building.

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 buildings in the streetscape, such as view corridors down a residential street. Vistas are long wide views, generally across a locality. Vistas are generally defined by ridgelines and valleys.

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 development 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.

DESIGN CONTROL 2 – Site Configuration

Deep soil areas are areas of natural ground which have a relatively natural soil profile. They are areas free of structures (including underground structures) and hard surfaces. They are suitable for the growth of vegetation, in particular, mature trees, and importantly, they allow water to be absorbed by the soil.

Site configuration includes:

- Deep Soil Zones,
- Impermeable Site Area,
- External Living Areas,
- Landscaping, and
- Topography, Cut and Fill.

Deep Soil Zones

Deep soil zones are areas of soil suitable for the growth of vegetation and mature trees. Deep soil zones may be landscaped but are not covered with hard impervious surfaces such as concrete, asphalt or pavers, nor are they 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.

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).

Objectives

- *To ensure that land retains its ability to permeate water.*
- *To ensure that each building lot has a deep soil zone of adequate area and dimension.*
- *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.*

Controls

a. Deep Soil Zones must be provided for all new developments and existing development, except on large lot rural or agriculturally zoned land.

b. All sites are to provide two Deep Soil Zones, one to the rear and one to the front of the property.

c. Rear Deep Soil Zones are to have minimum width of 8m or 30% of the average width of the site whichever is the greater and a minimum depth of 18% of the length of the site up to 8m but not less than 5.5m. Greater than 8m may be provided if desirable.

d. Rear Deep Soil Zones are to have soft landscaping; refer to Landscaping Section.

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 are to have soft landscaping, vegetation and at least one tree.

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.

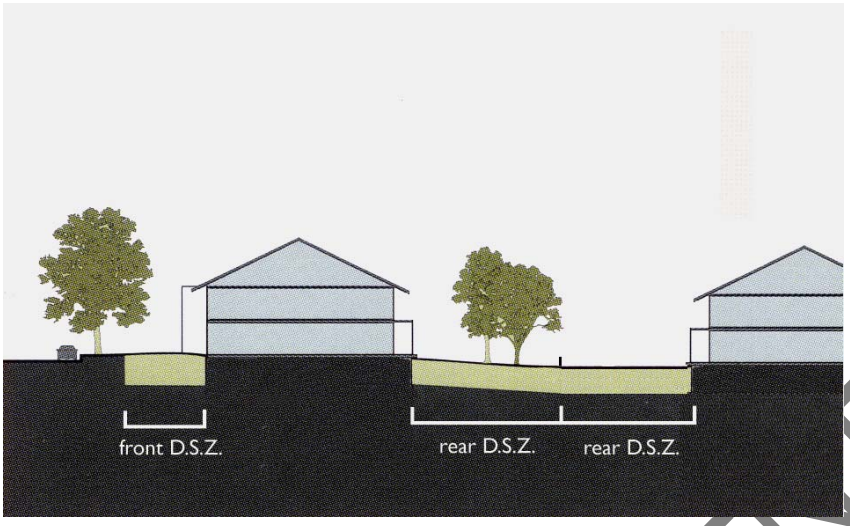
i. The Deep Soil Zone is to be included in the total permeable area for the allotment.

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.

Design Guidelines:
It is preferable that deep soil zones on the rear boundary extend along the full length of the boundary as this is generally where the opportunity exists to create or expand on a vegetation corridor between properties and is often an area where established trees and vegetation exists already.

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.

Impermeable Site Area

The impermeable site area is the total area of impervious surfaces within an allotment following completion of the development. Excessive impermeable areas on a lot can increase the volume of stormwater discharged off-site as it reduces the lands capability 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.*
- *To promote water sensitive urban design, best practice erosion and sediment control measures on residential land.*

Controls

a. An allotment's runoff shall be dispersed onto grassed, landscaped or infiltration areas, of the allotment, 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. Rain water 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. A schedule of the breakdown/calculation of impermeable site area must be submitted with the development application.

g. The maximum areas for impervious surfaces are:
   - 70% of the allotment - On lot sizes less than 500m2.
   - 65% of the allotment - On lot sizes between 500m2 and 750m2 inclusive.
   - 60% of the allotment - On lot sizes greater than 750m2.

Table 1 – Impermeable Surface Factors

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

External Living Areas

External living area refers to a space that extends the internal living and recreation space of a dwelling house to form part of the private outdoor recreational and relaxation space. These spaces generally take the form of courtyards, decks, terraces and balconies, can be paved or decked, and may be covered. External living areas may 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.

Elevated external living areas should be designed to avoid facing the side boundaries, as this can lead to privacy problems with neighbouring properties.

Objectives

- *To enhance the amenity of internal living spaces.*
- *To provide an external relaxation and recreation space.*

Controls

a. External living areas are best located adjacent to the internal living (dining rooms, living room, or lounge room) areas so as to extend the overall living space.

b. External living areas should be suitably screened to achieve visual privacy if located less than 4m from a side boundary.

c. External living areas are to be no closer to the side boundaries than 900mm.

d. External living areas are to be designed to ensure water does not enter the dwelling.

e. External living areas should be oriented to north where possible.

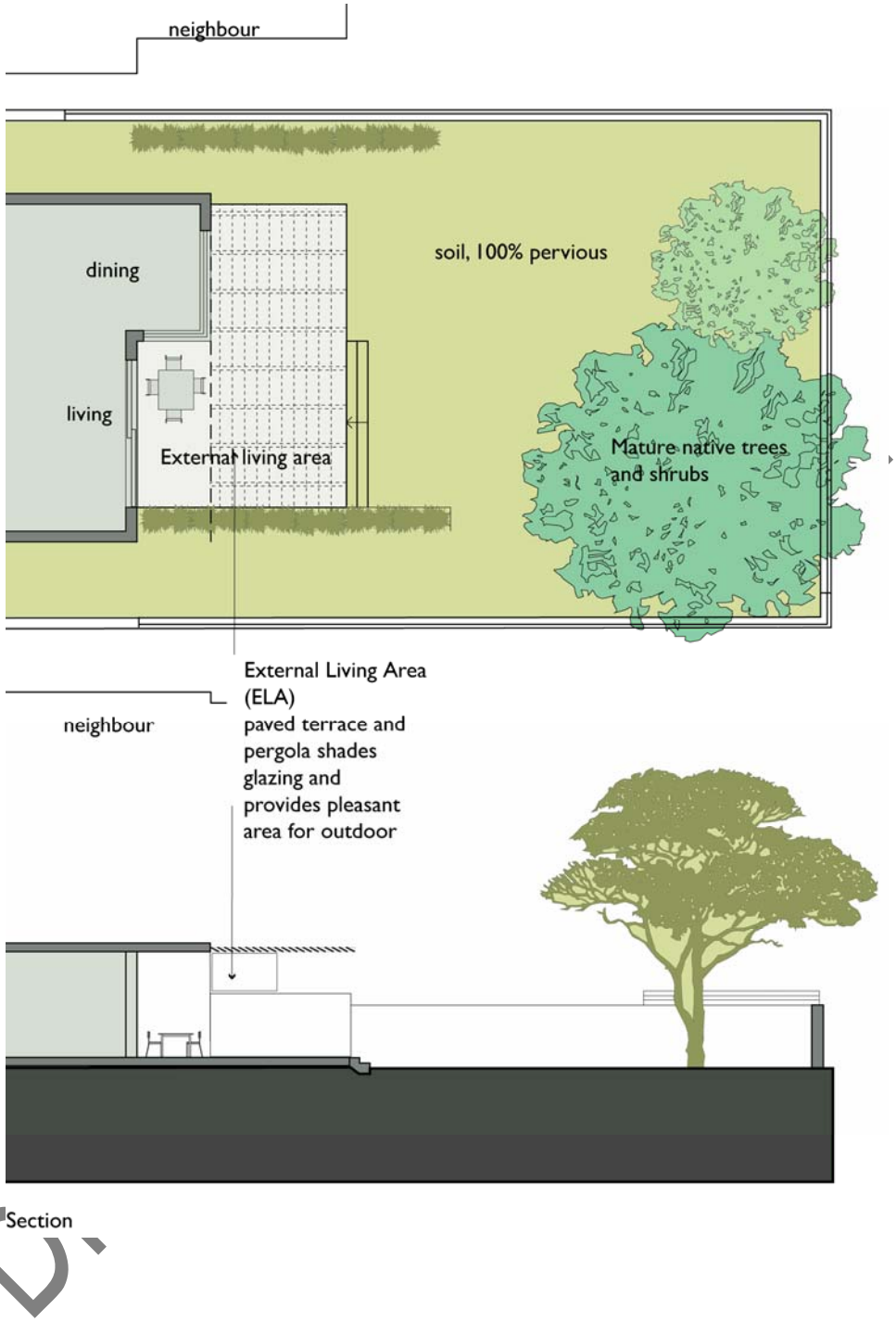


Diagram of an External Living Area to the rear of the site provides direct connection between the internal space of the dwelling and the garden or Deep Soil Area. Privacy screening may be required to the sides of the space. Ground level external living areas are to be located so as to retain mature trees,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

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.

Landscape design should consider usability, privacy and opportunities for social and recreation activities. Neighbours' amenity should also be respected. Landscaping also has an important role to play in improving environmental conditions such as storm water and rainwater absorption, habitat for native animals and plants, reducing bushfire risk, and helping to regulate the amenity of a development through such things as sun shading using pergolas and tree plantings.

Objectives

- *To enhance the appearance and amenity of development.*
- *To enhance the character of the locality and the streetscape.*
- *To retain existing important landscape features.*
- *To provide privacy between adjoining dwellings and private open space.*
- *To assist in the percolation of rainwater and reduction in stormwater runoff.*
- *To improve microclimatic conditions on sites and the solar performance of dwellings.*
- *To contribute to improving urban air quality.*
- *To provide fauna and flora habitat.*
- *To assist in the protection of urban bushland.*

Controls

a. Retain existing landscape elements on sites such as natural rock outcrops, watercourses, dune vegetation, indigenous vegetation and mature trees.

b. On lots adjoining bushland, protect and retain indigenous native vegetation and use native indigenous plant species for a distance of 10m from any lot boundaries adjoining bushland.

c. Locate and design the building footprint to enable the retention of existing trees.

d. Buildings are not to be sited under the drip line of an existing tree.

e. Provide useful outdoor spaces for livability by coordinating the design of external living areas, driveways, parking areas, communal drying areas, swimming pools, utility areas, deep soil areas and other landscaped areas with the design of the dwelling.

f. Where the ground floor level of a dwelling is above the finished external ground level reached through a door or doorways, there is to be a physical connection made between these levels. Examples of a physical connection include stairs, terraces, and the like.

g. Provide a landscaped front garden.

h. A pathway with a minimum width of 900mm is to be provided along one side of the dwelling so as to provide pedestrian access from the front garden to the rear yard. This access is not to be blocked by such things as landscaping features, rainwater tanks, hot water heaters and retaining walls. The pathway does not need to be provided on allotments which have rear lane access.

i. Landscape elements in front gardens such as plantings are to be compatible with the scale of development.

j. The front garden is to have at least one canopy tree with a minimum mature height of 10 metres.

k. Where the backyard does not have a mature tree at least 15m high, plant a minimum of one large canopy tree in the back yard. The tree is to be capable of a mature height of at least 15m and is to have a spreading canopy.

l. Locate and design landscaping to increase privacy between neighbouring dwellings.

Design Guidelines
Provide useful outdoor spaces for livability by coordinating the design of driveways, parking areas, 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 deciduous 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.*

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, 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 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.*
- *To ensure development is sympathetic with the existing topography and water cycle of the site.*

Controls
a. Building siting is to relate to the original form of the land.
b. 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. Example of alternative construction includes: Bearer and joist construction; Deepened edge beam; Split level design; Suspended slab design.
c. On sloping sites step buildings or utilize site excavation and suspended floors to accommodate changes in level rather than leveling the site via cut and fill.
d. Dwellings must not be designed to be on a contiguous slab on ground type if the building site has a slope of greater than 10%. Development on such land is to be of pole or pier construction or multiple slabs or the like that minimise the extent of cut and fill.

e. Site excavation / land reforming is to be kept to a minimum required for an appropriately designed site responsive development.

f. The maximum level of cut is 1m and fill is 1m.

g. Retaining walls maximum 1.2m.

h. 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.

i. 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 stabilization to prevent soil erosion.

j. 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.

k. Filled areas are to be located where they will not impact on the privacy of neighbours.

l. 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.

m. 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 for cut and 1.5m for fill 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
On sloping sites building will generally need to step down the site in order to remain under the height limit and in order to avoid excessive cut and fill.
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.*

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.

Calculation rules:
A setback is the distance between a building 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 structure or*
- *the outer edge of an eaves gutter,*

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

Front Setbacks (Building Lines)

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.

The front setback is measured from the front boundary of the allotment to the outer most edge of the wall of the building elevation.

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 compatibility with other buildings in the street.*
- *To allow for landscaping.*

Controls

a. Dwelling Houses are to be setback 6 metres from the street boundary.

b. On corner allotments the setback along the secondary street (the street to which the dwelling has its secondary frontage) is 3m.

c. In older established areas and on infill sites Dwelling Houses 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 up to plus or minus 1m.

d. Garages and carports, including semi-basement garages and attached garages, are to be set back a minimum of 1 metre from the dwelling's front façade.

e. Council may approve the erection of a dwelling or garage, which does not comply with the required building line setback in circumstances, outlined elsewhere within this document, or where –

1. The levels, depth and shape of the allotment, or

2. The exceptional conditions of the site such as excessive grades or slope, make it necessary or expedient to do so, and:

- the proposal will not affect the amenity of adjoining properties,
- no valid objections are received from adjoining property owners,

- the proposal will not create an unwanted precedent to the vicinity,
- the structure is located a minimum of 900mm from the side boundary of the property,
- the proposal will not impede on the required pedestrian and traffic sight lines.

g. An application to vary the building line by up to four (4) metres will be considered for carports subject to the following criteria –
   - No other suitable location is available behind the building line, and the carport.
   - It is located a minimum of 900mm from the side boundary.
   - It is of an open design with two or more sides fully open.
   - Frontage facing the street is to remain open and shall not be fitted with a door or enclosing device of any kind.
   - Posts are setback a minimum of 2 metres from the street boundary.
   - The roof does not significantly impact on the streetscape.
   - Roof is not trafficable.
   - Does not exceed 33% of the width of the allotment frontage or 6 metres, whichever is the lesser.

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 provide an orientation for windows of ancillary rooms.*
- *To provide access to the rear of the lot.*
- *To provide a location for rainwater tanks.*
- *To facilitate visual and acoustic privacy between neighbouring lots.*

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

Controls

a. Single storey dwellings are to be setback a minimum of 900mm from the boundary line to the wall of the building. Guttering, eaves, hoods and other similar structures may be constructed within the 900mm setback but not closer than 450mm from the boundary.

b. 2 storey dwellings are to be setback a minimum of 1.5m from the boundary line to the wall of the building. Guttering, eaves, hoods and other similar structures may be constructed within the 1.5m setback but not closer than 900mm from the boundary.

c. Garages if not proposed within the 6m front setback may be located within 450mm of a side boundary.

d. Carports if not proposed within the 6 metre building line may be located adjacent to a side boundary.

e. Driveways may be located adjacent to the side boundaries only where front fences above 600mm have a 60% openness ratio for the first 2m along the boundary adjacent to the driveway to achieve pedestrian and traffic sight lines as set out in AS2890.

f. Where the primary windows of living rooms face the side boundaries they are to be setback a minimum of 4m from the boundary and be screened. The minimum building separation distances must be met.

Rear Setbacks

Rear setbacks are important for achieving open space to the rear of the lot for deep soil areas, 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. Canal frontages are considered as the rear boundary to the allotment.

Calculation rules
Rear setbacks are measured from the rear boundary to the outside edge of the the wall of the building. 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.

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, outbuildings and carports may be located within 450mm of the rear boundary.

b. For Dwelling Houses the minimum rear boundary setback is to achieve the minimum Deep Soil Zone requirements or 5m whichever is the greater.

c. Existing mature trees less than 5m from the rear boundary are to be retained.

Canal Frontages

d. The setback from a canal frontage is:
   - 5.5m where the boundary is on the canal side of a revetment wall, or
   - 3.4m from the revetment wall where the wall is on the boundary, except:
   i) for those lots with canal frontages and facing Gollan Drive and Jacaranda Avenue, Tweed Heads West where the setback line to the canal frontage shall be 2.5m; and
   ii) Lots 1, 2, 3 and 4 Crystal Waters Drive, Tweed Heads West where normal building setbacks shall apply along the canal frontage.

e. No structures are to be built in the setback area other than fences to 1.2 metres high, swimming pools, retaining walls, suspended decks that do not exceed the level of the allotment at the top of the batter and boat ramps except:
   (i) For those allotments with canal frontages and facing Gollan Drive and Jacaranda Avenue, Tweed Heads West where the setback line to the canal frontage shall be 2.5m
   (ii) Lots 1, 2 3 and 4 Crystal Waters Drive, Tweed Heads West where normal building setbacks shall apply along the canal frontage.

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

DESIGN CONTROL 4 - Carparking and Access

The location and design of car access and parking areas is to ensure that the site is not dominated by car related uses. Vehicle access and movement areas must not dominate the streetscape nor compromise the privacy and amenity of the site or neighbouring dwellings.
Carparking is to be convenient and is to be designed to meets 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. .*

Carparking Generally

Controls

a. Carparking is to be in accordance with Section A2 of the Tweed Shire Development Control Plan.
b. Car park entries are to be located off secondary streets and laneways where these occur.
c. The driveway width from the street to the property boundary is to be minimised.
d. Vehicular movement and parking areas are to be designed to minimum dimensions, to reduce hard surfaces on the lot, and increase the area available for landscaping.
e. A garage or carport may be located in front of an existing dwelling if:
   - there is no other suitable position on the allotment; and
   - the carport or garage accommodates a single car space; and
   - there is no vehicular access to the rear or side of the allotment.
f. Driveways cannot be roofed.

Garages

Controls

a. The design and materials used for garages must be in keeping with the main dwelling.
b. Garage doors along the street cannot be more than 50% of the street frontage or 6 metres which ever is the lesser.
c. Garage doors along a laneway can take up 100% of the frontage. Providing a pedestrian access way is directly from the laneway to the lot is encouraged.
d. Garage doors are to be solid. Open doors such as expanded mesh doors are not acceptable.
e. Garages are to be located at least 1 metre behind the front building elevation and at least 2m from a road boundary.
f. The total width of garage doors visible from a public place, such as the street, is not to exceed two car spaces. This can be made up of either a single door or 2 doors.

Carports

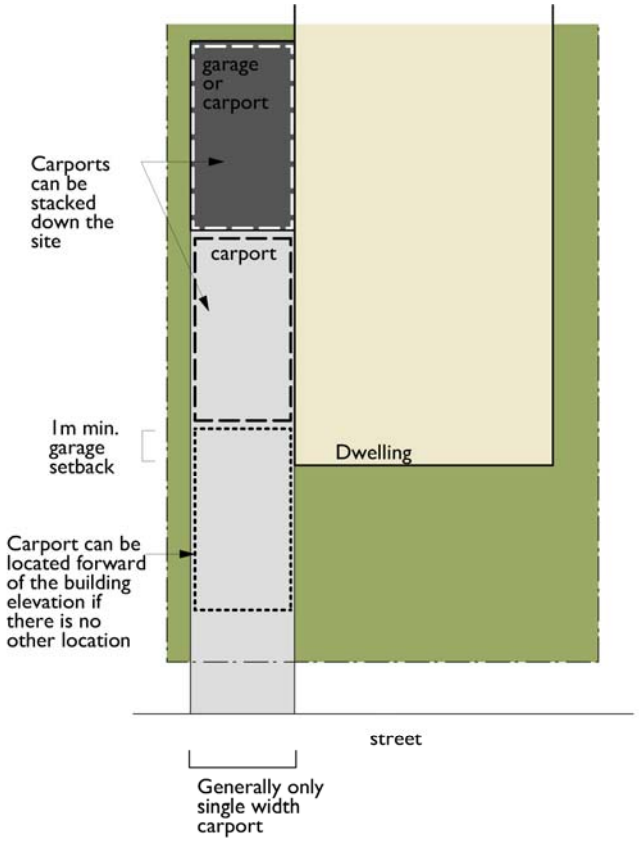
Controls

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. Double carports can only occur, on very steep sites or where there is no other solution possible for car parking on the site.
d. Carports must not necessitate an extra driveway additional to the driveway for a garage or other parking structure.
e. The design and materials used for carports must be in keeping with the main dwelling.

f. The carport must not be enclosed on any of its sides.

g. Carports cannot have rooms within the roof.

h. For new dwelling carports cannot be erected between the street alignment and the front building alignment of the dwelling. The minimum setback behind the front building alignment is 1 metre.



Carports can be stacked down the site.

The visual impact of this garage has been reduced by making the garage door a similar material and colour to the wall so the garage reads as the wall to the building, it is also set back from the main façade of the building.

Basement Carparking

Basement parking needs to be carefully designed to ensure the building is not raised unnecessarily high above ground level and that the building has 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 within the building footprint and/or behind the buildings front elevation to avoid retaining walls within the front garden.

Controls

a. Basement carparking cannot extend more than 1m above ground where it faces a public street or public space. 1.5m above ground level can be achieved to the side and the rear of the lot where it does not face a public street or public space.

b. A ramp entering off a public street must start behind the boundary. Ramps cannot be located on public land.

c. The width of ramps is to be minimized.

d. The walls of basement carparks are best located in line with the buildings footprint. Basement carparking is not to extend outside the external line of terraces, balconies and porches.

DESIGN CONTROL 5 – Height

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.

The height controls are intended to work with existing buildings in the street. 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.

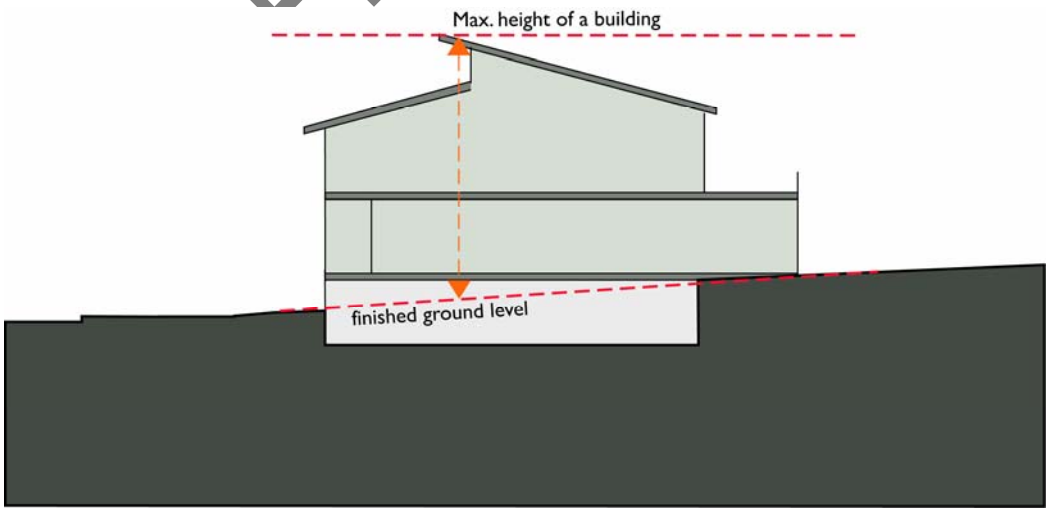
Objectives

- *To design new development appropriate to the existing building scale in the street and the local area.*
- *To ensure new development maintains an appropriate residential character.*

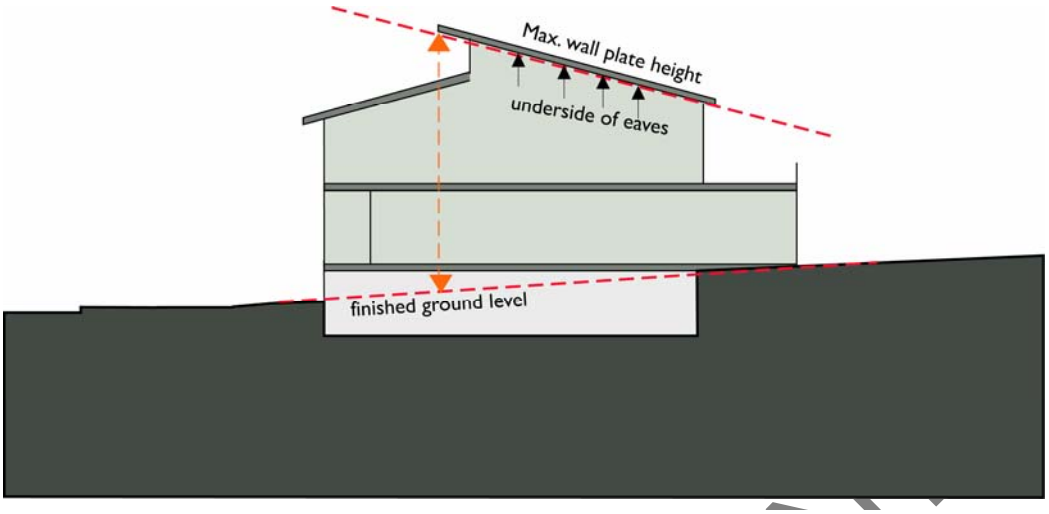
Controls

a. 9m is the maximum overall building height for Dwelling Houses.
b. 8.5m is the maximum wall plate height for Dwelling Houses.
c. Carports maximum height 3.5m for a flat roof and 4.5m for a pitched roof.
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.

Calculation rules
Height is measured in an overall building height, wall plate height.
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.
The definition of storey is found in the Tweed LEP
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.



Eaves height is measured to the underside of the eaves from the finished ground line, shown dotted.

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. Minimum finished floor to ceiling dimensions are set out in the Building Code of Australia.

b. It is encouraged to provide minimum ceiling heights of 2.7m min. finished floor level to finished ceiling level for habitable rooms. For habitable rooms with a raking ceiling it is preferable to have at least 30% of the ceiling at 2.7m high.

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.

DESIGN CONTROL 6 – 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; sunlight access, visual privacy, acoustic privacy, view sharing, and natural ventilation.

Sunlight Access

The use of passive solar design in dwellings is encouraged. Tweed has a temperate sub-tropical climate and well designed houses in Tweed should only require a limited amount of heating and cooling. The heat load resulting from direct solar penetration into buildings during the hotter months can be a major problem, and so it is important that dwellings are designed to optimise the benefits of sunlight, whilst minimising its negative effects.

The orientation of the allotment, the immediate subdivision pattern and the local topography, have a significant impact on the ability to provide solar access. Sites on the southern side of a hill, for example, may not receive the same level of sunlight access as other sites. On allotments where the side boundary has a northerly aspect, consideration should be given to increasing the side setback to improve sunlight access and to prevent overshadowing by future development on neighbouring allotments.

It is also important when designing new buildings to consider the impact of the new development on the solar access of the neighbour. In some instances, overshadowing may be unavoidable; however unreasonable overshadowing of neighbours as a result of poor design is not acceptable.

Ideally, solar access should be maximised in winter and minimised in summer. A northerly aspect is most desirable as it provides the most solar access in winter and is relatively easy to shade in summer. A westerly aspect is least desirable, particularly in summer. Protection for a westerly aspect can be achieved by using such elements as vertical sun shading devices, blinds and deciduous trees.

Daylight consists of both diffuse light and direct light. Good levels of daylight in a dwelling improve amenity and reduce the need for artificial lighting. Good levels of daylight can be achieved through the careful consideration of window size, location and proportion.

Objectives

- *To maximise sunlight and daylight access.*
- *To ensure that sunlight access of neighbouring dwellings and neighbouring private open space is minimised.*
- *To encourage the use of passive solar design.*

Controls

a. Living spaces are to be located predominantly to the north where the orientation of the allotment makes this possible.

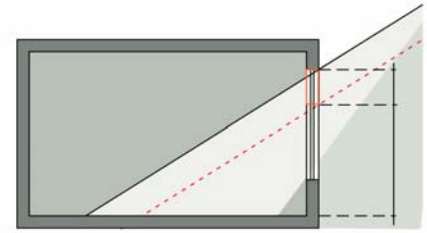
b. Dwellings on allotments which have a side boundary with a northerly aspect are to be designed to maximise sunlight access to internal living areas by increasing the setback of these areas. In these cases a minimum side setback of 4 metres is required.

c. Private open space of the subject dwelling is to receive at least two hours sunlight between 9am and 3pm on June 21.

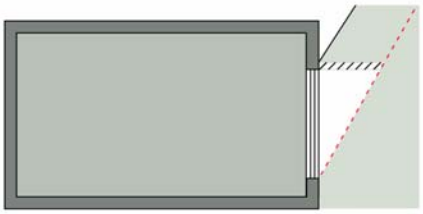
d. Windows to north-facing habitable rooms of the subject dwelling are to receive at least 3 hours of sunlight between 9am and 3pm on 21 June over a portion of their surface.

e. For neighbouring properties ensure:
   - sunlight to at least 50% of the principal area of private open space of adjacent properties is not reduced to less than 2 hours between 9am and 3pm on June 21, and
   - windows to living areas must receive at least 3 hours of sunlight between 9am and 3pm on 21 June.

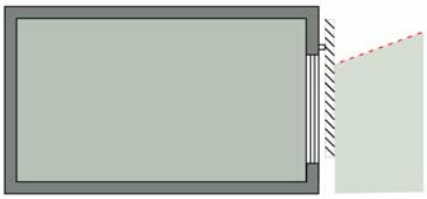
f. Where existing overshadowing by buildings is greater than this, sunlight is not to be further reduced by more than 20%.



Higher window heads allow greater sun penetration into rooms



Horizontal external shading devices are suitable for north facing windows. They help to regulate excessive summer sun penetration.



Vertical external shading devices are suitable for west facing windows. They can help to regulate excessive summer sun penetration.

Visual Privacy

Visual privacy allows residents to carry out private activities within all rooms and private open spaces without compromising the functioning of internal and external spaces. Visual privacy is determined by the nature of adjacent developments, site configuration, topography, the scale of the development, and the layout of individual dwellings.

Living rooms should be located to the front and rear elevations where privacy and outlook are more easily achieved. Locating the majority of windows facing towards the street and the rear boundaries means that the windows of ancillary rooms will face the side boundaries. This allows the building to be located closer to the side boundaries as there a fewer privacy impacts.

It is not necessary to provide the same degree of privacy protection to all parts of a neighbouring site. Higher levels of privacy are to be provided to both internal living areas and to the external living area. Overlooking from bedroom windows is less of a concern than overlooking from the windows of other habitable rooms.

Terraces and balconies from living rooms located above ground level can have a significant impact on the amenity of neighbours with regard to loss of visual privacy and increase in noise levels.

Objectives

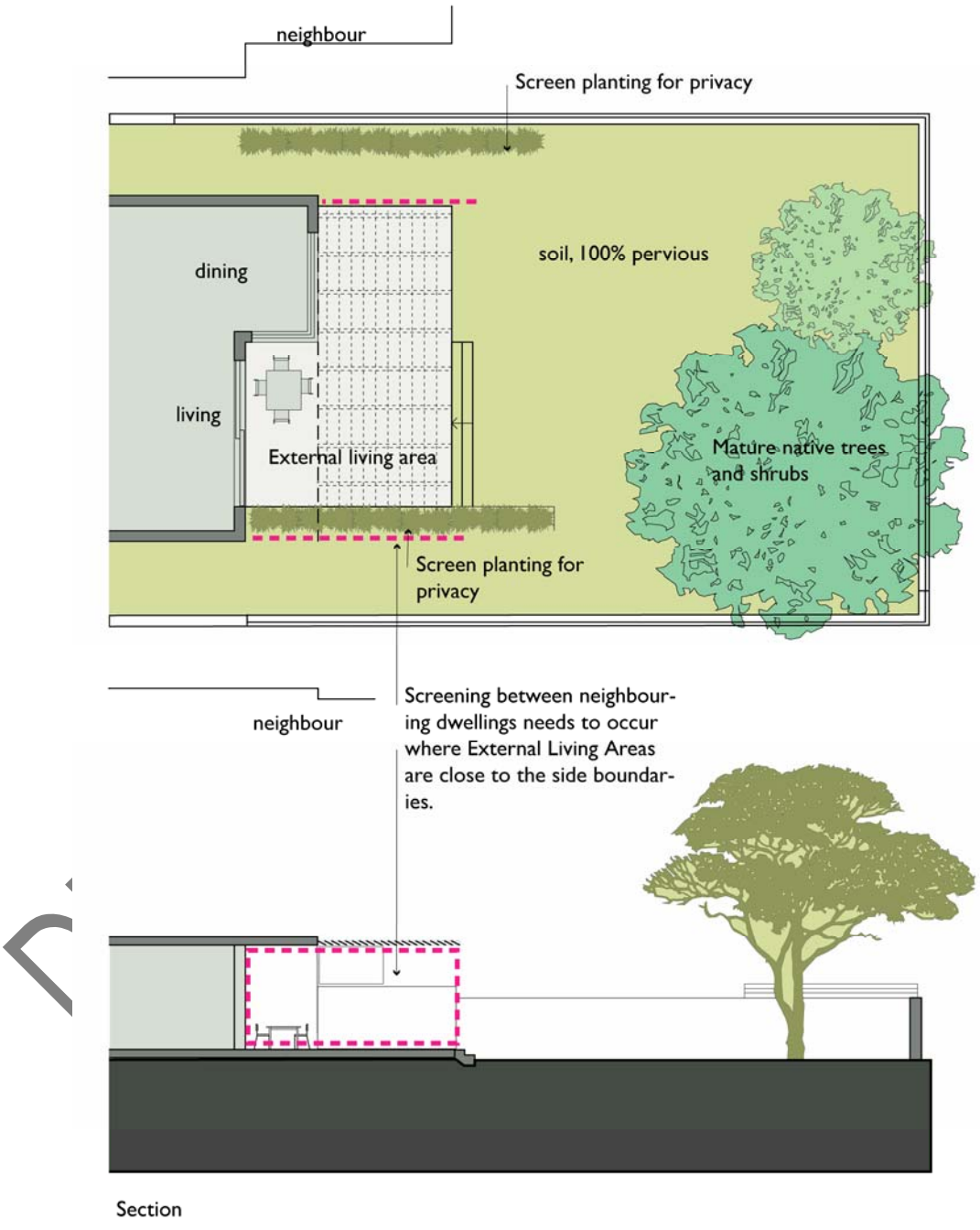
- *To provide visual privacy for internal and externally spaces.*
- *To facilitate outlook and views from principal rooms in dwellings and private open spaces without compromising visual privacy.*
- *To provide a level of surveillance over the street.*
- *To minimise overlooking of neighbouring dwellings.*

Controls

a. Terraces and balconies off living areas are generally not to be located above ground floor if they overlook neighbours.

b. Living room and kitchen windows, terraces and balconies are avoid a direct view into neighbouring dwellings or neighbouring private open space.

c. Side windows are to be offset by distances sufficient to avoid visual connection between windows of the subject dwelling and those of the neighbouring dwelling.



External Living areas requiring screening for privacy when located close to a side boundary.

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 and the location of living areas and above ground external areas such as terraces.

The proximity of the building to major external noise sources such as busy roads is also a major consideration.

Setbacks, separation between dwellings, and the appropriate location of external living areas, provide 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, air conditioners, pumps, and other mechanical equipment.*

Controls

a. The noise of an air conditioner, pump, or other mechanical equipment must not exceed the background noise level by more than 5dB(A) when measured in or on any premises in the vicinity of the item. This may require the item to have a sound proofed enclosure.

b. Dwellings located on arterial roads are to have double glazed windows where these windows face the road and provide light to living rooms or bedrooms. This is the case whether or not the dwelling has a solid masonry wall to the arterial road.

c. Dwellings located on designated or classified roads are to have an acoustic seal on the front door to reduce noise transmission.

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 living areas and 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.

Natural Ventilation

Natural ventilation is the circulation of sufficient volumes of fresh air through dwellings 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.

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 encourage natural ventilation in non-habitable rooms.*
- *To reduce energy consumption by minimising the use of mechanical ventilation.*

Controls

a. All dwelling are to have operable windows to habitable rooms.

b. Non habitable rooms including kitchen, bathroom & laundry are encouraged to have operable windows.

c. The plan layout, including the placement of openings, is to be designed to optimise access to prevailing breezes and to provide for cross-ventilation.

Building Orientation

Building orientation is a term used to describe the primary aspect of the building or the walls 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 important in ensuring privacy and outlook for new dwellings and to protect the amenity of neighbouring dwellings. 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.

Orientation is a key aspect in ensuring that new development respects and responds to the streetscape.

By locating the primary windows of living areas facing the street boundary and/or the rear boundary this allows the side boundaries to have mainly the 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 more 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.

Where it is not desirable to have living spaces facing the street boundary, bedrooms can be located to the front instead. Where this occurs the main entry must still be facing the street and must remain clearly visible.

Objectives

- *To easily achieving setback distances for privacy and outlook.*
- *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. Ensure that the pedestrian entry to the development is clearly visible and accessible from the street.
c. Where possible orientate bathroom, laundry and other ancillary room windows to the side boundaries.
d. Where possible orient the primary windows of living rooms to the front or the rear of lots.
e. Orient living areas to employ passive solar design principles.

Calculation rules
Address refers to the dwelling presenting an attractive elevation to the public domain; this generally includes windows of habitable rooms and the front door to the dwelling.
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 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.

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.

Attics

Attics can provide additional floor space whilst helping to reduce the overall height of buildings. An attic is a space that is contained within a pitched roof of a building. Attic rooms 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.*

Controls

a. Attic spaces cannot be more than 50% of the building footprint.

b. The majority of the volume of an attic is to be contained within the roof space.

Building Separation

Achieving adequate separation between buildings and shared 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 livability of the dwelling by providing useable outdoor space generally associated to living space with the dwelling.

Objectives

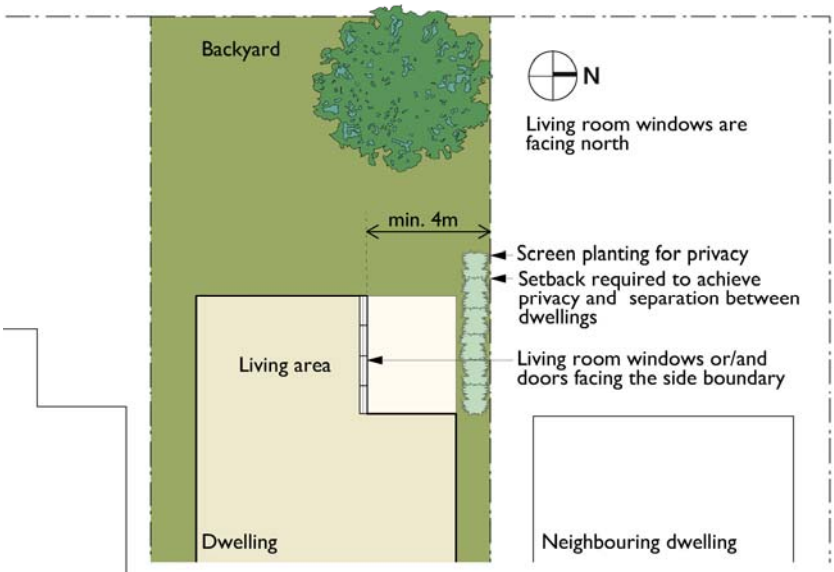
- *To ensure privacy between dwellings primary living areas.*

Controls

a. Avoid orienting the primary windows/doors of living areas to the side boundaries.

b. 8m min separation between walls containing primary windows/doors of living rooms, except where this results in one property providing greater than 5m of the setback. In such cases 5m is the minimum setback required for that property.

Calculation rules
Separation distances are measured between buildings that can either be on the same lot or on neighbouring lots.
Separation distance is measured at 90 degrees to the wall.
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 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.

DESIGN CONTROL 7 - External Building Elements

External building design elements include;

- fences and walls,
- roofs, dormer windows and skylights
- elevations visible from the public domain,
- awnings, canopies, pergolas, storm blinds, sails and signage,
- minor elements.

These external building elements are highly visible from the street and as such 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 contribute to a consistent built character along the street.

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

a. Front and return fences are to reflect the design character of the dwelling.
b. Front and return fences and walls are to be constructed of materials compatible with the house and with other fences and walls within the streetscape.
c. Return fences are to be the same height and design as front fences.
d. Front and return fences can be up to maximum height of 1.5m high with a maximum solid fence height of 600mm, above the solid wall the fence is to have a min. openness ratio of 60%.
e. Front and return fences may be solid up to 1.5m if located on an arterial road.
f. No Colorbond or timber paling for front or return fences, except were integrated into a design theme that is consistent with the character of the dwelling and streetscape and incorporates appropriate articulation to allow for landscaping.
g. Fences and walls are not to impede the natural flow of stormwater runoff.
h. If located in a bushfire prone area fences and walls are to comply with AS3959 and Planning for Bush Fire Protection 2006, as amended from time to time.
i. A solid front wall may be higher than 0.6m where the topography necessitates a retaining wall. The height of the retaining wall is to be minimised and is to be compatible with the positive characteristics of the existing streetscape.
j. Fencing is not to obstruct water meter reading.

Side and Rear Fences

Controls

a. Side fences are measured from behind the building line to the rear boundary. Maximum fence height of 2.0 metres.

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 3.6m and shall be offset from the side boundary by a min of 600m and off any front boundary by 1m.

d. Fences and walls are not to impede the natural flow of stormwater runoff.

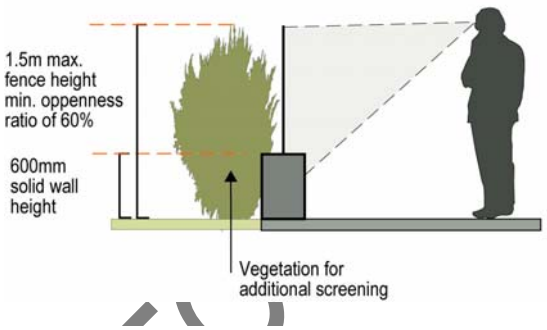
e. Controls for front fences and walls also apply to secondary street frontages on corner lots measured for the length of the dwelling.

Fences and walls for Greenbank Island

f. Approval is to be obtained from Council prior to the erection of any fencing on Greenbank Island.

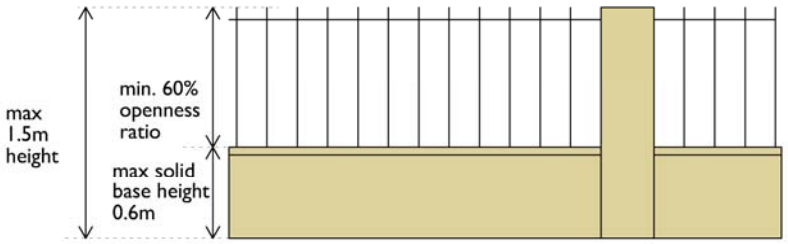
g. Fencing behind the six (6) metre building line shall not exceed 2000mm in height.

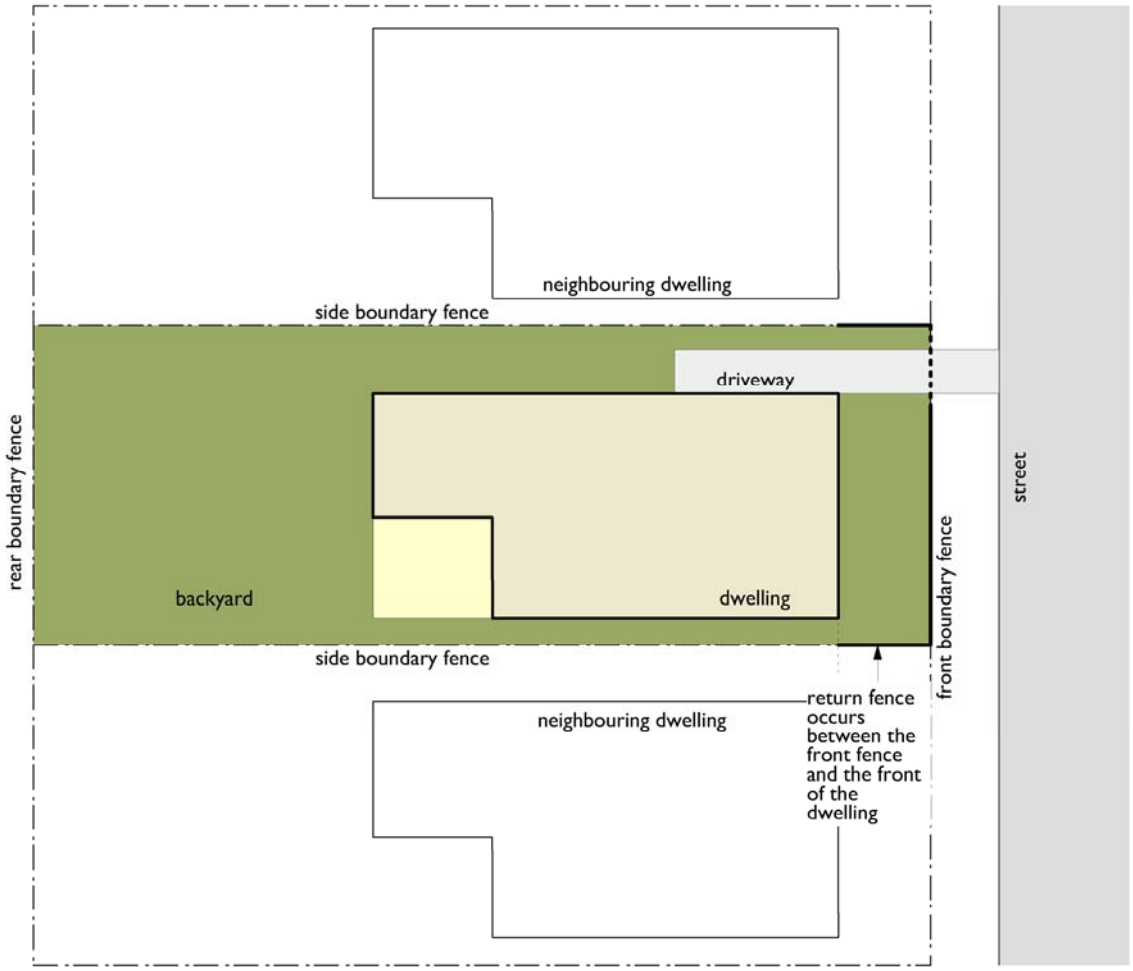
h. The fencing is to be constructed of brick, stone, masonry block or such other material as is approved by Council.



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.


max
1.5m
height
min. 60%
openness
ratio
max solid
base height
0.6m


neighbouring dwelling
side boundary fence
driveway
rear boundary fence
backyard
dwelling
street
front boundary fence
side boundary fence
neighbouring dwelling
return fence
occurs
between the
front fence
and the front
of the
dwelling

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.

Roofs, Dormers and Skylights

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.

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,
- using a compatible roof form, slope, material and colour to adjacent buildings; and
- ensuring the roof height is in proportion to the wall height of the building.

b. Skylights are:
- 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.

Corner Elevations

In addition to the controls for building elevations ensure that the 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. Building elevations on corner sites are to be oriented to both streets by having windows and doors addressing both streets.

b. Landscaping, fence and wall treatments on the secondary street frontage are to be the same as the primary street frontage for the length of the building.

This building addresses its corner location by designing both street elevations with equal importance.

Minor Elements

Minor structures include those building elements that are associated with the use of the dwelling for residential purposes. Minor structures include; air Conditioning units, aerials, antennae, microwave antennae and satellite dishes, barbeque areas, aviaries, clothes hoists/lines, flagpoles, letter boxes and outdoor security lighting.

Controls

a. Air Conditioning Units

- Noise levels from air conditioning units are not to exceed 5dB(A) above ambient background noise levels measured at the property boundary.

- Air conditioning unit installation must not reduce the structural integrity of the building.
- Openings created by the installation of air conditioning units must be adequately weatherproofed.
- Air conditioning units are not to be visible from streets.

b. Aerials, antennae, microwave antennae are to be:
- for domestic use only,
- a maximum of one per single dwelling house,

c. Ground mounted satellite dishes are to be:
- a maximum height of 2.4 metres,
- 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.

d. Roof Mounted satellite dishes are to be:
- suitably coloured to blend in with the building,
- structurally stable,
- one per dwelling house on lots less than 5,000 square metres,
- No higher than the ridge line

e. Barbeque areas are to be:
- used for domestic purposes only,
- 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.

f. Aviaries are to be:
- used for domestic purposes only,
- located no closer than 10 metres from a dwelling house on any adjoining property,
- located in the rear yard and not closer than 900mm to an adjoining property boundary measured to any part of the building,
- structurally sound.

f. 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 they are to be screened from view from all dwellings and the street.

g. Flagpoles are to be:
- structurally sound,
- wholly within the property boundary.

h. Letterboxes:
- are to be a maximum height of 1.2m above the ground,
- are to have street numbering corresponding with that allocated to the dwelling,
- are to be structurally sound,
- are to be designed as part of the building and its landscaping using similar materials and finishes,
- in multi-dwelling developments letterboxes must be located on common property; be contained in one structure, contain sufficient boxes, on for each dwelling, including one for the body corporate.

i. 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.

DESIGN CONTROL 8 – Building performance

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. Developments are to obtain BASIX certification where required.

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,*
- *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,*
- *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.*

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 Demolition work plan in accordance with the provisions of AS2601 and Councils work plan requirements.

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. 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

Water Conservation

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 where required and comply with the relevant requirements of the Building Code of Australia.

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.

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.

Design Guidelines

Design windows to enable cleaning from inside the building, where possible.

Select manually operated systems, such as blinds, sunshades, pergolas and curtains in preference to mechanical systems.

Incorporate and integrate building maintenance systems into the design of the building form, roof and facade.

Select durable materials, which are easily cleaned.

Select appropriate landscape elements and vegetation and provide appropriate irrigation systems.

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

DESIGN CONTROL 9 – Outbuildings

Outbuildings are ancillary structures to the main dwelling. They are small scale detached buildings that are visually consistent with the design of the dwelling. Examples of outbuildings include boatsheds, workshops, storage sheds, garden sheds, greenhouses, cabanas and gazebos.

Objectives

- *To provide for complementary uses to a dwelling house.*
- *To ensure compatibility in design and materials with the existing dwelling house.*
- *To maintain the existing or reinforce the desired future character and streetscape of the area.*
- *To preserve the amenity of the existing dwelling house and any neighbouring properties.*
- *To ensure that deep soil zones and significant trees or vegetation is not adversely impacted.*
- *To ensure that outbuildings are of an appropriate scale.*
- *To make allowance for contemporary living designs that comprise free standing outbuildings for residential uses such as; studios, parent/kids retreat, study/home office, bedroom, living /entertainment space, but not including a dwelling.*

Controls

a. Outbuildings are to be single storey, except when located on land with either a rural or agricultural zoning.

b. Deep soil zones in accordance with this Part are mandatory. Deep siol areas cannot be used for the siting of 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 an earlier planning scheme where no such requirement may have previously existed.

c. An outbuilding shall not be used as a dwelling.

d. Kitchen facilities are prohibited. A toilet, wash basin and/or shower may be provided.

e. An outbuilding shall not be used as a dwelling, notwithstanding that a toilet, wash basin and/or shower may be provided.

f. Kitchen facilities are prohibited.

g. The total area for outbuildings on a site (including carport) is 50m^2 for lots up to 500m^2 and for lots greater than 500m^2 up to 60m^2. These size restrictions do not apply on non urban zoned land.

h. The erection of outbuilding will not be permitted unless it is compatible with the residential use of the dwelling, or, in the case of non-residential land, it is consistent with the use of the land.

i. The total area for outbuilding on a site (including a carport) is 50m^2 for lots up to 500m^2 and for lots greater than 500m^2 up to 60m^2. These size restrictions do not apply on large lot rural or agriculturally zoned land.

j. For new dwelling houses and outbuildings cannot be erected between the street alignment and the front building alignment of the dwelling. The minimum setback behind the front building alignment is 1metre.

k. The design and materials used are to be generally consistent with those of the dwelling house, except where it is demonstrated that an alternative provides a better environmental outcome without compromising the general character of the dwelling and surrounding area.

l. Development that will not be visible from the street and that will not unreasonably impact on any neighbouring property may vary the design and material of construction from that of the existing building notwithstanding any material change in character.

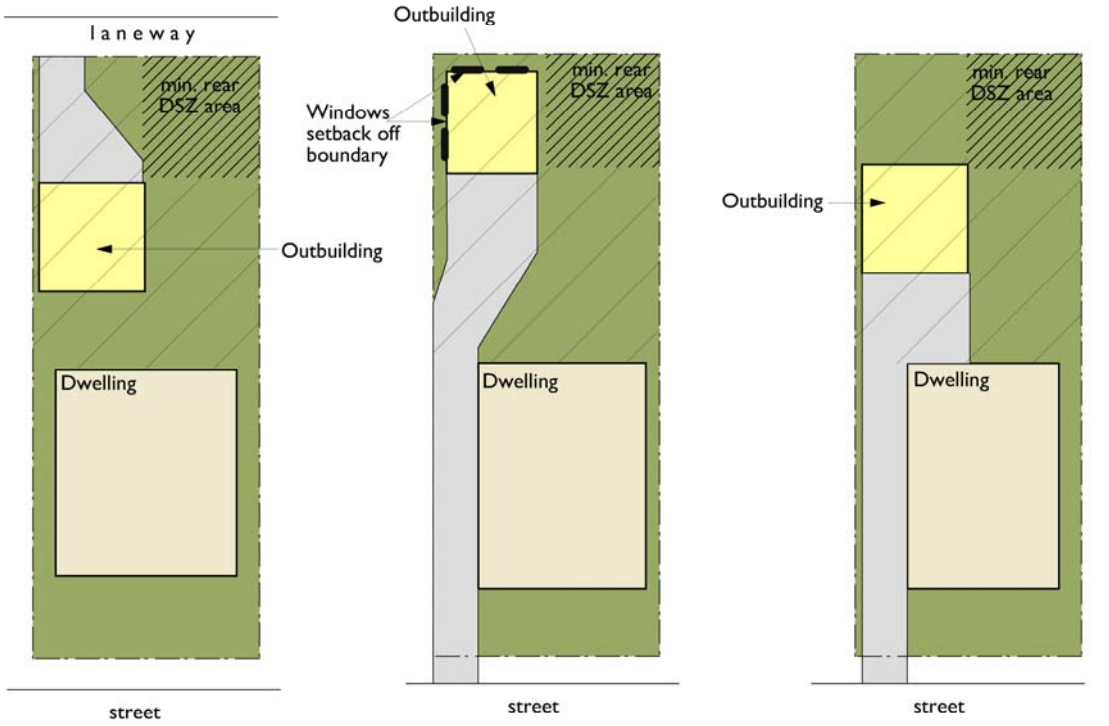
m. Reflective surface finishes are to be avoided.

n. Outbuildings are to have 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. This control does not apply to land with either a rural or agricultural zoning.

o. 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.

Note: In exceptional circumstances, where it can be clearly demonstrated that topographic or geotechnical site constraints preclude a building compliant with the controls, a variation may be sought under the variation to mandatory control provision of this Plan.

Outbuildings can be located anywhere within the rear of the lot (shown hatched) outside of the deep soil area



Outbuilding accessed from a laneway

Outbuiling located on the rear boundary

Outbuilding located to the rear of the lot

Diagrams showing different configurations for outbuildings.

DESIGN CONTROL 10 – Swimming Pools and Spas

Swimming pools and spas enhance the amenity and livability of dwellings. However, care must be taken to ensure a high level of safety for children and to ensure they do not detract from the amenity of neighbours.

It is important that swimming pools and pool fencing are not only built in accordance the Tweed Shire Council planning controls, but also with the relevant NSW Government Acts and Regulations and with relevant Australian Standards. Swimming pool fences must comply with the relevant requirements for pool fences set out in the Swimming Pool Act 1992 (or as updated) and with Australian Standards (such as Australian Standard 1926 (or as updated). Compliance with the Australian Standard will generally mean that a 1200mm high fence with self-closing, self-latching gates will need to be provided.

The protection of the privacy and amenity of adjoining residents is another important consideration. Some ways to achieve this are to ensure the width of coping is minimal where the edge of the pool is adjacent to neighbouring properties and by locating entertainment areas such as decks away from the boundaries. The location and enclosure of the pool filter is also an issue as noise from the filter can disturb neighbours.

It is important that pools are located so that they will not damage mature trees, either on the subject site or those within neighbouring properties.

Objectives

- *To provide a place for recreation and enjoyment.*
- *To provide a high level of child safety.*
- *To minimise the impact of swimming pools and spas on neighbours.*
- *To require swimming pools to comply with all relevant legislation and Australian Standards.*

Controls

a. The outer edge of the pool concourse or coping shall set back a minimum of one (1) metre from the side or rear boundaries, with the water line being a minimum of 1.5 metres from these boundaries.

b. Swimming pools must be surrounded with a child resistant barrier in accordance with the provisions of the Swimming Pools Act and the requirements of Australia Standard 1926.

c. Spas must be surrounded be a child resistant barrier as for swimming pools or access to the water restricted at all times when the spa is not in use in accordance with the Swimming Pools Act.

d. New swimming pools and spas shall comply with the current requirements of BASIX.

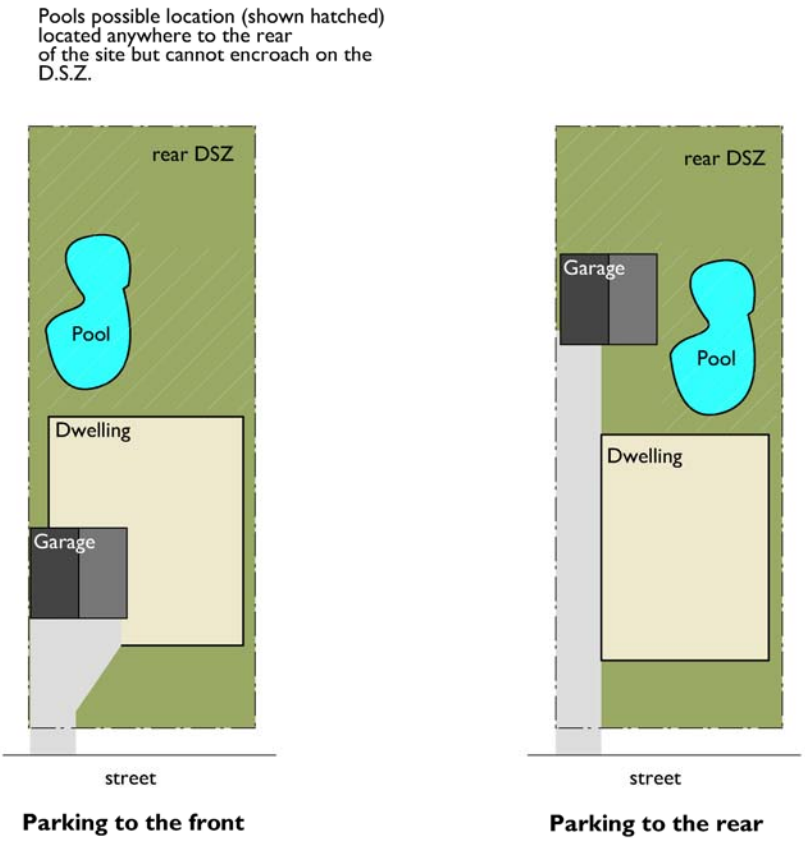
e. Swimming pools and spas are to have a suitable means for drainage and disposal of overflow water.

f. Filters and pumps are to be enclosed and located in a position so as not to cause a noise nuisance to adjoining properties.

g. The wall of a residential building may form part of the child resistant barrier so long as the wall contains no openable door, window or other opening through which access may at any time be gained to the swimming pool.

h. Pools are not to be located between the building and the street, except on sites where private open space can only be accommodated in this location.

i. Pools and Spas cannot be located on Deep Soil Zones.



Illustrative plan showing possible locations for a pool.

DESIGN CONTROL 11 – Tennis Courts

Tennis courts are to be designed and sited to ensure that the potential impact on neighbours is minimised. Lighting where provided is to be designed to ensure that upward and outward light spillage is minimised or eliminated.

Objectives

- *To ensure Tennis Courts are designed and located to minimise impacts on neighbouring properties and to address light spillage.*

Controls

a. Tennis court usage is to be limited to between the hours of 7.00am and 10.00pm.
b. Lighting is to be designed and shielded to eliminate upward spillage and minimise out ward spillage of light.
c. Tennis court lighting is to comply with the provisions of Australian Standard 2560.1.
d. Tennis courts shall be designed to adequately accommodate drainage requirements.
e. Tennis courts shall be located behind the building line of any primary frontage.
f. Tennis courts cannot be located on Deep Soil Zones.

DESIGN CONTROL 12 - Floor Space Ratio

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, rather all the other Design Controls in this Part must be achieved.

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.*

Controls

a. The maximum FSR for a dwelling house on a lot is max. 0.55:1, except where the dwelling does not cover more than 50% of the site area in which case the FSR is max. 0.65:1.

b. FSR does not include subterranean areas that do not protrude above the sites finished ground level by 1m.

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:
- *basements projecting less than 1m above finished ground level,*
- *storage areas,*
- *vehicular access, , garbage and services,*
- *areas used exclusively for mechanical services or ducting,*
- *car parking to meet any requirements of the consent authority (including access to that car parking),*
- *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.*

PART B - DUAL OCCUPANCY HOUSING, GRANNY FLATS, TOWN HOUSES AND ROW HOUSES

Table of Contents

CHAPTER 1 – BUILDING TYPES

Dual Occupancy Housing and 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. Dual Occupancy buildings provide for greater residential densities whilst being consistent with the general low-density residential character of an area.

Careful consideration needs to be given to the site layout of dual occupancies to ensure privacy is retained on neighbouring lots and that the building has a quality frontage along the street.

The key outcome of successful dual occupancy development is to retain similar characteristics to dwelling houses particularly the buildings appearance and landscaping when viewed for the street as well as ensuring privacy on neighbouring lots.

Granny flats occur where one of the two dwellings is far smaller than the other giving the overall building the appearance of a single dwelling. Allotments with a dwelling and a granny flat are always Torrens title, they cannot be subdivided or strata subdivided.

Suitable Locations for Dual Occupancy Housing

Attached dual occupancy housing is suitable within most residential location and are more easily achieved on lots with a wide street frontage or on corner sites.

Objectives

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

Controls

a. Dual occupancy developments on residentially zoned land must be located:
   - on sites with a minimum area of 900m^2, or
   - if the land is within the 2(b) zone it has a minimum area of 450m^2; and
   - on significantly regular, rectangular or square, shaped lots.

b. Dual occupancy developments must not be located on battle-axe or fan-tail lots.

c. Each dwelling is to be designed so that the access way to the front door is clearly identifiable from the public street.

d. Each dwelling with a street frontage is to be designed so that the front door faces the street.

e. Each dwelling must provide a ground level with at least one habitable room, which must have an adjacent external living area located on ground (carparking is not considered as a ground level). A ground level comprising solely carparking is not acceptable.

f. Each dwelling must have an external living area.

g. Dual occupancy housing is to be compatible with residential streetscape character.

h. Dual Occupancy on non-urban 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 clear that compliance with a particular control would be unreasonable or unnecessary in the circumstances.

i. Savings provision, certain lots:

- Dual occupancy allotments already nominated in an approved plan of subdivision the subject of a development consent under the EP&A 1979, shall not be bound by the lot size, lot dimension and lot configuration controls under this plan.
- Dual occupancy allotment approved under any plan not being an approved plan of subdivision the subject of a development consent under the EP&A 1979, e.g. a plan of dual occupancy lot nomination approved against a DCP, but, relating to an approved plan of subdivision prior to linen plan release, shall not be bound by the lot size, lot dimension and lot configuration controls under this Plan, for a maximum period of 5 years from the date of adoption of this Plan, or the Subdivision Plan Registration, whichever is the greater.

Granny Flats

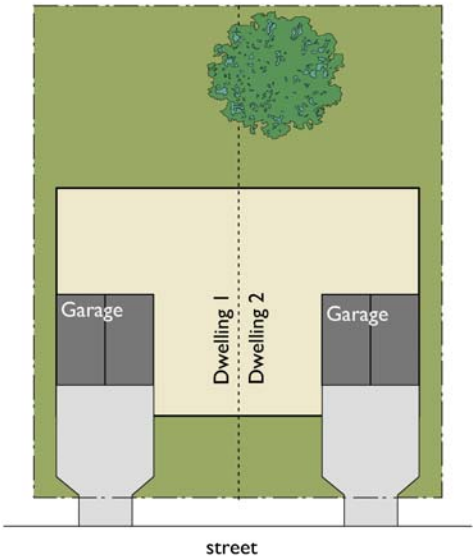
a. A granny flat must meet the following criteria:
   - The gross floor area of one of the dwellings does not exceed 60m^2 or 40% of the total floor area of both the self-contained dwelling and the principle dwelling whichever is the greater, and
   - Subdivision of the development, including strata subdivision, is not proposed.

b. A granny flat must comply with the requirements of the Building Code of Australia for a Class 1 or a Class 2 building where appropriate.

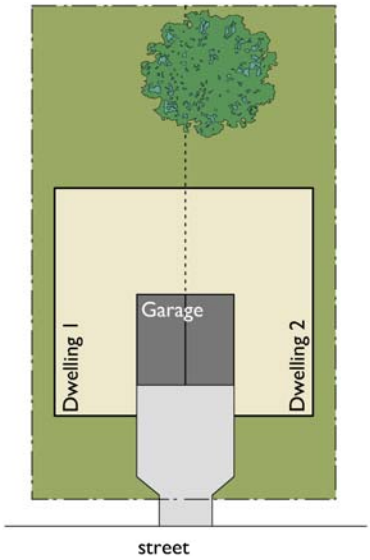
Advisory Notes

A condition requiring the creation of a restriction as to user on the Lands Title, 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.



Wide lot - Parking to the front of the lot

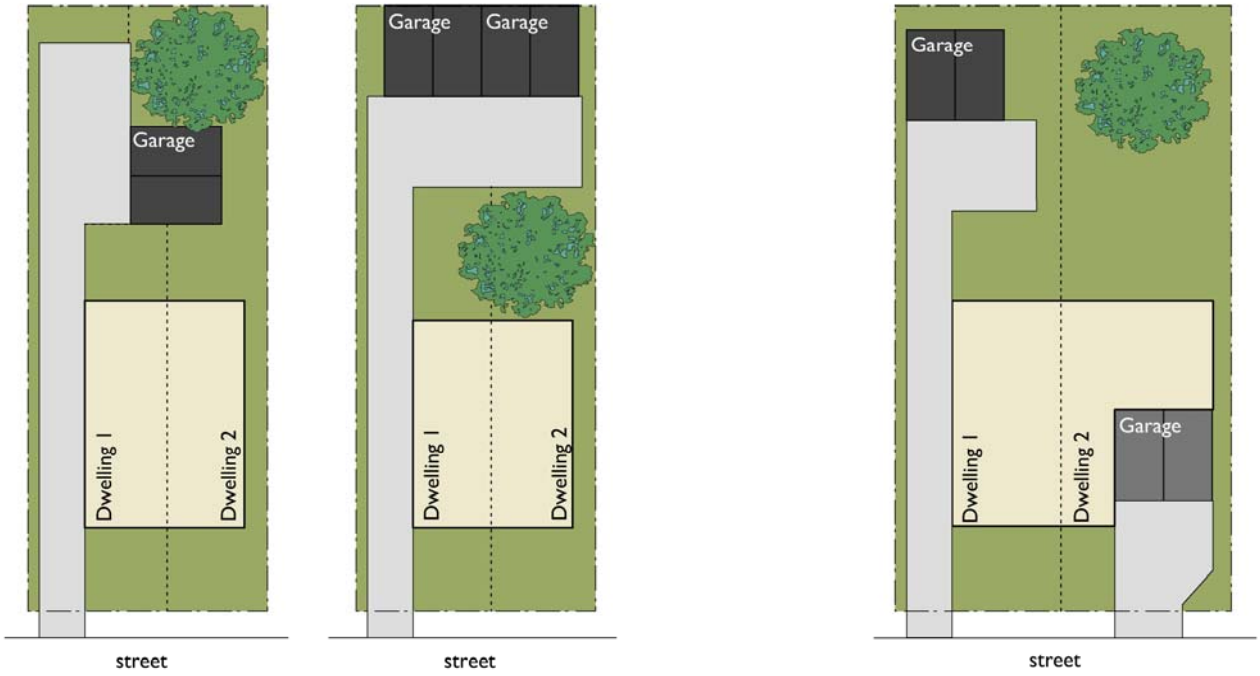


Narrow lot - Parking to the front of the lot

Illustrative site layout of an attached Dual Occupancy housing type with a wide site and carparking to the front (left image) and a narrower lot with carparking to the front (right image).

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

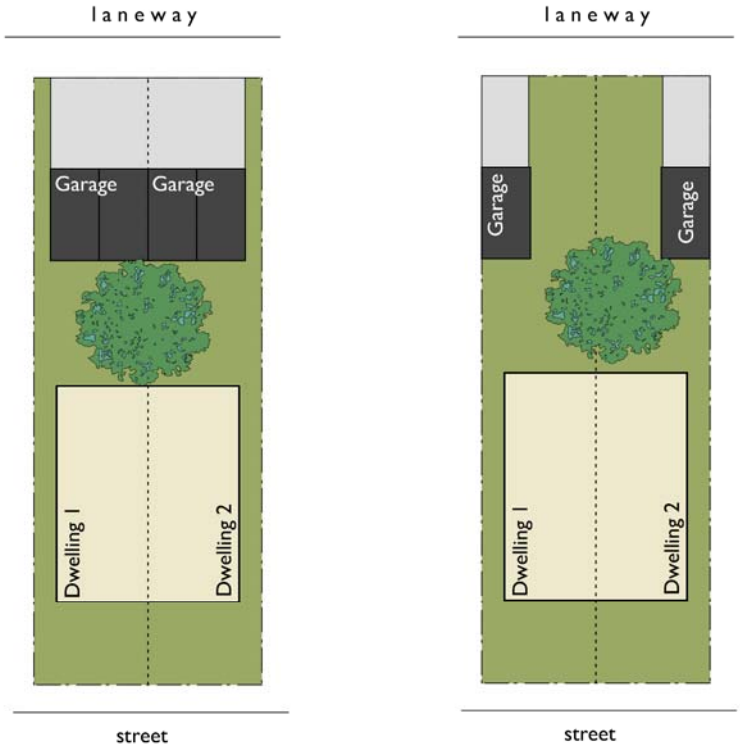
Dual Occupancy Housing has its carparking set well back from the buildings front elevation so as not to dominate the streetscape.



Narrow Lots - Parking to the rear

Parking to the front and the rear

Illustrative site layout of an attached Dual Occupancy with two configurations with carparking to the rear of the site (left) and carparking to both the front and the rear of the lot (right)



Narrow lots with laneways

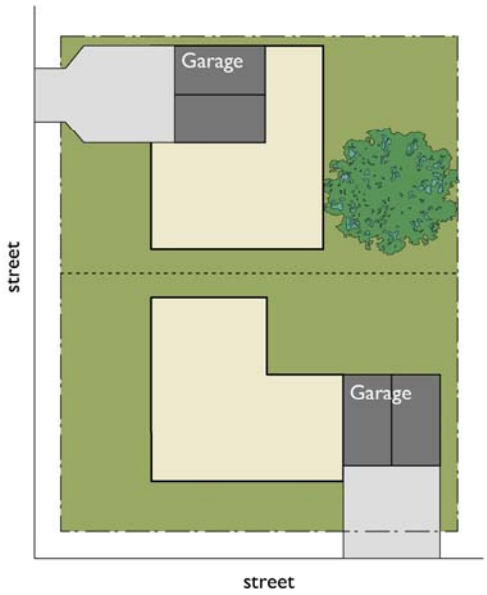
Illustrative site layout of an attached Dual Occupancy on a narrow lot with carparking off a laneway.

Small corner sites **Larger corner sites**

Illustrative site layout of an attached Dual Occupancy on a corner site; a small site (left) a lager site (right).

Long sites

Illustrative site layout of an Attached Dual Occupancy on a long site.



Corner site, detached dwellings

Illustrative site layout of a Detached Dual Occupancy development on a corner site

Town Houses (villas)

Town Housing is the development of 3 or more dwellings on an allotment. 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 may 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 replaced with the term 'Town Housing'.

Suitable Locations for Town Houses

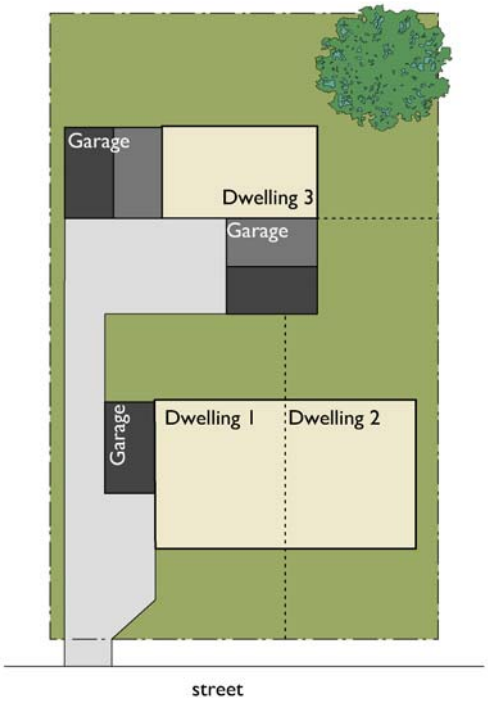
Town Housing is suitable for all areas where the context is low density residential. Town Housing is generally not preferable in areas with a more urban context such as in areas that have or will have residential flat buildings or shop-top as the predominant building type.

Objectives

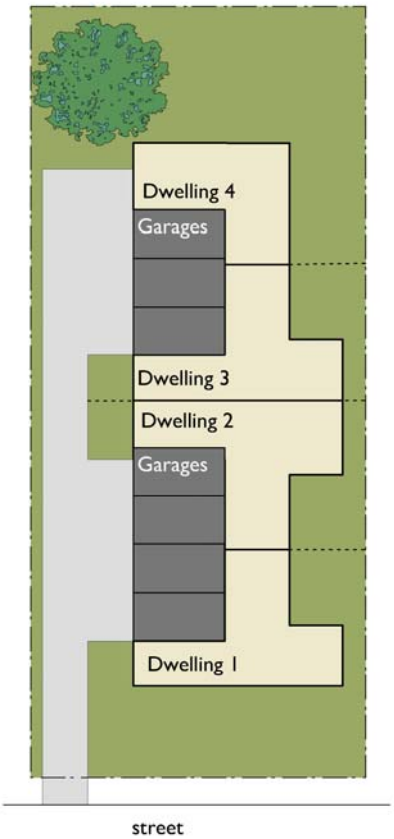
- *To provide development capacity on larger lots within residential areas.*
- *To retain the residential character in streets and suburbs.*
- *To create or retain quality residential and pedestrian friendly streetscapes.*
- *To provide an alternative form of medium density housing.*

Controls

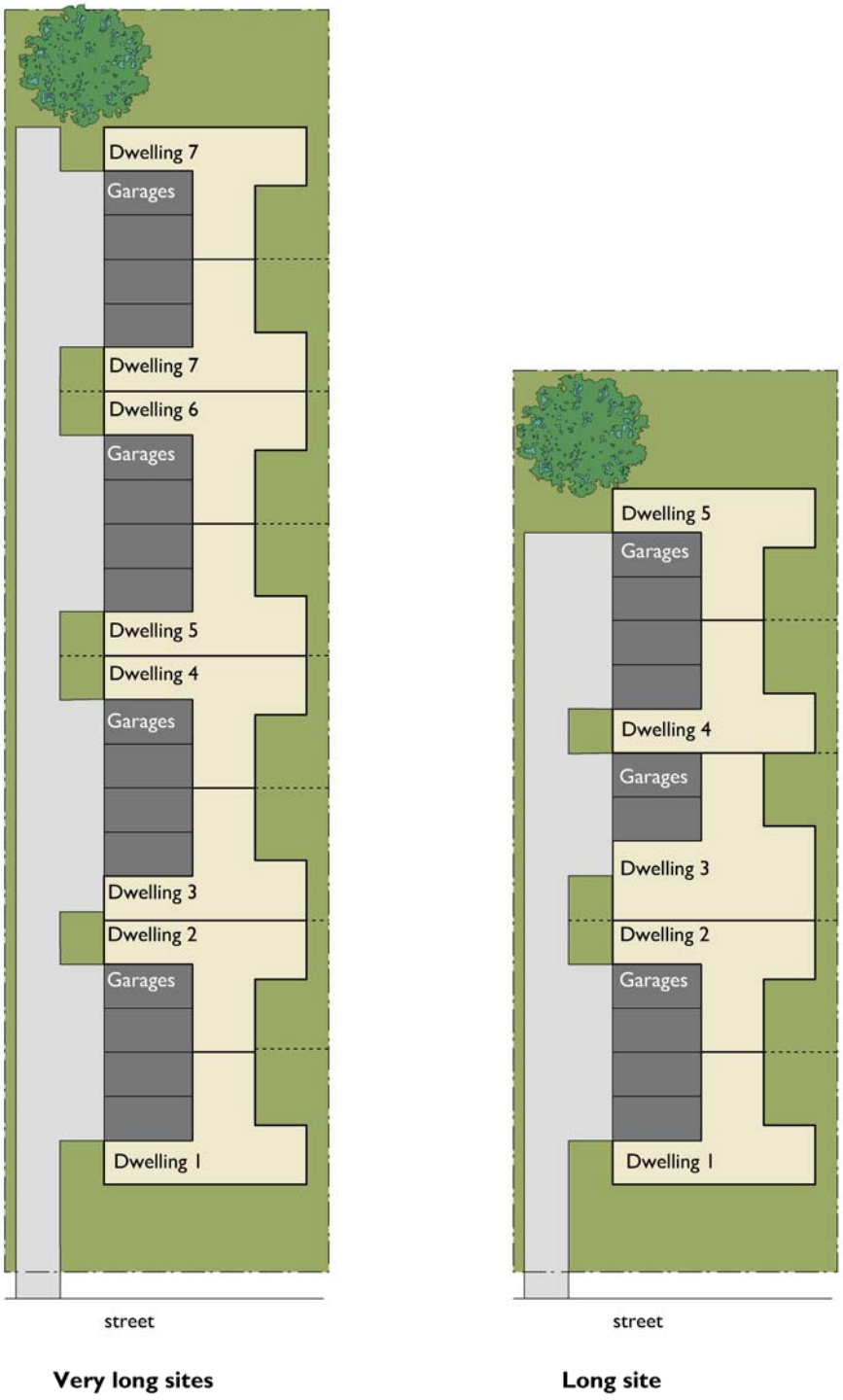
a. Town housing is permissible in 2(a),(b), (c), (d), (e) and (f) zones.
b. In 2(a) zone lot size min. 1350m^2, development lot area of 220m^2 each.
c. In 2(b), (c), (e) and (f) zones min. 1000m^2.
d. In 2(d) zones min. 1500m^2, depth min. 40m and development lot area of 220m^2 each.
e. Each dwelling must provide a ground level with at least one habitable room, which must have an adjacent external living area located on ground (carparking is not considered as a ground level). A ground level comprising solely carparking is not acceptable.
f. Each dwelling must have an external living area.
g. 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.
h. Town housing is to be compatible with the existing or desired future streetscape character.
i. Town housing is to provide a mix of dwelling sizes and diversity in the number of bedrooms per dwelling.



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 eight and five dwellings.

Row Houses (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. Row Housing is characterized by a consistent alignment along the street and zero side setbacks.

Row Housing has carparking to the rear of lots and is oriented to the street and the rear of the lot, not the side boundaries.

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

- 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 in terms of use and can easily incorporate changing uses from residential to retail or commercial on ground level to accommodate the growth of a Main Street centre or to add additional mixed use commercial floor space along the Main Street.

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

For the purposes of defining building types Row Houses are the same as Terraces. Therefore this Part uses the term 'Row House' rather than 'Terrace.

Suitable Locations for Row Housing

Row housing is suitably located adjacent to a commercial building in a main street and forms the transition from commercial to residential. This building type is not appropriate for sites within residential and suburban areas.

Objectives

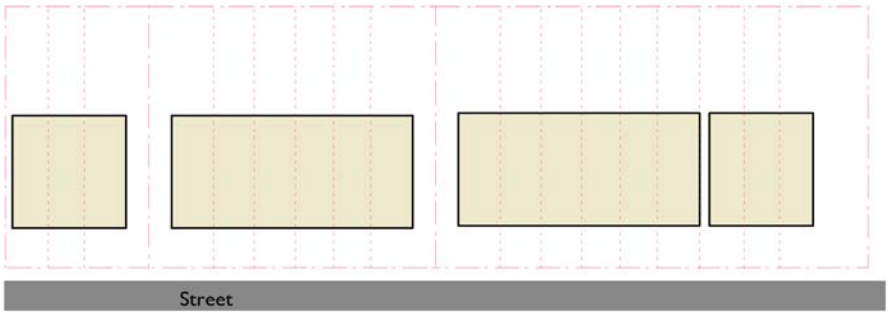
- *To create an urban building form and strong built edge along the street.*
- *To define the street space.*
- *To provide a building form that makes a transition from commercial to residential.*
- *To provide flexible living and working buildings.*
- *To extend and complement the commercial uses along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

Controls

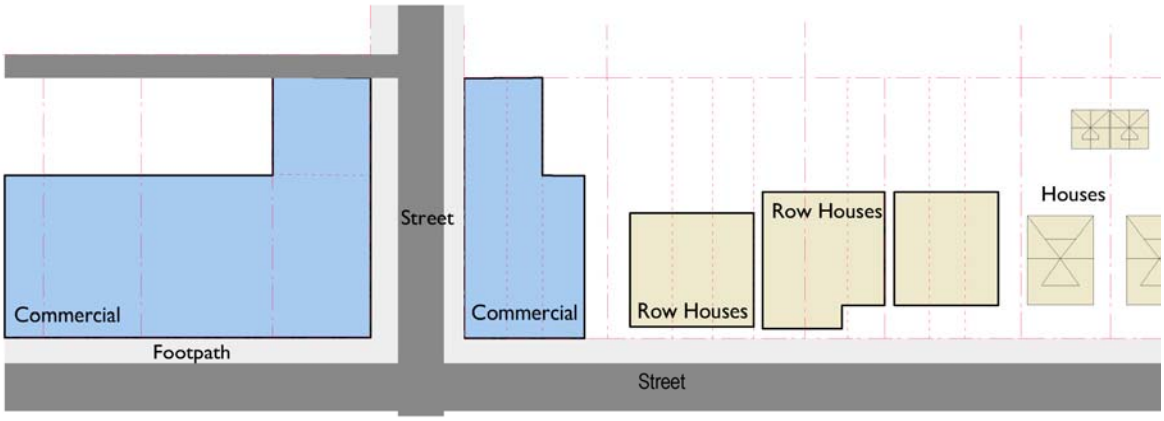
a. Row Housing is not permitted on any lot that is not adjacent to a commercial main street.
b. Row Housing is only permitted on a lot within one block on either side of a commercial area.
c. Maximum of 6 buildings in a row with party walls before a 3m separation is to occur.
d. The minimum internal width of a dwelling is 5m. The maximum internal depth of a room with only one orientation is 10m from the window.
e. 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.
f. The street setbacks for Row Houses are to create a transition between commercial and residential buildings.
g. Each dwelling is to have a ground level building area (carparking is not considered as a ground level). A ground level comprising solely carparking is not acceptable. Each dwelling must provide a ground level with at least one habitable room, which must have an adjacent external living area located on ground.
h. Each dwelling must have an external living area.

i. 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.

j. Row House developments are to provide a mix of dwelling sizes and diversity in the number of bedrooms per dwelling.



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.

Illustrative site layout Row Housing. Sites with a laneway (left image) and with no laneway (right image)

CHAPTER 2 – SITE AND BUILDING DESIGN CONTROLS

Introduction

This section of the document provides an explanation of the key controls used to define aspects of development to be achieved when preparing a Development Application for a Dual Occupancy, Townhouse or a Row House development.

The explanations associated with each Site and Building Design Control are to assist the 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 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 and Attics, Orientation and Separation
Design Control 6 Height
Design Control 7 Building Amenity
Design Control 8 External Building Elements
Design Control 9 Building Performance
Design Control 10 Floor Space Ratio (FSR)

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. For the purposes of this DCP 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.

Streetscape

Streetscape refers to the spatial arrangement, extent and appearance of elements within a street, which includes some elements on private properties adjoining the street. Streetscape design is concerned with ensuring there is consistency in built and landscape form along streets on private sites.

Streetscape controls seek to ensure that dwellings and gardens relate well to each other and to the landscape setting along the street. The primary elements that create streetscape character are:

- the relationship of street to the topography of the land on either side of the street,
- the width, layout, landscaping and materials of the street, footpaths and front gardens,
- buildings, building setbacks, building height,
- relationship of buildings to the topography and to other buildings in the streetscape.

The aspects of a development that help to create quality streetscapes, when well considered and designed include;

- front and side boundary landscaping including boundary fences and walls,
- access and driveway design; widths, materials and location,
- the building's size and shape as seen from the street, 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.*
- *To encourage dwellings to be well designed.*
- *To ensure streets provide a high level of pedestrian amenity, access and safety.*
- *To ensure garages do not dominate the street.*

Controls

a. Site design, building setbacks and the location and height of level changes are to consider the existing topographic setting of other buildings and sites along the street, particularly those that are older and more established.

b. The design of the front deep soil zone and boundary interface to the public domain is to complement or enhance streetscape character by:
   - providing for landscaping; lawn, trees or shrubs characteristic with existing properties or of such design as to enhance the quality and appearance of the dwelling and surrounding area,
   - reflecting the character and height of fences and walls along the street, or of such design as to enhance the quality and appearance of the dwelling and surrounding area,
   - reflecting the character and layout of established front gardens of other allotments in the street, particularly older and well established garden landscapes,
   - retaining, protecting or replacing existing vegetation and mature trees.

c. Carports and garages visible from the public street are to;
   - be compatible with the building design, including roofs,
   - be setback behind the dwellings front elevation.

c. 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.

e. Facades visible from the public domain are to be well designed by:
- having important elements such as front doors and building entry areas prominent in the building facade and clearly identifiable from the street,
- coordinating and integrating building services, such as drainage pipes, with overall facade design,
- integrating the design of architectural features, including stairs and ramps, and garage/carport entries with the overall facade design, and by locating car parking structures on secondary streets where possible,
- ensuring corner buildings have attractive facades which address both streets frontages, including the careful placement and sizing of windows,
- ensuring entrance porticos are single storey or of a scale relative to the building.

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 buildings in the streetscape, such as view corridors down a residential street. Vistas are long wide views, generally across a locality. Vistas are generally defined by ridgelines and valleys.

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 development 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.

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.

Development Lots

Development lots are created by the subdivision of the original lot.

Objectives

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

Controls

a. If subdivision other than Strata subdivision is proposed, the application must include:

- Have a subdivision layout plan with the site and building layout overlaid,
- Torrens Title subdivision designed in accordance with Tweed DCP S.A5 – Subdivision Manual,
- Prescribe each lot size per dwelling.
- Refer to each building type for the minimum lot sizes.

Deep Soil Zones

Deep soil zones are areas of soil suitable for the growth of vegetation and mature trees. Deep soil zones may be landscaped but are not covered with hard impervious surfaces such as concrete, asphalt or pavers, nor are they 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.

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).

Objectives

- *To ensure that land retains its ability to permeate water.*
- *To ensure that each building lot has a deep soil zone of adequate area and dimension.*
- *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.*

Controls

a. Deep Soil Zones must be provided for all new developments and existing development, except on large lot rural or agriculturally zoned land.

b. All sites are to provide two Deep Soil Zones, one to the rear and one to the front of the property.

c. Rear Deep Soil Zones are to have minimum width of 8m or 30% of the average width of the site whichever is the greater and a minimum depth of 18% of the length of the site up to 8m but not less than 5.5m. Greater than 8m may be provided if desirable.

d. Rear Deep Soil Zones are to have soft landscaping; refer to Landscaping Section.

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 are to have soft landscaping, vegetation and at least one tree.

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.

i. The Deep Soil Zone is to be included in the total permeable area for the allotment.

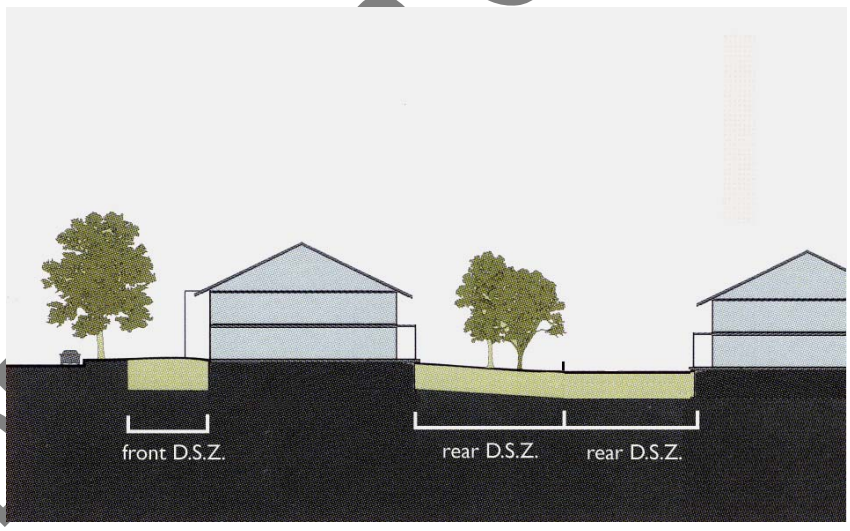
At a suburban scale Deep Soil Zones provide connected flora + fauna corridors

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

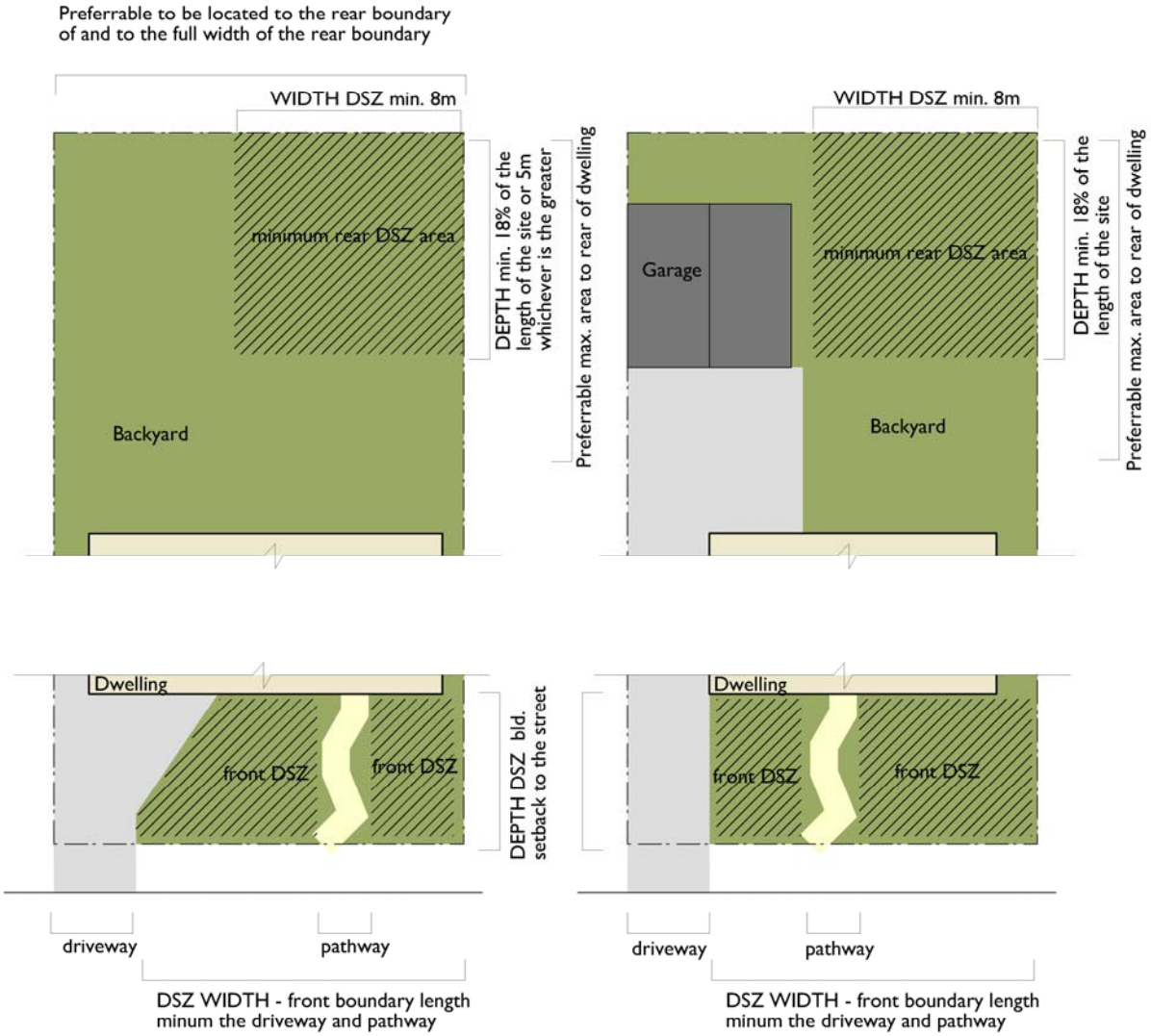
Design Guidelines:

It is preferable that deep soil zones on the rear boundary extend along the full length of the boundary as this is generally where the opportunity exists to create or expand on a vegetation corridor between properties and is often an area where established trees and vegetation exists already.

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.



Front and rear deep soil zone diagram showing a site with parking to the front of the lot (left image) and to the rear of the site (right image).

Impermeable Site Area

The impermeable site area is the total area of impervious surfaces within an allotment following completion of the development. Excessive impermeable areas on a lot can increase the volume of stormwater discharged off the site as it reduces the lands capability 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. An allotment's runoff shall be dispersed onto grassed, landscaped or infiltration areas, of the allotment, 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. Rain water shall be collected in tanks and reused.

d. Site surface depressions in landscaping are to be utilized 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. A schedule of the breakdown/calculation of impermeable site area must be submitted with the development application.

g. The maximum areas for impervious surfaces are:
   - 70% of the allotment - On lot sizes less than 500m2.
   - 65% of the allotment - On lot sizes between 500m2 and 750m2 inclusive.
   - 60% of the allotment - On lot sizes greater than 750m2.

Table 1 – Impermeable Surface Factors

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

External Living Areas

External living area refers to an external space that extends the living and recreation space of a dwelling to form provide private outdoor recreational and relaxation space. These spaces generally take the form of courtyards, decks, terraces and balconies, they can be paved or decked and may be covered. External living areas may be located either on ground or above ground. Small balconies and similar structures from bedrooms are not considered as 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 maintaining privacy. The location of external living areas can assist in controlling sun access by promoting daylight access in winter and shade in summer.

Elevated external living areas should be designed to avoid facing the side boundaries, as this can easily lead to privacy problems with neighbouring properties.

Objectives

- *To enhance the amenity of internal living spaces.*
- *To provide an external relaxation and recreation space.*

Controls

a. External living areas are best located adjacent to the internal living (dining rooms, living room, or lounge room) areas so as to extend the overall living space.

b. External living areas should be suitably screened to achieve visual privacy if located less than 4m from a side boundary.

c. External living areas are to be no closer to the side boundaries than 900mm.

d. External living areas are to be designed to ensure water does not enter the dwelling.

e. External living areas should be oriented to north where possible.

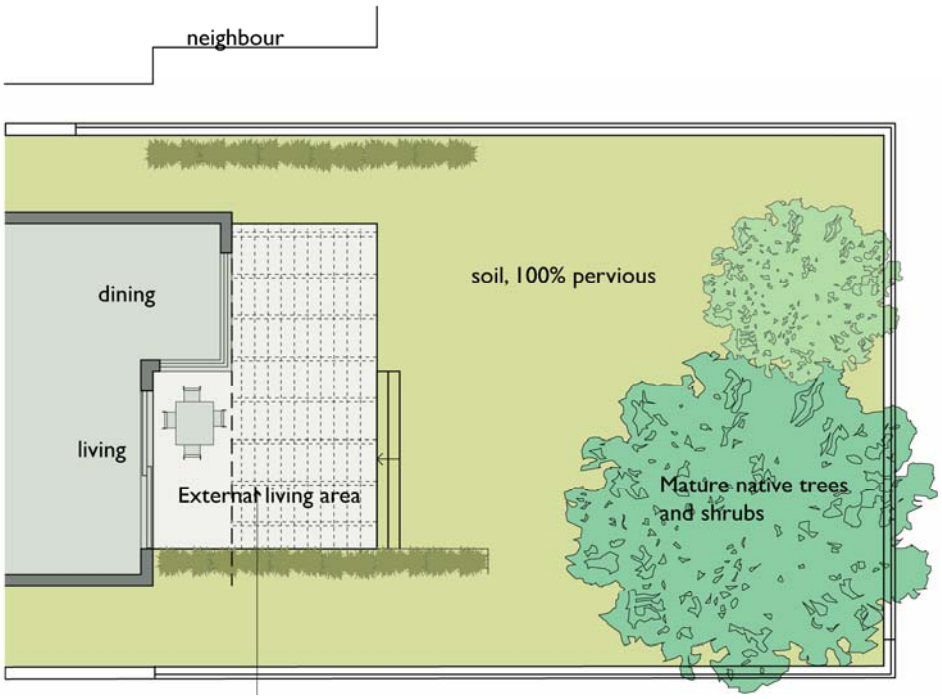
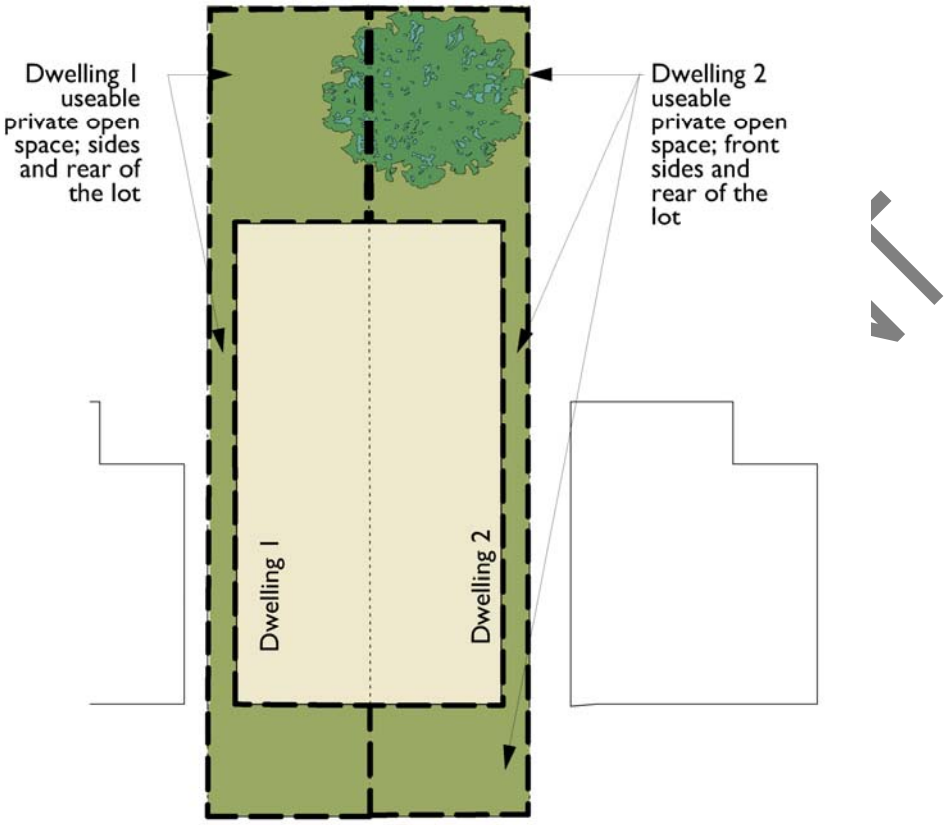


Diagram of an External Living Area to the rear of the site provides direct connection between the internal space of the dwelling and the garden or Deep Soil Area. Privacy screening may be required to the sides of the space. Ground level external living areas are to be located so as to retain mature trees,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



Illustrative plan of a dual occupancy development; the ground level spaces are to be designed to be useable and part of the private open space for ground level dwellings.

Above Ground External Living Spaces, Balconies and Terraces

Balconies and terraces enhance the dwelling's amenity. 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. Small balconies and terraces located off minor rooms such as bedrooms or studies can help open the room to the outside.

Objectives

- *To provide outdoor living spaces.*
- *To improve the architectural form and detail of buildings.*
- *To contribute to the safety and liveliness of the street by allowing for casual surveillance.*

Controls

a. Above ground external living areas are to have a minimum depth of 2.5m and a minimum area of 10 sq.m.

b. Balconies and terraces off minor rooms have no minimum depth or width.

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;

- *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 materials 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.

Communal Open Space

Communal open space is an area within the development for the use of all residents. This can include swimming pools, barbeque areas, 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 unusable spaces left over from building siting but rather to be designed to provide a useable and attractive space.

Analysis of the usability and appropriateness of the communal open space, its design, location and size relative to the number of people is required for any development application.

Objectives

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

Controls

a. Communal open space must be provided for any developments of more than 10 dwellings to provide recreational or relaxation uses for residents.

b. Communal open space is not to be located such that solar access, privacy and outlook to dwellings are reduced.

c. The design of communal open space must demonstrate how it achieves specific functions that enhance the livability and residential amenity of the development and how it will serve the needs and number of people within the development.

d. The location and design of communal open space must not compromise achieving the minimum separation distances and minimum areas for external living areas.

e. Communal open space is to be designed such that its size and dimensions allow for particular uses.

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.

Landscape design should consider usability, privacy and opportunities for social and recreation activities. Neighbours' amenity should also be respected. Landscaping also has an important role to play in improving environmental conditions such as storm water and rainwater absorption, habitat for native animals and plants, reducing bushfire risk, and helping to regulate the amenity of a development through such things as sunshading using pergolas and tree plantings.

Objectives

- *To enhance the appearance and amenity of development.*
- *To enhance the character of the locality and the streetscape.*
- *To retain existing important landscape features.*
- *To provide privacy between adjoining dwellings and private open space.*
- *To assist in the percolation of rainwater and reduction in stormwater runoff.*
- *To improve microclimatic conditions on sites and the solar performance of dwellings.*
- *To contribute to improving urban air quality.*
- *To provide fauna and flora habitat.*
- *To assist in the protection of urban bushland.*

Controls

a. Retain existing landscape elements on sites such as natural rock outcrops, watercourses, dune vegetation, indigenous vegetation and mature trees.

b. On lots adjoining bushland, protect and retain indigenous native vegetation and use native indigenous plant species for a distance of 10m from any lot boundaries adjoining bushland.

c. Provide useful outdoor spaces for livability by coordinating the design of external living areas, driveways, parking areas, communal drying areas, swimming pools, utility areas, deep soil areas and other landscaped areas with the design of the dwelling.

d. Where the ground floor level of a dwelling is above the finished external ground level reached through a door or doorways, there is to be a physical connection made between these levels. Examples of a physical connection include stairs, terraces, and the like.

e. Provide a landscaped front garden.

f. A pathway with a minimum width of 900mm is to be provided along one side of the dwelling so as to provide pedestrian access from the front garden to the rear yard. This access is not to be blocked by such things as landscaping features, rainwater tanks, hot water heaters and retaining walls. The pathway does not need to be provided on allotments which have rear lane access.

g. Landscape elements in front gardens such as plantings are to be compatible with the scale of development.

h. The front garden is to have at least 1 canopy tree with a minimum mature height of 10 metres.

i. Where the backyard does not have a mature tree at least 15m high, plant a minimum of one large canopy tree in the back yard. The tree is to be capable of a mature height of at least 15m and is to have a spreading canopy.

j. Locate and design landscaping to increase privacy between neighbouring dwellings.

Design Guidelines

Provide useful outdoor spaces for livability by coordinating the design of driveways, parking areas, 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 deciduous 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.*

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, 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 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.*

Controls

a. Building siting is to relate to the original form of the land.

b. 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. Example of alternative construction includes: Bearer and joist construction; Deepened edge beam; Split level design; Suspended slab design.

c. On sloping sites step buildings or utilise site excavation and suspended floors to accommodate changes in level rather than leveling the site via cut and fill.

d. Dwellings must not be designed to be on a contiguous slab on ground type if the building site has a slope of greater than 10%. Development on such land is to be of pole or pier construction or multiple slabs or the like that minimise the extent of cut and fill.

e. Site excavation / land reforming is to be kept to a minimum required for an appropriately designed site responsive development.

f. The maximum level of cut is 1m and fill is 1m except for areas under control j.

g. Retaining walls maximum 1.2m.

h. 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.

i. 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.

j. 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.

k. Filled areas are to be located where they will not impact on the privacy of neighbours.

l. 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.

m. 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 for cut and 1.5m for fill 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

On sloping sites building will generally need to step down the site in order to remain under the height limit and in order to avoid excessive cut and fill.
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.*

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.

Calculation rules:

A setback is the distance between a building 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 structure or*
- *the outer edge of an eaves gutter,*

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

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.

Front Setbacks (Building lines)

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.

The front setback is measured from the front boundary of the allotment to the outer most edge of the wall of the building elevation.

Multi-dwelling development located on site with more than one street frontage, the dwellings must ensure that they address all streets.

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 compatibility with other buildings in the street.*
- *To allow for landscaping.*

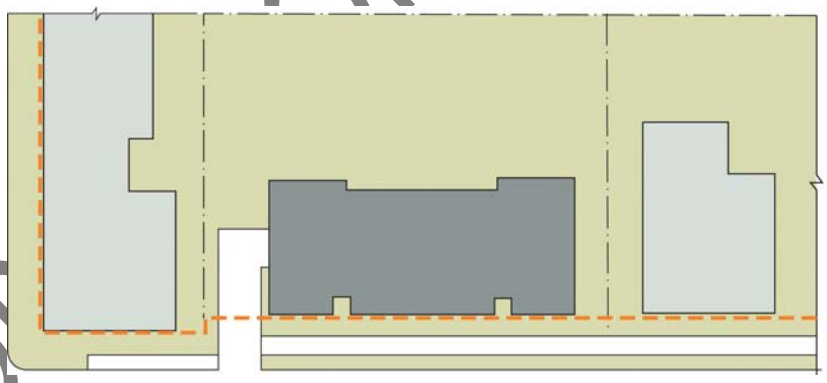
Controls

a. In new areas 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.

b. Where a site has dwellings with frontages to two or more streets, the street setbacks for these frontages are to be considered as front setbacks and there be 6m.

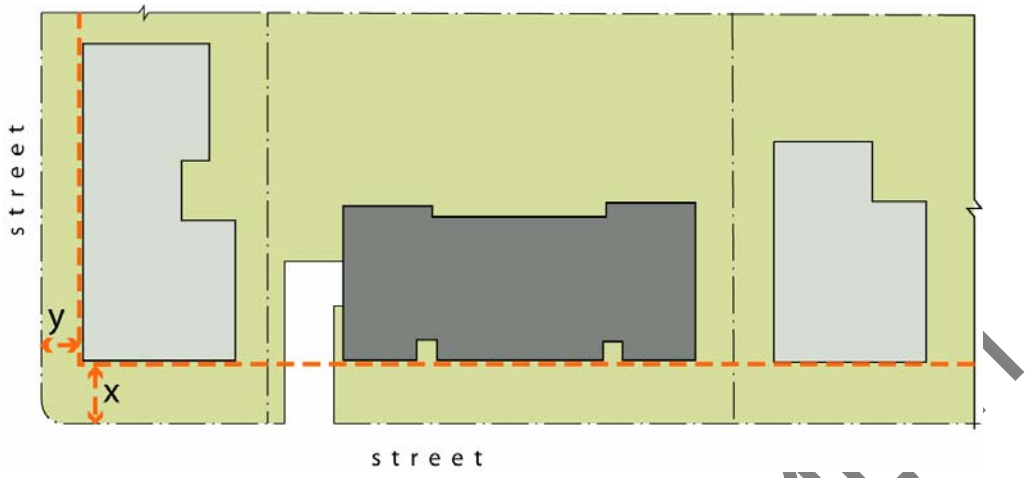
c. In established areas and on infill sites Dual Occupancy Housing and Town Housing are to be consistent with the setback distance of neighbouring buildings and are to be the average of the setbacks of neighbouring dwellings on either side. This setback can be varied up to plus or minus 1m.

d. In new and established areas Row Housing is to be setback from the street boundary by 3m.



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.

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.

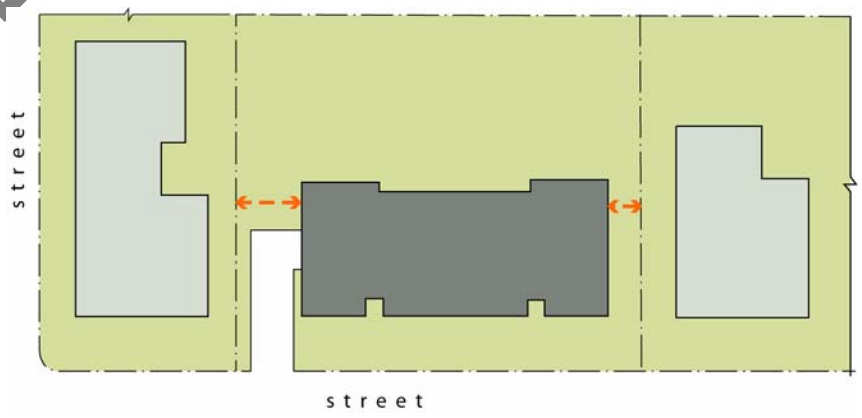
By orienting habitable rooms along the front and rear elevations rather than the side boundaries separation distances for privacy, light and air can more easily be achieved between neighbouring dwellings.

Objectives

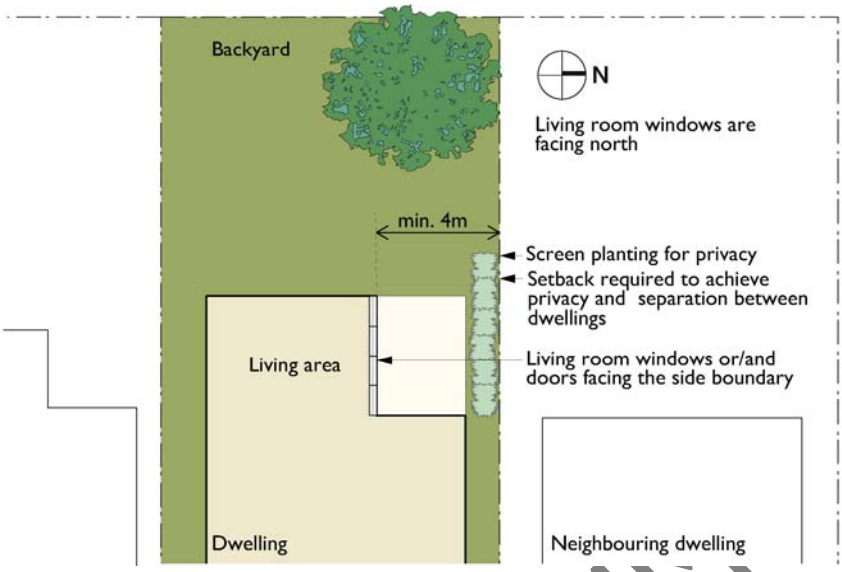
- *To provide an orientation for windows of ancillary rooms.*
- *To provide access to the rear of the lot.*
- *To provide a location for rainwater tanks.*
- *To facilitate visual and acoustic privacy between neighbouring lots.*

Calculation rules

Side setbacks are measured from the allotments side boundary to the outside edge of a building element. Setbacks are measured at 90 degrees to the allotment 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 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 Dual Occupancy Housing and Town Housing are to be set back a minimum of 1.5m from the boundary line to the wall of the building. Guttering, eaves, hoods and other similar structures may be constructed within the 1.5m but not closer than 900mm 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 building 3m separation between neighbouring buildings.

Primary windows of living rooms facing the side boundaries

d. Walls containing the primary windows of living rooms that face the side boundaries are to be setback a minimum of 4m from the boundary and be screened and meet the distances as set out in the Separation Controls.

Garages and basement parking

e. Garages if not proposed within the 6 metre building line may be located within 450mm to a side boundary.

f. Carports may be located adjacent to a side boundary and must comply with the requirements of the Building Code of Australia.

g. Basement garages are to be in line with the building above.

h. Driveways may be located adjacent to the side boundaries only where front fences above 600mm has a 60% openness ratio for the first 2m along the boundary adjacent to the driveway to achieve sight lines as set out in section A2 of this DCP.

Note: see also Design Control 7 b.

Rear Setbacks

Rear setbacks are important for achieving open space to the rear of the lot for deep soil zones, 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 for dwellings.

Calculation rules

Rear setbacks are measured from the rear boundary to the outside edge of the wall of the building. 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.

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 and outbuildings may be located within 450mm of the rear boundary.

b. Carports may be located adjacent to the rear boundary.

c. The minimum rear boundary setback is 5m or the deep soil zone whichever is the greater. The minimum building separation distances must be met.

Canal Frontages

d. The setback from a canal frontage is:

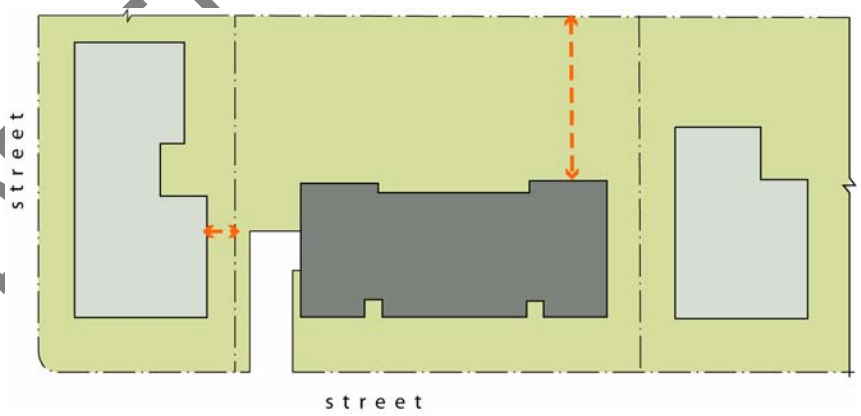
- 5.5m where the boundary is on the canal side of a revetment wall, or
- 3.4m from the revetment wall where the wall is on the boundary.

e. No structures are to be built in the setback area other than fences to 1.2 metres high, swimming pools, retaining walls, suspended decks that do not exceed the level of the allotment at the top of the batter and boat ramps except:

(i) For those allotments with canal frontages and facing Gollan Drive and Jacaranda Avenue, Tweed Heads West where the setback line to the canal frontage shall be 2.5m

(ii) Lots 1, 2 3 and 4 Crystal Waters Drive, Tweed Heads West where normal building setbacks shall apply along the canal frontage.

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



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

DESIGN CONTROL 4 - Carparking and access

The location and design of car access and parking areas is to ensure that the site is not dominated by car related uses. Vehicle access and movement areas must not dominate the streetscape nor compromise the privacy and amenity of the site or neighbouring dwellings.

Carparking is to be convenient and is to be designed to meets 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. .*

Carparking Generally

Controls

a. Carparking is to be in accordance with Section A2 of the Tweed Shire Development Control Plan.
b. Car park entries are to be located off secondary streets and laneways where these occur.
c. The driveway width from the street to the property boundary is to be minimised.
d. Vehicular movement and parking areas are to be designed to minimum dimensions, to reduce hard surfaces on the lot, and increase the area available for landscaping.
e. A garage or carport may be located in front of an existing dwelling if:
   - there is no other suitable position on the allotment; and
   - the carport or garage accommodates a single car space; and
   - there is no vehicular access to the rear or side of the allotment.
f. Driveways cannot be roofed.

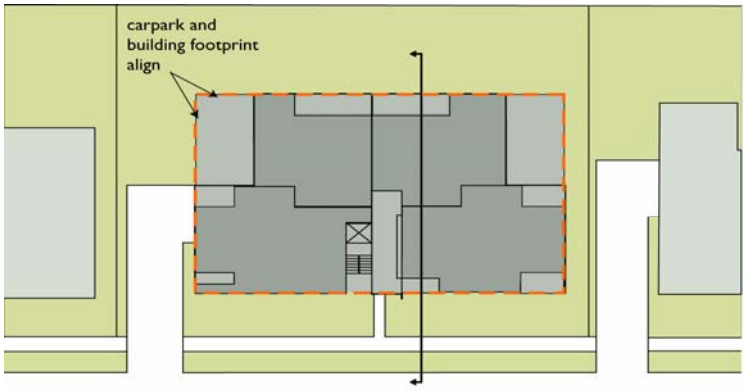
Basement Carparking

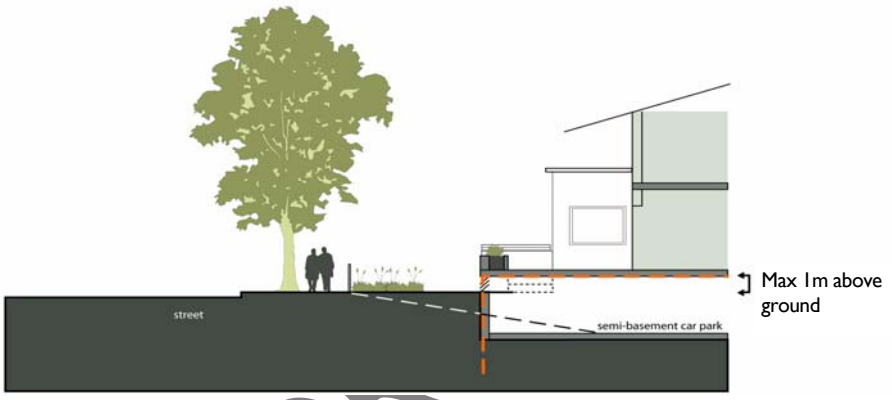
Basement parking needs to be carefully designed to ensure the building is not raised unnecessarily high above ground level and that the building has direct physical connection between the dwelling and the ground. The location and size of ramps requires special consideration to ensure the streetscape 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 within the building footprint and/or behind the buildings front elevation to avoid retaining walls within the front garden.

Controls

a. Basement carparking cannot extend more than 1m above ground where it faces a public street or public space. 1.5m above ground level can be achieved to the side and the rear of the lot where it does not face a public street or public space.
b. A ramp entering off a public street must start behind the boundary. Ramps cannot be located on public land.
c. The width of ramps is to be minimized.
d. The walls of basement carparks are best located in line with the buildings footprint. Basement carparking is not to extend outside the external line of terraces, balconies and porches.





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

The impact of ramps and garage doors to this basement carpark has been reduced by making the garage doors in line with the buildings elevation and making the doors solid so as to read as the base and wall of the building, Ideally it would only have one entry.

Garages

Controls

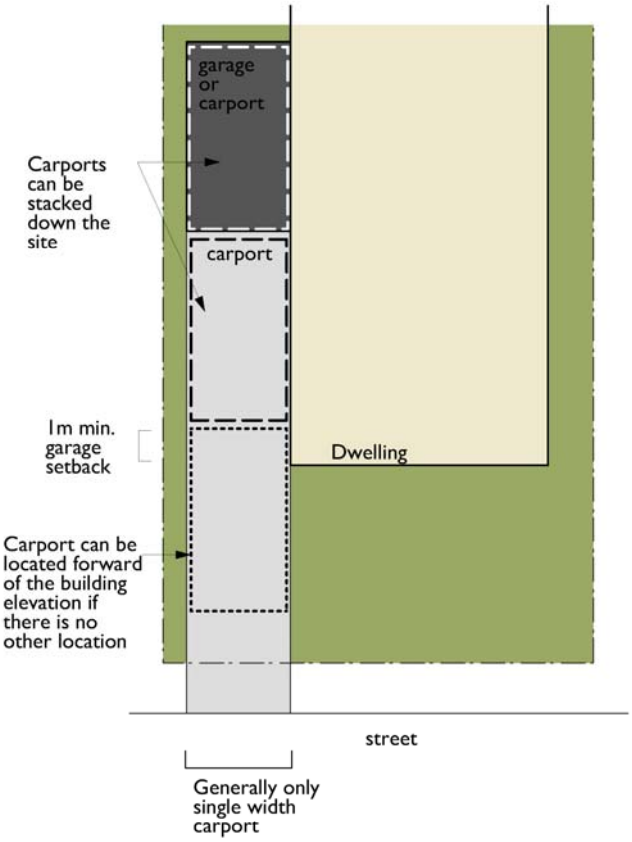
a. Garages and carports are to be set back at least 1m from the buildings street elevation.
b. Limit the width of garage doors along the street to a maximum of 50% of the building elevation. Laneways may have up to 75% of their frontage as garage doors.
c. A pedestrian access way from the laneway is encouraged.
d. The design and materials used for garages must be in keeping with the main dwelling.
e. Town Housing 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

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. Double carports can only occur, on very steep sites or where there is no other solution possible for car parking on the site.
d. Carports must not necessitate an extra driveway additional to the driveway for a garage or other parking structure.
e. The design and materials used for carports must be in keeping with the main dwelling.
f. The carport must not be enclosed on any of its sides.
g. Carports cannot have rooms within the roof.
h. For new dwelling carports cannot be erected between the street alignment and the front building alignment of the dwelling. The minimum setback behind the front building alignment is 1 metre.



Carports can be stacked down the site.

DESIGN CONTROL 5 – Building Footprint and Attics, Orientation and Separation

Building Footprint and Attics

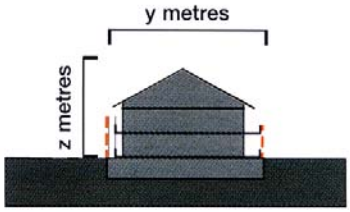
A building footprint is a two dimensional area that sets the extent of a building in relation to the site boundaries. It defines the width and depth of the overall buildable area within which a future building can be located.

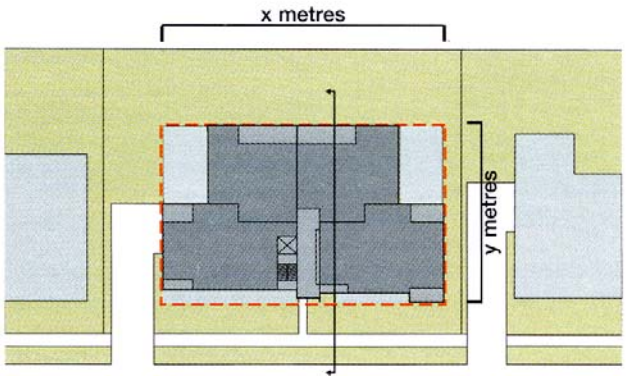
The building footprint sets the appropriate location and alignment of future development in relation to the street layout, block and lot size in a particular location. Building footprint is used to control residential amenity in terms of light, ventilation, privacy, outlook, security and consolidated 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 of buildings. An attic is a space that is contained within a pitched roof of a building. Attic rooms 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

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.

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.

Controls

a. For buildings that only have daylight access to two and opposite sides of the building the back wall of a room cannot be greater than 10 metres from a window.
b. Attic spaces cannot be more than 50% of the building footprint.
c. The majority of the volume of an attic is to be contained within the roof space.

Building Orientation

Building orientation is a term used to describe the primary aspect of the building or the walls 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 important in ensuring privacy and outlook for new dwellings and to protect the amenity of neighbouring dwellings. 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.

Orientation is a key aspect in ensuring that new development respects and responds to the streetscape.

By locating the primary windows of living areas facing the street boundary and/or the rear boundary this allows the side boundaries to have mainly the 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 more 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.

Where it is not desirable to have living spaces facing the street boundary, bedrooms can be located to the front instead. Where this occurs the main entry must still be facing the street and must remain clearly visible.

Objectives

- *To easily achieving setback distances for privacy and outlook.*
- *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. Ensure that the pedestrian entry to the development is clearly visible and accessible from the street.
c. Where possible orientate bathroom, laundry and other ancillary room windows to the side boundaries.
d. Where possible orient the primary windows of living rooms to the front or the rear of lots.
e. Orient living areas to employ passive solar design principles.

Calculation rules

Address refers to the dwelling presenting an attractive elevation to the public domain; this generally includes windows of habitable rooms and the front door to the dwelling.
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 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.

In established residential areas many 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 can be oriented to the front and rear of the site.

This row house development addresses the street by having pedestrian entries for all dwelling from the street.

These Row Houses have been designed to orient to and address the street by having habitable rooms facing the street.

Building Separation

Achieving adequate separation between buildings and shared 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 livability of the dwelling by providing useable outdoor space generally associated to living space with the dwelling.

Objectives

- *To maintain privacy between dwellings.*

Controls

a. 8m 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.

b. 6m minimum separation distance between primary windows/doors (on any level of the building) of living rooms to windows other than the primary windows of living rooms.

c. 4m min separation between walls containing primary windows/doors of living rooms (on any level of the building) the side boundaries.

d. 4m minimum separation between the primary windows of living rooms (on any level of the building) and walls containing no windows.

e. 4m minimum separation between walls containing primary windows/doors of living rooms (on any level of the building) to shared driveways.

f. 4m minimum separations between walls containing primary windows/doors of living (on any level of the building) to carports and garages.

g. 3m minimum separation between walls containing primary windows/doors sleeping rooms (on the ground level only) to shared driveways, carports and garages.

h. 2m min separation distance between the windows/doors of non-habitable rooms (on any level of the building). This distance can be measured diagonally.

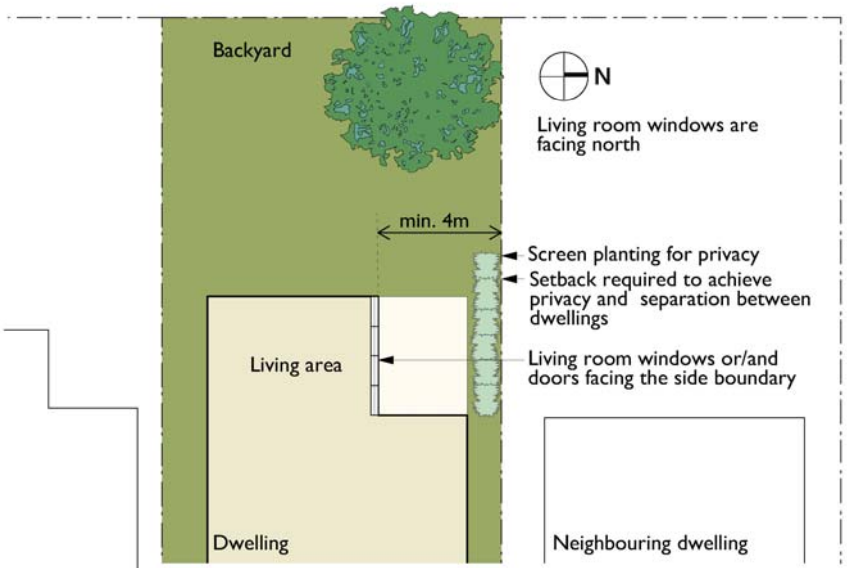
Calculation rules

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

Separation distance is measured at 90 degrees to the wall.

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 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.

DESIGN CONTROL 6 – Height

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.

The height controls are intended to work with existing buildings in the street. 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 design new development appropriate to the existing building scale in the street and the local area.*
- *To ensure new development maintains an appropriate residential character.*

Controls

a. 9m is the maximum overall building height.

b. 8.5m is the maximum wall plate height.

f. Carports maximum height 3.5m for a flat roof and 4.5m for a pitched roof.

g. 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.

Calculation rules

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

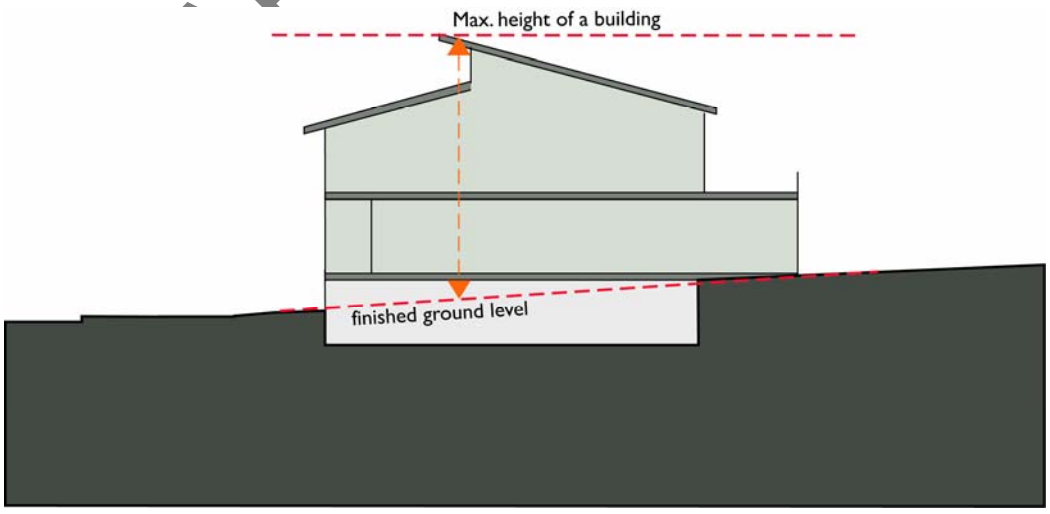
Overall building height is the vertical distance between finished ground level at any point to the highest point of the building, including plant and lift overruns, but excluding communications devices, antennae, satellite dishes, masts, flagpoles, chimneys flues and the like. The measurement of overall 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.

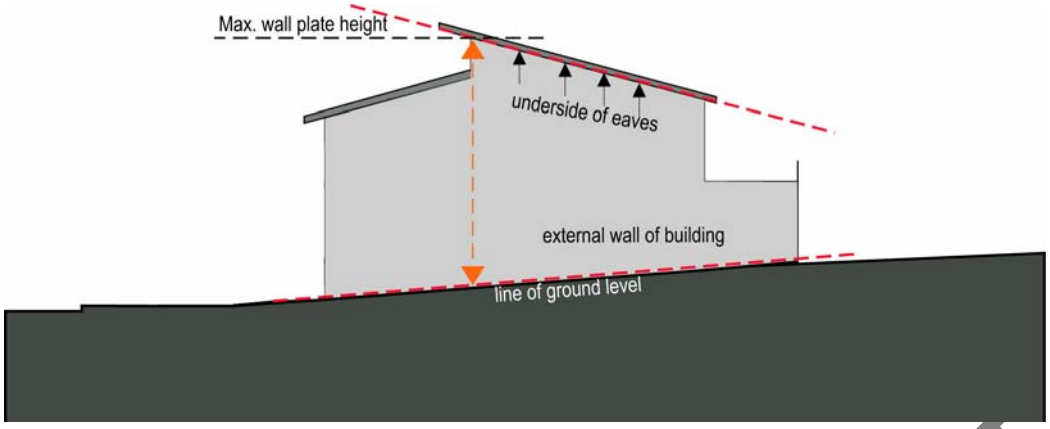
The definition of storey is found in the Tweed LEP

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.

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. Minimum finished floor to ceiling dimensions are set out in the Building Code of Australia.

b. It is encouraged to provide minimum ceiling heights of 2.7m min. finished floor level to finished ceiling level for habitable rooms. For habitable rooms with a raking ceiling it is preferable to have at least 30% of the ceiling at 2.7m high.

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.

DESIGN CONTROL 7 – 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; sunlight access, visual privacy, acoustic privacy, view sharing, and natural ventilation.

Sunlight Access

The use of passive solar design in dwellings is encouraged. Tweed has a temperate sub-tropical climate and well designed houses in Tweed should only require a limited amount of heating and cooling. The heat load resulting from direct solar penetration into buildings during the hotter months can be a major problem, and so it is important that dwellings are designed to optimise the benefits of sunlight, whilst minimising its negative effects.

The orientation of the allotment, the immediate subdivision pattern and the local topography, have a significant impact on the ability to provide solar access. Sites on the southern side of a hill, for example, may not receive the same level of sunlight access as other sites. On allotments where the side boundary has a northerly aspect, consideration should be given to increasing the side setback to improve sunlight access and to prevent overshadowing by future development on neighbouring allotments.

It is also important when designing new buildings to consider the impact of the new development on the solar access of the neighbour. In some instances, overshadowing may be unavoidable; however unreasonable overshadowing of neighbours as a result of poor design is not acceptable.

Ideally, solar access should be maximised in winter and minimised in summer. A northerly aspect is most desirable as it provides the most solar access in winter and is relatively easy to shade in summer. A westerly aspect is least desirable, particularly in summer. Protection for a westerly aspect can be achieved by using such elements as vertical sun shading devices, blinds and deciduous trees.

Daylight consists of both diffuse light and direct light. Good levels of daylight in a dwelling improve amenity and reduce the need for artificial lighting. Good levels of daylight can be achieved through the careful consideration of window size, location and proportion.

Objectives

- *To maximise sunlight and daylight access.*
- *To ensure that sunlight access of neighbouring dwellings and neighbouring private open space is minimised.*
- *To encourage the use of passive solar design.*

Controls

a. Living spaces are to be located predominantly to the north where the orientation of the allotment makes this possible.

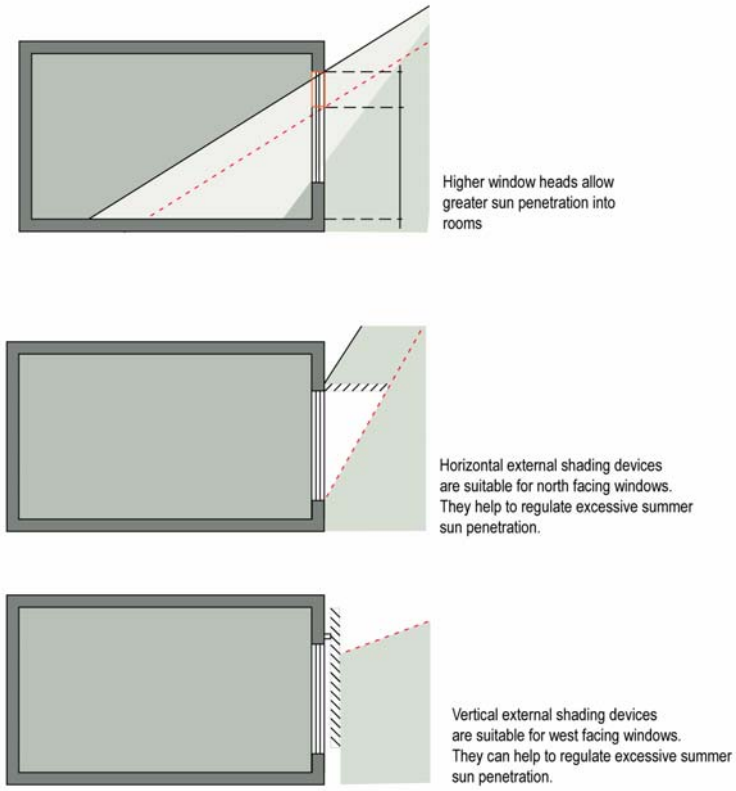
b. Dwellings on allotments which have a side boundary with a northerly aspect are to be designed to maximise sunlight access to internal living areas by increasing the setback of these areas. In these cases a minimum side setback of 4 metres is required.

c. Private open space of the subject dwelling is to receive at least two hours sunlight between 9am and 3pm on June 21.

d. Windows to north-facing habitable rooms of the subject dwelling are to receive at least 3 hours of sunlight between 9am and 3pm on 21 June over a portion of their surface.

e. For neighbouring properties ensure:
   - sunlight to at least 50% of the principal area of private open space of adjacent properties is not reduced to less than 2 hours between 9am and 3pm on June 21, and
   - windows to living areas must receive at least 3 hours of sunlight between 9am and 3pm on 21 June.

f. Where existing overshadowing by buildings is greater than this, sunlight is not to be further reduced by more than 20%.



Visual Privacy

Visual privacy allows residents to carry out private activities within all rooms and private open spaces without compromising the functioning of internal and external spaces. Visual privacy is determined by the nature of adjacent developments, site configuration, topography, the scale of the development, and the layout of individual dwellings.

Living rooms should be located to the front and rear elevations where privacy and outlook are more easily achieved. Locating the majority of windows facing towards the street and the rear boundaries means that the windows of ancillary rooms will face the side boundaries. This allows the building to be located closer to the side boundaries as there a fewer privacy impacts.

It is not necessary to provide the same degree of privacy protection to all parts of a neighbouring site. Higher levels of privacy are to be provided to both internal living areas and to the external living area. Overlooking from bedroom windows is less of a concern than overlooking from the windows of other habitable rooms.

Terraces and balconies from living rooms located above ground level can have a significant impact on the amenity of neighbours with regard to loss of visual privacy and increase in noise levels.

Objectives

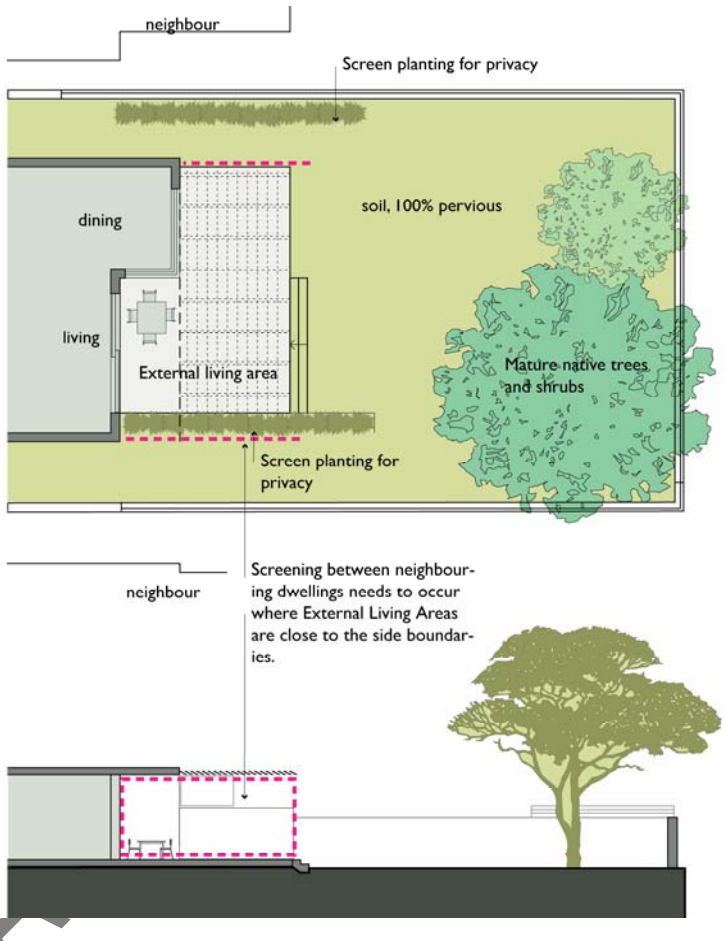
- *To provide visual privacy for internal and externally spaces.*
- *To facilitate outlook and views from principal rooms in dwellings and private open spaces without compromising visual privacy.*
- *To provide a level of surveillance over the street.*
- *To minimise overlooking of neighbouring dwellings.*

Controls

a. Terraces and balconies off living areas are generally not to be located above ground floor if they overlook neighbours.

b. Living room and kitchen windows, terraces and balconies are avoid a direct view into neighbouring dwellings or neighbouring private open space.

c. Side windows are to be offset by distances sufficient to avoid visual connection between windows of the subject dwelling and those of the neighbouring dwelling.



External Living areas requiring screening for privacy when located close to a side boundary.

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 and the location of living areas and above ground external areas such as terraces.

The proximity of the building to major external noise sources such as busy roads is also a major consideration.

Setbacks, separation between dwellings, and the appropriate location of external living areas, provide 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, air conditioners, pumps, and other mechanical equipment.*

Controls

a. The noise of an air conditioner, pump, or other mechanical equipment must not exceed the background noise level by more than 5dB(A) when measured in or on any premises in the vicinity of the item. This may require the item to have a sound proofed enclosure.

b. Dwellings located on arterial roads are to have double glazed windows where these windows face the road and provide light to living rooms or bedrooms. This is the case whether or not the dwelling has a solid masonry wall to the arterial road.

c. Dwellings located on designated or classified roads are to have an acoustic seal on the front door to reduce noise transmission.

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 living areas and 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.

Natural Ventilation

Natural ventilation is the circulation of sufficient volumes of fresh air through dwellings 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.

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 encourage natural ventilation in non-habitable rooms.*
- *To reduce energy consumption by minimising the use of mechanical ventilation.*

Controls

a. All dwellings are to have operable windows to habitable rooms.

b. Non habitable rooms including kitchen, bathroom & laundry are encouraged to have operable windows.

c. The plan layout, including the placement of openings, is to be designed to optimise access to prevailing breezes and to provide for cross-ventilation.

DESIGN CONTROL 8 - External Building Elements

External building design elements include;

- fences and walls,
- roofs, dormer windows and skylights
- elevations visible from the public domain,
- awnings, canopies, pergolas, storm blinds, sails and signage,
- minor elements.

These external building elements are highly visible from the street and as such 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 contribute to a consistent built character along the street.

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

a. Front and return fences are to reflect the design of the dwelling.
b. Front and return fences and walls are to be constructed of materials compatible with the house and with other fences and walls within the streetscape.
c. Return fences are to be the same height and design as front fences.
d. Front and return fences can be up to maximum height of 1.5m high with a maximum solid fence height of 600mm, above the solid wall the fence is to have a min. openness ratio of 60%.
e. Front and return fences may be solid up to 1.5m if located on an arterial road.
f. No Colorbond or timber paling for front or return fences, except were integrated into a design theme that is consistent with the character of the dwelling and streetscape and incorporates appropriate articulation to allow for landscaping.
g. Fences and walls are not to impede the natural flow of stormwater runoff.
h. If located in a bushfire prone area fences and walls are to comply with AS3959 and Planning for Bush Fire Protection 2006, as amended from time to time.
i. A solid front wall may be higher than 0.9m 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.
j. Fencing is not to obstruct water meter reading.

Side and Rear Fences

Controls

a. Side fences are measured from behind the building line to the rear boundary. Maximum fence height of 2.0 metres.

b. No chain wire fences are to exceed 1.2m in height.

c. May include timber paling, metal or Colorbond material.

d. 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 3.6m and shall be offset by 600mm of the side and rear boundaries and 1m from front boundaries.

e. Fences and walls are not to impede the natural flow of stormwater runoff.

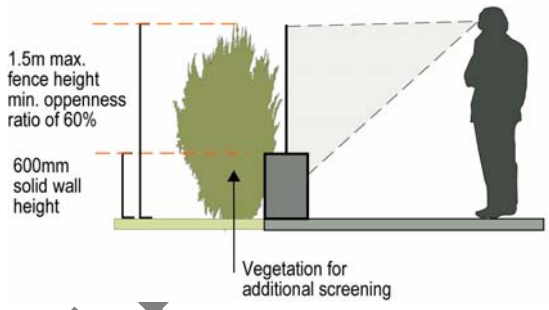
f. Controls for front fences and walls also apply to secondary street frontages on corner lots measured for the length of the dwelling.

Fences and walls for Greenbank Island

g. Approval is to be obtained from Council prior to the erection of any fencing on Greenbank Island.

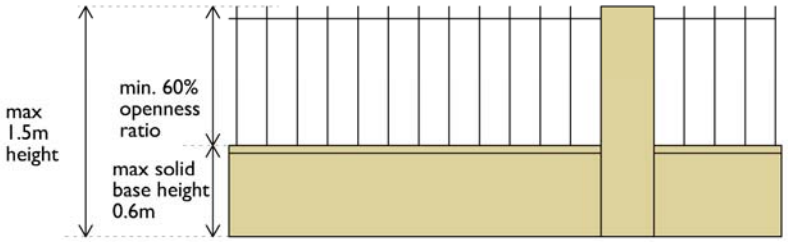
h. Fencing behind the six (6) metre building line shall not exceed 2000mm in height.

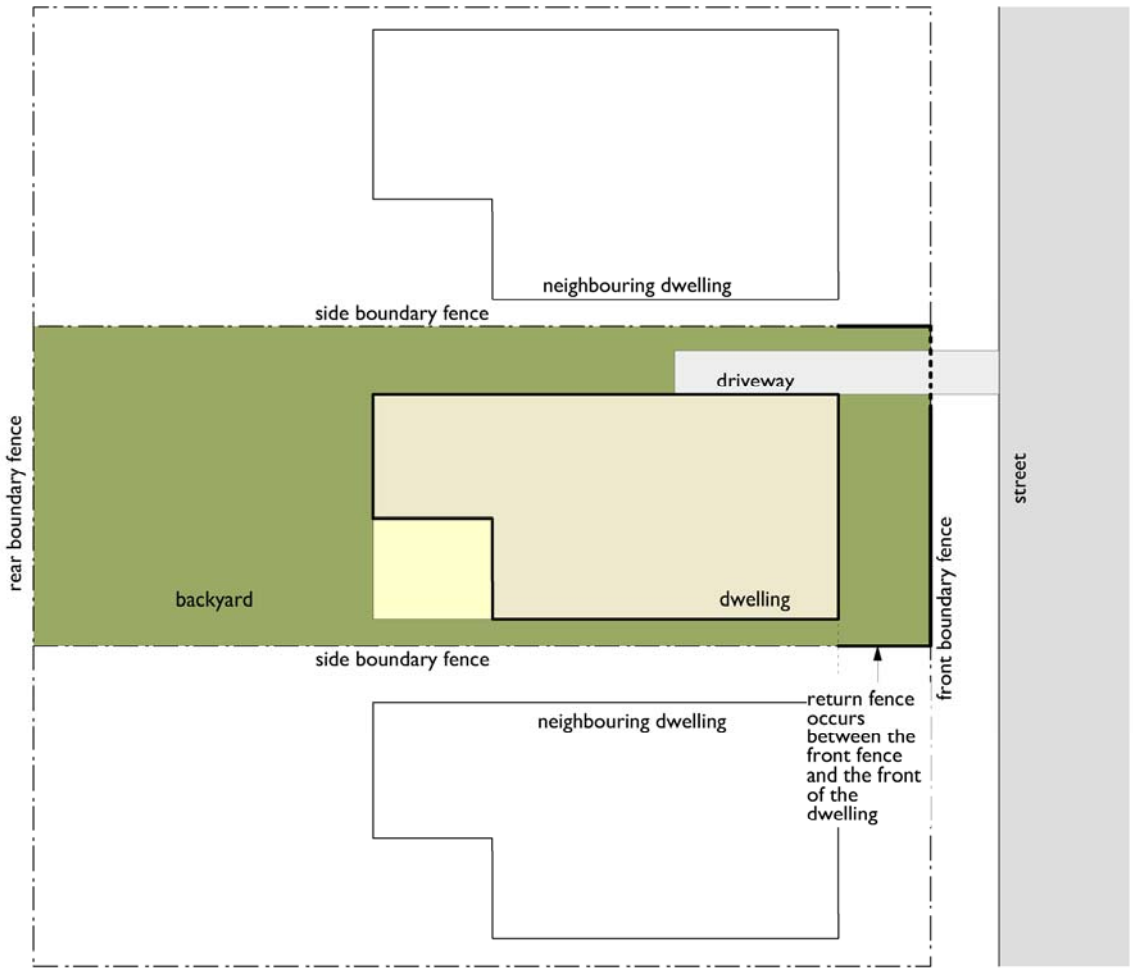
i. The fencing is to be constructed of brick, stone, masonry block or such other material as is approved by Council.



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.


max
1.5m
height
min. 60%
openness
ratio
max solid
base height
0.6m


neighbouring dwelling
side boundary fence
driveway
rear boundary fence
backyard
dwelling
street
front boundary fence
side boundary fence
neighbouring dwelling
return fence
occurs
between the
front fence
and the front
of the
dwelling

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.

Roofs, Dormers and Skylights

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.

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,
- using a compatible roof form, slope, material and colour to adjacent buildings; and
- ensuring the roof height is in proportion to the wall height of the building.

b. The main roof is not to be a trafficable terrace.

c. Skylights are:

- 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.

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's elevations 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.

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

Objectives

- *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. 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. Use proportions, materials, windows and doors types that are residential in type and scale.

d. Design elevations to reflect the orientation of the site using elements such as sun shading, light shelves and bay windows as environmental controls.

e. Coordinate and integrate building services, such as drainage pipes, with overall elevation and balcony design.

a. Coordinate grills/screens, ventilation louvres, carpark entry doors with the elevation.

b. Integrate the design of garage entries with the building elevation design.

c. Building elevations on corner sites are to be oriented to both streets by having windows and doors addressing both streets.

d. Landscaping, fence and wall treatments on the secondary street frontage are to be the same as the primary street frontage for the length of the building.

This building addresses its corner location by designing both street elevations with equal importance.

Awnings, Canopies, Pergolas, Storm Blinds, Sails and Signage

In multi-unit developments operable blinds such as louvers can greatly improve the privacy and thermal efficiently 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 from sun, wind and rain for private external spaces.*

Controls

a. Awnings, canopies and storm blinds are to be wholly within the lot boundaries at least 900mm from the site boundaries.
b. Must observe and maintain existing building line setbacks.
c. If erected in a bushfire prone area, they are to comply with the requirements of AS3959 and Planning for Bushfire Protection 2006.
d. Pergolas must not be located closer to a boundary than 900mm.
e. Ensure that signage provides clear and legible way-finding for residents and visitors.

Minor Elements

Minor structures include those building elements that are associated with the use of the dwelling for residential purposes. Minor structures include; air Conditioning units, aerials, antennae, microwave antennae and satellite dishes, barbeque areas, aviaries, clothes hoists/lines, flagpoles, letter boxes and outdoor security lighting.

Controls

a. Air Conditioning Units
   - Noise levels from air conditioning units are not to exceed 5dB(A) above ambient background noise levels measured at the property boundary.
   - Air conditioning unit installation must not reduce the structural integrity of the building.
   - Openings created by the installation of air conditioning units must be adequately weatherproofed.
   - Air conditioning units are not to be visible from streets.
b. Aerials, antennae, microwave antennae are to be:
   - for domestic use only,
   - a maximum of one per single dwelling house,
c. Ground mounted satellite dishes are to be:
   - a maximum height of 2.4 metres,
   - 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.
d. Roof Mounted satellite dishes are to be:
   - suitably coloured to blend in with the building,
   - structurally stable,
   - one per dwelling house on lots less than 5,000 square metres,
   - No higher than the ridge line

e. Barbeque areas are to be:
- used for domestic purposes only,
- 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.

f. Aviaries are to be:
- used for domestic purposes only,
- located no closer than 10 metres from a dwelling house on any adjoining property,
- located in the rear yard and not closer than 900mm to an adjoining property boundary measured to any part of the building,
- structurally sound.

f. 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 they are to be screened from view from all dwellings and the street.

g. Flagpoles are to be:
- structurally sound,
- wholly within the property boundary.

h. Letterboxes:
- are to be a maximum height of 1.2m above the ground,
- are to have street numbering corresponding with that allocated to the dwelling,
- are to be structurally sound,
- are to be designed as part of the building and its landscaping using similar materials and finishes,
- in multi-dwelling developments letterboxes must be located on common property; be contained in one structure, contain sufficient boxes, on for each dwelling, including one for the body corporate.

i. 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.

DESIGN CONTROL 9 – Building Performance

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. Developments are to obtain BASIX certification where required.

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 Demolition work plan in accordance with the provisions of AS2601 and Councils work plan requirements.

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. 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.*

Water Conservation

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 where required and comply with the relevant requirements of the Building Code of Australia.

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.

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

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

Design Guidelines

Design windows to enable cleaning from inside the building, where possible.

Select manually operated systems, such as blinds, sunshades, pergolas and curtains in preference to mechanical systems.

Incorporate and integrate building maintenance systems into the design of the building form, roof and facade.

Select durable materials, which are easily cleaned.

Select appropriate landscape elements and vegetation and provide appropriate irrigation systems.

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

DESIGN CONTROL 10 – Floor Space Ratio

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, rather all the other Design Controls in this Part must be achieved.

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.*

Controls

a. The maximum FSR for Dual Occupancy housing is:

- 0.55:1 for attached dwellings except where the dwellings do not cover more than 50% of the site are in which case the max. is 0.65:1.
- 0.45 for detached dwellings.

b. The maximum FSR for Town Housing is 0.8:1

c. The maximum FSR for Row Housing is 0.8:1

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:

- *basements projecting less than 1m above finished ground level,*
- *storage areas,*
- *vehicular access, , garbage and services,*
- *areas used exclusively for mechanical services or ducting,*
- *car parking to meet any requirements of the consent authority (including access to that car parking),*
- *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.*

PART C - RESIDENTIAL FLAT BUILDINGS AND SHOP-TOP HOUSING

Table of Contents

CHAPTER 1 – BUILDING TYPES

Residential Flat Buildings

Residential Flat Buildings are buildings with three or more dwellings and 3 storeys. In exceptional circumstances such as where a site has extreme topography a greater number of storeys may be permissible.

The residential flat building types identified in this Part are designed to suit three scenarios; small sites, large sites and sites within commercial centres.

Residential Flat Buildings provide more compact forms of housing which:

- provide housing choice,
- provide for more people to live close to services and amenity,
- can enliven areas 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 to help reduce 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 recognizing 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 supports the character of the area and the street. Residential flat buildings must be of a high quality design.

Small Residential Flat Building

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 building providing all dwellings with three external sides.

This building type is designed for a local area where the dominant building type will eventually be Residential Flat Buildings. The controls are designed to ensure that each building works together across the block to ensure that sites have an equitable level of privacy, sunlight and outlook.

Each building should also contribute to creating a quality streetscape by ensuring landscaping, fencing, driveways, setbacks and the design of elevations have common urban design characteristics.

A small Residential Flat Building may have the proportion and scale of a large detached dwelling and be freestanding in a landscape setting. This building type can in some cases also be derived from an existing large house, internally subdivided into separate apartments.

Small Residential Flat Building developments have building and landscape design elements of a residential scale and character. They are suitable for steep changes in level as they have a small footprint and can more easily step down the site and maintain the first floor connection with the ground level.

Small Residential Flat Buildings have landscaped front and rear setbacks.

Objectives

- *To provide more compact housing types within a small scale building form.*
- *To provide more housing choices.*
- *To create an urban building form and strong built edge along the street.*
- *To more efficiently use land in proximity to services and centres.*
- *To provide a residential flat building type for steep sites.*
- *To provide greater residential densities.*

Suitable locations for Small Residential Flat Buildings

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

They can also be used on sloping sites where the building may need to be separated into two or more buildings in order to allow for a better relationship with the topography and to avoid the appearance of a 4, 5 or more storey building, when viewed from the low side of the site.

Controls

a. The main pedestrian entry to the building is to be provided, facing the street, accessible directly from the street and clearly visible from the street.

b. Ground level dwellings with a street frontage are to have a pedestrian access from the street.

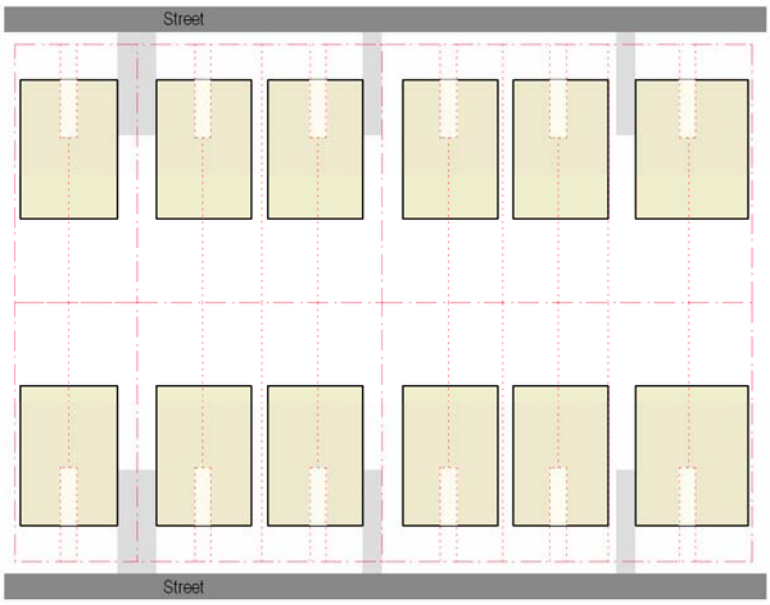
c. The internal space of the ground floor is to have pedestrian connection to ground level external spaces.

d. Unusable ground level spaces are to be avoided by ensuring that all ground level external spaces are either part of a gardens or an external living area for ground level dwellings unless designed for a specific communal function such as; communal utility areas, communal circulation spaces or communal recreational spaces.

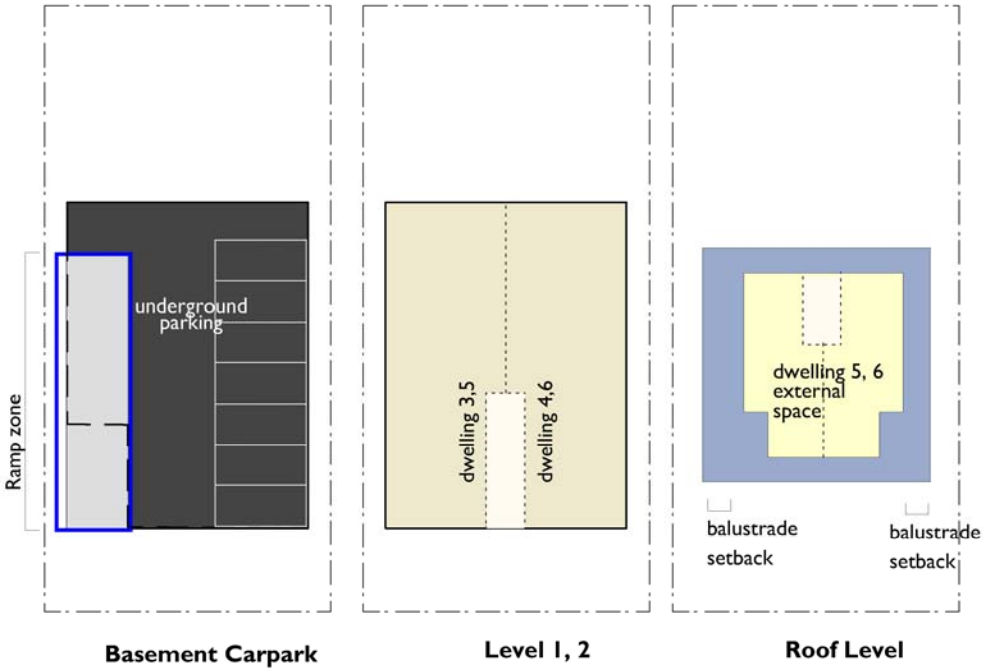
e. Deep soil areas are to be provided at the rear and the front of sites in accordance with this Part.

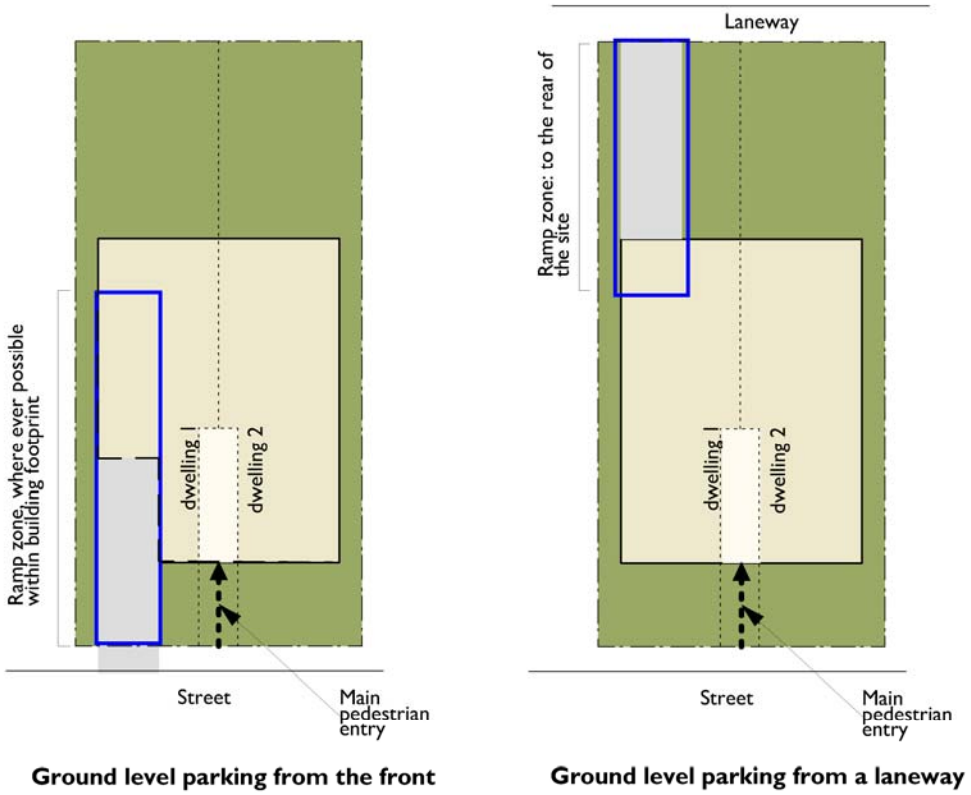
f. Small Residential Flat Buildings are to be designed in accordance with the Site and Building Design controls found in this Part.

g. 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.



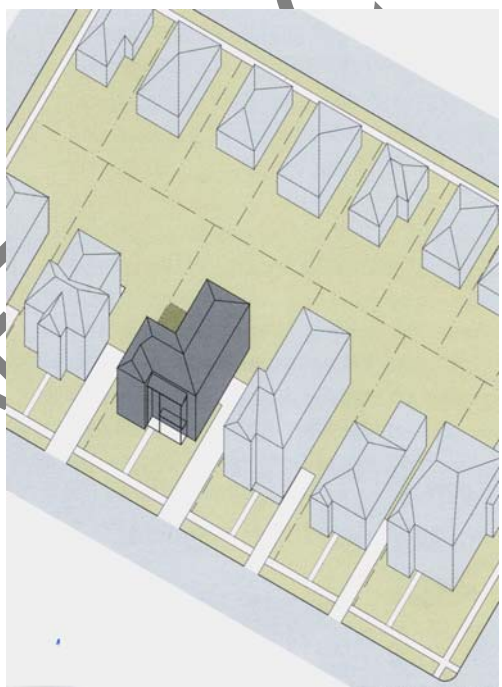
Illustrative block layout for the Small Residential Flat Building



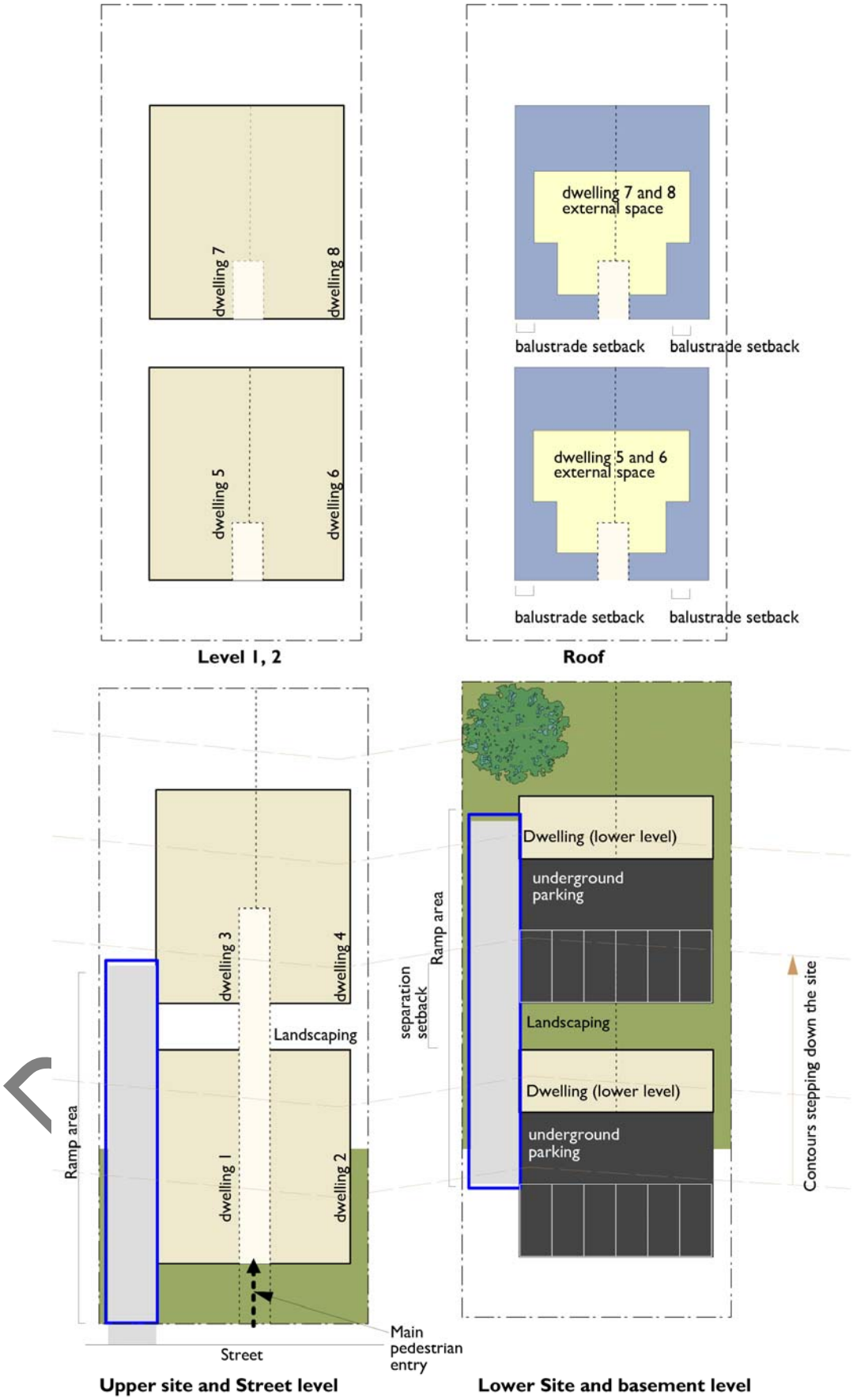


Indicative layouts for a Small Residential Flat Building with two dwellings per floor.

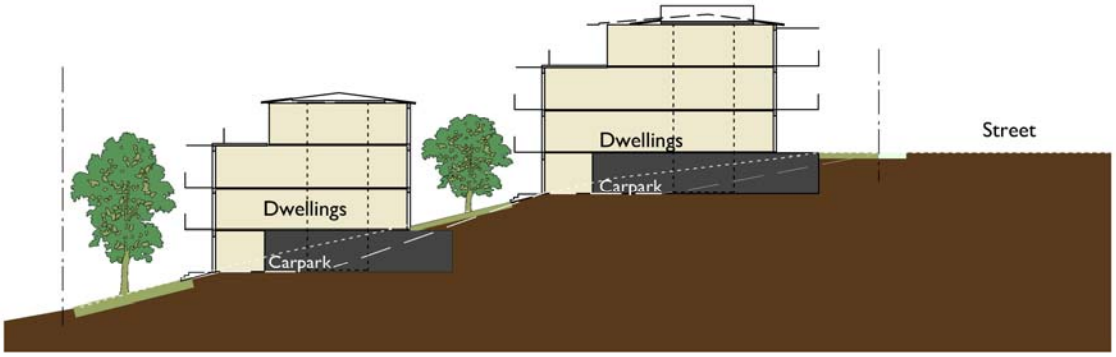
At the block and precinct scale the small apartment building type results in a high degree of landscaping and open space.



A small apartment building type can have the proportions and scale of a large house (Image from the Residential Flat Design Code).

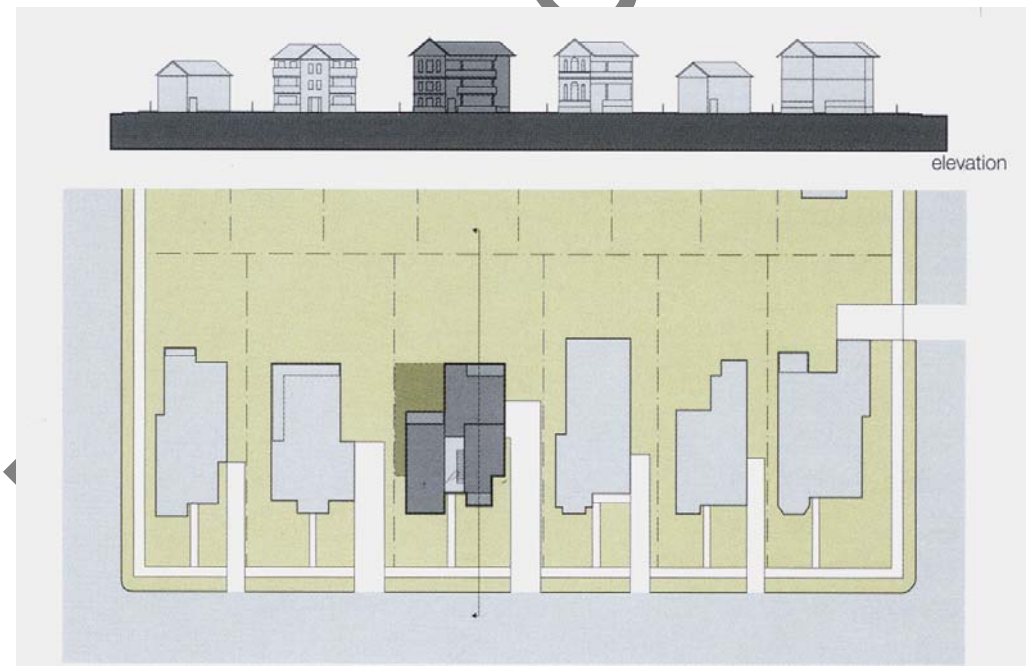


Illustrative plan of a small residential flat building type on a steep site.



Section

An illustrative section of a small residential flat building type on a steep site.



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

Block Edge Residential Flat Building

These buildings are characterised by being large developments either as a result of amalgamating two or more lots or being located on larger scaled lots. These buildings 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, generally with retail or commercial on the ground floor.

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 setting.

These buildings types can have a variety of different layouts depending on the site size, topography and street character. The main issues for Block Edge Residential Flat Buildings are to ensure the building mass is broken down along the street to reduce the bulk and scale of the building to ensure that ground floor dwellings address the street and are able to be accessed by pedestrians from the street.

Suitable locations for Block Edge Residential Flat Buildings

Locations generally include:

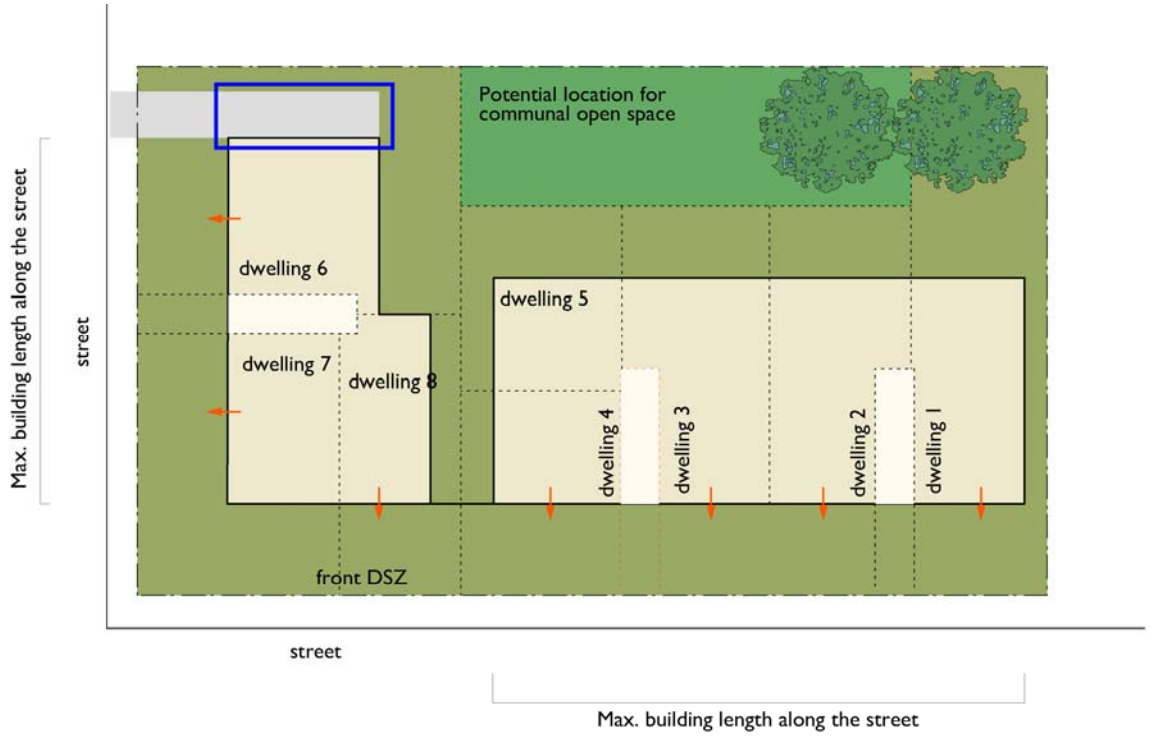
- on larger development site generally over 2000m2,
- where a perimeter block urban form is intended,
- where a vertical rhythm is desired to reinforce the street,
- in an urban precincts in walking proximity to centres.

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 is 35m.
b. Minimum lot size 2000m2.
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. Block Edge Residential Flat Buildings must comply with the Controls found in this Part.



Ground level

Illustration of a block edge flat building with two street frontages.

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.

Shop-top Residential 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 or more dwellings over two levels associated with a ground level commercial space or
- Shop-top Residential Flat Building; 4 or more dwellings and 3 or more storeys 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 comprises of either two or three storeys 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 can be designed to allow for 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 urban design 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 that the residential component of the building does not preclude quality 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 these uses. As such residential uses are of secondary importance to the commercial component of this building type and are to result in economically viable commercial spaces for the occupants and future owners in the immediate and longer term.

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 quality commercial 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 enclosing the street space along the street boundary.

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 (generally retail). Circulation spaces used to access upper level dwellings may occupy up to 15% of the lot frontage.

d. Uses on the first floor can be either residential or commercial.

e. The internal space of the ground floor of the development is to be at the ground level of the street.

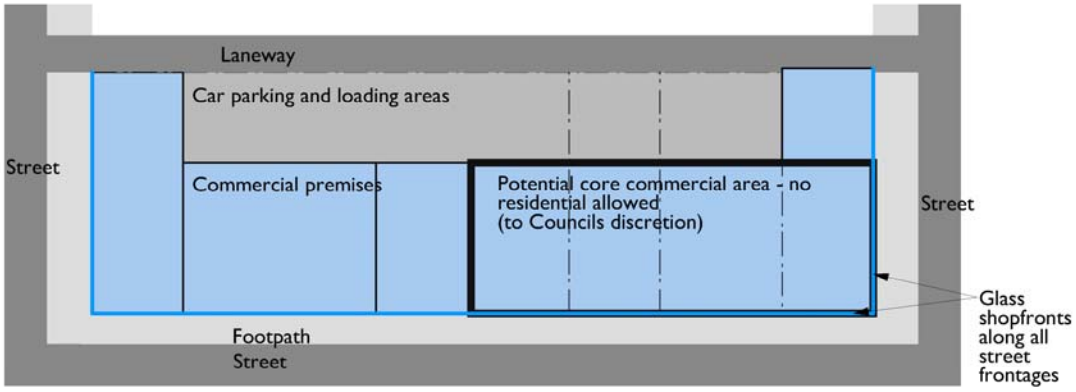
f. Basement car parking is to be fully underground.

g. Footpath trading must comply with the procedures and guidelines contained in the Tweed Footpath Trading Policy.

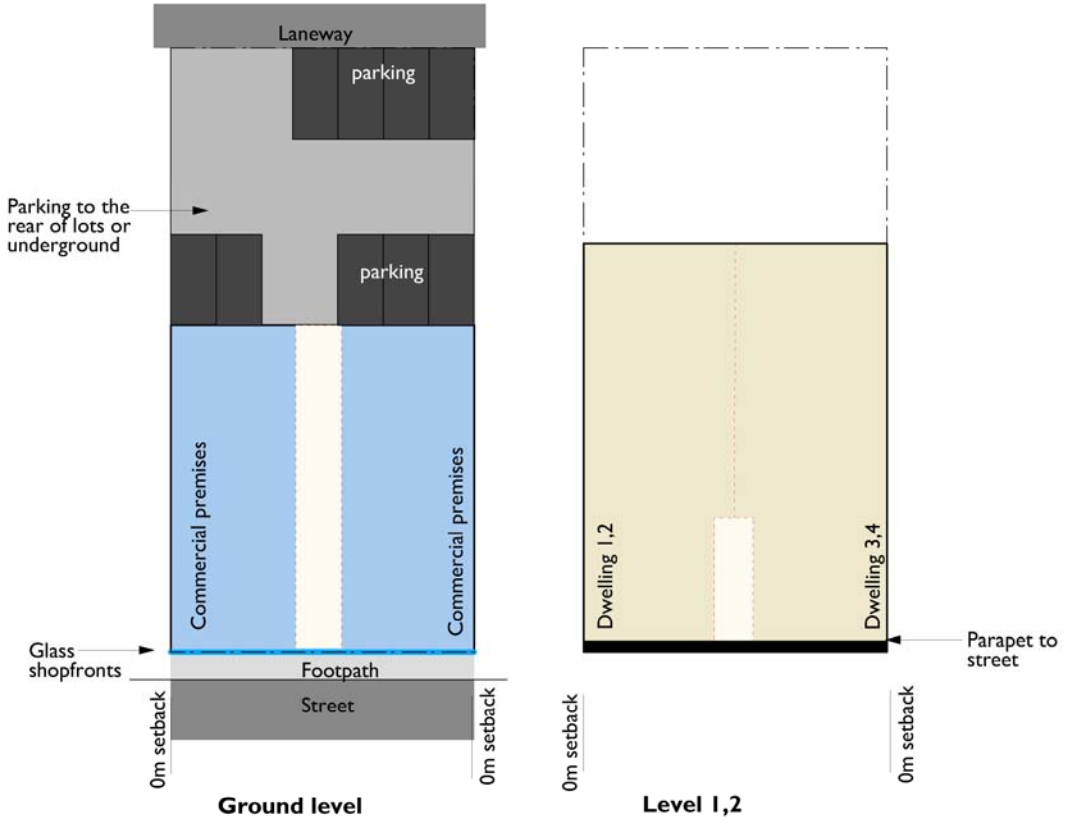
h. The design and layout of commercial spaces is to demonstrate:

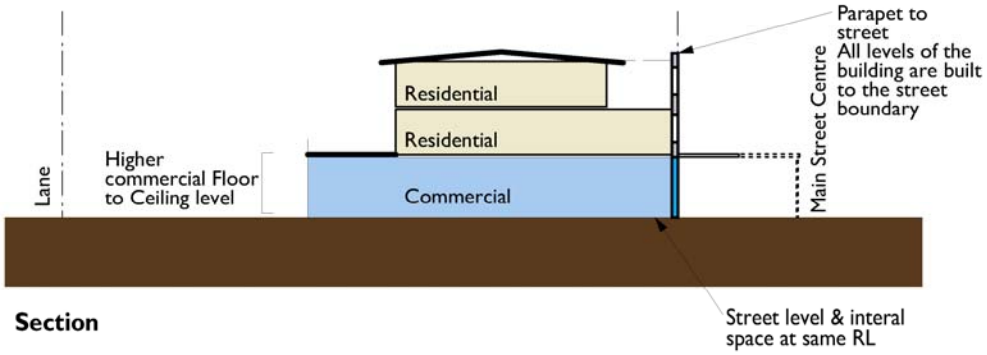
- the intended type of commercial uses proposed and the suitability of the building design to accommodate these uses,
- the immediate and long term economic feasibility of proposed commercial space,
- the way in which the proposed commercial space complements and extends the quality and attractiveness of the existing centre.

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



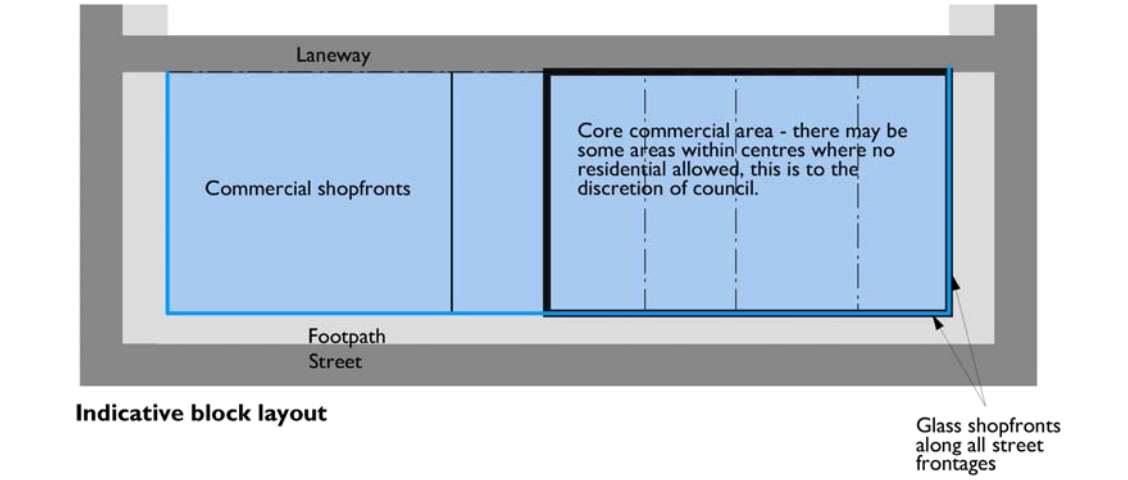
Ground level Indicative block plan



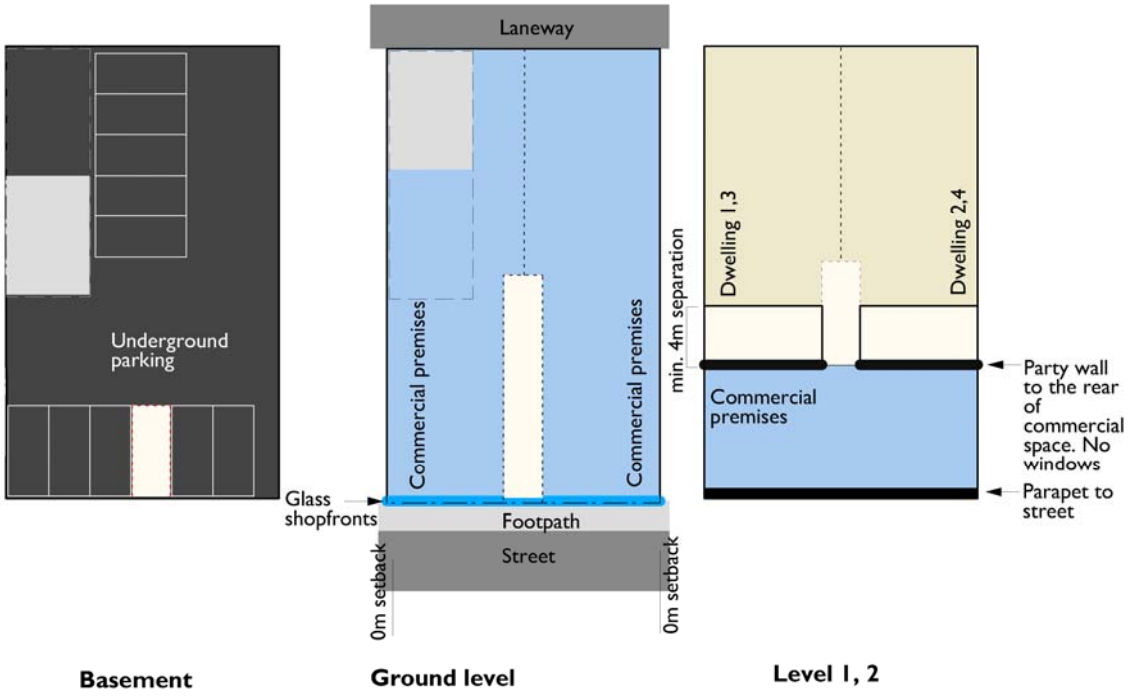


Section

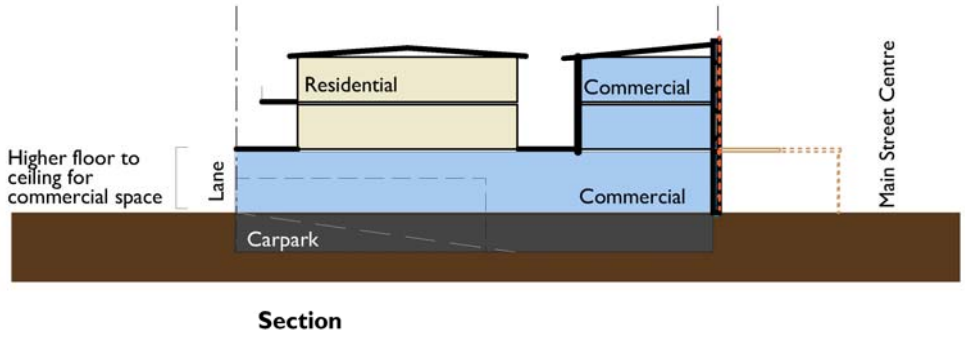
Illustrative site layout Shop-top Residential Flat Building with carparking on the ground level.



Indicative block layout



Basement **Ground level** **Level 1, 2**



Section

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.

CHAPTER 2 SITE AND BUILDING DESIGN CONTROLS

Introduction

This section of the document provides an explanation of the key controls used to define aspects of development to be achieved when preparing a Development Application for a Residential Flat Building or a Shop-top Development.

The explanations associated with each Site and Building Design Control are to assist the 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 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 and Attics, Orientation and Separation
Design Control 6 Height
Design Control 7 Building Amenity
Design Control 8 Internal Building Configuration
Design Control 9 External Building Elements
Design Control 10 Building Performance
Design Control 11 Floor Space Ratio (FSR)

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. For the purposes of this DCP 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.

Streetscape

Streetscape refers to the spatial arrangement, extent and appearance of elements within a street, which includes some elements on private properties adjoining the street. Streetscape design is concerned with ensuring there is consistency in built and landscape form along streets on private sites.

Streetscape controls seek to ensure that dwellings and gardens relate well to each other and to the landscape setting along the street. The primary elements that create streetscape character are:

- the relationship of street to the topography of the land on either side of the street,
- the width, layout, landscaping and materials of the street, footpaths and front gardens,
- buildings, building setbacks, building height,
- relationship of buildings to the topography and to other buildings in the streetscape.

The aspects of a development that help to create quality streetscapes, when well considered and designed include;

- front and side boundary landscaping including boundary fences and walls,
- access and driveway design; widths, materials and location,
- the building's size and shape as seen from the street, 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.*
- *To encourage dwellings to be well designed.*
- *To ensure streets provide a high level of pedestrian amenity, access and safety.*
- *To ensure garages do not dominate the street.*

Controls

a. Site design, building setbacks and the location and height of level changes are to consider the existing topographic setting of other buildings and sites along the street, particularly those that are older and more established.

b. The design of the front deep soil zone and boundary interface to the public domain is to complement or enhance streetscape character by:
   - providing for landscaping; lawn, trees or shrubs characteristic with existing properties or of such design as to enhance the quality and appearance of the dwelling and surrounding area,
   - reflecting the character and height of fences and walls along the street, or of such design as to enhance the quality and appearance of the dwelling and surrounding area,
   - reflecting the character and layout of established front gardens of other allotments in the street, particularly older and well established garden landscapes,
   - retaining, protecting or replacing existing vegetation and mature trees,

c. Carports and garages visible from the public street are to;
   - be compatible with the building design, including roofs,

- be setback behind the dwellings front elevation.

a. 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.

e. Facades visible from the public domain are to be well designed by:
   - having important elements such as front doors and building entry areas prominent in the building facade and clearly identifiable from the street,
   - coordinating and integrating building services, such as drainage pipes, with overall facade design,
   - integrating the design of architectural features, including stairs and ramps, and garage/carport entries with the overall facade design, and by locating car parking structures on secondary streets where possible,
   - ensuring corner buildings have attractive facades which address both streets frontages, including the careful placement and sizing of windows,
   - ensuring entrance porticos are single storey.

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 buildings in the streetscape, such as view corridors down a residential street. Vistas are long wide views, generally across a locality. Vistas are generally defined by ridgelines and valleys.

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.

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.

Deep Soil Zones

Deep soil zones are areas of soil suitable for the growth of vegetation and mature trees. Deep soil zones may be landscaped but are not covered with hard impervious surfaces such as concrete, asphalt or pavers, nor are they 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.

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).

Objectives

- *To ensure that land retains its ability to permeate water.*
- *To ensure that each building lot has a deep soil zone of adequate area and dimension.*
- *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.*

Controls

a. Deep Soil Zones must be provided for all new developments and existing development, except on non urban land with site areas greater than 5000m2 and development with ground level commercial floor space.

b. All sites are to provide two Deep Soil Zones, one to the rear and one to the front of the property.

c. Rear Deep Soil Zones are to have minimum width of 8m or 30% of the average width of the site whichever is the greater and a minimum depth of 18% of the length of the site up to 8m but not less than 4m. Greater than 8m may be provided if desirable.

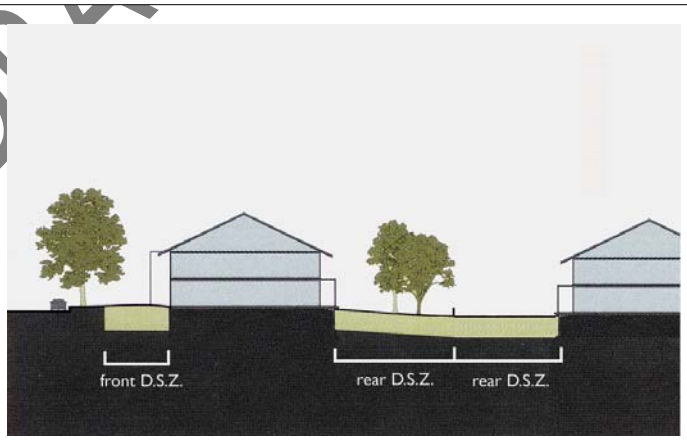
d. Rear Deep Soil Zones are to have soft landscaping; refer to Landscaping Section.
e. Front Deep Soil Zones are to be the width of the site boundary minus the driveway width and the pathway width by the front setback depth.
f. Front Deep Soil Zone areas are to have soft landscaping, vegetation and at least one tree.
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.
i. The Deep Soil Zone is to be included in the total permeable area for the allotment.

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

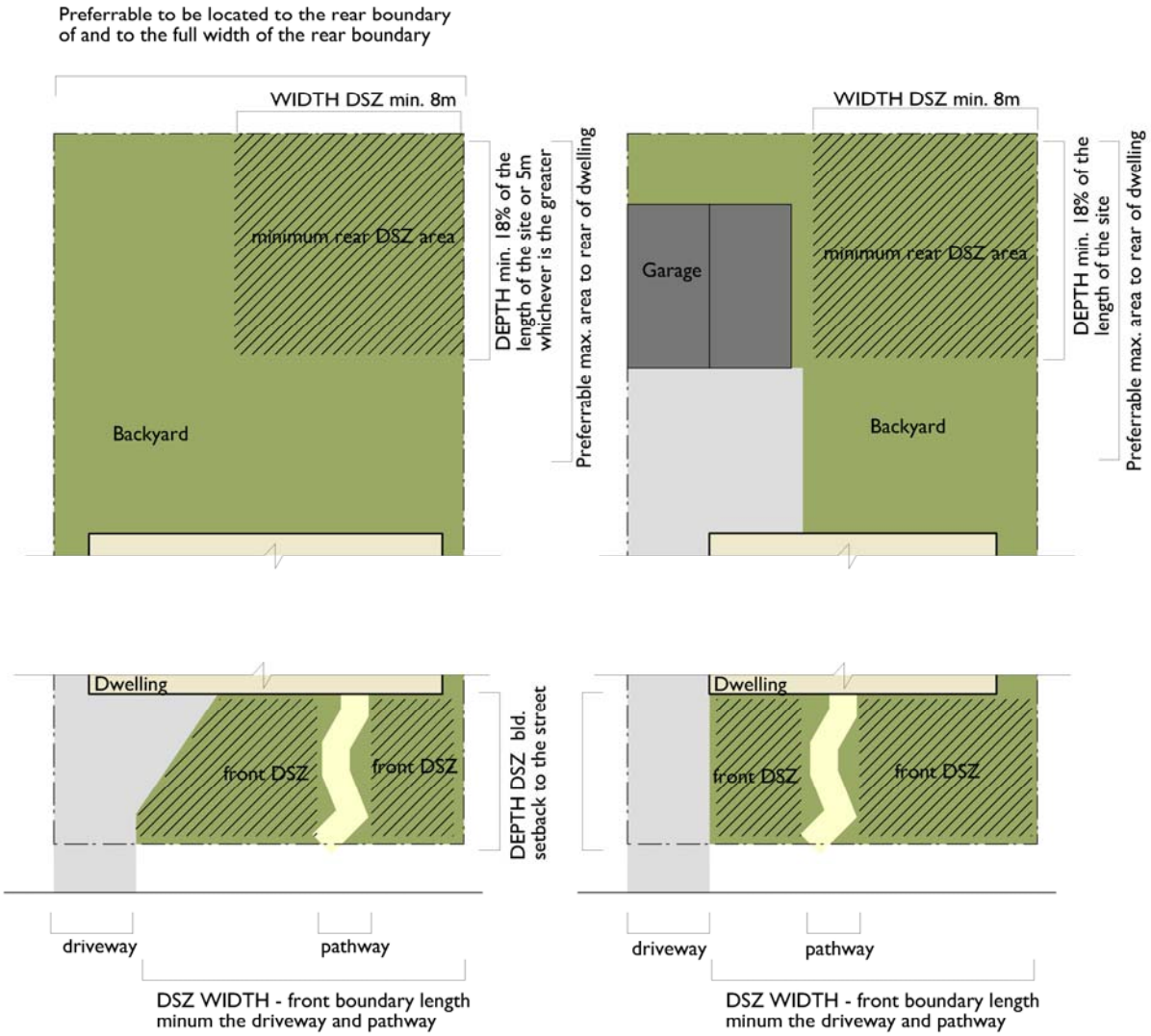
At the block scale contiguous green space is consolidated to the rear and front of lots.

Design Guidelines:

It is preferable that deep soil zones on the rear boundary extend along the full length of the boundary as this is generally where the opportunity exists to create or expand on a vegetation corridor between properties and is often an area where established trees and vegetation exists already.



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



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

Impermeable Site Area

The impermeable site area is the total area of impervious surfaces within an allotment following completion of the development. Excessive impermeable areas on a lot can increase the volume of stormwater discharged off the site as it reduces the lands capability 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. An allotment's runoff shall be dispersed onto grassed, landscaped or infiltration areas, of the allotment, 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. Rain water 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. A schedule of the breakdown/calculation of impermeable site area must be submitted with the development application.

g. The maximum areas for impervious surfaces are:
   - 70% of the allotment - On lot sizes less than 500m2.
   - 65% of the allotment - On lot sizes between 500m2 and 750m2 inclusive.
   - 60% of the allotment - On lot sizes greater than 750m2.

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

Table 1 – Impermeable surface factors

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.

External Living Area

External living area refers to an external space that extends the living and recreation space of a dwelling to provide private outdoor recreational and relaxation space. These spaces generally take the form of courtyards, decks, terraces and balconies, they can be paved or decked and may be covered. External living areas may be located either on ground or above ground. Small balconies and similar structures from bedrooms are not considered as 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 maintaining privacy. The location of external living areas can assist in controlling sun access by promoting daylight access in winter and shade in summer.

Elevated external living areas should be designed to avoid facing the side boundaries, as this can easily lead to privacy problems with neighbouring properties.

Objectives

- *To enhance the amenity of internal living spaces.*
- *To provide an external relaxation and recreation space.*

Controls

a. External living areas are best located adjacent to the internal living (dining rooms, living room, or lounge room) areas so as to extend the overall living space.
b. External living areas should be suitably screened to achieve visual privacy if located less than 4m from a side boundary.
c. External living areas are to be no closer to the side boundaries than 900mm.
d. External living areas are to be designed to ensure water does not enter the dwelling.
e. External living areas should be oriented to north where possible.

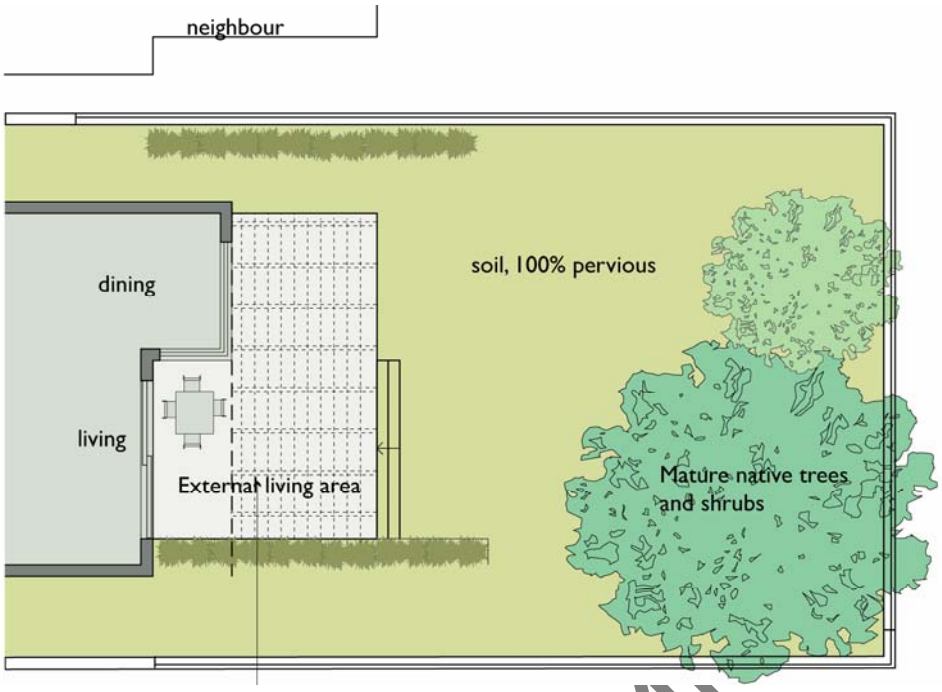
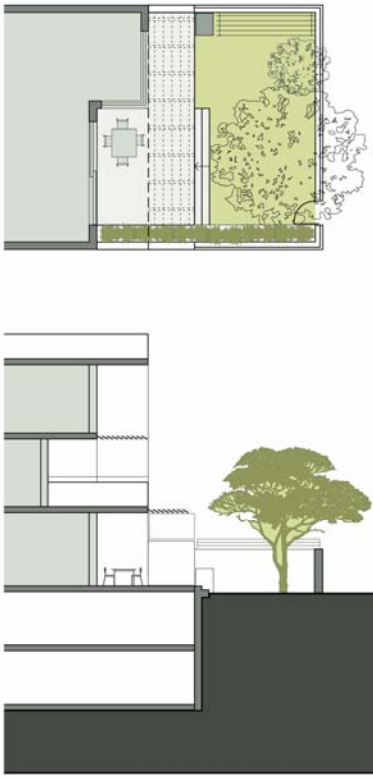


Diagram of an External Living Area to the rear of the site provides direct connection between the internal space of the dwelling and the garden or Deep Soil Area. Privacy screening may be required to the sides of the space. Ground level external living areas are to be located so as to retain mature trees,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

Illustrative plan of an RFB. Ground level spaces are to be designed to be useable and part of 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 enhance the dwelling's amenity. 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. Small balconies and terraces located off minor rooms such as bedrooms or studies can help open the room to the outside.

Objectives

- *To provide outdoor living spaces.*
- *To improve the architectural form and detail of buildings.*
- *To contribute to the safety and liveliness of the street by allowing for casual surveillance.*

Controls

a. Above ground external living areas are to have a minimum depth of 2.5m and a minimum area of 10sq.m.

b. Balconies and terraces off minor rooms have no minimum depth or width.

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 our 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;*
- *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 materials 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.*

Communal Open Space

Communal open space is an area within the development for the use of all residents. This can include swimming pools, barbeque areas, 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 unusable spaces left over from building siting but rather to be designed to provide a useable and attractive space.

Analysis of the usability and appropriateness of the communal open space design, location and size relative to the number of persons it services is a requirement for any development application.

Objectives

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

Controls

a. Communal open space must be provided for with any developments of more than 10 dwellings to provide recreational or relaxation uses for residents.

b. Communal open space is not to be located such that solar access, privacy and outlook to dwellings are reduced.

c. The design of communal open space must demonstrate how it achieves specific functions that enhance the livability and residential amenity of the development and how it will serve the needs and number of people within the development.

d. The location and design of communal open space must not compromise achieving the minimum separation distances and minimum areas for external living areas.

e. Communal open space is to be designed such that its size and dimensions allow for particular uses.

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

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.

Landscape design should consider usability, privacy and opportunities for social and recreation activities. Neighbours' amenity should also be respected. Landscaping also has an important role to play in improving environmental conditions such as storm water and rainwater absorption, habitat for native animals and plants, reducing bushfire risk, and helping to regulate the amenity of a development through such things as sunshading using pergolas and tree plantings.

Objectives

- *To enhance the appearance and amenity of development.*
- *To enhance the character of the locality and the streetscape.*
- *To retain existing important landscape features.*
- *To provide privacy between adjoining dwellings and private open space.*
- *To assist in the percolation of rainwater and reduction in stormwater runoff.*
- *To improve microclimatic conditions on sites and the solar performance of dwellings.*
- *To contribute to improving urban air quality.*

- *To provide fauna and flora habitat.*
- *To assist in the protection of urban bushland.*

Controls

a. Retain existing landscape elements on sites such as natural rock outcrops, watercourses, dune vegetation, indigenous vegetation and mature trees.
b. On lots adjoining bushland, protect and retain indigenous native vegetation and use native indigenous plant species for a distance of 10m from any lot boundaries adjoining bushland.
c. Locate and design the building footprint to enable the retention of existing trees.
d. Buildings are not to be sited under the drip line of an existing tree.
e. Provide useful outdoor spaces for liveability by coordinating the design of external living areas, driveways, parking areas, communal drying areas, swimming pools, utility areas, deep soil areas and other landscaped areas with the design of the dwelling.
f. Where the ground floor level of a dwelling is above the finished external ground level reached through a door or doorways, there is to be a physical connection made between these levels. Examples of a physical connection include stairs, terraces, and the like.
g. Provide a landscaped front garden.
h. A pathway with a minimum width of 900mm is to be provided along one side of the dwelling so as to provide pedestrian access from the front garden to the rear yard. This access is not to be blocked by such things as landscaping features, rainwater tanks, hot water heaters and retaining walls. The pathway does not need to be provided on allotments which have rear lane access.
i. Landscape elements in front gardens such as plantings are to be compatible with the scale of development.
j. The front garden is to have at least 1 canopy tree with a minimum mature height of 10 metres.
k. Where the backyard does not have a mature tree at least 15m high, plant a minimum of one large canopy tree in the back yard. The tree is to be capable of a mature height of at least 15m and is to have a spreading canopy.
l. Locate and design landscaping to increase privacy between neighbouring dwellings.

Design Guidelines

- *Provide useful outdoor spaces for liveability by coordinating the design of driveways, parking areas, 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 deciduous 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,*
  - *using plant species that are suitable when near drainage lines and infrastructure.*

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 vigor 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. Optimise plant growth by:

- providing soil depth, soil volume and soil area appropriate to the size of the plants to be established,
- providing appropriate soil conditions and irrigation methods,
- 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 metres 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.

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, 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 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.*

Controls

a. Building siting is to relate to the original form of the land.

b. 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. Example of alternative construction includes: Bearer and joist construction; Deepened edge beam; Split level design; Suspended slab design.

c. On sloping sites step buildings or utilise site excavation and suspended floors to accommodate changes in level rather than leveling the site via cut and fill.

d. Dwellings must not be designed to be on a contiguous slab on ground type if the building site has a slope of greater than 10%. Development on such land is to be of pole or pier construction or multiple slabs or the like that minimise the extent of cut and fill.

e. Site excavation / land reforming is to be kept to a minimum required for an appropriately designed site responsive development.

f. The maximum level of cut is 1m and fill is 1m except for areas under control j.

g. Retaining walls maximum 1.2m.

h. 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.

i. 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.

j. 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.

k. Filled areas are to be located where they will not impact on the privacy of neighbours.

l. 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.

m. 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 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.

Calculation rules:

A setback is the distance between a building 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 structure or*
- *the outer edge of an eaves gutter,*

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

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.

Front Setbacks (Building Lines)

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.

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 compatibility with other buildings in the street.*

Controls

a. In new areas Shop-top Housing and Shop-top Residential Flat Buildings are to be built to the street boundary.

b. In new areas Residential Flat Buildings are to have a street setback of 6m.

c. On corner sites in new and existing areas the setback along the secondary street (the street to which the dwelling has its secondary frontage) is 3m.

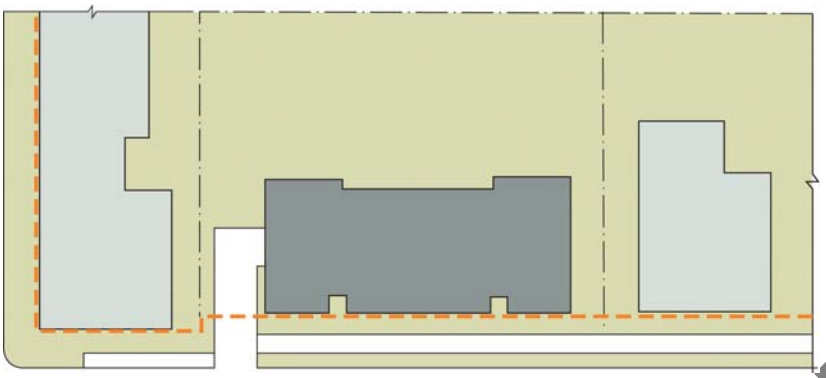
d. Where a site has dwellings with frontages to two or more streets, the street setbacks for these frontages are to be considered as front setbacks and there be 6m.

e. In established areas Shop-top Housing and Shop-top Residential Flat Buildings are to be built to the street boundary.

f. In established areas Residential Flat Buildings are to be setback from the street boundary by 6m with a variance of up to plus or minus 1m (ie. between 5m to 7m).

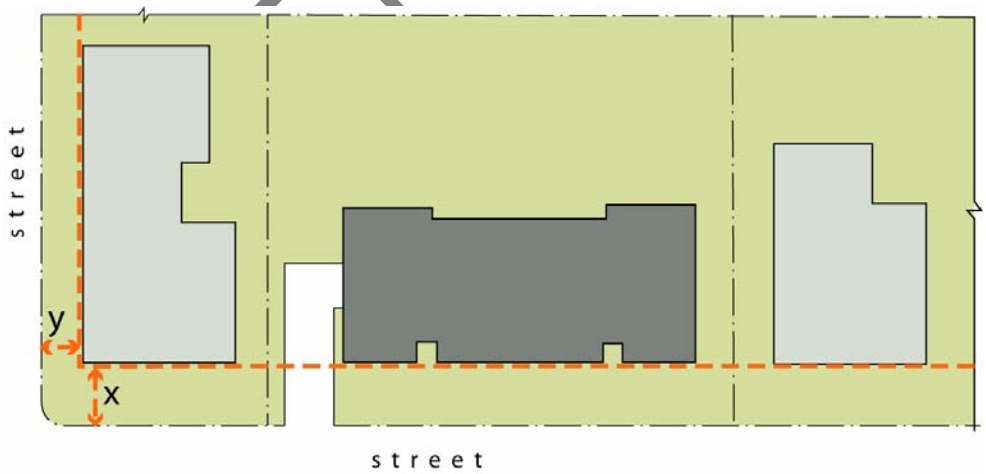
g. Basement garages cannot be located forward of the building footprint.

h. On grade parking must be located a minimum of 6m setback from the buildings front elevation or to the rear of the site.



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

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.

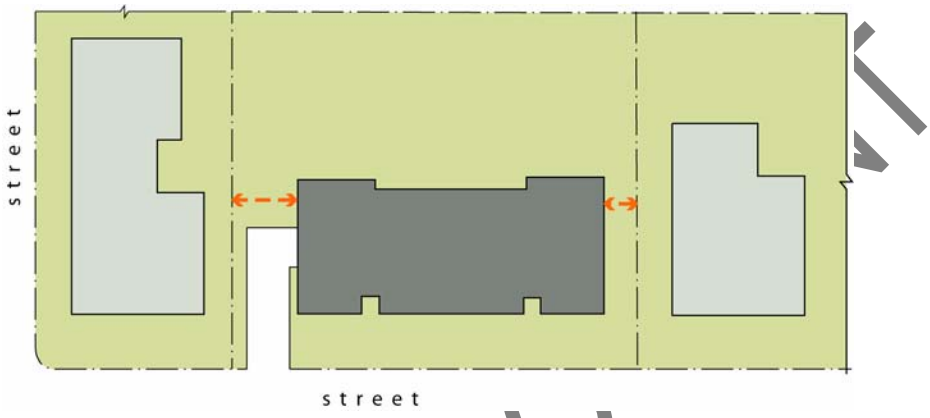
By orienting habitable rooms along the front and rear elevations rather than the side boundaries separation distances for privacy, light and air can more easily be achieved between neighbouring dwellings.

Objectives

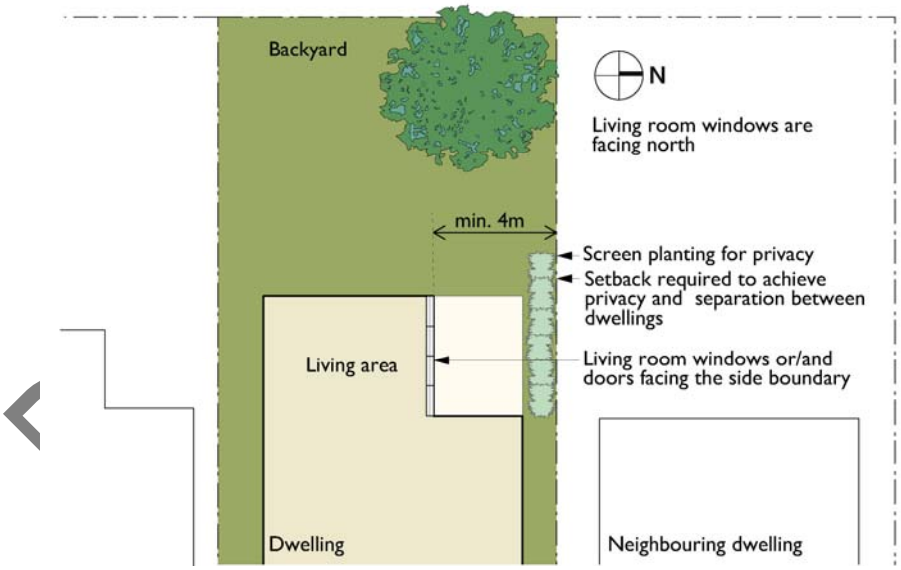
- *To provide an orientation for windows of ancillary rooms.*
- *To provide access to the rear of the lot.*
- *To provide a location for rainwater tanks.*
- *To facilitate visual and acoustic privacy between neighbouring lots.*

Calculation rules

Side setbacks are measured from the allotments side boundary to the outside edge of a building element. Setbacks are measured at 90 degrees to the allotment 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 lots with north to the side boundary living room windows can face the side boundary if set back.

Controls

a. Shop-top Housing and Shop-top Residential Flat Buildings must have zero side setbacks for at least 5m back from the street boundary.

b. Residential Flat Buildings can have minimum of 1.5m setbacks.

Primary windows of living rooms facing the side boundaries

c. Shop-Top Housing with walls containing the primary windows of living rooms facing the side boundaries are to be setback a minimum of 4m from the boundary and be screened.

d. Shop top Residential Flat Buildings and Residential Flat buildings with the primary windows of living rooms facing the side boundaries are to be setback a minimum of 6m and meet the distances as set out in the Separation Controls.

Garages and basement parking

e. Garages may be located within 450mm of a side boundary.

f. Carports may be located adjacent to a side boundary.

g. Basement garages are to be set back a minimum of 1.5m from the side boundaries but preferrably in line with the building above.

h. 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.

Rear Setbacks

Rear setbacks are important for achieving open space to the rear of the lot for deep soil zones, 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 for 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.*

Calculation rules

Rear setbacks are measured from the rear boundary to the outside edge of the wall of the building. 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.

Controls

a. The minimum rear boundary setback is 8m or the deep soil zone whichever is the greater. The minimum building separation distances must be met.

b. For Shop-top Housing and Shop-top Residential Flat Buildings the rear setback can be a minimum of zero.

c. For Residential Flat Buildings existing mature trees within 6m of the rear boundary are to be retained.

d. Garages and carparking may be located adjacent to the rear setback.

Canal Frontages

d. The setback from a canal frontage is:

- 5.5m where the boundary is on the canal side of a revetment wall, or

3.4m from the revetment wall where the wall is on the boundary, except:

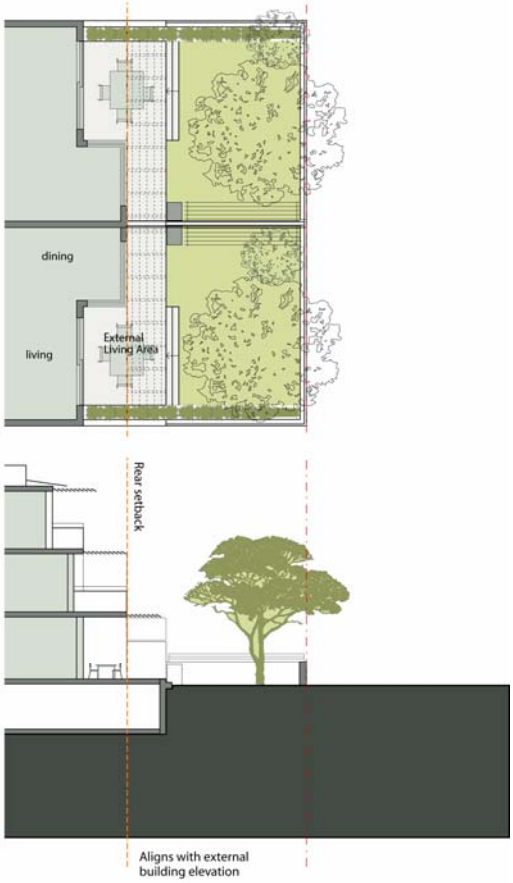
(i) For those allotments with canal frontages and facing Gollan Drive and Jacaranda Avenue, Tweed Heads West where the setback line to the canal frontage shall be 2.5m,

(ii) Lots 1, 2 3 and 4 Crystal Waters Drive, Tweed Heads West where normal building setbacks shall apply along the canal frontage.

e. No structures are to be built in the setback area other than fences to 1.2 metres high, swimming pools, retaining walls, suspended decks that do not exceed the level of the allotment at the top of the batter and boat ramps except:
   (i) For those allotments with canal frontages and facing Gollan Drive and Jacaranda Avenue, Tweed Heads West where the setback line to the canal frontage shall be 2.5m
   (ii) Lots 1, 2 3 and 4 Crystal Waters Drive, Tweed Heads West where normal building setbacks shall apply along the canal frontage.

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

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



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.

DESIGN CONTROL 4 - Carparking and Access

The location and design of car access and parking areas is to ensure that the site is not dominated by car related uses. Vehicle access and movement areas must not dominate the streetscape nor compromise the privacy and amenity of the site or neighbouring dwellings.

Carparking is to be convenient and is to be designed to meets 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. .*

Carparking Generally

Controls

a. Carparking is to be in accordance with Section A2 of the Tweed Shire Development Control Plan.

b. Carparking number concessions may be given to small sites to allow carparking to be fully under the buildings footprint.

c. Carparking can be either in an enclosed structure (a garage or basement) or an open roofed structure (a carport).

d. Carparking cannot be located within the front setback.

e. Car park entries are to be located off secondary streets and laneways where these occur.

f. The driveway width from the street to the property boundary is to be minimised.

g. Vehicular movement and parking areas are to be designed to minimum dimensions;
   - to reduce hard surfaces on the lot, and
   - to increase the area available for landscaping.

h. On grade carparking cannot occur within 12m of the primary street boundary for flat buildings and 6m for Shop-top.

Basement Carparking

Basement parking needs to be carefully designed to ensure the building is not raised unnecessarily high above ground level and that the building has 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 within the building footprint and/or behind the buildings front elevation to avoid retaining walls within the front garden.

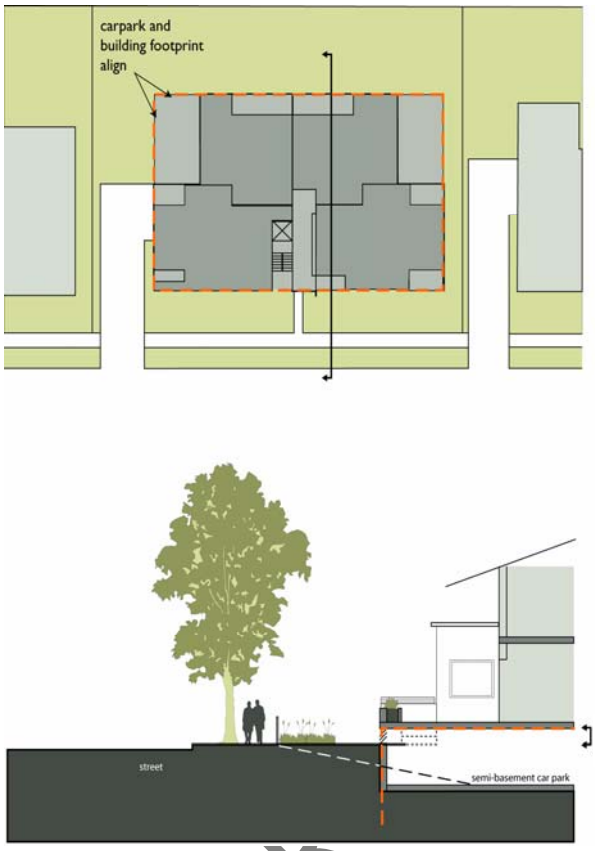
Controls

a. Basement carparking cannot extend more than 1m above ground where it faces a public street or public space, 1.5m above ground level can be achieved to the side and the rear of the lot where it does not face a public street or public space.

b. A ramp entering off a public street must start behind the boundary. Ramps cannot be located on public land.

c. Ramps are to be minimised in width.

d. The walls of basement carparks are best located in line with the buildings footprint. Basement carparking is not to extend outside the external line of terraces, balconies and porches.

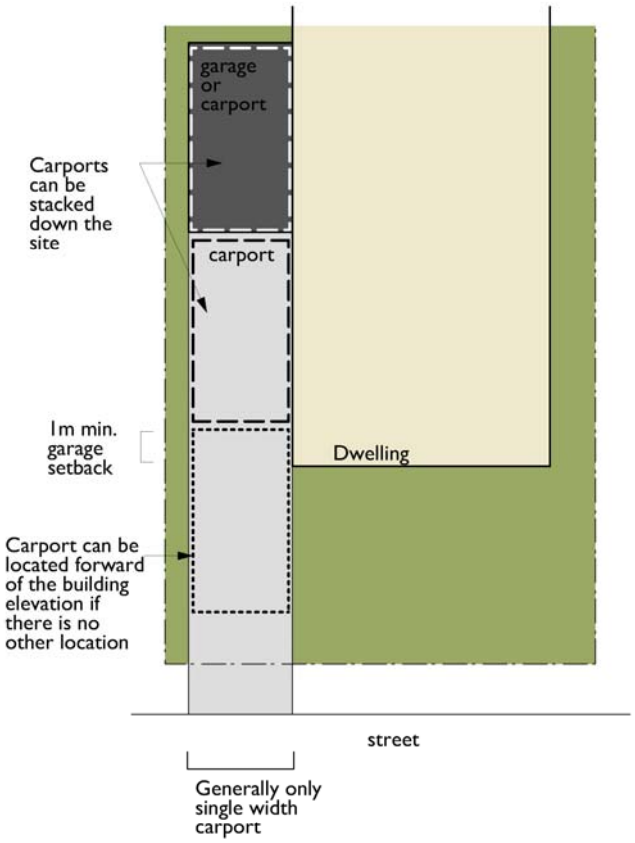


The maximum extent of basement car parking is the outermost edge of the building footprint.

Garages and Carports

Controls

a. The design and materials used for garages must be in keeping with the main dwelling.
b. Shop-top on-grade carparking cannot be located closer than 6m from the street boundary. On-grade carparking can be located on a laneway boundary.
c. For Residential Flat buildings garage doors and entries to basement carparks along the street cannot be more than 7m wide or 50% of the lot width whichever is the lesser.
d. Laneways may have up to 75% of their frontage as garage doors.
e. For Shop-top housing and Shop-top Residential Flat buildings garage doors along the street are to be located either in line with the buildings street elevation or at least 1m behind the buildings street elevation.
f. Where a development has a carport refer to the Carport Controls in Part B – Dual Occupancy Houses, Granny Flats, Town Houses and Row Houses.
g. A pedestrian access way from the laneway is encouraged.



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

DESIGN CONTROL 5 – Building Footprint and Attics, Orientation and Separation

Building Footprint and Attics

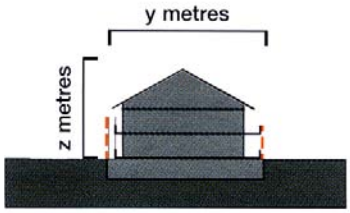
A building footprint is a two dimensional area that sets the extent of a building in relation to the site boundaries. It defines the width and depth of the overall buildable area within which a future building can be located.

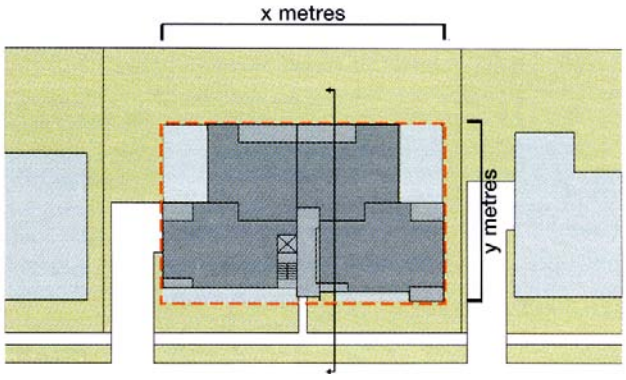
The building footprint sets the appropriate location and alignment of future development in relation to the street layout, block and lot size in a particular location. Building footprint is used to control residential amenity in terms of light, ventilation, privacy, outlook, security and consolidated 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 of buildings. An attic is a space that is contained within a pitched roof of a building. Attic rooms 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

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.

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.

Controls

a. For buildings that only have daylight access to two and opposite sides of the building the back wall of a room cannot be greater than 10 metres from a window.
b. Attic spaces cannot be more than 50% of the building footprint.
c. The majority of the volume of an attic is to be contained within the roof space.

Building Orientation

Building orientation is a term used to describe the primary aspect of the building or the walls 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 important in ensuring privacy and outlook for new dwellings and to protect the amenity of neighbouring dwellings. 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.

Orientation is a key aspect in ensuring that new development respects and responds to the streetscape.

By locating the primary windows of living areas facing the street boundary and/or the rear boundary this allows the side boundaries to have mainly the 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 more 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.

Where it is not desirable to have living spaces facing the street boundary, bedrooms can be located to the front instead. Where this occurs the main entry must still be facing the street and must remain clearly visible.

Objectives

- *To easily achieving setback distances for privacy and outlook.*
- *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. Ensure that the pedestrian entry to the development is clearly visible and accessible from the street.
c. Where possible orientate bathroom, laundry and other ancillary room windows to the side boundaries.
d. Where possible orient the primary windows of living rooms to the front or the rear of lots.
e. Orient living areas to employ passive solar design principles.

Calculation rules

Address refers to the dwelling presenting an attractive elevation to the public domain; this generally includes windows of habitable rooms and the front door to the dwelling.
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 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.

In established residential areas many 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 can to be oriented to the front and rear of the site.

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

Building Separation

Achieving adequate separation between buildings and shared 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 livability of the dwelling by providing useable outdoor space generally associated to living space with the dwelling.

Objectives

- *To maintain privacy between dwellings.*

Controls

a. Three storey buildings require a 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.

b. Two storey buildings require an 8m 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.

c. 6m minimum separation distance between primary windows/doors (on any level of the building) of living rooms to windows other than the primary windows of living rooms.

d. 4m min separation between walls containing primary windows/doors of living rooms (on any level of the building) the side boundaries.

e. 4m minimum separation between the primary windows of living rooms (on any level of the building) and walls containing no windows.

f. 4m minimum separation between walls containing primary windows/doors of living rooms (on any level of the building) to shared driveways.

g. 4m minimum separations between walls containing primary windows/doors of living (on any level of the building) to carports and garages.

h. 3m minimum separation between walls containing primary windows/doors sleeping rooms (on the ground level only) to shared driveways, carports and garages.

i. 2m min separation distance between the windows/doors of non-habitable rooms (on any level of the building). This distance can be measured diagonally.

Calculation rules

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

Separation distance is measured at 90 degrees to the wall.

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 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.

DESIGN CONTROL 6 – Height

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.

The height controls are intended to work with existing buildings in the street. 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 design new development appropriate to the existing building scale in the street and the local area.*
- *To ensure new development maintains an appropriate residential character.*

Controls

a. 13.6m is the maximum overall building height for Shop-top Housing and Shop-top Residential Flat Buildings.
b. 11m is the maximum wall plate height for Shop-top Housing and Shop-top Residential Flat Buildings.
c. 12.2m is the maximum overall height building height for Residential Flat Buildings.
d. 9.6m is the maximum wall plate height for Residential Flat Buildings.
e. 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.
f. Carports maximum height 3.5m for a flat roof and 4.5m for a pitched roof.

Calculation rules

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

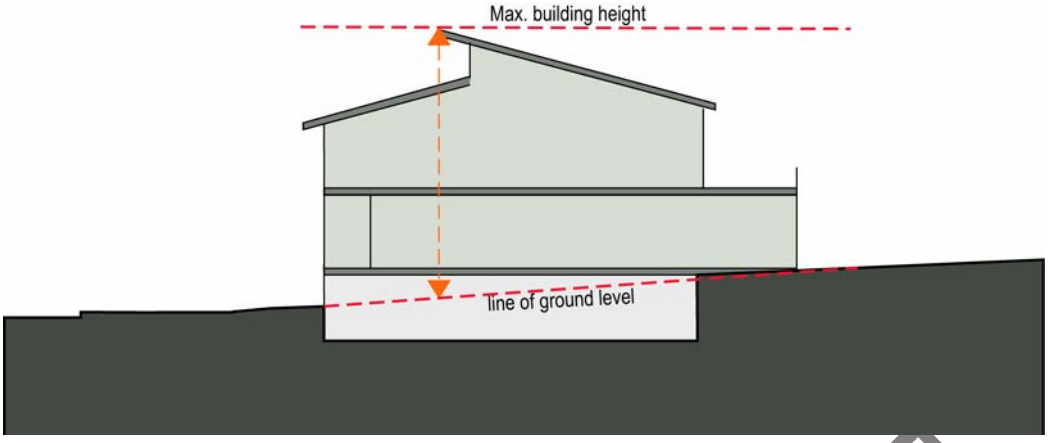
Overall building height is the vertical distance between finished ground level at any point to the highest point of the building, including plant and lift overruns, but excluding communications devices, antennae, satellite dishes, masts, flagpoles, chimneys flues and the like. The measurement of overall 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.

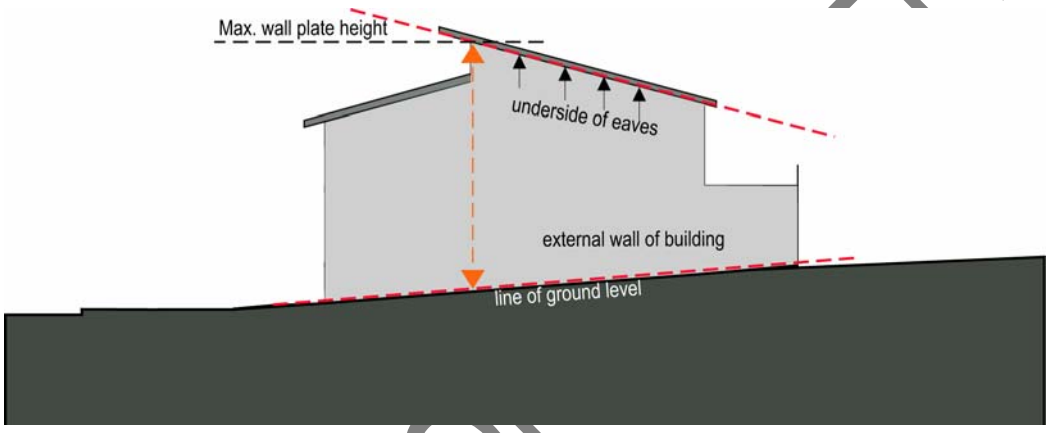
The definition of storey is found in the Tweed LEP

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.

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. Provide minimum ceiling heights of 2.7m min. finished floor level to finished ceiling level for habitable rooms. For habitable rooms with a raking ceiling at least 30% of the ceiling is to be at 2.7m high.

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.

DESIGN CONTROL 7 – 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; sunlight access, visual privacy, acoustic privacy, view sharing, and natural ventilation.

Sunlight Access

The use of passive solar design in dwellings is encouraged. Tweed has a temperate sub-tropical climate and well designed houses in Tweed should only require a limited amount of heating and cooling. The heat load resulting from direct solar penetration into buildings during the hotter months can be a major problem, and so it is important that dwellings are designed to optimise the benefits of sunlight, whilst minimising its negative effects.

The orientation of the allotment, the immediate subdivision pattern and the local topography, have a significant impact on the ability to provide solar access. Sites on the southern side of a hill, for example, may not receive the same level of sunlight access as other sites. On allotments where the side boundary has a northerly aspect, consideration should be given to increasing the side setback to improve sunlight access and to prevent overshadowing by future development on neighbouring allotments.

It is also important when designing new buildings to consider the impact of the new development on the solar access of the neighbour. In some instances, overshadowing may be unavoidable; however unreasonable overshadowing of neighbours as a result of poor design is not acceptable.

Ideally, solar access should be maximised in winter and minimised in summer. A northerly aspect is most desirable as it provides the most solar access in winter and is relatively easy to shade in summer. A westerly aspect is least desirable, particularly in summer. Protection for a westerly aspect can be achieved by using such elements as vertical sun shading devices, blinds and deciduous trees.

Daylight consists of both diffuse light and direct light. Good levels of daylight in a dwelling improve amenity and reduce the need for artificial lighting. Good levels of daylight can be achieved through the careful consideration of window size, location and proportion.

Objectives

- *To maximise sunlight and daylight access.*
- *To ensure that sunlight access of neighbouring dwellings and neighbouring private open space is minimised.*
- *To encourage the use of passive solar design.*

Controls

a. Living spaces are to be located predominantly to the north where the orientation of the allotment makes this possible.

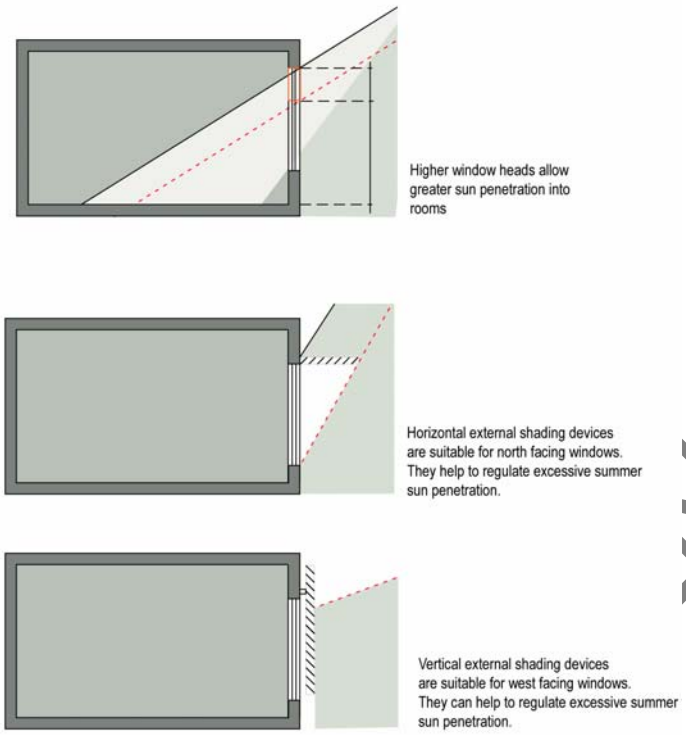
b. Dwellings on allotments which have a side boundary with a northerly aspect are to be designed to maximise sunlight access to internal living areas by increasing the setback of these areas. In these cases a minimum side setback of 4 metres is required.

c. Private open space of the subject dwelling is to receive at least two hours sunlight between 9am and 3pm on June 21.

d. Windows to north-facing habitable rooms of the subject dwelling are to receive at least 3 hours of sunlight between 9am and 3pm on 21 June over a portion of their surface.

e. For neighbouring properties ensure:
   - sunlight to at least 50% of the principal area of private open space of adjacent properties is not reduced to less than 2 hours between 9am and 3pm on June 21, and
   - windows to living areas must receive at least 3 hours of sunlight between 9am and 3pm on 21 June.

f. Where existing overshadowing by buildings is greater than this, sunlight is not to be further reduced by more than 20%.



Visual Privacy

Visual privacy allows residents to carry out private activities within all rooms and private open spaces without compromising the functioning of internal and external spaces. Visual privacy is determined by the nature of adjacent developments, site configuration, topography, the scale of the development, and the layout of individual dwellings.

Living rooms should be located to the front and rear elevations where privacy and outlook are more easily achieved. Locating the majority of windows facing towards the street and the rear boundaries means that the windows of ancillary rooms will face the side boundaries. This allows the building to be located closer to the side boundaries as there a fewer privacy impacts.

It is not necessary to provide the same degree of privacy protection to all parts of a neighbouring site. Higher levels of privacy are to be provided to both internal living areas and to the external living area. Overlooking from bedroom windows is less of a concern than overlooking from the windows of other habitable rooms.

Terraces and balconies from living rooms located above ground level can have a significant impact on the amenity of neighbours with regard to loss of visual privacy and increase in noise levels.

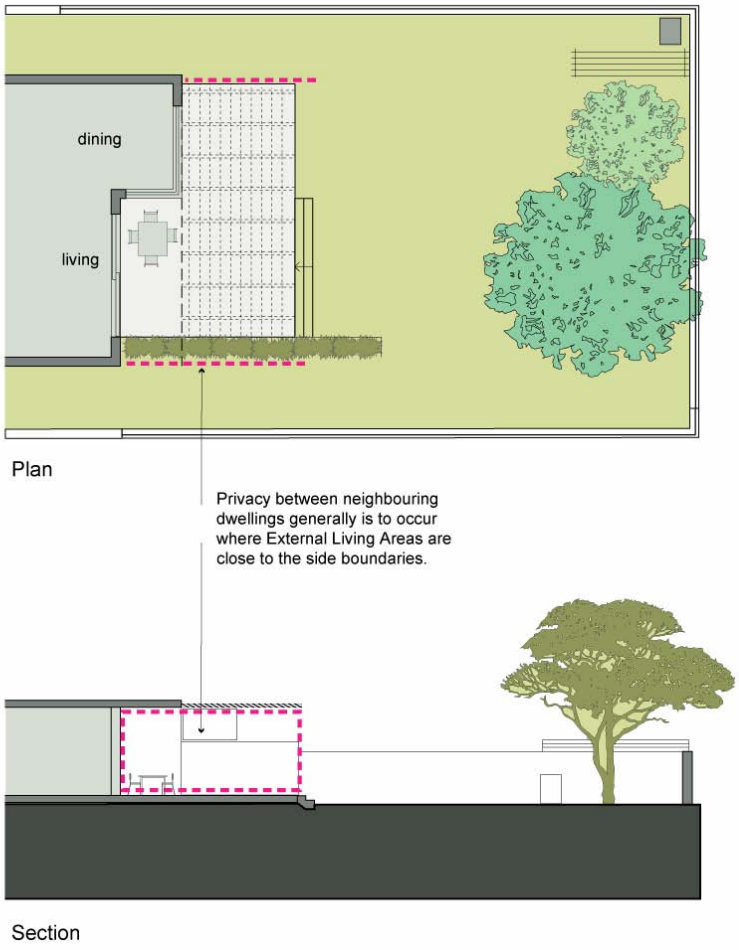
Objectives

- *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.*
- *To provide a level of surveillance over the street.*
- *To minimise overlooking of neighbouring dwellings.*

Controls

a. a. Terraces and balconies off living areas are generally not to be located above ground floor if they overlook neighbours.

b. Living room and kitchen windows, terraces and balconies are avoid a direct view into neighbouring dwellings or neighbouring private open space.
c. Side windows are to be offset by distances sufficient to avoid direct visual connection.
d. windows of the subject dwelling and those of the neighbouring dwelling.



External Living areas requiring screening for privacy when located close to the side boundaries.

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 and the location of living areas and above ground external areas such as terraces.

The proximity of the building to major external noise sources such as busy roads is also a major consideration.

Setbacks, separation between dwellings, and the appropriate location of external living areas, provide 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, air conditioners, pumps, and other mechanical equipment.*

Controls

a. The noise of an air conditioner, pump, or other mechanical equipment must not exceed the background noise level by more than 5dB(A) when measured in or on any premises in the vicinity of the item. This may require the item to have a sound proofed enclosure.

b. Dwellings located on designated or classified roads are to have double glazed windows where these windows face the road and provide light to living rooms or bedrooms. This is the case whether or not the dwelling has a solid masonry wall to the arterial road.

c. Dwellings located on arterial roads are to have an acoustic seal on the front door to reduce noise transmission.

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 living areas and 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.

Natural Ventilation

Natural ventilation is the circulation of sufficient volumes of fresh air through dwellings 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.

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 encourage natural ventilation in non-habitable rooms.*
- *To reduce energy consumption by minimising the use of mechanical ventilation.*

Controls

a. All dwellings are to have operable windows to habitable rooms.

b. Non habitable rooms including kitchen, bathroom & laundry are encouraged to have operable windows.

c. The plan layout, including the placement of openings, is to be designed to optimise access to prevailing breezes and to provide for cross-ventilation.

DESIGN CONTROL 8 – Internal Building Configuration

Use

It is expected that the building types covered in this Part 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 Part.

For all the building types covered in this Part the site, building and dwelling design requirements are identical and interchangeable between residential and tourist accommodation uses.

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

Objectives

- *To provide a high standard of accommodation for both short and long term residents.*

Controls

a. Permanent and temporary accommodation uses are interchangeable throughout all building types covered in this Part.

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. The back of the kitchen should be no more than 10m from a window.

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.

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:

- studio	3m3
- one-bedroom	3m3
- two-bedroom	4m3
- three plus bedroom	5m3

b. The above minimum storage areas shall be excluded from dwelling size calculations.

c. Locate storage conveniently for dwellings.

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. Increase amenity and safety in circulation spaces by;
c. providing generous corridor widths (preferred min. 2.5m) and ceiling heights (preferred min. 2.7m), particularly in lobbies, outside lifts and apartment entry doors,
d. providing appropriate levels of lighting, including the use of natural daylight,
e. minimising corridor lengths to give short clear sight lines.

DESIGN CONTROL 9 - External building elements

External building design elements include;

- fences and walls,
- roofs, dormer windows and skylights
- elevations visible from the public domain,
- awnings, canopies, pergolas, storm blinds, sails and signage,
- minor elements.

These external building elements are highly visible from the street and as such 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 contribute to a consistent built character along the street.

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

a. Front and return fences are to reflect the design of the dwelling.
b. Front and return fences and walls are to be constructed of materials compatible with the house and with other fences and walls within the streetscape.
c. Return fences are to be the same height and design as front fences.
d. Front and return fences can be up to maximum height of 1.5m high with a maximum solid fence height of 600mm, above the solid wall the fence is to have a min. openness ratio of 60%.
e. Front and return fences may be solid up to 1.5m if located on an arterial road.
f. No Colorbond or timber paling for front or return fences, except were integrated into a design theme that is consistent with the character of the dwelling and streetscape and incorporates appropriate articulation to allow for landscaping.
g. Fences and walls are not to impede the natural flow of stormwater runoff.
h. If located in a bushfire prone area fences and walls are to comply with AS3959 and Planning for Bush Fire Protection 2006, as amended from time to time.
i. A solid front wall may be higher than 0.9m 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.

j. Fencing is not to obstruct water meter reading.

Side and Rear Fences

Controls

a. Side fences are measured from behind the building line to the rear boundary. Maximum fence height of 2.0 metres.

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 3.6m and shall be a min. off the side boundaries of 600m and off any front boundary by 1m.

d. Fences and walls are not to impede the natural flow of stormwater runoff.

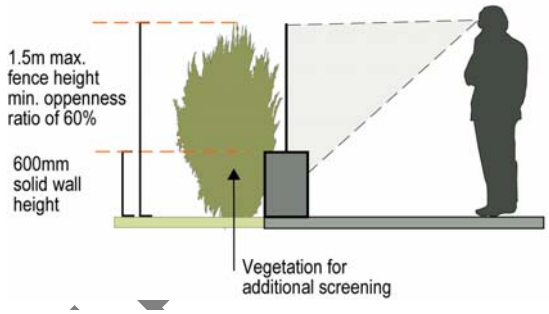
e. Controls for front fences and walls also apply to secondary street frontages on corner lots measured for the length of the dwelling.

Fences and walls for Greenbank Island

f. Approval is to be obtained from Council prior to the erection of any fencing on Greenbank Island.

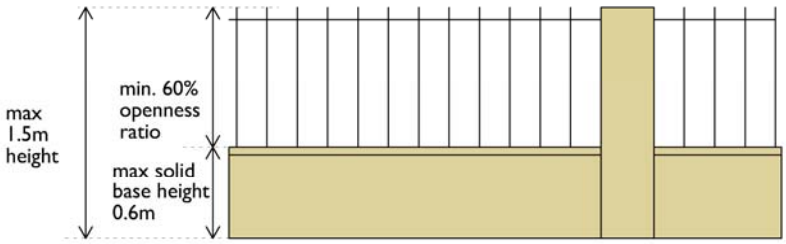
g. Fencing behind the six (6) metre building line shall not exceed 2000mm in height.

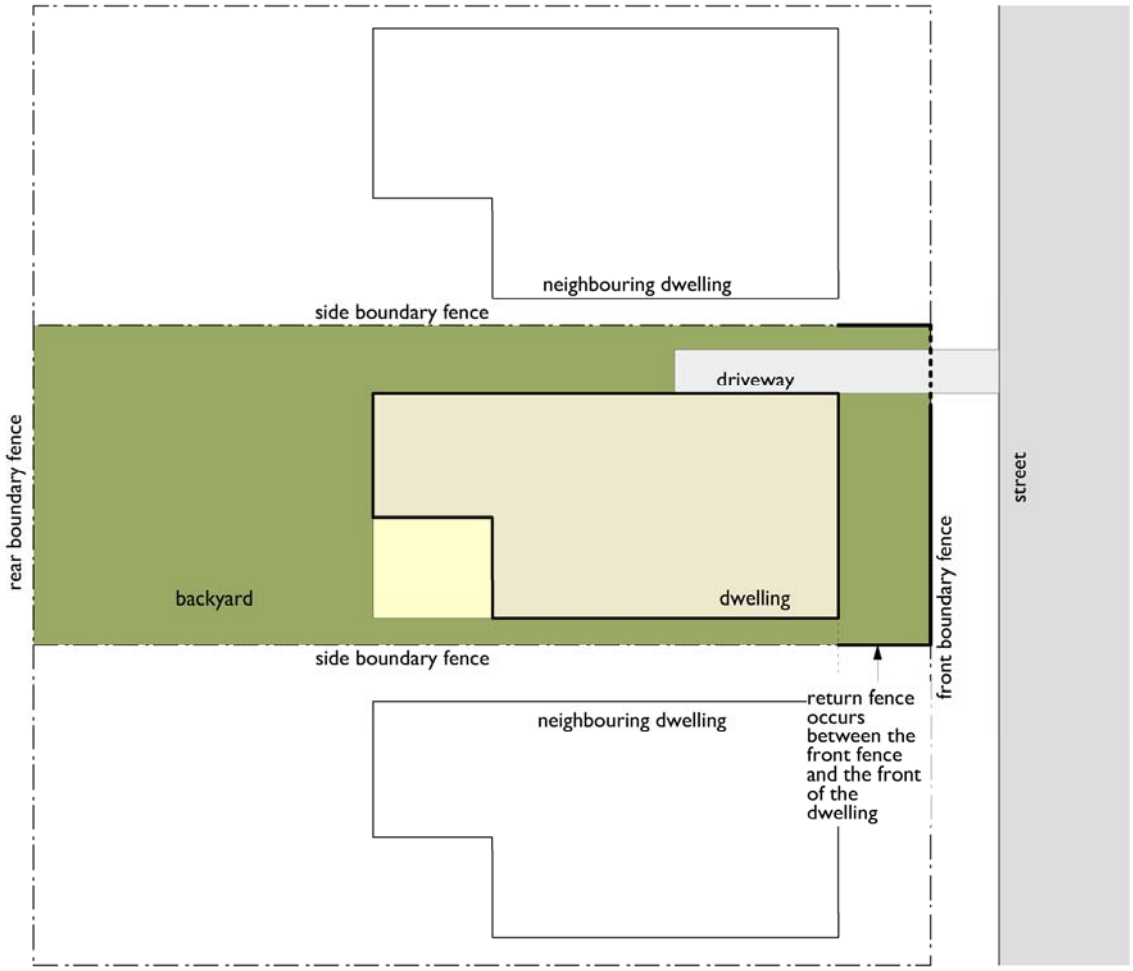
h. The fencing is to be constructed of brick, stone, masonry block or such other material as is approved by Council.



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.


max
1.5m
height
min. 60%
openness
ratio
max solid
base height
0.6m


neighbouring dwelling
side boundary fence
driveway
rear boundary fence
backyard
dwelling
street
front boundary fence
side boundary fence
neighbouring dwelling
return fence
occurs
between the
front fence
and the front
of the
dwelling

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.

Roofs, Dormers and Skylights

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,
   - using a compatible roof form, slope, material and colour to adjacent buildings; and
   - ensuring the roof height is in proportion to the wall height of the building.

b. The main roof is not to be a trafficable terrace.

c. Skylights are:
   - 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.

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's elevations 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 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. 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.
b. Use proportions, materials, windows and doors types that are residential in type and scale.
c. Design elevations to reflect the orientation of the site using elements such as sun shading, light shelves and bay windows as environmental controls.
d. Coordinate and integrate building services, such as drainage pipes, with overall elevation and balcony design.
e. Coordinate grills/screens, ventilation louvres, carpark entry doors with the elevation.
f. Integrate the design of garage entries with the building elevation design.

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.

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.

Awnings, Canopies, Pergolas, Storm Blinds, Sails and Signage

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 livability of dwellings. Operable blinds such as louvers can greatly improve the privacy and thermal efficiently 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.

Residential components of the building

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.

e. Awnings, canopies and storm blinds are to be wholly within the lot boundaries at least 900mm from the site boundaries.

f. Must observe and maintain existing building line setbacks.

g. If erected in a bushfire prone area, they are to comply with the requirements of AS3959 and Planning for Bushfire Protection 2006.

h. Pergolas must not be located closer to a boundary than 900mm.

i. 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.

Minor Elements

Minor structures include those building elements that are associated with the use of the dwelling for residential purposes. Minor structures include; air Conditioning units, aerials, antennae, microwave antennae and satellite dishes, barbeque areas, aviaries, clothes hoists/lines, flagpoles, letter boxes and outdoor security lighting.

Controls

a. Air Conditioning Units
   - Noise levels from air conditioning units are not to exceed 5dB(A) above ambient background noise levels measured at the property boundary.
   - Air conditioning unit installation must not reduce the structural integrity of the building.
   - Openings created by the installation of air conditioning units must be adequately weatherproofed.
   - Air conditioning units are not to be visible from streets.

b. Aerials, antennae, microwave antennae are to be:
   - for domestic use only,
   - a maximum of one per single dwelling house,

c. Ground mounted satellite dishes are to be:
   - a maximum height of 2.4 metres,
   - 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.

d. Roof Mounted satellite dishes are to be:
   - suitably coloured to blend in with the building,
   - structurally stable,
   - one per dwelling house on lots less than 5,000 square metres,
   - No higher than the ridge line

e. Barbeque areas are to be:
- used for domestic purposes only,
- 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.

f. Aviaries are to be:
- used for domestic purposes only,
- located no closer than 10 metres from a dwelling house on any adjoining property,
- located in the rear yard and not closer than 900mm to an adjoining property boundary measured to any part of the building,
- structurally sound.

f. 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 they are to be screened from view from all dwellings and the street.

g. Flagpoles are to be:
- structurally sound,
- wholly within the property boundary.

h. Letterboxes:
- are to be a maximum height of 1.2m above the ground,

- are to have street numbering corresponding with that allocated to the dwelling,
- are to be structurally sound,
- are to be designed as part of the building and its landscaping using similar materials and finishes,
- in multi-dwelling developments letterboxes must be located on common property; be contained in one structure, contain sufficient boxes, on for each dwelling, including one for the body corporate.

i. 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.

DESIGN CONTROL 10 – Building Performance

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. Developments are to obtain BASIX certification where required.

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,*
- *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,*
- *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.*

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 Demolition work plan in accordance with the provisions of AS2601 and Councils work plan requirements.

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.
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

Water Conservation

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 where required and comply with the relevant requirements of the Building Code of Australia.

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.

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

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

Design Guidelines

Design windows to enable cleaning from inside the building, where possible.

Select manually operated systems, such as blinds, sunshades, pergolas and curtains in preference to mechanical systems.

Incorporate and integrate building maintenance systems into the design of the building form, roof and facade.

Select durable materials, which are easily cleaned.

Select appropriate landscape elements and vegetation and provide appropriate irrigation systems.

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

Design Control 11 – 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.*

Controls

a. Shop-top housing and Shop-top Residential Flat Buildings 2:1 maximum FSR.

b. Residential Flat Buildings is 1.2:1 maximum FSR.

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:

- *basements projecting more than 1m above finished ground level,*
- *storage areas,*
- *vehicular access, , garbage and services,*
- *areas used exclusively for mechanical services or ducting,*
- *car parking to meet any requirements of the consent authority (including access to that car parking),*
- *external living areas, terraces and balconies with outer walls less than 1.4 metres high,*