

PART 11—OVERLAYS

Division 1—Preliminary

11.1.1 Overlay Provisions

- (1) The following provisions in this part deal with Overlays—
- compliance with—
 - the Character Places Overlay (division 3, section 11.3.2); and
 - the Development Constraints Overlay (division 4, section 11.4.2);
 - overall outcomes for—
 - the Character Places Overlay (division 3, section 11.3.3); and
 - the Development Constraints Overlay (division 4, section 11.4.3);
 - assessment criteria for—
 - the Character Places Overlay (division 3, section 11.3.4); and
 - the Development Constraints Overlay (division 4, sections 11.4.4 to 11.4.16).
- (2) The following provisions in this part relate to the assessment tables for Overlays—
- general provisions (division 2);
 - assessment tables for each Overlay (division 3, Tables 11.3.1 and 11.3.2 and division 4, Tables 11.4.3 and 11.4.4).

Division 2—General Provisions for Assessment Tables

11.2.1 Assessment Categories for Overlays

The assessment categories¹ are identified for development in each Overlay in column 2 of tables 11.3.1, 11.3.2, 11.4.3 and 11.4.4 as follows—

- (a) tables 11.3.1 and 11.4.3—making a material change of use² for a defined use, or another use in a defined use class, listed in column 1; or

- (b) tables 11.3.2 and 11.4.4—other development³ listed in column 1, including—
- (i) carrying out building work not associated with a material change of use;
 - (ii) minor building work;
 - (iii) placing an advertising device on premises, not associated with a material change of use;
 - (iv) clearing of vegetation, not associated with a material change of use;
 - (v) earthworks, not associated with a material change of use;
 - (vi) reconfiguring a lot;
 - (vii) carrying out operational work for reconfiguring a lot or in association with a material change of use.

11.2.2 Relevant Assessment Criteria for Development Affected by an Overlay

- (1) The relevant assessment criteria for each Overlay are referred to in column 3 of tables 11.3.1, 11.3.2, 11.4.3 and 11.4.4.
- (2) For self assessable development and development requiring code assessment, the relevant assessment criteria are applicable codes.

Division 3—Character Places Overlay: Assessment Criteria and Assessment Tables

11.3.1 Character Places Overlay Code

The provisions in this division comprise the Character Places Overlay Code. They are—

- compliance with the Character Places Overlay Code (section 11.3.2);
- overall outcomes (section 11.3.3);
- specific outcomes and probable solutions as follows—

¹ Information about assessment categories is provided in the Ipswich Planning Scheme User's Guide (2).

² Works associated with an application for a material change of use may be assessed together with the material change of use.

³ See Ipswich Planning Scheme Users Guide 2 for examples that explain the type of development involved in different proposals.



- effects of development – general (section 11.3.4);
- assessment tables (Tables 11.3.1 and 11.3.2).

11.3.2 Compliance with Character Places Overlay Code

- (1) Development that, in the local government's opinion, is consistent with the specific outcomes in section 11.3.4, complies with the Character Places Overlay Code.
- (2) The provisions contained in the Character Places Overlay Code and the assessment tables apply from—
 - (a) the date upon which this planning scheme comes into force; or
 - (b) a later date on which a notice is served on the rateable owner of a place that the local government proposes, under Planning Scheme Policy 4, to include the place in Schedule 2.
- (3) Such provisions shall continue to apply until such time as—
 - (a) the local government resolves to not proceed with the inclusion of the place in Schedule 2; or
 - (b) a period of 90 days expires from the last day of the consultation period and the local government has not made a decision as to whether or not to proceed with the inclusion of the place in Schedule 2; or
 - (c) the place is removed from Schedule 2.

11.3.3 Overall Outcomes for the Character Places Overlay

- (1) The overall outcomes are the purpose of the Character Places Overlay Code.

NOTE 11.3.3A

- (1) 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) Schedule 2 includes a list of individual places of cultural significance or streetscape value.
- (3) Other places of cultural significance or streetscape value which are situated within Character Areas are protected via the zoning provisions for the Character Areas – Housing Zones and the Character Areas – Mixed Use Zones.

- (4) Planning Scheme Policy 4 outlines the criteria and process for including or removing places from Schedule 2.
- (5) Key character provisions for the Character Places Overlay include—
 - (a) demolition and removal controls for pre-1946 buildings (refer Assessment Table 11.3.2); and
 - (b) sympathetic design guidelines which strongly reflect pre-1946 architectural themes (refer Character Code, Part 12, division 10).
- (6) In addition to Character Places the planning scheme recognises 'Identified Places of Interest', which are places that—
 - (a) are located in an area where the stated planning expectation is that the land could be developed at a significantly higher intensity than offered by the existing building; or
 - (b) have an economic value which is very low compared to other nearby land and there is limited prospect of continued use or adaptive reuse of existing buildings; or
 - (c) are in a state of significant structural disrepair, and there is significant risk to persons or property; or
 - (d) where the cultural significance or streetscape value is marginal.

These places are included in Schedule 3, (Identified Places of Interest).
- (7) The scheme encourages the conservation of 'Identified Places of Interest' but does not compel their conservation or retention 'in situ'.
- (8) Where possible, Schedule 3 listed buildings should be retained on site, in a manner which also retains or enhances their streetscape presence.
- (9) Alternatively, such buildings should be—
 - (a) relocated as close as possible to the original site and oriented and restored as far as possible to retain or enhance their original streetscape presence and overall setting; or
 - (b) relocated within a Character Zone and oriented and restored as far as possible to retain or enhance their original streetscape presence and overall setting.



- (2) The overall outcomes sought for the Character Places Overlay are the following—
 - (a) Places of cultural significance or streetscape value are conserved.
 - (b) Uses and works are sympathetic with and respectful of places of cultural significance or streetscape value.
 - (c) Uses and works within places of cultural significance or streetscape value are located, designed and managed to—
 - (i) maintain residential amenity;
 - (ii) be compatible with existing uses and works;
 - (iii) avoid significant adverse effects on the natural environment; and
 - (iv) maintain the safety of people, buildings and works.
 - (d) Uses and works within places of cultural significance or streetscape value are located and designed to maximise the efficient extension and safe operation of infrastructure.
- (3) New uses and works take account of the likely impact of the proposal on the cultural significance and streetscape value of the place, with particular reference to—
 - (a) the character, appearance, location and bulk of proposed buildings and other works;
 - (b) whether any proposed landscaped treatment would be in keeping with the character and appearance of the place; and
 - (c) whether the proposal is likely to cause irreversible damage to the cultural significance or streetscape value of the place.
- (4) Wherever possible, new uses and works ensure the retention of the original, or pre 1946 fabric of the place.
- (5) Where new uses and works involve considerable redevelopment—
 - (a) the retention of specific features of the place are capable of adequate interpretation; and
 - (b) it is apparent what is original and what is new.

11.3.4 Effects of Development – General

NOTE 11.3.4A

The specific outcomes which are sought to apply generally throughout the Character Places Overlay, and Schedule 2 are set out below.

Specific Outcomes

- (1) The cultural significance and streetscape value of places identified in Schedule 2 are conserved.
- (2) Uses and works are sympathetic with and respectful of the cultural significance and streetscape value of places identified in Schedule 2.

(6)

New uses and works maintain a scale and appearance in keeping with the character and amenity of the locality with adequate buffering or screening to nearby sensitive uses (both existing and proposed).

NOTE 11.3.4B

The Character Code (see Part 12, division 10) sets out the planning scheme requirements and design guidelines for new uses and works in the Character Areas – Housing Zones, Character Areas – Mixed Use Zones and areas covered by the Character Places Overlay.

Table 11.3.1: Assessment Categories and Relevant Assessment Criteria for Character Places Overlay—Making a Material Change of Use

Column 1 Defined use or use class ⁴	Column 2 Assessment category ⁵	Column 3 Relevant assessment criteria ⁶ —applicable code if development is self-assessable or requires code assessment
All	As per the assessment tables for each of the relevant zones covered by the Character Places Overlay.	Character Places Overlay Code (Part 11, division 3) Character Code (Part 12, division 10) Relevant Zone Codes

⁴ See Schedule 1 (dictionary), division 1 (defined uses and use classes).

⁵ Assessment categories may also be affected by overlays. See overlay maps to determine whether the land is affected.

⁶ For impact assessable development, 'relevant assessment criteria' are provided to assist the preparation of an application and in no way affect the regard given to the planning scheme as a whole in accordance with Section 3.5.5 of the IPA.



Table 11.3.2: Assessment Categories and Relevant Assessment Criteria for Character Places Overlay—Other Development

Column 1 Type of development	Column 2 Assessment category ⁷	Column 3 Relevant assessment criteria ⁸ —applicable code if development is self-assessable or requires code assessment
Carrying out building work not associated with a material change of use—inconsistent development if the demolition or removal of a place of cultural significance or streetscape value unless listed as exempt or unless there is no prudent or feasible alternative.	<p>Exempt if—</p> <ul style="list-style-type: none"> (a) maintenance work; (b) the demolition, removal, repair, addition or alteration to a building which was erected during the period from 1947 to 2000 unless the building is listed in Schedule 2 and provided any addition meets the criteria set out in Part 12, Division 16; (c) repair work, other than as set out in (b) above, which restores a building to its— <ul style="list-style-type: none"> (i) previous condition, prior to the occurrence of damage; or (ii) original condition; (d) internal building works, unless the interior part of the building on which the works are being undertaken is specifically listed in Schedule 2; (e) external works on the rear of a building where such works— <ul style="list-style-type: none"> (i) can not be readily seen from an adjoining street or public right of way; (ii) do not increase the gross floor area of the existing building by more than 50%; and (iii) meet the criteria set out in Part 12, Division 16. (f) closing in a verandah where— <ul style="list-style-type: none"> (i) the verandah does not face the street (see Schedule 6, Figure 1); and (ii) the original fabric is retained; and (iii) the work is capable of being reversed without significant damage to the original fabric; (g) replacing stumps; (h) raising or lowering a building by 750mm or less; (i) closing in underneath a building, providing such work is— <ul style="list-style-type: none"> (i) screened with timber battens from view from an adjoining street or public right of way; and (ii) set back for the full depth of all open or enclosed verandahs; or (iii) set back 1.0 metre from the upper level of an exterior wall where there is no verandah; (see Schedule 6, Figure 2) (j) erecting a Class 10 building (outbuilding):- <ul style="list-style-type: none"> (i) which meets the criteria set out in Part 12, Division 16; and (ii) where the main building on-site was erected between 1947 and 2000; and (iii) where the main building is not listed in Schedule 2; (k) erecting a Class 10 building (outbuilding), other than as set out in (j) above— <ul style="list-style-type: none"> (i) where the Class 10 building is situated at the rear of the main building (see Area A in Schedule 6, Figure 3) and which meets the criteria set out in Part 12, Division 16; 	<p>Character Places Overlay Code (Part 11, division 3)</p> <p>Character Code (Part 12, division 10)</p> <p>Planning Scheme Building Matters Code (Part 12 Division 16)</p>

⁷ Assessment categories may also be affected by overlays. See overlay maps to determine whether the land is affected.

⁸ For impact assessable development, 'relevant assessment criteria' are provided to assist the preparation of an application and in no way affect the regard given to the planning scheme as a whole in accordance with section 3.5.5 of IPA.



Column 1 Type of development	Column 2 Assessment category ⁷	Column 3 Relevant assessment criteria ⁸ —applicable code if development is self-assessable or requires code assessment
	<ul style="list-style-type: none"> (ii) where an open carport, at the side of the main building (see Area B in Schedule 6, Figure 3), provided the carport— <ul style="list-style-type: none"> (A) is a maximum of 3.6 metres wide; (B) has a roof pitch which is a minimum of 15 degrees; (C) has a gable or hip roof form; and (D) contains corrugated metal roofing material or matches the roofing material used on the main building; (iii) where an open carport in front of the main building (see Schedule 6, Area C in Figure 3) provided the carport— <ul style="list-style-type: none"> (A) is detached from the main building; (B) is a maximum of 3.6 metres wide; (C) has a roof pitch which matches the main building's predominant roof pitch; (D) has a roof overhang that is a minimum of 300mm; (E) has a gable or hip roof form; (F) has 100mm x 100mm support posts; (G) contains corrugated metal roofing material or matches the roofing material used on the main building; and (H) has a quad gutter profile or matches the gutter profile used on the main building; (l) an unroofed pergola or an ornamental garden structure; (m) a sunhood over a window or door; (n) the relocation of a building sideways on a lot in order to remove an encroachment across a property boundary or to achieve a minimum side boundary clearance under the Building Act 1975; (o) constructing a fence to the side or rear boundary of a property; (p) constructing a front (i.e. street) boundary fence which is— <ul style="list-style-type: none"> (i) 1.2 metres or less in height; or (ii) between 1.2 and 2.0 metres in height, provided either the materials or the method of construction used provides for a minimum 30% transparency; (q) constructing a pool, retaining wall or other structure— <ul style="list-style-type: none"> (i) where the construction takes place at the rear of the main building (see Area A in Schedule 6, Figure 3), provided no structure is higher than the main building; or (ii) where the construction takes place at the side or in front of the main building (see Areas B and C in Schedule 6, Figure 3) provided no structure is more than 1.2 metres above the existing ground level; and (iii) in respect to both (i) and (ii) above, where the construction meets the criteria set out in Part 12, Division 16. 	



Column 1 Type of development	Column 2 Assessment category ⁷	Column 3 Relevant assessment criteria ⁸ —applicable code if development is self-assessable or requires code assessment
	<p>(r) involving the removal or relocation of a building listed in Schedule 3, providing—</p> <ul style="list-style-type: none"> (i) the building is retained within the Local Government area⁹; and (ii) the Local Government is provided with a report containing photographs and measured drawings which document the location and condition of the building prior to its removal or relocation; <p>(s) involving the demolition, removal or relocation of an item of cultural fabric, other than a building, from a site listed in Schedule 3, providing the Local Government is provided with a report containing photographs and measured drawings which document the location and condition of the item of cultural fabric, prior to its demolition, removal or relocation; or</p> <p>(t) involving building works on a site listed in Schedule 3, other than demolition, removal or relocation of a building listed in Schedule 3.</p> <p>(u) erecting an Auxiliary Unit:-</p> <ul style="list-style-type: none"> (i) where the Auxiliary Unit is situated at the rear of the principal dwelling (see Area A in Schedule 6, Figure 3) and meets the criteria set out in Part 12, Division 16; (ii) where the Auxiliary Unit is attached to the side of the principal dwelling (see Area B in Schedule 6, Figure 3), provided the auxiliary unit— <ul style="list-style-type: none"> (A) is consistent in materials, fenestration, roof form, colours, scale and construction techniques of the principal dwelling; or (B) the design reflects the existing character, materials, fenestration, roof form, colours, scale and construction techniques of surrounding dwellings so as to appear consistent with the rhythm of the streetscape; and (C) is indistinguishable when viewed within the streetscape. <p>Impact Assessable, if—</p> <ul style="list-style-type: none"> (a) demolition or relocation of a building listed in Schedule 2 where the criteria for exempt or code assessable do not apply; or (b) erecting a new building, other than a single dwelling or Class 10 outbuilding, on a site listed in Schedule 2, where such new building can be readily seen from an adjoining street or public right of way. <p>Code Assessable¹⁰, if—</p> <ul style="list-style-type: none"> (a) demolition of a building or part of a building listed in Schedule 2 which has been damaged or destroyed; or (b) demolition of 20% or less of— <ul style="list-style-type: none"> (i) the pre 1946 fabric of a building listed in Schedule 2; or (ii) the post 1946 fabric of the building where the building is listed in Schedule 2; or (c) other than as listed for exempt or impact assessable above. 	

⁹ Where possible Schedule 3 buildings should be retained on site, in a manner which also retains or enhances their streetscape presence. Alternatively, such buildings should be—

- (a) relocated as close as possible to the original site and oriented and restored as far as possible to retain or enhance their original streetscape presence and overall setting; or
- (b) relocated within a Character Zone and oriented and restored as far as possible to retain or enhance their original streetscape presence and overall setting.

¹⁰ This does not include building work that under IPA Schedule 8, is exempt and cannot be made self assessable or assessable by a planning scheme.



Column 1 Type of development	Column 2 Assessment category ⁷	Column 3 Relevant assessment criteria ⁸ —applicable code if development is self-assessable or requires code assessment
Clearing of Vegetation—not associated with a material change of use	Self Assessable if— <ul style="list-style-type: none"> (a) involving the clearing of 0.5 hectare or less of native vegetation in any one year; and (b) the acceptable solutions of the applicable code for self assessable development are complied with. Code Assessable if— <ul style="list-style-type: none"> (a) involving the clearing of more than 0.5 hectare of native vegetation in any one year; or (b) the applicable code for self assessable development is not complied with. 	If Self Assessable—acceptable solutions applicable to— <ul style="list-style-type: none"> (a) clauses (1) to (4) in Column 2 of Table 12.4.1 in the Vegetation Management Code (Part 12, division 4); and (b) section 12.10.4(33) of the Character Code (Part 12, division 10). If Code Assessable— <ul style="list-style-type: none"> (a) Vegetation Management Code (Part 12, division 4); (b) Character Places Overlay Code (Part 11, division 3); (c) Character Code (Part 12, division 10).
Earthworks—not associated with a material change of use	Exempt if earthworks which meet the criteria set out in Schedule 8. Code Assessable if the criteria for exempt do not apply.	Earthworks Code (Part 12, division 15) Character Places Overlay Code (Part 11, division 3) Character Code (Part 12, division 10)
Placing an advertising device on premises	Exempt if an advertising device which meets the criteria set out in Schedule 9, Part 3. Impact Assessable if a billboard with a signface area of more than 6.0m ² . Code Assessable otherwise.	Advertising Devices Code (Part 12, division 14) Character Places Overlay Code (Part 11, division 3) Character Code (Part 12, division 10)
Reconfiguring a lot ¹¹	Code Assessable	Reconfiguring a Lot Code (Part 12, division 5) Character Places Overlay Code (Part 11, division 3) Character Code (Part 12, division 10)
Carrying out operational work for reconfiguring a lot or in association with a material change of use ¹¹	Code Assessable if the reconfiguring or material change of use is assessable development.	Reconfiguring a Lot Code (Part 12, division 5) Character Code (Part 12, division 10) Earthworks Code (Part 12, division 15) NOTE The provisions of Planning Scheme Policy 3 – General Works may also apply depending on the nature of the operational work.
Demolition or removal, via other than building work, of pre 1946 fabric from a place listed in Schedule 2	Code Assessable	Character Places Overlay Code (Part 11, division 3) Character Code (Part 12, division 10)
Other	Exempt	

¹¹ Under IPA, Schedule 9, the reconfiguring of a lot is exempt and cannot be made self-assessable or assessable by a planning scheme if the proposal is for amalgamating 2 or more lots, for a building format plan that does not subdivide the land, in relation to the Acquisition of Land Act 1967, or on Strategic Port Land.



Division 4—Development Constraints Overlays: Assessment Criteria and Assessment Tables

11.4.1 Development Constraints Overlays Code

The provisions in this division comprise the Development Constraints Overlays Code. They are—

- compliance with the Development Constraints Overlays Code (section 11.4.2);
- overall outcomes for the Development Constraints Overlays Code (section 11.4.3);
- specific outcomes and probable solutions as follows—
 - bushfire risk areas (section 11.4.4);
 - land affected by key resource areas, haul routes and existing mines (section 11.4.5);
 - difficult topography (section 11.4.6);
 - flooding and urban catchment flow paths (section 11.4.7);
 - buffers to highways and regional transport corridors (section 11.4.8);
 - defence facilities (section 11.4.9);
 - motorsports buffers (section 11.4.10);
 - wastewater treatment buffers (section 11.4.11);
 - Swanbank Power Station buffer (section 11.4.12);
 - high pressure pipelines (section 11.4.13);
 - high voltage electricity transmission lines (section 11.4.15);
 - rail corridor noise impact management (section 11.4.16);
- assessment tables (Tables 11.4.3 and 11.4.4).

11.4.2 Compliance with the Development Constraints Overlays Code

Development that, in the local government's opinion, is consistent with the specific outcomes in sections 11.4.4 to 11.4.15, complies with the Development Constraints Overlays Code.

11.4.3 Overall Outcomes for the Development Constraints Overlays

- (1) The overall outcomes are the purpose of the Development Constraints Overlays Code.

NOTE 11.4.3A

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 Development Constraints Overlays are the following—

- (a) The health and safety of the local government's population, investment in property and the long term viability of significant economic resources are protected.
- (b) Uses and works are located on land free from significant constraints upon development, or when within such areas, risk to property, health and safety is minimised.
- (c) Land is appropriately developed to avoid compromising the integrity and operation of defence facilities, motorsport facilities, wastewater treatment plants, the Swanbank Power Station, high pressure pipelines, the Warrill Creek water uptake, high voltage electricity transmission lines, existing mines, key resources areas and associated haul routes.
- (d) Uses and works are sited, designed and constructed to avoid, minimise or withstand the incidence of a development constraint.
- (e) The number of people exposed to a development constraint is minimised.



NOTE 11.4.3B

- (1) The land within the Development Constraints Overlays is affected by development constraints.
- (2) For each category of development constraint, Maps OV1 to OV13 identify the areas affected by a particular constraint.
- (3) Some of the development constraints have been categorised into two (2) types—
 - (a) Primary Areas, in which there are likely to be major impacts on residential amenity and therefore, major concerns about residential activities and in which further reconfiguration of lots or intensification of housing should be generally discouraged; and
 - (b) Secondary Areas, in which there are likely to be less, but still significant, impacts on residential amenity, and in which urban development should generally not be permitted and additional housing on existing lots may be allowed, subject to design and siting controls.
- (4) When considering proposals for further housing or reconfiguration of lots, particular consideration should be given to—
 - (a) prevailing winds;
 - (b) topography of the area;
 - (c) intervening vegetation;
 - (d) haul routes;
 - (e) characteristics of the current or proposed methods, emissions and hours of operation of the use which requires buffering; and
 - (f) abatement measures adopted by the use which requires buffering.
- (5) In situations within Primary Areas where there is no existing dwelling and the local government receives an application to erect a dwelling and there are severe concerns about the suitability of the land for residential use, the local government may elect to—
 - (a) acquire the land (e.g. in situations where the local government has a strong corporate interest to maintain the buffer, such as around wastewater treatment plants); or

- (b) facilitate an agreement with the operator of the use which requires buffering to acquire the land.

- (6) In other situations, where the local government considers that an acceptable level of residential amenity may be achieved, the local government may elect to approve the erection of a dwelling subject to—
 - (a) design and siting controls, which may include noise attenuation and other amelioration measures; and
 - (b) a requirement that the owner/applicant provide a written acknowledgment of the likely impacts on residential amenity.

11.4.4**Bushfire Risk Areas**

(1)

Specific Outcomes**NOTE 11.4.4A**

- (1) Bushfire Risk Areas are categorised into two types as identified on Map OV1—
 - (a) Bushfire Risk Area, in which there are identified potential risks for bushfire; and
 - (b) Transitional Bushfire Risk Area, in which there may be a risk for bushfire that is likely to diminish as development occurs.
- (a) The specific outcomes sought for uses and works in the Transitional Bushfire Risk Area are assessed against the specific outcomes sought for a Bushfire Risk Area in clause 11.4.4(1)(b) unless the uses and works:
 - (i) are subsequent to the reconfiguration of the land and associated operational works that result in the clearing of the majority of the forest, bushland and understorey; and
 - (ii) are contiguous with existing urban development; and
 - (iii) have a minimum 15 metre wide cleared area between the property boundary and bushfire risk areas.
- (b) The specific outcomes sought for uses and works in the Bushfire Risk Areas are set out in Column 1 of Table 11.4.1 and the Probable Solutions are set out in Column 2 of Table 11.4.1.



NOTE 11.4.4B

- (1) The provisions of this section apply to land located within Bushfire Risk Areas as identified by Map OV1.
 - (2) The provisions of the Overlay Code and Table 11.4.1 apply to land located in bushfire risk areas.
 - (3) In some cases, a detailed, site specific, technical assessment will need to be undertaken to determine the actual level of potential bushfire risk on any given site and submitted to the local government for consideration as part of the development assessment process.
 - (4) Further information on the requirements for undertaking a site specific bushfire risk, technical assessment are contained in Planning Scheme Policy 2—Information Local Government May Request.
 - (5) For the purposes of the *Building Code of Australia*, the Bushfire Risk Areas identified on Map OV1 are “Designated Bushfire Prone Areas” except where the land has been cleared and developed in accordance with clause 11.4.4(1)(a).
 - (6) The *Building Code of Australia* and *Australian Standard AS 3959-2009 Construction of Buildings in Bushfire Prone Areas* include building design and construction requirements to improve a building’s performance when subjected to burning debris, radiant heat or flame contact from a bushfire.
- (7) The design and construction details contained in the above standards relate to—
 - (a) flooring systems;
 - (b) external walls;
 - (c) windows;
 - (d) external doors;
 - (e) vents and weepholes;
 - (f) roof covering;
 - (g) eaves and fascias;
 - (h) rooflights;
 - (i) roof ventilators;
 - (j) gutters and downpipes;
 - (k) service pipes; and
 - (l) verandahs and decks.
 - (8) Table 11.4.1 has been prepared consistent with the advice contained within—
 - (a) the *“Bushfire Hazard Planning in Queensland”* (Queensland Fire Service and Department of Local Government & Planning, 1993); and
 - (b) *“Bushfire Prone Areas – Siting and Design of Residential Buildings”* (Queensland Fire Service and Department of Local Government & Planning, 1998).



Table 11.4.1: Specific Outcomes and Probable Solutions for Bushfire Risk Areas

Column 1 Specific Outcomes	Column 2 Probable Solutions
<p>Design, Siting and Construction</p> <p>(1) Uses and works in bushfire risk areas are designed, sited, and constructed to—</p> <ul style="list-style-type: none"> (a) minimise the number of people and properties subject to bushfire risk; (b) improve the survivability of buildings and the protection of life during the passage of a firefront; (c) minimise costs and threats to emergency services; and (d) facilitate evacuation in the event of a bushfire. 	<p>Design, Siting and Construction</p> <p>(1) (a) Uses and works are sited—</p> <ul style="list-style-type: none"> (i) in existing cleared areas able to accommodate the use within an adequate fire protection buffer as identified in (iii) below; and (ii) where possible, on land and parts of a site which are least prone to bushfire risk with regard to aspect, slope, elevation and vegetation type— <ul style="list-style-type: none"> (A) away from the tops of ridgelines and other than on a North to West facing slope, with the flatter portion of the lot being used as building sites (refer Figure 11.4.1); and (B) on land with a slope gradient less than 15%, and on level ground wherever possible; and (iii) with a minimum 20 metre wide area (measured from the horizontal from the building) serving as a fire protection buffer around the building of which at least the first 10 metres from the building is a cleared area (fuel free inner zone), while the outer 10 metres (fuel reduced outer zone) may be planted with fire retardant vegetation species or grassed (refer Figure 11.4.2) [No habitable or storage structures are located in this area.]; and (iv) to ensure that any outbuilding (such as garages and carports) is built as part of the main building or located at least 5 metres from the main building (refer Figure 11.4.3). <p>(b) If trees are planted they—</p> <ul style="list-style-type: none"> (i) are of a species that grow to over 2 metres in height to maintain separation between lower canopy and the ground; (ii) have vertical and horizontal separation between each plant to ensure the canopy is not continuous; and (iii) do not grow closer to the building than a distance equivalent to the tree's expected mature height so that branches do not overhang the eaves of the building (refer Figure 11.4.4). <p>(c) Buildings—</p> <ul style="list-style-type: none"> (i) have a continuous roof line avoiding roof valleys, multiple hips and a combination of pitched and flat roofs on the same building – as these provide catchment areas for debris (refer Figure 11.4.5); and (ii) have low pitched roofs between 12 and 21 degrees to reduce radiation pick up (refer Figure 11.4.6); and (iii) are of slab-on-ground construction where this is responsive to the site; or (iv) “pole homes” with floors elevated off the ground with all external openings (between the floor and the ground) sealed to prevent the entry of burning debris; and (v) minimise large expansive walls as these expose a greater surface area to a bushfire; and (vi) are constructed in accordance with the relevant Bushfire provisions of the Standard Building Regulation 1993. <p>(d) Masonry, stone, steel, colourbond or wire fencing is used and timber fencing is avoided.</p>
<p>(2) Uses and works avoid a high concentration of people living or congregating in a high bushfire risk area.</p>	<p>(2) Uses where people are likely to congregate, including an educational establishment, community building, place of worship, hospital, retirement community, caravan park, camping ground, child care centre, correctional centre and tourist facility—</p> <ul style="list-style-type: none"> (a) are not located within a bushfire risk area; or (b) where this is not possible, are constructed in accordance with Probable Solution 1, above.



Table 11.4.1 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
<p>Water Storage and Supply</p> <p>(3) Uses and works provide sufficient and accessible water storage and supply for firefighting purposes by—</p> <p>(a) connection to a reticulated water supply, if available to the site, having sufficient pressure and flow for firefighting purposes; or</p> <p>(b) where reticulated water supply is not available to the site, a dam, lake, water tank or swimming pool are provided with sufficient capacity for water pumping in times of bushfire.</p>	<p>Water Storage and Supply</p> <p>(3) Where reticulated water supply is not available—</p> <p>(a) the site has a minimum water supply of 5000 litres (per dwelling) available for firefighting purposes as either—</p> <p>(i) a separate on-site water tank; or</p> <p>(ii) a reserve section in the bottom part of the main water supply tank; or</p> <p>(iii) a swimming pool installed immediately upon construction of the dwelling; or</p> <p>(iv) a dam or lake; and</p> <p>(b) where on-site water supply tanks are provided they are—</p> <p>(i) above ground and located adjacent to the building;</p> <p>(ii) fitted with a 50mm outlet pipe and a 50mm male camlock coupling (standard rural fire brigade fitting) to allow fire hose connection;</p> <p>(iii) of precast concrete construction and supported by a fireproof structure; and</p> <p>(iv) supported by a stand-by diesel or petrol powered pump should electricity be cut off during a bushfire.</p> <p>(4) Where reticulated water supply is available—</p> <p>(a) if reconfiguring a lot, water supply outlet pipes are located—</p> <p>(i) within 40 metres of the building envelope on each lot; or</p> <p>(ii) where no building envelope is indicated on a lot, within 40 metres of the centre of the lot; or</p> <p>(b) if for the erection of a building, the water supply outlet pipe is located within 40 metres of the building.</p>
<p>Vehicular Access and Fire Trails</p> <p>(4) Fire trails or perimeter roads are provided to mitigate against bushfire risk by—</p> <p>(a) separating uses and works from surrounding vegetated areas; and</p> <p>(b) being of sufficient width to serve as an effective fire trail which allows continuous access for firefighting vehicles; and</p> <p>(c) being in secure tenure and maintained.</p> <p>(5) Residential uses and works (including reconfiguring a lot) are designed to mitigate potential bushfire risk and provide safe sites for dwellings.</p>	<p>Vehicular Access and Fire Trails</p> <p>(5) Uses and works (including where reconfiguring a lot) incorporate—</p> <p>(a) a perimeter road—</p> <p>(i) located between the boundary of the lot(s) and adjacent vegetated lands; and</p> <p>(ii) with a minimum cleared width of 20 metres; and</p> <p>(iii) with a constructed road width of 6 metres; and</p> <p>(iv) constructed to an all weather standard; or</p> <p>(b) a fire trail—</p> <p>(i) having a minimum cleared width of 6 metres; and</p> <p>(ii) having a minimum formed width of 4 metres; and</p> <p>(iii) having a maximum gradient of 15%; and</p> <p>(iv) that is constructed and maintained to prevent erosion and provide continuous access for firefighting vehicles; and</p> <p>(v) allowing vehicular access at least every 200 metres; and</p>



Table 11.4.1 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
<p>(6) Where the use involves reconfiguring a lot and the opening of a new road, the road layout provides vehicular access which is designed to—</p> <p>(a) mitigate against bushfire risk by ensuring adequate access for firefighting and other emergency vehicles; and</p> <p>(b) allow for evacuation in the event of a bushfire; and</p> <p>(c) provide for the safe and effective operation of water supply and equipment for fire fighting vehicles.</p> <p>(7) The size and shape of residential lots and the design and location of access paths facilitate emergency access to buildings and firefighting infrastructure, and the incorporation of suitable on-site bushfire mitigation measures.</p>	<p>(vi) that has vehicular access at each end and links to either existing fire trails or roads, or has a turning circle, or turnaround area at the end of the trail for the turning of firefighting vehicles; or</p> <p>(vii) which has passing or turning areas with a maximum gradient of 5% (1 in 20) at intervals of at least every 400 metres; and</p> <p>(viii) are situated on public land which may also be used for pedestrian or cycling access; or</p> <p>NOTE 1 Agreement is required from the relevant public entity for the use of public land for the purpose of a fire trail.</p> <p>(ix) on private land by way of an access easement granted in favour of the local government and Queensland Fire Services, where the fire trail is unfenced and maintained by the private owner to enable access at all times by firefighting vehicles; or</p> <p>(c) a combination of perimeter roads and fire trails as per (a) and (b) above; and</p> <p>(d) vehicular access points to properties are a minimum of 3 metres in width and 4.5m in height in order to permit ready access by fire and rescue vehicles; and</p> <p>(e) access driveways maintain a minimum horizontal clearance of 5m from all powerlines.</p>
<p>(8) New residents are informed about the nature of the bushfire hazard and mitigation measures.</p>	<p>(6) Wherever possible the road layout provides through roads and avoids the use of culs-de-sac and dead end roads (refer Figure 11.4.7).</p> <p>NOTE 2 Where the use of a single entry road (culs-de-sac) is unavoidable owing to topography, a firetrail is incorporated to allow safe access in the alternative direction to the road.</p> <p>(7) Road gradients are generally no more than 12.5%, or are from 12.5% to not more than 20% over a maximum distance of 50 metres.</p>
	<p>(8) The developer provides potential purchasers of lots and the local government with detailed information including—</p> <p>(a) the nature of the bushfire hazard present on the lot;</p> <p>(b) responsibilities for fire management (including fuel in vegetated areas, maintenance of open areas and buildings, separation of assets);</p> <p>(c) measures available for ongoing fire hazard mitigation (including planting of fire resistant species, use of non-flammable fencing and screens, separation of assets from hazards); and</p> <p>(d) the intended management of retained internal vegetated strips and public areas.</p>

Figure 11.4.1: House Sites in Bushfire Risk Areas

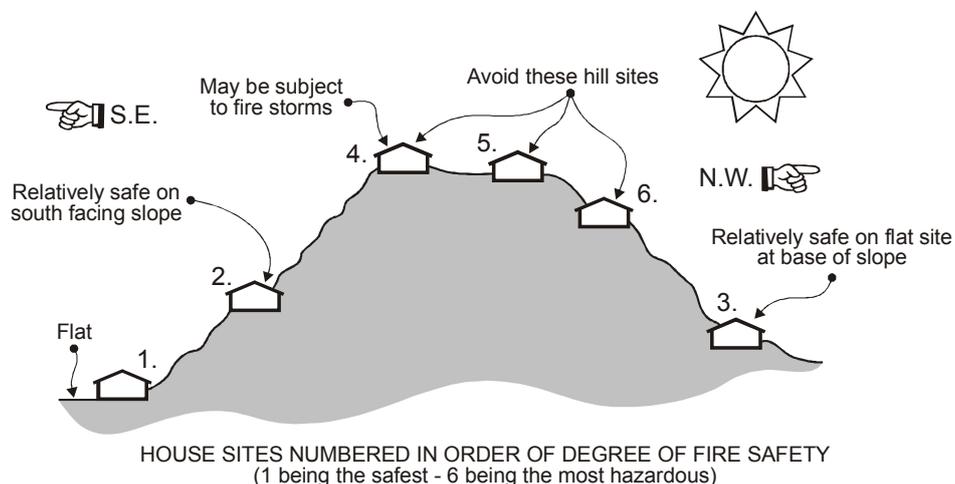


Figure 11.4.2: Bushfire Protection Buffers

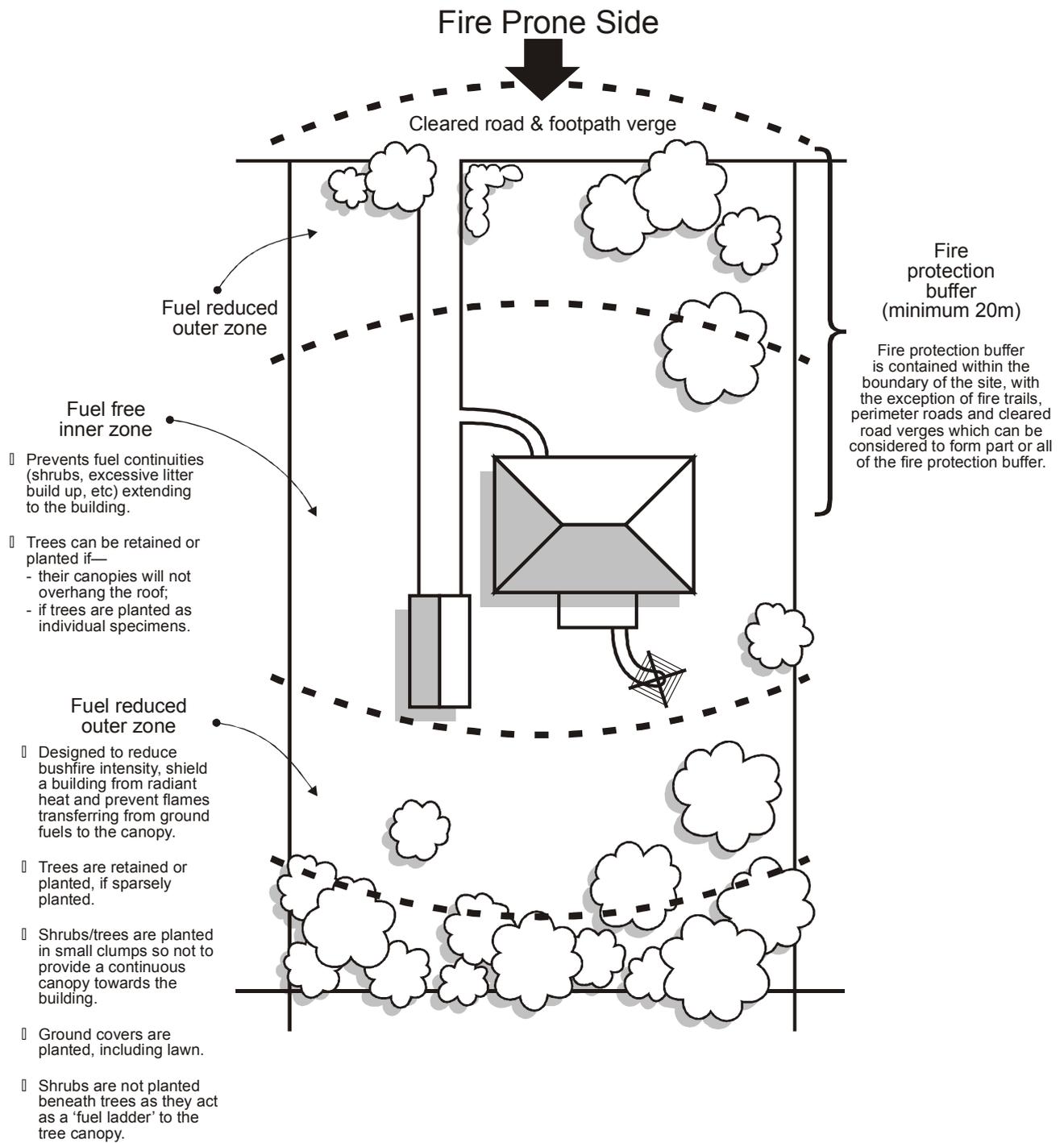


Figure 11.4.3: Bushfire Risk Areas – Building Layout and Shape

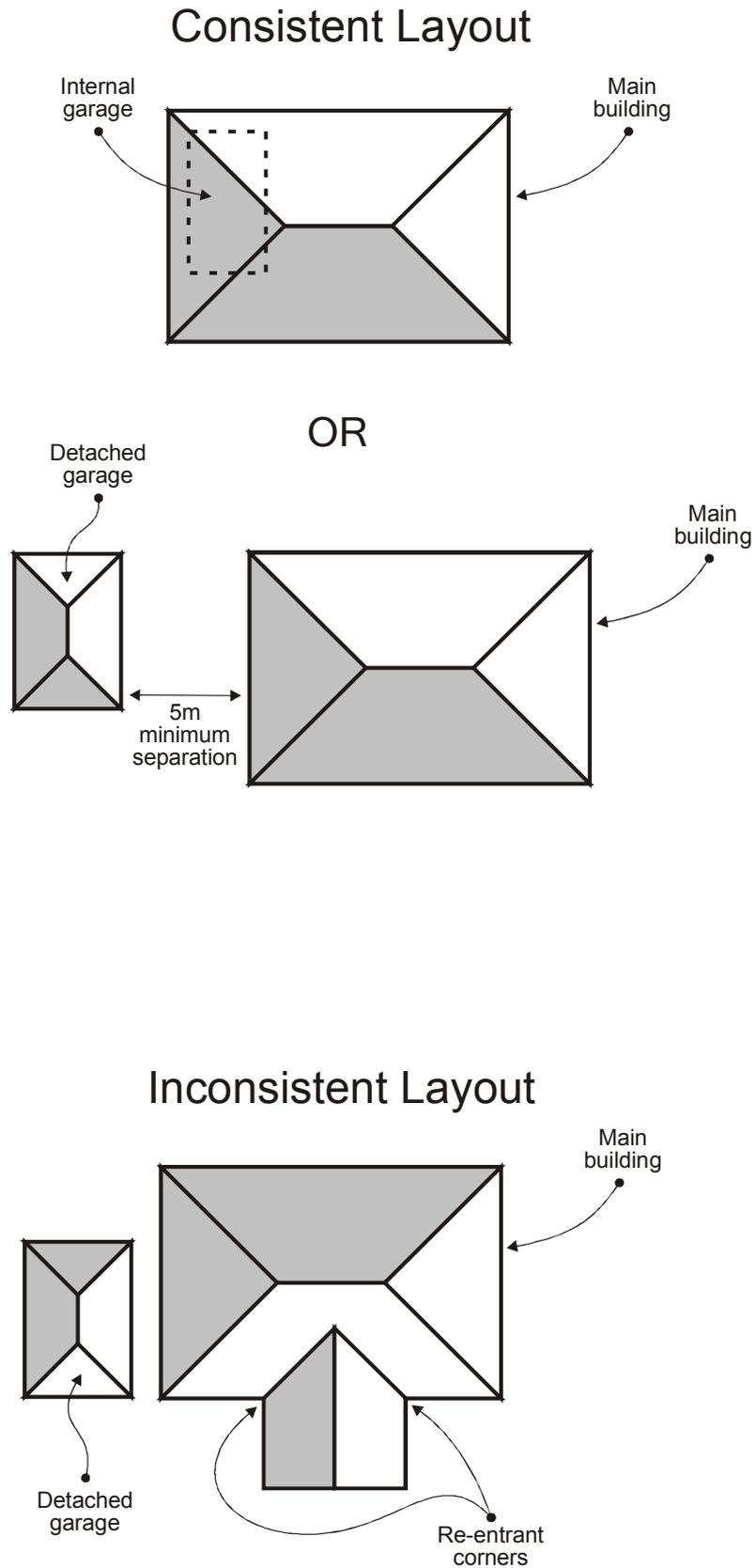
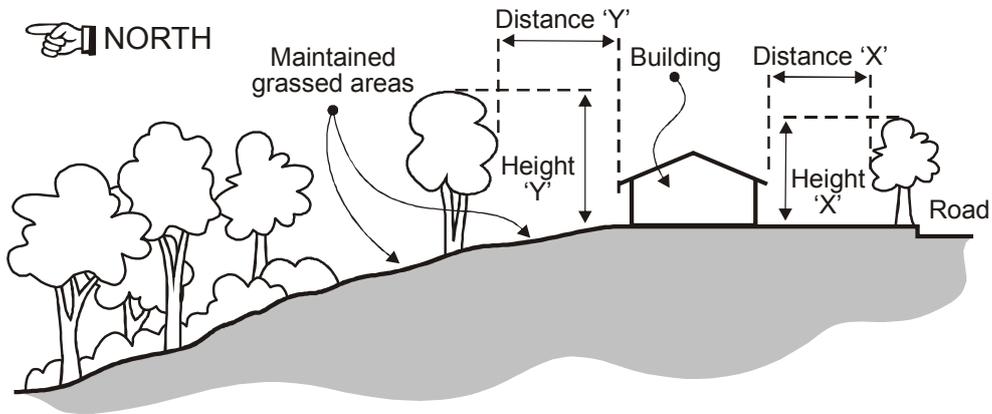


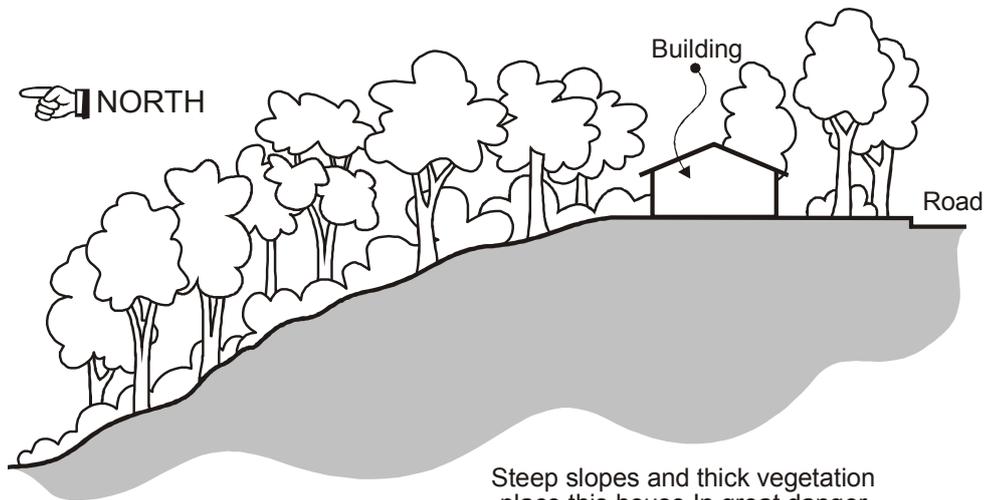
Figure 11.4.4: Bushfire Risk Areas – Vegetation and Plantings

Consistent Layout



For safety choose a clear area on a more gentle slope

Inconsistent Layout



Steep slopes and thick vegetation place this house in great danger



Figure 11.4.5: Bushfire Risk Areas – Roof Form

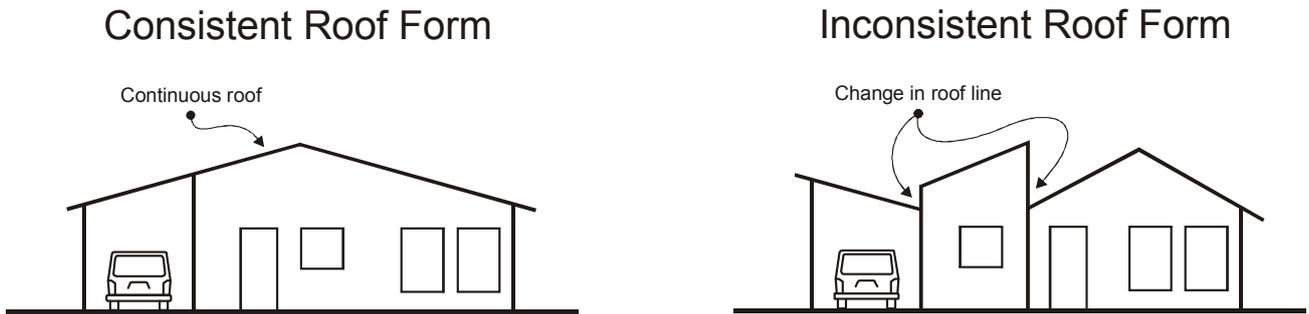


Figure 11.4.6: Bushfire Risk Areas – Roof Pitch

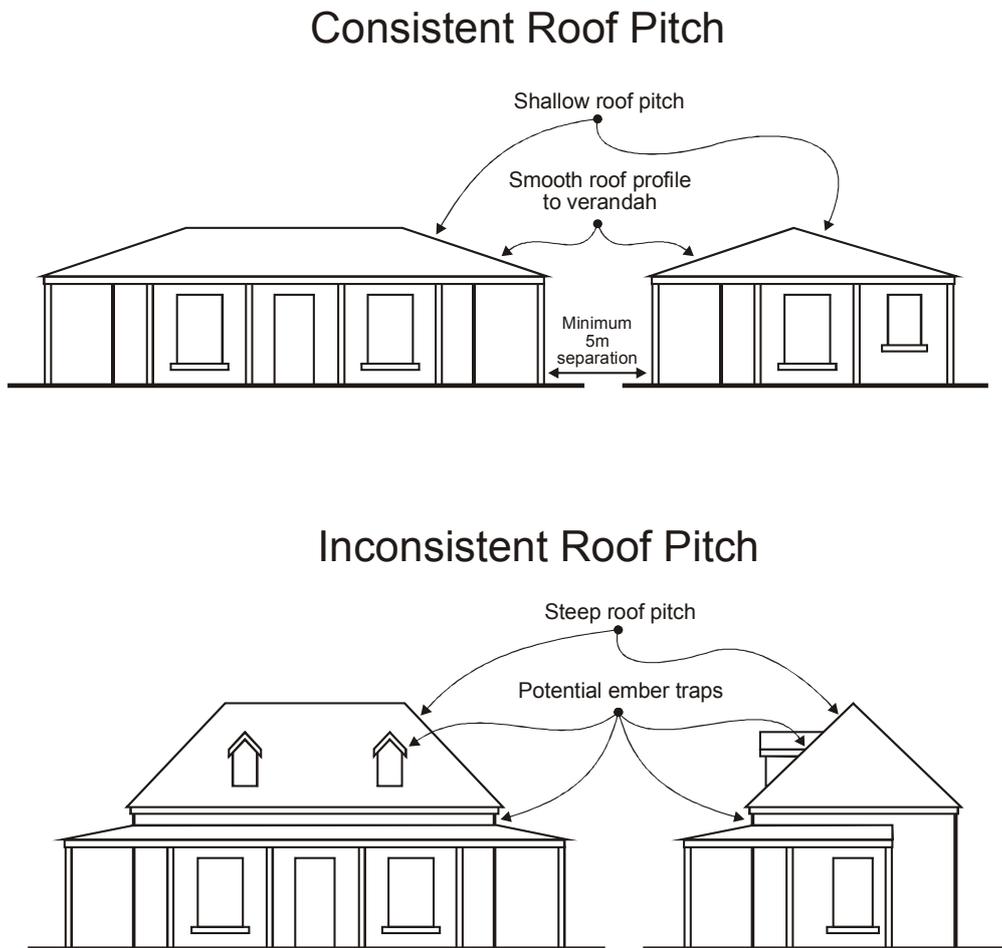
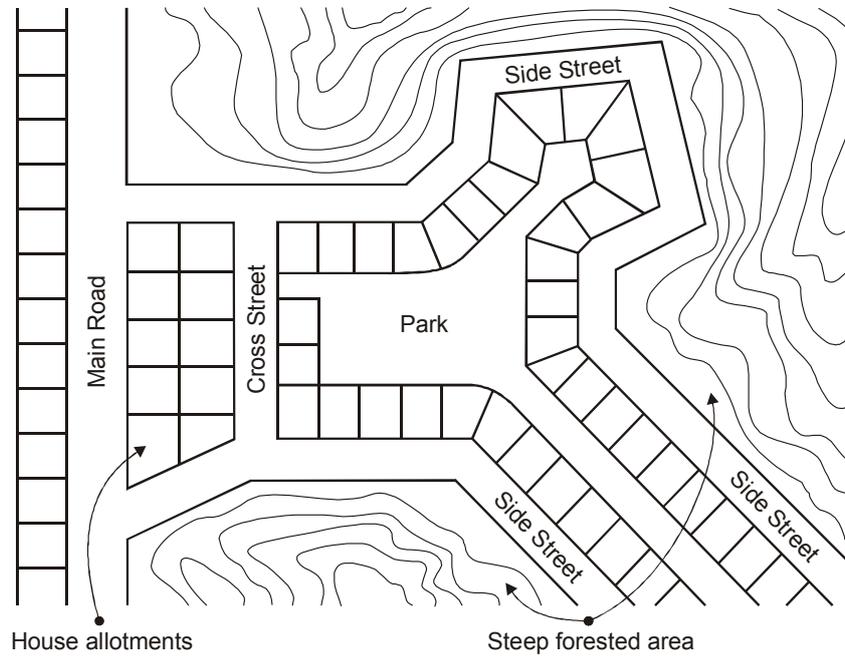


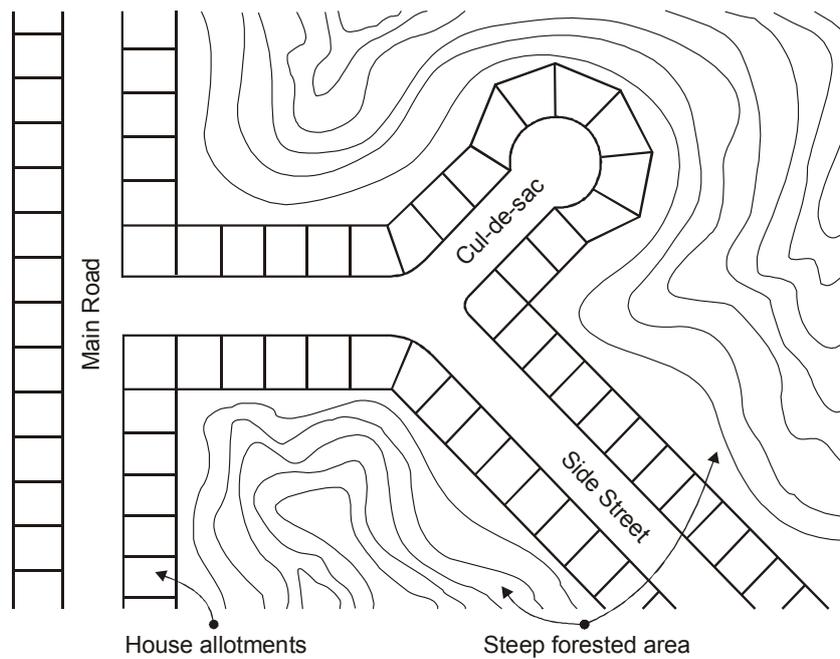
Figure 11.4.7: Bushfire Risk Areas – Road Layouts

Consistent Layout



Better design.
Ring road system provides a fire break and access for fire fighters.

Inconsistent Layout



Poor design with high fire risk.
Hazardous ridge top development has no breaks and obstructs fire fighters.



11.4.5 Land Affected by Key Resource Areas, Haul Routes and Existing Mines

NOTE 11.4.5A

- (1) The provisions of this section apply to land affected by Key Resource Areas, Haul Routes and Existing Mines as identified on Maps OV2 and OV3.
- (2) The mapping identifies—
 - (a) Key Resource Areas (KRA's) and buffers, and associated haul routes; and
 - (b) existing mined areas (i.e. open cut mines or disturbed ground and underground mines) and areas within the 'influence area' (i.e. draw angle) of a mine.
- (3) In some cases, further information will need to be submitted to the local government, such as a site specific geotechnical assessment, for consideration as part of the development assessment process.
- (4) The specific site assessment should be used to determine the level of intensity of development and where development is appropriate on the site.
- (5) The design and location of buildings and infrastructure on the site should have regard to the findings and recommendations of the specific site assessment.
- (2) Further information on the requirements for the specific technical assessments are contained in Planning Scheme Policy 2—Information Local Government May Request.
- (7) Applicants submitting development applications within these areas are encouraged to liaise with the relevant mining company and the Department of Natural Resources and Mines.
- (8) The owner/applicant for a new dwelling is to provide a written acknowledgment of the likely impacts on residential amenity at the time of lodging a development application.

(1)

Key Resource Areas, Buffers and Haul Routes

Specific Outcomes

- (a) Dwellings are sited—
 - (i) as far as possible away from an anticipated mine or resource extraction area; and
 - (ii) as far as possible away from a haul route; and
 - (iii) to avoid being directly downwind (prevailing wind direction) of the key resource area or haul route.
- (b) The acoustic amenity of residences is maintained.
- (c) Intervening topography, such as a ridgeline, is used to screen and separate dwellings from key resource areas and haul routes (refer Figure 11.4.8).
- (d) Where vegetation exists between the intended location of a residential use and a key resource area or haul route, the existing vegetation is retained and where possible, supplemented to provide a screen effect to light, dust and visual impacts of mining (refer Figure 11.4.8).

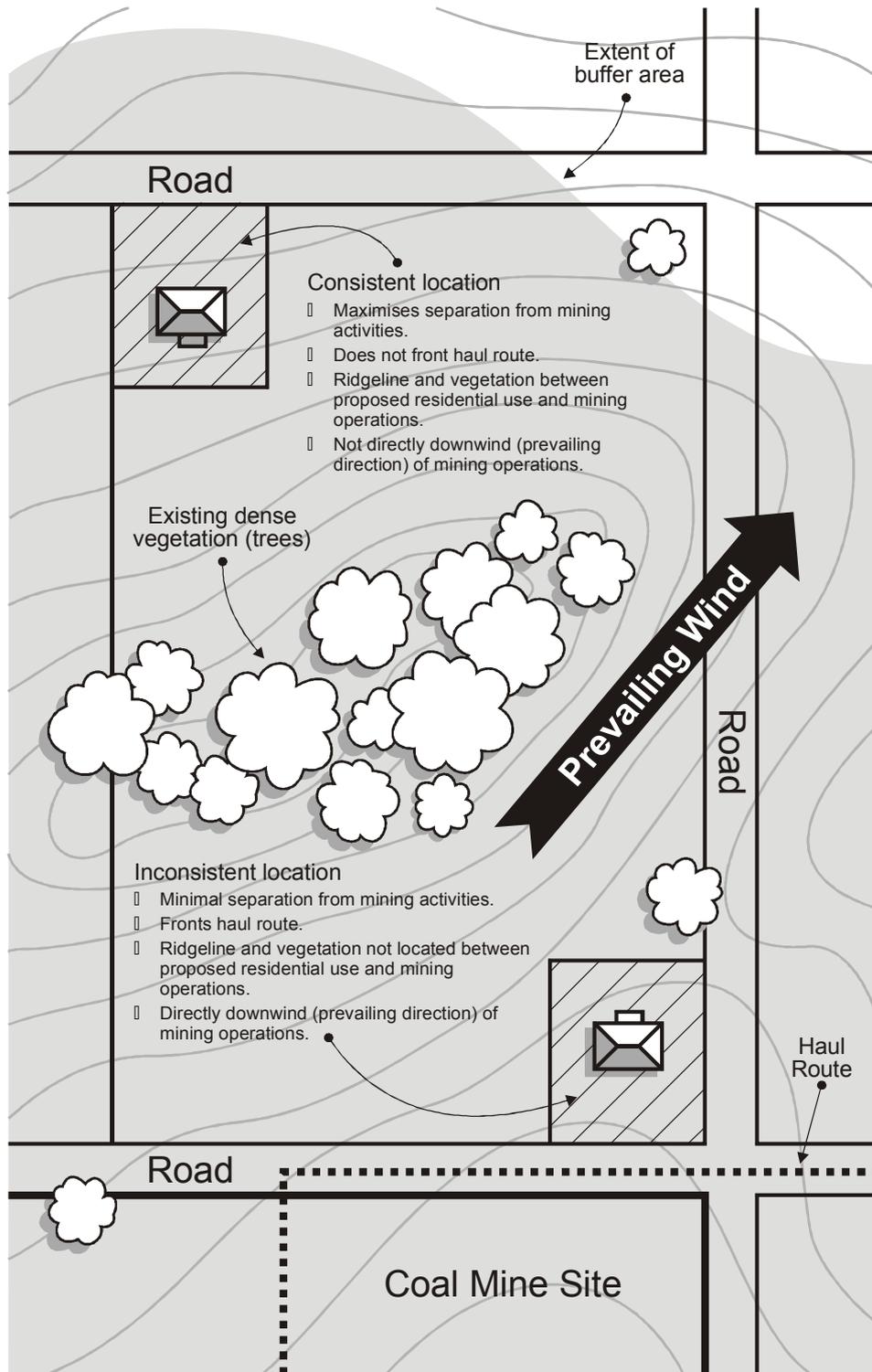
(2)

Probable Solutions – for sub-sections (1)(a) and (b)

- (a) Dwellings are sited—
 - (i) outside the Key Resource Area; or
 - (ii) 1000 metres from a resource where blasting, crushing or screening is involved; or
 - (iii) 200 metres from a sand or gravel resource or other resource which does not involve blasting, crushing or screening; and
 - (iv) 100 metres from either side of a road reserve boundary designated as a haul route.
- (b) Dwellings are constructed with appropriate noise attenuation including sound absorptive materials and other measures such as insulation, air conditioning, and sealing of windows (such as double glazing) and doors, with openings generally oriented away from the noise source.



Figure 11.4.8: Key Resource Areas – Consistent and Inconsistent Locations for Residential Uses



Existing Mined Areas

(3)

Specific Outcomes

- (a) Buildings and infrastructure are sited—
 - (i) outside of existing mined areas and influence areas; or
 - (ii) where (i) above is not possible, to avoid particular problem areas on the site, e.g. land prone to sink holes or where there is a known history of mining subsidence.
- (b) Infrastructure is designed and located to minimise damage through subsidence.
- (c) Building structure foundation systems are designed to minimise potential subsidence impacts.
- (d) Entries to mine shafts and tunnels are filled or otherwise sealed to prevent accidental entry or likely collapse.

(4)

Probable Solution – for sub-section (3)

- (a) Buildings are constructed on adjustable stumps.
- (b) No buildings are constructed within—
 - (i) 40 metres of shafts or tunnel entries; and
 - (ii) 100 metres of known areas of mining subsidence.

11.4.6

Difficult Topography

NOTE 11.4.6A

- (1) The provisions of this section apply to land with difficult topography, comprising steep land (with slopes greater than 15%) or land that is geologically unstable, as identified by Map OV4.
- (2) The physical, environmental and visual characteristics of steep land or land that is geologically unstable may be affected by—
 - (a) earthworks [excavation (cut) and filling];
 - (b) removal or disturbance of vegetation;
 - (c) the erection of buildings and other structures (e.g. swimming pools, retaining walls, driveways and roads);
 - (d) on-site disposal of effluent and wastewater; and
 - (e) changes to the natural surface or underground drainage system.

- (3) It is intended that steep land or land that is geologically unstable be appropriately used with consideration given to the physical, environmental and visual capacity of the site to support development, and the need for the site's physical constraints to be considered in the design and construction of any uses and works.
- (4) In some cases, a detailed, site specific, technical assessment will need to be undertaken to determine the geotechnical impacts of development on any site identified within the overlay, and to determine ways to avoid or mitigate unacceptable risks or impacts, including recommendation of design outcomes responsive to the site's individual characteristics.
- (5) The design and location of buildings and infrastructure on the site should have regard to the findings and recommendations of the specific site assessment.
- (6) The technical assessment should be submitted to the local government for consideration as part of the development assessment process.
- (7) Further information on the requirements for undertaking a site specific technical assessment are contained in Planning Scheme Policy 2—Information Local Government May Request.

(1)

Specific Outcomes

- (a) Development on land greater than 15% slope maintains the safety of people and property from the risk of landslide.
- (b) Uses and works avoid land with slopes greater than 20% or on geologically unstable land.
- (c) Where (b) is not possible, buildings and infrastructure are designed, sited and constructed—
 - (i) within a building envelope that avoids those parts of the site containing geologically unstable land or likely to be affected by nearby unstable land; or
 - (ii) within a building envelope on the less steep parts of the site; and



- (iii) to minimise the extent of cut and fill and use of retaining walls by—
 - (A) avoiding the use of a single plane concrete slab (refer Figure 11.4.9); and
 - (B) using a post supported construction or stepped (split level) building form (refer Figures 11.4.10 and 11.4.11); and
- (iv) to ensure that driveways internal to the site are appropriate for vehicle access;
- (v) to minimise clearing of vegetation and where possible, provide supplementary planting; and
- (vi) to visually integrate into the surrounding landform and vegetation character of the area by—
 - (A) not protruding above the height of the existing mature tree level (where in existence); and
 - (B) not protruding above any significant ridgelines; and
- (C) having visible external building surfaces finished with natural colours/textures and non-reflective surfaces compatible with the surrounding natural landscape; and
- (D) not being visually intrusive particularly when viewed from public open space, major roads and other significant vantage points outside the site; and
- (vii) to ensure that stormwater drainage discharges to a lawful point of discharge and does not adversely affect downstream, upstream or adjacent properties.
- (d) Where on-site wastewater disposal is proposed, the method and location of the disposal system is suitable for the site's topography and soil characteristics¹².
- (e) The creation of new lots is discouraged on land with slopes greater than 20% or on geologically unstable land.

(2) Probable Solution – for sub-section (1)(b)(iv)

Driveways are not steeper than 25% (1V:4H).

¹² 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.



Figure 11.4.9: Difficult Topography – Inconsistent Development (Use of a Single Plane Concrete Slab)

Inconsistent Development

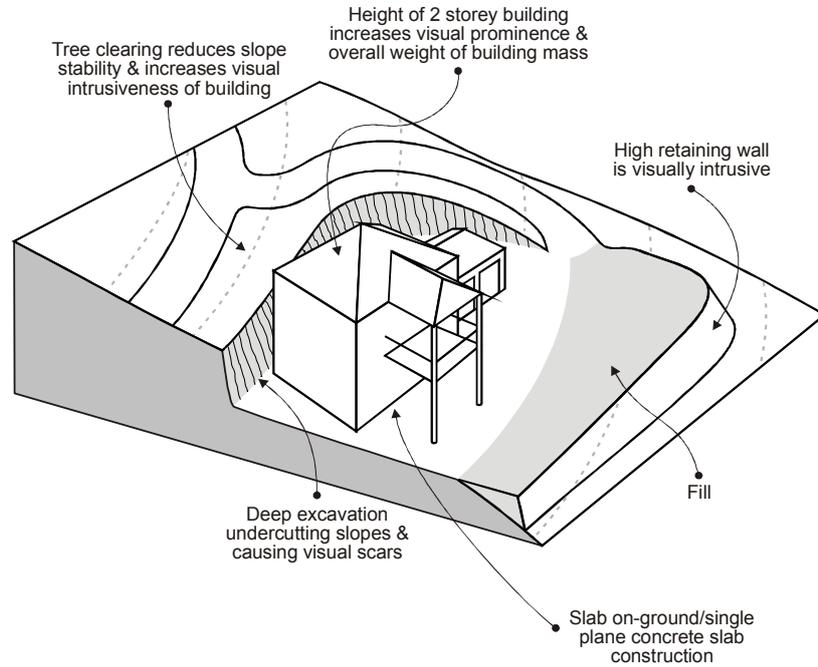
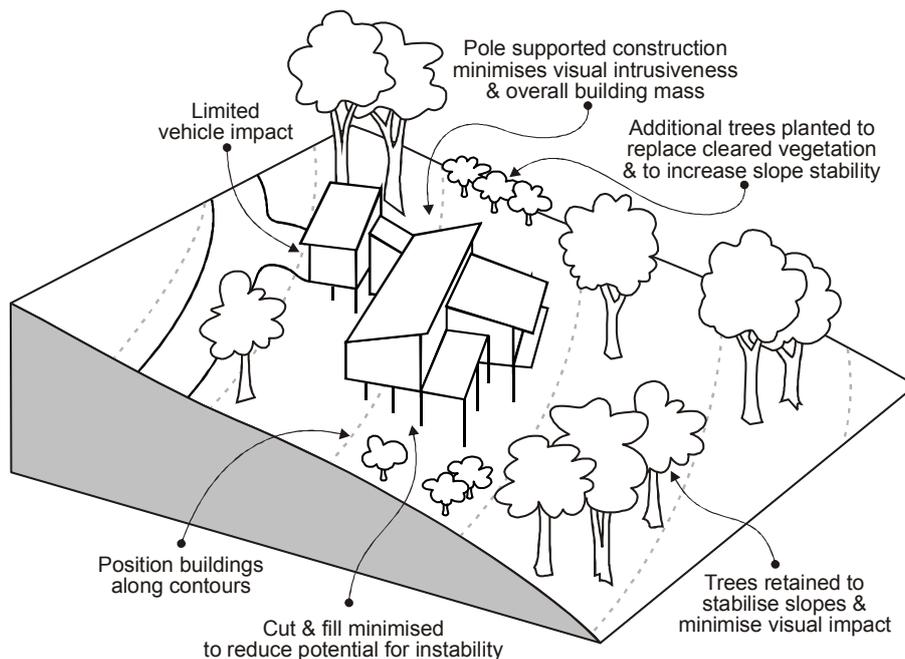


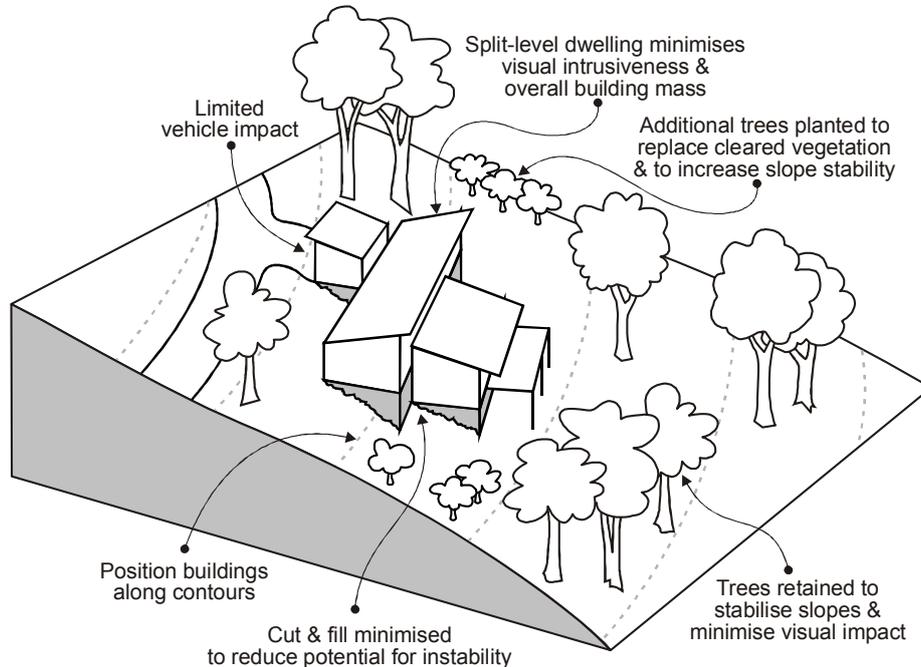
Figure 11.4.10: Difficult Topography – Consistent Development (Post Supported Construction)

Consistent Development



**Figure 11.4.11: Difficult Topography – Consistent Development
(Split-Level/Stepped Building Form)**

Consistent Development



11.4.7 Flooding and Urban Catchment Flow Paths

NOTE 11.4.7A

- (1) The provisions of this section apply to land identified on Map OV5 as being—
 - (a) below the 1 in 20 development line; or
 - (b) below the adopted flood regulation line; or
 - (c) within urban catchment flow paths.
- (2) The adopted flood regulation line is based on the historic 1974 Flood Level, the historic 2011 Flood Level or the modelled 1 in 100 Flood Level.
- (3) Flood affected areas are depicted in two ways on the overlay maps—
 - (a) unbroken lines – representing 'known' constraints as determined by a technical report, or study or an actual flood event; and
 - (b) broken lines – indicative and subject to further detailed assessment as part of a development application.

- (4) The 1 in 20 development line is based on a long standing flood regulation line, established following the 1974 flood, that applied to the former Ipswich City Council area prior to its amalgamation with the former Moreton Shire.
- (5) Urban catchment flow paths are indicative and require further detailed assessment as part of a development application to more precisely determine the flood level and extent.
- (6) In some cases, further information will need to be submitted to the local government, such as a flood assessment, for consideration as part of the development assessment process.
- (7) Further information on the requirements for a flood assessment are contained in Planning Scheme Policy 2—Information Local Government May Request and Implementation Guideline No. 24 – Stormwater Management.



(1)

Specific Outcomes

(a) Land Situated Below the 1 in 20 Development Line – Residential Uses

- (i) There is no further intensification of residential uses within flood affected areas on land situated below the 1 in 20 development line, including the provision of an auxiliary unit.

NOTE 11.4.7B

- (1) Historic settlement patterns within the City of Ipswich have created urban lots in areas affected by flooding.
- (2) This has led to certain development commitments and land use expectations based on Planning Scheme zonings that reflect existing subdivision patterns and land uses.
- (3) The further intensification of residential uses does not include the development of a Single Residential use on an existing serviced residential lot.
- (4) Where a development commitment allows a building to be sited within areas affected by significant flood flows or velocities, the building may require an alternative solution to comply with the Queensland Development Code.

- (ii) Unless otherwise determined by Council, the floor levels of any habitable rooms of a proposed building are a minimum of 500mm above the adopted flood regulation line, whilst having regard to the visual amenity and streetscape impacts on nearby dwellings, associated with the raising of floor levels and the resulting height of buildings.

(iii) As far as practicable—

(A) The design and layout of residential buildings provides for—

- (I) vehicle parking and other low intensive, non habitable uses at ground level (e.g. temporary storage of readily removable items); and

- (II) habitable rooms above, to increase flood immunity.

- (B) The areas below habitable rooms—
 - (I) are to be left open so as not to impede flood flows; and

- (II) may be used for the parking of vehicles or the storage of large items that are readily able to be moved in the event of a flood; and

- (III) may be screened for security purposes using timber battens where such screening does not impede flood flows; and

- (IV) may use timber batten gates such that the gates do not impede flood flows, with the use of solid fill gates, roll-a-doors or tilt doors to be avoided

- (C) Building materials and surface treatments used below the adopted flood regulation line (other than materials used for structural purposes) are resistant to water damage and do not include wall cavities that may be susceptible to the intrusion of water and sediment.

NOTE 11.4.7C

- (1) Walls without cavity spaces and flood resistant materials are to be used to minimise replacement / repair and provide for ease of cleaning in the event of a flood.
- (2) Table 1 – Walls and ceiling linings, contained in the Growth Management Queensland Fact Sheet – *Repairing your house after a flood* provides additional advice in relation to higher water resistant materials.
- (3) The use of materials for structural purposes is a building matter regulated by the Queensland Development Code.



- (D) Buildings and other structures are sited on the highest part of the site to increase flood immunity.
- (E) Electrical switchboards, main data servers and the like are positioned to maximise flood immunity.
- (F) Electrical and data installations below the adopted flood regulation line are designed and constructed to withstand submergence in flood water.
- (iv) Access routes are designed or alternative emergency evacuation routes are provided so that in a flood event occupants can escape by vehicle to a safe and secure area.
- (v) The development does not increase the flood hazard (e.g. by way of increased depth, duration or velocity of flood waters or a reduction in warning times) for other properties.

NOTE 11.4.7D

Council may consider acceptable tolerances for changes to flood behaviour compared to existing conditions where such works are undertaken in accordance with an approved floodplain management plan and Implementation Guideline No. 24 - Stormwater Management.

- (vi) All earthworks are to comply with any applicable development criteria set out in an approved floodplain management plan.
- (vii) Where a floodplain management plan does not exist for the catchment, no filling of land or reduction of flood storage capacity is permitted below the 1 in 20 development line.
- (viii) The clearing of native vegetation within the stream banks is avoided.

- (b) **Land Situated Below the 1 in 20 Development Line – Commercial, Industrial and Other Non Residential Uses**
 - (i) As far as practicable—
 - (A) The design and layout of buildings provides for—
 - (I) vehicle parking, or other low intensive, or non habitable uses at ground level; and
 - (II) retail, commercial and work areas above the parking areas, to increase flood immunity; and
 - (III) expensive plant, equipment and stock in the area of the site or building with the greatest flood immunity.
 - (B) Building materials and surface treatments used below the adopted flood regulation line (other than materials used for structural purposes) are resistant to water damage and do not include wall cavities that may be susceptible to the intrusion of water and sediment.
 - (C) Electrical switchboards, main data servers and the like are positioned to maximise flood immunity.
 - (D) Electrical and data installations below the adopted flood regulation line are designed and constructed to withstand submergence in flood water.

NOTE 11.4.7E

- (1) Owners / applicants should undertake their own risk assessment to determine the floor level that maximises flood immunity.
- (2) Businesses should ensure that they have the necessary continuity plans in place to account for the potential need to relocate property prior to a flood event (eg allow enough time to transfer stock to the upstairs level of a building or off site).



- (3) Careful consideration should be given to the suitability and need to locate uses such as crematoriums, funeral premises, veterinary clinics (particularly where animals are kept overnight), self-storage units and warehousing that may be heavily impacted by flooding in areas situated below the adopted flood regulation line.
- (4) Walls without cavity spaces and flood resistant materials are to be used to minimise replacement / repair and provide for ease of cleaning in the event of a flood.
- (5) Table 1 – Walls and ceiling linings, contained in the Growth Management Queensland Fact Sheet – *Repairing your house after a flood* provides additional advice in relation to higher water resistant materials.
- (6) The use of materials for structural purposes is a building matter regulated by the Queensland Development Code.
- (7) Regard should be had to the relevant building assessment provisions under the *Building Act 1975* that apply to building work to be undertaken below the adopted flood regulation line, taking into account the potential flood risk.

- (ii) Access routes are designed or alternative emergency evacuation routes are provided so that in a flood event occupants can escape by vehicle to a safe and secure area.
- (iii) The concentration of people in flood affected areas, particularly within areas affected by significant flood flows (i.e. one metre or more in depth), is avoided unless it can be demonstrated that the overall use is appropriate (eg sporting fields) and where there is likely to be adequate warning and vehicular access to a safe evacuation route in the event of a flood.
- (iv) As far as practicable, buildings are located to avoid areas affected by significant flood flows or velocities.

NOTE 11.4.7F

Where no flow and velocity information is known for the adopted flood regulation line (modelled or otherwise) the maximum known flows and velocities are to be used for flood events in consultation with Council.

- (v) Materials or chemicals manufactured or stored on-site—
 - (A) where hazardous or noxious materials or chemicals, inclusive of their manufacturing equipment, are located as far as practicable on the highest part of the site and designed to prevent the intrusion of floodwaters; and
 - (B) are those that are readily able to be moved in a flood event; and
 - (C) are not hazardous or noxious, or comprise materials that may cause a deleterious effect on the environment if discharged in a flood event; and
 - (D) where capable of creating a safety hazard by being shifted by flood waters, are contained in order to minimise movement in times of flood.
- (vi) The development does not increase the flood hazard (e.g. by way of increased depth, duration or velocity of flood waters or a reduction in warning times) for other properties.

NOTE 11.4.7G

Council may consider acceptable tolerances for changes to flood behaviour compared to existing conditions where such works are undertaken in accordance with an approved floodplain management plan and Implementation Guideline No. 24 - Stormwater Management.

- (vii) All earthworks are to comply with any applicable development criteria set out in an approved floodplain management plan.
- (viii) Where a floodplain management plan does not exist for the catchment, no filling of land or reduction of flood storage capacity is permitted below the 1 in 20 development line.



- (ix) The clearing of native vegetation within the stream banks is avoided.
- (c) **Land Situated Between the 1 in 20 Development Line and the Adopted Flood Regulation Line – Residential Uses**

- (i) There is no further intensification of residential uses within flood affected areas on land situated below the adopted flood regulation line, including the development of dual occupancies, multiple residential uses, institutional residential uses, temporary accommodation uses and the reconfiguration of land to create additional lots.

NOTE 11.4.7H

- (1) Historic settlement patterns within the City of Ipswich have created urban lots in areas affected by flooding.
- (2) This has led to certain development commitments and land use expectations based on Planning Scheme zonings that reflect existing subdivision patterns and land uses.
- (3) The further intensification of residential uses does not include the development of a Single Residential use on an existing serviced residential lot.
- (4) Where a development commitment allows a building to be sited within areas affected by significant flood flows or velocities, the building may require an alternative solution to comply with the Queensland Development Code.

- (ii) Engineering solutions that provide flood immunity to a minimum of 500mm above the adopted flood regulation line for habitable rooms and do not negatively impact on the overall hydrology, hydraulics and flood capacity of the waterway may be considered to facilitate residential intensification where the land—

- (A) is contained within areas zoned for medium and high density housing or for mixed use / centre development where involving residential uses, including the Character Housing Mixed Density, Residential Medium Density, Residential High Density, Ipswich City Centre and Major Centre Zones; and
- (B) is located near the edge of the adopted flood regulation line; and
- (C) has a flood depth of generally no more than 800mm over the site based on the adopted flood regulation line level; and
- (D) has direct vehicular access to a flood free evacuation route.

NOTE 11.4.7I

Engineering solutions may include earthworks (including filling), the use of undercroft or sealed basement car parking, or a combination thereof.

- (iii) Special dispensation may be obtained to erect an auxiliary unit or a second dwelling to house family members on land situated between the 1 in 20 development line and the adopted flood regulation line based on the extent of flood immunity achieved.
- (iv) Unless otherwise determined by Council, the floor levels of any habitable rooms of a proposed building are a minimum of 500mm above the adopted flood regulation line, whilst having regard to the visual amenity and streetscape impacts on nearby dwellings, associated with the raising of floor levels and the resulting height of buildings.



- (v) As far as practicable—
 - (A) The design and layout of residential buildings provides for—
 - (I) vehicle parking and other low intensive, non habitable uses at ground level (e.g. temporary storage of readily removable items); and
 - (II) habitable rooms above, to increase flood immunity.
 - (B) The areas below habitable rooms—
 - (I) are to be left open so as not to impede flood flows; and
 - (II) may be used for the parking of vehicles or the storage of large items that are readily able to be moved in the event of a flood; and
 - (III) may be screened for security purposes using timber battens where such screening does not impede flood flows; and
 - (IV) may use timber batten gates such that the gates do not impede flood flows, with the use of solid fill gates, roll-a-doors or tilt doors to be avoided.
 - (C) Building materials and surface treatments used below the adopted flood regulation line (other than materials used for structural purposes) are resistant to water damage and do not include wall cavities that may be susceptible to the intrusion of water and sediment.

NOTE 11.4.7J

- (1) Walls without cavity spaces and flood resistant materials are to be used to minimise replacement / repair and provide for ease of cleaning in the event of a flood.
- (2) Table 1 – Walls and ceiling linings, contained in the Growth Management Queensland Fact Sheet – *Repairing your house after a flood* provides additional advice in relation to higher water resistant materials.
- (3) The use of materials for structural purposes is a building matter regulated by the Queensland Development Code.

- (D) Buildings and other structures are sited on the highest part of the site to increase flood immunity.
- (E) Electrical switchboards, main data servers and the like are positioned to maximise flood immunity.
- (F) Electrical and data installations below the adopted flood regulation line are designed and constructed to withstand submergence in flood water.
- (vi) Access routes are designed or alternative emergency evacuation routes are provided so that in a flood event occupants can escape by vehicle to a safe and secure area.
- (vii) The development does not increase the flood hazard (e.g. by way of increased depth, duration or velocity of flood waters or a reduction in warning times) for other properties.

NOTE 11.4.7K

Council may consider acceptable tolerances for changes to flood behaviour compared to existing conditions where such works are undertaken in accordance with an approved floodplain management plan and Implementation Guideline No. 24 - Stormwater Management.

- (viii) The clearing of native vegetation within the stream banks is avoided.



- (ix) All earthworks are to comply with any applicable development criteria set out in an approved floodplain management plan.
- (x) Where a floodplain management plan does not exist for the catchment, no earthworks (including filling) is permitted on land below the adopted flood regulation line, unless:
 - (A) the land is located above the 1 in 20 development line; and
 - (B) an assessment, undertaken by a suitably qualified consultant, demonstrates that the reforming of the land does not negatively impact on the overall hydrology, hydraulics and flood capacity of the waterway, does not result in the reduction of flood storage capacity on the site and does not significantly impact on the ecological values of the riparian corridor.
- (III) expensive plant, equipment and stock in the area of the site or building with the greatest flood immunity.
- (B) Building materials and surface treatments used below the adopted flood regulation line (other than materials used for structural purposes) are resistant to water damage and do not include wall cavities that may be susceptible to the intrusion of water and sediment.
- (C) Buildings and other structures are sited on the highest part of the site to increase flood immunity.
- (D) Electrical switchboards, main data servers and the like are positioned to maximise flood immunity.
- (E) Electrical and data installations below the adopted flood regulation line are designed and constructed to withstand submergence in flood water.

NOTE 11.4.7L

Council and the community have particular concerns about the cumulative adverse impact of any earthworks undertaken below the adopted flood regulation line.

(d) Land Situated Between the 1 in 20 Development Line and the Adopted Flood Regulation Line – Commercial, Industrial and Other Non Residential Uses

- (i) As far as practicable—
 - (A) The design and layout of buildings provides for—
 - (I) vehicle parking, or other low intensive, or non habitable uses at ground level; and
 - (II) retail, commercial and work areas above the parking areas, to increase flood immunity; and

NOTE 11.4.7M

- (1) Owners / applicants should undertake their own risk assessment to determine the floor level that maximises flood immunity.
- (2) Businesses should ensure that they have the necessary continuity plans in place to account for the potential need to relocate property prior to a flood event (eg allow enough time to transfer stock to the upstairs level of a building or off site).
- (3) Careful consideration should be given to the suitability and need to locate uses such as crematoriums, funeral premises, veterinary clinics (particularly where animals are kept overnight), self-storage units and warehousing that may be heavily impacted by flooding in areas situated below the adopted flood regulation line.
- (4) Walls without cavity spaces and flood resistant materials are to be used to minimise replacement / repair and provide for ease of cleaning in the event of a flood.



- (5) Table 1 – Walls and ceiling linings, contained in the Growth Management Queensland Fact Sheet – *Repairing your house after a flood* provides additional advice in relation to higher water resistant materials.
- (6) The use of materials for structural purposes is a building matter regulated by the Queensland Development Code.
- (7) Regard should be had to the relevant building assessment provisions under the *Building Act 1975* that apply to building work to be undertaken below the adopted flood regulation line, taking into account the potential flood risk.

- (ii) Access routes are designed or alternative emergency evacuation routes are provided so that in a flood event occupants can escape by vehicle to a safe and secure area.
- (iii) As far as practicable, buildings are located to avoid areas affected by significant flood flows or velocities.

NOTE 11.4.7N

Where no flow and velocity information is known for the adopted flood regulation line (modelled or otherwise) the maximum known flows and velocities are to be used for flood events in consultation with Council.

- (iv) Materials or chemicals manufactured or stored on-site—
 - (A) where hazardous or noxious materials or chemicals, inclusive of their manufacturing equipment, are located as far as practicable on the highest part of the site and designed to prevent the intrusion of floodwaters; and
 - (B) are those that are readily able to be moved in a flood event; and
 - (C) are not hazardous or noxious, or comprise materials that may cause a deleterious effect on the environment if discharged in a flood event; and

- (D) where capable of creating a safety hazard by being shifted by flood waters, are contained in order to minimise movement in times of flood.
- (v) The development does not increase the flood hazard (e.g. by way of increased depth, duration or velocity of flood waters or a reduction in warning times) for other properties.

NOTE 11.4.7O

Council may consider acceptable tolerances for changes to flood behaviour compared to existing conditions where such works are undertaken in accordance with an approved floodplain management plan and Implementation Guideline No. 24 - Stormwater Management.

- (vi) The clearing of native vegetation within the stream banks is avoided.
- (vii) All earthworks are to comply with any applicable development criteria set out in an approved floodplain management plan.
- (viii) Where a floodplain management plan does not exist for the catchment, no earthworks (including filling) is permitted on land below the adopted flood regulation line, unless:
 - (A) the land is located above the 1 in 20 development line; and
 - (B) an assessment, undertaken by a suitably qualified consultant, demonstrates that the reforming of the land does not negatively impact on the overall hydrology, hydraulics and flood capacity of the waterway, does not result in the reduction of flood storage capacity on the site and does not significantly impact on the ecological values of the riparian corridor.



NOTE 11.4.7P

Council and the community have particular concerns about the cumulative adverse impact of any earthworks undertaken below the adopted flood regulation line.

(e) Land Situated Within Urban Catchment Flow Paths – Residential Uses

NOTE 11.4.7Q

(1) Stormwater flows can affect the amenity of a property and its improvements if adequate provision is not made to address stormwater flows being generated on, or upstream of the property.

(2) In addition, situations can arise that may result in risk to life and significant damage to the property or its improvements if adequate consideration is not given to external stormwater flows during the design and construction of new uses and works.

(i) Adequate stormwater drainage infrastructure and suitable overland flow paths are provided to carry the 1% Annual Exceedence Probability (AEP) stormwater flow through the property and minimise damage owing to scouring from excessive flow velocities.

(ii) Engineering solutions that provide flood immunity to a minimum of 500mm above the adopted flood level for habitable rooms and do not negatively impact on the overall hydrology, hydraulics and flood capacity of the waterway may be considered to facilitate residential intensification where the land—

(A) is contained within areas zoned for medium and high density housing or for mixed use / centre development where involving residential uses, including the Character Housing Mixed Density, Residential Medium Density, Residential High Density, Ipswich City Centre and Major Centre Zones; and

(B) is located near the edge of the adopted flood level; and

(C) has a flood depth of generally no more than 800mm over the site based on the adopted flood level; and

(D) has direct vehicular access to a flood free evacuation route.

NOTE 11.4.7R

Engineering solutions may include earthworks (including filling), the use of undercroft or sealed basement car parking, or a combination thereof.

(iii) Unless otherwise determined by Council, the floor levels of any habitable rooms of a proposed building are a minimum of 500mm above the adopted flood level, whilst having regard to the visual amenity and streetscape impacts on nearby dwellings, associated with the raising of floor levels and the resulting height of buildings.

(iv) As far as practicable—

(A) The design and layout of residential buildings provides for—

(I) vehicle parking and other low intensive, non habitable uses at ground level (e.g. temporary storage of readily removable items); and

(II) habitable rooms above, to increase flood immunity.

(B) The areas below habitable rooms—

(I) are to be left open so as not to impede flood flows; and

(II) may be used for the parking of vehicles or the storage of large items that are readily able to be moved in the event of a flood; and



- (III) may be screened for security purposes using timber battens where such screening does not impede flood flows; and
- (IV) may use timber batten gates such that the gates do not impede flood flows, with the use of solid fill gates, roll-a-doors or tilt doors to be avoided.
- (C) Building materials and surface treatments used below the adopted flood level (other than materials used for structural purposes) are resistant to water damage and do not include wall cavities that may be susceptible to the intrusion of water and sediment.
- (v) Access routes are designed or alternative emergency evacuation routes are provided so that in a flood event occupants can escape by vehicle to a safe and secure area.
- (vi) The development does not increase the flood hazard (e.g. by way of increased depth, duration or velocity of flood waters or a reduction in warning times) for other properties.
- (f) Land Situated Within the Urban Catchment Flow Path – Commercial, Industrial and Other Non Residential Uses**
- (i) Adequate stormwater drainage infrastructure and suitable overland flow paths are provided to carry the 1% Annual Exceedence Probability (AEP) stormwater flow through the property and minimise damage owing to scouring from excessive flow velocities.
- (ii) As far as practicable—
- (A) The design and layout of buildings provides for—
- (I) vehicle parking, or other low intensive, or non habitable uses at ground level; and
- (II) retail, commercial and work areas above the parking areas, to increase flood immunity; and
- (III) expensive plant, equipment and stock in the area of the site or building with the greatest flood immunity.
- (B) Building materials and surface treatments used below the adopted flood level (other than materials used for structural purposes) are resistant to water damage and do not include wall cavities that may be susceptible to the intrusion of water and sediment.
- (D) Buildings and other structures are sited on the highest part of the site to increase flood immunity.
- (E) Electrical switchboards, main data servers and the like are positioned to maximise flood immunity.
- (F) Electrical and data installations below the adopted flood level are designed and constructed to withstand submergence in flood water.

NOTE 11.4.7S

- (1) Walls without cavity spaces and flood resistant materials are to be used to minimise replacement / repair and provide for ease of cleaning in the event of a flood.
- (2) Table 1 – Walls and ceiling linings, contained in the Growth Management Queensland Fact Sheet – *Repairing your house after a flood* provides additional advice in relation to higher water resistant materials.
- (3) The use of materials for structural purposes is a building matter regulated by the Queensland Development Code.



- (C) Buildings and other structures are sited on the highest part of the site to increase flood immunity.
- (D) Electrical switchboards, main data servers and the like are positioned to maximise flood immunity.
- (E) Electrical and data installations below the adopted flood level are designed and constructed to withstand submergence in flood water.
- (iv) As far as practicable, buildings are located to avoid areas affected by significant flood flows or velocities.

NOTE 11.4.7U

Where no flow and velocity information is known (modelled or otherwise) the maximum known flows and velocities are to be used for flood events in consultation with Council.

NOTE 11.4.7T

- (1) Owners / applicants should undertake their own risk assessment to determine the floor level that maximises flood immunity.
- (2) Businesses should ensure that they have the necessary continuity plans in place to account for the potential need to relocate property prior to a flood event (eg allow enough time to transfer stock to the upstairs level of a building or off site).
- (3) Careful consideration should be given to the suitability and need to locate uses such as crematoriums, funeral premises, veterinary clinics (particularly where animals are kept overnight), self-storage units and warehousing that may be heavily impacted by flooding in areas situated below the adopted flood level.
- (4) Walls without cavity spaces and flood resistant materials are to be used to minimise replacement / repair and provide for ease of cleaning in the event of a flood.
- (5) Table 1 – Walls and ceiling linings, contained in the Growth Management Queensland Fact Sheet – *Repairing your house after a flood* provides additional advice in relation to higher water resistant materials.
- (6) The use of materials for structural purposes is a building matter regulated by the Queensland Development Code.
- (7) Regard should be had to the relevant building assessment provisions under the *Building Act 1975* that apply to building work to be undertaken below the adopted flood level, taking into account the potential flood risk.

- (iii) Access routes are designed or alternative emergency evacuation routes are provided so that in a flood event occupants can escape by vehicle to a safe and secure area.

- (v) Materials or chemicals manufactured or stored on-site—
 - (A) where hazardous or noxious materials or chemicals, inclusive of their manufacturing equipment, are located as far as practicable on the highest part of the site and designed to prevent the intrusion of floodwaters; and
 - (B) are those that are readily able to be moved in a flood event; and
 - (C) are not hazardous or noxious, or comprise materials that may cause a deleterious effect on the environment if discharged in a flood event; and
 - (D) where capable of creating a safety hazard by being shifted by flood waters, are contained in order to minimise movement in times of flood.
- (vi) The development does not increase the flood hazard (e.g. by way of increased depth, duration or velocity of flood waters or a reduction in warning times) for other properties.

(g) Community Infrastructure

- (i) Key elements of community infrastructure are able to function effectively during and immediately after flood hazard events.



(h) Community Safety

- (i) Uses that accommodate or otherwise cater for the aged, infirm or other at risk or mobility impaired people such as hospitals and nursing homes are not located below the adopted flood regulation line or within an urban catchment flow path.

NOTE 11.4.7V

Careful consideration should also be given to the suitability and need to locate uses that cater predominately for children such as child care centres and schools in areas situated below the adopted flood regulation line or within an urban catchment flow path whilst having regard to flood warning times and the availability of suitable vehicular emergency evacuation routes.

(i) Basements

- (i) Basements below the adopted flood regulation line or within an urban catchment flow path are to be waterproof, with walls and floors impermeable to the passage of water.
- (ii) All basement entry points and services are to be located where practicable above the adopted flood level or incorporate effective barriers (ie flood gates) to prevent inundation.
- (iii) A backup power source is to be provided and located above the adopted flood level where the basement relies on a pumping solution to manage floodwater ingress or for dewatering after a flood.

(j) Undercrofts

- (i) Development that includes an undercroft ensures that the building and site design allows floodwaters and flood debris to pass predominantly unimpeded under the structure.
- (ii) The design of the undercroft does not increase flood hazard.
- (iii) The undercroft area is stabilised, resistant to scour, and designed to drain freely.

(2)**Probable Solutions****(a) Electrical Installations**

- (i) As far as practicable, the design and layout of buildings provides—
 - (A) the incoming power supply, including all metering equipment above the adopted flood level; and
 - (B) all wiring, power outlets and switches above the adopted flood level; and
 - (C) all conduits located below the adopted flood level are installed so that they will be self-draining; and
 - (D) heating and air conditioning systems above the adopted flood level.

(b) Evacuation Routes

- (i) At least one road access will remain passable for the performance of emergency evacuations at a level of no more than 300mm below the adopted flood level.

(c) Earthworks

- (i) Earthworks do not negatively affect urban catchment flow path and flood conveyance characteristics or reduce flood storage capacity through the importation of fill to the site, or any alteration to a watercourse or floodway.

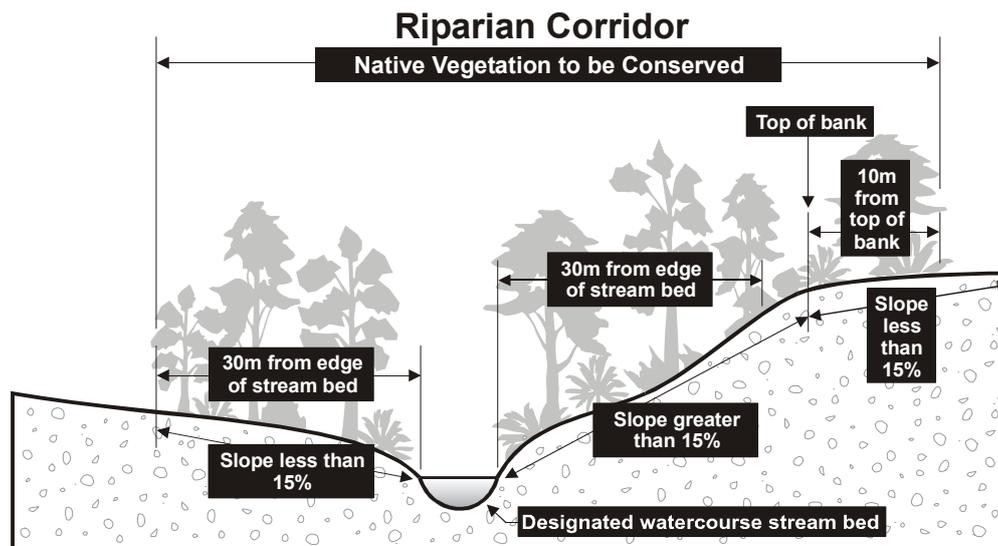
(d) Clearing of Vegetation

- (i) Clearing of vegetation does not involve the removal of native vegetation from land within a Designated Watercourse or land within 30m of a Designated Watercourse or within 10 metres of the top of the bank of a Designated Watercourse where the slope of the bank exceeds 15% (refer Figure 11.4.12).



- (e) **Community Infrastructure**
- (i) Key elements of community infrastructure are sited and designed to achieve the levels of flood immunity as set out in the State Planning Policy and associated Guidelines for Natural Disaster Mitigation.

Figure 11.4.12: Defining Extent of Riparian Corridor for Protection of Native Vegetation



11.4.8 Buffers to Highways and Regional Transport Corridors

NOTE 11.4.8A

- (1) The provisions of this section apply to land identified by Map OV6 which directly abuts a highway or regional transport corridor or where the noise, dust, odour and visual impacts of a highway or regional transport corridor are likely to effect residential amenity some distance from the actual highway or regional transport corridor.
- (2) In some cases, further information will need to be submitted to the local government, such as a noise assessment, for consideration as part of the development assessment process.
- (3) Further information regarding noise assessment is contained in Planning Scheme Policy 2—Information Local Government May Request.
- (4) Also refer to Environmental Protection Policy (Noise) (EPP Noise) for road traffic noise criteria.

(1) Specific Outcomes

- (a) Buffers are maintained to highways and regional transport corridors to maintain the acoustic and visual amenity for residences and other sensitive land uses by—
 - (i) the siting of noise sensitive places within a building envelope located outside of noise affected areas associated with highways and designated regional transport corridors;
 - (ii) locating uses and works to provide the maximum separation possible to highways and regional transport corridors, including provision of larger lot sizes to increase separation between the highway or corridor and buildings on new lots;



- (iii) the retention of existing vegetation between the intended location of residential and other sensitive uses and a highway or regional transport corridor, and where possible, supplementing the vegetation to provide a screen to noise, dust, odour and visual impacts from the highway or regional transport corridor.
- (b) Proposed residential premises are either—
 - (i) not exposed to unacceptable traffic noise; or
 - (ii) designed and constructed so that acceptable living conditions are created within the dwelling.

(2) **Probable Solution – for sub-section (1)(a)**

Noise sensitive receptors (including new dwellings) are sited beyond 50 metres from the boundary of a highway or designated regional transport corridor.

NOTE 11.4.8B

- (1) An appropriately qualified acoustic engineer should determine the appropriate noise attenuation measures for the development and an associated acoustic report should be submitted to the local government.
- (2) If the predicted road traffic noise at a residential building exceeds the noise criterion, acoustic barriers are the initial preferred option for noise amelioration.
- (3) If the predicted road traffic noise still exceeds the noise criterion after the noise barriers have been optimised, noise control measures such as insulation, sealing of windows and doors, and orienting openings away from the noise source, may be required to be incorporated into the building design to ameliorate road traffic noise to the interior of the dwellings.
- (4) Refer to the Department of Transport and Main Roads Noise Code of Practice

11.4.9 Defence Facilities

(1) **Specific Outcomes**

The specific outcomes sought for uses and works in Defence Areas are set out in Column 1 of Table 11.4.2 and the Probable Solutions are set out in Column 2 of Table 11.4.2.

NOTE 11.4.9A

- (1) The provisions of this section apply to land located within the influence area of a Defence Facility as identified by Maps OV7A to OV7D and OV7E – Unexploded Ordnance (UXO) Areas.
- (2) These Maps identify development constraints associated with—
 - (a) RAAF Base Amberley;
 - (b) Purga Rifle Range; and
 - (c) former Defence Training Areas and Facilities.
- (3) Constraints identified by the Department of Defence have been mapped for—
 - (a) Defence (Areas Control) Regulations (D(AC)R) and Obstruction Clearance Surfaces (OCS) identifying building height restriction areas (OV7A);
 - (b) Restriction Areas (OV7B), for—
 - (i) Operational Airspace – Wildlife Attraction Restriction Areas identifying areas within 3, 8 and 13km of the RAAF Base Amberley runway which are relevant areas in protecting operational airspace from airborne wildlife interference; and
 - (ii) Extraneous Lighting Restriction Area identifying areas within 6km of the RAAF Base Amberley runway to protect pilots from interference from significant (extraneous) light emissions;
 - (c) 2006 Australian Noise Exposure Forecast (ANEF) identifying areas affected by significant aircraft noise (OV7C);
 - (d) Noise and Public Safety Buffers (OV7D) identifying—
 - (i) public safety area buffer at the end of the RAAF Base Amberley runway;
 - (ii) explosive storage safeguard area buffer (explosive safety distances from the RAAF Base Amberley); and
 - (iii) Purga Rifle Range surrounding lands noise buffer;
 - (e) Unexploded Ordnance (UXO) Areas (OV7E) identifying—
 - (i) UXO search/clearance requirement;
 - (ii) UXO warning requirement.



- (4) The provisions of this section aim to avoid direct or indirect conflict between the facilities listed in (3) above and surrounding land uses by providing for—
- (a) the protection of the safety and operational efficiency of the facilities listed in (3) above; and
 - (b) compatible development of the facilities and surrounding lands.
- (5) The mapping also indicates areas subject to existing development commitments—
- (a) to which the additional assessment provisions do not apply; and
 - (b) intending purchasers are informed of the existence of the constraint, by information contained within planning and development certificates.
- (6) In some cases a detailed, site specific, technical assessment will need to be—
- (a) undertaken for any site identified within the overlay to determine impacts to and from the facilities listed in (3); and
 - (b) submitted to the local government for consideration as part of the assessment process .
- (7) Further information on the requirements for undertaking a site specific technical assessment are contained in Planning Scheme Policy 2—Information Local Government May Request.
- (8) State Planning Policy 1/02 – Development in the Vicinity of Certain Airports and Aviation Facilities contains requirements for development within proximity to the Amberley Air Base.
- (9) Table 11.4.2 has been prepared consistent with the requirements contained within State Planning Policy 1/02 – Development in the Vicinity of Certain Airports and Aviation Facilities (DLGP and Qld Transport, 2002) and State Planning Policy 1/02 Guideline – Development in the Vicinity of Certain Airports and Aviation Facilities (DLGP and Qld Transport, 2002).
- (10) State Planning Policy 1/02 – Development in the Vicinity of Certain Airports and Aviation Facilities (DLGP and Qld Transport, 2002) provides requirements for civil, military and joint-user airports and aviation facilities relating to—
- (a) operational airspace;
 - (b) sensitive areas around aviation facilities;
 - (c) areas affected by significant aircraft noise; and
 - (d) public safety areas at the end of airport runways.
- (11) Australian Standard AS2021-2000: Acoustics-Aircraft Noise Intrusion-Building Siting and Construction (AS2021) provides guidance on the siting and construction of buildings in the vicinity of the Amberley Air Base to minimise aircraft noise intrusion.
- (12) Other legislation including the Defence Act 1903 and the Defence Act (Areas Control) Amendment Regulations 2001 (No. 2) also provides for the protection of the Amberley Air Base operational airspace.
- (13) Reference should be made to the documents listed in (9) to (12) above when preparing development applications to be submitted to the local government for land identified on Maps OV7A to OV7E surrounding the Amberley Air Base.
- (14) Applicants submitting development applications within these areas are encouraged to liaise with the Department of Defence.
- (15) The owner/applicant for a new dwelling is to provide a written acknowledgment of the likely impacts on residential amenity at the time of lodging a development application.



Table 11.4.2: Specific Outcomes and Probable Solutions for Defence Facilities

Column 1 Specific Outcomes	Column 2 Probable Solutions
<p>AMBERLEY AIR BASE</p> <p>Operational Air Space</p> <p>(1) Uses and works do not cause a permanent or temporary obstruction (natural or man-made) or other potential hazard to aircraft movement associated with the Amberley Air Base by way of—</p> <p>(a) physical intrusion of buildings or other structures into the Obstruction Clearance Surfaces and inconsistent with the building height restriction areas identified on Map OV7A;</p> <p>(b) a propensity to attract wildlife (in particular birds and bats) into operational airspace identified on Map OV7B which cause or contribute to bird strike hazard;</p> <p>(c) providing bright lighting or that similar to aerodrome lighting into operational airspace identified on Map OV7B which could—</p> <p>(i) distract or temporarily interfere with an aircraft pilot's visibility while in control of approaching or departing aircraft; or</p> <p>(ii) confuse pilots through similarities with approach or runway lighting;</p> <p>(d) interference with navigation, surveillance or communication facilities (e.g. by physical "line of sight" obstructions, outputs such as significant electrical or electromagnetic emissions and structures with reflective surfaces);</p> <p>(e) generation of air turbulence or emission of airborne particulate that could impair visual or flying conditions and affect a pilot's visibility or aircraft operations in the vicinity of the airport (e.g. smoke or plumes); or</p> <p>(f) transient intrusions into the airport's operational airspace (e.g. parachuting, hot air ballooning or hang gliding).</p>	<p>AMBERLEY AIR BASE</p> <p>Operational Air Space</p> <p>NOTE 1</p> <p>(1) The operational airspace of Amberley Airbase is defined as the areas and vertical dimensions of the building height restriction areas and the Obstruction Clearance Surfaces (OCS) defined in the <i>Defence (Areas Control) Regulations</i>.</p> <p>(2) Development that has significant external lighting or attracts significant numbers of wildlife has the potential to have adverse impacts on operational airspace at distances up to 6km and 13km respectively from the runway.</p> <p>(1) Buildings and other structures are consistent with the building height restriction areas and do not penetrate the Obstruction Clearance Surfaces identified on Map OV7A.</p> <p>NOTE 2</p> <p>Buildings and structures that are taller than the height shown on the building height restriction areas or impinge on the OCS require prior approval of the Department of Defence.</p> <p>(2) Uses that attract birds and bats within 3km and 13km of the airport runway are avoided or managed.</p> <p>Probable Solutions – for (2)</p> <p>(a) Putrescible waste disposal sites are avoided within 13km of the airport runway.</p> <p>(b) Commercial fish processing, bird/wildlife sanctuaries and fauna reserves, aquaculture, turf farming, winery's, piggeries, fruit farming and food processing plants are avoided within 3 km of the airport runway.</p> <p>(c) Where the uses in (b) are located between 3km and 8km of the airport runway, measures that prevent waste and other food sources attracting wildlife are included in development proposals (e.g. covering of potential food/waste sources and wildlife deterrence measures).</p> <p>(d) Riding schools, racetracks, fairgrounds, outdoor theatres or drive-in restaurants are avoided within 3km of the airport runway unless measures are included in the development proposal to manage waste disposal (e.g. covering of food/waste sources).</p> <p>NOTE 3</p> <p>(1) Where exceptional circumstances justify approval of (a) or (b) above within 13km and 3km respectively of the airport runway, rigorous wildlife management measures to avoid attracting wildlife should be incorporated in the development proposal.</p> <p>(2) A bird hazard assessment should be undertaken for any of the uses listed in (a) to (d) above and submitted to the local government for development assessment.</p> <p>(3) Within 6km of the airport runway, uses and works do not have the potential to confuse pilots because of similarities with approach or runway lighting, or owing to brightness of glare which may distract or interfere with a pilot's visibility while in control of approaching or departing aircraft.</p> <p>Probable Solutions – for (3)</p> <p>(a) Configurations of lights in straight parallel lines 500 metres to 1000 metres long (e.g. new roads or streets, sporting fields and large parking areas) are avoided.</p> <p>(b) Glare or flashes (e.g. sporting stadia), flare plumes, refineries, upward shining lights, flashing or sodium (yellow) lighting is avoided.</p> <p>(c) Buildings or other structures avoid construction materials with a reflective surface (e.g. glass or metallic).</p> <p>NOTE 4</p> <p>For advice on how to meet aviation safety requirements refer to CASA's <i>Civil Aviation Safety Regulations CASR Part 139 Manual of Standards – Chapter 9.21 Lighting in the Vicinity of Aerodromes</i>.</p> <p>(4) Uses and works on land within the Obstruction Clearance Surfaces (OCS) do not affect pilot visibility or aircraft operations.</p>



Table 11.4.2 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
	<p>Probable Solutions – for (4)</p> <ul style="list-style-type: none"> (a) Uses and works do not emit— <ul style="list-style-type: none"> (i) gaseous plumes with a velocity of more than 4.3m per second that penetrates operational airspace; (ii) airborne particulate emissions (e.g. steam, dust, smoke or ash); (iii) electro-magnetic emissions. (b) Cleared vegetation is mulched or removed from the site and is not burnt on-site. (c) Plants used for landscaping are predominantly species that are not attractive to birds or bats and at maturity would not intersect the Obstruction Clearance Surfaces (OCS). (d) Uses close to runway ends that involve the planting of tree species with the potential to constitute an obstruction within operational airspace are avoided. (e) Transient intrusions (e.g. parachuting, hot air ballooning or hang gliding) into the airport’s operational airspace are avoided or restricted to prevent intrusions into the airport’s operational airspace. <p>NOTE 5 Cranes and other equipment used during construction of development should not penetrate the OCS.</p>
<p>Significant Aircraft Noise</p> <p>(2) Uses, works and lot reconfigurations do not—</p> <ul style="list-style-type: none"> (a) introduce or intensify uses; or (b) increase the number of people living, working or congregating; <p>on lands surrounding the Amberley Air Base identified on Map OV7C as affected by significant aircraft noise (within the 20+ANEF contour), without the incorporation of adequate mitigation measures.</p> <p>NOTE 7</p> <p>(1) <i>State Planning Policy 1/02 - Development in the Vicinity of Certain Airports and Aviation Facilities (DLGP and Qld Transport, 2002)</i> provides for uses or works that are incompatible with forecast levels of aircraft noise to be justified on grounds of—</p> <ul style="list-style-type: none"> (a) “overriding need” in the public interest, given consideration to an assessment of— <ul style="list-style-type: none"> (i) the social and economic benefits to the community; and (ii) alternative sites; or (b) a “development commitment” including any of the following— <ul style="list-style-type: none"> (i) development with a valid development approval; 	<p>Significant Aircraft Noise</p> <p>NOTE 6 Uses and works should identify their location in relation to the airport’s ANEF chart to assist establishment of whether the proposed development is compatible with the relevant ANEF contour.</p> <ul style="list-style-type: none"> (5) Except where there is an existing development commitment, uses and works are not developed for— <ul style="list-style-type: none"> (a) long term residential use or community use (including educational establishments, hospitals, nursing homes) on land within the 25 or greater ANEF contour; (b) short term residential use, including motels, hotels, hostels, and bed and breakfast establishments on land within the 30 or greater ANEF contour; (c) a public building (e.g. library, community hall) on land within the 30 or greater ANEF contour; (d) commercial uses on land within the 35 or greater ANEF contour; or (e) light industrial uses on land within the 40 or greater ANEF contour. (6) Except where there is an existing development commitment, uses and works developed for— <ul style="list-style-type: none"> (a) long term residential use or community use (including educational establishment, hospital, nursing homes) on land within the 20 to 25 ANEF contour; (b) short term residential use, including motels, hotels, hostels, and bed and breakfast establishments on land within the 25 to 30 ANEF contour; (c) a public building (e.g. library, community hall) on land within the 20 to 30 ANEF contour; (d) commercial uses on land within the 25 to 35 ANEF contour; (e) light industrial uses on land within the 30 to 40 ANEF contour; <p>incorporate aircraft noise attenuation measures that achieve the indoor design sound levels for building type and activity specified in <i>State Planning Policy 1/02 Guideline – Development in the Vicinity of Certain Airports and Aviation Facilities (DLGP and Qld Transport, 2002)</i>.</p>



Table 11.4.2 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
<ul style="list-style-type: none"> (ii) exempt development, self assessable development or development only assessable against the standard building regulation; (iii) development clearly consistent with the relevant zone (or equivalent) in a planning scheme; (iv) development for a land use that is allocated in a transitional planning scheme (where the development intent is clear and unqualified); (v) a subdivision or other reconfiguration of allotment boundaries consistent with the requirements of the relevant planning scheme; or (vi) development consistent with a designation for community infrastructure. 	<p>NOTE 8</p> <ul style="list-style-type: none"> (1) An appropriately qualified acoustic engineer should determine the appropriate noise attenuation measures for the development and an acoustic report should be submitted to the local government. (2) Noise attenuation measures are specified in AS 2021-2000 <i>Acoustics-Aircraft Noise Intrusion-Building Siting and Construction</i> relate to— <ul style="list-style-type: none"> (a) building materials (e.g. masonry external walls, thickened glass); (b) double-glazing of windows; (c) roof and wall insulation; and (d) building siting. (7) Except where there is an existing development commitment, no additional lots are created for residential use within the 20 or greater ANEF contour.
<p>Explosive Storage Safeguard Areas</p> <ul style="list-style-type: none"> (3) Uses, works and lot reconfigurations do not introduce or intensify residential use or encourage large concentrations of people within the explosive storage safeguard area identified by Map OV7D. 	<p>Explosive Storage Safeguard Areas</p> <ul style="list-style-type: none"> (8) Uses, works and lot reconfigurations which introduce or intensify dwellings or other concentrations of people within the explosive storage areas are avoided. <p>NOTE 9</p> <p>Uses and works for other than residential use within the explosive storage safeguard area require approval from the Department of Defence.</p>
<p>Public Safety Areas</p> <ul style="list-style-type: none"> (4) Uses, works and lot reconfigurations avoid— <ul style="list-style-type: none"> (a) introducing or intensifying uses; or (b) significant increases in the number of people living, working or congregating; or (c) the use and storage of noxious or hazardous materials; within the Public Safety Area of the Amberley Air Base identified on Map OV7D to minimise risks to public safety from an aircraft accident. 	<p>Public Safety Areas</p> <ul style="list-style-type: none"> (9) Except where there is an existing development commitment, uses and works within the Public Safety Area of the Amberley Air Base do not— <ul style="list-style-type: none"> (a) introduce or intensify residential, community, commercial, industrial or other uses; or (b) involve the manufacture or bulk storage of hazardous (explosive or noxious) or flammable materials; or (c) attract people in large numbers to live, work or congregate in the area (including a sports stadium, shopping centre, recreational centres, places of worship, educational establishment, hospital and industrial or commercial uses involving a large number of workers or customers); or (d) include a transport terminal.
<p>NOTE 10</p> <p><i>State Planning Policy 1/02 – Development in the Vicinity of Certain Airports and Aviation Facilities (DLGP and Qld Transport, 2002)</i> provides for uses or works that are incompatible within a public safety area to be justified on grounds of being a “development commitment” which includes any of the following—</p> <ul style="list-style-type: none"> (a) development with a valid development approval; (b) exempt development, self assessable development or development only assessable against the standard building regulation; 	<p>NOTE 11</p> <p>Uses and works within the Public Safety Area are developed for—</p> <ul style="list-style-type: none"> (a) extensions to existing residences (e.g. for purposes of enlarging or improving the living accommodation for the benefit of those living in it); (b) an extension to a property (not being for a single dwelling or other residential building) which could not reasonably be expected to increase the number of people working or congregating in or at the property (e.g. warehouse/storage facility); (c) agriculture, mineral extraction, landfill (other than wildlife attracting), open space, recreational areas with low concentrations of people, golf courses and sporting fields (not associated with a clubhouse or stadium); (d) long term vehicle parking, storage depot (for non-hazardous materials) and warehousing (except for retail purposes); or (e) consolidation or distribution centre, equipment sales and display yards.



Table 11.4.2 continued

Column 1 Specific Outcomes	Column 2 Probable Solutions
<p>(c) development clearly consistent with the relevant zone (or equivalent) in a planning scheme;</p> <p>(d) development for a land use that is allocated in a transitional planning scheme (where the development intent is clear and unqualified);</p> <p>(e) a subdivision or other reconfiguration of allotment boundaries consistent with the requirements of the relevant planning scheme; or</p> <p>(f) development consistent with a designation for community infrastructure.</p>	
<p>PURGA RIFLE RANGE</p> <p>(1) Uses, works and lot reconfigurations avoid introducing or intensifying residential uses on nearby lands to the Purga Rifle Range identified on Map OV7D as these areas may experience significant impacts on residential amenity.</p> <p>(2) New dwellings established on existing lots incorporate appropriate design and siting measures.</p>	<p>PURGA RIFLE RANGE</p> <p>(1) Lot reconfigurations or intensification of use for residential purposes is avoided on land surrounding the Purga Rifle Range identified by Map OV7D.</p> <p>(2) Building envelopes are located so that dwellings are located outside of the buffer area.</p> <p>(3) Existing vegetation is retained and where possible, supplementary planting is provided.</p> <p>NOTE 12 An appropriately qualified acoustic engineer should determine the appropriate noise attenuation measures for the development and an acoustic report should be submitted to the local government.</p>
<p>UNEXPLODED ORDNANCE AREAS</p> <p>(1) Information and search/clearance procedures are provided for uses and works within unexploded ordnance (UXO) areas, as identified on Map OV7E.</p>	<p>UNEXPLODED ORDNANCE AREAS</p> <p>NOTE 13 The Unexploded Ordnance Area is categorised into two types as identified on Map OV7E—</p> <p>(a) areas which should be preceded by a search/clearance operation prior to development; and</p> <p>(b) areas, whilst not requiring a search/clearance operation, require suitable warnings for earth moving contractors, etc.</p> <p>(1) Uses and works on land containing unexploded ordnances (UXO) identified by Map OV7E is—</p> <p>(a) preceded by a search/clearance operation prior to development; or</p> <p>(b) provided with warning signs for earthmoving contractors visible from any public place and at the access point to the land indicating the possibility of unexploded ordnance and of the procedure to be followed in the event of an object being found.</p> <p>NOTE 14</p> <p>(1) Development applications for land within areas identified by Map OV7E as containing unexploded ordnances which should be preceded by a search/clearance operation prior to development, require a site clearance from the Environmental Protection Agency (EPA).</p> <p>(2) A site contamination report should be prepared and submitted to the local government for land within areas identified by Map OV7E.</p> <p>(3) Further information regarding site contamination reports are contained in Planning Scheme Policy 2—Information Local Government May Request.</p>



11.4.10 Motor Sports Buffers

NOTE 11.4.10A

- (1) The provisions of this section apply to land identified by Map OV8 as constrained, principally by noise impacts, owing to proximity to either the Tivoli Raceway or the Ipswich Motor Sports Precinct (at Willowbank).
- (2) The land identified by Map OV8, if inappropriately developed, would compromise the integrity of the operation of the raceways or affect the amenity of new residents.
- (3) In some cases, further information will need to be submitted to the local government, such as a noise assessment, for consideration as part of the development assessment process.
- (4) Further information on the requirements for a noise assessment are contained in Planning Scheme Policy 2—Information Local Government May Request.
- (5) Development applications within the Buffer Areas may be referred to the operators of the relevant motor sports venues for comment and advice, prior to their determination by the local government.
- (6) Applicants submitting development applications within these areas are encouraged to liaise with the operators of the respective raceways prior to lodgement of a development application.

(1) Specific Outcomes

(a) Tivoli Raceway Buffer

NOTE 11.4.10B

- (1) The Tivoli Raceway Buffer is categorised into two types as identified on Map OV8—
 - (a) a Primary Area, in which there are likely to be major impacts on residential amenity and therefore major concerns about residential activities; and
 - (b) a Secondary Area, in which there are likely to be less, but still significant, impacts on residential amenity.
- (2) Land use investigations have shown that land within this buffer would generally be suitable for Large Lot residential development were it not for the impacts of the Tivoli Raceway and the Kholo Creek Hard Rock Resource Haul Route.

- (3) Development of this area for Large Lot residential development is also dependant upon the sequencing of the provision of water infrastructure.
- (4) Accordingly, it is intended to protect these lands in their current non urban/rural state until the cessation of the Tivoli Raceway, and a determination is made about the precise location of the Kholo Creek Hard Rock Resource Haul Route; at such time rational and orderly conversion to Large Lot Residential development can occur.
- (5) Following cessation of the Tivoli Raceway, further detailed investigation of the provision of water infrastructure will need to be undertaken to determine the likely pattern and sequencing of development.

Until such time as the Tivoli Raceway ceases operation—

- (i) non-residential uses are avoided unless forming an interim use compatible with the future intended use of the area for predominantly Large Lot residential development; and
- (ii) reconfigurations which create additional lots and intensification of housing on existing lots are avoided unless an acceptable level of residential amenity can be achieved through—

- (A) the siting and design of dwellings [e.g. by construction with appropriate noise attenuation, including sound absorptive materials and other measures such as insulation, air conditioning and sealing of windows (such as double glazing) and doors, with openings generally oriented away from the noise source];
- (B) maximising separation from the noise source, and using intervening vegetation and topography to enhance buffering effects (see Figure 11.4.8); and



- (C) the submission of a written acknowledgment from the owner/applicant at the time of lodging a development application of the likely impacts on residential amenity.

(b) Ipswich Motorsport Precinct (Willowbank)

NOTE 11.4.10C

The Willowbank Motor Sport Precinct Buffer is categorised into three types as identified on Map OV8—

- (a) a Primary Area, in which there are likely to be major impacts on residential amenity and therefore major concerns about residential activities.
- (b) a Secondary Area, in which there are likely to be less, but still significant, impacts on residential amenity; and
- (c) Existing and Committed Residential Areas to be Advised of Possible Amenity Impacts.

In order to protect residential amenity, reconfigurations which create additional lots and intensification of housing on existing lots are avoided unless an acceptable level of residential amenity can be achieved through—

- (i) siting and design of dwellings [e.g. by construction with appropriate noise attenuation, including sound absorptive materials and other measures such as insulation, air conditioning and sealing of windows (such as double glazing) and doors, with openings generally oriented away from the noise source];
- (ii) maximising separation from the noise source, and using intervening vegetation and topography to enhance buffering effects (refer Figure 11.4.8); and
- (iii) the submission of a written acknowledgment from the owner/applicant at the time of lodging a development application of the likely impacts on residential amenity.

11.4.11

Wastewater Treatment Buffers

NOTE 11.4.11A

- (1) The provisions of this section apply to land identified by Map OV9 as being affected principally by noise and odour impacts associated with the operations of a Wastewater Treatment Plant.
- (2) Inappropriate development of these lands has the potential to compromise the operational integrity of the treatment plants and significantly affect the amenity of new residents.

(1)

Specific Outcomes

Reconfigurations which create additional lots and intensification of housing on existing lots are avoided unless an acceptable level of residential amenity can be achieved through—

- (a) the siting and design of dwellings to maximise separation from noise and odour sources and avoiding the siting of a dwelling directly down wind of a treatment plant [e.g. construction with appropriate noise attenuation, including sound absorptive materials and other measures such as insulation, air conditioning and sealing of windows (such as double glazing) and doors, with openings generally oriented away from the noise source] (refer Figure 11.4.8); and
- (b) the submission of a written acknowledgment from the owner/applicant at the time of lodging a development application of the likely impacts on residential amenity.

NOTE 11.4.11B

- (1) Proposals for further housing and lot reconfigurations in the buffer area should give consideration to—
 - (a) prevailing winds;
 - (b) the topography of the area;
 - (c) intervening vegetation;
 - (d) characteristics of the current or proposed methods, emissions and hours of operations of the Wastewater Treatment Plant; and
 - (e) any abatement measures to be adopted.
- (2) In some cases a detailed, site specific, technical assessment will need to be undertaken for any site identified within the overlay, to determine impacts from the Wastewater Treatment Plant and be submitted to the local government for consideration as part of the assessment process .



- (3) Further information on the requirements for a technical site assessment are contained in Planning Scheme Policy 2—Information Local Government May Request.
- (4) Applicants submitting development applications in this area are encouraged to liaise with Ipswich Water.

11.4.12 This section is intentionally left blank.

11.4.13 High Pressure Pipelines

NOTE 11.4.13A

- (1) The provisions of this section apply to land identified by Map OV11 as being affected by the operations of a high pressure pipeline.
- (2) Inappropriate development of these lands has the potential to compromise the operational efficiency of the pipelines and pose significant risks to public safety.
- (3) Applicants submitting development applications within these areas are encouraged to liaise with the relevant pipeline entities.
- (4) Where development affects an oil or gas pipeline easement, the written permission of the pipeline owner is required under the Petroleum Act 1923.

(1) Specific Outcomes

- (a) Uses and works are located to provide appropriate separation to high pressure oil and gas pipelines.

NOTE 11.4.13B

Appropriate separation treatments may include provision of large lot sizes and associated building envelopes to increase separation between the pipeline and buildings on new lots.

- (b) Uses and works are constructed to avoid damaging or adversely affecting the pipeline's operations and the supply of gas or oil.



- (c) Uses that—
- (i) have the propensity to attract people in large numbers to live, work or congregate (e.g. educational establishments, place of worship, retirement village, nursing home); or
 - (ii) involve the storage of flammable, explosive or other hazardous materials;
- are avoided within 200 metres of high pressure oil and gas pipelines, unless otherwise determined by an appropriate risk assessment.

NOTE 11.4.13C

- (1) The Department of Natural Resources and Mines requires oil and gas pipelines to comply with Australian Standard AS 2885.
- (2) Uses and works close to a pipeline should undertake a risk assessment based on AS 2885 in order to determine appropriate design, siting and construction measures.

11.4.14 This clause is intentionally left blank

11.4.15 High Voltage Electricity Transmission Lines

NOTE 11.4.15A

- (1) The provisions of this section apply to land identified by Map OV13 which encompasses high voltage electricity transmission line easements and corridors.
- (2) Applicants submitting development applications within this area are encouraged to liaise with Powerlink.

(1) **Specific Outcomes**

- (a) Child care centres, and other uses in which children congregate, avoid locating in close proximity to high voltage electricity transmission lines.
- (b) Vegetated buffers are maintained or provided beside high voltage electricity transmission lines.
- (c) Recreation or open space uses are provided adjoining Electricity Transmission Line Easements.
- (d) Buildings are sited, where possible, to use intervening topography to enhance buffering effects and screening to Electricity Transmission Lines.

NOTE 11.4.15B

Any work under an Electricity Transmission Line Easement may require the consent of the electricity entity that holds the easement.

(2) **Probable Solutions – for sub-section (1)(a) and (b)**

- (a) Land or buildings associated with the care or use by children for more than 5 hours per day at least 3 days per week, maintain a separation distance from the closest boundary of an Electricity Transmission Line Easement of—
 - (i) 20 metres for transmission lines up to 132 kV;
 - (ii) 30 metres for transmission lines up to 133kV and 275kV; and
 - (iii) 40 metres for transmission lines greater than 275 kV.
- (b) Where existing vegetation occurs on land adjoining an Electricity Transmission Line Easement, it is retained where possible, or supplemented with additional planting to form a 20 metre wide buffer to the easement.

11.4.16 Rail Corridor Noise Impact Management

NOTE 11.4.16A

- (1) The provisions of this section apply to land identified by Map OV14 which adjoins a rail corridor where the noise of the rail corridor is likely to effect amenity (particularly residential amenity) some distance from the actual rail corridor.
- (2) This section seeks to balance—
 - (a) the protection of the rail corridor as a 'beneficial asset';
 - (b) the protection of the amenity for noise sensitive uses near the rail corridor;
 - (c) the encouragement of transit oriented development, particularly around railway stations; and
 - (d) the creation of an overall high standard of urban design for new uses and works.



- (3) Applications for development on land defined by Map OV14 that involve a noise sensitive use should be accompanied by a report prepared by a suitably qualified acoustic practitioner (Member of the Australian Acoustical Society).
- (4) Further information regarding noise assessment is contained in Planning Scheme Policy 2—Information Local Government May Request.

(1)

Specific Outcomes

- (a) New uses, works and reconfigurations (where creating more than one additional lot) are designed, sited and constructed to ensure—
 - (i) interior noise levels within noise sensitive uses do not adversely impact on the uses' primary function; and
 - (ii) the wellbeing of occupants including their ability to sleep, work or otherwise undertake quiet enjoyment without unreasonable interference from rail noise.
- (b) Buildings are also sited, designed and constructed to achieve a high standard of urban design, inclusive of properly addressing the street frontage and achieving climate control, energy efficiency and crime prevention through environmental design outcomes (e.g. through facilitating casual surveillance).
- (c) Where vegetation exists between the intended location of a residential use or other sensitive uses and the rail corridor, the existing vegetation is retained and where possible, supplemented to provide a screen to the noise and visual impacts of the rail corridor.

(2)

Probable Solutions – for sub-section (1)(a)

- (a) Uses and works for dual occupancies, multiple residential, institutional residential, temporary accommodation, medical centre or community use achieve average L_{max} (10.00 p.m. – 6.00 a.m.) not greater than 50 dB(A). This should be achieved within bedrooms, living areas and noise sensitive areas of non-residential uses through —

- (i) siting as far as possible away from the rail corridor noise source; or
- (ii) reducing infiltration of noise through the use of roof and wall insulation, mechanical ventilation, thickened glass, double glazing of windows and doors; or
- (iii) reducing noise infiltration by locating bedrooms and living areas and orienting openings (e.g. windows and doors) away from the rail corridor noise source; or
- (iv) incorporating noise attenuation barriers such as earth mounds, landscaping and fences or walls without gaps between the noise source and the use; or
- (v) in the Rural Locality, siting, where possible, outside of the area identified on Map OV14 or adopting the solutions detailed in 2(a)(i) to (iv), as outlined above.

- (b) Reconfiguration of Lots, (where creating more than one additional lot), incorporate noise attenuation barriers such as earth mounds, landscaping and fences or walls without gaps, between the rail noise source and the lots.

NOTE 11.4.16B

- (1) It may be appropriate to use one or a combination of the probable solutions outlined in section 11.4.16(2) to enable new uses and works to achieve the required noise levels whilst also achieving an overall high standard of design in terms of the appearance of the development and the manner in which it addresses the street and achieves climate control, energy efficiency and crime prevention through environmental design (e.g. through facilitating casual surveillance).
- (2) The Local Government encourages a collaborative design approach between the acoustic engineer and the project architect/designer, to achieve the required noise criteria and the urban design outcomes outlined above.



Table 11.4.3: Assessment Categories and Relevant Assessment Criteria for Development Constraints Overlays—Making a Material Change of Use

Column 1 Defined use or use class	Column 2 Assessment category	Column 3 Relevant assessment criteria—applicable code if development is self-assessable or requires code assessment
Agriculture	<p>Code Assessable if the land is located within the defence facilities development constraint overlay—</p> <ul style="list-style-type: none"> (a) and within an unexploded ordnance area (refer Map OV7E); or (b) the use involves turf farming, a vineyard or fruit farming within 8km of the air base runway (refer Map OV7B). <p>Exempt otherwise.</p>	Development Constraints Overlays Code (Part 11, division 4)
Animal Husbandry	Exempt	
Carpark	<p>Code Assessable, where land affected by the—</p> <ul style="list-style-type: none"> (a) difficult topography development constraint overlay (refer Map OV4); or (b) 1 in 20 development line or adopted flood regulation line constraints overlays (refer Map OV5); or (c) urban catchment flow paths development constraint overlay (refer Map OV5); or (d) buffers to highways and regional transport corridors development constraint overlay (refer Map OV6); or (e) unexploded ordnance development constraint overlay (refer Map OV7E). <p>Exempt, otherwise.</p>	Development Constraints Overlays Code (Part 11, division 4) Parking Code (Part 12, division 9)
Forestry	<p>Exempt, where land affected by the—</p> <ul style="list-style-type: none"> (a) key resource areas, haul routes and existing mines development constraint overlay (refer Map OV2); or (b) bushfire risk areas development constraint overlay (refer Map OV1); or (c) high pressure oil and pipelines development constraint overlay (refer Map OV11). <p>Code Assessable otherwise.</p>	Development Constraints Overlays Code (Part 11, division 4)
Home Based Activity	Exempt	
Minor Utility	Exempt	
Night Court	<p>Code Assessable where the land is located within the defence facilities development constraint overlay and within the operational airspace, explosive storage safety area or public safety area of the Amberley Air Base (refer Maps OV7A, OV7B and OV7D).</p> <p>Exempt otherwise.</p>	Development Constraints Overlays Code (Part 11, division 4)



Column 1 Defined use or use class	Column 2 Assessment category	Column 3 Relevant assessment criteria—applicable code if development is self-assessable or requires code assessment
Park	<p>Code Assessable where the land is located within the defence facilities development constraint overlay and within the—</p> <ul style="list-style-type: none"> (a) operational airspace, explosive storage safety area or public safety area of the Amberley Air Base (refer Maps OV7A, OV7B and OV7D); or (b) unexploded ordnance area (refer Map OV7E). <p>Exempt otherwise.</p>	<p>Development Constraints Overlays Code (Part 11, division 4) Recreation and Entertainment Code (Part 12, division 11)</p>
Plant Nursery (wholesale)	<p>Code Assessable where land affected by—</p> <ul style="list-style-type: none"> (a) difficult topography development constraint overlay (refer Map OV4); or (b) urban catchment flow paths development constraint overlay (refer Map OV5); or (c) unexploded ordnance development constraint overlay (refer Map OV7E); or (d) operational airspace development constraint overlay (refer Map OV7A and OV7B). <p>Exempt otherwise.</p>	<p>Development Constraints Overlays Code (Part 11, division 4)</p>
Single Residential	<p>Self Assessable, if—</p> <ul style="list-style-type: none"> (a) within the High Pressure Pipelines Overlay (refer Map OV11); or (b) situated within a Residential Zone, and— <ul style="list-style-type: none"> (i) within the rail corridor overlay (refer Map OV14); or (ii) within the existing and committed residential areas as mapped on the 2006 Australia Noise Exposure Forecast (ANEF) Contours Overlay (Refer Map OV7C). <p>Code Assessable otherwise.</p>	<p>If Self Assessable—acceptable solutions for Single Residential in section 12.6.5(8) in the Residential Code (Part 12, division 6). If Code Assessable—Development Constraints Overlays Code (Part 11, division 4).</p>
Other (defined use or use class)	Assessment Category	Relevant assessment criteria—applicable code if development is self-assessable or requires code assessment
All, except uses otherwise identified in this Table.	Code Assessable	Development Constraints Overlays Code (Part 11, division 4)



Table 11.4.4: Assessment Categories and Relevant Assessment Criteria for Development Constraints Overlays—Other Development

Column 1 Type of development	Column 2 Assessment category	Column 3 Relevant assessment criteria—applicable code if development is self-assessable or requires code assessment
Carrying out building work not associated with a material change of use ¹³	<p>Self Assessable, if—</p> <ul style="list-style-type: none"> (a) building work that does not exceed the height parameters for Defence (Area Control) Regulations and Obstruction Clearance Surfaces (OCS) (refer Map OV7A); or (b) erecting a Class 10 building (outbuilding) unless within an urban catchment flow path (refer to Map OV5); or (c) building work on an existing building on site unless building underneath an existing dwelling situated below the adopted flood regulation line or within an urban catchment flow path (refer Map OV5); or (d) an auxiliary unit unless situated below the adopted flood regulation line or within an urban catchment flow path (refer to Map OV5). <p>For (a), (b), (c) and (d) above, the following criteria must also be met to be Self Assessable—</p> <ul style="list-style-type: none"> (i) the acceptable solutions of the applicable code for self assessable development are complied with. <p>Code Assessable otherwise.</p>	<p>If Self Assessable—Planning Scheme Building Matters Code (Part 12, division 16).</p> <p>If Code Assessable—</p> <ul style="list-style-type: none"> (a) Development Constraints Overlays Code (Part 11, division 4); (b) Planning Scheme Building Matters Code (Part 12, division 16).
Clearing of Vegetation— not associated with a material change of use	<p>Exempt, if land affected by the—</p> <ul style="list-style-type: none"> (a) bushfire risk areas development constraint overlay (refer Map OV1); or (b) key resource areas, haul routes and existing mines development constraint overlay and comprising a Known Resource (refer Map OV2); or (c) high pressure oil and gas pipelines development constraints overlay (refer Map OV11); or (d) high voltage electricity transmission lines development constraints overlay (refer Map OV13); or (e) defence facilities development constraint overlay (refer Maps OV7A to OV7E). <p>Self Assessable, if—</p> <ul style="list-style-type: none"> (a) the acceptable solutions of the applicable code for Self Assessable development are complied with; and (b) involving clearing of less than 100m² in area in any one year; and (c) situated within— <ul style="list-style-type: none"> (i) key resource areas, haul routes and existing mines development constraint overlay and comprising a Key Resource Area; or (ii) difficult topography development constraint overlay (refer Map OV4); or (iii) the 1 in 20 development line or adopted flood regulation line constraints overlay (refer Map OV5); or (iv) urban catchment flow paths development constraint overlay (refer Map OV5); or 	<p>If Self Assessable—acceptable solutions applicable to clauses (1) to (4) in column 2 of Table 12.4.1 in the Vegetation Management Code (Part 12, division 4).</p> <p>If Code Assessable—</p> <ul style="list-style-type: none"> (a) Development Constraints Overlays Code (Part 11, division 4); (b) Vegetation Management Code (Part 12, division 4).

¹³ See Ipswich Planning Scheme Users Guide 2 for examples that explain the type of development involved in different proposals.



Column 1 Type of development	Column 2 Assessment category	Column 3 Relevant assessment criteria—applicable code if development is self-assessable or requires code assessment
	(v) buffers to highway and regional transport corridors development constraint overlay (refer Map OV6); or (vi) motorsports buffers development constraint overlay (refer Map OV8); or (vii) wastewater treatment buffers development constraint overlay (refer Map OV9); or (viii) Warrill Creek Water Catchment development constraint overlay (refer Map OV12). Code Assessable otherwise.	
Earthworks—not associated with a material change of use	Code Assessable, if land affected by the— (a) difficult topography development constraint overlay (refer Map OV4); or (b) 1 in 20 development line or adopted flood regulation line constraints overlays (refer Map OV5); or (c) urban catchment flow paths development constraint overlay (refer Map OV5). Exempt, otherwise.	Development Constraints Overlays Code (Part 11, division 4) Earthworks Code (Part 12, division 15)
Minor Building Work	Exempt	
Placing advertising device on premises	Code Assessable, if situated within the buffers to highways and regional transport corridors development constraints overlay (refer Map OV6). Exempt, otherwise.	Development Constraints Overlays Code (Part 11, division 4) Advertising Devices Code (Part 12, division 14)
Reconfiguring a lot ¹⁴	Code Assessable	Development Constraints Overlays Code (Part 11, division 4) Reconfiguring a Lot Code (Part 12, division 5)
Carrying out operational work for reconfiguring a lot or in association with a material change of use ¹⁴	Code Assessable if the reconfiguring or material change of use is assessable development.	Development Constraints Overlays Code (Part 1, division 4) Reconfiguring a Lot Code (Part 12, division 5) Earthworks Code (Part 12, division 15) NOTE The provisions of Planning Scheme Policy 3 – General Works may also apply depending on the nature of the operational work.
Other	Exempt	

¹⁴ Under IPA, Schedule 9, the reconfiguring of a lot is exempt and cannot be made self-assessable or assessable by a planning scheme if the proposal is for amalgamating 2 or more lots, for a building format plan that does not subdivide the land, in relation to the Acquisition of Land Act 1967, or on Strategic Port Land.

