Division 3—Traditional Neighbourhood Design Code

12.3.1 Traditional Neighbourhood Design Code

(1) The provisions in this division comprise the Traditional Neighbourhood Design Code. They are—

- compliance with the Traditional Neighbourhood Design Code (section 12.3.2);
- overall outcomes for the Traditional Neighbourhood Design Code (section 12.3.3);
- specific outcomes, probable solutions and acceptable solutions as follows—
  - effects of development – reconfiguration (section 12.3.4);
  - effects of development – built form (section 12.3.5);
  - effects of development – parking (section 12.3.6).

(2) Definitions

For the purposes of this Code the following terms have the meaning as set out below—

(a) "Auxiliary Unit"

(i) "Auxiliary Unit" means a building or part of a building used as a secondary residence not exceeding 65m² gross floor area which is attached to or associated with a dwelling on the same lot.

(ii) The term does not include "Dual Occupancy", "Institutional Residential" or "Temporary Accommodation".

(b) "Built Form"

(i) "Built Form" is the relationship between buildings and the public realm, the form and scale of buildings in relation to one another and the types and layout of streets and allotments.

(ii) Built Form comprises the following residential building types:—

(A) Estate House, described in Section 12.3.5(1);

(B) Traditional Lot Detached House, described in Section 12.3.5(1);

(C) Small Lot House, described in Section 12.3.5(1);

(D) Multiple Residential, described in Section 12.3.5(1);

(iii) Built Form comprises the Live Work building type, described in Section 12.3.5(1);

NOTE 12.3.1 A

(1) The Live Work building type relates to the Mixed Residential and Commercial (Small Scale) Use.

(iv) Built Form comprises the following residential, business and commercial building types:—

(A) Commercial / Mix Use, described in Section 12.3.5(1); and

(B) Large Format Commercial, described in Section 12.3.5(1).

(c) "Dual Occupancy"

(i) "Dual Occupancy" means the residential use of premises if there are two dwellings on any one lot where both dwellings exceed 65m² gross floor area.

(ii) The term does not include "Auxiliary Unit".

(d) "Dwelling"

(i) "Dwelling" means a building or part of a building used as a self contained residence which must include—

(A) food preparation facilities;

(B) bath or shower; and

(C) closet pan and wash basin.

(ii) It may include an Auxiliary Unit, out-building and works normally associated to a dwelling.

(e) "Front Façade"

(i) "Front Façade" is the front wall of the building facing a public right of way excluding verandahs, balconies and the like;

(ii) A building may have more than one (1) 'front façade'.

(f) "Greenfield Area(s)"

(i) "Greenfield Area(s)" are undeveloped parcels of land generally within the Future Urban zone which generally do not have access to trunk infrastructure.

(g) "Greenfield Reconfiguration"

(i) "Greenfield Reconfiguration" is the reconfiguration of land generally within the Future Urban zone.

(h) "Infill Reconfiguration"

(i) "Infill Reconfiguration" is the reconfiguration of vacant or underutilised parcels of land which are bordered on at least one side by existing urban settlement pattern and have access to or can provide access to existing trunk infrastructure.

(i) "Interim Uses"

(i) "Interim Uses" means those uses which occur before the establishment of an urban settlement pattern.

(ii) Such uses are generally low intensity or rural in nature and do not preclude the establishment of the preferred urban form.

(j) "Liner Building"

(i) A "Liner Building" is a Multiple Residential or Mixed Residential and Commercial (Large or Small scale) where used to screen a Large Format Commercial Building.

(k) "Management Lot"

(i) A "Management Lot" is a lot created prior to the adoption of a Neighbourhood Master Plan for future development purposes.

(ii) The "Management Lot" is generally created in a Greenfield area to enable the consolidation of land that has future development potential.

(ii) The "Management Lot" does not give rise to additional development potential until such time as a Neighbourhood Master Plan has been adopted.

(l) "Management Reconfiguration"

(i) "Management Reconfiguration" is the reconfiguration of land to create a "Management Lot".

(m) "Mixed Residential and Commercial (Large Scale)"

(i) "Mixed Residential and Commercial (Large Scale)" means the use of premises for a mixed use development involving any "Business Use" or "General Store" and "Multiple Residential" (i.e. three or more dwellings).

(n) "Mixed Residential and Commercial (Small Scale)"

(i) "Mixed Residential and Commercial (Small Scale)" means the use of premises for a mixed use development involving any "Business Use" or "General Store" on the lower levels of a building and involving no more than two dwellings, where the business use or general store may be independent of the residential use".

NOTE 12.3.1 B

The Mixed Residential and Commercial (Small Scale) use is associated with the Live Work building type in accordance with the Traditional Neighbourhood Design Code.

(o) "Multistage Development"

(i) The term is only used in conjunction with the Mixed Residential and Commercial (large scale) and Large Format Commercial Building (described in s 12.3.5 (1)).

(ii) "Multistage Development" is a development that proposes to meet the intensity of development through a series of staged developments.

(p) "Neighbourhood Master Plan"

(i) "Neighbourhood Master Plan" means a master plan approved under section 2.5B.42 of the *Integrated Planning Act (IPA) 1997* and section 151 of the *Sustainable Planning Act (SPA) 2009*.

(q) "Neighbourhood Sector Plan"

(i) "Neighbourhood Sector Plan" provides a lot layout over super block(s), including proposed lot types, for all land within its bounds demonstrating compliance with the Transect and Traditional Neighbourhood Design principles.

(r) "Primary Frontage"

A frontage from which primary pedestrian access to the premises is gained and to which a Front Façade of a building faces.

(s) "Secondary Frontage"

A frontage which is not a Primary Frontage.

(t) "Single Residential"

(i) "Single Residential" means the residential use of premises if there is one dwelling located on its own lot.

(ii) The term includes an "Auxiliary Unit", the keeping of domestic pets and Family Day Care.

(u) "Super Block"

(i) A "Super Block" is a lot designed for future reconfiguration and is either conceptually or physically bounded by roads or natural features in a Neighbourhood Master Plan.

(v) "Urban Reconfigurations" –

(a) comprise –

(i) residential;

(ii) mixed residential and commercial (small and large);

(iii) commercial;

(v) super blocks; and

(b) are categorised as either a -

(i) Greenfield reconfiguration where a Neighbourhood Sector Plan is identified in a Neighbourhood Master Plan; or

(ii) Infill reconfiguration.

(c) comprise the following lot types –

(i) Super Block;

(ii) Estate Lot;

(iii) Traditional Detached Lot ;

(iv) Small Lot;

(v) Multiple Residential Lot;

(vi) Live Work Lot;

(vii) Commercial / Mix Use Lot; and

(viii) Large Format Commercial Lot.

(w) "Urban Uses"

(i) "Urban Uses" means those uses which form part of an urban settlement pattern.

(ii) Such uses include—

(A) residential uses, inclusive of large lot detached house, small lot house, and traditional lots, Mixed Residential and Commercial (large scale) and Mixed Residential and Commercial (small scale)", dual occupancies and multiple residential uses; and

(B) non-residential uses which service and support residential uses, including commercial and industrial uses, recreation and entertainment uses and community uses.

12.3.2 Compliance with the Traditional Neighbourhood Design Code

(1) Development that in the local government's opinion is consistent with the overall outcomes in section 12.3.3 and—

(a) for Reconfiguring a Lot, the specific outcomes in section 12.3.4;

(b) for Material Change of Use, the specific outcomes in sections 12.3.5 Effects of Development – Built Form and 12.3.6 Parking;

complies with the Traditional Neighbourhood Design Code.

(2) Where any provision of any cited technical documentation (e.g. Queensland Urban Drainage Manual, etc) does not accord with this code, the provisions of this code take precedence.

NOTE 12.3.2 A

(1) The Traditional Neighbourhood Design Code is a form-based code and accordingly, its provisions are designed to ensure that development will achieve a specific desired urban form.

(2) The code provides for the creation of a predictable urban environment through stipulating the physical form and intensity of development in accordance with Traditional Neighbourhood Design and Transect Based Planning principles.

(3) In this way, the code controls the visual outcomes shaping the experiences for residents and visitors, supporting the creation of a sense of place.

(4) It differs from codes associated with conventional suburban development in that it is primarily concerned with built form outcomes rather than the management and segregation of land uses.

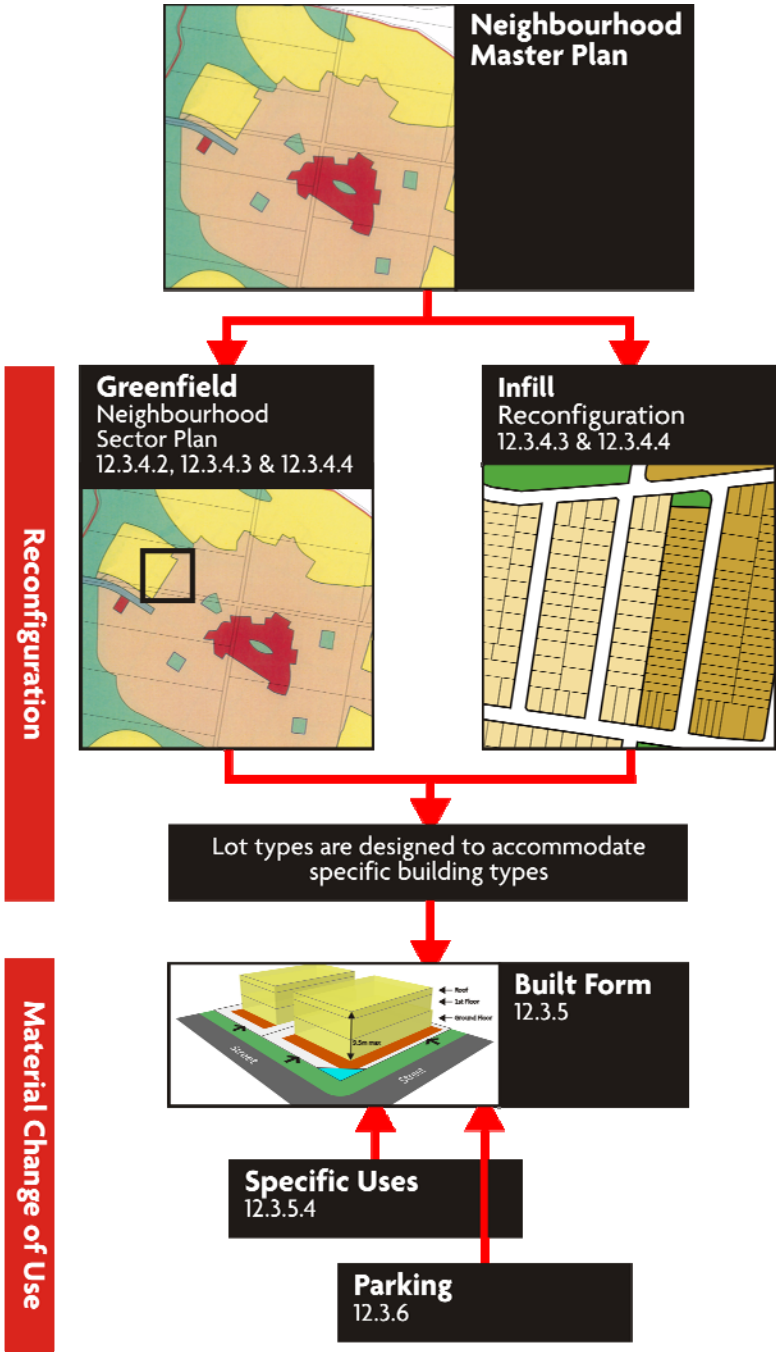
(5) Key matters addressed by the code are the relationship between buildings and the public realm, the form and scale of buildings in relation to one another and the types and layout of streets and allotments.

(6) The application of Traditional Neighbourhood Design and Transect Based Planning principles within this code has been calibrated to reflect Ipswich conditions and to achieve localised built form outcomes.

(7) To be implemented correctly, the code relies on a Neighbourhood Master Plan having being adopted by Council in relation to any site to be developed in accordance with Traditional Neighbourhood Design principles.

(8) Figure 12.3.2.1 is a flow diagram of the process of development for Reconfiguring a Lot and Material Change of Use.

Figure 12.3.2.1 - Process of Development for Reconfiguring a Lot and Material Change of Use



12.3.3 Overall Outcomes for the Traditional Neighbourhood Design Code

(1) The overall outcomes are the purpose of the Traditional Neighbourhood Design Code.

> NOTE 12.3.3 A
>
> Sub-section (1) provides the link between the overall outcomes sought for the code and the SPA code assessment rules which refer to the 'purpose' of the code [see SPA s 313].

(2) The overall outcomes sought for the Traditional Neighbourhood Design Code are the following—

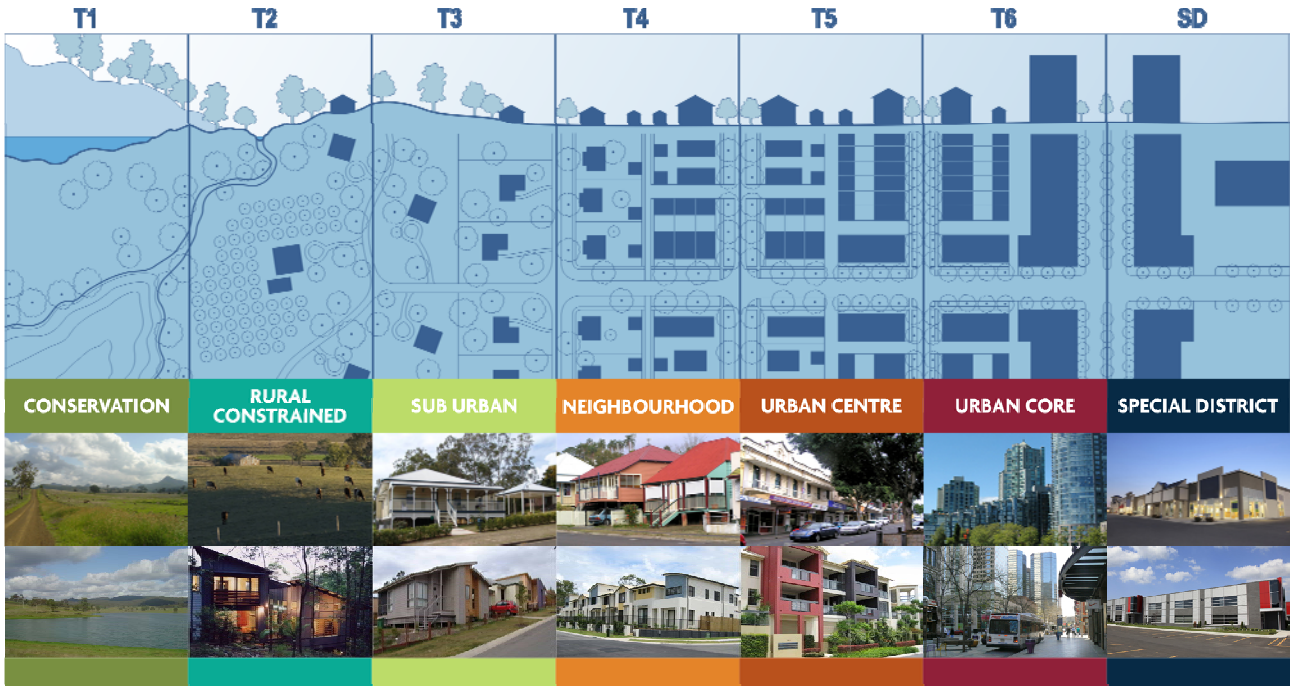
(a) A Neighbourhood Master Plan for the subject area is prepared and adopted by Council before the Traditional Neighbourhood Design Code is applied.

> NOTE 12.3.3 B
>
> (1) A Neighbourhood Master Plan is required before the application of the Traditional Neighbourhood Design Code and must meet the outcomes in Part 15, Division 4, clauses (8), (9) and (10).
>
> (2) The T-zone and Zoning boundaries are depicted in two ways on the Neighbourhood Master Plan:
>
> (a) unbroken lines – representing committed T-zone and Zone boundaries; and
>
> (b) broken lines – indicative T-zone and Zone boundaries, subject to further detailed assessment as part of either a Neighbourhood Sector Plan or Reconfiguration of a Lot application.

(b) Development is designed and constructed in accordance with the Transect based planning principles that spatially define the neighbourhood, see Figure 12.3.3.1.

> NOTE 12.3.3 C
>
> (1) The Transect is a system of classification deploying the conceptual range from rural to urban to arrange in useful order the typical elements of urbanism.
>
> (2) The Transect is an ordering system that ensures every urban element finds a place within its continuum.
>
> (3) The Transect is illustrated on Figure 12.3.3.1.
>
> (4) Spatial Definition is the way in which buildings relate to adjoining buildings and the street and their place within the neighbourhood.
>
> (5) Spatial Definition is created where building facades or other elements such as street trees are aligned in a consistent manner to achieve a height to width ratio and sense of enclosure (see Figure 12.3.3.1).
>
> (6) Buildings and frontage treatments are designed to—
>
> (a) create a spatial definition which reflects their location within the transect; and
>
> (b) contribute to the character of the neighbourhood unit in which the building is proposed.
>
> (7) For example—
>
> (a) buildings at the centre of a neighbourhood are placed close to the footpath and to each other, creating a tighter ratio and therefore an urban spatial definition; whereas
>
> (b) buildings at the edges of a neighbourhood are positioned further away from the footpath and further apart from each other, creating a broader ratio and therefore a sub-urban spatial definition.

Figure 12.3.3.1: The Transect



(c) Development is consistent with Traditional Neighbourhood Design principles through being designed and located to—

(i) create a discernable centre for the neighbourhood to promote community identity and a 'sense of place';

(ii) position dwellings within walking distance from the centre of the neighbourhood;

(iii) position dwellings within walking distance from open space and encourage pedestrian connectivity throughout neighbourhoods;

(vi) encourage the use of public transport, walking and cycling;

(v) provide for Auxiliary Units to attached and detached dwellings;

(vi) offer a variety of dwelling types to accommodate a range of people with different lifecycle and lifestyle needs;

(vii) position buildings in relation to the street and to other buildings at a scale commensurate with the intent of the T-zone or Zone in which the development is proposed;

(viii) provide local employment opportunities and support the daily needs of households with commercial activities of a type and scale commensurate with the intent of the T-zone or Zone in which the development is proposed.

NOTE 12.3.3 D

(1) Traditional neighbourhoods are pedestrian friendly communities:—

(a) serviced by mixed use centres;

(b) connected through a network of through streets and laneways;

(c) that have a variety of public spaces and civic facilities that promote self containment; and

(d) that have a discernable community identity and sense of place.

(2) Traditional neighbourhoods have the following features:—

(a) there is a discernable centre, in the form of a park, square, plaza, or green; or a busy or memorable intersection; or a mixed use centre;

(b) a transit stop is located at the centre;

(c) buildings are placed in relation to the footpath and to each other, at a height to width ratio that creates a spatial definition appropriate for the location within the transect;

(d) the majority of the dwellings are within a five-minute walk from the centre;

(e) the pedestrian shed or area people find comfortable to walk, averages 400-600 metres radius from the centre of the neighbourhood;

(f) there are a variety of dwelling types, including detached houses, attached houses and apartments, so that the young and the elderly, singles and families, poor and wealthy, can find suitable places to live;

(g) there are places to work in the form of commercial or live/work building types;

(h) there are shops sufficiently varied to supply the daily needs of households such as a convenience store, cafe and post office;

(i) small Ancillary Units are provided in association with dwelling houses;

(j) playgrounds or parks are located generally not more than 500 metres from every dwelling;

(k) a primary school is located generally not more than 1000 metres from every dwelling; and

(l) good physical connections to adjoining neighbourhoods and external nodes for public transport, pedestrians and cyclists.

Residential, Commercial and Industrial Development

(d) The character, scale and density of development is—

(i) commensurate with the intent of the T-zone or Zone in which the development is proposed;

(ii) compatible with the physical characteristics of the site and its surrounds; and

(iii) consistent with the intent of the adopted Neighbourhood Master Plan and desired character of the local area.

(e) Residential and non-residential uses and works—

(i) create a pleasant, safe and attractive living environment;

(ii) maintain, and where possible enhance, residential amenity both internal and external to the site;

(iii) blend new development into existing streetscapes and neighbourhoods;

(iv) conserve places of cultural significance or streetscape value;

(v) promote greater housing choice with sufficient flexibility to accommodate the diverse housing needs of the community; and

(vi) provide for privacy, day lighting, ventilation and natural climate control.

(f) Commercial and industrial uses and works—

(i) are undertaken in a manner which does not cause a nuisance or disturbance to the occupiers or users of other nearby land, particularly nearby residents and other sensitive receptors;

(ii) are compatible with the physical characteristics of the site where they are located and the character of the local area;

(iii) create a pleasant environment by establishing attractive buildings and landscaped areas adjoining the street frontages of development, railways, watercourses or other major public thoroughfares;

(iv) screen unsightly elements;

(v) provide reasonable buffers between incompatible uses within and between T-zones, Sub Areas or precincts;

(vi) provide for the convenient, safe and efficient movement of vehicles and pedestrians within the site as well as to and from the site;

(vii) maintain a scale and height of development commensurate with the intent of the T-zone, Sub Area or precinct in which the development is located and which is generally compatible with surrounding development and does not adversely affect the operational airspace for RAAF Base Amberley or Archerfield Aerodrome;

(viii) ensure adequate on-site facilities are provided including public toilets, recreation space, child minding facilities and the like, where the size or type of the development warrants this approach;

(ix) conserve places of cultural significance or streetscape value;

(x) provide a safe and secure environment;

(xi) minimise the risk of exposure to harmful elements, or harmful concentrations of elements which may be produced as a result of Commercial and Industrial activities, with a particular emphasis on protection of residential areas situated in close proximity to Commercial and Industrial activities; and

(xii) ensure adequate provision is made for waste storage, treatment and disposal.

(g) Commercial and Industrial uses and works are developed and managed in accordance with acceptable environmental standards.

Reconfiguring a Lot

(h) Reconfigurations of land are carried out generally in accordance with an approved Neighbourhood Master Plan and Sector Plan, and designed to create—

(i) safe, walkable, neighbourhoods that meet the diverse and changing needs of the community;

(ii) allotments that support the establishment of land uses and building types consistent with the overall and specific outcomes of the T-zone or Zone;

(iii) a minimum of 2 building types within each neighbourhood;

(iv) a diversity of services at locations that are highly accessible to all sections of the community based around neighbourhood centres;

(v) opportunities for local employment;

(vi) opportunities for walking and cycling;

(vii) the use of public transport;

(viii) neighbourhood focal points and a diverse range of activities within each commercial centre to promote a 'sense of place';

(ix) a distinctive identity that recognises and where relevant, conserves the natural environment and places of cultural heritage significance; and

(x) ecologically sustainable development.

NOTE 12.3.3 E

A neighbourhood centre can be a plaza, square, park, green, busy or memorable intersection or a mixed use centre. The neighbourhood centre does not need to have a retail or commercial function.

(i) Movement networks are provided for pedestrians and cyclists, vehicles and public transport, that are integrated, cost-effective and environmentally acceptable and which minimise the impact of vehicular traffic on the residential environment.

(j) An efficient grid road system (i.e. for major roads) is provided external to the street network within neighbourhoods.

(k) Grid street networks are created in which the function of each street is clearly identified, providing acceptable levels of access, on-street parking, safety and convenience for all users whilst minimising the impact on the environment and maintaining and enhancing identified conservation values.

(l) Walking and cycling are encouraged by providing safe, convenient and legible movement networks to points of attraction within and beyond the neighbourhood and to nearby centres and employment areas.

(m) Choice in mode of transport and cost-effective and energy-efficient public transport services are provided that are accessible and convenient to the community.

(n) Streets are designed to—

(i) fulfil their intended role within the grid street network consistent with their location within the neighbourhood;

(ii) accommodate public utility services, drainage systems and on-street carparking;

(iii) create acceptable levels of safety and convenience for all street users;

(iv) contribute towards an attractive environment;

(v) avoid configurations of lights in areas within 6km of the RAAF Base Amberley runway that replicate the appearance of airport runways at night; and

(vi) safely accommodate active transport users.

(o) Attractive streetscapes are provided that—

(i) reinforce the location within the transect and neighbourhood;

(ii) enhance the amenity of premises;

(iii) are sensitive to:-

(A) the built form;

(B) landscape and environmental conditions; and

(C) character of the locality; and

(iv) promote safety and security.

(p) An integrated public open space system is provided, where appropriate, that meets user needs for recreational and social activities, amenity and community identity.

(q) Drainage systems are provided which—

(i) adequately protect people and the natural and built environments at an acceptable level of risk and in a cost-effective manner, in terms of initial cost and maintenance; and

(ii) contribute positively to the environmental enhancement of catchment areas.

(r) Stormwater quality management systems are provided which—

(i) ensure that disturbance to natural riparian systems is minimised including the minimisation of erosion and scour resulting from changed water regimes; and

(ii) ensure stormwater discharge to receiving waters, both during construction and in developed catchments, does not degrade the quality of water in the receiving environments.

(s) Residential and commercial areas are adequately serviced with sewerage, water, fire-fighting, electricity, gas, street lighting and communication services in a timely, cost-effective, coordinated and efficient manner that supports sustainable development practices.

(t) A range and mix of lot sizes are provided in the T-zones and Zones to suit a variety of dwelling and household types, and commercial purposes with areas and dimensions that meet user requirements.

(u) For residential development, lots are in keeping with the environmental values of the site (including local and regional biological diversity, where possible) and are oriented where practicable to enable microclimate management, including the application of energy conservation principles.

(v) For commercial development, lots are consistent with the overall and specific outcomes of the respective T-zones.

Parking

(w) Off-street parking areas and loading and unloading facilities are designed, constructed and maintained to—

(i) provide a safe environment for both pedestrians and vehicles;

(ii) reduce traffic congestion by ensuring adequate off street facilities including, adequate vehicle spaces, bicycle and pedestrian facilities are provided by developments which are likely to generate traffic;

(iii) ensure that high standards of practicability, personal safety and aesthetic value are incorporated into the construction of off street parking areas and loading and unloading facilities;

(iv) encourage integration with public transport facilities and non-motorised forms of transport and shared use of parking facilities in order to reduce the overall demand for parking facilities for private motor vehicles;

(v) provide parking facilities for people with disabilities;

(vi) provide facilities for the parking of bicycles and motorcycles; and

(vii) protect the amenity of nearby users, particularly residents.

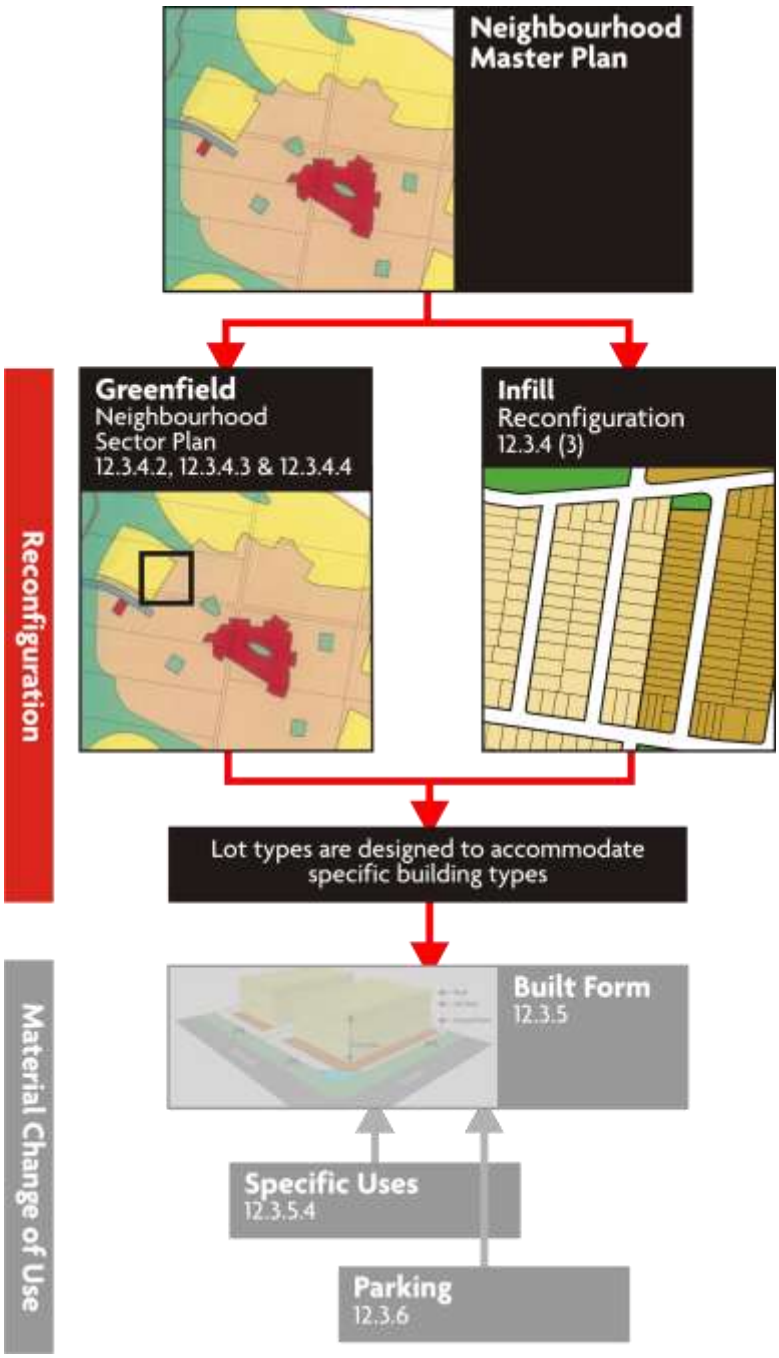
12.3.4 Effects of Development – Reconfiguration

NOTE 12.3.4 A

(1) This section is used in conjunction with an adopted Neighbourhood Master Plan for the purposes of Reconfiguring a Lot.

(2) Figure 12.3.4.1 is a flow diagram of the process of development for Reconfiguring a Lot.

Figure 12.3.4.1 - Process of Development - Reconfiguring a Lot



(1) Development that meets the specific outcomes of Management Reconfigurations and Urban Reconfigurations, Neighbourhood Sector Plans and T-zone and Zones in the local government's opinion complies with the Effects of Development – Reconfiguration.

(2) This Code has been produced for all types of reconfigurations, grouped into two (2) categories, namely Management Reconfigurations and Urban Reconfigurations.

(3) Management Reconfigurations and Management Lots may be used for the purpose of excising an existing dwelling(s) where a Neighbourhood Master Plan has not been adopted to facilitate urban reconfigurations;

(4) Urban Reconfigurations –

(a) Comprise –

(i) residential;

(ii) mixed residential and commercial (small and large);

(iii) commercial;

(v) super blocks; and

(b) are categorised as either a -

(i) Greenfield reconfiguration where a Neighbourhood Sector Plan is identified in a Neighbourhood Master Plan; or

(ii) Infill reconfiguration.

(c) comprise the following lot types –

(i) Super Block;

(ii) Estate Lot;

(v) Traditional Detached Lot;

(vi) Small Lot;

(vii) Multiple Residential Lot;

(viii) Live Work Lot;

(ix) Commercial / Mix Use Lot; and

(iix) Large Format Commercial Lot.

NOTE 12.3.4 B

For a complete description of the different classes of lot reconfiguration refer to Appendix A: Residential, Mutiple Residential, Commercial / Mix Use and Large Format Lot Characteristics.

(5) A Neighbourhood Sector Plan establishes the reconfiguration pattern for Neighbourhood Master Plans in Greenfield areas.

NOTE 12.3.4 C

(1) Greenfield areas are future urban lands that have not previously been developed for urban purposes which require the provision of trunk infrastructure networks before urban development can proceed.

(2) Infill reconfiguration is the reconfiguration of vacant or underutilised parcels of land which are bordered on at least one side by existing urban settlement pattern and have access to or can provide access to existing trunk infrastructure.

(6) The specific outcomes sought for—

(a) management reconfigurations are set out in the Specific Outcomes Column 1 of Table 12.3.4.1 and the Probable Solutions are set out in Column 2 of Table 12.3.4.1; and

(b) urban reconfigurations:

(i) Neighbourhood Sector Plans are set out in the Specific Outcomes Column 1 of Table 12.3.4.2 and the Probable Solutions are set out in Column 2 of Table 12.3.4.2;

(ii) T-zone and Zone provisions are set out in the Specific Outcomes Column 1 of Table 12.3.4.3 and the Probable Solutions are set out in Column 2 of Table 12.3.4.3; and

(iii) General Provisions are set out in the Specific Outcomes Column 1 of Table 12.3.4.4 and the Probable Solutions are set out in Column 2 of Table 12.3.4.4;

(7) Greenfield Reconfiguration comply with Tables 12.3.4.2, 12.3.4.3 and 12.3.4.4

(8) Infill Reconfiguration comply with Tables 12.3.4.3 and 12.3.4.4.

Table 12.3.4.1: Specific Outcomes and Probable Solutions for Management Reconfigurations

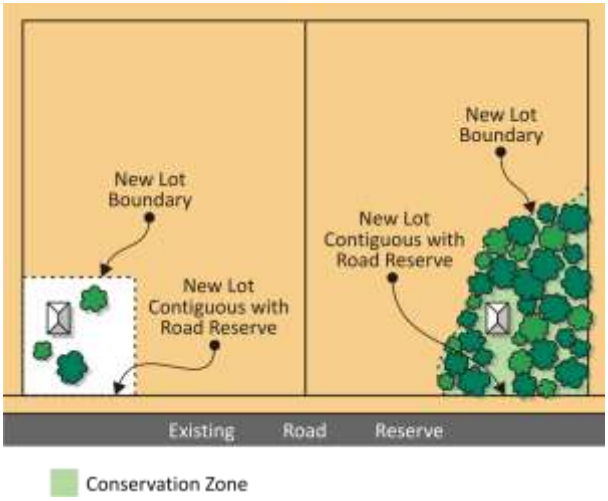
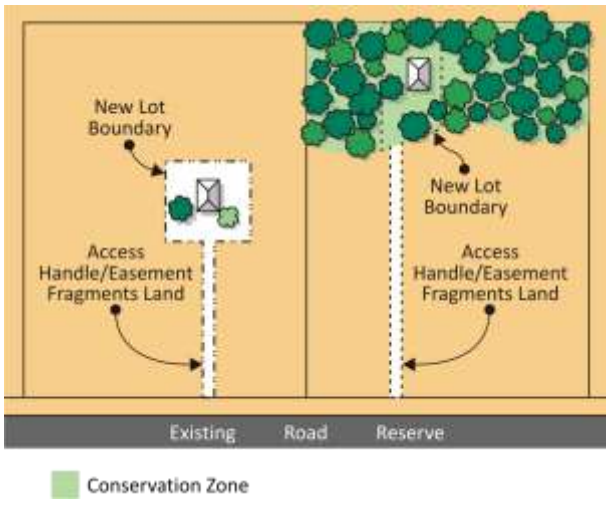
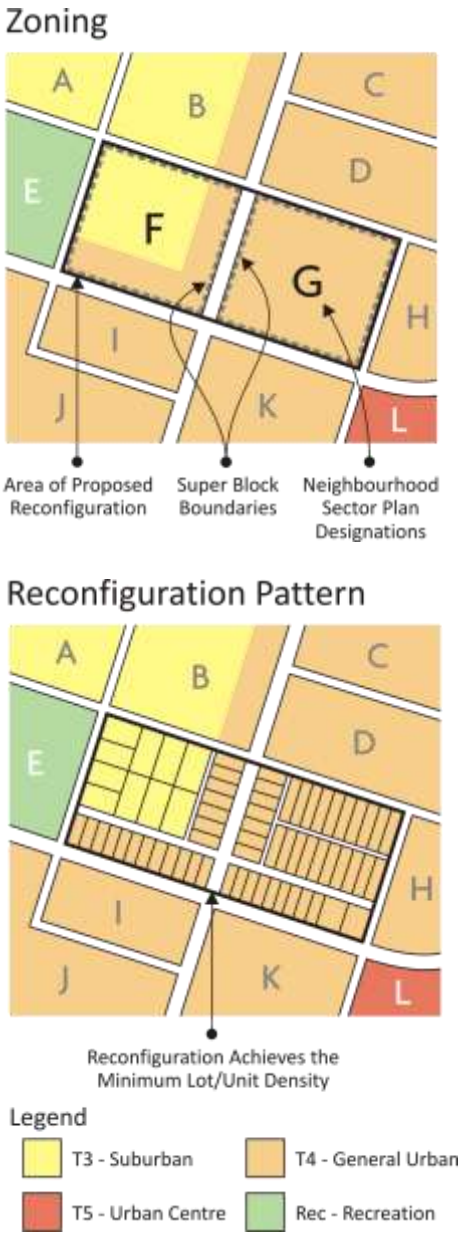
Column 1 Specific Outcomes	Column 2 Probable Solutions
Management Reconfigurations (1) Management Reconfigurations: (a) may be a one into two lot reconfiguration that provides for the excision of an existing dwelling(s) in greenfield areas to facilitate urban development; and (b) provide for: (i) future transport and public utility networks and corridors; and (ii) the continuity of existing infrastructure connectivity. (2) New access easements and hatchet lots to existing dwellings are avoided. **NOTE 12.3.4.1 A** (1) Reconfigurations for Management Lots are designed to: (a) assist the assembly of land to cater for further reconfiguration for urban purposes; and (b) enable existing residential owners to excise an existing dwelling in certain circumstances and dispose of the balance area where the:- (i) balance lot contributes to the ultimate urban development of the locality; and (ii) excised lot does not compromise the ultimate urban development of the locality. (2) The creation of a new lot (through, for example, excising an existing dwelling) intended as a management reconfiguration does not gain a headwork's credit for single residential. A register of management reconfigurations is maintained by Council.	**Management Reconfigurations** (1) The excised lot: (a) where un-sewered, has a minimum area of 4000 square metres; and (b) does not require the use of an access handle or access easement (see Figure 12.3.4.1.1); and (c) includes all the land zoned conservation where the dwelling is situated within or adjacent to the conservation zone, refer Figure 12.3.4.1.1. **Figure 12.3.4.1.1 - Reconfiguration Pattern** **Reconfiguration Pattern – Consistent Solutions**  **Reconfiguration Pattern – Inconsistent Solutions** 

Table 12.3.4.2: Specific Outcomes and Probable Solutions for Urban Reconfigurations, Neighbourhood Sector Plans

Column 1 Specific Outcomes	Column 2 Probable Solutions
Neighbourhood Sector Plans **NOTE 12.3.4.2 A** (1) Neighbourhood Sector Plans are prepared for Greenfield sites within an adopted Neighbourhood Master Plan where the Neighbourhood Master Plan has not provided lot layout and infrastructure network details. (2) The Neighbourhood Sector Plan provides a lot layout over a super block, including proposed lot types, for all land within its bounds demonstrating compliance with the Transect and Traditional Neighbourhood Design principles (3) A Neighbourhood Sector plan may include more than one super block identified in the Neighbourhood Master Plan, refer to Figure 12.3.4.2.1. (4) A "Super block" is a lot designed for future reconfiguration either conceptually or physically bounded by roads or natural features in a Neighbourhood Master Plan. (5) A Neighbourhood Sector Plan is a reconfiguration of land. A s 242 development application under the *Sustainable Planning Act* (SPA) 2009, amendment to a Neighbourhood Master Plan or a Neighbourhood Master Plan subsequent to a Master Plan under s 155(5) under the SPA, is not required. (6) Once the Neighbourhood Master Plan is adopted the proposed Reconfiguring a Lot is code assessable development against the relevant T-zone, and the applicable codes are Part 15 of the Planning Scheme and the Traditional Neighbourhood Design code. (7) If the Reconfiguring of a Lot is approved, a Development Permit will be issued facilitating the opportunity to lodge Operational Works applications. (1) Neighbourhood Sector Plans are the mechanism whereby the Neighbourhood Master Plan is put into effect. Neighbourhood Sector Plans function as reconfiguration or land use proposals to produce an integrated plan for the development of the particular area covered by the plan. (2) Specifically, development of any land included within the Neighbourhood Master Plan area cannot take place unless- (a) there is a Neighbourhood Sector Plan over the land to be developed which has been approved by Council; and (b) the development is shown on or consistent with the approved Neighbourhood Sector Plan. (3) The process of preparing a Neighbourhood Sector Plan ensures that planning within the Neighbourhood Master Plan area is carried out on a broad and integrated basis consistent with the intent of the approved Neighbourhood Master Plan which would not be possible if development were determined solely by applying conventional use rights to each site on an ad hoc basis. (4) Council cannot approve a Neighbourhood Sector Plan unless transport, water supply, sewerage, drainage and other utility and community service infrastructure is or will be available to service the area contained within the plan as provided for the Infrastructure Agreements, or where approved by Council adequate interim infrastructure which does not frustrate the provision of Infrastructure under the Infrastructure Agreements, is or will be available.	**Neighbourhood Sector Plan Reconfigurations** **NOTE 12.3.4.2 B** The Neighbourhood Master Plan identifies the Neighbourhood Sector Plan boundaries. (1) Neighbourhood Sector Plans achieve: (a) the minimum lot density identified for each super block; and (b) the transition in lot sizes, types and T-zones. **Figure 12.3.4.2.1 Neighbourhood Sector Plan/Super Block** 

Column 1 Specific Outcomes	Column 2 Probable Solutions
(5) Upon its approval, a Neighbourhood Sector Plan- (a) authorises the reconfiguration of the land covered by the Plan in the manner indicated in the Plan; or (b) authorises the use of the land (or particular reconfigured parcels of the land) covered by the Plan for the purpose or purposes shown or nominated thereon, and if applicable at the location(s) or on the site or sites shown or nominated on the Neighbourhood Sector Plan, provided the use of the land is in compliance with the Table of Development relating to the respective Neighbourhood Master Plan designations. (6) Prior to any development being carried out on the land the subject of the Neighbourhood Master Plan, an application must be made to the Council for approval of a Neighbourhood Sector Plan which includes the land to be developed. (7) To make application for approval of a Neighbourhood Sector Plan, a person must- (a) complete an Application form; (b) pay the Application Fee applicable at the date of the submission of the application in accordance with Council's annually revised Register of General Fees and Charges; (c) submit the proposed Neighbourhood Sector Plan; and (d) provide such information as is necessary:- (i) to show that the reconfiguration layout and nature of proposed uses accords with the planning intent, performance criteria and compliance standards specified in the Neighbourhood Master Plan so far as they are relevant to that reconfiguration layout and those proposed uses; (ii) to demonstrate that the proposals for road, water supply, sewerage, drainage, open space and community facilities to be provided within the land covered by the proposed Neighbourhood Sector Plan provide for interface with immediately adjacent land which has been developed or is to be developed. (8) Each Neighbourhood Sector Plan:- (a) generally accords with the boundaries identified in the Neighbourhood Master Plan (Neighbourhood Sector Plan, refer to Figure 12.3.4.2.1); (b) encompasses the whole of the area or areas that the development is located within; and (c) gives due regard to its context within the Neighbourhood Master Plan; and (d) demonstrates how it relates to adjoining and nearby neighbourhood sector plans; and (e) where extending over third party property(ies):- (i) ensures the third party lots maintain existing lawful or mutually agreed access; (ii) ensures the existing third party lots are not disenfranchised through the actions of development; and (iii) provides supporting information in the form of a concept plan that demonstrates that third party land holdings can be reconfigured to meet the outcomes of the minimum lot and access standards for the T-zone or Zones identified in the Neighbourhood Master Plan.	(2) The Neighbourhood Sector Plan is prepared over one or more super block/s and provides the detailed lot layout, the transition of lot forms across T-zones and Zones, designation of lot characteristics and details of all infrastructure networks to fully service the Neighbourhood Sector Plan area.

Column 1 Specific Outcomes	Column 2 Probable Solutions
NOTE 12.3.4.2 C The Sector Plan may include a non-statutory subdivision layout over any balance areas of a super block/s that are not subject to the Reconfiguration of a Lot application. The non-statutory component only identifies the preferred conceptual subdivision layout over the balance area of the Super block to determine how the subdivision pattern can proceed in an integrated manner. (f) where the Neighbourhood Sector Plan interfaces or requires open space or drainage reserve, identified on an adopted Neighbourhood Master Plan, the Neighbourhood Sector Plan: (i) includes the excision of open space and drainage reserve up to the adjoining Neighbourhood Sector Plan Area; (ii) achieves the desired standards of service in Part 13—Local Government Infrastructure Plan and Planning Scheme Policy 3 – General Works. (9) The Neighbourhood Sector Plan— (a) achieves the intent and objectives of the Neighbourhood Master Plan; (b) resolves the connectivity between new infrastructure and infrastructure that services existing, adjoining and nearby neighbourhoods; and (c) achieves the orderly implementation of all service infrastructure generally in accordance with the adopted Neighbourhood Master Plan. (10) The Neighbourhood Sector Plan is developed generally in accordance with the T-zone(s) or Zone(s) identified in the Neighbourhood Master Plan. **NOTE 12.3.4.2 D** (1) The Neighbourhood Sector Plan resolves the physical location of the T-zones and Zones identified in the Neighbourhood Master Plan through the creation of specific lots compatible with the T-zone(s) and Zone(s), see Appendix A. (11) A Neighbourhood Sector Plan identifies the location of- (a) road networks and frontage types including the location of public transport routes and stops; (b) potable water network; (c) sewerage networks; (d) stormwater management system including any – (i) sub-regional facilities; (ii) on-site facilities; and (iii) networks connecting on–site and sub regional facilities; (e) open space including sportsgrounds and courts, recreation parks and linear parkland, in accordance with Part 13—Local Government Infrastructure Plan and Planning Scheme Policy 3—General Works; (f) infrastructure connectivity; and (g) pedestrian and cycle networks.	

Column 1 Specific Outcomes	Column 2 Probable Solutions
(12) The Neighbourhood Sector Plan provides supporting documentation demonstrating— (i) the application of Traditional Neighbourhood Design principles that achieves a distinctive 'sense of place' through— (A) townscape design; (B) urban design; (C) the application of climate responsive design; (D) building design; and (E) landscape design considerations; (ii) the phasing of development (including infrastructure); (iii) the implementation of Total Water Cycle Management, including— (A) the improvement of water efficiency; (B) regional and sub-regional flood management, including detention/retention and conveyance, for identified design storm event(s); (C) satisfying water quality objectives through implementation of water sensitive urban design; (D) improved aquatic biodiversity; (E) maintenance of natural drainage lines and hydrological regimes (e.g. maximise disconnection of impervious surfaces); (F) enhanced mitigation of urban warmth influences through complimenting of shade, evaporation and built form strategies; and (G) wastewater re-use where public health and safety is not compromised. (iv) the implementation of the Transect and Traditional Neighbourhood Design Principles to create a road and transport network that reflects the adopted Neighbourhood Master Plan that— (A) maximises opportunities for walking and cycling; (B) creates connected communities; (C) where ever possible ensures commuters have access to multiple modes of transport; (D) where associated with public transport nodes maximises opportunities for transit oriented development; (E) connects with adjoining and nearby neighbourhoods and the existing Ipswich road infrastructure network; and (F) generally avoids cul-de-sacs; (v) the implementation of the Sustainability Management System— (A) that includes a verification system that all key decisions relating to the environmental, social and economic objectives of the Ripley Valley Vision are held for the life of the development; and (B) including performance monitoring, reporting and review; (vi) community facilities are located so that they are accessible to the community that they serve;	

Column 1 Specific Outcomes	Column 2 Probable Solutions
(vii) how housing diversity, affordability and adaptability outcomes are achieved; (viii) the location, intent and function of mixed use centres; (ix) how development delivers a range of economic and employment opportunities into neighbourhoods; (x) how cultural heritage places, including indigenous and early settler sites are respected and where appropriate conserved; (xi) the way development— (A) is sympathetic with the natural land form, taking into account the protection and where possible enhancement of the natural environment; (B) ensures that areas of ecological significance and the overall greenspace setting is protected through the retention of native vegetation on the visually prominent hillsides and ridgelines; (C) ensures that the biodiversity values of watercourses and riparian corridors are protected and rehabilitated; and (D) ensures that planted buffers and mounding are provided to regional transport corridors (both road and rail). (13) An application for a Neighbourhood Sector Plan must comply with the requirements of the codes (if any) referred to in Divisions 3.5 and 3.6 of Part 12. (14) An approved Neighbourhood Sector Plan may be amended at any time by the approval of a subsequent Neighbourhood Sector Plan over the whole or any part of the land the subject of the Approved Neighbourhood Sector Plan.	

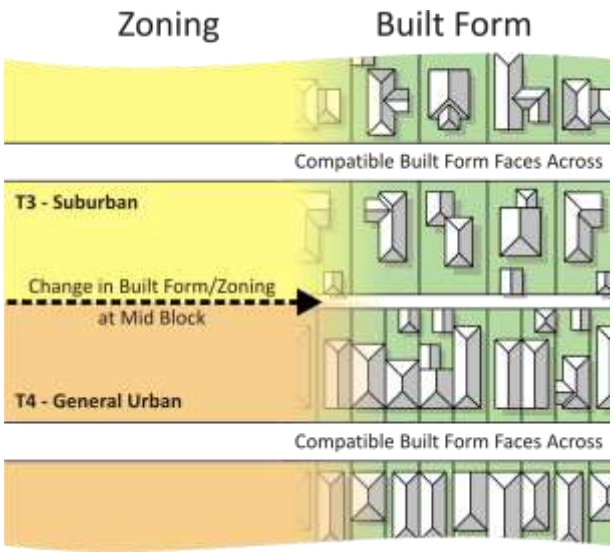
Table 12.3.4.3: Specific Outcomes and Probable Solutions for Urban Reconfigurations, T-Zone and Zone Provisions

Column 1 Specific Outcomes	Column 2 Probable Solutions
Conservation (T1) Zone (1) The minimum lot size is 100 hectares. (2) Reconfiguration in the Conservation (T1) Zone is generally limited to: (a) the amalgamation or consolidation of existing lots to the general exclusion of most other reconfigurations; or (b) Management Reconfigurations that comply with the specific outcomes and probable solutions set out in Table 12.3.4.1. (3) Where a lot exists with one or more zones, consideration may be given to the creation of new lots where: (a) the created lot meets the outcomes for adjoining zoned land; and (b) the outcomes of the Conservation (T1) Zone are not compromised. (4) A building envelope is located adjacent to the road reserve and has a 'footprint' no greater than 500 square metres including out buildings. **NOTE 12.3.4.3 A** (1) If a lot has access from more than one road reserve, then access is gained from the reserve which has been formed. (2) If the applicant wishes to locate the building envelope adjacent to an unformed road reserve then a condition requiring construction of the reserve to a rural standard should be imposed.	**Conservation (T1) Zone** There are no recommended Probable Solutions for these specific outcomes as each situation requires an individual approach.
Rural Constrained (T2) Zone (1) The minimum lot size is 100 hectares except where explicitly stated in a relevant Zone Code.	**Rural Constrained (T2) Zone** There are no recommended Probable Solutions for these specific outcomes as each situation requires an individual approach.
Sub-Urban (T3) Zone (1) A mix of the following lot types is created where land is designated Sub-Urban (T3) on an adopted Neighbourhood Master Plan: (a) Estate Lot; (b) Traditional Detached Lot; and (c) Live Work Lot. **NOTE 12.3.4.3 B** The Live Work Building type is specific to the mixed residential and commercial (small scale) use and is subject to Impact Assessment in the T3 and T4 zones (2) Lots are provided in accordance with the dimensions and lot size in Appendix A. (3) Lot sizes and types create transitions from Estate Lots at the edge of the neighbourhood to Traditional Detached House Lot towards the centre. (4) Public transport nodes and other community focal points reflect their location within the Transect in accordance with the adopted Neighbourhood Master Plan. (5) The minimum development intensity identified for each Super Block in the Neighbourhood Master Plan are achieved. (6) Lots of similar proportions (size and dimension) generally face across the street. (7) Residential density is higher around planned public transport stops or nodes.	**Sub-Urban (T3) Zone** There are no recommended Probable Solutions for these specific outcomes as each situation requires an individual approach.

Column 1 Specific Outcomes	Column 2 Probable Solutions
General Urban (T4) Zone (1) A mix of the following lot types is created where land is designated General Urban (T4) on an adopted Neighbourhood Master Plan: (a) Traditional Detached Lot; (b) Small Lot; (c) Multiple Residential Lot; (d) Live Work Lot; and (e) Commercial / Mix Use Lot **NOTE 12.3.4.3 C** The Live Work Building type is specific to the mixed residential and commercial (small scale) use and is subject to Impact Assessment in the T3 and T4 zones. (2) Lots are provided in accordance with the dimensions and lot size in Appendix A. (3) Lot size generally transitions from Traditional Detached House Lot lots at the edge of the neighbourhood to Multiple Residential Lots towards the centre. (4) Public transport nodes and other community focal points reflect their location within the Transect in accordance with the adopted Neighbourhood Master Plan. (5) The minimum development intensity identified for each Super Block in the Neighbourhood Master Plan are achieved. (6) Lots of similar proportions (size and dimension) generally face across the street. (7) Vehicular access for Small Lots via a laneway is only mandatory where the frontage is <9m as per Table 12.3.5.1.3. (8) Vehicular access for Multiple Residential lots is via a laneway where the frontage is less than 20 metres.	**General Urban (T4) Zone** There are no recommended Probable Solutions for these specific outcomes as each situation requires an individual approach.
Urban Centre (T5) Zone (1) A mix of the following lot types is created where land is designated Urban Centre (T5) on an adopted Neighbourhood Master Plan: (a) Small Lot; (b) Multiple Residential Lot; (c) Live Work Lot; and (d) Commercial / Mix Use Lot. (2) Lots are provided in accordance with the dimensions and lot size in Appendix A. (3) Lot size transitions from Small Lots at the edge of the neighbourhood to Multiple Residential / Commercial / Mix Use Lots within and around: (a) the centre; (b) public transport nodes; and (c) other community focal points. (4) The minimum development intensity identified for each Super Block in the Neighbourhood Master Plan are achieved. (5) Lots of similar proportions (size and dimension) generally face across the street. (6) Vehicular access is via a laneway, unless a block forms a single integrated development site. (7) Mid-block pedestrian links are provided to enhance pedestrian permeability where street blocks are greater than 200 metres in length. (8) Residential density is higher around planned public transport stops or nodes.	**Urban Centre (T5) Zone** There are no recommended Probable Solutions for these specific outcomes as each situation requires an individual approach. **NOTE 12.3.4.3 D** Lots proposed for Civic buildings in the Urban Centre (T5) zone create lots of a similar size and dimension to adjoining or fit within the intended pattern of reconfiguration.

Column 1 Specific Outcomes	Column 2 Probable Solutions
Urban Core (T6) Zone (1) A mix of the following lot types is created where land is designated Urban Core (T6) on an adopted Neighbourhood Master Plan: (a) Multiple Residential Lot; and (b) Commercial / Mix Use Lot. (2) Lots are provided in accordance with the dimensions and lot size in Appendix A. (3) Multiple Residential / Commercial / Mix Use Lots are provided to achieve the Overall Outcomes of the Urban Core (T6) Zone. (4) The minimum development intensity identified for each Super Block in the Neighbourhood Master Plan are achieved. (5) Lots of similar proportions (size and dimension) generally face across the street. (6) Vehicular access is via a laneway.	**Urban Core (T6) Zone** There are no recommended Probable Solutions for these specific outcomes as each situation requires an individual approach. **NOTE 12.3.4.3 G** Lots proposed for Civic buildings in the Urban Core (T6) zone create lots of a similar size and dimension to adjoining or fit within the intended pattern of reconfiguration.
Special District (SD) Zone (1) A mix of the following lot types is created where land is designated Special District (SD) on an adopted Neighbourhood Master Plan: (a) Multiple Residential Lot; (b) Commercial / Mix Use Lot; and (c) Large Format Commercial Lot. (2) Large Format Commercial lots are only created within the Special District Zone. (3) Lots are provided in accordance with the dimensions and lot sizes in Appendix A. (4) Lots of similar proportions (size and dimension) generally face across the street. (5) Lot layout enables transition of land uses to a Urban Centre (T5) or Urban Core (T6) configuration. **NOTE 12.3.4.3 E** (1) Lot dimensions should be kept as large as possible to enable the future transition from Special District (SD) to Urban Centre (T5) and Urban Core (T6). (2) The lot layout creates or enables future laneway access to the proposed lots. (3) Lots intended for further reconfiguration are identified as such on a plan of subdivision. (6) The proposed mix of lots enables the residential density identified on the Neighbourhood Master Plan to be achieved. **NOTE 12.3.4.3 F** (1) The residential density may be achieved through a multi-stage development. (2) Where a multi-stage development is proposed the laneway should be created at the reconfiguration to facilitate the lots future transition.	**Special District (SD) Zone** There are no recommended Probable Solutions for these specific outcomes as each situation requires an individual approach.
Recreation Zone (1) The Recreation Zone is not reconfigured into lots designed for residential or commercial or industrial purposes. (2) The minimum lot size is 10 hectares.	**Recreation Zone** There are no recommended Probable Solutions for these specific outcomes as each situation requires an individual approach.
Special Uses Zone (1) The Special Uses Zone is not reconfigured into lots designed for residential or commercial or industrial purposes.	**Special Uses Zone** There are no recommended Probable Solutions for these specific outcomes as each situation requires an individual approach.

Table 12.3.4.4: Specific Outcomes and Probable Solutions for Urban Reconfigurations, General Provisions

Column 1 Specific Outcomes	Column 2 Probable Solutions
Urban Reconfiguration (1) The plan of development assigns specific lot types in accordance with Appendix A. (2) The minimum residential dwelling density identified for each Super Block in the Neighbourhood Master Plan is achieved. **NOTE 12.3.4.4 A** (1) The Neighbourhood Master Plan identifies the minimum number of dwellings required for each Super Block to achieve the residential density for each neighbourhood. (2) A "Super Block" is a lot designed for future reconfiguration either conceptually or physically bounded by roads in a Neighbourhood Master Plan. (3) Similar sized lots (and the associated building types) face across streets, the transition of lot types (size and intensity) is generally achieved through a mid block shift, refer Figure 12.3.4.4.1. (4) Lots have the appropriate layout, area and dimensions to— (a) enable the siting and construction of a built form and ancillary outbuildings, for the purposes of the designated T-zone or Zone; (b) enable the siting and construction of Built form and relevant building type where for the purpose of residential and commercial use; (c) provide for landscaping, including private outdoor recreational space in accordance with the relevant building type in Section 12.3.5; (d) provide convenient vehicle access from a laneway or road frontage and parking placement for the relevant building type in accordance with Section 12.3.5 and Appendix A and relevant T-zone or Zone; (e) take into account the slope of the land within each T-zone or Zone in particular the desirability of minimising both earthworks and retaining walls associated with building construction; (f) avoid or mitigate site constraints (e.g. undermining, flooding, drainage, bushfire risk, buffers to incompatible land uses etc); (g) conserve natural, cultural or special features (e.g. buildings, views etc); (h) provide housing diversity and choice and a variety of options for mixed development and non-residential development; (i) ensure that smaller lots and lots for multiple residential uses are located in close proximity to transit routes, public transport stops/nodes, parks, shops, employment areas or community facilities in accordance with the adopted Neighbourhood Master Plan; (j) create transitions in lot types which reflect their location within the transect in accordance with the adopted Neighbourhood Master Plan; (k) ensure that lot frontages are oriented towards the street or open spaces to facilitate personal safety, property security and casual surveillance of footpaths and public open space;	**Urban Reconfiguration** **Figure 12.3.4.4.1 - Mid Block Shift**  (1) (a) The lot size, frontage and special characteristics for the different residential lot types are as outlined in Appendix A. **NOTE 12.3.4.4 B** For the specific density requirements of each T-zone refer to the applicable Zone Code and approved Neighbourhood Master Plan. (b) The lot size, frontage and special characteristics for the residential and commercial lot types are as outlined in Appendix A. (c) The lot size and frontage requirements for lots intended for recreation/ entertainment and other uses comply with the Residential and Commercial Mixed Use lot type as outlined in Appendix A except where there are specific requirements which justify relaxation. **NOTE 12.3.4.4 C** Notations or colour coding (where appropriate with building envelope outlines) should be added to each allotment to indicate the relevant building type/s. (d) Lots are shaped to be as regular as possible to enable buildings to address the street. (e) A coherent streetscape and development intensity is supported by— (i) providing transitions between compatible lot types; and (ii) arranging lots of the similar type on opposite frontages of a street. **NOTE 12.3.4.4 D** Compatible lot types are generally those within the adjoining category of frontage dimension as listed in Appendix A for each of the transect T-zones.

Column 1 Specific Outcomes	Column 2 Probable Solutions
(l) facilitate, within residential and mixed use areas (via street and lot orientation) - (i) the siting of dwellings to take advantage of microclimatic benefits; (ii) adequate on-site solar access; and (iii) access to breezes taking into account likely dwelling size and the relationship of each lot to the street; (m) integrate with the surrounding urban environment, and in particular compliment existing streetscapes and landscapes; (n) provide connectivity to facilitate shared use of public facilities by adjoining communities where possible in residential areas; (o) facilitate the integration of commercial development into its surroundings ensuring minimal impact on the amenity of adjacent or nearby areas; and (p) ensure that the layout of commercial development adjoining residential areas allows lots to be configured to ameliorate visual, noise pollution and other amenity impacts on nearby residential amenity. (5) Hatchet lots and lots accessed by an access easement are avoided. **NOTE 12.3.4.4 E** (1) Unless required by specific site conditions in respect of topography, parcel size, location (especially in relation to public open space), access or shape, residential hatchet lots are to be avoided. (2) Unless required by specific site conditions in respect of topography, parcel size location, access or shape, hatchet lots are undesirable for commercial or industrial uses.	
Climatic Design (6) Lots are oriented to facilitate siting of dwellings and private open space to take advantage of winter solar access and summer sun deflection through: (a) maximising the number of lots which have their long axis running north-south; (b) varying the depth of north-south oriented lots to provide longer, narrower lots on the south side and shorter, wider lots on the north side; and (c) dimensioning lots to achieve solar access on site, taking into account the built form associated with the lot.	**Climatic Design** There are no recommended Probable Solutions for this specific outcome as each situation requires an individual approach.
Movement Network (7) Active and attractive streetscapes are created with priority given to pedestrian and cycle movement. (8) The road network has a clear grid structure and component roads conform to their intended role in the system as outlined in Appendix B and in accordance with the approved Thoroughfare Hierarchy Plan forming part of the adopted Neighbourhood Master Plan. **NOTE 12.3.4.4 F** The detailed design of roads may alter the lane configurations and reserve widths identified in Appendix B e.g. where within close proximity to intersections.	**Movement Network** There are no recommended Probable Solutions for this specific outcome as each situation requires an individual approach.

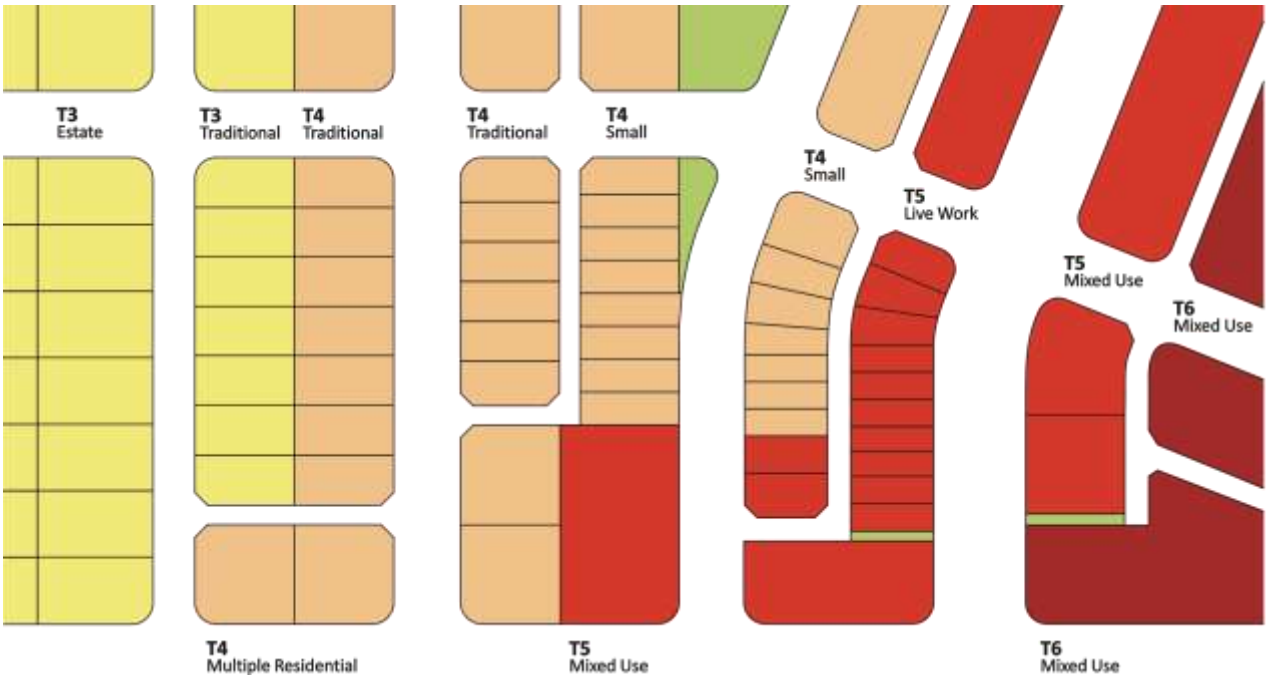
Column 1 Specific Outcomes	Column 2 Probable Solutions
NOTE 12.3.4.4 G (1) The mode share targets for Traditional Neighbourhood Design are: (a) Walking: 20%; (b) Cycle: 10%; (c) Public Transport: 25%; and (d) Private vehicle: 45%. (2) Where public transport is not available (within a development area) it may require that the developer(s) subsidise a public transport service to the level required to achieve the mode share targets and Department of Transport and Main Roads commences services to a commensurate level. (3) Neighbourhoods are designed to facilitate the easy movement of pedestrians through the urban environment. This does not preclude vehicles, rather the road cross sections used for Traditional Neighbourhood Design are designed for all users of the movement network. (4) Within the neighbourhood area, accessibility, pedestrian safety, lower vehicular speeds and amenity are the primary focus. (5) On the strategic road network, mobility, traffic capacity and efficiency are the primary focus where not impacting on (4) above. (6) The superior pedestrian safety of older neighbourhoods is the presence in those neighbourhoods of traditional four way intersections with tight corner radii that require additional driver attention and slower speeds from motorists. These intersections are natural traffic calming devices. (7) Subject to detailed design, neighbourhoods may contain forks, triangles, staggered crossings and four way intersections that slow traffic through moderating vehicle speeds.	
(9) Where the public transport route is identified:- (a) the road system has the capability to accommodate public transport services; (b) it has capacity to safely and efficiently accommodate projected movements as outlined in Appendix B; and (c) is generally in accordance with the approved Thoroughfare Hierarchy Plan forming part of the adopted Neighbourhood Master Plan.	(9) Public transport stops are constructed in accordance with their location in the Neighbourhood Master Plan and the Department of Transport and Main Roads standards.
(10) The road network is provided in a manner that compliments the existing road network, public transport, pedestrians and cycleways in accordance with the approved Transit Network Plan and Strategic Pedestrian and Cycle Plan forming part of the adopted Neighbourhood Master Plan.	(10) Road types accord with the Thoroughfare Hierarchy Plan forming part of the adopted Neighbourhood Master Plan.
(11) Safe and convenient links are provided for pedestrians and cyclists.	(11) (a) Pedestrian and cycle crossings are provided at all intersections. (b) Super Blocks with a dimension greater than 200m provide a pedestrian/cycle link a minimum of 5 metres wide at the midpoint.
(12) Intersections are:- (a) located to provide safe and efficient connection and traffic interface between pedestrians, cyclists, public transport users and motor vehicles; and (b) located in accordance with the Thoroughfare Hierarchy Plan forming part of the adopted Neighbourhood Master Plan.	(12) (a) Intersections are constructed generally in accordance with their location in the adopted Neighbourhood Master Plan. (b) Round-a-bouts are avoided. **NOTE 12.3.4.4 H** The design of round-a-bouts does not facilitate pedestrian movement through Neighbourhoods as the pedestrian is forced 'wide' from their path of travel to navigate through.
(13) Access arrangements do not impede the traffic performance of Trunk roads identified on the approved Thoroughfare Hierarchy Plan forming part of the adopted Neighbourhood Master Plan.	(13) (a) Residential lots do not have direct vehicle access to the Trunk roads unless:- (i) there are no suitable access alternatives; and (ii) vehicle access onto the Trunk system is capable of being made in a forward direction. (b) Any vehicle access for a residential lot is limited to one (1) point only (where direct access to the Arterial and Trunk system is unavoidable).

Column 1 Specific Outcomes	Column 2 Probable Solutions
	(c) Mixed Residential and Commercial lots:- (i) achieve vehicular access from rear lanes or side streets; (ii) do not have direct vehicle access to the road system unless there are no suitable access alternatives (provided by the street system); (iii) vehicle access onto the Trunk system are capable of being made in a forward direction using a left turn only. (d) Vehicle access is sited to obtain the maximum visibility (i.e. sightlines). **NOTE 12.3.4.4 K** (1) For certain building types identified in Section 12.3.5 involving large high turnover car parking areas access from the road system to the parking area may be permitted at specifically designed access points. (2) Mixed Residential and Commercial buildings vehicular access is gained via a lane or side street enabling the building to fully front and activate the street.
(14) Street networks in areas within 6km of the RAAF Base Amberley runway do not include configurations of lights that replicate the appearance of airport runways at night.	(14) Road networks do not include configurations of lights in straight parallel lines 500m – 1000m long in areas within 6km of the RAAF Base Amberley runway.
(15) The street network: (a) provides for the mixed functions of moving pedestrians and cyclists, vehicles accessing lots and laneways and parked vehicles; and (b) allows for the provision of public transport and for expected vehicle traffic (including heavy vehicles). **NOTE 12.3.4.4 I** Heavy vehicles would be generally expected where the street network provides access to land contained within the Urban Centre (T5), Urban Core (T6) and Special District (SD) Zones.	(15) The road network conforms with the approved Thoroughfare Hierarchy Plan forming part of the adopted Neighbourhood Master Plan.
(16) The street network— (a) connects with the Trunk network to maximise movement efficiency on the main traffic routes, whilst at the same time minimising internal traffic volumes, and. (b) has a clear grid structure, refer to Figure 12.3.4.4.2 and the component roads conform to their intended role in the network.	(16) (a) Intersections between Trunk Roads and the internal road network are located so as to minimise restriction of movement on the Trunk Roads. (b) Laneways do not intersect with the Trunk network. (c) Roads align with one another across intersections to form a grid.
(17) The street network— (a) reflects the characteristics outlined in Appendix B; (b) incorporates design features that encourage driver behaviour appropriate to the intended role of each type of road.	(17) There are no recommended Probable Solutions for this specific outcome as each situation requires an individual approach.
NOTE 12.3.4.4 J (1) For subdivisions incorporating multiple residential uses, the street network is to be considered under two scenarios, namely— (a) (i) Where multiple residential uses are 'dispersed' within residential areas, they are to be treated as standard residential development using a generation rate of 6.5 trips per dwelling. (ii) Preferably such uses will be located adjacent to the Trunk Collector system (i.e. 'downstream' of the conventional residential areas). (iii) Multiple residential uses may have direct access to Trunk Collector, subject to appropriate detailed design of access and sound attenuation measures. (b) Where multiple residential uses are 'concentrated' within medium/higher density localities (e.g. adjacent to major public transport facilities or a Town Centre) the specific provisions relating to multiple residential uses apply.	

Column 1 Specific Outcomes	Column 2 Probable Solutions
(18) Intersections are spaced to create safe and convenient pedestrian and vehicle movements.	(18) The road network conforms with the approved Thoroughfare Hierarchy Plan forming part of the adopted Neighbourhood Master Plan. **NOTE 12.3.4.4 L** (1) The minimum truncation distance of the real property boundary at an intersection between the following street types is— (a) Local Road to Local Road 3.5 m (b) Local Road to Arterial and Trunk Network 6.0 m (2) Where the intersection angle is other than 90 degrees, the truncation is to be by a chord or chords to a circle of radius equal to the above truncation lengths. (3) Where the intersection is constructed as a roundabout, the truncation is to be the area required to accommodate the relevant roundabout template as outlined in the Standard Drawings forming part of Planning Scheme Policy 3—General Works. (4) The area truncated is to be dedicated as road reserve free of cost to, or compensation by, the local government.
(19) The road network — (a) provides convenient movement for residents between their homes and the Trunk network; (b) provides for commercial development, convenient movement for vehicles (including heavy vehicles where expected); (c) provides an interconnected grid based layout— (i) using a block structure supporting the particular lot types as outlined in Appendix A; (ii) providing alternative access points to mitigate bushfire risk; (iii) including laneways where required by the T-zone or particular lot types as outlined in Appendix A; (iv) incorporating mid-block pedestrian pathways where block length exceeds 200 metres in T3 Sub Urban, T4 General Urban, T5 Urban Centre and T6 Urban Core T-zones; (v) that avoids cul-de-sacs; and (vi) that generally avoids one way streets.	(19) There are no recommended Probable Solutions for this specific outcome as each situation requires an individual approach. **NOTE 12.3.4.4 M** (1) Cul-de-sacs should generally be avoided, however where proposed due to topography or other physical constraints, cul-de-sac length should be as short as possible and the turning area should provide for a single movement turn, based on a minimum turning circle of a minimum 9m radius. (2) The cul-de-sac design should, where possible, maximise the number of lots with regular road frontages (i.e. standard or average widths parallel to the street frontage rather than narrow or angled frontages). (3) Circular turning heads are preferred and “T” and “Y” shaped turning heads are generally not to be used. (4) Generally a 5m wide pathway within an extended road reserve 15m wide should be provided at the end of every cul-de-sac to connect to the open space system, pedestrian or street network or the Designated Road system and be designed according to CPTED principles, able to be casually surveyed from nearby buildings and public areas, and be no less than 5m wide. (5) A minimum length of kerb frontage is required for each lot to provide for on-street parking unless alternative provision for on-street parking is made (e.g. parking bays in cul-de-sac heads indented parking, centre parking etc).

Column 1 Specific Outcomes	Column 2 Probable Solutions
NOTE 12.3.4.4 N Figure 12.3.4.4.2 illustrates a typical interconnected grid based layout incorporating a variety of lot types across a condensed Transect.	

Figure 12.3.4.4.2 - Grid Based Layout



(20) The road layout and design— (a) takes account of the topography (especially steep land) and significant vegetation; (b) avoids steep slopes (i.e. greater than 15%) so as to minimise landscape disturbance and vegetation loss; (c) avoids penetrating and fragmenting large tracts of remnant vegetation; (d) respects and protects places of cultural significance or streetscape value; (e) takes advantage of opportunities for views and vistas; (f) takes account of streetscapes that may be created or that already exist; and (g) permits the establishment of streetscapes that blend with existing streetscapes or comply with any approved public streetscape plan.	(20) There are no recommended probable solutions for this specific outcome as each situation requires an individual approach.
NOTE 12.3.4.4 O Where the approved Neighbourhood Master Plan is inconsistent with the Specific Outcomes (22), (a) – (u), the Neighbourhood Master Plan prevails.	

Column 1 Specific Outcomes	Column 2 Probable Solutions
NOTE 12.3.4.4 P The streetscape is to achieve— (a) the creation of attractive residential or commercial streetscape environments with clear character and identity; (b) respect for existing attractive streetscapes in established areas; (c) appropriate streetscapes in areas where the desired future character has been defined; (d) provision for appropriate street tree planting taking into account the image and role of the street, the environmental values of the local area, solar access requirements, soils, selection of appropriate species, and services above and below ground; and (e) the incorporation of unique features of the site such as views, vistas, existing vegetation, landmarks and places of cultural heritage significance. (h) takes account of natural drainage and open space systems; (i) avoids crossing drainage features or open space areas, particularly for access places and access streets; (j) is located, designed and managed to enhance the habitat and corridor requirements of native wildlife (plants and animals); (k) locates the streets to the least environmentally sensitive sites; (l) avoids extensive use of cut and fill; (m) avoids important stands of vegetation to minimise the loss of important trees or ecosystems; (n) maintains interlocking tree canopies over fauna corridors, where possible, to allow for the movement of arboreal fauna and birds; (o) narrows the width of the carriageway or provides a wildlife underpass/bridge where it crosses wildlife movement corridors, such as riparian zones; (p) at known wildlife crossing points, streets are narrowed and appropriate pavement surfacing, lighting, signage and fencing are provided to reflect the low-speed environment; (q) provides a high level of internal accessibility and good external connections for vehicles (including heavy vehicles in commercial and industrial areas), pedestrian and cycle movements, maintains appropriate traffic speeds, deters through-traffic and creates safe conditions for road users; (r) for residential development, traffic speeds and volumes are restrained through such measures as— (i) limiting street length; (ii) introducing bends; (iii) introducing slow points; and (iv) intersections; (s) ensures that traffic generated by a development is within the acceptable environmental capacity of the street network; (t) ensures that where within or abutting bushfire risk areas streets are designed, located and connected to allow safe and efficient movement of fire emergency vehicles; and (u) provides for the cost effective provision of public utilities, including water, sewerage, electricity, telecommunications and gas.	

Column 1 Specific Outcomes	Column 2 Probable Solutions
(21) Roads and lots are located so that dwellings are not subject to unacceptable levels of traffic noise.	(21) Traffic noise in residential streets does not exceed 55 dB(A) L10 at the affected facade of dwellings.
(22) The design of each type of road is as specified in Appendix B and the road reserve width is sufficient to cater for all road functions and site specific circumstances, including— (a) safe and efficient movement of all users, including pedestrians and cyclists; (b) provision for parked vehicles; (c) bus routes and bus stops; (d) provision of landscaping; (e) stormwater infrastructure including swales and rain gardens as outlined in SEQ Healthy Waterway; and (f) the location, construction and maintenance of public utilities. **NOTE 12.3.4.4 Q** The detailed design of roads may alter the lane configurations and reserve widths identified in Appendix B e.g. where within close proximity to intersections.	(22) There are no recommended Probable Solutions for this specific outcome as each situation requires an individual approach.

Column 1 Specific Outcomes	Column 2 Probable Solutions

Laneways

(23) The design, location and management of laneways promotes access, parking and community safety.

(24) Where a laneway is proposed opposite an existing laneway they align.

(25) Laneways:

(i) generally are straight,

(ii) have more than one entrance; and

(iii) are designed generally in accordance with Figure 12.3.4.4.4.

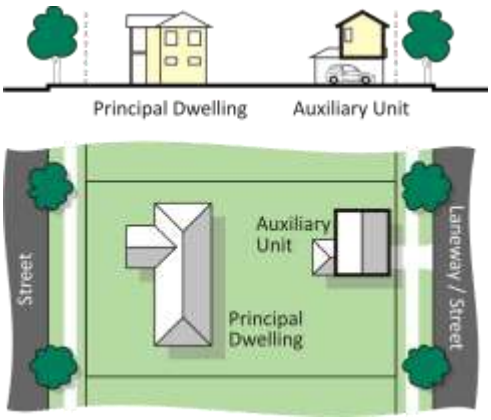
(26) Laneways that create areas not visible from the road are avoided, unless unavoidable because of factors such as the intersection of major roads in which case pedestrian passages or pocket parks are provided to improve visibility, or auxiliary dwellings are design and located to provide adequate causal surveillance.

NOTE 12.3.4.4 R

(1) Where, a laneway has an area(s) not visible from the road, refer to Figure 12.3.4.4.3, it is desirable that an Auxiliary Unit(s) is located to provide overlooking into the visually restricted area of the laneway.

(2) To maximise the overlooking potential the Auxiliary Unit should be configured in accordance with Figure 12.3.4.4.3.

Figure 12.3.4.4.3 – Auxiliary Unit

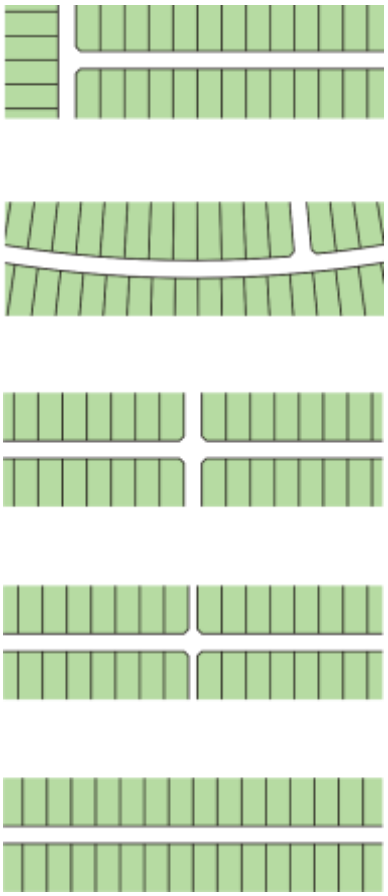


Laneways

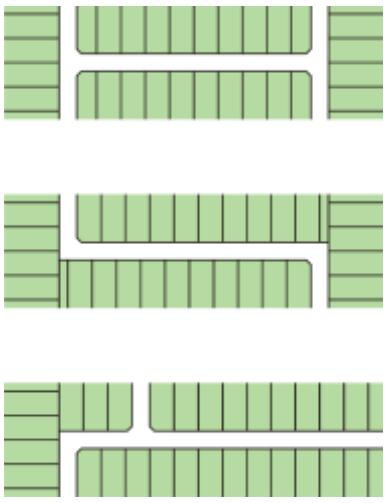
(23) There are no recommended Probable Solutions for this specific outcome as each situation requires an individual approach.

Figure 12.3.4.4.4 - Consistent and Inconsistent Laneways

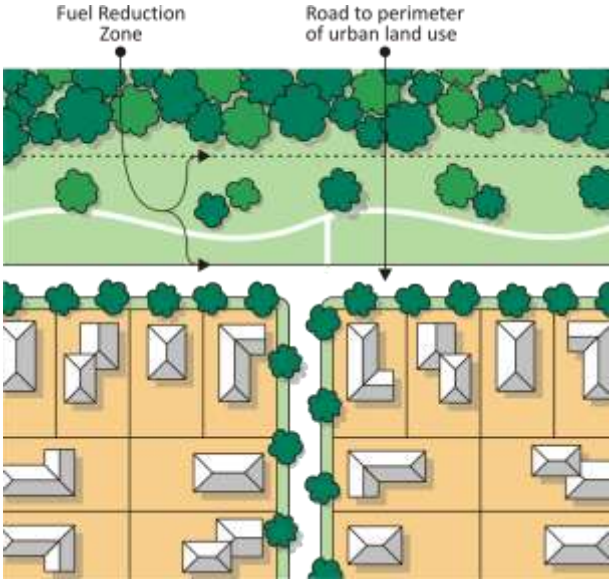
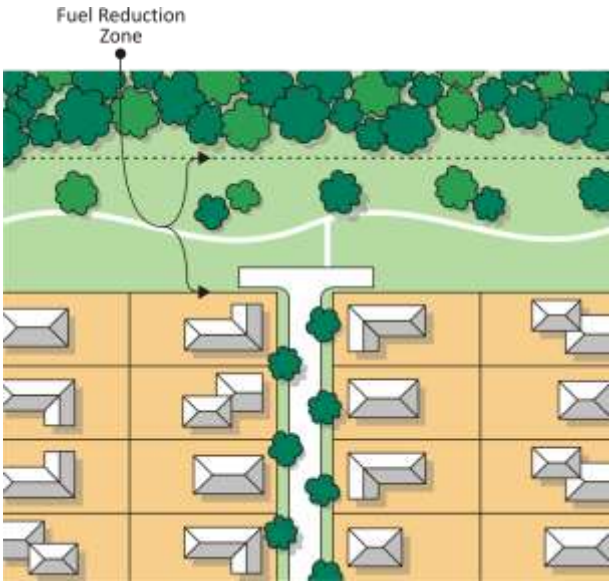
Consistent Laneways



Inconsistent Laneways



Column 1 Specific Outcomes	Column 2 Probable Solutions
Bus Routes (27) Bus Routes— (a) public transport routes conform with the approved Transit Network Plan forming part of the adopted Neighbourhood Master Plan; (b) conform with Department of Transport and Main Roads requirements; (c) are direct and safely accessible by foot from all buildings within a neighbourhood and provide links with external areas and are efficient to operate; (d) are located on roads capable of accommodating regular bus services as outlined in Appendix B and which— (i) provide for ease of movement of buses within and between neighbourhoods and for links to external areas without complicated turning manoeuvres; and (ii) are aligned to allow for efficient and unimpeded movement of buses without facilitating high traffic speeds; (e) the road network offers opportunities for cost-effective operation of demand-responsive public transport services should the need arise, providing for both peak and off-peak regular services and the potential future provision of demand-responsive services; (f) incorporate bus stops which are located— (i) to provide for pedestrian safety, security, comfort and convenience; (ii) to be able to be casually surveilled from nearby buildings; and (iii) to be in keeping with the character of the locality; (g) for residential development, minimise adverse impact on the amenity of nearby dwellings; (h) where a bus stop is proposed, the adjoining residential density may be increased through: (i) smaller lot sizes, where consistent with the sites location within the Transect; or (ii) multiple residential lots where consistent with: (A) the zone; and (B) the sites location within the Transect.	**Bus Routes** (27) (a) Public transport routes conform with the approved Transit Network Plan forming part of the adopted Neighbourhood Master Plan. (b) 90% of dwellings or businesses are within 400m walking distance from an existing or potential bus route. (c) Where bus routes link across any road which carries in excess of 6,000 vpd, the intersection is designed with traffic signals or enables a left turn into the road from one neighbourhood followed by a right turn from the road into the adjoining neighbourhood. (d) For roads within residential areas, routes for regular bus services comply with the following standards for bus routes— (i) Street Carriageway Widths Two-Way: 7.50m (ii) Minimum Geometric Layout R12.5m for Single Bus Unit **NOTE 12.3.4.4 S** Some routes may require geometry to suit an articulated bus. (iii) Roundabouts Maximum Desirable Pavement Crossfall: 3% Maximum Desirable Gradient: 6% (e) Bus stops for regular peak services are, or are projected to be, at 300m spacings where the route serves residential uses, 200m spacings where the route serves commercial uses and 500m spacing where the route serves industrial uses. (f) The siting of bus stops is coincident to the pedestrian path network.
Pedestrian/Cycle Network (28) (a) The road layout facilitates walking and cycling within and between neighbourhoods or wider city network in accordance with the approved Strategic Pedestrian and Cycle Plan forming part of the adopted Neighbourhood Master Plan and taking account of the Ipswich iGO Active Transport Action Plan and the Ipswich Public Parks Strategy. (b) Pedestrian paths and cycleways are located where there is casual surveillance and potential for the areas to be well lit. (c) Pedestrian, cycle and vehicular movement systems are co-located where appropriate to encourage maximum surveillance of public areas. (d) The location of paths are aligned to conserve trees and other significant features and where they exist, focus on vistas and landmarks whilst ensuring safe and convenient use by pedestrians and cyclists.	**Pedestrian/Cycle** (28) Footpaths and cyclepaths are provided in accordance with the adopted Neighbourhood Master Plan and to the standard of service specified in Appendix B. **NOTE 12.3.4.4 T** (1) Pathway connections are to be concrete paved and suitably drained and may incorporate overland drainage flow corridors. (2) The construction of footpaths, cycleways or dual use paths should be delayed until all utilities have been installed.

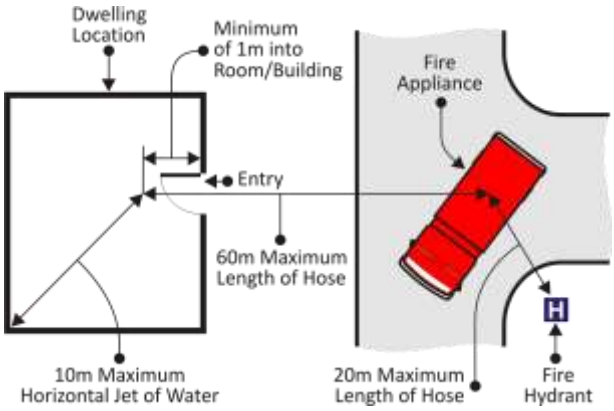
Column 1 Specific Outcomes	Column 2 Probable Solutions
Interface with non urban zones (29) Roads are provided between urban and non urban areas. (30) Roads are designed to: (a) serve as a hard interface between urban and non urban areas; (b) provide walking trails; and (c) facilitate the movement of emergency services vehicles, particularly for fire fighting purposes. (31) A continuous constructed road reserve in provided for the full perimeter of the urban/non urban interface, refer to Figure 12.3.4.4.5. **NOTE 12.3.4.4 U** Continuous road access around the perimeter of the urban/non urban interface is critical to the management of fire and reducing urban edge impacts to areas such as the conservation estate while enabling public access.	**Interface with non urban zones** (31) **Figure 12.3.4.4.5 - Consistent and Inconsistent Interface Solutions** **Consistent** • A road is the interface between urban areas and non urban areas; • A fuel reduction zone is created.  **Inconsistent** • A road does not provide continuous access to the non urban area; • A road creates a cul-de-sac and potential safety issue. 

Column 1 Specific Outcomes	Column 2 Probable Solutions
Public Open Space (32) Parks— (a) are generally provided in accordance with— (i) the approved Greenspace Plan forming part of the adopted Neighbourhood Master Plan; and (ii) Part 13—Local Government Infrastructure Plan and Map 1 - Principal Conservation Areas and Integrated Open Space Network in Schedule 7; (b) provide opportunities for casual surveillance; (c) are, with the exception of linear or waterside parkland, easily visible from the street; (d) are located away from excessive noise; (e) generally have road frontage to all edges; **NOTE 12.3.4.4 V** (1) In some instances it may be appropriate for dwellings to front parks where serviced by a laneway. (2) Where a house fronts to a park, a foot path should be provided through the park to clearly delineate the public and private realm. (f) are located and designed in accordance with the desired standards of service for each recreation setting outlined in Part 13—Local Government Infrastructure Plan and Planning Scheme Policy 3—General Works. **NOTE 12.3.4.4 W** As an aid in determining whether parkland dedications could be required for any proposed lot reconfiguration the explanatory note detailed in Appendix C should be used.	**Public Open Space** (32) In lot reconfigurations where it is proposed that parkland is secured— (i) land dedications are provided (and are indicated on the Plan of Subdivision); and (ii) the areas, dimensions, orientation and topography of public open space are appropriate for their intended purpose; and **NOTE 12.3.4.4 X** Reference should be made to the issues outlined in the section entitled 'criteria for on-site land dedication' in Appendix C – Land Dedications for Public Parks. (iii) the land is not constrained by encumbrances from providing public recreation uses; and **NOTE 12.3.4.4 Y** This includes cultural significance, conservation or infrastructure encumbrances (e.g. high voltage overhead power transmission lines) except where these can be incorporated to supplement or enhance the uses intended for the land. (iv) the edges of the parkland are overlooked by housing or commercial or other development with active frontages that can provide effective informal surveillance, rather than adjoining the rear of the dwellings; and (v) for linear or waterside parkland— (A) the lot layout aligns the parkland reserve along the river or creek edge; (B) the extent of the parkland correlates with the adopted flood level or is a minimum width of 50m (measured from the banks of the watercourse) or as much in addition to the 50m to achieve at least a 10m width with slope less than 1 in 20 (5%) to enable construction of a walking/bicycle path and to facilitate maintenance; and (C) the land is stable and useable for recreation and pedestrian/cycle movement, within the broader functions of drainage, conservation and visual amenity. **NOTE 12.3.4.4 Z** (1) Where land is dedicated which forms part of the adopted open space system, an infrastructure credit (offset) will apply as outlined in the Ipswich Adopted Infrastructure Charges Resolution or in accordance with the terms of an executed Infrastructure Agreement. (2) Where the value of the land to be dedicated exceeds the public parks proportion of an adopted infrastructure charge obligation associated with the reconfiguration, the applicant is entitled to cash reimbursement of the infrastructure credit (offset) as outlined in the Ipswich Adopted Infrastructure Charges Resolution or in accordance with the terms of an executed Infrastructure Agreement. (3) Land below the 1 in 20 Average Recurrence Interval (ARI) is considered to represent a primary drainage function and is not to be included in any public parks infrastructure credit calculations unless the land is stable, useable and free from encumbrances to provide public recreation uses. (4) Where the proposed open space does not immediately adjoin existing open space or land in the process of being dedicated as open space it may be necessary to include in the dedication the provision of access easements (either temporary or permanent) to the proposed open space.

Column 1 Specific Outcomes	Column 2 Probable Solutions
Quadrant Park (33) Quadrant parks are located to provide informal recreation and meeting places within more densely developed neighbourhoods. **NOTE 12.3.4.4 AA** Quadrant parks may be accepted by Council as dedicated parkland to which contribution credits apply, providing they form part of a group of parks that together are determined to replace or supplement a neighbourhood park.	**Quadrant Park** (33) Quadrant parks are designed and located to: (i) be formal in function and character; (ii) be highly accessible and visually prominent; and (iii) incorporate hard surfaces and street furniture to a standard that requires minimal maintenance and cost management.
Pocket Parks (34) Pocket parks are embedded into the streetscape (i.e. road reserve) at appropriate locations to contribute to the urban vitality of a community. **NOTE 12.3.4.4 AB** (1) Pocket parks provide areas within neighbourhoods for resting along commuter and recreational paths, and for general relaxation and neighbourhood amenity. (2) Pocket parks do not form dedicated parkland to which contribution credits apply. (3) Pocket parks are to be provided as part of the adjoining road reserve. (4) Alternative methods of management and maintenance may be proposed. (5) Pocket parks provide opportunities for stormwater quality management. (6) Accordingly they may form part of a dedicated stormwater management system.	**Pocket Parks** (34) A pocket park/s are provided within each neighbourhood and are designed and located to— (i) be highly accessible along clear pedestrian networks between destinations, preferably at terminating vistas; **NOTE 12.3.4.4 AD** Destinations include for example, transit facilities, local neighbourhood and major neighbourhood centres, community facilities, and higher order recreation and linear parkland. (ii) provide a minimum road frontage of 40% of the perimeter; (iii) conserve vegetation and other landform features; (iv) consider topography, including opportunities for provision of stormwater infrastructure such as swales and rain gardens as outlined in Appendix D - Frontage Treatments; and (v) incorporate pedestrian paths, street furniture and lighting to a standard that requires minimal maintenance and cost management.
Utilities (35) Cost effective and environmentally sustainable utilities (including water, electricity, gas, street lighting and communication services) are provided to each lot in accordance with the approved key trunk water supply and sewerage infrastructure plans and supporting strategies forming part of the Neighbourhood Master Plan. **NOTE 12.3.4.4 AC** (1) Applicants should determine the likely demand for water from the final development layout – not just the first stage of development. (2) At an early stage, applicants should obtain advice on existing system heads and reserve capacity at the nominated point of connection. (3) At an early stage it should be determined whether any existing water supply or sewerage trunk infrastructure within the property should be relocated or suitably protected. (4) Adequate water supply for fire fighting purposes is to be provided. (5) The layout of the reconfiguration is to ensure sewerage feasibility, otherwise there may be a reduction in the area of the lot available for building construction. (6) Sewerage pumping stations should not obstruct existing traffic corridors for cyclist or pedestrians or be located on footpaths or within close proximity to residential or commercial development.	**Utilities** (35) (a) Provision is made for the— (i) reticulation of water supply to each lot; (ii) reticulation of sewerage to each lot; (iii) supply of electricity (and where applicable the supply of natural gas) to each lot; (iv) supply of telecommunication services to each lot; and (v) installation of street lighting. **NOTE 12.3.4.4 AE** (1) The location, design and construction of sewerage facilities, water supply mains and fixtures, electricity, gas and communication services are in accordance with the requirements and specifications outlined in Planning Scheme Policy 3—General Works. (2) Wherever possible, compatible public utility services are co-located in common trenching in order to minimise the land required and the costs for underground services. (3) Where development is staged, each stage is to be fully serviced before a new stage is released. (4) Adequate buffers or separation distances are maintained between utilities and dwellings to protect residential amenity and public health. (b) All utilities are to be in place or sufficient security provided before the Plan of Subdivision is approved by the local government.

Column 1 Specific Outcomes	Column 2 Probable Solutions
Stormwater Drainage (36) The stormwater drainage system— (a) has the capacity to safely convey stormwater flows resulting from the adopted design storm under normal operating conditions; and (b) is located and designed to ensure that there are no flow paths that would increase risk to public safety and property; and (c) is to maximise community benefit via the incorporation of parks and other less flood-sensitive land within the drainage corridor and the placement of detention basin(s) for amenity and function.	**Stormwater Drainage** (36) (a) The design of the stormwater drainage system is— (i) in accordance with an approved Stormwater Catchment Plan forming part of the Neighbourhood Master Plan and the major drainage system is designed to safely convey stormwater flows under normal operating conditions for the 1% AEP + climate change; **NOTE 12.3.4.4 AF** The major drainage system design is based on the provisions of QUDM and Planning Scheme Policy 3—General Works. (ii) designed as part of a subregional system in accordance with an approved Stormwater Catchment Plan forming part of the Neighbourhood Master Plan that: (A) identifies the size and location of the storm water detention basin; and (B) identifies the location and dimensions of storm water gardens; **NOTE 12.3.4.4 AG** It will be sufficient at the reconfiguring a lot application stage to nominate the major drainage paths through the development and provide broad Rational Method calculations for the ARI 100 runoff in these paths. (iii) to be sufficient to hydraulically convey this design flow (the 1% AEP + climate change) through the subdivision to the lawful point of discharge; and (b) The width of the drainage path is— (i) sufficient to contain design flows; and (ii) allow maintenance access.

Column 1 Specific Outcomes	Column 2 Probable Solutions
NOTE 12.3.4.4 AG (1) The essential drainage considerations for issuance of an approval to reconfigure a lot are— (a) that the proposed development, as a whole, can actually be drained; (b) that the stormwater management system mimic (and use the features and functions of the natural drainage system which is largely capital, energy and maintenance cost free; (c) that the volume, timing, velocity and pollutant load of stormwater discharged from the subdivision will not exceed the conditions which occur before development; (d) that the development addresses drainage from any foreshadowed development in upstream catchments which may contribute to the runoff through the development as a whole (refer to the individual drainage master plans); (e) where a drainage master plan does not exist, applicants may be required to analyse the whole catchment or sub-catchment taking account of the likely future development, to ensure that no worsening will occur as a result of the proposed development on the land; and (f) that suitable provision has been made in the lot layout to accommodate Major Drainage (as defined in QUDM). (2) Minor Drainage (as defined in QUDM) detailed design, whilst not required to be addressed at the reconfiguring a lot application stage is to be addressed at the Operational Works Application Stage. (3) The Catchment Plan should encompass the development itself plus any upstream catchments delivering runoff into the development site, and extend sufficiently downstream to indicate a lawful point of discharge for any concentrated or modified water flows leaving the development site (N.B. Increased water flows should not leave a development site unless it is part of an overall, approved drainage master plan). (4) Unless approved as parkland by the Local Government, detention basins are to be dedicated as 'drainage reserve' and not included within any parkland dedication.	
(37) The capture and management of the following capture depth (mm/day) from all impervious surfaces: (a) 0 to 40% impervious: Capture the first 10mm/d of runoff; or (b) greater than 40%: Capture first 15mm/d of runoff.	
(38) All lots are located above the adopted flood level to provide protection of property in accordance with the accepted level of risk.	(38) (a) All residential, mixed residential and commercial and commercial lots are located outside the adopted flood regulation line and urban catchment flow paths. **NOTE 12.3.4.4 AI** (1) Those areas of residential lots below the adopted flood level for the applicable T-zone or zone or Sub Area which are affected by a 'significant flood flow' are to be subject to a drainage easement. (2) A Drainage Reserve may be required for any part of the land conveying stormwater drainage flows to the lawful point of discharge or where significant overland flows occur.

Column 1 Specific Outcomes	Column 2 Probable Solutions
(39) Design of the lot layout provides for— (a) drainage which does not cause damage or nuisance flows to adjoining properties; (b) a drainage system that can be economically maintained; (c) maximum use of on-site infiltration; (d) the safety and convenience of people using the site; and (e) any dams to be wholly located within lot boundaries.	(39) Lot drainage is to be directed into the street drainage system. **NOTE 12.3.4.4 AJ** (1) Where site conditions do not permit lot drainage into the street drainage system, lot drainage accords with the design criteria outlined in Planning Scheme Policy 3—General Works. (2) The procedure for both providing and protecting Inter Lot Drainage is outlined in Planning Scheme Policy 3—General Works.
(40) The stormwater drainage system— (a) minimises the environmental impact of urban run-off on surface receiving water quality and on other aspects of the natural environment; (b) optimises the interception, retention and removal of water-borne pollutants through the use of appropriate 'fitness for use' criteria, prior to the stormwater's discharge to receiving waters; (c) ensures the continuation, in healthy condition, of a wide diversity of wetland environments in the urban landscape; (d) ensures that 'first flush' diversion or treatment systems are installed to lessen the impact of shock pollution loadings to receiving waters; (e) optimises the integration of stormwater infrastructure with open space management objectives.	(40) (a) The design and proposed implementation of the water quality control systems are in accordance with an adopted Drainage Master Plan or Catchment Management Strategy. (b) If there is no adopted Drainage Master Plan or Catchment Management Strategy, there are no recommended probable solutions for this specific outcome as each situation requires an individual approach.
Fire Fighting (41) Lots are designed with adequate water supply and access for fire fighting purposes.	**Fire Fighting** (41) Either— (a) (i) fire hydrants are located no further than— (A) 80m apart within road reserves; and (B) 20m from hatchet lot handles; and (ii) all dwellings are able to be located within the fire appliance access distances shown in Figure 12.3.4.4.6 below; or (b) building envelopes are created on new lots such that the building envelope meets the fire appliance access distances shown in Figure 12.3.4.4.6 below; or **Figure 12.3.4.4.6 Fire Fighting** 
Retaining Walls (42) Where retaining walls are proposed within 1m of a side or rear boundary they are constructed with concrete (to form sleeper or structural/block walls) or boulders..	**Retaining Walls** There are no recommended probable solutions for this specific outcome as each situation requires an individual approach.

12.3.5 Effects of Development – Built Form

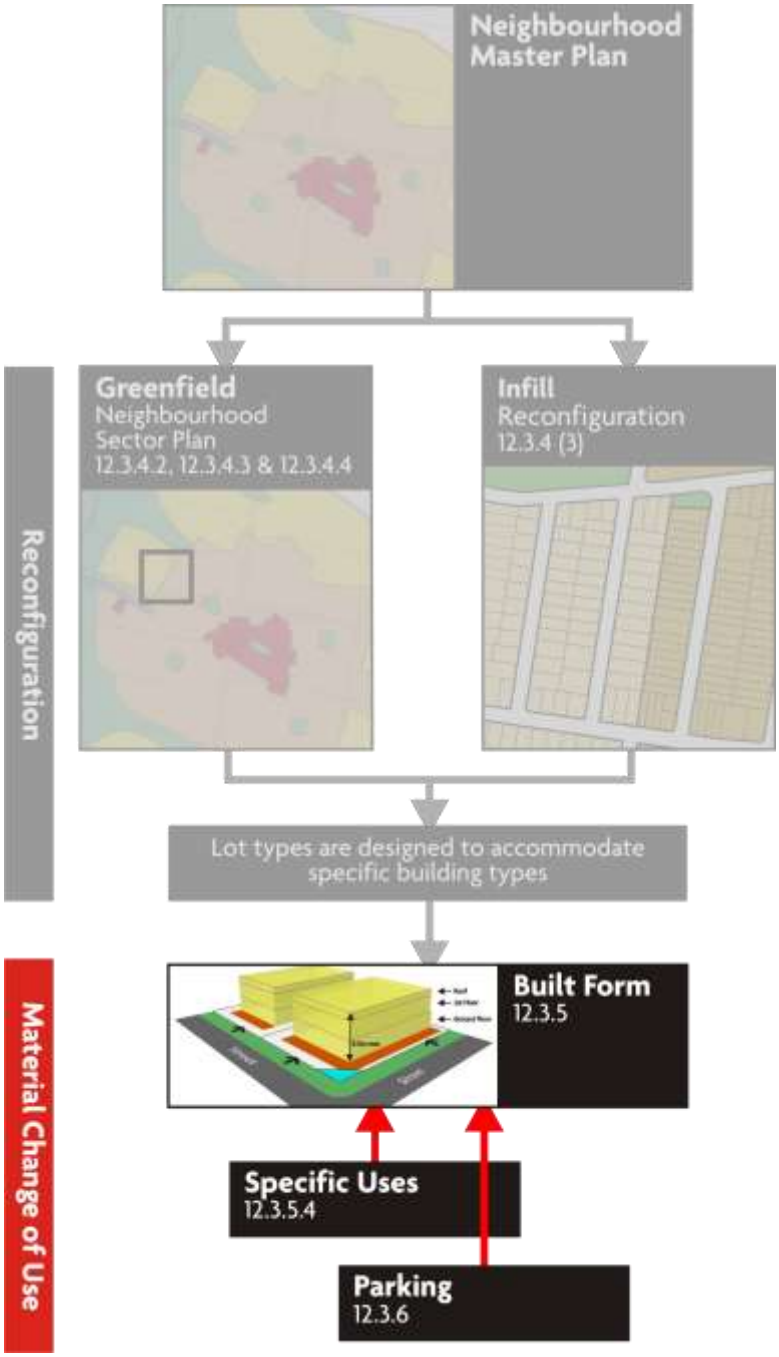
(1) Development that meets the specific outcomes of the 12.3.5.1, 12.3.5.2 and 12.3.5.3 Building Types and 12.3.5.4 Specific Uses below in the local government's opinion complies with the 12.3.5 Effects of Development – Built Form.

NOTE 12.3.5A

(1) This section is used in conjunction with an adopted Neighbourhood Master Plan for the purposes of a Material Change of Use.

(2) Figure 12.3.5.1 is a flow diagram of the process of development for a Material Change of Use.

Figure 12.3.5.1 - Process of Development - Material Change of Use



(a) Residential Building Types meet the Specific Outcomes of Effects of Development – Residential 12.3.5.1 and the Built Form Requirements of:

(i) Estate House designed and constructed in accordance with:

(A) Table 12.3.5.1.1 Estate House;

(B) Figure 12.3.5.1.17 Estate House – Lot Characteristics and Building Envelope;

(C) 12.3.5.4 Effects of Development – Specific Uses; and

(D) 12.3.6 Parking Provisions; or

(ii) Traditional Lot Detached House designed and constructed in accordance with:

(A) Table 12.3.5.1.2 Traditional Lot Detached House;

(B) Figure 12.3.5.1.18 Traditional Lot Detached House – Lot Characteristics and Building Envelope;

(C) 12.3.5.4 Effects of Development – Specific Uses; and

(D) 12.3.6 Parking Provisions; or

(iii) Small Lot House designed and constructed in accordance with:

(A) Table 12.3.5.1.3 Small Lot House;

(B) Figure 12.3.5.1.19 Small Lot House

(C) 12.3.5.4 Effects of Development – Specific Uses; and

(D) 12.3.6 Parking Provisions; or

(iv) Multiple Residential designed and constructed in accordance with:

(A) Table 12.3.5.1.4 Multiple Residential;

(B) Figure 12.3.5.1.20 Multiple Residential or Figure 12.3.5.1.21 Multiple Residential;

(C) 12.3.5.4 Effects of Development – Specific Uses; and

(D) 12.3.6 Parking Provisions; or

(b) The Live Work building type meets the:

(i) 12.3.5.2 Specific Outcomes of Effects of Development – Live Work;

(ii) Built Form requirements of Table 12.3.5.2.1 Live Work;

(iii) Figure 12.3.5.2.12 Live Work or Figure 12.3.5.2.13 Live Work;

(iv) 12.3.5.4 Effects of Development – Specific Uses; and

(v) 12.3.6 Parking Provisions.

(c) Mixed Use Residential, Commercial and Business Building Types meet the 12.3.5.3 Specific Outcomes of Effects of Development – Mixed Residential, Commercial and Business and the Built Form requirements of:

(i) Commercial / Mix Use designed and constructed in accordance with:

(A) Table 12.3.5.3.1 Commercial / Mix Use;

(B) Figure 12.3.5.3.13 Commercial / Mix Use;

(C) 12.3.5.4 Effects of Development – Specific Uses; and

(D) 12.3.6 Parking Provisions; or

(ii) Large Format Commercial designed and constructed in accordance with:

(A) Table 12.3.5.3.2 Large Format Commercial;

(B) Figure 12.3.5.3.14 Large Format Commercial;

(C) 12.3.5.4 Effects of Development – Specific Uses; and

(D) 12.3.6 Parking Provisions.

NOTE 12.3.5 B

Where a lot exists that has not been allocated a built form building type, the built form requirements for an Estate House should be used.

12.3.5.1 Effects of Development –Residential

(1) Residential building types comprise Estate House, Traditional Lot Detached House, Small Lot House and Multiple Residential.

Density and Diversity

(2) Specific Outcomes

(a) The minimum residential dwelling density identified:

(i) for the T-zone or on the Neighbourhood Master Plan; or

(ii) on the Neighbourhood Sector Plan or on the Reconfiguration Plan of Development is achieved.

(b) The building type that matches the building envelope nominated on the reconfiguration approval is constructed to the standards identified.

(3) Acceptable/Probable Solutions – for sub section (2)

(a) The relevant building type of:

(i) Estate House;

(ii) Traditional Lot Detached House;

(iii) Small Lot House; or

(iv) Multiple Residential;

is used.

Auxiliary Unit

(4) Specific Outcomes

(a) An Auxiliary Unit may be associated with an Estate House, Traditional Lot Detached House and Small Lot House.

(b) Auxiliary Units -

(i) are designed and located to provide high quality, attractive streetscapes; and

(ii) are not easily distinguishable from the primary dwelling within the streetscape.

(5) Acceptable/Probable Solutions – for sub section (4)

(a) An Auxiliary Unit may be located adjoining, below, above or at the side or rear of a principal dwelling, refer to Figures 12.3.5.1.1 or 12.3.5.1.2 or 12.3.5.1.3 below.

(b) Auxiliary Units are:

(i) compatible with the design of the principal dwelling, particularly in terms of materials, detailing, colours and roof form, so as to appear as an extension to the existing residence, or

(ii) designed to reflect the existing character, materials, roof form, colours, scale and construction techniques of surrounding dwellings so as to appear consistent with the rhythm of the streetscape.

Figure 12.3.5.1.1 - Layout options of an Auxiliary Unit located attached to, or to the rear of the Principal Dwelling

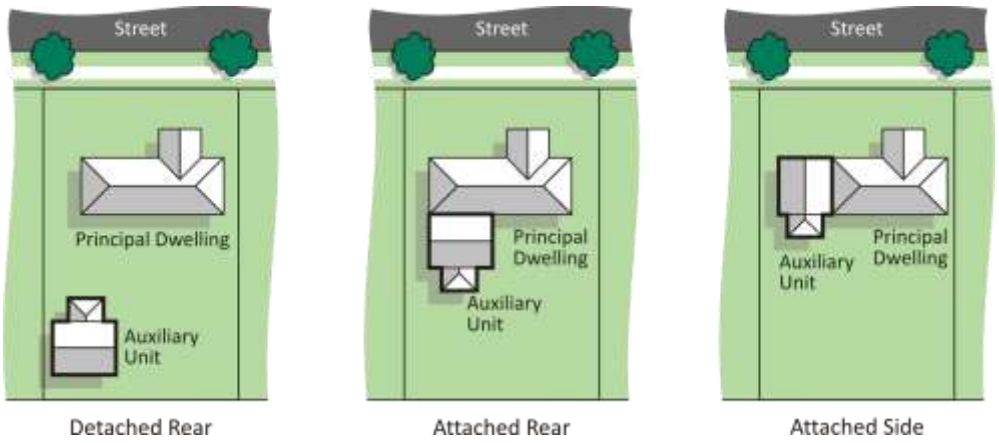


Figure 12.3.5.1.2 - Layout of an Auxiliary Unit located above a garage

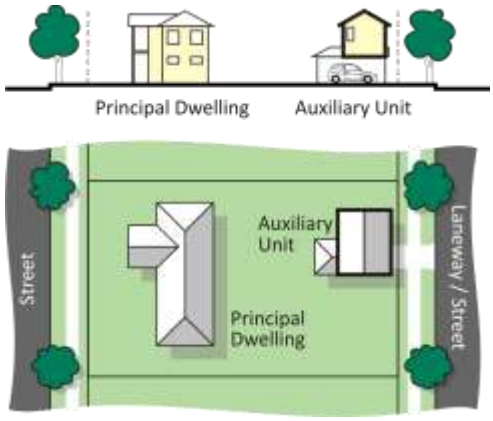
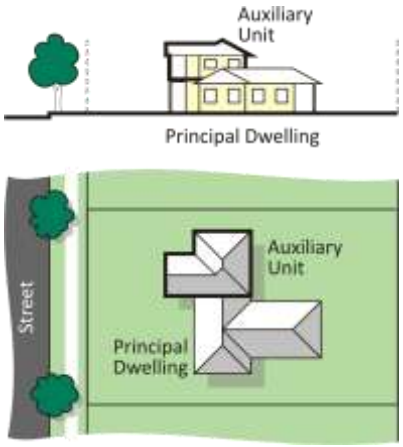


Figure 12.3.5.1.3 - Layout of an Auxiliary Unit located above the Principal Dwelling



NOTE 12.3.5.1 A

(1) Where an Auxiliary Unit is proposed to be attached or located above another structure, the construction shall comply with the Fire Resistant Construction requirements of the Building Code of Australia.

(2) The preferred location for an Auxiliary Unit is to the rear of the Principal Dwelling.

(3) Where a reconfiguration creates a laneway that has a section(s) not visible to the street, an Auxiliary Unit is constructed in accordance with Figure 12.3.5.1.2 to provide passive surveillance of the laneway by providing windows/openings facing the laneway.

Building Disposition

(6) Specific Outcomes

(a) Buildings are designed to respond to their physical context within the transect taking into consideration natural features, existing urban form and the intent of the T-zone or Zone in which the building is proposed, refer Figure 12.3.5.1.4.

Figure 12.3.5.1.4 – Building Disposition

NOTE 12.3.5.1 B

(1) Buildings respond to their location within the transect through architectural detailing and frontage treatments as detailed in Appendix D – Frontage Types.

(2) The building disposition for a Multiple Residential building type is subtlely different for each T-zone, for example:-

(i) a Multiple Residential building in the General Urban (T4) T-zone is setback further from the road, is generally lower in height and has limited architectural detailing; whereas

(ii) a Multiple Residential building in the Urban Core (T6) T-zone is placed on the street frontage, is a minimum of 2 storeys high and has a high degree of architectural detailing.

(b) Building height and mass generally achieves the provisions of the relevant building type unless appropriate to—

(i) create transitions in height and mass with adjoining buildings appropriate to the buildings location within the transect; and

(ii) cater to the extent of fall across the site; and

(iii) the character and amenity of the area and the overall townscape is not negatively affected.

(7) Acceptable solutions for sub-section (6)

(a) The front façade of the building is aligned parallel to the primary street frontage.

(b) The height and mass achieves the setbacks of the relevant building type Table or Figure, refer to either:

(i) Estate House, Table 12.3.5.1.1 and Figure 12.3.5.1.17;

(ii) Traditional Lot Detached House, Table 12.3.5.1.2 and Figure 12.3.5.1.18;

(iii) Small Lot House, Table 12.3.5.1.3 and Figure 12.3.5.1.19;

(iv) Multiple Residential, Table 12.3.5.1.4 and Figure 12.3.5.1.20 or 12.3.5.1.21.

Corner Lots

(8) Specific Outcomes

NOTE 12.3.5.1 C

(1) Corner sites are of particular importance owing to their visual prominence within the grid pattern of streets.

(2) Accordingly, the quality of the design of buildings on corner sites will have a significant impact on the achievement of the City's desired identity and character.

(3) The Neighbourhood Master Plan identifies corners of particular importance at significant intersections, and as such an extra storey is permitted at these significant corners see Figure 12.3.5.1.6.

(a) Buildings on corner sites—

(i) contribute to the clear definition of the street intersection;

(ii) use high quality, appropriate materials and detailing;

(iii) are accessed by pedestrians and vehicles on the 'long side' of the lot;

(iv) Where a Multiple Residential building is proposed, uses or works:

(A) are built to both street frontages and parallel to the street alignment;

(B) are higher, or at least as high, as those buildings adjacent;

(C) provide detailing on corner facades including prominent building entrances and windows;

(D) utilise a short splay or chamfered edge to the corner of the building closest to the intersection; or

(E) include other focal points such as a tower clock, visual display, or artwork.

(b) Residential development addresses both street frontages, in terms of—

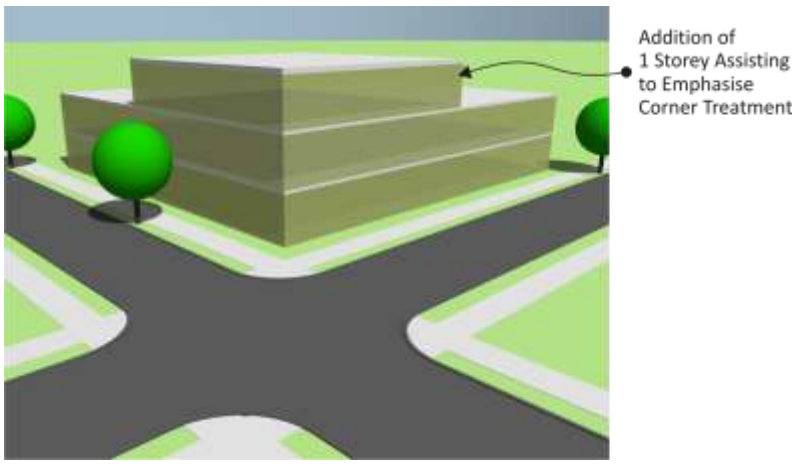
(i) orientation of habitable rooms; and

(ii) location of balconies, verandahs and entrances, in accordance with Figure 12.3.5.1.5.

Figure 12.3.5.1.5– Orientation of Habitable Rooms and Balconies and Verandahs to the Street

(c) The built form for the Multiple Residential building type responds to significant corners identified on the Neighbourhood Master Plan through the building stepping one storey higher at the corner nominated - refer Figure 12.3.5.1.6.

Figure 12.3.5.1.6 – Consistent Design of Multiple Residential on Corner Lot



Building Articulation

(9) Specific Outcomes

(a) Buildings with no variation in architectural treatment from bottom to top are avoided.

(b) Buildings are designed to—

(i) articulate the building façade in proportions that compliment existing surrounding buildings;

(ii) articulate and detail the building façade at street level to respond to the human scale;

NOTE 12.3.5.1 D
(1) Blank walls on the lower levels facing laneways and internal areas of a site are not considered to be visually prominent.
(2) Buildings are detailed or articulated to enable individual dwellings to be identified from public streets and communal areas.

(iii) articulate and detail the building façade on upper levels of buildings to acknowledge any significant long views of these buildings;

(iv) avoid large expanses of blank walls, particularly in situations where such walls are likely to be visually prominent;

(v) take into account the image presented by the backs and sides of buildings so as to ensure an attractive townscape;

(vi) incorporate features for solar control which reinterpret traditional features such as verandahs, balconies, deep reveals, covered shades, blinds, awnings and lattice;

(vii) integrate architectural styles and details (such as roof lines and fenestration) achieving a coherent and distinctive streetscape character;

(viii) address the street by incorporating active facades, with doors, windows and balconies providing casual surveillance of the street and visual interest;

(ix) provide opportunities for casual surveillance of public spaces, pedestrian paths and car parking areas;

(x) provide a clearly delineated transition space from public spaces (e.g. the street or communal open space) to dwellings and associated private use areas;

(xi) at the street alignment be highly detailed; and

(xii) be attractive.

NOTE 12.3.5.1 E

To promote a distinctive sense of place consideration may be given to promoting similar architectural styles for each street i.e. the style of dwelling proposed should give due regard and respect the existing pattern of residential buildings in the street (adjacent and opposite).

(10) Acceptable Solutions for sub-section (9)

(a) Where a Small Lot House:

(i) the building avoids wall lengths in excess of 15m through the use of articulation such as the use of verandahs, balconies, bay windows, window hoods or wall offsets a minimum 1m deep; or

(ii) has only a single side built to boundary unless the building is configured as a terrace house (built to boundary on both sides of lot).

Outdoor Living Space

(11) Specific Outcomes

(a) Single residential uses have an outdoor living space to enable residents to extend their living activities outdoors.

(b) The Multiple Residential building type has an outdoor living area with a minimum area of 8 metres squared and a minimum dimension of 2.4 metres.

(12) Acceptable Solutions for sub-section (11)

(a) An Estate House, Traditional Detached House Lot or Small Lot House has a clearly defined outdoor living space having-

(i) an area of at least 16m^2; and

(ii) no dimension less than 4m; and

(iii) access from a living area (see Figure 12.3.5.1.7).

(b) The slope of the outdoor living space is not more than 1 in 10.

Figure 12.3.5.1.7– Relationship of Living Area to Outdoor Space

Rhythm of Street – Streetscape

(13) Specific Outcomes

NOTE 12.3.5.1 F

(1) Streetscape represents the inter-relationship between buildings, landscape and open spaces in the street scene.

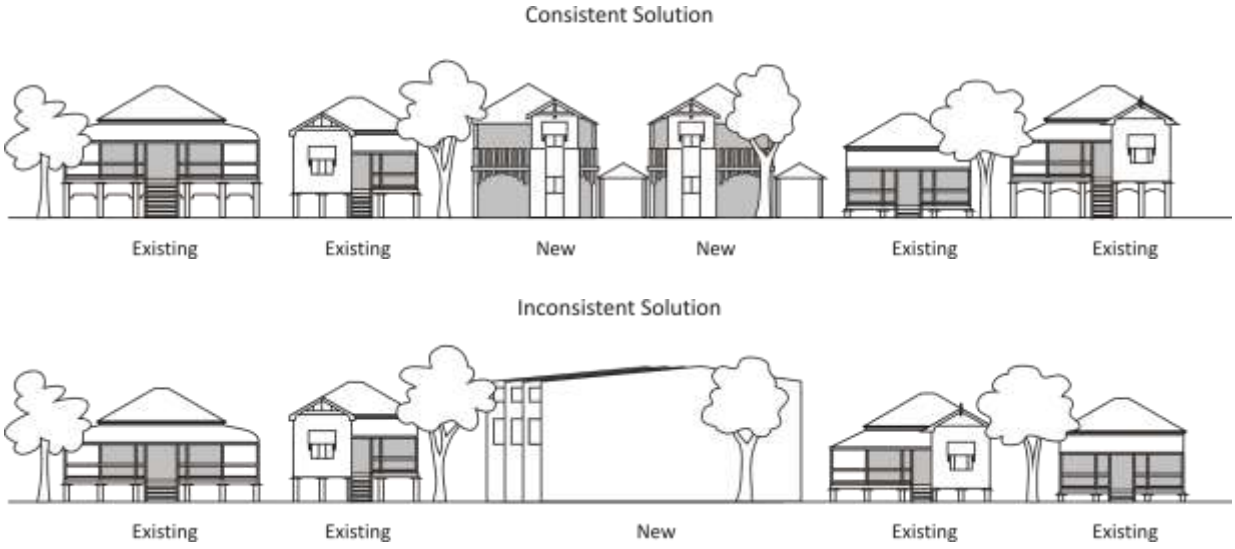
(2) Local amenity and identity are closely linked to streetscape character.

(3) Development should recognise predominant streetscape qualities, such as building form, scale, patterns, materials and colours in order to contribute to the character and identity of the local area.

(a) New buildings recognise and compliment the patterns and elements of facades within the street, refer Figure 12.3.5.1.8.

(b) The design of new buildings provides visual cohesion, continuity and distinction and in particular has regard to the horizontal and vertical proportions of building elements, refer Figure 12.3.5.1.8.

Figure 12.3.5.1.8 – Rhythm of Streetscape



Building Entrances

(14) Specific Outcomes

(a) Entries to buildings are oriented to the primary street frontage identified on the Neighbourhood Master Plan and are clearly delineated and legible.

NOTE 12.3.5.1 G

The principal street is the higher order transport corridor identified in the Neighbourhood Master Plan, for example, a dwelling that adjoins a 'Trunk Collector' and 'Access Two Way' orientates the building entry to the 'Trunk Collector'.

(b) Building identification and numbering is prominent.

(c) Entrances to buildings are emphasised by—

(i) a size of entrance of an appropriate scale and presence on the street; and

(ii) use of high quality materials and high levels of detailing around the entrance.

(15) Acceptable Solutions for sub-section (14)

(a) The building entry faces the primary street identified on the adopted Neighbourhood Master Plan.

Skyline Elements/Roof Top Design

(16) Specific Outcomes

(a) The design of the roof form is consistent with the predominant existing character or the desired character of roofs in the area.

(b) The design of Multiple Residential roof forms ensure that—

(i) plant rooms and equipment are appropriately concealed; and

(ii) appropriately coloured roof treatments are used.

NOTE 12.3.5.1 H

(1) Careful attention to design details is required if the unique skyline and visual character of the City is to evolve sympathetically.

(2) Special attention needs to be given to the design of roof forms and the location and concealing of plant and equipment.

(3) The design of rooftops and projections is to be treated as an integral part of the building envelope design.

Building Materials

(17) Specific Outcomes

(a) External materials are of good quality, attractive and durable.

(b) Use of highly reflective materials in facades or on roofs (e.g. unpainted zincalume) is avoided or limited to locations where they contribute to the amenity and character of adjacent properties and public or semi-public spaces.

(c) Colours are used to unify buildings which form part of a group, and colour schemes are appropriate to the style of building.

(d) Previously unpainted surfaces are not painted where the original finish (e.g. face brickwork) is an important part of the building's character.

Site Amalgamation

(18) Specific Outcomes

(a) Where the site for the proposed Multiple Residential development comprises more than one lot, all lots are amalgamated by survey into one parcel prior to the submission of an application for the approval of building works.

Site Suitability, Amenity and Effects on Public Utilities

(19) Specific Outcomes

(a) Uses or works are designed and sited to maximise site potential, minimise risk and provide a high degree of amenity.

(b) Uses or works do not cause unreasonable, detrimental impacts on the amenity of adjacent uses, streets, or other public or semi-public spaces with respect to—

(i) overshadowing or loss of sunlight or natural daylight;

(ii) wind turbulence;

(iii) noise; and

(iv) loss of privacy.

NOTE 12.3.5.1 I

(1) For Multiple Residential developments:

(i) the local government may require a wind analysis and a shadow analysis; and

(ii) adjoining properties are to receive a minimum of 3 hours sunlight in habitable rooms and at least 50% of the principal private open space between 9am and 3pm on 21 June.

(2) Refer to Planning Scheme Policy 2—Information Local Government May Request.

(3) Mixed-use developments incorporating residential accommodation (for short or long term residents) are designed to ensure that residents are afforded reasonable standards of on-site convenience and amenity, and safe and secure access.

(c) Habitable rooms are situated a minimum of 500mm above the adopted flood level.

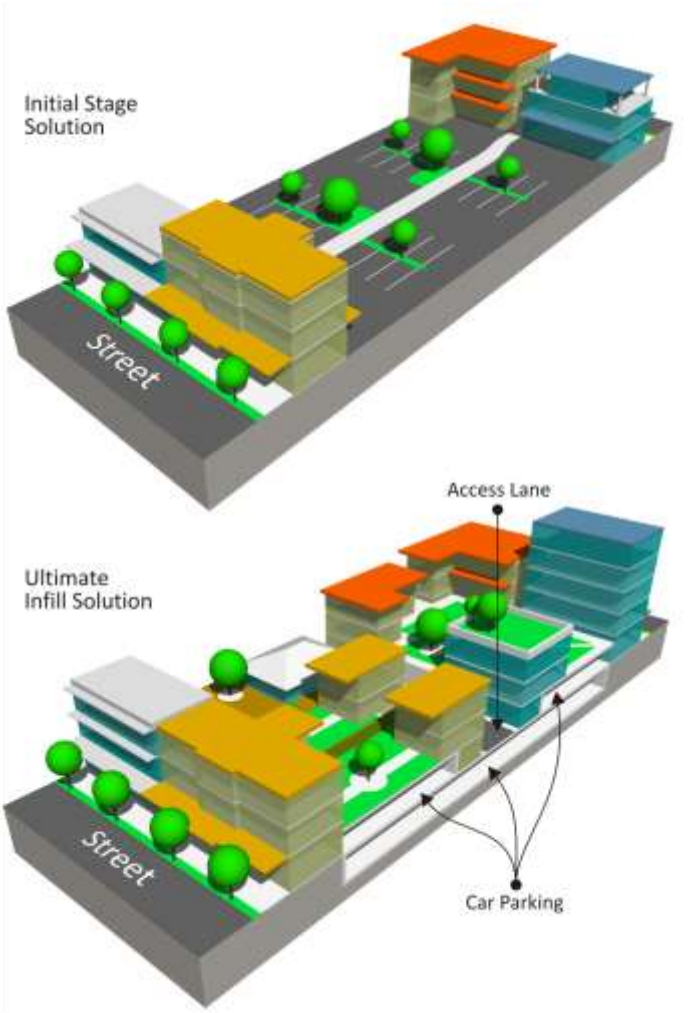
(d) Sites have proven, suitable surface and sub-surface stability characteristics having regard to past, present and likely future mining activity.

(e) Buildings are sited within a lot so that the future development of the balance area of the lot (if any) is facilitated.

NOTE 12.3.5.1 J

Where ultimate development is not being achieved the placement of buildings on the lot should enable future infill development, refer Figure 12.3.5.1.9

Figure 12.3.5.1.9 - Infill Development



Privacy

(20) Specific Outcomes

(a) Direct overlooking of main internal living areas of other dwellings is minimised by building layout, location of entrances, location and design of windows and balconies, screening devices and landscaping or by physical separation.

(b) Buildings are sited and designed to provide adequate visual privacy for neighbours;

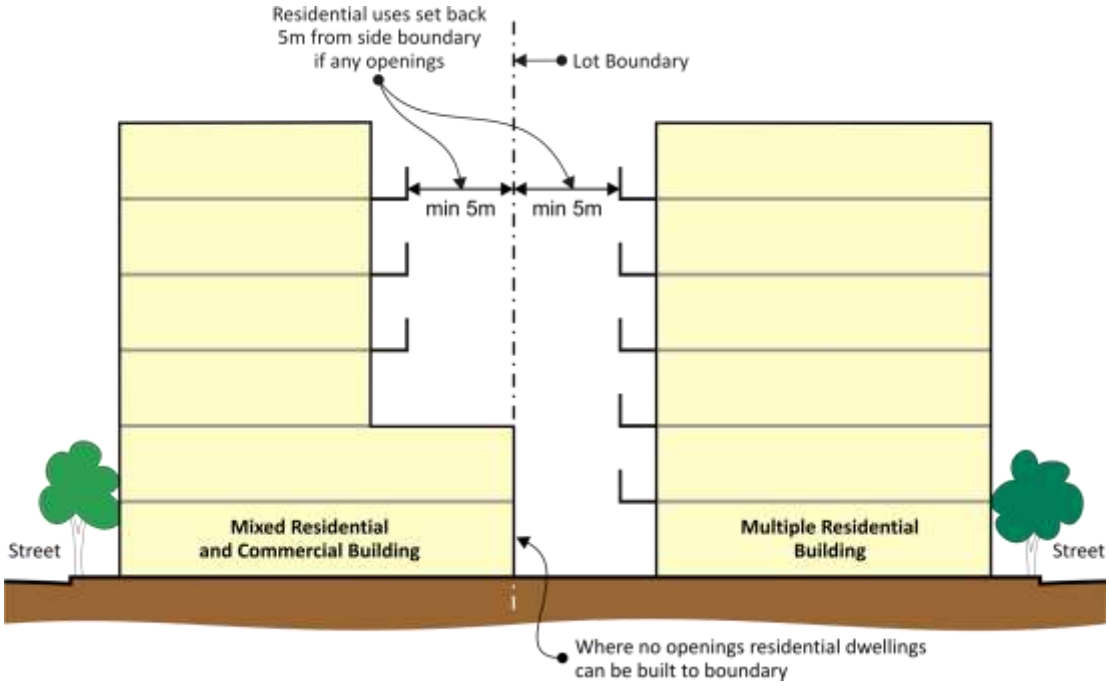
(c) Multiple Residential buildings are sited and designed:-

(i) to provide screening of ground floor openings;

(ii) where not built to boundary, be setback a minimum of 5 metres where dwellings have openings (i.e. windows or balconies) to the side and rear boundaries, refer Figure 12.3.5.1.10; and

(iii) create a podium level.

Figure 12.3.5.1.10 – Multiple Residential Setbacks



(d) Dwellings are designed to face a street frontage or towards the interior of a site, rather than across side or rear boundaries to adjoining land.

(e) Direct views between living area windows of adjacent dwellings are screened or obscured.

(f) Direct views from living rooms of dwellings into the principal area of private recreation space of another dwelling are screened or obscured.

(g) Each dwelling is provided with a private entrance at ground level, or alternatively, where there are shared access paths to entries, overlooking into habitable rooms is prevented by the use of screen walls or the location of windows above 1.6 metres from the floor.

Acceptable Solutions for sub-section (20)

(21) Specific Outcomes

(a) The screening of habitable room windows, refer Figure 12.3.5.1.11, where setback to side or rear boundary is less than 1.5 metres at ground or second storey level and less than 4.5 metres above second storey level, may be provided by one of the following measures —

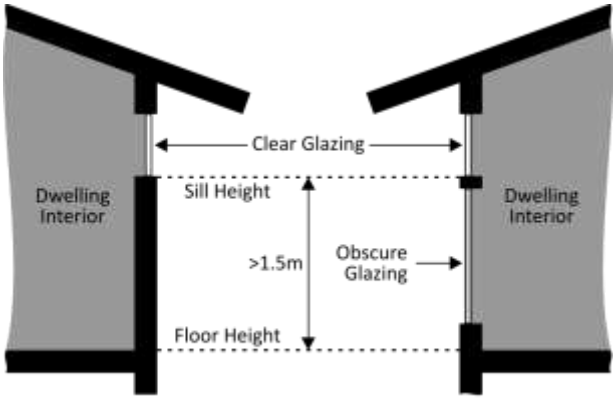
(i) landscaping, including existing dense vegetation or new planting;

(ii) window screens that have a maximum area of 25% openings, which are permanently fixed and made of durable materials;

(iii) 1.8 m high solid fences or walls between ground floor level windows; or

(iv) sill heights more than 1.5m above adjacent floor level.

Figure 12.3.5.1.11 – Privacy



Adjacent Dwelling Window Openings for Visual Privacy

Noise

(22) Specific Outcomes

(a) Noise from activities does not cause an environmental nuisance at noise sensitive places, including existing and future residential areas.

(b) Site layout and building design protect internal living and sleeping areas from high levels of external noise.

(c) Active recreation facilities, including swimming pools, spas, tennis courts and barbeque areas and equipment and machinery such as garbage chutes, pumps, compressors, air conditioning and other plant which generate high noise levels, are located away from habitable rooms in nearby dwellings or are enclosed or otherwise acoustically treated.

(d) Where possible, driveways and parking areas are located away from the windows of habitable rooms in adjacent dwellings at the same level, or are screened to minimise noise.

(e) Buildings are either:

(i) designed to mitigate exposure to unacceptable transport noise (particularly from main roads or rail corridors); or

(ii) designed and constructed so that acceptable living conditions are created within the dwelling.

(f) Noise mitigation is achieved by—

(i) incorporating noise attenuating features into the design and layout of buildings and development sites;

(ii) enclosing or erecting acoustic screens around machinery, including air conditioning equipment; and

(iii) locating noisy operations at sufficient distance from noise sensitive areas.

(g) Uses and works are designed and constructed to incorporate noise attenuation and other mitigation measures to minimise the impacts of adjoining uses and achieve acceptable living conditions within the dwelling.

NOTE 12.3.5.1 K

(1) In some instances further information will need to be submitted to the local government, such as a noise assessment for consideration as part of the development assessment process.

(2) Further information regarding noise assessment is contained in Planning Scheme Policy 2—Information Local Government May Request.

(3) Acoustic fencing is the least preferred noise attenuation measure and should only be used after all other attenuation measures have been implemented and assessed (where necessary to supplement other attenuation measures) and will generally only be considered appropriate in association with regional transport corridors.

(4) Refer to the Environmental Protection Policy (Noise) (EPP Noise) for road traffic noise criteria.

Lighting

(23) Specific Outcomes

(a) Lighting is—

(i) provided in public streets and public/communal spaces, along pedestrian and cyclist paths and within car parking areas;

(ii) located such that mature planting does not reduce its effectiveness;

(iii) aesthetically integrated into the total design with building, landscaping, signage, streetscape and public space design;

(iv) used to illuminate buildings, public and communal areas and other areas that may be susceptible to criminal activity, but avoids 'light spill' which would detract from the amenity of nearby areas (particularly residential uses) or contribute to hazardous traffic conditions;

(v) appropriately placed to avoid shadows and glare which might put pedestrians at risk. (i.e. shielded light at eye level);

(vi) not directed onto nearby properties;

(vii) downward directed;

(viii) appropriately shielded at its source;

(ix) provided to vehicular and pedestrian movement areas, including roads, paths and carparks, in order to provide visibility and safety at night; and

(x) provided for entry ways, and includes point-to-point lighting for pedestrian walkways.

(b) Wall mounted light fittings or ground mounted up lights of hidden source, are used to illuminate feature buildings and structures.

(c) Particular attention is given to the lighting of sites which are situated within 6km of the Amberley Air Base runway, so as not to cause distraction or interference with a pilot's visibility while in control of approaching or departing aircraft.

NOTE 12.3.5.1 L

(1) The Local Government may require a lighting plan.

(2) Refer to Planning Scheme Policy 2—Information Local Government May Request.

(3) Also refer to—

(a) Table 11.4.2, section 11.4.9 (Defence Facilities), Part 11(Overlays) of this planning scheme; and

(b) State Planning Policy 1/02 – Development in the Vicinity of Certain Airports and Aviation Facilities.

(4) For advice on how to meet aviation safety requirements refer to CASA Guideline – "Lighting in the Vicinity of Aerodromes, Advice to Lighting Designers".

Climate Control and Energy Efficiency

(24) Specific Outcomes

(a) Uses and works are sited, designed and constructed to respond to Ipswich's climate in a manner which minimises reliance on non-renewable energy sources for heating, cooling or ventilation.

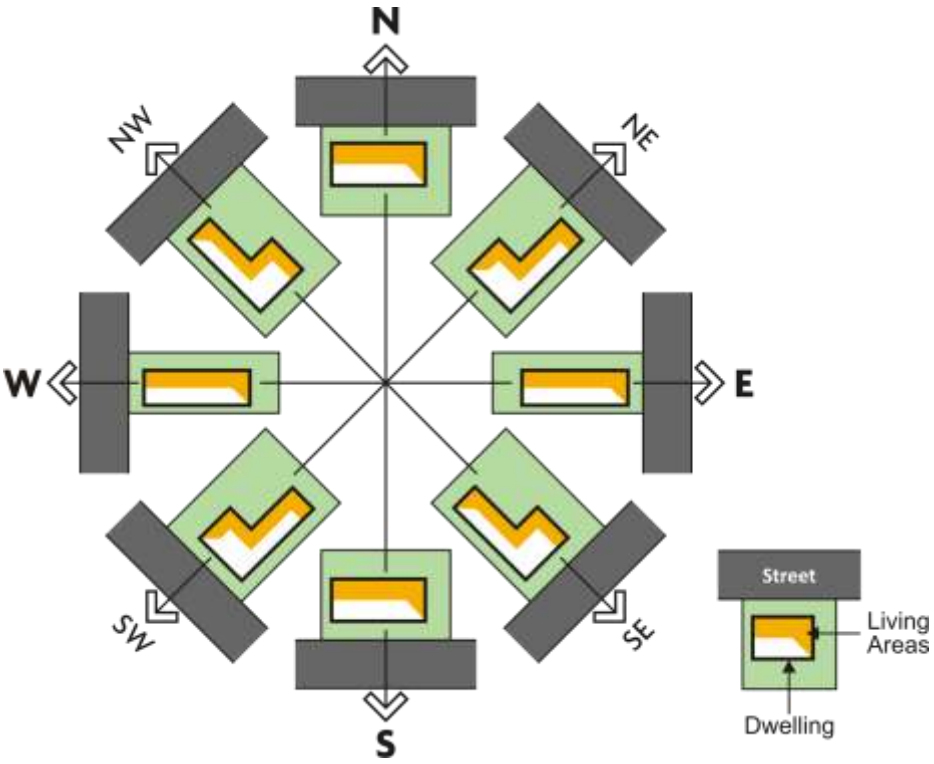
(b) Habitable rooms, occupants, streets and public/communal spaces are capable of receiving adequate daylight and ventilation which maximises access to winter sunshine and summer breezes.

NOTE 12.3.5.1 M

(1) Where practical the principal living area is located on the north eastern side of the dwelling, refer Figure 12.3.5.1.12.

(2) Windows and doors in buildings are located, sized and shaded and the building layout and materials chosen to facilitate energy conservation.

Figure 12.3.5.1.12 - Location of Principal Living Area(s)



(c) Building design where applicable incorporates architectural features such as extended eaves, awnings, pergolas and verandahs to protect windows and doorways from summer sun, glare and rain, and to provide shelter for outdoor living areas.

(d) Habitable rooms receive adequate daylight for the carrying out of daily tasks and private recreation space receives adequate sunlight, having regard to both on-site and adjacent development.

(e) Buildings are sited and designed—

(i) to maximise use of prevailing breezes for natural ventilation; and

(ii) so that openings (windows and doors) are located in opposite and adjacent walls wherever possible to facilitate capture of prevailing breezes and cross ventilation.

NOTE 12.3.5.1 N

(1) Dwellings are sited, designed and constructed with windows—

(a) to face a court or other outdoor space open to the sky, or an open verandah; or

(b) to be placed not less than a horizontal distance of 1.5m from any facing building.

(25) Acceptable Solutions for (24)

(a) The Small Lot House provides principal living areas to the north eastern side of the dwelling.

Landscaping

(26) Specific Outcomes

(a) Landscaping is designed, established and maintained to—

(i) compliment the existing or intended streetscape character and appearance and thereby assist with the integration of the development into the streetscape;

(ii) an appropriate scale, relative to both the street reserve width, the size and nature of the development and the intended function of the landscaping;

(iii) be sensitive to site attributes, such as streetscape character, cultural features, natural landform, existing vegetation, views, land capability, availability of water on site, and drainage;

(iv) incorporate significant existing vegetation, where possible;

(v) improve privacy and minimise overlooking into private spaces;

(vi) promote safety and casual surveillance;

(vii) assist in microclimate management and energy conservation and efficiency;

(viii) integrate and form linkages with parks, reserves and transport corridors;

(ix) accommodate stormwater flows and maximise absorptive landscaped areas for on-site infiltration of stormwater;

(x) consider lines of sight for pedestrians, cyclists and vehicles;

(xi) provide attractive and coordinated street furniture and facilities to meet user needs;

(xii) effectively screen storage and service areas from views from outside the site;

(xiii) achieve easy and cost effective maintenance, which is not overly dependent on the city's reticulated water supply and utilises stored rainwater and recycled treated wastewater where practicable; and

(xiv) avoid damage to building foundations and overhead and underground utility services.

(b) Landscaping is designed to promote safety through—

(i) the provision of shade and shelter which encourages the use of public and communal areas; and

(ii) planting which supports informal surveillance and does not obscure doors and windows overlooking public/communal spaces and isolated areas.

NOTE 12.3.5.1 O

(1) The Local Government may require a Landscaping Plan to be prepared.

(2) Refer to Planning Scheme Policy 2—Information Local Government May Request.

Fences and Walls

(27) Specific Outcomes

(a) Fence types are designed giving consideration to –

(i) the appropriateness of the fence design in its local context;

(ii) the role of the fence;

(iii) the definition of the property boundary;

(iv) uses on the site and on adjoining sites;

(v) existing or planned lighting and landscaping; and

(vi) site security and access identification and restriction.

(b) For details on frontage treatment options refer to Appendix D – Frontage Types.

Paving Materials and Street Furniture

(28) Specific Outcomes

(a) For Multiple Residential uses and works materials and colours used for footpath paving and street furniture are consistent with the local government's adopted standards.

Safety and Security

(29) Specific Outcomes for Multiple Residential uses and works

(a) Overall Design/Legibility:

(i) Uses and works are designed and managed to ensure that users are aware of how to safely gain access to, around and within the premises, with a particular emphasis on vulnerable groups, vulnerable elements and vulnerable settings.

(ii) The design increases people's awareness of their environment and potential risks to their safety.

(iii) The design promotes the use, construction and maintenance of an urban environment which is user friendly and safe to live, work and move in at any time of day or night.

(iv) Where possible, the use or works improves the opportunities to be seen through reduction in isolation, improved mix and intensity of land use and increased legitimate use of spaces.

(v) Buildings, spaces and infrastructure are designed to assist legibility that enables people to find building entrances and exits as well as services such as public transport, phones and public toilets without undue signage (i.e. orientation and navigation through a site or area).

(vi) The layout minimises the potential for crime, vandalism and fear and enhances personal safety and the individual's perception of personal safety.

(vii) An easy to understand pedestrian network is provided so that people can easily find their way through, and connections to, important destinations.

NOTE 12.3.5.1 P

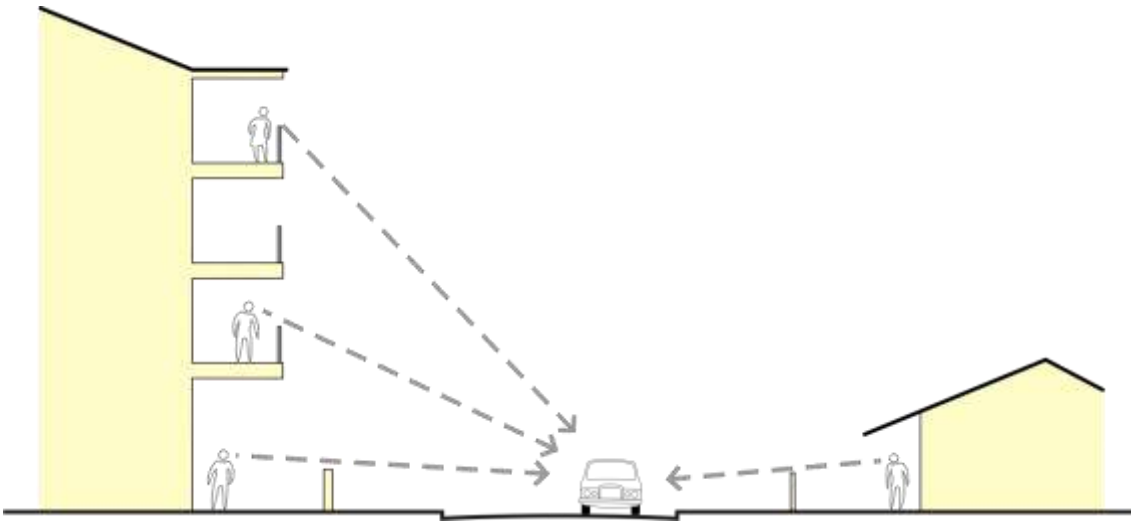
Where a site provides mid-block or convenient pedestrian connections to important destinations, unrestricted 24 hour access may be required.

(b) Surveillance and Sightlines

(i) The development provides unimpeded sightlines, particularly along pedestrian/bicycle routes.

(ii) The development encourages informal surveillance from surrounding buildings and land uses refer Figure 12.3.5.1.13.

Figure 12.3.5.1.13: Casual Surveillance of the Public Realm



(iii) Front fences and walls enable some outlook from buildings to the street to achieve safety and surveillance.

NOTE 12.3.5.1 Q

The objective of providing surveillance of the street takes precedence over the provision of physical barriers for noise mitigation purposes.

(iv) Visibility is provided into spaces where risk to personal safety is perceived to be high, including stairwells, elevators, car parks, lobby entrances and bicycle parking facilities.

(v) The design of the use or works avoids—

(A) 'blind' corners (including on stairs, in corridors or other situations where movement can be predicted);

(B) sudden changes of grade on pathways which reduce sightlines;

(C) concealment points (unless they can be secured after hours); and

(D) pedestrian tunnels, excepting that where unimpeded sightlines or the absence of concealment points cannot be reasonably achieved, hardware (such as security mirrors) and good lighting is provided to restore visibility.

(vi) All barriers (including landscaping features) along principal bicycle and pedestrian routes are visually permeable (i.e. can be easily seen through) to reduce concealment points.

(vii) Windows, verandahs, balconies and activities in buildings are directed to overlook pedestrian routes, open space areas and carparks.

(viii) Signposted emergency telephones or alarms are provided along identified vulnerable or isolated bicycle and pedestrian routes.

(ix) Where appropriate, street level windows and ground level uses (e.g. cafes or shops) are provided in buildings fronting onto public spaces and movement routes.

NOTE 12.3.5.1 R

(1) Organised or mechanical surveillance may be appropriate in some circumstances as an adjunct to (but not as a substitute for) informal surveillance.

(2) Organised or mechanical surveillance would generally only be considered appropriate in connection with vulnerable uses, features or areas as defined in this planning scheme.

(c) Signage-

(i) Adequate, legible signage is provided to assist pedestrians, particularly older people and people with disabilities, to find their way safely.

(ii) Signage is legible and uses strong colours, clear contrast, standard international pictograms and symbols and simple graphics.

(iii) Where appropriate, signage is provided that indicates where to go for assistance and the location of telephones, taxis and bus stops.

(iv) Clearly visible street numbers and the name of buildings and businesses are provided.

(v) Signs are located at entrances and near activity nodes and so that they are not obscured by growing vegetation.

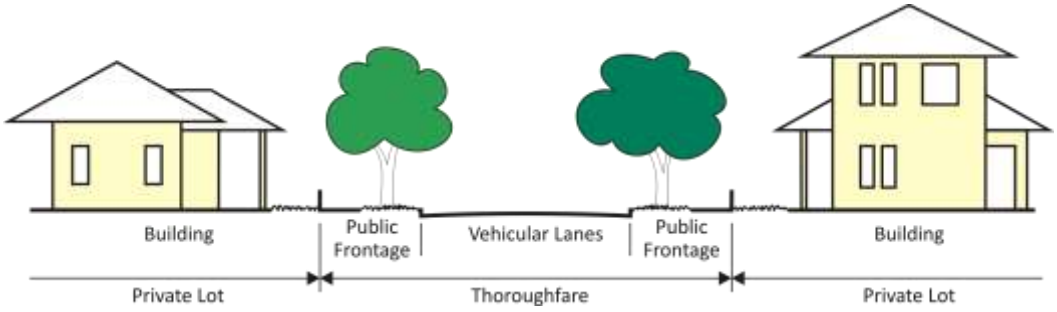
(vi) Clear, recognisable signage is provided at bus stops, taxi ranks and other public facilities.

(vii) Maps are provided in large, public open space areas and public buildings, to assist with way finding.

(d) Clear Definition of Ownership/Boundaries

(i) Development promotes the security of property by clearly defining ownership, boundaries and for residential development, legitimate use of private, semi-private and public/communal space refer Figure 12.3.5.1.14;

Figure 12.3.5.1.14: Delineation of Ownership and Legitimate Use



(ii) Landscaping, building features, changes of level and low to medium height fencing are used to delineate ownership boundaries.

(iii) Street names and building identification (e.g. numbers) are clearly displayed using reflective materials, with numbers clearly located on the kerb, and building frontage.

(e) Concealment Reduction

(i) Potential concealment points adjacent to main pedestrian routes are eliminated.

(ii) Where a concealment point is unavoidable, aids to visibility such as convex mirrors and good lighting are provided.

(iii) The design of the development avoids the creation of concealment points such as—

(A) dark areas adjacent to a main/designated pedestrian route;

(B) dead-end alleyways;

(C) indentation in fencing or walls;

(D) gaps in the streets such as entrances to unlit interior courtyards and recessed doorways; and

(E) areas that are isolated after dark.

(iv) Security lighting is provided along principal movement routes, in building entrances, site entries, car parking areas and other movement areas used after dark.

(v) Access to loading docks, storage areas and other restricted areas is controlled by—

(A) solid, secure materials; and

(B) locking the facilities after hours.

(f) Streetscape Design

(i) Streetscape design—

(A) creates safe public places;

(B) encourages pedestrian flow; and

(C) designates safe resting places.

(ii) Paving materials, surfaces and spaces are free of trip hazards and obstructions for the safe movement of the elderly and people with mobility difficulties.

(iii) Where appropriate, street furniture is provided which—

(A) does not obscure the views of users, obstruct sightlines along the street or provide opportunities for concealment; and

(B) provides shade and encourages use and informal surveillance.

(g) Building Design for Public Safety

(i) Building design removes, as much as is possible, the opportunity and incentive to commit crime and improves personal perception and the physical reality of a useable, comfortable and safe environment.

(ii) Buildings are designed and constructed, including through the location of windows, verandahs, balconies and the location of habitable rooms to support informal surveillance of the street reserve, nearby open space and other vulnerable areas.

(iii) Building entrances are designed so that they—

(A) are clearly defined;

(B) well lit and face the street;

(C) do not create concealment points;

(D) provide clear sightlines from the building foyer so that occupants can see outside before leaving the building;

(E) have lobbies visible from the exterior; and

(F) have staff entrances, if separate, which are well lit and maximise opportunities for informal surveillance and for clear sightlines.

(iv) Ramps and elevator entrances are provided in areas which are not isolated.

(v) Windows at street level, are secured.

(vi) Buildings are designed to minimise access between roof, balconies and windows of adjoining dwellings.

NOTE 12.3.5.1 S

Security measures should be incorporated into the design of buildings and sites but should not be overt in creating a 'fortress-like' appearance.

Service Facilities

(30) Specific Outcomes

(a) Provision is made for laundry and clothes drying facilities, mail boxes and external storage facilities (where required), which are—

(i) of useable size;

(ii) suitably located for convenient use; and

(iii) designed to be visually attractive or screened.

(b) Areas and receptacles for the storage and removal of waste are—

(i) designed, located and screened, where necessary, so as not to present an unsightly appearance, when viewed from a street or public 'right of way';

(ii) designed and located to facilitate access by the Local Government's waste removal vehicles; and

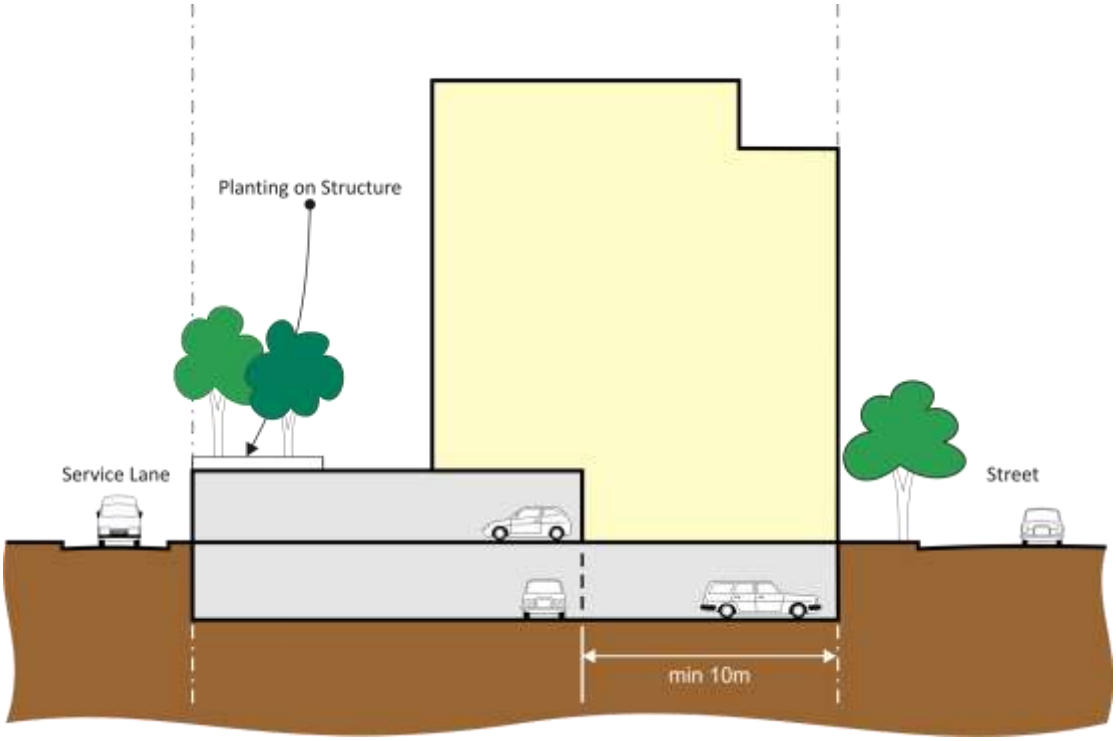
(iii) covered, contained and managed so as not to create an attraction for wildlife, particularly where the site is within 8km of the Amberley Air Base runway and the use may attract birds.

NOTE 12.3.5.1 T

Where a laneway is provided, areas and receptacles for the storage and removal of waste are provided in designated areas on one side of the laneway.

(c) Parking placement may go to the front façade where the parking is located totally below ground level, refer Figure 12.3.5.1.15.

Figure 12.3.5.1.15 – Parking Placement



NOTE 12.3.5.1 U

Refer to -

(a) Map OV7B Operational Airspace, Wildlife Attraction and Lighting Issues;

(b) State Planning Policy 1/02 – Development in the Vicinity of Certain Airports and Aviation Facilities; and

(c) Table 11.4.2, section 11.4.9 (Defence Facilities), Part 11 (Overlays) of this planning scheme.

(31) Acceptable Solutions for (30)

(a) The Small Lot House provides:

(i) an open air clothes drying facility that is a minimum of 10m^2 and located in a sunny, ventilated and convenient location that is screened from view from the street;

(ii) a waste and recycling bin storage area is located onsite and is capable of accommodating two waste bins;

Stormwater

(32) Specific Outcomes

(a) The capture and management of the following capture depth (mm/day) from all impervious surfaces:

(i) 0 to 40% impervious: Capture the first 10mm/d of runoff; or

(ii) greater than 40%: Capture first 15mm/d of runoff.

NOTE 12.3.5.1 V

(1) To reduce impervious surfaces, green roofs are encouraged to be incorporated in developments.

(2) Water quality objectives are to be achieved onsite before discharge of water.

Fire Fighting

(33) Specific Outcomes

(a) Residential uses are designed with adequate water supply and access for fire fighting purposes.

(34) Acceptable Solutions for (33) above

(a) All dwellings are located within the fire appliance access distances shown in Figure 12.3.5.1.16 below; or

(b) (i) The water supply service to the development is sized for the provision of fire fighting flows via hydrants and a metered bypass across a check valve in accordance with AS2419.1, such that new fire hydrants are installed to enable all dwellings to achieve the fire appliance access distances shown in Figure 12.3.5.16 below; and

(ii) vehicular access, through the site is via—

(A) a minimum 3 metre wide concrete driveway;

(B) with a minimum 3 metres in horizontal clearance and 4.5 metres in vertical clearance; and

(C) with a sufficient hard stand turnaround area or through route configuration to enable fire fighting vehicles to enter and leave the site in a forward gear.

Figure 12.3.5.1.16 - Fire Fighting

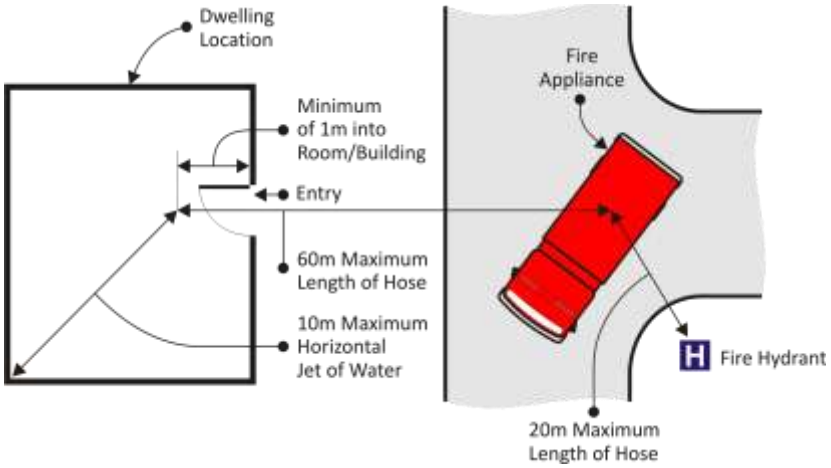


Table 12.3.5.1.1: Estate House

Element	Acceptable Solutions
Allotment Requirements (Refer to Appendix A)	
Frontage	18 metres or greater
Depth	Minimum of 30 metres
Area	Minimum of 600m^2
Vehicular Access	Laneway where provided and street frontage otherwise (single vehicle crossover only)
Building Requirements (Refer to Figure 12.3.5.1.17)	
Maximum Building Height above ground level	2.5 storeys and 9.25m overall
Level of primary building entrance above street frontage	Not applicable
Site Coverage	The maximum area covered by all buildings and structures roofed with impervious materials as stated in the Queensland Development Code.
Primary frontage setback	Minimum of 6.0 metres to dwelling wall Frontage treatment/s that constitute part of a building may encroach 3.0 metres into setback
Secondary frontage setback	Minimum of 3.0 metres to dwelling wall Frontage treatment/s that constitute part of a building may encroach 2.0 metres into setback
Sight line on corner lots	6 metres x 6 metres
Side boundary setback	Minimum of 2.0 metres to dwelling wall
Rear boundary setback	Minimum of 1.5 metres for part of a dwelling up to 4.5 metres in height Minimum of 2.0 metres for part of a dwelling above 4.5 metres in height **NOTE 12.3.5.1 W** Where a laneway is provided the rear setback will be consistent with the Small Lot House Acceptable Solutions Table 12.3.5.14 Small Lot House.
Front façade placement on primary frontage setback line	Minimum of 40% of the lot width at the setback line
Frontage treatment options (Refer to Appendix D)	Common lawn or Verandah or Balconies and Fence
Building Facades and Articulation	Frontage treatments extend for a minimum of 50% of the width of the front façade, and are at least 2.4m deep where no other private recreation space is provided, or otherwise 1.5m; or Windows/ glazing occupy at least 25% of the façade(s) surface area excluding garage(s).
Parking Placement Residential Dwellings: Carports and Garages Parking placement (garages or surface parking only, excludes basement car parking) where not accessed from a laneway.	Minimum of 1.0 metres behind front façade; OR Recessed a minimum of 1.0 metre beneath an upper level (excluding the frontage treatment) Garage door openings facing the street are no wider than 6.0m and no higher than 2.7m.
Driveway crossovers	Positioned a minimum of 1.5m from street trees.
Climate Control and Energy Efficiency	Principal living area opens directly to private open space.

NOTE 12.3.5.1 X

In addition to the requirements above, to be Self Assessable, Estate House must comply with the following provisions:

12.3.5.1 (5) – Auxiliary Unit

12.3.5.1 (7) – Building Disposition

12.3.5.1 (12) – Outdoor Living Space

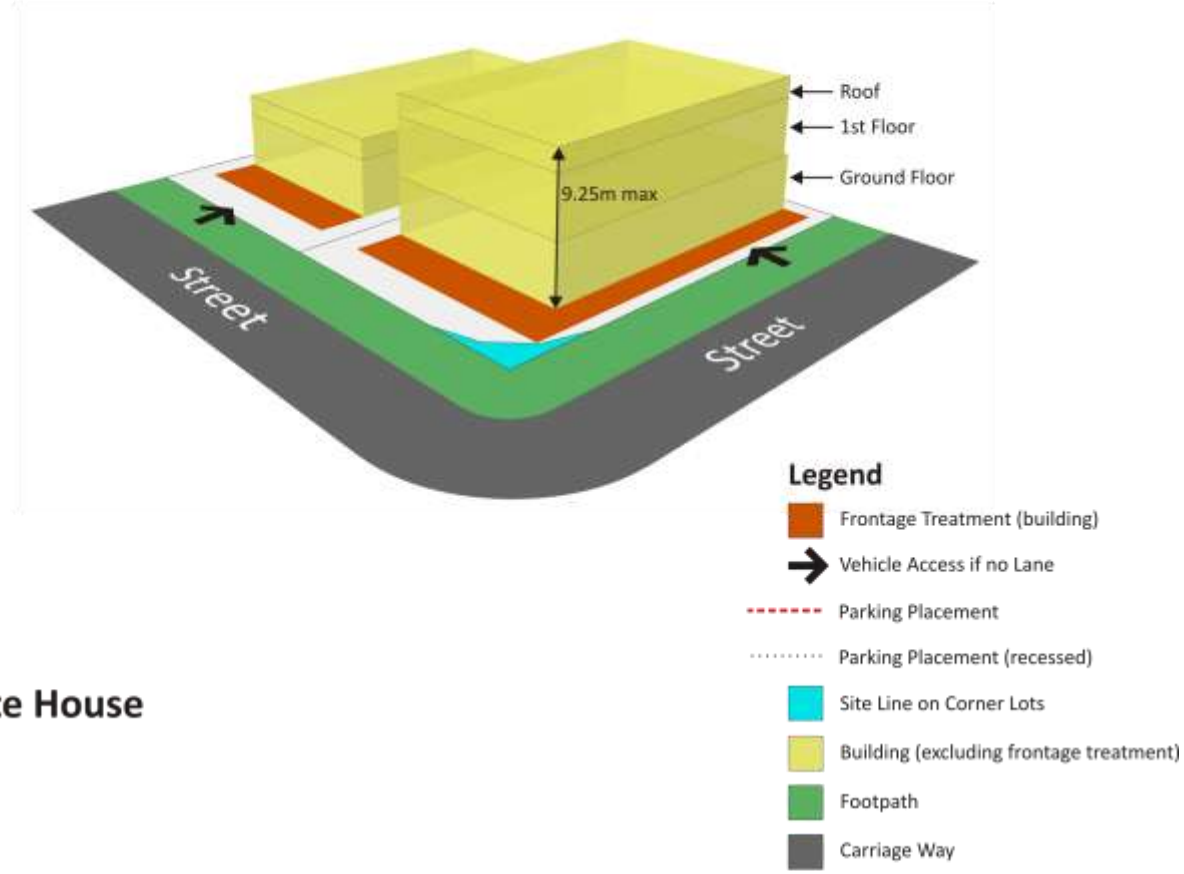
12.3.5.1 (15) – Building Entrances

12.3.5.1 (21) – Privacy

12.3.5.1 (34) – Fire Fighting

Figure 12.3.5.1.17: Estate House - Lot Characteristics and Building Envelope

T3



Estate House

NOTE 12.3.5.1 Y

(1) Precedent examples of the Estate House are identified below.

Table 12.3.5.1.2: Traditional Lot Detached House

Element	Specific Outcome/Acceptable Solution
Allotment Requirements (Refer to Appendix A)	
Frontage	12 metres or greater but less than 18 metres
Depth	Minimum of 25 metres
Area	Minimum of 300m^2
Vehicular Access	Laneway where provided and street frontage otherwise
Building Requirements (Refer to 12.3.5.1.18)	
Maximum Building Height above ground level	2.5 storeys and 9.25m overall
Level of primary building entrance above street frontage	A minimum of 0.25 metres, subject to slope constraints
Site Coverage	The maximum area covered by all buildings and structures roofed with impervious material as stated in the Queensland Development Code.
Primary frontage setback	Minimum of 2.5 metres and maximum of 3.5 metres to the dwelling wall Frontage treatment/s that constitute part of a building may encroach into setback
Secondary frontage setback	Minimum of 1.5 metres to dwelling wall Frontage treatment/s that constitute part of a building may encroach into setback
Sight line on corner lots	6 metres x 6 metres
Side and rear boundary setback	Optional to boundary on one side only for a dwelling wall up to 4.5 metres in height Minimum of 1.5 metres for part of a dwelling up to 4.5 metres in height Minimum of 2.0 metres for part of a dwelling above 4.5 metres in height **NOTE 12.3.5.1 Z** Where a laneway is provided the rear setback will be consistent with the Small Lot House Acceptable Solutions Table 12.3.5.14 Small Lot House.
Front façade placement on primary frontage setback line	Minimum of 40% of the lot width at the setback line
Frontage treatment options (Refer to Appendix D)	Common Lawn/Verandah/ Balconies and Fence or Stoop
Building Facades and Articulation	Frontage treatments extend for a minimum of 50% of the width of the front façade, and are at least 2.4m deep where no other private recreation space is provided, or otherwise 1.5m; or Windows/ glazing occupy at least 25% of the façade surface area excluding garages.
Parking Placement Residential Dwellings: Carports and Garages Parking placement (garages or surface parking only, excludes basement car parking) where not accessed from a laneway.	Minimum of 2.0 metres behind front façade; OR Recessed a minimum of 1.0 metre beneath an upper level Garage door openings facing the street are no wider than 6.0m and no higher than 2.7m.
Driveway crossovers	Positioned a minimum of 1.5m from street trees.

NOTE 12.3.5.1 AA

In addition to the requirements above, to be Self Assessable, Traditional Lot Detached House must comply with the following provisions:

12.3.5.1 (5) – Auxiliary Unit

12.3.5.1 (7) – Building Disposition

12.3.5.1 (12) – Outdoor Living Space

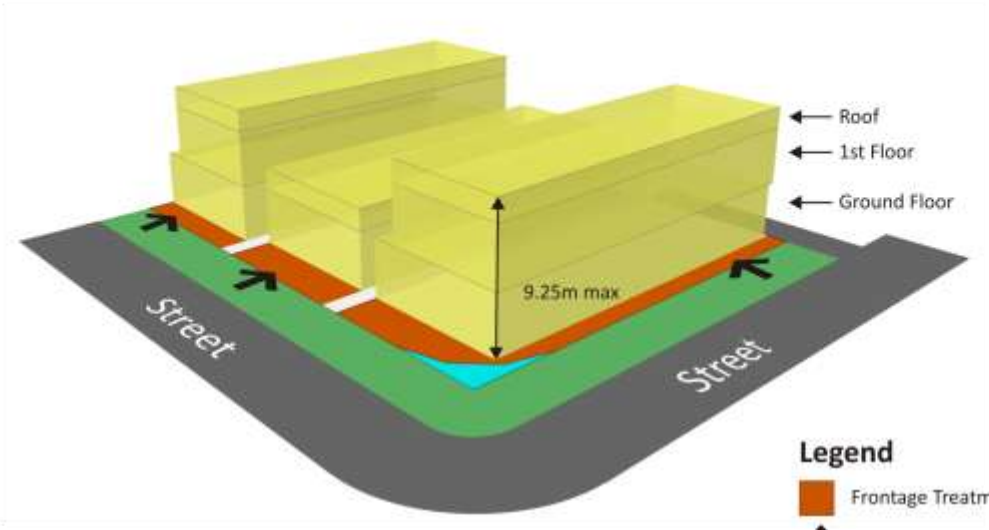
12.3.5.1 (15) – Building Entrances

12.3.5.1 (21) – Privacy

12.3.5.1 (34) – Fire Fighting

Figure 12.3.5.1.18: Traditional Lot Detached House- Lot Characteristics and Building Envelope

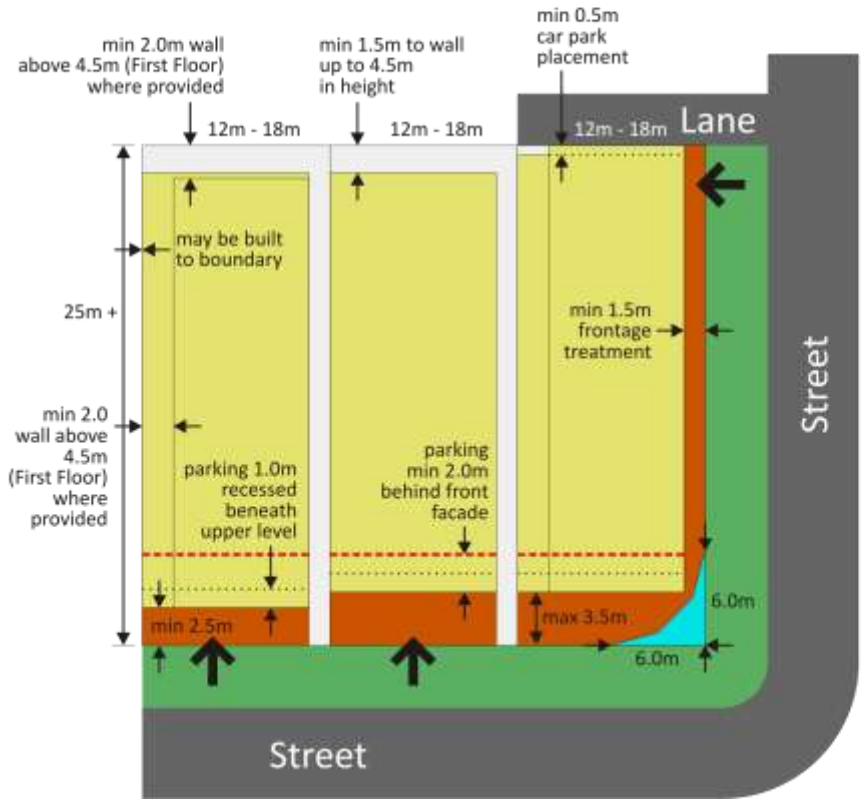
T3/T4



Legend

- Frontage Treatment (building)
- Vehicle Access
- Parking Placement
- Parking Placement (recessed)
- Site Line on Corner Lots
- Building (excluding frontage treatment)
- Footpath
- Carriage Way

Traditional Lot Detached House



NOTE 12.3.5.1 AB

(1) Precedent examples of Traditional Lot Detached House are identified below.






Table 12.3.5.1.3: Small Lot House

Element	T4/T5 Specific Outcome/Acceptable Solution
Allotment Requirements (Refer to Appendix A)	
Frontage	6 metres or greater but less than 12 metres
Depth	Minimum of 25 metres
Area	Minimum of 150m^2
Vehicular Access where the frontage is > 9m; or laneway where provided to street frontage otherwise	Laneway where the frontage is < 9m; and street frontage otherwise
Building Requirements	**(Refer to Figure 12.3.5.1.19)**
Minimum Building Height above ground level at the street frontage	2 storeys in Urban Centre (T5) Zone, otherwise single storey.
Maximum Building Height above the ground level	3 storeys and 11.1m overall
Level of primary building entrance above the street frontage	A minimum of 0.25 metres, subject to slope constraints
Site Coverage	The maximum area covered by all buildings and structures roofed with impervious materials as stated in the Queensland Development Code.
Primary frontage setback	Minimum of 1.5 metres and maximum of 3.5 metres to wall in General Urban (T4) Maximum of 2.0 metres to wall in Urban Centre (T5) Frontage treatment/s that constitute part of a building may encroach into setback
Secondary frontage setback	Minimum of 1.0 metre to dwelling wall Frontage treatment/s that constitute part of a building may encroach into setback
Sight line on corner lots	6 metres x 6 metres
Side boundary setback	Optional to boundary on both sides
Rear boundary setback	Minimum of 1.5 metres for part of a dwelling up to 4.5 metres in height Minimum of 2.0 metres for part of a dwelling above 4.5 metres in height **NOTE 12.3.5.1 AC** Where a laneway is provided it is: Minimum of 0.5m for ground floor part of a dwelling wall facing a laneway. Minimum to boundary for upper floors of a building wall facing a laneway..
Front façade placement on primary frontage setback line	Minimum of 60% of the lot width at the setback line if detached 100% of the lot width at the setback line if attached
Frontage treatment options (Refer to Appendix D)	Verandah/ balconies& fence, Terrace, Light court, Forecourt or Stoop
Building Facades and Articulation	Frontage treatments extend for a minimum of 50% of the width of the front façade and are at least 2.4m deep where no other private recreation space is provided, or otherwise 1.5m; or Windows/ glazing occupy at least 25% of the façade surface area; excluding garages.
Parking Placement Residential Dwellings: Carports and Garages Parking placement (garages or surface parking only, excludes basement car parking) where not accessed from a laneway.	Minimum of 2.0 metres behind front façade; or Recessed a minimum of 1.0 metres beneath an upper level (excluding the frontage treatment).
Driveway crossovers	Positioned a minimum of 1.5m from street trees.

NOTE 12.3.5.1 AD

In addition to the requirements above, to be Self Assessable Small Lot House must comply with the following provisions:

12.3.5.1 (5) – Auxiliary Unit

12.3.5.1 (7) – Building Disposition

12.3.5.1 (10) – Building Articulation

12.3.5.1 (12) – Outdoor Living Space

12.3.5.1 (15) – Building Entrances

12.3.5.1 (21) – Privacy

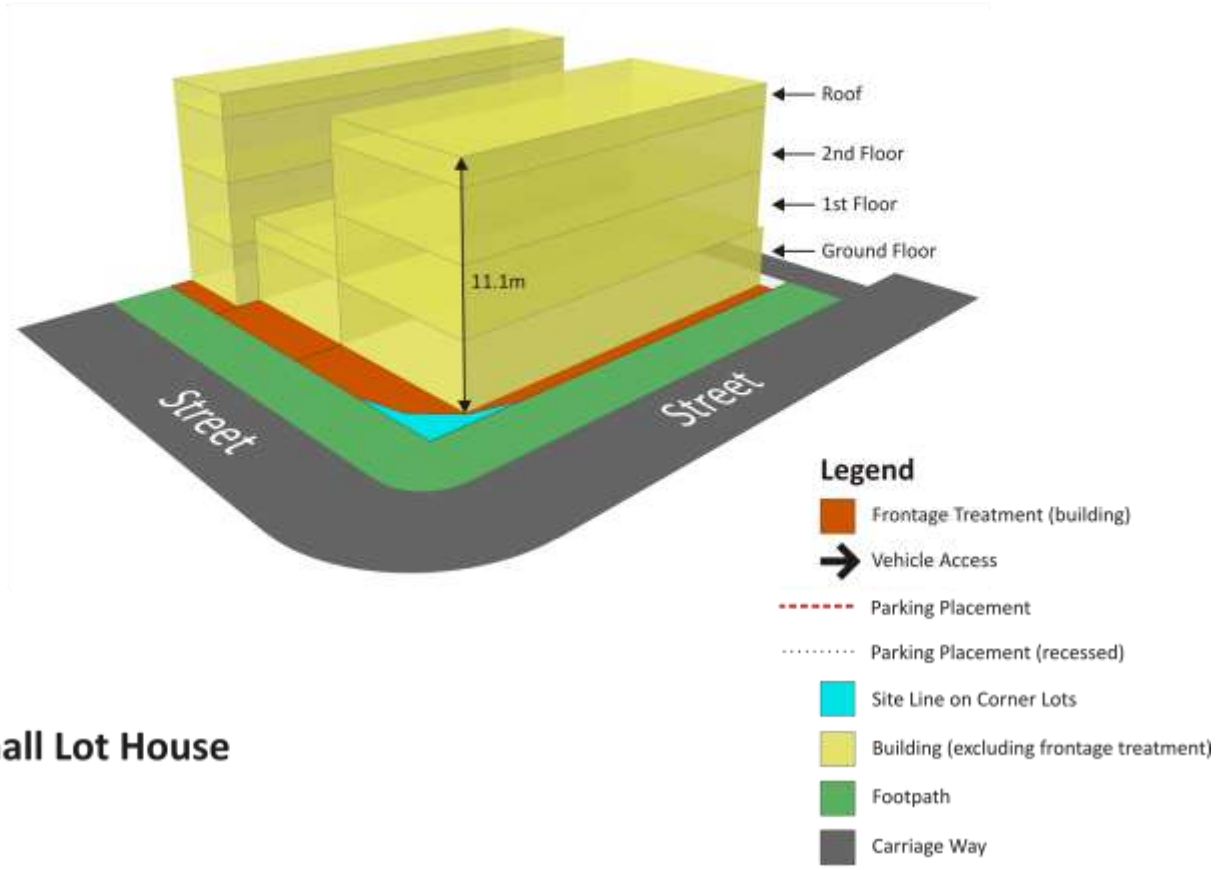
12.3.5.1 (25) – Climate Control and energy Efficiency

12.3.5.1 (31) – Service Facilities

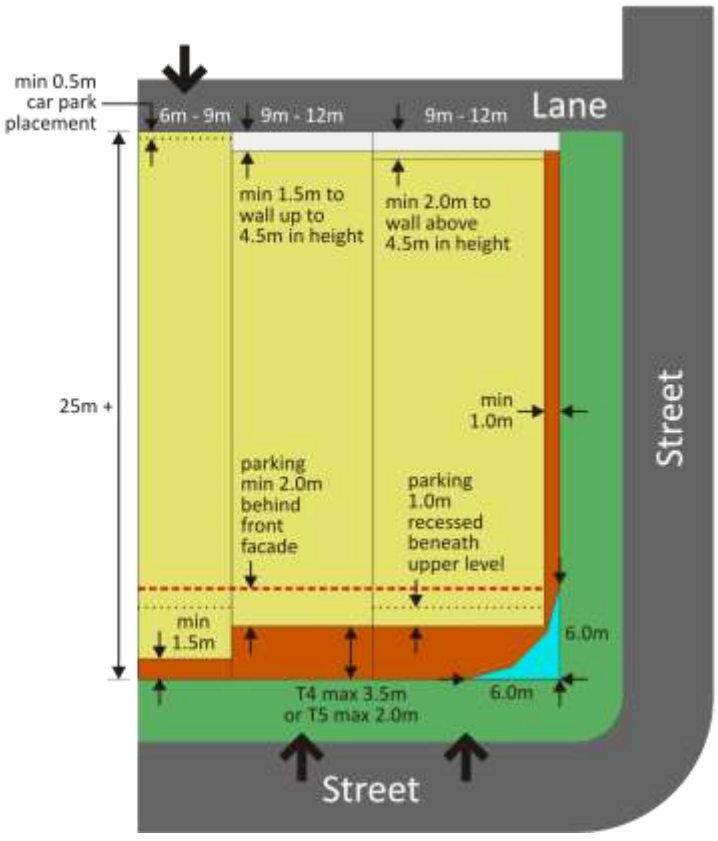
12.3.5.1 (34) – Fire Fighting

Figure 12.3.5.1.19: Small Lot House - Lot Characteristics and Building Envelope

T4/T5



Small Lot House



NOTE 12.3.5.1 AE

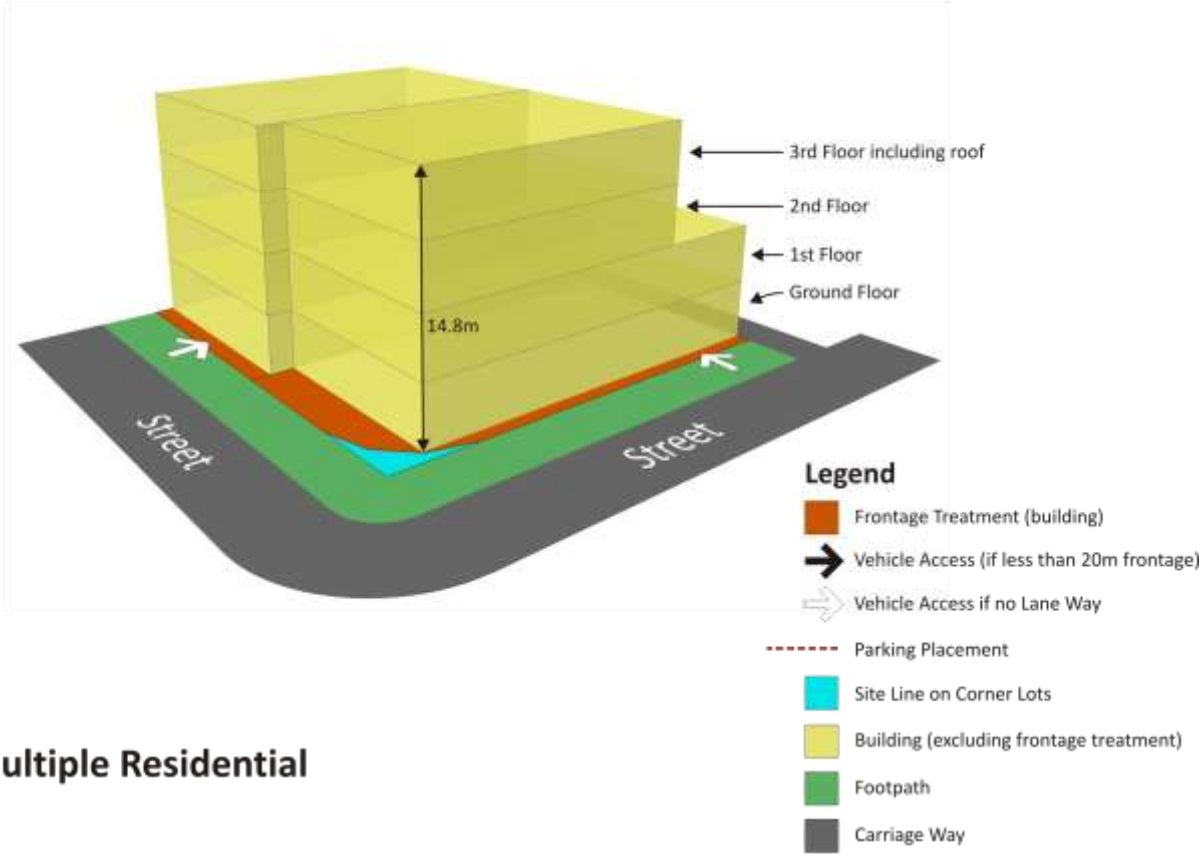
(1) Precedent examples of Small Lot House are identified below.

Table 12.3.5.1.4: Multiple Residential

Element	T4 Specific Outcomes	T5/T6/SD Specific Outcomes
Allotment Requirements (Refer to Appendix A)		
Frontage	15 metres or greater	15 metres or greater
Depth	Minimum of 25 metres	Minimum of 25 metres
Area	Minimum of 375m^2	Minimum of 375m^2
Vehicular Access	Laneway only, if frontage is less than 20 metres; or Laneway where provided and street frontage otherwise if frontage is 20 metres or greater	Laneway only, if frontage is less than 20 metres; or Laneway where provided and street frontage otherwise if frontage is 20 metres or greater
Building Requirements	**Refer to Figure 12.3.5.1.20**	**Refer to Figure 12.3.5.1.21**
Minimum Building Height above ground level at the street frontage	2 storeys	2 storeys
Maximum Building Height above the ground level	4 storeys and 14.8m overall in General Urban (T4)	5 storeys and 18.5m overall in Urban Centre (T5) 12 storeys and 44.4m overall in Urban Core (T6) and Special District (SD)
Level of primary building entrance above street frontage	A minimum 0.25 metres and subject to slope constraints	A minimum 0.25 metres above street frontage
Site Coverage	Maximum of 70% in General Urban (T4)	Maximum of 80% in Urban Centre (T5) and Urban Core (T6) Maximum of 100% in Special District (SD)
Private Recreation Space (per dwelling)	Minimum area of 8m² with a minimum dimension of 2.4 metres	Minimum area of 8m² with a minimum dimension of 2.4 metres
Primary frontage setback	Minimum of 1.5 metres and maximum of 3.5 metres to wall in General Urban (T4) Frontage treatment/s that constitute part of a building may encroach into setback	Maximum of 1.5 metres to wall in Urban Centre (T5), Urban Core (T6) and Special District (SD) Frontage treatment/s that constitute a building may encroach into setback
Secondary frontage setback	Minimum of 1.0 metre to wall in General Urban (T4) Frontage treatment/s that constitute part of a building may encroach into setback	Maximum of 1.5 metres to wall in Urban Centre (T5), Urban Core (T6) and Special District (SD) Frontage treatment/s that constitute a building may encroach into setback
Sight line on corner lots	6 metre x 6 metre	6 metre x 6 metre
Side boundary setback	Optional to boundary or a minimum of 5.0m	Optional to boundary or a minimum of 5.0m
Rear boundary setback	30% of lot depth above the second storey in General Urban (T4).	To boundary in Urban Centre (T5), Urban Core (T6) and Special District (SD)
Front façade placement on primary frontage setback line	Minimum of 50% of the lot width at the setback line in General Urban (T4)	Minimum of 80% of the lot width at the setback line in Urban Centre (T5), Urban Core (T6) and Special District (SD)
Frontage treatment options (Refer to Appendix D)	Verandah/ Balconies and Fence, Terrace or Light Court, Stoop	Verandah/ Balconies and Fence, Terrace or Light Court, Stoop
Parking placement (garages or surface parking only, basement car parking excluded)	Minimum of 10.0 metres behind front façade Minimum of 5.0 metres behind side façade (where applicable)	Minimum of 10.0 metres behind front façade and side façade (where applicable)

Figure 12.3.5.1.20: Multiple Residential - Lot Characteristics and Building Envelope T4

T4



Multiple Residential

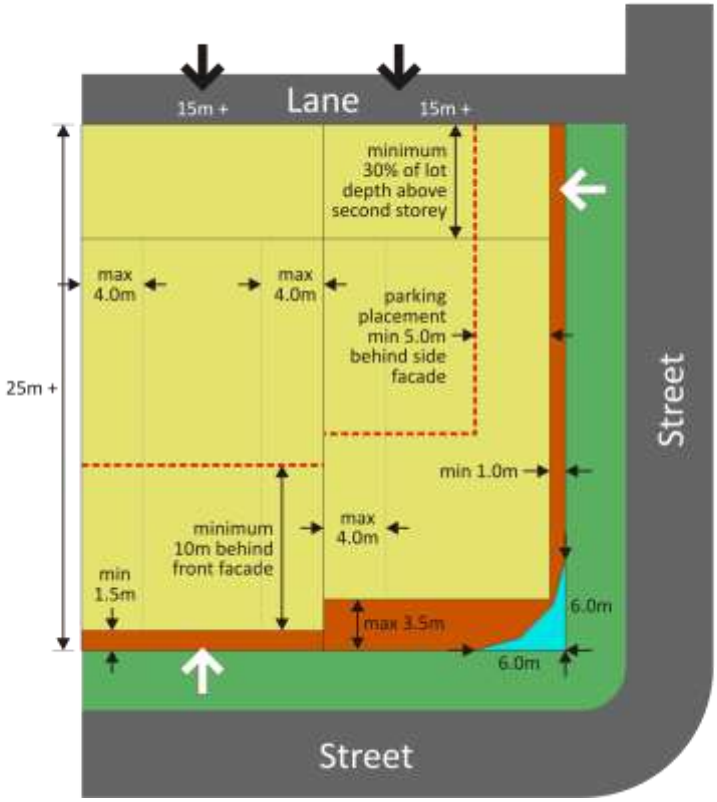
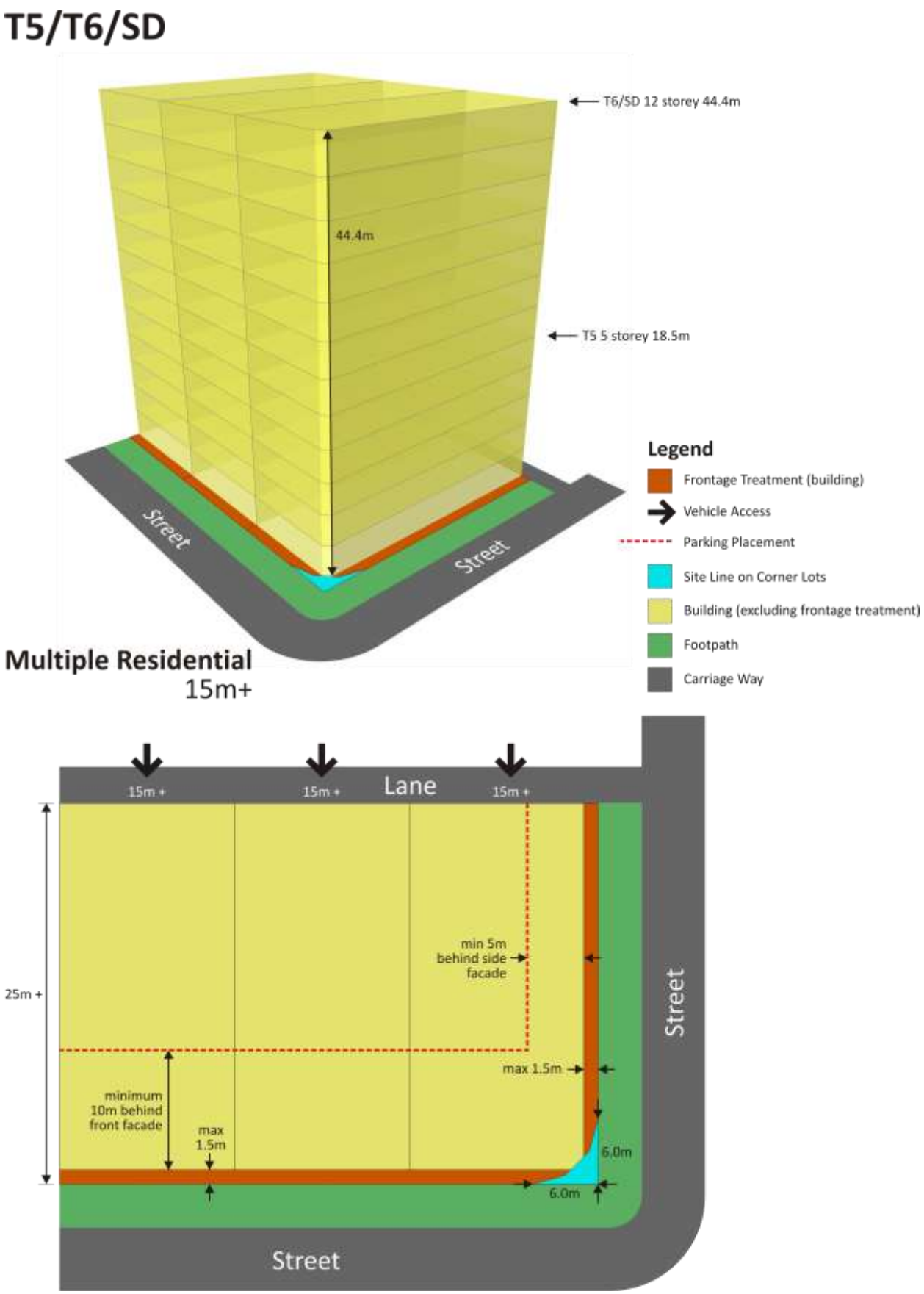


Figure 12.3.5.1.21: Multiple Residential - Lot Characteristics and Building Envelope T5/T6/SD



NOTE 12.3.5.1 AF

(1) Precedent examples of Multiple Residential are identified below.

12.3.5.2 Effects of Development – Live Work

(1) Live Work uses and works comprises the Live Work Building Form.

Live Work

(2) Specific Outcomes

(a) The Live Work Building Form is a 'Mixed Residential and Commercial (Small Scale)' Use comprising a combination of residential forms and a non residential activity.

NOTE 12.3.5.2 A

(1) The Live Work Building Form has four basic configurations:

(a) main street shop front comprising a ground floor non-residential use and residential living above;

(b) loft units having no physical separation between the work and living functions;

(c) live-in-front, the residential unit fronts the street and the work unit behind, as a separate structure or separated by a wall; or

(d) live-in-behind, the non-residential unit fronts the street and the living unit is located behind as a separate structure or separated by a wall.

Density and Diversity

(3) Specific Outcomes

(a) The minimum residential dwelling density identified on the Neighbourhood Master Plan or Neighbourhood Sector Plan or Reconfiguration Plan of Development is achieved.

Auxiliary Unit

(4) Specific Outcomes

(a) An Auxiliary Unit may be associated with the Live Work building type.

(b) Auxiliary Units -

(i) are designed and located to provide high quality, attractive streetscapes; and

(ii) are not easily distinguishable from the primary dwelling within the streetscape.

(5) Acceptable Solutions – for sub section (4)

(a) An Auxiliary Unit may be located adjoining, below, above or at the side or rear of a principal dwelling, refer to Figures 12.3.5.1.1 or 12.3.5.1.2 or 12.3.5.1.3 below.

(b) Auxiliary Units are compatible with:-

(i) the design of the principal dwelling, particularly in terms of materials, detailing, colours and roof form, so as to appear as an extension to the existing residence, or

(ii) the design reflects the existing character, materials, roof form, colours, scale and construction techniques of surrounding dwellings so as to appear consistent with the rhythm of the streetscape.

Figure 12.3.5.2.1 - Layout options of an Auxiliary Unit located attached to, or to the rear of the Principal Dwelling

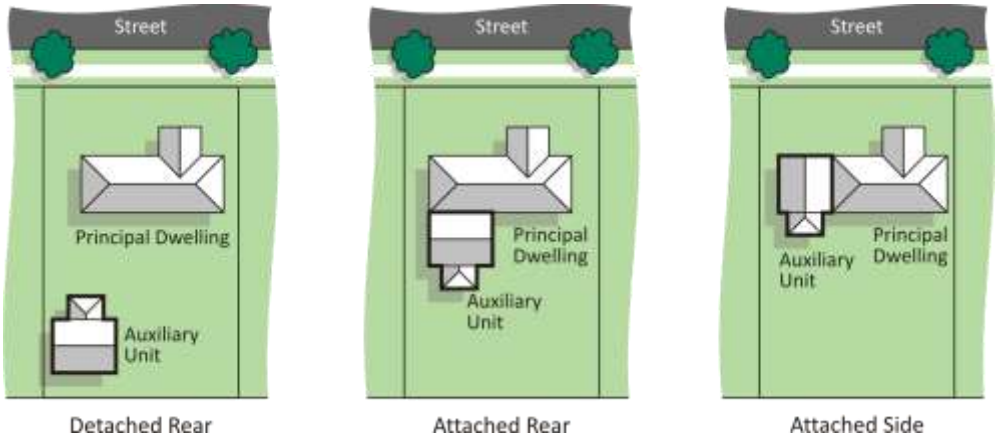


Figure 12.3.5.2.2 - Layout of an Auxiliary Unit located above a garage

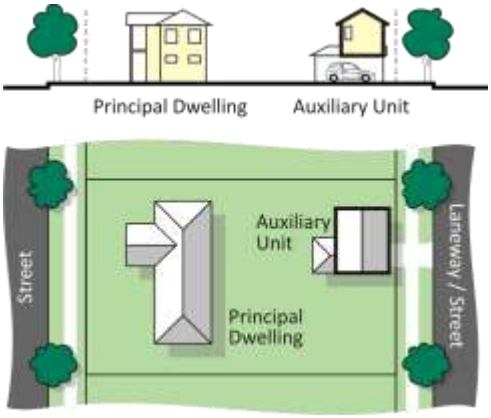
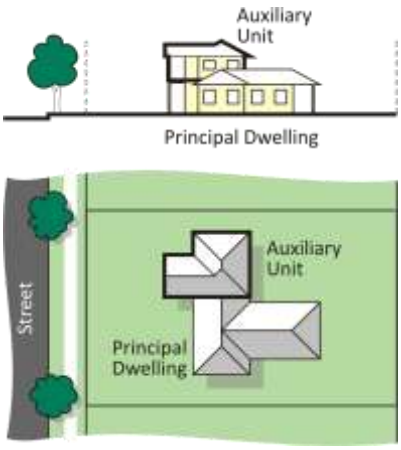


Figure 12.3.5.2.3 - Layout of an Auxiliary Unit located above the Principal Dwelling



NOTE 12.3.5.2.B

(1) Where an Auxiliary Unit is proposed to be attached or located above another structure, the construction shall comply with the Fire Resistant Construction requirements of the Building Code of Australia.

(2) The preferred location for an Auxiliary Unit is to the rear of the Principal Dwelling.

(3) Where a reconfiguration creates a laneway that has a section(s) not visible to the street, an Auxiliary Unit is constructed in accordance with Figure 12.3.5.1.2 to provide passive surveillance of the laneway.

Building Disposition

(6) Specific Outcomes

(a) Buildings are designed to—

(i) respond to their physical context within the transect taking into consideration natural features, existing urban form and the intent of the T-zone or Zone in which the building is proposed;

(ii) address the primary street frontage (identified in the Neighbourhood Master Plan) or frontages rather than being aligned at an angle to the street.

(b) Building height complies with Table 12.3.5.7 Live Work unless appropriate to—

(i) create transitions in height and mass with adjoining buildings appropriate to the buildings location within the transect; and

(ii) cater to the extent of fall across the site; and

(iii) the character and amenity of the area and the overall townscape is not negatively affected.

Corner Lots

(7) Specific Outcomes

NOTE 12.3.5.2 C

(1) Corner sites are of particular importance owing to their visual prominence within the grid pattern of streets.

(2) Accordingly, the quality of the design of buildings on corner sites will have a significant impact on the achievement of the City's desired identity and character.

(3) The Neighbourhood Master Plan identifies corners of particular importance at significant intersections.

(a) Buildings on corner sites—

(i) contribute to the clear definition of the street intersection;

(ii) use high quality, appropriate materials and detailing;

(iii) are accessed by pedestrians and vehicles on the 'long side' of the lot;

(iv) are built to both street frontages and parallel to the street alignment;

(v) are higher, or at least as high, as those buildings adjacent;

(vi) provide detailing on corner facades including prominent building entrances and windows;

(vii) utilise a short splay or chamfered edge to the corner of the building closet to the intersection; or

(viii) include other focal points such as a tower clock, visual display, or artwork.

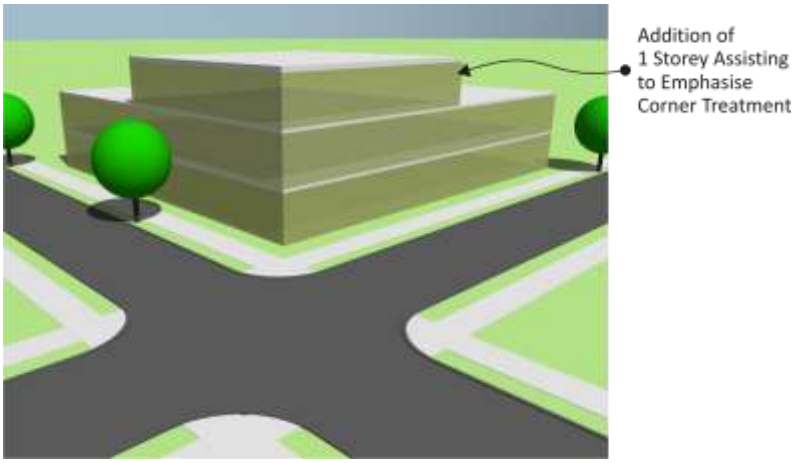
(b) Residential development addresses both street frontages, in terms of—

(i) orientation of habitable rooms; and

(ii) location of balconies, verandahs and entrances.

(c) The built form responds to significant corners identified on the Neighbourhood Master Plan through the building stepping one storey higher at the corner nominated refer Figure 12.3.5.2.4.

Figure 12.3.5.2.4 – Treatment of Significant Corner



Building Façades and Articulation

(8) Specific Outcomes

(a) Building design, detailing and finish provide an appropriate scale to the street and add visual interest and differentiation between the residential and business or commercial component of the building when viewed from a public thoroughfare.

NOTE 12.3.5.2 D

(1) Buildings respond to their location within the Transect through architectural detailing and Frontage Type.

(2) The Live Work Building type has the potential to be located from General Urban (T3) through to Urban Core (T6) T-zones.

(b) Buildings are designed to—

(i) articulate the building façade in proportions that compliment existing surrounding buildings;

NOTE 12.3.5.2 E

Buildings with no variation in architectural treatment from bottom to top are avoided.

(ii) articulate and detail the building façade at street level to respond to the human scale;

(iii) articulate and detail the building façade on upper levels of buildings to acknowledge any significant long views of these buildings;

(iv) avoid large expanses of blank walls, particularly in situations where such walls are likely to be visually prominent;

(v) take into account the image presented by the backs and sides of buildings so as to ensure an attractive townscape;

NOTE 12.3.5.2 F

(1) Blank walls on the lower levels facing laneways and internal areas of a site are not considered to be visually prominent.

(2) Building wall lengths in excess of 15m are articulated by use of verandahs, balconies, bay windows, window hoods or wall offsets (minimum 1m deep), or physical separation into detached buildings.

(3) Buildings are detailed or articulated to enable individual dwellings to be identified from public streets and communal areas.

(vi) incorporate features for solar control which reinterpret traditional features such as verandahs, balconies, deep reveals, covered shades, blinds, awnings and lattice;

(vii) integrate architectural styles and details (such as roof lines and fenestration) achieving a coherent and distinctive streetscape character;

(viii) address the street by incorporating active facades, with doors, windows and balconies providing casual surveillance of the street and visual interest;

(ix) provide opportunities for casual surveillance of public spaces, pedestrian paths and car parking areas;

(x) provide a clearly delineated transition space from public spaces (e.g. the street or communal open space) to dwellings and associated private use areas;

(xi) at the street alignment be highly detailed;

(xii) are designed to be attractive; and

(xiii) may provide attractive ground floor public uses, e.g. cafes and high quality public spaces that activate the pedestrian area of the building and the surrounding area.

(c) Provide an awning over the footpath (at the street frontage) a minimum of 80% of verge/footpath width in the Urban Centre (T5), Urban Core (T6) and Special District (SD) Zones.

NOTE 12.3.5.2 G

Where configured with a main street shop front in the Sub-Urban (T3) and the General Urban (T4) an awning should be provided to the frontage.

(d) Building frontages within the Urban Centre (T5), Urban Core (T6) and Special District (SD) Zones or configured in a main street shop format must be activated through:

(i) a minimum opening or transparency of 70%;

(ii) the avoidance of blank facades longer than 15m;

(iii) an awning for the length of the frontage;

(iv) the principal pedestrian entry; and

(v) a single vehicle cross over that is no wider than 4 metres.

Rhythm of street – Streetscape

(9) Specific Outcomes

NOTE 12.3.5.2 H

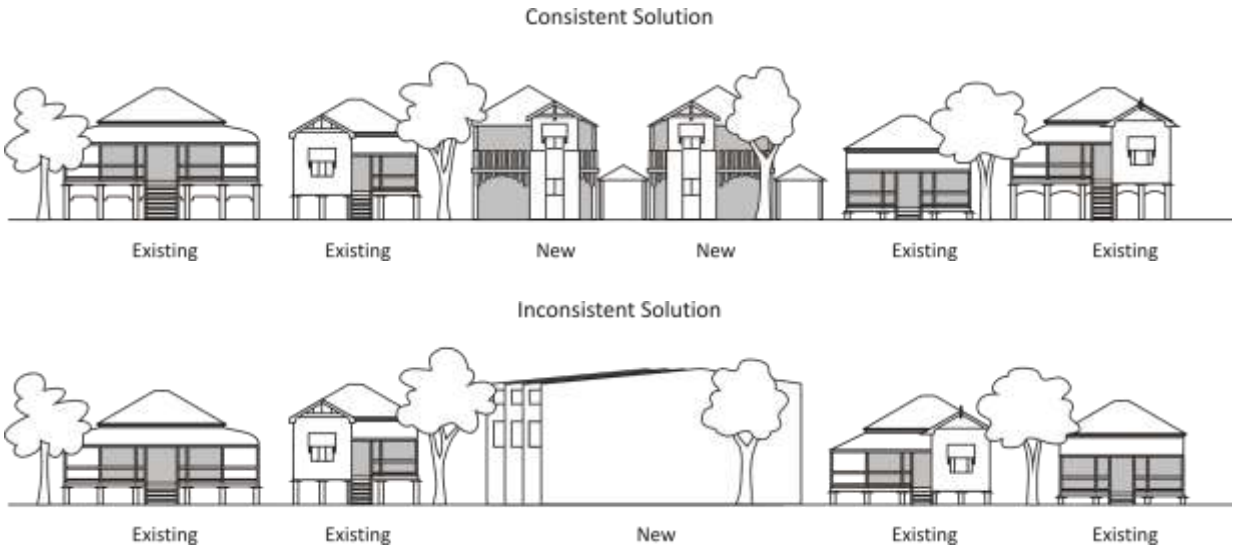
(1) Streetscape represents the inter-relationship between buildings, landscape and open spaces in the street scene. Local amenity and identity are closely linked to streetscape character.

(2) Development should recognise predominant streetscape qualities, such as building form, scale, patterns, materials and colours in order to contribute to the character and identity of the local area.

(a) Building design and landscaping are to be in harmony with the form, mass and proportions of the streetscape.

(b) New buildings recognise and enhance the patterns and elements of buildings within the street, refer Figure 12.3.5.2.5.

Figure 12.3.5.2.5 – Rhythm of Streetscape



(c) The design of new buildings provides visual cohesion, continuity and distinction and in particular has regard to the horizontal and vertical proportions of building elements.

Building Entrances

(10) Specific Outcomes

(a) Entries to buildings are oriented to the primary street frontage identified on the Neighbourhood Master Plan and are clearly delineated/ legible.

NOTE 12.3.5.2 I

The primary street is the higher order transport corridor identified in the Neighbourhood Master Plan, for example, a dwelling that adjoins a 'Trunk Collector' and 'Access Two Way' orientates the building entry to the 'Trunk Collector'.

(b) Building identification and numbering is prominent.

(c) Entrances to buildings are emphasised by—

(i) a size of entrance of an appropriate scale and presence on the street; and

(ii) use of high quality materials and high levels of detailing around the entrance

Skyline Elements/Roof Top Design

(11) Specific Outcomes

(a) The design of the roof form is consistent with the predominant existing character or the desired character of roofs in the area; and

(b) The design of roof forms ensure that—

(i) plant rooms and equipment are appropriately concealed; and

(ii) appropriately coloured roof treatments are used.

NOTE 12.3.5.2 J

(1) Careful attention to design details is required if the unique skyline and visual character of the City is to evolve sympathetically.

(2) Special attention needs to be given to the design of roof forms and the location and concealing of plant and equipment.

(3) The design of rooftops and projections is to be treated as an integral part of the building envelope design.

Building Materials

(12) Specific Outcomes

(a) External materials are high quality, attractive and durable.

(b) Use of highly reflective materials in facades or on roofs (e.g. unpainted zincalume) is avoided or limited to locations where they contribute to the amenity and character of adjacent properties and public or semi-public spaces.

Site Suitability, Amenity and Effects on Public Utilities

(13) Specific Outcomes

(a) Uses or works are designed and sited to maximise site potential, minimise risk and provide a high degree of amenity, suited to the community's needs.

(b) Uses or works do not cause unreasonable, detrimental impacts on the amenity of adjacent uses, streets, or other public or semi-public spaces with respect to—

(i) overshadowing or loss of sunlight or natural daylight;

(ii) wind turbulence;

(iii) noise; and

(iv) loss of privacy.

NOTE 12.3.5.2 K

(1) The local government may require a wind analysis and a shadow analysis.

(2) Refer to Planning Scheme Policy 2—Information Local Government May Request.

(c) Habitable rooms are situated a minimum of 500mm above the adopted flood level.

(d) Sites have proven, suitable surface and sub-surface stability characteristics having regard to past, present and likely future mining activity.

(e) Buildings are sited within a lot so that the future development of the balance area of the lot (if any) is facilitated.

Privacy

(14) Specific Outcomes

(a) Buildings are sited and designed to provide adequate visual privacy for neighbours through screening of ground floor openings and where not built to boundary the setback of dwellings from side and rear boundaries to create a podium level.

NOTE 12.3.5.2 L

(1) The screening of habitable room windows refer Figure 12.3.5.2.6, where setback to side or rear boundary is less than 1.5 metres at ground or second storey level and less than 4.5 metres above second storey level, may be provided by one of the following measures —

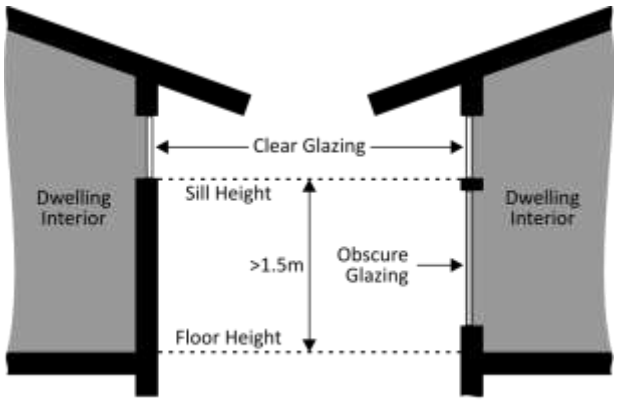
(a) landscaping, including existing dense vegetation or new planting;

(b) window screens that have a maximum area of 25% openings, which are permanently fixed and made of durable materials;

(c) 1.8 m high solid fences or walls between ground floor level windows; or

(d) sill heights more than 1.5m above adjacent floor level.

Figure 12.3.5.2.6 – Privacy



Adjacent Dwelling Window Openings for Visual Privacy

Hazards and Risks

(15) Specific Outcomes

(a) Hazards are controlled where appropriate by—

(i) elimination of hazardous substances and processes which are not necessary to the overall functioning of the development;

(ii) reduction of quantities of hazardous substances so that potential adverse effects are minimised;

(iii) substitution of highly hazardous substances with less hazardous materials to reduce potential effects;

(iv) attenuation of hazardous processes by designing operating conditions and procedures to lower potential impacts; and

(v) simplification of designs and operating policies to reduce potential for human error.

(b) Hazards are controlled by—

(i) an appropriate safety management system;

(ii) an effective emergency planning program; and

(iii) a regular, high quality auditing system.

(c) Where there is potential for stored material to escape and pollute nearby waters—

(i) storage areas containing chemicals or potential pollutants are sealed and bunded;

(ii) outdoor storage areas are located above the adopted flood level; and

(iii) on-site stormwater detention ponds are used to provide sediment and litter traps as a means of containing accidental spillages and preventing them from entering drainage systems.

NOTE 12.3.5.2 M

(1) The local government may require a Hazard and Risk Assessment to be undertaken in response to a development proposal.

(2) Refer to Planning Scheme Policy 2—Information Local Government May Request.

Noise

(16) Specific Outcomes

(a) Noise from activities does not cause an environmental nuisance at noise sensitive places, including existing and future residential areas.

(b) Site layout and building design protect internal living and sleeping areas from high levels of external noise.

(c) Active recreation facilities, including swimming pools, spas, tennis courts and barbeque areas and equipment and machinery such as garbage chutes, pumps, compressors, air conditioning and other plant which generate high noise levels, are located away from habitable rooms in nearby dwellings or are enclosed or otherwise acoustically treated.

(d) Where possible, driveways and parking areas are located away from the windows of habitable rooms in adjacent dwellings at the same level, or are screened to minimise noise.

(e) Buildings are either:

(i) designed to mitigate exposure to unacceptable transport noise (particularly from main roads or rail corridors); or

(ii) designed and constructed so that acceptable living conditions are created within the dwelling.

(f) Noise mitigation is achieved by—

(i) incorporating noise attenuating features into the design and layout of buildings and development sites;

(ii) enclosing or erecting acoustic screens around machinery, including air conditioning equipment; and

(iii) locating noisy operations at sufficient distance from noise sensitive areas.

(g) Uses and works are designed and constructed to incorporate noise attenuation and other mitigation measures to minimise the impacts of adjoining uses and achieve acceptable living conditions within the dwelling.

NOTE 12.3.5.2 N

(1) In some instances further information will need to be submitted to the local government, such as a noise assessment for consideration as part of the development assessment process.

(2) Further information regarding noise assessment is contained in Planning Scheme Policy 2—Information Local Government May Request.

(3) Acoustic fencing is the least preferred noise attenuation measure and should only be used after all other attenuation measures have been explored and assessed, and where necessary to supplement other attenuation measures.

(4) Refer to the Environmental Protection Policy (Noise) (EPP Noise) for road traffic noise criteria.

Lighting

(17) Specific Outcomes

(a) Lighting is—

(i) provided in public streets and public/communal spaces, along pedestrian and cyclist paths and within car parking areas;

(ii) located such that mature planting does not reduce its effectiveness;

(iii) aesthetically integrated into the total design with building, landscaping, signage, streetscape and public space design;

(iv) used to illuminate buildings, public and communal areas and other areas that may be susceptible to criminal activity, but avoids 'light spill' which would detract from the amenity of nearby areas (particularly residential uses) or contribute to hazardous traffic conditions;

(v) appropriately placed to avoid shadows and glare which might put pedestrians at risk. (i.e. shielded light at eye level);

(vi) not directed onto nearby properties;

(vii) downward directed;

(viii) appropriately shielded at its source;

(ix) provided to vehicular and pedestrian movement areas, including roads, paths and carparks, in order to provide visibility and safety at night; and

(x) provided for entry ways, and includes point-to-point lighting for pedestrian walkways.

(b) Wall mounted light fittings or ground mounted up lights of hidden source, are used to illuminate feature buildings and structures.

(c) Particular attention is given to the lighting of sites which are situated within 6km of the Amberley Air Base runway, so as not to cause distraction or interference with a pilot's visibility while in control of approaching or departing aircraft.

NOTE 12.3.5.2 O

(1) The Local Government may require a lighting plan.

(2) Refer to Planning Scheme Policy 2—Information Local Government May Request.

(3) Also refer to—

(a) Table 11.4.2, section 11.4.9 (Defence Facilities), Part 11(Overlays) of this planning scheme; and

(b) State Planning Policy 1/02 – Development in the Vicinity of Certain Airports and Aviation Facilities.

(4) For advice on how to meet aviation safety requirements refer to CASA Guideline – "Lighting in the Vicinity of Aerodromes, Advice to Lighting Designers".

Climate Control and Energy Efficiency

(18) Specific Outcomes

(a) Uses and works are sited, designed and constructed to respond to Ipswich's climate in a manner which minimises reliance on non-renewable energy sources for heating, cooling or ventilation.

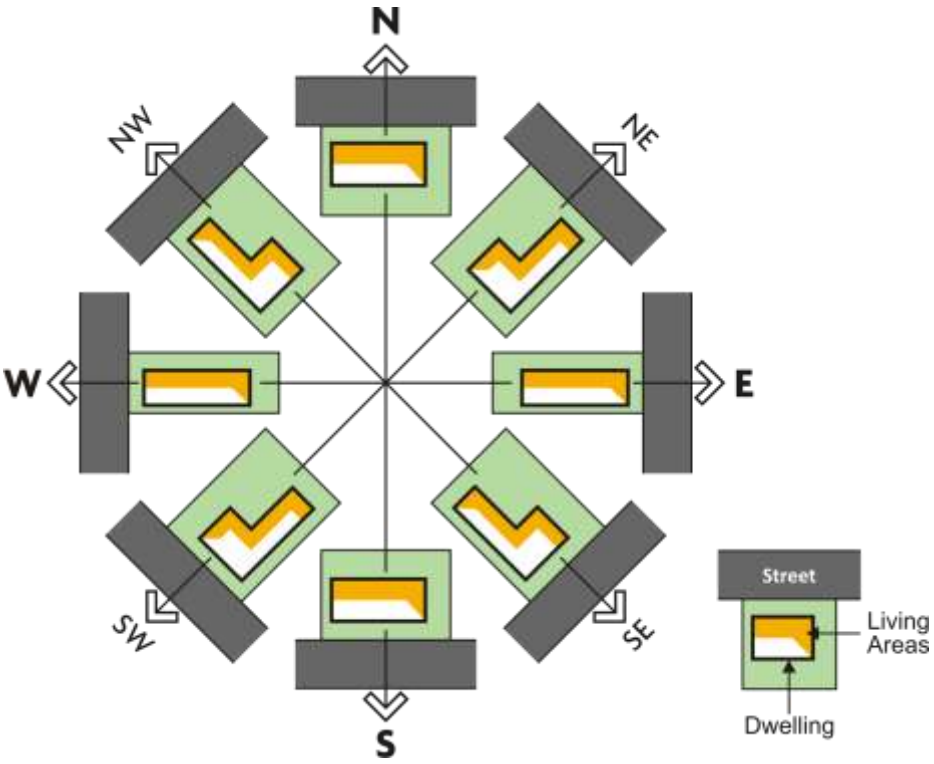
(b) Habitable rooms, occupants, streets and public/communal spaces are capable of receiving adequate daylight and ventilation which maximises access to winter sunshine and summer breezes.

NOTE 12.3.5.2 P

(1) Where practical the principal living area is located on the north eastern side of the dwelling, refer Figure12.3.5.2.7.

(2) Windows and doors in buildings are located, sized and shaded and the building layout and materials chosen to facilitate energy conservation.

Figure 12.3.5.2.7 - Location of Principal Living Area(s)



(c) Building design where applicable incorporates architectural features such as extended eaves, awnings, pergolas and verandahs to protect windows and doorways from summer sun, glare and rain, and to provide shelter for outdoor living areas.

(d) Habitable rooms receive adequate daylight for the carrying out of daily tasks and private recreation space receives adequate sunlight, having regard to both on-site and adjacent development.

(e) Buildings are sited and designed—

(i) to maximise use of prevailing breezes for natural ventilation; and

(ii) so that openings (windows and doors) are located in opposite and adjacent walls wherever possible to facilitate capture of prevailing breezes and cross ventilation.

NOTE 12.3.5.2 Q

(1) Dwellings are sited, designed and constructed with windows—

(a) to face a court or other outdoor space open to the sky, or an open verandah; or

(b) to be placed not less than a horizontal distance of 1.5m from any facing building.

(2) Refer to Planning Scheme Policy 2—Information Local Government May Request.

Landscaping

(19) Specific Outcomes

(a) Landscaping is designed, established and maintained to—

(i) compliment the existing or intended streetscape character and appearance and thereby to assist with the integration of the development into the streetscape;

(ii) an appropriate scale, relative to both the street reserve width, the size and nature of the development and the intended function of the landscaping;

(iii) be sensitive to site attributes, such as streetscape character, cultural landscapes, natural landform, existing vegetation, views, land capability, availability of water on site, and drainage;

(iv) incorporate significant existing vegetation, where possible;

(v) improve privacy and minimise overlooking into private spaces;

(vi) promote safety and casual surveillance;

(vii) assist in microclimate management and energy conservation and efficiency;

(viii) integrate and form linkages with parks, reserves and transport corridors;

(ix) accommodate stormwater flows and maximise absorptive landscaped areas for on-site infiltration of stormwater;

(x) consider lines of sight for pedestrians, cyclists and vehicles;

(xi) provide attractive and coordinated street furniture and facilities to meet user needs;

(xii) effectively screen storage and service areas from views from outside the site;

(xiii) achieve easy and cost effective maintenance, which is not overly dependent on the city's reticulated water supply and utilises stored rainwater and recycled treated wastewater where practicable; and

(xiv) avoid damage to building foundations and overhead and underground utility services.

(b) Landscaping is designed to promote safety through—

(i) the provision of shade and shelter which encourages the use of public and communal areas; and

(ii) planting which supports informal surveillance and does not obscure doors and windows overlooking public/communal spaces and isolated areas.

NOTE 12.3.5.2 R

(1) The Local Government may require a Landscaping Plan to be prepared.

(2) Refer to Planning Scheme Policy 2—Information Local Government May Request.

Fences and Walls

(20) Specific Outcomes

(a) Fence types are designed giving consideration to –

(i) the appropriateness of the fence design in its local context;

(ii) the role of the fence;

(iii) the definition of the property boundary;

(iv) uses on the site and on adjoining sites;

(v) existing or planned lighting and landscaping; and

(vi) site security and access identification and restriction.

(b) For details on frontage treatment options refer to Appendix D – Frontage Types.

Paving Materials and Street Furniture

(21) Specific Outcomes

(a) For Live Work uses and works materials and colours used for footpath paving and street furniture are consistent with the local government's adopted standards.

Safety and Security

(22) Specific Outcomes for Multiple Residential Building Type

(a) Overall Design/Legibility

(i) Uses and works are designed and managed to ensure that users are aware of how to safely gain access to, around and within the premises, with a particular emphasis on vulnerable groups, vulnerable elements and vulnerable settings.

(ii) The design increases people's awareness of their environment and potential risks to their safety.

(iii) The design promotes the use, construction and maintenance of an urban environment which is user friendly and safe to live, work and move in at any time of day or night.

(iv) Where possible, the use or works improves the opportunities to be seen through reduction in isolation, improved mix and intensity of land use and increased legitimate use of spaces.

(v) Buildings, spaces and infrastructure are designed to assist legibility that enables building entrances and exits as well as services such as public transport, phones and public toilets without undue signage (i.e. orientation and navigation through a site or area) reducing the need to depend on signs in order for a person to find their way around.

(vi) The layout minimises the potential for crime, vandalism and fear and enhances personal safety and the individual's perception of personal safety.

(vii) An easy to understand pedestrian network is provided so that people can easily find their way through, and connections to, important destinations.

NOTE 12.3.5.2 S

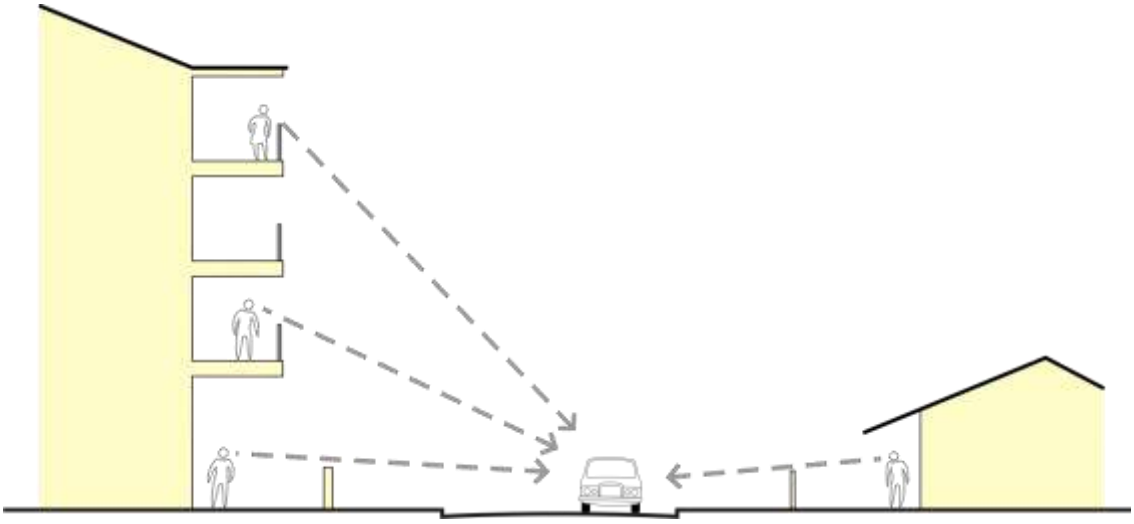
Where a site provides mid-block or convenient pedestrian connections to important destinations, unrestricted 24 hour access may be required.

(b) Surveillance and Sightlines

(i) The development provides unimpeded sightlines, particularly along pedestrian/bicycle routes.

(ii) The development encourages informal surveillance from surrounding buildings and land uses, refer Figure 12.3.5.2.8.

Figure 12.3.5.2.8: Casual Surveillance of the Public Realm



(iii) Front fences and walls enable some outlook from buildings to the street to achieve safety and surveillance.

NOTE 12.3.5.2 T

The objective of providing surveillance of the street takes precedence over the provision of physical barriers for noise mitigation purposes.

(iv) Visibility is provided into spaces where risk to personal safety is perceived to be high, including stairwells, elevators, car parks, lobby entrances and bicycle parking facilities.

(v) The design of the use or works avoids—

(A) 'blind' corners (including on stairs, in corridors or other situations where movement can be predicted);

(B) sudden changes of grade on pathways which reduce sightlines;

(C) concealment points (unless they can be secured after hours); and

(D) pedestrian tunnels, excepting that where unimpeded sightlines or the absence of concealment points cannot be reasonably achieved, hardware (such as security mirrors) and good lighting is provided to restore visibility.

(vi) All barriers (including landscaping features) along principal bicycle and pedestrian routes are visually permeable (i.e. can be easily seen through) to reduce concealment points.

(vii) Windows, verandahs, balconies and activities in buildings are directed to overlook pedestrian routes, open space areas and carparks.

(viii) Signposted emergency telephones or alarms are provided along identified vulnerable or isolated bicycle and pedestrian routes.

(ix) Where appropriate, street level windows and ground level uses (e.g. cafes or shops) are provided in buildings fronting onto public spaces and movement routes.

NOTE 12.3.5.2 U

(1) Organised or mechanical surveillance may be appropriate in some circumstances as an adjunct to (but not as a substitute for) informal surveillance.

(2) Organised or mechanical surveillance would generally only be considered appropriate in connection with vulnerable uses, features or areas as defined in this planning scheme.

(c) Signage-

(i) Adequate, legible signage is provided to assist pedestrians, particularly older people and people with disabilities, to find their way safely.

(ii) Signage is legible and uses strong colours, clear contrast, standard international pictograms and symbols and simple graphics.

(iii) Where appropriate, signage is provided that indicates where to go for assistance and the location of telephones, taxis and bus stops.

(iv) Clearly visible street numbers and the name of buildings and businesses are provided.

(v) Signs are located at entrances and near activity nodes and so that they are not obscured by growing vegetation.

(vi) Clear, recognisable signage is provided at bus stops, taxi ranks and other public facilities.

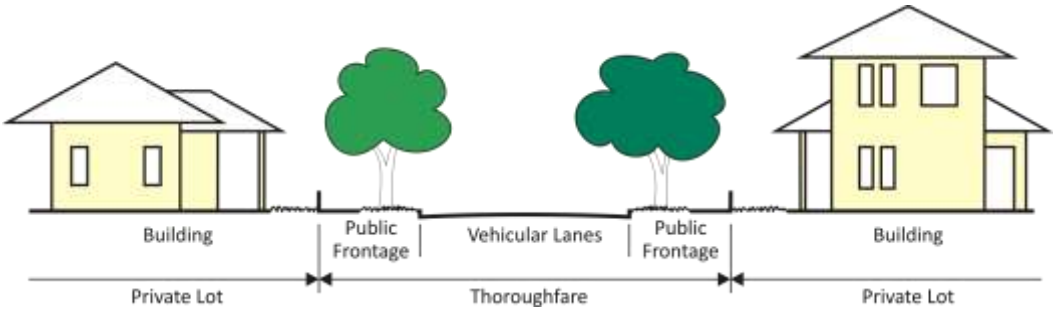
(vii) Maps are provided in large, public open space areas and public buildings, to assist with way finding.

(viii) Signage to significant transport corridors (e.g. Centenary Highway, Ipswich Rail Line) is avoided.

(d) Clear Definition of Ownership/Boundaries

(i) Development promotes the security of property by clearly defining ownership, boundaries and for residential development, legitimate use of private, semi-private and public/communal space refer Figure 12.3.5.2.9;

Figure 12.3.5.2.9: Delineation of Ownership and Legitimate Use



(ii) Landscaping, building features, changes of level and low to medium height fencing are used to delineate ownership boundaries.

(iii) Street names and building identification (e.g. numbers) are clearly displayed using reflective materials, with numbers clearly located on the kerb, and building frontage.

(e) Concealment Reduction

(i) Potential concealment points adjacent to main pedestrian routes are eliminated.

(ii) Where a concealment point is unavoidable, aids to visibility such as convex mirrors and good lighting are provided.

(iii) The design of the development avoids the creation of concealment points such as—

(A) dark areas adjacent to a main/designated pedestrian route;

(B) dead-end alleyways;

(C) indentation in fencing or walls;

(D) gaps in the streets such as entrances to unlit interior courtyards and recessed doorways; and

(E) areas that are isolated after dark.

(iv) Security lighting is provided along principal movement routes, in building entrances, site entries, car parking areas and other movement areas used after dark.

(v) Access to loading docks, storage areas and other restricted areas is controlled by—

(A) solid, secure materials; and

(B) locking the facilities after hours.

(f) Streetscape Design

(i) Streetscape design—

(A) creates safe public places;

(B) encourages pedestrian flow; and

(C) designates safe resting places.

(ii) Paving materials, surfaces and spaces are free of trip hazards and obstructions for the safe movement of the elderly and people with mobility difficulties.

(iii) Where appropriate, street furniture is provided which—

(A) does not obscure the views of users, obstruct sightlines along the street or provide opportunities for concealment; and

(B) provides shade and encourages use and informal surveillance.

(g) Building Design for Public Safety

(i) Building design removes, as much as is possible, the opportunity and incentive to commit crime and improves personal perception and the physical reality of a useable, comfortable and safe environment.

(ii) Buildings are designed and constructed, including through the location of windows, verandahs, balconies and the location of habitable rooms to support informal surveillance of the street reserve, nearby open space and other vulnerable areas.

(iii) Building entrances are designed so that they—

(A) are clearly defined;

(B) well lit and face the street;

(C) do not create concealment points;

(D) provide clear sightlines from the building foyer so that occupants can see outside before leaving the building;

(E) have lobbies visible from the exterior; and

(F) have staff entrances, if separate, which are well lit and maximise opportunities for informal surveillance and for clear sightlines.

(iv) Ramps and elevator entrances are provided in areas which are not isolated.

(v) Windows at street level, are secured.

(vi) Buildings are designed to minimise access between roof, balconies and windows of adjoining dwellings.

NOTE 12.3.5.2 V

Security measures should be incorporated into the design of buildings and sites but should not be overt in creating a 'fortress-like' appearance.

Service Facilities

(23) Specific Outcomes for Multiple Residential building type

(a) Provision is made for laundry and clothes drying facilities, mail boxes and external storage facilities (where required), which are—

(i) of useable size;

(ii) suitably located for convenient use; and

(iii) designed to be visually attractive or screened.

(b) Areas and receptacles for the storage and removal of waste are—

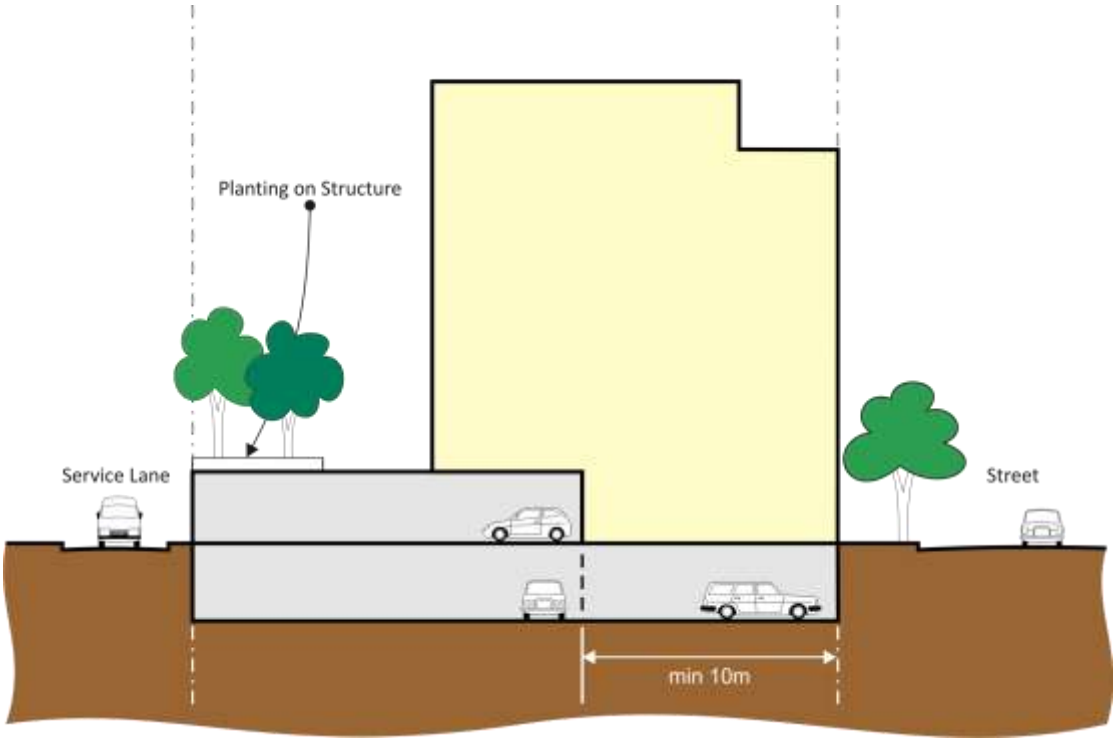
(i) designed, located and screened, where necessary, so as not to present an unsightly appearance, when viewed from a street or public 'right of way';

(ii) designed and located to facilitate access by the Local Government's waste removal vehicles; and

(iii) covered, contained and managed so as not to create an attraction for wildlife, particularly where the site is within 8km of the Amberley Air Base runway and the use may attract birds.

(c) Parking placement may go to the front façade where the parking is located totally below ground level, refer Figure 12.3.5.2.10.

Figure 12.3.5.2.10 – Parking Placement



NOTE 12.3.5.2 W

Refer to—

(a) Map OV7B Operational Airspace, Wildlife Attraction and Lighting Issues;

(b) State Planning Policy 1/02 – Development in the Vicinity of Certain Airports and Aviation Facilities; and

(c) Table 11.4.2, section 11.4.9 (Defence Facilities), Part 11 (Overlays) of this planning scheme.

Stormwater

(24) Specific Outcomes

(a) The capture and management of the following capture depth (mm/day) from all impervious surfaces:

(i) 0 to 40% impervious: Capture the first 10mm/d of runoff; or

(ii) greater than 40%: Capture first 15mm/d of runoff.

NOTE 12.3.5.2 X

(1) To reduce impervious surfaces, green roofs are encouraged to be incorporated in developments.

(2) Water quality objectives are to be achieved onsite before discharge of water.

Fire Fighting

(25) Specific Outcomes

Residential uses are designed with adequate water supply and access for fire fighting purposes.

(a) All dwellings are located within the fire appliance access distances shown in Figure 12.3.5.2.11 below; or

(b) (i) The water supply service to the development is sized for the provision of fire fighting flows via hydrants and a metered bypass across a check valve in accordance with AS2419.1, such that new fire hydrants are installed to enable all dwellings to achieve the fire appliance access distances shown in Figure 12.3.5.2.11 below; and

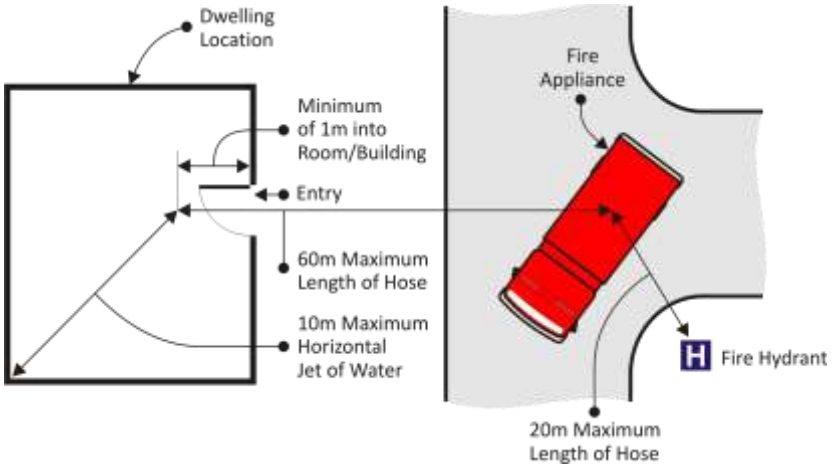
(ii) Vehicular access, through the site is via—

(A) a minimum 3 metre wide concrete driveway;

(B) with a minimum 3 metres in horizontal clearance and 4.5 metres in vertical clearance; and

(C) with a sufficient hard stand turnaround area or through route configuration to enable fire fighting vehicles to enter and leave the site in a forward gear.

Figure 12.3.5.2.11 – Fire Appliance Access Distances



Public Toilets and Public Telephones

(26) Specific Outcomes

(a) The design and construction of public toilet facilities and public telephones—

(i) ensures safety for all people using them;

(ii) takes advantage of informal surveillance in well illuminated areas to discourage non-legitimate uses;

(iii) for public toilets in or near playgrounds – entrances are clearly visible from the playground;

(iv) for other public toilets and public telephones – entrances are visible from the street, mall areas, footpath or corridor and, where possible, close to other compatible activities;

(v) are lockable only by a legitimate key holder and target hardened where the setting is likely to expose users to risk;

(vi) do not encourage or legitimise loitering (i.e. seating is not located in proximity to toilet entrances or public telephones);

(vii) are located in high traffic areas and away from—

(A) isolated areas such as on the edges of development ;

(B) carparks or alleyways; and

(C) long corridor approaches or blind corners; and

(viii) have organised surveillance (such as regular security patrols) to ensure that the facilities are only being used for legitimate uses.

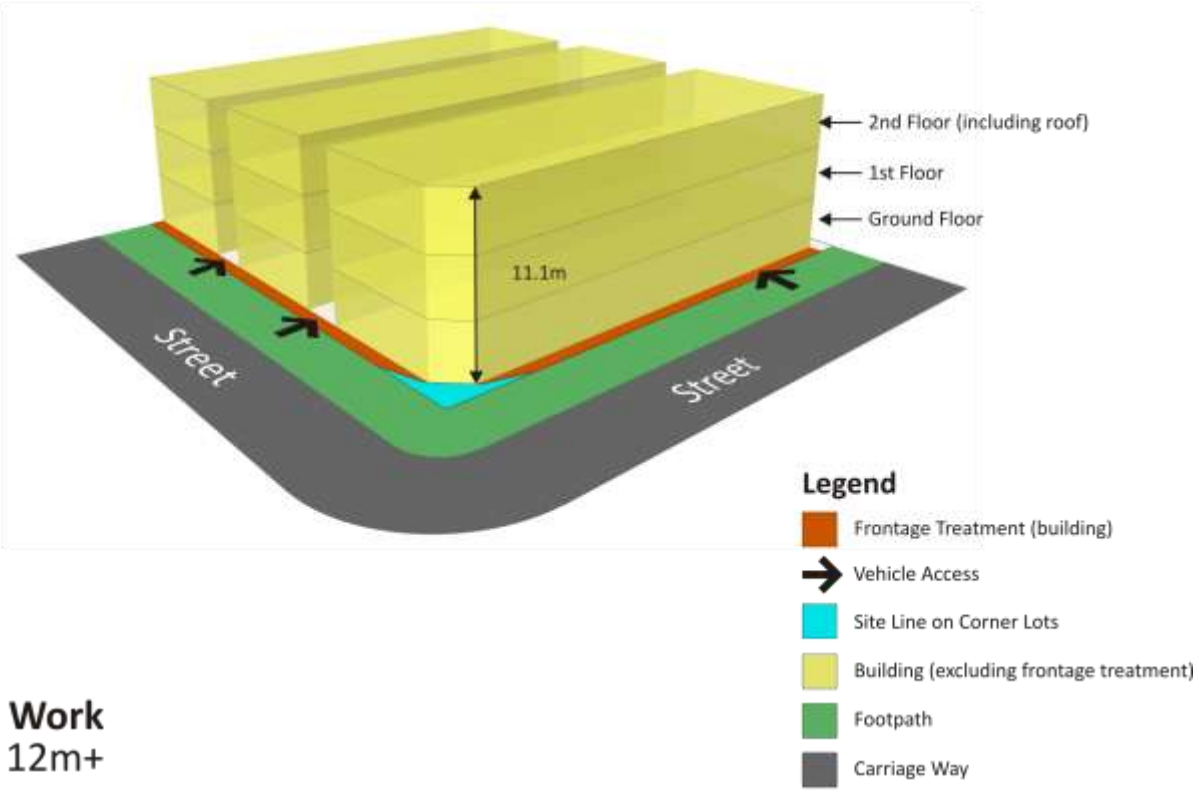
(b) Public toilet facilities are provided and designed for use by all members of the community, including people with disabilities, parents and young children.

Table 12.3.5.2.1: Live Work

Element	Specific Outcomes T3/T4	Specific Outcomes T5/T6
Allotment Requirements (Refer to Appendix A)		
Frontage	12 metres or greater	6 metres or greater
Depth	Minimum of 25 metres	Minimum of 25 metres
Area	Minimum of 300m^2	Minimum of 150m^2
Vehicular Access	Laneway where provided, to street frontage otherwise	Laneway only
Building Requirements	**Refer to Figure 12.3.5.2.12**	**Refer to Figure 12.3.5.2.13**
Minimum Building Height above ground level at the street frontage	One storey	2 storeys in the Urban Centre (T5) and Urban Core (T6) T-zones
Maximum Building Height above ground level	3 storeys and 11.1m overall in Sub-urban (T3) and General Urban (T4) T-zones.	4 storeys and 14.8m overall in the Urban Centre (T5) and Urban Core (T6) T-zones
Level of primary building entrance above street frontage	At grade for shopfront	At grade for shopfront
Site Coverage	The maximum area covered by all buildings and structures roofed with impervious materials as stated in the Queensland Development Code.	Maximum of 75%
Primary frontage setback	Maximum of 1.0 metre to wall Frontage treatment/s that constitute part of a building may encroach into setback	Maximum of 1.0 metre to wall Frontage treatment/s that constitute a building may encroach into setback
Secondary frontage setback	Maximum of 1.0 metre to wall Frontage treatment/s that constitute part of a building may encroach into setback	Maximum of 1.0 metre to wall Frontage treatment/s that constitute a building may encroach into setback
Sight line on corner lots	6 metres x 6 metres	6 metres x 6 metres
Side boundary setback	Optional to boundary one side, with a minimum of 3m available for driveway where not accessed via laneway or a minimum of 1.5 metres.	Optional to boundary
Rear boundary setback	Minimum of 1.5 metres **NOTE 12.3.5.2 Y** Where a laneway is provided, the rear setback may be reduced to comply with Table 12.3.5.2.1 Live Work (T5/T6)	Minimum of 0.5 metres for ground floor part of a building wall facing a laneway. Minimum to boundary for upper floors of a building wall facing a laneway.
Front façade placement on primary frontage setback line	100% of the built form	100% of the lot width
Frontage treatment options (Refer to Appendix D)	Shopfront and Awning	Shopfront and Awning
Parking placement (garages or surface parking)	Minimum of 2.0 metres behind front façade.	Not applicable

Figure 12.3.5.2.12: Live Work T3/T4

T3/T4



Live Work
12m+

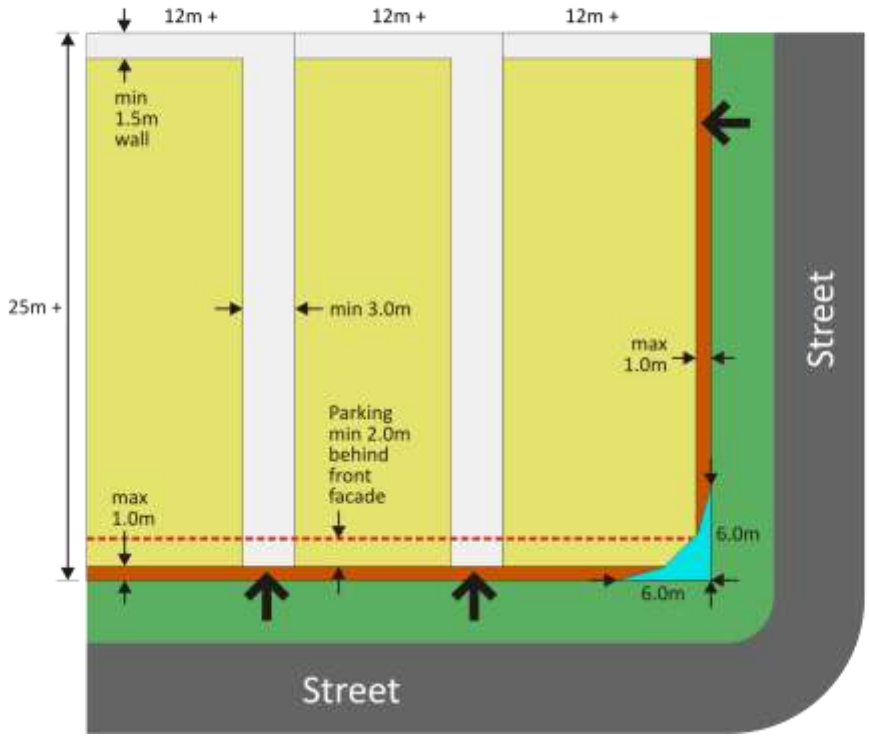
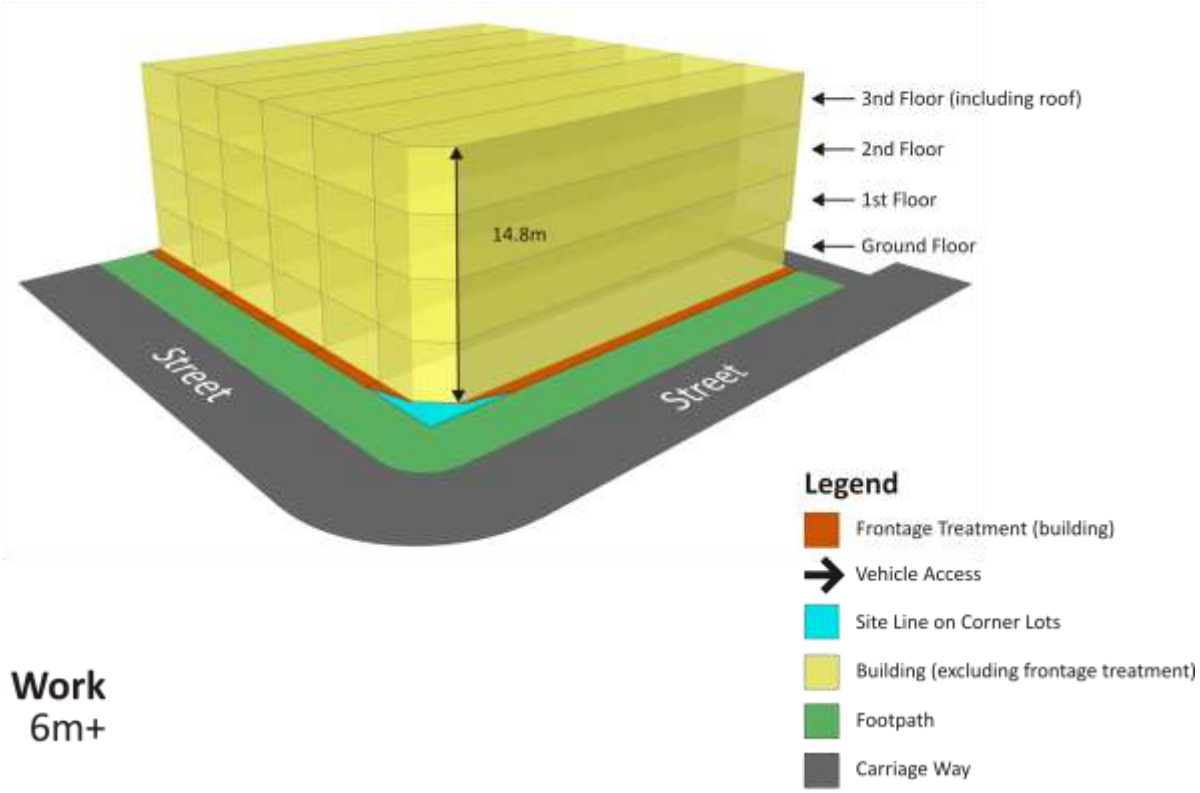
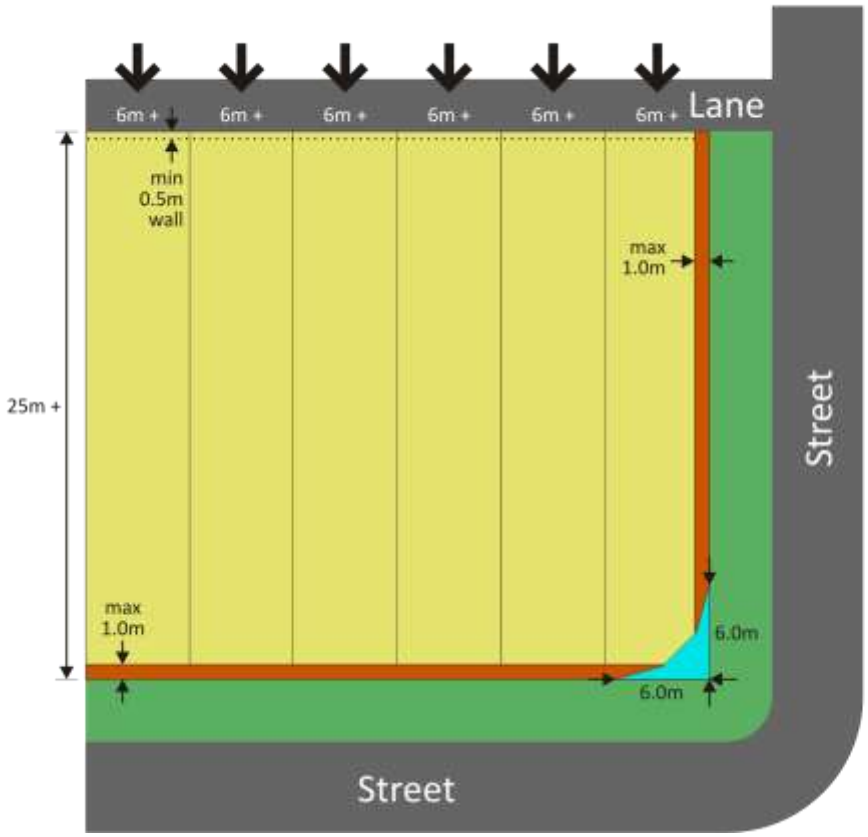


Figure 12.3.5.2.13: Live Work T5/T6/SD

T5/T6/SD



Live Work
6m+



NOTE 12.3.5.2 Z

(1) Examples of Live Work are identified below.

12.3.5.3 Effects of Development – Commercial / Mixed Use and Large Format Commercial

Density and Diversity

(1) Specific Outcomes

(a) The minimum residential dwelling density identified on the Neighbourhood Master Plan or Neighbourhood Sector Plan is achieved; or

(b) The minimum residential density identified on the Neighbourhood Master Plan or Neighbourhood Sector Plan is achieved through a 'multistage development' which demonstrates that:

(i) the proposed location of future residential uses (at required density) achieves the minimum residential density identified in the Neighbourhood Master Plan or Neighbourhood Sector Plan;

(ii) the site can be developed for residential development through an indicative staging plan; and

(iii) infrastructure required for ultimate development is located within future corridors.

NOTE 12.3.5.3 A

(1) Multistage Development applies only to the development of Commercial / Mixed Use and Large Format Commercial Building Types within the Urban Core (T6) and Special District (SD) zones.

(2) Land within the Special District comprises uses which by their nature cannot conform to the disposition or configuration requirements of the other Transect zones.

(3) Large Format Commercial Buildings where configured in accordance with Figure 12.3.5.3.14 are designed to accommodate single use activities such as 'bulky goods' where these are a temporary land use.

(4) It is intended that Large Format Commercial buildings transition over time to accord with the built form disposition and configuration requirements of the T6 zone.

(5) Figure 12.3.5.3.1 demonstrates one potential development scenario:

(a) Stage 1

(i) Large Format Commercial building established surrounded by (single aisle to primary frontage) a conventional parking layout;

(ii) the central car parking aisle or spine is located and designed to provide future laneway entry to car park; and

(iii) underground infrastructure is located within road and laneway reserve(s).

(b) Stage 2

(i) Half the site is redeveloped for Commercial / Mixed Use or Multiple Residential buildings while retaining the Large Format Commercial building (Note, as an alternative, liner buildings may be constructed adjoining the Large Format Commercial building);

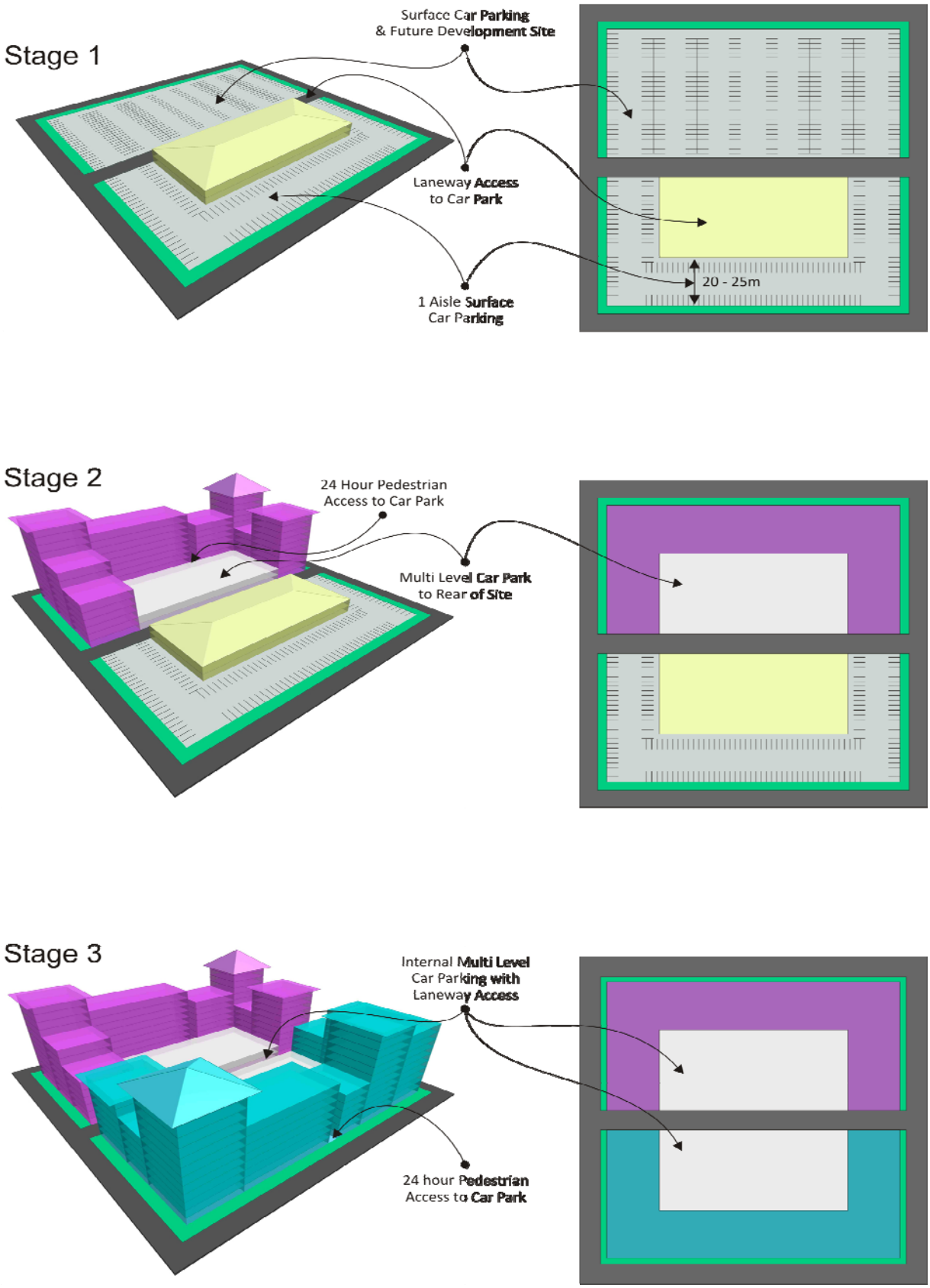
(ii) a car park structure is created to replace car park associated with original use and accommodate new use(s).

(c) Stage 3

(i) The remaining portion of the site is redeveloped for Commercial / Mixed Use or Multiple Residential buildings; and

(ii) a car park structure replaces the original Large Format Commercial Building.

Figure 12.3.5.3.1 – Staged Development of Large Format Commercial Building



Building Disposition

(2) Specific Outcomes

(a) The primary building entry fronts the 'principal' street identified on the Neighbourhood Master Plan.

NOTE 12.3.5.3 B

The principal street is the higher order transport corridor identified in the Neighbourhood Master Plan, for example, a Mixed Residential Building that adjoins a 'Trunk Collector' and 'Access Two Way' orientates the building entry to the 'Trunk Collector'.

(b) Where a Commercial / Mixed Use or Large Format Commercial Building Type is configured in accordance with Figure 12.3.5.3.1 (2 storey centrally built with parking aisle to front) or Figure 12.3.5.3.4 (built to frontage with internal surface car parking) a multistage development proposal provides a plan of development that, where appropriate:-

(i) creates an internal road network that meets the reconfiguration design standards and the street cross sections (Appendix B)

(ii) locates servicing infrastructure in future laneway/road reserves;

(iii) demonstrates the capability of providing ultimate car parking in accordance with the parking placement for the building type;

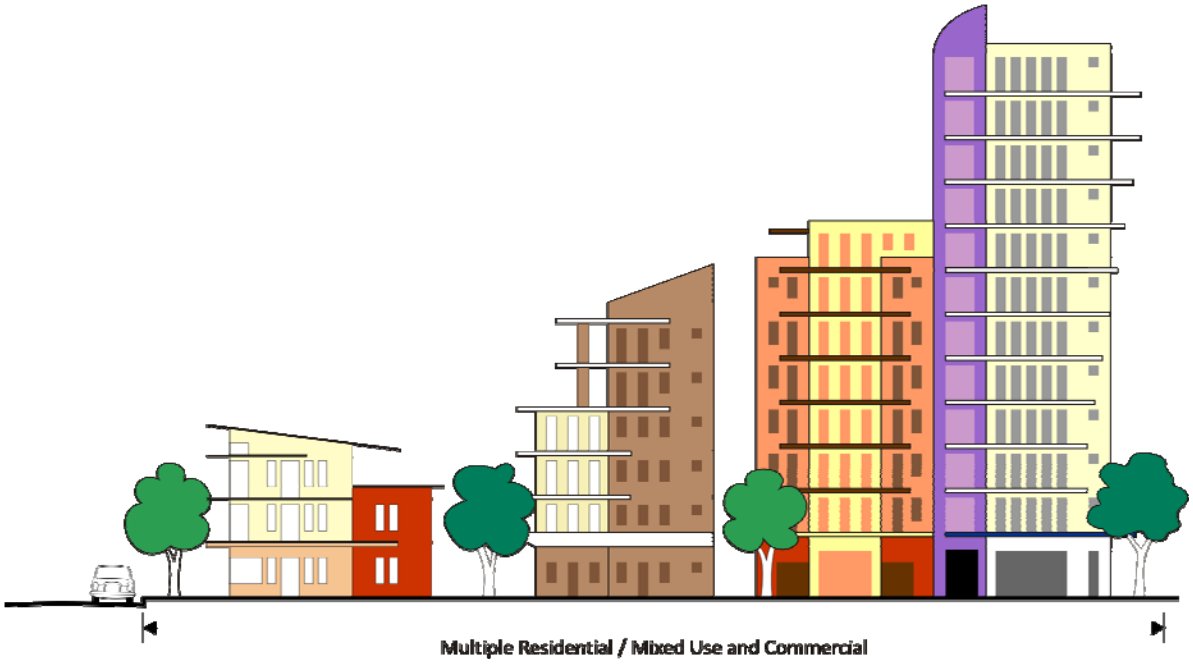
(iv) demonstrates that the residential density required can be achieved.

(c) Buildings are designed to—

(i) respond to their physical context within the transect taking into consideration natural features, existing urban form and the intent of the T-zone or Zone in which the building is proposed refer Figure 12.3.5.3.2;

(ii) address the primary street frontage (identified in the Neighbourhood Master Plan) or frontages rather than being aligned at an angle to the street.

Figure 12.3.5.3.2 – Building Disposition – Transition of Uses



NOTE 12.3.5.3 C

(1) The building disposition for a Commercial Mixed Use building type is subtlely different for each T-zone is, for example:-

(i) a Commercial Mixed Use building in the General Urban (T4) T-zone is setback further from the road, is generally lower in height and has limited architectural detailing; whereas

(ii) a Commercial Mixed Use building in the Urban Core (T6) T-zone is placed on the street frontage, is a minimum of 2 storeys high and has a high degree of architectural detailing.

(d) Building height complies with Tables 12.3.5.3.1 or 12.3.5.3.2 unless appropriate to—

(i) create transitions in height and mass with adjoining buildings appropriate to the buildings location within the transect; and

(ii) cater to the extent of fall across the site; and

(iii) the character and amenity of the area and the overall townscape is not negatively affected.

Corner Lots

(3) Specific Outcomes

NOTE 12.3.5.3 D

(1) Corner sites are of particular importance owing to their visual prominence within the grid pattern of streets.

(2) Accordingly, the quality of the design of buildings on corner sites will have a significant impact on the achievement of the City's desired identity and character.

(3) The Neighbourhood Master Plan identifies corners of particular importance at significant intersections.

(a) Buildings on corner sites—

(i) contribute to the clear definition of the street intersection;

(ii) use high quality, appropriate materials and detailing;

(iii) are accessed by pedestrians and vehicles on the 'long side' of the lot; and

(iv) Commercial / Mixed Use building types:

(A) are built to both street frontages and parallel to the street alignment;

(B) are higher, or at least as high, as those buildings adjacent;

(C) provide detailing on corner facades including prominent building entrances and windows;

(D) utilise a short splay or chamfered edge to the corner of the building closest to the intersection; or

(E) include other focal points such as a tower clock, visual display, or artwork.

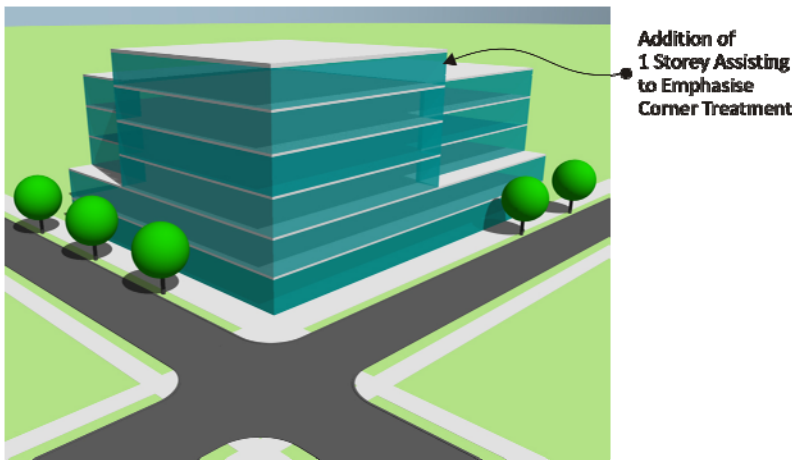
(b) Residential development address both street frontages, in terms of—

(i) orientation of habitable rooms; and

(ii) location of balconies, verandahs and entrances.

(c) The built form responds to significant corners identified on the Neighbourhood Master Plan through architectural emphasis on the corner or the building stepping one storey higher at the corner nominated refer Figure 12.3.5.3.3.

Figure 12.3.5.3.3 – Treatment of Significant Corner



Building Façades and Articulation

(4) Specific Outcomes

(a) Building design, detailing and finish provide an appropriate scale to the street and add visual interest and differentiation between residential buildings when viewed from a public thoroughfare.

(b) Buildings are designed to—

(i) articulate the building façade in proportions that compliment existing surrounding buildings;

NOTE 12.3.5.3 E

(1) The level of articulation changes dependant on the location of the building within the Transect.

(ii) articulate and detail the building façade at street level to respond to the human scale;

(iii) articulate and detail the building façade on upper levels of buildings to acknowledge any significant long views of these buildings;

(iv) avoid large expanses of blank walls, particularly in situations where such walls are likely to be visually prominent;

(v) new buildings take into account the image presented by the backs and sides of buildings so as to ensure an attractive townscape;

NOTE 12.3.5.3 F

(1) Blank walls on the lower levels facing laneways and internal areas of a site are not considered to be visually prominent.

(2) Building wall lengths in excess of 15m are articulated by use of verandahs, balconies, bay windows, window hoods or wall offsets (minimum 1m deep), or physical separation into detached buildings.

(3) Buildings are detailed or articulated to enable individual dwellings to be identified from public streets and communal areas.

(4) Where the building has a cosmetic second storey (i.e. parapet second storey) this second storey should:

(a) have the appearance of a two storey building;

(b) be articulated (both horizontally and vertically); and

(c) have the appearance of an active façade (i.e. windows and balconies, that are illuminated at night)

(vi) incorporate features for solar control;

(vii) integrate architectural styles and details (such as roof lines and fenestration) achieving a coherent and distinctive streetscape character;

(viii) address the street by incorporating active facades, with doors, windows and balconies providing casual surveillance of the street and visual interest

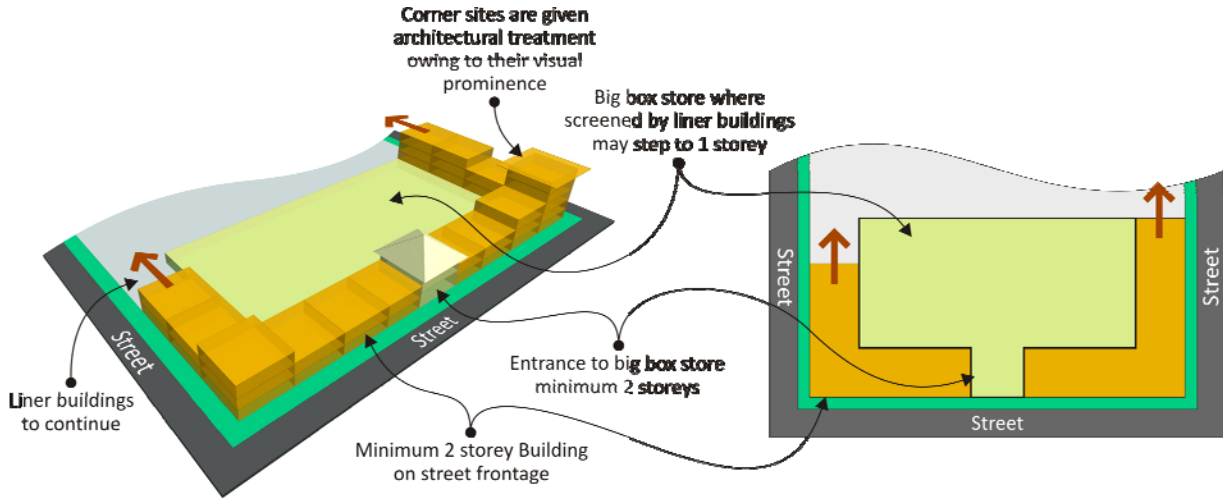
(ix) provide opportunities for casual surveillance of public spaces, pedestrian paths and car parking areas; and

(x) provide a clearly delineated transition space from public spaces (e.g. the street or communal open space) to dwellings and associated private use areas.

NOTE 12.3.5.3 G

(1) Large land uses engage the public realm with commercial spaces for individual commercial establishments or 'externalise', in the form of liner building(s), operations that have become internal to many 'big box' developments such as food vendors, chemist shops and bakeries, refer Figure 12.3.5.3.4.

Figure 12.3.5.3.4 – Large Format Commercial Building with liner building(s)



(c) Where buildings have a zero frontage setback or provide a pedestrian pathway adjoining the building:

(i) awnings are provided to offer weather protection to pedestrians; and

(ii) the awning covers a minimum of 80% of the verge/footpath width.

(d) Building frontages along principal street(s) identified in the Neighbourhood Master Plan must be activated through:

(i) a minimum opening or transparency of 70%;

(ii) the avoidance of blank facades longer than 15m;

(iii) an awning for the length of the frontage;

(iv) the principal pedestrian entry; and

(v) a single vehicle cross over that is no wider than 6 metres.

(e) Where green walls are provided they are not located on the primary streets.

Rhythm of Street – Streetscape

(5) Specific Outcomes

NOTE 12.3.5.3 H

(1) Streetscape represents the inter-relationship between buildings, landscape and open spaces in the street scene.

(2) Local amenity and identity are closely linked to streetscape character.

(3) Development should recognise predominant streetscape qualities, such as building form, scale, patterns, materials and colours in order to contribute to the character and identity of the local area.

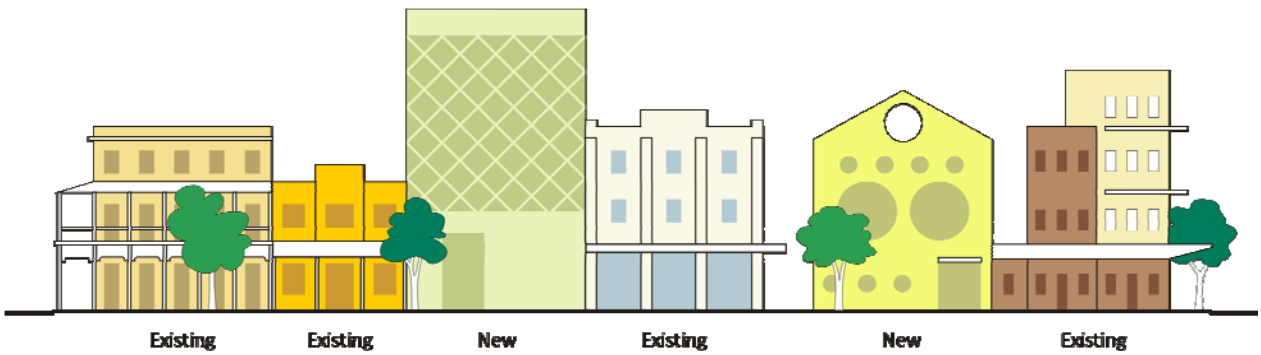
(a) Building design and landscaping are to be in harmony with the form, mass and proportions of the streetscape.

(b) New buildings are to recognise and enhance the patterns and elements of facades within the street, refer Figure 12.3.5.3.5.

Figure 12.3.5.3.5 – Rhythm of Streetscape

Consistent Solution – horizontal and vertical elements are in proportion

Inconsistent Solution – horizontal and vertical elements are not in proportion



(c) The design of new buildings provides visual cohesion, continuity and distinction and in particular has regard to the horizontal and vertical proportions of building elements.

(d) Wherever possible, pedestrian access to commercial or business use(s) is to be at grade directly at the level of the street footpath.

(e) The building setbacks are to be consistent with the prevailing setback pattern of the street.

(f) Wherever possible a Large Format Commercial building(s) that is setback 20-25 metres, the land between the front property boundary and the building is at grade with the road (i.e. no retaining walls present to the street(s))

Building Entrances

(6) Specific Outcomes

(a) Entries to buildings are:

(i) oriented to the primary street frontage identified in the Neighbourhood Master Plan; and

(ii) are clearly delineated and legible.

(b) Building identification and numbering is prominent.

(c) Entrances to buildings are emphasised by—

(i) a size of entrance of an appropriate scale and presence on the street; and

(ii) the use of high quality materials and high levels of detailing around the entrance

Skyline Elements/Roof Top Design

(7) Specific Outcomes

(a) The design of the roof form:-

(i) is consistent with the predominant existing character or the desired character of roofs in the area; and

(ii) ensures that—

(A) plant rooms and equipment are appropriately concealed; and

(B) appropriately coloured roof treatments are used.

NOTE 12.3.5.3 I

(1) Careful attention to design details is required if the unique skyline and visual character of the City is to evolve sympathetically.

(2) Special attention needs to be given to the design of roof forms and the location and concealing of plant and equipment.

(3) The design of rooftops and projections is to be treated as an integral part of the building envelope design.

Building Materials

(8) Specific Outcomes

(a) External materials are high quality, attractive and durable.

(b) Use of highly reflective materials in facades or on roofs (e.g. unpainted zincalume) is avoided or limited to locations where they contribute to the amenity and character of adjacent properties and public or semi-public spaces.

(c) Colours are used to unify buildings which form part of a group, and colour schemes are appropriate to the style of building.

Site Suitability, Amenity and Effects on Public Utilities

(9) Specific Outcomes

(a) Uses or works are designed and sited to maximise site potential, minimise risk and provide a high degree of amenity, suited to the community's needs.

(b) Uses or works do not cause unreasonable, detrimental impacts on the amenity of adjacent uses, streets, or other public or semi-public spaces with respect to—

(i) overshadowing or loss of sunlight or natural daylight;

(ii) wind turbulence;

(iii) noise; and

(iv) loss of privacy.

NOTE 12.3.5.3 J

(1) The local government may require a wind analysis and a shadow analysis.

(2) Refer to Planning Scheme Policy 2—Information Local Government May Request.

(c) Mixed-use developments incorporating residential accommodation (for short or long term residents) are designed to ensure that residents are afforded reasonable standards of on-site convenience and amenity, and safe and secure access.

(d) Habitable rooms are situated above the adopted flood level.

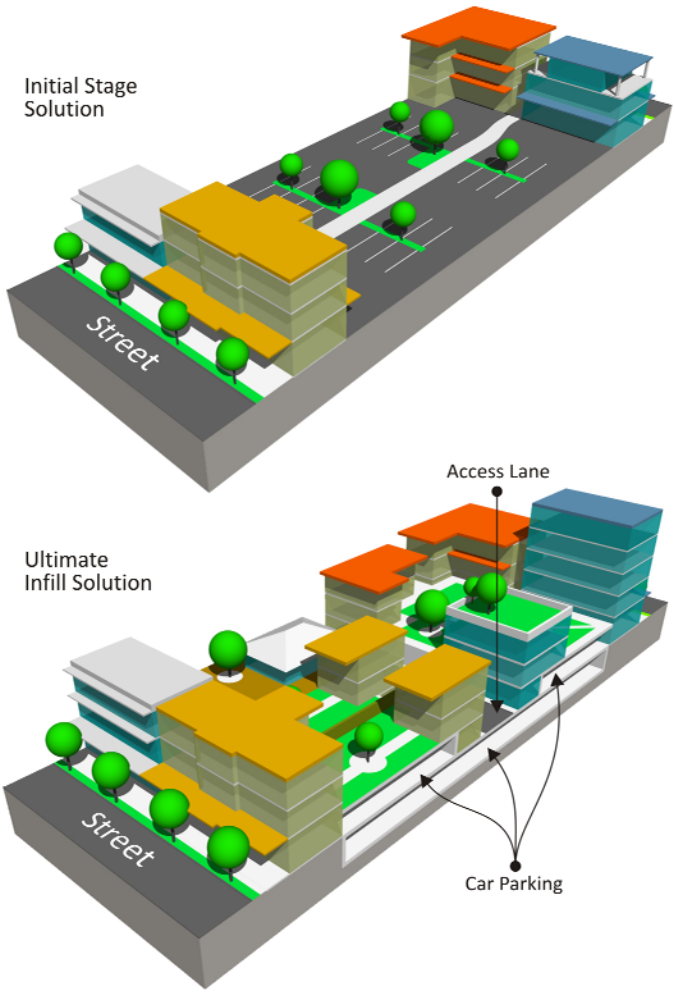
(e) Sites have proven, suitable surface and sub-surface stability characteristics having regard to past, present and likely future mining activity.

(f) Buildings are sited within a lot so that the future development of the balance area of the lot (if any) is facilitated.

NOTE 12.3.5.3 K

(1) Where ultimate development is not being achieved the placement of buildings on the lot should enable future infill development, refer Figure 12.3.5.3.6.

Figure 12.3.5.3.6 - Infill Development



(g) End of trip facilities (showers and lockers) are provided for business and commercial uses.

Privacy

(10) Specific Outcomes

(a) Where a residential component is proposed:

(i) Direct overlooking of main internal living areas of other dwellings is minimised by building layout, location of entrances, location and design of windows and balconies, screening devices and landscaping or by physical separation.

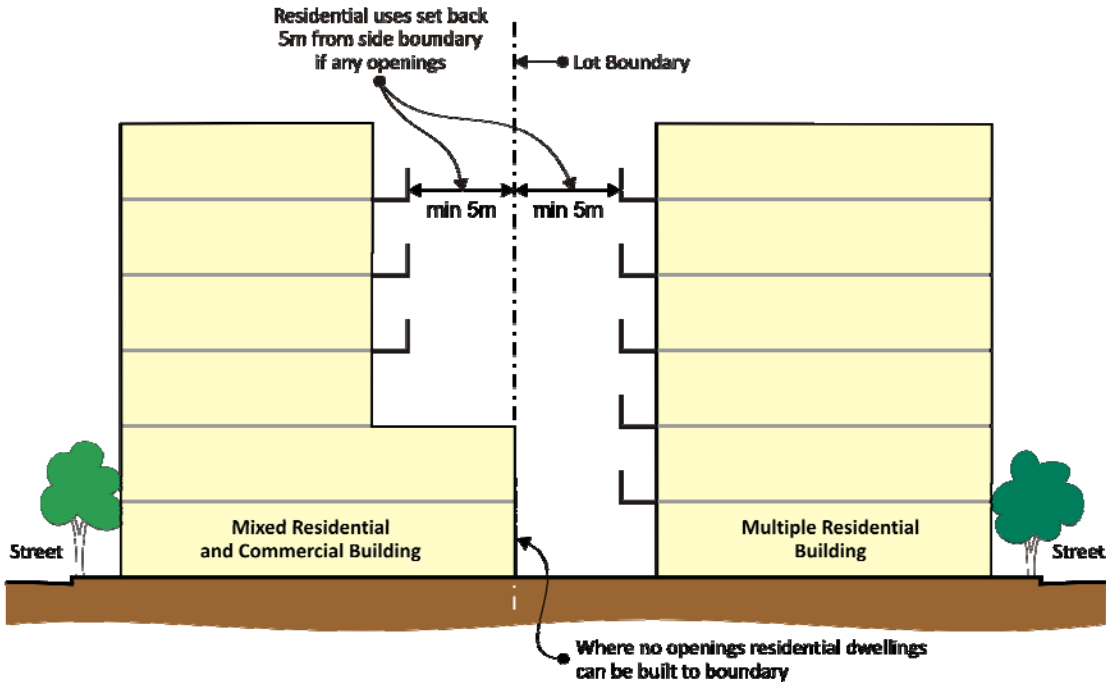
(ii) Buildings are sited and designed to provide adequate visual privacy for neighbours; and

(iii) Commercial / Mixed Use buildings are sited and designed:-

(A) to provide screening of ground floor openings;

(B) where not built to boundary, be setback a minimum of 5 metres where dwellings have openings (i.e. windows or balconies) to the side and rear boundaries, refer Figure 12.3.5.3.7; and

Figure 12.3.5.3.7 – Residential Setbacks



(C) to create a podium level.

(iv) Dwellings are designed to face a street frontage or towards the interior of a site, rather than across side or rear boundaries to adjoining land.

(v) Direct views between living area windows of adjacent dwellings are screened or obscured.

(vi) Direct views from living rooms of dwellings into the principal area of private recreation space of another dwelling are screened or obscured.

(vii) Each dwelling is provided with a private entrance at ground level, or alternatively, where there are shared access paths or lobby's to entries, overlooking into habitable rooms is prevented by the use of screen walls or the location of windows above 1.6 metres from the floor.

Hazards and Risks

(11) Specific Outcomes

(a) Hazards are controlled where appropriate by—

(i) elimination of hazardous substances and processes which are not necessary to the overall functioning of the development;

(ii) reduction of quantities of hazardous substances so that potential adverse effects are minimised;

(iii) substitution of highly hazardous substances with less hazardous materials to reduce potential effects;

(iv) attenuation of hazardous processes by designing operating conditions and procedures to lower potential impacts; and

(v) simplification of designs and operating policies to reduce potential for human error.

(b) Hazards are controlled by—

(i) an appropriate safety management system;

(ii) an effective emergency planning program; and

(iii) a regular, high quality auditing system.

(c) Where there is potential for stored material to escape and pollute nearby waters—

(i) storage areas containing chemicals or potential pollutants are sealed and bunded;

(ii) outdoor storage areas are located above the adopted flood level; and

(iii) on-site stormwater detention ponds are used to provide sediment and litter traps as a means of containing accidental spillages and preventing them from entering drainage systems.

NOTE 12.3.5.3 L

(1) The local government may require a Hazard and Risk Assessment to be undertaken in response to a development proposal.

(2) Refer to Planning Scheme Policy 2—Information Local Government May Request.

Noise

(12) Specific Outcomes

(a) Noise from activities does not cause an environmental nuisance at noise sensitive places, including existing and future residential areas.

(b) Noise mitigation is achieved by—

(i) incorporating noise attenuating features into the design and layout of buildings and development sites;

(ii) regulating the hours of operation;

(iii) enclosing or erecting acoustic screens around machinery, including air conditioning equipment; and

(iv) locating noisy operations at sufficient distance from noise sensitive areas.

(c) Residential buildings are designed and constructed to achieve acceptable living conditions within the dwelling.

(d) Buildings are either:

(i) designed to mitigate exposure to unacceptable transport noise (particularly from main roads or rail corridors); or

(ii) designed and constructed so that acceptable living conditions are created within the dwelling.

NOTE 12.3.5.3 M

(1) In some instances further information will need to be submitted to the local government, such as a noise assessment for consideration as part of the development assessment process.

(2) Further information regarding noise assessment is contained in Planning Scheme Policy 2—Information Local Government May Request.

(3) Refer to the Environmental Protection Policy (Noise) (EPP Noise) for road traffic noise criteria.

(4) Large acoustic fencing is a non-preferred option and is considered to be unacceptable along the street frontage.

Offensive Odour and Air Pollution

(13) Specific Outcomes

(a) Each non retail, business or commercial use does not have a significant detrimental impact on the amenity of nearby residences or retail or commercial uses, including through generation of:-

(i) odours;

(ii) noise;

(iii) waste products;

(iv) dust;

(v) traffic;

(vi) chemical spray drift;

(vii) electrical interference; and

(viii) lighting.

Lighting

(14) Specific Outcomes

(a) Lighting is—

(i) provided in public streets and public/communal spaces, along pedestrian and cyclist paths and within car parking areas;

(ii) located such that mature planting does not reduce its effectiveness;

(iii) aesthetically integrated into the total design with building, landscaping, signage, streetscape and public space design;

(iv) used to illuminate buildings, public and communal areas and other areas that may be susceptible to criminal activity, but avoids 'light spill' which would detract from the amenity of nearby areas (particularly residential uses) or contribute to hazardous traffic conditions;

(v) appropriately placed to avoid shadows and glare which might put pedestrians at risk. (i.e. shielded light at eye level);

(vi) not directed onto nearby properties;

(vii) downward directed;

(viii) appropriately shielded at its source;

(ix) provided to vehicular and pedestrian movement areas, including roads, paths and carparks, in order to provide visibility and safety at night; and

(x) provided for entry ways, and includes point-to-point lighting for pedestrian walkways.

(b) Wall mounted light fittings or ground mounted up lights of hidden source, are used to illuminate feature buildings and structures.

(c) Particular attention is given to the lighting of sites which are situated within 6km of the Amberley Air Base runway, so as not to cause distraction or interference with a pilot's visibility while in control of approaching or departing aircraft.

NOTE 12.3.5.3 N

(1) The Local Government may require a lighting plan.

(2) Refer to Planning Scheme Policy 2—Information Local Government May Request.

(3) Also refer to—

(a) Table 11.4.2, section 11.4.9 (Defence Facilities), Part 11(Overlays) of this planning scheme; and

(b) State Planning Policy 1/02 – Development in the Vicinity of Certain Airports and Aviation Facilities.

(4) For advice on how to meet aviation safety requirements refer to CASA Guideline – "Lighting in the Vicinity of Aerodromes, Advice to Lighting Designers".

Climate Control and Energy Efficiency

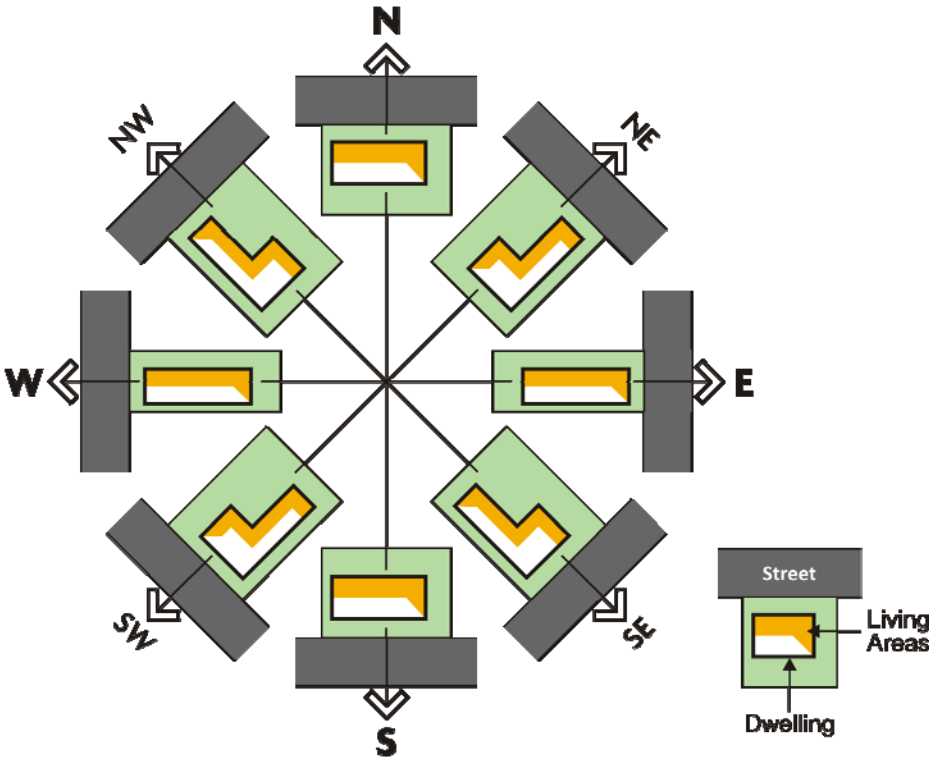
(15) Specific Outcomes

(a) Uses and works are sited, designed and constructed to respond to Ipswich's climate in a manner which minimises reliance on non-renewable energy sources for heating, cooling or ventilation.

(b) Habitable rooms, occupants, streets and public/communal spaces are capable of receiving adequate daylight and ventilation which maximises access to winter sunshine and summer breezes.

(c) Where a residential component is proposed a principal living area is located on the north eastern side of the dwelling, refer Figure 12.3.5.3.8.

Figure 12.3.5.3.8 – Principal Living Areas



(d) Windows and doors in buildings are located, sized and shaded and the building layout and materials chosen to facilitate energy conservation.

(e) Building design where applicable incorporates architectural features such as extended eaves, awnings, pergolas and verandahs to protect windows and doorways from summer sun, glare and rain, and to provide shelter for outdoor living areas.

(f) Habitable rooms receive adequate daylight for the carrying out of daily tasks and private recreation space receives adequate sunlight, having regard to both on-site and adjacent development.

(g) Buildings are sited and designed—

(i) to maximise use of prevailing breezes for natural ventilation; and

(ii) so that openings (windows and doors) are located in opposite and adjacent walls wherever possible to facilitate capture of prevailing breezes and cross ventilation.

NOTE 12.3.5.3 O

(1) Dwellings are sited, designed and constructed with windows—

(a) to face a court or other outdoor space open to the sky, or an open verandah; or

(b) to be placed not less than a horizontal distance of 10m from any facing building (i.e. 5m from the side boundary).

Landscaping

(16) Specific Outcomes

(a) Landscaping is designed, established and maintained to—

(i) compliment the existing or intended streetscape character and appearance and thereby assist with the integration of the development into the streetscape;

(ii) an appropriate scale, relative to both the street reserve width, the size and nature of the development and the intended function of the landscaping;

(iii) be sensitive to site attributes, such as streetscape character, cultural landscapes, natural landform, existing vegetation, views, land capability, availability of water on site, and drainage;

(iv) incorporate significant existing vegetation, where possible;

(v) improve privacy and minimise overlooking into private spaces;

(vi) promote safety and casual surveillance;

(vii) assist in microclimate management and energy conservation and efficiency;

(viii) integrate and form linkages with parks, reserves and transport corridors;

(ix) accommodate stormwater flows and maximise absorptive landscaped areas for on-site infiltration of stormwater;

(x) consider lines of sight for pedestrians, cyclists and vehicles;

(xi) provide attractive and coordinated street furniture and facilities to meet user needs;

(xii) effectively screen storage and service areas from views from outside the site;

(xiii) achieve easy and cost effective maintenance, which is not overly dependent on the city's reticulated water supply and utilises stored rainwater and recycled treated wastewater where practicable; and

(xiv) avoid damage to building foundations and overhead and underground utility services.

(b) Landscaping is designed to promote safety through—

(i) the provision of shade and shelter which encourages the use of public and communal areas; and

(ii) planting which supports informal surveillance and does not obscure doors and windows overlooking public/communal spaces and isolated areas.

NOTE 12.3.5.3 P

(1) The Local Government may require a Landscaping Plan to be prepared.

(2) Refer to Planning Scheme Policy 2—Information Local Government May Request.

Paving Materials and Street Furniture

(17) Specific Outcomes

(a) Materials and colours used for footpath paving and street furniture are consistent with the local government's adopted standards.

Safety and Security

(18) Specific Outcomes

(a) Overall Design/Legibility

(i) Uses and works are designed and managed to ensure that users are aware of how to safely gain access to, around and within the premises, with a particular emphasis on vulnerable groups, vulnerable elements and vulnerable settings.

(ii) The design increases people's awareness of their environment and potential risks to their safety.

(iii) The design promotes the use, construction and maintenance of an urban environment which is user friendly and safe to live, work and move in at any time of day or night.

(iv) Where possible, the use or works improves the opportunities to be seen through reduction in isolation, improved mix and intensity of land use and increased legitimate use of spaces.

(v) Buildings, spaces and infrastructure are designed to assist legibility that enables building entrances and exits as well as services such as public transport, phones and public toilets without undue signage (i.e. orientation and navigation through a site or area) reducing the need to depend on signs in order for a person to find their way around.

(vi) The layout minimises the potential for crime, vandalism and fear and enhances personal safety and the individual's perception of personal safety.

(vii) An easy to understand pedestrian network is provided so that people can easily find their way through, and connections to, important destinations.

NOTE 12.3.5.3 Q

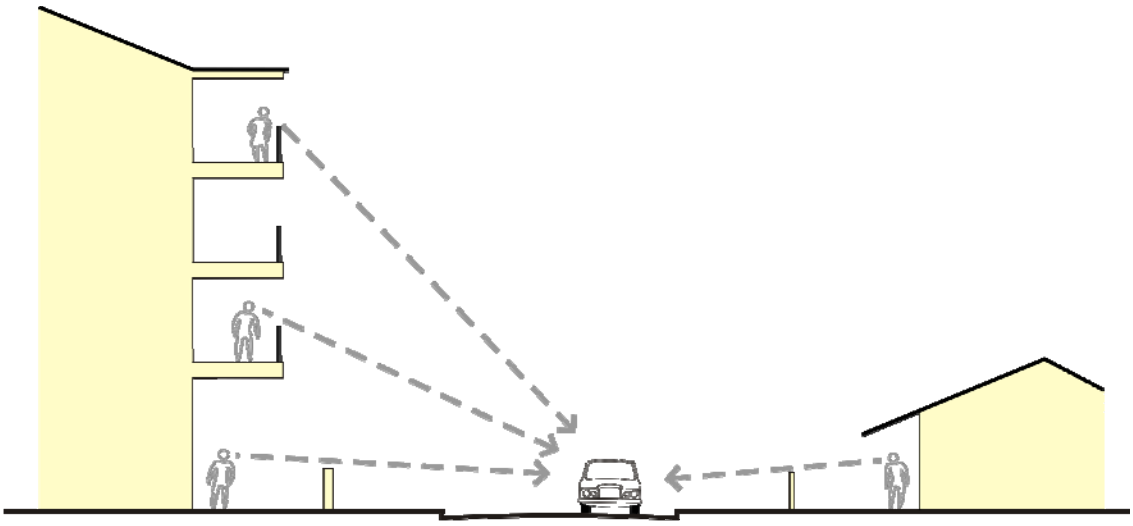
(1) Where a site provides mid-block or convenient pedestrian connections to important destinations, unrestricted 24 hour access may be required.

(b) Surveillance and Sightlines

(i) The development provides unimpeded sightlines, particularly along pedestrian/bicycle routes.

(ii) The development encourages informal surveillance from surrounding buildings and land uses refer Figure 12.3.5.3.9.

Figure 12.3.5.3.9: Casual Surveillance of the Public Realm



(iii) Front fences and walls enable some outlook from buildings to the street to achieve safety and surveillance.

NOTE 12.3.5.3 R

(1) The objective of providing surveillance of the street takes precedence over the provision of physical barriers for noise mitigation purposes.

(iv) Visibility is provided into spaces where risk to personal safety is perceived to be high, including stairwells, elevators, car parks, lobby entrances and bicycle parking facilities.

(v) The design of the use or works avoids—

(A) 'blind' corners (including on stairs, in corridors or other situations where movement can be predicted);

(B) sudden changes of grade on pathways which reduce sightlines;

(C) concealment points (unless they can be secured after hours); and

(D) pedestrian tunnels, excepting that where unimpeded sightlines or the absence of concealment points cannot be reasonably achieved, hardware (such as security mirrors) and good lighting is provided to restore visibility.

(vi) All barriers (including landscaping features) along principal bicycle and pedestrian routes are visually permeable (i.e. can be easily seen through) to reduce concealment points.

(vii) Windows, verandahs, balconies and activities in buildings are directed to overlook pedestrian routes, open space areas and carparks.

(viii) Signposted emergency telephones or alarms are provided along identified vulnerable or isolated bicycle and pedestrian routes.

(ix) Where appropriate, street level windows and ground level uses (e.g. cafes or shops) are provided in buildings fronting onto public spaces and movement routes.

NOTE 12.3.5.3 S

(1) Organised or mechanical surveillance may be appropriate in some circumstances as an adjunct to (but not as a substitute for) informal surveillance.

(2) Organised or mechanical surveillance would generally only be considered appropriate in connection with vulnerable uses, features or areas as defined in this planning scheme.

(c) Signage

(i) Adequate, legible signage is provided to assist pedestrians, particularly older people and people with disabilities, to find their way safely.

(ii) Signage is legible and uses strong colours, clear contrast, standard international pictograms and symbols and simple graphics.

(iii) Where appropriate, signage is provided that indicates where to go for assistance and the location of telephones, taxis and bus stops.

(iv) Clearly visible street numbers and the name of buildings and businesses are provided.

(v) Signs are located at entrances and near activity nodes and so that they are not obscured by growing vegetation.

(vi) Clear, recognisable signage is provided at bus stops, taxi ranks and other public facilities.

(vii) Maps are provided in large, public open space areas and public buildings, to assist with way finding.

(viii) Signage to significant transport corridors (e.g. Centenary Highway, Ipswich Rail Line) is avoided.

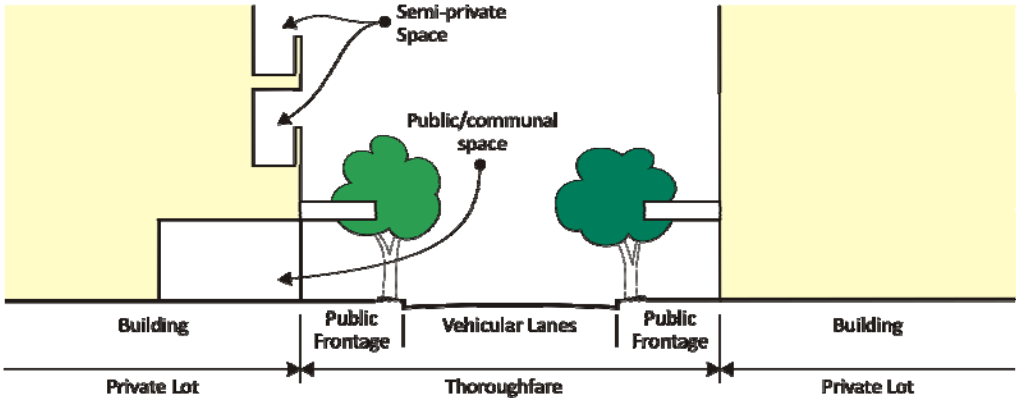
(d) Clear Definition of Ownership/Boundaries

(i) Development promotes the security of property by clearly defining ownership, boundaries and—

(A) for non-residential and mixed use development, legitimate use of private, public and community space; and

(B) for residential development, legitimate use of private, semi-private and public/communal space refer Figure 12.3.5.3.10.

Figure 12.3.5.3.10: Delineation of Ownership and Legitimate Use



(ii) Landscaping, building features, changes of level and low to medium height fencing are used to delineate ownership boundaries.

(iii) Street names and building identification (e.g. numbers) are clearly displayed using reflective materials, with numbers clearly located on the kerb, and building frontage.

(iv) Identification is maintained free from foliage and other obstructions and is large enough to be read from the street after dark.

(e) Activity Mix and Generation (Non-residential and mixed use development only)

(i) Where possible, round-the-clock informal surveillance is promoted through a mix of uses that are compatible with neighbouring land uses.

(ii) Development promotes uses that are activity generators, especially at ground level.

(iii) Potential crime generating activities (e.g. automatic teller machines and hotels) are balanced with other uses, such as restaurants and entertainment facilities for a range of age and user groups.

(iv) Concentrations of vulnerable uses are avoided.

(v) Ground level facades to buildings are highly interactive and provide interest through windows, displays and visible indoor activity.

(vi) Street facades to buildings are designed—

(A) to discourage passive frontages;

(B) with high quality materials and refined details;

(C) with depth and relief in the building surface; and

(D) with a range of functions.

(f) Concealment Reduction

(i) Potential concealment points adjacent to main pedestrian routes are eliminated.

(ii) Where a concealment point is unavoidable, aids to visibility such as convex mirrors and good lighting are provided.

(iii) The design of the development avoids the creation of concealment points such as—

(A) dark areas adjacent to a main/designated pedestrian route;

(B) dead-end alleyways;

(C) indentation in fencing or walls;

(D) gaps in the streets such as entrances to interior courtyards and recessed doorways;

(E) areas that are isolated after dark; and

(F) isolated, narrow overpasses and underpasses.

(iv) Security lighting is provided along principal movement routes, in building entrances, site entries, car parking areas and other movement areas used after dark.

(v) Access to loading docks, storage areas and other restricted areas is controlled by—

(A) solid, secure materials; and

(B) locking the facilities after hours.

(g) Streetscape Design

(i) Streetscape design—

(A) creates safe public places;

(B) encourages pedestrian flow;

(C) designates safe resting places; and

(D) promotes active transport.

(ii) Paving materials, surfaces and spaces are free of trip hazards and obstructions for the safe movement of the elderly and people with mobility difficulties.

(iii) Where appropriate, street furniture is provided which—

(A) does not obscure the views of users, obstruct sightlines along the street or provide opportunities for concealment; and

(B) provides shade and encourages use and informal surveillance.

(h) Building Design for Public Safety

(i) Building design removes, as much as is possible, the opportunity and incentive to commit crime and improves personal perception and the physical reality of a useable, comfortable and safe environment.

(ii) Buildings are designed and constructed, including through the location of windows, verandahs, balconies and the location of habitable rooms to support informal surveillance of the street reserve, nearby open space and other vulnerable areas.

(iii) Building entrances are designed so that they—

(A) are clearly defined;

(B) well lit and face the street;

(C) do not create concealment points;

(D) provide clear sightlines from the building foyer so that occupants can see outside before leaving the building;

(E) have lobbies visible from the exterior; and

(F) have staff entrances, if separate, which are well lit and maximise opportunities for informal surveillance and for clear sightlines.

(iv) Ramps and elevator entrances are provided in areas which are not isolated.

(v) Windows at street level, are secured.

(vi) Buildings are designed to minimise access between roof, balconies and windows of adjoining dwellings.

NOTE 12.3.5.3 T

Security measures should be incorporated into the design of buildings and sites but should not be overt in creating a 'fortress-like' appearance.

Service Facilities

(19) Specific Outcomes

(a) Provision is made for laundry and clothes drying facilities, mail boxes and external storage facilities (where required), which are—

(i) of useable size;

(ii) suitably located for convenient use; and

(iii) designed to be visually attractive or screened.

(b) Areas and receptacles for the storage and removal of waste are—

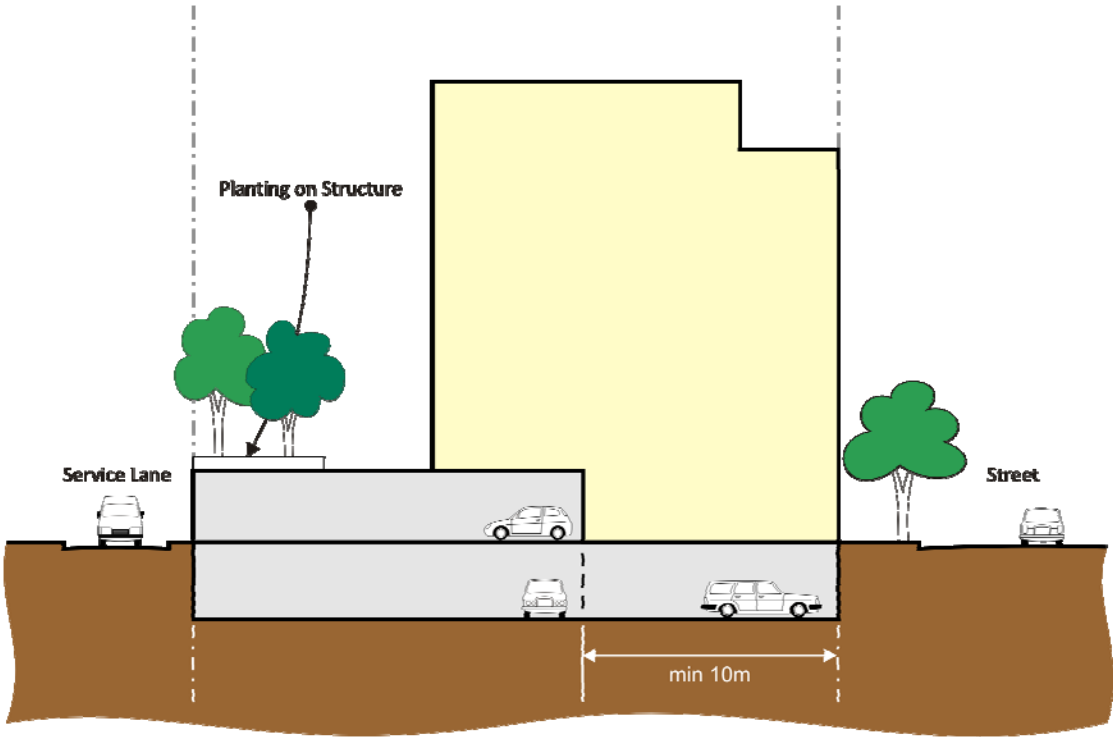
(i) designed, located and screened, where necessary, so as not to present an unsightly appearance, when viewed from a street or public 'right of way';

(ii) designed and located to facilitate access by the Local Government's waste removal vehicles; and

(iii) covered, contained and managed so as not to create an attraction for wildlife, particularly where the site is within 8km of the Amberley Air Base runway and the use may attract birds.

(c) Parking placement may go to the front façade where the parking is located totally below ground level, refer Figure 12.3.5.3.11.

Figure 12.3.5.3.11 – Location of Car Park



NOTE 12.3.5.3 U

Refer to—

(a) Map OV7B Operational Airspace, Wildlife Attraction and Lighting Issues;

(b) State Planning Policy 1/02 – Development in the Vicinity of Certain Airports and Aviation Facilities; and

(c) Table 11.4.2, section 11.4.9 (Defence Facilities), Part 11 (Overlays) of this planning scheme.

Integrated Development

(20) Specific Outcomes

(a) Commercial uses or works are designed, constructed and operated to provide an integrated approach to—

(i) the servicing of the site and adjacent land;

(ii) the loading and unloading of goods and materials;

(iii) the movement of vehicles and pedestrians, both within and between sites;

(iv) the parking of vehicles;

(v) the provision of light and ventilation; and

(vi) the likely pattern of development in the vicinity of the site.

Site Amalgamation

(21) Specific Outcomes

(a) Where the site for the proposed Mixed Residential and Commercial or Large Format Commercial development comprises more than one lot, all lots are amalgamated by survey into one parcel prior to the submission of an application for the approval of building works.

Public Toilets and Public Telephones

(22) Specific Outcomes

(a) The design and construction of public toilet facilities and public telephones—

(i) ensures safety for all people using them;

(ii) takes advantage of informal surveillance in well illuminated areas to discourage non-legitimate uses;

(iii) for public toilets in or near playgrounds – entrances are clearly visible from the playground;

(iv) for other public toilets and public telephones – entrances are visible from the street, mall areas, footpath or corridor and, where possible, close to other compatible activities;

(v) are lockable only by a legitimate key holder and target hardened where the setting is likely to expose users to risk;

(vi) do not encourage or legitimise loitering (i.e. seating is not located in proximity to toilet entrances or public telephones);

(vii) are located in high traffic areas and away from—

(A) isolated areas such as on the edges of development ;

(B) carparks or alleyways; and

(C) long corridor approaches or blind corners.

(viii) have organised surveillance (such as regular security patrols) to ensure that the facilities are only being used for legitimate uses.

(b) Public toilet facilities are provided and designed for use by all members of the community, including people with disabilities, parents and young children.

Stormwater

(23) Specific Outcomes

(a) The capture and management of the following capture depth (mm/day) from all impervious surfaces:

(i) 0 to 40% impervious: Capture the first 10mm/d of runoff; or

(ii) greater than 40%: Capture first 15mm/d of runoff.

NOTE 12.3.5.3 V

(1) To reduce impervious surfaces, green roofs are encouraged to be incorporated in developments.

(2) Water quality objectives are to be achieved onsite before discharge of water.

Fire Fighting

(24) Specific Outcomes

(a) Residential uses are designed with adequate water supply and access for fire fighting purposes.

(25) Acceptable Solutions for (24) above

(a) All dwellings are located within the fire appliance access distances shown in Figure 12.3.5.3.11 below; or

(b) (i) The water supply service to the development is sized for the provision of fire fighting flows via hydrants and a metered bypass across a check valve in accordance with AS2419.1, such that new fire hydrants are installed to enable all dwellings to achieve the fire appliance access distances shown in Figure 12.3.5.3.12 below; and

(ii) vehicular access, through the site is via—

(A) a minimum 3 metre wide concrete driveway;

(B) with a minimum 3 metres in horizontal clearance and 4.5 metres in vertical clearance; and

(C) with a sufficient hard stand turnaround area or through route configuration to enable fire fighting vehicles to enter and leave the site in a forward gear.

Figure 12.3.5.3.12 – Fire Appliance Access Distances

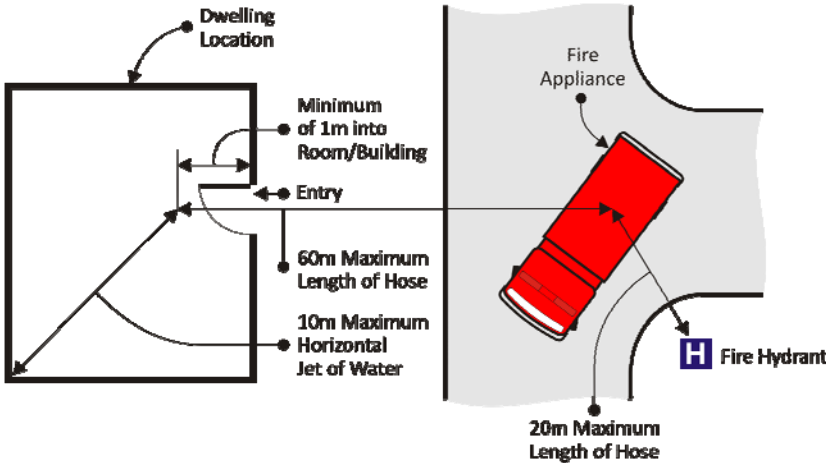
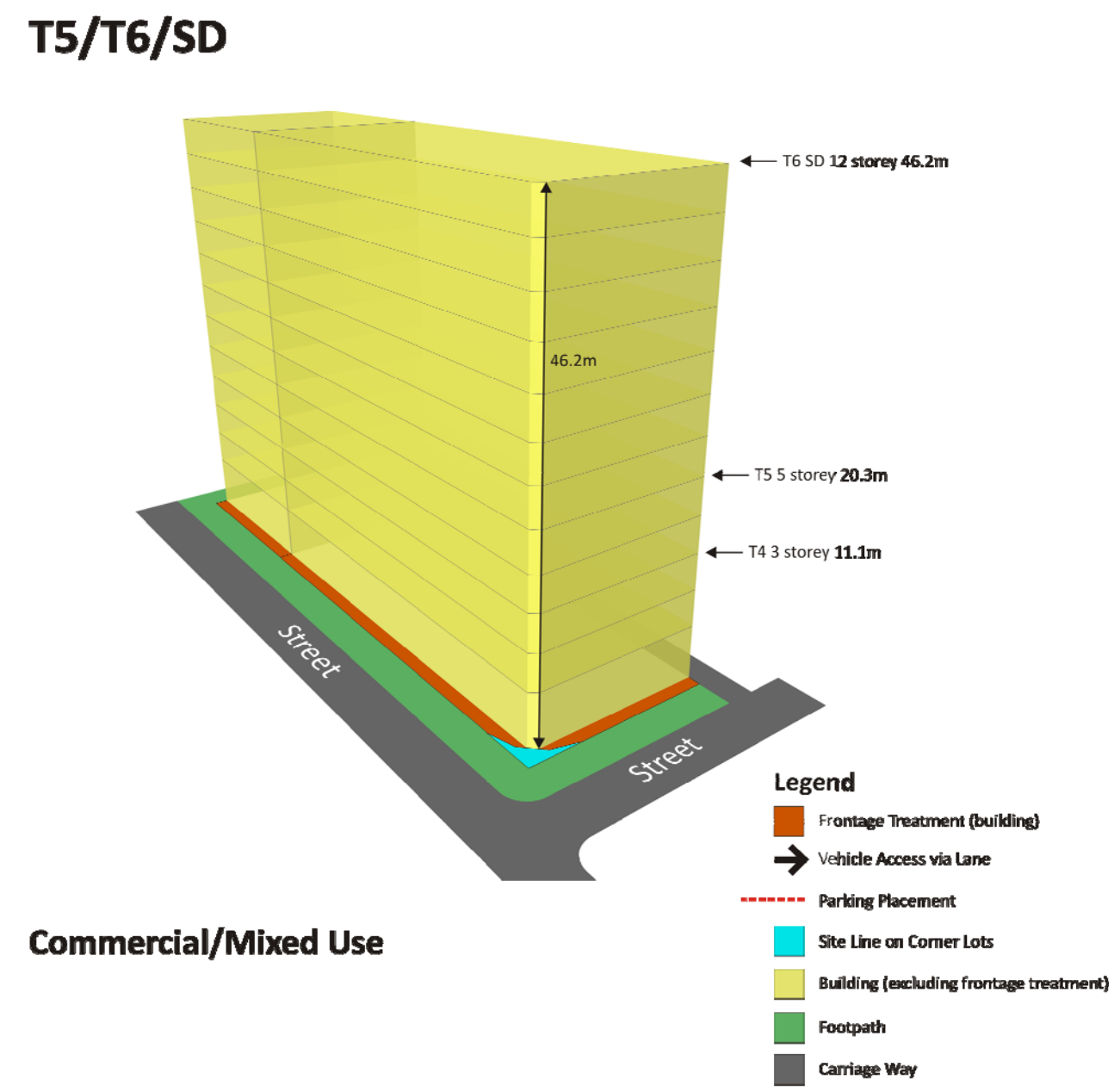
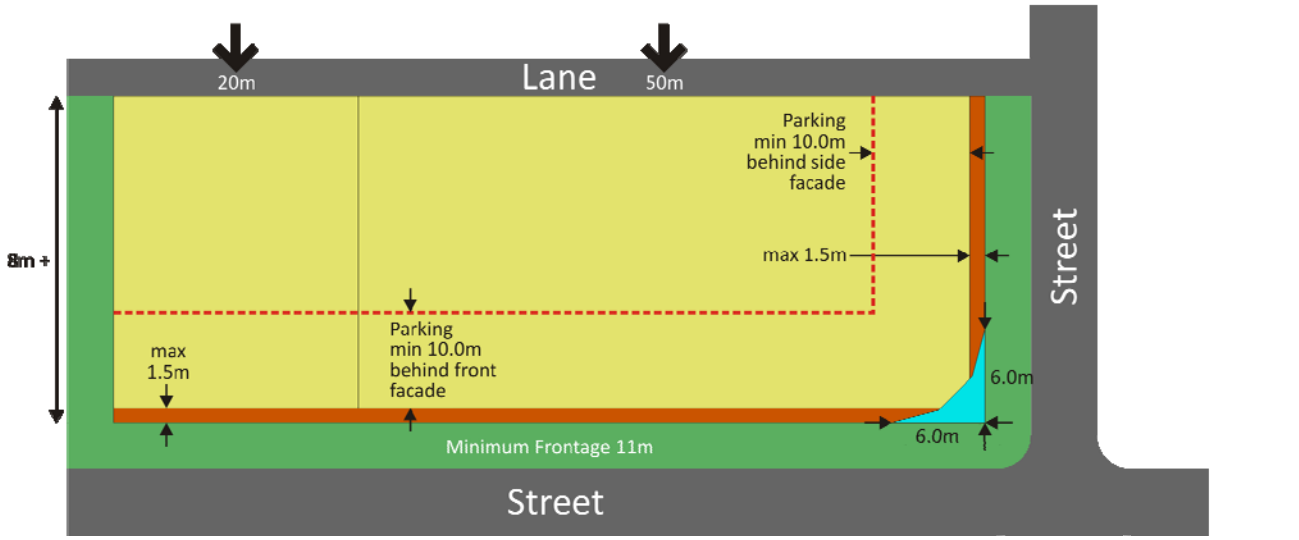


Table 12.3.5.3.1: Commercial / Mixed Use

Element	Large Format Specific Outcomes
Allotment Requirements (Refer to Appendix A)	
Frontage	11 metres or greater
Depth	Minimum of 8 metres
Area	Minimum of 88m^2
Vehicular Access	Laneway only unless "service/ trade use"
Building Requirements	(Refer to Figure 12.3.5.3.13)
Minimum Building Height above ground level at the street frontage	2 storeys in Urban Centre (T5), Urban Core (T6) and Special District (SD)
Maximum Building Height above ground level	3 storeys and 11.1m overall in General Urban (T4) 5 storeys and 20.3m overall in Urban Centre (T5) 12 storeys and 46.2m overall in Urban Core (T6) and Special District (SD)
Level of primary building entrance above street frontage	At grade for shopfront
Site Coverage	Maximum of 100%
Private Recreation Space (per dwelling)	Minimum area of 8m^2 with a minimum dimension of 2.4 metres
Primary frontage setback	Maximum of 3.0 metre to wall at street level To boundary elsewhere Frontage treatment/s that constitute part of a building may encroach into setback
Secondary frontage setback	Maximum of 3.0 metre to wall at street level To boundary elsewhere Frontage treatment/s that constitute part of a building may encroach into setback
Sight line on corner lots	6 metres x 6 metres
Side boundary setback	To boundary
Rear boundary setback	To boundary
Front façade placement on primary frontage setback line	Minimum of 90% of the lot width (excluding any frontage access)
Frontage treatment options (Refer to Appendix D)	Shopfront and Awning, Gallery and Arcade
Parking placement (garages or surface parking)	Minimum of 10.0 metres behind front façade or side façade where applicable

Figure 12.3.5.3.13: Commercial / Mix Use





NOTE 12.3.5.3 W

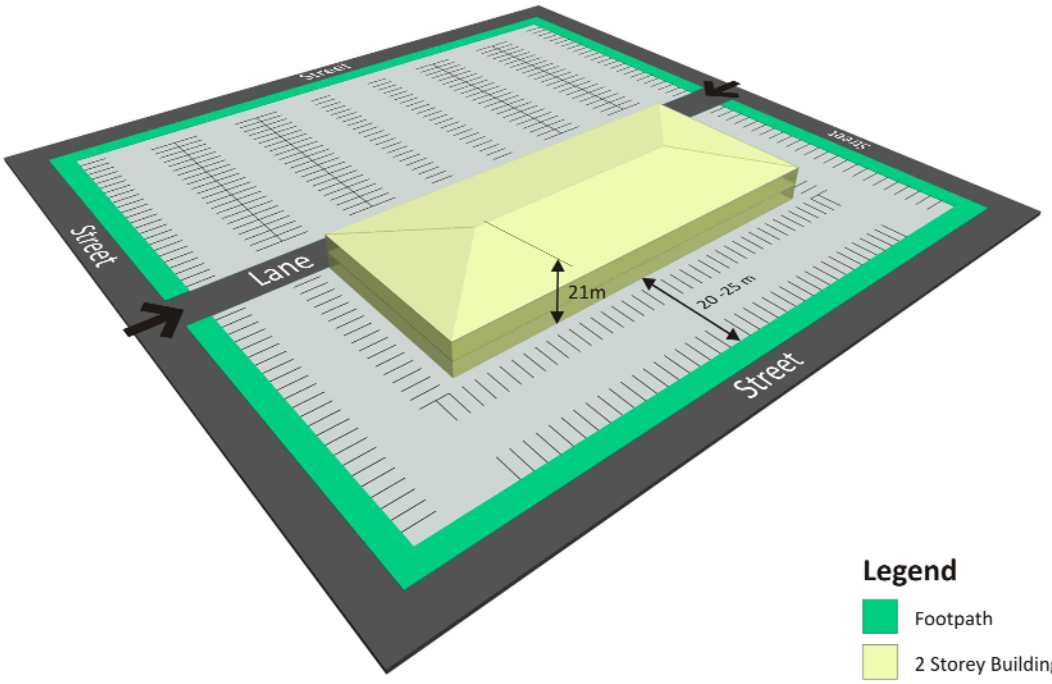
(1) Precedent examples of Commercial / Mix Use building types are identified below.

Table 12.3.5.3.2: Large Format Commercial

Element	Interim Specific Outcomes/Probable Solution
Allotment Requirements (Refer to Appendix A)	
Frontage	50 metres or greater
Depth	Minimum of 50 metres
Area	Minimum of 5,000m^2
Vehicular Access	Laneway or street frontage (limit one entry per frontage)
Building Requirements	Refer to Figure 12.3.5.3.14
Minimum Building Height above ground level at the street frontage	2 storeys in the Special District (SD) zone.
Maximum Building Height above the ground level	2 Storeys and 21m overall in the Special District (SD) zone.
Level of primary building entrance above street frontage	At grade for shopfront
Site Coverage	Maximum of 25%
Private Recreation Space (per dwelling)	Not applicable
Primary and Secondary frontage setback	Minimum of 20 metres and maximum of 25 metres to wall where a parking aisle is placed forward of the building façade; and Frontage treatment/s that constitute part of a building may encroach into setback NOTE 12.3.5.3Y 1. Buildings within the Special District are constructed with a setback of 20 - 25 metres to enable a liner building to be constructed at a later date (multistage development). Where multistage development is proposed a site development plan is provided showing the ultimate configuration of buildings. 2. Car parking located within the front boundary setback is included within the car parking total, necessary space is available in rear area for car parking requirements at ultimate development.
Sight line on corner lots	6m x 6m
Side boundary setback	20 - 25 metres to building wall
Rear boundary setback	To boundary where the building adjoins a future Laneway or road or 20 - 25 Metres to building wall
Front façade placement on primary frontage setback line	Not applicable
Frontage treatment options (Refer to Appendix D)	Shopfront & awning, Gallery & arcade
Parking placement (garages or surface parking)	1 surface parking aisle permitted between street frontage and building façade Mass surface parking located behind building façade and designed so that below grade infrastructure and at grade main circulation aisles coincide to delineate buildable parcels bounded by roads in block pattern to facilitate future infill development consistent with the Urban Centre (T5) Zone or Urban Core (T6) Zone.

Figure 12.3.5.3.14 Large Format Commercial

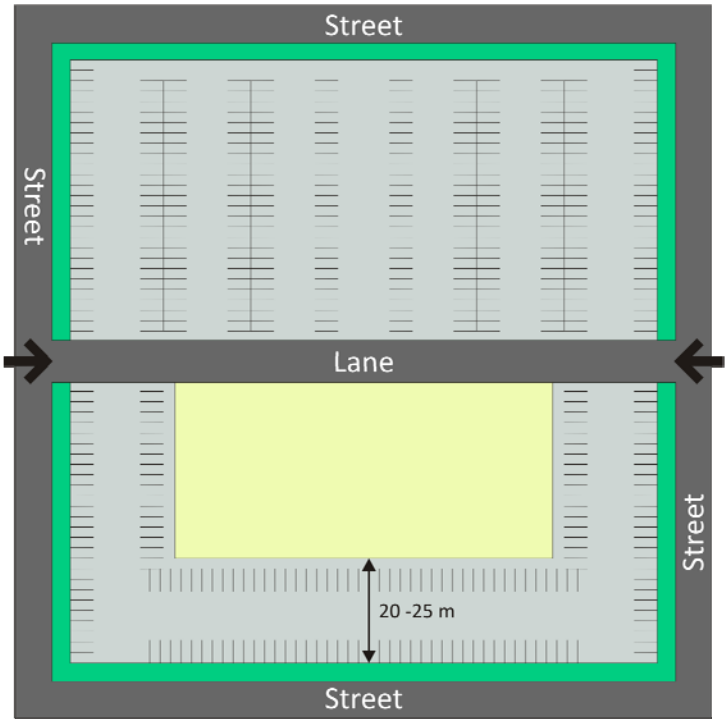
SD



Legend

- Footpath
- 2 Storey Building
- Surface Parking
- Vehicle Site Access
- Carriage Way

Large Format Commercial



NOTE 12.3.5.3 X

(1) Precedent examples of the Large Format Commercial building type are identified below.

12.3.5.4 Effects of Development – Specific Uses

(1) DUAL OCCUPANCY

(a) Specific Outcomes

(i) Dual Occupancy uses and works—

(A) has the appearance of a single dwelling to the streetscape;

(B) do not incorporate a mirror image design;

(C) where proposed on a corner lot access each dwelling from separate streets;

(D) use the relevant building type in Table 12.3.5.4.1;

(E) are of a similar scale and height to surrounding buildings;

(F) remain unobtrusive in predominantly low density residential areas;

(G) are located on sites that are of sufficient size, dimensions and land quality to cater for their particular requirements;

(H) are designed to be compatible with the character of the area in which they are located, with particular regard to roof materials, pitch and form and wall cladding on existing buildings on the subject land and on adjoining land; and

(I) are designed to promote privacy between dwellings.

Table 12.3.5.4.1 – Relevant Built Type

Defined use or use class	Relevant assessment criteria
Dual Occupancy—	
(a) on a lot with a frontage width of 18 metres or greater	Estate House
(b) on a lot with a frontage width of 12 metres or greater but less than 18 metres	Traditional Lot Detached House
(c) on a lot with a frontage width of 6 metres or greater but less than 12 metres	Small Lot House

(b) Probable Solutions – for sub-section (1)(a)

(i) Sites used for a dual occupancy have—

(A) a minimum area of 800m²; and

(B) a maximum ratio of depth to width of 3:1.

(ii) Each dwelling within a dual occupancy has a separate entry at ground level.

(iii) Share one (1) vehicle crossover where not located on a corner site.

NOTE 12.3.5.4 A

Auxiliary Units provide opportunities to accommodate relatives or aged or infirm persons.

(2) DISPLAY HOUSING AND TEMPORARY SALES OFFICE

Building Aesthetics and Function

(a) Specific Outcomes

(i) The style, scale and height of the Display Housing or Temporary Sales Office is consistent with the planning scheme provisions for the relevant zone, and the intended character for the surrounding area.

(ii) The building style of the Display Housing maintains a residential character.

Landscape Works

(b) Specific Outcomes

(iii) The Display Housing or Temporary Sales Office is suitably screened and landscaped in relation to adjoining land.

(iv) The landscaping is compatible with the intended character of the surrounding area.

(c) Probable Solution – for sub-section (2)(b)

(v) A minimum 1.8 m high solid wall or fence (with no gaps) is provided between the Display Housing or Temporary Sales Office and adjoining residential properties.

Advertising Signs

(d) Specific Outcomes

(vi) Display Housing or Temporary Sales Office signs are compatible with development in the locality.

(e) Probable Solutions – for sub-section (2)(d)

(vii) Advertising devices do not exceed a total display area of $3m^2$ for the Display Housing or Temporary Sales Office.

(viii) There is no use of bunting, flashing, animated or rotating signs or floodlighting.

Location and Future Use

(f) Specific Outcomes

(ix) A Temporary Sales Office services one specific land development project.

(x) Display Housing is capable of reverting to residential use consistent with the locality.

(g) Probable Solutions – for sub-section (2)(f)

(xi) The Temporary Sales Office is co-located with the land development project it promotes.

(xii) The use of premises for Display Housing or Temporary Sales Office is discontinued within two years from the commencement of the use.

Operational Effects

(h) Specific Outcomes

(xiii) The number of persons employed on site does not cause a significant impact on nearby land.

(xvi) The hours of operation of the Display Housing or Temporary Sales Office does not significantly adversely affect the amenity of nearby residents.

(i) Probable Solutions – for sub-section (2)(h)

(xvii) No more than two (2) employees are engaged in the operation of the use at any one time.

(xviii) The use does not operate between 6.00 p.m. and 9.00 a.m. on any day.

(3) AUTOMATIC TELLER MACHINES

Specific Outcomes

(a) Automatic teller machines are located in well lit, highly visible locations, adjacent to after hours facilities and are designed to reduce concealment opportunities by—

(i) providing card access to enclosed areas;

(ii) installing good lighting;

(iii) providing clear sight-lines; and

(iv) not being located in vulnerable areas or places, confined spaces, remote locations or adjacent to licensed premises.

(b) Entrances to automatic teller machines are located to facilitate casual surveillance, within direct view of pedestrian paths and surrounding activities so that they can be overlooked from vantage points.

(c) If located in vulnerable areas, automatic teller machines are located in association with mechanical surveillance devices such as overt closed circuit security cameras.

(4) SERVICE STATIONS

Specific Outcomes

(a) Uses and works are not required to meet the predominate buildings type design guidelines in 12.3.5 Effects of Development - Built Form.

Safety and Security

Specific Outcomes

(b) Service stations are designed to provide maximum surveillance from adjacent streets and other activities, with an emphasis on vulnerable elements and vulnerable settings within service stations.

(c) The service station and commonly associated facilities, including convenience shopping, toilets, telephones, automatic teller machines, rest areas and car parking areas are well-lit and clearly visible from areas of activity within the site, as well as from adjacent uses and the street.

Design and Location

Specific Outcomes

(d) The site has sufficient area and dimensions to accommodate the building(s), other structures, vehicle access and movement areas, and landscaping.

(e) Delivery and waste removal areas, air conditioners, refrigeration units, exhaust systems and the like are located away from sensitive receptors (particularly nearby dwellings) or shielding is provided for noise and odour attenuation.

Probable Solutions – for sub-section (4)(c) and (d)

(f) The minimum area of a parcel of land to be used for a Service Station is one thousand (1000) square metres.

(g) The minimum frontage to any road is thirty-five (35) metres.

(h) The maximum number of entrances to any frontage is two (2).

(i) Any entrance is located not less than twenty (20) metres from any intersection.

(j) All vehicular parking and manoeuvring areas are paved, sealed, drained, line-marked and maintained.

(k) Reinforced concrete industrial crossings are provided at all ingress and egress points to the property alignment.

(l) Storage areas for tyres, etc, are screened from view from the road and any adjoining land.

(m) Side and rear boundary fences are constructed of solid materials to a height of not less than 1.8 metres, where the site abuts a residential use or land in a residential zone.

(n) The location of buildings, pumps and open storage areas comply with at least the minimum setback requirements in the zone, providing the location of structures permits the free flow of traffic on and off the site.

(o) Bunting and other similar lightweight coloured material in continuous lengths is not erected on the site of any Service Station.

Vehicular Ingress and Egress

Specific Outcome

(p) The site layout provides safe and convenient vehicle access, including provision for access—

- (i) from a road other than a local residential street;
- (ii) by way of separate entrance to and exit from the site;
- (iii) by way of adequately spaced, sized and located vehicle crossings;
- (iv) where warranted by local traffic conditions, by way of a deceleration or an acceleration lane, or right-turn only lane facilities.

Probable Solutions – for sub-section (4)(o)

(q) The site is situated not more than 100m from the intersection of 2 or more roads, one of which is an Arterial Road or Sub Arterial Road.

(r) The site is provided with not less than 2 vehicle crossings, each not more than 9m in width and not closer than:-

- (i) 10m to any other vehicle crossing; or
- (ii) 20m to any road intersection.

Fuel Pumps

Specific Outcome

(s) All proposed fuel pumps are located—

- (i) wholly within the site, such that vehicles while fuelling are standing wholly within the site; and
- (ii) a safe distance from all site boundaries.

Probable Solutions – for sub-section (4)(r)

(t) All fuel pumps are situated wholly within the site and located a minimum of 7.5m to any boundary of the site.

(u) All proposed inlets to bulk fuel storage tanks are situated so that fuel delivery vehicles are standing wholly within the site when filling the tanks.

(5) VETERINARY CLINICS AND VETERINARY HOSPITALS

Specific Outcomes

(a) Veterinary Clinics and Veterinary Hospitals are designed and operated in a manner which ensures that adjoining sensitive land uses (such as residential areas or uses) are not adversely affected.

(b) Animal holding areas are sound insulated and screened.

(c) A residence is provided on site to enable full time supervision of animals which are kept overnight.

(6) CIVIC BUILDINGS

Specific Outcomes

(a) Civic Buildings must be co-located with the Neighbourhood Centres identified in the Neighbourhood Master Plan.

(b) The scale and mass of the Civic Building is taken from the adjoining T-zones.

(c) Where a traditional Civic Building form is proposed (e.g. a clock tower) which does not accord with the prevalent building form the traditional form will, with Council's agreement, prevail.

(7) COMMUNITY USES

(a) Community Uses must be co-located with the Neighbourhood Centres identified in the Neighbourhood Master Plan.

(b) The scale and mass of the Community Uses building form is taken from the adjoining T-zones.

(c) Where a traditional Community Building form is proposed (e.g. a church spire) which does not accord with the prevalent building form the traditional form will, with Council's agreement, prevail.

12.3.6 Effects of Development – Parking

(1) Development that meets the specific outcomes (1) to (38) of Parking Design and Construction Standards and Parking Demand Standards in Part 12 Division 9 – Parking Code and 12.3.6.1 Effects of Development – Parking Demand Standards, in the local government's opinion complies with the 12.3.6 Effects of Development – Parking.

12.3.6.1 Effects of Development – Parking Demand Standards

NOTE 12.3.6.1 A

(1) The specific outcomes which are sought to apply generally in relation to parking provisions are set out below.

Variation to Standards

(2) Despite any of the provisions contained within this Code, the local government may require the construction of a greater or lesser number of parking spaces or dispense with or modify any of the requirements below if it considers that such modification or dispensation is justified having regard to the particular circumstances.

(3) The local government may also request a Transport Impact Assessment, including information and an assessment identifying whether adequate provision has been made for the manoeuvring, parking, loading and unloading of vehicles (see Planning Scheme Policy 2—Information Local Government May Request).

Material Change of Use and Extensions or Additions to Existing Uses and Works

(1) Specific Outcomes

(a) Where an existing building occupied by an existing use is extended, or the area of land occupied by an existing use is increased, the requirements of this Code apply only to the extension of the existing building or to the use of the additional land.

(b) The parking requirements for the extension or increased site area is to be calculated as follows—

A + B,

where—

A is the parking demand of the extension or increased site area; and

B is the number of parking spaces (if any) lost as a result of the extension or increased site area.

(c) Where an existing building or land is occupied by a new use (not being an existing use) and the parking demand of the new use is greater than the parking demand for the existing use, the parking requirements for the new use is calculated as follows—

C – D,

where—

C is the parking demand of the new use; and

D is the parking demand of the existing use.

NOTE 12.3.6.1 B

Where an existing building is to be occupied by a new use (not being an existing use), the local government may dispense with or modify the requirements of this Code in situations where—

(a) the existing building is proposed to remain substantially the same;

(b) no increase in gross floor area of the existing building is proposed; and

(c) the parking demand of the proposed use is similar to the existing use.

'Standard' Parking Demand for Specific Uses

(2) Specific Outcomes

(a) Adequate provision is made for on-site parking commensurate with the needs of traffic generating uses and works.

(b) All off-street carparking areas are constructed and available for use before the use commences.

(3) Probable Solutions – for sub-section (2)

(a) Parking spaces are provided in accordance with Table 12.3.6.1.

(b) Where the number of parking spaces calculated using Table 12.3.6.1 is not a whole number, the number required is the next highest whole number.

(c) Where the local government receives an application for the establishment of two (2) or more uses on the same site, the parking demand is calculated by totalling the requirements for each use, except where car parking is shared by multiple uses see Note 12.3.6.1 C

NOTE 12.3.6.1 C

(1) Table 12.3.6.1 specifies the parking demand for various uses as defined in the Planning Scheme together with other criteria for the provision of parking spaces.

(2) The parking schedule sets out the minimum number of off-street parking spaces required for particular uses.

(3) Where some shared or multiple use of the parking area is expected, the applicant should demonstrate the extent to which this will occur before any relaxation is determined by the local government.

(4) Where a use or proposed use involves the utilisation of land not included in a building or structure, then for the purpose of Schedule 2 the term gross floor area includes the land so used.

Table 12.3.6.1 Provision of Parking Spaces

NOTE 12.3.6.1 D

(1) The use of Interim or Deferred development standards are based on the following criteria:

- (a) interim development standards apply where there is a predominance of private vehicle usage and where development does not meet all elements of ultimate development outlined in (b) below;
- (b) applications seeking to utilise the deferred development standard are to provide or be supported by:
  - (i) a traffic report that demonstrates the proposal will meet the mode share targets for Traditional Neighbourhood Design;
  - (ii) access within 800m of a trunk public transport corridor (e.g. rail line or busway);
  - (iii) public transport services that:
    - (A) provide a minimum of half hourly services;
    - (B) connects both locally within the neighbourhood, to the wider city network and job generating locations;
  - (iii) a strategic pedestrian and cycle network that connects both locally within the neighbourhood, to the wider city network and job generating locations;
  - (iv) provision of end of trip faculties (e.g. showers, lockers and the like); and
- (c) applications for interim development must identify how ultimate development is to be achieved.

(2) Provision has also been made to reduce the required number of parking spaces for—

- (a) development within 400m of a transit stop identified on an approved Neighbourhood Master Plan [see sub-section (3) below];
- (b) shared or multiple use of parking areas [see sub-section (5) below)]; and
- (c) parking areas within Character Places or Character Zones [see sub-section (7) below].

(3) Solutions are expressed in carpark spaces (or portions of a carpark space) usually per unit, per m2 , per employee or the like for calculation purposes.

(4) (FTE) = Full Time Employee – in businesses where employees work part time the calculation is based upon the equivalent of 1 person working an 8 hour day or shift.

(5) GFA = Gross Floor Area as defined in the list of Scheme definitions (see Schedule 1).

(6) Customer floor space means the area forward of the service counter i.e. only the area of the shop or building which the customer is permitted to access.

(7) Where a use is not listed in the Table below, the number of parking spaces is to be determined on application, based on information provided by the applicant regarding likely parking demand.

Table 12.3.6.1 Provision of Parking Spaces cont.

Use	Interim Probable Solutions	Ultimate Probable Solutions	Notes
Residential			
Caretakers' Residence	1 covered space	1 covered space	
Display Housing	3 spaces per Display Home	3 spaces per Display Home	It is preferable that all carparking is provided in one location (e.g. an allotment used as a carpark during the term of the Display Home or Housing Village).
Dual Occupancy	1 covered space per dwelling; plus 2 visitor spaces.	1 covered space per dwelling;	The driveway can be used to provide for the visitor parking spaces, however, the visitor parking spaces within the driveway do not obstruct access to either resident's parking spaces (e.g. concrete or mounded dividers are provided between attached garages and a shared driveway).
Home Based Activity	1 space per FTE	1 space per FTE	This space is in addition to parking requirements for the dwelling unit. The driveway can be used to provide for one of the spaces, provided there is a 6 metre setback between the garage/carport and the street alignment..
Multiple Residential (incorporates the following uses)— • apartments; • townhouse; • attached housing.	1 space per dwelling for 1 or 2 bedroom units; 1.5 spaces per dwelling for 3 bedroom units; 2 spaces per dwelling for 3+ bedroom units; Plus 0.1 spaces per dwelling for visitor parking	1 space per dwelling for 1 or 2 bedroom units; 1.5 spaces per dwelling for 3 bedroom units; 2 spaces per dwelling for 3+ bedroom units; Plus 0.1 spaces per dwelling for visitor parking	Any development with a long driveway (e.g. in excess of 50 metres) is to provide for access (which may include a passing bay) by furniture removal vans, refuse collection and emergency vehicles.
Single Residential (incorporates detached house)	2 spaces	2 spaces	1 covered space is to be provided per dwelling. The driveway can be used to provide for one of the spaces, provided there is a 6 metre setback between the garage/carport and the street alignment.
Temporary Accommodation (incorporates the following uses)—			
(a) boarding house;	0.1 space per dwelling or rented bedroom; plus 1.0 bicycle or scooter space per dwelling or rented bedroom.	0.1 space per dwelling or rented bedroom; plus 1.0 bicycle or scooter space per dwelling or rented bedroom.	
(b) motel.	1 space per unit; plus 1 space per resident manager; plus 1 space per staff member (FTE); plus a queuing/standby area, sufficient to accommodate 2 vehicles at the entry to the site.	1 space per unit; plus 1 space per resident manager; plus 1 space per staff member (FTE); plus a queuing/standby area, sufficient to accommodate 2 vehicles at the entry to the site.	Where the motel includes a restaurant which is available for the use of persons other than motel occupants, additional parking at the applicable restaurant rate is also provided.

Table 12.3.6.1 Provision of Parking Spaces cont.

Use	Interim Probable Solutions	Ultimate Probable Solutions	Notes
Commercial/Industrial			
Business Use — Retail (incorporates the following uses and the like) • bulky goods sales; • café; • cake shop; • fast food premises; • food delivery service; • hot bread shop; • hotel; • laundromat; • restaurant; • shop; • snack bar; • take away food premises.	1 space per 25m² GFA plus loading bay where required;	1 space per 50m² GFA plus loading bay where required;	
Business Use – Commercial (incorporates the following uses and the like) • medical centre; • office; • professional office.	1 space per 25m² GFA;	1 space per 100m²; plus loading bay where required.	
Extractive Industry	1 space per staff member (FTE).	1 space per staff member (FTE).	
General Industry (incorporates the following uses)—	Unless otherwise specified as per (a) to (e) below, 1 space per 100m² GFA; or 0.75 space per staff member (FTE), whichever is the greater.	Unless otherwise specified as per (a) to (e) below, 1 space per 100m² GFA; or 0.75 space per staff member (FTE), whichever is the greater.	Bicycle parking facilities are desirable. Space for service vehicle parking and loading/unloading is also to be provided.
(a) boiler making or engineering works;	1 space per 100m² GFA; or 0.75 space per staff member (FTE), whichever is the greater.	1 space per 100m² GFA; or 0.75 space per staff member (FTE), whichever is the greater.	Bicycle parking facilities are desirable. Space for service vehicle parking and loading/unloading is also to be provided.
(b) freight depot;	1 space per 100m² GFA.	1 space per 100m² GFA.	Bicycle parking facilities are desirable. Space for service vehicle parking and loading/unloading is also to be provided.
(c) landscape supply depot;	1 space per 500m² of site area (minimum of 5 spaces).	1 space per 500m² of site area (minimum of 5 spaces).	Provision is made for parking spaces/loading areas for cars with trailers and larger vehicles.
(d) truck depot;	1 space per on-site staff member (FTE).	1 space per on-site staff member (FTE).	
(e) wooden product manufacturing (including a cabinet maker or joinery).	1 space per 100m² GFA; or 0.75 space per staff member (FTE), whichever is the greater.	1 space per 100m² GFA; or 0.75 space per staff member (FTE), whichever is the greater.	Bicycle parking facilities are desirable space for service vehicle parking and loading/unloading is also to be provided.
General Store	No requirements;	No requirements.	
Plant Nursery (Wholesale)	1 space per staff member (FTE); 1 space for a visitor.	1 space per staff member (FTE); 1 space for a visitor.	Provision is made for parking spaces/loading areas for larger vehicles.

Table 12.3.6.1 Provision of Parking Spaces cont.

Use	Interim Probable Solutions	Ultimate Probable Solutions	Notes
Service/Trade Use (incorporates the following uses)—	Unless otherwise specified as per (a) to (e) below, 1 space per 100m² GFA; or 0.75 space per staff member (FTE); whichever is the greater.	Unless otherwise specified as per (a) to (e) below, 1 space per 100m² GFA; or 0.75 space per staff member (FTE); whichever is the greater.	Provision is made for service vehicle parking and loading/unloading.
(a) builder's or contractor's depot;	1 space per 100m² GFA.	1 space per 100m² GFA.	Provision is made for service vehicle parking and loading/unloading.
(b) car wash;	1 space per staff member (FTE); plus provision for queuing space for at least two cars behind each wash bay.	1 space per staff member (FTE); plus provision for queuing space for at least two cars behind each wash bay.	Where the Car Wash is ancillary to a Service Station provision is made for queuing space for at least five cars before the Car Wash entrance.
(c) commercial laundry (other than a laundromat);	1 space per 100m² GFA; or 0.75 space per staff member (FTE), whichever is the greater.	1 space per 100m² GFA; or 0.75 space per staff member (FTE), whichever is the greater.	Provision is made for service vehicle parking and loading/unloading.
(d) repair station;	6 spaces per work bay; plus 1 space per 100m² GFA.	6 spaces per work bay; plus 1 space per 100m² GFA.	Parking spaces may include lube bays or workshop areas. Tandem parking or stacked parking may be provided for serviced, repaired or staff vehicles.
(e) warehouse or storage.	1 space per 200m² of warehouse or storage area; or 0.75 space per staff member (FTE), whichever is the greater.	1 space per 200m² of warehouse or storage area; or 0.75 space per staff member (FTE), whichever is the greater.	Additional land is set aside for parking purposes at the highest rate applicable for any exempt and self assessable development within the zone in which the site is situated. Provision is made for service vehicle parking and loading/unloading.
Shopping Centre	1 space per 25m² GFA; plus loading bay where required.	1 space per 50m² GFA; plus loading bay where required.	Where premises are used for bulky goods sales, this requirement may be reduced to 1 space per 50m² of gross floor area provided additional land is set aside for parking purposes at the highest rate applicable for any exempt and self assessable development within the zone in which the site is situated. Provision is made for— (a) on-site bus and taxi parking; (b) bicycle parking facilities; and (c) service vehicle parking and loading/unloading.
Special Industry (incorporates the following uses)—			
(a) concrete batching plant;	0.75 space per staff member (FTE); plus 4 visitor spaces.	0.75 space per staff member (FTE); plus 4 visitor spaces.	Provision is also made for service vehicle parking and loading/unloading.
(b) fuel depot;	0.75 space per employee (FTE); plus 0.25 space per employee for visitors.	0.75 space per employee (FTE); plus 0.25 space per employee for visitors.	Provision is also made for service vehicle parking and loading/unloading.
(c) recycling premises;	1 space per 150m² GFA; plus 0.75 space per staff member (FTE).	1 space per 150m² GFA; plus 0.75 space per staff member (FTE).	Provision is made for service vehicle parking and loading/unloading.
(d) special industry uses (not otherwise specified).	0.75 space per staff member (FTE); plus 0.25 space per staff member for visitors.	0.75 space per staff member (FTE); plus 0.25 space per staff member for visitors.	Provision is also made for service vehicle parking and loading/unloading.
Temporary Sales Office	1 space per 30m² GFA.	1 space per 30m² GFA.	

Table 12.3.6.1 Provision of Parking Spaces cont.

Use	Interim Probable Solutions	Ultimate Probable Solutions	Notes
Recreation			
Entertainment Use (incorporates the following uses)			
(a) amusement parlour;	1 space per 25m² GFA.	1 space per 50m² GFA	Bicycle parking facilities are desirable.
(b) cabaret;	1 space per 25m² GFA; plus 1 loading/service bay.	1 space per 50m² GFA	Where a cabaret is adjacent to an existing off-street carpark or within a shopping centre, consideration will be given to patronage patterns and joint use of the available spaces. Provision is also made for bus and taxi pick-up/set- down and service vehicle parking and loading/unloading.
(c) cinema;	1 space per 25m² GFA.	1 space per 50m² GFA	Provision is also made for bus and taxi pick-up/set- down and service vehicle parking and loading/unloading.
(d) club	1 space per 25m² GFA.	1 space per 50m² GFA	Where specific spaces are reserved for Club Directors or specific staff or members, these spaces are additional to those required under this code and are nominated at the Development Application stage.
(e) concert hall;	1 space per 25m² GFA.	1 space per 50m² GFA	Provision is also made for bus and taxi pick-up/set- down and service vehicle parking and loading/unloading.
(f) dance hall;	1 space per 25m² GFA.	1 space per 50m² GFA	Provision is also made for bus and taxi pick-up/set- down and service vehicle parking and loading/unloading.
(g) licensed club;	1 space per 25m² GFA; plus 1 loading/service bay.	1 space per 50m² GFA	Where specific spaces are reserved for Club Directors or specific staff or members, these spaces are additional to those required under this code and are nominated at the Development Application stage. Where a licensed club is adjacent to an existing off-street carpark or within a shopping centre, consideration will be given to patronage patterns and joint use of the available spaces. Provision is also made for bus and taxi pick-up/set- down and service vehicle parking and loading/unloading.
(h) night club;	1 space per 25m² GFA; plus 1 loading/service bay.	1 space per 50m² GFA	Where a nightclub is adjacent to an existing off-street carpark or within a shopping centre, consideration will be given to patronage patterns and joint use of the available spaces. Provision is also made for bus and taxi pick-up/set- down and service vehicle parking and loading/unloading.
(i) theatre;	1 space per 25m² GFA.	1 space per 50m² GFA	Provision is also made for bus and taxi pick-up/set- down and service vehicle parking and loading/unloading.

Table 12.3.6.1 Provision of Parking Spaces cont.

Use	Interim Probable Solutions	Ultimate Probable Solutions	Notes
Recreation Use (incorporates the following uses)			
(a) equestrian and coursing sports;	0.2 space per person able to be seated; plus 1 space per 5m² of other spectator areas.	0.2 space per person able to be seated; plus 1 space per 5m² of other spectator areas.	Provision is made for trailer/horse float parking.
(b) indoor recreation;	1 space per 10m² GFA; or 0.75 space per participant.	1 space per 10m² GFA; or 0.75 space per participant.	Bicycle parking facilities are desirable. Parking may be reduced for a centre with a combination of indoor recreation uses or if such centre is adjacent to an existing off-street carpark which may be available for joint parking arrangements. Provision is also made for bus and taxi pick-up/set- down and service vehicle parking and loading/unloading.
(c) outdoor recreation.	As a minimum requirement, 1 space per 5 spectator seats plus 1 space per 5m² of other spectator area. Football field: 50 spaces per football field; Golf Course: 4 spaces per tee, plus Club House parking (as for Licensed Club); Outdoor Court Games: 6 spaces per court; Lawn Bowls: 30 space per green; Swimming Pool: 15 spaces plus 1 space per 100m² of useable site area.	As a minimum requirement, 1 space per 5 spectator seats plus 1 space per 5m² of other spectator area. Football field: 50 spaces per football field; Golf Course: 4 spaces per tee, plus Club House parking (as for Licensed Club); Outdoor Court Games: 6 spaces per court; Lawn Bowls: 30 space per green; Swimming Pool: 15 spaces plus 1 space per 100m² of useable site area.	Bicycle parking facilities are desirable. Provision is also made for bus and taxi pick-up/set- down and service vehicle parking and loading/unloading. Parking may be reduced for a centre with a combination of outdoor recreation uses or if such centre is adjacent to an existing off-street carpark which may be available for joint parking arrangements.

Table 12.3.6.1 Provision of Parking Spaces cont.

Use	Interim Probable Solutions	Ultimate Probable Solutions	Notes
Rural			
Intensive Animal Husbandry (incorporates the following uses)			
(a) aquaculture;	Staff: 0.5 space per staff member (FTE); plus Visitors: 1 space.	Staff: 0.5 space per staff member (FTE); plus Visitors: 1 space.	
(b) cattery;	Staff: 0.5 space per staff member (FTE); plus Boarding Cattery – Visitors: 1 space per 5 animal enclosures; Breeding (Only) Cattery: 1 visitor space.	Staff: 0.5 space per staff member (FTE); plus Boarding Cattery – Visitors: 1 space per 5 animal enclosures; Breeding (Only) Cattery: 1 visitor space.	
(c) dairy;	Staff: 0.5 space per staff member (FTE); plus Visitors: 1 space.	Staff: 0.5 space per staff member (FTE); plus Visitors: 1 space.	
(d) feedlot;	Staff: 0.5 space per staff member (FTE); plus Visitors: 1 space.	Staff: 0.5 space per staff member (FTE); plus Visitors: 1 space.	
(e) kennels;	Staff: 0.5 space per staff member (FTE); plus Boarding Kennels – Visitors: 1 space per 5 animal enclosures; Breeding (Only) Kennels: 1 visitor space.	Staff: 0.5 space per staff member (FTE); plus Boarding Kennels – Visitors: 1 space per 5 animal enclosures; Breeding (Only) Kennels: 1 visitor space.	
(f) riding establishment;	Staff: 0.5 space per staff member (FTE); plus Visitors: 0.5 space per horse.	Staff: 0.5 space per staff member (FTE); plus Visitors: 0.5 space per horse.	
(g) poultry feedlot;	Staff: 0.5 space per staff member (FTE); plus Visitors: 1 space.	Staff: 0.5 space per staff member (FTE); plus Visitors: 1 space.	
(h) piggery;	Staff: 0.5 space per staff member (FTE); plus Visitors: 1 space.	Staff: 0.5 space per staff member (FTE); plus Visitors: 1 space.	
(i) stable.	Staff: 0.5 space per staff member (FTE); plus Visitors: 1 space.	Staff: 0.5 space per staff member (FTE); plus Visitors: 1 space.	
Wine Making	Staff: 1 space per staff member (FTE).	Staff: 1 space per staff member (FTE).	If open to the public, additional parking to be provided as per the relevant use for additional uses included on the site i.e. shop or restaurant. On site provision is made for the parking and manoeuvring of all vehicles associated with the business including buses and service vehicle parking and loading/unloading.

Table 12.3.6.1 Provision of Parking Spaces cont.

Use	Interim Probable Solutions	Ultimate Probable Solutions	Notes
Other			
Community Use (incorporates the following uses)			
(a) child care centre;	1 space per 50m² GFA; plus 1 space per 8 children; plus provision for the safe dropping off and collection of children.	1 space per 50m² GFA; plus provision for the safe dropping off and collection of children.	Bus parking facilities may be required.
(b) community centre;	1 space per 10m² GFA.	1 space per 50m² GFA	Special attention should be given to accommodate people with disabilities, elderly people and people with walking frames who require wider carparking spaces. Bicycle parking facilities are desirable.
(c) community hall;	1 space per 5m² GFA.	1 space per 50m² GFA	Bicycle parking facilities are desirable.
(d) crematorium;	1 space per staff member (FTE); plus 1 space per 5m² of seating area; plus 1 space for each hearse.	1 space per 50m² GFA	
(e) cultural centre;	1 space per 30m² GFA ; plus 0.5 space per staff member (FTE); plus 1 truck loading bay.	1 space per 50m² GFA	Provision is also be made for the parking of buses and service vehicle parking and loading/unloading. Bicycle parking facilities are desirable.
(f) emergency services depot;	Staff: 1 space per staff member (FTE); plus Visitors: 0.25 space per staff member (FTE).	1 space per 50m² GFA	Provision is also made for the service vehicle parking and loading/unloading.
(g) gallery;	1 space per 50m² GFA of display area; 0.5 space per staff member (FTE); 1 truck loading bay.	1 space per 50m² GFA	Provision is made for the parking of buses and service vehicle parking and loading/unloading.
(h) hospital;	1 space per doctor or staff member (FTE); plus 1 space per 3 hospital beds for visitors. For clinics and outpatients—1 space per 4 seats; or 1 space per 5m² GFA of public waiting area.	1 space per 50m² GFA	Provision is made for the parking of buses and ambulances and service vehicle parking and loading/unloading. Special attention should be given to accommodate people with disabilities, elderly people and people with walking frames who require wider carparking spaces.
(i) information centre;	0.5 space per staff member (FTE); plus 1 space per 20m² GFA.	1 space per 50m² GFA	Provision is also made for— • buses; • vehicles towing caravans; and • service vehicle parking and loading/unloading.
(j) library;	1 space per 50m² GFA of display area; plus 0.5 space per staff member (FTE); plus 1 truck loading bay.	1 space per 50m² GFA	Special attention should be given to accommodate people with disabilities, elderly people and people with walking frames who require wider carparking spaces. Provision is made for the parking of buses and service vehicle parking and loading/unloading. Bicycle parking facilities are desirable.
(k) meeting rooms;	1 space per 5m² GFA.	1 space per 50m² GFA	

Table 12.3.6.1 Provision of Parking Spaces cont.

Use	Interim Probable Solutions	Ultimate Probable Solutions	Notes
(l) museum;	1 space per 50m² GFA of display area; plus 0.5 space per staff member (FTE); plus 1 truck loading bay.	1 space per 50m² GFA	Special attention should be given to accommodate people with disabilities, elderly people and people with walking frames who require wider carparking spaces. Provision is made for the parking of buses and service vehicle parking and loading/unloading. Bicycle parking facilities are desirable.
(m) neighbourhood centre;	1 space per 10m² GFA.	1 space per 50m² GFA	Special attention should be given to accommodate people with disabilities, elderly people and people with walking frames who require wider carparking spaces. Bicycle parking facilities are desirable.
(n) place of worship;	1 space per 10m² of GFA.	1 space per 50m² GFA	Where the site includes a hall or other buildings in addition to a place of worship, additional parking is provided, if uses operate jointly. Special attention should be given to accommodate people with disabilities, elderly people and people with walking frames who require wider carparking spaces.
(o) school;	0.5 space per staff member (FTE); plus 1 space per 10 students in Year 12; plus 1 bus space per 120 students; plus a visitor carpark designed to accommodate 1 space per 100 students; plus provision for the safe dropping off and collection of children; plus bicycle parking at the rate of 1 space per 25 students in Year 3 and over.	1 space per 50m² GFA; plus provision for the safe dropping off and collection of children;	
(p) senior citizens centre;	1 space per 10m² GFA; plus bicycle parking at the rate of 1 space per 25 senior citizens.	1 space per 50m² GFA; plus bicycle parking at the rate of 1 space per 25 senior citizens.	Provision is made for the parking of any community buses and service vehicle parking and loading/unloading. Special attention should be given to accommodate people with disabilities, elderly people and people with walking frames who require wider carparking spaces.
(q) youth centre.	1 space per 10m² GFA; plus bicycle parking at the rate of 1 space per 25 children.	1 space per 50m² GFA; plus bicycle parking at the rate of 1 space per 25 children.	Bicycle parking facilities are desirable.
Correctional Centre	Employees: 1 space per staff member (FTE); plus Visitors: 1 space per 20 inmates.	Employees: 1 space per staff member (FTE); plus Visitors: 1 space per 20 inmates.	Provision is made for service vehicle parking and loading/unloading.
Tourist Facility	None specified [see Note 12.3.6.1 D(8)].	None specified [see Note 12.3.6.1 D(8)].	Parking provided based on the type of use, activities provided and the likely level of patronage. Provision should also be made for the parking of buses and service vehicle parking and loading/unloading. Bicycle parking facilities are desirable. Provision should also be made for the parking of motor homes and vehicles towing caravans.

Parking Rate Reduction for Major Centres and Public Transport Nodes

(4) Specific Outcomes

(a) Activities are clustered with major centres and located within close proximity to public transport nodes to encourage public transport usage and reduce reliance on private motor vehicles.

(b) The amount of carparking required to be provided is reduced to take account of—

(i) proximity to major public transport facilities;

(ii) single trip, multi-purpose activity centres; and

(iii) visual and environmental impact of large scale carpark construction.

(5) Probable Solutions – for sub-section (4)

(a) The number of parking spaces required in accordance with Table 12.3.6.1 is reduced as set out in sub-section (b) below, in respect of—

(i) residential uses – visitor spaces only; and

(ii) non-residential uses – all uses.

(b) The number of interim parking spaces required in accordance with Table 12.3.6.1 may be reduced by 30% where the use is situated within 400m of an operating public transport stop or station.

NOTE 12.3.6.1 E

(1) The 400m distance is measured along the most direct route using publicly accessible land between:

(a) any boundary of the allotment of the proposed development; and

(b) a constructed or proposed bus stop (which has a minimum of half hourly services) or entrance to a transit station.

Shared or Multiple Use of Parking Areas

(6) Specific Outcomes

(a) Shared or multiple use of carparking areas, particularly large carparks, is encouraged—

(i) at times when carparks would otherwise not be occupied (e.g. weekends);

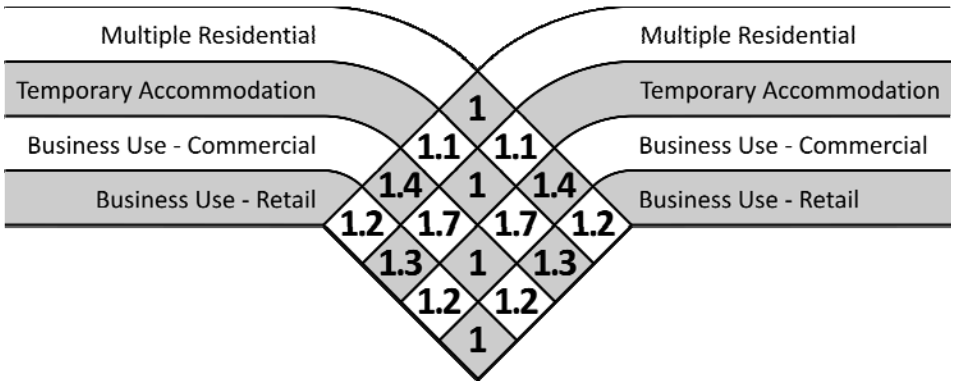
(ii) when carparking spaces service two or more land uses with varying peak usage times (e.g. restaurants and entertainment uses which generate peak parking demands in periods when retail or office uses are relatively inactive); and

(iii) to reduce the amount and size of the parking area.

(7) Probable Solutions – for sub-section (6)

(a) Carparks that serve two or more land uses may use Figure 12.3.6.1.1 – shared Parking Factor to reduce the required carparks through sharing of facilities.

Figure 12.3.6.1.1 – Shared Parking Factor



NOTE 12.3.6.1 F

(1) For example, a development that combines a Multiple Residential Use with a Business Use – Retail may reduce the required number of car parks by a factor of 1.2 – if the Multiple Residential requires 20 car parks and the Business Use – Retail requires 15 car parks (total 35 car parks) then this may be reduced by dividing the total car parks by the Shared Parking Factor (35 / 1.2 = 29 Car Parks).

(2) The use of carparks for activities such as markets and fetes/carnivals at a time when they would otherwise not be occupied, may require approval for a material change of use and will be assessed on the merits of each proposal.

(3) When a shared or multiple use carparking area services land uses on two or more separate land holdings, the local government may require legal documentation or easements in relation to the carparking area to ensure continuity of the shared parking arrangements.

(4) A request for a reduction in the number of parking spaces for shared uses should be supported by evidence which demonstrates that—

(a) the peak parking times of the uses occur at different times; or

(b) the parking area is sufficient to meet the anticipated demands of all uses.

Parking Areas within Character Places or Character Zones

(8) Specific Outcomes

(a) Parking areas and parking structures within Character Places or Character Zones do not dominate the appearance of the Character Place or the streetscape.

(b) Parking areas and parking structures within Character Places or Character Zones are designed and located to be sympathetic and respectful of the cultural fabric, form and setting of the Character Place or Character Zone.

NOTE 12.3.6.1 G

(1) In determining parking within Character Places or Character Zones the local government may modify its requirements or standards having regard to—

(a) the extent to which the proposed development will contribute towards—

(i) townscape enhancement and streetscape values;

(ii) the conservation of elements of cultural significance;

(iii) vegetation protection; and

(iv) employment creation; and

(b) the availability of both on and off street parking and the likely impact on parking supply and demand in the immediate area.

External Parking Areas (in lieu of Parking Space Provision On-Site)

(9) Specific Outcomes

(a) Development within the Urban Centre Zone (T5), Urban Core (T6) or Special District (SD) may provide part or all of the required car parking spaces at an external location that:

(i) meets the built form requirements of a Mixed Residential and Commercial or Large Format Commercial Building type; and

(ii) is within the Urban Centre Zone (T5) or Urban Core zone (T6) or Special District Zone (SD); and

(iii) is located within 200m of the allotment boundary.

NOTE 12.3.6.1 H

(1) To utilise carparks external to the site, access must be secured through easements and legal agreements securing exclusive use and access to the carparks.

APPENDIX A:

RESIDENTIAL, MULTIPLE RESIDENTIAL

COMMERCIAL / MIX USE AND LARGE COMMERCIAL FORMAT LOT CHARACTERISTICS

Lot Type	Building Type	Frontage (min or range)	Depth (min)	Lot Size (min)	Special Characteristics
Estate Lot	Estate House	18m or greater	30m	600m^2	Sub-Urban (T3) Zone only
Traditional Detached Lot	Traditional Lot Detached House	12m or greater but less than 18m	25m	300m^2	Sub-Urban (T3) and General Urban (T4) Zones only
Small Lot	Small Lot House	6m or greater but less than 12m	25m	150m^2	General Urban (T4) and Urban Centre (T5) Zones only Vehicular access via laneway or alley only
Multiple Residential Lot	Multiple Residential	15m	25m	375m^2	Urban Centre (T5), Urban Core (T6), and Special District (SD) Zones only Vehicular access via alley only where the frontage is less than 20 metres.
Live Work Lot	Live Work	12m	25m	300m^2	Sub-Urban (T3) and General Urban (T4) Zones only.
		6m	25m	150m^2	Urban Centre (T5) and Urban Core (T6) Zones only. Vehicular access via alley only.
Commercial / Mix Use Lot	Commercial / Mix Use	11m	8m	88m^2	Urban Centre (T5), Urban Core (T6), and Special District (SD) Zones only Vehicular access via alley only.
Large Commercial Format Lot	Large Format Commercial	50m	50m	5,000m^2	Special District Zone (SD) only alley vehicular access must be provided

APPENDIX B: CLASSIFICATION OF ARTERIAL AND TRUNK NETWORK

NOTE 1

(1) The carriageway width is measured between channel inverts.

(2) Additional verge and reserve width required for footpaths/ cycle paths.

(3) Each verge must be of sufficient width to accommodate relevant services, landscaping and, unless other noise attenuation methods are used, to ensure a total setback to residential dwellings which satisfies the traffic noise exposure levels.

Verge widths may be reduced to the minimum (3m) where road fronts parkland subject to detail design or restricted services.

(4) Barrier kerbs are preferred adjacent to public reserves and when needed for drainage. Concrete kerb and channel shall be provided on both sides of all residential streets.

(5) Additional footpaths may be required in areas where -

(a) Access places or access streets lead to an attractive/destination that would encourage greater than normal pedestrian traffic or where characteristics of the land require the construction of footpaths on both sides of the street; and

(b) Collector streets may require footpaths on both sides where traffic volumes are such that it is dangerous to encourage children to cross the collector street, or near the entry to estates or where the street leads to an attraction/destination that would encourage greater than normal pedestrian traffic or where characteristics of the land require the construction of footpaths on both sides of the street.

Refer attached Tables 1 - 9 for Footpath widths and design criteria.

(3) Grades greater than 12% require special design considerations for pedestrians, cyclists, garbage trucks and street layout (e.g. grade on curves, grade for turning vehicles at the street turning head). Short lengths for bus routes at 10% are acceptable. The desirable maximum grades are to be considered the maximum for normal design purposes. Water shedding from pavement surfaces on steep straight grades shall be examined in the design process.

(7) All kerbs and medians to have subsoil drainage - Refer Ipswich City Council Standard Drawing SR20.

(8) Footpaths to be constructed generally in accordance with Ipswich City Council Standard Drawings SR19 - Refer attached Tables 1 - 9 for footpath widths.

(9) The kerb radii for an Access Street to an Access Street is 6m.

(10) The kerb radii for all other streets is 3m.

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Table 1: Design Criteria

Design Criteria	Transit Corridor (TC)	
Traffic Catchment	Not applicable	
Traffic Volume	Not provided	
Design/Posted Speed	60kph / 60kph	
Carriageway • Lanes • Width • Provision for passing	Trunk Collector 2 13.5m Not applicable	Access Street 1 6.5m Not applicable
	Dedicated transit width is fixed. Configuration of access street/neighbourhood link roads may vary depending on land use and integration with network.	
Verge width • Standard	4.25m May be reduced to minimum width (3m) subject to detail design of reticulated services	
Reserve width	55.8m	
Kerbing	As per ICC Standard Drawings	
Footpaths/Cyclepaths	Minimum 2.0m footpath on both sides - cycle path is on road unless a dual use path provided on one or both sides subject to Strategic Pedestrian/Cycleways Network Plan. Refer Appendix B, Note 1 for footpath widths. T5 / T6 footway may be fully paved.	
On-Street Parking	On Carriageway	
Grade • Design Maximum • Minimum	6% 0.5%	
Sight Distance	113 min	
Carriageway cross fall	3% Two way crossfall is adopted for Major Collector	
Provision for Bus Routes	Not on a trunk collector (sub-arterial and above only). Bus stops on road (min 45m) including tapers. Location of bus bays and need for shelters subject to Translink and Ipswich City Council approval.	
Landscaping	Street trees both sides of each carriageway	
Property Access	Permitted	
Drainage	Adopt QUDM and ICC standards.	
Pavement Design	Adopt ICC Standards for Trunk Collector Road and Access Street respectively.	

The above criteria is represented in Figure 1

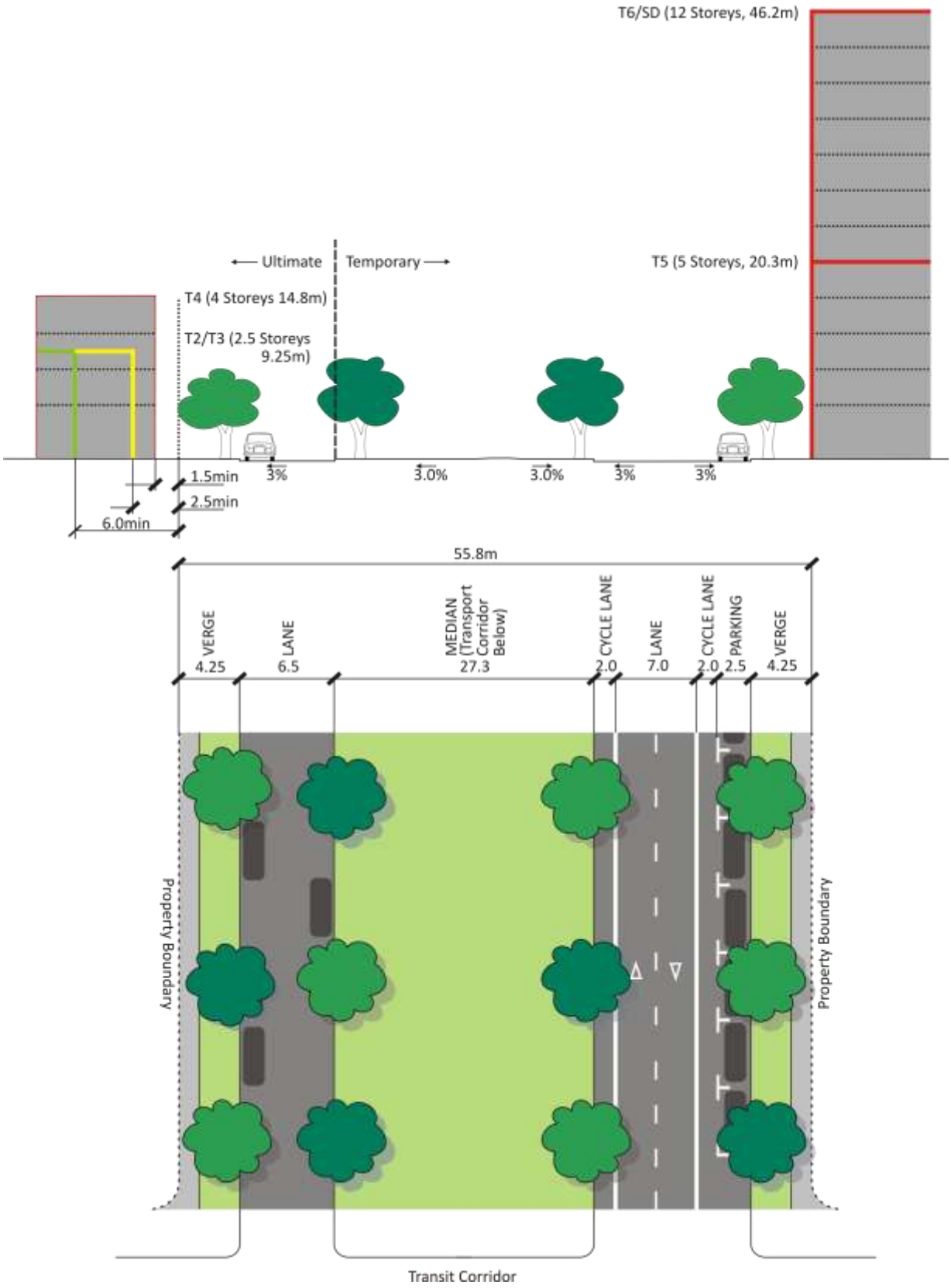


Figure 1 - Transit Corridor (TC)

Table 2: Design Criteria

Design Criteria	Suburban Link / Neighbourhood Link (Main Street)
Configuration	4 Lanes + Median + 2 Peak Hour Bus Lanes (4M + B)
Traffic Catchment	Not applicable
Traffic Volume	No traffic volume specified
Design/Posted Speed	60kph / 60kph
Carriageway • Lanes • Width • Provision for passing	 2 x 2 2 x 11.5m (divided carriageway) Not applicable
Verge width • Standard	 4.25m (4.5/5.0m in Main Street)
Reserve width	36.5m
Kerbing	As per ICC Standard Drawings
Footpaths/Cyclepaths	Minimum 2.5m footpath on both sides - cycle path (off peak use only) is on road unless a dual use path provided on one or both sides subject to Strategic Pedestrian/Cycleways Network Plan. Refer Appendix B, Note 1 for footpath widths. T5 / T6 footway may be fully paved.
On-Street Parking	On Carriageway (Off peak only)
Grade • Design Maximum • Minimum	Refer Austroads – Guide to Road Design
Sight Distance (general min)	Refer Austroads – Guide to Road Design
Carriageway cross fall	3%
Provision for Bus Routes	Parking lane becomes a bus transit in peak hour. Bus stops on road (min 45m of the road reserve) including tapers. Location of bus bays and need for shelters subject to Queensland Transport/Translink approval.
Landscaping	Street trees on verge and median.
Property Access	Not permitted
Drainage	Adopt QUDM and ICC standards.
Pavement Design	Refer DTMR - Pavement Design Manual.

The above criteria is represented in Figure 2

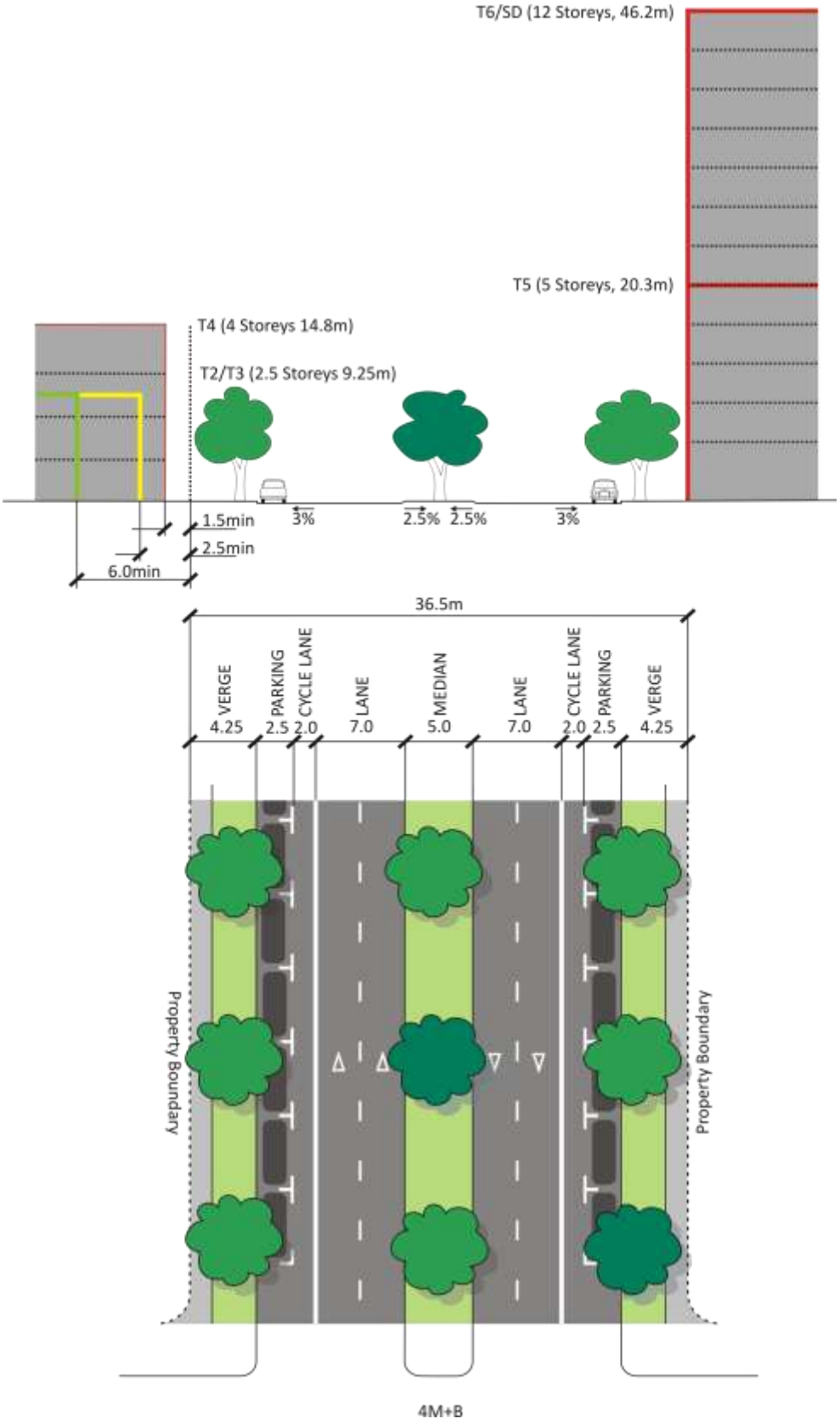


Figure 2 - Suburban Link / Neighbourhood Link (Main Street)

Table 3: Design Criteria

Design Criteria	Intersuburban Link (4 Lane)
Configuration	4 Lanes + Medium (4M)
Traffic Catchment	No traffic volume specified
Traffic Volume	20,000vpd
Design/Posted Speed	80kph / 70kph
Carriageway • Lanes • Width • Provision for passing	 2 x 2 2 x 9m (divided carriageway) Not applicable
Verge width • Standard	 4.25m
Reserve width	31.5m
Kerbing	As per ICC Standard Drawings
Footpaths/Cyclepaths	Minimum 2.5m footpath on both sides - cycle path is on road unless a dual use path provided on one or both sides subject to Strategic Pedestrian/Cycleways Network Plan. Refer Appendix B, Note 1 for footpath widths. T5 / T6 footway may be fully paved.
On-Street Parking	Not permitted
Grade • Design Maximum • Minimum	Refer Austroads – Guide to Road Design
Sight Distance (general min)	Refer Austroads – Guide to Road Design
Carriageway cross fall	3%
Provision for Bus Routes	Not provided.
Landscaping	Street trees on verge and medium.
Property Access	Not permitted
Drainage	Adopt QUDM and ICC standards.
Pavement Design	Refer DTMR - Pavement Design Manual.

The above criteria is represented in Figure 3

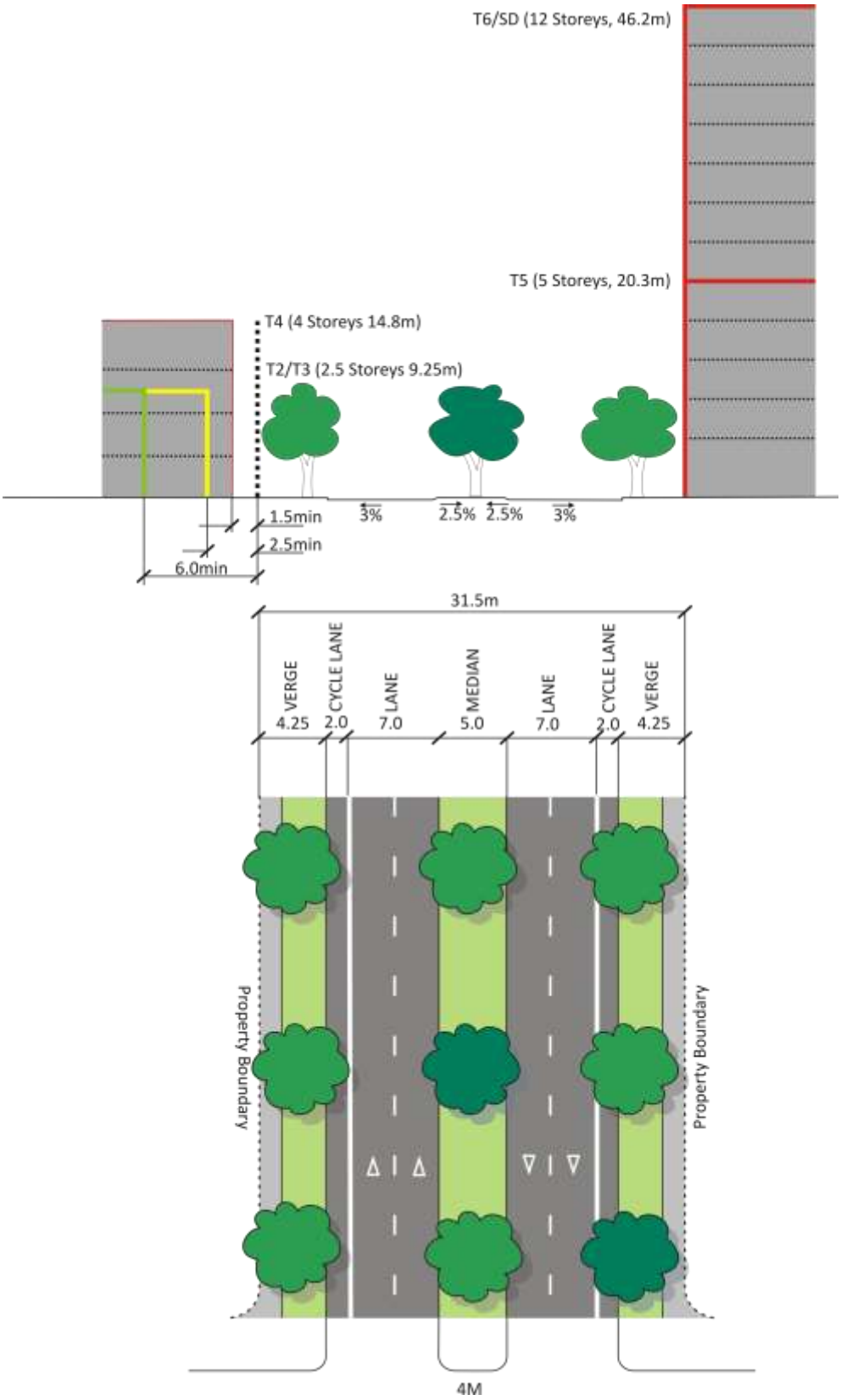


Figure 3 - Intersuburban Link (4 Lane)

Table 4: Design Criteria

Design Criteria	Suburban Link/ Neighbourhood Link with Median
Configuration	2 Lanes + Median + 2 Peak Hour Bus Lanes (2M + B) or (2M)
Traffic Catchment	1,000 lots
Traffic Volume	Max 10,000vpd
Design/Posted Speed	70kph / 60kph
Carriageway • Lanes • Width • Provision for passing	 2 2 x 8m (divided carriageway) Not applicable
Verge width • Standard	 4.25m May be reduced to minimum width (3m) subject to detail design of reticulated services
Reserve width	29.5m
Kerbing	As per ICC Standard Drawings
Footpaths/Cyclepaths	Minimum 2.0m footpath on both sides. Cycle path (off peak only) is on road unless a dual use path provided on one or both sides subject to Strategic Pedestrian/Cycleways Network Plan. Refer Appendix B, Note 1 for footpath widths. route masterplan. T5 / T6 footway may be fully paved.
On-Street Parking	On carriageway (off peak only - where bus lanes provided)
Grade • Design Maximum • Minimum	 12% (6% if bus route) 0.5%
Sight Distance (min)	113 min
Carriageway cross fall	3%
Provision for Bus Routes	Parking land becomes a bus transit in peak hour. Bus stops on road (min 45m of the road reserve) including tapers. Location of bus bays and need for shelters subject to Queensland Transport/Translink approval.
Landscaping	Street trees on both sides and in median - tree species taken from approved local species list.
Property Access	Not permitted
Drainage	Adopt QUDM and ICC standards.
Pavement Design	Adopt ICC standards for Trunk Collector Roads.

The above criteria is represented in Figure 4

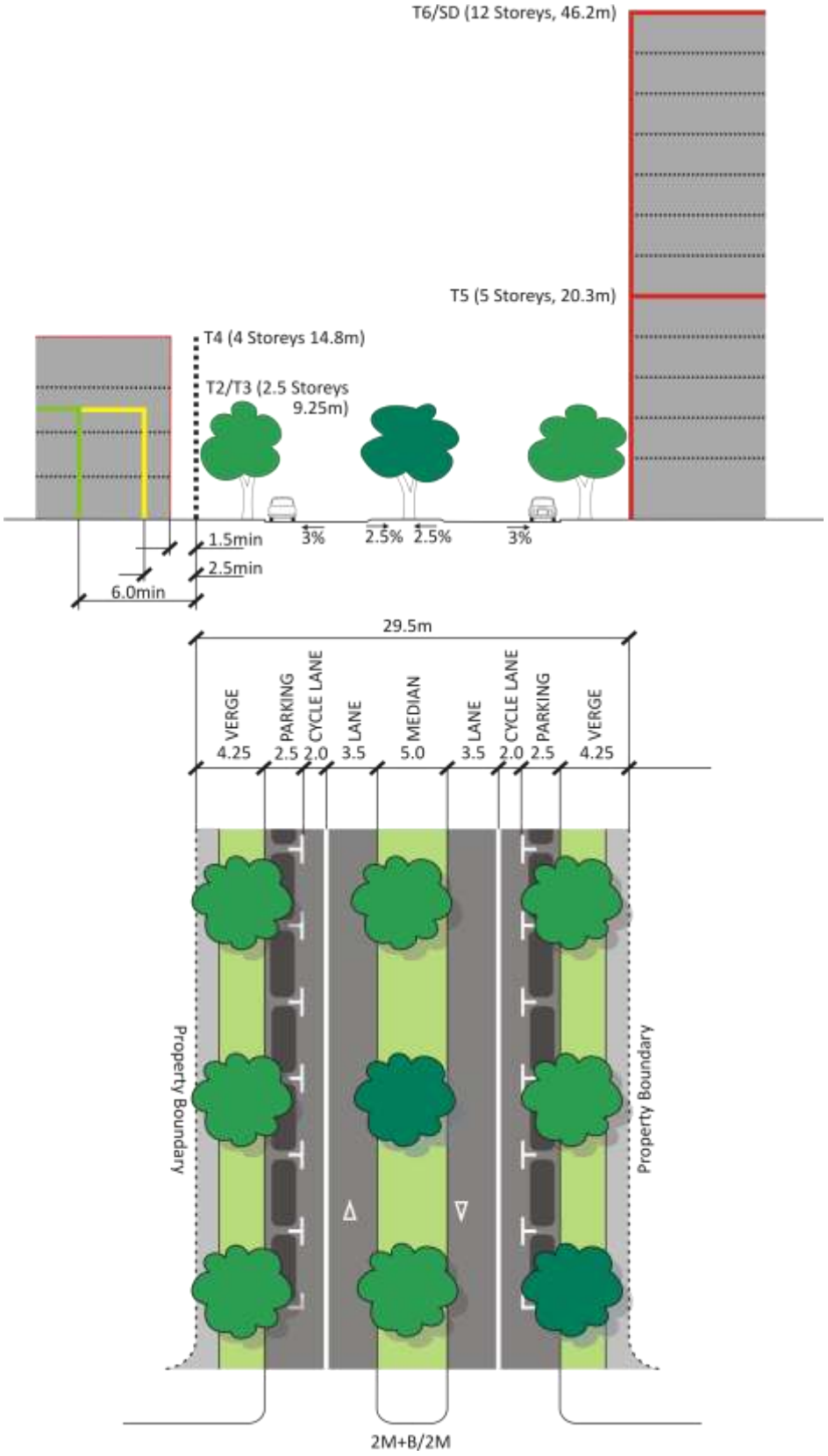


Figure 4 - Suburban Link / Neighbourhood Link with Median

Table 5: Design Criteria

Design Criteria	Suburban Link/ Neighbourhood Link
Configuration	2 Lanes + 2 Peak Hour Bus Lanes (2 + B) or 2 Lanes + Permanent Parking (2)
Traffic Catchment	1,000 lots
Traffic Volume	Max 10,000vpd
Design/Posted Speed	70kph / 60kph
Carriageway • Lanes • Width • Provision for passing	 2 16m Not applicable
Verge width • Standard	 4.25m May be reduced to minimum width (3m) subject to detail design of reticulated services
Reserve width	24.5m
Kerbing	As per ICC Standard Drawings
Footpaths/Cyclepaths	Minimum 2.0m footpath on both sides. Cycle path (off peak only) is on road unless wider verge and dual use path provided on one side subject to Strategic Pedestrian/Cycleways Network Plan. Refer Appendix B, Note 1 for footpath widths. T5 / T6 footway may be fully paved.
On-Street Parking	On carriageway (Off peak only - where bus lanes provided)
Grade • Design Maximum • Minimum	 12% (6% if bus route) 0.5%
Sight Distance (min)	110m
Carriageway cross fall	3%
Provision for Bus Routes	Parking land becomes a bus transit in peak hour. Bus stops on road (min 45m of the road reserve) including tapers. Location of bus bays and need for shelters subject to Queensland Transport/Translink approval.
Landscaping	Street trees on both sides - tree species taken from approved local species list.
Property Access	Not permitted in T4, T5 and T6 where rear lane or alley is provided.
Drainage	Adopt QUDM and ICC standards.
Pavement Design	Adopt ICC standards for Trunk Collector Roads.

The above criteria is represented in Figure 5

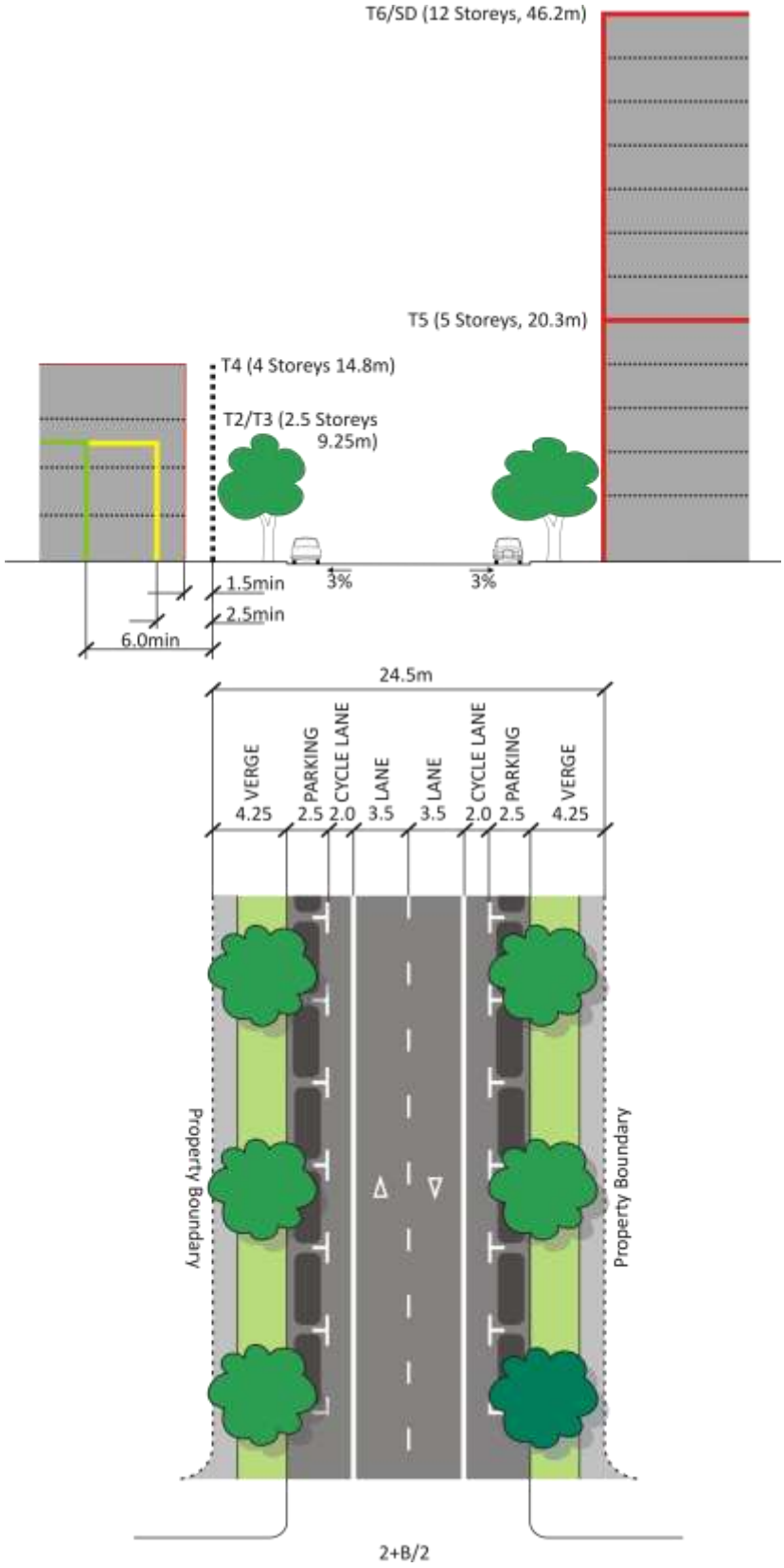


Figure 5 - Suburban Link / Neighbourhood Link

Table 6: Design Criteria

Design Criteria	Minor Neighbourhood Link
Configuration	2 Lanes (2)
Traffic Catchment	300 lots
Traffic Volume	Max 3,000vpd
Design/Posted Speed	50kph / 50kph
Carriageway • Lanes • Width • Provision for passing	 2 11.0m Not applicable
Verge width • Standard	 4.25m May be reduced to minimum width (3m) subject to detail design of reticulated services
Reserve width	19.5m (may vary where adjacent to parks/open space)
Kerbing	As ICC Standard Drawings
Footpaths/Cyclepaths	No specific cycle path provided. Minimum 1.5m footpath on both sides. Dual use path to be provided in wider verge subject to Strategic Pedestrian/Cycleway Network Plan. Refer Appendix B, Note 1 for footpath widths. T5/T6 footway may be fully paved.
On-Street Parking	On carriageway Where road is adjacent to park/open space, parking may be provided on one side only.
Grade • Design Maximum • Minimum	 12% (6% if bus route) 0.5%
Sight Distance (min)	90 min
Carriageway cross fall	3%
Provision for Bus Routes	Sufficient parking bays to create 45m long bus stop with tapers. Indented bus bays may be considered. Location of bus bays and need for shelter subject to Translink and Ipswich City Council approval.
Landscaping	Street trees on both sides - tree species taken from approved local species list.
Property Access	Permitted
Drainage	Adopt QUDM and ICC standards.
Pavement Design	Adopt ICC standards for Collector Street.

The above criteria is represented in Figure 6

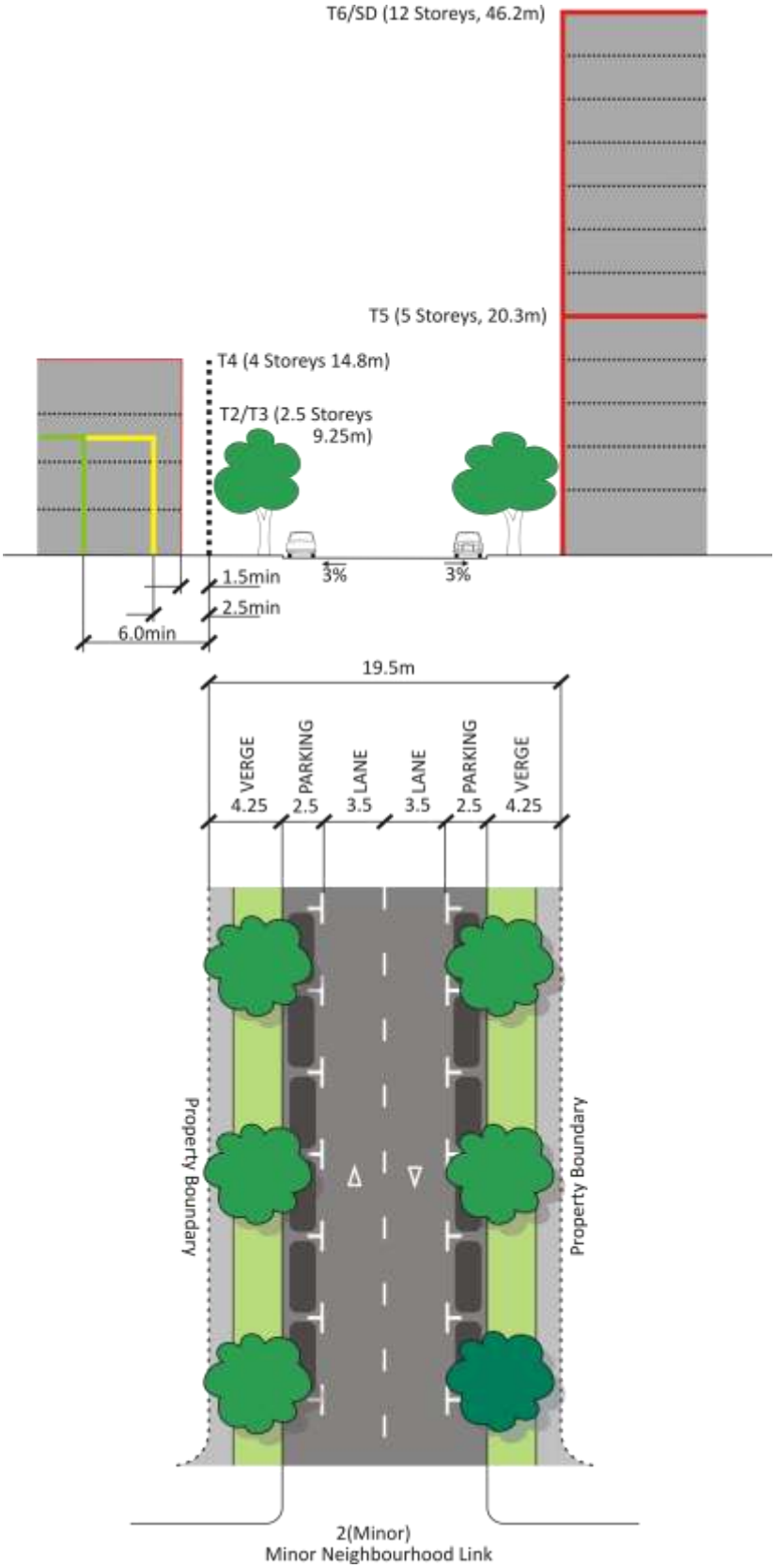


Figure 6 - Minor Neighbourhood Link

Table 7: Design Criteria

Design Criteria	Access Street - Two Way
Traffic Catchment	75 lots
Traffic Volume	0 - 750vpd
Design/Posted Speed	40kph / 50kph but not signed
Carriageway • Lanes • Width • Provision for passing	 2 8.0m Access streets with lot frontages less than 18m are to contain special provisions for - 1. parking at a rate of 0.5 parking space per residential lot and one car space available within 25m of the frontage of each residential lot; and 2. passing. Stagger parking to allow two way movements
Verge width (min)	4.25m on one side (minimum 3.75m verge on opposite side of carriageway)
Reserve width	16.0m
Kerbing	As per ICC Standard Drawings
Footpaths/Cyclepaths	No specific cycle path provided. Minimum 1.5m footpath on one side only subject to need and available verge width. Refer Strategic Pedestrian/Cycleway Network Plan. Refer Appendix B, Note 1 for footpath widths. Footpath on each street frontage where- - net density exceeds 25 dwellings per ha; or - lot sizes less than 300m^2; or - lot widths less than 10m; or - lots have rear access to garages/on site parking. T5 / T6 footway may be fully paved.
On-Street Parking	On carriageway - staggered to allow two way movements
Grade • Design Maximum • Minimum	 12% (may be varied subject to Council approval) 0.5%
Sight Distance (min)	66 min
Carriageway cross fall	3%
Provision for Bus Routes	Not required.
Landscaping	Street trees on both sides - tree species taken from approved local species list.
Property Access	Permitted
Drainage	Adopt QUDM and ICC standards.
Pavement Design	Adopt ICC standards for Access Streets.

The above criteria is represented in Figure 7

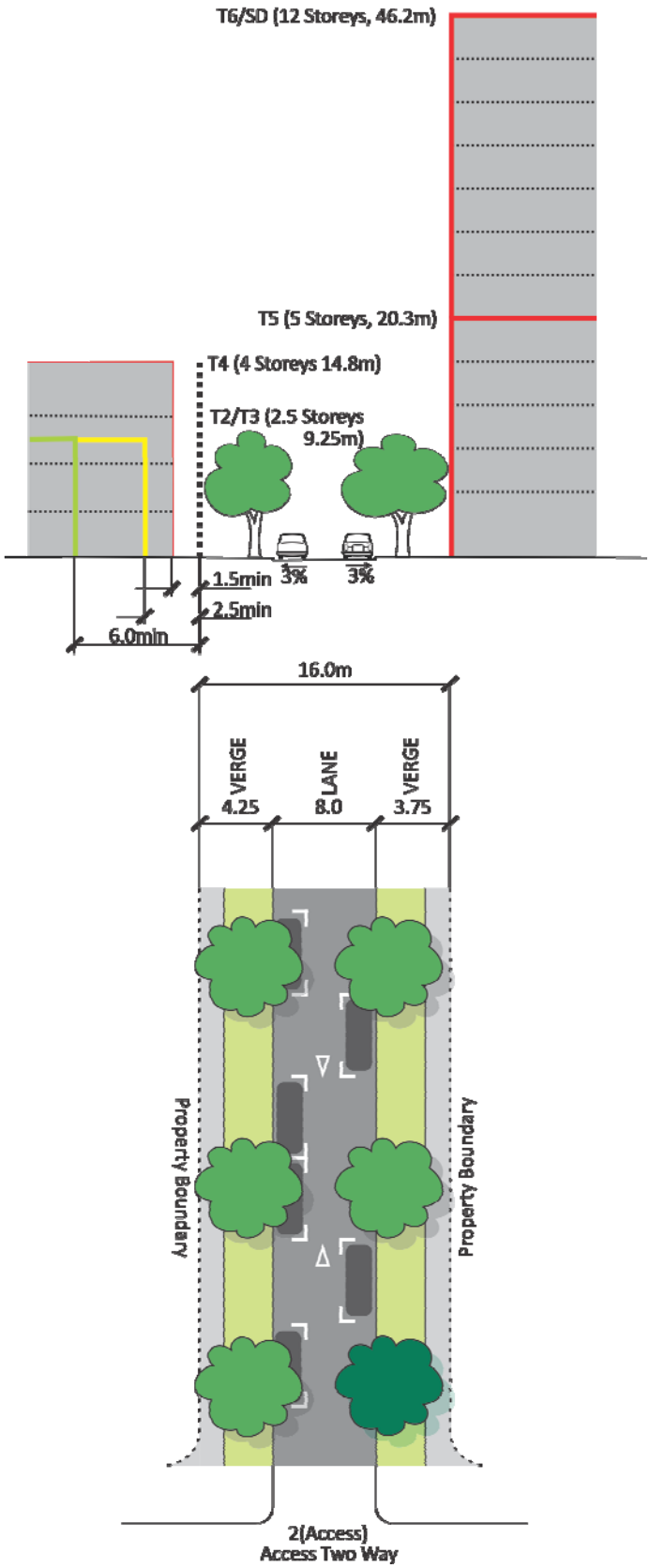


Figure 7 - Access Street - Two Way

Table 8: Design Criteria

Design Criteria	Access Street - One Way
Traffic Catchment	75 lots
Traffic Volume	0 - 750vpd
Design Speed	40kph
Carriageway • Lanes • Width • Provision for passing	 1 9.0m - two side parking 6.5m - one side parking Not provided
Verge width • Standard	 4.25m
Reserve width	17.5m / 15.0m
Kerbing	As per ICC Standard Drawings
Footpaths/Cyclepaths	No specific cycle path provided unless one side parking only. Minimum 1.5m footpath on one side only subject to need and available verge width. Refer Strategic Pedestrian/Cycleway Network Plan. Refer Appendix B, Note 1 for footpath widths. Footpath on each street frontage where- - net density exceeds 25 dwellings per ha; or - lot sizes less than 300m^2; or - lot widths less than 10m; or - lots have rear access to garages/on site parking. T5 / T6 footway may be fully paved.
On-Street Parking	On carriageway
Grade • Design Maximum • Minimum	 12% (may be varied subject to Council approval) 0.5%
Sight Distance (min)	60 min
Carriageway cross fall	3%
Provision for Bus Routes	Not required.
Landscaping	Street trees on both sides - tree species taken from approved local species list.
Property Access	Permitted
Drainage	Adopt QUDM and ICC standards.
Pavement Design	Adopt ICC standards for Access Streets.

The above criteria is represented in Figure 8 and Figure 9

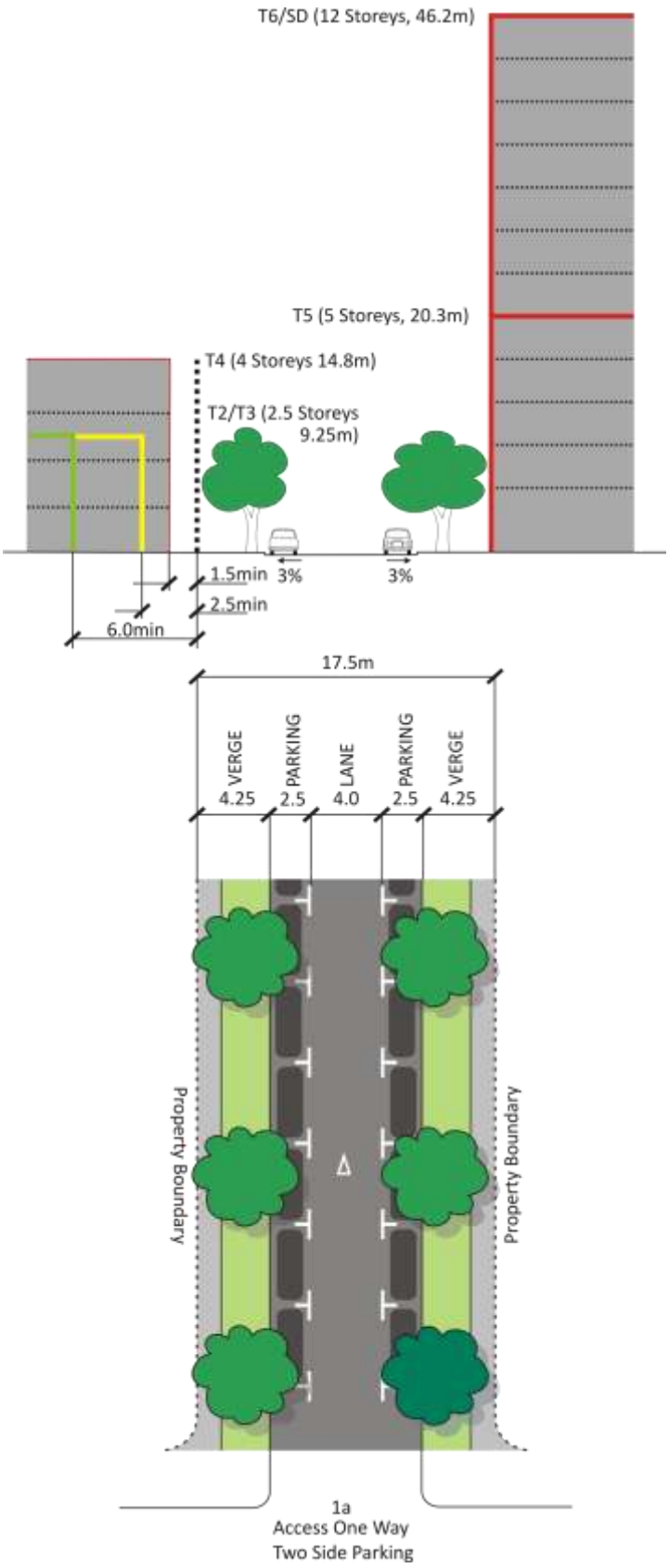


Figure 8 - Access Street - One Way (Two Side Parking)

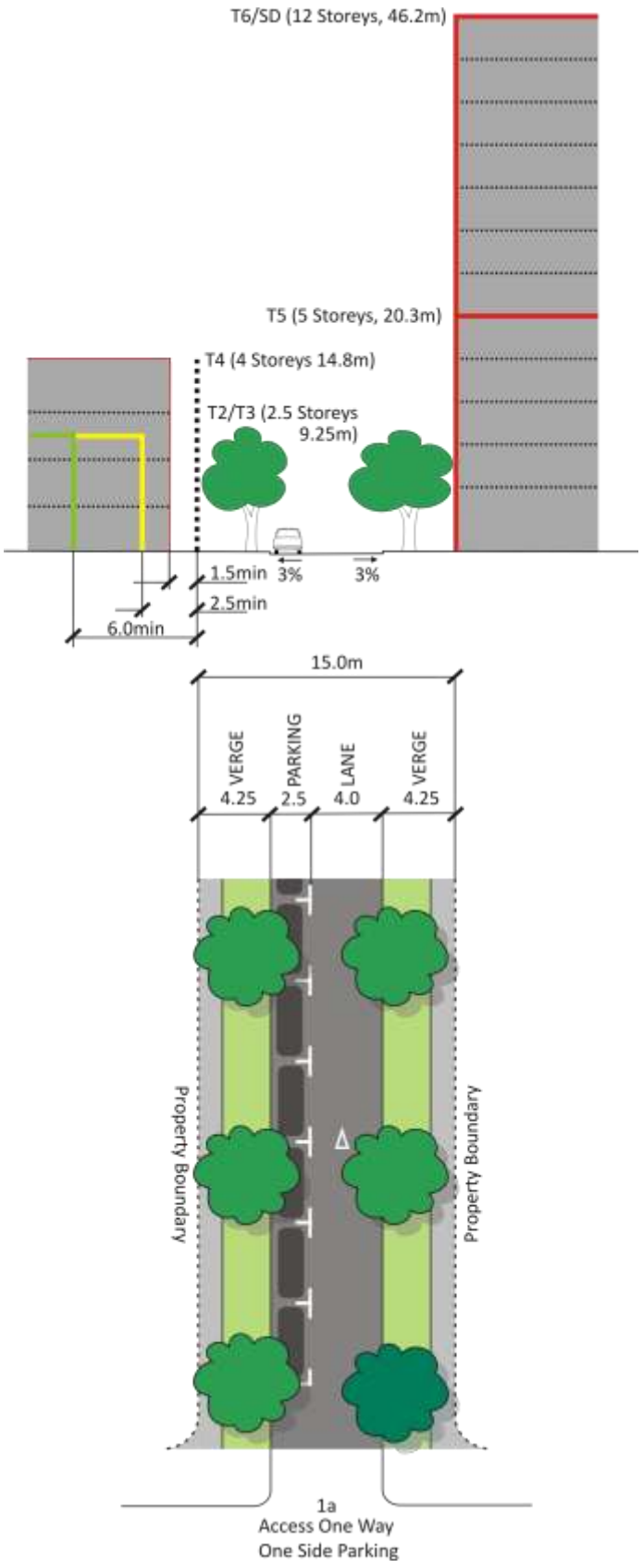


Figure 9 - Access Street - One Way (One Side Parking)

Table 10: Design Criteria

Design Criteria	Alley or Lane
Traffic Catchment	Not applicable
Traffic Volume	0 - 300vpd
Design Speed	30kph
Carriageway • Lanes • Width • Provision for passing	 1 or 2 7m (Alley) and 6m (Lane) Not applicable
Verge width • Min	 Nil
Reserve width (min)	7m (Alley) and 6m (Lane)
Kerbing	As per ICC Standard Drawings Where appropriate verge width 0.3m
Footpaths/Cyclepaths	Not applicable
On-Street Parking	Not applicable
Grade • Design Maximum • Minimum	 12% (may be varied subject to Council approval) 0.5%
Sight Distance (min)	40 min
Carriageway cross fall	3% to centre of road
Provision for Bus Routes	Not applicable
Landscaping	Not applicable
Drainage	Adopt QUDM and ICC standards. Central drainage pits preferred (must be pedestrian safe).
Pavement Design	Concrete

The above criteria is represented in Figure 10 and Figure 11

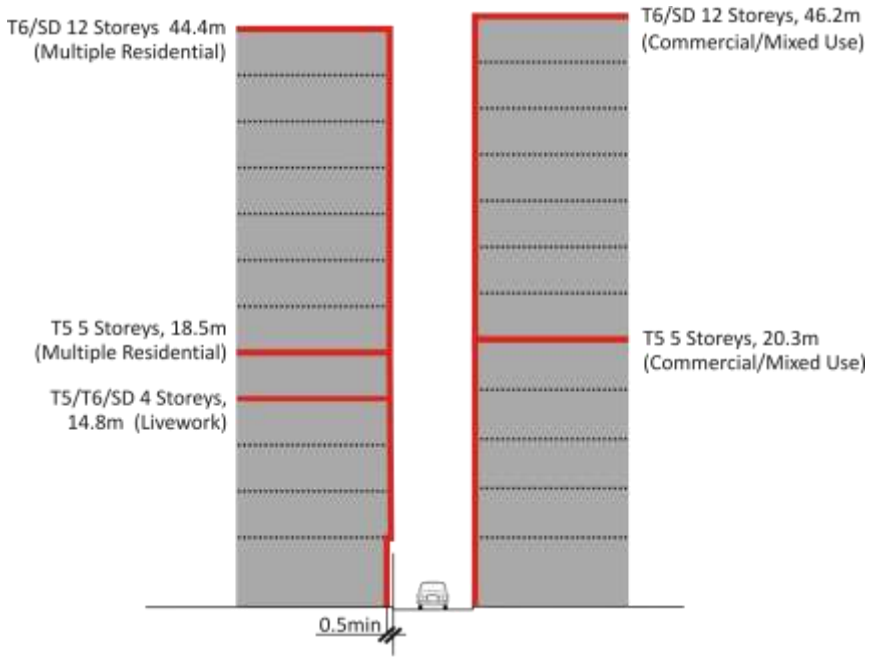


Figure 10 - Alley

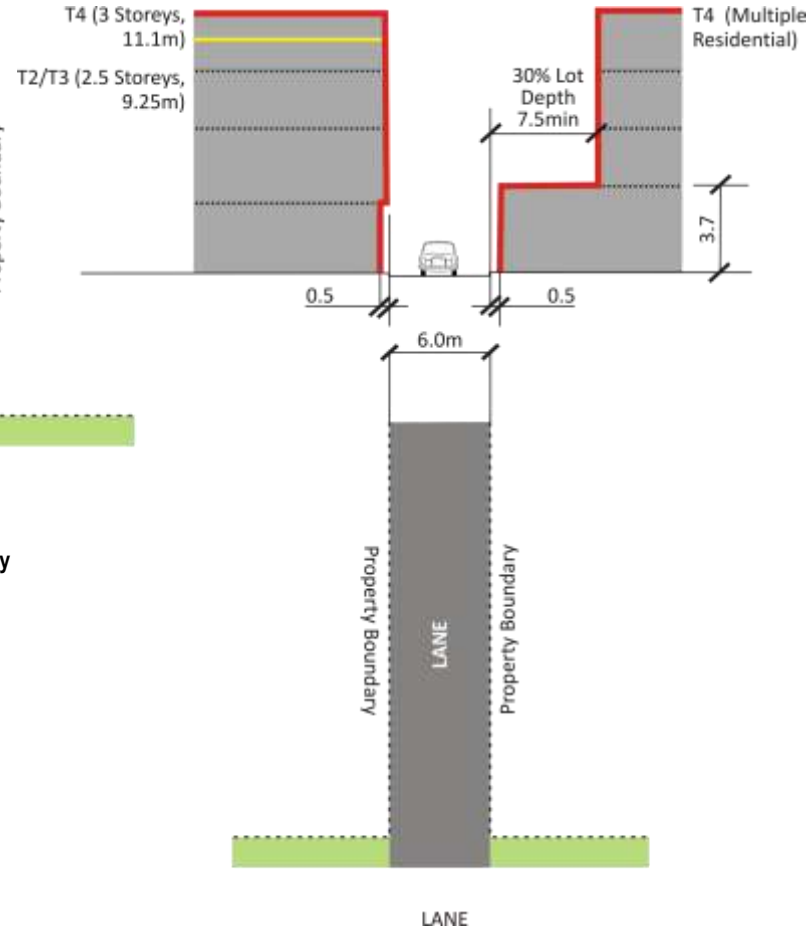


Figure 11 - Lane

Table 12: Design Criteria

Pedestrian Passage Design Criteria	
Design subject to Austroads - Guide to Traffic Engineering Practice Part 13 - Pedestrians	
Drainage	Ensure pedestrian safe pits adopted.
Refer Appendix B, Note 1 *(where applicable)*	

The above criteria is represented in Figure 12

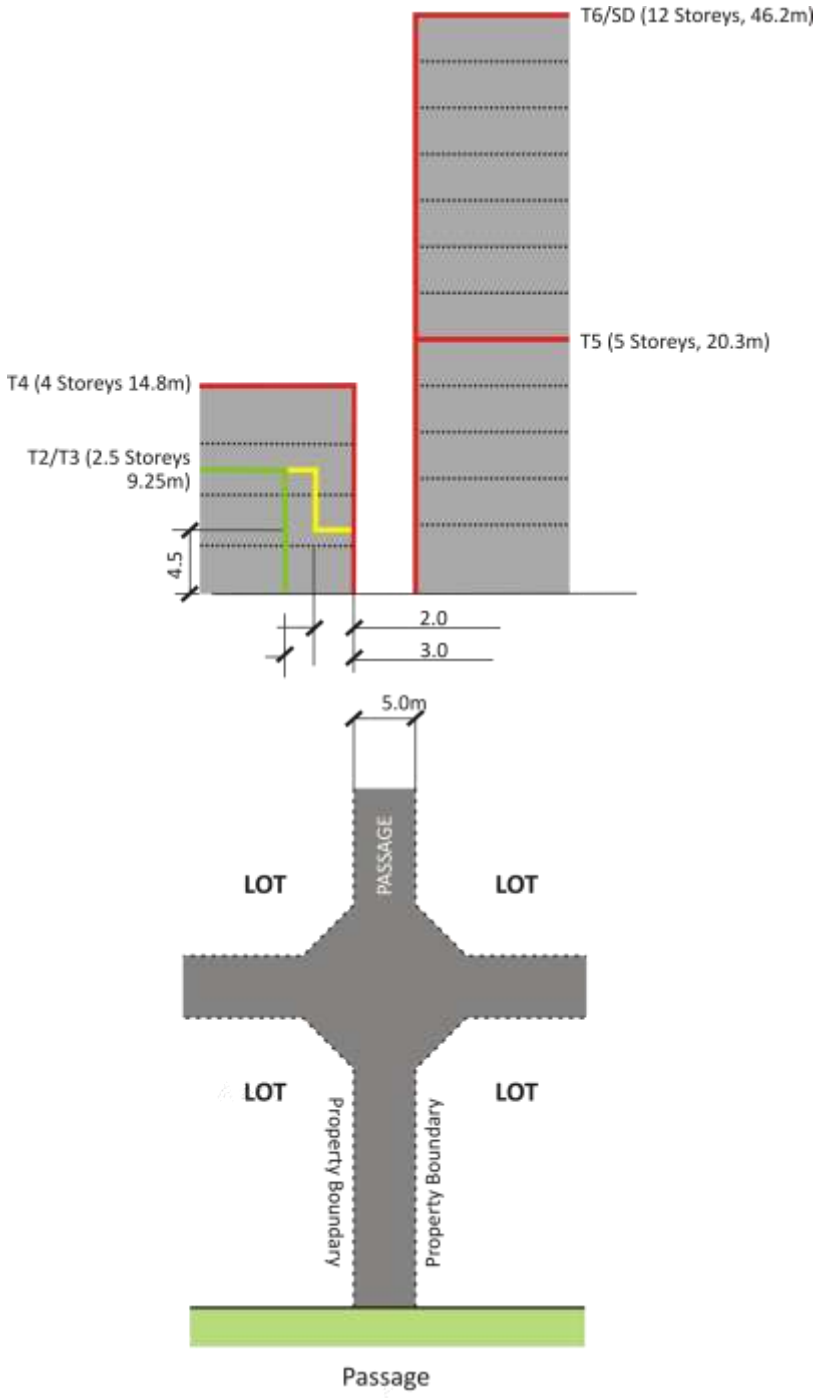


Figure 12 - Pedestrian Passage Design Criteria

APPENDIX C: LAND DEDICATIONS FOR PUBLIC PARKS

1. Introduction

(1) The Open Space System (both existing and future) within Ipswich City has been reviewed as part of the Ipswich Public Parks Strategy.

(2) This study has been adopted by Council and provides the basis for the future open space system. Descriptions of the type of public parks infrastructure to be provided in the City is outlined in Part 13—Local Government Infrastructure Plan.

(3) Where a developer dedicates or embellishes (with Local Government approval) part of the adopted open space system, an infrastructure credit (offset) will be given as outlined in the Ipswich Adopted Infrastructure Charges Resolution and in accordance with the terms of reference of an executed Infrastructure Agreement.

(4) For commercial subdivisions, the provision of open space will generally be limited to Town Centre Parks, plazas and squares etc to be provided in the proposed Town Centres.

(5) Details of these open space areas (both public and private) are to be outlined in the Town Centre Concept Plans.

2. Applicability of this Appendix

(1) This Appendix should be used where land the subject of an application for the reconfiguration of a lot—

(a) includes public parks infrastructure identified in Part 13—Local Government Infrastructure Plan;

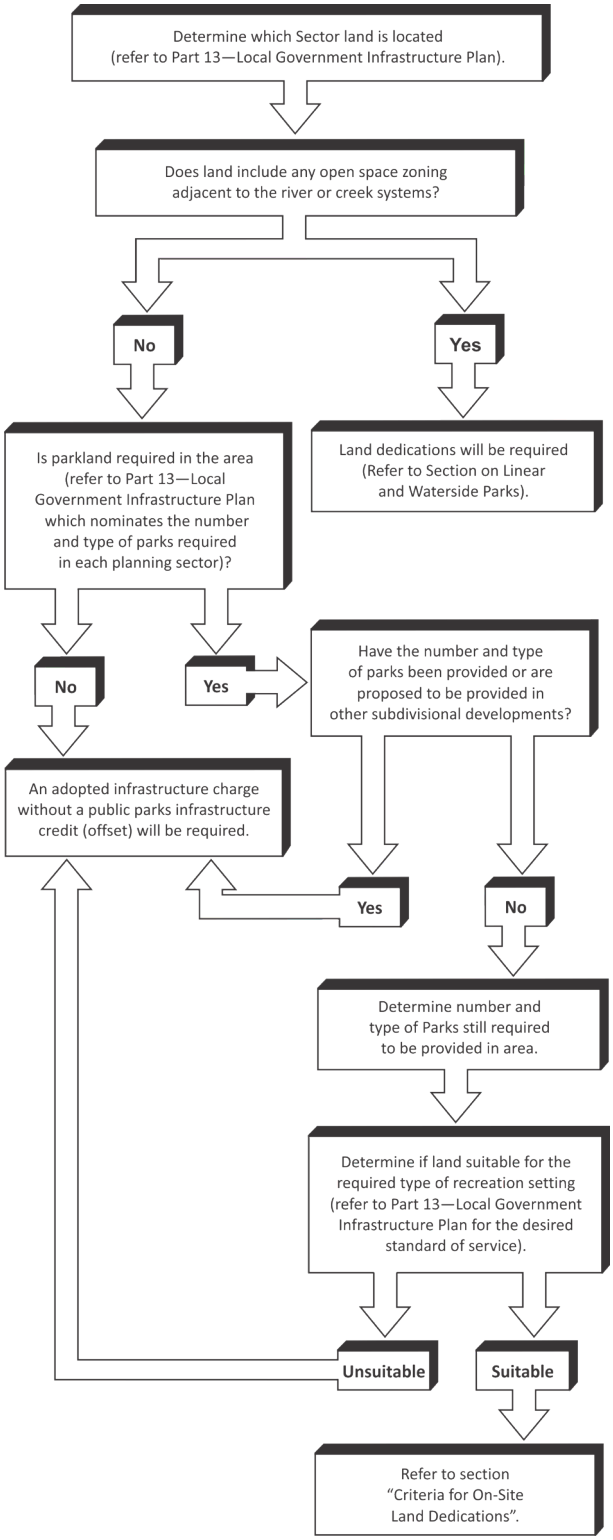
(b) includes land the subject of a Town Centre Concept Plan.

(2) Not all subdivisional development will be expected to include open space.

(3) In some cases the applicant's open space obligation will be met wholly by the payment of an adopted infrastructure charge, rather than by dedication of any land or embellishment of open space.

(4) On the other hand, where land is required to be dedicated for open space the applicant shall be entitled to infrastructure credit (offset) as outlined in the Ipswich Adopted Infrastructure Charges Resolution and in accordance with the terms of reference of an executed Infrastructure Agreement

Figure 1: Flow Chart for Parkland Dedications



3. Criteria For On-Site Land Dedication

(1) Prior to considering any land dedications for public parks infrastructure, the proposed parkland is to be assessed for its appropriateness for its designated purpose (i.e. Level and Recreational Setting).

(2) Land dedications should satisfy the provisions of Part 13—Local Government Infrastructure Plan relating to quantity, quality, flexibility and equity of distribution along with the following site specific characteristics—

(a) area and shape;

(b) topography;

(c) recreation opportunity (In this regard high priority should be given to those settings that have the potential to provide the broadest use and participation, i.e. unstructured recreation, without excluding the interests of the more specialist activities and settings);

(d) sensitivity – scenic, environmental or cultural (where culturally significant sites are potentially available, a high priority will be given to incorporating the recorded sites within the open space system);

(e) encumbrances such as flood susceptibility, services easements etc;

(f) flexibility (i.e. whether the area has a high potential for a multiple use function, for example, highly managed settings such as Sportsgrounds/Courts which can be integrated with more informal settings such as Linear Parkland and Recreation Parks);

(g) value as a link or consolidation mechanism;

(h) access (including barriers to access); and

(i) safety (including casual surveillance and uses on the border of, or adjacent to, the site).

4. Linear and Waterside Parks

(1) In those lot reconfigurations adjoining a river or creek system where it is proposed that linear or waterside parkland be secured, land dedications are to be provided.

(2) The linear open space (which may be developed or left undeveloped) will generally connect with the larger waterside parks (i.e. Citywide and District facilities) in addition to forming greenways along the urban creeks.

(3) Depending on the size of the linear or waterside park and its location it may be possible to integrate other recreational settings within the park boundary.

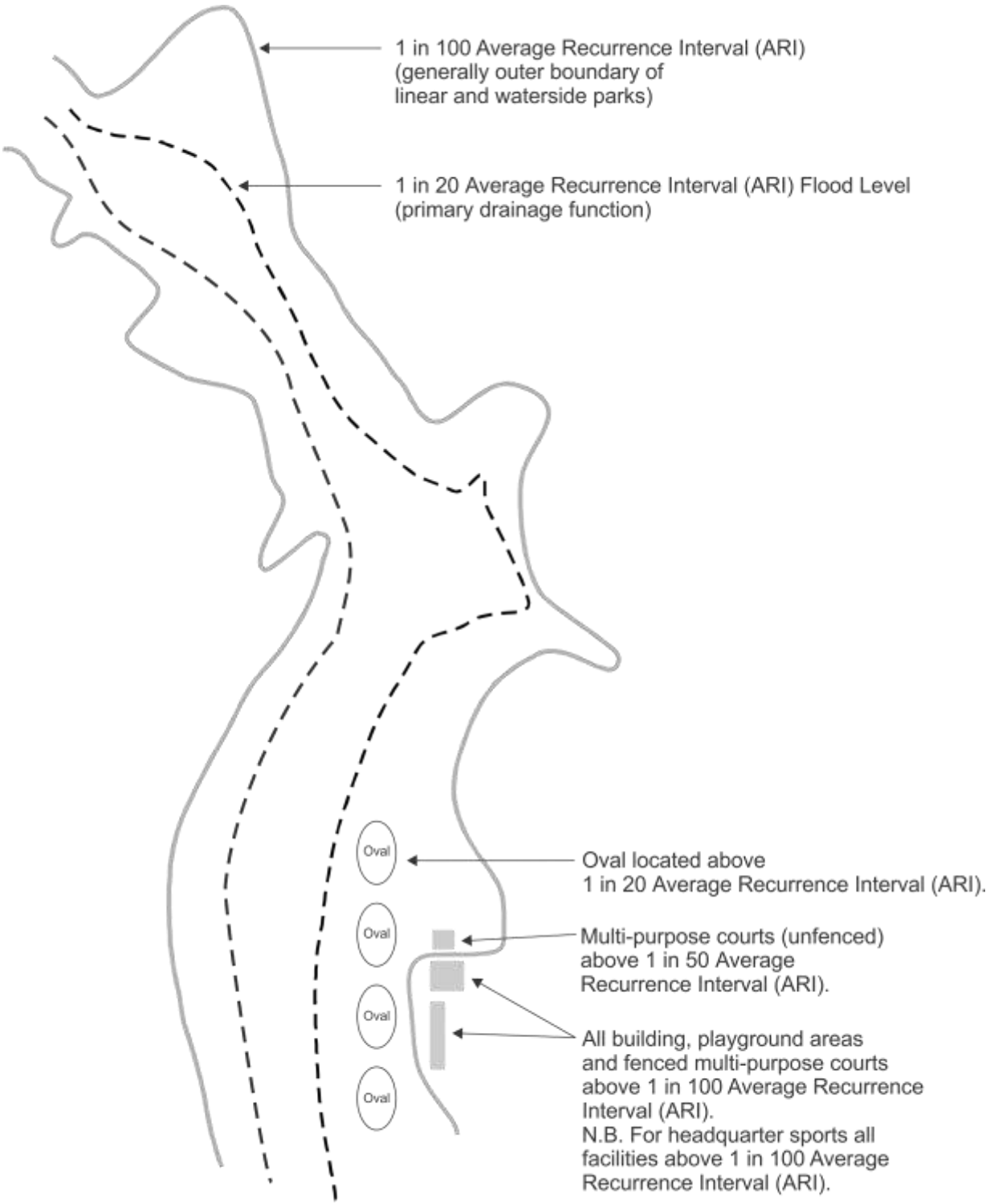
(4) In these instances, the parameters as set out in Table 1 below generally apply—

Table 1: Flood Level Parameters for Integration with Linear and Waterside Parks

Recreational Setting	Level	Flood Level Criteria
Sportsgrounds and Courts	Headquarter Sports	Not recommended below 1 in 100 years Average Recurrence Interval (ARI).
	Citywide and Local	All fields above 1 in 20 years Average Recurrence Interval (ARI), multi-purpose courts (unfenced) above 1 in 50 years Average Recurrence Interval (ARI), all buildings, playground areas or fenced multi-purpose courts above 1 in 100 years Average Recurrence Interval (ARI).
	District	Not applicable.
Recreation Parks	Citywide	All buildings and playground areas above 1 in 100 years Average Recurrence Interval (ARI).
	District	All buildings and playground areas above 1 in 100 years Average Recurrence Interval (ARI).
	Local	All buildings and playground areas above 1 in 100 years Average Recurrence Interval (ARI).

Citywide = Level 1, District = Level 2 and Local = Level 3

Figure 2: Schematic Layout of Planning Criteria for Linear and Waterside Parks



5. Open Space Works and Requirements for On-Site Land Dedications

(1) Prior to accepting land dedications for open space, certain works may be required to be undertaken in open space areas, where appropriate.

(2) For the types of parks and reserves noted in Table 2 below (residential development only) these are only preliminary works necessary to ensure that the land is useable for its intended purpose, and are not open space embellishments.

(3) For the Town Centre Parks, Plazas and Squares and for the Linear and Waterside Parks, the preliminary works will be outlined in the development approval, based on the desired standard of service outlined in Part 13—Local Government Infrastructure Plan and Planning Scheme Policy 3—General Works.

(4) These and any additional preliminary works are to comply with Planning Scheme Policy 3 - General Works.

Table 2: Preliminary Works Required for Certain Public Parks Infrastructure (residential development only)

Type of Open Space	Minimum Required Works
Sportsgrounds and Courts Recreation Parks	(1) Each park is to be of dimensions and have a topography suitable for its intended use and there must be carried out free of cost to the local government any earthworks or other works necessary in that regard. (2) Each park is to be selectively cleared and grassed, with declared environmental weeds removed, together with any rubbish and dangerous trees, and such other works as may be reasonably necessary to protect the park from erosion and other environmental degradation is to be carried out free of cost to the local government. (3) Each park is to have direct physical access to a constructed road of the category nominated in Part 13—Local Government Infrastructure Plan and Planning Scheme Policy 3—General Works for the relevant recreational setting and any work necessary in this regard is to be carried out free of cost to the local government.

6. Time for Land Dedication

(1) As a condition of any development approval, land for open space may be required to be dedicated (and be so indicated on the Plan of Subdivision).

(2) The time in which such land is to be dedicated should be nominated in the conditions of approval.

(3) Generally it will be at the time of registration of a Plan of Subdivision for any part of the land adjoining the park to be dedicated.

(4) However, for staged subdivisions, land for open space to be dedicated in later stages may be required to be transferred to the local government (to be held in trust) at the time the local government endorses Stage 1 of the Plan of Subdivision.

(5) The transfer is to include the provision of any access easements to the proposed open space.

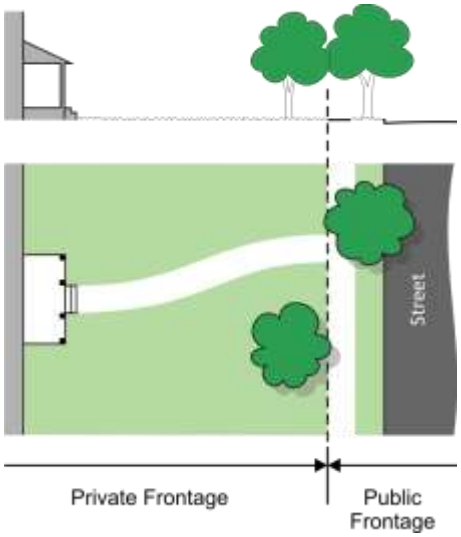
(6) In general, the lands held in trust will be expected to be prepared in accordance with the minimum required works outlined in the table above or in the conditions of the development approval, as the adjacent development stages proceed.

APPENDIX D: FRONTAGE TREATMENTS

Private Frontage

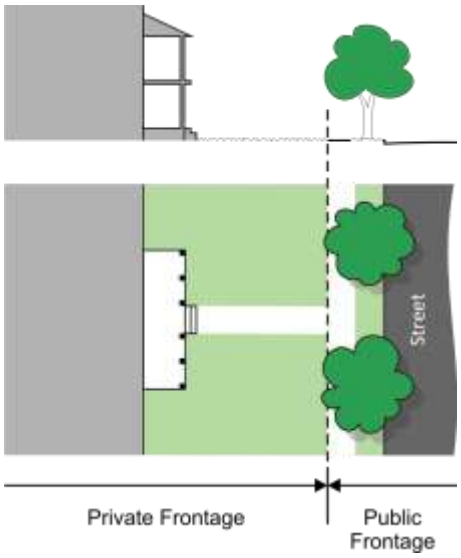
The Private Frontage is the area between the building and the lot frontage line. The design of this area is important because it dictates how the building affects the pedestrian and overall character of the streetscape. The eight frontage types identified, from most rural to most urban are:

- **Common Lawn:** a frontage wherein the façade is set back substantially from the frontage line. The front yard created remains unfenced or uses fencing that is highly permeable (i.e. 40% or greater) and is visually continuous in landscaping with adjacent yards, supporting a soft, low density landscape. Common Lawns are suitable along higher speed thoroughfares, as the deep setback provides a buffer.



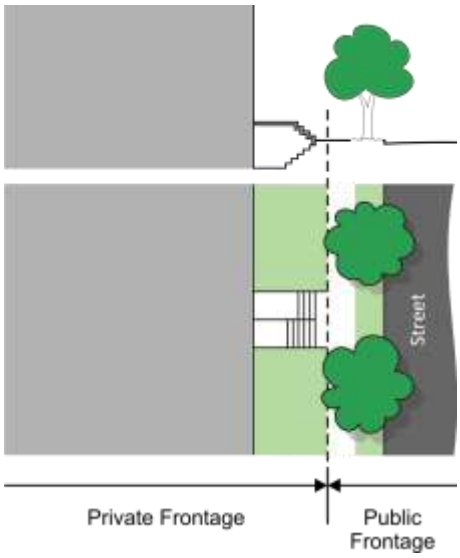
- **Verandahs/Balconies and Fence:** a frontage wherein the façade is set back from the frontage line with attached verandahs or balconies on the upper and lower levels permitted to encroach into the setback. The verandahs should be within a conversational distance of the footpath. A fence at the frontage line maintains the demarcation of the yard.

- Verandahs / balconies should be no less than 2.4m wide to create a sense a depth and to enhance their usability. Verandahs / balconies may be reduced to a minimum width of 1.5m on the Estate House, Traditional Lot Detached House, Small Lot House and Live Work Built Form types where they are not the main usable outdoor open space provided for the dwelling.

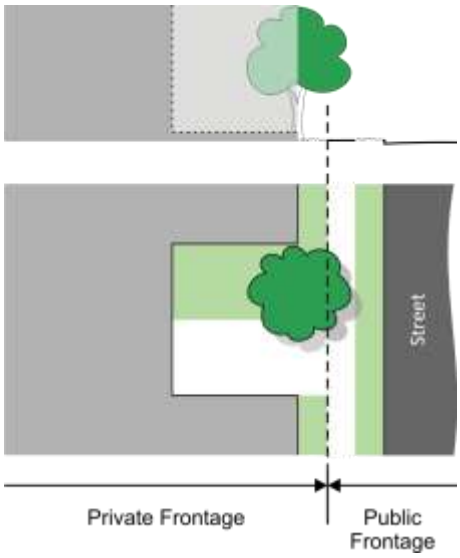


FRONTAGE TREATMENTS cont.

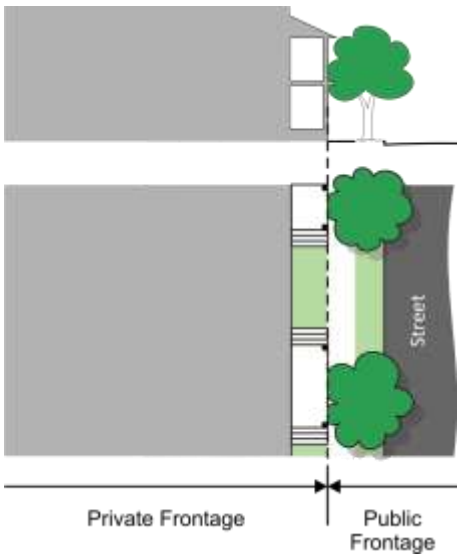
- **Terrace or Light Court:** a frontage wherein the façade is set back from the frontage line by an elevated garden or terrace, or a fenced, sunken light court. Consideration must be given to a fair proportion of buildings with universal access. This type buffers residential use from urban footpaths, removing the private yard from public encroachment. The terrace may be suitable for outdoor dining.



- **Forecourt:** a frontage wherein a portion of the façade is close to the frontage line while a substantial portion of it is set back. The forecourt created is suitable for gardens and drop-offs. This type of frontage treatment should be allocated in conjunction with other frontage types. Trees within the forecourts may overhang the sidewalks.



- **Stoop:** a frontage wherein the façade is aligned close to the frontage line with the lower storey elevated from the footpath sufficient to secure privacy for the windows. The access is usually via an exterior stair and landing. This type of frontage treatment is recommended for ground-floor residential uses.



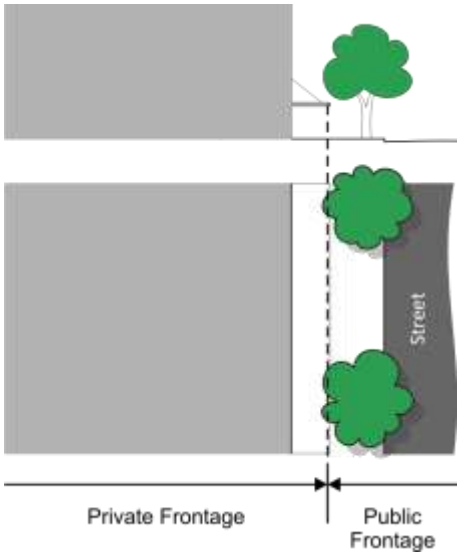
- **Shopfront and Awning:** a frontage wherein the façade is aligned close to the frontage line with the building entrance at footpath grade. This type of frontage treatment is conventional for retail use with substantial glazing on the footpath level, and an awning placed which overlaps the footpath to the maximum possible.

  Street awnings—

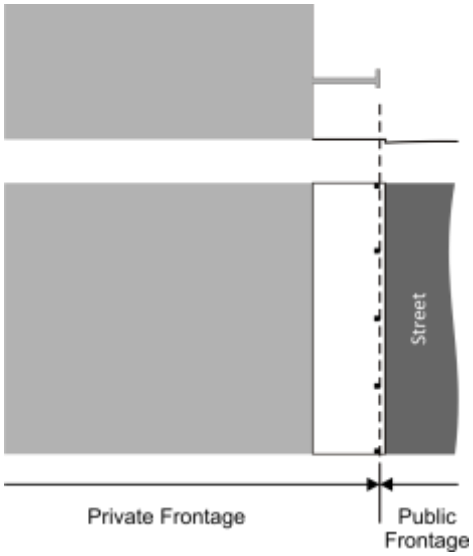
  (a) provide continuous weather protection for pedestrians where buildings adjoin a street alignment;

  (b) are designed to maintain the continuity and character of adjacent awnings, especially in relation to height and facia depth;

  (c) do not break the continuity of the edge facia (e.g. with strongly geometrical forms, such as triangular or barrel vaulted shapes).



- **Gallery:** a frontage wherein the façade is aligned close to the frontage line with an attached cantilevered or a lightweight colonnade overlapping the footpath. This type is appropriate for retail use. The Gallery shall be no less than 3.5m wide and overlap the whole width of the footpath to within 0.6m of the kerb.



- **Arcade:** a frontage wherein the façade is above a colonnade that overlaps the footpath, while the footpath level remains at the frontage line. This frontage treatment type is appropriate for retail use. The arcade shall be no less than 3.5m wide and overlap the whole width of the footpath to within 0.6m of the kerb.