

## *Division 5—Reconfiguring a Lot Code*

### 12.5.1 Reconfiguring a Lot Code

The provisions in this division comprise the Reconfiguring a Lot Code. They are—

- compliance with the Reconfiguring a Lot Code (section 12.5.2);
- overall outcomes for the Reconfiguring a Lot Code (section 12.5.3);
- specific outcomes and probable solutions for Residential, Commercial, Industrial, Township and Other Types of Urban Reconfiguring (section 12.5.4);
- specific outcomes and probable solutions for Rural Reconfiguring (section 12.5.5).

(5)

### 12.5.2 Compliance with the Reconfiguring a Lot Code

- (1) Development that, in the local government's opinion is consistent with the specific outcomes in sections 12.5.4 and 12.5.5 complies with the Reconfiguring a Lot Code.
- (2) Where any provision of any cited technical documentation (e.g. AMCORD, Queensland Streets 1998 Edition, Queensland Urban Drainage Manual, etc) does not accord with this code, the provisions of this code take precedence.
- (3) This code has been produced for all types of lot reconfiguration, grouped into two (2) categories, namely urban reconfigurations and rural reconfigurations.
- (4) Urban reconfigurations—
  - (a) comprise—
    - (i) residential (including large lot residential);
    - (ii) commercial;
    - (iii) industrial;
    - (iv) other urban type reconfigurations; and
    - (v) reconfigurations within the Township Locality;
  - (b) have been categorised into the following intensity categories—
    - (i) minor subdivision (where a new road or street is not to be constructed);
    - (ii) moderate/major subdivisions (where a new road or street is to be constructed).

#### NOTE 12.5.2A

- (1) The distinction between moderate and major subdivisions is based on the number of lots proposed to be created and the type of road or street to be constructed.
- (2) For a complete description of the different classes of lot reconfigurations refer to Schedule 1—Dictionary, Division 2—Administrative Terms.

Rural reconfigurations—

- (a) comprise all reconfigurations within the Rural Locality;
- (b) have been categorised into the following intensity categories—
  - (i) minor rural subdivision (where a new road or street is not to be constructed);
  - (ii) moderate rural subdivision (where a new road or street is to be constructed).

#### NOTE 12.5.2B

For a complete description of the different classes of lot reconfigurations refer to Schedule 1—Dictionary, Division 2—Administrative Terms.

### 12.5.3

#### Overall Outcomes for the Reconfiguring a Lot Code

(1)

The overall outcomes are the purpose of the Reconfiguring a Lot Code.

#### NOTE 12.5.3A

Sub-section (1) provides the link between the overall outcomes sought for the code and the IPA code assessment rules which refer to the 'purpose' of the code [see IPA s.3.5.13(2)].



- (2) The overall outcomes sought for the Reconfiguring a Lot Code are the following design elements—

**Residential (including Large Lot Residential), Commercial and Industrial Estate Design (Urban Areas Only)**

- (a) Safe, convenient and attractive residential neighbourhoods and functionally compatible commercial centres and industrial estates that meet the diverse and changing needs of the community are provided.
- (b) This encompasses—
  - (i) offering a wide choice in good quality housing and associated community and commercial facilities;
  - (ii) offering a diversity of services at locations that are highly accessible to all sections of the community;
  - (iii) providing for local employment opportunities;
  - (iv) encouraging walking and cycling;
  - (v) facilitating the use of public transport;
  - (vi) creating neighbourhood focal points and a diverse range of activities within each commercial centre or industrial estate to promote a 'sense of place' and the creation of a distinctive identity which recognises and, where relevant, conserves the natural environment and places of cultural heritage significance; and
  - (vii) facilitating ecologically sustainable development.

**Integrated Movement Networks**

- (c) Movement networks are provided—
  - (i) within urban areas for vehicles, public transport, pedestrians and cyclists that are integrated, cost-effective and environmentally acceptable, and which minimise internal traffic volumes and the impact of traffic on the residential environment; and

- (ii) within rural areas for vehicles, that are cost-effective and environmentally acceptable, and which minimise the impact of traffic on the rural environment.

**The Road System**

- (d) An efficient road system (i.e. for major roads) is provided external to the Residential, Commercial/Industrial and Rural Street System.

**Street Networks**

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

**Pedestrian and Cyclist Facilities (Urban Areas Only)**

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

**Public Transport (Urban Areas Only)**

- (g) Opportunities for increased choice in mode of transport and cost-effective and energy-efficient public transport services that are accessible and convenient to the community are provided.

**Public Open Space (Urban Areas Only)**

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

**Street Design and On-Street Carparking**

- (i) Streets are designed to—
  - (i) fulfil their designated functions within the street network;
  - (ii) accommodate public utility services, drainage systems and on-street carparking (urban areas only);
  - (iii) create acceptable levels of safety and convenience for all street users;



- (iv) contribute towards an attractive environment; and
- (v) avoid configurations of lights in areas within 6km of the RAAF Base Amberley runway that replicate the appearance of airport runways at night.

#### Utilities

- (j) (i) Residential (including any large lot residential), commercial and industrial areas are adequately serviced with sewerage (on-site effluent treatment and disposal for large lot residential uses), water, fire-fighting, electricity, gas, street lighting and communication services in a timely, cost-effective, coordinated and efficient manner that supports sustainable development practices; and
- (ii) rural reconfigurations are adequately serviced with reticulated water (where available), electricity and communication services in a timely, cost-effective, coordinated and efficient manner that supports sustainable development practices.

#### Stormwater Drainage

- (k) 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.

#### Stormwater Quality Management

- (l) 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.

#### Streetscape and Landscape (Urban Areas Only)

- (m) Attractive streetscapes are provided that—
  - (i) reinforce the functions of a street;
  - (ii) enhance the amenity of premises;
  - (iii) are sensitive to the built form, landscape and environmental conditions and character of the locality; and
  - (iv) promote safety and security.
- (n) New development is cognisant of the existing landscape character, and retains or reinforces that character through measures such as vegetation retention, provision of new landscaping, management of stormwater quality and use of appropriate urban design principles.
- (o) Where there is no discernible existing landscape character, new development provides appropriate landscaping and applies urban design principles that will assist in creating character.

#### Lot Layout and Design

- (p) A range and mix of lot sizes are provided to suit a variety of dwelling and household types, commercial and industrial purposes and primary production purposes, with areas and dimensions that meet user requirements.
- (q) 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.
- (r) For commercial and industrial development, lots are consistent with the overall and specific outcomes of the respective Commercial and Industry Zones.



- (s) For rural development, lots are consistent with the overall and specific outcomes of the Rural Zones.

- (b) moderate/major subdivision are set out in column 1 of Table 12.5.2 and the probable solutions are set out in column 2 of Table 12.5.2.

#### 12.5.4 Specific Outcomes and Probable Solutions for Residential, Commercial, Industrial and Other Types of Urban Reconfiguring

- (1) The specific outcomes sought for Urban Reconfiguring for—

- (a) minor subdivision are set out in column 1 of Table 12.5.1 and the probable solutions are set out in column 2 of Table 12.5.1; and

##### NOTE 12.5.4A

- (1) Table 12.5.1 relates to 'minor subdivision'.
- (2) Table 12.5.2 relates to 'moderate/major subdivision'.
- (3) Refer to section 12.5.2(4) for an explanation of the terms 'minor' and 'moderate/major' subdivision.

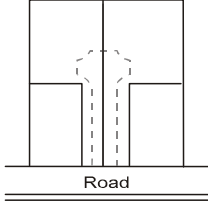
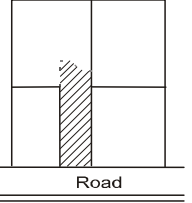


Table 12.5.1: Specific Outcomes and Probable Solutions for Minor Subdivisions

Column 1 Specific Outcomes	Column 2 Probable Solutions
<p><b>Lot Layout and Design</b></p> <p>(1) Lots (including hatchet lots) have the appropriate area and dimensions to—</p> <ul style="list-style-type: none"> <li>(a) enable the siting and construction of a dwelling and ancillary outbuildings, where for the purposes of residential use;</li> <li>(b) enable the siting and construction of commercial or industrial buildings, where for the purposes of commercial or industrial use;</li> <li>(c) provide for landscaping, including private outdoor recreational space;</li> <li>(d) provide convenient vehicle access and parking;</li> <li>(e) take into account the slope of the land, in particular the desirability of minimising earthworks/retaining walls associated with building construction;</li> <li>(f) overcome site constraints (e.g. undermining, flooding, drainage, bushfire risk, buffers to incompatible land uses etc);</li> <li>(g) conserve natural, cultural or special features (e.g. trees, buildings, views etc);</li> <li>(h) avoid large concentrations of cottage lots and courtyard lots in the Low Density Residential Zones or Sub Areas;</li> <li>(i) ensure that cottage lots and courtyard lots are located in close proximity to parks, shops, employment areas or community facilities; and</li> <li>(j) promote safety and security.</li> </ul> <p><b>NOTE 1</b> The area of a hatchet lot is not to include reference to the access strip (handle of the lot).</p>	<p><b>Lot Layout and Design</b></p> <p>(1) (a) The lot size, frontage and special characteristics for the different residential lot types are as outlined in Appendix A.</p> <p><b>NOTE 2</b> For any specific density or special lot characteristic attribute (including lot size) refer to the applicable Zone Code.</p> <ul style="list-style-type: none"> <li>(b) The requirements for access easements for residential lots are those applicable for hatchet lots [see Probable Solution (3) below].</li> <li>(c) The lot size, frontage and special characteristics for the different commercial and industrial lot types are as outlined in Appendix B.</li> <li>(d) The requirements for access easements, for commercial or industrial lots, although undesirable, are to be those applicable for hatchet lots [see Probable Solution (3) below].</li> </ul>
<p>(2) A reconfiguration of land may produce one or more hatchet lots, provided—</p> <ul style="list-style-type: none"> <li>(a) it is not likely to prejudice the subsequent reconfiguration or use of adjoining land;</li> <li>(b) it is not desirable nor practicable for the subject and adjoining land to be otherwise reconfigured so as to have a frontage to another road which may be subsequently constructed;</li> <li>(c) the siting of buildings on a proposed hatchet lot will not be detrimental to the amenity of the area;</li> <li>(d) existing development of land in the area will not have a detrimental effect on buildings to be sited on the proposed hatchet lots; and</li> <li>(e) there is no reasonable alternative to the hatchet lot having regard to the sites's topography, access, location, shape and size.</li> </ul>	<p>(2) (a) The following apply in respect of residential lots—</p> <ul style="list-style-type: none"> <li>(i) any lot having a common boundary with an access strip of a hatchet lot is to have a width of 20m at any point throughout its depth or is capable of providing an area containing a rectangle (suitable for building purposes) measuring 9m by 15m;</li> <li>(ii) hatchet lots are not used for multiple residential use; and</li> <li>(iii) the proposed lot will have no greater than five (5) adjoining neighbours.</li> </ul> <p>(b) The following apply in respect of commercial or industrial lots—</p> <ul style="list-style-type: none"> <li>(i) any lot having a common boundary with an access strip of a hatchet lot is to have a width of 25m at any point throughout its depth or is capable of providing an area containing a rectangle (suitable for building purposes) measuring 14m by 28m;</li> <li>(ii) hatchet lots are not used for commercial or industrial uses.</li> </ul>
<p><b>NOTE 3</b></p> <p>(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 'the exception rather than the norm'.</p> <p>(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 as they accentuate parking problems on the street particularly as on-site parking spaces are not visible from the street.</p>	



Table 12.5.1 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
<p>(3) Hatchet lots—</p> <ul style="list-style-type: none"> <li>(a) do not dominate or intrude within the existing subdivision pattern;</li> <li>(b) provide an access strip capable of accommodating adequate vehicular access and utility services; and</li> <li>(c) provide an access strip which does not unduly affect or restrict on-street parking.</li> </ul>	<p>(3) (a) The number of hatchet lots is generally limited to one (1) behind any full frontage lot.</p> <p>(b) The access strip is located on only one (1) side of a lot with direct frontage to the street.</p> <p>(c) The shape of the access strip (including the construction of the driveway) for a residential or commercial lot enables a single unit truck to enter and leave the lot in forward gear.</p> <p>(d) The shape of the access strip (including the construction of the driveway) for an industrial use enables a semi-trailer to enter and leave the lot in forward gear.</p> <p>(e) The minimum width of the access strip is as follows—</p> <ul style="list-style-type: none"> <li>(i) Traditional Lots – 4m<sup>(1)</sup>;</li> <li>(ii) Hillside, Homestead or Township Lots – 5m<sup>(1)</sup>;</li> <li>(iii) Dual Occupancy Dwelling Lots – 5m<sup>(2)</sup>.</li> </ul> <p><b>NOTE 4</b></p> <p>(1) Where unavoidable, the width of the access strip for a multiple residential, commercial or industrial lot is as follows—</p> <ul style="list-style-type: none"> <li>(a) Multiple Residential Lots – 7m<sup>(2)</sup>;</li> <li>(b) Commercial Lots – 7m<sup>(1)</sup>;</li> <li>(c) Mixed Business and Industry Lots – 9m<sup>(1)</sup>;</li> <li>(d) Industry Lots – 11m<sup>(1)</sup>.</li> </ul> <p>(2) In spite of the recommended minimum width of the access strip, it must be of sufficient width to accommodate a driveway, utility services and the provision of landscaping.</p> <p>(3) In the case of telecommunications and electricity services, these services are to be via underground cable for the full length of the access strip.</p> <p>(f) The type of reciprocal easements comply with the requirements shown in Diagram A, below.</p> <p style="text-align: center;"><b>Diagram A</b></p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>In this case the easement is for access purposes with each lot having its own area for utility services and other matters.</p> </div> <div style="text-align: center;">  <p>In this case the easement is for a combination of access purposes, utility services and other matters.</p> </div> </div> <p>(g) For residential lots, the minimum width of the constructed driveway in the access strip is three (3) metres.</p> <p>(h) the driveway is to be constructed from the kerb for the full length of the access strip.</p>

<sup>1</sup> Where two (2) hatchet lots are proposed, the combined access strip is to be increased by 1 metre for residential lots or 2 metres for commercial or industrial lots to allow for the provision of utility services, driveway construction and other matters, provided reciprocal easement rights are used.

<sup>2</sup> The access strip is to remain in common property. Owing to the number of dwelling units involved, reciprocal easement rights are unsuitable for this type of lot.



Table 12.5.1 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
	<p><b>NOTE 5</b> Where unavoidable, the minimum width of the constructed driveway in the access strip (which is to be constructed from the kerb for the full length of the access strip) for multiple residential, commercial or industrial lots is as follows—</p> <ul style="list-style-type: none"> <li>(a) multiple residential purposes – 5.5 metres;</li> <li>(b) commercial lots – 6 metres;</li> <li>(c) industrial lots – 7 metres.</li> </ul> <ul style="list-style-type: none"> <li>(i) For residential lots, other than homestead or township lots, a drainage system is provided so that no part of the driveway is below the adopted flood level.</li> <li>(j) For homestead or township lots no part of the driveway is below the adopted flood level.</li> </ul> <p><b>NOTE 6</b> Where unavoidable, for commercial or industrial lots, a drainage system is provided so that no part of the driveway is below the adopted flood level.</p> <p><b>NOTE 6A</b> Particular regard should also be given to the Fire Fighting provisions contained in Clause (10) Table 12.5.1.</p>
<p><b>Designated Roads</b></p> <p>(4) Access arrangements do not impede the traffic performance of Designated Roads.</p>	<p><b>Designated Roads</b></p> <p>(4) (a) Residential lots do not have direct vehicle access to the road system unless there are no suitable access alternatives (provided by the street system), in which case vehicle access onto the Designated Road is capable of being made in a forward direction.</p> <p><b>NOTE 7</b> See element 5.13 of AMCORD for possible means of achieving vehicle access.</p> <ul style="list-style-type: none"> <li>(b) Any vehicle access for a residential lot is limited to one (1) point only (where direct access to the Designated Road is unavoidable).</li> <li>(c) Commercial or industrial lots do not have direct vehicle access to the road system unless there are no suitable access alternatives (provided by the street system), in which case vehicle access onto the Designated Road must be capable of being made in a forward direction using a left turn only.</li> <li>(d) Any vehicle access is sited to obtain the maximum visibility (i.e. sightlines).</li> </ul>
<p><b>Public Open Space</b></p> <p>(5) Linear and Waterside Parks are provided in the general locations as outlined in Part 13—Local Government Infrastructure Plan.</p>	<p><b>Public Open Space</b></p> <p>(5) In those lot reconfigurations adjoining a river or creek system where it is proposed that linear or waterside parkland be secured—</p> <ul style="list-style-type: none"> <li>(a) land dedications are provided (and are indicated on the Plan of Subdivision); and</li> <li>(b) the lot layout aligns the parkland reserve along the river or creek edge;</li> </ul>





Table 12.5.1 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
	<p><b>NOTE 8</b></p> <ul style="list-style-type: none"> <li>(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.</li> <li>(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.</li> <li>(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.</li> <li>(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.</li> <li>(c) the extent of the parkland correlates with the adopted flood level or is a minimum width of 30 metres (measured from the banks of the watercourse) or as much in addition to the 30 metres to achieve at least a 10 metre width with slopes less than 1 in 20 (5%) to enable construction of a walking/bicycle path and to facilitate maintenance;</li> <li>(d) the land is stable and useable for recreation and pedestrian/cycle movement, within the broader functions of drainage, conservation and visual amenity;</li> <li>(e) the land is not constrained by encumbrances from providing public recreation uses.</li> </ul> <p><b>NOTE 9</b></p> <p>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.</p>
<p><b>Frontage Works and Utilities</b></p> <p>(6) The existing, dedicated street fronting or gaining access to the proposed reconfigured lot is constructed to the specifications outlined in Planning Scheme Policy 3—General Works for the type of street classification fronting the proposed lot.</p>	<p><b>Frontage Works and Utilities</b></p> <p>(6) Where frontage works to an existing, dedicated street, fronting or gaining access to the proposed reconfigured lot are required, they are based on the specifications outlined in Planning Scheme Policy 3—General Works and standards in Part 13—Local Government Infrastructure Plan for trunk infrastructure.</p>
<p>(7) Cost effective and environmentally sustainable utilities (including effluent treatment and disposal, water, electricity, gas and communication services) are provided to each lot.</p> <p><b>NOTE 10</b></p> <ul style="list-style-type: none"> <li>(1) There is to be an adequate water supply for fire fighting purposes.</li> <li>(2) The layout of the reconfiguration will need to ensure sewerage feasibility, otherwise there may be a reduction in the area of the lot available for building construction.</li> <li>(3) For Homestead or Township Lots (including unsewered township commercial or industrial lots) all sullage and septic waste water is to be capable of being treated and disposed of on-site without it entering any adjoining premises, stormwater system or watercourse and without ponding or causing a health nuisance.</li> </ul>	<p>(7) (a) Provision is made for the—</p> <ul style="list-style-type: none"> <li>(i) reticulation of water supply to each lot;</li> <li>(ii) reticulation of sewerage to each lot. For Homestead or Township lots (including unsewered township commercial or industrial lots), measures to treat and dispose of effluent on-site in compliance with the Plumbing and Drainage Act 2002 and the Queensland Plumbing and Wastewater Code;</li> <li>(iii) supply of electricity (and where applicable the supply of natural gas) to each lot; and</li> <li>(iv) supply of telecommunication services to each lot.</li> </ul> <p><b>NOTE 11</b></p> <p>The location, design and construction of frontage works, 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.</p>





Table 12.5.1 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
	(b) All frontage works and utilities are to be in place or sufficient security provided before the Plan of Subdivision is approved by the local government.
<b>Stormwater Drainage</b> (8) All lots are located above the adopted flood level to provide protection of property in accordance with the accepted level of risk.	<b>Stormwater Drainage</b> (8) (a) All Cottage Lots, Courtyard Lots, Traditional Lots, Hillside Lots and Dual Occupancy Lots are located outside the adopted flood regulation line and urban catchment flow paths. (b) For Homestead or Township Lots, an area which is suitable for a building platform comprising at least 600m <sup>2</sup> of each lot is to be located outside the adopted flood regulation line and urban catchment flow paths. Also, an additional area is to be available on each lot that is suitable to treat and dispose of effluent on-site in compliance with the Plumbing and Drainage Act 2002 and the Queensland Plumbing and Wastewater Code. (c) All multiple residential lots, commercial lots, mixed business and industry lots and industrial lots are located above the adopted flood level for the respective zone or Sub Area. <b>NOTE 12</b> (1) Those areas of residential lots below the adopted flood level for the applicable 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.
(9) 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) for homestead lots or township lots, any dams are to be wholly located within lot boundaries.	(9) (a) Lot drainage is to be directed into the street drainage system. <b>NOTE 13</b> (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) Where an Inter Lot Drainage System does not exist it may be necessary to obtain a lawful point of discharge by the acquisition of stormwater drainage easements over one or more downstream properties. (3) Alternatively, the Local Government may accept an undertaking from the downstream owner to the applicant granting 'discharge approval'. (b) For homestead lots or township lots, the high water level of any dam and the top and toe of all dam walls and embankments are not to be closer than 2 metres to any lot boundary.
<b>Fire Fighting</b> (10) Lots are designed with adequate water supply and access for fire fighting purposes.	<b>Fire Fighting</b> (10) Either— (a) (i) fire hydrants are located no further than 80m apart within road reserves; and (ii) all dwellings are able to be located within the fire appliance access distances shown in Diagram A below; or (b) building envelopes are created on new lots such that the building envelope meets the fire appliance access distances shown in Diagram A below; or



Table 12.5.1 continued

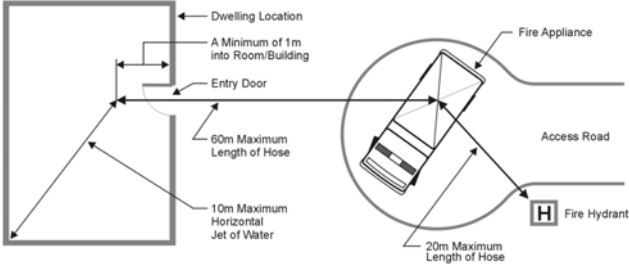
Column 1 Specific Outcomes	Column 2 Probable Solutions
	<p>(c) (i) the water supply service to a hatchet lot is sized for the provision of fire fighting flows via a hydrant and a metered bypass across a check valve in accordance with AS2419.1 and a fire hydrant and building envelope are provided to meet the fire appliance access distances shown in Diagram A below; and</p> <p>(ii) vehicular access to the lot is via—</p> <p>(A) a minimum 3 metre wide concrete driveway;</p> <p>(B) with a minimum 3 metres in horizontal clearance and 4.5 metres in vertical clearance; and</p> <p>(C) with a maximum gradient of 15%; or</p> <p style="text-align: center;"><b>Diagram A</b></p>  <p>(d) (i) where reticulated water supply is not available, a minimum water supply of 5000 litres (per dwelling) is permanently available on site for fire fighting purposes as either—</p> <p>(A) a separate onsite water tank; or</p> <p>(B) a reserve section in the bottom part of the main water supply tank; or</p> <p>(C) a swimming pool installed immediately upon construction of the dwelling; or</p> <p>(D) a dam or lake; and</p> <p>(ii) where onsite water supply tanks are provided they are—</p> <p>(A) above ground and located adjacent to the building;</p> <p>(B) fitted with a 50mm outlet pipe and a 50mm male camlock coupling (standard rural fire brigade fitting) to allow fire hose connection; and</p> <p>(C) of precast concrete or steel construction and supported by a fireproof structure; and</p> <p>(iii) vehicular access to the lot is via—</p> <p>(A) a minimum 3 metre wide concrete driveway;</p> <p>(B) with a minimum 3 metres in horizontal clearance and 4.5 metres in vertical clearance; and</p> <p>(C) with a maximum gradient of 15%; or</p> <p><b>NOTE 14</b></p> <p>(1) Hatchet lots should be generally avoided in Large Lot Residential areas (i.e. areas where the average lot size is 4000m<sup>2</sup> or greater) owing to the inherent difficulties associated with providing access to fire hydrants for fire fighting vehicles.</p> <p>(2) Rather than providing access via multiple hatchet lots it is preferable to extend the street network and the associated water mains and fire hydrants.</p> <p>(e) where there is no other prudent or feasible alternative, the submission of a written acknowledgement from the owner/applicant at the time of lodging a development application that the applicant/owner is aware of the issues in relation to fire fighting, with the ability to convey this information to subsequent purchasers.</p>



Table 12.5.2: Specific Outcomes and Probable Solutions for Moderate and Major Subdivisions

Column 1 Specific Outcomes	Column 2 Probable Solutions
<p><b>Residential/Industrial Estate Design (MAJOR SUBDIVISIONS ONLY)</b></p> <p>(1) For Major Subdivisions, the layout and design—</p> <ul style="list-style-type: none"> <li>(a) gives a residential neighbourhood or a commercial/industrial location a strong and positive identity, by responding to site characteristics, setting, landmarks, views and places of cultural significance and through clearly legible streets and streetscaping themes, and in the case of residential neighbourhoods, open space networks;</li> <li>(b) provides a mix of lot sizes and enables a variety of housing types, commercial and industrial establishments and other compatible land uses;</li> <li>(c) distributes land uses so as to minimise infrastructure costs;</li> <li>(d) is to be cognisant of linear open spaces, and, in the case of residential neighbourhoods ensure they are located to define the boundaries of neighbourhoods and, where appropriate, provide community focal points;</li> <li>(e) reinforces residential neighbourhood identity by locating community, retail and commercial facilities at focal points within convenient walking distance for residents;</li> <li>(f) enhances for residential neighbourhoods personal safety and perceptions of safety, and minimise potential for crime, vandalism and fear through achievement of casual surveillance and, for commercial and industrial development, the layout enhances safety through the provision of alternative through routes (i.e. culs-de-sacs are avoided);</li> <li>(g) provides a pedestrian network that is safe, attractive and efficient, running largely along public spaces (including streets and open spaces) fronted by houses or other development and avoiding areas or uses with major breaks in surveillance;</li> <li>(h) provides well-distributed public open spaces that contribute to the legibility and character of the locality, provide for a range of uses and activities, are cost-effective to maintain, and contribute to stormwater management and environmental care; and</li> <li>(i) provides well located vehicle, cyclist and pedestrian networks that minimise local vehicle trips, maximise public transport effectiveness, and encourage walking and cycling to daily activities and to provide a recreation resource.</li> </ul> <p><b>NOTE 1</b></p> <ul style="list-style-type: none"> <li>(1) Refer to AMCORD Element 1.1 Neighbourhood Design and Chapter 7 'Development Concept Design' of Queensland Streets 1998 Edition which provide a very concise and practical summary of the concept design process for residential subdivisions.</li> <li>(2) For applicants designing a residential lot layout where it is anticipated or proposed that lots will be used for other than single residential uses (e.g. dual occupancy, multiple residential, etc) it is recommended that reference be made to the relevant use-specific planning scheme codes, which provide specific design measures and criteria.</li> </ul>	<p><b>Residential/Industrial Estate Design</b></p> <p>(1) There are no recommended probable solutions for this specific outcome as each situation requires an individual approach.</p>



Table 12.5.2 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
<p><b>Lot Layout and Design</b></p> <p>(2) Lots (including hatchet lots) have the appropriate layout, area and dimensions to—</p> <ul style="list-style-type: none"> <li>(a) enable the siting and construction of a dwelling and ancillary outbuildings, where for the purposes of residential use;</li> <li>(b) enable the siting and construction of commercial or industrial buildings, where for the purposes of commercial or industrial use;</li> <li>(c) provide for landscaping, including private outdoor recreational space;</li> <li>(d) provide convenient vehicle access and parking;</li> <li>(e) take into account the slope of the land, in particular the desirability of minimising earthworks/retaining walls associated with building construction;</li> <li>(f) overcome site constraints (e.g. undermining, flooding, drainage, bushfire risk, buffers to incompatible land uses etc);</li> <li>(g) conserve natural, cultural or special features (e.g. trees, buildings, views etc);</li> <li>(h) provide within residential areas housing diversity and choice and within commercial/industrial areas a variety of choice for the different commercial and industrial development types;</li> <li>(i) avoid large concentrations of cottage lots and courtyard lots in the Low Density Residential Zones or Sub Areas;</li> <li>(j) ensure that cottage lots, courtyard lots, dual occupancy lots and multiple residential lots are located in close proximity to parks, shops, employment areas or community facilities;</li> <li>(k) enable lot frontages to be oriented towards the street and open spaces to facilitate personal safety, property security and casual surveillance of footpaths and public open space areas;</li> <li>(l) ensure vehicular access from a rear lane where a residential lot has a frontage dimension of less than 9m;</li> <li>(m) facilitate, within residential areas (via street and lot orientation), the siting of dwellings to take advantage of microclimatic benefits and to allow adequate on-site solar access and access to breezes taking into account likely dwelling size and the relationship of each lot to the street;</li> <li>(n) integrate with the surrounding urban environment, and in particular complement existing streetscapes and landscapes and, where possible in residential areas, provide connectivity to facilitate shared use of public facilities by adjoining communities;</li> <li>(o) facilitate the integration of commercial and industrial development into its surroundings ensuring minimal impact on the amenity of adjacent or nearby areas;</li> <li>(p) ensure that the layout of commercial or industrial development abutting areas of residential development allows lots to be configured for the siting and design of development that can incorporate visual, noise pollution and other ameliorative measures, in order to reduce impacts on nearby residential amenity.</li> </ul> <p><b>NOTE 2</b> The area of a hatchet lot is not to include reference to the access strip (handle of the lot).</p>	<p><b>Lot Layout and Design</b></p> <p>(2) (a) The lot size, frontage and special characteristics for the different residential lot types are as outlined in Appendix A.</p> <p><b>NOTE 3</b> For any specific density or special lot characteristic attribute (including lot size) refer to the applicable Zone Code.</p> <ul style="list-style-type: none"> <li>(b) The requirements for access easements for residential lots are to be those applicable for hatchet lots [see Probable Solution (4) below].</li> <li>(c) The lot size, frontage and special characteristics for the different commercial and industrial lot types are as outlined in Appendix B.</li> <li>(d) The requirements for access easements, for commercial or industrial lots, although undesirable, are to be those applicable for hatchet lots [see Probable Solution (4) below].</li> </ul>



Table 12.5.2 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
<p>(3) A reconfiguration of land may produce one or more hatchet lots, provided—</p> <ul style="list-style-type: none"> <li>(a) it is not likely to prejudice the subsequent reconfiguration or use of adjoining land;</li> <li>(b) it is not desirable nor practicable for the subject and adjoining land to be otherwise reconfigured so as to have a frontage to another road which may be subsequently constructed;</li> <li>(c) the siting of buildings on a proposed hatchet lot will not be detrimental to the amenity of the area;</li> <li>(d) existing development of land in the area will not have a detrimental effect on buildings to be sited on the proposed hatchet lots; and</li> <li>(e) there is no reasonable alternative to the hatchet lot having regard to the sites's topography, access, location, shape and size.</li> </ul>	<p>(3) (a) The following apply in respect of residential lots—</p> <ul style="list-style-type: none"> <li>(i) any lot having a common boundary with an access strip of a hatchet lot is to have a width of 20m at any point throughout its depth or is capable of providing an area containing a rectangle (suitable for building purposes) measuring 9m by 15m;</li> <li>(ii) hatchet lots are not used for multiple residential use; and</li> <li>(iii) the proposed lot will have no greater than five (5) adjoining neighbours.</li> </ul> <p>(b) The following apply in respect of commercial or industrial lots—</p> <ul style="list-style-type: none"> <li>(i) any lot having a common boundary with an access strip of a hatchet lot is to have a width of 25m at any point throughout its depth or is capable of providing an area containing a rectangle (suitable for building purposes) measuring 14m by 28m;</li> <li>(ii) hatchet lots are not used for commercial or industrial uses.</li> </ul>
<p><b>NOTE 4</b></p> <p>(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 'the exception rather than the norm'.</p> <p>(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 as they accentuate parking problems on the street particularly as on-site parking spaces are not visible from the street.</p>	
<p>(4) Hatchet lots—</p> <ul style="list-style-type: none"> <li>(a) do not dominate or intrude within the existing subdivision pattern;</li> <li>(b) provide an access strip capable of accommodating adequate vehicular access and utility services; and</li> <li>(c) provide an access strip which does not unduly affect or restrict on-street parking.</li> </ul>	<p>(4) (a) The number of hatchet lots is generally limited to one (1) behind any full frontage lot.</p> <p>(b) The access strip is located on only one (1) side of a lot with direct frontage to the street.</p> <p>(c) The shape of the access strip (including the construction of the driveway) for a residential or commercial lot enables a single unit truck to enter and leave the lot in forward gear.</p> <p>(d) The shape of the access strip (including the construction of the driveway) for an industrial use enables a semi-trailer to enter and leave the lot in forward gear.</p> <p>(e) The minimum width of the access strip is as follows—</p> <ul style="list-style-type: none"> <li>(i) Traditional Lots – 4m<sup>(3)</sup>;</li> <li>(ii) Hillside, Homestead or Township Lots – 5m<sup>(3)</sup>;</li> <li>(iii) Dual Occupancy Dwelling Lots – 5m<sup>(4)</sup>.</li> </ul> <p><b>NOTE 5</b></p> <p>(1) Where unavoidable, the width of the access strip for a multiple residential, commercial or industrial lot is as follows—</p> <ul style="list-style-type: none"> <li>(a) Multiple Residential Lots – 7m<sup>(4)</sup>;</li> <li>(b) Commercial Lots – 7m<sup>(3)</sup>;</li> <li>(c) Mixed Business and Industry Lots – 9m<sup>(3)</sup>;</li> <li>(d) Industry Lots – 11m<sup>(3)</sup>.</li> </ul> <p>(2) In spite of the recommended minimum width of the access strip, it must be of sufficient width to accommodate a driveway, utility services and the provision of landscaping.</p>

<sup>3</sup> Where two (2) hatchet lots are proposed, the combined access strip is to be increased by 1 metre for residential lots or 2 metres for commercial or industrial lots to allow for the provision of utility services, driveway construction and other matters, provided reciprocal easement rights are used.

<sup>4</sup> The access strip is to remain in common property. Owing to the number of dwelling units involved, reciprocal easement rights are unsuitable for this type of lot.



Table 12.5.2 continued

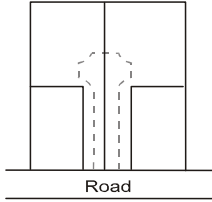
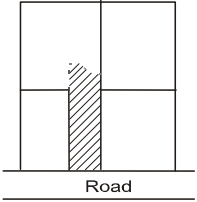
Column 1 Specific Outcomes	Column 2 Probable Solutions
	<p>(3) In the case of telecommunications and electricity services, these services are to be via underground cable for the full length of the access strip.</p> <p>(f) The type of reciprocal easements comply with the requirements shown in Diagram A, below.</p> <p style="text-align: center;"><b>DIAGRAM A</b></p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p style="font-size: small;">In this case the easement is for access purposes with each lot having its own area for utility services and other matters.</p> </div> <div style="text-align: center;">  <p style="font-size: small;">In this case the easement is for a combination of access purposes, utility services and other matters.</p> </div> </div> <p>(g) For residential lots, the minimum width of the constructed driveway in the access strip is three (3) metres.</p> <p>(h) The driveway is to be constructed from the kerb for the full length of the access strip.</p> <p><b>NOTE 6</b></p> <p>Where unavoidable, the minimum width of the constructed driveway in the access strip (which is to be constructed from the kerb for the full length of the access strip) for multiple residential, commercial or industrial lots is as follows—</p> <ul style="list-style-type: none"> <li>(a) multiple residential purposes – 5.5 metres;</li> <li>(b) commercial lots – 6 metres;</li> <li>(c) industrial lots – 7 metres.</li> </ul> <ul style="list-style-type: none"> <li>(i) For residential lots, other than homestead or township lots, a drainage system is provided so that no part of the driveway is below the adopted flood level.</li> <li>(j) For homestead or township lots no part of the driveway is below the adopted flood level.</li> </ul> <p><b>NOTE 7</b></p> <p>Where unavoidable, for commercial or industrial lots, a drainage system is provided so that no part of the driveway is below the adopted flood level.</p> <p><b>NOTE 7A</b></p> <p>Particular regard should also be given to the Fire Fighting Provisions contained in Clause (32) Table 12.5.2.</p>
<p><b>Designated Roads</b></p> <p>(5) For major subdivisions, the road network has a clear structure and component roads conform to their function in the system.</p>	<p><b>Designated Roads</b></p> <p>(5) Roads link with other roads that are no more than one level higher or lower in the hierarchy.</p>
<p>(6) For major subdivisions, the road system is located so that it provides routes which are more convenient for external traffic than the residential or commercial/industrial street network.</p>	<p>(6) The road network is generally located as outlined in Map 4a and Map 4b of Schedule 7.</p> <p><b>NOTE 8</b></p> <ul style="list-style-type: none"> <li>(1) Refer to Map 4a and Map 4b of Schedule 7 for the general location of Designated Roads (both existing and future).</li> <li>(2) Where a Designated Road traverses a development site, refer to the locational design requirements of Section 6 'The Road System' of Queensland Streets 1998 Edition to ensure that the most satisfactory location is obtained in respect of both planning and engineering requirements.</li> </ul>



Table 12.5.2 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
	(3) Where a developer provides land for the purpose of the road system or constructs trunk roadworks infrastructure, an infrastructure credit (offset) is to apply as outlined in the Ipswich Adopted Infrastructure Charges Resolution.
(7) For major subdivisions, the road system has the capability to accommodate public transport services and has capacity to safely and efficiently accommodate projected movements.	(7) The Designated Road system is provided as outlined in Map 4a and Map 4b of Schedule 7.
(8) For major subdivisions, the road network is provided in a manner where it complements the street network, public transport, pedestrians and cycleways.	(8) Where a Land Use Concept Master Plan, Town Centre Concept Plan or other approved Plan of Development exists, the road network conforms with this plan.
(9) For major subdivisions, safe and convenient links are provided for pedestrians and cyclists across Designated Roads.	(9) Pedestrian and cyclist crossings of Designated Roads adjacent to residential and industrial areas are provided at intervals of not less than 500m and for commercial areas at intervals of not less than 200m in locations related to movement desire lines.
(10) Intersections are located to provide safe and efficient connection and traffic interface between the street network and Designated Roads.	(10) The location of intersections to Designated Roads is in accordance with the following Austroad publication— "Guide to Traffic Engineering Practice" (a) Part 5 Intersections at Grade; (b) Part 6 Roundabouts; (c) Part 7 Traffic Signals.
(11) Access arrangements do not impede the traffic performance of Designated Roads.	(11) (a) Residential lots do not have direct vehicle access to the road system unless there are no suitable access alternatives (provided by the street system), in which case vehicle access onto the Designated Road is capable of being made in a forward direction.  NOTE 9 See element 5.13 of AMCORD for possible means of achieving vehicle access. (b) Any vehicle access for a residential lot is limited to one (1) point only (where direct access to the Designated Road is unavoidable). (c) Commercial or industrial lots do not have direct vehicle access to the road system unless there are no suitable access alternatives (provided by the street system), in which case vehicle access onto the Designated Road must be capable of being made in a forward direction using a left turn only. (d) Any vehicle access is sited to obtain the maximum visibility (i.e. sightlines).  NOTE 10 For neighbourhood and district shopping centres access from the road system to the parking area may be permitted at specifically designed access points.
(11A) Road 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.	(11A) 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.





Table 12.5.2 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
<p>(12) Residential premises are—</p> <ul style="list-style-type: none"> <li>(a) not exposed to unacceptable traffic noise<sup>5</sup>; or</li> <li>(b) able to be designed and constructed to ensure that acceptable living conditions within the dwelling can be created.</li> </ul> <p><b>NOTE 11</b></p> <p>(1) If the predicted road traffic noise at a residential building exceeds the noise criterion, acoustic barriers are the initial preferred option for noise amelioration of a State controlled road.</p> <p>(2) If the predicted road traffic noise still exceeds the noise criterion after the noise barriers have been designed for maximum effect, a treatment option is to incorporate noise control measures into the building design to ameliorate road traffic noise to the interior of the dwellings.</p>	<p>(12) There are no recommended probable solutions for this specific outcome as each situation requires an individual approach.</p>
<p><b>Street Networks and Design</b></p> <p>(13) For major subdivisions, the street network is to—</p> <ul style="list-style-type: none"> <li>(a) for residential development, meet local needs and allow for the provision of public transport, for pedestrians and cyclists, and for expected vehicle traffic;</li> <li>(b) for commercial and industrial development, provide for the mixed functions of moving traffic, vehicles accessing lots and parked vehicles whilst allowing for the provision of public transport, for pedestrians and cyclists, and for expected vehicle traffic (including heavy vehicles).</li> </ul>	<p><b>Street Networks and Design</b></p> <p>(13) Where a Land Use Concept Master Plan, Town Centre Concept Plan or other approved Plan of Development exists, the road network conforms with this plan.</p>
<p>(14) For major subdivisions, the street network connects with Designated Roads to maximise movement efficiency on the main traffic routes, whilst at the same time minimising internal traffic volumes.</p>	<p>(14) (a) Intersections between Designated Roads and the internal street network are located so as to minimise restriction of movement on the Designated Roads, and to avoid traffic volumes in excess of 12,000 vpd on industrial avenues, 10,000 vpd on major collector streets, 5,000 vpd on internal connecting roads and 3,000 vpd on collector streets.</p> <p>(b) For residential development, connections between residential streets and the road system are in accordance with the requirements of Section 3.3 'The Street/Road Interface' of Queensland Streets 1998 Edition.</p> <p>(c) For commercial and industrial development, intersection spacings between commercial/ industrial streets and the road system are in accordance with Table 3.3A of Section 3.3 'The Street/Road Interface' of Queensland Streets 1998 Edition.</p>
<p>(15) The street network has a clear structure and component streets conform to their function in the network.</p>	<p>(15) Streets link with other streets that are no more than one level higher in the hierarchy.</p>
<p>(16) The layout of the street network has clear physical distinctions between each type of street, based on function, economy, convenience, traffic volumes, vehicle speeds, public safety, amenity and in the case of commercial or industrial development, parking demand.</p>	<p>(16) The street network reflects the characteristics outlined in Appendix C.</p>

<sup>5</sup> Refer to Department of Transport and Main Roads, Code of Practice Road Traffic Noise, for the road traffic noise criteria.



Table 12.5.2 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions														
<p><b>NOTE 12</b></p> <p>(1) For major subdivisions, incorporating multiple residential uses, the street network is to be considered under two scenarios, namely—</p> <p>(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.</p> <p>(ii) Preferably such uses will be located adjacent to the Road or Major Collector Street system (i.e. 'downstream' of the conventional residential areas).</p> <p>(iii) Multiple residential uses may have direct access to Major Collector Streets, subject to appropriate detailed design of access and sound attenuation measures.</p> <p>(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 (i.e. Section 10 of Queensland Streets 1998 Edition) apply.</p> <p>(2) For major subdivisions, Major Collector are part of the 'Street System' and hence the swale drain option as outlined in Queensland Streets 1998 Edition is not considered appropriate as this design standard is to be used to typify the 'Traffic Route' status of the road system. (On the other hand, Internal Connecting Roads will generally be rural in character so the swale drain option may be utilised.)</p> <p>(3) In certain situations the local government may require the street system within a development to be upgraded in hierarchy or relocated or redesigned so that it is capable of serving other land within the vicinity of the development.</p> <p>(4) In these cases, the specific location of the street is to be a major consideration in the design of the lot layout to ensure that the most satisfactory location is obtained in respect of both planning and engineering requirements.</p> <p>(5) For major subdivisions, where a developer provides land for the purpose of an industrial collector or major collector street or constructs the industrial collector or major collector street to also serve other premises in the vicinity, the developer is entitled to infrastructure credit (offset) as outlined in the Ipswich Adopted Infrastructure Charges Resolution.</p>															
(17) The design features of each type of street encourage driver behaviour appropriate to the primary function of the street in the network.	(17) There are no recommended Probable Solutions for this specific outcome as each situation requires an individual approach.														
(18) Intersections are spaced to create safe and convenient vehicle movements.	<p>(18) Intersections are spaced in accordance with Section 2.11 'Intersections' of Queensland Streets 1998 Edition.</p> <p><b>NOTE 13</b></p> <p>(1) Driveway access points should not be provided on roundabout/channelisation approaches and this matter should be addressed as part of the detailed design process.</p> <p>(2) The minimum truncation distance of the real property boundary at an intersection between the following street types is to be—</p> <table> <tr> <td>Access Place to Access Street</td><td>3.5 m</td></tr> <tr> <td>Access Place/Access Street to Collector Street</td><td>4.0 m</td></tr> <tr> <td>Access Street/Collector Street to Major Collector Street</td><td>6.0 m</td></tr> <tr> <td>Collector/Major Collector Streets to Designated Roads (major subdivisions only)</td><td>8.0m</td></tr> <tr> <td>Local Industrial Street to Local Industrial Street</td><td>8.0 m</td></tr> <tr> <td>Local Industrial Street to Industrial Collector</td><td>8.0 m</td></tr> <tr> <td>Industrial Collector to Designated Road (major subdivision only)</td><td>10.0m</td></tr> </table> <p>(3) 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.</p> <p>(4) 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.</p> <p>(5) The area truncated is to be dedicated as road reserve free of cost to, or compensation by, the local government.</p>	Access Place to Access Street	3.5 m	Access Place/Access Street to Collector Street	4.0 m	Access Street/Collector Street to Major Collector Street	6.0 m	Collector/Major Collector Streets to Designated Roads (major subdivisions only)	8.0m	Local Industrial Street to Local Industrial Street	8.0 m	Local Industrial Street to Industrial Collector	8.0 m	Industrial Collector to Designated Road (major subdivision only)	10.0m
Access Place to Access Street	3.5 m														
Access Place/Access Street to Collector Street	4.0 m														
Access Street/Collector Street to Major Collector Street	6.0 m														
Collector/Major Collector Streets to Designated Roads (major subdivisions only)	8.0m														
Local Industrial Street to Local Industrial Street	8.0 m														
Local Industrial Street to Industrial Collector	8.0 m														
Industrial Collector to Designated Road (major subdivision only)	10.0m														



Table 12.5.2 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
<p>(19) The street network provides—</p> <ul style="list-style-type: none"> <li>(a) convenient movement for residents between their homes and Designated Roads; and</li> <li>(b) for commercial or industrial development, convenient movement for vehicles (including heavy vehicles).</li> </ul>	<p>(19) (a) For residential development, the driving distance from any dwelling to a Designated Road or Major Collector Street is no more than 700 metres (or 2,000 metres for 'Large Lot' Residential Development).</p> <p>(b) No more than three intersections are required to be negotiated in order to travel from any home to the most convenient collector street or Designated Road.</p> <p>(c) All precincts of more than 100 lots/dwellings are provided with an alternative street access.</p> <p><b>NOTE 14</b> Within 'Bushfire Risk Areas' all lots are provided with an alternative street access.</p> <p>(d) For industrial development, the subdivision layout should use culs-de-sac only when unavoidable.</p> <p>(e) For both residential and industrial development the cul-de-sac length should be as short as possible and the turning area should provide for a single movement turn (refer to Section 9.12 'Turning Areas' of Queensland Streets 1998 Edition) based on the typical manoeuvring areas for Council's design garbage truck.</p> <p><b>NOTE 15</b></p> <p>(1) 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).</p> <p>(2) The turning area is to be capable of accommodating most vehicles with a single movement turn based on a minimum turning circle of a minimum 9m radius.</p> <p>(3) Circular turning heads are preferred and "T" and "Y" shaped turning heads are generally not to be used.</p> <p>(4) Generally a pathway 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.</p> <p>(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).</p>
<p>(20) For major subdivisions—</p> <ul style="list-style-type: none"> <li>(a) There is provision for bus routes which are direct and safely accessible by foot from all dwellings, activity centres, commercial centres or industrial estates and which provide links with external areas and are efficient to operate.</li> <li>(b) Streets carrying bus routes provide for ease of movement of buses between residential neighbourhoods and for links to centres within and external to the neighbourhood without complicated turning manoeuvres.</li> <li>(c) The alignment of the streets that form the bus route allow for efficient and unimpeded movement of buses without facilitating high traffic speeds.</li> <li>(d) The street 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.</li> </ul>	<p>(20) (a) Where a Land Use Concept Master Plan, Town Centre Concept Plan or other Plan of Development exists, public transport routes conform with that plan.</p> <p>(b) At least 90% of dwellings or businesses are within 400m walking distance from an existing or potential bus route (or 500m walking distance of a bus stop where identified), or 200m walking distance from an existing or proposed demand-responsive public transport route.</p> <p>(c) Where bus routes link residential neighbourhoods or employment areas across any road or street which carries in excess of 6,000 vpd, the intersection is designed as a roundabout/traffic signals or enables a left turn into the road from one neighbourhood followed by a right turn from the road into the adjoining residential neighbourhood.</p> <p>(d) Bus routes linking residential areas with employment areas are designed as a transit only link to prevent use of the link by through traffic.</p>



Table 12.5.2 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
<p>(e) Bus stops are located—</p> <ul style="list-style-type: none"> <li>(i) to provide for pedestrian safety, security, comfort and convenience;</li> <li>(ii) to be able to be overlooked from nearby buildings;</li> <li>(iii) to be in keeping with the character of the locality; and</li> <li>(iv) for residential development, to minimise adverse impact on the amenity of nearby dwellings.</li> </ul> <p><b>NOTE 16</b></p> <p>(1) A network of public transport routes should be provided that takes account of—</p> <ul style="list-style-type: none"> <li>(a) projected travel demand;</li> <li>(b) distribution of likely demand;</li> <li>(c) scale and time of demand;</li> <li>(d) characteristics of travellers;</li> <li>(e) travel time;</li> <li>(f) operating characteristics;</li> <li>(g) cost of providing the service;</li> <li>(h) route location and design.</li> </ul> <p>(2) For residential lot reconfigurations, section 3.5 'New Residential Subdivisions' and section 3.6 'Medium Density Developments' of the 'Shaping Up' guidelines provide some practicable applications (the do's and don'ts) for encouraging a more public transport focus within the residential environment.</p> <p>(3) For commercial and industrial lot reconfigurations, section 3.2 'Business and Activity Centres', section 3.3 'Existing Public Transport Interchanges', section 3.4 'New Public Transport Interchanges' and section 3.7 'Business Centre Intersections' of the 'Shaping Up' guidelines provide some practicable applications (the do's and don'ts) for encouraging a public transport focus at these activity centres.</p>	<p>(e) For streets within residential areas, routes for regular bus services comply with the following standards for bus routes—</p> <ul style="list-style-type: none"> <li>(i) Street Carriageway Widths Two-Way: 7.50m</li> <li>(ii) Minimum Geometric Layout R12.5m for Single Bus Unit</li> </ul> <p><b>NOTE 17</b></p> <p>Some routes may require geometry to suit an articulated bus.</p> <ul style="list-style-type: none"> <li>(iii) Roundabouts Maximum Desirable Pavement Crossfall: 3% Maximum Desirable Gradient: 6%</li> <li>(f) 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 spacings where the route serves industrial uses.</li> <li>(g) The siting of bus stops is, where possible, coincident to the pedestrian path network.</li> </ul>
<p>(21) (a) The street layout facilitates walking and cycling within the residential neighbourhood and to activity centres without encouraging external traffic into the residential neighbourhood.</p> <p>(b) The street and path network provides an overall network of pedestrian routes and routes for cyclists, with connections to adjoining streets, open spaces, neighbouring residential areas and activity centres.</p> <p>(c) The location of paths is 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.</p> <p>(d) Pedestrian paths and cycleways are located where there is casual surveillance and potential for the areas to be well lit.</p> <p>(e) Pedestrian, cycle and vehicular movement systems are co-located to encourage maximum surveillance of public areas.</p>	<p>(21) (a) For major subdivisions, the cycleway network is located and provided as outlined in the Ipswich iGO Active Transport Action Plan or Ipswich Public Parks Strategy or where an approved Land Use Concept Master Plan or Town Centre Concept Plan or other Plan of Development exists, pedestrian/cyclist paths.</p> <p><b>NOTE 18</b></p> <p>No direct residential street link should be provided between an adjacent residential area and an industrial estate/major commercial centre, instead a pathway only link is to be provided.</p> <ul style="list-style-type: none"> <li>(b) Footpaths and cyclepaths are provided as specified in Appendices D, E, F and G.</li> <li>(c) Footpaths in culs-de-sac are to extend around the full extent of the cul-de-sac head and comply with the requirements shown in Diagram A, below.</li> </ul>



Table 12.5.2 continued

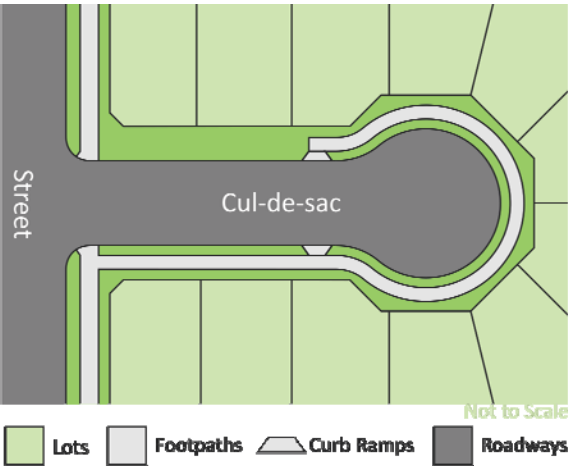
Column 1 Specific Outcomes	Column 2 Probable Solutions
<p><b>NOTE 19 (FOR MAJOR SUBDIVISIONS ONLY)</b></p> <p>(1) A network of pedestrian ways and cycle routes is provided having regard to—</p> <ul style="list-style-type: none"> <li>(a) the need to encourage walking and cycling;</li> <li>(b) likely users (e.g. school children, parents with prams, the aged, people with disabilities, commuters and recreational cyclists);</li> <li>(c) opportunities to link open space networks and community facilities, public transport stations/stops, local activity centres, schools and neighbourhood areas;</li> <li>(d) topography;</li> <li>(e) cyclist and pedestrian safety, in particular whether there is any casual surveillance/passing traffic adjacent to the pathway; and</li> <li>(f) cost effective provision.</li> </ul> <p>(2) For residential lot reconfigurations, section 3.5 'New Residential Subdivisions' and section 3.6 'Medium Density Developments' of the 'Shaping Up' guidelines provide some practicable applications (the do's and don'ts) for encouraging a pedestrian and cycling oriented environment.</p> <p>(3) For commercial and industrial lot reconfigurations, section 3.2 'Business Activity Centres', section 3.3 'Existing Public Transport Interchanges', section 3.4 'New Public Transport Interchanges' and section 3.7 'Business Centre Intersections' of the 'Shaping Up' guidelines provide some practicable applications (the do's and don'ts) for encouraging a pedestrian and cycling focus at these activity centres.</p>	<p><b>Diagram A</b></p>  <p>(d) For residential development, pedestrian/cyclist connections are provided between the ends of culs-de-sac, from streets to open space areas, or from streets to Designated Roads (refer section 4.5 of Queensland Streets 1998 Edition).</p> <p>(e) For commercial or industrial development pedestrian/cyclist connections are provided from local industrial streets to industrial collectors, to residential streets or to Designated Roads.</p> <p><b>NOTE 20</b></p> <p>(1) Pathway connections are to be concrete paved (full width of reserve) and suitably drained and may incorporate overland drainage flow corridors.</p> <p>(2) The construction of footpaths, cycleways or dual use paths should be delayed until all utilities have been installed.</p>
<p>(22) The street layout and design—</p> <ul style="list-style-type: none"> <li>(a) takes account of the topography (especially steep land) and significant vegetation;</li> <li>(b) avoids steep slopes (i.e. greater than 15%) so as to minimise landscape disturbance and vegetation loss;</li> <li>(c) avoids penetrating and fragmenting large tracts of remnant vegetation;</li> <li>(d) respects and protects places of cultural significance or streetscape value;</li> <li>(e) takes advantage of opportunities for views and vistas;</li> <li>(f) takes account of streetscapes that may be created or that already exist;</li> <li>(g) permits the establishment of streetscapes that blend with existing streetscapes or comply with any approved public streetscape plan;</li> </ul>	<p>(22) There are no recommended probable solutions for this specific outcome as each situation requires an individual approach.</p>



Table 12.5.2 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
<p><b>NOTE 21</b></p> <p>The streetscape is to achieve—</p> <ul style="list-style-type: none"> <li>(a) the creation of attractive residential, commercial or industrial streetscape environments with clear character and identity;</li> <li>(b) respect for existing attractive streetscapes in established areas;</li> <li>(c) appropriate streetscapes in areas where desired future character has been defined;</li> <li>(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;</li> <li>(e) use of such features of the site as views, vistas, existing vegetation, landmarks and places of cultural heritage significance.</li> </ul> <ul style="list-style-type: none"> <li>(h) where practical, is orientated to promote efficient solar access for dwellings;</li> <li>(i) takes account of natural drainage and open space systems;</li> <li>(j) avoids crossing drainage features or open space areas, particularly for access places and access streets;</li> <li>(k) is located, designed and managed to enhance the habitat and corridor requirements of native wildlife (plants and animals);</li> <li>(l) locates the streets to the least environmentally sensitive sites;</li> <li>(m) avoids extensive use of cut and fill;</li> <li>(n) avoids important stands of vegetation to minimise the loss of important trees or ecosystems;</li> <li>(o) maintains interlocking tree canopies over fauna corridors, where possible, to allow for the movement of arboreal fauna and birds;</li> <li>(p) narrows the width of the carriageway or provides a wildlife underpass/bridge where it crosses wildlife movement corridors, such as riparian zones;</li> <li>(q) at known wildlife crossing points, streets are narrowed and appropriate pavement surfacing, lighting, signage and fencing are provided to reflect the low-speed environment;</li> <li>(r) 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, creates safe conditions for road users and for major subdivisions, limit the length of time local drivers need to spend in a low-speed environment;</li> <li>(s) for residential development, traffic speeds and volumes are restrained through such measures as— <ul style="list-style-type: none"> <li>(i) limiting street length;</li> <li>(ii) introducing bends;</li> <li>(iii) introducing slow points; and</li> <li>(iv) intersections;</li> </ul> </li> </ul>	
<p><b>NOTE 22</b></p> <p>Any measures used to limit traffic speeds and volumes—</p> <ul style="list-style-type: none"> <li>(a) take into account the needs of street users and convenience of access by local residents (including not requiring local traffic to negotiate unnecessary complicated routes);</li> <li>(b) avoid stop-start conditions, unacceptable traffic noise to adjoining dwellings and devices which reduce the convenience or safety levels for cyclists and pedestrians.</li> </ul>	





Table 12.5.2 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
<ul style="list-style-type: none"> <li>(t) for major subdivisions, ensure that traffic generated by a development is within the acceptable environmental capacity of the street network;</li> <li>(u) 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</li> <li>(v) provides for the cost effective provision of public utilities, including water, sewerage, electricity, telecommunications and gas.</li> </ul>	
(22A) Street networks in areas within 6km of the RAAF Base Amberley runway do not include configurations of light that replicate the appearance of airport runways at night.	(22A) Street networks do not include configurations of light in straight parallel lines 500m – 1000m long, in areas within 6km of the RAAF Base Amberley runway.
(22B) Recessed landscaped areas are to be provided at regular intervals to soften the visual impact of long portions of acoustic or screen fencing along a street or road.	(22B) (a) Where fences are >50m in length, landscaped recesses are to be provided. (b) These are to be a minimum of 1.5m deep, and comprise 10% of the total length of the fence.
(22C) Where a secondary frontage is located along a road with no vehicular or pedestrian access and an acoustic fence or barrier is to be provided, the fence or barrier is screened by low maintenance landscaping in the road reserve.  <b>NOTE 23</b> (a) The type, location and management of plantings must promote public safety by avoiding concealment areas and optimising informal surveillance. (b) For further information relating to low maintenance plantings refer to the Ipswich Streetscape Design Guideline.	(22C) (a) Low maintenance plantings are provided to improve visual amenity and discourage vandalism. (b) High maintenance plantings or turf are avoided.
(22D) Where a secondary frontage is to a road with no vehicular access and an acoustic fence or barrier is not required, the secondary frontage has fences which are designed to – (a) enable appropriate pedestrian access from the secondary frontage; (b) provide visual interest and appeal through form, articulation or detailing and landscaping; and (c) facilitate appropriate maintenance of the road reserve.  <b>NOTE 24</b> (a) Plantings and landscaping must promote public safety by avoiding concealment areas and optimising informal surveillance. (b) For further information relating to low maintenance plantings refer to the Ipswich Streetscape Design Guideline.	(22D) (a) Landscaping in the road reserve includes turf or low maintenance plantings; and (b) A pedestrian gateway to and from the external road network to each lot is provided; and (c) Fences have a maximum height of— (i) 1.2m high if of solid appearance; or (ii) 1.8m high if the fence has openings or materials which make it not less than 30% transparent; or (iii) 1.8m high if the fence has a solid appearance to 1.2m high and comprises a transparent element to 600mm (50% transparent solid to openings) for the top portion of the fence as shown in Diagram B.

DIAGRAM B

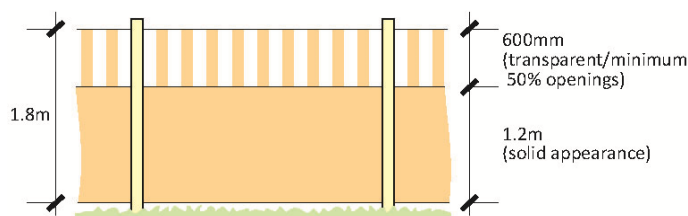




Table 12.5.2 continued

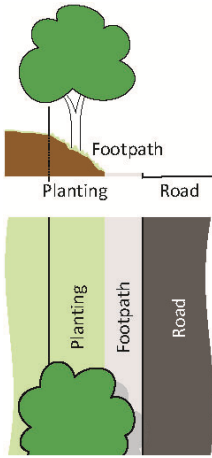
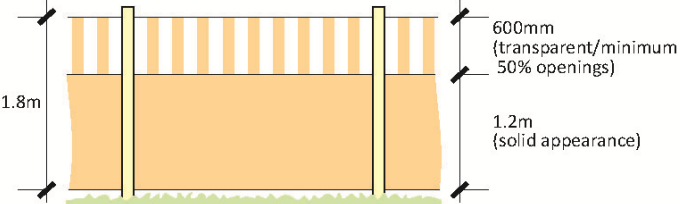
Column 1 Specific Outcomes	Column 2 Probable Solutions
<p>(22E) Where a secondary frontage is to a road with no vehicular access and where topography or the gradient makes maintenance of and access to the secondary frontage difficult to achieve, fences, walls and landscaping are designed to—</p> <ul style="list-style-type: none"> <li>(a) provide visual interest and appeal through form, articulation or detailing;</li> <li>(b) reduce the need for maintenance of the road reserve by providing low maintenance landscaping in the road reserve;</li> <li>(c) provide for casual surveillance of the road.</li> </ul> <p><b>NOTE 25</b></p> <ul style="list-style-type: none"> <li>(a) Plantings and landscaping must promote public safety by avoiding concealment areas and optimising informal surveillance.</li> <li>(b) For further information relating to low maintenance plantings refer to the Ipswich Streetscape Design Guideline.</li> </ul>	<p>(22E) (a) The road reserve incorporates low maintenance plantings only and high maintenance plantings or turf is avoided;</p> <p>(b) The footpath may be sited at the back of the kerb as shown in Diagram C, below; and</p> <p>(c) Fences have a maximum height of—</p> <ul style="list-style-type: none"> <li>(i) 1.2m high if of solid appearance; or</li> <li>(ii) 1.8m high if the fence has openings or materials which make it not less than 30% transparent; or</li> <li>(iii) 1.8m high if the fence has a solid appearance to 1.2m high and comprises a transparent element to 600mm (50% transparent solid to openings) for the top portion of the fence as shown in Diagram D.</li> </ul> <p style="text-align: center;"><b>DIAGRAM C</b></p>  <p style="text-align: center;"><b>DIAGRAM D</b></p> 
<p>(23) Streets and lots are located so that dwellings are not subject to unacceptable levels of traffic noise.</p>	<p>(23) (a) Traffic noise in residential streets does not exceed 55 dB(A) L10 at the affected facade of dwellings.</p> <p>(b) For 'Large Lot' Residential Development, acceptable noise levels at potential house sites is achieved in accordance with Table 8.5A of Section 8 'Rural Residential Streets' of Queensland Streets 1998 Edition.</p>
<p>(24) The design of each type of street conveys the street's primary function and the street reserve width is sufficient to cater for all street functions, including—</p> <ul style="list-style-type: none"> <li>(a) safe and efficient movement of all users, including pedestrians and cyclists;</li> <li>(b) provision for parked vehicles;</li> <li>(c) provision of landscaping; and</li> <li>(d) location, construction and maintenance of public utilities.</li> </ul>	<p>(24) (a) The following street components for each type of street are as specified in Appendices D, E, F and G—</p> <ul style="list-style-type: none"> <li>(i) carriageway widths;</li> <li>(ii) verge widths;</li> <li>(iii) street reserve widths;</li> <li>(iv) parking within the street reserve;</li> <li>(v) provision for parking lanes;</li> <li>(vi) kerb type;</li> <li>(vii) pedestrian and cyclist facilities;</li> <li>(viii) longitudinal gradients.</li> </ul>



Table 12.5.2 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
	<p><b>NOTE 26</b></p> <p>(1) The Local Government will determine those design features and street components, based on the street components specified in Appendices D, E, F and G with frontage works based on the specifications outlined in Planning Scheme Policy 3—General Works and standards in Part 13—Local Government Infrastructure Plan for trunk infrastructure, that are to apply where—</p> <p>(a) an existing, dedicated street, fronting or gaining access to the proposed reconfigured lot is required; or</p> <p>(b) a new street is proposed to be constructed along the common boundary of land in two or more ownerships.</p> <p>(2) The verge width may need to be increased when required to allow space for larger-scale landscaping, utility services, future carriageway widening, retaining walls, cycle paths, footpaths or dual use paths.</p> <p>(3) In residential streets the verge width may also need to be increased to allow space for noise attenuation works, indented parking and to enable adequate width to be maintained around slow points.</p> <p>(4) Where street grades in excess of 12% (residential) or 6% (commercial or industrial) are proposed, the number of lot frontages to that section should be limited.</p> <p>(5) Where frontage to steep grades is proposed, the feasibility of gaining safe property access/egress is to be demonstrated.</p> <p>(6) The location, design and construction of frontage and streetworks are to be in accordance with the requirements and specifications outlined in Planning Scheme Policy 3—General Works.</p> <p>(b) All frontage and street construction works are to be in place or sufficient security provided before the Plan of Subdivision is approved by the local government.</p>
<p>(25) Provision of on-street carparking to ensure—</p> <p>(a) for residential development—</p> <p>(i) convenience and safety for users;</p> <p>(ii) the efficient use of car spaces;</p> <p>(iii) compatibility with the street's function; and</p> <p>(iv) the achievement of relevant streetscape outcomes; and</p> <p>(b) for commercial or industrial development—</p> <p>(i) sufficient and convenient short-term parking to accommodate vehicles not catered for on-site;</p> <p>(ii) parked vehicles do not obstruct the passage of vehicles on the carriageway or create traffic hazards.</p> <p><b>NOTE 27</b></p> <p>For residential development, the provision of on-street carparking should be assessed according to projected needs which are determined by—</p> <p>(a) the number of lots and dwelling units proposed;</p> <p>(b) availability of public transport;</p> <p>(c) the provision of on-site car parking;</p> <p>(d) locations of non-residential uses such as schools and local shops; and</p> <p>(e) the occasional need for overflow parking.</p>	<p>(25) (a) For residential development, provision within the street reserve of areas sufficient to provide 0.5 spaces per single residential lot or dual occupancy lot and parking spaces per dwelling for other residential uses as outlined in Table 10.5B of Queensland Streets 1998 Edition.</p> <p>(b) For industrial development, provision within the carriageway of parking lanes on both sides of all Industrial Streets, with widths as outlined in Appendix G.</p> <p>(c) For residential development, one car space is available within 25m of each single residential or dual occupancy lot.</p> <p>(d) For residential lots with a frontage of 9m to 12m, provision is made on-street for at least one visitor car parking space in front of each lot.</p> <p>(e) For multiple residential uses, on-street parking is located within 40m of the lot.</p> <p>(f) For residential development, the dimensions of on-street carparking spaces and access comply with the requirements outlined in the Parking Code as applicable to on-site parking.</p>



Table 12.5.2 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
	<p><b>NOTE 28</b></p> <p>(1) For single residential or dual occupancy uses, on-street carparking spaces may either be provided on the carriageway (in which case provision shall be made for vehicle passing in accordance with Section 2.5 'Provision for Passing' of Queensland Streets 1998 Edition) or in constructed bays within the verge.</p> <p>(2) For multiple residential uses, on-street carparking spaces may be either parallel or angle provided within the carriageway and designed in accordance with Section 10.5 'Parking' of Queensland Streets 1998 Edition.</p> <p>(3) For industrial development, within turning areas at least 20 metres of kerb frontage is to be provided for each lot for access and on-street parking.</p> <p>(4) The "credit" for tandem parking as cited in Queensland Streets 1998 Edition for single residential or dual occupancy uses having frontage to Access Streets and Access Places does not apply for development within Ipswich City.</p> <p>(5) The "credit" for Tandem Parking for single residential or dual occupancy uses having frontage to access streets and access places will only apply where there is a 6 metre setback between a garage/carport and the property boundary.</p>
<p><b>Public Open Space</b></p> <p>(26) Parks—</p> <p>(a) are provided in the general locations as outlined in Part 13—Local Government Infrastructure Plan and Map 1 in Schedule 7;</p> <p>(b) provide opportunities for casual surveillance;</p> <p>(c) are, with the exception of linear or waterside parkland, easily visible from the street;</p> <p>(d) are located away from excessive noise;</p> <p>(e) 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.</p> <p><b>NOTE 29</b></p> <p>As an aid in determining whether parkland dedications could be required for any proposed lot reconfiguration the explanatory note detailed in Appendix H should be used.</p>	<p><b>Public Open Space</b></p> <p>(26) (a) Where a Land Use Concept Master Plan, Town Centre Concept Plan, Open Space Master Plan or other Plan of Development exists, public open space is provided in accordance with that plan.</p> <p>(b) In those lot reconfigurations where it is proposed that parkland be secured—</p> <p>(i) land dedications are provided (and are indicated on the Plan of Subdivision); and</p> <p>(ii) the areas of public open space are appropriate for their intended purpose; and</p> <p><b>NOTE 30</b></p> <p>Reference should be made to the issues outlined in the section entitled 'criteria for on-site land dedication' in Appendix H – Land Dedications for Public Parks.</p> <p>(iv) the land is not constrained by encumbrances from providing public recreation uses; and</p> <p><b>NOTE 31</b></p> <p>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.</p> <p>(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</p>



Table 12.5.2 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
	<p>(v) for linear or waterside parkland—</p> <p>(A) the lot layout aligns the parkland reserve along the river or creek edge;</p> <p>(B) the extent of the parkland correlates with the adopted flood level or is a minimum width of 30 metres (measured from the banks of the watercourse) or as much in addition to the 30 metres to achieve at least a 10 metre width with slopes less than 1 in 20 (5%) to enable construction of a walking/bicycle path and to facilitate maintenance; and</p> <p>(C) the land is stable and useable for recreation and pedestrian/cycle movement, within the broader functions of drainage, conservation and visual amenity.</p> <p><b>NOTE 32</b></p> <p>(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.</p> <p>(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.</p> <p>(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.</p> <p>(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.</p>
<p><b>Utilities</b></p> <p>(27) Cost effective and environmentally sustainable utilities (including effluent treatment and disposal, water, electricity, gas, street lighting and communication services) are provided to each lot.</p>	<p><b>Utilities</b></p> <p>(27) (a) Provision is made for the—</p> <p>(i) reticulation of water supply to each lot;</p> <p>(ii) reticulation of sewerage to each lot. For Homestead or Township lots (including unsewered township commercial or industrial lots), measures to treat and dispose of effluent on-site in compliance within the Plumbing and Drainage Act 2002 and the Queensland Plumbing and Wastewater Code;</p> <p>(iii) supply of electricity (and where applicable the supply of natural gas) to each lot;</p> <p>(iv) supply of telecommunication services to each lot; and</p> <p>(v) installation of street lighting on that side of the street or road as the existing or planned location of the footpath.</p>



Table 12.5.2 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
<p><b>NOTE 33</b></p> <p>(1) Applicants should determine the likely demand for water from the final development layout – not just the first stage of development.</p> <p>(2) At an early stage, applicants should obtain advice on existing system heads and reserve capacity at the nominated point of connection.</p> <p>(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.</p> <p>(4) Adequate water supply for fire fighting purposes is to be provided.</p> <p>(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.</p> <p>(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, commercial or industrial development.</p> <p>(7) For Homestead or Township Lots (including unsewered township commercial or industrial lots) all sullage and septic waste water is to be capable of being treated and disposed of on-site without it entering any adjoining premises, stormwater system or watercourse and without ponding or causing a health nuisance.</p>	<p><b>NOTE 34</b></p> <p>(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.</p> <p>(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.</p> <p>(3) Where development is staged, each stage is to be fully serviced before a new stage is released.</p> <p>(4) Adequate buffers or separation distances are maintained between utilities and dwellings to protect residential amenity and public health.</p> <p>(b) All utilities are to be in place or sufficient security provided before the Plan of Subdivision is approved by the local government.</p>
<p><b>Stormwater Drainage</b></p> <p>(28) The major stormwater drainage system—</p> <p>(a) has the capacity to safely convey stormwater flows resulting from the adopted design storm under normal operating conditions;</p> <p>(b) is located and designed to ensure that there are no flow paths that would increase risk to public safety and property;</p> <p>(c) is to maximise community benefit through the retention of natural streams and vegetation wherever practicable, the incorporation of parks and other less flood-sensitive land uses into the drainage corridor and the placement of detention basins for amenity and function.</p> <p><b>NOTE 35</b></p> <p>(1) The essential drainage considerations for issuance of an approval to reconfigure a lot are—</p> <p>(a) that the proposed development, as a whole, can actually be drained;</p> <p>(b) that the stormwater management system can mimic (and use) the features and functions of the natural drainage system which is largely capital, energy and maintenance cost free;</p> <p>(c) that the volume, timing, velocity and pollutant load of stormwater discharged from the subdivision will closely approximate the conditions which occur before development;</p>	<p><b>Stormwater Drainage</b></p> <p>(28) (a) The design of the major stormwater drainage system is—</p> <p>(i) in accordance with the individual adopted Drainage Master Plans or where no Drainage Master Plan exists the major drainage system is designed to safely convey stormwater flows under normal operating conditions for the 1% AEP + climate change;</p> <p><b>NOTE 36</b></p> <p>The major drainage system design is based on the provisions of QUDM and Planning Scheme Policy 3—General Works.</p> <p>(ii) matched to the conditions which occurred before development;</p> <p><b>NOTE 37</b></p> <p>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 1% AEP + climate change runoff in these paths.</p> <p>(iii) to be sufficient to hydraulically convey this design flow (1% AEP + climate change) through the subdivision to the lawful point of discharge; and</p> <p>(b) The width of the drainage path is—</p> <p>(i) sufficient to contain design flows; and</p> <p>(ii) allow maintenance access.</p>



Table 12.5.2 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
<p>(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);</p> <p>(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, as outlined in the Strategic Plan, to ensure that no worsening will occur as a result of the proposed development on the land; and</p> <p>(f) that suitable provision has been made in the lot layout to accommodate Major Drainage (as defined in QUDM).</p> <p>(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.</p> <p>(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).</p> <p>(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.</p>	
<p>(29) All lots are located above the adopted flood level to provide protection of property in accordance with the accepted level of risk.</p>	<p>(29) (a) All Cottage Lots, Courtyard Lots, Traditional Lots, Hillside Lots and Dual Occupancy Lots are located outside the adopted flood regulation line and urban catchment flow paths.</p> <p>(b) For Homestead or Township Lots, an area which is suitable for a building platform comprising at least 600m<sup>2</sup> of each lot is to be located outside the adopted flood regulation line and urban catchment flow paths. Also, an additional area is to be available on each lot that is suitable to treat and dispose of effluent on-site in compliance with the Plumbing and Drainage Act 2002 and the Queensland Plumbing and Wastewater Code.</p> <p>(c) All multiple residential lots, commercial lots, mixed business and industry lots and industrial lots are located above the adopted flood level for the respective zone or Sub Area.</p> <p><b>NOTE 38</b></p> <p>(1) Those areas of residential lots below the adopted flood level for the applicable zone or Sub Area which are affected by a 'significant flood flow' are to be subject to a drainage easement.</p> <p>(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.</p>



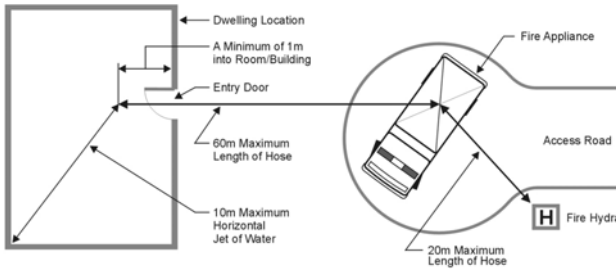
Table 12.5.2 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
<p>(30) Design of the lot layout provides for—</p> <ul style="list-style-type: none"> <li>(a) drainage which does not cause damage or nuisance flows to adjoining properties;</li> <li>(b) a drainage system that can be economically maintained;</li> <li>(c) maximum use of on-site infiltration;</li> <li>(d) the safety and convenience of people using the site; and</li> <li>(e) for homestead lots or township lots, any dams are to be wholly located within lot boundaries.</li> </ul>	<p>(30) (a) Lot drainage is to be directed into the street drainage system.</p> <p><b>NOTE 39</b></p> <ul style="list-style-type: none"> <li>(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.</li> <li>(2) The procedure for both providing and protecting Inter Lot Drainage is outlined in Planning Scheme Policy 3—General Works.</li> </ul> <p>(b) For homestead lots or township lots, the high water level of any dam and the top and toe of all dam walls and embankments are not to be closer than 2 metres to any lot boundary.</p>
<p>(31) The stormwater drainage system—</p> <ul style="list-style-type: none"> <li>(a) minimises the environmental impact of urban run-off on surface receiving water quality and on other aspects of the natural environment;</li> <li>(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;</li> <li>(c) ensures the continuation, in healthy condition, of a wide diversity of wetland environments in the urban landscape;</li> <li>(d) ensures that 'first flush' diversion or treatment systems are able to be installed to lessen the impact of shock pollution loadings to receiving waters;</li> <li>(e) optimises the integration of stormwater infrastructure with open space management objectives.</li> </ul>	<p>(31) (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.</p> <p>(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.</p>
<p><b>Fire Fighting</b></p> <p>(32) Lots are designed with adequate water supply and access for fire fighting purposes.</p>	<p><b>Fire Fighting</b></p> <p>(32) Either—</p> <ul style="list-style-type: none"> <li>(a) (i) fire hydrants are located no further than 80m apart within road reserves; and</li> <li>(ii) all dwellings are able to be located within the fire appliance access distances shown in Diagram E below; or</li> <li>(b) building envelopes are created on new lots such that the building envelope meets the fire appliance access distances shown in Diagram E below; or</li> <li>(c) (i) the water supply service to a hatchet lot is sized for the provision of fire fighting flows via a hydrant and a metered bypass across a check valve in accordance with AS2419.1 and a fire hydrant and building envelope are provided to meet the fire appliance access distances shown in Diagram E below; and</li> <li>(ii) vehicular access to the lot is via— <ul style="list-style-type: none"> <li>(A) a minimum 3 metre wide concrete driveway;</li> <li>(B) with a minimum 3 metres in horizontal clearance and 4.5 metres in vertical clearance; and</li> <li>(C) with a maximum gradient of 15%; or</li> </ul> </li> </ul>





Table 12.5.2 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
	<p style="text-align: center;"><b>DIAGRAM E</b></p>  <p>(d) (i) where reticulated water supply is not available, a minimum water supply of 5000 litres (per dwelling) is permanently available on site for fire fighting purposes as either—</p> <ul style="list-style-type: none"> <li>(A) a separate onsite water tank; or</li> <li>(B) a reserve section in the bottom part of the main water supply tank; or</li> <li>(C) a swimming pool installed immediately upon construction of the dwelling; or</li> <li>(D) a dam or lake; and</li> </ul> <p>(ii) where onsite water supply tanks are provided they are—</p> <ul style="list-style-type: none"> <li>(A) above ground and located adjacent to the building;</li> <li>(B) fitted with a 50mm outlet pipe and a 50mm male camlock coupling (standard rural fire brigade fitting) to allow fire hose connection; and</li> <li>(C) of precast concrete or steel construction and supported by a fireproof structure; and</li> </ul> <p>(iii) vehicular access to the lot is via—</p> <ul style="list-style-type: none"> <li>(A) a minimum 3 metre wide concrete driveway;</li> <li>(B) with a minimum 3 metres in horizontal clearance and 4.5 metres in vertical clearance; and</li> <li>(C) with a maximum gradient of 15%; or</li> </ul> <p><b>NOTE 40</b></p> <ul style="list-style-type: none"> <li>(1) Hatchet lots should be generally avoided in Large Lot Residential areas (i.e. areas where the average lot size is 4000m<sup>2</sup> or greater) owing to the inherent difficulties associated with providing access to fire hydrants for fire fighting vehicles.</li> <li>(2) Rather than providing access via multiple hatchet lots it is preferable to extend the street network and the associated water mains and fire hydrants.</li> </ul> <p>(e) where there is no other prudent or feasible alternative, the submission of a written acknowledgement from the owner/applicant at the time of lodging a development application that the applicant/owner is aware of the issues in relation to fire fighting, with the ability to convey this information to subsequent purchasers.</p>



### 12.5.5 Specific Outcomes and Probable Solutions for Rural Reconfiguring

- (1) The specific outcomes sought for Rural Reconfiguring for—
- (a) minor rural subdivision are set out in column 1 of Table 12.5.3 and the probable solutions are set out in column 2 of Table 12.5.3; and
  - (b) moderate rural subdivision are set out in column 1 of Table 12.5.4 and the probable solutions are set out in column 2 of Table 12.5.4.

#### NOTE 12.5.5A

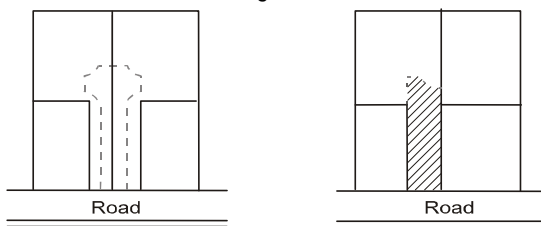
- (1) Table 12.5.3 relates to 'minor rural subdivision'.
- (2) Table 12.5.4 relates to 'moderate rural subdivision'.
- (3) Refer to section 12.5.2(5) for an explanation of the terms 'minor rural subdivision' and 'moderate rural subdivision'.

Table 12.5.3: Specific Outcomes and Probable Solutions for Minor Rural Subdivisions

Column 1 Specific Outcomes	Column 2 Probable Solutions
<p><b>Lot Layout and Design</b></p> <p>(1) Lots (including hatchet lots) have the appropriate area and dimensions to—</p> <ul style="list-style-type: none"> <li>(a) enable the siting and construction of a dwelling and ancillary outbuildings, where for the purposes of rural living;</li> <li>(b) enable the siting and construction of non-residential buildings, where for the purposes of a specific rural use or designated purpose;</li> <li>(c) provide for user requirements, particularly rural producers lots and farm restructuring;</li> <li>(d) take into account the slope of the land, in particular the desirability of minimising earthworks associated with building construction;</li> <li>(e) overcome site constraints (e.g. undermining, flooding, drainage, bushfire risk, buffers to incompatible land uses etc);</li> <li>(f) conserve natural, cultural or special features (e.g. trees, buildings, views etc).</li> </ul> <p><b>NOTE 1</b> The area of a hatchet lot is not to include reference to the access strip (handle of the lot).</p>	<p><b>Lot Layout and Design</b></p> <p>(1) (a) The lot size, frontage and special characteristics for the different rural lot types are as outlined in Appendix I.</p> <p><b>NOTE 2</b> For any special lot characteristic attribute refer to the applicable Zone Code.</p> <p>(b) The requirements for access easements for rural lots are those applicable for hatchet lots [see Probable Solution (3) below].</p>
<p>(2) A reconfiguration of land may produce one or more hatchet lots, provided—</p> <ul style="list-style-type: none"> <li>(a) it is not likely to prejudice the subsequent reconfiguration or use of adjoining land;</li> <li>(b) it is not desirable nor practicable for the subject and adjoining land to be otherwise reconfigured so as to have a frontage to another road which may be subsequently constructed;</li> <li>(c) the siting of buildings on a proposed hatchet lot will not be detrimental to the amenity of the area;</li> <li>(d) existing development of land in the area will not have a detrimental effect on buildings to be sited on the proposed hatchet lots; and</li> <li>(e) there is no reasonable alternative to the hatchet lot having regard to the sites's topography, access, location, shape and size.</li> </ul>	<p>(2) There are no recommended probable solutions for this specific outcome as each situation requires an individual approach.</p>



Table 12.5.3 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
<p><b>NOTE 3</b></p> <p>Unless required by specific site conditions in respect of topography, parcel size, location (especially in relation to creeks and watercourses), access or shape, rural hatchet lots are 'the exception rather than the norm'.</p>	
<p>(3) Hatchet lots—</p> <ul style="list-style-type: none"> <li>(a) do not dominate or intrude within the existing subdivision pattern;</li> <li>(b) provide an access strip capable of accommodating adequate vehicular access and utility services;</li> <li>(c) provide an access strip which does not unduly affect or restrict the use of neighbouring properties.</li> </ul>	<p>(3) (a) The number of hatchet lots is generally limited to one (1) behind any full frontage lot.</p> <p>(b) The access strip is located on only one (1) side of a lot with direct frontage to the street.</p> <p>(c) The shape of the access strip (including the construction of the driveway) conforms with the nature of the terrain and enables a single unit truck to enter and leave the lot in forward gear.</p> <p>(d) The minimum width of the access strip is as follows—</p> <ul style="list-style-type: none"> <li>(i) Rural Living Lots – 10m<sup>(6)</sup>;</li> <li>(ii) Other Rural Lots – 15m<sup>(6)</sup>.</li> </ul> <p><b>NOTE 4</b></p> <p>(1) In spite of the recommended minimum width of the access strip, it must be of sufficient width to accommodate a driveway and utility services.</p> <p>(2) In the case of telecommunications and electricity services, these services are to be provided for the full length of the access strip.</p> <p>(e) The type of reciprocal easements comply with the requirements shown in Diagram A, below.</p> <div style="text-align: center;"> <p><b>Diagram A</b></p>  <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>Road</b></p> <p>In this case the easement is for access purposes with each lot having its own area for utility services and other matters.</p> </div> <div style="text-align: center;"> <p><b>Road</b></p> <p>In this case the easement is for a combination of access purposes, utility services and other matters.</p> </div> </div> </div> <ul style="list-style-type: none"> <li>(f) The minimum width of the constructed (i.e. compacted gravel pavement) driveway in the access strip is four (4) metres.</li> <li>(g) The driveway is to be constructed from the pavement edge for the full length of the access strip.</li> <li>(h) Where reciprocal easement rights are proposed, the driveway is to be a 2 coat bitumen seal for the length over which the reciprocal easement applies to a minimum width of 3 metres on a 5 metre pavement.</li> <li>(i) For rural lots, other than rural living lots, a drainage system is provided so that no part of the driveway is below the adopted flood level.</li> <li>(j) For rural living lots no part of the driveway is below the adopted flood level.</li> </ul>

<sup>6</sup> Where two (2) hatchet lots are proposed, the combined access strip is to be increased by 5 metres to allow for the provision of utility services, driveway construction and other matters, provided reciprocal easement rights are used.



Table 12.5.3 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
<p>(4) A reconfiguration of land may produce a boundary realignment, provided—</p> <ul style="list-style-type: none"> <li>(a) land zoned Rural A (Agricultural) or Rural D (Conservation) is not further fragmented;</li> <li>(b) it does not in itself create a lot or holding below the size for the appropriate type of rural lot within the zone;</li> <li>(c) it improves the 'useability' or lot configuration of the properties.</li> </ul>	<p>(4) There are no recommended probable solutions for this specific outcome as each situation requires an individual approach.</p>
<p><b>Designated Roads</b></p> <p>(5) Access arrangements do not impede the traffic performance of Designated Roads.</p>	<p><b>Designated Roads</b></p> <p>(5) (a) Lots do not have direct vehicle access to the road system unless there are no suitable access alternatives (provided by the street system), in which case vehicle access onto the Designated Road is capable of being made in a forward direction.</p> <p>(b) Any vehicle access is limited to one (1) point only (where direct access to the Designated Road is unavoidable).</p> <p>(c) Any vehicle access is sited to obtain the maximum visibility (i.e. sightlines).</p>
<p><b>Frontage Works and Utilities</b></p> <p>(6) The existing, dedicated street fronting or gaining access to the proposed reconfigured lot is constructed to the specifications outlined in Planning Scheme Policy 3—General Works for the type of street classification fronting the proposed lot.</p>	<p><b>Frontage Works and Utilities</b></p> <p>(6) Where frontage works to an existing, dedicated street, fronting or gaining access to the proposed reconfigured lot are required, they are based on the specifications outlined in Planning Scheme Policy 3—General Works and standards in Part 13—Local Government Infrastructure Plan for trunk infrastructure.</p>
<p>(7) The carriageway width, together with the verge and batter width and crossover dimensions, allow for unobstructed and efficient entry and exit from each lot.</p>	<p>(7) (a) Where access is to a sealed road, the lot is to have a 3 metre, 2 coat bitumen sealed accessway, to the specifications outlined in Planning Scheme Policy 3—General Works, between the pavement edge of the street and the property boundary.</p> <p>(b) Where access is to a gravel road the standards outlined in 7(a) above apply, except for bitumen sealing.</p> <p><b>NOTE 5</b></p> <p>(1) Where street grades in excess of 16% exist, the number of property accesses to that section are to be limited.</p> <p>(2) Where access is proposed, the feasibility of gaining safe property access, paying regard to driveway grade and combined crossfall, is to be demonstrated.</p>
<p>(8) Cost effective and environmentally sustainable utilities (including effluent treatment and disposal, water, electricity and communication services) are provided to each lot.</p> <p><b>NOTE 6</b></p> <p>All sullage and septic waste water is to be capable of being treated and disposed of on-site without it entering any adjoining premises, stormwater system or watercourse and without ponding or causing a health nuisance.</p>	<p>(8) (a) Provision is made for the—</p> <ul style="list-style-type: none"> <li>(i) supply of on-site potable water or, if available, reticulated water supply;</li> <li>(ii) treatment and disposal of effluent on-site in compliance with the Plumbing and Drainage Act 2002 and the Queensland Plumbing and Wastewater Code;</li> <li>(iii) supply of electricity to each lot; and</li> <li>(iv) supply of telecommunication services to each lot.</li> </ul> <p><b>NOTE 7</b></p> <p>The location, design and construction of frontage works, water supply mains and fixtures (where available), electricity and communication services are in accordance with the requirements and specifications outlined in Planning Scheme Policy 3—General Works.</p> <p>(b) All frontage works and utilities are to be in place or sufficient security provided before the Plan of Subdivision is approved by the local government.</p>



Table 12.5.3 continued

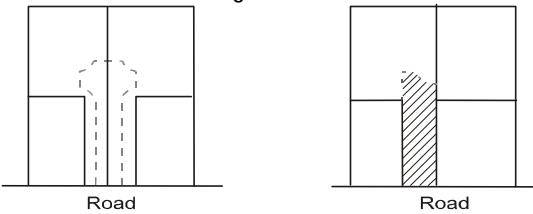
Column 1 Specific Outcomes	Column 2 Probable Solutions
<b>Stormwater Drainage</b> (9) A flood free dwelling site is located above the adopted flood level to provide protection of property in accordance with the accepted level of risk.	<b>Stormwater Drainage</b> (9) Each proposed lot is to contain an area which is suitable for a building platform comprising at least 2000m <sup>2</sup> and located outside the adopted flood regulation line and urban catchment flow paths. Also, an additional area is to be available on each lot that is suitable to treat and dispose of effluent on-site in compliance with the Plumbing and Drainage Act 2002 and the Queensland Plumbing and Wastewater Code.
(10) Design of the site drainage provides for— (a) drainage which does not cause damage or nuisance flows to adjoining properties; and (b) any dams to be wholly located within lot boundaries.	(10) (a) Lot drainage is to be provided by on-site stormwater detention. (b) Where applicable, the high water level of any dam and the top and toe of all dam walls and embankments are not to be closer than 2 metres to any lot boundary.

Table 12.5.4: Specific Outcomes and Probable Solutions for Moderate Rural Subdivisions

Column 1 Specific Outcomes	Column 2 Probable Solutions
<b>Lot Layout and Design</b> (1) Lots (including hatchet lots) have the appropriate area and dimensions to— (a) enable the siting and construction of a dwelling and ancillary outbuildings, where for the purposes of rural living; (b) enable the siting and construction of non-residential buildings, where for the purposes of specific rural use or designated purpose; (c) provide for user requirements, particularly rural producers lots and farm restructuring; (d) take into account the slope of the land, in particular the desirability of minimising earthworks associated with building construction; (e) overcome site constraints (e.g. undermining, flooding, drainage, bushfire risk, buffers to incompatible land uses etc); (f) conserve natural, cultural or special features (e.g. trees, buildings, views etc). <b>NOTE 1</b> The area of a hatchet lot is not to include reference to the access strip (handle of the lot).	<b>Lot Layout and Design</b> (1) (a) The lot size, frontage and special characteristics for the different rural lot types are as outlined in Appendix I. <b>NOTE 2</b> For any special lot characteristic attribute refer to the applicable Zone Code. (b) The requirements for access easements for rural lots are those applicable for hatchet lots [see Probable Solution (3) below].
(2) A reconfiguration of land may produce one or more hatchet lots, provided— (a) it is not likely to prejudice the subsequent reconfiguration or use of adjoining land; (b) it is not desirable nor practicable for the subject and adjoining land to be otherwise reconfigured so as to have a frontage to another road which may be subsequently constructed; (c) the siting of buildings on a proposed hatchet lot will not be detrimental to the amenity of the area; (d) existing development of land in the area will not have a detrimental effect on buildings to be sited on the proposed hatchet lots; and (e) there is no reasonable alternative to the hatchet lot having regard to the sites' topography, access, location, shape and size.	(2) There are no recommended probable solutions for this specific outcome as each situation requires an individual approach.
<b>NOTE 3</b> Unless required by specific site conditions in respect of topography, parcel size, location (especially in relation to creeks and watercourses), access or shape, rural hatchet lots are 'the exception rather than the norm'.	



Table 12.5.4 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
<p>(3) Hatchet lots—</p> <ul style="list-style-type: none"> <li>(a) do not dominate or intrude within the existing subdivision pattern;</li> <li>(b) provide an access strip capable of accommodating adequate vehicular access and utility services;</li> <li>(c) provide an access strip which does not unduly affect or restrict the use of neighbouring properties.</li> </ul>	<p>(3) (a) The number of hatchet lots is generally limited to one (1) behind any full frontage lot.</p> <p>(b) The access strip is located on only one (1) side of a lot with direct frontage to the street.</p> <p>(c) The shape of the access strip (including the construction of the driveway) conforms with the nature of the terrain and enables a single unit truck to enter and leave the lot in forward gear.</p> <p>(d) The minimum width of the access strip is as follows—</p> <ul style="list-style-type: none"> <li>(i) Rural Living Lots – 10m<sup>(7)</sup>;</li> <li>(ii) Other Rural Lots – 15m<sup>(7)</sup>.</li> </ul> <p><b>NOTE 4</b></p> <p>(1) In spite of the recommended minimum width of the access strip, it must be of sufficient width to accommodate a driveway and utility services.</p> <p>(2) In the case of telecommunications and electricity services, these services are to be provided for the full length of the access strip.</p> <p>(e) The type of reciprocal easements comply with the requirements shown in Diagram A, below.</p> <div style="text-align: center;"> <p><b>Diagram A</b></p>  <p><b>Left Diagram:</b> In this case the easement is for access purposes with each lot having its own area for utility services and other matters.</p> <p><b>Right Diagram:</b> In this case the easement is for a combination of access purposes, utility services and other matters.</p> </div> <ul style="list-style-type: none"> <li>(f) The minimum width of the constructed (i.e. compacted gravel pavement) driveway in the access strip is four (4) metres.</li> <li>(g) The driveway is to be constructed from the pavement edge for the full length of the access strip.</li> <li>(h) Where reciprocal easement rights are proposed, the driveway is to be a 2 coat bitumen seal for the length over which the reciprocal easement applies to a minimum width of 3 metres on a 5 metre pavement.</li> <li>(i) For rural lots, other than rural living lots, a drainage system is provided so that no part of the driveway is below the adopted flood level.</li> <li>(j) For rural living lots no part of the driveway is below the adopted flood level.</li> </ul>
<p><b>Designated Roads</b></p> <p>(4) The road network has a clear structure and component roads conform to their function in the system.</p>	<p><b>Designated Roads</b></p> <p>(4) Roads link with other roads that are no more than one level higher or lower in the hierarchy.</p>

<sup>7</sup> Where two (2) hatchet lots are proposed, the combined access strip is to be increased by 5 metres to allow for the provision of utility services, driveway construction and other matters, provided reciprocal easement rights are used.



Table 12.5.4 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
(5) Intersections are located to provide safe and efficient connection and traffic interface between the rural street network and Designated Roads.	(5) The location of intersections to Designated Roads is in accordance with the following Austroad publication— "Guide to Traffic Engineering Practice" (a) Part 5 Intersections at Grade; (b) Part 6 Roundabouts.
(6) Access arrangements do not impede the traffic performance of Designated Roads.	(6) (a) Lots do not have direct vehicle access to the road system unless there are no suitable access alternatives (provided by the street system), in which case vehicle access onto the Designated Road is capable of being made in a forward direction. (b) Any vehicle access for a lot is limited to one (1) point only (where direct access to the Designated Road is unavoidable). (c) Any vehicle access is sited to obtain the maximum visibility (i.e. sightlines).
(6A) Road 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.	(6A) 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.
(7) Rural housing is— (a) not exposed to unacceptable traffic noise <sup>8</sup> ; or (b) able to be designed and constructed to ensure that acceptable living conditions within the dwelling can be created.  <b>NOTE 5</b> (1) If the predicted road traffic noise at a residential building exceeds the noise criterion, acoustic barriers are the initial preferred option for noise amelioration. (2) If the predicted road traffic noise still exceeds the noise criterion after the noise barriers have been designed for maximum effect, a treatment option is to incorporate noise control measures into the building design to ameliorate road traffic noise to the interior of the dwellings.	(7) There are no recommended probable solutions for this specific outcome as each situation requires an individual approach.
<b>Street Networks and Design</b> (8) The street network connects with Designated Roads to maximise movement efficiency on the main traffic routes, whilst at the same time minimising traffic volumes on rural streets.	<b>Street Networks and Design</b> (8) (a) Intersections between Designated Roads and the rural street network are located so as to minimise restriction of movement on the Designated Roads, and to avoid traffic volumes in excess of 1000 vpd on collector streets and 150 vpd on local streets. (b) Connections between rural streets and the road system are in accordance with the following intersection spacings— (i) Collector to Arterial 2000m;  <b>NOTE 6</b> This connection is undesirable but sometimes unavoidable in a rural environment. (ii) Collector to Distributor 1000m; (iii) Local to Distributor 400m;  <b>NOTE 7</b> This connection is undesirable but sometimes unavoidable in a rural environment. (iv) Local to Collector 200m.

<sup>8</sup> Refer to Department of Transport and Main Roads, Code of Practice Road Traffic Noise, for the road traffic noise criteria.





Table 12.5.4 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
(9) The street network has a clear structure and component streets conform to their function in the network.	(9) Streets link with other streets that are no more than one level higher or lower in the hierarchy.
(10) The street network has clear physical distinctions between each type of street, based on function, convenience, traffic volumes, vehicle speeds, public safety and amenity.	(10) The street network reflects the characteristics outlined in Appendix J.
(11) The design features of each type of rural street encourage driver behaviour appropriate to the primary function of the street in the network.	(11) There are no recommended Probable Solutions for this specific outcome as each situation requires an individual approach.
(12) Intersections are spaced to create safe and convenient vehicle movements.	<p>(12) Connections between rural streets are spaced in accordance with the following intersection spacings—</p> <p>(a) Collector to Collector 400m;</p> <p>(b) Collector to Local 200m;</p> <p>(c) Local to Collector 200m.</p> <p><b>NOTE 8</b></p> <p>(1) Driveway access points should not be provided on intersection approaches and this matter should be addressed as part of the detailed design process.</p> <p>(2) The minimum truncation distance of the real property boundary at an intersection between the following street types is to be—</p> <p>Local Street to Local/Collector Street 6.0 m</p> <p>Collector Street to Collector/ Designated Roads 8.0m</p> <p>(3) 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.</p> <p>(4) The area truncated is to be dedicated as road reserve free of cost to, or compensation by, the local government.</p>
(13) The street network provides convenient movement for residents between their homes and Designated Roads.	<p>(13) No more than three intersections are required to be negotiated in order to travel from any home to the most convenient Designated Road.</p> <p><b>NOTE 9</b></p> <p>Within 'Bushfire Risk Areas' all lots are provided with an alternative street access.</p>
<p>(14) The street network—</p> <p>(a) takes account of the topography (especially steep land) and significant vegetation;</p> <p>(b) avoids steep slopes (i.e. greater than 20%) so as to minimise landscape disturbance and vegetation loss;</p> <p>(c) avoids penetrating and fragmenting large tracts of remnant vegetation;</p> <p>(d) respects and protects places of cultural significance or streetscape value;</p> <p>(e) takes advantage of opportunities for views and vistas;</p> <p>(f) takes account of natural drainage and open space systems;</p> <p>(g) avoids crossing drainage features or open space areas, particularly for local rural streets;</p> <p>(h) is located, designed and managed to enhance the habitat and corridor requirements of native wildlife (plants and animals);</p> <p>(i) locates the streets to the least environmentally sensitive sites;</p> <p>(j) avoids extensive use of cut and fill;</p>	<p>(14) There are no recommended probable solutions for this specific outcome as each situation requires an individual approach.</p>



Table 12.5.4 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
<ul style="list-style-type: none"> <li>(k) meanders carriageways through important stands of vegetation to minimise the loss of important trees or ecosystems;</li> <li>(l) maintains interlocking tree canopies over fauna corridors, where possible, to allow for the movement of arboreal fauna and birds;</li> <li>(m) narrows the width of the carriageway where it crosses wildlife movement corridors, such as riparian zones;</li> <li>(n) 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</li> <li>(o) provides for the cost effective provision of public utilities, including water (where available), electricity and telecommunications.</li> </ul>	
(14A) 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.	(14A) Street networks do not include configurations of lights in straight parallel lines 500m – 1000m long in areas within 6km of the RAAF Base Amberley runway.
<p>(15) The design of each type of street conveys the street's primary function and the street reserve width is sufficient to cater for all street functions, including—</p> <ul style="list-style-type: none"> <li>(a) safe and efficient movement of all users;</li> <li>(b) provision for stationary vehicles;</li> <li>(c) provision for passing;</li> <li>(d) location, construction and maintenance of public utilities (including guideposts, guard fencing, etc);</li> <li>(e) provision for batters, retaining walls or other structures;</li> <li>(f) provision for drainage; and</li> <li>(g) provision of clearances to property boundaries.</li> </ul>	<p>(15) (a) The following street components for each type of street are as specified in Appendix K—</p> <ul style="list-style-type: none"> <li>(i) carriageway widths;</li> <li>(ii) verge widths;</li> <li>(iii) street reserve widths;</li> <li>(iv) kerb type;</li> <li>(v) boundary clearances; and</li> <li>(vi) longitudinal gradients.</li> </ul> <p><b>NOTE 10</b></p> <ul style="list-style-type: none"> <li>(1) The Local Government will determine those design features and street components, based on the street components specified in Appendix K with frontage works based on the specifications outlined in Planning Scheme Policy 3—General Works and standards in Part 13—Local Government Infrastructure Plan for trunk infrastructure, that are to apply where— <ul style="list-style-type: none"> <li>(a) an existing dedicated street fronting or gaining access to the proposed reconfigured lot is required; or</li> <li>(b) a new street is proposed to be constructed along the common boundary of land in two or more ownerships.</li> </ul> </li> <li>(2) Where street grades in excess of 16% are proposed, the number of lot frontages to that section should be limited.</li> <li>(3) Where frontage to steep grades is proposed, the feasibility of gaining safe property access/egress is to be demonstrated.</li> <li>(4) The location, design and construction of frontage and streetworks are to be in accordance with the requirements and specifications outlined in Planning Scheme Policy 3—General Works.</li> <li>(b) All frontage and street construction works are to be in place or sufficient security provided before the Plan of Subdivision is approved by the local government.</li> </ul>



Table 12.5.4 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
(16) The carriageway width, together with the verge and batter width and crossover dimensions, allow for unobstructed and efficient entry and exit from each lot.	(16) (a) Where access is to a sealed road, the lot is to have a 3 metre, 2 coat bitumen sealed accessway, to the specifications outlined in Planning Scheme Policy 3—General Works, between the pavement edge of the street and the property boundary.  (b) Where access is to a gravel road the standards outlined in (16)(a) above apply, except for bitumen sealing.
<b>Utilities</b> (17) Cost effective and environmentally sustainable utilities (including effluent treatment and disposal, water, electricity and communication services) are provided to each lot. <b>NOTE 11</b> (1) Applicants should determine whether a connection to the water supply is feasible and obtain advice on existing system heads and reserve capacity at the nominated point of connection. (2) All sullage and septic waste water is to be capable of being treated and disposed of on-site without it entering any adjoining premises, stormwater system or watercourse and without ponding or causing a health nuisance.	<b>Utilities</b> (17) (a) Provision is made for the— (i) supply of on-site potable water or, if available, reticulated water supply; (ii) treatment and disposal of effluent on-site in compliance within the Plumbing and Drainage Act 2002 and the Queensland Plumbing and Wastewater Code; (iii) supply of electricity to each lot; (iv) supply of telecommunication services to each lot. <b>NOTE 12</b> The location, design and construction of water supply mains and fixtures (where available), electricity and communication services are in accordance with the requirements and specifications outlined in Planning Scheme Policy 3—General Works. (b) All utilities are to be in place or sufficient security provided before the Plan of Subdivision is approved by the local government.
<b>Stormwater Drainage</b> (18) A flood free dwelling site is located above the adopted flood level to provide protection of property in accordance with the accepted level of risk.	<b>Stormwater Drainage</b> (18) Each proposed lot is to contain an area which is suitable for a building platform comprising at least 2000m <sup>2</sup> and located outside the adopted flood regulation line and urban catchment flow paths. Also, an additional area is to be available on each lot that is suitable to treat and dispose of effluent on-site in compliance with the Plumbing and Drainage Act 2002 and the Queensland Plumbing and Wastewater Code.
(19) Design of the site drainage provides for— (a) drainage which does not cause damage or nuisance flows to adjoining properties; and (b) any dams to be wholly located within lot boundaries.	(19) (a) Lot drainage is to be provided by on-site stormwater detention. <b>NOTE 13</b> In all rural subdivisions, the Local Government requires on-site stormwater detention (to pre-development flows and velocities) as opposed to drainage easements or reserves. (b) Where applicable, the high water level of any dam and the top and toe of all dam walls and embankments are not to be closer than 2 metres to any lot boundary.



## APPENDIX A: RESIDENTIAL LOT SIZE, FRONTAGE AND SPECIAL CHARACTERISTICS

Lot Type	Lot Size	Frontage	Special Characteristics
(1) Cottage Lots	Less than 300m <sup>2</sup>	10m (where provision is made for tandem parking), otherwise 12m.	<ul style="list-style-type: none"> <li>(a) All lots are developed as a house and land package.</li> <li>(b) Hatchet and corner lots are undesirable.</li> <li>(c) These lots are undesirable within Township Areas as sewerage is not available.</li> <li>(d) Cottage Lots are created on flat land with slopes not exceeding 2% (between side boundaries) and 5% (between front and rear boundaries).</li> <li>(e) For any stage of a reconfiguration within the Low Density Residential Zones or Sub Areas, Cottage Lots— <ul style="list-style-type: none"> <li>(i) are to be dispersed throughout rather than concentrated within any stage of a reconfiguration;</li> <li>(ii) are not to occupy more than five percent (5%) of the total number of lots;</li> <li>(iii) are not to total more than five (5) lots in any Access Place or Access Street or more than ten (10) lots in any Collector Street;</li> <li>(iv) are to be located (taking the most direct route) no more than— <ul style="list-style-type: none"> <li>(A) 200 metres from an existing or planned local or district level recreation park that contains a playground and kick-a-bout area; and</li> <li>(B) 500 metres from a general store or shopping centre.</li> </ul> </li> </ul> </li> </ul>
(2) Courtyard Lots	300m <sup>2</sup> – 449m <sup>2</sup>	10m (where provision is made for tandem parking) otherwise 12m.	<ul style="list-style-type: none"> <li>(a) Lots are capable of containing a rectangle (suitable for building purposes) measuring 9m by 15m.</li> <li>(b) Courtyard lots are undesirable as a corner lot, hatchet lot or lot gaining access via an access easement.</li> <li>(c) These lots are undesirable within Township Areas as sewerage is not available.</li> <li>(d) All lots are to contain a Building Envelope Plan.</li> <li>(e) Courtyard Lots are created on flat land with slopes not exceeding 4% (between side boundaries) and 5% (between front and rear boundaries).</li> <li>(f) For any stage of a reconfiguration within the Low Density Residential Zones or Sub Areas, Courtyard Lots— <ul style="list-style-type: none"> <li>(i) are to be dispersed throughout rather than concentrated within any stage of a reconfiguration;</li> <li>(ii) are not to occupy more than ten percent (10%) of the total number of lots;</li> <li>(iii) are not to total more than five (5) lots in any Access Place or Access Street or more than ten (10) lots in any Collector Street;</li> <li>(iv) are to be located (taking the most direct route) no more than 500 metres from a Park and 800 metres from a general store or shopping centre.</li> </ul> </li> </ul>
(3) Traditional Lots	450m <sup>2</sup> and above 600m <sup>2</sup> minimum area for a corner lot	15m (where slope is less than 5%). 17m (where slope 5% < 7%). 20m (where slope 7% < 10%). A minimum 17m frontage is provided on a corner lot to the road frontage containing the access point.	<ul style="list-style-type: none"> <li>(a) The general frontage to depth ratio is 1:2, however all lots are to have dimensions to enable the siting and construction of a dwelling and ancillary outbuildings, the provision of private outdoor recreation space and convenient vehicle access and parking.</li> <li>(b) Traditional Lots are generally created on land with slopes less than 10% and have an area between 450 – 1000m<sup>2</sup> or greater, having regard to lot area, frontage and slope.</li> <li>(c) For any stage of a reconfiguration within the Low Density Residential Zones or Sub Areas, larger Traditional Lots (i.e. 800m<sup>2</sup> or greater)— <ul style="list-style-type: none"> <li>(i) are to occupy not less than ten percent (10%) of the total number of lots;</li> <li>(ii) are to be located— <ul style="list-style-type: none"> <li>(A) on the steeper parts of the land;</li> <li>(B) on that land immediately adjoining any creek, watercourse or Designated Road;</li> <li>(C) on any land the subject of an overlay; or</li> <li>(D) on land at the end of any culs-de-sac.</li> </ul> </li> </ul> </li> <li>(d) All lots are to be capable of containing a rectangle (suitable for building purposes) measuring 10m by 15m (or 9m by 15m where a boundary wall is nominated as part of the building envelope) in that part of the lot which is not within 6m of the frontage of the lot.</li> <li>(e) These lots are undesirable within Township Areas as sewerage is not available.</li> </ul>



## Appendix A continued

Lot Type	Lot Size	Frontage	Special Characteristics
(4) Hillside Lots	Above 800m <sup>2</sup>	20m-25m for lot sizes between 800m <sup>2</sup> – 1250m <sup>2</sup> having a slope less than 15%. 25m-30m for lot sizes between 1250m <sup>2</sup> – 2000m <sup>2</sup> having a slope less than 20%.	<p>(a) Hillside Lots are expected to be created on land with slopes in excess of 10%.</p> <p>(b) Lot size is in the 800-2000m<sup>2</sup> range, dependent on the correlation between lot area, frontage and slope.</p> <p>(c) All lots are capable of containing a rectangle (suitable for building purposes) beyond the standard (i.e. 6m) front boundary setback, measuring 10m by 15m on a ground slope not exceeding 20%, although the balance of the lot may be steeper.</p> <p>(d) Land steeper than 20% may be accepted for the building envelope if supporting geotechnical information is supplied and sewerage is feasible.</p> <p><b>NOTE 1</b></p> <p>(1) Sites requiring more than domestic type foundation preparation and construction will not normally be approved.</p> <p>(2) Building design for houses on Hillside Lots should incorporate provisions to avoid slab on ground techniques (e.g. utilise post supported structures).</p> <p>(e) Access for on-site parking (which should be beyond the standard, 6m, front boundary setback) is feasible without involving the future purchasers in major earthworks or engineering structures (e.g. bridges or retaining walls).</p> <p>(f) These lots are undesirable within Township Areas as sewerage is not available.</p>
(5) Homestead or Township Lots	4000m <sup>2</sup> or greater	40m	<p>(a) All lots are capable of disposing sewage and domestic waste.</p> <p>(b) Where the proposed lot has slopes in excess of 10%—</p> <p>(i) at least 600m<sup>2</sup> of each lot is to be suitable for a building platform (measuring 10m by 15m) beyond the standard (i.e. 6m) front boundary setback plus ancillary buildings, the provision of private outdoor recreation space and convenient vehicle access and parking; and</p> <p>(ii) an additional area is to be available on each lot that is suitable to treat and dispose of effluent on-site in compliance with the Plumbing and Drainage Act 2002 and the Queensland Plumbing and Wastewater Code.</p> <p><b>NOTE 2</b></p> <p>(1) Sites requiring more than domestic type foundation preparation and construction will not normally be approved.</p> <p>(2) Building design for houses on lots with slopes in excess of 10% should incorporate provisions to avoid slab on ground techniques (e.g. utilise post supported structures).</p> <p>(3) For further information about requirements for on-site effluent treatment and disposal, refer to Plumbing and Drainage Act 2002 and the Queensland Plumbing and Wastewater Code.</p> <p>(c) Access for on-site parking (which should be beyond the standard, 6m, front boundary setback) is feasible without involving the future purchasers in major earthworks or engineering structures (e.g. bridges or retaining walls).</p>
(6) Auxiliary Unit Lot	800m <sup>2</sup>	20m	<p>(a) Auxiliary unit lots are to be nominated at the time of reconfiguration approval.</p> <p>(b) Auxiliary unit lots are undesirable as hatchet lots.</p> <p>(c) For any stage of a reconfiguration, auxiliary unit lots:</p> <p>(i) do not dominate the reconfiguration pattern;</p> <p>(ii) are dispersed throughout, rather than concentrated in, any stage of a reconfiguration;</p> <p>(iii) do not occupy more than twenty percent (20%) of the total number of lots;</p> <p>(iv) provide for a maximum of two auxiliary unit lots adjoining or within 20m of each other, and provide a minimum 100m separation to any other auxiliary unit lot in the same street; and</p> <p>(v) are provided to ensure that the overall residential density within the reconfiguration is consistent with that intended for the locality.</p>



Lot Type	Lot Size	Frontage	Special Characteristics
(7) Dual Occupancy Lot	800m <sup>2</sup>	20m	<p>(d) All dual occupancy lots are to have frontage and dimensions taking into account setback requirements, landscaping, carparking, recreation areas and other design criteria outlined in the applicable Zone Code and the Residential Code.</p> <p>(e) These lots are undesirable within Township Areas as sewerage is not available.</p> <p>(f) Dual Occupancy lots are desirable as corner lots.</p> <p>(g) Dual Occupancy lots are to be nominated at the time of reconfiguration approval.</p> <p>(h) For any stage of a reconfiguration in the Large Lot Residential Zone, Residential Low Density Zone, Character Areas - Housing Zone (Sub Area CHL), Future Urban Zone, Special Opportunity Zone, Township Residential Zone and the Township Character Housing Zone, Dual Occupancy lots -</p> <ul style="list-style-type: none"> <li>(i) do not dominate the reconfiguration pattern;</li> <li>(ii) are dispersed throughout, rather than concentrated in, any stage of a reconfiguration;</li> <li>(iii) do not occupy more than twenty percent (20%) of the total number of lots;</li> <li>(iv) provide for a maximum of two dual occupancy lots adjoining or within 20m of each other, and provide a minimum 100m separation to any other dual occupancy lot in the same street; and</li> <li>(v) are provided to ensure that the overall residential density within the reconfiguration is consistent with that intended for the locality.</li> </ul>
(8) Multiple Residential Lot	1500m <sup>2</sup>	25m	<p>(a) Lot size and dimensions are to be commensurate with the anticipated density of development taking into account height and setback requirements, landscaping, carparking, recreation areas and other like design criteria outlined in the applicable Zone Code and the Residential Code.</p> <p>(b) These lots are undesirable within Township Areas as sewerage is not available.</p>



## APPENDIX B: COMMERCIAL OR INDUSTRIAL LOT SIZE, FRONTAGE AND SPECIAL CHARACTERISTICS

Lot Type	Lot Size	Frontage	Special Characteristics
(1) Commercial Lots			<p>(a) Lot size, frontage and dimensions are commensurate with the particular commercial use proposed, taking into account the commercial strategy for the locality, height and setback requirements, landscaping, carparking and other like design criteria outlined in the applicable Zone Code and the Commercial and Industrial Code.</p> <p>(b) Hatchet lots are undesirable.</p>
(2) Mixed Business and Industry Lots	1000m <sup>2</sup>	20m	<p>(a) All mixed industry/business lots have adequate dimensions to ensure that any proposed use complies with the siting and design requirements outlined in the applicable Zone Code and the Commercial and Industrial Code.</p> <p>(b) Hatchet lots are undesirable.</p>
(3) Industrial Lots	2000m <sup>2</sup>	40m	<p>(a) All industrial lots have adequate dimensions to ensure that any proposed use complies with the siting and design requirements outlined in the applicable Zone Code and the Commercial and Industrial Code.</p> <p>(b) Hatchet lots are undesirable.</p>





## APPENDIX C: CLASSIFICATION OF RESIDENTIAL AND INDUSTRIAL STREETS <sup>(1)</sup>

Street Level/Type and Function	Maximum Design Speed (km/h)	Indicative Traffic Volume (vpd)*
Access Place** (Residential) ('Large Lot' Residential) The lowest order of street providing access to sites without any traffic generated by sites in other streets.	30 45	<300
Access Street** (Residential) ('Large Lot' Residential) Access streets are generally streets where the residential environment is dominant, traffic is subservient, speed and volume are low and pedestrian and cycle movements are facilitated.	30 45	<750
Collector Street (Residential) ('Large Lot' Residential) The collector street collects traffic from access streets and carries higher volumes of traffic. A reasonable level of residential amenity and safety is maintained by restricting traffic volumes and vehicle speeds. Vehicle speeds are controlled by street alignment, intersection design and, in some cases, by speed control measures.	40 60	<3,000 <2,400
Local Industrial Street (Industrial) Local Industrial Streets have the function of providing for moving traffic, access to or from lots and on-street parking. Because the street alignment is largely dictated by lot configuration (e.g. 90° bends caused by square or rectangular lots) the traffic function of the street is subservient to lot access and on-street parking.	60	<3,200 ***
Major Collector Street (Residential) Internal Connecting Road ('Large Lot' Residential) The Major Collector connects the Collector Street with the road system. There is to be no direct frontage access to Major Collector Streets for residential lots, although, direct frontage access may be acceptable for multiple residential development, schools or shopping centres. The Internal Connecting Road links the 'large lot' residential development to the external road system. There is to be no direct frontage access to internal connecting roads for 'large lot' residential lots.	60 60	<10,000 <5,000
Industrial Collector (Industrial) The Industrial Collector collects traffic from local industrial streets and carries higher volumes of traffic. The Industrial Collector connects the Industrial Estate with the road system. At any point where the capacity of the Industrial Collector is exceeded, there is to be no direct frontage access and the street is to be reclassified as part of the road system, with the actual classification dependent upon traffic volumes and function.	60	<12,000

\* The indicative traffic volume is a target maximum volume which may be exceeded in a few cases where it can be demonstrated that there are significant diseconomies or design issues which should be taken into account.

\*\* For residential development, the difference between Access Places and Access Streets is in 'form' rather than 'function' and the design criteria are the same for both streets (e.g. an access place is a single cul-de-sac whereas an access street is a 'stem' from which branches two or more culs-de-sac or a 'loop' street).

\*\*\* Based on 400 vpd per hectare.

<sup>(1)</sup> There is no classification system for Commercial Streets as 'Commercial Estates' are uncommon and access to Commercial Developments is either via the industrial street system or Designated Roads.



## APPENDIX D: RESIDENTIAL STREETS 'SUMMARY OF PROBABLE SOLUTIONS'

Street Design Criteria	Lot Frontage Laneway	Access Place / Access Street (1)	Collector Street	Major Collector Street			
Primary Function	access			mobility			
Maximum Traffic Catchment ( <i>lots</i> ) (2)	5	75	300	500		1,000	
Maximum Traffic Usage ( <i>vpd</i> ) (3)	50	750	3,000	5,000		10,000	
Maximum Speed Environment (4)	30	40	40	60 (6)			
Geometric Design Speed & Sight Distances ( <i>km/h</i> ) (4&5)	40	50	50	60 (6)			
Direct Driveway Access	yes			yes		no	
Reserve Width ( <i>metres</i> ) (7)	10.0	16.0	17.0	21.0	25.5	19.0	24.5
Carriageway Width ( <i>metres</i> ) (8)	5.5	8.0	8.5	12.0	2 x 6.0	9.0	2 x 5.0
Marked Traffic Lane Width ( <i>metres</i> )	na			3.2		3.0	3.5
Median Width ( <i>metres</i> )	na			na	4.5	na	4.5
Parking Lane Width (9)	na			2.8m		na	
Cycle Lane	na			2.8m (10)		1.5	
Bus Stops (11)	no		yes	yes			
Bus Shelters (11)	no		no	yes			
Indented Bus Bays (11)	na		yes	no		yes	
Minimum Verge Width ( <i>metres</i> ) (12)	1.5	4.25	4.25	4.5		5.0	
Kerb Type (14)	barrier	mountable (13)(14)	mountable (14)	mountable (14)		barrier	
Pathway Provision (15)	no	one-side	one side (20)	both sides			
Pathway Width ( <i>metres</i> )	na	1.5	2.0	2.0			
Pedestrian Refuge Islands	no	no	no	yes			
Maximum Grade (%) (16)(19)	na	12% (17)	12% (17) (6% if bus route) (17)	6% (18)			
Carriageway Crossfall	One Way Min 2.5% Max 4%	Two Way 3%	Two Way 3%	Two Way 3%			

## Notes:

- Difference is in 'form' rather than 'function' and the design criteria are the same for both streets (e.g. an access place is a single cul-de-sac whereas an access street is a 'stem' from which branches two or more culs-de-sac or a 'loop' street).
- Based on a traffic generation rate of ten vehicles per day per single residential lot.
- Traffic volumes for other land uses are to be calculated in accordance with the latest version of the NSW Roads & Traffic Authority's Guide to Traffic Generating Developments.
- The desired maximum speed environment shall be maintained by limiting the length of straight roads. Straight lengths of road shall be separated with appropriately designed intersections, horizontal curves or speed control devices, such as roundabouts or local area traffic management measures.
- The design speed is a selected speed used to determine the design parameters for a new road or street including vertical alignment, sight distances and the location of intersections and major access driveways. The Austroads Publications are to be used as the reference in determining these design parameters.
- Posted / signed speed limit.
- Road reserves may need to be wider at and on the approach and departure of intersections and wider where indented bus bays are provided to ensure adequate average verge widths are met.
- The carriageway width is measured between channel inverts.
- Where lot frontages are 17m or above, parking can be accommodated on carriageway. Where lot frontages are less than 12m special design measures (e.g. off-carriageway parking, rear garages, widening carriageway to three lanes) are required to provide for adequate parking, passing and lot access.
- Shared with the parking lane ('Bicycle Awareness Zone'). Involves the placement of a yellow bicycle symbols on the edge line at regular intervals.
- Bus stops and associated infrastructure including indented bus bays are to meet the design requirements of Translink. Bus stops are to be generally located to ensure 90% of lots are within 400 metres walking distance of a bus stop.
- 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 that satisfies the traffic noise exposure levels. At least one verge must address the minimum width (4.25m). The verge on the opposite side of the carriageway may be narrower in width (ie 3.75m).
- Council may consider an alternative kerb type profile to M1 where the road reserve width is sufficient to achieve the minimum verge width and carriageway width, (eg within an existing road reserve which exceeds 16m in width in the Large Lot Residential Zone).
- The kerb type for infill development is to match the existing connecting road kerb profile, unless another kerb type is required for a particular purpose. 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.
- Street lighting and other appropriate community facilities (e.g. bus stops) are to be coordinated with footpaths. Footpaths are to be located in the position determined by Ipswich City Council.
- 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.
- Short lengths (maximum 125 metres) of roadway with a grade between 12% and 16% are acceptable (on non-bus routes).
- Short lengths (maximum 125 metres) of roadways located on a bus route with a grade between 6% and 10% are acceptable.
- Grades greater than 12% require special design considerations for pedestrians, cyclists, refuse vehicles and street layout (e.g. grade on curves, grade for turning vehicles at the street turning head).
- A 1.5 metre wide pathway may also be required on the other side of the street (in addition to the 2.0 metre wide pathway) in areas of high pedestrian demand.



## APPENDIX E: 'LARGE LOT' RESIDENTIAL STREETS 'SUMMARY OF PROBABLE SOLUTIONS'

Street Design Criteria	Access Place (1) and Access Street (1)	Collector Street
Traffic Catchment (max)	refer to note (2)	240 lots (3)
Traffic Volume (max)	refer to note (4)	2 400 vpd (4)
Design Speed (max)	45 km/h	60 km/h
Street Length (max) (5)	1 200m	800m (2 000 m total)
Carriageway <ul style="list-style-type: none"> <li>lanes</li> <li>width (6)</li> <li>provision for passing (6)</li> </ul>	<ul style="list-style-type: none"> <li>2</li> <li>6.0m</li> <li>not required</li> </ul>	<ul style="list-style-type: none"> <li>2</li> <li>7.5m</li> <li>not required</li> </ul>
Verge Width (min) (7)	<ul style="list-style-type: none"> <li>5.0m</li> </ul>	<ul style="list-style-type: none"> <li>5.0m</li> </ul>
Reserve Width (8)	20.0m	20.0m
Kerb Type (9)	mountable	mountable
Footpaths/cyclepaths (10)	Footpath one side. Street lighting and other appropriate community facilities (e.g. bus stops) are to be coordinated with footpaths. Footpaths are to be located in the position determined by the Local Government.	Footpath one side, cyclepath on carriageway. Street lighting and other appropriate community facilities (e.g. bus stops) are to be coordinated with footpaths. Footpaths are to be located in the position determined by the Local Government.
Parking	No provision (11)	No provision
Grade <ul style="list-style-type: none"> <li>desirable maximum</li> <li>minimum</li> </ul>	<ul style="list-style-type: none"> <li>16% (12)</li> <li>0.3%</li> </ul>	<ul style="list-style-type: none"> <li>16% (12)</li> <li>0.3%</li> </ul>
Sight Distance (general minimum)	70m	110m
Carriageway Crossfall	Two Way Min 1:40 Max 1:25	Two Way Min 1:40 Max 1:25
Provision for Bus Routes	Not required	No special provision

## Notes:

- Difference is in 'form' rather than 'function' and the design criteria are the same for both streets (e.g. an access place is a single cul-de-sac whereas an access street is a 'stem' from which branches two or more culs-de-sac or a 'loop' street).
- Maximum street length will normally be the practical limitation for traffic catchment. Refer to Section 8.5 of Queensland Streets 1998 Edition.
- May be increased by widening Street Reserve in accordance with Tables 8.5B and 8.5C of Queensland Streets 1998 Edition.
- Based on 10 vpd per single residential lot and refer to Section 8.5 of Queensland Streets 1998 Edition.
- Maximum street lengths are inter-dependent. Essential criteria is maximum total travel time 180 seconds (Refer to Section 8.4 'Traffic Speed' of Queensland Streets 1998 Edition).
- The carriageway width is measured between channel inverts.
- Each verge must be of sufficient width to accommodate relevant services, landscaping/retention of existing vegetation and, unless other noise attenuation methods are used, to ensure a total setback to residential dwellings which satisfies the traffic noise exposure levels. A minimum width of 2.5m, with maximum crossfall of 1 in 8, behind the kerb over the majority of the street length is required for informal parking. Also, the minimum verge widths apply after satisfying the other criteria within this Appendix and other site-specific requirements.
- Additional width may be necessary to fulfil specific outcomes of the verge and/or increased traffic volumes on Collector Streets (refer to Note 3).

- The kerb type for infill development is to match the existing connecting road kerb profile, unless another kerb type is required for a particular purpose. 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 'Large Lot' Residential Streets and in certain circumstances on Internal Connecting Roads (e.g. Steep grades).
- Typical only – varies with pedestrian/cyclist network planning. Additional footpaths may be required in areas where—
  - access places or streets lead 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; and
  - 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.  
NB: All footpaths are to be a minimum of 1.5m in width and dual use paths are to be a minimum of 2.0m in width.
- Parking Bays may be required at cul-de-sac heads if narrow lot frontages or topography inhibits parking within lots.
- Absolute maximum 20% where no reasonable alternative demonstrably exists and limited generally to 100 metre sections.



## APPENDIX F: MULTIPLE RESIDENTIAL DEVELOPMENT STREETS 'SUMMARY OF PROBABLE SOLUTIONS' <sup>(1)</sup>

Street Design Criteria	Access Place <sup>(2)</sup> and Access Street <sup>(2)</sup>	Collector Street
Traffic Catchment (max) <sup>(3)</sup>	450 dwelling units	450 dwelling units <sup>(4)</sup>
Traffic Volume <sup>(5)</sup>	3 000 vpd	3 000 vpd <sup>(4)</sup>
Design Speed (max)	30 km/h <sup>(6)</sup>	40 km/h
Carriageway <sup>(7)</sup> <ul style="list-style-type: none"> <li>moving lanes (two)</li> <li>Parking lanes (each)</li> </ul>	<ul style="list-style-type: none"> <li>5.5m</li> <li>2.25m</li> </ul>	<ul style="list-style-type: none"> <li>6.4m</li> <li>2.8m</li> </ul>
Verge Width <sup>(8)</sup> <ul style="list-style-type: none"> <li>Minimum</li> <li>Average</li> </ul>	<ul style="list-style-type: none"> <li>3.0m <sup>(9)</sup></li> <li>4.5m</li> </ul>	<ul style="list-style-type: none"> <li>4.5m <sup>(9)</sup></li> <li>5.0m</li> </ul>
Reserve Width <sup>(8)</sup>	19.0m <sup>(10)</sup>	21.0m <sup>(10)</sup>
Kerb Type <sup>(11)</sup>	mountable	mountable
Footpaths/cyclepaths <sup>(12)</sup>	Footpaths both sides <sup>(13)</sup>	Footpaths both sides
Pathway Width ( <i>metres</i> )	1.5m	2.0m
Parking <sup>(14)</sup>	Carriageway	Carriageway
Grade <sup>(15)</sup> <ul style="list-style-type: none"> <li>desirable maximum</li> <li>minimum</li> </ul>	<ul style="list-style-type: none"> <li>12%</li> <li>0.30%</li> </ul>	<ul style="list-style-type: none"> <li>6%</li> <li>0.30%</li> </ul>
Sight Distance (general minimum)	40m	60m
Carriageway Crossfall	Two Way Min 1:40 Max 1:25	Two Way Min 1:40 Max 1:25
Provision for Bus Routes	Not required	Defined bus-bays and shelters

### Notes:

- Criteria for Major Collector Streets as set out in Appendix D.
- Difference is in 'form' rather than 'function' and the design criteria are the same for both streets (e.g. an access place is a single cul-de-sac whereas an access street is a 'stem' from which branches two or more culs-de-sac or a 'loop' street). The different traffic design criteria for multiple residential streets results in there being less distinction in geometric design characteristics between Access Streets and Collector Streets. The "Collector Street" in this context is an identified potential bus route, and it is this factor rather than the lot layout which determines its design criteria and which distinguishes a Collector Street from an Access Street.
- Based on 6.5 vpd per single dwelling unit. Traffic generated for other uses are to be assessed in accordance with Section 2.2 of Queensland Streets.
- May be exceeded if the location and design of buildings is controlled to ensure acceptable traffic noise levels at the buildings and parking and access are specifically designed in accordance with Sections 10.5 and 10.9 of Queensland Streets 1998 Edition.
- Traffic Volumes to be calculated in accordance with Tables 2.2E and 2.2F of Queensland Streets 1998 Edition.
- 40 km/h in special circumstances (refer to Section 10.4 of Queensland Streets 1998 Edition).
- Refer to Section 10.6 of Queensland Streets 1998 Edition. Angle parking bays to be in accordance with Figures 10.6.B and 2.4.G and Section 10.5 of Queensland Streets 1998 Edition.
- Each verge and street reserve must be of sufficient width to accommodate relevant services, footpaths, landscaping and, unless other noise attenuation methods are used, to ensure a total setback to dwellings which satisfies the traffic noise exposure levels. Also, the average verge and reserve widths apply after satisfying the other criteria within this appendix and other site-specific requirements.
- Increase to 3.5 metres if no parking adjacent (refer to Section 10.7 of Queensland Streets 1998 Edition).
- Indicative only, actual width required varies with parking configuration.
- The kerb type for infill development is to match the existing connecting road kerb profile, unless another kerb type is required for a particular purpose. Barrier kerbs are preferred adjacent to public reserves and when needed for drainage. Concrete kerb and channel shall be provided on both sides of Multiple Residential Development Streets.
- On Major Collector Streets or identified cycle routes, a Dual Use Path within the verge will be required.
- Possibly one side only, where traffic catchment is less than 50 dwelling units and the access place or access street does not lead to an attraction/destination that would encourage greater than normal pedestrian traffic. NB: Street lighting is to be located on that side of the street coincident with the location or planned location of the footpath.
- Refer to Section 10.5 of Queensland Streets 1998 Edition. The minimum number of on-street parking spaces to be in accordance with Table 10.5.B of Queensland Streets 1998 Edition.
- 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.



## APPENDIX G: INDUSTRIAL STREETS 'SUMMARY OF PROBABLE SOLUTIONS'

Street Design Criteria	Local Industrial Street	Industrial Collector
Traffic Catchment (max)	8ha (1)	30ha (1)
Traffic Volume (max)	3,200 vpd (1)	12,000 vpd (1)
Design Speed (max)	60 km/h (2)	60 km/h
Carriageway <ul style="list-style-type: none"> <li>moving lanes</li> <li>parking lanes(3)</li> <li>total width (4)</li> </ul>	2 x 3.5m 2 x 2.5m 12.0m	2 x 3.5m 2 x 3.5m 14.0m
Verge Width (5) <ul style="list-style-type: none"> <li>minimum</li> </ul>	4.0m	4.0m
Reserve Width (average) (5)	20.0m	22.0m
Kerbing (6)	Barrier type	Barrier type
Footpaths/cyclepaths (7)	Footpath or dual use path one side (see note 7). Footpath to be coordinated with street lighting.	Footpath or dual-use paths both sides. Footpath to be coordinated with street lighting.
Grade <ul style="list-style-type: none"> <li>desirable maximum</li> <li>minimum</li> </ul>	6% 0.30%	6% 0.30%
Sight Distance <ul style="list-style-type: none"> <li>(general minimum)</li> </ul>	110m	110m
Carriageway Crossfall	Two Way Min 1:40 Max 1:33	Two Way Min 1:40 Max 1:33
Provision for Bus Routes	Not required	Bus stops and shelters

### Notes:

- Traffic Volumes calculated in accordance with the generation rates outlined in Section 9.4 of Queensland Streets 1998 Edition and the methods used in Section 2.2 of Queensland Streets 1998 Edition.
- May be reduced to 30 km/h in special circumstances. Refer to Section 9.5 of Queensland Streets 1998 Edition.
- Refer to Section 9.6 of Queensland Streets 1998 Edition.
- The carriageway width is measured between channel inverts.
- Additional verge and reserve width required for footpaths/cyclepaths. Each verge must be of sufficient width to accommodate relevant services and landscaping. Also, the reserve widths apply after satisfying the other criteria within this Appendix and other site-specific requirements.
- The kerb type for infill development is to match the existing connecting road kerb profile, unless another kerb type is required for a particular purpose. Concrete kerb and channel shall be provided on both sides of all industrial streets.
- Typical only – varies with pedestrian/cyclist network planning.



## APPENDIX H: LAND DEDICATIONS FOR PUBLIC PARKS

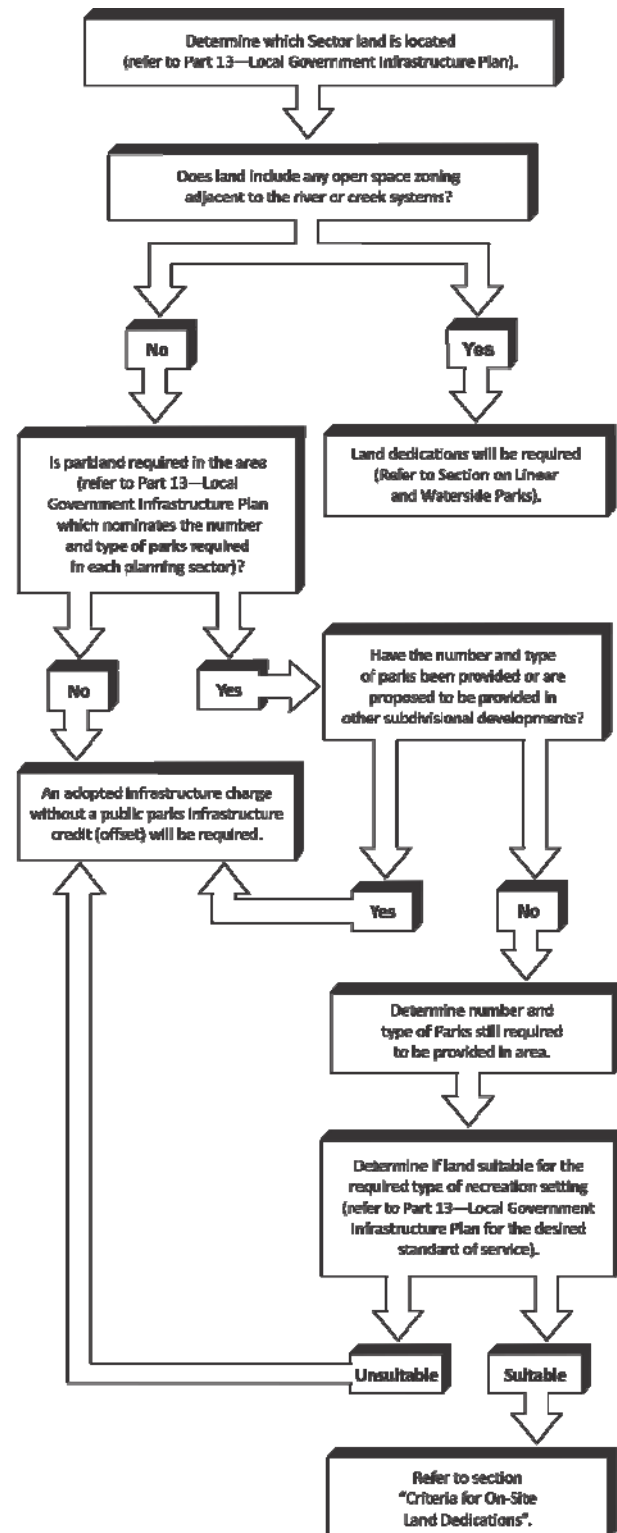
### 1. Introduction

- (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 apply as outlined in the Ipswich Adopted Infrastructure Charges Resolution.
- (4) For commercial and industrial 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.
- (5) As an aid in determining whether parkland dedications may be required the following flow chart can be used.

**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

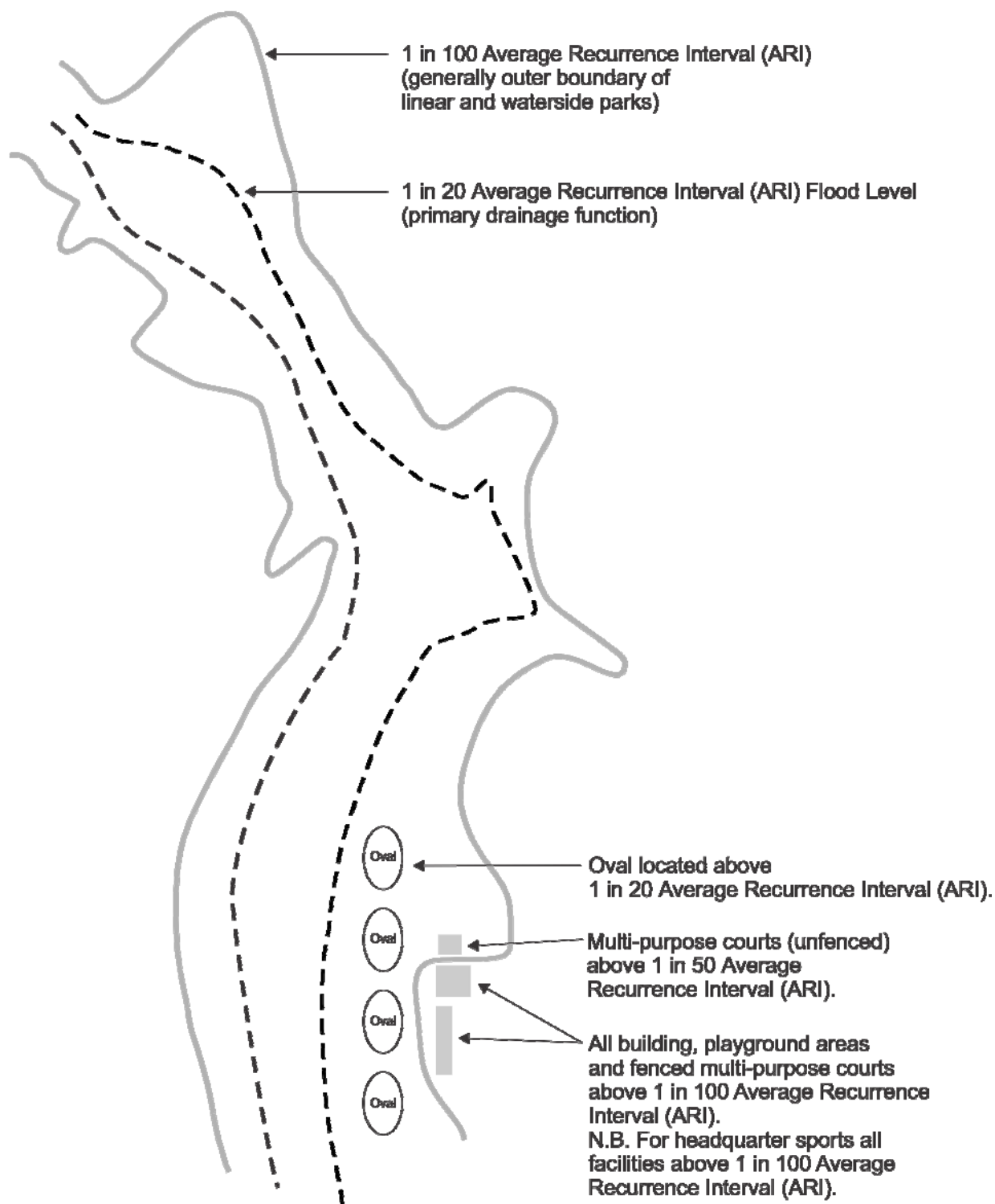
Recreational Setting	Level	Flood Level Criteria
Sportsgrounds and Courts	Headquarter Sports Citywide and Local	Not recommended below 1 in 100 Average Recurrence Interval (ARI). All fields above 1 in 20 Average Recurrence Interval (ARI), multi-purpose courts (unfenced) above 1 in 50 Average Recurrence Interval (ARI), all buildings, playground areas or fenced multi-purpose courts above 1 in 100 years Average Recurrence Interval (ARI).
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	<ol style="list-style-type: none"> <li>(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.</li> <li>(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.</li> <li>(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.</li> </ol>

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 I: RURAL LOT TYPES, SIZE, FRONTAGE AND SPECIAL CHARACTERISTICS

Lot Type	Lot Size	Frontage	Special Characteristics
<b>(1) Rural Producers Lots</b>  <b>NOTE 1</b> Rural Producers Lots can be created via two (2) methods, as either one (1) undivided lot or as an amalgam of separate lots.	100ha (dairy farming)	500m (where created as one (1) undivided lot), otherwise 200m where created as an amalgam of lots	(a) All dairy farms are to have— <ul style="list-style-type: none"> <li>(i) at least 20% of the farm holding contained within the Rural A (Agricultural) Zone with most of the balance area having land suited to improved pastures (i.e. class C1 land as identified on Map 5 in Schedule 7); and</li> <li>(ii) a reliable irrigation water supply either as part of a regulated section (e.g. Warrill Creek) or supplementary irrigation system from the river and creek systems or associated aquifers.</li> </ul> (b) Where a proposed dairy farming lot does not include any or only minimal rural agricultural zoned land, the minimum lot size is to be increased to 150 hectares provided most of the land is suited to improved pastures (i.e. class C1 land as identified on Map 5 in Schedule 7).           (c) The area of any land included in the Rural D (Conservation) Zone is not to be included in the area calculations for a proposed dairy farming lot.
	140ha (cattle breeding / fattening)	600m (where created as one (1) undivided lot), otherwise 200m where created as an amalgam of lots	(a) All cattle breeding/fattening farms are to have at least 40% of the property holding contained within the Rural A (Agricultural) Zone or have most of the land suited to improved pastures (i.e. class C1 land as identified on Map 5 in Schedule 7).           (b) Where a proposed cattle breeding/fattening property does not include any or only minimal rural agricultural zoned or improved pasture land, the minimum lot size is to be increased to 250 hectares.           (c) The area of any land included in the Rural D (Conservation) Zone is not to be included in the area calculations for a proposed cattle breeding/fattening lot.
	60ha (small crops – irrigated)	400m (where created as one (1) undivided lot) otherwise 200m where created as an amalgam of lots	(a) All small crop (irrigated) farms are to have— <ul style="list-style-type: none"> <li>(i) at least 20 hectares of the property holding containing land suited to high value crop farming (class A land as identified on Map 5 in Schedule 7); and</li> <li>(ii) a reliable irrigation water supply either as part of a regulated section (e.g. Warrill Creek) or supplementary irrigation system from the river or creek systems or associated aquifers.</li> </ul>
			(a) For 'other' agricultural/pastoral uses there are no recommended probable solutions as each use will require an individual approach.           (b) Any proposals for 'other' agricultural/pastoral uses are to be assessed taking into account— <ul style="list-style-type: none"> <li>(i) the property holding (size) requirements and land types of similar operations located within the City and elsewhere;</li> <li>(ii) the proposed farm management plan (including land resource assessment);</li> <li>(iii) any requested advice regarding SPP 1/92 and associated Guidelines from the Department of Natural Resources and Mines.</li> </ul>



Lot Type	Lot Size	Frontage	Special Characteristics
(2) Farm Restructuring Lots	20ha	200m	<p>(a) The excised lot—</p> <ul style="list-style-type: none"> <li>(i) is to be zoned Rural A (Agricultural) or Rural B (Pastoral);</li> <li>(ii) is, where practicable, not to further fragment land within the Rural A (Agricultural) Zone;</li> <li>(iii) is to be 'amalgamated' or 'consolidated' with an adjoining or nearby farm or property holding; and</li> <li>(iv) is not to contain a dwelling entitlement.</li> </ul> <p>(b) The balance or remaining lot or holding is to—</p> <ul style="list-style-type: none"> <li>(i) contain a minimum area not below the size for the appropriate type of rural producers lot if contained with the Rural A (Agricultural) or Rural B (Pastoral) Zones unless it is to be 'amalgamated' or 'consolidated' with an adjoining or nearby farm or pastoral holding; or</li> <li>(ii) be wholly contained within the Rural D (Conservation), Rural C (Rural Living) or Rural E (Special Land Management) Zones.</li> </ul> <p>(c) The property holding which is to receive the excised lot is to have a rural occupation or rural pursuit carried out on the land.</p> <p>(d) For any 'consolidated' farm restructuring, the lots—</p> <ul style="list-style-type: none"> <li>(i) are to be held in common ownership; and</li> <li>(ii) not be capable of separate disposal by virtue of the Plan of Subdivision recording the various parts of the farm holding as one (1) land title (refer to the Land Titles Act).</li> </ul>
(3) Rural Support Activities Lot	4000m <sup>2</sup> or greater	40m, provided the dimensions do not exceed a 1:4 width to length of lot ratio	<p>(a) All lots are capable of disposing sewage and domestic waste on site.</p> <p><b>NOTE 2</b></p> <p>For further information about requirements for on-site effluent treatment and disposal, refer to Plumbing and Drainage Act 2002 and the Queensland Plumbing and Wastewater Code.</p> <p>(b) The proposed lot—</p> <ul style="list-style-type: none"> <li>(i) is to be zoned Rural B (Pastoral);</li> <li>(ii) is, where practicable, not to further fragment land suited to improved pastures (i.e. Class C1 land as identified on Map 5 in Schedule 7);</li> <li>(iii) is to have an area, frontage and dimensions to accommodate the use outlined in the Local Government's development approval;</li> <li>(iv) is not to contain a dwelling entitlement;</li> <li>(v) is not in itself to create a balance or residual lot or holding below the size for the appropriate type of rural producers lot unless the balance or residual lot is to be 'amalgamated' or 'consolidated' with an adjoining or nearby farm or pastoral holding.</li> </ul>



Lot Type	Lot Size	Frontage	Special Characteristics
<p><b>(4) Rural Living Lots</b></p> <p><b>NOTE 3</b></p> <p>This category of lot—</p> <p>(a) can only be created in the Rural C (Rural Living) Zone; and</p> <p>(b) is subject to there being no net increase in the amount of additional rural lots created within the rural locality; and</p> <p>(c) may involve the 'amalgamation' or 'consolidation' of individual lots on other rural land, e.g.—</p> <p>(i) rural producers land;</p> <p>(ii) land contained within the development constraints overlays;</p> <p>(iii) land situated within the Rural D (Conservation) or Rural E (Special Land Management) Zones; or</p> <p>(iv) land containing the Future Investigation Areas depicted in Map 2 in Schedule 7.</p>	<p>4ha (within the localities of Muirlea, Mt Marrow and Ironbark)</p> <p>5ha (with the locality of Haigslea)</p> <p>6ha (with the localities of Pine Mountain, Marburg and Tallegalla)</p>	<p>100m, provided the dimensions do not exceed a 1:4 width to length of lot ratio</p>	<p>(a) The proposed lot—</p> <p>(i) is to be zoned Rural C (Rural Living); and</p> <p>(ii) is to be compatible with/or similar to the predominant lot size within the area, irrespective of the minimum lot size.</p> <p><b>NOTE 4</b></p> <p>In relation to (iii) above, if, for example the minimum lot size for a locality is 6ha but an area within the locality has a predominant lot size of 10ha then the lot size for any reconfiguration within the area is to be 10ha.</p> <p>(b) All lots are capable of disposing sewage and domestic waste on site.</p> <p>(c) Where the proposed lot has a slope in excess of 10%—</p> <p>(i) at least 600m<sup>2</sup> of each lot is to be suitable for a building platform (measuring 10m by 15m) beyond the standard (i.e. 6m) front boundary setback including ancillary buildings, the provision of private outdoor recreation space and convenient vehicle access and parking; and</p> <p>(ii) an additional area is to be available on each lot that is suitable to treat and dispose of effluent on-site in compliance with the Plumbing and Drainage Act 2002 and the Queensland Plumbing and Wastewater Code.</p> <p><b>NOTE 5</b></p> <p>(1) Lots requiring more than domestic type foundation preparation and construction will not normally be approved.</p> <p>(2) Building design for houses on lots with slopes in excess of 10% should incorporate provisions to avoid slab on ground techniques (e.g. utilise post supported structures).</p> <p>(3) For further information about requirements for on-site effluent treatment and disposal, refer to Plumbing and Drainage Act 2002 and the Queensland Plumbing and Wastewater Code.</p> <p>(d) Access for on-site parking (which should be beyond the standard, 6m front boundary setback) is feasible without involving the future purchasers in major earthworks for engineering structures (e.g. bridges or retaining walls).</p>



## APPENDIX J: CLASSIFICATION OF RURAL STREETS

Rural Street Level / Type and Function	Maximum Design Speed (km/h)	Indicative Traffic Volume (vpd)*
<b>Local Street</b> The lowest order of street providing access to sites without any traffic generated by sites in other streets.	60	<150 **
<b>Collector Street</b> The collector street collects traffic from local streets and carries higher volumes of traffic. A reasonable level of amenity and safety is maintained by restricting traffic volumes and vehicle speeds.	60	<1 000 **

\* The indicative traffic volume is a target maximum volume which may be exceeded in a few cases where it can be demonstrated that to upgrade the street to the next level would create significant diseconomies or design issues.

\*\* For the purpose of calculating indicative Traffic Volumes a generation rate of 6.0 trips per dwelling is to be used.



## APPENDIX K: RURAL STREETS 'SUMMARY OF PROBABLE SOLUTIONS'

Street Design Criteria	Local Street	Collector Street
Traffic Catchment (max)	25 lots	165 lots
Traffic Volume (max)	150 vpd (1)	1 000 vpd (1)
Design Speed (max)	60 km/h	60 km/h
Carriageway—		
(a) lanes	1	2
(b) width (2)	4.0m	6.0m
(c) shoulder width	2.0m (3)	1.5 (3)
Verge Width (min) (4)	1.0m (5)	1.0m (5)
on fills	see note (6)	see note (6)
in cuts	see note (6)	see note (6)
Reserve Width (7)	20.0m	20.0m
Kerbing	No provision (8)	No provision (8)
Boundary clearance (minimum) (9)	5.0m	5.0m
Grade—		
(a) desirable maximum	16% (10)	16% (10)
(b) minimum	0.3%	0.3%
Sight Distance (general minimum)	130m (11)	65m
Carriageway Crossfall	Two Way	Two Way
Pavement crossfall	1:33	1:33
Shoulder crossfall	1:25	1:25

### Notes:

1. Based on 6 vpd per single residential use.
2. The carriageway width is measured between edge lines where a bitumen road, otherwise for the width of the gravel pavement.
3. Partial shoulder sealing of 1.0m (Local Streets) and 0.5m (Collector Streets) is required where a bitumen road, to reduce edge wear. Additionally, for bitumen roads, longitudinal edge lines are required at the edge of the traffic lanes to avoid the partial shoulder seal being used as part of the traffic lane.
4. The minimum verge widths apply after satisfying the other criteria within this table and other site-specific requirements.
5. Depending on height of fill and batter slope the verge width may need to be widened to 2.0m to accommodate guard rails.
6. The verge width is dependent on the table drain depth and sideslope. Where feasible, sideslopes not exceeding 1:6 are preferred.
7. Additional width may be necessary to fulfil performance criteria of the verge, batters or boundary clearances.
8. May be required in rock cuts or for specific drainage considerations.
9. The boundary clearance is measured from the edge line where a bitumen road, otherwise from the edge of the gravel pavement to the property boundary.
10. Absolute maximum 20%, where no reasonable alternative demonstrably exists, and limited generally to 100 metre sections.
11. As Local Streets operate on the concept of a 'single moving lane', the general minimum sight distance is that required for the drivers of two opposing vehicles to see each other in sufficient time to stop before collision. This distance is twice the stopping sight distance for normal design as outlined in Table 6.2 of Austroads 'Rural Road Design'.

