Campbelltown (Sustainable City) Development Control Plan 2015



VOLUME 2 Site Specific DCPs Part 2: Glenfield Road Urban Area DCP

Creating Campbelltown's Future 2025



Note:

The Glenfield Road Area DCP came into effect on 28 February 2002 and has now been incorporated as Part 2, Volume 2 of Campbelltown (Sustainable City) DCP.

Campbelltown City Council



Glenfield Road Area development control plan



TABLE OF CONTENTS

PART 1 GENERAL INFORMATION

1.1	What is this plan called?	5
1.2	How is this plan made?	5
1.3	Why is the plan required?	5
1.4	Where does the policy apply?	
1.5	What applications does the plan apply to?	5
1.6	What do the terms used in this plan mean?	
1.7	How does this plan relate to other plans and legislation?	
1.8	What are the Objectives of the DCP?	7
1.9	How is the Plan to be applied to achieve its Objectives?	7
1.10	When did this plan come into force?	8
1.10	What is a Site Analysis?1	
1.11	What is required to lodge a Development Application?	

PART 2 CRITERIA FOR DEVELOPMENT

2.1	Masterplan	14
2.2	Streetscape and Urban Character	17
2.3	Subdivision Design	20
2.4	Building Form	23
2.5	Open Space and Landscaping	25
2.6	Ecologically Sustainable Development	28
2.7	Aboriginal Heritage	36
2.8	Water Management	37
2.9	Transport	44
2.10	Security, Privacy and Acoustic Amenity	50
2.11	Ancillary Site Facilities	53

PART 3 SCHEDULES

Part 1

General Information

1.1 What is this plan called?

This Plan shall be known as the "Campbelltown Development Control Plan - Glenfield Road Area 2002" (Glenfield Road Area DCP).

1.2 How is this plan made?

1.2.1 This Plan is made by Council in accordance with Section 72 of the Environmental Planning & Assessment Act, 1979, as amended (EP & Act) and the associated Regulations.

1.2.2 Notes are provided in italic text within boxes throughout the Plan to provide supplementary information and explanation. These notes do not form part of the DCP and may be altered by Council as necessary without a formal modification of the Plan, to update or expand upon explanations.

1.3 Why is the plan required?

1.3.1 This Plan is required to provide detailed controls to supplement the provisions of the Campbelltown Local Environmental Plan 2002 (LEP 2002). An objective of LEP 2002 specifically recognises the role of DCPs to provide detailed planning provisions to supplement the broader planning framework of the LEP.

1.3.2 This Plan introduces performance based criteria to ensure that Council has the opportunity to assess development with a merit

orientated approach to satisfy predetermined objectives.

1.4 Where does the policy apply?

This Plan applies to that land within the Campbelltown Local Government Area (LGA) generally bound by Campbelltown Road, Old Glenfield Road, Glenfield Road, the Main South Railway Line, as identified on Map 1.

1.5 What applications does the plan apply to?

This Plan provides criteria for the assessment of all applications lodged for the purposes of obtaining development consent. The types of development for which approval may be sought will primarily relate to subdivision, single dwelling houses and multi-unit dwelling houses.

1.6 What do the terms used in this plan mean?

For the purposes of this Plan, the definitions outlined within the Dictionary appended to the Plan as Schedule 1 have been adopted.

Map 1 – Areas Where the Policy Applies



1.7 How does this plan relate to other plans and legislation?

1.7.1 This Plan should be read in conjunction with the Campbelltown LEP 2002, the Environmental Planning and Assessment Act, 1979 and associated Regulations and applicable Regional Environmental Plans and State Environmental Planning Policies.

1.7.2 Reference should also be made to other development control plans adopted by Council. This Plan supersedes other DCPs where inconsistencies arise.

1.7.3 Approvals may also be required from other government agencies. In some cases, (refer to Schedule 2) the development application must be made for integrated development approval.

1.8 What are the Objectives of the DCP?

The aim of this Plan is to provide detailed planning guidelines and standards to ensure the orderly, efficient and environmentally acceptable development of a new urban release area in a manner, which achieves the following objectives:

- To identify the criteria and process for assessing applications and to outline the responsibilities of both Council and applicant.
- b) To specify the minimum standard of information to be submitted with a development application.
- c) To comprehensively outline all criteria which will be relevant to the assessment of development proposals, including urban character, subdivision design, building form, open space and landscaping, transport, traffic and access, car parking, ecologically sustainable development, geotechnical constraints, site contamination, noise, water management and pollution control.

- d) To specify criteria to ensure that such development is consistent with the planned character of the area.
- e) To identify key principles associated with the development of the area, inclusive of land required for open space/drainage management purposes and major road connections.
- f) To specify a requirement for Council to approve a Masterplan for the study area which details the manner in which subdivision will proceed, prior to the issuing of any development approvals.

1.9 How is the Plan to be applied to achieve its Objectives?

1.9.1 The design elements within Part B of this plan have three components:

- A set of objectives;
- Performance criteria; and
- Development Requirements.

The "*objectives*" specified for each design element represent the outcomes that Council wishes to achieve.

The "*performance criteria*" represent a means of assessing whether the desired outcomes will be achieved. Council will consider how well each of these criteria (where relevant) has been addressed by the applicant or designer when determining an application under this Plan.

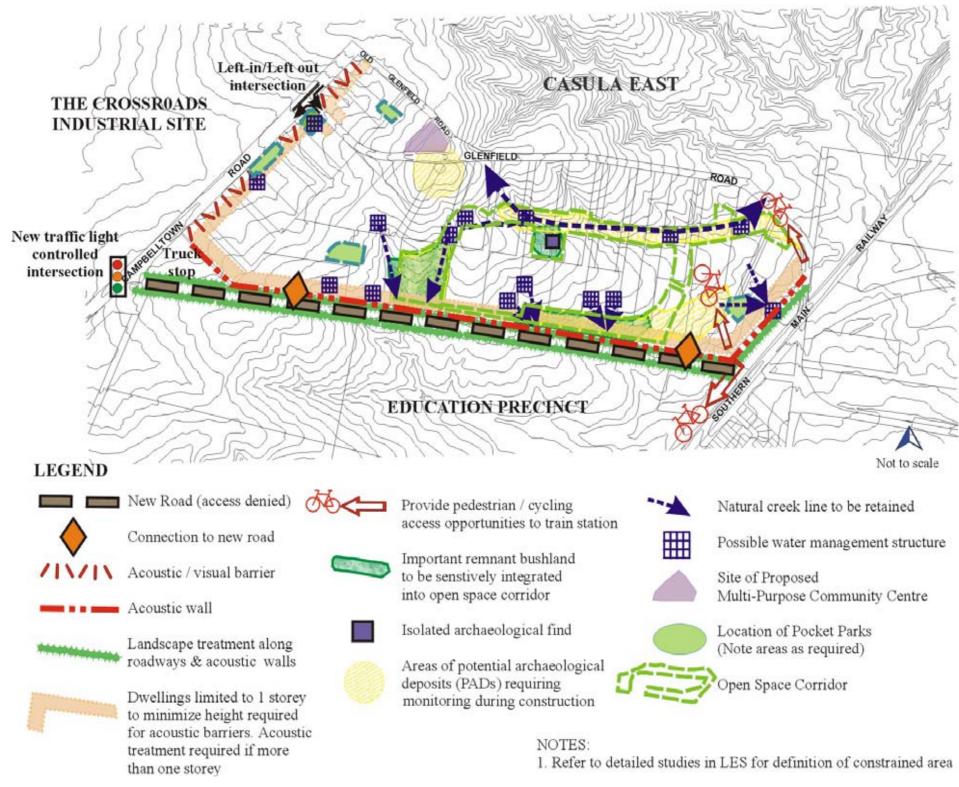
The "*development requirements*" are possible ways of achieving the outcomes. While these solutions may satisfy the performance criteria, other solutions could also be adopted.

1.9.2 It is essential that all development satisfies the performance criteria to meet the objectives of those criteria, and in some cases compliance with the development standard may not be sufficient. The aim is to suit the approach to the site while satisfying market requirements and enable proponents to develop a variety of design responses.

1.10 When did this plan come into force?

This plan came into force on 28 February 2003.

Development Control Plan Map





1.10 What is a Site Analysis?

A site analysis is the process of examining and recording the opportunities and constraints to the potential development of the site, including consideration of how such development may best and achieve compatibility with the existing and likely future urban character of the locality. A thorough site analysis should form the basis for the design of any development proposal, to ensure that the best possible design for a site is achieved.

In some situations, a design for a proposal may not be able to fully or ultimately satisfy all the performance criteria established in this Plan. It is important for Council, developers and designers to use the site analysis as the basis for determining which objectives and performance criteria are more important. In these cases, consideration to a trade-off between the critical criteria of the Plan can be based on the conclusions of the site analysis.

Each application will need to demonstrate that a site analysis has been undertaken. The preferred means to demonstrate that a site analysis has been undertaken is to provide an annotated diagram and, if appropriate, commentary within an accompanying Statement of Environmental Effects.

An investigation of the site should identify:

- Site dimensions:
- Topography: spot levels and/or contours; north point; natural drainage; and any contaminated soils or filled areas.
- Services: easements/connections for drainage and utility services.

- Existing vegetation: location; height; spread of established trees; and species.
- Micro climates: orientation; and prevailing winds.
- Location of buildings and other structures; heritage and archaeological features; fences; property boundaries; and pedestrian and vehicle access.
- Views to and from the site.
- Overshadowing by neighbouring structures.

Features of the surrounding locality that should be considered within a site analysis include:

- Neighbouring buildings: location; height; and use.
- Privacy: adjoining private open spaces; living room windows overlooking site (particularly those within 9m of the site); and location of any facing doors and/or windows.
- Walls built to the site's boundary: location, height and materials.
- Difference in levels between the site and adjacent properties at their boundaries.
- Views and solar access enjoyed by neighbouring properties.
- Major trees on adjacent properties, particularly those within 9m of the subject site.
- Street-frontage features: poles; trees; kerb crossovers; bus stops; and other services.
- The built form and character of adjacent development including: architectural character; front fencing; and garden styles.
- Heritage features of surrounding locality and landscape.

- Direction and distance to local facilities: local shops; schools; public transport; and recreation and community facilities.
- Public open space: location; and use.
- Adjoining bushland or environmentally sensitive land.
- Sources of nuisance: noisy roads or significant noise sources; and polluting operations.

1.11 What is required to lodge a Development Application?

Applicants are encouraged to use the services of architects, town planners, engineers, landscape architects, professional designers and other specialists as required to undertake the site analysis, design of development and to prepare the supporting documentation. Consultation with neighbours and Council officers before completing the proposal is highly recommended.

The amount of information required for a development or building application will vary depending on location, scale and complexity of the proposal.

The following information *must* be submitted as part of an application:

- a completed **application form**, signed by the owner of the land or accompanied by the written authority of the owner to lodge the application (including where appropriate the company seal or seal of the body corporate).
- **application fees** as advised by Council.

- A survey or site plan at a scale of 1:200 showing:
 - site dimensions;
 - changes of levels on the site;
 - the position of buildings on the site and adjoining sites and the ridge-lines and eaves levels of those buildings; (All levels should be to AHD)
 - existing vegetation, showing canopy spread of trees and ground levels at the base of the trunk;
 - spot levels of street frontage including road gutter; and
 - easements for drainage and services affecting or benefiting the subject property.
- a site analysis as outlined in Section 1.11, including a statement of how the proposed development has addressed the site opportunities and constraints identified.
- architectural plans (3 copies) at a minimum scale of 1:200 showing:
 - dimensions and reduced levels of all floors and ridge-lines;
 - detailed floor plans; and
 - all elevations and relevant sections.
- **notification plans** (A4 size) showing the location, height and external configuration of the proposed development.
- a statement of environmental effects (for all development applications) which:
 - explains how the proposal has addressed the relevant considerations contained in section 79C of the Environmental Planning and

Assessment Act 1979, and in particular this Plan;

- explains how the project design has responded to the information contained in the site analysis; and
- demonstrates that the intent of the criteria has been satisfied.
- a landscape plan showing:
 - proposed site contours and reduced levels at embankments, retaining walls and other critical locations
 - existing vegetation and the proposed planting and landscaping (including proposed species)
 - general arrangement of hard landscaping elements on and adjoining the site
 - proposed lighting arrangements
 - proposed maintenance and irrigation systems.
- A stormwater management plan specifying the proposed method of draining the site and provision of onsite stormwater detention. Location, diameter, invert levels and specification of all proposed piping with supporting calculations are to be included.

Other information may also be required, including:

- **shadow diagrams** showing the effect of 9am, 12 noon and 3pm shadows during mid-winter.
- a **species impact statement** where a threatened species, population or community is identified in accordance with the *Threatened Species Conservation Act*.

• a **SEPP 1 Objection** signed by the applicant outlining why compliance with a particular development standard (contained in Campbelltown (Urban Area) LEP 2002 or other applicable environmental planning instrument) is unreasonable or unnecessary.

Note: Refer to State Environmental Planning Policy No. 1 – *Development Requirements*

- soil and water management and sediment control plan, for all subdivisions requiring site works and residential development sites with gradients exceeding 15% or over 2000m² in area.
- an environmental site assessment (site contamination report), where it is known or suspected that the site is subject to site contaminants.

Note: Reference should also be made to State Environmental Planning Policy No. 55 – Remediation of Land

For further information, refer to Council's application form or enquire with Council's Planning and Environment Division.

- a Salinity Hazard Assessment assessing the Salinity Hazard Potential and recommending how to address any on site salinity hazards.
- a Bushfire Hazard Assessment where land is within 100 metres of bushland in accordance with Planning for Bushfire Protection, as produced by the NSW Rural Fire Service and which recommends how to manage the risks.

 an Acoustic Assessment where land is adjacent to an arterial road and recommending measures necessary to meet requirements of the Environmental Protection Authority for residential development.

Part 2

Criteria for Development

2.1 Masterplan

OBJECTIVES

- a. To ensure that the area to which this plan applies is planned in a comprehensive and integrated manner.
- b. To provide details in regard to the urban form and design of the new residential area in the form of a Masterplan, including the location of public open space, roads, lot configurations, pedestrian access connections, drainage systems, preservation of significant vegetation and the provision of community facilities and services and public utilities.
- c. To provide safe, convenient and effective new neighbourhoods that meet the diverse and changing needs of the community.

Performance Criteria

P1.1 Development must proceed in accordance with a comprehensive masterplan.

P1.2 The urban form and layout of the new residential area is to create a distinct and positive identity, by responding to site characteristics, the natural setting, landmarks and views and through clearly readable street and open space networks.

P1.3 While allowing for the creation of its own identity, the new residential area is to retain important linkages with surrounding established areas, and is not to result in any amenity impacts upon these areas.

P1.4 Vehicle, cyclist and pedestrian networks, land use mix and residential density should minimise fossil fuel use by reducing local vehicle trips, travel

Development Requirements

D1.1 Development must conform to an adopted Masterplan. No development application will be approved until a Masterplan has been adopted in accordance with the provisions of this Plan.

D1.2 A Masterplan is a document adopted by a resolution of Council, consisting of written information, maps and diagrams that make more detailed provisions relating to development of the land. A Masterplan must be generally consistent with this plan.

D1.3 A draft Masterplan may be prepared by or on behalf of the owner or lessee of the land concerned, or by Council.

distances and speeds, maximise public transport effectiveness, and encourage walking and cycling to daily activities.

P1.5 The site layout should retain significant vegetation and habitat areas, incorporate natural features, minimises soil erosion and avoid development on flood prone land.

Development Requirements

D1.4 A draft Masterplan should be prepared following consultation with Council and is to illustrate and explain, where appropriate, proposals for the following:

- Phasing of development;
- Distribution of land uses;
- Pedestrian and cycle circulation networks;
- Roads;
- Parking provision;
- Subdivision pattern;
- Infrastructure provision;
- Treatment proposed for road corridors;
- A concept landscape plan;
- Decontamination of the site;
- Provision of public facilities;
- Provision of open space, its function and landscaping;
- Any other matters stipulated by the Council.

D1.5 The Masterplan must incorporate a stormwater management plan, which addresses those issues identified in the local environmental study, which preceded the zoning of the land.

D1.6 Before the Council adopts a Masterplan:

- The draft Masterplan must be advertised, and exhibited for not less than 21 days for public comment;
- The Council must take into account any written submissions made about the content of the plan during the exhibition period.

D1.7 A Masterplan may be replaced or amended by the preparation of a subsequent or amending Masterplan, which complies with the above

Development Requirements

consultation and determination process.

2.2 Streetscape and Urban Character

OBJECTIVES

- a. To ensure that all new development is compatible with the intended future character of the estate.
- b. To ensure that new development is sensitive to the landscape setting and environmental conditions of the locality.
- c. To ensure that the appearance of new development is of a high visual quality enhances the streetscape and compliments good quality surrounding development.

Performance Criteria

Development Requirements

Urban Character

P1. Development should be consistent with the desired urban character for the estate. Elements which describe the desired urban character are as depicted by the Masterplan and described as follows:

- To create a high quality masterplanned residential estate.
- The creation of a legible, attractive and inviting entry statement at the main entries to the estate.
- To create a variety of housing choice, inclusive of both standard detached housing and multi-unit dwellings.
- Achievement of a net residential density of 15 dwellings per hectare (exclusive of open space and community facilities land), so as to maximise the viability of public transport.
- To ensure vehicular access is simple, safe and direct and creates a pleasant environment.
- To provide maximum connectivity through the estate for pedestrians, with a central pedestrian/cycle network, which takes advantage of the attractiveness of the proposed open space corridor, to encourage pedestrian/cycle movements throughout the estate, connecting to Glenfield Railway Station and shops.
- The provision of community facilities within the estate, which provides a focal point for, the incoming population, linked by the pedestrian/cycle and open space system.

Development Requirements

D1.1 The development should be consistent with the desired urban character of the estate and the Masterplan.

D1.2 Those major elements site opportunities and constraints to be taken into consideration in the formulation of the masterplan and subsequent development proposals are depicted upon the Development Control Plan Map.



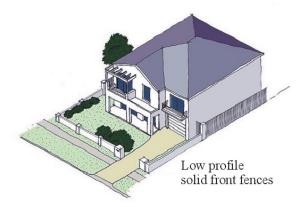
Typical future urban charactermulti-unit dwelling development

Streetscape

P2.1 Development should positively contribute towards the creation and enhancement of the visual character of the street with particular reference to architectural themes, landscape themes and fencing styles.

P3. Front Fences

Front fences and walls should maintain the streetscape character and be consistent with the established style and pattern of fences in the locality.



Development Requirements

D2.1 New buildings shall adhere to a minimum front building line of 4.5 metres. A setback of 5.5 metres applies to the face of garage doors or carports.

D2.2 Subdivision proposals shall provide for street tree planting consistent with the Masterplan.

D2.3 Landscaping shall be provided with all developments, which is consistent with the Masterplan and incorporate existing trees where possible.

D3.1 Front fences (or absence thereof) should be consistently provided in accordance with a theme specified by the Masterplan.

D3.2 Visually impenetrable solid forms of front fences (such as masonry or timber fences) should not exceed a height of 0.9 m.

D3.3 Visually penetrable front fences (such as pre-painted metal grill or timber picket fences) should not exceed a height of 1.2 metres.

D3.4 Front fences of a height exceeding 1.2 metres in height are permitted only where required to satisfy acoustic abatement criteria and should be provided with a landscaped area of not less than 600mm wide on the street side of the fence and should not exceed 10 metre in length without some articulation or detailing to provide visual interest.

2.3 Subdivision Design

OBJECTIVES

- a. To encourage a variety of lot sizes to promote housing choice.
- b. To develop a subdivision and lot size pattern that will reinforce the desired future character of the estate.
- c. The ensure the future allotments are of a size and configuration to accommodated future intended housing, in recognition of any constraints that may exist on the land.
- d. To provide usable allotments which maximise energy efficiency and mitigate environmental impacts.
- e. To design roads which balance the functions of traffic movement and pedestrian and residential amenity.

Performance Criteria

Development Requirements

P1 Minimum Allotment Sizes

Lot size and dimensions should be capable of accommodating a dwelling or a multi-unit housing development where consistent with the Masterplan, in a manner which complies with all other requirements of this DCP, inclusive of the provision of adequate landscaped area, private open space and car accommodation.

Development Requirements

D1.1 The minimum lot size for each dwelling type shall be as follows:

Housing Type	Minimu m Lot Size	Site Width at the Building Line
Single Detached Dwelling	450m ²	15m
Zero lot line or semi-detached dwelling	350m ²	7.5m
Terraces	240m ² 1	7.5m
Multi-unit housing developments	1500m ²	25m

¹ The development of terrace houses is only permitted in a minimum group of 6 dwellings (which may include other dwelling forms). A combined minimum development site of 1500m² is therefore required for terrace developments

D1.2 Lots to be created for single detached dwellings should be able to accommodate a building envelope of 200m² with a minimum dimension of 10 metres.

D1.3 Subdivision proposals for zero lot line, semi-detached and terrace housing must be accompanied by development plans for the proposed housing, to be approved by Council in conjunction with the subdivision.

P2 Rear accessways

Rear accessways may be provided as part of a subdivision, but shall not be dedicated as a public road.

Development Requirements

D2.1 All rear accessways shall not be dedicated as public roads but rather shall be a common lot in a community title subdivision incorporating those lots to which are provided rear access.

2.4 Building Form

OBJECTIVES

- a. To ensure that the bulk, scale and height of proposed development provides reasonable neighbour amenity and maintains an appropriate residential character.
- b. To ensure that adequate sunlight access and ventilation for living areas and private open spaces of new and neighbouring dwellings is provided for.

Performance Criteria

Building Size and Setbacks

P1.1 The form of proposed buildings, which is controlled by setbacks, height, the extent of cut and fill and achievable floorspace should be consistent with the intended character of the locality within which it is located.



Possible building form

Development Requirements

D1.1 The maximum height of buildings should not exceed 2 storeys in height. A third storey, in the form of attic rooms, may be provided in terrace housing or required for architectural articulation of buildings (eg. in a street corner situation).

D1.2 The maximum floorspace ratio (FSR) of buildings shall not exceed the following:

Location	Maximum FSR
Maximum FSR for	for sites equal
sites less than	to or greater
1,500m ²	than 1,500m ²
0.5:1	0.6:1

Building Design

P2. The building design, detailing and finish should provide an appropriate scale to the street; add visual interest when viewed from public streets.

Development Requirements

D1.3 Setbacks from side and rear boundaries to be as follows: -

D1.4 Walls with windows or other openings are to have a minimum setback of 1.0m. Variations will be considered on their merits.

D1.5 Walls built to site boundaries to have a maximum wall height of 3.5 metres and a maximum wall length of 40% of the abutting property boundary (unless matching an existing or simultaneously constructed wall, eg. semi detached house or terrace building). Where dwellings proposed in a minimum group of 6, the 2 storey dwellings may be constructed with a nil setback to the boundary for a maximum length of 10 metres for the 2 storey section. Variations will be considered on their merits.

D1.6 A minimum side setback of 1.5m applies to corner lots.

D2.1 The frontage of buildings and their entries should address the street, including Old Glenfield Road and Glenfield Road. Vehicular access to lots having frontage to Old Glenfield Road and Glenfield Road shall be from adjoining streets in accordance with the Masterplan.

D2.2 A maximum unarticulated length of a wall facing a public street to be 6.5 metres.

Note: Punctuation by bay windows, verandahs, balconies or wall offsets may be considered to be adequate articulation.

2.5 Open Space and Landscaping

OBJECTIVES

- a. To provide sufficient and accessible open space for the reasonable recreation needs of the likely residents of the proposed dwelling.
- b. To provide private outdoor living areas that relate well to the living areas of dwellings.
- c. To enhance the appearance, amenity, energy and water efficiency of developments through integrated landscape design.

Performance Criteria

Private Outdoor Living Areas

P1.1 Each dwelling to have access to some usable and private external area.

P2.1 Private outdoor living areas are clearly defined and screened for private use.

P2.2 Private outdoor living areas are located to:

- take advantage of available outlooks or views and natural features of the site
- reduce adverse impacts of adjacent buildings on privacy and overshadowing
- resolve surveillance, privacy and security issues when private open space abuts public space.

Development Requirements

D1.1 All dwellings shall be provided with some form of outdoor living area such as either private open space, balconies or roof terraces.

D2.1 Private outdoor living areas located at ground level should be:

- Bound by buildings, fencing or dense landscaping which will restrict views to a height of 1.8m
- a minimum area of 20% of the site area of each allotment with a minimum dimension of 2.5m
- one area with a minimum dimension of 4m x 4m
- directly accessible from a living area of the dwelling
- a maximum gradient of 1 in 10

D2.2 Private open space and balconies shall take advantage of mid and long distance views where privacy impacts will not arise.

D2.3 Fencing of private open space, where abutting public open space, shall be provide for some cross viewing.

•

P3. Orientation of the private outdoor living areas should achieve comfortable year round use. **Landscaping**

P4. The landscape design specifies landscape themes, vegetation (location and species), paving and lighting that provide a safe, attractive and functional environment for residents, integrates the development with the neighbourhood and contributes to energy efficiency and water management.

P5. Major existing trees are retained in viable condition wherever practicable through appropriate siting of buildings, accessways and parking areas and appropriate landscape treatment.

Development Requirements

D3.1 Compliance with the provisions of Section 2.5 of this Plan.

D4.1 The submission of a landscape plan.

D4.2 A minimum of 20% of landscaped area in residential zoned areas should consist of deep rooted tree plantings.

D4.3 The proposed landscaping to comply with the minimum specification requirements outlined as Schedule C.

P5.1 No building structures or disturbance to existing ground levels are proposed within the drip line of existing significant trees to be retained as recommended in a report submitted by a qualified horticulturist.

Note: Council has an existing Tree Preservation Order and approval should be sought for any lopping, major pruning or removal of existing trees.



Incorporating existing trees into parkland, and orientation of dwellings to address the open space

2.6 Ecologically Sustainable Development

OBJECTIVES

- a. To reduce the demand for waste disposal by maximising the reuse and recycling of building/ construction materials.
- b. To promote development which maximises the opportunities for energy efficient uses of resources, particularly in regard to solar power and water management.
- c. To encourage the protection and conservation of native animals and plants, including threatened species, populations and ecological communities and their habitat.
- d. To ensure that redevelopment of contaminated or potentially contaminated land does not pose a risk to public health or the environment, is suitably assessed to determine the extent of contamination, and is remediated to render the site suitable for the proposed use.

Performance Criteria

Waste Management

P1. Provide procedures to facilitate waste minimisation and materials recycling as part of the demolition and construction process.

D1.1 Identify and nominate opportunities to reuse materials from the demolition and excavation phase for the proposed new use as well as potential waste materials (such as recyclable packaging, off cuts and other excess materials as part of the construction process.

Development Requirements



Dedicated metal recycling skip, Seven Hills Waste Transfer Station.

Source : Waste Planning Guide for Development Applications 1998

Note: A list of premises which take recyclable material can be accessed through the Waste Board's internet web site in

<u>www.wasteboard@nsw.gov.au</u>



Recover valuable **resources** from the waste stream for recycling and reuse. **Resource Recovery** reduces disposal costs, prevents further environmental damage and saves resources for further use.

Source : Waste Planning Guide for Development Applications 1998

Development Requirements

D1.2 Provision of designated areas on the site sufficient for colour coded or labelled storage bins, containers or stockpiles for separated and any left-over waste from the construction process in locations with convenient vehicular access for removal by the waste contractor.

Energy Efficiency

P2 Design developments so as to facilitate the use of renewable energy sources wherever possible.

D2.1 Provide for solar water heaters where hot water supply is necessary. Where possible, solar water heaters should be installed to face directly north for maximum efficiency. Alternatively, place solar panels facing east to west (which still achieves 88% of the efficiency of a north-facing panel). If solar water heaters are not installed the design of new buildings must ensure there is the ability to install a suitable system at a later date.

D2.2 Solar hot water panels should be mounted at a 30° angle from the horizontal.

D2.3 All solar water heaters need to comply with the relevant Australian Standards for their installation (refer to AS 3500.4 – 1990 National Plumbing and Drainage Code, Part 4, Hot Water Supply Systems) and for their design and manufacture (refer to AS 2712 – 1993 Solar Water Heaters, Design and Construction).

D2.4 Solar collectors on proposed buildings or existing buildings on adjoining properties, or a minimum $3m^2$ of north facing roof (in the event that there are no existing solar collectors on proposed or neighbouring buildings) should have unimpeded solar access between the hours of 9 am and 3 pm on June 21.

P3 Subdivisions to facilitate maximum solar access to future residential development.

P4 Residential buildings and private or communal open space should be designed to control summer sun and allow the penetration of winter sun to ensure reasonable access to sunlight or daylight for living spaces within buildings and open space around buildings.

P5. Provide insulation so as to minimise the need for artificial heating and cooling to provide adequate comfort level for occupants.

Development Requirements

D3.1 Orient the majority of streets within 20° west of north and 30° east of north.

D3.2 Maximise streets with predominantly north-south orientation or lots with predominantly east-west orientation to maximise solar access to lots and facilitate installation of solar collectors.

D4.1 At least one internal living area and a minimum of 50% of the principal area of ground level private open space (ie. that part which complies with D2.1 of Section 2.5) to have access to a minimum of 2 hours of direct sunlight between the hours of 9 am and 3 pm on June 21.

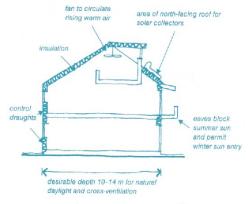
D4.2 Where existing overshadowing is greater than what is required in D4.1 then the proposed development shall not cause a further reduction in solar access.

D4.3 The western walls of a residence should be suitably screened (with pergolas, other shading devices or vegetation) or alternatively, the number of window openings should be minimised.

D5.1 Insulation for all dwellings to achieve a recommended "R" value for external walls of R1.0 and for roofs and R1.5 ceilings. In this regard, compliance with AS 2627-1993 Thermal Insulation of Dwellings Part 1 is recommended.

Note: The effectiveness of insulation to resist heat flow through its fibres, particles, etc. is known as its "R" value.

P6. New buildings should incorporate sufficient thermal massing (heat bank storage) to reduce the need for additional heating.



Some considerations for energy-efficient housing in temperate climate zones.

Source : AMCORD 1995

P7 New buildings should provide for the use of water efficient fixtures to reduce the demand for (mains) water and wastewater discharge.

P8 Development should be designed to maximise the utilisation of natural winds for air conditioning purposes to reduce the need for electrical air conditioning systems.

Note: This is where cool air enters a building from one side and exits via another. This movement of air will allow warmer inside air to be replaced with cooler outside air.

Development Requirements

D6.1 Detail consideration in the design of buildings to be provided in regard to the position and level of glazing on the external walls to assist the use of thermal massing. Generally, a relatively large proportion of glazing is required on the northern side of buildings to enable the heavy weight of materials of the building to directly absorb heat from the winter sun.

D6.2 Glazing should be positioned to allow the lower angle of the winter sun to penetrate the internal areas of buildings while excluding a greater proportion of the higher angled summer sun.

D6.3 Maximise the thermal mass of walls and floors by utilising materials such as bricks, stone etc. for walls and a concrete slab on ground floor for flooring.

D7.1 New development to provide a minimum of 2 water efficient fixtures per residential dwelling.

D8.1 Developments should seek to utilise or be sheltered from prevailing winds, as appropriate, (in Campbelltown during the summer season, use can be made of the cooling prevailing afternoon winds which come from an east/north-east direction).

D9.1 Early consideration of window placement can permit cross ventilation.

P9 The design and management of landscaping should reduce the consumption of mains water that would otherwise normally be required.

Flora and Fauna Conservation

P10 Development should not affect threatened species, populations or ecological communities and their habitats in any way, including:

- their removal or destruction;
- an alteration to drainage patterns, water quality, solar access or potential for weed invasion in a manner, which would critically affect their long-term survival.

Note: Reference should be made to the provisions of the Environmental Planning & Assessment Act, 1979 and the Threatened Species Conservation Act in regard to the requirements for the protection of rare, threatened or

Site Contamination

P11 All land that is known or is subject to potential contaminants is to

Development Requirements

D9.1 Landscape design should:

- Choose species of plants which are suited to the soil type and aspect of the area, thereby reducing the need for supplementary watering;
- Provide a minimum cover of 75mm to 100mm of mulch on garden areas;
- Minimise the area of lawn and substitute with ground cover or native grasses.

D10.1 The proposed development should not affect the endangered ecological community known as Cumberland Plain Woodland, the area of which is delineated upon the DCP Map.

D10.2 A plan of management to be adopted by Council for the Woodland area and riparian corridors to be conserved prior to development works proceeding.

D10.3 Where there is potential for scheduled species to be threatened by a proposed development, an 8-part test shall be undertaken to confirm the existence or otherwise of threatened species.

D10.4 Where confirmed by 8-part test, or where the existence of threatened species is known, a Threatened Species Impact Statement shall be provided with the Development Application, and the design of the development shall take into consideration the findings of that statement.

D11.1 A detailed contamination assessment be completed and

be remediated prior to occupation in a manner, which will reduce the risk of harm to human health or any aspect of the environment to accepted EPA standards.

Development Requirements

submitted with any development applications, focusing on the areas categorised as medium or high risk within the report prepared by Sinclair Knight Merz (Ref EN01176, November 2001) prepared as part of the LES.

Development Requirements

D11.2 A detailed Stage 2 contamination investigation to be undertaken in areas identified as likely to be contaminated. This will require an intrusive investigation involving soil sampling and analysis, focussing on the results from the previous studies, to assess the nature and extent of any contamination on the site in accordance with ANZECC, NHMRC and NSW EPA Guidelines.

D11.3 In the event of contamination being found at the site, a remedial action plan (RAP) is to be prepared and submitted to Council for approval prior to the issue of development approvals. The RAP must identify options for treatment or disposal of contamination on, or off-site.

Bushfire Risk

P12 Development on land that is subject to bushfire risk shall be designed so that the development is not subject to risk from bushfire.

Salinity

P13 All land that is known or is subject to potential salinity shall be remediated to minimise the impact of salinity.

D12 Where land is subject to bushfire risk the development shall be constructed to satisfy the requirements of *Planning for Bushfire Protection*, as produced by the NSW Rural Fire Service.

D13 In the event of salinity being found at the site, a remedial action plan (RAP) is to be prepared and submitted to Council for approval prior to the issue of development approvals. The RAP must identify options for treatment of salinity.

2.7 Aboriginal Heritage

OBJECTIVES

a. To conserve sites or relics of significance to Aboriginal Heritage.

Performance Criteria

P1.1 No development or associated site works are to result in the disturbance of any known artifact or area of potential aboriginal archaeology deposit (PAD) without the prior approval of the NPWS and Local Aboriginal representatives.

Development Requirements

D1.1 The identified isolated artifact shown on the DCP Map shall not be subject to any disturbance, unless a written permit to collect from the Director of the NPWS is obtained. If to be disturbed, arrangements shall be made with the Cubbitch Barta Native Title Claimants Aboriginal Corporation to obtain custody of the relic after collection.

D.1.2 During the initial phases of development construction, affecting areas of potential archeological deposits (PADs), as depicted upon the DCP Map, shall be monitored by Local Aboriginal representatives, as required. In this regard, the requirements of the Tharawal Local Aboriginal Land Council and Cubbitch Barta Native Title Claimants Aboriginal Corporation, shall be confirmed and communicated to Council.

Note: It is an offence under the terms of the National Parks & Wildlife Act, 1974 (as amended) to damage, deface or destroy an Aboriginal relic or place without obtaining the written consent of the Director, National Parks & Wildlife Service NSW.

2.8 Water Management

OBJECTIVES

- a. To provide drainage systems which adequately protect people and the natural and built environments at an acceptable level of risk and in a cost effective manner and which contribute positively to the environmental enhancement of catchment areas
- b. To ensure effective and adequate drainage is provided for new development sites.
- c. To ensure development is designed in consideration of potential flood hazards.
- d. To maximise conservation of water.

Performance Criteria

Development Requirements

Development Requirements

Floodplain Management

P1.1 The proposed development should not result in any increased risk to human life.

P1.2 Potential economic and social costs, which may arise from damage to property from flooding, should not be greater than that which can reasonably be managed by the property owner and general community.

Stormwater Drainage

P2 Stormwater runoff generated by new development should be managed to protect any potential damage to persons or property.

D1.1 Compliance with Council's Flood Policy and the provisions of the State Government 's "Floodplain Development Manual" available from the NSW Department of Land and Water Conservation.

D2.1 All properties, subject to D3.1 shall be piped to the stormwater system as depicted in the Water Management Plan forming part of the adopted Masterplan. Where properties fall away from the street and/or are unable to drain to a trunk drainage system, an easement for draining stormwater is required through downstream properties.

D2.2 Where a drainage easement is required, written agreement from the downstream owner shall be submitted with the development application and the easement shall be registered prior to issue of the construction certificate.

Rainwater Tanks

P3. Maximum reuse of stormwater should be achieved.

Development Requirements

D3.1 A rainwater tank shall be provided in conjunction with each dwelling in accordance with the following requirements:

- the tank shall have a minimum capacity of 5,000 litres,
- the tank shall be used for toilet flushing and other non potable domestic water uses such as gardens etc,
- the tank must be designed to capture and store roof water from gutters or downpipes on a building and not from another source other than a water supply service pipe,
- the tank must be fitted with a first-flush device, being a device that causes the initial run-off of any rain to bypass the tank to reduce pollutants entering the tank,
- the tank must be provided with a backflow prevention device where it is also connected to a water supply service pipe,
- the tank must be structurally sound,
- the tank must be prefabricated, or be constructed from prefabricated elements that were designed and manufactured for the purpose of the construction of a rainwater tank,
- the tank must be assembled and installed in accordance with the instructions of the manufacturer or designer of the tank,
- the tank, and any stand for the tank, must be installed and maintained in accordance with any requirements of Sydney Water,

Glenfield Road Area 2002 DCP Part 2 – Criteria for Development Page 40

Development Requirements

- the installation of the tank must not involve the excavation of more than 1 m from the existing ground level, or the filling of more than 1 m above the existing ground level,
- the tank must not be installed over or immediately adjacent to a water main or a sewer main or over any structure or fittings used by Sydney Water unless it is installed in accordance with any requirements of Sydney Water,
- no part of the tank or any stand for the tank may rest on a footing of any building or other structure, including a retaining wall,
- the tank must be located behind the front alignment to the street of the building to which the tank is connected (or, in the case of a building on a corner block, the tank must be located behind both the street front and street side alignments of the building),
- the tank must not exceed 2.4 m in height above ground level, including any stand for the tank,
- the tank must be located at least 450 mm from any property boundary,
- a sign must be affixed to the tank clearly stating that the water in the tank is rainwater,
- any overflow from the tank must be directed into an existing stormwater system,
- the tank must be enclosed, and any inlet to the tank must be screened or filtered, to prevent the entry of foreign matter or creatures,
- the tank must be maintained at all times so as not to cause a

nuisance with respect to mosquito breeding or overland flow of water,

Development Requirements

 any plumbing work undertaken on or for the tank that affects a water supply service pipe or a water main must be undertaken:

 (i) with the consent of Sydney Water, and
 (ii) in accordance with any

requirements by Sydney Water for the plumbing work, and (iii) by a licensed plumber in accordance with the New South Wales Code of Practice— Plumbing and Drainage produced by the Committee on Uniformity of Plumbing and Drainage Regulations in New South Wales,

 any motorised or electric pump used to draw water from the tank or to transfer water between tanks:

(i) must not create an offensive noise, and in the case of a permanent electric pump must be installed

electric pump, must be installed by a licensed electrician.

 all residential lots created shall carry an S88B restriction specifying that a rainwater tank shall be installed in conjunction with a dwelling in accordance with the requirements of Council and Sydney Water.

2.9 Transport

OBJECTIVES

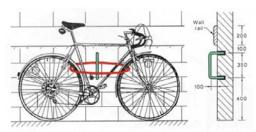
- a. To increase opportunities for choice in mode of transport and to assist in facilitating cost effective and energy efficient public transport services that are acceptable and convenient to the community.
- b. To encourage walking and cycling by providing safe, convenient and legible movement networks to points of attraction within and beyond the development and facilities for the secure temporary storage of bicycles.
- c. To provide convenient and safe access and parking to meet the needs of all residents and visitors.
- d. To provide access arrangements which do not impact upon the efficient or safe operation of the surrounding road system.
- d. To encourage the integrated design of access and parking facilities to minimise visual and environmental impacts.

Performance Criteria

Development Requirements

Public Transport

P1. Site layout and location should maximise opportunities for use of public transport.



Wall-mounted bracket and rail - frame and both wheels secured by single chain Source : AS2890.3 - 1993 Parking Fascilities

Development Requirements

D1.1 All future dwellings are to be within 400 metres walking distance of a bus route.

D1.2 Where opportunities exist, pedestrian and cycle links should be provided to public transport facilities, a bus route and the Glenfield Railway Station.

D1.3 Pedestrian and cycle links are to be well lit and benefit from casual surveillance from surrounding development or vehicular routes in regular use (eg. bus routes).



Floor Rail - frame and both wheels secured by single chain in figure - of - eight pattern Source : A52890.3 - 1993 Parking Fascilities

Access and Circulation Design

P3. Vehicular movement to and from the site and within the site, should be designed to reduce potential conflict with other vehicles and pedestrians.

P4. Accessways, driveways and open parking areas are suitably landscaped to enhance amenity while providing for security and accessibility of all residents and visitors.

Development Requirements

D1.4 Bicycle racks in safe and convenient locations are to be provided in multi-dwelling housing developments with a total gross floor area exceeding 1,000m², at the rate of one rack per 5 dwellings.

D3.1 No direct vehicular access to Campbelltown Road, Old Glenfield Road, Glenfield Road or any possible future link road adjacent to the southern boundary of the estate. A S88B restriction shall be placed on each lot having frontage to these roads prohibiting access to these roads.

D3.2 Accessways and driveways for multi-unit dwelling developments with common driveways:

- Are designed to enable vehicles to enter the parking space in a single turning movement;
- Leave the parking space in no more than two turning movements;
- Comply with AS 2890 1993 (Parts 1 to 5) Parking Facilities
- Comply with AS 1428.1 1993 Design for Access and Mobility

D4.0 Landscaping along driveways and accessways to be provided as required to a minimum standard which complies with the specification provided as Schedule C.

Development Requirements

Vehicular Parking

P6. Parking facilities are designed and located to:

- conveniently and safely serve users; provide designated car parking spaces for people with disabilities;
- enable the efficient use of car spaces and accessways;
- use innovative solutions to car parking (underground, semibasement or dual use) particularly where site conditions permit; and
- reduce the visual dominance of car parking areas and accessways.

D6.1 Designated car parking spaces comply with the requirements of parking for persons with disabilities specified by AS 2890.1 and AS 1428.2.

D6.2 Car parking spaces and areas to be designed to comply with AS 2890 – 1993 (Parts 1 to 5) Parking Facilities.

P7. Car parking is provided with regard to the:

- likely parking demand generation of the development;
- availability of public transport
- availability of on-street car parking
- locations of schools and local shops
- possible demand for car parking space from adjoining localities;
- occasional need for overflow car parking;
- requirements of people with a limited mobility, sensory impairment and at different stages of the family life cycle.

Design of Parking Spaces

P8. The size of parking spaces and structures should reflect:

- functional requirements;
- the amount of space available (for example, having regard to the location of existing buildings or trees); and
- bulk/scale relationship with adjacent development on-site.

Development Requirements

D7.1 Accommodation on-site for 2 cars provided for single detached dwelling-houses.

D7.2 Car parking is provided for multi-unit dwelling developments at the following rates

Number of Bedrooms per Dwelling	Car Parking Spaces per dwelling
Bedsitter or 1 bedroom	0.75
2 bedroom	1.00
3 or more bedrooms	1.50
Visitor spaces	0.20

Notes:

- Visitor spaces are required for all multi-unit dwelling developments in addition to resident spaces
- Car parking calculations are to be rounded up

D7.3 Stacked parking, for a maximum of 2 car parking spaces, may be provided only for use by the same dwelling.

D8.1 Car parking structures to be incorporated into the design of residential buildings, so to not dominate the appearance of the building when viewed from public streets or internal private roadways.

D8.2 The openings of undercover parking spaces should not occupy more than 45% of the street elevation of the building.



Glenfield Road and Old Glenfield Road

P9. The street pavement should match that provided elsewhere in the urban release area.

Local street frontage to open space

P10. Local streets should be fully constructed adjacent to open space.

Development Requirements

D8.3 The design of car parking structures shall be integrated with the design of the proposed development, and be in sympathy with the appearance of adjacent development by:

- the use of similar materials, colours, height and roof pitch;
- integrating the structure within the development;
- breaking up structures with different surface and wall treatments and landscaping;
- locating car parking at the rear of the site where rear access is available; and
- limit the number of adjoining garages to single or double, without some form of articulation or break.

D9. Kerb and guttering and road shoulder shall be provided along the frontage to Glenfield Road and Old Glenfield Road in conjunction with subdivision of land having frontage to those roads.

D10. All local streets having frontage to open space shall be constructed to their full width and dedicated as a public road at no cost to Council.

2.10 Security, Privacy and Acoustic Amenity

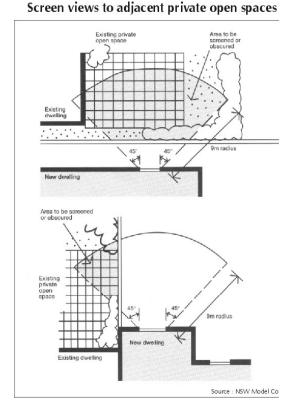
OBJECTIVES

- a. To ensure the siting and design of buildings provide visual and acoustic privacy for residents and neighbours in their dwellings and private open spaces.
- b. To provide personal and property security for residents and visitors and enhance perceptions of community safety.
- c. To ensure that all future occupants are provided with appropriate acoustic amenity.

Performance Criteria

Overlooking

P1. Private external living spaces and internal living areas of adjacent dwellings should be protected from overlooking.



Development Requirements

D1.1 Site layout and building design ensures that windows do not provide direct and close views into windows, or private external living spaces of adjoining dwellings.

D1.2 Habitable room windows (other than bedroom windows) of adjacent dwellings within a distance of 9 metres are:

- Offset by a distance sufficient to limit views between windows; or
- Have sill heights of 1.7 metres above floor level; or
- Have fixed obscure glazing in any part of the window within 1.7 metres of the floor level.

D1.3 Direct views onto adjoining private external living spaces are obscured by:

- Screening that has a maximum area of 25% openings, is permanently fixed and made of durable materials; or
- Existing dense vegetation or new planting.

Development Requirements

Noise

P2. The transmission of noise between adjoining properties should be minimised.

D2.1 New dwellings should be protected from existing and likely future noise sources emanating from adjoining residential properties and other high noise sources (such as busy roads, railway lines and industries) and minimise the transmission of intrusive noise to adjoining residential properties.

D2.2 No occupation of residential dwellings will be permitted until the construction of noise abatement barriers as specified upon the adopted Masterplan. The noise abatement barriers and dwellings will need to be designed to comply with the recommendations of the noise planning report prepared by Atkins Acoustics (ref: 31.5316.R1:DD21, Nov 2001) as part of the Local Environmental Study, except that noise walls will not generally be permitted along Glenfield Road. Where dwellings are constructed adjacent to Glenfield Road, acoustic measures will need to be designed as part of the design of the dwelling.

D2.3 Compliance with the provisions of the *Environmental Noise Control Manual* published by the NSW Environment Protection Authority.

Security

P3. Site layout and design of the dwellings, including height of front fences and use of security lighting, should minimise the potential for crime, vandalism and fear.



Source : Better cities (National Status Report 1995)

Development Requirements

D3.1 Shared pedestrian entries to multiple dwelling complexes should be lockable.

D3.2 Buildings adjacent to streets or public spaces are designed to allow casual surveillance and should have at least one habitable room window facing that area.

2.11 Ancillary Site Facilities

OBJECTIVES

(a) To ensure that site facilities are effectively integrated into the development and are unobtrusive.

(b) To ensure site facilities are adequate, accessible to all residents and easy to maintain.

(c) To ensure facilities are provided for efficient solid waste management.

Performance Criteria

Waste Disposal

P1.1 Provisions of waste and recycling bin enclosures which are:

- adequate in size
- durable and waterproof
- blend in with the development
- avoid visual clutter
- easy to maintain in a clean and hygienic condition.

P1.2 Waste and recycling bin enclosures are located for convenient access by residents and collection vehicles.

Clothes Drying Areas and Other Site Facilities

P2. Adequate clothes drying facilities are provided for all residents, easily accessible to all residents.

Development Requirements

D1.1 Nomination of a waste and recycling bin storage area which is capable of accommodating one 120-litre bin per dwelling with easy access to the public street frontage and which is located within 60m walking distance from each dwelling.

D1.2 If the area is to be a bin storage area for more than one dwelling it should be adequately screened.

PART 3

Schedules

SCHEDULE A Dictionary

"AMCORD" means the national resource document for residential development published by the Commonwealth Government and entitled "Australian Model Code for Residential Development" (1997 Edition).

"*amenity*" means features, facilities or services of a house, locality or district, which make for a pleasant and comfortable life.

"*biodiversity*" means variety of life forms, plants, animals and microorganisms. It is usually considered at three levels:

- (a) genetic diversity;
- (b) species diversity; and
- (c) ecosystem diversity.

(See also ecologically sustainable development).

"conservation" means all of the processes of looking after a place so as to retain its cultural significance. It includes maintenance and may, according to circumstance, include preservation, restoration, reconstruction and adaptation and will be commonly a combination of more than one of these. (Source: The Burra Charter)

"ecologically sustainable development (ESD)" means development that uses, conserves and enhances the community's resources so that ecological processes, on which life depends, are maintained and the total quality of life now and in the future can be increased. (Source: National Strategy for Ecologically Sustainable Development, 1992) ESD is essentially about creating a system, which is self sustaining in the long term. It is more a process than a product. It incorporates conservation principles and practices into the development process, so that a sustainable balance between environmental and economic objectives can be achieved.

"floorspace ratio" is the ratio of gross floor area of the building to the area of the land on which the building is proposed to be erected.

"gross floor area" means that some of the areas of each floor of a building where the area of each floor is taken to be the area within the outer face of the external enclosing walls as measured at a height of 1400mm above each floor level excluding:

- Columns, fin walls, sun control devices and any elements, projections or works outside the general line of the outer face of the external wall;
- Lift towers, cooling towers, machinery and plan rooms and ancillary storage space and vertical air-conditioning ducts;
- (iii) Car-parking needed to meet any requirements of Council and any internal access thereto;
- (iv) Space for the loading and unloading of goods.

"ground level" means the level of a site before development is carried out on the site under this Plan. This does not include any level that has been created without the approval of the Council where this would otherwise be required.

"height" means the vertical distance between natural ground level and the top most point of a structure, excluding minor attachments and architectural detailing such as television aerials and fenestration.

"Multi-unit dwelling housing" is as defined by Campbelltown LEP 2001.

Note: Schedule 1 of Campbelltown LEP 2001 defines multi dwelling housing as

development involving the erection of three or more dwellings on a site.

"**Public Domain**" is the shared urban areas and spaces, the structures that relate to those spaces and the infrastructure that serves them, which is accessible or available to the general public, regardless of whether they are in public ownership, or not.

"Semi-detached dwelling" means a single free-standing dwelling sharing a common boundary with the adjoining neighbour, generally described as two dwellings made to look like one larger building.

"Single detached dwelling" is a freestanding residential building which contains one, but not more than one, dwelling on its own allotment generally set within a landscaped garden.

"Storeys, and the number of storeys" are as defined by Clause 6 of State Environmental Planning Policy No. 6 – Number of Storeys in the Building (SEPP No. 6).

Note: SEPP 6 generally defines the number of storeys in a building as follows:

- the maximum number of storeys, floors or levels as the case may be, of the building which may be intersected by the same vertical line, not being a line which passes through any wall of the building; but
- excluding the whole or any part of a roof used as an uncovered garden, terrace or deck.

"Terrace" means a single dwelling, which shares both side boundary lines with adjoining neighbours, and is generally built from side boundary to the other side boundary. This building type is repeated to form a row of attached dwellings.

"Zero lot line dwelling" means a dwelling built to one side boundary line. The planned configuration shall form a courtyard space usually to the rear of the allotment.

SCHEDULE B

List of Approvals That May be required From Other Government Agencies

(will require submission of an integrated development application)

AGENCY	LEGISLATION	SECTION	APPROVAL FOR
NSW Fisheries	Fisheries Management Act	144	Aquaculture permit
		201	Permit to dredge or reclamation work
		205	Permit to cut, remove, damage or destroy marine vegetation
Heritage Council (Heritage Office)	Heritage Act	58	Approval to damage, move, alter or undertake any development on an item protected by a Permanent or Interim Conservation Order
National Parks & Wildlife Service	National Parks and Wildlife Act	90	Consent to knowingly destroy, deface, or damage to an Aboriginal Relic or an Aboriginal Place ¹
Environment Protection Authority	Protection of the Environment Operations Act	43(a) and 47	Licence to carry out scheduled development work (work that is designed to enable a scheduled activity to be carried out)
		43(b) and 48	Licence to carry out a scheduled activity (excluding a waste activity but including a waste facility)
		43(d) and 122 ³	Licence to control the carrying out of non-scheduled activities for the purpose of regulating any water pollution
Department of Land and Water Conservation	Rivers and Foreshores Improvement Act	Part 3A (section 22B)	Permit required to make an excavation or remove material within 40 metres of a river, lake or lagoon or do anything that obstructs or detrimentally affects the flow of water on a river, lake or lagoon
	Water Act	10, 13A, 18F, 20B, 20CA, and 20L ⁴	Licence or permit to construct a work and to take water
		Part 8	Approval to construct an earthwork, embankment or levee on the bank of a river or lake, or within a floodplain

Roads and Traffic Authority	Roads Act	138	A consent (from the RTA only) to erect or alter structures or works, or connect a public road to a classified road or tollway
Rural Fire Service	Rural Fires Act	100B	Authorisation under section 100B in respect of bush fire safety of subdivision of land that could lawfully be used for residential or rural residential purposes or development of land for special fire protection purposes

NOTES

- 1. Development is not integrated development unless a relic referred to in section 90 of the National Parks and Wildlife Act is known, immediately before the development application is made, to exist on the land to which the development application applies.
- 2. The Protection of the Environment Operations Act contains a schedule of activities that the EPA will licence. List A provides the short description of the list of scheduled activities listed in Schedule 1 of the POEO Act. It should be noted that activities below certain thresholds do not need a licence.
- 3. It is a defence in proceedings relating to the pollution of waters that the pollution was regulated by an environmental protection licence and the conditions of that licence were not breached.
- 5. Please note that other requirements apply to the gaining of an entitlement to take water under these sections.

SCHEDULE C

Minimum Landscaping Specification

1.0 SITE MANAGEMENT CONDITION

Site Condition

1.1 Areas to be landscaped should be left clean of building materials and rubbish.

Existing Plant Material

1.2 All existing trees, shrubs, ground covers, perennial plants and lawn areas except those indicated to be removed shall be retained irrespective of size. Ensure that trunks, branches and roots are protected against damage.

1.3 Special care is to be taken when cultivating around existing plant material.

Tree Protection

1.4 Protect all trees to be retained on site and their root systems from damage caused by or arising from the course of the carrying out of works.

1.5 Before commencing any other work, surround each tree or group of trees on site with a 2 metre high light gauge reinforcing mesh fence supported and tied to 50mm diameter galvanised steel posts firmly driven into the ground at not less than 1.5 metre spacings.

1.6 The fences shall be not less than 2 metres from any tree trunk and no materials, equipment, machinery, rubbish and other items shall be stored within the fence. Remove any materials, rubbish, etc. that may be within the fences at any time.

1.7 Should any minor trimming or removal of lower branches be necessary, this shall comply with the requirements of the Council's Tree Preservation.

Weed Eradication

1.8 Eradicate weeds by environmentally acceptable methods, using a non-residual glyphosate herbicide in any of its registered formulas.

1.9 Regularly remove by hand rubbish and weed growth or regrowth that may occur throughout the grassed, planted and mulched areas.

2.0 SITE PREPARATION

2.1 All garden areas shall have a minimum depth of 300mm of topsoil, being either suitably improved and cultivated insitu soil or imported topsoil. Add organic matter in the form of compost to a depth of 75mm over the entire areas previously cultivated as specified. Organic matter shall be thoroughly mixed through the prepared soil before planting out.

2.2 Insitu topsoil in garden areas shall be free from grass, weeds, stumps or materials toxic to plant growth, and appropriately cultivated and fertilised.

2.3 Imported topsoil shall be of a horticulturally suitable quality sandy loam comprising 85% coarse and fine sands and no more than 15% humus and fine materials. It shall be in a friable state and free from any materials toxic to plant growth, and free from stumps, roots, clay lumps or similar material. It shall be entirely free from noxious weeds and free from grass. Topsoil shall only be worked whilst in a moderately moist condition.

2.4 Level the site so that the contours are as shown on the plan. The surface shall be left smooth and free of all foreign material. The contours shall be within plus or minus 150mm of those shown on the plan.

3.0 FERTILISER

3.1 The areas to be turfed shall first be fertilised with a complete lawn fertiliser with a N:P:K ratio of 10:9:8 such as "Shirley's No. 17" applied evenly by a fertiliser spreader at the rate of 4kg/100m².

3.2 Plants are to be fertilised with a slow release fertiliser of 20g per hole.

4.0 TURFING

4.1 Provide 75mm depth of topsoil for lawn areas. Level, compact lightly and rake to a smooth surface prior to turf laying. Ensure that turf finishes flush with kerbs and pavements and no ponding occurs as a result of turf levels.

4.2 Turf shall be obtained from an approved commercial grower of cultivated turf. It shall be free of lawn pests, diseases and reasonably weed free. Before cultivating, turf shall be mown to a height of 12mm to give a close sward. Turf shall be machine cut, of even thickness in either squares or rolls. After cutting, it shall not be stacked or rolled for more than 48 hours.

4.3 Prior to final raking, apply fertiliser as specified elsewhere evenly over levelled surfaces. Lay turf sods without excessive joints, thoroughly water without delay and roll with light roller to bring into firm contact with soil.

4.4 Top-dress joints with sandy loam to give good cover whilst still revealing the grass shoots.

4.5 Maintain lawn areas during construction with regular watering and mowing.

5.0 EDGINGS

5.1 Timber edgings shall consist of 300mm x 150mm hardwood edgings that have been treated with one coat of creosote. Edgings to be fixed at 5 metre centres using 50mm x 50mm hardwood pegs nailed to the edge board with a 40mm galvanised clout. Edge boards are to be approximately 10mm below all grass areas.

5.2 Brick edgings shall consist of well baked selected common bricks placed on edge 10mm below existing ground or grass level. A 10mm wide cement mortar joint shall be applied between each brick.

6.0 PLANTING

6.1 Planting holes shall be at least 450mm square and dug to a depth of 75mm more than the depth of the root ball.

6.2 All surplus material shall be removed and replaced with planting soil as specified previously. The bottom of each hole shall be loosened to a further 150mm to assist drainage.

6.3 A slow release fertiliser at the rate of 20g/hole shall be placed at the bottom of each hole before planting. Stake and tie as specified elsewhere. If planted in lawn areas, leave a neat 600mm square opening in turf after planting is completed. Form a shallow saucer-like depression in soil around base of plant.

6.4 Planting shall not be carried out in dry soil or in extreme weather conditions.

6.5 Avoid hilling up of soil around young plant stem. Firm soil around the root ball and thoroughly soak the areas after planting. On completion, cultivate, rake and leave all gardens areas in a neat and tidy condition. Remove all containers from site.

7.0 PLANTING MATERIALS

7.1 Trees and shrubs shall be true to name and variety. Substitutes in size and variety shall not be made without approval.

7.2 All plants shall be true to size, in well developed, healthy condition, free from insects and diseases with well established root systems.

7.3 Advanced sizes shall be grown in a container of minimum 5 litre capacity. Semi-mature sizes shall be grown in a container of minimum 3.5 litre capacity. Ground cover plants shall be in 150mm pots.

8.0 STAKING

8.1 Provide stakes for all trees and shrubs.

8.2 All trees shall have one (1) 40mm x 40mm x 1.5m straight hardwood stake, pointed at one end. Tall shrubs shall have one (1) 25mm x 25mm x 1.2m stake pointed at one end.

8.3 Firmly install stakes to each tree/shrub taking care not to damage the root system.

8.4 Ties shall be of plastic strips of webbing material or hessian tie.

8.5 Securely tie plant to the stake in a way to avoid damage to the stem whilst allowing a small degree of movement.

8.6 Labels shall be entirely removed from the plants.

9.0 MULCH

9.1 Spread mulch to all areas indicated on plan. Mulch shall be of commercial quality, free from foreign debris and without potential to initiate weed growth.

9.2 After planting the areas indicated, spread the material to an even depth of 75mm to 100mm on the surface of the topsoil so the refinished levels are flush with surrounding kerbs, edges or paths.

10. MAINTENANCE

10.1 Approved landscaping will be required to be maintained in good condition at all times as a condition of development consent.

10.2 Maintenance shall be carried out in accordance with accepted horticultural practices and, as a minimum, is to include the following:

i) Watering, as required, to maintain a healthy growth rate and not place plant material under stress through lack of moisture.

ii) Weed and rubbish removal from any area deemed to be in the landscape works. The site is to be maintained in a clean and orderly state at all times.

iii) Replacement of any plant material deemed to have failed with a specimen of similar size and identical species and/or cultivar.

iv) Grassed areas require watering, weeding, mowing, fertilising, top dressing and replacement of failed areas of turf.

v) Mulched surfaces shall be kept in a clean and tidy condition and reinstated to ensure adequate cover is retained.

vi) Adjust staking and tying as necessary to support the planting.

vii) Spraying of herbicide, insecticide and/or fungicide, shall be carried out in accordance with the manufacturer's directions.

viii) Make good any defects or faults arising from defective workmanship.



campbelltown.nsw.gov.au