Developable
Town Planning

(LOT 85) 85 CATHERINE STREET MAITLAND 2320

23.6.2025

STATEMENT OF ENVIRONMENTAL EFFECTS

CONSTRUCTION OF A DETACHED DUAL OCCUPANCY DEVELOPMENT WITH STRATA SUBDIVISION AND ASSOCIATED WORKS

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Contents

1. Executive Summary

The proposal seeks consent for the Construction of a detached dual occupancy with strata subdivision and ancillary works.

The site is legally described as 86/-/DP192373 and is known as (Lot 85) 85 Catherine Street Maitland 2320. The property has a site area of 638m².

The application is also accompanied by the following:

- Architectural plans
- Survey Plan
- Owners Consent
- Cost Estimate Report
- Waste Management Plan
- Stormwater Management Plan
- BASIX Certificate
- Landscape Plan
- Notification Plan

This Statement has been prepared pursuant to section 4.12 of the Environmental Planning and Assessment Act 1979 and Clause 50 of the Environmental Planning and Assessment Regulation 2000. The Statement provides an assessment of the development proposal having regard to the relevant legislative context, social, economic and environmental impacts, potential amenity impacts of the development on the surrounding locality and the measures proposed within the application to mitigate such impacts.

The statement details the proposed development's compliance against the applicable environmental planning instruments and development control plan including:

- State Environmental Planning Policy (Biodiversity and Conservation) 2021
- State Environmental Planning Policy (Resilience and Hazards) 2021
- State Environmental Planning Policy (Sustainable Buildings) 2022
- Mailtand Local Environmental Plan 2011
- Maitland Development Control Plan 2018

Having regard to the applicable legislative framework, it is considered that the proposed development is consistent with the aims and objectives of the relevant environmental planning instruments and development control plan whilst being compatible with the emerging character of the locality and minimising any potential impacts on the amenity of the adjoining properties.

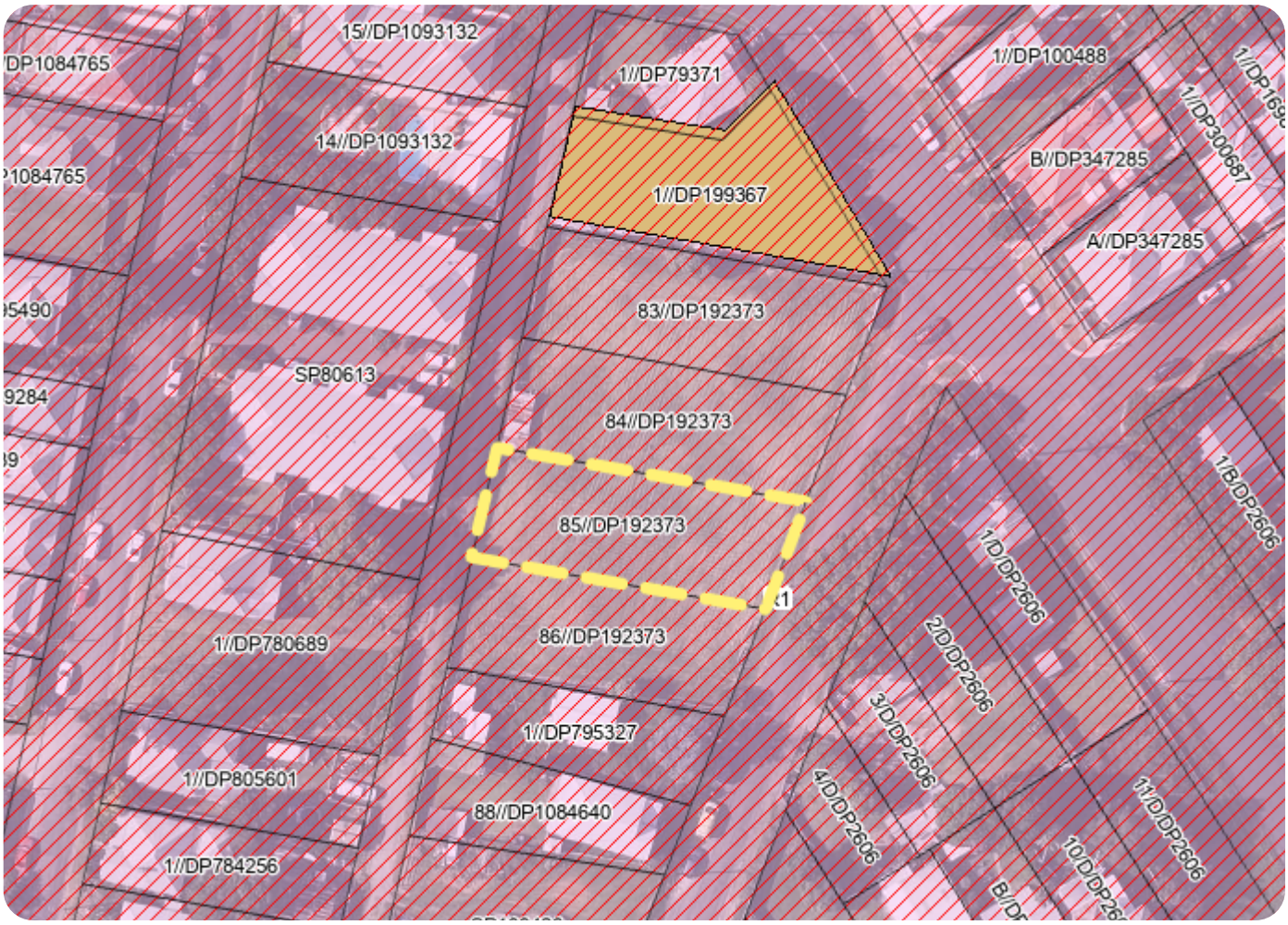
2. Contextual Analysis

2.1 Site Description

Area:	638sqm
Allotment Shape:	Rectangular shaped allotment with a splayed front boundary.
Existing Structures:	Vacant with no vegetation.
Topography:	Gentle fall towards the street.
Constraints:	Flood prone land and heritage conservation area.

2.2 Adjacent Development

North:	3 vacant lots.
East:	Single storey cladded dwelling with a pitched metal roof.
West:	Residential accommodation in the form of detached dwellings and multi dwelling housing. Existing buildings are a mixture of 1 and 2 Storey developments.
South:	Single storey detached dwelling fibro house with a pitched metal roof.



3. Description of the Proposal

3.1 Planning Definition of the Proposed Development

Proposed Use:	Detached Dual Occupancy
Definition of Use:	Dual occupancy (detached) means 2 detached dwellings on one lot of land, but does not include a secondary dwelling.

3.2 Proposed Development

3.2.1 Design & Built Form

The proposal comprises a pair of detached two-storey dwellings (Units 85A & 85B) on a single Torrens lot to be strata-subdivided. Each dwelling presents a heritage-sympathetic character: articulated façades use a combination of painted weatherboard cladding, light “Sculpted Grey” face brick to the ground floor, a rendered accent panel and a Colorbond “Shale Grey” hipped roof with matching gutters and Surfmist fascias. Vertical timber posts stained “Ebony” frame the recessed entry porches, reinforcing the traditional streetscape rhythm. The colour and materials palette is detailed on Sheet A-11 (Colour Schedule) of the architectural set.

3.2.2 Internal Layout

Ground-floor plans (Sheet A-03) show a double garage with internal storage and a laundry opening directly to the private open-space court. The primary living zone—open-plan kitchen, meals and living—faces north-west onto the courtyard for solar access. The first floor (Sheet A-04) contains three bedrooms, two bathrooms (main + ensuite) and a 7 m² balcony to each dwelling, providing passive surveillance over the street. Circulation is efficient, with a central stair and 13 m² hallway serving the upper level.

3.2.3 Car-Parking & Access

Vehicle access is from Catherine Street via two concrete tyre-strip driveways. Driveway long-sections (Sheet A-09) demonstrate compliant grades between 1:8.6 and 1:9.4 and a transition to 1:20 at the footpath, ensuring safe egress. Each dwelling supplies two resident spaces in its garage, satisfying Council’s dual-occupancy rate of 2 spaces per three-bedroom dwelling. On-site manoeuvring is unnecessary as the local street network permits reverse egress for residential uses.

3.2.4 Stormwater Management

A certified stormwater system confirms that roofwater is captured in 2 × 2,000 L rainwater tanks, then discharged to Council infrastructure via grated drains along the driveway and rear boundary. The design complies with AS/NZS 3500.3, BASIX commitments and Maitland DCP standards, and must be constructed in strict accordance with Sheets 01–05 of the hydraulic drawings.

3.2.5 Waste Management

The Waste Management Plan proposes:

Stage	Facilities	Volumes & Collection	Controls
Construction	Segregated skips for masonry, timber & metals; on-site reuse of topsoil	Sized for project; periodic contractor pick-up	Purchasing controls, minimal excavation & formwork reuse
Occupation	One 240 L commingled recycling and one 120 L residual bin per dwelling, stored beside the dwelling (or within the garage where no side access)	Weekly kerbside collection by Council contractor	Residents separate waste daily; bulk waste set-down area shown on site plan

3.2.6 Schedule of External Finishes

Element	Material / Finish	Colour	Location
Roof & awnings	Corrugated Colorbond	Shale Grey	Main roof & verandah skillion
Weatherboard	James Hardie Linea	Dulux Antique White USA	Upper-storey walls
Face brick	PGH “Sculpted Grey”	Natural	Ground-floor base
Rendered panel	Bag-finish render	Pearl White	Entry accent wall
Garage door	Sectional Colorbond	Surfmist	Street frontage
Posts / handrails	Timber, stained	Ebony	Porch & balcony balustrades

3.2.7 Landscaping

The landscaped area includes:

- Two Stenocarpus sinuatus (Firewheel, 8 m × 10 m) as feature canopy trees and two Lagerstroemia indica (Crepe-myrtle) as small street trees.
- 17 Murraya paniculata hedges for screening, 12 Grevillea baueri for mid-storey texture, and 18 Asplenium nidus (Bird’s-nest fern) as understorey fillers.
- Sir Walter Buffalo lawn, decorative gravel to soft-paved courtyard strips and coloured concrete pedestrian paths. Boundary treatments comprise a 1.1 m picket fence to Catherine Street and 1.8 m timber privacy fencing elsewhere. Clotheslines and rainwater tanks are sited behind the building line.

4. Clause 4.15(1) Assessment of the EPAA Act 1979

4.1 Environmental Planning Instruments Provisions

4.1.1 State Environmental Planning Policy (Biodiversity and Conservation) 2021

Chapter 2	Vegetation in Non-Rural Areas
Part 2.1	Preliminary
Part 2.2	Clearing Vegetation in Non-Rural Areas
Part 2.3	Council Permits for Clearing of Vegetation in Non-Rual Areas
The development does not require any true removal to be undertaken as part of the proposal.	

4.1.2 State Environmental Planning Policy (Resilience and Hazards) 2021

Chapter 4	Remediation of Land
The land is vacant and was historically used for residential accommodation. As a result, the property is not considered to have any previous use that is identified in the Contaminated Planning Guidelines that would suggest that the property is subject to contamination. No further site investigation is required.	

4.1.3 State Environmental Planning Policy (Sustainable Buildings) 2022

The SEPP (Sustainable Buildings) 2022 came into effect on 29/8/22 and commenced 1/10/23. This policy applies to the proposed development. As required by the SEPP, a BASIX Certificate must be submitted with the development application.

The plans submitted with the application demonstrate that the proposed development will meet the water, thermal comfort, and energy efficiency requirements outlined in the policy once the development is constructed.

Refer to the BASIX Certificate numbered 1800196M_03 issued on 20 June 2025.

4.1.4 Mailtand Local Environmental Plan 2011

	Discussion	Y/N
Permitted and Prohibited Development		
Zoning:	R1: General Residential	YES
Development Definition:	Dual Occupancy (Detached)	YES
Is the Development Permissible with Consent?	Dual Occupancy (Detached) is permitted with consent under the Land Use Table. Subdivision is permitted under Section 2.6 of the Local Environmental Plan	YES
Is the Development Consistent with the Objectives of the zone?	The development will provide for additional housing which is in need within the community.	YES

	Control	Discussion	Y/N
Principal Development Standards			
Minimum subdivision lot size	Not applicable to Strata	Strata subdivision is excluded from this provision.	YES

	Control	Discussion	Y/N
Height of buildings	N/A	There is no maximum building height that applies to the land.	YES

	Discussion	Y/N
Miscellaneous Provisions		
Heritage Conservation	Refer to assessment of the DCP heritage controls. The assessment of the heritage controls will supplement the submission of a Heritage Impact Statement.	YES
Flood planning	Refer to assessment of the DCP flood controls.	YES

	Discussion	Y/N
Additional local provisions		
Acid sulfate soils	Minimal excavation is proposed. There is no excavation that is more than two metres in depth below the natural ground surface.	YES
Earthworks	Minor regrading of the site is considered to be compatible with the objectives of this provision. The earthworks proposed or unlikely disrupt any existing drainage patterns or soil stability in the locality.	YES
Essential Services	All essential services are available to the site or are located within the road reserve adjacent to the site.	YES

4.2 Development Control Plan

4.2.1 Maitland Development Control Plan 2018

Prefer to be assessment of the Development Control Plan in Appendix 1 of this report.

4.3 Planning Agreements

A planning agreement is not proposed in response to Section 4.15(1)(iiia) of the EPAA Act 1979.

4.4 Impacts of the Development

There are several factors to consider when evaluating the potential environmental impacts on the natural and built environments, as well as the social and economic impacts in the local area, in accordance with the Environmental Planning and Assessment Act 1979. These may include:

- The potential for the development to affect air quality, water resources, soil quality, flora and fauna, and other natural resources
- The potential for the development to cause noise, vibration, or other types of pollution
- The potential for the development to contribute to climate change or other environmental issues
- The potential for the development to affect the character or amenity of the local area
- The potential for the development to have social or economic impacts on the local community, including impacts on housing affordability, employment, and local businesses.

The proposed development is considered to be satisfactory because it does not conflict with the criteria above.

4.5 Suitability of the Site for the Development

The proposed development is located in a zoning that allows for the type of development being proposed and has access to the necessary infrastructure to support it. The property's physical characteristics, including its size and shape, are suitable for the development, and the location is appropriate given the surrounding land uses and the needs and desires of the community. There is sufficient demand for the development in the local area. There are no environmental constraints that haven't been appropriately considered, that would prevent the development from proceeding.

4.6 Submissions

Council must consider any submissions received in accordance with Council's Notification Policy.

4.7 The Public Interest

The proposed development has been carefully designed to minimize its environmental impacts as demonstrated by the assessment of the relevant SEPPs, LEP and DCP. The development will have a positive social impact by providing new housing options, and it will have an economic impact by creating new jobs and stimulating economic growth in the area. The development's design is compatible with the surrounding area and will enhance the character and amenity of the local community. It will not generate significant additional vehicle traffic or have any negative impacts on local roads or transportation networks. The development meets all health and safety standards and will not negatively affect the cultural or heritage values of the area. It also aligns with regional and state planning objectives.

5. Conclusion

The proposed development is permissible with the consent of Council under the Environmental Planning and Assessment Act 1979. This Statement of Environmental Effects has assessed the proposal against the relevant SEPPs, Local Environmental Plan and Development Control Plan. The proposal has demonstrated that it is compatible with the aims of objectives of the LEP and DCP.

Council should therefore be supportive of the proposed construction of a detached dual occupancy with strata subdivision and associated works.

Should you wish to discuss the matter further, please do not hesitate to contact the undersigned.

Yours faithfully,

Steven Sammut
Director
Developable Pty Ltd

Developable
Town Planning

COMPLIANCE TABLE ASSESSMENT

APPENDIX TO THE STATEMENT OF ENVIRONMENTAL EFFECTS

DETAILED ASSESSMENT OF THE RELEVANT SEPPS, LEP AND DCP.

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B.2 – Domestic Stormwater

Application

This section applies to all new development where stormwater is generated from roofs of domestic and ancillary buildings and hardstand areas such as driveways, patios, compacted gravel areas and the like on land within the Maitland Local Government Area where residential development is permitted with consent. For larger developments and intensifications of dwellings/lots there may be additional requirements such as those listed in Part C.

Objectives

- To ensure that compliance with BASIX objectives and requirements are achieved.
- To ensure that an acceptable standard of water quality is maintained within storm water lines and rain water storage tanks.
- To ensure the most suitable rainwater storage method is employed pursuant to the relevant site conditions, including health and safety aspects of the storage installation.
- To ensure the method of laying storm water lines is in accordance with the relevant Australian Standard, (AS/NZS 3500.3:2021).
- To ensure that storm water discharge points at kerbs and inter-allotment drainage pits are of an acceptable standard and location.

Performance criteria

The objectives of this plan may be achieved by compliance with the following criteria:

1. **Retention capacity.** For each new dwelling development, the storm water retention capacity is to be in accordance with the BASIX requirements in regard to the designated roof area to be employed for catchment. This means the required roof area catchment shall be adequately served by sufficient downpipes directing flows to the tank and equally sufficient discharge via overflow lines.

2. **Location of feed lines.** All feed storm water lines shall be of 100mm sewer grade PVC. The PVC pipes and components shall be handled and joined in accordance with AS/NZS 2032:2006.

   Storm water lines shall be located away from the foundation/s of the building/s. Storm water lines shall have a minimum of 300mm ground cover.

   The configuration of the charged stormwater line to rainwater tanks shall be such

Assessment	
The on site rainwater tanks will be sized in accordance with the BASIX Certificate as noted on the stormwater management plan.	YES
The diameter of the pipe shown on the storm water management plan are 100 millimetres in accordance with the Australian Standards.	
The storm water lines are allocated away from the foundations of the proposed buildings.	

that the initial flow into the line is directed to the lowest flush point, (refer figs 1 & 3).

Charged stormwater lines shall be laid so that a flush point is provided at finished ground level at the lowest point of the charged line. This flush point is required in addition to any first flush provided in the lines directed to the tank. The purpose of the flush point is to enable simple access to the charged line by the property owner to facilitate periodic draining of the charged line so as to avoid accumulative contamination of the charged line/s. Ideally the flush point should be located where discharge can disperse onto grassed area, gardens or rubble pit. The flush point is to be provided with permanent signage to indicate the purpose of the flush point (refer fig 1).

3. **Rain water tanks.** On-site rainwater tanks shall be constructed of an approved material. Preference should orientate toward lighter colours for the exterior of the tank where the tank is located above ground. All exposed PVC stormwater lines shall be painted with a U.V resistant paint. The tank shall be located so as not to compromise fire separation of buildings or access to the exterior of buildings.

   Sub surface detention systems are not acceptable as a method of rainwater storage for the purpose of non-potable domestic use. This means on site storm water *detention* systems are not to be used for the purpose of BASIX compliance unless the installation of the underground detention is specifically designed as on-site detention and subsequently approved by Council.

   Above ground tank installation should be the preferred method of rainwater storage and shall be provided with an adequate reinforced concrete slab for support or a base in accordance with the tank manufacturer's recommendation.

   Piering below the slab may be required and will depend upon site conditions.

   The tank manufacturer's recommendations are to be followed where a substrate material is required between the underside of the tank and the concrete slab.

   Bases for supporting tanks shall provide adequate provision to disperse water away from the building and avoid accumulated moisture build up around the tank area.

   Underground tank installation is not acceptable where sufficient fall from the tank overflow to the street or inter-allotment drainage (IAD) infrastructure is not achievable.

   The minimum gradient (fall) from the tank overflow to the discharge point shall be 1:100 measured at the invert at the (underground) tank overflow and the invert of the discharge point. The overflow from (above ground) tanks shall achieve the same fall of 1:100.

Assessment	
The site slopes toward the streets and has a gravity fed system that connects into the street drainage system.	YES

Where overflow lines serve underground tanks, backflow prevention devices are to be provided within the overflow line to deny the re- entry of flood water and vermin. (Refer fig 7).

4. ***Configuration of stormwater lines***. Stormwater lines shall be laid in a configuration that directs the initial flow to the lowest discharge point. All lines shall be laid with fall to the lowest (flush) point.

   Stormwater lines laid that are not level or with fall to the flush point will not be acceptable (refer fig 5).

   The overflow line should be of sufficient capacity to permit discharge without overflow from the tank itself occurring.

   Stormwater management plans shall be prepared by the applicant to be lodged with the Development Application. The stormwater management plan shall consist of the following:

   (i) RL's of the kerb, tank location and flush point.

   (ii) A site plan depicting the proposed location of the stormwater lines, the location of the flush point and the proposed location of the rainwater tank. The rainwater tank will be clearly marked as in-ground, above ground, or erected on a tank stand. The tank location should also indicate the proposed location of the weather-proof GPO (general power outlet) and pump.

5. ***Stormwater lines over Council's nature strip.*** Stormwater lines laid across the Council nature strip shall be 100mm sewer grade PVC and achieve 300mm cover where possible. Where the line approaches the kerb, a 15^{o} fitting shall be provided to enable the line to maintain the required coverage and angle up towards the kerb outlet fitting. The kerb outlet fitting shall be a pre-cast alloy or aluminium fitting with the rear (footpath side) of the fitting adequately concreted around the connection. (Refer fig 6). The kerb fitting should be either cut as low into the kerb as possible to provide maximum concrete cover, or neatly flush with the top of the kerb with no concrete cover.

6. ***Stormwater generated from hardstand areas***. Stormwater that is generated from overland flow and hardstand areas such as driveways, shall be directed to the tank overflow line to discharge to the street, rubble drain or IAD pit as applicable. This stormwater drainage is acceptable in 90mm PVC but must not inter-connect with any line directed to the rainwater storage. This means that any overland flows intercepted by grates, spoon drains and the like must discharge directly through overflow lines and not be permitted to enter the tank storage. It is recommended that this line be independent of all stormwater lines interconnected to the tank feed/discharge.

7. ***Mosquitoes.*** Adequate provision shall be made to ensure all stored rainwater in

Assessment	
The discharge point of the storm water management system is located at the lowest point of the site in the south eastern corner.	YES

charged lines and the tank/s is protected from mosquito infestation and subsequent breeding.

Figures

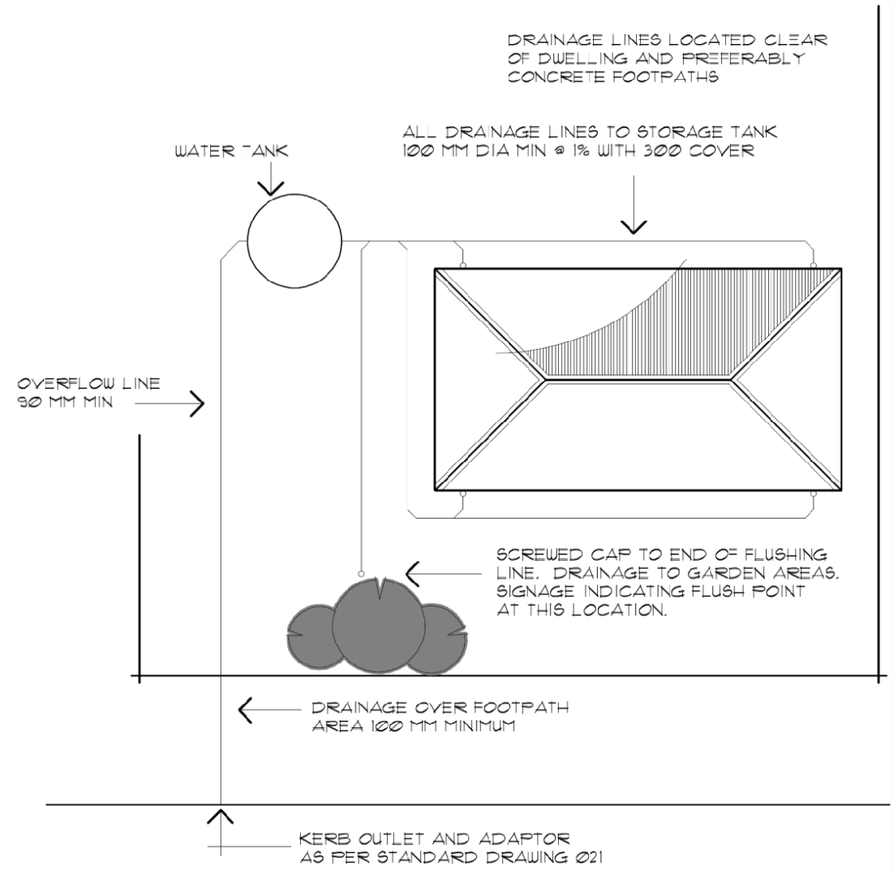


FIGURE 1. PREFERRED DRAINAGE LOCATION PIPELINE LOCATED CLEAR OF PATHWAYS

NOTED

NO FURTHER COMMENT

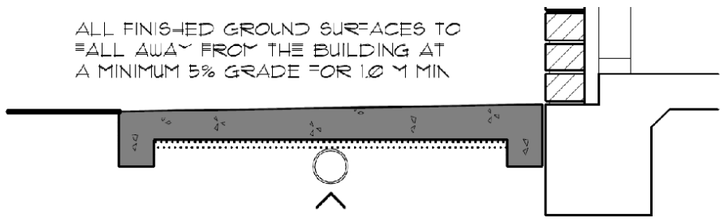


FIGURE 2. SECTION SHOWING LOCATION OF DRAINAGE BELOW CONCRETE PATH

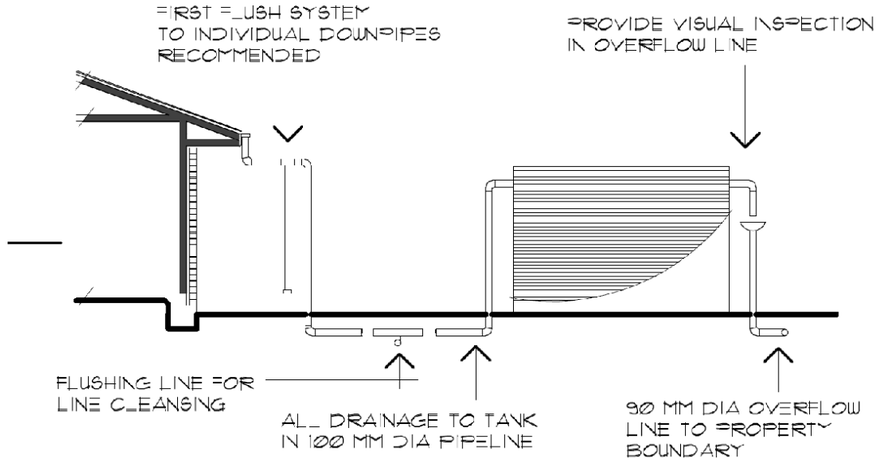


FIGURE 3. DRAINAGE SECTION DOWNPIPE TO WATER TANK OVERFLOW

NOTED

NO FURTHER COMMENT

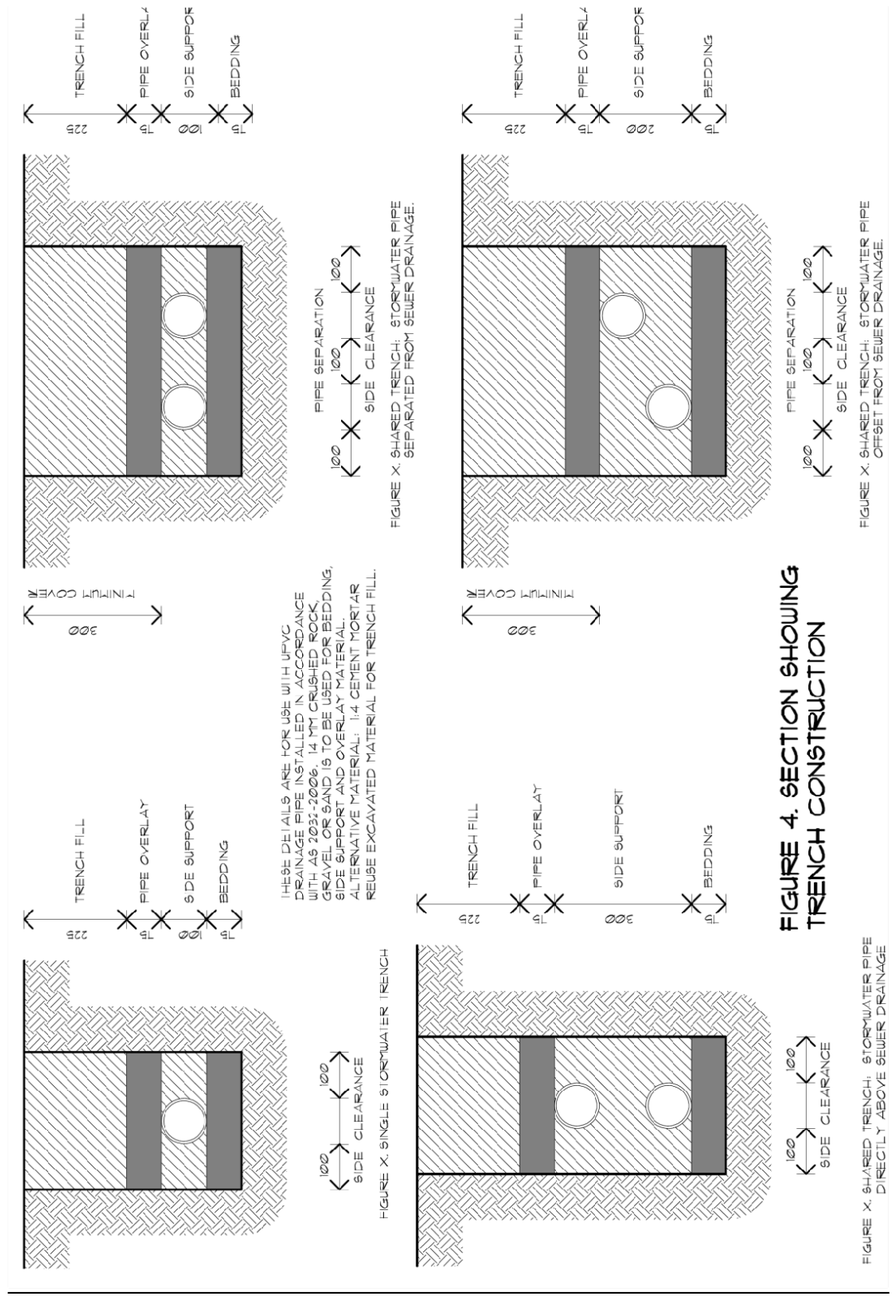


FIGURE 4. SECTION SHOWING TRENCH CONSTRUCTION

NOTED

NO FURTHER COMMENT

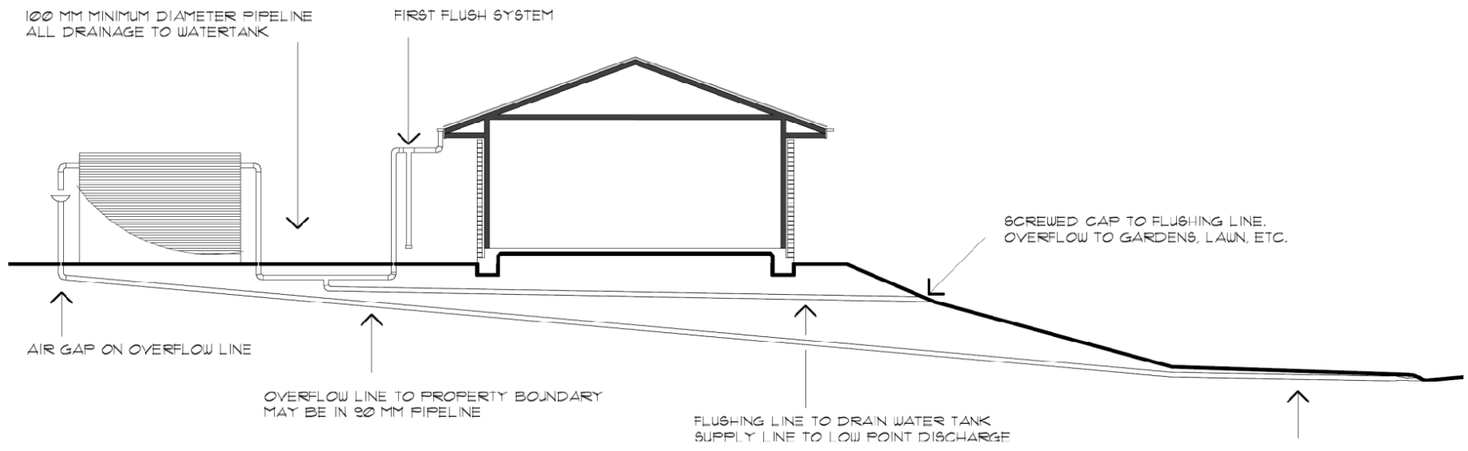


FIGURE 5. SECTION SHOWING DELIVERY LINE TO TANK AND OVERFLOW LINE TO KERB

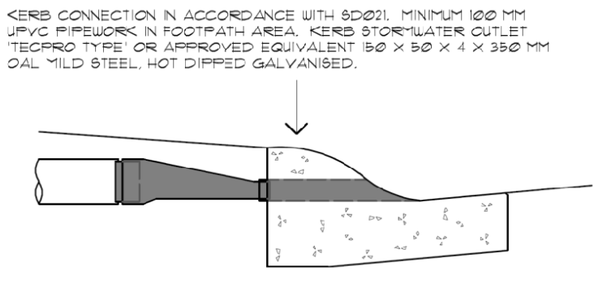


FIGURE 6. SECTION SHOWING KERB CONNECTION

NOTED

NO FURTHER COMMENT

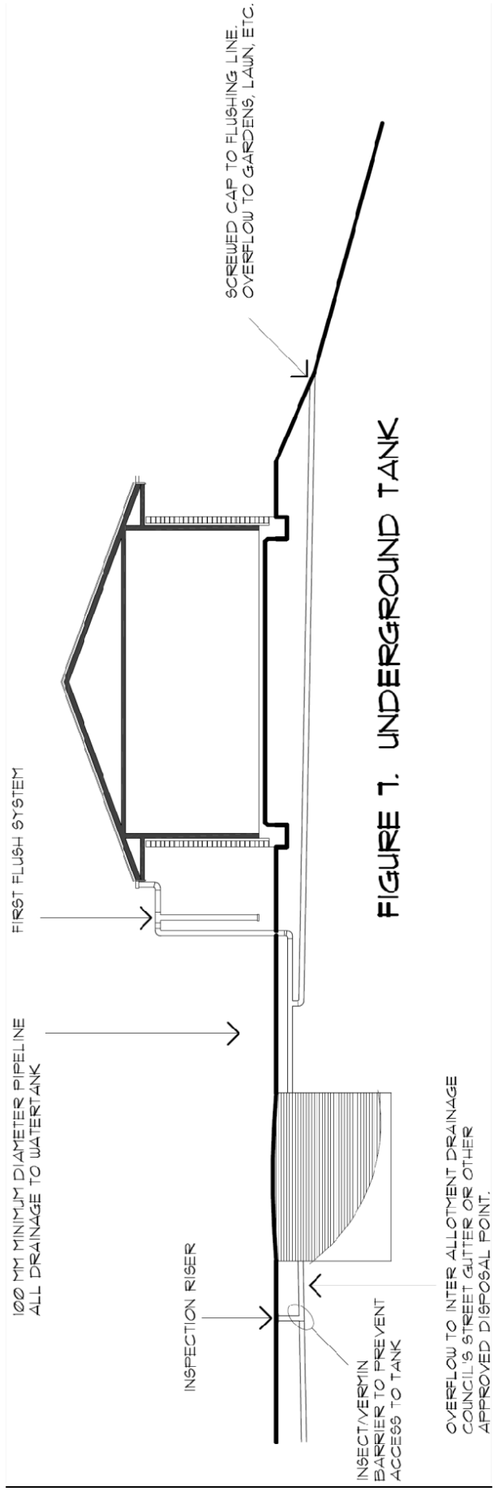
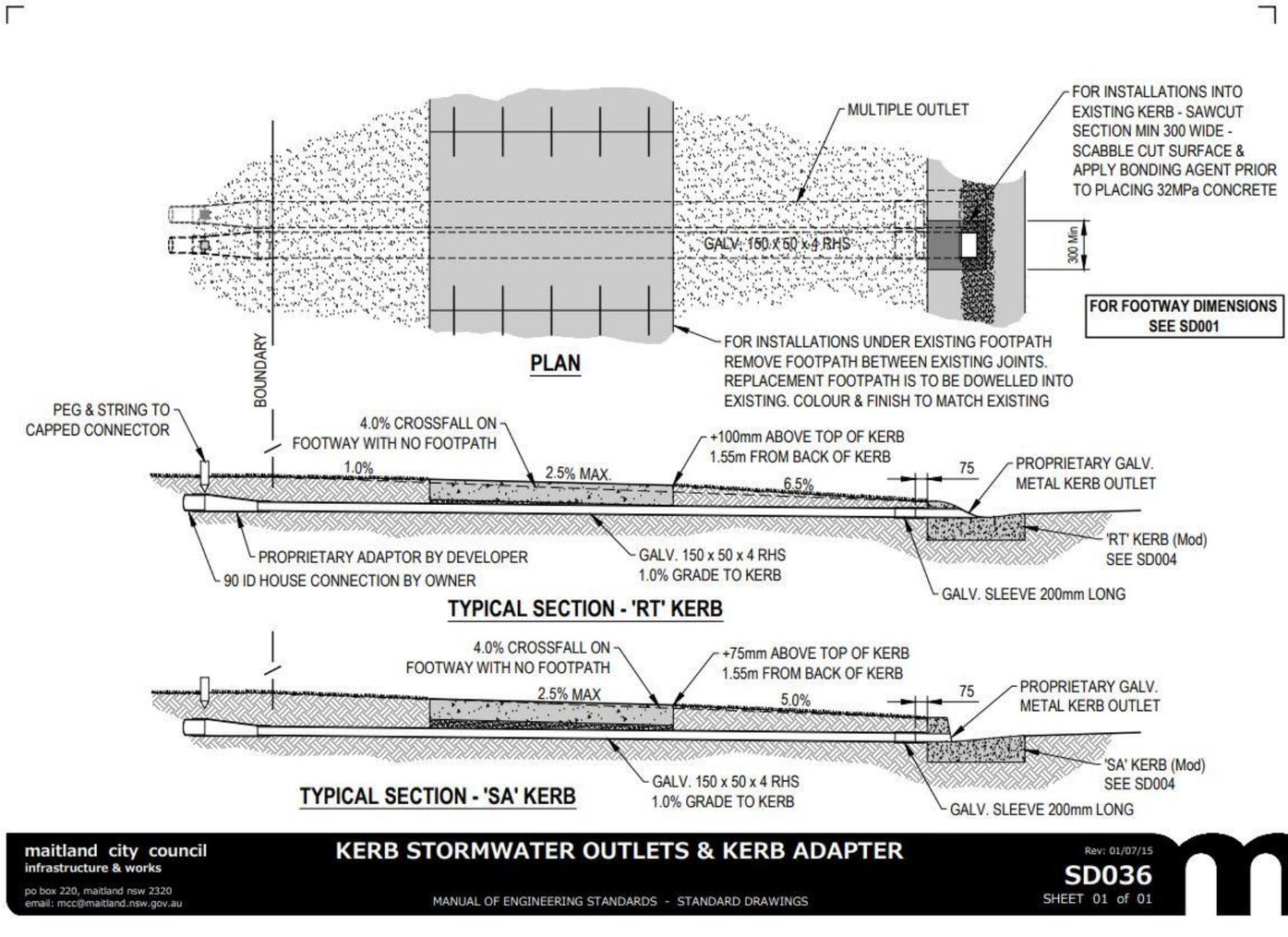


FIGURE 7. UNDERGROUND TANK

NOTED

NO FURTHER COMMENT



NOTED

NO FURTHER COMMENT

References

AS 2870-2011 Residential Slabs & Footings-Construction

AS/NZS 2032-2006 Installation of PVC Pipe Systems

AS/NZS 3500.3.2021 Plumbing & Drainage Part 3, Storm water drainage

HB 230-2008 Rainwater Tank Design & Installation Handbook

B.3 – Hunter River Floodplain

Introduction

There are risks associated with the use of the floodplain or physical works and structures in the floodplain. The *Maitland Local Environmental Plan 2011* and this DCP section identify controls for managing the development of flood prone land. In the event of any inconsistency between this DCP section and the LEP, the LEP will prevail to the extent of the inconsistency.

Under the *Local Government Act 1993*, the management of flood prone land is primarily the responsibility of local governments. Local governments are required to implement the provisions of the NSW Government's Flood Prone Land Policy and associated NSW Floodplain Development Manual 2005.

The onus is on the proponent to provide an adequate level of information to support any development on land below the FPL. The Council will require a Statement of Environmental Effects (or an Environmental Impact Statement if the proposal is designated development) justifying the development in its location.

1. Application of section

Maitland LEP 2011 clause 5.21 Flood planning, associated Flood Planning Map and also any additional mapping that may be adopted by the Council for the purposes of defining the flood planning area specifies the land to which this section applies.

This section also applies to critical infrastructure and facilities within the Probable Maximum Flood (PMF) area.

NOTE: This DCP section does not apply to areas affected by flooding from local drainage.

2. Flood hazards, costs, and risks to life

2.1 Development below the Flood Planning Level (FPL)

Objectives

- The proposal is supported by adequate information to assess the impact of the proposal on flood behaviour, the environment, flood affectation and risk to life and

property associated with the use of land.

Development controls

1. An application for development below the FPL must demonstrate:
   a. the proposed development will not increase the flood hazard or flood damage or adversely increase flood affectation on other properties, as assessed by a suitably qualified hydraulic engineer;
   b. the design of the proposed development is such that the risks of structural failure or damage in the event of flooding (including damage to other property) up to the FPL would be minimal, as assessed by a suitably qualified structural engineer;
   c. the proposed development has been designed to withstand the effects of inundation of floodwaters up to the FPL, with contents or fittings susceptible to flood damage being located above this level;
   d. if levees are proposed to protect a development, the impact of the levees on flood behaviour must be assessed and the habitable floor level of the proposed development behind the levee must still be set at or above the FPL (assuming no levee is in place);
   e. the proposed measures to allow the timely, orderly and safe evacuation of people from the site (these measures should be permanent and maintenance free), and the measures proposed to safeguard goods, material, plant and equipment in a flood. These measures should be compatible with the SES' Maitland City Local Flood Plan (including vol 1 The Maitland City Flood Emergency Sub Plan);
      i. in rural areas, the proposals for the evacuation of any livestock in a flood;
      ii. the measures to reduce the risks that the development will allow the accumulation and build-up of debris being carried by floodwaters (particularly associated with fences in flood liable areas);
      iii. the design complies with the Table 1: Flood Aware Design Requirements for Residential Development on Flood Prone Land (in this DCP section); and
      iv. Details of any proposed filling to be provided.
2. Survey plans shall be dimensioned in metres with levels to Australian Height Datum (AHD), prepared and signed by a Registered Surveyor.
3. The type and extent of survey information likely to be required to support a development in a flood liable area is as follows:
   a. the location of the site relative to other features such as roads, bridges, etc;
   b. the assessed flood levels at the site (for the 1:100 ARI as a minimum and PMF where critical infrastructure is proposed), the origin of that level and how it was derived;
   c. the position of existing buildings (if any) and proposed buildings and works on the site;
   d. the existing and proposed floor levels of buildings on the site;
   e. the existing ground levels around all existing buildings on the site, or if the site is vacant, ground levels on the site and on adjacent properties within approximately 30 metres of the boundary of the site;
   f. the locations should be shown of any structure of the Hunter Flood Mitigation

Assessment	
The ground floor comprises of car parking and storage areas and is not habitable. In the event of a flood, this allows for flood water to pass through without impacting the habitable areas of the building. A condition of consent should be imposed to demonstrate that the development can withstand a flood when the structure is being designed at CC stage. The habitable floor areas are located above the flood planning level. The AHD Survey has been provided.	YES

Scheme (such as levee banks, spillways, floodgates etc.), which are inside or within 100 metres of the subject property site; and

g. the position and floor and ground levels of buildings on adjacent properties, and the use of the properties within 100 metres of the subject site.

2.2 Development in Floodways

Objectives

- To avoid significant adverse impacts on flood behaviour and the environment.
- To ensure development does not increase flood affectation elsewhere on the floodplain.
- To minimise the flood risk to life and property associated with the use of land.
- To ensure the integrity of the Hunter Valley Flood Mitigation Scheme is protected.

Development Controls

1. No building or structure is to be erected on land identified as floodway on the Hydraulic Category Maps.
2. No fill is permitted on land identified as floodway on the Hydraulic Category Maps.
3. Minor alterations to ground levels associated with surface treatments, below ground structures, or minor landscaping are permitted provided they do not alter the flow distribution or flood behaviour within the floodway.
4. New development shall be designed to avoid fences in floodways.
5. Where dividing fences across floodways are unavoidable, they are to be constructed only of open type fencing that does not restrict the flow of flood waters. The fencing design should be resistant to blockage or designed to be collapsible under heavy flood loadings.
6. Flood mitigation works are permitted with consent subject to Council being satisfied that the works meet the objectives of this DCP and the Flood Risk Management Plan.

   Note: Flood mitigation works are permitted without consent under the *State Environmental Planning Policy (Transport and Infrastructure) 2021* if they are carried out by or on behalf of a public authority.
7. Development within the vicinity of Hunter Valley Flood Mitigation Scheme structures (including levees, floodgates, spillways and drains) operated by the NSW Office of Environment and Heritage are referred to that agency for concurrence in accordance with the *Water Management Act 2000*.

2.3 Filling of Flood Storage and Flood Fringe Areas

Objectives

Assessment	
The proposed residential development is not located within the floodway. The architectural plans demonstrate minimal earthworks as the elevation drawings show the development being constructed at grade as per the natural ground level. Council may condition open style fencing between the two units to allow for flood water to pass by.	YES

- To avoid significant adverse impacts on flood behaviour and the environment.
- To ensure filling does not increase flood affectation elsewhere on the floodplain.
- To minimise the flood risk to life and property associated with the use of land.
- To ensure development on land that is compatible with the land's flood hazard, taking into account projected changes as a result of climate change is permitted.

Development controls

1. An application for filling within the flood storage or flood fringe areas must be supported by a fully dynamic computer flood model unless:

   a. There is no net importation of fill within the 1:100 ARI flood extent; or
   b. Filling up to 7,000m^3 or 20% of the total 1:100 ARI flood storage/flood fringe volume of the lot (whichever fill volume is lower) that;
      i. is associated with construction of a dwelling in rural zones, and
      ii. where construction of a dwelling is permitted; and
      iii. all of other flood requirements (such as evacuation) is achieved; and/or
   c. Filling up to 3,500m^3 or 10% of the total 1:100 ARI flood storage/flood fringe volume of the lot (whichever fill volume is lower) associated with construction of a mound to provide refuge for stock during floods.

2.3 General Building Requirements

These provisions apply to all development below the flood planning level.

Objectives

- To minimise the flood risk to life and property associated with the use of land.

Development Controls

1. All habitable finished floors shall be no lower than the FPL.
2. Parts of buildings and structures at or below the FPL shall be constructed in accordance with Table 1: Flood Aware Design Requirements for Residential Development on Flood Prone Land. The development shall be certified by a qualified Structural Engineer that the building has been designed to withstand the depth of inundation, buoyancy and flow velocity forces (including potential for debris impact) at the development site for a 1:100 ARI event.
3. Flood-free access shall be provided from the development to an appropriate evacuation facility (as identified in the Maitland Local Flood Plan), at the 1:20 ARI flood level or higher.
4. Provision shall be made for the safe evacuation of people from the development

Assessment	
The elevations in section drawings demonstrate that there is minimal cut and fill proposed as the development is being constructed at grade in accordance with the natural ground level.	YES
The first floor comprises of the habitable areas which are not lower than the flood planning level. Evacuation is provided through the common driveway.	

in accordance with the Maitland Local Flood Plan.

5. Sufficient storage space for household effects shall be provided above the FPL.
6. Electrical fixtures such as light fittings and switches shall be sited above the FPL unless they are on a separate circuit (with earth leakage protection) to the rest of the building.
7. Requirements 1, 3, 4 and 6 do not apply to the following development:
   - The extension of an existing dwelling house by no more than 50% of its internal floor area,
   - An addition to an existing dwelling house with an area of no more than 50% of the internal floor area of that dwelling to be used for the purpose of a dual occupancy.
   - Tourist and visitor accommodation.

2.4 Multi-Storey Residential Development

Objectives

- Where new multi-storey residential buildings are proposed below the FPL they shall be designed to meet the following additional requirements.
- The flood risk to life and property associated with the use of land is minimised.
- Developments are resilient to flooding.

Development Controls

1. Development for a multi-storey residential building shall be designed and constructed in accordance with the requirements of Table 1: Flood Aware Design Requirements for Residential Development on Flood Prone Land.

2.5 Basement Car Parking

Objectives

- Minimise the flood risk to life and property associated with the use of land.

Development controls

1. Basement garages will generally only be supported where all potential water entry points are at or above the 1:100 ARI.
2. Where this cannot be achieved the following requirements are to be met:
   a. The basement should be designed so that the structural integrity of the building is not compromised if the basement is either partially or fully inundated during a flood.
   Note: A tanked (watertight) basement may not be appropriate due to buoyancy during flood inundation. It may be necessary to allow the basement to fill with water during a flood
   b. All exit points below the FPL must be able to be closed and locked to prevent

Assessment	
The first floor comprises of linens, robes and furniture which can be used for storing items in the event of a flood.	YES
The development is an detached dual occupancy that is not a form of multi storey residential development and therefore this section does not apply as there is no basement park car parking or the like.	

access during floods.

c. A steel mesh gate should be used for the vehicle entry/exit points to allow the in-flow of floodwaters.
d. All services (electricity, water, fire, air conditioning etc.) must be designed to prevent damage up to the FPL.
e. At least one stair well from the basement should extend to at least the FPL. This exit should have a lockable entry but be able to be opened from the basement side (as with a fire door).
f. The owner(s) of the building should consult with the SES to determine the most appropriate mechanisms for evacuation/management of the basement car park where the projected flood level would result in its inundation.

2.6 Additions and Renovations

Objectives

- Minimise the flood risk to life and property associated with the use of land.
- Investment in works that provide future protection of the dwelling against flood is encouraged.

Development controls

1. All applications for renovations and additions are encouraged to comply with the General building requirements.
2. In deciding whether to support an application for additions and/or renovations of the existing floor area below the FPL, Council will consider whether the renovations, additions and alterations are likely to significantly add to the life span of the residential building and its exposure to future flood impacts.
3. Proposals for additions and renovations will be required to comply with the General building requirements in the following circumstances:
   a. following a flood event where there has been inundation of the dwelling necessitating the removal and replacement of external and/or internal cladding material; or
   b. following a flood event where there has been structural compromise to the dwelling which requires remediation; or
   c. there is a proposal to increase the enclosed habitable floor space of the dwelling by more than 50%; or
   d. there is a proposal to undertake major renovations to the dwelling (e.g. Re-piering, exterior re-cladding, internal re-lining); or
   e. the proposed works have the potential to impact on flood behaviour.

2.7 House Raising and Flood Proofing

Objectives

- House raising and flood proofing works do not adversely impact on the existing streetscape.

Development controls

1. The development will require assessment against the residential design provisions in this DCP.
2. In assessing an application for house raising or flood proofing, Council will consider the impacts of the works on the streetscape.
3. In heritage conservation areas the proposal must address the relevant provisions relating to heritage conservation.

2.8 Critical Infrastructure and Facilities

Objectives

- Key infrastructure is protected from floods greater than a 1:100 ARI flood event.
- Effective emergency response is maintained during a greater than a 1:100 ARI flood event.

Development controls

1. The following developments are unlikely to be supported on land below the PMF:
   a. hospitals and ancillary services
   b. regional communication centres
   c. State Emergency Services stations
   d. sewage plants
   e. electricity plants or substations unless the plant is designed for controlled failure or shut-off when flooding occurs
   f. installations containing control equipment for critical infrastructure; and
   g. operational centres for flood emergency response.

2.9 Mitigating Circumstances

Objectives

- Merit-based assessment of a development is available only in extenuating circumstances.

Development controls

1. Council may consent to a development[3] where:
   a. The land use is permitted in the zone; and
   b. Full compliance with the flood-related development controls is impossible or unreasonable.

   Note: Examples of circumstances where an alternative merits-based assessment may be considered include:
   Rural Dwellings where:

   a. *An owner is required to live on-site in order to manage an agricultural enterprise and*
   b. *The dwelling is located on the landholding on which the major operational part of the enterprise is located; and*
   c. *A dwelling is permitted on the land*
2. Any application will be subject to a comprehensive merits-based assessment against the objectives of the DCP and Clause 7.3 of the LEP.
3. Any application under this clause must be supported by detailed justification including any relevant studies.

Table 1: Flood Aware Design Requirements for Residential Development on Flood Prone Land.

BUILDING ELEMENT **Part of Building Below the FPL**	REQUIREMENT	NOTES
Ground Floor Levels		
Ground floor levels to be established a minimum of 300mm above natural ground level	Mandatory	• Provides some protection against low level more frequent flooding. • Enables creation of deep wall cavity below finished floor level for silt entrapment. • Provides for improved design response in heritage conservation areas.
Ground Floor Construction		
Concrete slab on ground	Preferred	• In areas of high silt deposition use a deeper slab rebate (minimum 2 bricks high) to hold more silt without it bridging the wall cavity.
Infill concrete slab	Preferred	• This method allows for a higher ground floor level to provide increased protection against inundation from low level, more frequent flooding. A deeper slab rebate is still recommended.
Ground Floor Finishes		
Float-finish Concrete	Preferred	• Allows for easier post-flood cleaning / hose-down.
Walls (external)		
Cavity brick	Preferred	• Provide for ingress of water to balance hydrostatic forces inside and outside the walls via vents and flaps (which are compatible with energy conservation requirements). • Include openings into cavity brick walls to facilitate removal of silt from the cavity.
Solid concrete (tilt panel or formed in situ)	Acceptable	• Provide for ingress of water as above. • External surface of solid concrete walls may require architectural detailing (eg. horizontal fillet lines) particularly if the building is being located within a heritage conservation area.
Walls (internal)		
Cavity brick	Preferred	• These materials provide good structural performance when subject to inundation and facilitate easier post-flood clean-up.
Single skin brick	Preferred	
Solid concrete (tilt panel or formed in situ)	Acceptable	

Assessment	
The finished floor level of the ground level is within 300 millimetres above the existing ground level. Complies. Detail of this will be provided at the construction certificate stage.	YES

Building Element	Requirement	Notes
Wall finishes		
Exposed face brick	Preferred	• Rendering/ painting of masonry walls is acceptable however painting of walls may lead to increased dry-out time and the need for repainting.
Rendered/bagged finish – painted	Preferred	
Stairs (internal)		
Open stair treads in solid hardwood timber Minimum stair width 1000mm	Mandatory	• Solid timber hardwood treads better suited to immersion. • Stairway width to be suitable for ease of movement of personal belongings to first floor level in preparation for a major flood event.
Doors		
Solid core (external)	Preferred	• Solid core doors have generally improved response to immersion. • Hollow core doors should only be used in conjunction with removable hinges to allow them to be easily relocated to the first floor in a flooding scenario.
Solid core internal or hollow core on removable hinges	Preferred	
Windows		
Aluminium framing	Mandatory	• In heritage conservation areas wide commercial/semi-commercial frame sections to be used to resemble painted timber window treatment.
Ground Floor Cabinetry (for non-habitable spaces)		
Removable vanity cabinet	Preferred	• The cost of flooding can be further reduced if joinery items located on the ground floor can be relocated to the first floor in advance of inundation. • Ensure that flood resistant materials are used in cabinet construction.
Removable laundry cabinet(s)	Preferred	
Storage cupboards to be removable	Preferred	
Electrical Services		
Elevate switchboard as high as possible at exterior of building.	Mandatory	• Consult with electrical service provider to ensure that height of meter box is consistent with its requirements.
Ensure wiring is located as far as practicable within the roof space and as high as possible within walls.		• Ensure that all electrical design and installation is undertaken by licenced contractors and that all relevant design and installation standards are complied with.
Where possible all cable runs should be one length to avoid the	Mandatory	• Ensure that all electrical design and

Assessment	
These options are preferred but not compulsory. Our subject design has been designed to respond to heritage related planning matters.	YES

Building Element	Requirement	Notes
need for electrical junction boxes.		installation is undertaken by licenced contractors and that all relevant design and installation standards are complied with.
Power points should be elevated to at least 600mm above ground floor level to provide some measure of protection against more frequent inundation.		
For two-storey construction lighting and power for each floor should be provided in separate circuits.		
Earth Leakage protection should be provided to all circuits.		
Conduits should be installed to allow free drainage as floodwater recedes.		
Expensive fixed electrical equipment such as air-conditioners and hot water systems should be mounted high to reduce the chance of inundation.		• These types of equipment should be located at the rear of buildings where they are not visible to the public domain and screened.
External Water Tanks		
Above ground	Preferred	• Ensure that tank is located directly adjacent to external wall of building. • Ensure that tank is appropriately fixed to mass concrete foundation to protect against buoyancy forces. • Ensure that all stormwater lead-in pipes are 'snug-fit' against building and tank.
Below ground	Preferred	• Ensure that tank is appropriately anchored to resist buoyancy forces resulting from subsurface waterlogging. • Ensure that all stormwater lead-in pipes are 'snug-fit' against building and buried to appropriate depth.

Assessment	
The rainwater tank is fixed to the building.	YES

Building Element **Part of Building Above the FPL**	Requirement	Notes
First Floor Levels[4]		
First floor levels to be established at or above the relevant flood planning level (FPL) for the site.	Mandatory	• Ensures a higher order of protection for a • significant part of the structure in the 1:100 • ARI flood event. Provides for storage of all ground floor furnishings and personal effects above the 1:100 ARI. Provides opportunity for residents to take refuge above the 1:100 ARI event until evacuation occurs.
First floor frame / structure		
Suspended concrete	Preferred	Offers best performance in inundation event
Solid sawn timber frame	Acceptable	Ensure drying to prevent decay – in some cases this might involve removal of ceiling to lower floor. Allow for some loss of load bearing capacity when saturated. Ensure adequate blocking to provide extra restraint and resist distortion. Ensure good ventilation of enclosed areas to reduce the risk of timber decay. Ensure use of either galvanised or stainless steel fasteners
Manufactured engineered beams	Acceptable	
Ground floor ceiling		
Fibre cement sheeting (e.g. villaboard)	Preferred	• In some cases removal of ceiling may be required to assist in drying of floor /ceiling framing. • Under-floor thermal or noise insulation should be avoided where possible. If inundation occurs it should be removed post-flood to assist drying.
First Floor Flooring		
Suspended concrete floor	Preferred	• Offers best performance in inundation event
Fibre cement sheeting	Preferred	• In these cases it is important that the floor framing be exposed post-flood to enable structural timbers to dry out.
Select plywood flooring with	Acceptable	

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[4] Although the following components of the building will be at a level above the 1:100 ARI event the following construction requirements will nonetheless provide improved performance in inundation events that may be caused by wave action or for events that exceed the 1:100 ARI scenario. Other requirements apply to evacuation planning that must be undertaken to cater for a 1:100 ARI flood.

Building Element	Requirement	Notes
waterproof glue bond		
Walls to Upper Floors (external)		
Cavity brick	Preferred	• Offers best performance in inundation event and can be constructed as a vertical extension to the ground floor cavity brick walls.
Brick veneer - timber framing	Preferred	• In these cases it is important that the wall framing (in whole or in part, be exposed post-flood to enable structural timbers to dry out – this usually involves removal of the lower section of internal wall sheeting. • Providing a 20-30mm gap between the bottom plate and the internal wall sheeting will provide access for cleaning the wall cavity and ventilation following a flood. • Ensure use of either galvanised or stainless steel fasteners.
Brick Veneer - steel framing	Preferred	• In these cases it is important that the wall framing (in whole or in part, be exposed post-flood to ensure that the steel frame sections are not ponding any water – this usually involves removal of the lower section of internal wall sheeting. • Holes will need to be drilled in the sides of the bottom plate channel to allow the channel to drain after a flood. • Providing a 20-30mm gap between the bottom plate and the internal wall sheeting will provide access for cleaning the wall cavity and ventilation following a flood.
Clad frame - timber	Acceptable	• In these cases it is important that the wall framing (in whole or in part, be exposed post-flood to enable structural timbers to dry out – this usually involves removal of the lower section of external/internal wall sheeting. • Providing a 20-30mm gap between the bottom plate and the internal wall sheeting will provide access for cleaning the wall cavity and ventilation following a flood. • External cladding material should perform satisfactorily when subject to inundation.

Building Element	Requirement	Notes
		Sheeting that requires joints to be 'set' may need to be reset following inundation and dry-out. • Ensure use of either galvanised or stainless steel fasteners
Clad Frame - steel	Acceptable	• In these cases it is important that the wall framing (in whole or in part, be exposed post-flood to ensure that the steel frame sections are not ponding any water – this usually involves removal of the lower section of external/internal wall sheeting. • Holes will need to be drilled in the sides of the bottom plate channel to allow the channel to drain after a flood. • Providing a 20-30mm gap between the bottom plate and the internal wall sheeting will provide access for cleaning the wall cavity and ventilation following a flood. • External cladding material should perform satisfactorily when subject to inundation. Sheeting that requires joints to be 'set' may need to be reset following inundation and dry-out.
Insulation	Preferred	• Wall insulation should comprise a non-absorbent material such as polystyrene panel.
Frame connections	Preferred	• Use flood compatible wall plate connectors and brick ties to strengthen structure.
Walls to Upper Floors (internal)		
Solid brick / masonry	Preferred	• Offers best performance in inundation event • Usually only used where first floor is suspended concrete or where the upper floor walls sit directly above lower floor walls.
Frame - timber	Acceptable	• Internal linings should be horizontally jointed to allow for removal of lower section of wall lining to allow for drying of frame. The use of an alternative material to gyprock for the lower half of internal walls –fibre cement based products such as profiled panelling which is screw fixed are recommended – to enable these to be more easily removed.

Building Element	Requirement	Notes
		• Providing a 20-30mm gap between the bottom plate and the internal wall sheeting will provide access for cleaning the wall cavity and ventilation following a flood. • Sheeting that requires joints to be 'set' may need to be reset following inundation and dry-out.
Frame - steel	Acceptable	• Internal linings should be horizontally jointed to allow for removal of lower section of wall lining to allow for drying of frame. The use of an alternative material to gyprock for the lower half of internal walls – fibre cement based products such as profiled panelling which is screw fixed are recommended – to enable these to be more easily removed. • Holes will need to be drilled in the sides of the bottom plate channel to allow the channel to drain after a flood. • Providing a 20-30mm gap between the bottom plate and the internal wall sheeting will provide access for cleaning the wall cavity and ventilation following a flood. • Sheeting that requires joints to be 'set' may need to be reset following inundation and dry-out.
Evacuation Point		
Provision of street facing verandah or balcony at first floor level.	Mandatory	• Street facing evacuation point makes it easier for emergency rescue personnel to identify and access residents in need to evacuation.
Provide external stairs (minimum 1000mm in width) towards front of dwelling to facilitate easier evacuation.	Preferred	• An external staircase located on the street elevation of the building connecting the ground floor level to a first floor veranda or balcony can provide improved evacuation opportunity in a larger flood event when there is substantial inundation of the ground floor. *Note: This may not be possible in heritage conservation areas where the design needs to integrate with streetscape.* • Stairway to comprise open, solid hardwood timber treads better suited to immersion.

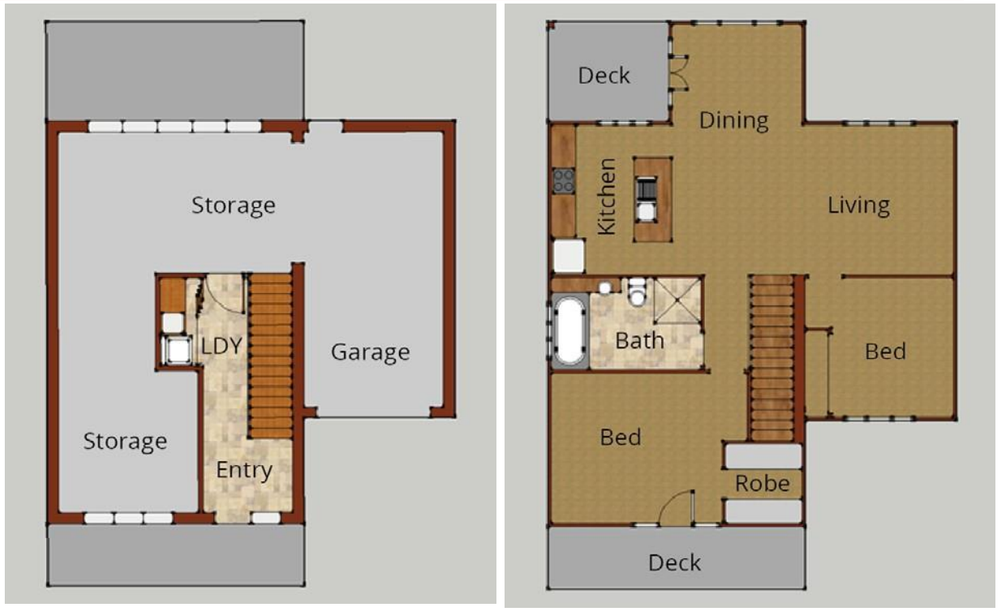

Figure 1: New Residential Development on Flood Prone Land: All habitable floor space located above the FPL. Ground floor area nominated for use as garaging and/or storage (non-habitable space).

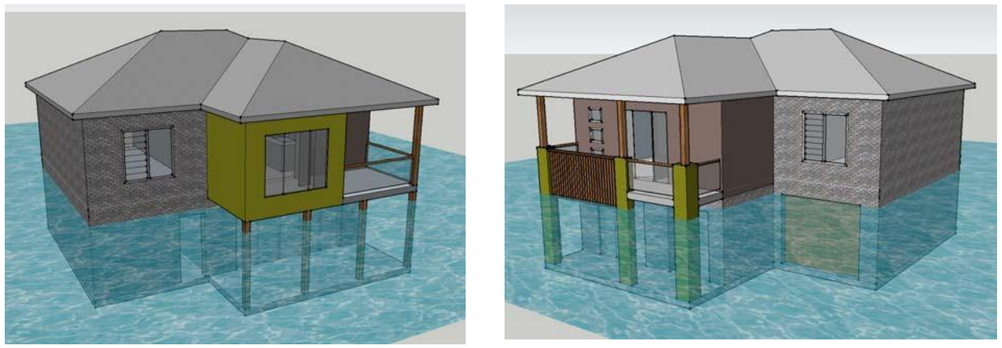

Figure 2: Typical elevations of building with non-habitable floor space below the FPL.

Definitions

The following definitions are provided to help interpret this development control plan. These definitions do not replace the definitions of the Maitland Local Environmental Plan. Where an inconsistency exists, the definition in the LEP prevails.

Annual exceedance probability (AEP)	The chance of a flood of a given or larger size occurring in any one year, usually expressed as a percentage. For example, if a peak flood discharge of 500 m^3/s has an AEP of 5%, it means that there is a 5% chance (that is one-in-20 chance) of a 500 m^3/s or larger event occurring in any one year (see ARI).
Australian height datum (AHD)	A common national surface level datum approximately corresponding to mean sea level.
Average annual damage (AAD)	Depending on its size (or severity), each flood will cause a different amount of flood damage to a flood prone area. AAD is the average damage per year that would occur in a nominated development situation from flooding over a very long period of time.
Average recurrence interval (ARI)	The long term average number of years between the occurrence of a flood as big as, or larger than, the selected event. For example, floods with a discharge as great as, or greater than, the 20 year ARI flood event will occur on average once every 20 years. ARI is another way of expressing the likelihood of occurrence of a flood event.
Consent authority	The Council, government agency or person having the function to determine a development application for land use under the EP&A Act. The consent authority is most often the Council, however legislation or an EPI may specify a Minister or public authority (other than a Council), or the Director General of DIPNR, as having the function to determine an application.
Discharge	The rate of flow of water measured in terms of volume per unit time, for example, cubic metres per second (m^3/s). Discharge is different from the speed or velocity of flow, which is a measure of how fast the water is moving for example, metres per second (m/s).
Effective warning time	The time available after receiving advice of an impending flood and before the floodwaters prevent appropriate flood response actions being undertaken. The effective warning time is typically used to move farm equipment, move stock, raise furniture, evacuate people and transport their possessions.
Emergency management	A range of measures to manage risks to communities and the environment. In the flood context it may include measures to prevent, prepare for, respond to and recover from flooding.

Flash flooding	Flooding which is sudden and unexpected. It is often caused by sudden local or nearby heavy rainfall. Often defined as flooding which peaks within six hours of the causative rain.
Flood awareness	Flood awareness is an appreciation of the likely effects of flooding and a knowledge of the relevant flood warning, response and evacuation procedures.
Flood fringe areas	The remaining area of flood prone land after floodway and flood storage areas have been defined.
Flood liable land	Is synonymous with flood prone land. Note that the term flood liable land covers the whole of the floodplain, not just that part below the FPL (see flood planning area).
Flood mitigation structure	A levee, control bank, spillway or flood-gate forming part of the Hunter Valley Flood Mitigation Scheme, as identified on the database held by authority responsible for management of the Scheme
Floodplain	Area of land which is subject to inundation by floods up to and including the PMF event, that is, flood prone land.
Flood plan (local)	A sub-plan of a disaster plan that deals specifically with flooding. They can exist at State, Division and local levels. Local flood plans are prepared under the leadership of the State Emergency Service.
Flood planning area	The area of land below the FPL and thus subject to flood related development controls. The concept of flood planning area generally supersedes the "flood liable land" concept in the 1986 Manual.
Flood planning level (FPL)	For the purposes of this document FPL means the level of a 1:100 ARI (average recurrent interval) flood event plus a 0.5m freeboard.
Flood proofing	A combination of measures incorporated in the design, construction and alteration of individual buildings or structures subject to flooding, to reduce or eliminate flood damages.
Flood prone land	Is land susceptible to flooding by the Probable Maximum Flood (PMF) event. Flood prone land is synonymous with flood liable land.
Flood readiness	Flood readiness is an ability to react within the effective warning time.
Flood risk	Potential danger to personal safety and potential damage to property resulting from flooding. The degree of risk varies with circumstances across the full range of floods. Flood risk in this manual is divided into 3 types, existing, future and continuing risks. They are described below.

	• Existing flood risk: the risk a community is exposed to as a result of its location on the floodplain. • Future flood risk: the risk a community may be exposed to as a result of new development on the floodplain. • Continuing flood risk: the risk a community is exposed to after floodplain risk management measures have been implemented. For a town protected by levees, the continuing flood risk is the consequences of the levees being overtopped. For an area without any floodplain risk management measures, the continuing flood risk is simply the existence of its flood exposure.
Flood storage areas	Those parts of the floodplain that are important for the temporary storage of floodwaters during the passage of a flood. The extent and behaviour of flood storage areas may change with flood severity, and loss of flood storage can increase the severity of flood impacts by reducing natural flood attenuation. Hence, it is necessary to investigate a range of flood sizes before defining flood storage areas.
Floodway areas	Those areas of the floodplain where a significant discharge of water occurs during floods. They are often aligned with naturally defined channels. Floodways are areas that, even if only partially blocked, would cause a significant redistribution of flood flows, or a significant increase in flood levels.
Freeboard	Freeboard provides reasonable certainty that the risk exposure selected in deciding on a particular flood chosen as the basis for the FPL is actually provided. It is a factor of safety typically used in relation to the setting of floor levels, levee crest levels, etc. Freeboard is included in the FPL.
Habitable room	in a residential situation: a living or working area designed, constructed or adapted for activities normally associated with domestic living, such as a lounge room, dining room, rumpus room, kitchen, bedroom or workroom. A garage, storage room, laundry, lobby, bathroom or external verandah, balcony or terrace is not categorised as a habitable room. in an industrial or commercial situation: an area used for offices or to store valuable possessions susceptible to flood damage in the event of a flood.
Hazard	A source of potential harm or a situation with a potential to cause loss.
Hydraulics	Term given to the study of water flow in waterways; in particular, the evaluation of flow parameters such as water level and velocity.
Hydrograph	A graph which shows how the discharge or stage/flood level at any particular location varies with time during a flood.

Hydrology	Term given to the study of the rainfall and runoff process; in particular, the evaluation of peak flows, flow volumes and the derivation of hydrographs for a range of floods.
Local overland flooding	Inundation by local runoff rather than overbank discharge from a stream, river, estuary, lake or dam.
Local drainage	Smaller scale problems in urban areas. They are outside the definition of mainstream flooding in this glossary.
Mainstream flooding	Inundation of normally dry land occurring when water overflows the natural or artificial banks of a stream, river, estuary, lake or dam.
Mathematical/ computer models	The mathematical representation of the physical processes involved in runoff generation and stream flow. These models are often run on computers due to the complexity of the mathematical relationships between runoff, stream flow and the distribution of flows across the floodplain.
Probable maximum flood (PMF)	The PMF is the largest flood that could conceivably occur at a particular location, usually estimated from probable maximum precipitation, and where applicable, snow melt, coupled with the worst flood producing catchment conditions. Generally, it is not physically or economically possible to provide complete protection against this event. The PMF defines the extent of flood prone land, that is, the floodplain. The extent, nature and potential consequences of flooding associated with a range of events rarer than the flood used for designing mitigation works and controlling development, up to and including the PMF event should be addressed in a floodplain risk management study.
Risk	Chance of something happening that will have an impact. It is measured in terms of consequences and likelihood. In the context of the manual it is the likelihood of consequences arising from the interaction of floods, communities and the environment.
Survey plan	A plan prepared by a registered surveyor.

3. Flood maps

3.1 Flood Extent Map Series

Flood Extent Maps show the following:

1. 1:100 ARI Flood Extent (shown pale blue)
2. Flood Planning Area being the 1:100 ARI Flood Extent plus 0.5m freeboard (shown dark blue hatching); and
3. Probable Maximum Flood (PMF) extent (shown as red line).

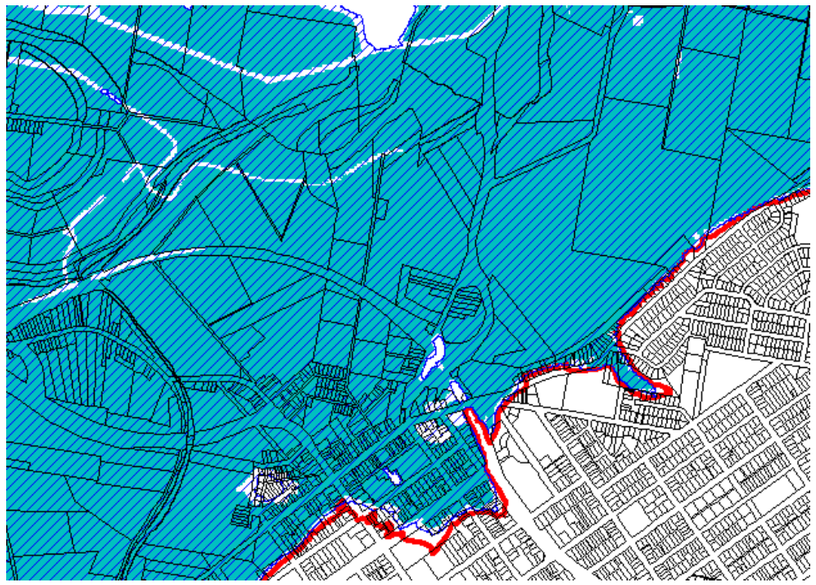

Figure 3: Example of flood extent mapping.

3.2 Flood Depth Maps Series

Flood Depth Maps show the following depth scenarios as they apply in the 1:100 ARI flood event:

1. Depth less than 0.5m (shown in blue); and
2. Depth greater than 0.5m (shown in red).

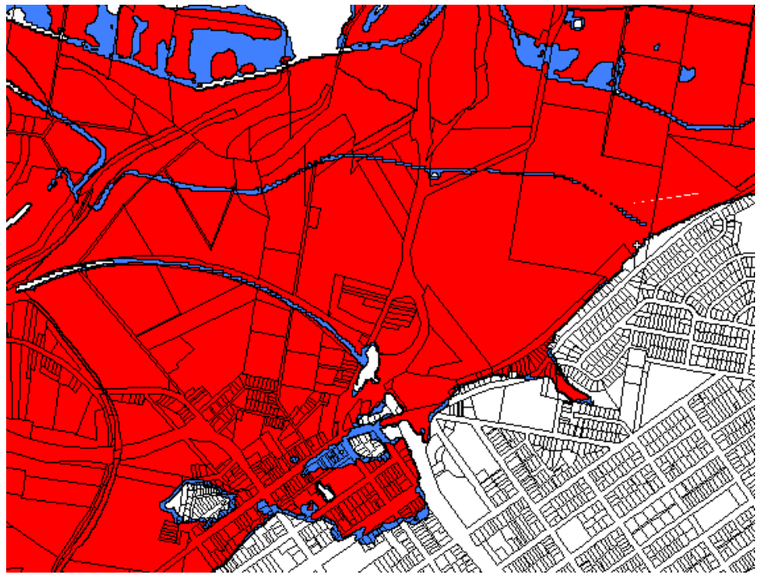

Figure 4: Example of flood depth mapping.

3.3 Flood Velocity Map Series

Flood Velocity Maps show the following velocity scenarios as they apply in the 1:100 ARI flood event:

1. Velocities less than 0.5 metres per second (shown in blue); and
2. Velocities greater than 0.5 metres per second (shown in red).

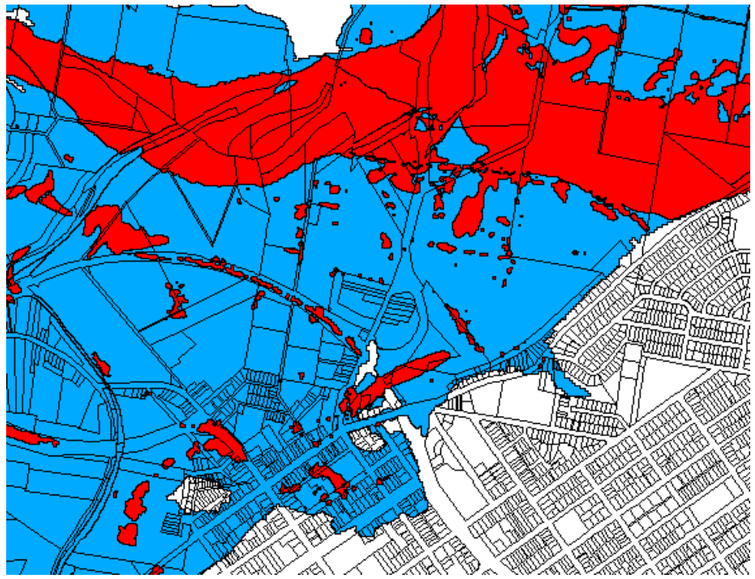

Figure 5: Example of flood velocity mapping.

3.4 Hydraulic Category Maps

Hydraulic Category Maps provide an overview of the various hydraulic categories as they apply in the 1:100 ARI flood event. There is no technical definition of hydraulic categorisation that would be suitable for all catchments, and different approaches must be used in different areas, based on the specific features of the study catchment in question. Where a proponent holds the view that the hydraulic categorisation differs from that shown on the relevant DCP map then the proponent will be responsible for having a suitably qualified consultant undertake the appropriate modelling investigations/analysis to support this view.

The following hydraulic categorisations have been mapped:

- Flood Fringe comprises areas outside the Floodway where peak depth < 1.5 m (shown blue);
- Flood Storage comprises areas outside the Floodway where peak depth > 1.5 m (shown yellow); and
- Floodway (shown red) is defined as areas where:
  - the peak value of velocity multiplied by depth (V*D) > 1.0 m^2/s and peak velocity > 0.1 m/s, or
  - peak velocity > 0.8 m/s.

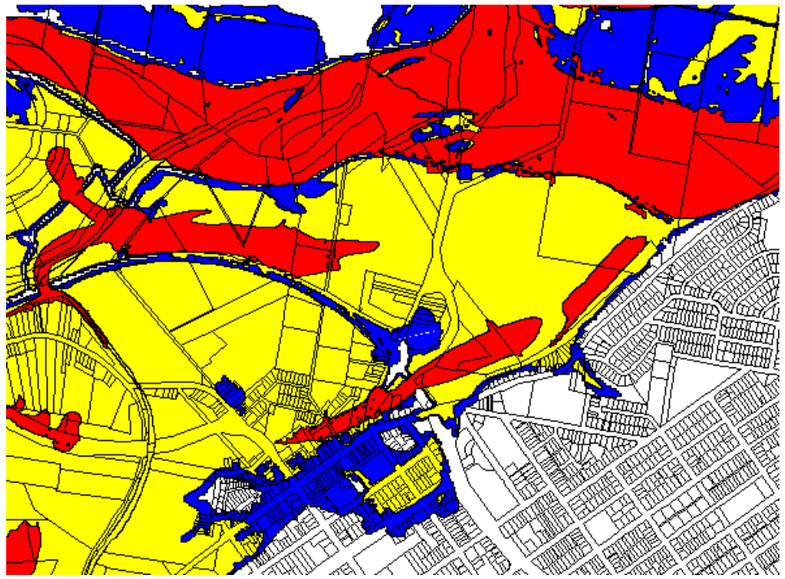

Figure 6: Example hydraulic category mapping.

3.5 Hazard Category Maps

Hazard Category Maps show the various flood hazard categories as they apply in the 1:100 ARI flood event:

- Low Hazard (shown in blue); and
- High Hazard (shown in red).

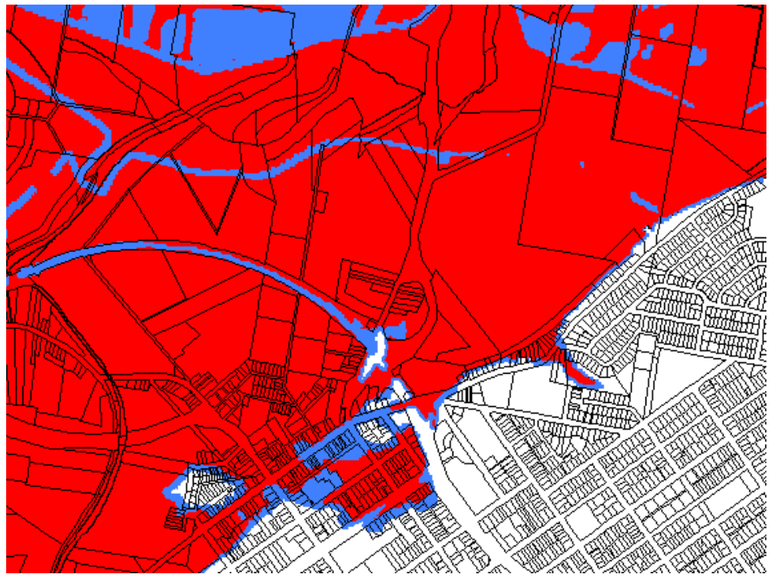

Figure 7: Example View of Flood Hazard Category Mapping.

B.6 – Waste Not – Site Waste Minimisation & Management

Application

This section applies to the following types of development that may only be carried out with development consent within the Maitland LGA:

- Single dwellings; residential additions/alterations and ancillary structures
- Dual occupancies
- Multi dwelling housing
- Residential flat buildings
- Commercial development and change of use
- Industrial development

The preparation of a Site Waste Minimisation and Management Plan (SWMMP) is not required for exempt and complying development. However, persons carrying out exempt and complying development are encouraged to minimise the generation of waste in the construction and operation of any such use or activity and deal with any waste generated in accordance with the objectives of this plan.

Objectives

- To minimise resource requirements and construction waste through reuse and recycling and the efficient selection and use of resources.
- To encourage building designs, construction and demolition techniques in general which minimise waste generation.
- To assist applicants in planning for sustainable waste management, through the preparation of a site waste minimisation and management plan. This plan is to be completed in the planning stages of a development.
- To facilitate effective waste minimisation and management for development in a manner consistent with the principles of ESD.

Submission/Application Requirements

1.1 Documentation to be submitted

All applications relating to residential developments, as well as commercial and industrial premises are to include a Site Waste Minimisation and Management Plan (SWMMP) as part of documentation submitted to Council. The development plans should also clearly indicate the location of waste management facilities, including recycling bins and the like.

Waste Management Plan

FOR

THE CONSTRUCTION OF DETACHED DUAL OCCUPANCY DWELLING WITH STRATA SUBDIVISION

LOT 86, 85 CATHERINE STREET, MAITLAND NSW 2320

UNIVERSAL PROPERTY GROUP P/L
Trading as Bathla Group

ABN 98 078 297 748

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Prepared and published by:
Universal Property Group Pty Ltd

a) Site Waste Minimisation and Management Plans (SWMMP)

A SWMMP outlines measures to minimise and manage waste generated during demolition and construction processes, as well as the ongoing use of the site.

The SWMMP is to nominate the following:

- The volume and type of waste and recyclables to be generated.
- The storage and treatment of waste and recyclables on site.
- The disposal of residual waste and recyclables.
- The operational procedures for ongoing waste management once the development is completed, including the nominated waste management service provider.

b) Submission of a SWMMP

A SWMMP is to be submitted for all types of development listed within this policy. Council's document titled 'Site Waste Management and Minimisation Plan' Standard Form provides the necessary information and examples of SWMPs.

More detailed SWMMPs are required for projects of a larger scale, with additional supporting information required.

The SWMMP is to be submitted with the documentation relating to Development Applications, in order to be considered in the assessment under Section 4.15 of the Act.

1.2 Implementing the SWMMP

When implementing the SWMMP, the applicant must ensure:

- Roads, footpaths, public reserves and street gutters are not used as places to store demolition waste or materials of any kind.
- Any material moved offsite is transported in accordance with the requirements of the *Protection of the Environment Operations Act 1997 and relevant Regulations*.
- Waste is only transported to a place that can lawfully be used as a waste facility, and by contractors who are aware of the legal requirements of the disposal of waste.
- Generation, storage, treatment and disposal of hazardous, offensive or special waste (including asbestos) is conducted in accordance with relevant waste legislation and relevant agencies.
- Evidence such as weighbridge dockets and invoices for waste disposal or recycling services is retained.
- Evidence of compliance with any specific industrial waste laws and protocols,

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such as the *Protection of the Environment Operations Act 1997 and relevant Regulations*.

- Materials which are to be disposed of and those which are to be reused/ recycled are to be separated through the demolition and construction process.
- Materials that have existing reuse or recycling markets should not be disposed of in landfill when possible.

1.3 Waste/Recycling Generation Rates

The following waste generation rates shall apply:

Type of Premise	Waste Generation	Recycling Generation
Backpackers accommodation	40L/occupant/week	20 litres/occupant/week
Boarding house, Guest house	60L/occupant/week	20 litres/occupant/week
Food Premises		
Butcher	80L/100m² floor area/day	Discretionary
Delicatessen	80L/100m² floor area/day	Discretionary
Fish Shop	80L/100m² floor area/day	Discretionary
Greengrocer	240L/100m² floor area/day	120/100m² floor area/day
Restaurant	10L/1.5m² floor area/day	2L/1.5m² floor area/day
Supermarket	240L/100m² floor area/day	240 L/100m² floor area/day
Takeaway	80L/100m² floor area/day	Discretionary
Hairdressers, Beauty Salon	60L/100m² floor area/week	Discretionary
Hotel	5L/bed/day 50L/100m²/bar area/day 10L/1.5m²/of dining area/day	50L / 100m² floor area / bar & dining areas / day
Offices	10L / 100m² floor area / day	10L / 100m² floor area / day
Retail (other than food sales)		
Shop < 100m² floor area	50L/100m² floor area/day	25L/100m² floor area/day
Shop > 100m² floor area	50L/100m² floor area/day	50L/100m² floor area/day
Showrooms	40L/100m² floor area/day	10L/100m² floor area/day

2. Site Preparation Phase

2.1 Demolition of Buildings or Structures

a. An area shall be allocated for the storage of materials for use, recycling and disposal, giving consideration to slope, drainage, location of waterways, stormwater outlets, vegetation and access and handling requirements.

Outline of Proposal

Site Address: **LOT 86, 85 CATHERINE STREET, MAITLAND, NSW 2320**
Applicant's name and address: **Bathla Investments Pty Ltd**
PO Box 270 Wentworth Ville, NSW 2145

Phone: **9636-2465** Fax: **9688-4762**

Buildings and other structures currently on the site: N/A

Brief Description of proposal: **PROPOSED CONSTRUCTION OF DUAL OCCUPANCY DWELLING 86A and 86B**

The details provided on this form are the intentions of managing waste relating to this project.

LOCATION PLAN

b. Waste and recycling materials are to be separated.
c. Measures are to be implemented to prevent damage, minimise health and order risks, and windborne litter.

3. Construction Phase

3.1 Construction of Buildings or Structures

a. An area shall be allocated for the storage of materials for use, recycling and disposal, giving consideration to slope, drainage, location of waterways, stormwater outlets, vegetation and access and handling requirements. Signage is to be incorporated into this area in order for the clear definition of the space.
b. Waste and recycling materials are to be separated. Signage shall clearly indicate which bins or disposal units are for waste and those for recycling.
c. Measures are to be implemented to prevent health and odour risks, and windborne litter.
d. The use of prefabricated components and recycled materials should be considered when possible.

4. Operational Phase

4.1 Residential Development

a) Single dwellings, alterations and/or additions, ancillary structures

a. The location of the waste and recycling areas is to not create any adverse impact on neighbouring properties in terms of appearance, odour, noise or the like.

b) Dual Occupancy and Multi Dwelling Housing – Individual Storage Areas

a. The location of the waste and recycling areas is to not create any adverse impact on neighbouring properties in terms of appearance, odour, noise or the like.
b. Details of individual bin storage and servicing/collection locations are to be provided

c) Dual Occupancy, Multi Dwelling Housing and Residential Flat Buildings – Communal Storage Areas

a. The waste area should provide separate containers for the separation of general waste from recyclables.
b. There is to be reasonable level of access to waste and recycling area/s or room/s for people including people with a disability

CONSTRUCTION AND USE

Potential for Waste Minimization During Construction Stage

The following measures have been considered in minimizing waste at the construction stage of this Project.

- Purchasing Policy – measures include ordering the right quantities of materials and prefabrication of materials where possible;
- Reusing formwork;
- Minimizing site disturbance, limiting unnecessary excavation;
- Careful source separation of off-cuts to facilitate re-use, resale or efficient recycling; and
- Co-ordination/sequencing of various trades.

Design of Facilities

The following details should be shown on your plans:

- Location of Waste Bin Storage and Recycling Area(s) per dwelling;
- Details of weekly collection points and bulk waste collection locations per dwelling.
- Access for vehicles.

Every dwelling has been provided with a Waste Storage and recycling Area; bin storage location internal to the dwelling and bin presentation locations within the public road reserves. The size has been calculated on the basis of waste generation rates and proposed bin sizes; standard to Blacktown City Council.

On-going Management

Future owners of the proposed dwellings will manage waste generated by the household on a daily basis - separating materials into re-useable, recyclable, waste for inclusion in appropriate disposal bin (240 litre).

Provision for waste bins is made for each dwelling as follows:

- bins (1 x 240 litre and 1x160litre) are to be placed to the side or rear yard as indicated on the plans;
- Homes that do not have external access to the rear yard have the storage capacity within the garage.

Bins are to be placed at kerbside, by each home owner, in front of dwelling or the designated location, on the specified days for collection by the Blacktown City Council contractor.

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c. The location of any garbage chute(s)
d. Communal storage area/s or room/s is to be provided on common property in order to allow for the management of the area by the body corporate.
e. Consideration shall be given to the incorporation of a bulky waste storage area within the communal storage area/s or room/s.
f. Servicing plan including frequency and servicing location is to be provided.

4.2 Commercial Developments and Change of Use

a. The waste area should provide separate containers for the separation of general waste from recyclables.
b. If Council is not the provided waste contractor, then a valid contract with a licensed waste facility is to be kept by the premises or the body corporate managing the site for the collection of waste and recyclables.

4.3 Industrial Development

a. The waste area should provide separate containers for the separation of general waste from recyclables.
b. If Council is not the provided waste contractor, then a valid contract with a licensed waste facility is to be kept by the premises or the body corporate managing the site for the collection of waste and recyclables.

Design of Facilities

TYPE OF WASTE TO BE GENERATED	EXPECTED VOLUME PER WEEK	PROPSED ON-SITE STORAGE AND TREATMENT FACILITIES	DESTINATION
Please specify. For example: glass, paper, food waste, off cuts etc.	Litre or m^3	For example: • Waste storage & recyclıng area • Garbage chute • On-site composting • Compaction equipment	• Recycling • Disposal • Specify Contractor
A. Recyclables: - 1. Home paper and cardboard waste. 2. Glass, aluminum and plastic (bottles).	240 litres 240 litres	A. 240 Liter waste bin for paper, cardboard, glass, plastic and aluminum.	Paper/cupboard to recyclers Glass/aluminum & plastic to collected by council appointed contractor
Total	2 Bins		
B. non-recyclables: - 1. Food scraps etc. 2. Other plastics (e.g. Wrapping). 3. Unrecyclable waste.	120 litres 120 litres 120 litres	B.120 Litre waste bin	To be collected by Council appointed contractors
Total	2 Bins		
	4 Bins		

Note: Details of on-site waste management facilities should be provided on the plan drawings accompanying your application.

Dimensions:

Item	Width (mm)	Height (mm)	Depth (mm)
MGB 60	445	920	516
MGB 80	445	920	516
MGB 120	500	933	550
MGB 140	500	1068	550
MGB 240	582	1075	728
MGB 360	590	1100	880

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C.4 – Heritage Conservation

Application

This chapter applies to all heritage items and heritage conservation areas, to which clause 5.10 in the Maitland LEP 2011 applies. Matters relating to Aboriginal heritage significance are addressed in clause 5.10(8) in the Maitland LEP 2011, but are not specifically addressed in this chapter.

Clause 5.10 specifies when a development application is required. Where clause 5.10(3) stipulates when consent is not required, it is the responsibility of the applicant/owner to ensure that the proposed works satisfy the requirements of this subclause before undertaking any work.

Chapter B: Vegetation Management in this DCP also applies to any trees listed as a heritage item or any trees located within a heritage conservation area.

Specific guidelines relating to the Heritage Conservation Areas are contained in Part E: Heritage Conservation Areas. Where relevant, Part E should be read in conjunction with this Chapter and B: Vegetation Protection.

(Note: A number of terms relating to heritage are defined in the Maitland LEP 2011 for the purposes of interpreting clause 5.10).

Objectives

- To assist owners and developers who are contemplating carrying out development that may impact on a heritage listed property or conservation area.
- To promote an attractive living and working environment for the community of Maitland, which builds on its particular identity.

General Requirements:

The content and range of issues to be addressed in a development application will depend on the heritage significance of the site and the impact the proposed development is likely to have. As a general rule, the greater the significance of the item or the potential impacts of the proposal, the more detail should be provided.

a. *Plan details:*

In addition to the standard requirements for all development applications (such as the preparation of a site plan) the following additional plan details should be shown where work is proposed on a heritage item:

- Plans, sections and elevations - drawn to scale, showing the extent of the proposed works by colouring or hatching. These drawings should show how the alterations or additions will affect existing buildings, structures and features, and must include a schedule of external finishes, materials and colours.

Where subdivision of land is proposed on land within a heritage conservation area or in the vicinity of a heritage conservation area, the plan details and supporting documentation should include the range of matters outlined in Section 8.0 below.

b. *Fire and National Construction Code upgrading:*

The consent authority, when considering alterations and additions to buildings, or the change of use of a building, must consider the fire safety and spread of fire under the provisions of clause 64 of the *Environmental Planning and Assessment Regulation 2021*. Information on fire upgrading for heritage properties can be found at the Heritage Office's Fire Advisory Panel's website at www.heritage.nsw.gov.au

c. *Do I need a Consultant?*

For simple development proposals documentation can be prepared by the building owner or manager. Assistance can be sought from Council staff, including Council's Heritage Officer and/or Heritage NSW where necessary. Statements of Heritage Impact for heritage items and/or preparation of development applications for complex proposals, or those which are likely to have a major impact on the heritage significance of an item or a Conservation Area, will usually require the assistance of a suitably qualified consultant who has experience in Heritage Conservation matters.

The use of specialist consultants who are suitably qualified and experienced in heritage matters can significantly reduce the amount of time taken in both the preparation of the development application and its assessment by Council. These time savings can far outweigh the initial cost of their services.

Council and Heritage NSW can provide a list of consultants practising in heritage related fields.

d. *Conservation Incentives*

Clause 5.10(10) in the Maitland LEP 2011 provides conservation incentives for the use of a heritage item or the land on which it is erected, even though this development may be prohibited under the LEP. Council must be satisfied that the development satisfies the criteria established under this clause in the LEP.

When considering a development application under this clause, Council may exclude the floor space of the heritage item from any calculation of floor space ratio or carparking requirements relating to the development application.

1. Development Process

1.1 Heritage Impact Statement (HIS)

Clause 5.10(5) in the Maitland LEP 2011 provides for a consent authority to request the preparation of a Heritage Impact Statement (HIS) to assist in the assessment of a development application.

A HIS analyses the impact that proposed works will have on a heritage item or Conservation Area. It is usually prepared with reference to a Statement of Heritage Significance. The HIS will often form part of the Statement of Environmental Effects usually required for a development application. It needs to be supported by sufficient information to allow Council to make an informed decision about the impact of the proposal. Together with supporting information it addresses:

- why the item or area is of heritage significance;
- what impact the proposed works will have on that significance;
- what measures are proposed to mitigate negative impacts;
- the range of solutions considered and evaluated, and why more sympathetic solutions are not viable.

The NSW Heritage Manual "Statements of Heritage Impact" is to be adopted for the purposes of preparing the HIS. The amount of information and level of detail required will depend upon the significance of the building, work or place the subject of the application, and the nature and extent of the work proposed. Applicants should determine, through pre-application consultation with Council staff, whether a HIS is required for a particular proposal.

Generally the process to be followed in preparing a HIS reflects the above mentioned points:

a. The HIS first considers the heritage significance of the item, building, work or place that the application relates to. This significance should be described in a Statement of Heritage Significance. In simple terms this is a set of statements explaining what it is about the building or area that makes it significant. In the case of a component of a Conservation Area, the contribution that the building, work or place makes to that area must be described, as well as any individual significance it may have in its own right. In some cases there will already be a Statement of Heritage Significance, especially for listed heritage items.

b. The HIS then describes in detail the work proposed. The work must be described in relation to its impact on the things that make the item, building, work or place significant. The reasons or necessity for undertaking the work need to be explained. A conclusion must be reached about the positive or negative impact the proposed work will have on the stated significance.

c. The HIS must next describe the measures proposed to mitigate impacts (i.e. the philosophy and design of the works, the materials, finishes and colours to be used, or any other aspect of the work that has specifically taken aspects of heritage significance into account).

d. The HIS must finally describe the range of options or solutions considered when designing and planning the work. Where more sympathetic solutions have been considered and rejected, adequate justification must be provided.

e. The HIS should refer to relevant reference documents and policies such as the Burra Charter, any existing documentation regarding the significance or status of the site, and any relevant Council Development Control Plan (DCP).

For simple or minor applications, the HIS may be able to be prepared by the owner or manager of the property. However, for listed items or for complex or major applications, a suitably qualified consultant, experienced in heritage related matters, will generally be required to prepare the HIS.

Examples of Heritage Impact Statements may be inspected at Council's office, and the NSW Heritage Manual contains more detailed information regarding Statements and their preparation.

1.2 Heritage Conservation Management Plan (CMP)

Clause 5.10(6) in the Maitland LEP 2011 provides for a consent authority to further require the submission of a Heritage Conservation Management Plan before granting consent to the application, where the findings from the HIS warrant this additional conservation outcome.

Together, the Statement of Heritage Significance, Conservation policy and management guidelines form what is known as a Conservation Management Plan.

A Conservation Policy looks at the constraints and opportunities arising from a Statement of Heritage Significance. Conservation Policies usually relate to a listed heritage item.

The Policy indicates how changes might be made to an item while still conserving and enhancing its significance. Usually a suitably qualified consultant with experience in heritage related matters will be required to prepare such a policy.

A further step is to prepare implementation or management guidelines for the future care and development of the item. These guidelines can address and contain maintenance plans, suggestions for adaptive re-use and potential for

sympathetic alterations and additions.

The Heritage Council will not consider applications for extensive alterations to an item of major heritage significance (i.e. a State item or an item covered by an interim or permanent Conservation Order) unless it has already approved a Conservation Management Plan.

The preparation of a Conservation Management Plan need not be an expensive or lengthy exercise. The cost of preparation is often outweighed by the benefits gained through identification of the best opportunities for capitalising on the value of a heritage value of an item, and in obtaining early agreement and approval from authorities and the community to sympathetic changes. More information is available in the NSW Heritage Manual.

The use of a suitably qualified consultant, experienced in heritage related matters, will be required for the preparation of a Conservation Management Plan.

Typical contents of a conservation management plan include:

Essential:

- a description of the place and its setting
- a statement of the significant heritage values of the place
- an assessment of the condition, management realities, threats, opportunities and other non-heritage issues relevant to conserving the place
- a statement of the conservation principles on which the plan is based
- a conservation policy which includes conservation objectives for the place
- the conservation processes that will be used
- strategies for conservation, with timing, costs and other resources required
- controls on research and other actions that may affect the place
- a list of people responsible for carrying out actions of the plan
- an ongoing maintenance and monitoring plan and who is responsible
- a process and timing for reviewing and updating the plan

Non-essential:

- recommendations for making the significant values understood (interpretation)

1.3 Character Assessment

A Character Assessment is required where, in the opinion of Council, the proposed works do not warrant the preparation of a formal HIS. A Character Assessment

may be prepared by the applicant/owner.

The Character Assessment should include the following, and be identified by the property description and the author's name and contact details:

a. How old is the building/s proposed for alteration or additions, and what is known about its history? Try to ascertain the age of the building from any documents you may have such as the Land Title, or from the style of the building.

b. Describe the main architectural features and characteristics of the building. List features such as what materials the building is made of, what the roof style is (i.e. hipped, gabled), the style of windows, whether it has a verandah.

c. What is around the building or land? Describe the buildings that surround it and what they are used for.

d. Describe what is proposed. Outline what alterations are proposed – what will the building be used for if the use is changing. Describe all structural and non-structural alterations required.

e. Describe what efforts have been made to ensure the changes are sympathetic with the original building. List in point form. List also any previous work if appropriate. Outline if the proposal will improve the function of the building. Are the materials, colour and design compatible with the design of the original structure?

f. Describe any impact of the proposal on any surrounding developments, and on the character of the locality. Outline if the changes are in keeping with the character of the locality. Have you taken into consideration the information in this Chapter that relates to the area in which your development is located?

g. Describe any sympathetic solutions which were considered, but discounted for particular reasons. List alternatives such as different materials, colours, etc. and outline why these cannot be implemented.

1.4 Engineering Assessment

An Engineering Assessment will be required where it is asserted that the works proposed to a heritage item are required because part or all of the item is beyond repair or unstable. Works include alterations and additions to, and partial or total demolition of, a heritage item. An Engineering Assessment may also be required for partial or total demolition of components within a Heritage Conservation Area.

Preparation of an Engineering Assessment must be undertaken by a suitably qualified Structural Engineer with experience dealing with heritage related matters.

The assessment must address the following matters as a minimum:

a. Detailed list of all structural defects or problems identified.

b. the likely causes of such defects.

c. a comprehensive range of solutions for such defects, where possible.

d. the most appropriate solution(s) for the particular case, in the opinion of the consultant.

e. where solutions are rejected, the reasons for rejection must be provided and justified.

The basis of investigative work and the final report should be to find feasible methods of repairing the building(s) for adaptive re-use, not to support demolition. If demolition is recommended, adequate justification by way of explanation of the problems and the difficulties in repairing them must be provided.

1.5 Schedule of Works

A Schedule of Works will be required for any alterations and additions to a heritage item. The Schedule of Works must itemise the proposed work to the item, cross-referenced to appropriate drawings, and include a schedule of external finishes, materials and colours. In the case of an item of State significance, the Schedule of Works must detail all internal alterations.

1.6 Archaeological Assessment

An Archaeological Assessment will be required with a development application for any proposal which will disturb the surface of an Archaeological Site or Potential Archaeological Site. An Archaeological Assessment is a predictive study undertaken to:

- evaluate the probable extent, nature and integrity of the archaeological resource at a site;
- determine the significance of that resource;
- define the appropriate management solutions for that resource having regard to significance and statutory requirements.

Applicants must determine through pre-application consultation with Council staff, whether an Archaeological Assessment will be required for a particular proposal, and what it should address and contain.

Initial Assessments

An initial (or baseline) assessment may be required by Council for non-listed sites which are considered likely to contain relics because of their location or use, or where it is unclear whether a development proposal is likely to impact on the archaeological features of a listed site. The initial assessment is a basic overview study to determine whether a particular site warrants further investigation (i.e. an

Archaeological Assessment).

The level of research or investigation required for an initial assessment will vary depending on the nature of the site and the development proposal, but may include:

- a review of available historical information;
- some historical research;
- the identification of historical themes;
- a field survey/site inspection;
- preliminary conclusions about archaeological potential;
- preliminary significance assessment;
- an analysis of client needs and objectives;
- management recommendations including recommendations for further work.

An Initial Assessment can help determine whether or not there is potential for the presence of archaeological resources on a site, and whether further investigation is warranted. If it is considered that there is no potential, no further action may be required. Where potential exists, it is likely that an Archaeological Assessment will be required.

1.7 Archival or Photographic Record

An Archival or Photographic Record may be required to document the existing structure if part or parts of the heritage item are proposed to be altered.

1.8 Historic photographs or drawings

Historic photographs or drawings may be required, where available, particularly when the intention is to restore the item back to its former or original state.

1.9 Other specialist reports

Other specialist reports may be required for particular proposals (e.g. historian).

2. Owner Responsibilities

Wilful Neglect or Other Damage to a Heritage Item or Building in a Conservation Area

2.1 State Government Provisions

The NSW Heritage Act 1977 and associated Regulation requires owners of a building,

work, relic or precinct that is listed on the State Heritage Register to maintain minimum standards of maintenance and repair. The provisions relate to:

a. weather proofing,
b. fire protection,
c. security, and
d. essential maintenance.

The provisions do not require owners to undertake restoration works but, where works are needed, financial assistance may be available through NSW Heritage funding programs.

Where the maintenance and repair standards are not met and the heritage significance of the item is in jeopardy, the Heritage Council has the power to order repairs after consultation with the owner. These orders can be enforced if necessary, and owners prosecuted for failure to comply with an order.

2.2 Local Provisions

All components of a Heritage Conservation Area including, but not limited to, listed heritage items contribute to its character, regardless of whether they are individually significant. It is for this reason that the controls relating to demolition are quite stringent, and will be applied consistently.

Applications for demolition of buildings where there is evidence of intentional neglect or damage are unlikely to be considered favourably.

Where Council is of the opinion that a building, work, or relic is unsafe or unhealthy, or poses some other risk to the public, the relevant provisions of the Local Government Act 1993 will be enforced to their fullest extent to ensure that adequate work is undertaken to remove such risk, and to avoid the necessity for demolition of the building, work or relic. Where additional work is required in relation to:

a. weather proofing,
b. fire protection,
c. security, and
d. essential maintenance

Council will request the owner of the building, work or relic to undertake such work to ensure the ongoing stability and preservation of significant fabric of the item or component. If such work is not undertaken, and particularly where the building, work or relic is a listed heritage item and its significance is deemed by Council to be deteriorating due to wilful neglect or damage, documentary and photographic evidence will be collected by Council, and used in future assessment of applications relating to the site. Demolition of a listed heritage item or component of a Heritage

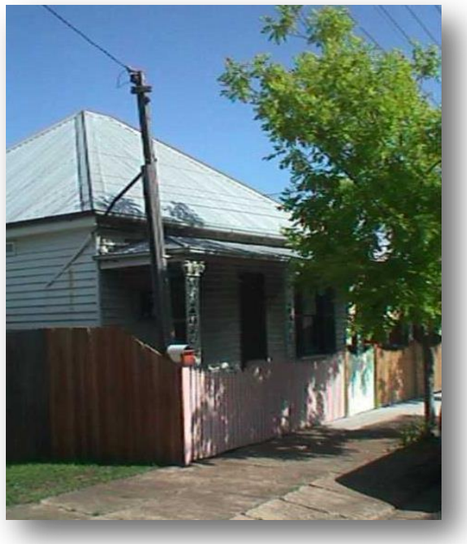
Conservation Area is considered by Council to be a last resort action and, as stated above, will not be approved where wilful neglect or damage can be established.

3. General Requirements for Alterations & Additions

3.1 Sympathetic Design

Objectives

- To ensure that new alterations and additions respect the architectural character and style of the building and area concerned.
- To maintain and enhance the existing character of the street and the surrounding locality.
- To enhance the public appreciation of the area.



Alterations to this Victorian cottage returned the verandah to its original hipped form. A fence in keeping with the age of the building was also constructed

General Requirements:

a. An alteration or addition must consider the characteristics of the existing building, and buildings in the surrounding area, and sit comfortably in this context.

b. New work should generally not precisely mimic the design and materials of the building, but be recognisable as new work on close inspection.

c. Mock historical details should not be applied as they will not be of any

heritage value themselves, and can confuse our understanding between the 'new' and the 'old'.

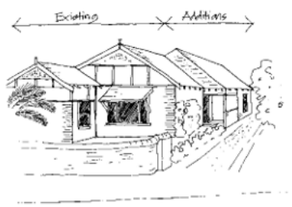
d. Alterations and additions should blend and harmonise with the existing building in terms of scale, proportion and materials.

e. Alterations and additions should not require the destruction of important elements such as chimneys, windows and gables.

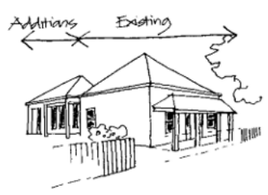
3.2 Siting, Setback & Orientation

Objectives:

- To maintain and enhance the existing character of the street and the surrounding area.
- To ensure that new alterations or additions respect established patterns of settlement (ie pattern of subdivision and allotment layout, landscaped settings, car parking and fencing.)
- To provide an appropriate visual setting for heritage items and heritage conservation areas.
- To ensure that the relationship between buildings and their sites which contribute to the character of the area are not disturbed or devalued.



Rear extension which minimises impact on the original building. Side extension should not limit the ability for driveway access to the rear of theproperty.



Pavilion extension where addition is treated as a separate entity

General Requirements:

a. Generally alterations or additions should occur at the rear of the existing building to minimise visual impact on the street frontage of the building, particularly where the additions and alterations involve a listed heritage item or a building which contributes to the heritage character of the Conservation Area.

b. Side additions should not compromise the ability for driveway access to the rear of the block.

c. No new structures should be built forward of an established building line.

d. An adequate area around the building including landscaping, fencing, and any significant trees should be retained.

e. Larger additions can be successful when treated as a separate entity to retain the character of the original building in its own right.

f. Front and side setbacks should be typical of the spacing between buildings located in the vicinity of the new development.

g. The orientation pattern of buildings existing in the area should be maintained.

h. Rear additions are generally best stepped back from side building lines.

i. Where the wall of an existing residential building in a Conservation Area is located less than 900mm from a side boundary, additions may be permitted to be constructed at the same setback as the principal building only where:

   i. they are small in scale and no greater than 20% of the existing building floor area;
   ii. there is no overhang of any part of the addition over the adjoining property;
   iii. there are no significant impacts on solar access to the adjoining property;
   iv. access for maintenance of the side wall of the addition can be provided wholly within the property boundaries.

j. An addition must be constructed in accordance with the National Construction Code of Australia including requirements relating to fire safety, structural stability and termite resistance.

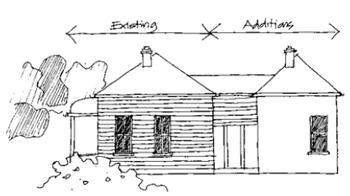
k. Any addition greater than 20% of the existing building floor area must be not less than 900mm from the side boundary and comply with the above.

l. Extensions to the side elevation will not be appropriate if they alter established patterns of building and garden.

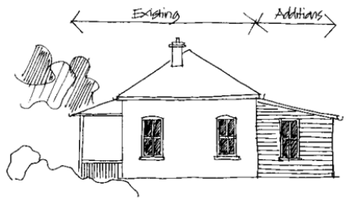
m. Additions to the side of a building should not remove or sever car access to the rear, where it is not sympathetically provided elsewhere.

n. Archaeological evidence should not be disturbed without consultation with Council and, where required, approval of Heritage NSW.

o. Where there has been known building sections which have been removed, and the building fabric has been substantially altered such that only its position on the site maintains its original context, further alterations which remove footprint evidence may not be appropriate.



Pavilion extension where the front building form is repeated at the rear. A glazed connection can help separate the old from the new.



Skillion or lean to addition suitable for smaller extensions.

3.3 Size & Scale

Objective:

- To ensure that new alterations and additions respect the character of the building and surrounding area.

General Requirements:

a. An alteration or addition should not be of a size or scale which overwhelms or dominates the existing building, substantially changes or destroys its identity or changes its contribution and importance in its surrounds.

b. New uses should be chosen which suit the size of the building, not requiring overwhelming changes.

c. Unless it can be demonstrated that greater scale would be appropriate in the individual circumstances, additions should be of the same scale as surrounding development.

The second storey addition to this building overwhelms the original structure and destroys its identity

3.4 Roof Form & Shapes

Objective:

- To retain characteristic scale and massing of roof forms within Conservation Areas and on heritage items when designing alterations and additions.

General Requirements:

a. Roofs of extensions should be carefully designed so that they relate to the existing roof in pitch, eaves and ridge height.

b. Additional rooms can be added to heritage buildings appropriately where roof forms have been carefully integrated into the existing.

c. If it is important that the roof form remains unaltered, additional rooms can be added in a detached pavilion form placed at the rear or possibly the side. Roof pitch, ridge height, height of parapet and eaves on additions should relate to those of the original building.

d. Providing the roof space is large enough, attic rooms should be contained in roof forms for non- – habitable uses such as a study or a library. The volume required for habitable uses such as bedrooms may mean unacceptable alteration to roof form.

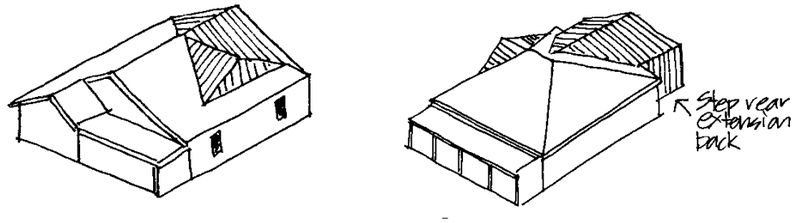
e. New roof elements such as dormer windows and skylights should not be located where they are visually prominent.

f. Chimneys should be retained.

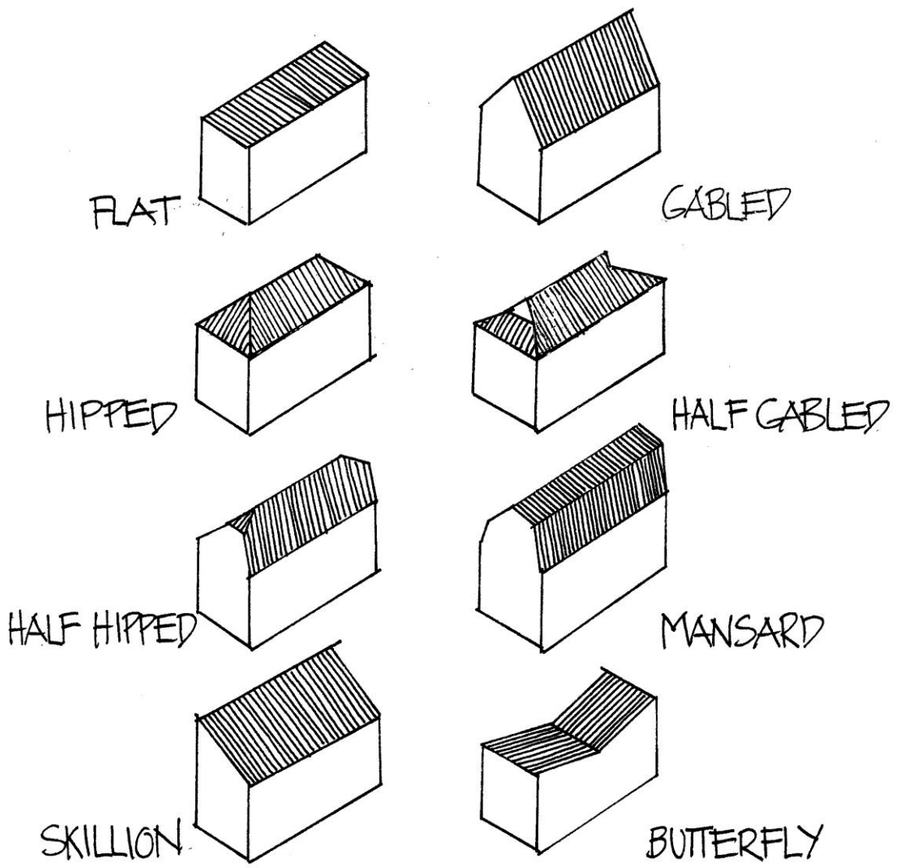
g. Service utilities such as water heaters, air conditioning units, antennae, satellite dishes must not be located on the principle elevations of buildings.

h. Use of roof materials should be the same as materials on the existing heritage building and those typically used in the Conservation Area.

The addition of this dormer window (top left) does not detract from the main elevation



Contain attic rooms in existing roof lines by extending roof lines and continuing in the same scale and arrangement of parts



Different Roof Forms

NOTED

NO FURTHER COMMENT

3.5 Materials & Colours

Objective:

- To ensure that materials and colours used in alterations and additions respect the significance and character of the existing building and surrounding area.

General Requirements:

3.5.1 General:

a. Traditional combinations of materials used in heritage buildings should be considered when designing additions.

b. It may not be appropriate or necessary to replicate the original combination of materials used in the original work. The use of a complementary material might make the increase in scale less noticeable and also enhance later understanding of the changes. For instance, timber weatherboard extensions to brick houses was a common practice which is still appropriate today, as was the use of corrugated iron roofs at the rear of houses behind main roofs constructed with tile or slate.

c. The use of highly reflective materials should be avoided.

3.5.2 Doors and Windows:

a. Timber windows should be retained in existing buildings. New doors and windows should be of materials characteristic to the existing building, locality or an approved alternative.

3.5.2 Roofing:

a. Original roof material should be matched in any addition in material and colour. If, however original roofing is expensive such as slate, corrugated iron is a suitable alternative to the rear.

b. Traditional stepped flashings, roof vents, gutter moulds, and rainwater heads should be used.

3.5.4 Brickwork:

a. New face brickwork should match the existing brick in colour and texture, and type of jointing and mortar colour.

b. Existing face brick or stone on heritage items or heritage buildings in a Conservation Area should remain unpainted and unrendered.

3.5.5 Imitation Cladding:

a. Timber board imitations are not acceptable for additions to heritage items or work visible from the street in Conservation Areas.

3.5.6 Colour Schemes

a. Additions should employ colour schemes which do not detract from traditional colour schemes in the area. A number of good reference books on traditional colour schemes are available.
b. Colour schemes suitable to the period of the building should be used.
c. Unpainted brick or stone should remain unpainted.

3.5.7 Paving & Driveways:

a. Preferred materials for driveways include wheel strips and gravel. Plain or stamped concrete should be avoided.
b. Paired wheel strips over public footway areas are preferable to solid driveways.

An example of paired driveway strips

Solid driveways over grass public footways detract from the character of a street's informal edges and the setting of houses

3.6 Design of New Detail and Opening

Objective:

- To ensure that the character and pattern of new door and window openings in alterations or additions is compatible with the appearance of the original buildings and the area as a whole.

General Requirements:

a. Alterations should avoid arbitrary changes to openings or other features which do not fit in with the symmetry or character of the original design.

b. If the street front of the original building is symmetrical, the addition should avoid simply extending the original design across the addition.

c. New detail and openings should be simple in character using colour and materials which complements the original fabric.

3.7 Evidence for Authentic Reconstruction

Objectives:

- To ensure that reconstruction reveals the known significance of the place (i.e. from physical and/or documentary evidence).
- The building itself may offer clues as to items previously removed such as evidence of handrails in posts, or marks in the footpath where verandah posts were removed.
- As stated in the Burra Charter, 'Reconstruction is limited to the completion of a depleted entity and should not constitute the majority of the fabric of the place'.

General Requirements:

a. The reinstatement of a lost feature should faithfully replicate or copy the original in design, materials, arrangement and position.

b. Reconstruction should be identifiable as new work without at the same time making it intrusive.

The original verandah balustrade and frieze of this building (left) had been removed, however, the owners are now carefully reinstating these features based on the original design

3.8 Removal of Unsympathetic alterations and Additions

Objectives:

- To ensure that contributions of all periods to a place are respected.
- To ensure that removal of any fabric only occurs when it is of slight significance, and the fabric which is to be revealed is of much greater significance.

General Requirement:

a. Additions which are obviously out of character with the original design may be removed, whereas it may be preferable to retain well integrated additions or substantial alterations to the existing building.

This verandah brick wall could be removed and timber posts reinstated to return the cottage to its original design and improve its appearance

3.9 Services & New Technologies

Objective:

- To minimise any obtrusive effect of new building services and technical equipment in Conservation Areas and on heritage items.

General Requirements:

a. Exhaust vents, skylights, air conditioning ducts and units, solar panels, TV antennae and satellite dishes should not be visible on the main elevation of the building or attached to chimneys where they will be obvious.

b. In heritage areas they should be hidden from view as much as possible.

c. Essential changes to cater for electrical wiring, plumbing or other services should be limited to what is essential to permit the new use to proceed.

3.10 Landscaping

Objectives:

- To maintain the rhythm of gardens, open spaces and tree planting in a heritage streetscape;
- To ensure that planting does not compromise important views into or out of conservation areas;
- To maintain the landscape character of the locality in any new development;

General Requirements:

a. When designing new gardens, reference should be made to surviving plants which indicate the basic garden structure, and can be worked into new designs.

b. When selecting suitable trees, the following should be considered: the varieties that already exist in the area; the size of the tree when mature; the potential of the chosen species to interfere with services, retaining walls and other structures.

c. Many heritage garden reference books are available to explain typical settings for houses of different styles and periods.

d. Hard surfaces should be kept to a minimum.

e. Screening of hard surfaced areas is encouraged.

f. Garden structures should be appropriate to main buildings in terms of scale, style and materials.

g. Original surfaces such as close jointed brick paving or stone flagging common to Victorian and Federation sites, and pebble aggregate, quarry tile or mosaic tile aprons common to later Californian Bungalow styles should be retained.

Many beautiful mature trees in Maitland are historically important landmarks and add much to the character of the area.

The hedge in front of this Victorian cottage complements its period style.

11. Fences

Objective:

- To retain original existing fencing and provide for new fencing that is consistent with established patterns.

Original fences such as the one of this Victorian Cottage are rare and should be retained

Solid high front fences detract from the value and streetscape character

General Requirements:

a. Original fences should be retained.

b. Fences should be located on the building line.

c. Fences should be simple with a level of detail comparable with the house.

d. Fencing should generally be open or transparent, or backed with a hedge, not solid.

e. Fences should be of a scale comparable with the street.

f. Front fences should be of materials characteristic to the surrounding area, particular to the street and suitable to the era of the house. Examples include timber picket, low masonry and hedges.

g. Plain or colour treated metal fences are not considered to be appropriate for Conservation Areas or Heritage Items on any street frontage or side boundary.

The colourbond fence used along the side boundary of this house detracts from the character of the building and street

12. Garages, Carports & Sheds

Objective:

- To ensure that garages, carports and sheds do not detract from the character of the area and/or heritage item due to inappropriate location, design and materials.

General Requirements:

a. Garages and carports should preferably be detached and located at the rear or set well back at the side of a building behind the rear building line.

b. Garages should be set back a minimum of 500mm from the side and the rear boundary.

c. Garages and carports should make reference to any established historic patterns in the street.

d. The use of landscaping such as screening or planting and front fences may be useful tools in integrating the structure with its site.

e. If connected to the main dwelling, garages should be positioned well behind the principle building line (ie 5m) or be positioned behind the dwelling.

f. Colours and materials should blend into the surrounding landscape. Custom orb iron roof profile and timber board profile cladding wall are common materials used.

g. Garages should have simple hipped, gable or skillion roofs depending on the design of the existing main building.

h. Gable or hipped roof with skillion roofed attachment is the most appropriate double garage roof form.

i. Existing outbuildings should be maintained and reused wherever possible.

j. Simple open light construction carports are preferable to solid heavily detailed buildings.

k. Tennis courts should not be sited so as to intrude on the setting of the main building. They will almost always be best located to the rear of the main building.

l. The pitch of a garage or carport roof should, in most cases, be comparable or slightly lower than that of the main building – generally 25° – 30°.

NOTED

NO FURTHER COMMENT

Shopfronts

New shopfronts in the historic High Street Glebe Trustees buildings were reinstated based on historical photographs.

Deep timber mouldings characterise early shopfronts and are encouraged for new shopfronts where the original has been

Objectives:

- To retain shopfronts which contribute to the heritage significance of the building and surrounding area.
- To ensure that new shopfronts complement the significance and character of the existing building and surrounding area.

General Requirements:

a. Original shopfronts should be retained.
b. Where the original shopfront has been removed and replaced by an unsympathetic alteration, the reinstatement of earlier styles of shopfront in harmony with the overall building character is desirable.

The restored shopfront to this shop in High Street attracts public attention and gives a feeling of quality to the shop

1. Accessibility

Objectives:

- Providing access to a building for people with disabilities is required under the Disability Discrimination Act 1992. Heritage places are no exception, however there is also a need to conserve these places and not alter them in a way which will impact on their heritage significance. Historic buildings will generally require solutions specific to that site, however there are a number of principles which, if applied can assist in developing effective solutions.

- A thorough approach to improving access to heritage buildings includes the following steps:
    - Identify the heritage value or significance of the place, specifically those parts which have the greatest significance. This can be determined through developing a Conservation Plan, obtaining details on the property from Council, the Heritage NSW or the National Trust of NSW, or seeking advice from a conservation professional.
    - Undertake an access audit to determine existing and required levels of accessibility.
- Modifications should generally incorporate the following:
    - Making the main or principal public entrance and public spaces accessible including a path to the entrance.
    - Providing accessible toilets.
    - Providing access to goods, services and programs.
    - Creating access to other amenities and secondary spaces.
- Solutions should:
    - Be sympathetic and, where possible, reversible.
    - New work should be evident on close inspection.
    - In considering what is sympathetic, matters such as general form, materials, finish, compatibility with architectural details of the original design are guiding principles.
    - Comply with Australian Standards – particularly AS 1428.1.

General Requirements:

1.1 Access to the Principal Entry:

a. The principal entry needs to be defined; it may not always be the 'front door', but the entry which most people will use.
b. It can be acceptable to develop a second 'dignified' entry which may be more convenient for some people while maintaining the building's significance.
c. Entries should be located to minimise loss of original elements such as railing, steps and windows.
d. The parking area or public drop off point should be conveniently located to the principal entry.

e. Access paths should have a firm surface. Concrete is best, but well compacted gravel, cement stabilized or consolidated gravel or dirt are also suitable.

1.2 Ramps

There is often a level difference between the path and the main floor level. The solutions to these differences are many and might include:

a. Temporary or permanent ramps.
b. Levels of footpath can be raised in some circumstances (requiring council approval).
c. Shifting steps out from the face of the building and incorporating a ramp behind them.
d. Locating a ramp in a location of low heritage significance.
e. Lifting devices.

1.3 Doors

a. Entry doors should have handles at less than 1100m.
b. A clear width of at least 800mm is necessary. If doors are not wide enough, it might be possible to increase effective opening size by joining two leaves together or using offset hinges.

4. General Requirements for New Buildings in Historic Areas

This new building is contemporary (centre of photograph) in design, but relates to its neighbours, roofline and proportions.

Architectural replicas or mock reproductions can confuse the old with the new, detracting from original buildings in a Conservation Area.

4.1 Siting a New Building

Objective:

- To ensure that siting of new buildings respect the significance and character of the surrounding area.

General Requirements:

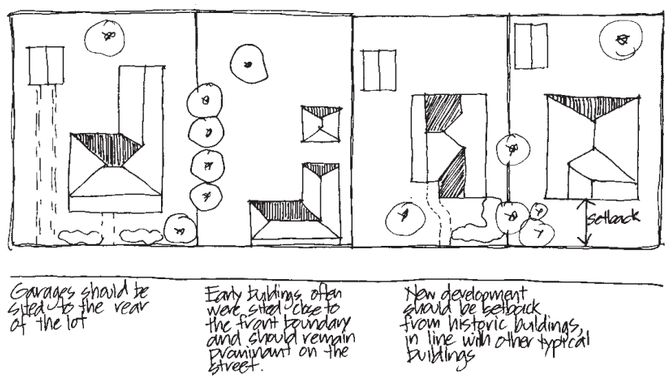
a. New development should have regard to the established patterns of the locality with regard to the typical location and orientation of buildings on an allotment.

b. The siting of a new residential building allowing for a generously sized front garden will usually assist in its successful integration.

c. New development should be sited behind the building line of any adjoining heritage item.

This new building was set back from adjoining historic buildings to reduce its visual impact on the street

Assessment	
The front set back proposed to the front building line is compatible with the surrounding development. The front set back is consistent with 43 and 58 Catherine Street. The development on the comprises of one driveway access point so that the landscape area forward of the front building line can be utilised as a landscaped area. The subject site is not directly adjacent to an adjoining heritage item.	YES



4.2 Scale

Objectives:

- To ensure the scale of the new building respects the significance and character of the surrounding area and does not detrimentally impact upon an established pattern of development in the vicinity.
- To ascertain the appropriate scale of new buildings, the following design aspects are of particular importance;
    - Reference to the main ridge line heights of original surrounding buildings;
    - Natural ground or street levels;
    - Ensuring different parts of the building are in scale with the whole;
    - Ensuring the scale of verandahs relate to the scale of those in adjacent buildings.

General Requirements:

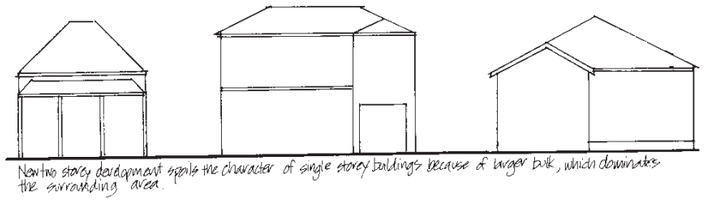
a. The scale of a new house should be related to the size of the allotments laid out in the historical subdivision pattern of the area. This does not apply to consolidated lots. New buildings should be in scale of surrounding dwellings. Large houses on small allotments will tend to look awkward and dominate the surrounding area.

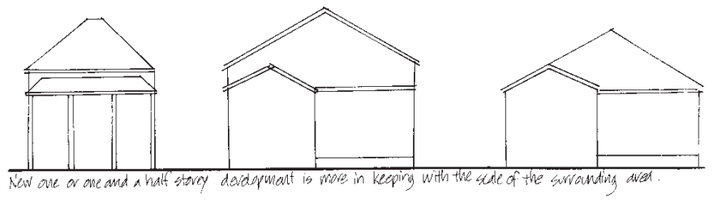
b. Large houses may be better located on large allotments in less sensitive areas.

c. New houses should generally remain at single storey in areas where the majority of buildings are single storey.

d. Landmark buildings in Conservation Areas which may be heritage items, mansions or public buildings will generally be surrounded by single story buildings, or those of a lesser scale. These landmark buildings should not be used as a precedent for increasing the scale of new buildings. New buildings should relate to the scale of existing development around the landmark and respect its prominence.

Assessment	
The development is sized appropriately to achieve a three bedroom dwelling with an open plan living area on the 1st floor. The scale of the development cannot be reduced due to the flood constraints. Nevertheless, the build form is broken into two separate buildings that have appropriate building separation between each dwelling and conforms to the applicable setback controls to ensure that the development does not look oversized or incompatible with the surrounding environment. A single storey built form has not been proposed due to the flood controls that apply.	YES





4.3 Proportions

Objective:

- To ensure that the proportions of the new building respect the significance and character of the surrounding area.

Requirements:

a. Openings in visible frontages should retain a similar ratio of solid to void as to that established by the original older buildings.

b. New buildings should incorporate the typical proportions of surrounding development, even when using modern materials.

c. New buildings should establish a neighbourly connection with nearby buildings by way of reference to important design elements such as verandahs, chimneys or patterns of openings.

4.4 Setbacks

Objective:

- To ensure the setback of the new building respects the significance and character of the surrounding area.

Requirements:

a. Where there is a uniform historically based setback, it is generally advisable to maintain this setback in a new building. Where the new building will be obtrusive it should be set well back and heavily screened.

Assessment	
There is no uniform front set back pattern due to the subject site and the adjoining lots being vacant. The only two dwellings located on the western side of Catherine St is 56 and 58 which have vastly different front setbacks from each other. The proposed development will be used to set a precedence for front setbacks from the front boundary for future development along the street.	YES

b. If the setback varies, the new building should not be set closer to the street than an adjoining historic building (even if it is not an identified heritage item).

c. Setback from side boundaries should be consistent with typical buildings in the immediate vicinity.

4.5 Form & Massing

Objective:

- To ensure the form and massing of new buildings respect the significance and character of the surrounding area.

General Requirements:

a. New buildings should be designed in sympathy with the predominant form and massing characteristics of the area.
b. Houses generally had ridges of the same height. It is therefore important in new buildings to ensure that the width of wings can maintain a consistent ridge and roof height.

4.6 Landscaping

Objective:

- To ensure new landscaping respects the significant characteristics and elements of the surrounding area.

General Requirements:

a. Generous green landscaped areas should be provided in the front of new residential buildings wherever possible. This will almost always assist in maintaining the character of the streets and Conservation Areas.

b. New landscaping should not interfere with the appreciation of significant building aspects such as shopfronts or contributory building facades.

c. Important contributory landscape characteristics such as canopy cover or boundary plantings should be retained in new development.

4.7 Detailing

Objective:

- To ensure that detailing on new buildings respects but does not imitate original detailing on older surrounding buildings.

Assessment	
The minimum width of the side setback is 2100 millimetres at its most narrowest point which is generous and compatible to the surrounding environment.	YES

General Requirements:

a. Avoid fake or synthetic materials and detailing. These tend to give an impression of superficial historic detail.

b. Avoid slavishly following past styles in new development. Simple, sympathetic but contemporary detailing is more appropriate. Original materials and details on older buildings need not be copied, but can be used as a reference point.

4.8 Building Elements & Materials

Objective:

- To ensure that the use of materials and colours of the new building respect the significance and character of the surrounding area.

General Requirements:

4.8.1. Doors and windows

a. New doors and windows should proportionally relate to typical openings in the locality.

b. Simply detailed four panel doors or those with recessed panels are generally appropriate.

c. Mock panelling, applied mouldings and bright varnished finishes should be avoided.

d. Older houses have windows which are of vertical orientation and this approach should be used in new buildings.

e. Standard windows often come in modules of 900mm wide. Their use should be limited to single or double format only. The most suitable windows are generally double hung, casement, awning or fixed type.

f. If a large area of glass is required, vertical mullions should be used to suggest vertical orientation. A large window could also be set out from the wall to form a simple square bay window making it a contributory design element rather than a void.

g. Coloured glazing, imitation glazing bars and arched tops are not encouraged.

4.8.2 Roofs

a. Corrugated galvanized iron (or zincalume finish) is the most appropriate roofing material for new buildings in historic areas. It is also economical and durable. Pre finished iron in grey or other shades in some circumstances may also be suitable.

b. Tiles may be appropriate in areas with buildings dating to the 1900's - 1930's.

Assessment	
The window sizes and doors proposed particularly on the facade facing the primary road and the laneway are proportional to the scale of the development.	YES
The width of the windows are not wider than 900 millimetres and are provided in single and double formats.	
A corrugated colorbond: roof is proposed.	

Unglazed terracotta tiles are the most appropriate. The colour and glazing of many terra cotta tiles make them inappropriate.

c. Other materials to avoid include modern profile steel deck.

d. Ogee profile guttering is preferable to modern quad profile. Plastic downpipes should be avoided in prominent positions.

4.8.3 Paving

a. Preferred materials for driveways include wheel strips and gravel.

b. It is important that the amount of hard driveway material does not dominate the front garden area.

4.8.4 Walls

a. Imitation Cladding
Cladding materials which set out to imitate materials such as brick, stone, and weatherboard should be avoided as they tend to detract from the authentic character of the surrounding original buildings.

b. Weatherboard
150mm weatherboards are generally appropriate for historic areas. They should be square edged profile unless the surrounding buildings are post 1920's.

c. Brick
   i. Plain, non-mottled bricks are preferable with naturally coloured mortar struck flush with the brickwork, not deeply raked.
   ii. Bricks of mixed colours (mottled) should be avoided, as should textured 'sandstock' bricks.

Cladding materials which set out to imitate cladding such as brick stone and weatherboard should be avoided in Conservation Areas

Assessment	
Wheel strips are proposed.	
The development proposes a combination of face brick and weatherboard cladding which is consistent with the historic areas and development in the surrounding context.	YES

5. General Requirements for New Commercial Buildings in Historic Areas

In addition to the above, new development in commercial precincts within Conservation Areas, or that adjacent to a Heritage Item should take into account the following issues.

General Requirements:

1. Building Heights and Setbacks

   The height of buildings should reinforce the desired scale and character of the area. Maximum building heights have been set out in Part E.3, 'Heritage Conservation Areas'.

2. Services

   Service structures, and plant and equipment within a site should be an integral part of the development and should be suitably screened buildings and should not be built out.

3. On – Site Loading and Unloading

   Facilities for the loading and unloading of service vehicles should be suitably screened from public view.

4. Design of Car Parking areas

   Car parking areas should be located and designed to:

   a. provide landscaping where practicable to shade parked vehicles and screen them from public view.
   b. provide for access off minor streets, and for the screening from public view of such car parking areas from surrounding public spaces and areas.

5. Car Park Structures Should:

   a. incorporate a façade designed to complement adjoining buildings in an urban context.
   b. be setback from the street frontage and out of view if possible.

6. Roof Form, Parapet and Silhouettes

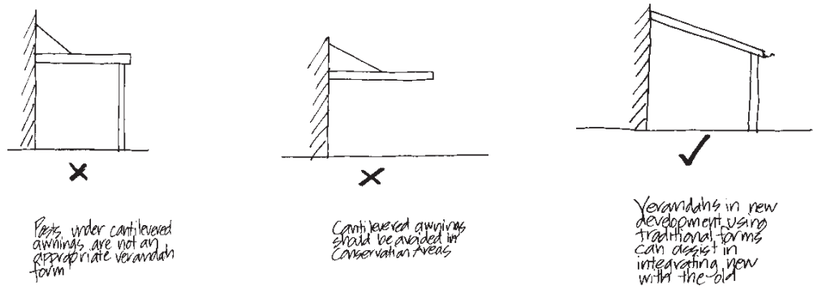
   a. In Commercial areas, it is the consistency of parapets which make a significant contribution to the architectural character of an area.
   b. Where the prevailing pattern of roof forms assists in establishing the character of a townscape, new roof forms should seek to be compatible with

the shape, pitch, and materials of adjacent buildings.

c. Parapet heights and articulation should be compatible with earlier surrounding buildings.

d. Lightweight materials such as ribbed coloured metals should not be used on vertical wall or parapet surfaces.

e. New verandahs should be based on design principles of traditional verandahs with sloping roofs galvanised iron and regularly spaced columns.



6. New Development in the Vicinity of Heritage Items

In addition to the matters raised previously, the following principles should be given particular attention when considering new development in the vicinity of heritage items.

Objective:

- To ensure that new buildings provide a setting for the adjoining heritage item so that its historical context and heritage significance are maintained.

General Requirements:

a. Development in the vicinity of listed heritage items should respect and complement the built form character of those items in terms of scale, setback, siting, external materials, finishes and colour.

b. New development should have regard to the established siting patterns of the locality.

c. New development should generally be set back from the building line of the adjoining or adjacent heritage item.

d. The sensitive selection of materials, colours and finishes is important in terms of achieving compatibility with the heritage items.

e. Height and scale of new buildings should not obscure or dominate an adjoining or adjacent heritage item.

f. Development in the vicinity of a heritage item may be contemporary in design.

7. Signage

Objective:

- To ensure that signage respects and enhances the amenity of the area.

General Requirements:

1. New Signage

   a. The scale, type, design, location, materials, colour, style and illumination of any sign should be compatible with the design and character of the buildings and should not intrude on the visual qualities of the townscape.

   b. The architectural characteristics of the building should always dominate.

2. Above Awning Signs should:

   a. Be simple in design and avoid a proliferation of advertising which can be confusing and detract from the building and conservation area.

   b. Be located flush with the wall surface.

   c. Not be fluorescent or internally illuminated.

   d. Signs adjacent to heritage items or older buildings in Conservation Areas should be designed and located sympathetically.

Signage should be located within architectural elements of the building using appropriate lettering style, size and colouring.

Original signage has important cultural value and should be retained.

3. Original Signs

   a. Early signage has cultural value and should be retained.

4. Colour

   a. Colours should be sympathetic to the surrounding area and be related to the colours of the building.

   b. The use of entire glazed shopfronts for temporary notices is not considered appropriate, nor is the use of temporary fluorescent signwriting.

   c. The use of bright corporate colours and sign designs which are not related to the architecture or character of the area and building are not considered appropriate.

5. Lettering Styles

   a. Traditional styles of lettering can be interpreted for modern buildings such as the use of raised lettering or traditional styles such as Clarendon, Ionic, Tuscan, Modern and Fat.

Traditional styles of lettering can be used effectively

8. Subdivision of Land

Objectives:

- To ensure that the subdivision of land respects the heritage significance of the item or the conservation area.
- To ensure that the subdivision layout has regard to the heritage significance of the item or the conservation area in relation to the siting and design of the proposed built forms.

General Requirements:

a. The proposal should not substantially alter the density of development such that the character and heritage significance of the heritage item or Conservation Area is adversely affected.

b. The allotment and building spacing, i.e. frontage widths, side and front boundary setbacks, should be typical of surrounding development such that:

Assessment	
Strata subdivision is proposed so that the developments is consistent with the heritage conservation area. The benefit of strata subdivision being proposed is that both property owners will have the shared responsibility in maintaining the landscaping proposed for the site. The subdivision pattern of the parent lot will also be consistent with the surrounding area not resulting further fragmentation where the dwelling design of each building will change over time, further conserving the area.	YES

i. the rhythm of buildings in the Conservation Area is maintained;

ii. so vistas and views to and of any heritage items in the vicinity, especially the principal elevations of buildings, are not interrupted or obscured;

iii. so the landscape quality of the Conservation Area streetscape is retained;

iv. so the setting of the heritage item and a satisfactory curtilage, including important garden and landscape elements, is retained.

c. The scale and form of proposed new development should not detract from the significant and dominant heritage elements of the item or the Conservation Area's streetscape.

d. The details of required works and services, such as design and materials for kerbing and guttering, access crossings and the like should be consistent with original elements of the item or Conservation Area.

9. General Conservation Guidelines

The following guidelines apply to projects which involve work to conserve an existing historic building or place. Historic places may range from listed heritage items to buildings in a Conservation Area.

1.1 Getting Started

Research

A key principle in heritage conservation is the need to understand the heritage importance or significance of a place before making decisions about how to manage it. A major part of understanding what makes a place special is to understand its history; why it was built, how it was used and how it has changed.

Documentary research can reveal useful information including old photographs and early records such as title deeds to indicate successive owners.

Other types of documentary research might involve searching collections of libraries, sourcing maps and plans, photographic and picture collections or books and articles.

This information can be found at the Lands Titles Office, libraries – including Maitland Library and the Mitchell Library in Sydney, Local Council records, local museums and possibly galleries. Former owners of the building may also be of assistance.

Establishing the construction date of early buildings is difficult, as there is often little

documentary evidence. It is usually necessary, therefore, to rely on observation of the building style, and research of land titles in the Land Titles Office which provide a sequence of owner names and dealings.

Getting to Know the Building

A close examination of the *fabric* will usually be very important. The '*fabric*' of a building or place refers to the physical material of which it is comprised.

Careful inspection can reveal evidence of original detailing. Painting might reveal the shape of a former iron roof over a verandah, nail holes on verandah posts might show the former location of brackets.

Systematic inspection of the *fabric*, informed by a knowledge of the history of the place, will help to understand its significance. A conservation specialist may be required to evaluate whether the building is significant and to identify the most significant elements.

Looking at other similar buildings in the locality can also indicate how missing parts of a building may have appeared, or how things were done.

When you have determined what is significant about a place, this information should help to guide maintenance, repair and conservation work. Wherever possible, original features, materials and finishes should be retained.

Sound Advice

It is advisable, and often necessary to obtain professional advice from experienced people such as heritage architects when working on a major project.

Where there is considerable expenditure involved, it is important not to rely on guesswork which may lead to problems later on.

The NSW Heritage Office maintains a list of Consultants who specialise in heritage work which can be obtained from Council.

Council also has a free Heritage Advisory service to assist you with preliminary advice on your project.

Keeping Records

When working on conserving or altering a place, it is important to make careful records of the state of the place before it is changed.

This will provide an accurate reference to how the repaired or new material should be constructed and/or appear. It will also provide good reference material for people who will look after the place in the future.

1.2 Conservation Processes

Work on an historic building or place can involve a variety of Conservation processes as defined by the Burra Charter.

The Burra Charter establishes the nationally accepted standard for the conservation of places of cultural significance. The Charter advocates a cautionary approach to changing a place, doing as much work as necessary to repair, secure and to make it function, but as little as possible – so the history of the place can continue to be recognised in its physical presence.

The following are Burra Charter definitions of common conservation processes:

Restoration **-** means returning the existing fabric of a place to a known earlier state by removing, adding on or re-assembling existing components without the introduction of new material.

Reconstruction - involves introducing material to replace missing elements returning a place as nearly as possible to a known earlier state. Complete rebuilding on the same or another site is unacceptable except as an absolute last resort.

Adaptation - means modifying a place to suit the existing use or proposed compatible uses. A compatible use means a use which involves no change to the culturally significant fabric, or changes which require minimal impact.

Adaptation is acceptable where the conservation of the place cannot otherwise be achieved, and where the adaptation does not substantially detract from its cultural significance.

Preservation - means maintaining the fabric of a place in its existing state and preventing deterioration.

Maintenance - means the continuous protective care of the fabric and the setting of a place, and is to be distinguished from repair. Repair involves restoration or reconstruction.

Relocation - a building or work should remain in its historical location. Moving a part or all of a building is unacceptable unless this is the sole means of ensuring its survival.

Changes which remove building fabric or introduce new fabric should as far as possible be reversible in order that the earlier appearance may be recovered at a later date.

The verandahs on the Glebe Trust Building in High Street, Maitland were reconstructed using early photographs and plans of the original building

1.3 Maintaining Old Buildings

Old buildings benefit from routine maintenance. It should be remembered, however that old buildings have unique characteristics, and it is generally undesirable and sometimes very damaging to try and reverse the effects of age on materials.

While some maintenance can be undertaken by property owners, some types of work such as addressing damp problems or the repointing of masonry requires the expertise of tradespeople experienced in conservation work.

Maintenance is one of the most important parts of conservation work. Regular maintenance should be a regular part of any property management. This means that problems such as water penetration, termite infestation or vandalism do not get out of hand requiring substantial costs to repair.

Regular maintenance is one of the most important parts of conservation

Repairing and Maintaining Roofs

- Roofs may contain a number of different elements including sheeting or covering chimneys, cappings, roof vents, eaves, pediments, guttering, barge boards and fascia boards.

- Original roof material should be repaired rather than replaced wherever possible. However if it is necessary to replace it, materials should generally match in size, shape, colour and texture.

- Original chimneys, original cornices, eaves details, brackets and pediments should be preserved as an important part of the composition of older buildings.

- When repairing or replacing corrugated iron roofing, small details should be retained or matched to the original. Such details include cutting of ridge and hip cappings to match the iron flutes which also make the roof more weatherproof.

- Traditional stepped flashings, roof vents, gutter moulds, and rainwater heads should be preserved and restored wherever possible during re- roofing.

- Appropriate profiles for new guttering are important, such as ogee, half- round or quad styles.

- Round downpipes common until the early twentieth century should be used where appropriate.

- The retention of existing slate roofs will generally be required as this roof type is now rare in the area and complete replacement is likely to be very expensive. The repair of slate roofs will often require skilled tradespeople.

When re-roofing a building, it is important to match or keep original detailing

Repairing and Maintaining Rendered Walls

Render or stucco was often applied to external walls to protect them from the elements. This type of surface should not be removed, as softer porous bricks underneath the render will quickly deteriorate without their protective barrier.

External render was usually lime based, and was therefore absorbent. Modern strong cement renders, however can cause dramatic decay. Once in the wall, moisture becomes trapped and underlying soft brick and stone can severely breakdown.

Cracked or damaged traditional render should be repaired with a similar compatible render, not cemented and painted over.

Cement render and its attempted removal can cause major damage to brickwork

Repairing and Maintaining Face Brick or Stonework

Face brick or stone should not be painted over. Buildings with this treatment were designed specifically, often using brick patterns, or tuck-pointing.

Paint systems also tend to prevent the evaporation of moisture from the surface. Unless moisture can evaporate from the inside of the wall surface, the moisture content of the wall will increase.

In hot weather moisture behind the paint film will increase, and cause blistering. As the surface layer of paint begins to break down, further water penetration can lead to increased dampness.

A fine example of a Victorian Italianate brick building with face brick and rendered detail on Church Street, Maitland

External Cleaning and Paint Removal

Cleaning paint from stone or brick should not be undertaken without expert advice.

Sandblasting or abrasive cleaning of masonry may remove the outer masonry surface and increase deterioration of the exposed surface.

This can ruin the appearance and de-value the building. Other less severe methods of cleaning are required.

Waterproof Stone and Brick Coatings

The application of waterproof coatings or varnishes should be avoided as they can accelerate the deterioration of the masonry by trapping moisture. Damage can occur when water cannot escape and layers of salt build up below the surface.

Often the best solution for water penetration is repointing.

Mortar and Repointing

Repointing of masonry is often a key part of conservation work. It is very important to ensure that repointing is carried out properly using appropriate materials and techniques.

Mortar was originally intended to encourage the evaporation of moisture from the joints rather than the masonry units. A soft lime mortar with a rough texture and lower strength than the surrounding masonry should be used for pointing work.

Grey cement should not be used in buildings where lime mortars are present. This is particularly important in old buildings where no damp proof course exists

Grey Portland cement is invariably stronger and of a different absorbency level from the brick or stonework. This causes evaporation to occur in the stone or brick more easily than the replaced mortar joint. Deterioration and cracking of masonry may therefore occur quickly after repointing in hard cement.

Rising and Falling Damp

Some masonry buildings suffer from rising and/or falling damp. It can cause crumbling of exterior masonry, staining of internal finishes, and cause musty smells in poorly ventilated rooms.

Rising damp can have a number of simple or complex causes. Gutters and drains or sprinklers may be soaking and pooling on ground near a wall, concrete floors might be forcing water up a wall.

Before deciding how to fix the problem a number of alternatives may be suitable including improved sub – floor ventilation, eliminating the water source and improving site drainage, or as a last resort inserting a damp proof course for severe cases.

Specialist advice is recommended to avoid large financial outlays which may not fix the problem.

Rising damp and salt attack can lead to serious deterioration of masonry

1.4 Conserving Building Elements

Getting the details right

When a building is designed, there is generally a consistent approach to details such as window frames, sills, skirting boards, verandah posts and brackets. These existing original features should be retained and maintained.

New work or repair of the existing details should be in keeping with the original design. The imitation of something from another place such as introducing aluminium lace or shutters is not appropriate as it can detract from the appearance and authenticity of the property.

Missing components such as verandah brackets, fences, and chimneys should be copied carefully and reinstated in their original style.

Internal details such as door and window handles were often special decorative features of a house, and should be retained. Reproduction details can be expensive, so it is preferable to use originals where possible.

The retention and repair of original building elements and details such as verandah posts, fencing, windows and doors is an important part of maintaining the significance of the building and character of an area or street

Doors and Windows

Original external building features such as timber windows and doors should be retained in their original configuration and dimensions.

Timber was generally painted externally, not varnished. Priming undercoat and top coat provides the optimum protection against weathering.

Original window details should be retained

Shopfronts

Early photos of Maitland's buildings show a wealth of variety and richness in its early shopfront details. They are characterised by deep timber mouldings and colour.

Original examples which remain today have value and should be preserved. Later shopfronts while not original to the building may also contribute positively to the streetscape and should also be preserved.

Original shop fronts add variety and richness to the streetscape and should be preserved

Early shop fronts are characterized by deep timber moldings and the use of colour

Internal Alterations

The removal of internal walls is generally not recommended as this can impact on the structural stability of the building in addition to its integrity and character.

The majority of walls in older buildings are load bearing. The structural stability of the outer shell is dependent on the internal existence of walls, stairways and chimneys. It is therefore important to avoid:

- radical intervention in the interiors of older buildings;
- Subdivision of rooms.

Original details such as panelling, ceilings, skirtings, architraves or remaining door and window furniture, should be retained.

Where fire safety upgrading of buildings is required this should be achieved in as sensitive way as possible. The NSW Heritage Office has published a manual titled "Heritage on Fire" which provides practical solutions to fire safety issues.

Lath and Plaster

Where lath and plaster remains in listed heritage items, the comprehensive replacement of walls and ceilings should be avoided. It is possible to re-adhere lath and plaster finishes where plaster is cracked or drummy.

Specialists in this field are available to provide advice and expertise.

Timber

Keeping timber dry is very important to reduce the risk of wood deterioration as a result of fungal rot, attack by borers and termites, and swelling and shrinkage cracking.

It is essential, therefore, that roof drainage, guttering and stormwater drains are operating properly, and that surface water is drained away from walls.

Coatings such as paints, varnishes, waxes and oils are the principle means of controlling swelling as well as protecting and enhancing timbers.

Wooden items need regular maintenance and should be inspected every six months. Subfloor spaces should be inspected for signs of rot and termites, and roof spaces for evidence of leaks which may lead to fungal growth.

Timber Repair

Sometimes wood is so badly deteriorated that it needs to be replaced. It is good conservation practice to replace the minimum necessary, and to use the skills of a carpenter or joiner.

The aim should be to reconstruct the original form of the damaged section so that the repair does not detract from the appearance of the original work.

Wooden items need regular maintenance and should be inspected every six months

Landscaping and Fencing

Early plantings are important elements of a Conservation Area or heritage item.

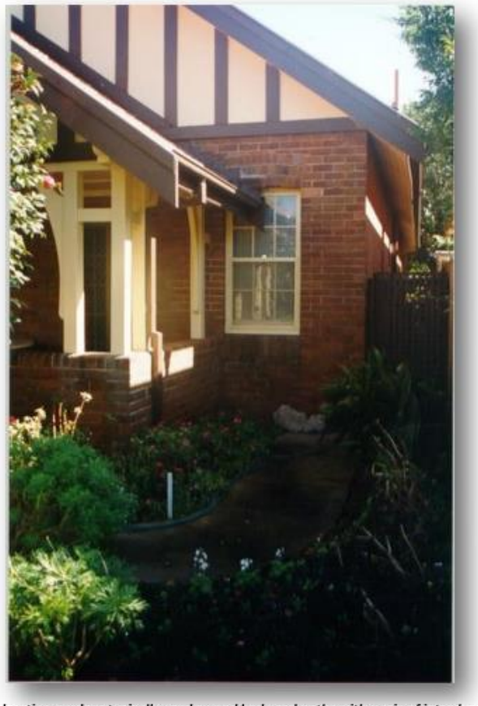
They can often be landmarks and contribute to the setting of a building. The maintenance or restoration of gardens can add to the authentic conservation of a building.

Original fences also contribute to the significance of a building or area and should be retained and maintained. These may be very modest in scale but everyday fences play an important role in establishing and maintaining the heritage significance of an area.

Gardens have changed in fashion, like buildings over time. Gardens in Victorian times were influenced by English designs which used introduced plantings in symmetrical patterns. Later Federation gardens in the 1900's used curved beds and paths combined with a mix of introduced and native plants.

A number of reference books are available on Australian styles of landscaping (see Appendix 6, Heritage References).

The planting of certain tree species near the footings of load bearing buildings should be avoided as they can lead to the drying out of subsoils and may result in the structural failure of the building. When gardens are placed too close to buildings, problems may also occur due to changed moisture or ventilation conditions.



Federation gardens typically used curved beds and paths with a mix of introduced and native plants

This original fence contributes to the character of the building and surrounding area

This palisade fence in Morpeth is notable as a landmark

Some fences may be modest, but everyday fences contribute significantly to the character of the building and the area

Colour Schemes

Repainting of buildings should occur as part of general maintenance. Colour schemes which are in keeping with the period of the building will enhance its character and the surrounding area.

Painting in a colour scheme suited to the age of a building can be well researched using a number of resources. They include:

- Paint scrapes in areas which have not been overly exposed to reveal previous colours used.
- Old black and white photographs which show shades on different elements of the building.
- An understanding of traditional colour schemes, which can be obtained by referring to books written about the subject (see Appendix 5, Heritage References).

An understanding of traditional colour schemescan be obtained by referring to books written about the subject.

It is not usually necessary to repeat the use of original colours, but research is often helpful to understand how different areas were treated.

Paint manufacturers have developed heritage colour ranges which are useful when deciding on suitable period colours.

The dominant use of bright corporate colours on building facades is generally inconsistent with maintaining the heritage character and significance of a building and/or Conservation Area. Well placed and proportioned signage can provide the clear information needed for effective street presence of a business.

Colour schemes which complement the style of the building will enhance the character of the surrounding area.

1.5 Change of Use

Each new use will inevitably bring change to the fabric of the place. When considering new uses it is important to try and ascertain what the likely impact of a proposed use will be.

Will the changes affect the significance of the place? Will they be minor or reversible?

If the original use of a place becomes redundant, finding another similar use may help in retaining the place's significance.

Sometimes a continuing historical use is the reason why a place is considered important and continuing that use is essential.

There is a danger that gradual cumulative changes will reduce the ability to interpret significant aspects of the building.

Very different uses (such as commercial uses in a former dwelling) may require significant changes to the building fabric, because of the need for amenities, or perhaps fire-rating of walls and ceilings. It is important to alter as few original features and/or materials as possible when changing the use of a building.

Litter Bins

Barriers

Planters

C.8 – Residential Design

Application

This chapter applies to the whole of the Maitland Local Government Area where residential development is permitted. The chapter provides guidelines for the development of the following forms of housing (and ancillary structures such as garages, sheds, carports and outbuildings):

- Single detached dwelling house
- Secondary dwellings
- Dual occupancy housing (attached or detached)
- Semi-detached dwellings
- Multi dwelling housing (attached or detached)
- Residential Flat Building (other than buildings to which *State Environmental Planning Policy No.65 – Design Quality of Residential Flat Development* applies)
- Senior Living Accommodation (to the extent of providing guidelines which supplement the standards prescribed under *State Environmental Planning Policy (Housing) 2021*)

Objectives

- To set appropriate standards for all forms of housing within the City of Maitland.
- To provide measures to protect the natural and built environment and minimise conflicts which often arise through development.
- To ensure that development relates to site conditions and that the amenity of adjacent residential development is appropriately considered.
- To support the efficient use of residential land and expand the variety of housing options available in the City of Maitland.

Subdivision

Consideration should be given to the potential for residential developments to be subdivided into individual and/or communal lots through either Torrens Title, Strata Title or Community Title.

To encourage good overall design it is important that designers consider the requirements in Chapter C.10: Subdivisions and any locality plans (Part D), Special Precincts (Part E) or Urban Release Areas (Part F).

2. Site Analysis & Site Context

Objective:

- To ensure that residential development is of a high quality and is sensitive tothe existing character of the area and the opportunities and constraints of both the site and its surrounds.

General Requirements:

2.1 Site Analysis

a. A detailed site analysis shall be submitted with a development application for all residential development with the **exception of a single detached dwelling**. A typical Site analysis Diagram is provided as Figure 1. (Note: this Plan does not show the proposed development).

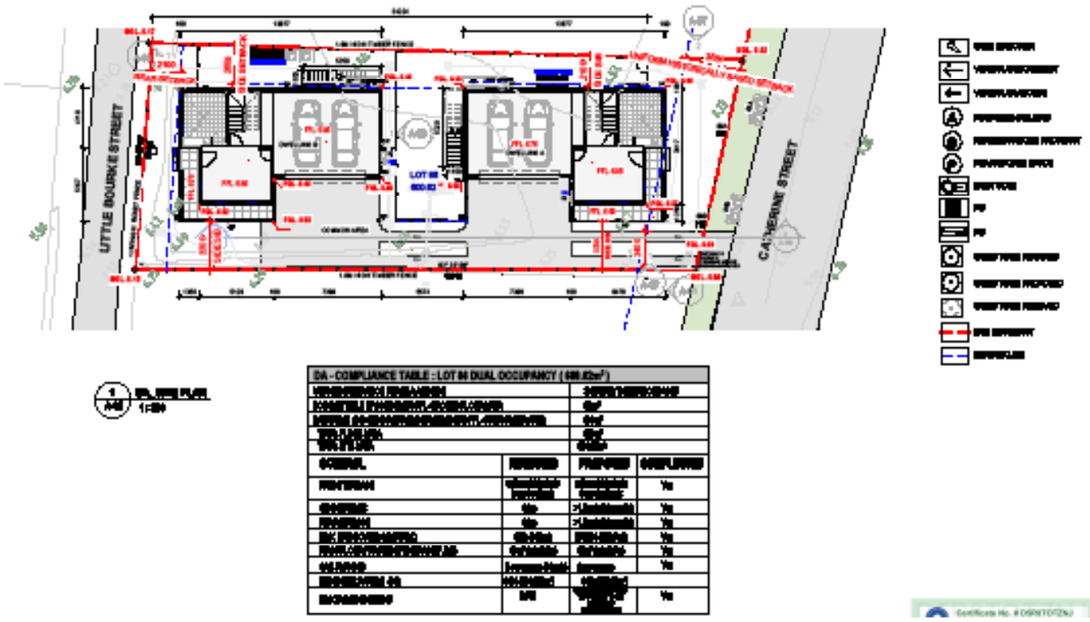
b. The site analysis shall show, in plan form (with detailed notations), at least but not limited to the following elements:

- Identification of the lot(s).
- North point (solar north, not magnetic north).
- Site levels (contours or spot heights – preferably to Australian Height Datum).
- Easements eg. stormwater drainage, electricity, access.
- Existing buildings and other improvements on the land.
- Existing vegetation on the land.
- The location of any services on the land – eg. Water service, sewer line, stormwater lines, electricity lines etc.
- Width of footway and location of any existing footpath, driveways and driveway laybacks in the kerb.
- Location of kerb and gutter in the street and any kerb inlet pits.
- Location of any poles, pits, trees etc in the footway verge.
- View corridors.
- Building setbacks.
- Fencing – location, height, material and condition.
- Ground levels of adjoining lots near the common property boundary.
- Location and general description of buildings on adjoining lots and the position and height of window and door openings in proximity to the development site.
- Identification of the use of open space areas on the adjoining lots.
- Photographs of the site are a helpful tool.

Note: It is recommended that the site analysis plan be prepared by a Registered Surveyor or other suitably qualified or competent person.

c. Special consideration and unique building design will be required for development on land where the slope is in excess of 20% (1 vertical in 5 horizontal).

Assessment



YES

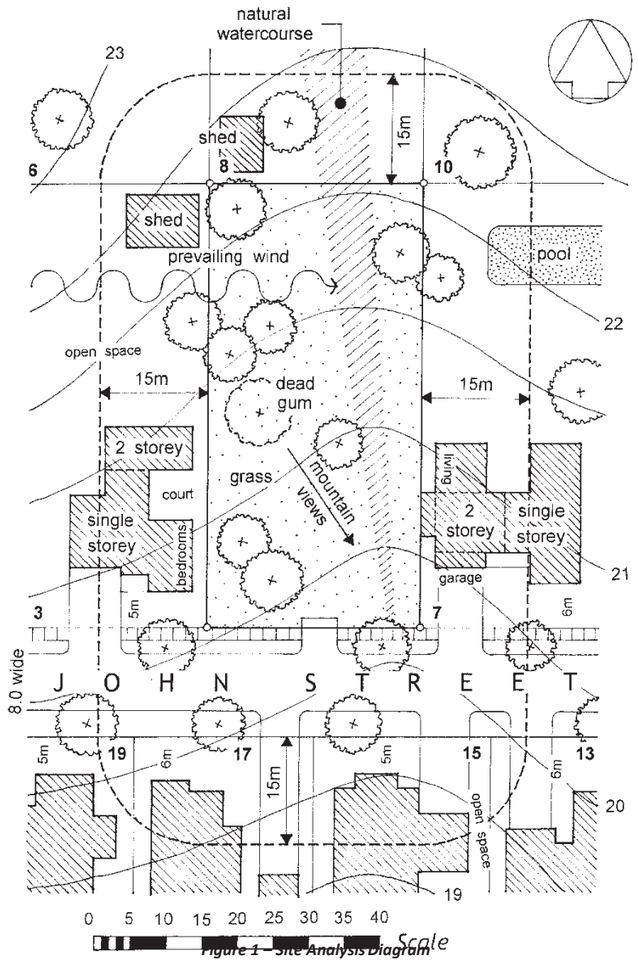


Figure 1 – Site Analysis Diagram

NOTED

NO FURTHER COMMENT

2.2 Context Analysis

a. A 'Context Analysis' will be required for all residential development **with the exception of a single detached dwelling**. The context analysis shall describe the character of existing development in the vicinity of the site in order to understand the streetscape and pattern/form of development. This may be provided in the form of scaled sketches of streetscape elevations or photo compilation. Site context is predominantly a function of:

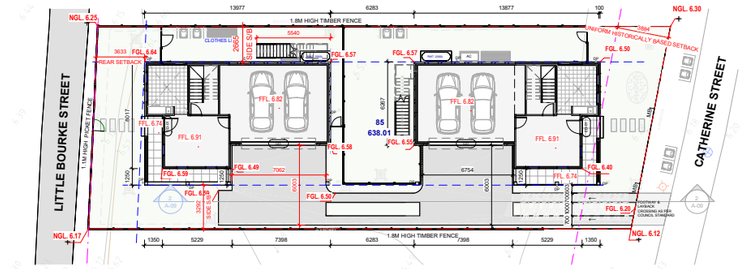
- Proximity of the site to urban support facilities such as schools, shopping centres, transport nodes.
- The height, size, bulk and scale of development.
- The architectural treatment or style of buildings eg. Victorian, Federation, Art Deco, Contemporary etc.
- Roof proportion relative to external walls and whether the roof contains dormers, gables or other roof features such as chimneys etc.
- Predominant building materials and colours.
- The proportioning and position of door and window openings relative to wall area.
- The spaces which exist between buildings.
- The predominant street setbacks.
- The type, scale and location of landscape elements.
- Fencing locations, height and materials and the presence of retaining walls.
- Treatment of footpath areas in front of a development – paving, tree planting etc.

b. In considering site selection for residential development that will contain more than two dwellings, the site context analysis shall demonstrate that the subject land is within convenient walking distance (not exceeding 400 metres) of the following facilities:

- Land zoned B1 Neighbourhood Centre, B2 Local Centre, B3 Commercial Core or B4 Mixed Use under the Maitland LEP 2011; or
- A school catering for primary and/or secondary students; or
- A key transport node – railway station.

c. The design plans and the Statement of Environmental Effects shall demonstrate that the 'site analysis plan' and the 'site context analysis' have been taken into account in producing a design solution which mitigates against potential negative impacts and integrates appropriately with the streetscape.

Assessment



1 / A-02 DA_SITE PLAN 1 : 200

DA - COMPLIANCE TABLE : LOT 85 DUAL OCCUPANCY - 638.0M²			
UNIT CONFIGURATION FOR 85 A AND 85 B		2 STOREY 3 BEDROOMS UNIT	
NON HABITABLE SPACE BELOW FPL -GROUND FLOOR AREA		84m²	
HABITABLE AND NON HABITABLE SPACE ABOVE FPL -FIRST FLOOR AREA		103m²	
TOTAL FLOOR AREA		186m²	
TOTAL SITE AREA		638.0m²	
CONTROL	**REQUIRED**	**PROPOSED**	**COMPLIANCE**
FRONT SETBACK	uniform historically based setback	uniform historically based setback	Yes
SIDE SETBACK	1.0m	>1.0m (within profile)	Yes
REAR SETBACK	1.0m	>1.0m (within profile)	Yes
MAX. SITE COVERAGE (TOTAL)	60% (382.8m²)	54% (341.765m²)	Yes
MIN UNBUILT AREAS	40% (255.2m²)	46% (296.24m²)	
FIRST FLOOR PRIVATE OPEN SPACE(P.O.S)	10m² (min.2.5m)	10m² (min.2.5m)	Yes
CAR PARKING / DWELLING	2 car spaces (3 beds)	2 car spaces	Yes
MAX BUILDING HEIGHT	8.5M	8.92M (INCREASED TO COMPLY WITH HERITAGE REQUIREMENTS)	Yes

WIND DIRECTION
VEHICULAR MOVEMENT
VEHICULAR ACCESS
PROPOSED BUILDING
NEIGHBOURHOOD PROPERTY
PRIVATE OPEN SPACE
LIGHT POLE
PIT
PIT
TREES TO BE RETAINED
TREES TO BE PROPOSED
TREES TO BE REMOVED
SITE BOUNDARY
SETBACK LINE

DA ISSUE

YES

Final Design Solution

View of street to the right of the vacant site

Vacant Site

View of street to the left of the vacant site

Vacant Site

Figure 2 - Site Context Analysis

The 'site context analysis' examines the context of the proposed development site within the street. The scale, form, function and colours/materials used in the existing buildings are considered along with the size of spaces between buildings and both soft and hard landscape elements. The final development solution shown above is not the same as adjoining development but is consistent with the scale and pattern of existing development and achieves a more integrated streetscape.

Assessment

There are examples of single storey development that are within the vicinity of the proposed development however these buildings are considered to be inconsistent with the applicable flood controls and therefore maintaining a similar build form is not considered to be appropriate.

The proposed development is consistent with the two-storey built forms that surround the subject site particularly towards the west and north.

Majority of the surrounding buildings have a clad or weather board finish to the facade which is consistent with the proposed facade of the subject development.

YES

3. Development Incorporating Existing Dwellings

Objectives:

- To ensure that, where possible, existing buildings are retained and used for ongoing residential use.
- To ensure that buildings and streetscapes of conservation significance are retained and incorporated into new development where possible.
- To ensure that existing dwellings are provided a high standard of amenity and facilities when being incorporated into a residential redevelopment project.
- To encourage sustainable building practices and resource efficiency by minimising the amount of material being diverted to landfill as a result of building demolition.

General Requirements:

2.1 Where an existing dwelling is to be retained and incorporated into a residential redevelopment project, this dwelling is to be treated as if it were a new dwelling in the same redevelopment project and should meet all performance criteria and design controls specified in this chapter.

2.2 Where it is not possible for an existing dwelling to achieve compliance with all aspects of the chapter Council may, after consideration of a detailed submission lodged with the development application outlining grounds/justification for non-compliance, agree to vary one or more of the chapter requirements. In assessing any variation, the Council shall have regard to:

a. The significance of the existing dwelling to be retained and/or the level of contribution it makes to the streetscape or character of the area;

b. Any alternative design solutions that may be proposed to demonstrate general compliance with the objectives applying to the relevant section of the chapter.

2.3 Special provisions relating to heritage items or heritage conservation areas are contained in the Maitland LEP 2011 and the relevant chapters in this DCP must be taken into account where relevant.

2.4 Where an existing dwelling is being retained as part of a site redevelopment then the existing dwelling shall be required to meet the design requirements of this Chapter.

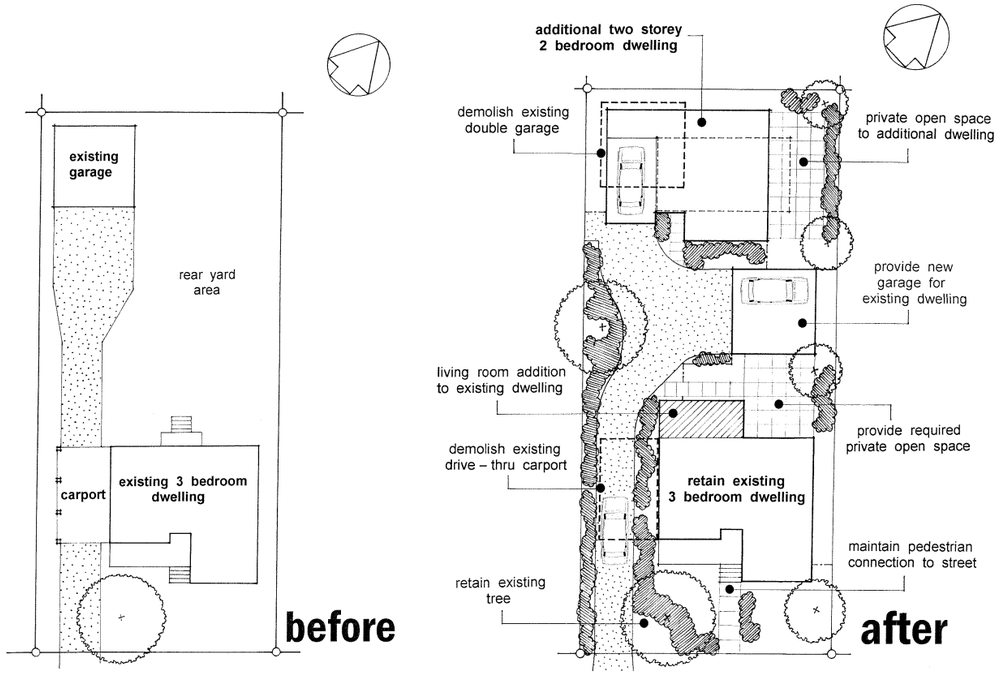


Figure 3

Where an existing dwelling is being retained as part of a site redevelopment then the existing dwelling shall be required to meet the design requirements of this Chapter.

4. Bulk Earthworks and Retaining Walls

Objectives:

- To ensure that development responds sensitively to the topography of the land.
- To restrict and control excessive earthworks in order to preserve, as much as practicable, the existing topography and character of the neighbourhood affected by the proposed development.
- To ensure that the building design is appropriate for site conditions with consideration given to the stability and privacy of the adjoining properties, solar access, amenity and bulk, height and scale at the boundary interface.
- To minimise the effect of disturbance on any land and ensure that dangerous/unstable excavations are avoided, or where necessary, are properly retained.
- To reduce the potential for the siltation of waterways and erosion of land disturbed by the development.
- To ensure that the site is appropriately rehabilitated as an integral part of the development.
- To preserve topsoil.
- To ensure that adequate provision is made for drainage in relation to cut and fill practices.

General Requirements:

4.1 A 'bulk earthworks plan (BEP)' shall be submitted with the development application for all forms of residential development showing the levels (relative to a datum benchmark at the site) of all finished ground levels for both the building platform and those areas of the site external to the building platform. The plan should also specify and show the extent and depth of cut/fill, and location of all retaining walls and/or battered slopes. The BEP shall also show existing ground levels adjoining the perimeter boundaries of the land (refer to Figure 4 for sample BEP).

4.2 Where a retaining wall (for the purposes of retaining fill) is proposed either on or in close proximity to a boundary then the maximum extent of fill shall be 600mm (refer to Figures below).

4.3 Where a retaining wall (for the purposes of retaining cut) is proposed either on or in close proximity to a boundary then the maximum extent of cut shall be 900mm (refer to Figures below).

4.4 Elevated flooring (eg bearers and joist construction), deepened concrete edge beams, infill slabs, split level construction and the like shall be used where necessary to reduce the extent of earthworks required to achieve the maximum

Assessment	
The development is constructed at grade with only one of earthworks being proposed so that the finished floor level of each dwelling IS300 millimetres above natural ground level. The plans indicate no retaining walls or major excavation so that it does not does not disrupt the flows of overland flow or flood impacts.	YES

cut/fill levels prescribed under the plan.

4.5 Adequate drainage comprising free draining gravel and subsoil agricultural drains shall be installed to the rear of retaining walls to relieve the hydrostatic pressure at the base of the wall.

4.6 Stormwater or surface water runoff shall not be redirected or concentrated onto adjoining properties so as to cause a nuisance. Adequate drainage is to be provided to divert water away from batters. This requirement shall be an integral part of the site stormwater management plan addressed in Section 18 of this Chapter.

4.7 Cut and fill batters should not exceed a slope of 3:1 (horizontal to vertical ratio) to the natural ground level unless the foundation strata, type of material or compaction permits otherwise and Council is satisfied as to the stability of the site. All batters must be provided with both short term and long term stabilisation to prevent soil erosion.

4.8 Excavations in excess of those specified for retaining walls may be permitted within the confines of the building to allow for basements, garages etc providing the excavations are adequately retained and drained in accordance with engineering details.

4.9 All excavations shall be protected in accordance with the requirements of the NSW WorkCover Authority.

4.10 Where a property is burdened by stormwater easements containing pipes care should be taken to avoid pipe damage. In cutting situations, it may be necessary to lower existing pipes within the easement. In filling, pits may require extending to the new surface level.

Note: *All drainage works associated with retaining walls must be located within property boundaries.*

Assessment	
As above.	YES

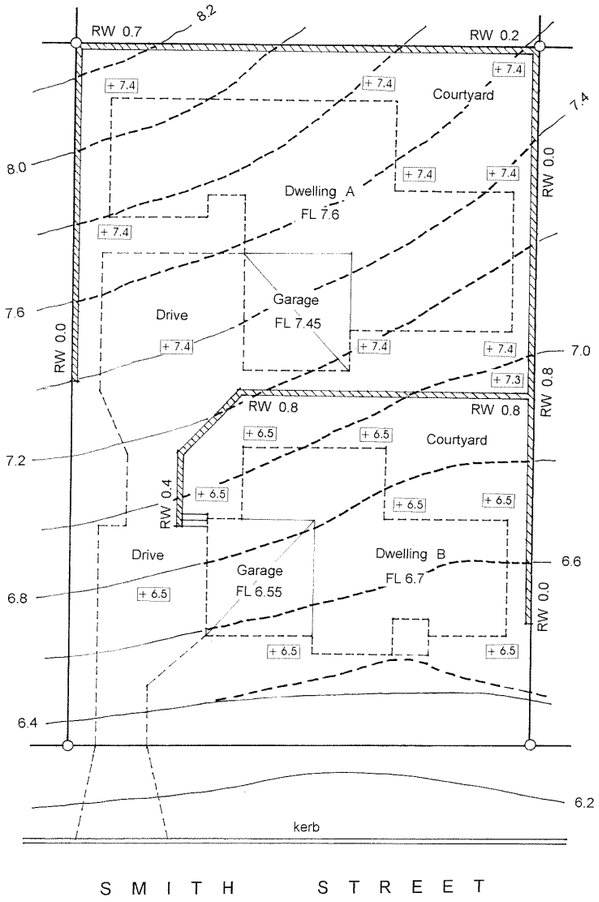


Figure 4

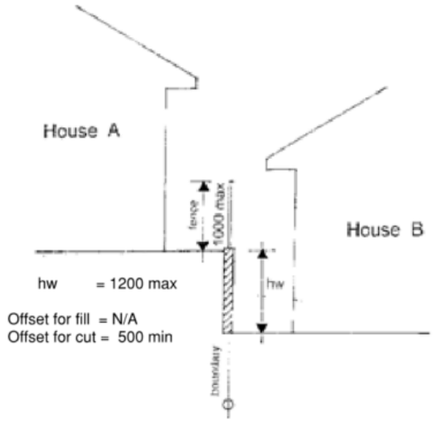


Figure 5 – Single Retaining Wall

When developments are not occurring together.

Note: Engineering certification is required where hw is greater than 1.0 metre.

Note: Better outcomes occur where there is co-operation between landowners resulting in a single retaining wall.

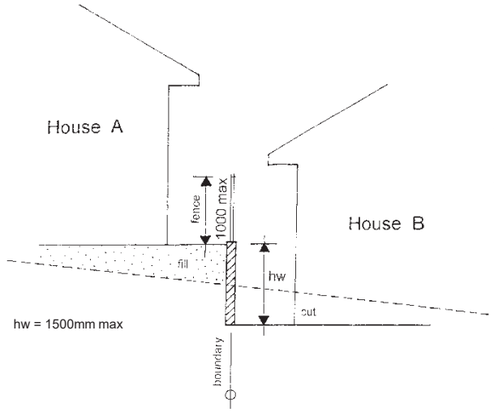


Figure 6 – Retaining Wall (when built together)

When co-operation between landowners occurs, a maximum of 1500mm wall can be constructed on boundary.

Where co-operation does not occur, the retaining of cut and fill will need to be achieved by two separate structures (see figure below).

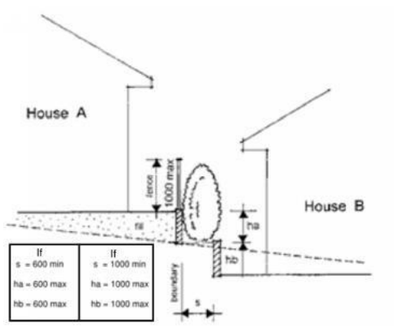
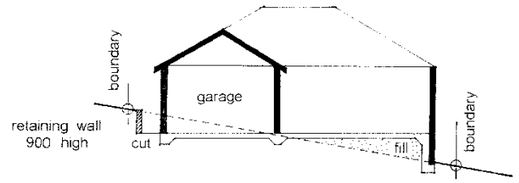


Figure 7 – Stepped Retaining Wall

Note: Option to ensure stability of an existing wall structure.
Note: Secondary retaining wall must take into account the structural integrity of any existing structure.



1 *Slab on ground with deepened edge beam*

2 *Slab on ground and bearers / joists*

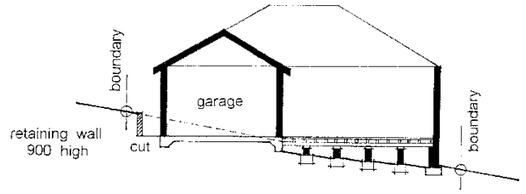
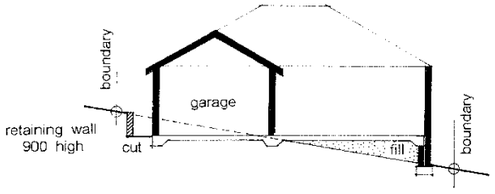
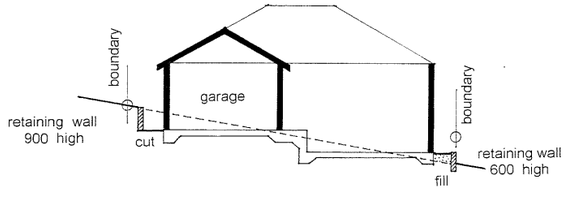


Figure 8



3 *slab on ground and infill slab*



4 *Split level construction*

Alternative Approaches to Construction on Sloping Sites

5. Street Building Setbacks

Objectives:

- To provide setbacks that complement the streetscape, allow flexibility in the siting of buildings and allow for landscape settings and open space requirements.
- To ensure that new development establishes appropriate and attractive streetscapes which reinforce the function of the street and is sensitive to the landscape and environmental conditions of the locality.

General Requirements:

5.1 The minimum setback from the principal street frontage to the building line in an urban residential zone is 4.5 metres.

5.2 The minimum setback from the principal street frontage to articulation or entry features (ie. portico) in an urban residential zone is 3.0 metres and must not be more than 25% of the width of the front facade of the building and must not be more than the maximum height of the building. Note that articulation elements do not constitute the 'building line'.

5.3 Where an allotment is located on a corner in an urban residential zone, and a single dwelling is proposed, the minimum building line setback to the secondary street frontage is 3.0 metres.

5.4 Where an allotment is located on a corner in an urban residential zone, and attached dwellings, semi-detached dwellings or dual occupancies are proposed, the minimum setback to the secondary street frontage is 3.0 metres.

5.5 Where the shape of the allotment located within an urban residential zone is irregular due to the geometry of the street boundary, the setback from the front property boundary to the building line shall be a minimum of 3.0 metres but averaging 4.5 metres over the length of the building addressing those street boundaries.

5.6 Garages, carports, sheds and outbuildings are to be setback a minimum of 6 metres from a boundary adjoining a road and a minimum 1 metre behind the building line to the principal street frontage.

Note: for sheds and other structures that do not address a street frontage and are <u>not</u> being used for vehicular access or storage, standard setbacks apply.

5.7 Older residential areas or heritage conservation areas may comprise buildings with setbacks greater than or less than 4.5 metres. Where infill development is proposed in these areas the building line for the new development shall have regard to the setbacks of existing buildings adjacent to the site. Designers should

Assessment	VARIATION SOUGHT
Refer to the heritage provisions. The four metre front building line has been selected based on the surrounding environment and in particular the front building 1 established by the heritage item and 58 Catherine Street. Nevertheless, majority of the front set back is behind the 4.5 metre line however there is a minor part that encroaches due to the splayed front boundary shape. A portion of the entry feature or porch is within the three metre setback articulation zone however the non compliance is very minor due to displayed front boundary shape. The minor variation to this control is considered to be acceptable as the development still remains consistent with the objectives of the control for the following reasons: • The development is consistent with heritage controls and adopts a front building setback that is consistent with the existing environment particularly with the established set back provided from 56 Catherine street. • The driveway is to the side of the front unit which allows for substantial landscaping forward of the front building line. • The articulation of the facade in the landscaping combined achieves an appropriate and attractive streetscape which reinforces the function of the street and heritage landscape setting.	

consult Part E.2: Heritage Conservation Areas to determine setbacks in heritage conservation areas.

5.8 Building line setbacks for other zones are detailed in Table 1.

Zone	*Principal Frontage (metres)*	*Side Street for corner lots (metres)*
RU1 Primary Production and RU2 Rural Landscape	20	15
R5 Large Lot Residential (Lot size ≤5000m^2)	10	6
R5 Large Lot Residential (Lot size >5000m^2)	20	10
C4 Environmental Living	20	10

Table I –Building Line Setbacks in Zones Other than Urban Residential Zones

Note: Street setbacks in other zones shall be determined on merit having regard to the pattern of setbacks common to the area surrounding the site provided such setbacks are in accordance with the provisions of the Building Code of Australia.

Definitions:

Minimum building line means that distance between the street boundary and the nearest structural element of the building including verandahs, porches and the like but excluding any external steps and ramps.

Principal street frontage means that elevation of a building which contains the main pedestrian access point to the dwelling.

6. Side and Rear Setbacks

Objectives:

- To allow flexibility in the siting of buildings and the provision of side and rear setbacks.
- To allow adequate building setbacks for landscaping, privacy, natural light and ventilation between buildings.

Design Principles:

- Setbacks should be progressively increased as wall heights increase to reduce bulk and overbearing.
- Building siting and height should relate to landform with minimal cut and fill.
- Building form should take into account, where possible, the sharing of views. This could be achieved by split level designs which step buildings down the site corresponding to the site's topography or by reducing the width, depth or height of upper floors and roof structures to provide view corridors for development on adjoining land.
- Building to the boundary should occur only where it does not significantly compromise the privacy and solar access of neighbouring dwellings and private open space.
- Buildings should meet the requirements of the Building Code of Australia in relation to fire protection.

General Requirements:

6.1 Minimum side and rear setbacks for residential buildings, including detached outbuildings such as garages, sheds or carports, in urban zones shall be in accordance with Figure 10 and described as follows:

a. 0.9m for walls up to 3.0m in height (to underside of eaves);

b. 0.9m plus 0.3m for every metre of wall height over 3.0m and less than 7.2m;

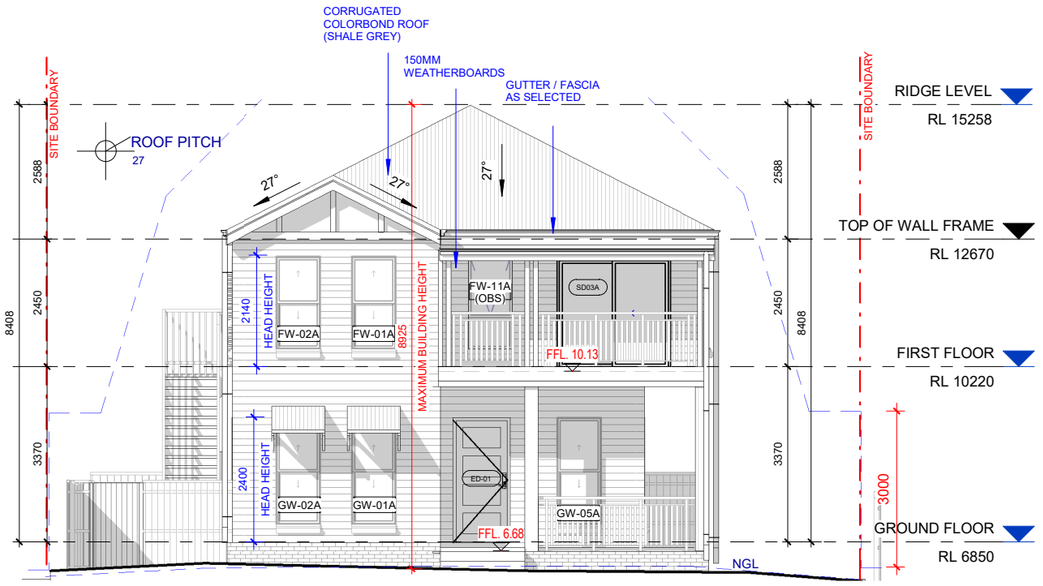
c. For that part of a wall over 7.2m in height, the minimum setback should be increased by 1.0m for every metre of height over 7.2m.

6.2 Walls of buildings within urban zones may be built to the side and/or rear boundaries only where:

Assessment

The minimum site set back provided to the development is 2100 millimetres at its most narrowest point.

The building envelope control stipulated in the development control plan are provided on the elevations in the architectural set to demonstrate that the development is contained within the prescribed building envelope.



2 / A-06 WEST ELEVATION -86B
1 : 100

YES

a. The maximum wall height is 3.0m and there will be no significant impact on privacy, use of private open space and solar access to adjoining properties;

b. There are no openings unless such openings comply with the fire resistance requirements of the Building Code of Australia and are filled with translucent or obscured glazing; and

c. The length of the wall built to the boundary does not exceed 50 per cent of the total length of the wall comprising that elevation (refer Figure 11).

Required side and rear setbacks for rural zones are detailed in Table 2.

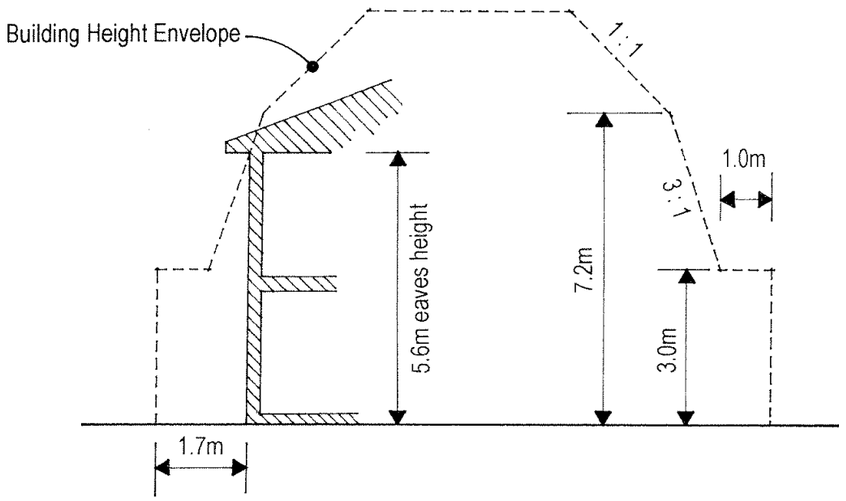


Figure 10 – Envelope for Calculation of Side and Rear Boundary Setbacks

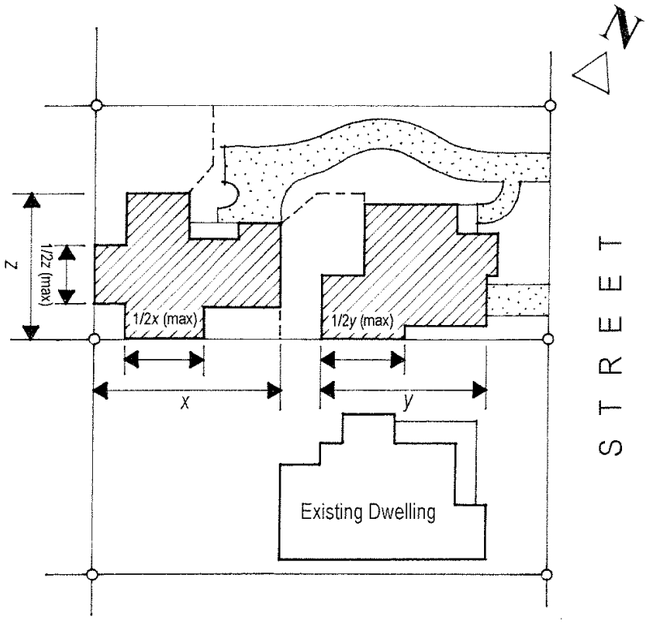


Figure 11 – Required Criteria for Building to a Boundary

Zone	*Side Boundary (metres)*	*Rear Boundary (metres)*
RU1 Primary Production and RU2 Rural Landscape	10	10
R5 Large Lot Residential (Lot size ≤5000m^2)	4	4
R5 Large Lot Residential (Lot size >5000m^2)	6	6
C4 Environmental Living	6	6

Table 2 – Side and Rear Building Setbacks – Rural Zones

Note: Some 'site specific' chapters may require greater or lesser setbacks to side and rear boundaries for reasons relating to bushfire management, preservation of vegetation, visual or privacy impacts etc. In such circumstances those setbacks required in the site specific chapter will apply in lieu of those detailed in this table.

7. Site Coverage and Unbuilt Areas

Objectives:

- To promote on-site stormwater infiltration by restricting site coverage of buildings and hard surfaces.
- To maximise opportunities for landscaping of the site which incorporate larger scale plantings consistent with reducing the visual impact of hard building finishes and promoting improved amenity within the site and enhanced streetscapes .
- To ensure that development maximises permeable surfaces and maintains a balance between the 'built' and 'unbuilt' areas.
- To ensure that development provides for unbuilt areas that are of suitable size, dimension and slope that will:
    - Provide adequate solar access;
    - Assist in retaining existing vegetation;
    - Enhance the existing streetscape;
    - Enhance privacy and views between housing, other buildings and the street;
    - Accommodate private open space requirements that suit the anticipated needs of occupants;
    - Actively facilitate on-site stormwater infiltration;
    - Provide space for service functions including clothes drying.

General Requirements:

7.1 Site coverage shall satisfy the requirements detailed in Table 3 - Site Coverage and Unbuilt Areas. All development application plans for residential development shall provide a detailed 'percentage site coverage' calculation having regard to the requirements of Table 3.

7.2 Development shall have site coverage appropriate for the site's capability and form of development and site coverage shall be consistent with the desired future density for the locality.

Housing Type	Maximum Site Coverage Ground Floor (%) (See Note 1)	Minimum Unbuilt Area (%) (See Note 2)
Dwelling House	60	40
Small Lot Housing	60	40
Dual Occupancy (2 units)	60	40
Multi Dwelling Housing (3 or more dwellings)	70	30
Residential Flat Buildings	70	30

Table 3 – Site Coverage and Unbuilt Areas

Notes

- 'Built Area' includes garages, driveways, pathways and any area under a roof.
- 'Únbuilt Area' includes ground level Private Open Space (POS) and Communal Open Space (COS).

Definition
Maximum site coverage means the maximum allowable area of a site able to be 'hard' developed expressed as a percentage of total site area.

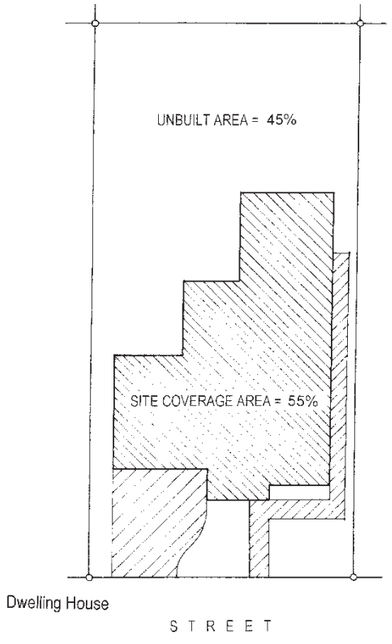


Figure 12 – Site Coverage and Unbuilt Areas for Single Detached Dwellings

Assessment	
The maximum site coverage proposed is 335.5 square metres which equates to 55.85%. The minimum unbuilt area proposed is 265.12 square metres which equates to 44%. The development demonstrates compliance with the maximum site coverage and minimum unbuilt areas.	YES

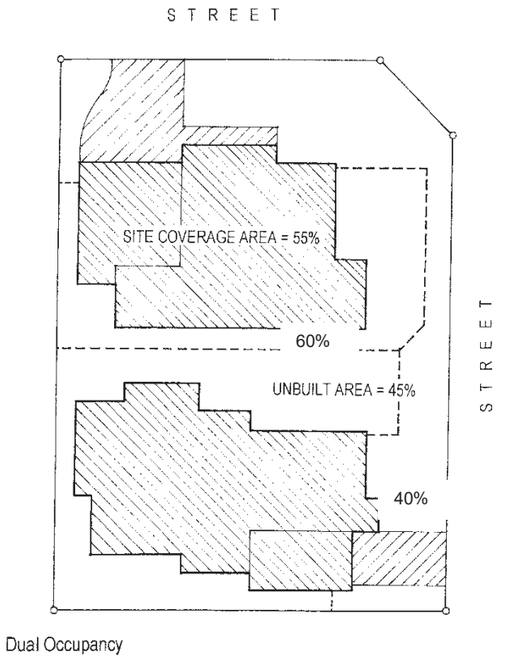


Figure 13 – Site Coverage and Unbuilt Areas for Dual Occupancy

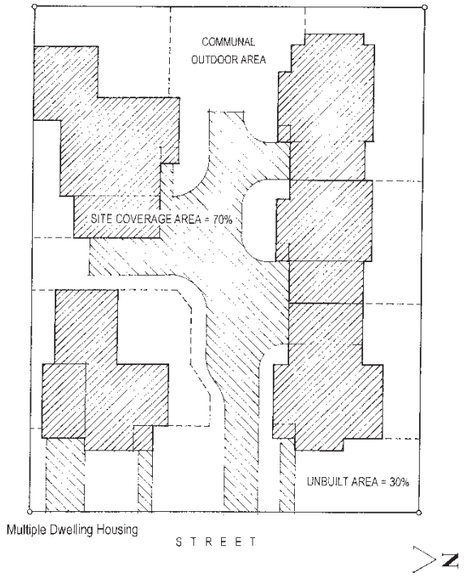


Figure 14 – Site Coverage and Unbuilt Areas for Multi-Dwelling Housing

8. Building Height, Bulk and Scale

Objectives:

- To ensure that the height, scale, and length of new development is not excessive and relates well to the local context and overall site constraints.
- To ensure that the amenity of surrounding properties is properly considered.
- To minimise site disturbance and cut and fill.

Design Principles:

- Developments should be sited and be of a height and scale that cause no significant loss of amenity to adjacent dwellings and land. This can be achieved through:
  - Building siting and height that are related to landform with minimal cut and fill;
  - Building forms that enable a sharing of views with neighbours;
  - Building bulk that is distributed to reduce impact on neighbours and on the public street;
  - Building height similar to, but not necessarily the same as, those in the public streetscape;
  - Building to the side or rear boundary where privacy and solar access for neighbouring dwellings and their private open space is not compromised; and
  - The walls of a building, when located on a boundary, should be limited in length and height to minimise the impact on neighbours.

General Requirements:

Note: Building height is defined in the Maitland LEP 2011. (refer to Figure 15).

8.1 Maximum building height shall be in accordance with Table 4.

8.2 Development application plans shall provide the following information to clearly communicate building heights:

a. A scaled and dimensioned site plan to show pre-development spot levels and/or contours of the site. This plan shall also show post- development spot levels of the site at the building corners and perimeter and shall also include finished levels for private open space, communal open space (where provided), driveways and pedestrian pathways and landscaped areas.

b. Floor plans showing finished floor levels for ground floor internal living

space, garages, and finished levels for upper floors and roof;

c. Building elevations and sections to scale which are fully dimensioned and provide an accurate representation of height having regard to the levels identified on the site plan. Elevations and sections should show floor-to-ceiling heights as well as maximum height of roof element.

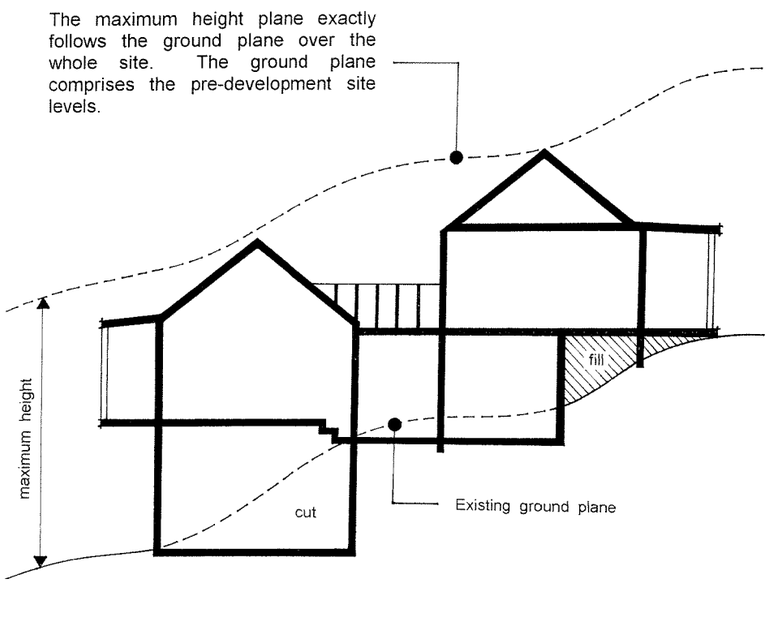


Figure 15 – Building Height (where the land is not identified on the Height of Buildings Map in the Maitland LEP 2011)

Note: Refer to Table 4 for maximum permissible heights within various residential development precincts).

Housing Type	*Zone*	*Max Height (metres)*
Dwelling	Any zone	8.5
Dual occupancy (2 dwellings)	R1 General Residential Business zones	8.5 11
Semi-detached housing	R1 General Residential Business zones	8.5 11
Multi Dwelling Housing (3 or more	R1 General Residential Business zones	8.5 11
Residential flat building	R1 General Residential Business zones	11 14

Table 4 – Maximum Building Heights

Assessment

The maximum building height is 8.925 metres above existing ground level. It is worth mentioning that this control is not translated into the local environmental plan and therefore council can accept flexibility to this requirement.

The justification for the non-compliance is related to heritage and flooding. The height of the ground floor has been provided to address the flood provisions and the pitch of the roof has been designed to address the heritage controls so that the overall design of the development is sympathetic to both land constraints.

Therefore both men and trains have been addressed with minimal cut and fill proposed and the area of non compliance is considered to be minor as it is only attributed to the maximum pitch of the roof whereby majority of the development remains under the 8.5 metre height plane.

In addition, the adjoining dwelling to the South is considered to retain adequate solar access to the private open space area due to the excessive front setback that is existing upon 56 Catherine St. In the future if this property was redeveloped the primary area of private open space would be positioned on the 1st floor which would acheive full solar compliance.

VARIATION SOUGHT

9. External Appearance

Objectives:

- To encourage the creation of attractive, well-designed residential development.
- To allow flexibility in design and use of materials while encouraging high architectural standards.
- To ensure good design which provides continuity of character between existing building forms, new development and surrounding landscape by using a selection and/or combination of characteristic elements and mass.
- To ensure that new residential development in Heritage Conservation Areas or on identified heritage sites is designed having regard to the heritage significance of the area or item and compliments the character of these buildings, places and streetscapes.

General Principles:

9.1 The building design and the Statement of Environmental Effects that accompanies the proposal should demonstrate that the following matters have been addressed:

a. Consideration of the existing character, scale and massing of development in the immediate area, including the surrounding landscape.

b. Architectural interest encouraged by:

- the use of finishes which are textured rather than bland;
- providing stepping of walls, pergolas, eaves, verandahs and blade walls etc. to establish articulation and create light and shadow to a building
- the coordinated use of diverse materials and appropriate decorative treatments

c. Consideration of both typical and rare fenestration (door and window patterns) and the relationship between glazed and solid wall areas.

d. Consideration of traditional relationship of roof mass to wall ratio, roof pitch and design, length of unbroken ridgelines, parapets, eaves and roof water guttering detailing.

e. The design shall provide a variety of experiences for the residents and passers by thorough attention to silhouette, pattern, texture and colour. The amount and length of unbroken roof ridgelines, unpunctuated facades, fencing and repetitive form should be minimised.

f. Design diversity should be achieved within and between developments by maximising the advantages of orientation, landforms, views and natural vegetation.

g. Where a dwelling has an elevation to a principal street frontage then the

Assessment	
The dwellings use a balanced mix of face brick, weatherboard cladding and articulated balconies that echo the cottage vocabulary along Catherine Street while introducing contemporary detailing. The sculpted-grey brick base, shallow-pitched hipped roof in Colorbond Shale Grey and recessed entries create human-scale modulation and avoid monotonous bulk, delivering the “attractive, well-designed” outcome sought by the objectives At two storeys, the building mass sits comfortably below nearby mixed single- and 2 storey dwellings, retaining the prevailing parapet and ridge line rhythm while using a front setback that mirrors the adjoining pattern Stepped ground- and first-floor planes, blade walls and verandah projections throw light-and-shadow, while the roof’s 27° pitch, varied ridgelines and generous eaves replicate traditional roof-to-wall proportions and soften bulk Street façades adopt a regular window–wall rhythm with vertically proportioned double-hung sashes that reference historic timber layouts; first-floor balcony doors introduce glazed-to-solid variety without blank walls	YES

design shall ensure that the building has its primary pedestrian entry point addressed to this street. This entry shall be reinforced by landscaping and, where appropriate, fencing to provide a clear entry statement.

h. The following features of existing areas should be considered and integrated into new development where possible:
   - Traditional street and lane patterns
   - Street setbacks
   - Groupings of buildings
   - Corner feature sites
   - Pedestrian walkways
   - Promenades, squares and courtyards
   - Characteristic kerb and gutter treatment
   - Pavement design, materials and finishes

i. Corner sites shall be developed such that the building(s) addresses both streets and has a well expressed side elevation that does not dominate the streetscape.

j. Repetitive building designs should be avoided particularly in new residential subdivisions where there may be a number of sites being developed simultaneously. Repetitive street elevations generally do not achieve variety and interest in the streetscape – designs should ensure that key elements such as materials, colour schemes, fencing and driveway treatments, landscaping, window configurations and roof forms are distinct and give individuality to each development.

k. That the relevant provisions in this DCP are taken into account where residential development is proposed within a Heritage Conservation Area or on a site of identified heritage significance under the Maitland Local Environmental Plan 2011.

Garaging

The following matters shall be taken into consideration when designing a development to minimise the dominance of garaging particularly on the public streetscape and communal areas internal to the development site:

9.2 Car parking structures such as garages and carports shall be designed as an integral part of the development and must be compatible with the overall building design in terms of height, roof form, detail, materials and colours.

9.3 Garages and carports, as a forward element in the design of a dwelling, are discouraged particularly where the dwelling and its associated garage has a direct address and access to a street. Forward projecting garages and carports may be considered where it can be demonstrated that the design of the garage makes a positive contribution to both the street and the architectural quality of the

Assessment	
Each dwelling's front door is centred on a porch defined by stained-timber posts and framed by low native hedging, clearly identifying the pedestrian address to Catherine Street and reinforcing passive surveillance	YES
Double garages are not visible from the public domain mitigating visual bulk.	

building.

9.4 The following treatments should be employed to reduce visual impact of garages and carports to a road frontage:

a. Garages should be no greater in width than 50 per cent of the total width of the dwelling's frontage (eg. total width of dwelling's frontage is 15 metres therefore maximum width of garage doors to be no greater than 7.5 metres);

b. Where possible, garages of attached or detached dwellings which have a direct address to the street should not be located side by side;

c. Where the garages of adjoining units are located side-by-side they should have staggered setbacks of at least 1.0 metre (refer Figure 18);

d. The placement of wide eaves, awnings, pergolas or first floor projecting balconies/rooms over the garages to create shadow lines and provide greater articulation to the building (refer Figure 18);

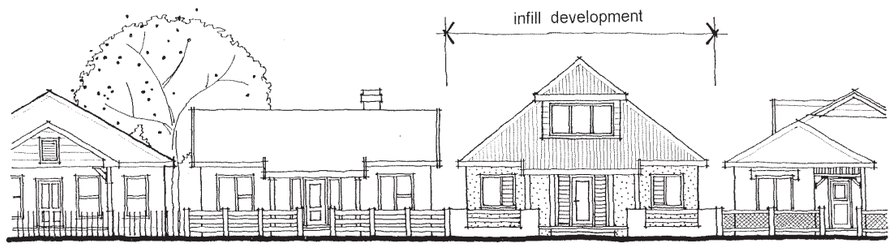
e. The use of materials of contrasting colour and/or texture for the walls and doors of each garage to create visual interest and a sense of separate identity for each dwelling unit – note that dark colours will make a garage visually recessive;

f. The use of an irregular driveway alignment;

g. Minimising the width and area of driveways to reduce the volume and rate of stormwater run-off and to increase the area available for landscaping;

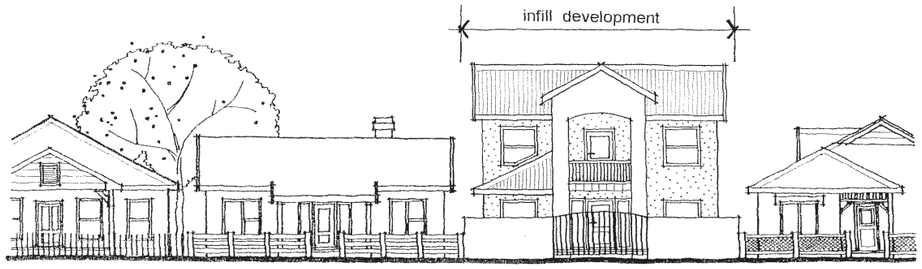
h. The selection of paving materials with contrasting colour and/or texture;

i. The use of carports in lieu of garages as these more transparent structures can effectively reduce the bulk and mass associated with multiple garages.



Scenario 1: Appropriate infill development integrates appropriately with streetscape by respecting the height, bulk and scale of existing development. Such development is not the same as existing development but consistent with existing development

Assessment	
	YES



Scenario 2: Inappropriate infill development where height, bulk and scale is inconsistent with the streetscape.

Figure 16 – Infill Development shall be Sympathetic to Streetscape

In this case:

- Detached dual occupancy dwellings are provided with their own separate street frontage;
- North facing courtyards address the street but are appropriate fenced and landscaped for both privacy and streetscape enhancement;
- Garages and driveways do not dominate the design.

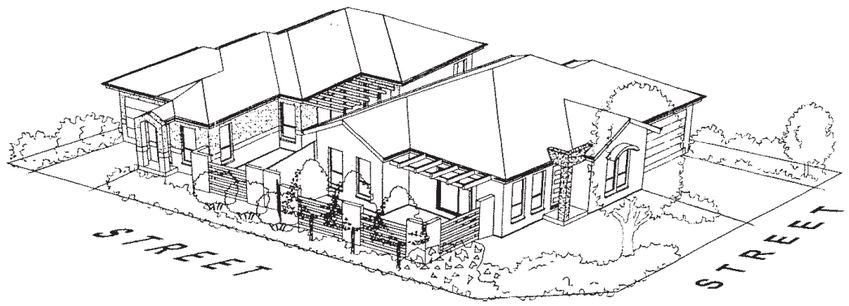
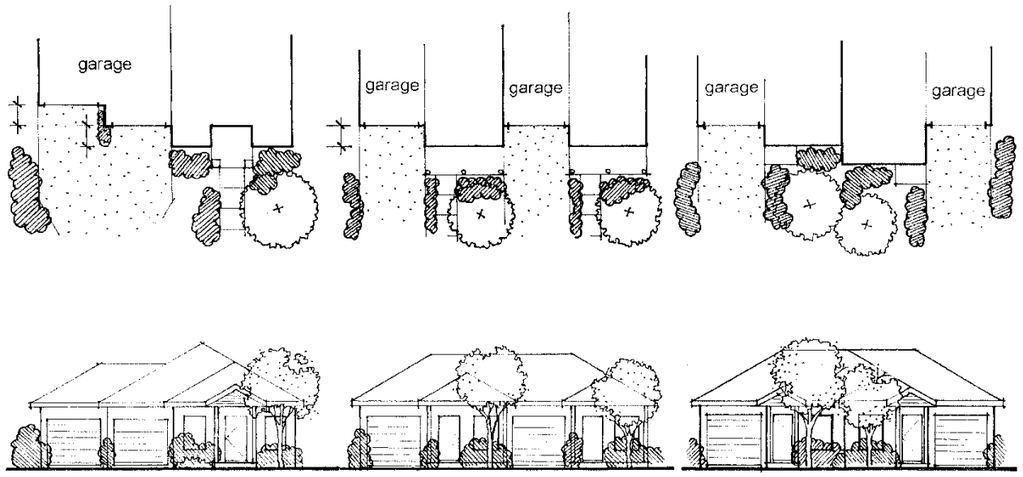


Figure 17 – Building Designs for Corner Allotments Should Demonstrate a Good Relationship to Both Street Frontages



Scenario 1 – Improving Relationship of Garages to Street

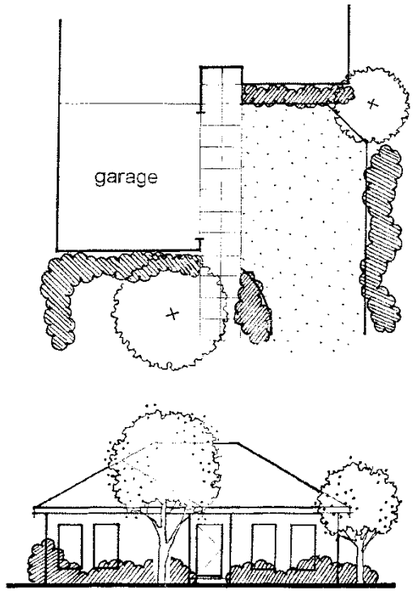
Preferred approach to double garaging. Double garages set back behind building line and staggered to reducedominance and create architectural interest in roof line and wall articulation.

Scenario 2 – Improving Relationship of Garages to Street

Attached dual occupancy with garages set back from the building line and located between living area elements of the building.

Scenario 3 – Improving Relationship of Garages to Street

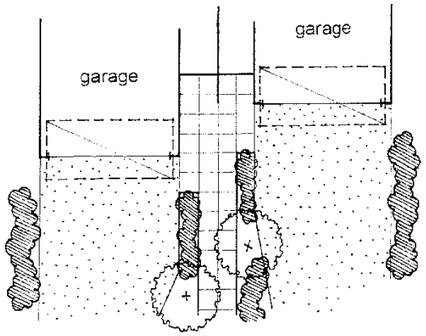
Attached dual occupancy with garages set back from the building line and located at outside edges of building.

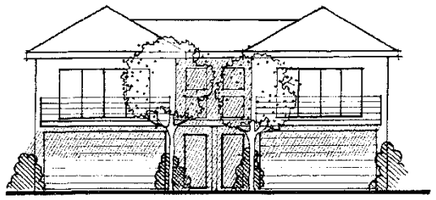


Scenario 4 – Garage Opening at 90° to Street

Garage access at 90° to street. Note contrasting paving treatment and landscaping which reinforces pedestrian entry.

Figure 18 – Design Solutions – Reducing the Impact of Garages on the Streetscape

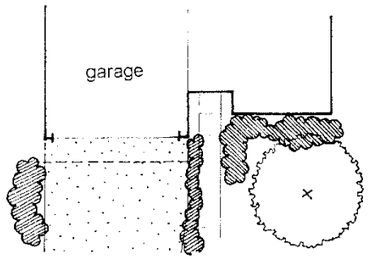


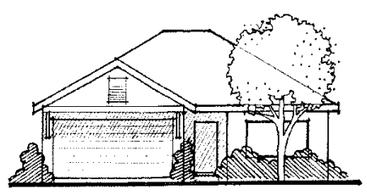


Scenario 5 – Garages & Two Storey Constrution

Dominance of garages can be reduced by:

- First floor balconies (including cantilevered type) to protrude beyond garage openings to create strong shadow lines and help create visual depth;
- Stagger dwelling footprints to establish variation in street setbacks for each dwelling;
- Design interest shall be created using architectural treatments such as:
- Darker colours/texture for garage door and first floor walls to help assist in making garages visually recessive;
- Minimise extent of driveway pavement and maximise opportunities for landscaping incorporating plantings of suitable scale.
- Use contrasting paving to reinforce pedestrian entry and create interest





Scenario 6 – Garage Forward

Where garages are a forward element of the building, their visual impact shall be reduced by means such as the following:

- The width of the garage shall not exceed 50% of the width of the dwelling
- Design interest shall be created using architectural treatments such as:
  - Light-weight pergola or eave over garage opening to create shadow line
  - Darker colours/texture for garage door and wall to help assist in making make building element visually recessive;
  - Minimise extent of driveway pavement and maximise opportunities for landscaping incorporating plantings of suitable scale.

Figure 18 – Design Solutions – Reducing the Impact of Garages on the Streetscape (Continued)

10. Open Space

The following open space requirements only apply to dual occupancy, multi dwelling housing and residential flat building developments.

Objectives:

- To provide sufficient and accessible open space for the reasonable recreational needs of residents;
- To ensure that private open space meets requirements for privacy of the residents and adjoining properties, safety, access to outdoor activities and landscaping.
- To locate open space to take account of outlook, natural features of the site and neighbouring buildings or public open space.

Design Principles:

- Open space shall be clearly defined to distinguish between communal and private open space.
- Open space areas shall be of usable dimensions to suit the projected requirements of the dwelling occupants, and to provide some outdoor recreational needs as well as providing space for service functions.
- Private open space shall be capable of serving as an extension of the function of the dwelling for relaxation, dining, entertainment, recreation and children's play, and where possible be directly accessed from a main living area of the dwelling.
- The open space shall be orientated to enable solar access to help achieve comfortable year round use.
- Private open space shall be screened for privacy.

General Requirements:

Private Open Space (POS)

10.1 Ground Level POS:

a. All ground level private open space must comprise a 'principal area' of minimum dimensions in accordance with Figure 20.
b. The minimum area of private open space for a ground level dwelling shall be in accordance with Figure 20.
c. The 'principal area' of POS shall form a direct extension to the internal living room or dining area of the dwelling (refer Figure 19).
d. To be included in usable open space calculations, open space at ground level

must have a minimum width in one direction of 3.0 metres.

e. The maximum cross-fall over the 'principal area' shall not exceed 2%.

f. Areas of ground level private open space required for external drying facilities, garbage storage, roof water tanks etc shall not be included in the principal area of private open space. These ancillary uses shall be located where they are able to be screened from view of the street or other public place.

g. The landscape plan for the development shall incorporate a detailed landscape design for each area of ground level POS.

h. Ground level POS shall only be located forward of the building line (but no closer than 900mm to the principal street boundary) where the orientation of the POS is within the 'optimum' range illustrated by Figure 20.

i. Where ground level POS is provided forward of the building line then privacy fencing shall be provided as detailed in Section 14.

10.2 Above Ground Level POS:

a. All above ground level private open space areas (eg balconies or terraces) shall contain a minimum area of 10 square metres and comprise a minimum dimension of 2.5 metres.

b. The 'principal area' of POS shall form a direct extension to the internal living room or dining area of the dwelling unit.

c. The orientation of above ground level POS and internal living rooms shall be within the 'optimum' and 'good' ranges illustrated by Figure 20.

d. A communal external drying area shall be provided for all dwellings that do not have ground level POS. This communal drying area shall be located so as to receive adequate natural sunlight and breezes and shall be screened from view from public areas and communal open space areas. Drying space shall be provided at a rate of 15 lineal metres of clothes line per dwelling serviced.

Note: Additional balconies etc are permitted but cannot be taken into account as POS unless meeting the minimum criteria specified above.

Communal Open Space

10.3 Ground level communal open space (COS) shall be provided within:

a. a multi dwelling housing development with fifteen (15) or more dwellings (eg. townhouses, villas etc).

b. a residential flat building with twelve (12) or more dwellings (eg. unit, apartment, flat etc).

10.4 Ground level COS shall:

a. contain an area sufficient to meet the relaxation and recreation needs of the

residents of the development and shall at minimum include barbeque facilities and shelter, tables, seating, children's play equipment, childproof fencing and associated landscaping.

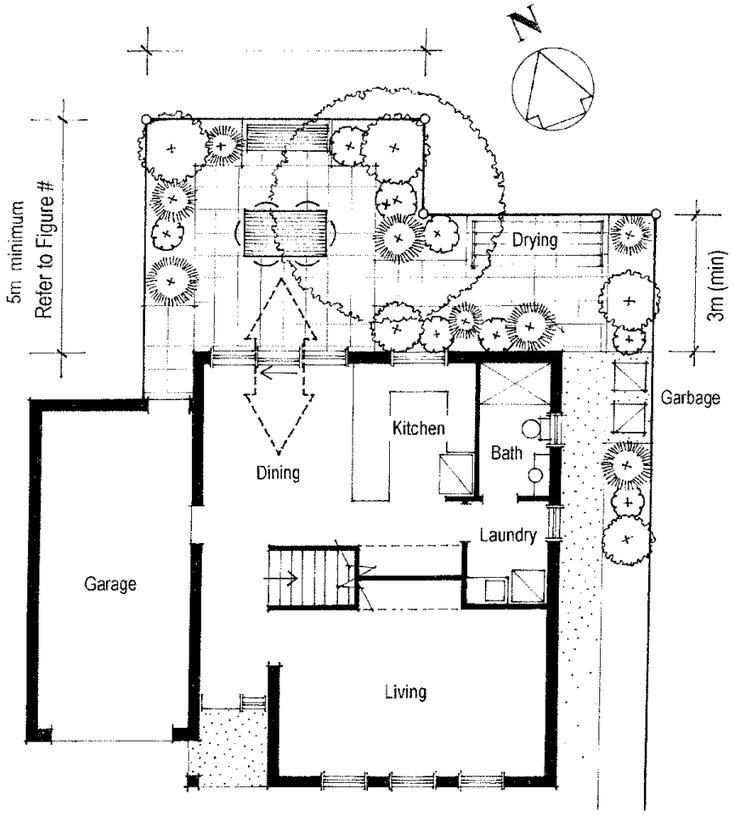
b. be centrally located to provide casual surveillance opportunities from surrounding units within the development.

c. be an integral part of the design for the development and must be provided clear, safe pedestrian access to minimise conflict with vehicle manoeuvring areas.

d. be provided with lighting sufficient to enable night time surveillance as a means of reducing vandalism and promoting the safety of residents. Care shall be taken in the selection of lighting and its location to minimise light intrusion to units within the development itself and also to adjoining properties.

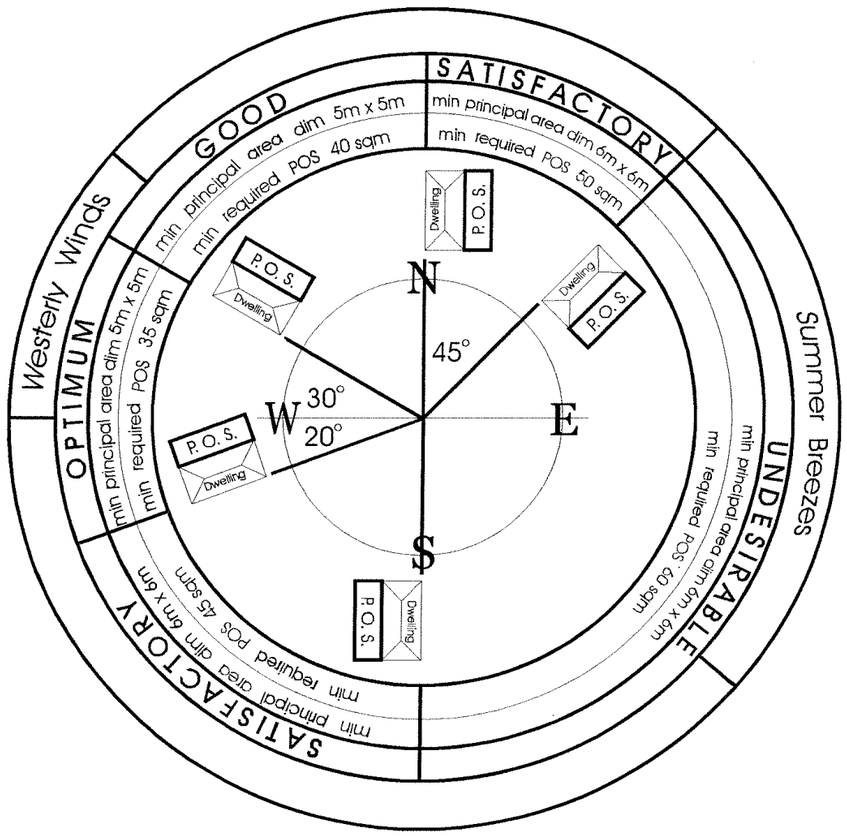
e. take into consideration its interface with adjoining dwellings (eg. windows, rooms etc).

f. contain facilities (eg: seating, play equipment etc) designed to meet the relevant Australian Standards.



- The private open space (POS) area serves as an extension to the internal living area of the dwelling
- POS serves as an 'outdoor room' providing opportunities for outdoor dining and relaxation
- Minimum dimensions and area of the POS are to be in accordance with Figure 20
- Maximum cross-fall for principal area of POS not to exceed 2%
- POS is orientated to maximise solar access
- Landscaping softens fencing treatments and also screens drying and garbage storage areas

Figure 19 – Key Design Principles for Outdoor Private Open Space



Note: The amount of ground level private open space required and the minimum principal area dimensions are based on the orientation of the open space and its relationship to the internal living areas of the dwelling

Figure 20 – Specifications for Ground Level Private Open Space

11. Sites having a boundary to a Laneway

Objectives:

- To ensure that new residential development is provided with a street address that contributes to the amenity of the development and gives new development a 'sense of place' in the overall urban environment.
- To ensure that new development is consistent with and contributes to the character of the existing streetscape.
- To ensure that laneways are developed in a manner consistent with their design constraints and function as service roads.

General Requirements:

11.1 Where a site has a secondary frontage to a laneway:

a. The dwelling(s) shall not be orientated to the laneway as a principal street address.

b. The main pedestrian entry point to the dwelling(s) shall form a direct connection with the principal street address and not the laneway.

c. Pedestrian access to dwellings located to the rear of the site shall be contained within a corridor not less than 2.4m wide.

d. The pedestrian access from the principal street frontage to the dwelling(s) located to the rear of the site shall be landscaped and provided with adequate lighting in accordance with 'Safer by Design' principles.

e. Car parking for a maximum of two vehicles only (consistent with the garaging provided for the existing allotment) shall be provided with access to the laneway.

f. No internal habitable floorspace shall be located closer than 3.0m to the property boundary with the laneway.

g. Garages/carports shall be located no closer than 2.0 metres to the property boundary with the laneway.

h. Where a garage is located closer than 5.5m to the property boundary with the laneway the garage doors shall be fitted with automatic opening devices to allow continuous movement from the laneway to the garage without obstructing the lane.

i. Where car parking is provided with access to a laneway care shall be taken to ensure that adequate manoeuvring area is available. Note that the narrow width of some laneways will mean that garages will need to be 'indented' from the laneway boundary and/or wider than standard garage doors installed to provide for adequate manoeuvring.

Assessment	
Neither dwelling is orientated towards the laneway. The main pedestrian entry point for each dwelling is not from the laneway. Complies. Complies. N/A N/A. Access is not provided from the laneway.	YES

Note: Depending on the standard of construction and overall condition of the laneway, Council may require the laneway pavement to be upgraded to ensure an adequate standard of access to the development (refer to Council's Manual of Engineering Standards).

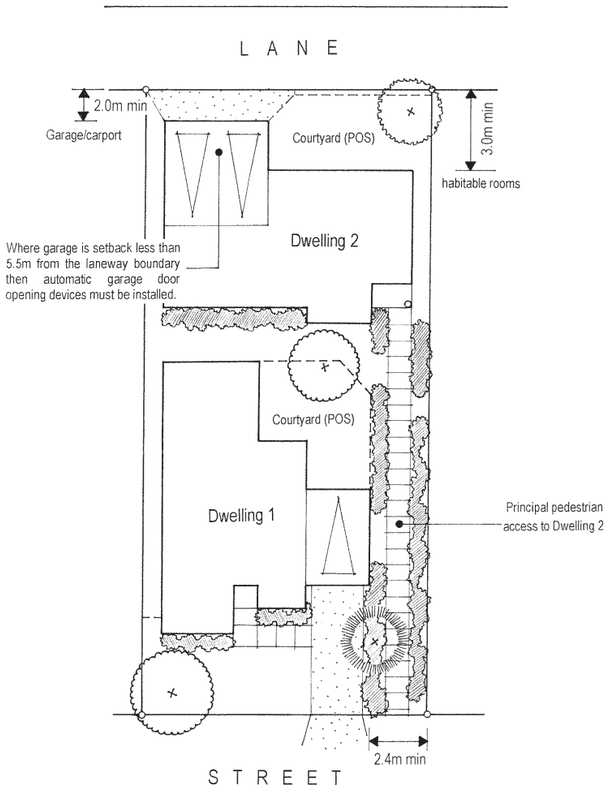


Figure 21 –Appropriate Design Solution for Sites Having a Boundary to a Laneway

13. Landscape Design

Objectives:

- To enhance the appearance, amenity, and energy efficiency of new development for the benefit of users and the community in general.
- To encourage the use of water efficient landscape systems embracing the principals of water sensitive urban design (WSUD).
- To encourage the integration of building and landscape elements.
- To protect existing landscape features including natural landforms, watercourses and native vegetation and integrate them, where possible, with new development.
- To enhance the acoustic environment (eg: through fencing, blade walls and location of open space areas) of a development and provide visual privacy and shade.
- To blend new development into an established streetscape and neighbourhood.
- To encourage the use of native plant species.

Design Principles:

- Site disturbance shall be minimised and existing landscape elements such as above-ground rock formations, significant trees and watercourses shall be preserved where possible.
- In established areas, landscaping should relate to the scale of other elements of the streetscape and of buildings/trees within the development itself and on adjoining land.
- The development shall be designed to provide the maximum opportunity for tree planting.
- Appropriate vegetation shall be used to provide shade to the northerly and westerly elevations of buildings in summer, while allowing penetration of sunlight in winter.
- Landscaping should be geared towards user requirements, taking into account maintenance, shade provision and aesthetic quality.

General Requirements:

13.1 With the exception of a single dwelling, all residential development shall be supported by a detailed landscape plan (inclusive of planting scheme) prepared and endorsed by a suitably qualified landscape consultant (eg landscape architect or horticulturalist) as meeting the objectives and design requirements of this chapter.

Assessment	
The application includes A detailed landscape plan being submitted as part of the application which list a planting schedule and planting specifications.	YES

13.2 The landscape design should, as appropriate:

a. Retain existing vegetation for integration with the landscape design for the development;

b. Employ the use of native vegetation suitable for local conditions which require lower maintenance and demand less water;

c. Incorporate the use of advanced specimens to ensure that the completed built form is immediately and effectively softened by landscaping.

d. Define a theme for new internal streets/driveways or complement existing streetscapes external to a site;

e. Be of an appropriate scale relative to the width of driveways and the associated space between buildings and the building bulk – trees should be introduced which achieve a height above the roofline of the dwelling to soften built form;

f. Take into account view corridors and introduce species that, where possible, preserve opportunities for views when the plants are mature;

g. Improve privacy and minimise overlooking between dwellings and also overlooking from public spaces such as footpaths and communal open space;

h. Provide adequate lighting for vehicular and pedestrian safety;

i. Account for streetscapes and landscapes of heritage significance;

j. Be tolerant of site conditions and adequately mulched in order to reduce demand for water, herbicides and fertilisers;

k. Clearly identify where turfed areas are to be located and specify the materials used for forming the edges of garden beds;

l. Detail the various paving materials used throughout the site for driveways, pedestrian pathways, parking areas and private open space areas.

13.3 The landscape plan for the development shall recognise private open space areas as 'outdoor rooms' and the design shall incorporate:

a. Paved areas or decks for outdoor dining/relaxation;

b. Garden areas to reduce the 'hard' visual impact of fencing, paving and walls;

c. Built-in seating (optional) – refer to example courtyard area at Diagram 19.

d. The inclusion of trees of a scale which will provide adequate shade (deciduous may be appropriate depending on orientation of POS);

e. Provision of drying areas and garbage storage areas and the screening of these areas with vegetation and/or structural elements such as timber panels;

Assessment	
No tree removal is proposed and native species are selected as part of the landscaping works.	YES

f. Water features (optional);

g. Full details of materials for fencing, paving etc.

Refer to Figure 19 for example of courtyard landscaping.

13.4 Residential developments that make the most positive contribution to streetscapes and the urban environment and provide higher levels of amenity and enjoyment for residents are those which have a sound maintenance regime for landscaped areas – both private open space and communal areas.

13.5 The landscape design for a development should integrate with the stormwater management scheme, having regard to relevant 'water sensitive urban design' (WSUD) principles.

Assessment	
	YES

14. Fencing and Walls

Objective:

- To ensure that all fences and walls provide privacy, security and noise attenuation without having a detrimental impact upon the streetscape, adjacent buildings, or the use of open spaces areas within the development or on adjoining land.

Design Principles:

- Fencing and walls shall:
  - Be compatible with the design and materials used in the proposed development;
  - Provide some outlook from buildings to the street to facilitate casual surveillance and safety;
  - Assist in highlighting entrances to dwellings and establishing a sense of identity in the streetscape;
  - Be proportionate in relation to the width of the allotment;
  - Integrate with other facilities such as letter boxes and garbage screens.

General Requirements:

14.1 The landscape plan prepared for the development shall incorporate full details of all fencing proposed including:

- location
- height
- materials
- colours.

14.2 For all forms of residential development, with the exception of a single dwelling-house, sheet metal fencing shall not be permitted where it forms a boundary with a street, or communal area within a development.

14.3 Fencing between dwellings shall be designed to provide visual and acoustic privacy to internal rooms and outdoor private open space. The recommended height for these dividing fences is 1800mm high but not less than 1500mm high.

14.4 For all residential development where sheet metal fencing is used it should be of mid to dark earthy colour to make the fence visually recessive.

14.5 Fencing within the street building line setback shall not be located closer than

900mm from the street property boundary for the principal street frontage of the development (refer Figure 22).

14.6 Where side boundary fencing projects forward of the street building line setback to the principal frontage then the maximum height of the fence shall not exceed 750mm within the building line setback area. *(Note: This requirement does not apply where the development qualifies to use the building line setback for private open space – refer Sec B9.9(h)).*

14.7 Front fencing for the purposes of containing a dwelling's principal private open space area, shall not occupy more than 50% of the street frontage of an allotment and shall not contain or obscure the principal pedestrian entry point to the dwelling from the street. Fencing may occupy greater than 50% of a site frontage if it can be demonstrated that the increased length of fencing is consistent with the established fencing within the street and character of the street, or because of environmental impact considerations, eg. noise.

14.8 Solid fencing for the purposes of containing a dwelling's principal private open space area, shall not exceed a height of 1500mm where located within the street building line setback unless it can be demonstrated that a higher fence is appropriate having regard to issues of noise, privacy, existing streetscape and architectural merit.

14.9 Nothing in this plan prevents the fencing of the street frontage of a property subject to the following:

- The building line setback area is not required for the purposes of principal open space;
- The fence shall not exceed a height of 1200mm (1.2 metres);
- The fence shall not comprise sheet metal material;
- The fence shall be of a design/materials which integrate with the dwelling(s) located on the land.

Advice

Fencing between adjoining properties is regulated by the Dividing Fences Act 1991. This Act is administered by the Local Court. For single dwellings the fencing of the property boundary (type of fence, height of fence, installation of fence and cost sharing arrangements) is a matter that must be determined between the two adjoining landowners and then the Court in those circumstances where agreement cannot be reached.

In the case of residential development proposing more than one (1) dwelling then the developer shall install and meet the cost of that fencing necessary to meet the requirements of this Chapter.

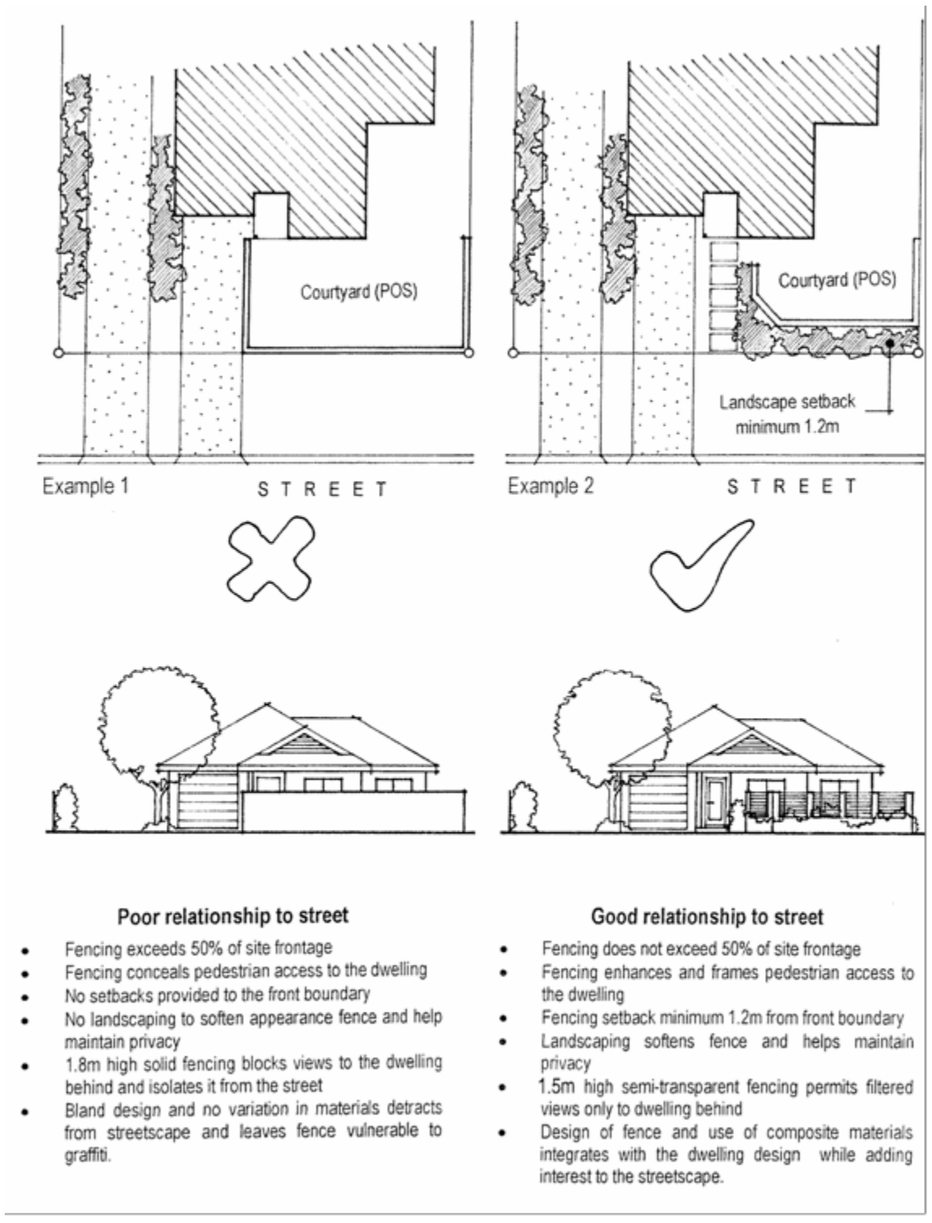


Figure 22 – Fencing to a Street Frontage

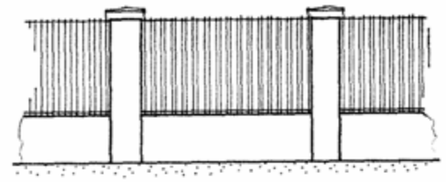


Figure 23 – Examples of Fencing Designs

Note: Applies where fencing is proposed forward of the street building line or where fencing is visible to a public place or communal areas internal to a development.

15. Driveway Access and Carparking

Objectives:

- To provide convenient, accessible and safe parking to meet the needs of residents and visitors which does not dominate the streetscape or cause congestion in nearby streets.
- To ensure that parking areas are designed to accommodate the needs of those persons with a disability.
- To encourage the design of access and parking as part of the overall landscape design.

Design Principles:

- The design of driveways and parking areas should have regard to:
  - The widest range of user groups inclusive of disabled persons;
  - The safety of pedestrians, cyclists and vehicles;
  - Proximity and frequency of public transport;
  - Street facilities such as kerb inlet/drainage pits, poles and services, street trees, bus and taxi stands/shelters, distance to corners;
  - Street width, traffic volume and on-street parking;
  - Part E.3: Heritage Conservation Areas

General Requirements:

Driveways:

15.1 Driveways shall be located no closer than 900mm from any side boundary for the full depth of the building line. This 900mm offset shall be provided with landscaping of suitable scale to ensure that sight lines along the public footpath and the roadway are not obstructed.

15.2 Driveways within the site should be a minimum of 2.7 metres wide and should include landscaping between the driveway and dwelling. (Note: In heritage conservation areas strip driveways may be a more suitable alternative – refer to Part E.3: Heritage Conservation Areas).

15.3 Landscaping shall be incorporated into the design of driveway and manoeuvring areas to minimise the expanse of hard surfaces and adverse visual impacts on the streetscape.

15.4 Straight ‘gun barrel’ driveway arrangements are not supported. Where long driveways are proposed landscaping of minimum width 1.0 metres shall be

provided along the boundary/fenceline incorporating wider landscape 'blisters' to create a 'meandering' effect and contrasting pavement treatments should be used to reduce the expanse of a single pavement material. Landscaping shall also be provided between the driveway and the external wall of the dwelling

15.5 Driveways within a site shall be at a maximum grade of 4:1 (H:V).

15.6 Driveway design from the road pavement across the public footpath area shall be in accordance with Council's "Manual of Engineering Standards" and appropriate structural drawings.

15.7 Driveways across the footway at the access point on the road reserve should be generally a maximum of 5 metres wide, although variation may be justified on turning and traffic safety issues.

15.8 Driveways across the footway shall be sited to avoid street trees, kerb inlet pits and other services such as light/power poles.

15.9 For developments other than single dwellings adequate vehicle manoeuvring area to Australian Standard AS 2890 shall be provided to enable vehicles to enter and exit the site in a forward direction.

15.10 For developments other than single dwellings, vehicle driveways shall be clearly distinguished from pedestrian entries and paths through design, finish or location.

15.11 On sites identified as Bushfire Prone Land under the Bush Fire Prone Land Maps endorsed by the New South Wales Rural Fire Service, access shall comply with the requirements of the document "*Planning for Bushfire Protection 2006*" (Planning NSW and Rural Fire Service).

15.12 Vehicle car parking spaces and manoeuvring areas (not including a driveway providing direct vehicle access to a garage or carport from the street) shall not be located within the building line setback area.

Car Parking:

15.13 The minimum number of off-street car spaces shall be as follows:

a. One (1) space for each one or two bedroom dwelling;

b. Two (2) spaces for each dwelling containing more than two bedrooms;

c. One (1) visitor space for the first three dwellings and one (1) space for every five dwellings thereafter or part thereof.

15.14 A minimum of one (1) off-street parking space should be provided for each dwelling as a covered space in the form of either a garage, carport or within a secured basement parking area. The parking space(s) should be convenient and accessible to the dwelling which it services.

15.15 Visitor car parking spaces should be freely accessible at all times and not located behind security gates or within secured basement car parking areas.

15.16 The minimum dimensions for car parking bays and aisles shall be in accordance with Figure 24.

15.17 Garages should comprise minimum dimensions in accordance with Figure 25.

15.18 Developments comprising up to two (2) dwellings may have the parking space(s) for both dwellings directly addressing and accessible from its street frontage.

15.19 Developments comprising three (3) or more dwellings may have one (1) dwelling only with a garage/carport directly addressing and accessible from its street frontage of the development.

15.20 Tandem (or stack) parking is permissible only where the garage for the dwelling has a direct frontage/address to a street. In this instance, the vehicle space on the driveway in front of the garage/carport can be calculated as part of the parking requirement for that dwelling but shall not be counted as a 'visitor' space.

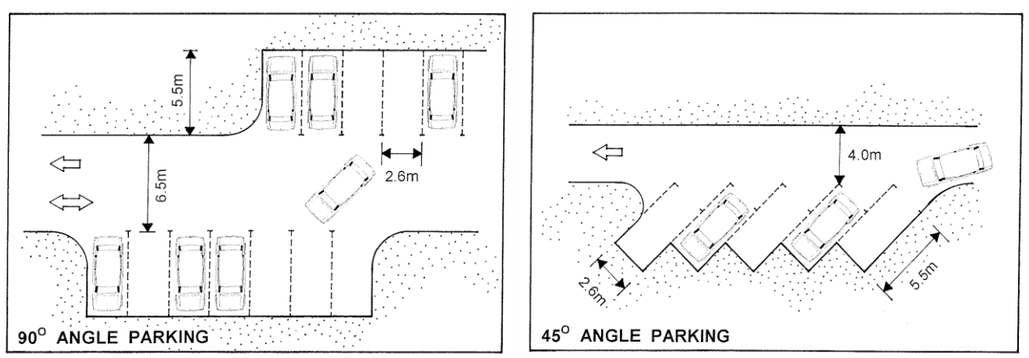
Accessible Car Parking (disabled users):

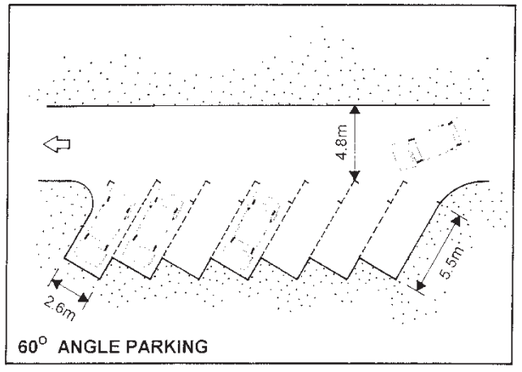
15.21 Designated accessible car parking facilities shall:

a. Be provided at the rate of one (1) accessible parking space for every adaptable dwelling;
b. Be located as close as possible to the adaptable or accessible dwelling they are intended to serve or alternatively as close as possible to each accessible public entrance;
c. Be linked to an accessible entrance to a building or to a wheelchair accessible lift by a continuous accessible path of travel, and preferably under cover;
d. Have a minimum width of 3.8 metres as shown in Figure 26. An overlap allowance of 500mm may apply when, parallel to the parking space, there is an adjoining walkway or similar surface which:
    - Is at the same level as the car parking space;
    - Is firm and level, with a fall not exceeding 1 in 40 in any direction;
    - Is not another car parking space;
    - Is not less than 1000mm in width.
e. Have a minimum vertical clearance of not less than 2500mm and a minimum length of 5.5 metres as shown in Figure 26;
f. Both the designated parking space and the continuous accessible path of travel shall be clearly signposted;
g. The signage for the actual parking space shall be painted on the surface of

the paved space and signposted at a height of not less than 1500mm centrally located at the end of the space;

h. The provision of accessible parking shall be signposted at the entrance of the car park.





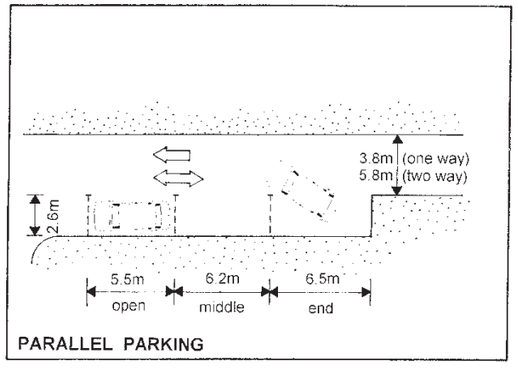
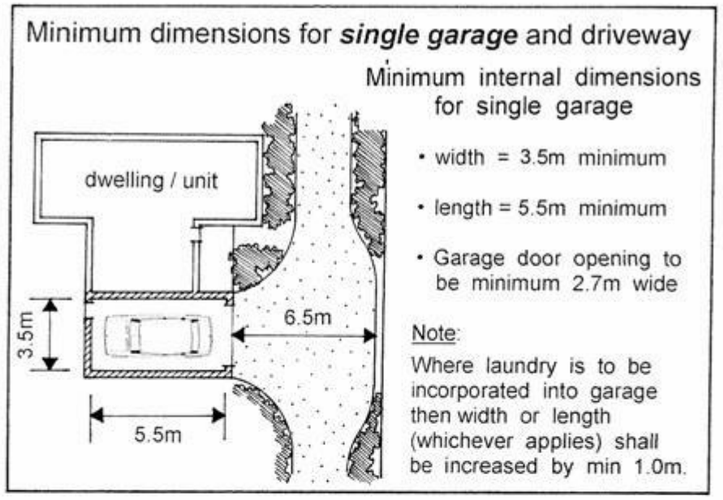


Figure 24 – Required Layouts for Parking Spaces and Driveways



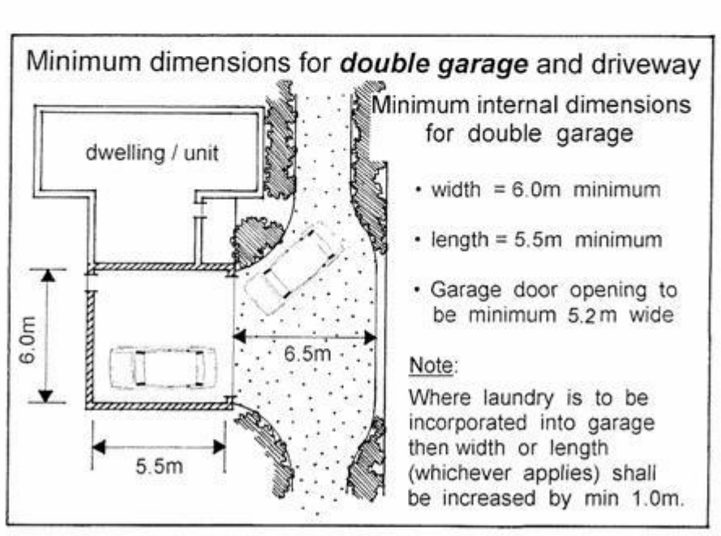


Figure 25 – Minimum Dimensional Requirements for Garages & Associated Manoeuvring Areas

NOTED

NO FURTHER COMMENT

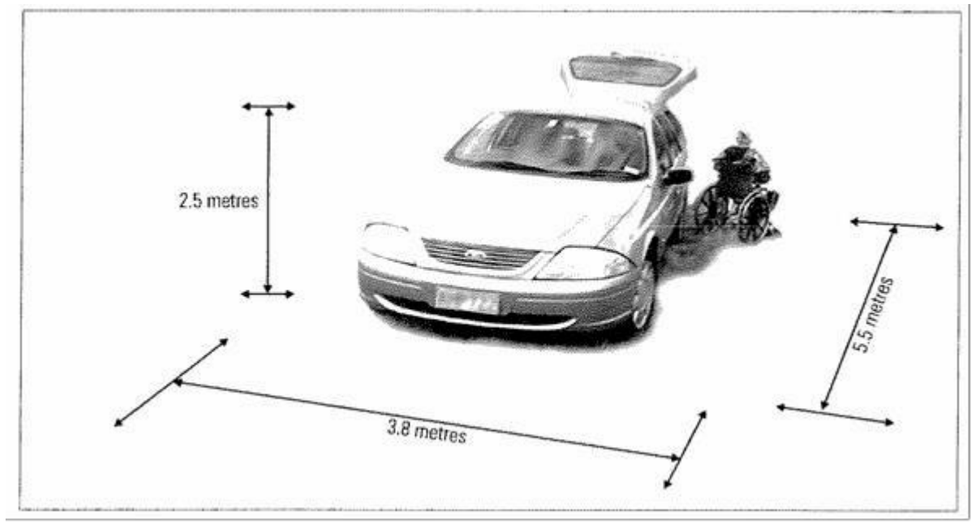


Figure 26 – Minimum Dimensional Requirements for Accessible Car Parking Spaces.
(Source: City of Sydney Access DCP 2000)

NOTED

NO FURTHER COMMENT

16. Views, and Visual and Acoustic Privacy

Objectives:

- To encourage the sharing of views whilst not restricting the reasonable development potential of a site.
- To site and design buildings to meet projected user requirements for visual and acoustic privacy.
- To protect the visual and acoustic privacy of nearby buildings and private open space.

Design Principles:

View Sharing

- All property owners should be able to develop their property within the established planning guidelines, however, existing views should not be substantially affected where it is possible to design for the sharing of views.
- Grand vistas and significant views that are recognised and valued by the community should not be obscured by new development.
- Heritage or familiar dominant landmarks should be retained and not obscured.

Privacy

- Proper consideration shall be given to privacy outcomes at the site planning stage. Development shall be designed such that the privacy of each individual dwelling and adjacent existing dwellings is protected, with particular regard to private open spaces and the windows of habitable rooms.

Design Requirements:

Visual Privacy

16.1 Overlooking of private open space and direct views between living area windows shall be screened or obscured using one or more of the following methods (as shown in Figures 27 and 28):

a. Separation distance between windows of habitable rooms or balconies
b. Separation by design
c. Offset living room windows of opposing dwellings/units
d. Splay windows to redirect sight lines
e. Build to a boundary and avoid window openings
f. Screen planting between units

g. Fencing design or privacy screens
h. Use of fin walls
i. Planter boxes
j. Louvre screens (vertical or horizontal)
k. Pergola
l. Change in level Acoustic

16.2 Where no design techniques and screening (eg fences or walls) are proposed, openings of adjacent dwellings shall be separated by a distance of at least 3.0m.

16.3 Site layout shall separate active recreational areas, shared parking areas and driveways, and service equipment areas away from bedroom areas of dwellings.

16.4 Mechanical plant or equipment (eg. Air conditioning units) shall be designed and located to minimise noise nuisance.

16.5 Shared walls and floors between dwellings shall be constructed to reduce noise transmission in accordance with the Building Code of Australia.

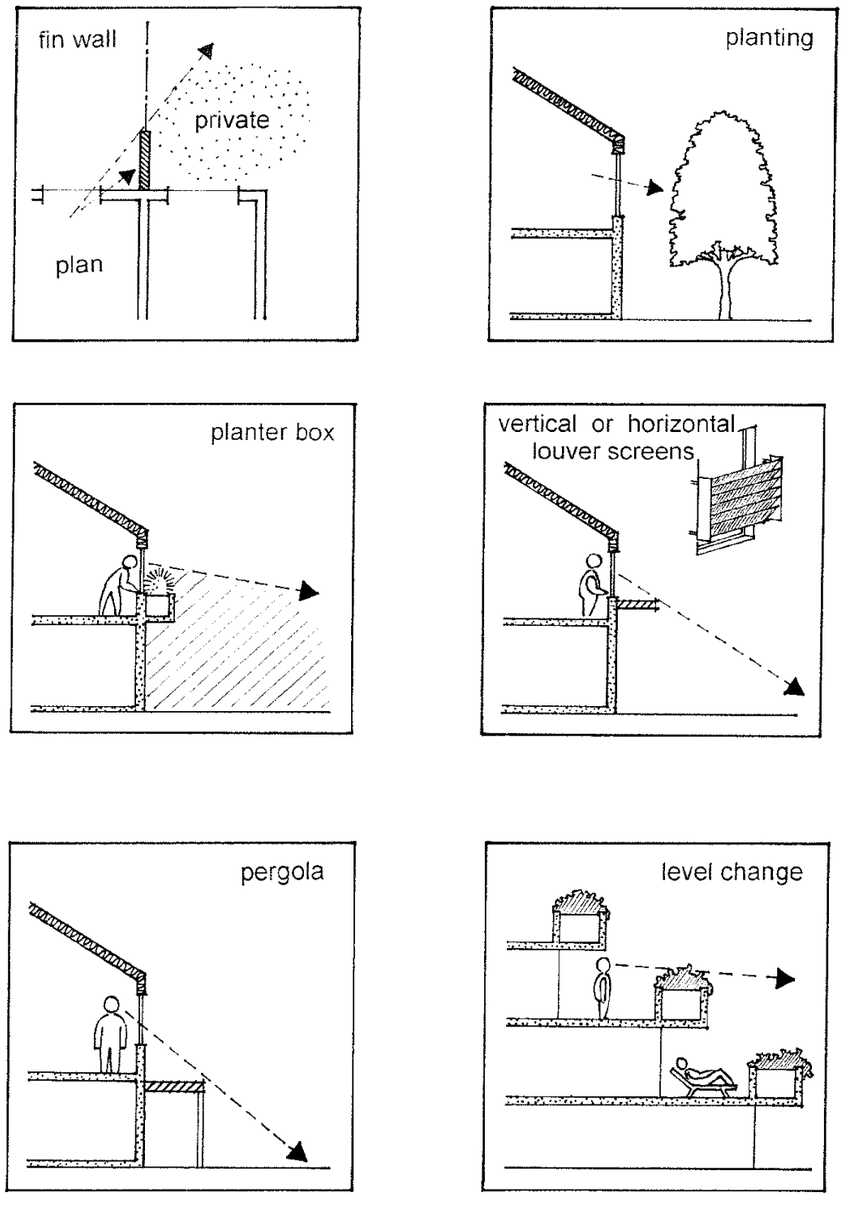
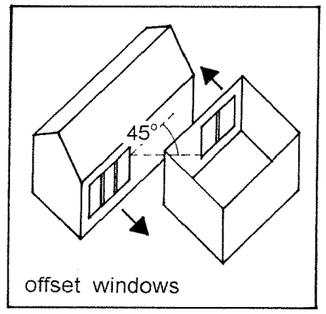
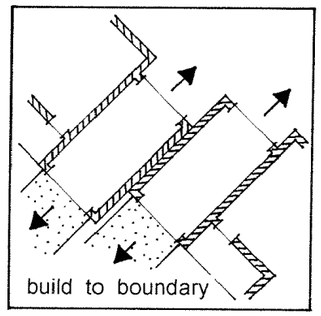


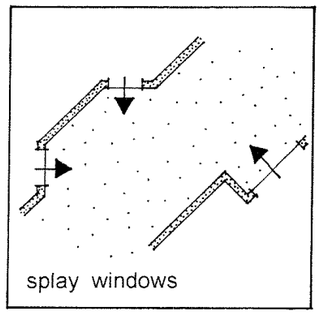
Figure 27 – Some Design Techniques to Reduce Overlooking from Upper Levels.

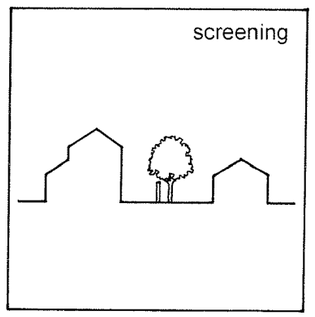
NOTED

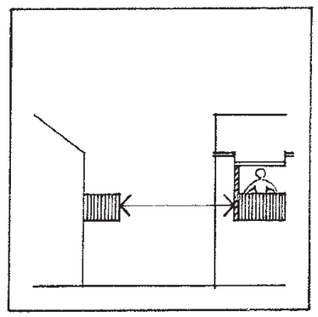
NO FURTHER COMMENT











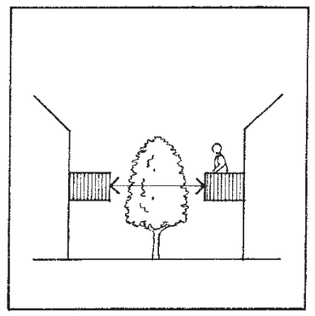


Figure 28 – Some Design Techniques to Prevent Direct Viewing into Adjoining Internal and External Living Areas.

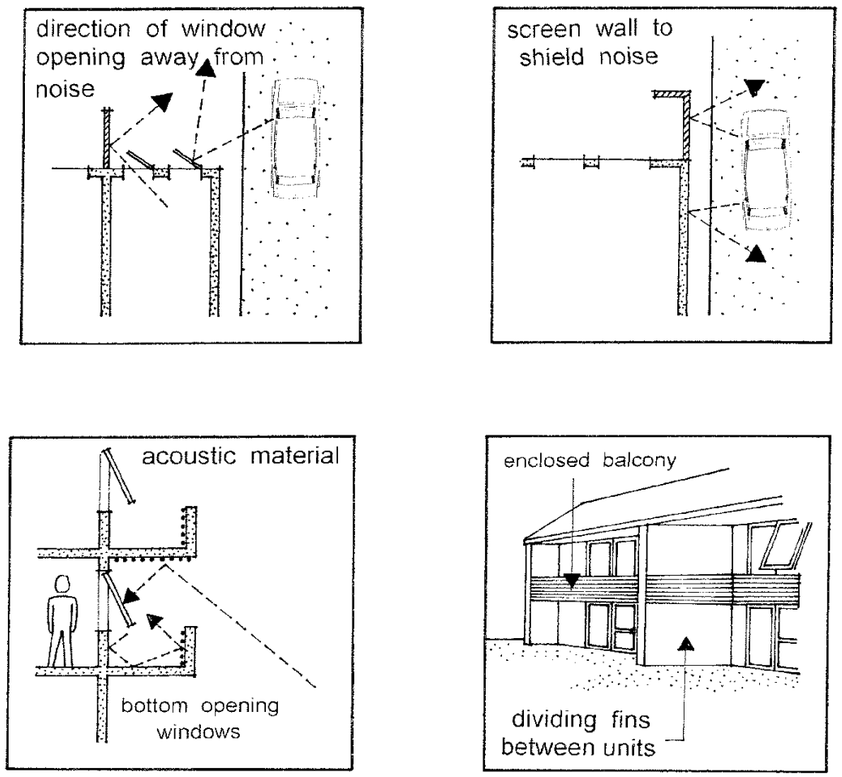


Figure 29 – Some Design Techniques to Achieve Acoustic Privacy

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NOTED

NO FURTHER COMMENT

17. Water and Energy Conservation

Objectives:

- To reduce total water and energy use in residential buildings in accordance with State Environmental Planning Policy – Building and Sustainability Index (SEPP BASIX) by promoting solar access and reducing heat loss and energy consumption for heating and cooling.

- To provide dwellings with adequate solar access and ventilation to both internal habitable rooms and private outdoor open spaces.

- To avoid the potential for significant overshadowing of habitable rooms and private open spaces within the development itself and also with respect to adjoining development.

- To encourage the use of building materials that are energy efficient, non-harmful and environmentally sound.

Note: The *Environmental Planning and Assessment Regulation 2000* prescribes when a BASIX Certificate is required to be provided with a Development Application.

NOTED

REFER TO BASIX CERTIFICATE

General Requirements:

17.1 It is recommended that buildings be orientated with the main indoor and outdoor living spaces towards the north and north-east (the optimum orientation for indoor and outdoor living spaces are shown in Figure 20).

17.2 To the fullest extent possible, buildings should be insulated.

17.3 Buildings should include adequate thermal mass and windows located, sized and shaded to facilitate thermal performance.

17.4 Windows in west facing walls should be avoided. However, where not possible, west facing walls should be designed with windows fitted with appropriate shade structures and/or landscape screens.

17.5 Building design should, wherever possible, include a north facing roof upon which a solar hot water system or collector could be installed. The building's internal plumbing should be designed to facilitate the installation of such a system.

17.6 The design of the building should maximise the cooling potential of natural ventilation by providing breeze pathways through the building (refer Figure 32).

17.7 Shadow diagrams may be required for residential developments of two storeys and over in urban zones if, in the opinion of the assessing officer, they are required and for all residential developments comprising two (2) or more dwellings where ground level private open space is located in other than an “optimum” or “good” location as shown in Figure 20. The shadow diagram shall address the overshadowing impact of new development and also the impact from adjoining development against the criteria provided under 17.8 below.

17.8 Development within the categories specified under 17.7 above shall ensure that adequate solar access is provided to both existing development adjoining the project site as well as to the dwellings and their associated outdoor open spaces within the new development itself. In this regard:

a. Development shall not reduce the sunlight available to windows of living areas that face north to less than 3 consecutive hours between 9.00am and 3.00pm on the Winter Solstice (June 21);

b. At least 50% of the principal area of ground level private open space shall achieve not less than 3 hours sunlight between 9.00am and 3.00pm on the Winter Solstice (June 21). Where existing overshadowing by buildings and fences is greater than this, sunlight should not be reduced by more than 20%;

c. At least 50% of the principal area of above ground level private open space shall achieve not less than 3 hours sunlight between 9.00am and 3.00pm on the Winter Solstice (June 21). Where existing overshadowing by buildings and fences is greater than this, sunlight should not be reduced by more than 20%;

d. At least 50% of the area of communal private open space shall achieve not less than 3 hours sunlight between 9.00am and 3.00pm on the Winter Solstice (June 21). Where existing overshadowing by buildings and fences is greater than this, sunlight should not be reduced by more than 20%.

Note: Council reserves the right to request shadow diagrams with respect to single storey development if, by reason of the topography of the site, the nature of adjoining development and fencing, the orientation of the building or the design of the building, there is potential for significant loss of solar access to adjoining lots or to dwellings within the development itself.

Assessment	
The gap in the shadow diagram who is by the development being in a detached configuration will result in solar access still being achieved to the northern elevation of the adjoining dwelling to the south. The private open space area of the adjoining development to the South is positioned near the rear boundary of the site as a result of the building having a significant front set back. As a result, this area achieves adequate solar access.	YES

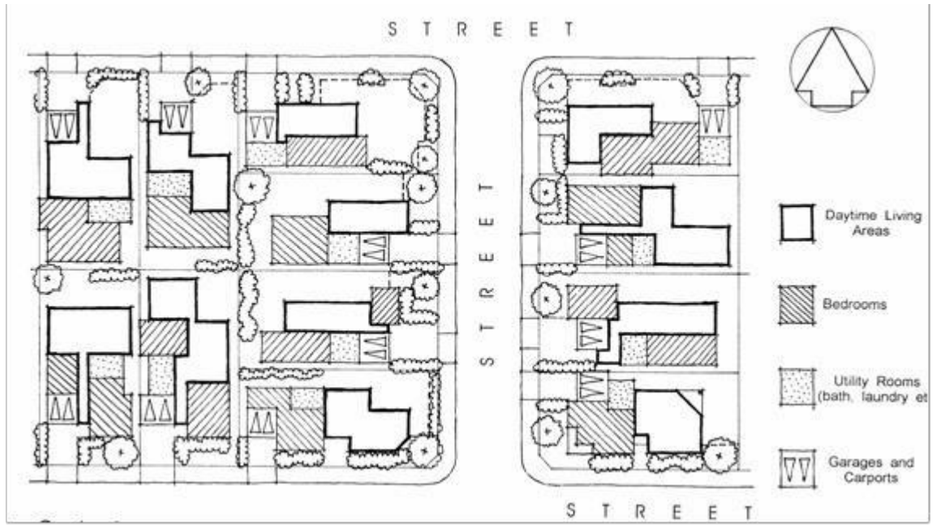

Figure 30 – Good Solar Access can be Achieved Through Appropriate Design Regardless of Lot Orientation

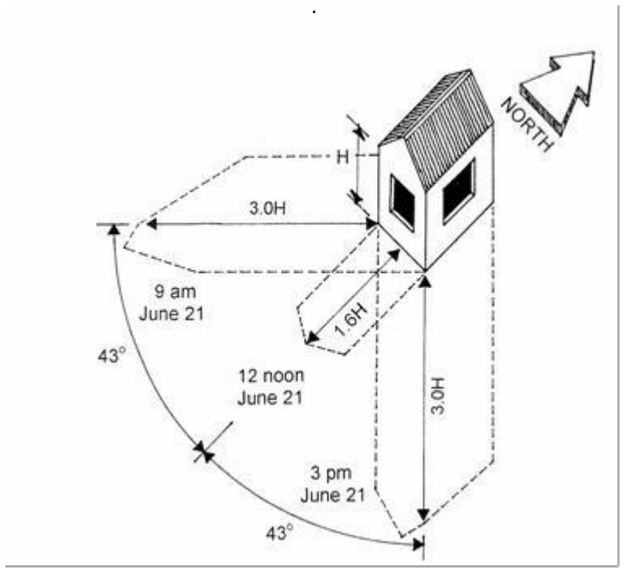

Figure 31 – Guide to Shadow Lengths on Level Sites

NOTED

NO FURTHER COMMENT

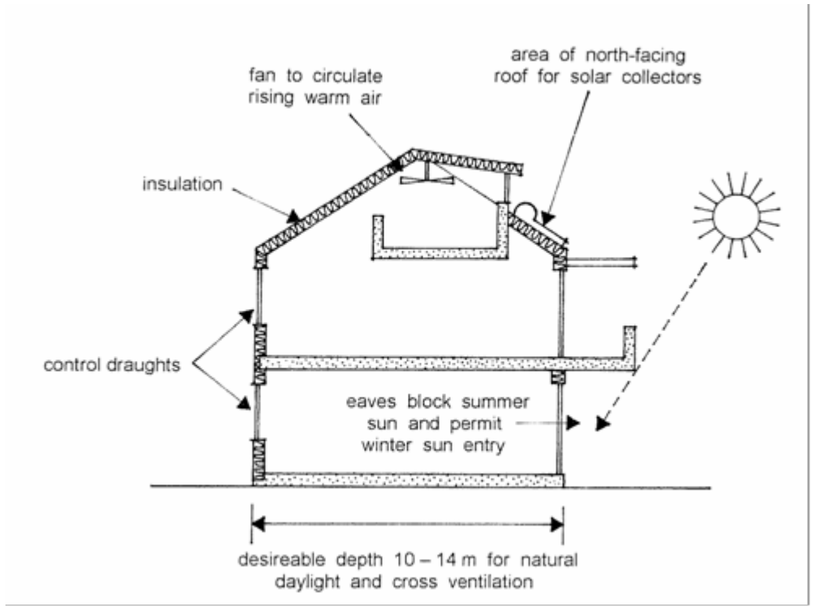

Figure 32 – Considerations for Solar Efficient Housing

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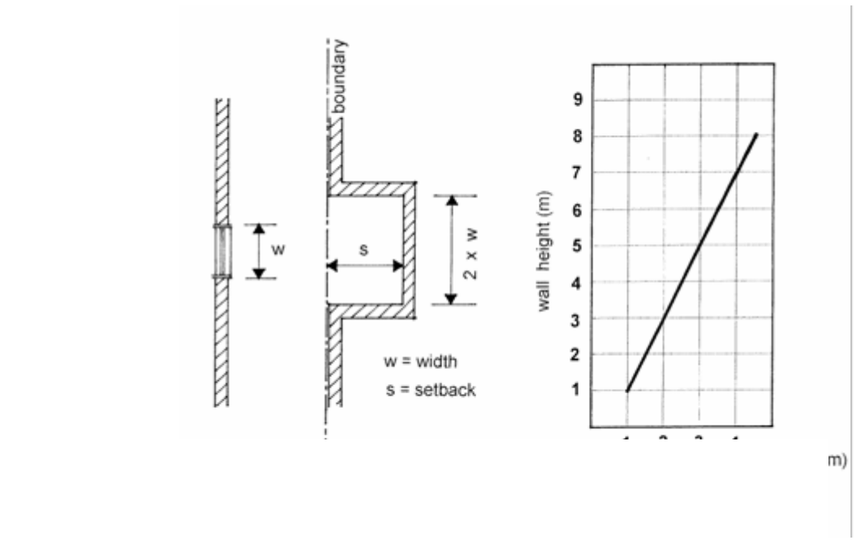


Figure 33 – Where 'zero lot line' is proposed (building built to a boundary) then light wells may be required to ensure adequate levels of solar access and ventilation to windows of adjoining buildings

NOTED

NO FURTHER COMMENT

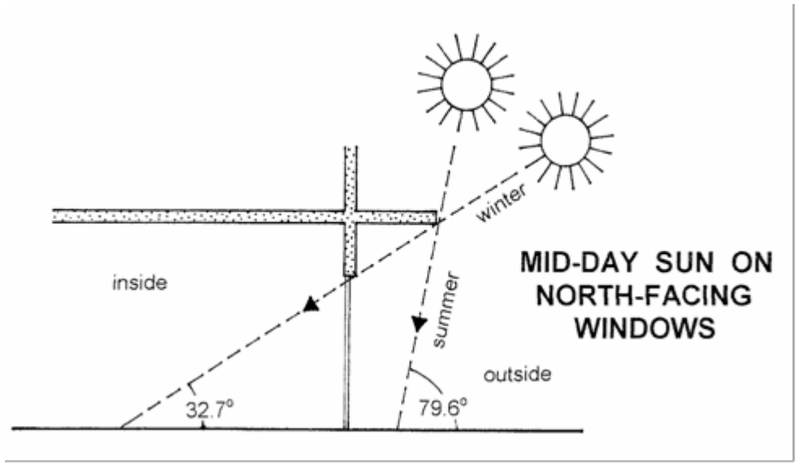


Figure 34 – Design Principles for Controlling Solar Access

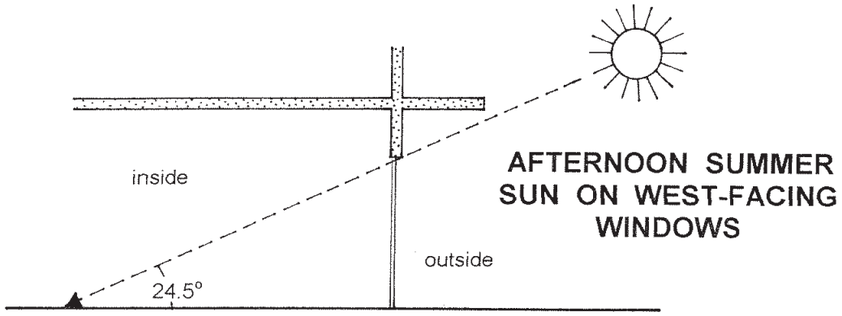


Figure 35 – Exclude Hot Afternoon Sun by Shading West –Facing Windows.

18. Stormwater Management

Objectives:

- To provide an effective stormwater management system which is sustainable and requires minimal maintenance.
- To prevent erosion, sedimentation and other pollution.
- To ensure that the rate of post-development stormwater discharge should be no greater than that of the pre-development stormwater discharge.
- To ensure that control flowpaths (eg: spillways, swales) are provided to cater for stormwater overflows.
- To cater for flows entering the site and to ensure that there are no adverse effects from flows leaving the site.
- To encourage the use of rainwater tanks as a means of reducing separate stormwater detention requirements and achieving more sustainable water re-use within the dwelling and for landscaping purposes.
- To ensure that drainage systems are designed for safety and that the systems avoid any potential for stormwater inundation of habitable floor areas.

General Requirements:

18.1 Due to downstream flooding/capacity issues and for developments other than single dwellings, on-site detention of stormwater is required in accordance with Council's Manual of Engineering Standards, to restrict the discharge rate of stormwater runoff. The methods may include tanks (either underground or aboveground) or surface storage areas such as driveways or landscape depressions. The amount of storage volume required is subject to detailed calculation but may be estimated at 9 cubic metres per 1000sqm of site area.

18.2 A detailed erosion and sediment control plan (ESCP) should be submitted with the development application. The ESCP should be prepared in accordance with the requirements of Council's Manual of Engineering Standards.

18.3 Ultimate discharge for collected stormwater runoff should be to a street drainage system, to an interallotment drainage line, or by approval to a public area. The system should be gravity-drained. Pumping of stormwater is not permitted.

18.4 The development site must be provided with an overland flowpath for the major storm event (1% AEP).

18.5 Stormwater storage tanks with a capacity in excess of that required to meet BASIX criteria may be installed to provide for on-site stormwater detention. Council's Manual of Engineering Standards provides details for calculations and 'BASIX' relationships. These tanks, unless provided underground, must not be located

within an area of principal open space. The area occupied by the tank must not be included for the purposes of calculating the required private open space at ground level for each unit.

18.6 As a minimum requirement, a stormwater drainage "concept plan" shall be submitted with the development application. The plan should include:

a. the pipeline/pit layout

b. water storage means/area

c. indicative levels at critical design points

d. overland flowpaths including details of the means of capturing runoff from all impervious surfaces

Note: Performance Criteria are included in Part B.2 of the *Maitland Development Control Plan 2011.*

19. Security, Site Facilities and Services

Objectives:

- To provide adequate personal and property security for residents via "Crime Prevention Through Environmental Design" principles – legibility, casual/natural surveillance, risk assessment and reinforcing territoriality.
- To ensure that site facilities such as garbage bin enclosures, mail boxes, clothes drying areas, external storage facilities, exterior lighting and signage are designed to be functional, visually attractive and easy to maintain.
- To ensure that all developments are adequately serviced with essential services in a timely, cost effective and efficient manner.
- To ensure that essential amenities and communication facilities are integrated within the residential design.

General Requirements:

19.1 For developments proposing ten (10) or more dwellings a detailed 'Crime Prevention Through Environmental Design' assessment shall be prepared by an accredited person and submitted with the development application.

19.2 Buildings adjacent to a public or communal space shall be designed to maximise natural surveillance, having at least one (1) habitable room window per dwelling facing that area.

19.3 Low intensity lighting (eg. bollard lighting) shall be provided to all shared pedestrian paths, parking areas and building entries.

19.4 Garbage or recycling areas, mail boxes and external storage facilities shall be sited and designed for functionality, attractive visual appearance and efficient and convenient use.

19.5 Where agreed to by public utility service providers, services shall be co- ordinated in common trenching in order to minimise construction costs for underground services.

19.6 Each dwelling shall be provided with direct and convenient pedestrian access to a public road.

19.7 Where there is no direct pedestrian access from a dwelling's private outdoor open space area to the public roadway then the development shall be provided with a common garbage storage area readily accessible from within the site and serviceable from the adjoining road.

19.8 The garbage storage area shall be designed so as to conceal its contents from view

of the adjacent public space and/or other properties. It shall be provided with a water tap for wash down purposes and drained to connect to the sewer.

19.9 Individual mail boxes shall be located close to each ground floor dwelling entry, or a mail box structure located close to the major pedestrian entry to the site complying with the requirements of Australia Post.

19.10 Open air clothes drying areas shall be provided for each dwelling with an aspect ranging between direct east to direct west (via north). The drying areas shall be located and/or screened such that they will not be visible from a street or public place. Each drying area shall comprise a minimum of 15.0 lineal metres of hanging line

19.11 All services – reticulated water, sewerage, electricity and telecommunications (and natural gas where available) shall be installed to meet the requirements of the relevant service provider.

Appendix A Photographic Review

This Annexure provides a series of photographs of various local residential developments. A brief commentary is provided for each as to how well the design element photographed responds to the provisions of the chapter. The Annexure is intended as a guide only to designers in preparing designs for residential projects.

PHOTO 1
Terrace housing remains a sound design option for higher density inner city locations. Fencing to the street, landscaping to the street frontage, blade walls separating verandahs of adjoining units and the use of various colours/textures in external finishes contributes to a development which provides a strong edge to the street yet a sense of individuality for each residence.

PHOTO 2
This detached dwelling within a multi-unit dwelling development utilizes the roof space to achieve a reduction in the bulk and scale of the building. Appropriate scale plantings and fencing successfully separates the private domain from the street yet retains a strong pedestrian entry and street address for the dwelling.

PHOTO 3
Good landscape design and execution is essential to the success of a project. The bulk and scale of this building is reduced by the use of differing entry/verandah treatments for each dwelling, use of various colours, materials and finishes and triple gable roof which enables the mass of the roof to be broken down.

PHOTO 4
The garages of this dual occupancy have been separated in an attempt to reduce their dominance to the street.

PHOTO 5
This 1.8m high cream coloured sheet metal fence adds little to the streetscape as it dominates the corner lot. The location of the fence on top of the retaining wall clearly shows how the amenity of the downhill dwelling may be affected in terms of overshadowing and obstruction of breezes and visually 'crowding' the dwelling from this side.

PHOTO 6
A good example of a single detached dwelling. The roof design and the well articulated external walls provide light and shade with a resulting building that adds interest to the street.

PHOTO 7
Triple fronted garages are not supported as they dominate the street elevation of the dwelling and require expansive impervious driveways areas.

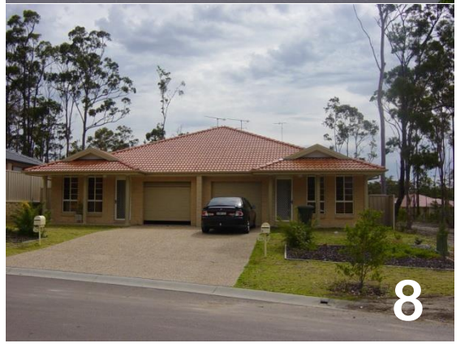
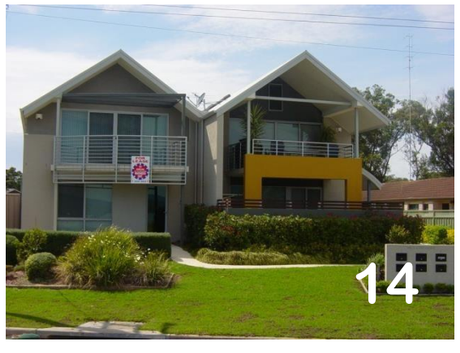


PHOTO 8
This dual occupancy is a mirror reversed design. The centralised garages and large driveway surface dominate the street elevation.

PHOTO 9
This detached dual occupancy has a poor street address. Double garage and wide plain concrete driveway dominate. 'colorbond' fence direct on the street boundary is visually obtrusive and conceals the pedestrian entry to the building.

PHOTO 10
This multi-dwelling development contains 4 detached units. It successfully addresses the street while at the same time reducing direct views to the units at the rear. The incorporation of larger scale plantings would result in an improved outcome.

PHOTOS 11 & 12
Good landscape design and execution contribute significantly to the amenity and visual quality of a development. The use of contrasting colours and textures in driveway pavements also helps to give some visual interest to these often expansive surfaces.



PHOTOS 13 & 14
This multi-unit housing development at Warners Bay uses simple building design highlighted by variations in balcony/portico treatments at the street elevation. Attention to landscaping has paid off and provides a high quality presentation to the street.

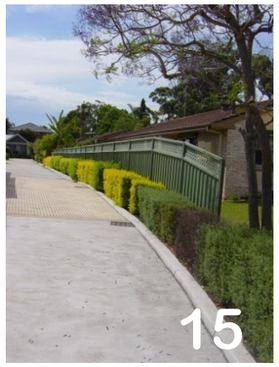


PHOTO 15
The hard edge created at the junction of driveways and fences should be avoided by the establishment of landscaping. Hedge planting and widened landscape blisters along a fenceline can greatly improve the visual amenity of these communal areas within a development.

PHOTO 16
Larger scale plantings within private courtyard spaces are encouraged. These plantings will provide shade and privacy and should be sympathetic to the scale of buildings within the development.

NOTED

NO FURTHER COMMENT

PHOTOS 17 & 18
This project demonstrates how successful an appropriate scale and density of landscaping can be in screening private courtyards and balconies from the street and reducing the visual impact of taller buildings. The driveway treatment provides variation in colour and texture to create visual interest to the development.

PHOTOS 19 & 20
This design responds well to a sloping site. Located in an area comprising predominantly small single storey workers cottages the scale and form of the development at the street is sympathetic to surrounding development. The two storey dwellings are only fully appreciated at the driveway entrance and the internal driveway and open space areas at the rear.

NOTED

NO FURTHER COMMENT

PHOTO 21
This communal open space area is small but does have good solar access and landscaping making it suitable for outdoor relaxation.

PHOTO 22
First floor balconies designed for privacy. Contrasting materials/finishes provided to the driveway areas together with landscaping and timber balcony enclosures makes this an attractive space.

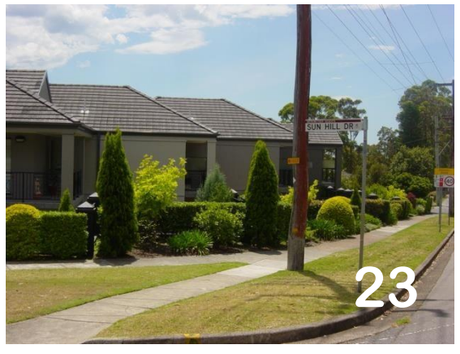


PHOTO 23 & 24
This multi-unit housing project also makes good use of a sloping site. Presenting as single storey from the street, the landscaping hides the courtyard areas located below the level of the pedestrian footpath within the building line setback.

NOTED

NO FURTHER COMMENT

PHOTOS 25 and 26
Fencing to the street boundary should be consistent with the architecture of the dwellings and make a positive contribution to the streetscape.

PHOTOS 27 & 28
These multi dwelling housing developments are located in 'heritage conservation areas'. They are simple in architecture and have a scale consistent with the predominantly small cottages surrounding them.

PHOTO 29
This first floor addition has been constructed within the roof space of the existing dwelling and successfully contains the bulk and scale of the building.

PHOTO 30
This street facing unit in a development of three units sits within an older streetscape comprising small weatherboard and brick cottages. This design works well in that the dwelling addressing the street has a scale and configuration which is sympathetic to the surrounding development with the garage to the rear unit appearing as a typical detached backyard garage common to the era of the existing older residential development.

PHOTOS 31 and 32
This corner unit in a development of three units has a poor relationship to the street in three regards:

1. The floor level of the unit sits well below the level of the footpath making the roof the dominant element of the building.

2. The dwelling has no clearly distinguishable pedestrian entrance visible to the street with the garage door dominating.

3. The use of sheet metal fencing to enclose private open space is inappropriate although the landscaping, as it has matured, has been fairly effective in screening the fencing.

NOTED

NO FURTHER COMMENT

PHOTO 33
This textured pavement combined with dense plantings along the fenceline/driveway edge and small pockets of landscaping adjacent to the units themselves is sufficient to create a pleasant visual approach to these attached dwellings.

PHOTO 34
These very deep lots present a challenge to the designer. Long 'gun barrel' driveways are undesirable and should be avoided by positioning of buildings, provision of larger landscape blisters on either side of the driveway, and variation to driveway pavement finishes.

PHOTO 35
Private open space can be located within the building line setback provided it is appropriately fenced. This corner dual occupancy development works particularly well because existing trees have been retained and incorporated into the final landscape design.

PHOTO 36
This development is poor on a number of fronts:

1. Garages are placed forward with pedestrian entry to the buildings too deeply recessed and not readily distinguishable from the street.

2. Garages occupy well in excess of 50% of the frontage of the building and dominate the street elevation.

3. Inadequate landscaping results in a 'hard'

NOTED

NO FURTHER COMMENT

PHOTO 37
Another example of poor presentation. This development is accessed over a wide section of road reserve. Bad unit orientation, courtyard positioning, fencing, bland driveway treatment and lack of appropriate landscaping have resulted in a development with extremely poor street presentation.

PHOTO 38
What could have been a reasonable design outcome for this multi-dwelling development in a heritage conservation area has been severely compromised by establishing the floor level of the new development too low in relation the adjacent heritage duplex.

NOTED

PHOTO 39
The best landscape plan is put to waste if there is no intentional effort to maintaining these areas. The result is poor amenity for residents and a development which detracts from the streetscape.

NO FURTHER COMMENT

PHOTO 40
This multi-dwelling development adjacent to the flood plain has been deliberately elevated to achieve flood free floor levels. In this case it is critical that the scale of plantings be suitable to provide privacy to the private decks and to soften the development. Other short term screening to the decks would have been good until landscaping matures.

PHOTO 41
Poor planning has resulted in hot water services being located directly adjacent main pedestrian entry points in this multi-dwelling development. A better result would have seen the HWS units located elsewhere and suitably screened.

PHOTO 42
Low scale fencing that defines private space, clearly defined pedestrian entries addressing the street, appropriate scale tree planting and variations in colour, texture and materials combine to make this development a relatively successful addition to an older street.

PHOTOS 43 & 44
This inner suburban townhouse development addresses 2 streets.

The units to the minor street (43) show good articulation in walls which provide depth and shadow to external elevations. Building height is appropriate with well designed fencing giving good definition to private open space.

The buildings to the main street frontage appear bland and bulky largely due to a lack of variety in colours, materials and finishes.

NOTED

NO FURTHER COMMENT

PHOTOS 45, 46 & 47

This medium density housing development comprises around 20 units and is located on a corner lot.

The buildings respond sensitively to the site by adopting bearers and joist construction – this method of construction results in less bulk earthworks.

The visitor car parking area is located central to the site where it is accessible to all dwellings however additional landscaping would reduce the visual impact of driveway surfaces.

Although a very uniform colour scheme has been adopted, there is good articulation in external walls and roof shapes to create shadow and depth and visual interest to the development.

Fencing design integrates well with the design of the buildings and is of a scale which does not dominate the buildings or street.

Corner units, on the whole address both streets well with 'wrap-around' verandahs and large windows to both streets at ground level. First floor elevations could have demonstrated improved relationship to ground floor elements.

C.10 – Subdivision

Application

This chapter applies principally to the design and construction of new subdivisions on all land to which the Maitland Local Environmental Plan 2011 applies.

Design requirements for Geometric Road design, Road widths and detailed drainage requirements are found in council's Manual of Engineering Standards. Detailed Subdivision Works Certificate and Engineering Plan requirements, construction standards and Subdivision Certificate requirements are also contained in the Manual of Engineering Standards.

There are other chapters within this DCP that also contain controls over subdivision design and development, such as Urban Release Areas and Heritage Conservation. These chapters should be reviewed in conjunction with these general guidelines.

Where no site-specific Chapter or Locality Plan exists, Council may require that one is prepared prior to approving subdivisions, especially where the land is subject to environmental constraints and/or more than one land parcel or ownership is involved.

Objectives

- To promote the efficient use of an increasingly limited land resource in the City Maitland.
- To encourage innovation in subdivision design to create a strong sense of community, a pleasant living environment and reduce environmental impacts.
- To encourage an integrated approach to street pattern, lot layout and facility provision to create desirable urban environments and character.
- To ensure that the principles of Ecologically Sustainable Development (ESD) are applied to the design of subdivisions and subsequent housing.
- To ensure that subdivisions protect and enhance rural character and prevailing views in the City.
- To facilitate different subdivision forms and the use of different land title systems which may assist in minimising and managing environmental problems (eg the use of community title to manage areas requiring environmental repair or common drainage or effluent systems).
- To ensure that subdivisions and subsequent housing take account of physical constraints such as bushfire, flooding, landslip, and the like.
- To protect key cultural resources (places of environmental heritage value) from

land use or management practices that may lead to their degradation or destruction.

- To protect and enhance the limited amounts of remnant/contiguous vegetation in the City.

1. TITLE SYSTEMS FOR SUBDIVISION

There are three main forms of subdivision and related land title in NSW, and the most appropriate form should be utilised depending upon the nature of the subdivision and any components or features which may require joint ownership and/or management.

1.2 Conventional or Torrens Title Subdivision

This is the traditional or "single lot" form of subdivision, common in many residential estates. It applies to both "Old System" and "Torrens Title" on freehold land. Any buildings and structures erected on the land effectively become part of the land by definition.

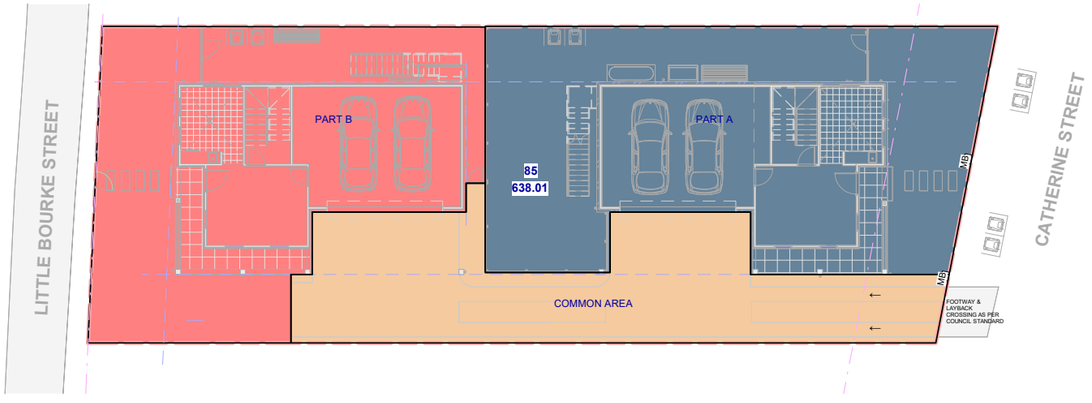
1.3 Strata Subdivision

Strata subdivision is defined as "subdivision" in the Act, and requires Council consent. Strata subdivision can subdivide buildings and land into separate lots capable of individual ownership. Courtyards, other open space areas and garages may be included as part of a strata title lot. Anything not forming part of a lot in the strata scheme becomes common property owned and managed by the "Owners Corporation". The Corporation consists of representatives of the owners of the lots, and is responsible for the control and management of the common property (which can include the building itself in some cases) and for the keeping of financial records and other specified documents.

Council will have regard to relevant provisions of the *Strata Schemes Act 1973* and the *Strata Scheme Legislation Amendment Act 1999* when considering applications for strata subdivision.

1.4 Community Title Subdivision

Community Title is a relatively new form of title created under the *Community Land Development Act 1989* and the *Community Land Management Act 1989*. Community title provides individual ownership of lots (with buildings and structures erected on the lots as in conventional subdivision) and a share in the association property. Association property is a lot in the scheme on which community facilities may be erected. Association property can include land for roads and driveways, swimming pools and other common facilities, common open space areas and common infrastructure facilities, such as water treatment plants and the like.

Assessment	
Subdivision of the development is provided through a strata subdivision plan which simplifies the development in terms of vehicular access, maintenance, being sympathetic to the heritage context and engineering requirements. 	YES

A multi-tiered structure is possible through Community, Precinct and Neighbourhood Associations, with developments able to be undertaken in stages.

Community Title subdivision can be particularly useful where individually owned lots are required, but where common property and/or facilities are desired or required by Council. An example of the latter may be where Council requires a watercourse in a rural residential scheme to be maintained and enhanced as part of the development proposal.

All Community Title development applications must include a Management Statement which sets out the rules and responsibilities for running of the scheme.

2. SUBDIVISION DESIGN PROCESS

All applications for subdivision must be accompanied by evidence of a thorough **Site Assessment**, addressing the physical characteristics of the subject land and that land surrounding it which is likely to affect, or be affected by, its development. The site assessment should form the basis of the Statement of Environmental Effects (SEE) which must be submitted with every application, as required by the *Environmental Planning and Assessment Regulation 2000*.

The information collected through site assessment is often best presented on a plan, accompanied where necessary by written information. However, written information alone, as part of the SEE, may be sufficient in some circumstances. The level of investigation required for a site assessment will vary depending upon the nature and size of the subdivision proposal and its location in the local government area. Pre-consultation with Development Assessment staff is essential.

Following the Site Assessment, the design of the subdivision can be undertaken to suit particular site needs. For detailed Construction Certificate and Engineering Plan requirements, construction standards and Subdivision Certificate requirements applicants must refer to Council's Manual of Engineering Standards.

3. DESIGN ELEMENTS

This section of the chapter contains Council's requirements for each of the Design Elements to be considered in planning a subdivision. These requirements will be applicable to almost all subdivision applications.

The Design Elements are broken down into three components:

a. **Environmental Considerations (EC)** – pre-planning the subdivision design
b. **Design Considerations (DC)** – subdivision design
c. **Identity Components (IC)** – relating to gateway elements and the identification of the locality and its road systems through design and landscaping.

EC.1 Flora and Fauna

Objectives:

- To protect remnant bushland, significant flora and fauna habitats and wildlife corridors from the impacts of subdivision and subsequent development.
- To provide for the repair and enhancement of environmentally significant natural systems such as watercourses and drainage lines, and any part of the land that is already degraded through vegetation loss, soil erosion and the like.
- To minimise the impact on vegetation of likely future development on the lots created, including clearing for dwelling and building sites, roads, access, fire prevention, provision of services and the like.

General Requirements

EC.1.1 Areas of significant habitat must be protected.

EC.1.2 Design subdivision layout to avoid significant stands of vegetation. Where the subdivision proposal affects significant stands of vegetation, lot layout and lot size must take into account the need to retain the vegetation and the impact of likely future development on the lots, including building envelopes, parking, access and other development requirements such as Asset Protection Zones.

EC.1.3 Retain existing natural drainage lines and watercourses where practicable, revegetate where necessary and incorporate into open space areas (including pedestrian and/or cycleway corridors) or include in common property.

EC.1.4 Provide link to existing vegetation corridors through open space provision and appropriate planting.

EC.1.5 Lot boundaries should be located to incorporate the whole of any significant stand of vegetation that is not included in common areas.

EC.1.6 Land title choices should reflect the need to protect and enhance vegetation. For example, Community Title may be appropriate where degraded areas need to be rehabilitated and maintained as part of the consent.

EC.1.7 The location of all natural drainage lines, wetland areas and significant stands of vegetation are to be mapped. Any vegetation to be removed must be identified and quantified. The subdivision application is required to address appropriate mechanisms for retention and protection of native vegetation.

EC.1.8 Where a subdivision proposal is likely to result in the loss of vegetation, or is likely to impact upon any environmentally sensitive area (such as a watercourse, wetland etc), it is to be accompanied by a flora and fauna assessment report prepared by a suitably qualified person. This report is to primarily address the 7

Part Test referred to in clause 1.7 of the Environmental Planning and Assessment Act, 1979, and the requirements of SEPP (Biodiversity and Conservation) 2021. As a result of this report a subsequent Species Impact Statement may be required.

EC.1.9 Where environmental enhancement is required, a planting and vegetation management scheme is to be prepared and implemented, indicating the re-instatement or enhancement of vegetation in riparian areas adjoining water courses, major drainage lines, significant areas of native vegetation, habitat, or proposed vegetation corridors and land use buffer areas.

EC.1.10 Planting should consist of species indigenous to the locality, and those which will enhance bio-diversity and provide wildlife habitat. Suitable species can be sourced from local nurseries, or seed collected from plants already growing in the area. Species and planting guidelines are available from Council and/or Greening Australia.

<u>Rural and environmental zones (including land zoned R5 Large Lot Residential)</u>

EC.1.11 New development is not to result in the removal of remnant vegetation. Subdivision design should incorporate native vegetation into the character of the development.

EC.1.12 Significant areas of vegetation, existing or proposed vegetation/wildlife corridors, riparian areas, habitat, major drainage lines and land use buffers should desirably be contained in separate environmental buffer allotments with satisfactory provision made for their ongoing maintenance and management.

EC.1.13 Environmental enhancement may be required in areas that have previously become degraded, or are near areas of special conservation value or significant areas of native vegetation.

EC.2 Heritage and Archaeology

Objectives:

- To protect heritage items, buildings with heritage significance and Conservation Areas.
- To ensure that heritage items, buildings with heritage significance and Conservation Areas are properly considered in the design of new subdivisions.
- To protect known and potential archaeological relics from damage or destruction as a result of subdivision works.

General Requirements:

EC.2.1 Clause 5.10 in the Maitland LEP 2011 and Parts C.4: Heritage Conservation and E.3: Heritage Conservation Areas in this DCP contain provisions which require

investigation and protection of heritage items in certain circumstances. These provisions apply in some cases to subdivision and must be complied with.

EC.2.2 Where a subdivision proposal affects any listed heritage item, the impact on the curtilage or immediate context of a heritage item must be evaluated in the Statement of Environmental Effects. Part C.4: Heritage Conservation should be considered to determine whether the preparation of a Character Statement or Statement of Heritage Impact is required.

EC.2.3 Preparation of an Archaeological Assessment may be required where there is no previous investigative study, or where such study was so broad that Council is unable to reasonably predict the likelihood of European or Aboriginal sites of significance (such as a site that is the location of an Aboriginal place or relic, within the meaning of the National Parks and Wildlife Act 1974). If in doubt, applicants should consult with the NSW National Parks and Wildlife Service or Council.

Part C.4: *Heritage Conservation* provides information and requirements for Initial Assessments (to determine the need for an Archaeological Assessment) and Archaeological Assessments. Applicants should refer to this information, and must consult with Council staff prior to undertaking such work should an assessment be required.

It is an offence to destroy an Aboriginal Archaeological site without the consent of the Director of National Parks and Wildlife. Even where studies have been undertaken, if a place or relic is discovered during construction of a subdivision, all work in that area must cease until such consent is obtained. Similarly, the consent of the Heritage Office is required for destruction of significant non-aboriginal sites.

EC.3 Hazards

Objective:

- To minimise risk to life and property from hazards such as bush fires, flooding, landslip, land contamination, salinity and acid sulfate soils.

General Requirements:

- All new subdivisions are to be designed to provide adequate, safe access for future users.
- Each new lot created must have adequate site area/building envelope which is free from hazard and can accommodate future development on the site without costly site works on individual lots and without the necessity for loss of significant areas of vegetation.
- Buffer zones, exclusion zones and/or remediation works may be required by Council to ameliorate any or all of the below mentioned or identified

hazards.

- Subdivisions must take account of any hazards identified in the Maitland LEP 2011 (such as acid sulfate soils), this DCP, or otherwise identified by Council or by Government gazette (e.g. unhealthy building land).

Site Specific Requirements:

Flooding

EC.3.1 All lots within new residential subdivisions shall have safe access made available to satisfy Clauses 5.21 and 5.22 of Maitland Local Environmental Plan.

EC.3.2 All new residential lots are to be wholly above Council's adopted flood standard (the 1% AEP or 1 in 100 flood event). Parts of the lot may be permitted below the adopted flood standard, where lot sizes have been increased to provide sufficient flood free area for erection of a dwelling and associated structures.

EC.3.3 Rural subdivision in floodways is not permitted. Where part of the land may be affected by flood waters (such as back-water), all lots must have a suitable building envelope, above the 1% AEP flood standard, of sufficient size to allow development of improvements, with any required effluent disposal area, and must have safe flood-access to a public road. Specific provisions in the Maitland LEP 2011 and the requirements of Chapter B.1: Hunter River Floodplain Management must be considered.

EC.3.4 New industrial/commercial lots will generally be required to be flood free and free from other hazards.

Bushfire prone land

EC.3.5 The development must comply with the NSW Planning for Bushfire Protection Guidelines.

EC.3.6 A bushfire threat assessment must form part of all development applications for subdivision where the land is identified as 'bush fire prone land' on Council's map. The threat assessment is an integral part of the subdivision design, and affects lot shape, size, orientation and road layout. Bushfire protection measures have the potential to affect vegetation, fauna, views, watercourses, soil erosion, amenity and access.

EC.3.7 Assessment of threat from bushfire must examine impacts of the proposal both within and external to the site, including the capacity of the existing road network serving the site to accommodate traffic in emergency situations.

Preparation of an assessment of threat from bushfire should include reference to:

- NSW Rural Fire Service (RFS) – Planning for Bushfire Protection – a guide for

land use planners, fire authorities, developers and home owners.

- Consultation with Council and RFS staff.

EC.3.8 Fire protection measure must be capable of being maintained by owners and users.

EC.3.9 Bushfire protection measures and Asset Protection Zones must be:

i. contained wholly within the site of the subdivision unless the most extraordinary circumstances apply;

ii. capable of being maintained by owners and users;

iii. located outside areas of ecological value and the buffers necessary to protect them.

Note: Asset Protection Zones may incorporate fire trails, perimeter roads, cleared road verges and fixed building lines.

EC.3.10 The proposed measures to reduce risk of bushfire to an acceptable level should be achieved (for both the subdivision works and the resultant development) without significant loss of vegetation.

EC.3.11 In instances where the balance between bushfire protection and environmental and social impact cannot be achieved, the proposal may not be supported.

EC.3.12 To ensure effectiveness of the fire protections measures, restrictions may be placed upon the titles of the affected lots. These restrictions may relate to:

i. Habitable storage structures being excluded from within the Fire Protection Zone.

ii. Level at which the fuel loading is to be maintained within the Fire Protection Zone.

iii. Responsibility for and nature of maintenance of fire trail, hazard reduction and Fire Protection Zone.

<u>Landslip</u>

EC.3.13 Where a subdivision proposal is on land identified as being subject to landslip, the applicant shall engage a geo-technical consultant to prepare a report on the viability of subdividing the land and, if viable, provide recommendations as to the siting and the type of buildings which could be permitted on the land.

<u>Land contamination</u>

EC.3.14 All development applications for subdivision shall provide documentation to satisfy the requirements of the following policies. The provisions in these policy documents will be used by Council to determine if and how land must be remediated. Comments will be sought from the Environment Protection

Authority, where required.

i. The relevant State Environmental Planning Policies
ii. Maitland Council's Contaminated Land Policy,
iii. Managing Land Contamination Planning Guidelines (1998),
iv. The relevant NSW environment Protection Authority Guidelines - Guidelines for Consultants Reporting on Contaminated Sites.
v. National Environment Protection (Assessment of Site Contamination) Measures.

Geotechnical

EC.3.15 Development applications for subdivision must include relevant assessment and geotechnical investigation regarding the potential for the presence of salinity and acid sulfate soils to determine if any specific measures are required. *(Note: The Maitland LEP 2011 includes specific requirements with regard to acid sulfate soils).*

DC.1 Lot Size and Dimensions

Objective:

- To ensure all new lots have a size and shape appropriate to their proposed use, and to allow for the provision of necessary services and other requirements.

General Requirements:

- Part 4 in the Maitland LEP 2011 includes development standards for the subdivision of certain land. The standards are presented as minimum lot sizes and are depicted on the associated Lot Size Map. The minimum lot sizes vary between locations and land use zones.
- Council requires that all new lots are of a size and shape suitable for their future use. Matters for consideration, in addition to any minimum lot sizes that may apply, are the need to allow for solar access, on-site effluent disposal (if permitted), access and parking, location of ancillary buildings such as garages and sheds, vegetation retention and soil conditions.
- Where Part 4 in the Maitland LEP 2011 also regulates the development outcome on certain land by fixing maximum Floor Space Ratios and overall Building Heights, these provisions should also be considered in the design of the subdivision.
- Lot boundaries should follow natural features such as water courses and ridges (rather than cut across them) to minimise the potential for soil erosion.

- Lot boundaries should take account of any requirement for screening or buffering from adjoining land uses.
- Lot size and dimensions are to be suitable for the existing or proposed use, including any requirement for building envelopes, ancillary buildings, farm dams, access, parking, landscaping, solar access, provision of services and/or other requirement of any existing Council development consent.
- Lots should be rectangular in shape. Where irregular shall accommodate the minimum building envelope and setback requirements.
- Minimum lot frontage of 12.5m at the road frontage for rectangular lots.
- Minimum lot frontage of 10.0m chord length around sharp bends and cul-de-sacs to provide for access, service and garbage collection in accordance with Figure 2.
- Lot access adjoining roundabouts and center refuges/splitter island shall not provide access within 10m of the splitters/facilities. 88b restrictions should be provided.
- In assessing the re-subdivision of an existing lot, Council will have regard to the circumstances and planning rationale that formed the basis for the creation of the parent lot the subject of the application. This includes the consideration of any existing dwellings or structures on the land being assessed against relevant plans and policies.
- Subdivision proposals must not conflict with the requirements of any existing approvals.

Rural and environmental protection zones (including land zoned R5 Large Lot Residential)

- Subdivisions are to be designed to maintain and enhance the rural character and scenic attraction of the Maitland local government area, particularly in low lying areas and valleys which may be viewed from above.
- Lots are to be designed to conserve prime agricultural land and/or agriculturally productive lands.

Site Specific Requirements:

<u>Residential lot design</u>

DC.1.1 Provide a range of lot sizes to suit a variety of dwelling and household types. No more than 40% of the lot frontages within each street block may have the same lot width type. For the purpose of this control a lot width type is determined by any range of plus or minus 1.0m (for example, lots between 17m and 19m might be classed as one width type). Provide a lot width table for each street block including lot width groups, percentage and number. Other variables such as access and configuration can be considered as creating variation in the street.

DC.1.2 Provide a subdivision structure plan which reflects the site's opportunities and constraints.

DC.1.3 Provide a clear urban structure that promotes a 'sense of neighbourhood' and encourages walking and cycling both recreationally and for transport purposes.

DC.1.4 Ensure the design of any proposed residential subdivision considers natural landform features including outlook and proximity to public and community facilities, parks and public transport.

DC.1.5 Residential lots shall be able to accommodate a suitable building envelope with minimum dimensions of approximately 15m by 10m behind the building line.

Rural and Conservation zones (including land zoned R5 Large Lot Residential)

DC.1.6 Each new lot shall contain a building envelope with a minimum area of 2000 square metres and a minimum dimension of 20 metres, to be flood free in a 1% AEP event, and free of significant vegetation, significant topographical /natural features, and more than 40 metres from a watercourse. The building envelope is to contain any dwelling, outbuildings, landscaping and on-site effluent treatment and disposal areas.

DC.1.7 When calculating lot size area where battle-axe or hatchet shaped allotments are permitted, the area of the access handle is to be excluded from the area calculation.

Industrial and Commercial

DC.1.8 Subdivisions of existing commercial developments must maintain compliance with any minimum floor space ratio contained in Maitland LEP 2011.

Access handles

DC.1.9 Access handles and carriageways over them shall be in accordance with the table and associated notes below (Table 1 and Figure 1).

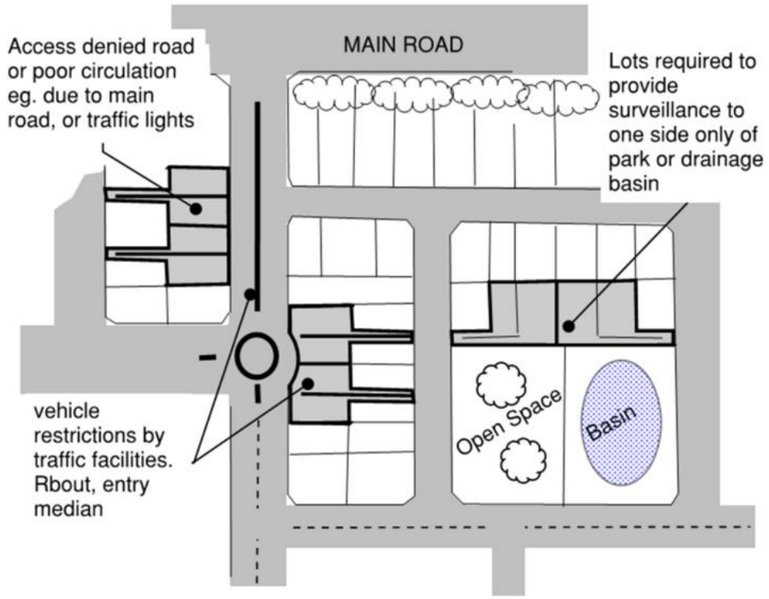


Figure 1. Indicative Arrangements of Battle-axe lots

DC.1.10 No more than 2 lots may be serviced by a reciprocal right-of- carriageway (ROC) which shall be centrally located within both access handles.

DC.1.11 Battle-axe lots without public frontage (i.e., road, park, reserve) are discouraged unless part of an integrated approval.

DC.1.12 When calculating lot size area where battle-axe or hatchet shaped allotments are permitted, the area of the access handle is to be excluded from the area calculation.

DC.1.13 Shared use handles are to be incorporated into the 10.0m chord frontage around sharp bends and cul-de-sacs to facilitate access width, parking and garbage collection. See Figure 2 and Table 1 below.

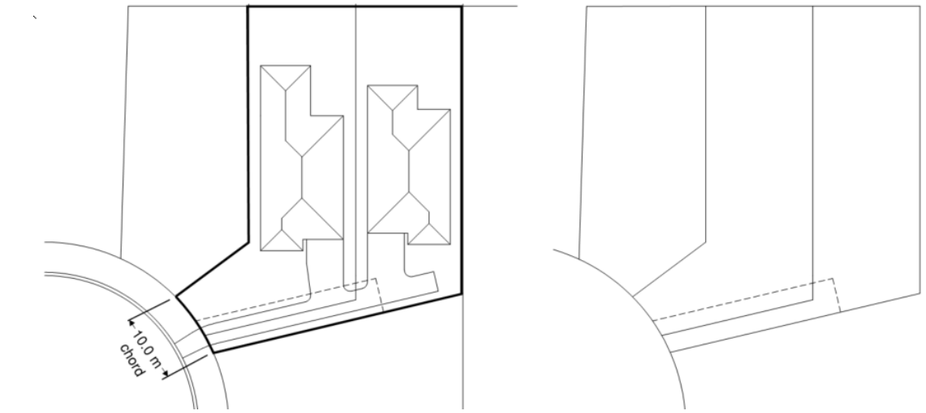


Figure 2. Shared driveway configurations on cul-de-sacs and sharp bends.

DC.1.14 Access ways to hatchet shaped or battle axe lots will serve a maximum of 2 lots, have a maximum grade of 25% (4H:1V) at any point.

Table 1.

ZONING[1]	SINGLE HANDLE [2]	DUAL HANDLES[3]	PAVEMENT WIDTH[4]
Residential (R1)	4.0	(2x) 3.0 or (2x) 3.5 [5,6]	3.0 [7]
Residential (R5-V & X)	4.0	(2x) 3.0	3.0
Residential (R5-Y)	4.5	(2x) 3.0	3.0
Residential (R5-Z)	6.0	(2x) 3.0	3.0
Business (B) & Industrial (IN1)	6.0 or 8.0 [8]	(2x) 4.0	3.3 min or 6.0 [9]
Rural (RU)	6.0	(2x) 4.0	3.5

Notes:

(1) For minimum lot size: V=2,000, X=5,000, Y=10,000, Z=20,000 and above

(2) For a single allotment. Long or bent handles may require greater widths for passing

(3) Each handle width for two adjoining lot handles, with a single driveway covered by a full-width reciprocal ROC.

(4) For single lane. Note: concrete wheel strips can be provided for residential

(5) Three metres (x2) permits vehicle passing within o/a 6m width for each residential zone. It is assumed regular conflict is unlikely and “give-way” will apply in residential zones.

(6) Where lots are >600m2 (excluding handle), OR having potential for further subdivision or additional dwellings, adopt 3.5m each.

(7) Where lots have potential for high density development with regular traffic movements, adopt 5.5m, preferably as two carriageways with a 400mm grassed separation.

(8) Increase to 8m where regular two-way conflict is likely.

(9) Generally for one-way or minor two-way movements with "give-way". For two-way movements with regular traffic conflict 6.0m min should be provided.

DC.2 Solar Access and Energy Efficiency

Objective:

- To encourage the design of residential subdivisions which maximise solar access, allow flexibility in the siting of future buildings to take advantage of a northern orientation, and minimise reliance on private car use.
- To maximise the number of dwelling allotments which have good solar access and which therefore optimise the design performance of energy smart homes, and to reduce reliance on private car use through adequate links to and provisions of, public transport, pedestrian and cycleway routes.

General Requirements:

DC2.1 80% of new lots are to have 5-star solar access, and the remainder either 4 or 3 star.

Preferred orientation of lots in an energy efficient subdivision

Source: Amcord, 1995

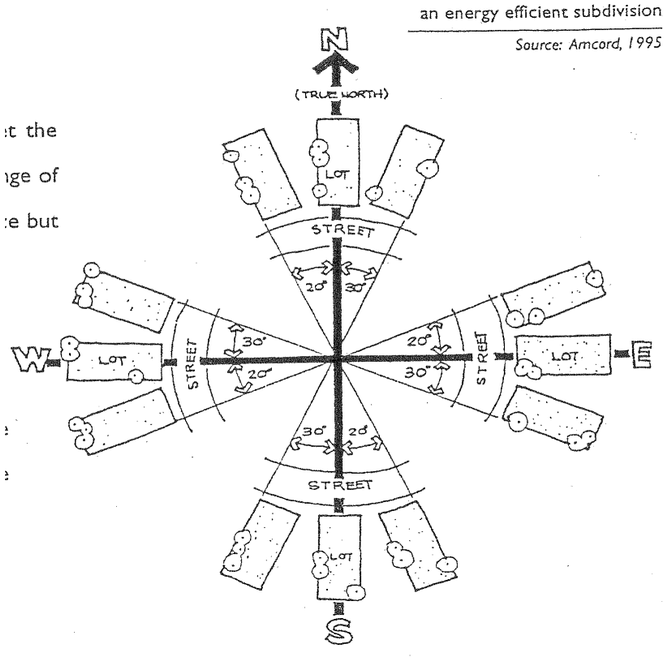


Figure 3. Lot Orientation

DC.2.2 Lot sizes are to reflect reasonable consideration of the impact of topography,

aspect and other constraints so as to maximize solar access.

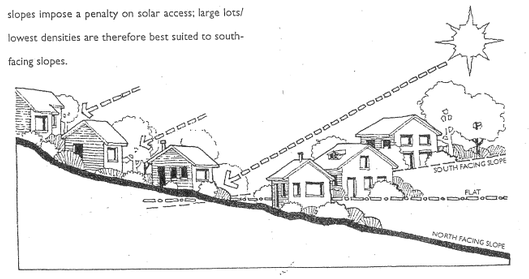


Figure 4: Slope and aspect affect shadows and possible dwelling density

DC.2.3 Where possible lots should be oriented to provide one axis within 30 degrees east and 20 degrees west of true solar north.

DC.2.4 Where a northern orientation of the long axis is not possible, lots should be wider to allow private open space on the northern side of the dwelling.

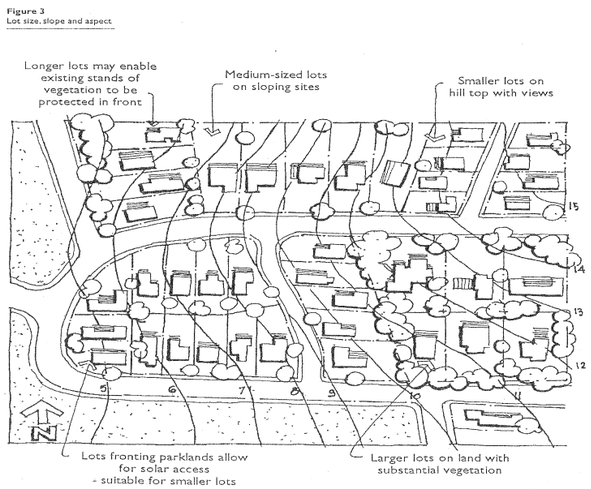


Figure 5: Lots size, shape and orientation to achieve maximum solar access

DC.2.5 Proposals for street planting or open space planting are to take account of the potential for shading, provision of adequate solar access to dwellings, and if necessary, protection from winter winds.

DC.3 Drainage, Water Quality & Soil Erosion

Objectives:

- To preserve natural drainage systems, where practicable, and to provide for the repair and enhancement of environmentally significant and/or degraded land.

- To retard the flow of water, above natural volumes, into the natural drainage system and mitigate impacts from stormwater runoff.
- To maintain and enhance the quality of water and catchment health.
- To minimise soil erosion and sedimentation by minimising land disturbance and requiring control measures at the source.

General Requirements:

DC.3.1 Existing topography and natural drainage lines should be incorporated into drainage designs for larger proposals, and enhanced through provision of additional landscaping, detention areas, artificial wetlands and the like.

DC.3.2 Drainage from proposed lots should be consistent with the pre- development stormwater patterns. An analysis of the downstream drainage system, to the receiving area or waters, may be required.

DC.3.3 Best management practices should be implemented to control runoff and soil erosion and to trap sediment on the subject land to ensure there is no net impact on down stream water quality. The quality of runoff water from the subject land should be the same or better than the quality of water prior to the subdivision taking place.

DC.3.4 Where possible, design multiple use drainage and treatment systems incorporating gross pollutant traps, constructed wetlands and detention basins.

DC.3.5 The subdivision should be designed so as to minimise disturbance of the subject land especially in circumstances where there are topographical constraints.

DC.3.6 Adequate provision should be made for implementation of measures during subdivision construction to ensure that the landform is stabilised and erosion controlled.

DC.3.7 All trunk drainage is to be located in publicly owned land, (reserves), in open space land or in an appropriate easement.

DC.3.8 Where the drainage impacts of the subdivision proposal cannot be limited to pre-development stormwater levels by retention or other approved methods, drainage easements will be required over all necessary properties and watercourses. In such circumstances, the easement must be the subject of a signed agreement prior to issue of development consent. Such easements shall be created with, or prior to issue of the Subdivision Certificate.

DC.3.9 Where site topography in new residential subdivisions prevents discharge of storm water directly to the street gutter or a Council controlled pipe system, inter allotment drainage should be provided to accept run off from all existing or future parcels of land. The design and construction of the inter allotment drainage system should be in accordance with the requirements of Council's Manual of Engineering

Standards.

DC.3.10 Where inter-allotment drainage is required, easements having a general minimum width of 1.5m are to be identified on plans submitted.

DC.3.11 A soil and water management plan (SWMP) should be prepared by a properly qualified practitioner with the aim of minimising erosion and maximising the quality of any water leaving the site. Applicants should refer to Council's Manual of Engineering Standards.

DC.4 Landscape, Streetscape & Visual Impact

Objectives:

- To maintain and enhance the existing rural character and landscape of the Maitland LGA.
- To create, maintain and enhance streetscape and minimise visual impact of subdivision proposals.

General Requirements:

DC.4.1 Existing landscape and streetscape character should be maintained and enhanced through retention of existing vegetation, provision of additional landscaping and selection of other streetscape items including surface treatments and street furniture.

DC.4.2 The visual impact of rural residential subdivisions must be considered especially in areas where they can be viewed from a distance or from above. Landscaped buffers may be required.

DC.4.3 Submission of a Landscape Plan will be required for residential and rural residential subdivisions, indicating the location of street trees and any other required landscaping.

DC.4.4 The developer will also be required to submit a detailed landscape plan for all reserve areas incorporating fencing detail and will be required to construct all fencing for residential and rural residential lots where the lots share a common boundary with a proposed public reserve. Fencing shall be carried out as an integral part of the subdivision works and will be required to be completed prior to Council releasing the relevant Subdivision Certificate. Council may require that the fencing be of open style/pool type depending on the topography and landscape character of the adjoining reserve. Where open style fencing is provided, the landscape design will need to demonstrate that the location of plantings is adequate to ensure a suitable level of privacy for the adjoining residential lots, reduce the visual impact of the fencing and improve the landscape quality of the reserve. Fencing shall comprise materials of darker colour/tones which blend more effectively with the landscape.

DC.5 Effluent Disposal

Objective:

- Subdivisions are to be designed and located so that any effluent can be disposed of in an environmentally sustainable manner, with no adverse impact upon natural systems or adjoining/adjacent land.
- The sewage management system chosen will be the most appropriate to ensure the protection of the local environment and the health of existing and future populations.

General Requirements:

Residential lots

DC.5.1 All new residential, industrial and commercial lots are to be connected to a reticulated sewerage system supplied by the Hunter Water Corporation or other approved supplier, unless there are unavoidable constraints.

DC.5.2 Lot size and layout must be adequate to allow appropriate effluent disposal systems to be provided for likely subsequent development.

DC.5.3 Effluent and wastewater should be disposed of in a manner which is consistent with the land capability of the property and in a manner that will not cause unhealthy or unsanitary conditions. There are to be no net cumulative effects on the environment.

DC.5.4 Where sewer is not available in rural areas (including Large Lot Residential areas or environmental zones) lots must be of sufficient size and containing suitable and to ensure that all effluent can be retained and disposed of on-site. Comprehensive site investigation will be required prior to any approval being granted for on-site disposal.

Rural and environmental zones (including land zoned R5 Large Lot Residential)

DC.5.5 The preferred method of effluent disposal for all new lots is by way of reticulated sewerage system. This can include the use of a community package treatment plant if Hunter Water Corporation reticulation is not available.

DC.5.6 Where a reticulated sewerage system is not envisaged in the long term, on- site disposal may be considered by Council. Detailed modelling will be required to assess the ability of land to accept the wastewater and consequently determine minimum lot sizes.

DC.5.7 All subdivision applications in unsewered areas must include an analysis of the feasibility of utilising innovative or centralised sewerage schemes that reuse waste water wherever possible as an alternative to single on-site sewage management

facilities.

DC.5.8 Where areas of the site are unsuitable for on-site disposal, clustering of lots and provision of a common effluent system on a suitable area under a group title must be considered. On-site disposal where site characteristics are unsuitable will not be approved.

DC.5.9 No pump out systems will be permitted.

DC.5.10 All studies must be undertaken by persons with demonstrable expertise in on-site effluent management and the capacity to incorporate catchment modelling techniques which are acceptable to Council.

DC.6 Roads & Access, Pedestrian & Cycleways

Objectives:

- To provide a distinctive and hierarchical network of roads with clear physical distinctions between each type of road, based on public safety, function, capacity, traffic volumes and vehicle speeds;
- To provide a safe and appropriate level of access to all new lots created;
- To provide acceptable levels of access, safety and convenience for all road users, including pedestrians and cyclists;
- To provide access for emergency and service vehicles to all lots and enable the establishment of efficient and accessible bus/public transport routes;
- To accommodate public utility services and drainage systems;
- To minimise road construction costs, energy demand, risk exposure and maintenance costs without compromising other objectives.

General Requirements

DC.6.1 Road design should take account of the location of existing vegetation and other natural features and minimise loss of vegetation and soil disturbance through excessive cut and fill.

DC.6.2 All of the components of residential streets (including kerbing, pavement type, and width, street tree planting, footpath paving, lighting, seating and the like) should be considered in an integrated approach to ensure that attractive, safe living environments are created.

DC.6.3 Traffic control devices such as refuges, parking blisters, roundabouts, and on grade thresholds are encouraged to reduce traffic speeds in residential streets, but require separate approval from Council's Traffic Committee.

DC.6.4 Road widths and geometry in all subdivisions must accommodate necessary

service and emergency vehicles.

DC.6.5 Roads and access to public roads shall be designed and constructed in accordance with Council's Manual of Engineering Standards (MOES).

DC.6.6 Direct vehicular access to classified roads such as the State highway, or main roads may be prohibited in favour of an alternative access arrangement subject to consultation with Council, and Transport for NSW (TfNSW).

DC.6.7 Roads and intersections serving new rural and large lot residential subdivisions may require upgrading in accordance with the provisions of Council's MOES.

DC.6.8 Public transport infrastructure shall comply with 'Guidelines for Public Transport Capable Infrastructure in Greenfield Sites', including but not limited to:

Bus stops shall be designed so that:

- Opposing bus stops shall be spaced and located generally at 400m and accompanied with centre refuge and concrete parking lane blisters.
- Placed on departure side of refuge/crossings, and from intersections
- preference against parks/public land where possible.
- Vehicle access to lots shall be demonstrated, driveway construction and 88b restrictions may be warranted
- proposed stops shall be marked on sales plan to notify buyers
- Provide public stops with centre refuge and concrete blisters in parking lanes. Locate on lot boundaries but preference is against parks/public land where possible.

DC.6.9 Public Road access is required to all new lots in Torrens Title subdivision.

DC.6.10 Subdivisions must be designed having regard to network/hierarchy requirements and be designed and constructed to an appropriate standard for their intended use.

DC.6.11 Detailed requirements for design, construction and sealing of roads shall be in accordance with Council's MOES.

DC.6.12 On-street parking is provided on all streets for convenience and to contribute to surveillance and street life.

DC.6.13 Road widths in Council's MOES are minimum design standards. Additional design requirements, above and beyond these minimum requirements would have to be accommodated within the subdivision design (I.e., road widening to comply with *Planning for Bushfire Protection)*.

DC.6.14 Create a permeable layout based on modified grid layout.

DC.6.15 Cul-de-sacs and pedestrian laneways shall be avoided, where unavoidable cul-de-

sac should be less than 200m in length and able to see the end bulb from the intersection. Greater lengths will require increased road widths and bulb radius.

DC.6.16 Maximise connectivity to bus stops, community facilities, open space and attractors through orientation of street blocks and public land.

DC.6.17 Orientation of street blocks is preferrable east-west, then north-south where exception requires. Exceptions are considered where slope exceeds 6%, trunk drainage, or where existing boundaries or roads prevent achievement. Refer to Figure 3.

DC.6.18 Alternative block orientation may consider direct emergency/trunk routes and other amenity views to bushland, floodplain, community spaces and areas of interest nominated by council.

DC.6.19 Land slopes of 6% or greater shall generally run downhill unless demonstrated that earthworks will be minimized for the development.

DC.6.20 Roads shall provide surveillance and safety to items such as along drainage corridors, bushfire and flood plains, around public areas like parks and community lands (see DC.7).

DC.6.21 Public parks shall be located on trunk roads for easy wayfinding and be surrounded by roads on 3 to 4 sides.

DC.6.22 Intersection spacing shall follow best practice including:

- minimum 40m stagger of intersections on opposing sides, 60m on same side
- minimum 100m stagger on opposing sides, 120m on same side for trunk roads on trunk road,
- four-way intersections on trunk roads shall be roundabouts, T-intersections, or lights

<u>Residential Subdivisions</u>

DC.6.23 Street block lengths shall be a maximum length of:

- 180m desirable, 250m maximum for local streets
- 180m for residential streets running parallel against trunk roads
- Generally 70m deep for residential

DC.6.24 A network of constructed (i.e. not grass) footpaths and cycleways will be required in all residential subdivisions, located, designed and constructed in accordance with Council's Manual of Engineering Standards, and in view of streets wherever possible to allow surveillance.

DC.6.25 Particular attention should be paid to pedestrian links to schools, with regard to

their width, lighting (to Australian Standard) and the appropriateness of landscaping and related safety issues.

DC.6.26 The road, footpath and cycleway network should facilitate walking and cycling throughout neighbourhoods and provide links to schools, community facilities and other activity centres.

DC.7 Crime Prevention – Safer By Design

Objectives:

- To ensure that Council does not approve subdivisions that create or exacerbate crime risk or community fear.

General Requirements:

DC.7.1 Clear sightlines between public and private places.

DC.7.2 Landscaping that makes places attractive, but does not provide offenders with places to hide or entrap victims.

DC.7.3 Dense vegetation or structures should not be located beside bicycle routes or pedestrian walking paths. A safety convention is to have 3-5 metres of cleared space on either side of pathways and bicycle routes. Pedestrians feel more comfortable sharing wide paths than narrow paths.

DC.7.4 Natural surveillance should focus on orientation of buildings and strategic use of windows, balconies, entrances, permeable fencing and street design. Tactical location of living areas, workstations, offices and recreation areas help surveillance opportunities.

DC.7.5 Lots created should be designed so buildings face outwards towards public and semi-public areas to provide natural surveillance opportunities.

DC.7.6 Lighting of public places such as public streets, car parks and pedestrian areas should meet the relevant Australian Standards. Effective lighting reduces fear and can increase community activity. The types of lighting should also be considered (different lights are used in different situations).

DC.7.7 Council may require a report from a suitably qualified lighting engineer for lighting of public areas within subdivisions.

DC.7.8 Design subdivision layouts with clear transitions and boundaries between public and private space. This can be achieved through landscaping, natural barriers such as waterways or topographic features and by the use of gates, bollards and fencing.

DC.7.9 In some cases public areas may need to have restricted access, particularly at night, to prevent vandalism and anti-social behaviour.

DC.8 Site Filling

Objectives:

- To ensure the environmental impact of site fill is properly assessed.

General Requirements:

DC.8.1 Earthworks require development consent of Council under the provisions of the Maitland LEP 2011, unless either exempt or complying development.

DC.8.2 Where site filling is necessary or proposed, the materials used and extent and depth of fill must be detailed in the development application for the approval of Council prior to issue of a Construction Certificate. Council will take into account the provisions of AS 3798-1990, which provides guidelines on the specifying, execution and control testing of earthworks and associated preparation works within commercial and residential developments.

DC.8.3 An absolute maximum fill depth of 2m will be considered by Council.

DC.9 Reticulated Services (Water/Sewer/Electricity/ Telecommunications)

Objective:

- To provide appropriate utility services to all new lots in an efficient, co-ordinated and cost-effective manner, and to restrict subdivisions that create unreasonable or untimely demand for the provision or extension of services, having regard to ecologically sustainable development (ESD) and to ensure minimal environmental impact.

General Requirements:

Water and Sewer

DC.9.1 Reticulated water and sewer supply is required for all new urban lots (residential, commercial, industrial) in accordance with the requirements of the Hunter Water Corporation.

DC.9.2 Council's preference is for all new large residential lots (including land zoned C4 Environmental Living) to be connected to reticulated sewer. This can include the use of a community package treatment plant if Hunter Water Corporation reticulation is not available. If no reticulated sewer, effluent disposal to be undertaken in accordance with requirements contained in "Effluent Disposal"

Design Element below.

Submission to Council of a Section 50 Certificate from the Corporation prior to issue of Subdivision Certificate (Endorsed "linen" plan).

Electricity

DC.9.3 Underground low voltage electricity supply to all new residential lots (including land zoned C4 Environmental Living) to the requirements of Energy Australia or other approved electricity provider, unless Council and provider determine that overhead supply is permitted due to flood liability of land or the land fronts a road supplied by existing overhead electricity reticulation.

DC.9.4 For industrial and commercial lots, underground electricity supply shall be provided to all new lots, to the requirements of Energy Australia or other approved electricity provider, unless Council and the provider determine otherwise.

DC.9.5 Low voltage electricity supply must be available to the boundary of all new rural lots in accordance with requirements of Energy Australia or other approved provider.

DC.9.6 Pad mounted substations, if and where required, should be placed within pedestrian walkways, behind landscaped screens or otherwise sympathetically treated to reduce visual impact.

DC.9.7 Written evidence from the provider that installation of all services is complete and meets requirements must be submitted to Council prior to issue of the Subdivision Certificate;

Street Lighting

DC.9.8 Street lighting shall not be provided for low-density residential subdivisions, unless special circumstances (consistent with AS1158) warrant installation.

DC.9.9 Street or road lighting shall not be provided for rural subdivisions.

Telecommunications

DC.9.10 Telephone connection to be available to all new lots in accordance with the requirements of Telstra or other approved provider.

Low density residential lots

DC.9.11 All new low-density residential lots (including land zoned C4 Environmental Living)

to be capable of draining to the street frontage or to an inter- allotment drainage easement (see also “Drainage and Water Quality” Design Element below).

IC.1 Entry Features

This section applies to any structures such as masonry walls, earth embankments and any other landscaping feature intended to identify subdivisions. Such features are typically established in pairs at the entry to residential precincts may also be incorporated into industrial and commercial subdivisions. The features typically display the name and/or the logo of the estate.

Objectives:

- To ameliorate the potential cumulative visual impact of entry features and to regulate issues such as their location, size and life span.

General Requirements:

IC.1.1 Entry features will only be considered and approved with the development application for subdivision and all details should be included with the detailed landscaping plans.

IC.1.2 Entry features will only be permitted in conjunction with residential subdivisions of 50 lots or more. Entry features for industrial and commercial subdivisions will be considered on merit.

IC.1.3 Entry features shall be limited to one pair at the primary entrance to a new subdivision.

IC.1.4 Entry features can only display the name of the estate NOT street names.

IC.1.5 Entry features shall only be located on privately owned land.

IC.1.6 Entry features for residential subdivisions shall be limited to a size of $20m^2$ with a maximum height of 2m. The size of entry features for industrial and commercial estates will be considered on merit.

IC.1.7 In certain circumstances the erection of entry features may be considered at a later stage but must comply with the guidelines.

IC.2 Street Names

Proposed street names must be submitted to Council for approval in accordance with Council’s policy at the time of lodgement of the development application. Street name signs will be required at the junction of any roads in the subdivision in accordance with Council’s Manual of Engineering Standards.

IC.3 House/Lot Numbering

Council supplies a number for all new urban and rural lots created, and has an adopted policy in this regard. A fee applies for this service.

C.11 – Vehicular Access & Car Parking

Application

This chapter applies to development on all land within the City of Maitland.

Objectives

- To ensure adequate provision of off-street parking to maintain the existing levels of service and safety on the road network;
- To detail requirements for the provision of parking and loading/unloading facilities in association with development in the City of Maitland;
- To provide a consistent and equitable basis for the assessment of parking provisions;
- To facilitate design of parking areas, loading bays and access driveways which function efficiently;
- To ensure that parking areas are visually attractive and constructed, designed and situated so as to encourage their safe use; and
- To acknowledge the traditional lack of parking spaces within areas of historical or architectural significance (Central Maitland, Morpeth) and balance this with the need to facilitate development in order to maintain vitality and vibrancy in such centres.

1. GENERAL REQUIREMENTS

1.1 General Requirements

In determining the parking and traffic requirements for a development proposal, the following principles shall be followed:

- the minimum standards as set out in this plan;
- the likely demand for of-street parking generated by the development;
- the availability of public transport in the vicinity to service the proposed development;
- the probable mode of transport to be used by employees and/or customers;
- the likely peak times of usage of the proposed development;
- the existing traffic volumes on the surrounding street network including, where relevant, the potential future traffic volumes; and
- the equity of requiring of-street parking for individual developments within areas such as Maitland City Centre and Morpeth, where historical parking deficiencies have occurred.

1.2 Calculation of Parking Requirements

a. *Development Generally*

The minimum number of parking spaces to be provided for a particular development is to be calculated in accordance with **Appendix A** of this policy.

b. *Mixed Uses*

Ancillary components of a land use (for example an office within an industrial building that occupies less than 20% of the total floor space) will be assessed according to the rate required for the principal land use.

For developments incorporating different categories of uses, a separate calculation will be made for each component and then added together to provide the total parking requirement. Any departure from this method will only be considered where it is demonstrated that the peak demand for each land use component of the development is staggered. In this regard the applicant should submit a parking profile showing the cumulative parking demand by time-of-day.

c. *Calculation of Numbers*

Where the calculation results in a fraction of a space, the total number of parking spaces required will be the **next highest** whole number.

d. *Change of Use*

Where the use of an existing building is to be changed, or where an existing building is to be replaced with a new building, the following method of calculation shall apply:

I. The parking requirements of the previous or existing premises is to be determined in accordance with **Appendix A** of this policy;

II. The parking requirement of the proposed development is to be determined in accordance with **Appendix A** of this policy;

III. Subtract the number of spaces determined in (a) above from the number of spaces calculated in (b) above;

IV. The difference calculated in (c) above represents the total number of parking spaces to be provided in addition to the existing of-street carparking.

Where an existing building is to be replaced by a new building which has a floor area not exceeding the floor area of the existing building, and no

change of use is proposed, no additional parking is required to be provided.

Notwithstanding the above, nothing in this plan requires the provision of additional parking in conjunction with the conversion of an existing approved office or business premises or a shop, to either a shop or a restaurant or cafe, within business zones of the Maitland City Centre (refer to Map)

e. *Renovation of Existing Buildings*

Nothing in this Plan requires the provision of additional parking where an existing building is being renovated for its existing use.

f. *Extensions/Additions to Existing Development*

Where existing premises are being extended to create additional floor space, the additional parking requirement shall be calculated in accordance with **Appendix A** on the basis of the increased floor space.

g. *Small Scale Additions*

Council may, at its discretion, waive the carparking requirement for small-scale additions where the extension is not directly related to the parking generation potential of the development.

h. *Complementary Parking Facilities*

Council may, at its discretion, consider reducing car parking requirements where it can be demonstrated that a particular development generates its peak parking demand outside the hours of 9.00am to 6.00pm and is generally situated in business zoned areas where public car parking facilities are in close proximity. The extent of any reduction shall be determined having regard to the parking generation characteristics of the development and shall generally not exceed 70%.

2. GUIDELINES FOR THE DESIGN, LAYOUT AND CONSTRUCTION OF ACCESS AND PARKING AREAS

The dimensional requirements for on-site car parking spaces and driveways giving access to parking spaces shall generally be as set out in accordance with the *Australian Standard AS2890.1-2004 Parking Facilities – Off-Street Car Parking*, and summarised below. This part of the DCP also provides general design principles that apply to off street parking to ensure that car parks contribute to the quality of the physical environment, as well as being safe and efficient vehicle standing areas.

2.1 Access To The Site

A development should be designed to provide adequate on-site manoeuvring and circulating areas to ensure that all vehicles can enter and leave the site in a forward direction.

Access to or from a site shall be located where it causes the least interference to vehicular and pedestrian traffic on the road frontage. Access will generally not be permitted in the following locations:

a. close to traffic signals, intersections or roundabouts where sight distance is considered inadequate by Council;
b. opposite other developments generating a large amount of traffic (unless separated by a median island);
c. where there is heavy and constant pedestrian movement along the footpath;
d. where right turning traffic entering the facility may obstruct through traffic; and
e. where traffic using the driveways interferes with, or blocks the operations of bus stops, taxi ranks, loading zones or pedestrian crossings.
f. Direct access onto a major road is to be avoided wherever possible. Auxiliary lanes, (deceleration and acceleration lanes), may need to be provided to minimise conflicts between entering/leaving traffic with through traffic. In many cases, right turn movements into a site are unlikely to be supported, unless an exclusive right turn bay is provided.

Council may designate areas over the street frontage of the development where no stopping or no parking sign posting is to be installed to facilitate the entry/exit of vehicles and the safe movement of cyclists and pedestrians. Any on-street signage would be required in accordance with Australian Road Rules requirements as identified by Council's Local Traffic Committee.

2.2 Sight Distances

Consideration must be given to maintaining adequate sight distances for all access driveways. Any vehicle entering or leaving the driveway must be visible to approaching vehicles and pedestrians. *AS 2890.1 Off Street Car Parking* gives minimal and desirable sight distances for a range of road frontage speeds.

2.3 Entrance / Exit to the Site

The entry and exit requirements for parking areas may vary in relation to:

- the size of vehicles likely to enter the proposed development;
- the volume of traffic on the streets serving the proposed development; and
- the volume of traffic generated by the development.

The driveway standards recommended by the Roads and Traffic Authority of NSW Guide To Traffic Generating Developments (the guide) are adopted for the purpose of this Plan.

Requirements specified within 'the guide' are summarised in Tables 1 and 2 in Appendix B, and in general the following shall apply:

- separate entrance and exit driveways should be provided for developments requiring more than 50 car parking spaces or where the development generates a high turnover of traffic such as a service station or other drive-in retail facilities;
- entry and exit driveways shall be clearly signposted;
- the number of access points from a development site to any one street frontage should be limited to one ingress and one egress; and
- the potential for on-street queuing should be minimised by ensuring that adequate standing areas are available for vehicles entering the car park and loading areas.

2.4 Location of Parking Areas

Parking facilities for visitors and customers shall be provided where clearly visible from the street so their use is encouraged.

Parking spaces for employees and for longer duration parking may be located more remotely from the street.

Within the development site, the location of the parking area should be determined having regard to:

a. site conditions such as slope and drainage;
b. visual amenity of the proposed and adjacent development;
c. the relationship of the building to the parking area; and
d. the proximity of the parking area to any neighbouring residential areas.

2.5 Parking Space and Aisle Dimensions

The following figures illustrate typical parking layouts and aisle dimensions. It should be noted that these parking space dimensions represent minimum unobstructed requirements and that greater dimensions should be provided in the following instances:

- a parking space which has a wall or obstruction on one side – an additional 300mm width to that shown is required; and,
- for the end space in a blind aisle, the width is to be increased to 3.6 metres.

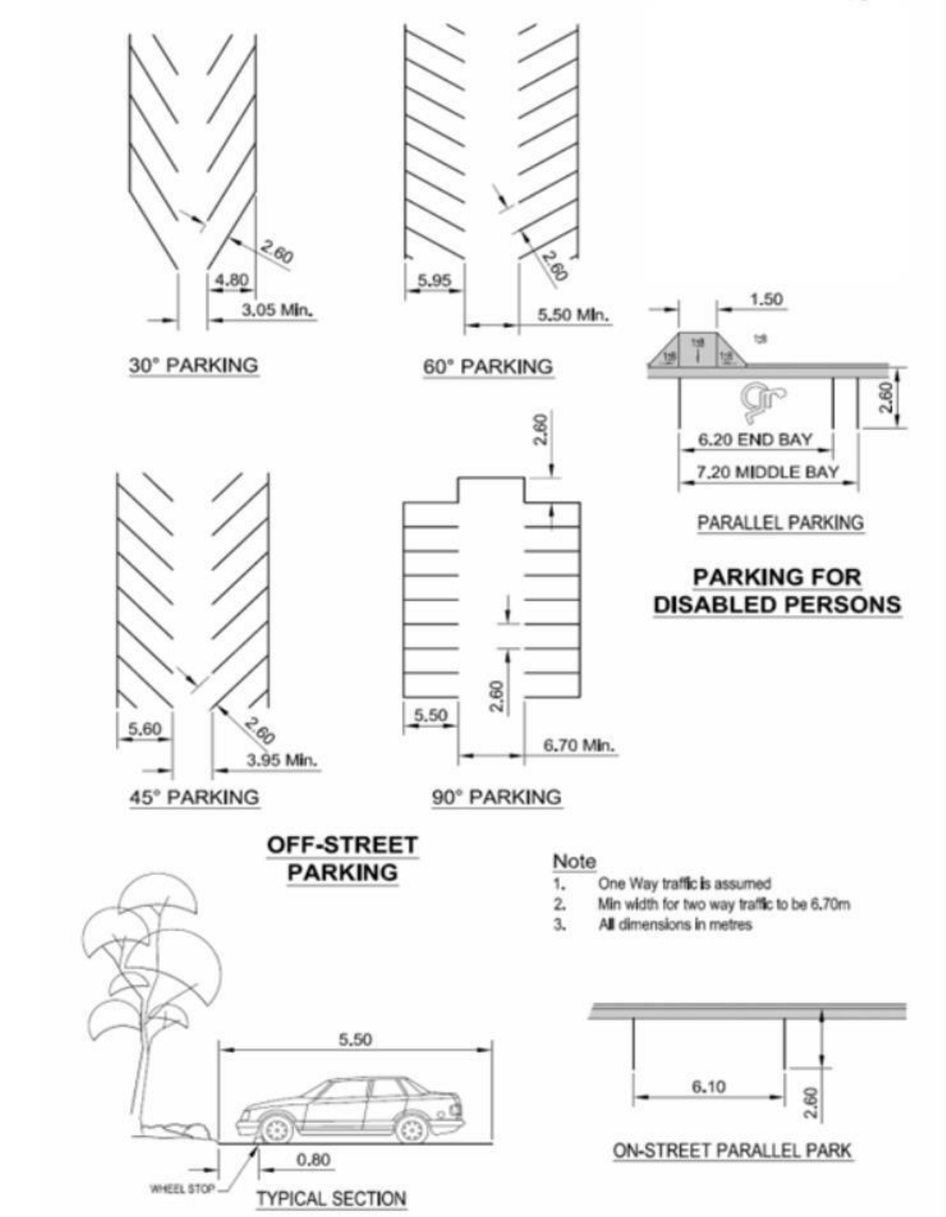


Figure 1 – Parking Spaces & Aisles – Recommended Dimensions

NOTED

NO FURTHER COMMENT

2.6 Construction Requirements

In general, all car parking areas, manoeuvring areas and unloading areas shall be constructed with a base course of adequate depth to suit design traffic, and shall be sealed with either bitumen, asphaltic concrete, concrete or interlocking pavers. In choosing the most suitable pavement type, consideration should be given to:

- anticipated vehicle loads;
- run-off gradients and drainage requirements; and,
- construction constraints.

The works are to be maintained to a satisfactory standard throughout the term of development and/or use of the land for which the facilities are provided.
Particular consideration needs to be given to the appearance of car parking areas within Heritage Conservation Areas, or associated with or adjacent to, listed Heritage Items, where large areas of bitumen surfaced car parking are not recommended. In these circumstances alternative treatments should be discussed with Council's Planning staff. A combination of landscaping and choice of sympathetic materials (eg pavers, faux brick or in certain circumstances stabilised gravel finish) is generally recommended as the most practical solution.

2.7 Landscaping

Parking areas shall be appropriately landscaped to achieve a satisfactory appearance, particularly for those car parks with large areas of bitumen, to provide shade and to provide a buffer between neighbouring land uses.

Landscaping should be used throughout the car park and on the perimeters. In general, there should be no more than 10 parking bays before a break with planting.

Species should be selected and located to avoid maintenance problems, so that they do not hinder visibility at entry or exit points and so that they do not cause damage to paved areas by root systems or create excessive leaf or branch litter. Trees with large surface roots, excessive girth, brittle limbs, fruits which drop and trees which attract large numbers of birds should be avoided in parking areas. In most cases landscaping can be integrated into parking layouts without the need for additional area or loss of car parking spaces.

Wheel stops are to be provided along the front of parking bays to prevent vehicles from damaging landscaped areas, buildings and/or fencing and other vehicles.

2.8 Directional Signs and Marking

Parking areas are to be clearly signposted and line-marked. Entry and exit points are to be clearly delineated and parking spaces for specific uses (disabled,

visitors, employees etc) clearly signposted. “One way” markings must be clearly set out on the pavement in such a manner as to be easily readable and understandable to users of the car park.

Council may designate areas within the car park where no stopping or no parking signposting is to be installed to facilitate the free movement of vehicles and pedestrians.

2.9 Principles for Crime Prevention

Effective design can be used to assist in the reduction of crime opportunities. The following design principles will be considered by Council in the assessment of applications. How they apply to each development application will depend on the nature of the development proposal and prevailing crime risk in the area. The aim of these principles is to ensure that Council does not approve developments that create or exacerbate crime risk.

Design of car parking areas should consider the principles of effective lighting.

Lighting is to be provided in off-street car parks in accordance with the requirements of *AS 2890.1, 2004 – Parking Facilities Off Street Parking*. Lighting may also be required over the street frontage of the development, particularly at entry or exit points in accordance with *AS/NZS 1158, Lighting for Roads and Public Places.*

a. Provision of clear sightlines between public and private places;
b. Landscaping that makes the car park attractive but does not provide offenders with a place to hide or entrap victims;
c. In some cases restricted access to the car park, particularly after business hours through the use of physical barriers should be considered;
d. Design with clear transitions and boundaries between public and private space through the provision of clear access points;
e. Clear design cues on who is to use the space and what it is to be used for – care should be taken to ensure that gates and enclosures do not make public areas into private areas and consideration should be given to suitable signage (eg need to lock vehicles);
f. Strategies to prevent vandalism through appropriate design, eg durable lighting materials and minimisation of exposed walls;
g. Management strategies for site cleanliness, rapid repair of vandalism and graffiti, the replacement of burned out lighting, the removal or refurbishment of decayed physical elements and the continued maintenance of landscaped areas.

3. LOADING/UNLOADING REQUIREMENTS

3.1 General

On-site loading and unloading facilities must be provided for **all** businesses, commercial, industrial, retail and storage uses and any other where regular deliveries of goods are made to or from the site.

3.2 Number and Size of Loading Bays

The number and dimensions of the on-site loading bays must be designed having regard to the nature and scale of the proposed development, the estimated frequency of deliveries, the type of delivery vehicle likely to be involved and the types of goods being loaded/unloaded. Accordingly, these details are required to be submitted with the Development Application for Council's consideration.

As a guide, for small and medium-sized shops or commercial premises, restaurants or small-scale industrial development likely to involve the use of vans, utilities or small trucks only, one loading bay will usually be sufficient.

3.3 Design and Layout of Loading Bays

The loading areas must be designed to ensure that standard design vehicles can manoeuvre into and out of all loading areas without causing conflict to the movement of traffic on-site or in the adjacent streets.

It is not possible to specify dimensions for service areas which would be appropriate for all situations. The dimensions of the service bay will depend, in part, on the type of vehicle to be accommodated.

The loading bay(s) should be a physically defined area (by signposting and/or pavement marking) which is not used for other purposes such as customer parking or the storage of goods and equipment.

The loading areas must be designed to ensure that vehicles stand entirely within the site during all loading and unloading operations.

Where existing buildings are being redeveloped, all of the above design criteria may not be achievable. However, every effort must be made to ensure that public safety is not compromised.

In addition to the above requirements, the Roads and Traffic Authority's "*Guide to Traffic Generating Developments"* details recommended dimensions for loading areas based on the various types of service vehicles and other requirements for ramps, internal roadway etc (refer to Table 1 in Appendix B).

Council's Planning and Environmental Group should be contacted if further information is required.

4. CAR PARKING FOR PERSONS WITH A DISABILITY

Special parking spaces for persons with a disability are to be made available in the provision of car parking facilities, in accordance with *Australian Standard AS2890.1 – 2004*. In general, where 10 or more vehicle spaces are required, one designated parking space for people with disabilities is required per 100 (or part thereof) car spaces provided. Council has adopted the 'enhanced' requirements for landuses where there is a higher demand for disabled facilities. For example, for retail shopping complexes, community facilities and medical centres, parking provisions for people with disabilities should be increased to 2 to 3 % of the overall parking requirements. Council's enhanced car parking standards are as follows:

- medical services, including community health centres – 1 space per two to five surgeries (or equivalent), 2 spaces for six or more surgeries (or equivalent)
- entertainment facilities clubs and public halls, large retail complexes (ie>100 spaces) and railway stations – 3 spaces per 100 car parking spaces

The location of spaces designated for persons with a disability should be close to an entrance to a building or facility with access from the car space by ramps and/or lifts. These spaces should be clearly signposted for the convenience of their users and to discourage other drivers from using such spaces. The spaces should be a minimum of 2.4 metres wide with an adjoining shared space 2.4 metres wide to assist movement into and out of parked vehicles.

5. BICYCLE PARKING

Provision is to be made for cyclists via the installation of bicycle parking facilities in accordance with Australian Standard *AS 2890.3-2015 – Bicycle Parking Facilities* and *Austroads Guide to Traffic Engineering, Part 14, Bicycles: Second Edition.*

6. MAJOR TRAFFIC GENERATING DEVELOPMENT

Parking requirements for major new retail, commercial or tourist developments will be assessed on their merits, with particular reference to:

- likely peak usage times;
- the mix of uses and their parking requirements; and,
- likely use of public transport.

Where it is considered that a traffic generating development may have a major impact on the traffic movement within a given locality, Council may require the applicant to arrange for the preparation and submission of a Traffic and Parking Study, by a qualified

professional. In this regard, the Roads and Traffic Authority's publication *"Guide to Traffic Generating Developments"* provides relevant information.

7. STATE ENVIRONMENTAL PLANNING POLICY (TRANSPORT AND INFRASTRUCTURE) 2021

Council is required to consult with Transport for New South Wales to obtain advice on traffic and safety aspects for certain traffic-generating developments. This consultation is a statutory requirement prescribed by *State Environmental Planning Policy (Transport and Infrastructure) 2021.*

The Authority provides this advice through the Regional Development Advisory Committee (Traffic). Membership of the Regional Committee comprises representatives from the Roads and Traffic Authority, the Police Department, and a Local Government Associate nominee. Smaller scale developments are referred to the Local Development Advisory Committee. Membership of this committee comprises representatives from Council, the Roads and Traffic Authority, the Police Department and State Member or his/her representative.

Major Traffic Generating developments being considered by the Regional Committee need to be accompanied by a Traffic and Parking Study, which is to be lodged with the development application following consultation with Council.

8. WHAT TERMS ARE USED IN THESE GUIDELINES?

The terms used in these guidelines are as defined in the Maitland LEP 2011.

In addition the following definitions apply:

"employees" is the number of staff on site at any one time during the peak operating period;

"gross floor area" (GFA) means the sum of the areas at each floor of a building where the area of each floor is taken to be the area within the internal faces of the walls, excluding stairs, amenities, lifts, corridors and other public areas but including stock storage.

"licensed floor area" (LFA) means all public areas licensed or proposed for licensing under the Liquor Act, 1982 (i.e. bars, lounges, dining, entertainment, games and reception areas).

"public area" means all seating, foyer and amenities space.

Appendix A
Car Parking Requirements for Specific Land Uses

LAND USE	PARKING	COMMENTS
Bed and Breakfast Accommodation	To be assessed for each particular case One off street parking space per guest room or per two guest rooms is generally appropriate	Council will assess each case on its merits having regard to the location, surrounding traffic generation and streetscape. Parking should be accessible for guests without inconveniencing neighbours or causing safety problems
Business Premises and Office premises	1 space per 40m^2 GFA or 1 space per 45m^2 GFA in Maitland City Centre (Appendix C - Map 1)	Provision should be made for the movement and on- site loading/unloading of service vehicles as appropriate
Bulky Goods Premises	1 space per 45m^2 GFA	This figure should be used as a guide only - adequate parking should be provided to satisfy the peak cumulative parking requirements of the development as a whole. A comparison survey of a similar development should be provided with the development application. Calculations will be refined according to the specific characteristics of the proposed development. Customer parking spaces should be readily accessible and should not be used for the display of vehicles or other merchandise, waste bins or for loading / unloading of trucks
Camping ground or caravan park	1 space per site + 1 space per 5 sites (visitors)	The visitor parking area should be appropriately located – adjacent to the entry or office facilities and signposted
Childcare Centre	1 space per 4 children in attendance or part thereof.	Parking must be provided in a convenient location allowing

		safe movement of children to and from the centre.
Neighbourhood Shop	1 space per 25m^2 GFA	
Drive In Take Away Food Outlets (premises which cater for customers being able to park on-site, get take away service, seating provided for on-site consumption and the addition of a drive through facility)	1 space per 8m^{2}GFA *plus* 1 space per 3 seats	An exclusive area for queuing of cars for a drive through facility is required (queue length of 5 to 12 cars measured from pick up point). There should also be a minimum of four car parking spaces for cars queued from the ordering point. Provision should also be made for car/trailer combinations at strategic locations
Dwelling Houses	Minimum of: 1 space for each one- or two-bedroom dwelling Two (2) spaces for each dwelling containing more than two bedrooms One (1) visitor space for the first three dwellings and one (1) space for every five dwellings thereafter or part thereof	This space is to be located behind the building line as set by Council
Educational establishments	1 space for every employee or staff member *plus* 1 space for every 30 students over 17yrs for High Schools and 1 space for every 5 students for Higher Education Establishments *plus* provision for a drop off / pick up area	The parking requirements for each school site may vary. In general a detailed traffic and parking study should be submitted with the application. It is recommended that a school traffic management plan be prepared annually and issued to parents at the start of each school year. Where required by Council, provision shall be made for the access and parking of buses and pick up – drop off areas, which may only need to operate during certain hours.
Group Home	1 space per employee	
Health Consulting Rooms/Medical Centre	2 spaces per practitioner/professional	

	person	
Home business	1 space in addition to the dwelling requirements	
Home industry	1 space in addition to the dwelling requirements	
Hospitals, Residential Care Facilities, Hostels	1 space per 10 beds (visitors) *plus* 1 space per 2 employees *plus* 1 space per ambulance	
Seniors Housing (a) Self Contained Units (subsidized or State) (b) Self Contained Units (resident funded or Private) (c) Hostel, Residential Care Facilities	1 space for 5 dwellings + visitor parking if there is more than 8 dwellings or the site is situated on a clearway 0.5 spaces for each bedroom + visitor parking if there is more than 8 dwellings or the site is situated on a clearway 1 space per 10 beds (visitors) +1 space per 2 employees + 1 space suitable for an ambulance	This parking provision is only to be used where it can be demonstrated that low car ownership levels will prevail Resident funded developments tend to have higher per unit cost and attract residents with higher financial resources. In these circumstances levels of car ownership are likely to be higher than in subsidised developments.
Industry	1 space per 75m^2 GFA or 1 space per 2 employees WHICHEVER IS THE GREATER	This requirement may increase if retailing is permitted on the site, or the office space component is in excess of 20% of the floor area.
Registered Clubs/ Pubs (including sexual entertainment establishments)	Outside the Maitland CBD. 1 space per 10m^2 of public or licensed floor area (bar, lounge, dining room, games room) shall be provided. Within the Maitland CBD - See Appendix C - Map 2. 1 space per 15m^2 of public or licensed floor area (bar, lounge, dining room, games room) shall be provided.	Parking must be provided to satisfy the peak cumulative parking requirements of the development as a whole. Council may consider relaxing this requirement depending on the characteristics of the proposed development. For this purpose a comparison survey of similar developments, in similar locations should be provided with the development application

	+ 1 space per bedroom or motel unit	
Multi dwelling Housing / Dual Occupancy	1 space for each one- or two-bedroom dwelling *or* 2 spaces for each dwelling containing more than two bedrooms *plus* 1 visitor space for the first three dwellings and 1 space for every five thereafter or part thereof	Performance criteria outlined in Maitland City Wide Development Control Plan, Chapter Residential Design is required to be achieved
Hotel or Motel Accommodation	1 space per motel unit *plus* 1 space per 2 employees	If a restaurant and/or convention space is included, additional parking will be required at the rate for such facilities. Council may review this requirement if it can be demonstrated that the peak demand for parking at each facility does not coincide or if the facilities will primarily serve the motel customers
Vehicle sales or hire premises	1 space per 130m^2	Where vehicle servicing facilities are provided, additional off-street parking should be provided at the rate of 6 spaces per work bay. Customer/visitor parking must be readily accessible from the principal road frontage and appropriately signposted and marked. These spaces must not be used for the display of vehicles or other merchandise or for the loading/unloading of vehicles. Provision should be made for truck manoeuvring to allow for loading/unloading on-site.
Places of public worship/ Places of public entertainment	1 space per 10 seats *or*	

Assessment	
The development offers to off Street car parking spaces to each dwelling which complies with the requirements of this control.	YES

C.12 - Crime Prevention through Environmental Design

Crime Prevention through Environmental Design (CPTED) seeks to influence the design of buildings and places in ways that lessen or prevent the incidence of crime. CPTED employs four key strategies:

1. Territorial re-enforcement
2. Surveillance
3. Access control
4. Space/activity management.

Objectives

- The security of buildings and public spaces is achieved through the application of Crime Prevention through Environmental Design principles.
- Territorial reinforcement is achieved through good quality, well maintained buildings and spaces and the delineation of public and private areas.
- Good natural surveillance is achieved by the position of buildings and the orientation of uses toward public areas.
- Landscaping and lighting contribute to the safety of an area.
- Mechanical surveillance (e.g. CCTV) is only used where passive surveillance cannot be achieved or in isolated, high risk areas.
- Way-finding, desire lines and formal/informal routes are reinforced by physical and symbolic barriers that channel and group pedestrians into areas.
- Activity in public spaces is promoted by providing and maintaining high-quality public areas and promoting a diversity of uses that encourage activity throughout the day and night.
- Perception of crime is minimised by maintenance of public areas and the rapid response to vandalism and graffiti.

General Requirements

The following developments shall include a detailed Crime Prevention through Environmental Design assessment that is prepared by an accredited person.

Assessment	
The development is not considered to form part of as medium residential development. Nevertheless the units are either adjacent to a public road or laneway whereby there are habitable rooms that overlook these areas of the public domain. As a result, public services offered from the habitable rooms which is a form of crime prevention through environmental design. The landscape plan provides territorial reinforcement to delineate between private and public property. The developments are only comprises of two dwellings so the future residents of this development will be familiar with each other.	YES

- New centres
- Mixed use residential/commercial development
- Medium and high-density residential development
- Subdivisions involving newly developing areas
- Parks and open space or publicly accessible areas
- Community uses
- Sport, recreation and entertainment areas
- Other high use areas or developments where crime may be an issue.

Assessment	
As above.	YES