

AMENDMENTS TO MACKAY CITY PLANNING SCHEME

Part 9- Development Codes

**Division 9- Environment and
Infrastructure Code**

Division 9 Environment and Infrastructure Code

9.36 Environment and Infrastructure Code

- (1) The provisions of this division comprise the Environment and Infrastructure Code as follows:
- a) Compliance with the Environment and Infrastructure Code (**Section 9.37**);
 - b) Overall outcomes for the Environment and Infrastructure Code (**Section 9.38**); and
 - c) Specific outcomes, acceptable solutions and probable solutions for the Environment and Infrastructure Code (**Section 9.39**).

9.37 Compliance with the Environment and Infrastructure Code

- (1) For assessable development, compliance with the Environment and Infrastructure Code is achieved when development is consistent with the specific outcomes in **Table 9-8**.

9.38 Overall Outcomes for the Environment and Infrastructure Code

- (1) The overall outcome is the purpose of the Environment and Infrastructure Code.
- (2) The overall outcome sought for the Environment and Infrastructure Code is to provide for ecologically sustainable development in the City (irrespective of its scale or intensity) by ensuring that:
- (a) infrastructure services are:
 - (i) suitable for the intended use of the land; and
 - (ii) provided in a cost effective, coordinated, efficient and equitable manner that supports sustainable development practices;
 - (b) the Great Barrier Reef World Heritage Area is protected from direct or indirect impacts of development;
 - (c) development incorporates Water Sensitive Urban Design (WSUD) principles;
 - (d) development is suitable having regard to the underlying geology and soil conditions;
 - (e) uses sensitive to external noise, vibration, dust and odours are protected from unacceptable impacts;
 - (f) overshadowing and lighting from development does not cause a substantial loss of amenity for residents or adversely impact on the environment;
 - (g) air quality in the City's air shed is maintained;
 - (h) the quality of the surface and groundwaters in the City is maintained and protected from the effects of development;
 - (i) the risk to life and property resulting from flooding and storm surge inundation is minimised;
 - (j) erosion prone areas are protected from incompatible development to maintain natural coastal processes and tidal regimes including the long-term stability of dunes and other types of coastal land forms.

- (k) public access to and along the coast meets the public expectations for access to the coast, without detrimentally affecting the environmental values of the coast.
- (l) land uses adjoining high impact activity areas do not detract from the ongoing operation of those areas;
- (m) storage of hazardous substances is undertaken having regard to public safety,
- (n) adverse environmental impacts particularly from industrial uses, upon the surrounding ecosystems and the nearby residential areas are avoided;
- (o) landscaping is provided on premises to:
 - (i) be environmentally responsive;
 - (ii) provide shade;
 - (iii) enhance the appearance of the development;
 - (iv) buffer incompatible development; and
 - (v) maximise opportunities for revegetation and rehabilitation of development sites;
- (p) development enhances community safety through design that:
 - (i) minimises the opportunity for, and reduces the risk of, crime;
 - (ii) provides for informal surveillance of public space so that anti-social behaviour or crime related incidences are discouraged, detected and prevented;
 - (iii) reduces the fear and risk of crime for people using private and public space; and
 - (iv) contributes to an urban environment which is user friendly and safe to live, work and move in at any time of day or night.

9.39 Specific outcomes, acceptable solutions and probable solutions for the Environment and Infrastructure Code

The specific outcomes sought for the Environment and Infrastructure Code are included in Column 1 of **Table 9-8** and the acceptable solutions / probable solutions are in Column 2 of **Table 9-8**.

This code is to be read in conjunction with the:

- Environmental Management Planning Scheme Policy.
- Erosion Prone Area Planning Scheme Policy
- Landscaping Planning Scheme Policy.
- Community Safety Design Planning Scheme Policy.
- Engineering Design Guidelines Planning Scheme policy
- Contributions Planning Scheme Policy
- Key Infrastructure Maps A & B (Information Map)~

9.40 Definitions

“Activity Generators” includes land uses that encourage the use of the public realm. Such uses may include outdoor cafes and restaurants, outdoor sporting areas located within open space, clusters of shops etc.

“Concealment” refers to spaces that, by their concealed nature are not easily visible and so provide the opportunity for the concealment of potential offenders and their victims as well as illegitimate uses, anti-social activity and crimes.

“Constructed lake” means an artificial body of permanent, open water with an edge that may be either fringed with emergent macrophytes or a hard edge. While submerged macrophytes may occur throughout the water column, the dominant feature is open water.

“Defined Flood Event (DFE)” means the flood event adopted by a local government for the management of development in a particular locality which for the purposes of this Planning Scheme is 1% AEP (100 year ARI). The DFE is generally not the full extent of flood-prone land.

“Erosion Prone areas” refers to areas identified on the Environment Protection Agency’s Erosion Prone Mapping.

“Haulage route” for the purpose of this code is a road or accessway from the site of a high impact activity to a state controlled road.

“High Impact Activities” for the purpose of this code are those activities and any haulage route servicing such activities and undertakings having operational characteristics with the potential to profoundly and adversely impact on adjoining land uses. Such activities and undertakings includes major industrial activities and infrastructure undertakings, abattoirs, land fill sites, waste water treatment plants, extractive industries, rendering works, sugar mills, food processing facilities and like activities.

“Incompatible development” refers to any commercial or industrial development sharing a common boundary with any residential development.

“Landscaping” is defined as the treatment of an area that combines plants and materials to enhance the visual and climatic aspects of a proposed development.

“Legibility” refers to the ability of people who are unfamiliar with an area to be able to find their way. Legibility instils a sense of confidence in users of public space and can be achieved through the identification of designated pedestrian routes through the use of signage, lighting and suitable landscaping.

“Legitimate Use” means any lawful and normally appropriate use of a building, facility or public space.

“Public Spaces” refers to:

- spaces that are publicly owned and which are intended for use by the public; and
- spaces that are privately owned and which are intended for use by the public.

“Residential Land” for the purpose of this code includes land occupied by residential uses or included within the High Density Residential, Urban Residential, Urban Expansion and Rural Residential Zones.

“Surveillance” refers to informal surveillance (e.g. by casual observers), organised surveillance (by trained security guards, attendants and other trained personnel) and mechanical surveillance (e.g. security cameras).

“Vulnerable Premises” means:

- uses and activities such as (but not limited to) licensed premises (including taverns, hotels, entertainment venues, licensed clubs, off-premises bottle shops and nightclubs), large entertainment and recreational venues, large institutional uses (e.g. tertiary campuses, hospitals), schools, car parks (50 spaces and greater), public toilets, telephone booths and Automatic Teller Machines;
- premises of agencies used in maintaining social order including police stations, security firms, offices of Members of Parliament;

- any use or activity in a 'vulnerable setting' which generates people movement or use at times when there are less than normal business hour levels of formal and/or informal surveillance;
- any use operating at night-time (after 9:00 p.m.) or over a 24 hour period - (Automatic Teller Machines, service stations, institutions or tertiary educational facilities, or public transport interchanges); and
- any large scale project considered to have wide ranging safety implications such as (but not limited to) major shopping centres.

"Vulnerable People" means those individuals, or groups of people, who are likely to perceive themselves as being at risk of violence in the community or workplace and also those persons perceived by others to be vulnerable and therefore potential victims.

Such people may include (but is not necessarily limited to) people with disabilities, older people, students, ethnic minorities, young people and women.

"Vulnerable Setting" means settings that are isolated or concealed, or which otherwise generate a poor perception of safety, especially where regular after hours use is anticipated, and include:

- access routes (pedestrian and bicycle) to and from shopping centres, tertiary campuses, hospitals and other large institutions, car parks, public transport, places of employment or entertainment and community facilities;
- entrances and exits to venues and car parks; and
- concealment points and landscaping.

"Watercourse" for the purpose of this code means a waterway, creek or river as defined in 'State Policy for Vegetation Management on Freehold Land: Explanatory Notes to Code'. (DNRM, May 2003).

Table 9-8 Specific Outcomes and Acceptable & Probable Solutions for the Environment and Infrastructure Code

Infrastructure

Specific Outcomes	Acceptable / Probable Solutions
Assessable Development	
<i>Infrastructure Provision</i>	
P1 Adequate infrastructure is provided in time to meet the needs of the development.	S1 The timing for provision of infrastructure for development complies with the standards and contribution requirements detailed in the Engineering Design Guidelines Planning Scheme Policy
P2 Premises are provided with appropriate areas of private and public open space. Note: Guidance in regards to the design and provision of open space is provided in the Open Space Planning Scheme Policy and the Contributions Planning Scheme Policy.	S2 The provision of open space complies with the standards and requirements detailed in the Open Space Planning Scheme Policy and the Contributions Planning Scheme Policy.
P3 Premises have (i) an adequate, safe and reliable supply of water, including potable water, and is	S3.1 Premises are connected to Council's reticulated water supply system. S3.2 If connection to Council's reticulated water supply

Specific Outcomes		Acceptable / Probable Solutions	
	<p>connected, where possible, to an existing reticulated water supply.</p> <p>(ii) the planning and design of potable water infrastructure considers Water Sensitive Urban Design (WSUD) such as water conservation initiatives.</p>		<p>system is not possible, a potable water supply is provided in accordance with the standards detailed in the Engineering Design guidelines Planning Scheme Policy).</p>
P4	<p>Treatment and disposal of waste water ensures:</p> <p>(i) no adverse ecological impacts on the environment, particularly nearby receiving environments including surface waters and ground water; and</p> <p>(ii) the cumulative impacts of on site waste water treatment will not cause deterioration of environmental conditions;</p> <p>(iii) the planning and design of wastewater infrastructure considers Water Sensitive Urban Design (WSUD) such as wastewater management measures.</p>	S4.1	<p>Connection to Council's reticulated sewerage treatment system; or</p>
		S4.2	<p>Where connection to Council reticulated sewerage system is not possible, and where 20 people or less, Council will refer to the requirements of the Environmental Protection (Water) Policy 1997 and the On Site Sewerage Code (NR&M July 2002) and AS 1547. to ensure the premises are suitable for effluent disposal.</p>
		S4.3	<p>Where more than 20 people, no solution specified.</p>
Stormwater Management			
P5	<p>Drainage works are planned for and designed to ensure that adjoining land and the existing upstream and downstream drainage systems are not adversely affected by development, taking into account:</p> <p>(i) Water Sensitive Urban Design (WSUD) principles such as:</p> <ul style="list-style-type: none"> - protect natural systems; - enhance natural waterway systems within urban development using natural channel design principles; - detention of stormwater instead of rapid conveyance; - minimise impervious areas; - utilisation of stormwater to conserve potable water; - integrate stormwater treatment into the landscape; - water efficient landscaping; and - protection of water related environmental values . <p>(ii) need for a stormwater system that can be economically maintained;</p> <p>(iii) safety of pedestrians and vehicles;</p> <p>(iv) location of discharge;</p> <p>(v) construction of buildings, structures or paving up to site boundaries which avoid blocking or concentrating natural flow paths².</p> <p>(vi) fauna movement is provided for through bridges and culverts.</p>	S5	<p>Drainage works complies with the requirements of the Engineering Design Guidelines Planning Scheme Policy</p>

² Guidance on the design and construction of drainage systems is provided by the *Queensland Urban Drainage Manual 1994*.

Specific Outcomes		Acceptable / Probable Solutions	
External Works			
P6	<p>Kerb and channelling is provided to a satisfactory standard and constructed to:</p> <ul style="list-style-type: none"> (i) prevent edge fretting; (ii) perform required drainage functions; (iii) provide the appropriate level of control for vehicle movement; (iv) allow ready access to abutting properties at suitable locations; and (v) contribute to the desired streetscape character of the locality. 	S6	Premises are provided with kerb and channel in accordance with the Engineering Design Guidelines Planning Scheme Policy.
Roads			
P7	<p>All proposed road pavement surfaces:</p> <ul style="list-style-type: none"> (i) are of a quality and durability suitable to the intended traffic volumes and loads; (ii) provide all-weather access; (iii) allow the discharge of rainfall; (iv) provide the safe passage of vehicles and pedestrians; and (v) provide a reasonable, comfortable riding quality. 	S7	Roads are provided in accordance with the Engineering Design Guidelines Planning Scheme Policy.
Drainage networks			
P8	<p>In urban areas, the major drainage network is designed and constructed with the capacity to control stormwater flows under normal and minor system blockage conditions for the DFE applicable to drainage so that:</p> <ul style="list-style-type: none"> (i) floodways are restricted to areas where there is no damage to property or hazards for motorists, and (ii) runoff is directed to a lawful point of discharge through competently designed and constructed outlet works. 	S8	Design requirements of the Engineering Design Guidelines Planning Scheme Policy.
Public Utilities			
P9	Street lighting and signs are provided to ensure the safety of both vehicles and pedestrians, and to facilitate access and movement. ³	S9	Street lighting and signage comply with the requirements of the Engineering Design Guidelines Planning Scheme Policy.
Infrastructure Payments			
P10	The costs of providing infrastructure is funded by the development giving rise to the need for the infrastructure.	S10	The funding of infrastructure complies with the requirements of the Contributions Planning Scheme Policy.

³ 'Australian Standards and Manual for Uniform Traffic Control Devices' provides guidance in relation to these matters.

Specific Outcomes		Acceptable / Probable Solutions
Car Parking and Access		
P11	Premises are provided with: <ul style="list-style-type: none"> (i) adequate vehicle parking spaces to satisfy the anticipated requirements of the activity; (ii) safe and efficient access and manoeuvring areas to meet the anticipated volume and type of traffic; (iii) large vehicles are able to enter and leave the site without prejudicing the safety and efficiency of the road; (iv) access driveways are located and designed to minimise conflicts with traffic and pedestrians; and (v) vehicle crossings from the carriageway to the frontage of the site are constructed and finished to appropriate standards for the expected volume and type of traffic generated by activities on the site. 	S11.1 Vehicle parking on the site is in accordance with the rates specified in Schedule 2. S11.2 Vehicles are able to enter and exit the site (with the exception of dwelling house and duplex) in a forward gear. S11.3 The design of car parking and access complies with the requirements detailed in the Engineering Design Guidelines Planning Scheme Policy.

Environmental Amenity

Specific Outcomes		Acceptable / Probable Solutions
Assessable Development		
Lighting Management		
P1	Outdoor lighting does not cause a loss of amenity to adjacent premises or adversely impact on native fauna as a result of the light it emits either directly or by reflection. Note: Council will refer to the provisions of AS4282 – <i>Control of the Obtrusive Effects of Outdoor Lighting</i>	S1 No solution specified.
Overshadowing		
P2	The amenity of adjacent residential land is not adversely affected by shadows cast by adjoining building or structures.	S2 Buildings do not cast a shadow over more than 30% of an adjoining residential lot at any time between the hours of 9am and 3pm on 22 June.
Building Setbacks		
P3	Residential buildings are sited to minimise loss of amenity for residents' adjacent to cane tram lines.	S3 Residential buildings are set back a minimum of: <ul style="list-style-type: none"> (i) 50m from cane tram lines; and (ii) 100m from cane tram line level crossings and sidings.

Specific Outcomes		Acceptable / Probable Solutions
P4	Buildings are set back from a road frontage to: (i) complement the existing built form; and (ii) preserve the safety of vehicle movement along adjoining roads.	S4 No solution specified.

Noise and Vibration Management

Specific Outcomes		Acceptable / Probable Solutions
Assessable Development		
P1	Noise and vibration do not detract from the amenity of residents or employees of any adjacent premises.	S1 No solution specified.
P2	Premises accommodating uses which are likely to generate noise are designed and constructed with noise attenuation measures to avoid noise nuisance to nearby uses.	S2 No solution specified.
P3	Noise sensitive uses locating adjacent to State controlled transport infrastructure incorporate attenuation, building design and orientation measures. Note: Development adjacent to State controlled roads complies with the Department of Main Roads – Road Traffic Noise Management Code of Practice.	S3 No solution specified.

Air Quality

Specific Outcomes		Acceptable / Probable Solutions
Assessable Development		
P1	Premises used for purposes likely to generate emissions such as air pollutants, heat and odours incorporate: (i) physical measures for removing pollutants from emissions prior to discharge to the atmosphere; (ii) physical measures for reducing the temperature gradient between emissions and the atmosphere prior to discharge; and (iii) operational systems, including monitoring systems for major industry and major infrastructure, which maintain emissions within ANZECC guideline standards.	S1 No solution specified.

Flooding

Specific Outcomes		Acceptable / Probable Solutions
Assessable Development		
P1	Premises subject to risk of inundation or damage through flood are provided with immunity to that risk in order to reduce potential property damage	S1.1 Development is sited on land that would not be subject to flooding during a DFE; or S1.2 For development comprising a residential

Specific Outcomes		Acceptable / Probable Solutions	
	and to ensure public safety.	S1.3	<p>element, the floors of all habitable rooms are located 300mm above the DFE; or</p> <p>For non residential development or development involving temporary or moveable residential structures (e.g. caravan parks):</p> <ul style="list-style-type: none"> (i) buildings are located and designed so that floor levels (except areas used for car parking) are 300mm above the DFE; or (ii) there is at least one evacuation route that remains passable for emergency evacuations during all floods up to and including the DFE.
Assessable Development			
P2	There is no increase in the number of people living or working on a flood prone site, except where the premises are occupied on a short term or intermittent basis.	S2	No solution specified.
P3	<p>Development does not result in adverse impacts for the safety of people or the capacity to use land within a floodplain and does not involve:</p> <ul style="list-style-type: none"> (i) Any physical alteration to a watercourse; or (ii) Net filling of 50 cubic metres; or (iii) The proposed works either: <ul style="list-style-type: none"> (A) avoid any reductions of on-site flood storage capacity and contain within the subject site any changes in depth/duration/velocity in flood waters of all floods up to and including the DFE; or (B) do not change the flood characteristics at the DFE outside the subject site in ways that result in: <ul style="list-style-type: none"> - loss of flood storage; - loss of / changes to flow paths; - acceleration or retardation of flows; or - any reduction of flood warning times elsewhere on the floodplain. 	S3	No solution specified.
P4	Storage and handling of hazardous substances on sites that are subject to risk of inundation or damage through flood, ensures that persons and property are not placed at unreasonable risk.	S4	<p>Storage or handling of substances that may be a hazard to the environment or human safety by the risk of contamination due to flooding:</p> <ul style="list-style-type: none"> (i) is undertaken in accordance with a risk assessment; and (ii) provides for the storage of any hazardous substances above or securely isolated from the DFE level.
P5	The use is designed to minimise the impact of	S5	No solution specified.

Specific Outcomes		Acceptable / Probable Solutions	
Cyclonic Hazards			
<i>Undefined Flood and Inundation Areas</i>			
P6	Where flood limits are not identified, development is undertaken such that there is no adverse effects on flood levels or flows on the site or up-stream and down-stream of the site	S6	No solution specified.

Water Quality

Specific Outcomes		Acceptable / Probable Solutions	
Assessable Development			
P1	Development does not detract from the maintenance of water quality in the City's watercourses and bulk water storages, in particular its: (i) environmental values; and (ii) where applicable, potability of the water supply.	S1	No solution specified.
P2	Premises incorporate: (i) physical measures for intercepting and treating surface water drainage and spilled substances prior to their release to the watercourses; and (ii) bunding of sites or areas within sites or integrated drainage systems which include waste water treatment measures, where chemicals, fuels, lubricants or other soluble pollutants are being handled or stored. Note: Council will refer to the Environmental Protection Policy (Water) 1997	S2	No solution specified.
P3	The City's groundwater resources and surface waters are maintained by: (i) providing a stormwater system that manages stormwater quantity and quality prior to discharging into receiving waters; (ii) providing non structural source control measures; (iii) providing structural source control measures; (iv) retaining or rehabilitating natural waterway corridors such as natural channels, wetlands and riparian vegetation; (v) providing storage of waste water in secure and sealed storage facilities; (vi) ensuring efficient disposal areas and ground and surface water retrieval areas are buffered from each other; (vii) ensuring that contaminants do not enter the groundwater resources; and (viii) with reuse of reclaimed water, ensuring safe treatment and disposal of contaminated water.	S3	No solution specified.

Specific Outcomes		Acceptable / Probable Solutions	
P4	The biodiversity and habitat values of coastal areas and associated estuarine systems are protected from: (i) increased nutrient or sediment levels; or (ii) changed flow, inhibited passage, or hydrologic regimes of the natural coastal and marine margins, which may result from development. ⁴	S4	No solution specified.
P5	Sediment and nutrient loadings into a watercourse are minimised through: (i) treated on-site effluent; (ii) adequate stormwater run-off controls; and (iii) on-site and off site erosion and sediment controls.	S5	No solution specified.

Erosion and Sediment Control

Specific Outcomes		Acceptable / Probable Solutions	
Assessable Development			
P1	Minimisation of the risk of erosion and sedimentation either on-site or elsewhere, by a comprehensive approach to soil erosion control and sedimentation management, including: (i) the minimisation of: (ii) earthworks; (a) clearing of land; (b) long term stockpiling of excavated materials; (iii) use of appropriate construction management techniques; (iv) diverting surface water drainage around disturbed areas; and (v) treating and removing sediments from stormwater over disturbed areas prior to release from the site.	S1	The control of Erosion and Sedimentation complies with Planning Scheme Policy 15.07 - Engineering Design Guideline D7 Soil and Water Quality Management.
P2	Progressive rehabilitation of disturbed areas occurs within the site through a comprehensive rehabilitation program including: (i) the grading and reshaping of the disturbed areas to provide controlled and stable drainage flow paths; (ii) the construction of drainage paths which divert high velocity flows away from disturbed areas; (iii) the re-spreading of stored top soil stripped from the site; and (iv) the planting of the disturbed area with native species of grasses, ground covers and trees.	S2	No solution specified.

⁴ See ANZECC Australian and New Zealand Guidelines for Fresh and Marine Water Quality, 2000.

Specific Outcomes		Acceptable / Probable Solutions
Coastal Management		
Public Access and Roads		
Assessable Development		
P1	<ul style="list-style-type: none"> (i) there is no net loss of public access to the foreshore, or of public useability of coastal waters; (ii) appropriate location and design is achieved with respect to sensitive coastal resources and their values; (iii) roads that run parallel to the coast, are set back from erosion prone areas and significant coastal resources, with only smaller access roads running to the coast; and (iv) minor spur roads to the foreshore and associated car parks provide access to the foreshore at locations that are convenient to the public, have low environmental sensitivity, and avoid locations that may increase storm tide hazard. 	S1 No solution specified.
Erosion Prone Areas		
Assessable Development		
P1	Development and permanent buildings are minimised in erosion-prone areas as defined in this code (apart from temporary or relocatable structures required for safety and recreational purposes).	<p>S1.1 Reconfiguring a lot within an erosion prone area incorporates erosion prone land as undeveloped open space.</p> <p>S1.2 Relocatable structures such as picnic tables, barbecues, coastal trails, bikeways, demountable structures, equipment sheds, lookouts, elevated decks, shelter sheds etc are located within erosion prone areas only where they remain relocatable.</p> <p>S1.3 All other development is;</p> <ul style="list-style-type: none"> (i) located outside of the erosion prone area; or (ii) as far landward as practical within the lot ; and (iii) is coastal dependent development (as defined in this code). <p>S1.4 All building works (excluding demolition), including extension to existing buildings, on lots wholly or partly within the erosion prone area are:</p> <ul style="list-style-type: none"> (i) For rural areas and undeveloped urban areas, located landward of the erosion prone area to minimise the extent of permanent building inside the erosion prone area; and (ii) For urban areas, located wholly landward of the alignment of existing neighbouring buildings and of a scale and intensity similar to that of the surrounding

Specific Outcomes	Acceptable / Probable Solutions
	development.
<p>P2 Where there is existing development within an erosion-prone area, redevelopment and extensions do not (as defined in this code):-</p> <ul style="list-style-type: none"> (i) extend the intensity of the existing level; or (ii) compromise coastal management outcomes and principles <p>Note: Supporting information required in order to demonstrate compliance is set out in the Erosion Prone Area Planning Scheme Policy.</p>	<p>P2 No solution specified.</p>

High Impact Activity Areas⁵

Specific Outcomes		Acceptable / Probable Solutions			
Assessable Development					
P1	Land uses adjoining high impact activity activities, including activities as indicated on Figure 9-8.1 ; and Figure 9-8.2 "High Impact Activities" and Information Map "High Impact Activities", are designed and sited to manage adverse effects on site users by providing: <ul style="list-style-type: none"> (i) noise attenuation measures; (ii) buffers between sensitive uses and the high activity areas; (iii) landscaping including bunding between sensitive use areas and high impact activity areas; and (iv) any other measures required to ensure that a nuisance is minimised. 	S1	Land uses adjoining high impact activity areas are set back from those areas in accordance with Table 9-8.3 . Table 9-8.3 Setbacks (measured from the boundary of the actual activity including ancillary site area for supporting activities or planned future expansion)		
				High Impact Activity	Buffer Distance
				Sewerage Treatment Plants(in general)	
				50,000 EP plant	1.475 km
				20,000 EP plant	500m
				3,500 EP plant or less	500m
				University	200m
				Key Resource Areas (KRAs) (See Figs 9-8.1 and 9-8.2)	
				The Cedars – KRA23	Separation Area identified in Figure 9-8.2.
				The Cedars Haul Route	100m
				Farleigh – KRA24	Separation Area identified in Figure 9-8.1.
				Farleigh Haul Route	100m
				Activities Producing Spray Drift, Noise, Smoke or Odour	Min. Default Distance (m)
Agricultural chemical spray drift	300m open space	40m vegetated buffer			
Intermittent odour (>88 hrs/yr)	500m	500m			
Intermittent noise as defined in planning guidelines	60m day / 1000 night	15m day / 250 m night			
Long term noise (< 50 hours /year)	500m day / 1000m night	120m day / 1000m night			
Dust, smoke and ash	150m	40m			

⁵ Refer to High Impact Activities Information Map

Specific Outcomes		Acceptable / Probable Solutions	
		S2 Land uses other than Industry (High Impact) uses, adjoining high impact activity areas are set back from those areas in accordance with Table 9-8.4 . Table 9-8.4 Setbacks (measured from the boundary of the actual activity including ancillary site area for supporting activities or planned future expansion)	
		Extractive Industry (other than KRAs)	1000m
		Slaughter Yard	1000m
		Sugar Mill	1000m
		Meatworks	1000m
		S3 Land uses other than Industry (High Impact) uses, adjoining high impact activity areas are set back from those areas in accordance with Table 9-8.5 . Table 9-8.5 Setbacks (measured from the boundary of the actual activity including ancillary site area for supporting activities or planned future expansion)	
		Waste Facilities ⁶	1000m
		Transfer Stations ⁷	300m
		Greenwaste Facilities ⁸	300m
P2 Specific Sewerage Treatment Plants meet the following criteria:		S3 No solution specified.	
PLANT	BUFFER DISTANCE		
Mackay Southern Water recycling Facility 97,000 EP	1.0km		
<u>P3 Mackay Sugar Wastewater Ponds meet the following criteria:</u>			
<u>PLANT</u>	<u>BUFFER DISTANCE</u>		
<u>Mackay Sugar Wastewater Ponds</u>	<u>1.0km</u>		

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⁶ Including Paget Waste Facility and Hogans Pocket

⁷ Including Bloomsbury, Calen, Seaforth & Kuttabul

⁸ Including Walkerston, Bucasia and Bayersville

Figure 9-8.1 Key Resource Area – Farleigh

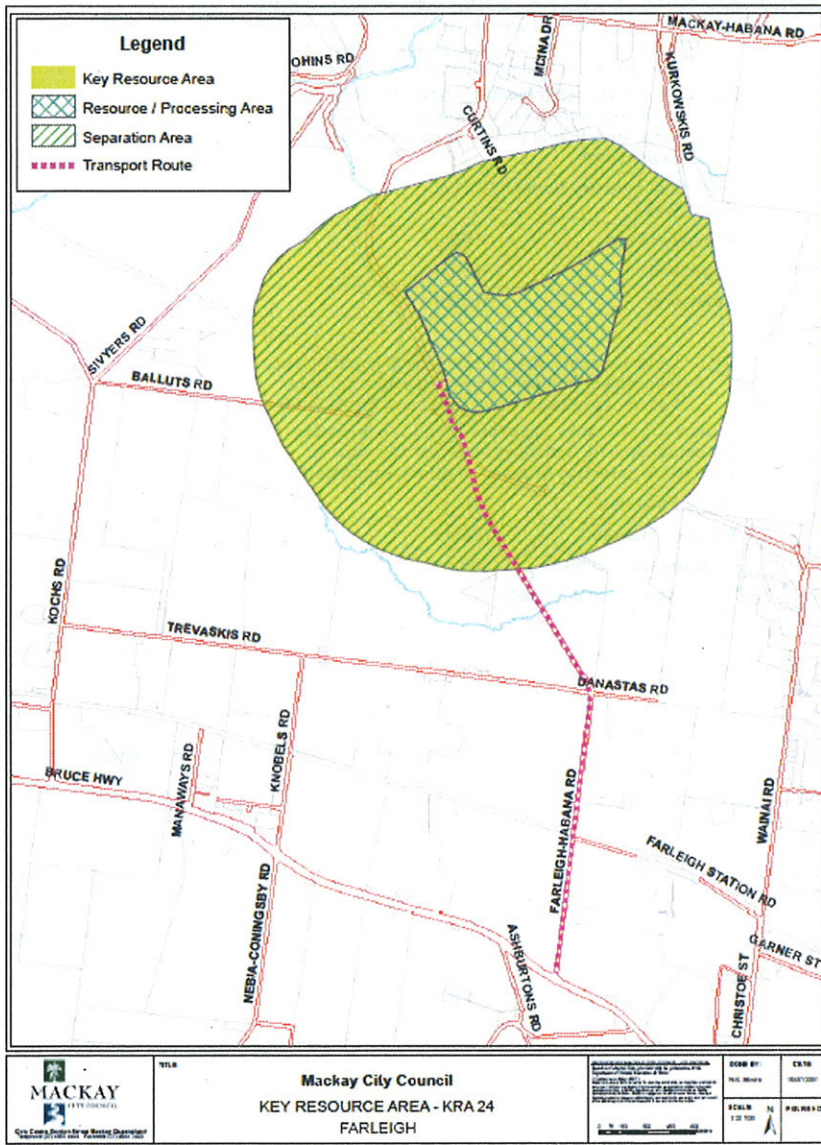
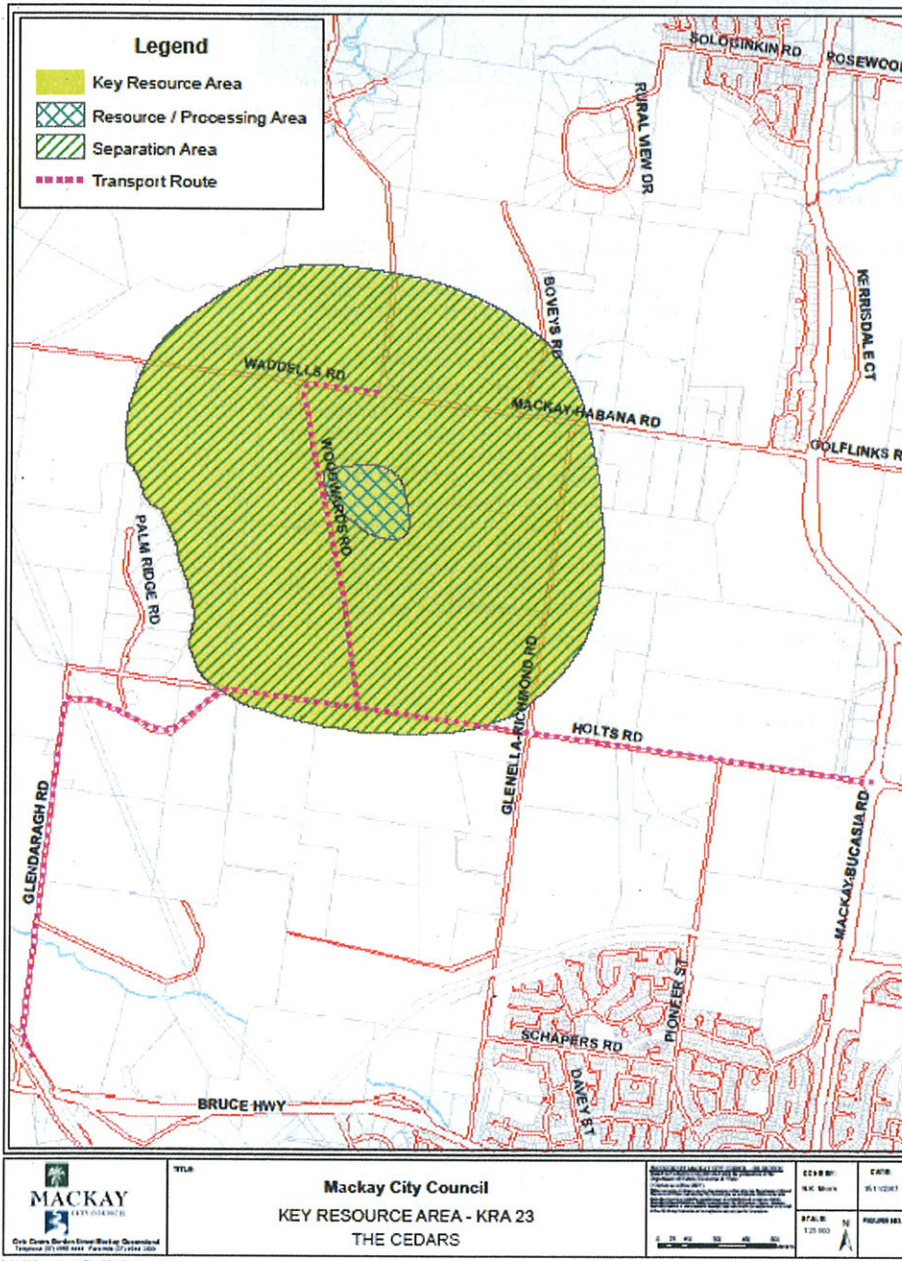


Figure 9-8.2 Key Resource Area – the Cedars



Landscaping and Fencing

Specific Outcomes		Acceptable / Probable Solutions	
Assessable Development			
P1	Development is provided with adequate and suitable landscaping and screening on the site which ensures: (i) an attractive streetscape appearance; and (ii) the privacy and amenity of any adjoining residences.	S1	Landscaping is provided in accordance with the Landscaping Planning Scheme Policy
P2	Landscaping is designed to prevent encroachment upon electricity infrastructure.	S2.1	Landscaping near electricity lines or substations, are designed and developed so that any vegetation at maturity or landscaping structures or works will not exceed 4.0m in height on land: (i) in an electric line shadow ⁹ ; or (ii) within 5m of an electric line shadow; or (iii) within 5m of a substation boundary.
		S2.2	Elsewhere, vegetation is planted in a position that is further from the nearest edge of an electric line shadow or substation boundary than the expected maximum height at maturity of vegetation.
		S2.3	On land adjoining an electricity substation boundary, the vegetation foliage at maturity will not be within 3m of the substation boundary. However, where a substation has a solid wall along any part of its boundary, foliage may extend to, but not above or beyond, that solid wall.
P3	Landscaping provides a 2m wide landscaped strip adjacent to the road frontage incorporating existing vegetation wherever possible.	S3	No solution specified.
P4	A landscape strip is provided comprising either a 1.8m high solid fence or 2m wide planted screen adjacent to all side and rear boundaries of a site which adjoins any residential area.	S4	No solution specified.
P5	Landscaping around buildings is designed to maximise shade and redirect cooling breezes in summer and to provide a windbreak in winter.	S5	No solution specified.
P6	Landscaping incorporates planting for shading summer sun, including: (i) tall shade trees to the west and east of the building; and (ii) trellises or pergolas adjacent to windows to the north of the building.	S6	No solution specified.
P7	Landscaping is designed to maximise the outdoor shade areas and minimise use of hard reflective surfaces around the building.	S7	No solution specified.
Landscaping for Outdoor Vehicle Parking Areas			
P8	Landscaping for outdoor vehicle parking areas, where development is for the purposes of Accommodation units, multiple dwelling units,	S8.1	Landscaping of outdoor vehicle parking areas provides planting of trees and shrubs: (i) in a strip 2m wide along any primary road

⁹ Electric Line Shadow is defined in Schedule 1

Specific Outcomes	Acceptable / Probable Solutions
<p>Sport and recreation, indoor entertainment, outdoor entertainment, child care centre, service station, motel, Industrial uses and retail or commercial uses, will:</p> <ul style="list-style-type: none"> (i) visually enhance the area along any road frontage; (ii) screen the area from any adjoining residential or other sensitive uses; (iii) provide visual relief and shade throughout the area; and (iv) be compatible with local native species. 	<p>frontage at a density and a scale appropriate to the size of the vehicle parking area and the function of the adjoining road; and</p> <ul style="list-style-type: none"> (ii) in median areas throughout the vehicle parking area at a rate of 1 shade tree for every 6 parking spaces. <p>S8.2 Provide a wall, fence or continuous screen planting, to a height of at least 1.8m along any boundary to land used or likely to be used for residential or other sensitive use.</p>
Landscaping - General Requirements	
<p>P9 Landscaping is designed and established to:</p> <ul style="list-style-type: none"> (i) an appropriate scale relative to both the street reserve width and to the size and nature of the development; (ii) incorporate remnant vegetation, where possible; (iii) provide summer shade and shelter for pedestrian comfort and energy efficiency of buildings; (iv) maximise areas suitable for on-site infiltration of stormwater; (v) allow for pedestrian and vehicle safety; (vi) generate a cohesive and distinct visual character for the streetscape and locality; (vii) be suitable to the tropical climate; (viii) provides planting, paving and other landscape treatment according to a Landscaping Plan; and (ix) minimise irrigation requirements through appropriate plant selection, mulching and water efficient irrigation systems. <p>Note: The Landscape Planning Scheme Policy should be referred to for information that may be required by Council to assist in assessment of an application.</p>	<p>S9 No solution specified.</p>
Vegetation Management	
<p>P10 Natural vegetation is maintained wherever possible.</p> <p>Note: Assessable development being operational work that is clearing of native vegetation of freehold land consistent with Schedule 8, Part 1, 3A of IPA will be assessed under the provisions of the <i>Vegetation Management Act 1999</i> and the State code for clearing of vegetation on freehold land.</p>	<p>S10 No solution specified.</p>

Community Safety Design Principles

Specific Outcomes		Acceptable / Probable Solutions	
Assessable Development			
Surveillance and Sightlines			
P1	<p>Premises provide opportunities for informal surveillance from surrounding buildings and land uses.</p> <p>Note: Ways of showing compliance are as follows:</p> <ul style="list-style-type: none"> (i) Windows in buildings overlook pedestrian routes, open space areas and carparks. (ii) No blank building facade is presented to any street frontage. (iii) Street level windows are provided in buildings fronting onto public spaces and movement routes. 	S1	No solution specified.
P2	Where located adjacent to public areas, premises are designed to permit surveillance of public areas.	S2	No solution specified.
P3	Buildings and street addresses in urban areas are easily identified.	S3	No solution specified.
P4	<p>Premises for uses other than dwelling houses and dual occupancy, are illuminated at night to:</p> <ul style="list-style-type: none"> (i) maximise personal safety of site users; and (ii) minimise opportunities for attack by hidden persons. (iii) provide lighting along access routes, in building entrances, site entries, car parking areas and other movement areas used after dark. 	S4	No solution specified.
P5	Visibility is provided into stairwells, elevators, car parks, lobby entrances and bicycle parking facilities.	S5	No solution specified.
P6	<p>Premises and their surrounds do not include:</p> <ul style="list-style-type: none"> (i) 'blind' corners (including on stairs, in corridors or other situations where movement can be predicted); (ii) sudden changes of grade on pathways which reduces sightlines; (iii) concealment spots (unless they can be secured after hours); and (iv) pedestrian tunnels, excepting that where unimpeded sightlines or the absence of concealment points cannot be reasonably achieved, equipment (such as security mirrors) and good lighting is provided to enhance visibility. (v) Potential concealment areas (i.e. dead-end alleys) are restricted or locked after hours. (vi) Where a concealment spot is unavoidable, there are aids to visibility such as convex mirrors and good secure lighting. (vii) Concealment spots such as: 	S6	No solution specified.

Specific Outcomes		Acceptable / Probable Solutions
	<ul style="list-style-type: none"> (A) dark areas adjacent to a main/designated pedestrian routes; (B) private dead-end alleyways; (C) indentation in fencing or walls; (D) gaps in the streets such as entrances to interior courtyards and recessed doorways; and (E) areas that are isolated after dark; are not located on the premises. 	
P7	<p>Building entrances:</p> <ul style="list-style-type: none"> (i) are clearly defined; (ii) are well lit and face the street; (iii) do not create concealment spots; (iv) provide clear sightlines from the building foyer so that occupants can see outside before leaving the building; (v) have lobbies visible from the exterior; and (vi) have staff entrances, if separate, which are well lit and maximise opportunities for informal surveillance and for clear sightlines. 	S7 No solution specified.
P8	Landscaping is designed and maintained to provide informal surveillance and clear sight lines on accessways and to other public spaces.	<p>S8 "Vulnerable premises" provide landscaping designed to promote safety including:</p> <ul style="list-style-type: none"> (i) planting which does not obscure doors and windows overlooking public spaces and isolated areas; (ii) shrubbery and low-level planting associated with footpaths which does not exceed 0.5m in height where abutting pavements; (iii) trees in vulnerable settings which do not have branches below 1.5m; and (iv) hard landscaping elements such as low fencing and walls (below 1.2m) which guide pedestrians and vehicles along designated paths.
Safe Movement and Access		
P9	The design of premises provides for unimpeded sightlines, particularly along pedestrian and bicycle routes.	S9 All barriers (including landscaping features) along bicycle and pedestrian routes are visually permeable (i.e. can be easily seen through to reduce concealment points).
P10	<p>Car parking areas are:</p> <ul style="list-style-type: none"> (i) designed to optimise informal surveillance and illumination, and to minimise unlawful access; (ii) well lit to enable visibility of all external edges and routes providing access to the car park; (iii) designed to minimise instances of large numbers of cars being co-located (over 100 cars in a single block). If more than 100 cars, more than one entry / exit point is provided so that the car park does not 	S10 No solution specified.

Specific Outcomes		Acceptable / Probable Solutions
	become an entrapment area.	
P11	Underpasses and overpasses are designed and located to reduce opportunities for crime, so that: <ul style="list-style-type: none"> (i) pedestrians are able to see what is in an underpass or tunnel and at the end of it before entering; and (ii) signs at each end of an underpass indicate where it leads and an alternative route to use at night. 	S11 No solution specified.
P12	Underpasses are wide enough to accommodate both pedestrian and cycle traffic, (Note: Council will refer to the provisions of <i>AUSTROADS Guide to Traffic Engineering Practice Part 14- Bicycles</i> .)	S12 No solution specified.
P13	The design and location of laneways and alleyways promotes community safety.	S13.1 Laneways are straight and have more than one entrance. S13.2 Unnecessary access to buildings from laneways is avoided.
Building Design and Lighting		
P14	Buildings contribute positively to the enhancement of public safety and security.	S14.1 Ramps and elevator entrances are located in areas which are not isolated. S14.2 Lifts are located within a secure entrance, and incorporate graffiti and vandal-resistant measures (i.e. a fully glazed and enclosed vestibule area at the exit to the lifts). S14.3 Loading and storage areas are well lit or can be locked after hours. S14.4 Parking spaces are allocated near the building entry for employees working after hours. S14.5 Enclosed or underground car parks can only be accessed from inside the building or through a security system. S14.6 All windows, particular those at street level are secure, without creating a 'fortress-like' appearance (i.e. avoid solid roller shutters).
P15	Lighting is provided which: <ul style="list-style-type: none"> (i) increases safety and security in and around the premises; (ii) considers vegetation, in both its existing and mature forms, or other elements that may have the potential to block out light; (iii) illuminates inset spaces, access/egress routes car parking areas and signage; and (iv) supports visibility for pedestrians, as well as road users. 	S15 No specific solution. Note: Council will refer to the following as guidance in assessment of compliance: Security lighting is consistent with Australian Standard S 4282 (1997) (<i>The Control of Obtrusive Effects of Outdoor Lighting</i>). Lighting of pedestrian and bicycle movement routes, public spaces and outdoor signage in public spaces is to the minimum Australian Standard of AS1158 (<i>Public Lighting Code</i>).

Constructed Lakes

Specific Outcomes	Acceptable / Probable Solutions
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Assessable Development	
Constructed Lakes	
P1 Natural design concepts are a primary consideration for a constructed lake.	S1 No solution specified.
P2 Constructed lakes are designed to be: <ul style="list-style-type: none"> (i) consistent with the area's social and recreational masterplans; (ii) sustainable; (iii) appropriately managed; and (iv) have minimal adverse impacts on surrounding environments. 	S2.1 Lake depth is ≤ 3 m. S2.2 The design of a constructed lake complies with the Engineering Design Guideline Planning Scheme Policy.
P3 Constructed lakes are to operate under a financially sustainable management regime.	S3 Lakes are provided under private ownership.

AMENDMENTS TO MACKAY CITY PLANNING SCHEME

Part 9- Development Codes

Division 16- Multiple Dwelling Units, Accommodation Units and Dual Occupancy Code

Division 16 - Multiple Dwellings, Accommodation Units and Dual Occupancy Code

9.70 Multiple Dwellings, Accommodation Units and Dual Occupancy Code

- (1) The provisions of this division comprise the Multiple Dwellings, Accommodation Units and Dual Occupancy Code as follows:
 - a) Compliance with the Multiple Dwellings, Accommodation Units and Dual Occupancy Code (**Section 9.71**);
 - b) Overall outcomes for the Multiple Dwellings, Accommodation Units and Dual Occupancy Code (**Section 9.72**); and
 - c) Specific outcomes, acceptable solutions and probable solutions for the Multiple Dwellings, Accommodation Units and Dual Occupancy Code (**Section 9.73**).

9.71 Compliance with the Multiple Dwellings, Accommodation Units and Dual Occupancy Code

- (1) For assessable development, compliance with the Multiple Dwellings, Accommodation Units and Dual Occupancy Code is achieved when development is consistent with the specific outcomes in **Table 9-15**.

9.72 Overall Outcomes for the Multiple Dwellings, Accommodation Units and Dual Occupancy Code

- (1) The overall outcome is the purpose of the Multiple Dwellings, Accommodation Units and Dual Occupancy Code.
- (2) The overall outcome sought for the Multiple Dwellings, Accommodation Units and Dual Occupancy Code is to ensure multiple dwellings, accommodation units and dual occupancies:
 - (a) are located on sites suitable for higher residential densities in terms of site area, dimensions, gradient, available infrastructure services and proximity to community facilities;
 - (b) are an acceptable scale and intensity, and are designed and sited to achieve high standards in amenity, visual integration in the streetscape and landscape, and functional integration with surrounding activities;
 - (c) have landscaping, fencing, and other external treatments which are compatible with and integrated in the streetscape and landscape to achieve high standards of amenity;
 - (d) are highly accessible from and integrate with the transport network for all persons; and
 - (e) do not cause environmental impacts on adjoining activities in terms of overshadowing, reflected heat or glare, excessive noise or light intrusion.
- (3) The Multiple Dwellings, Accommodation Units and Dual Occupancy Code only applies to development in the City Centre Locality where it is specifically referenced in the specific outcomes in the City Centre Locality zones.

9.73 Specific outcomes, acceptable solutions and probable solutions for the Multiple Dwellings, Accommodation Units and Dual Occupancy Code

- (1) The specific outcomes sought for the Multiple Dwellings, Accommodation Units and Dual Occupancy Code are included in Column 1 of **Table 9-15** and the acceptable solutions and probable solutions are in Column 2 of **Table 9-15**.

9.74 Definitions

"Adaptable housing" for the purposes of this code is defined as housing which has been or is capable of being adapted for use by disabled persons.

Table 9-15 Specific Outcomes and Acceptable & Probable Solutions for the Multiple Dwellings, Accommodation Units and Dual Occupancy Code

Land Suitability

Specific Outcomes		Acceptable / Probable Solutions	
Assessable Development			
P1	Multiple dwellings, accommodation units and dual occupancies are: (i) physically suited to or able to make provision for pedestrian movement within the site; (ii) well drained; (iii) not subject to any sources of unacceptable odour, noise or other pollution; and (iv) oriented to cooling summer breezes.	S1.1	The site has a slope of less than 15%.
		S1.2	Buildings and open space areas are oriented to the north and east.
		S1.3	The premises does not adjoin (or is buffered from) heavily trafficked roads, railways or industrial areas.
P2	The premises are accessible to or served by: (i) emergency services; (ii) local and district community, recreation, and commercial facilities; and (iii) the transport network.	S2	The premises are within 400m walking distance of shops, open space and public transport routes.

Specific Outcomes	Acceptable / Probable Solutions
<p>P3 For Accommodation Units and Multiple Dwelling Units, the premises have vehicle access from a street other than from an Access Place or Access Street.</p> <p>For Dual Occupancy, the premises have direct access to a formed road, except where an arterial, sub-arterial, or major collector road.</p>	S3 No solution specified.

Building Density

Specific Outcomes	Acceptable / Probable Solutions
Assessable Development	
Building Densities	
<p>P1.1 Multiple Dwelling Units, Accommodation Units or Dual Occupancy have the following maximum densities, unless otherwise provided in the relevant Locality Code:</p> <ul style="list-style-type: none"> (i) where in the Rural Residential Zone, 2 dwelling units per hectare; and (ii) where in the Urban Residential Zone: <ul style="list-style-type: none"> a) 1 dwelling unit per 400m² for Dual Occupancy and Multiple Dwelling Units; and b) 1 rooming unit per 300m² for Accommodation units; and (iii) Where in the Higher Density Residential Zone; <ul style="list-style-type: none"> a) 1 dwelling unit per 200m² for Dual Occupancy and Multiple Dwelling Units; and b) 1.5 Rooming Units per 200m² for Accommodation Units <p><i>Note: For the purpose of calculating densities for Multiple Dwelling Units in the Higher Density Residential zone, a 1 bedroom unit shall be taken to equal 0.50 of a dwelling unit, units with 2 bedrooms shall be taken or equal 0.75 of a dwelling unit and units with 3 or more bedrooms shall be taken to equal 1 dwelling unit.</i></p> <ul style="list-style-type: none"> (iv) Where in the Rural Zone one dwelling unit per 100 ha of site area; (v) Where in the Village Zone one dwelling unit per 1000m² of site area; and (vi) where in any other zone, densities are in keeping with development in the locality such that the streetscape, character and residential amenity is maintained. <p>P1.2 The Multiple Dwelling Units, Accommodation Unit or Dual Occupancy have a site coverage not exceeding those limits set in the following Table 9-15.1, unless otherwise provided in the relevant Locality Code.</p> <p>Table 9-15.1 - Maximum Site Cover – Of every storey at or above natural ground level</p>	S1 No solution specified.

Specific Outcomes			Acceptable / Probable Solutions
Height of building	Urban Residential Zone and Higher Density Residential Zone	Any other zone (unless otherwise specified in the relevant zone code)	
1 Storey	50%	50%	
2 Storeys	40%	40%	
3 Storeys	30%	30%	
>3 Storeys	30%	30%	
For Example: A 3 storey building has a maximum site coverage of 30% at natural ground level.			
Plot Ratios			
P2	Multiple Dwelling Units, Accommodation Units and Dual Occupancy have a plot ratio in keeping with development in the locality such that the streetscape, character and residential amenity is maintained.	S2	Multiple Dwelling Units, Accommodation Units or Dual Occupancy have the following maximum plot ratios unless otherwise provided in the relevant Locality Code: <ul style="list-style-type: none"> (i) where in the Urban Residential or Village Zones: <ul style="list-style-type: none"> (a) 0.5:1; or (b) 0.6:1 where the premises is located within 200m of public open space or a designated shopping centre; and (ii) where in the Higher Density Residential Zone 0.8:1; and (iii) where in any other zone, No solution specified.

Site Dimensions and Layout

Specific Outcomes		Acceptable / Probable Solutions
Assessable Development		
Site Dimensions		
P1	The size of the site permits efficient operation of the use.	S1 The site has: <ul style="list-style-type: none"> (i) an area of 800m² or more; and (ii) a minimum frontage of 20m.
Layout		
P2	The layout of the premises connects into the neighbourhood through: <ul style="list-style-type: none"> (i) pedestrian, cycle and vehicle access; (ii) visual links to views or features of significance; (iii) buildings facing street and public open spaces; and (iv) building, streetscape and landscape design relating to the surrounding neighbourhood character. 	S2 No solution specified.

Specific Outcomes		Acceptable / Probable Solutions	
P3	The layout of the premises: (i) provides useable open space conveniently accessible to residents and which is capable of being efficiently maintained; and (ii) takes account of attractive neighbouring premises and streetscape.	S3	No solution specified.
P4	Internal vehicle access and layout is provided to: (i) discourage speeding; (ii) provide safe, convenient and all-weather access and parking. and (iii) all vehicles are able to leave the site in a forward gear. ¹² Note: Leaving the site in a forward gear means no more than a 3-point turn based on a B99(van) vehicle.	S4	Car parking and access are provided in accordance with Schedule 2.
P5	Footpath layout : (i) provides safe, direct and gentle gradient footpaths provided within and adjacent to the premises; and (ii) discourages use of the premises as a pedestrian through-route for non-residents and provides privacy to interior spaces from all passers by.	S5	No solution specified.
P6	Buildings are sited to provide a clearly delineated transition space from public territory to the front doors of dwelling units.	S6.1	Building are designed and orientated so that the front entrance of each dwelling unit is easily found.
		S6.2	Dwelling units face towards public places to facilitate casual surveillance.

Building Design

Specific Outcomes		Acceptable / Probable Solutions	
Assessable Development			
<i>Building Appearance</i>			
P1	The building height is compatible with the height of adjacent buildings such that the streetscape character is maintained.	S1.1	Dual Occupancies have a maximum building height of 8.5m.
		S1.2	Accommodation Units and Multiple Dwelling Units have a maximum building height of 12m (to apex) to allow up to 3 storey development and additional height to accommodate pitched roofs, unless otherwise provided in the relevant Locality Code.
P2	Buildings are designed to take into account features that determine the character and streetscape. (Dominant external design features such as roof pitch, materials, colour, setback, tree cover, garages, driveways and front fences complement the character of the area).	S2	No solution specified.

¹² Guidance on the design and routing of internal vehicle access is provided in 'Queensland Streets'.

Specific Outcomes		Acceptable / Probable Solutions	
P3	Building design, detailing and finish adds visual interest and differentiation between residential buildings when viewed from the street.	S3.1	Buildings have a maximum unarticulated length of 15m to the principal frontage.
		S3.2	Building wall lengths in excess of 15m are articulated by bay windows, verandahs, balconies or wall offsets (minimum 1m depth).
		S3.3	Buildings are detailed or articulated to enable individual dwelling units to be identified from streets and communal areas.
		S3.4	Carports and garages are compatible with the design of the development and do not dominate the streetscape.
		S3.5	The maximum width of a garage or carport opening that faces the street is 6m or 50% of the frontage width, whichever is the lesser amount.
Adaptable Housing			
P4	Premises are designed to meet the needs of disabled persons by incorporating adaptable housing design measures.	S4.1	Where the premises is for the exclusive use of the aged or disabled persons, a minimum of one dwelling unit for every two units are designed and constructed in accordance with <i>Australian Standard 4299 – 1995</i> .
		S4.2	Otherwise, a minimum of one dwelling unit for every 10 units on the premises are designed and constructed in accordance with <i>Australian Standard 4299 – 1995</i> .

Building Setbacks

Specific Outcomes		Acceptable / Probable Solutions			
Assessable Development					
Frontage Setbacks					
P1	Buildings are set back from the road frontage to ensure: <ul style="list-style-type: none"> (i) Allowance is made for efficient use of the site; (ii) Landscaping is able to be provided at the front of the site; (iii) Pedestrians do not feel the building is overbearing; (iv) Residents are provided with an adequate sense of visual and acoustic privacy; and (v) Some visitor car parking is able to be provided at an easily visible location at the front of the site; and (vi) the building is integrated into the existing or proposed streetscape. 	S1	Unless otherwise provided in the relevant Locality Code, buildings have a minimum setback from the road frontage in accordance with the following Table 9-15.2 .		
			Residential Building	Carport / Garage	
		Access Place / Street	4.5m	6.0m	
		Collector	4.5m	6.0m	
		Sub-Arterial	10.0m	10.0m	
		Arterial	10.0m	10.0m	
		Note: The minimum setbacks for a corner lot are the same for each road frontage as stated above			
P2	Buildings are set back to provide: <ul style="list-style-type: none"> (i) for efficient use of the site; 	S2.1	Garages and carports are setback a minimum distance of 6m to the frontage boundary.		

Specific Outcomes		Acceptable / Probable Solutions	
(ii) landscaping at the front of the premises;		S2.2	The following may encroach within the setback area:
(iii) residents with an adequate privacy;			
(iv) some visitor carparking at a visible location; and			
(v) integration with the streetscape.			
Side and Rear Setbacks			
P3	All dwelling units are set back from side and rear boundaries of the site to ensure:	S3.1	Unless otherwise specified in the relevant Locality Code, buildings with walls up to 4.5m in height have a minimum side and rear boundary setback of 1.5m.
	(i) the building is integrated with existing development; and	S3.2	Buildings with walls greater than 4.5m in height have a minimum side and rear boundary setback of 2.0m plus 0.5m for every 3m of height over 7.5m.
	(ii) residents are provided with adequate privacy.	S3.3	Walls are built to side boundaries only where:
		(i)	the maximum wall height is 3.5m unless matching an existing or simultaneously constructed wall;
		(ii)	the maximum wall length to an abutting property boundary matches an existing boundary wall;
		(iii)	the maximum wall length to any abutting property boundary where there is no existing boundary wall on the abutting property being no more than 50% of the length of that boundary, or 12m, whichever is the lesser distance.
		(iv)	a wall is:
		a)	setback a minimum of 750mm from the side or rear boundary; or
		b)	where less than 750mm to the boundary, maintenance free. ¹³

Landscaping

Specific Outcomes		Acceptable / Probable Solutions	
Assessable Development			
P1	Landscaping is in keeping with the scale and intensity of the development and integrated with the streetscape to achieve a high standard of amenity.	S1	Multiple dwellings, dual occupancies and accommodation buildings, provide landscaping on all road frontages that includes semi-mature endemic native species spaced at 5m intervals.

¹³ Refer to Queensland Development Code Part 12 for examples of "maintenance free"

Fences and Walls

Specific Outcomes	Acceptable / Probable Solutions
Assessable Development	
<p>P1 Front fences and walls:</p> <ul style="list-style-type: none"> (i) enable surveillance; (ii) highlight entrances to the street; and (iii) provide visual interest to and are compatible with the streetscape. 	<p>S1.1 Front fences and walls have a maximum height of:</p> <ul style="list-style-type: none"> (i) 1.2m high if of solid appearance; and (ii) 1.8m high if the fence has openings of at least 50% transparent. <p>S1.2 Solid front fences and walls to 1.8m high are provided where the main private open space is in front of the dwelling unit, fronting other than an Access Place or Access Street, and with length limited to 75% of the frontage.</p> <p>S1.3 Fences do not exceed 10m in length without articulation or detailing to provide visual interest.</p>

Communal and Private Open Space

Specific Outcomes		Acceptable / Probable Solutions
Assessable Development		
P1	<p>For dwelling units, communal open space and any associated facilities are provided, unless otherwise specified in the relevant Locality Code, to suit:</p> <ul style="list-style-type: none"> (i) the overall residential density; (ii) the type of activity; (iii) maintenance requirements; (iv) the privacy of nearby dwelling units; and (v) informal surveillance and security needs. 	<p>S1.1 Communal open space, unless otherwise specified in the relevant Locality Code, comprises:</p> <ul style="list-style-type: none"> (i) 11m² per habitable room or 30% of the site area (whichever is greater); and (ii) at least 50% in one principal location with a maximum depth to width ratio of 2:1. <p>S1.2 The principal communal open space area is exclusive of areas used for roadways or parking areas.</p>
P2	<p>Private open space is provided for each dwelling unit.</p>	<p>S2.1 Unless otherwise specified in the relevant Locality Code, at-ground private open space provided for each dwelling unit, comprises a minimum total area of 35m², where:</p> <ul style="list-style-type: none"> (i) the minimum dimension is 2m; (ii) one part of the private open space is the principal area having: <ul style="list-style-type: none"> a) a minimum area of 16m²; b) a minimum dimension of 4m; c) the slope is not greater than 1 in 20 (5%); d) is directly accessible from a living room of the dwelling; e) screening is provided, to ensure privacy to the users of the open space; and f) orientation is between 30 degrees east or west of due north. <p>S2.2 Unless otherwise specified in the relevant Locality Code, above ground private open space provided for each dwelling unit has:</p> <ul style="list-style-type: none"> (i) a balcony with a minimum area of 8m²; (ii) a minimum dimension of 2.5m; and (iii) direct access from a main living room of the dwelling unit.

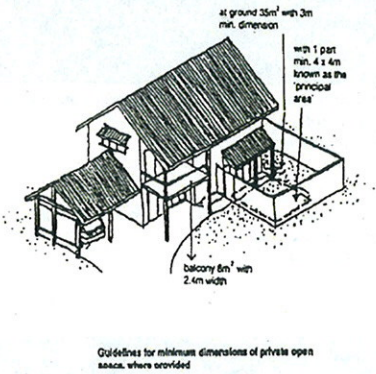
Specific Outcomes	Acceptable / Probable Solutions
	 <p>at ground 35m² with 3m min. dimension</p> <p>with 1 part min. 4 x 4m known as the principal area</p> <p>balcony 6m² with 2.4m width</p> <p>Guidelines for minimum dimensions of private open space, where provided</p>

Figure 9-15.1

Security and Safety

Specific Outcomes	Acceptable / Probable Solutions
Assessable Development	
P1 Private and communal open space is clearly differentiated and physically defined to delineate territory and ownership.	S1 No solution specified.
P2 Buildings are designed to overlook public and communal streets and other public areas to maximise casual surveillance.	S2 No solution specified.
P3 Lighting is provided to all pedestrian paths between public and shared areas, parking areas and building entries.	S3 No solution specified.
P4 Pedestrian site access and carparking is clearly defined, appropriately lit, visible to others and provides direct access to buildings from areas likely to be used at night.	S4 No solution specified.

Privacy

Specific Outcomes		Acceptable / Probable Solutions	
Assessable Development			
P1	Direct overlooking of main internal living areas of other dwelling units or rooming units is minimised by building layout, location and design of windows and balconies, screening devices and landscaping. ¹⁴	S1	No solution specified.
P2	Buildings, parking areas, and open spaces are designed and orientated to protect internal living and sleeping areas from unacceptable noise. ¹⁶	S2	No solution specified.

Daylight and Ventilation

Specific Outcomes		Acceptable / Probable Solutions	
Assessable Development			
P1	Habitable rooms and open space receive adequate daylight. ¹⁵	S1	No solution specified.
P2	Buildings are sited and designed: (i) to maximise use of cooling breezes; and (ii) to have windows located, sized and shaded to facilitate cooling. ¹⁷	S2	No solution specified.

Shadows

Specific Outcomes		Acceptable / Probable Solutions	
Assessable Development			
P1	Unless the premises are located in the City Centre Locality, buildings taller than two storeys are sited and designed to ensure shadows are not cast over outdoor living areas, whether or not on the same parcel of land, for long periods of time each day.	S1	All ground level private open space areas on the premises are capable of receiving sunlight for a minimum of 4 hours on 21 June.

¹⁴ Refer to Queensland Residential Design Guidelines – Element C3 Privacy.

¹⁶ Refer to Queensland Residential Design Guidelines – Element C2 Design for Climate – “Hot Humid Climate”

Service Facilities

Specific Outcomes		Acceptable / Probable Solutions
Assessable Development		
P1	Garbage bin areas, clothes drying areas, mail boxes and external storage facilities are: <ul style="list-style-type: none"> (i) of useable size; (ii) suitably located for convenient use; and (iii) designed to be screened. 	<p>S1.1 Individual mail boxes are located conveniently to each ground floor dwelling unit entry, or contained in a mail box structure located close to the major pedestrian entrance to the premises.</p> <p>S1.2 Garbage bin storage areas are located for convenient use and collection and screened from public view.</p> <p>S1.3 Open air clothes drying facilities are accessible, have sunlight and air circulation, and are visually screened from the street.</p> <p>S1.4 A secure space of 6m³ per dwelling unit is set aside exclusively for storage. (This space may form part of a carport or garage).</p>
P2	No more than 12 individual garbage bins (including recycling bins) for each complex.	S2 Complexes exceeding 6 units in total, provide industrial bins in lieu of individual bins.

Development within the Residential Character Areas

Note: For the purposes of this provision, the Residential Character Areas referred to in this code have been identified in **Diagrams 9-15.2, 9-15.3 and 9-15.4** attached to this Code.

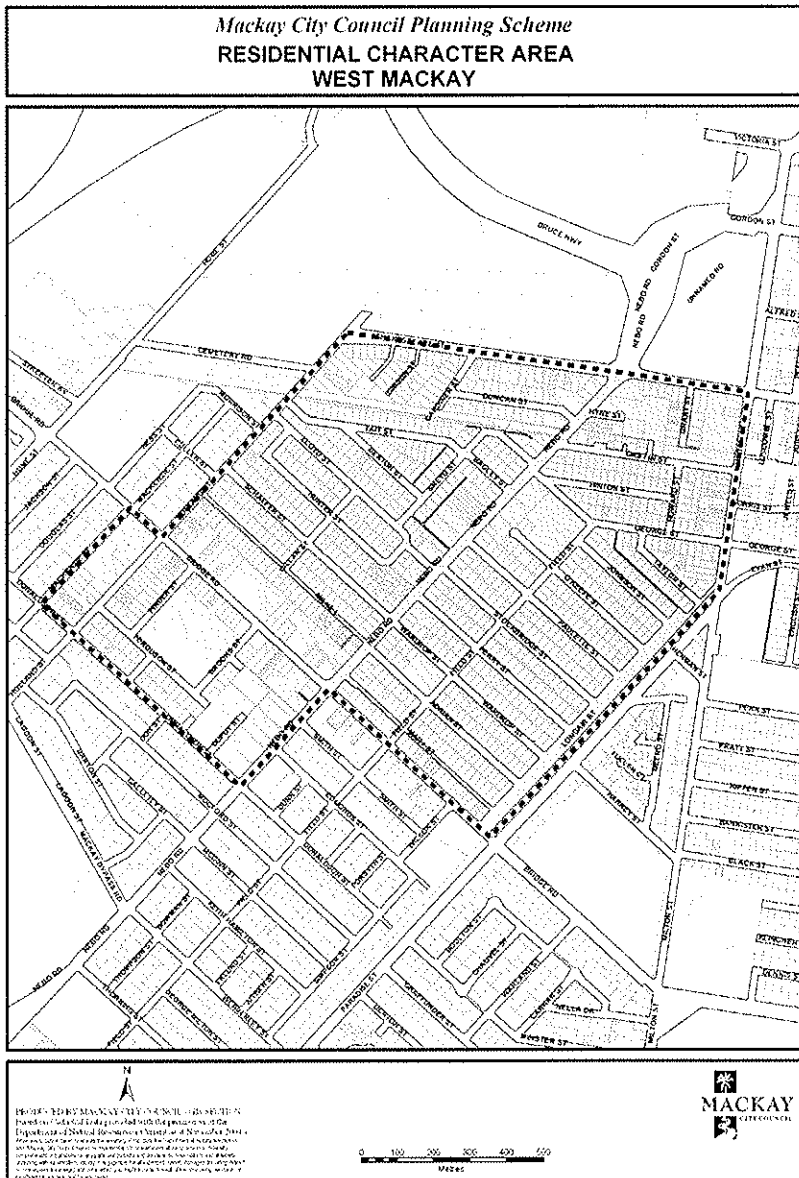
Specific Outcomes		Acceptable / Probable Solutions	
Assessable Development			
Residential Character Areas;- Railway Station, Queens Park and West Mackay Areas			
P1	Ensure that the character of Residential Character Areas is retained while encouraging design flexibility with contemporary and complementary themes.	S1	Buildings have a maximum height of 8.5m.
P2	Development of Accommodation Units, Multiple Dwelling Units or Dual Occupancy within the Railway Station, Queens Park and West Mackay Residential Character Areas or on land fronting either area has a form, scale, materials, setbacks, fencing and textures which are complementary to the existing streetscape character as follows: <ul style="list-style-type: none"> (i) use of materials such as timber and corrugated iron roofs; (ii) variation in rooflines and façade detailing to create a textured appearance; (iii) use of verandahs, eaves and awnings to provide climate control; (iv) a maximum of two storeys including ground floor; (v) consistent setbacks to the street frontage; and (vi) provide an open active façade to the street by incorporating openings and verandahs to the frontage of the building. 	S2	Accommodation Units, Multiple Dwelling Units or Dual Occupancy has the following design characteristics: <ul style="list-style-type: none"> (i) pitched roof (hipped, gabled or skillion, or a combination) to a minimum of 25°; (ii) attached verandahs facing the street a minimum of 2.4m wide, roofed and a minimum of 50% of the total width of the building. Roofed verandahs may have a pitch of less than 25°; (iii) continuous wall to the street is a maximum length of 8m; (iv) custom orb profile metal sheet roof and quad or half round guttering; (v) wall cladding (timber, and rendered sheeting) and timber framed construction for the verandah, stairs or balustrade to the front of the building; (vi) setback from front street within 1.5m of adjoining neighbours; and (vii) front fence a maximum height of 1,500mm.

Specific Outcomes		Acceptable / Probable Solutions	
Assessable Development			
P3	Sites adjacent to the Bruce Highway (Nebo Road) and the Peak Downs Highway are landscaped with screen planting to all site boundaries.	S3	No solutions specified.
P4	Development in a Residential Character Area is designed and carried out so as to: <ul style="list-style-type: none"> (i) be compatible with the prevailing character of the relevant area with respect to its siting, scale, form, design, landscaping and use of external materials; (ii) ensure that new buildings are set back from the relevant street frontage so that the predominant set back in the street is maintained; (iii) ensure that ancillary buildings are sited and designed in a complementary manner to be sympathetic with and respectful of the character of the existing built form in the precinct; and (iv) ensure any fencing, landscaping or signs and advertising devices are designed and sited to enhance the overall appearance of the streetscape and to be in character with the site or area having regard to materials used, colour, scale and placement. 	S4	No solutions specified.

Diagram 9-15.3 Queens Park Residential Character Area



Diagram 9-15.4 West Mackay Residential Character Area



AMENDMENTS TO MACKAY CITY PLANNING SCHEME

Part 9- Development Codes

Division 19- Reconfiguration of a Lot Code

Division 19 Reconfiguration of a Lot Code

9.85 Reconfiguration of a Lot Code

- (1) The provisions of this division comprise the Reconfiguration of a Lot Code as follows:
- a) Compliance with the Reconfiguration of a Lot Code (**Section 9.86**);
 - b) Overall outcomes for the Reconfiguration of a Lot Code (**Section 9.87**); and
 - c) Specific outcomes, acceptable solutions and probable solutions for the Reconfiguration of a Lot Code (**Section 9.88**).

9.86 Compliance with the Reconfiguration of a Lot Code

- (1) For assessable development, compliance with the Reconfiguration of a Lot Code is achieved when development is consistent with the specific outcomes in **Table 9-18**.

Note: This code should be read in conjunction (where relevant) with the:

- Bushfire Management Planning Scheme Policy;
- Master Plan Planning Scheme Policy;
- Character / Heritage Planning Scheme Policy;
- Open Space Planning Scheme Policy;
- Reconfiguration of a Lot Planning Scheme Policy; and
- Key Infrastructure Maps A & B (Information Map depicting the Road Hierarchy).

9.87 Overall Outcomes for the Reconfiguration of a Lot Code

- (1) The overall outcome is the purpose of the Reconfiguration of a Lot Code.
- (2) The overall outcomes sought for the Reconfiguration of a Lot Code are:
- a) reconfiguration of lots is consistent with the economic and orderly growth of the locality;
 - b) new lots, including small lots, have areas and dimensions which meet use requirements and reflect environmental characteristics;
 - e) new urban residential estates are connected with and extend the existing hierarchy of roads indicated in the Key Infrastructure Maps (A and B);
 - d) infrastructure networks are designed to perform their intended functions safely and efficiently; and
 - e) public open space is provided as part of development involving reconfiguration of a lot, to meet the recreational needs of the community and to protect valuable features.

9.88 Specific outcomes, acceptable solutions and probable solutions for the Reconfiguration of a Lot Code

- (1) The specific outcomes sought for the Reconfiguration of a Lot Code are included in Column 1 of Table 9-18 and the acceptable solutions and probable solutions are in Column 2 of Table 9-18.¹⁷

9.89 Definitions

“Integrated Residential Development” means development of residential premises which are collectively and comprehensively planned, designed and built either at one time or staged and which incorporate common or related design elements.

Table 9-18 Specific Outcomes and Acceptable & Probable Solutions for the Reconfiguration of a Lot Code

Overall Design

Specific Outcomes		Acceptable / Probable Solutions	
Assessable Development			
P1	The proposed lot layout facilitates the desired future use of land in accordance with the relevant Locality Code by: (i) Establishing an orderly and acceptable land use pattern; (ii) Providing a road network consistent with the road hierarchy identified on the Key Infrastructure Maps (A and B); (iii) Providing a network, incorporating linkages, of public open space meeting community needs and protecting valuable features; and (iv) Providing an integrated drainage system based on natural drainage patterns and ecological processes.	S1	No solution specified.

¹⁷ All electricity easements are required by Ergon Energy Corp. Ltd to be provided in favour of the Council (at no cost) prior to the commencement of the use or sealing of the plan of subdivision.

Lot Areas and Dimensions

Specific Outcomes	Acceptable / Probable Solutions
Assessable Development	
<p>P1 Each lot has an area and dimensions such that it:</p> <ul style="list-style-type: none"> (i) is suitable for the range of likely uses; (ii) offers a high level of utility and amenity for its subsequent use and the use of adjoining allotments by providing ample opportunity for the separation of uses within adjoining lots; (iii) where in the Higher Density Residential zone, is able to be developed to achieve the desired dwelling unit density levels for the zone; and (iv) does not prejudice the desired future use of the land such that: <ul style="list-style-type: none"> a) suitable access is provided for pedestrians, cyclists, and vehicles; and b) adequate provision is made for any other area necessary for the conduct of the intended use for the site; (v) takes account of the physical characteristics of the site; and (vi) provides efficient servicing of the lot. (vii) Where on site effluent disposal is proposed, the allotment size and dimensions need to take into consideration the following issues: <ul style="list-style-type: none"> ■ the number of existing on site domestic water treatment plant systems in the locality; ■ the cumulative effect of the proposed and existing systems in the locality on water quality objectives for waters in the locality; ■ the size of the lots and the soil types, land slopes, hydrology and hydrogeology in the locality; ■ the proximity of systems to surface water and ground waters in the locality ■ the rainfall and other climatic conditions of the locality; ■ the existing quality of waters in the locality and the water quality objectives for the waters; ■ any relevant ground water protection plan. 	<p>S1 No solution specified.</p>

Specific Outcomes			Acceptable / Probable Solutions		
Assessable Development					
P2 Each lot is consistent with the minimum area and dimensions as set out in Table 9-18.1 Minimum Area & Dimensions . Table 9-18.1 Minimum Area & Dimensions			S2 No solution specified.		
Zones	Area	Frontage	Zones	Area	Frontage
Rural	100 ha		Industry (Low Impact)	2,500 m²	30m
Rural Residential	1 ha	60m	Industry (High Impact)	3,500 m²	35m
Industry (Low Impact)	Refer to acceptable probable solution S2				
Industry (High Impact)	Refer to acceptable probable solution S2				
City Centre Zones (1)	No minimum area or dimension specified				
Commercial	No minimum area or dimension specified				
Public Purposes	No minimum area or dimension specified				
Sport & Recreation	No minimum area or dimension specified				
Open Space	No minimum area or dimension specified				
Special Activities	No minimum area or dimension specified				
Zones	Area	Frontage			
Urban Residential	Minimum 300 m ²	10m			
Higher Density Residential	800 m ²	20m			
Village	1000 m ²	20m			
(Note: (1) Zones located in the City Centre Locality Code)					
P3 In the Rural Zone, new lots are not created unless: <ul style="list-style-type: none"> (i) the result of the reconfiguration is that new lots and the balance lot are above the minimum area stated for the Rural Zone; or (ii) the result of the reconfiguration is that an equal or lesser number of lots is created and the utility and accessibility of all subject lots is an improvement on the original situation in relation to enhancing or supporting the rural use of the lots. 			S3 No solution specified.		

Specific Outcomes		Acceptable / Probable Solutions	
Assessable Development			
P4	<p>Irregular shaped lots are designed to have:</p> <p>(i) a frontage to depth ratio of no more than 1:3;</p> <p>(ii) for land in the Urban Residential Zone:</p> <p>a) a minimum frontage of 10m to any cul-de-sac road or along any curved road alignment; and</p> <p>b) an area within the lot with the minimum dimensions of 15 by 15m; and</p> <p>(iii) for land in the Higher Density Residential Zone, a minimum width of 20m at a point 6 m in the lot parallel to the longest road frontage.</p>	S4	No solution specified.
P5	<p>Battleaxe lots do not occur in any proposal for reconfiguring a lot that creates more than 1 additional lot. Battleaxe lots are provided only where:</p> <p>(i) there is no increase in the density that is applicable to the zone that the subject land is included in;</p> <p>(ii) the lot handle is not less than 5m in width;</p> <p>(iii) both sides of the lot handle are landscaped for the full length of the handle;</p> <p>(iv) the maximum length of the lot handle is not greater than the minimum depth specified in Table 9-18.1 Minimum Area and Dimensions;</p> <p>(v) the area of the lot handle is not included in the calculation of the area of the lot for minimum area purposes; and</p> <p>(vi) for land in the Urban Residential Zone, two adjacent lots have a combined frontage of 50% of the minimum road frontage for a single lot, and a common access drive is provided between the kerb and the head of the access handle.</p>	S5	No solution specified.

Small Lots in the Urban Residential Zone

Specific Outcomes		Acceptable / Probable Solutions	
Assessable Development			
P1	<p>Lots having areas less than 450m² or an average width less than 18 m enable the design and siting of buildings such that they do not detract from the amenity or character of the area.</p>	S1	<p>Development proposals where lots with areas with 450m² or less are proposed are accompanied by a Plan of Development showing at least the following:</p> <ul style="list-style-type: none"> • North point. • Access to lots. • Footprint of buildings on subject lots. • Footprints of buildings on adjoining lots. • Building setbacks. • Existing and proposed services.

Specific Outcomes	Acceptable / Probable Solutions
	<p>S2 Lots having areas less than 350 m² form part of an <i>integrated residential development</i> of at least 4 lots, except where:</p> <ul style="list-style-type: none"> (i) the lot is located in a Residential Character Area; and (ii) there is an existing dwelling of character located on the existing residential lot; <p>in which case, such a lot, less than 350m² will be considered, if the existing dwelling of character is retained.</p>

Road Layout and Design

Assessable Development	
<p>P1 Each road has sufficient reserve and pavement width to cater for all the functions that the road is expected to fulfil, including:</p> <ul style="list-style-type: none"> (i) the safe and efficient movement of all users, (ii) provision for parked vehicles, (iii) provision of cycle and pedestrian networks; (iv) provision of public utilities landscaping, sound attenuation; and (v) public transport use. 	<p>S1 Road layout and design complies with the Engineering Design Guidelines Planning Scheme Policy.</p>
<p>P2 The road layout is designed to have street intersections:</p> <ul style="list-style-type: none"> (i) as T-junctions, roundabouts or other appropriate means; and (ii) adequately spaced to enable efficient and safe operation. 	<p>S2 The road layout provides corner truncations including:</p> <ul style="list-style-type: none"> (i) at major intersections, acute angled intersections, not less than a 10m^{x3} chord truncation; and (ii) at minor intersections, not less than a 6m^{x3} chord truncation.
<p>P3 Roads are designed to make provision for adjoining potential development sites.</p>	<p>S3 The road layout indicates possible connections to external roads and provision to service adjoining development sites.</p>
<p>P4 All lots have frontage to a road.</p>	<p>S4 Lots do not rely on an easement for access to a road.</p>

Open Space Requirements

Assessable Development	
<p>P1 In residential, commercial and industrial areas, public open space is provided as part of development involving reconfiguration of a lot:</p> <ul style="list-style-type: none"> (i) as part of a linked open space system for safe pedestrian and cycling paths linking centres; (ii) in a location, size and shape to satisfy the local, district or regional recreational needs of the community; and (iii) to have a multi-functional role such as for stormwater management or fauna habitat. 	<p>S1 The provision and design of open space complies with the requirements of the Open Space Planning Scheme Policy and the Parks Contributions Planning Scheme Policy.</p>

Note: Guidelines for complying with Council information requirements is detailed in the Open Space Planning Scheme Policy.

Community Title

Specific Outcomes		Acceptable / Probable Solutions	
Assessable Development			
P1	Community Title Development for a specific use is provided at the same density for that use in the relevant zone and locality codes in which the site is located and the overall and specific outcomes for the relevant zone and locality codes apply.	S1	No solution specified.

Infill Development

Specific Outcomes		Acceptable / Probable Solutions	
Assessable Development			
P1	Infill development addresses the social outcomes of IPA.	S1	Infill development achieves sustainable development outcomes, and occurs where amenity is addressed and achieves integrated networks of pleasant and safe public areas and cultural, recreational or social interaction are provided within well-serviced communities.