

MEDIUM DENSITY RESIDENTIAL DEVELOPMENT

KU-RING-GAI COUNCIL



DEVELOPMENT CONTROL PLAN 48 [Applicable to zones 2(d), 2(e) and 2(h)]

RC: 93
Cost: \$15.00

Ku-ring-gai Council
818 Pacific Highway, Gordon
9424 0888

CONTENTS

Page No.

SECTION I – INTRODUCTION	2
1. Citation	3
2. Land to which this Plan applies.....	3
3. Aims of the Plan.....	3
4. Relationship to Environmental Planning Instruments.....	3
5. Relationship to Council Policies.....	4
6. Application of Plan	4
7. Amendment of Plan	4
8. Requirements for Applications	5
9. Notification of Applications.....	6
10. Definitions.....	6
SECTION II – SITE ANALYSIS.....	8
11. What is a Site Analysis	9
12. Components of a Site Analysis	9
13. When is a Site Analysis Required?.....	10
14. Site Development Plan	10
SECTION III - DEVELOPMENT OBJECTIVES AND STANDARDS	11
15. Character of Residential Environment	12
16. Density - Floor Space of Buildings.....	12
17. Building Form.....	13
18. Building Setbacks	15
19. Privacy and Overlooking.....	16
20. Sunlight.....	17
21. Site Development and Landscaping	18
22. Tree Cover and Vegetative Character	19
23. Tree Preservation/Retention	20
24. Design Guidelines and Energy Conservation	20
25. Views	21
26. Noise	21
27. Private Open Space.....	22
28. Common Open Space	23
29. Traffic Car Parking and Access	24
30. Stormwater Management	25
31. Facilities/Amenities	26
32. Waste Management.....	27
33. Developers Contributions	28
34. Non-Residential Development.....	28
35. Managing Construction.....	29
SECTION IV - PARTICULARS TO BE SUBMITTED WITH APPLICATION	34
36. Administration.....	35

SECTION I – INTRODUCTION

1. Citation

This Plan may be cited as Ku-ring-gai Development Control Plan No 48 – Medium Density Residential Development.

2. Land to which this Plan Applies

This Plan applies to all lands zones 2(d), 2(e), or 2(h) under the Ku-ring-gai Planning Scheme Ordinance which do not have another residential Development Control Plan applying to them.

3. Aims of this Plan

This Plan aims to:

- a. Promote future residential development of the site that is compatible and compliments the character of surrounding residential areas.
- b. Ensure the protection of natural landscape features which should be retained on site and maintain and, where appropriate, improve the visual and environmental character of the locality.
- c. Increase housing choices available to the community within a developed urban area in close proximity to existing public transport links, community and recreational facilities.
- d. Ensure minimal adverse impacts arising from traffic generation associated with any development.
- e. To maintain where appropriate improve the existing amenity and environmental character of residential zones.
- f. To ensure that there is no adverse impact on properties identified as heritage items within the Ku-ring-gai Planning Scheme Ordinance or within other recognised heritage classification.

4. Relationship to Environmental Planning Instruments

This Plan operates as a Development Control Plan, complementing the statutory requirements in the Ku-ring-gai Planning Scheme Ordinance 1971 (as amended) by providing detailed provisions to be considered when assessing an application for one or more residential flat buildings on the subject lands. The Ku-ring-gai Planning Scheme Ordinance includes provisions relating to the allowable maximum floor space ratio for development of the subject land, and maximum height controls which are set out in this Plan.

5. Relationship to Council Policies

This DCP should be read in conjunction with all other relevant DCP's and Council Codes and Policies. Persons seeking to lodge a Development Application for the subject land are advised to check with Council as to which Plans, Codes and Policies apply to the subject land and to obtain the latest versions. Examples of Codes that may be applicable are Council's Car Parking Code (DCP No 43), Subdivision Code, Access DCP (DCP No 31), Construction and Demolition Waste Management DCP (DCP No 40). Where there is an inconsistency between this and another existing DCP or Council Policy (with the exception of any heritage DCP's) then the provisions of this DCP will apply to the subject land. This DCP will not apply where a subject site is subject to its own specific residential DCP.

6. Application of Plan

A Development Application is required to be lodged for all residential flat buildings, townhouse or villa house development and subdivision. Whilst every application for development will be judged on its merits, the following rationale is generally adopted:

- a. Consent will generally not be granted where an application fails to comply with both the numerical standards and objectives of this Plan.
- b. Council **may** consent to an application failing to comply with a numerical standard only where the applicant has fully justified the non-compliance and in Council's opinion the objectives of the plan are satisfied.
- c. Mere compliance with the numerical standards and objectives of this Plan does not guarantee consent as Council must consider each application against the consideration contained in Section 79 C of the Environmental Planning and Assessment Act 1979.
- d. Council may modify a proposal by way of conditions of consent where it is considered necessary in light of the above.

7. Amendment of Plan

This Plan may be amended from time to time by the Council. Proposed amendments are required to be advertised and exhibited in draft form and any submissions considered by Council before being adopted. Persons using this Plan should check with Council whether they have the latest copy including any amendments.

8. Requirements for Applications

8.1 Part IV to this Plan contains Council's requirements for information to be provided with a Development Application, in addition to Council's normal requirements and the information required by other applicable Environmental Planning Instruments, Plans and Policies. Check with Council as to what requirements for lodging a Development Application are. Where this Plan is relevant to a particular application this required information **must** be lodged **with** the application.

Failure to do so will result in the return by Council of the application for re-submission at a later stage when the information is available.

8.2 Applicants are advised to use the services of an architect or other suitably qualified person to prepare the development plans, a landscape architect to prepare landscape plans and a surveyor to prepare plans of subdivision. All drawings should bear the names and qualifications of such persons or firms.

8.3 Council may request additional information which would "stop the clock" (under the EP & A Act) in support of an application before it makes a decision. It is in both the applicant's and the Council's interest that fully documented applications are submitted for ease and promptness of processing.

8.4 Applicants are advised to address the matters in this Plan first and then if there are any difficulties or general enquiries consult with the following Council departments:

Environmental and Regulatory Services

- * Development Application and subdivision matters, interallotment drainage, garbage requirements, building lines, fencing, site management plans, street drainage, internal driveway requirements.

Open Space

- * Tree Preservation Order, street trees, landscape design.

Technical Services

- * Roads.

Prior to preparing applications, guidance on the type of supporting information and documents, number of copies, etc. which should be submitted, can also be obtained from these Departments:

9. Notification of Applications

Applicants are advised to check Council's Advertising/Notification Policy in relation to their particular proposal. Council is committed to ensuring that persons who may potentially be affected by the proposed development are provided with the opportunity to make submissions to Council prior to Council making a Determination on the proposal.

10. Definitions

The following definitions should be read in conjunction with the definitions in the Ku-ring-gai Planning Scheme Ordinance. In this Plan:

"Built Upon Area" means the area of a site containing any built structure (whether covered or uncovered) any building, carport, terrace, pergola, hard surface recreation area, swimming pool, tennis court, driveway, parking area, underground stormwater detention structure or any like structure but excluding minor landscape features limiting the potential for soft landscape.

"Development" has the meaning ascribed to it in Section 4 of the Environmental Planning and Assessment Act 1979.

" Dwelling " means a room or suite of rooms occupied or used, or so constructed or adapted as to be capable of being occupied or used, as a separate domicile.

" Dwelling- House " means a building designed, constructed or adapted for use as a dwelling for a single family but does not include a flat.

" Flat " means a room or suite of rooms occupied or used or so designed, constructed or adapted as to be capable of being occupied or used as a separate domicile and includes a group dwelling but does not include a dwelling-house.

" Floor Space " includes all wall thicknesses, ducts, vents, corridors, staircases and lift wells.

" Floor Space Ratio " means the ratio of the total floor space area of any building to the site area upon which the building is or is proposed to be erected.

" Ground Level " means the level of a site before development is carried out on the site under this Plan. (This might be commonly termed existing ground level).

“Habitable Room” means a room (other than a bathroom, laundry, water closet, or the like) that is designed, constructed or adapted for the activities normally associated with domestic living and for this purpose-

- a. includes a bedroom, living room, lounge room, music room, television room, kitchen, dining room, sewing room, study, playroom, sunroom and the like; and
- b. excludes in addition to a bathroom, laundry, water closet, or the like, a room or space such as a food storage pantry, walk-in wardrobe, corridor, hallway, lobby, photographic darkroom, clothes-drying room, and any other space of a specialised nature occupied neither frequently nor for an extended period.

“Height” in relation to a building, means the distance measured vertically from any point on the ceiling of the topmost floor of the building to the ground level immediately below that point.

“Site Area” in relation to development, means the area of land to which an application for consent to carry out the development relates.

“Soft Landscaped Area” means the area of a site, not being built-upon area, which is or is available to be predominantly vegetated.

“Storey” in relation to a building, does not include the floor or level on the building used exclusively for the purposes of car parking, storage, laundry facilities or any combination of those purposes, where the ceiling of the floor or level is below ground level.

“Total Floor Space Area” for the purpose of this Plan shall not include:

- a) the area of any car parking space in the building provided to meet the standards required by the responsible authority (but not such space provided in excess of such standards) or any internal access thereto;
- b) the area occupied by lift motor and mechanical plant rooms;
- c) the area of private balconies not enclosed above a height of four feet from the floor on at least one side.

“Town House” means a dwelling within a 2 storey building containing 2 or more dwellings, where each dwelling has, within the curtilage, pedestrian access and open space at ground level for the exclusive use of the occupants of the dwelling.

“Villa House” means a dwelling within a 1 storey building containing 2 or more dwellings, where each dwelling has, within the curtilage, pedestrian access and open space at ground level for the exclusive use of the occupants of the dwelling.

SECTION II – SITE ANALYSIS

11. What is a Site Analysis?

A site analysis is principally expressed in a sketch drawing of the subject site and surrounds which accurately identifies and explains:

- * the key features of the site and its surrounds (opportunities and constraints): and
- * how the proposed development relates and responds to these features and the immediate surroundings.

The completed site analysis may include a plan (or series of plans), photos, elevations and supporting text. The objective of a site analysis is to provide a mechanism whereby the characteristics of a site and its locality can be identified and incorporated into the design process, to ensure high quality development that is sensitive to its environment.

The site analysis is one of the basis for determining the level of development that can appropriately be accommodated on a site. It is the first step in the design process and should be prepared for consideration prior to finalising any design and lodging the Development Application with Council. The applicant must demonstrate to Council that the site analysis has been used in the site planning and that consideration has been given to the constraints and opportunities identified. The site analysis can then be used by Council and the Applicant to critically assess how well the proposal has responded to the features of the site and its immediate surroundings.

12. Components of a Site Analysis

A site analysis should document the constraints and opportunities of the site and should not be a standard exercise. A site analysis for the subject land must include:

- * scale and north point;
- * site dimensions and site area;
- * spot levels and contours;
- * easements for drainage, services and rights or carriageway burdening or benefiting the subject property;
- * location of existing vegetation, including species, height, spread of established trees and spot levels at their base (illustrated by numbering all trees and providing a schedule on the drawing summarising the information);
- * major trees or adjacent properties or street verge which overhang the subject properties;
- * location and height of buildings and other structures and all other hard surfaces including paving and driveways;
- * calculation of built upon areas;
- * heritage items and conservation areas;
- * natural features such as rock outcrops, ledge or watercourses;
- * fences and boundaries;

- * street frontage features such as street trees;
- * visual character category;
- * existing means of stormwater drainage and any existing stormwater detention systems; and
- * overshadowing of the site by neighbouring structures and/or vegetation.

Applications may also require information on the following matters:

- * significant noise sources on or around the site;
- * views to and from the site;
- * prevailing winds;
- * pedestrian and vehicular access to/from the site;
- * identification of any contaminated soils on the site;
- * built form and character of adjacent and nearby development (streetscape);
- * location, height and use of neighbouring buildings or structures;
- * abutting secluded private open spaces and any windows or doors facing the subject land;
- * heritage significance of surrounding buildings or landscape;
- * views and solar access enjoyed by adjacent residents;
- * any difference in levels between adjacent property boundaries; and
- * location and spot levels of street frontage features such as road pavement, gutter, footpath and trees; and
- * scale model of the proposed development.

13. When is a Site Analysis Required?

A site analysis is always required and is to be submitted with all Development Applications submitted in accordance with this DCP. Applicants should demonstrate how the design of the development has responded to the site analysis.

In some situations, a design may not be able to fully or optimally satisfy all the performance criteria established in this DCP. It is important for Council, developers and designers to use the site analysis as a basis for determining which objectives and performance criteria are more important. In these cases, a trade-off between critical components may be necessary.

14. Site Development Plan

A site development plan (or development analysis) is formulated to guide the design, location and orientation of any proposed buildings and landscaping. After completing the site analysis and prior to preparing the design for development it is necessary to prepare a site development plan. This plan takes account of the site analysis, environmental constraints, planning controls and preferred design concept.

A site development plan must be included with the Development Application.

SECTION III – DEVELOPMENT STANDARDS AND OBJECTIVES

15. Character of Residential Environment

Whilst there is a great variety of development forms contributing to the residential environment of Ku-ring-gai, there are a number of features essential to creating its residential character which are constant throughout the majority of the Council area. These are:

- * Large allotments containing high quality detached housing of 1 – 2 storeys.
- * Buildings set well back from the street to provide ample front yards generally containing substantial plantings.
- * Significant private tree and vegetation planting to compliment street trees.

Certain areas exhibit even stronger associations than those described above.

It is the aim of this Development Control Plan to ensure that future development on the subject land should be sympathetic in design, scale, bulk and environmental character with surrounding developments and the locality and to have regard to the significance of any heritage listed properties. Council will give consideration to contemporary design where it can be demonstrated that the proposed development is appropriate for the location and will contribute positively to the existing streetscape. Future development should provide adequate access, landscaping, visual and acoustic privacy to maintain and enhance the residential amenity of the area.

16. Density – Floor Space of Buildings

In this Development Control Plan floor space ratio is used to control building bulk and to provide flexibility of design with the building envelop set by other standards applicable to this Plan.

16.1 Floor space ratios allowable (as provided for in the Ku-ring-gai Planning Scheme Ordinance) within the area subject of this Development Control Plan to the 3 zonings covered by the Plan are as follows:

<u>Zoning</u>	<u>Floor Space Ratio</u>
2(d)	Maximum 0.85:1
2(e)	Maximum 0.5:1
2(h)	Maximum 0.4:1

An estimated guide to the number of dwelling units that may be located on the average allotment within each zoning covered by the Plan is as follows:

<u>Zoning</u>	<u>Number of Dwelling Units</u>
2(d)	1/150m ² of site area
2(e)	1/250m ² of site area
2(h)	1/300m ² of site area

These figures are a guide only. Development Applications will be treated on their individual merits.

17. Building Form

17.1 Objectives

- a. *To improve and enhance the visual aspect of development when viewed from the street, other public place or surrounding properties.*
- b. *Buildings should be of a height, size, bulk and external appearance generally in keeping with that of neighbouring properties unless an alternative design solution can be substantiated and proved to enhance the streetscape and general locality.*
- c. *Where larger buildings are proposed, they should be designed so as not to dominate and so far as possible to harmonise with neighbouring development.*

17.2 Building Envelope Provisions

Any structure within the built upon area of a site shall not exceed a Building Height Plane projected at an angle of 45⁰ over the actual land to be built upon from a vertical distance of 3.5 metres above ground level on the boundary of the site. (Figure 1).

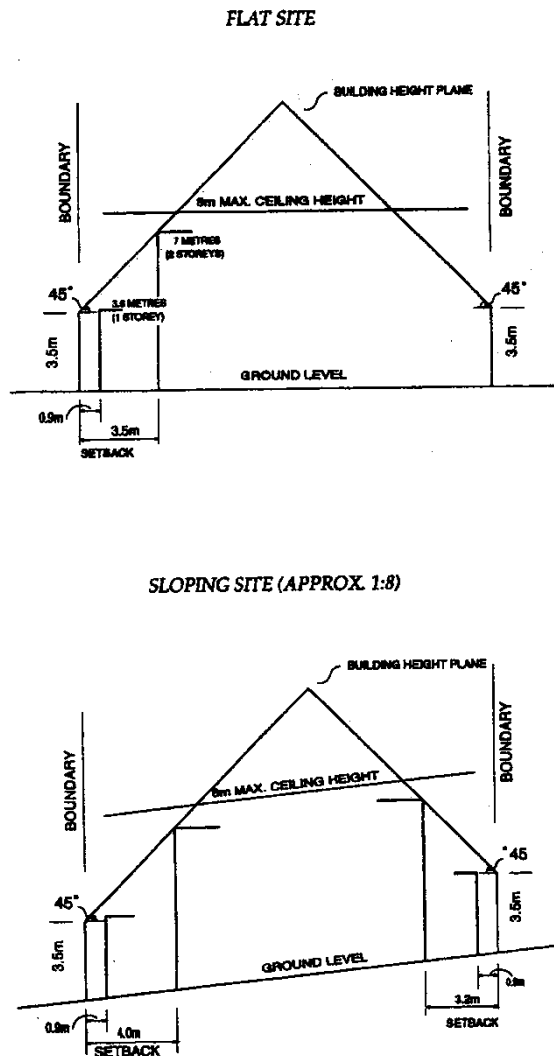
Notwithstanding building envelope provisions all building development must comply with the statutory height provisions for residential flat buildings which are set out in Clause 43(6), (7) and (7A) of the Ku-ring-gai Planning Scheme Ordinance as follows:

<u>Zoning</u>	<u>Maximum Height</u>
2(d)	3 storeys
2(e)	2 storeys
2(h)	8 metres

17.3 Allotment Standards

The Ku-ring-gai Planning Scheme Ordinance establishes development standards in zones 2(d), 2(e) and 2(h) for allotments on which a residential flat building is to be erected. Clauses 43(6), (7) and (7A) set out these standards.

FIGURE 1
RESIDENTIAL BUILDING ENVELOPE



31872

17.4 Maximum Building Height

The Ku-ring-gai Planning Scheme Ordinance provides for maximum building heights under Clause 43 applicable to the 2(d), 2(e) and 2(h) zones as follows:

<u>Zone</u>	<u>Maximum Height</u>
2(d)	3 storeys
2(e)	2 storeys
2(h)	8 metres

All development is to be no greater than the maximum height provisions in combination with the application of the Building Height Plane within which the built form is to be wholly contained.

17.5 Rooms in Roof

Habitable rooms are encouraged within the roof space where the applicant can demonstrate that the resulting development will not detrimentally affect the amenity of the area due to:

- * an unacceptable loss of sunlight to adjacent properties and public spaces;
- * a reduced level of privacy to adjacent properties;
- * unacceptable view loss from adjacent properties and surrounding areas.

17.6 Length of Buildings

To avoid problems of bulk and scale no building is to have a wall length of 12 metres without a **major** physical break nor have a total length in excess of 24 metres.

18. Building Setbacks

18.1 Objectives

Development should be located on-site so as to:

- a. *maintain reasonable and adequate separation between building/development on adjoining sites;*
- b. *provide free standing vegetative screening;*
- c. *allow sufficient area for soft landscaping;*

- d. *enhance streetscape quality;*
- e. *retain an impression of openness and space between built elements;*
- f. *maintain the quiet amenity of residential areas of Ku-ring-gai;*
- g. *ensure that each site accepts its contribution of providing vegetation and vegetative screening and planting of tall trees indigenous to the area;*
- h. *facilitate solar access;*
- i. *ensure due regard is given to existing buildings nominated as heritage items under the Ku-ring-gai Planning Scheme Ordinance or other recognised listings.*

The minimum setback from the front boundary shall be 9 metres. Reduced setbacks will only be considered if they can be justified having regard to existing streetscape issues.

Side and rear setbacks shall be as defined by application of the Building Height Plane with a minimum 5 metre setback to apply and a minimum 7 metre separation between residential flat buildings of 3 storeys in height on the same site unless it can be demonstrated that an alternative solution would be beneficial to the area as a whole and not compromise the aims and objectives of the Development Control Plan.

Side and rear setbacks shall be as defined by application of the Building Height Plane with a minimum 3 metre setback to apply and a minimum 7 metre separation between residential flat buildings of 2 storeys in height on the same site unless it can be demonstrated that an alternative solution would be beneficial to the area as a whole and not compromise the aims and objectives of the Development Control Plan.

19. Privacy and Overlooking

19.1 Objective

Development shall be sited and designed so as to minimise the potential for overlooking of or looking back into neighbours' habitable rooms and recreation areas and provide a reasonable level of privacy thereto.

19.2 Orientation and design of the development should be such that windows or balconies to not look directly into windows of habitable rooms and bathrooms of adjoining properties at close distance.

- 19.3 Rooftop terraces will generally not be approved where they directly overlook or have the potential to directly overlook habitable rooms, laundries, bathrooms or recreation areas of neighbouring residential properties.
- 19.4 Where, due to site or design constraints, potential overlooking is unavoidable, use should be made of natural or man-made screening, for example fences, window screens, vegetation planted or hanging from pergolas, fences, window screens etc.

20. Sunlight

- 20.1 Objectives
- a. *To provide reasonable access to sunlight from living spaces within buildings and open space around buildings.*
 - b. *Development should not unreasonably reduce solar access to living rooms and recreation areas on adjacent residential properties, the development site and to other areas where solar access may be important.*
- 20.2 Council shall not grant its consent to an application under this Development Control Plan unless adequate provision is made in respect of access to sunlight for the proposed development and any dwelling-house or existing dwellings and open space areas on adjacent allotments.
- 20.3 Development should maintain a reasonable level of sunlight to neighbours' living rooms and recreation space between 9.00am and 3.00pm during the winter solstice on 22 June.
- 20.4 On-site design should consider control of summer sun and admission of winter sun through appropriate orientation of living areas, use of deciduous trees, pergolas, eaves and the use of solar energy collectors.
- 20.5 Dwellings and medium density development should generally be orientated or designed to minimise exposure to excessive summer heat but to obtain adequate winter sun. Living areas should be located on the northern side of the dwellings where possible.
- 20.6 In relation to adjoining properties, care should be taken to ensure solar access is not denied to adjoining properties, particularly with two storey designs.

21. Site Development and Landscaping

21.1 Objectives

- a. *Development on the site should avoid excessive site utilisation by maintaining a reasonable proportion of the site as a soft landscaped area to ensure the predominant landscape quality of Ku-ring-gai and the locality in question is maintained and enhanced, particularly on the northern side of the site.*
- b. *Soft landscape areas should be effectively distributed on-site to minimise the dominance of buildings and structures where viewed from the street, public places and surrounding properties, and generally should have a northerly aspect.*
- c. *A balance between hard and soft landscape areas on-site is required in recognition of the cumulative impact of hard surface areas on urban drainage. That is, the amount of on-site absorption is decreased with a consequent increase in roof and surface water run-off into drainage systems that are operating to capacity.*
- d. *Have particular regard for existing soil types and natural vegetation.*

- 21.2 The proportion of the site which is built upon area should not exceed 50% of the total site area.

Built upon area of up to 60% will be considered if the area is landscaped over car parking and access ways to Council's satisfaction.

- 21.3 Landscape proposals shall enhance the natural features of the site and adjoining areas. Existing landscape elements such as rock formations, local native vegetation or slope should be given careful consideration.
- 21.4 Landscape design shall enhance the natural features of the site and adjoining areas. Existing landscape elements such as rock formations and vegetation should, where possible, be preserved and be incorporated into the proposal.

Landscape design should relate to the streetscape and desirable landscape characteristics of adjoining development. Where possible, landscaped areas should adjoin the landscaped areas of adjacent allotments unless an alternate proposal can be shown to be beneficial to the development and adjoining properties..

All parts of the site not built upon shall be landscaped with trees, shrubs, groundcover and/or grass. Use of species occurring locally is encouraged.

Regard should be given to the use of sun protection devices, (ie verandahs, awnings, pergolas, deciduous trees etc) along northern and western facing walls to produce a comfortable micro-climate in and around dwellings.

Careful consideration of the layout of external and internal living spaces can increase the occupants' enjoyment of their dwelling. For example, a deck, terrace or balcony could provide an outdoor extension to an internal living room.

22. Tree Cover and Vegetative Character

22.1 Objective

Any development should maintain or enhance the predominant landscape quality of Ku-ring-gai by retaining and replanting trees, tree cover and vegetative character.

22.2 Development on a site should be located so as to retain as many significant existing trees on the site as practicable.

22.3 Where an application involves removal of a tree or groups of trees, which in the opinion of Council is/are of significance in its/their own right to the site or to the general area, that application will not be favoured. Consideration should be given to the relocation or redesign of such proposals on the site to ensure preservation of the significant tree(s).

In this regard, it should be noted that feeder root systems of trees generally extend from the base of the tree to at least the edge of the canopy and often further. In the design and location of proposals, consideration must be given to the minimum disturbance of such root systems. The opinion of an approved tree arborist may be required to be submitted if there is a question as to the successful retention of trees or where damaged roots may occur.

22.4 In exceptional circumstances, where the applicant provides detailed justification by way of an Arborist Study, Council may agree to variations on the controls in this Plan to ensure retention of significant trees, subject to consistency being maintained with the aims and objectives of residential zones.

22.5 Where trees are removed by building works, replacement planting shall be proposed and shall be required by Council.

22.6 Council has in force a Tree Preservation Order which requires Council's consent for the removal, lopping or damage of any tree covered by the Order. Applicants should not seek to rely on landscaping in Council's road reserve to screen adverse visual impact of development.

23. Tree Preservation/Retention

23.1 Objectives

- a. *To retain as many trees as possible on site to reduce the visual impact of any development on the site.*
- b. *To provide a mature leafy outlook for future occupants of the site.*

23.2 Tree Protection during Construction

All trees to be retained must be protected during any site development works. Tree protection methods could include *(but not limited to)* the following:

Arborist

Regular tree inspections by a qualified arborist before, during and after any site development works will be required to ensure the survival of the trees.

Written reports will be required at regular intervals.

Fencing

Protective tree fencing such as galvanised pipe and chain mesh fencing or 1800mm star pickets using four stands of wire, as well as barrier mesh shall be erected wherever possible around the drip-line of all trees remaining on the site and be inspected prior to the commencement of any site works.

Works

When work is necessary within the drip line and around the roots of existing trees identified in this Development Control Plan shall be done by hand.

A preliminary meeting with Council staff, arborist, project engineer and site supervisor on-site prior to the erection of any fencing is recommended.

24. Design Guidelines and Energy Conservation

24.1 Objectives

- a. *Any future development should be designed in sympathy with the character and scale of surrounding development.*

b. *Development should be designed having regard for energy efficiency and to achieve energy efficiency through passive solar design principles.*

24.2 Residential buildings are to be designed to achieve a minimum 3½ star rating on the NATHERS system.

24.3 The residential environment of Ku-ring-gai is described in Clause 15 of this plan. Development of the subject land is to be designed in harmony with this environment.

24.4 Future buildings will be designed having regard for energy conservation principles and an energy audit of buildings proposed for the site shall be submitted by an accredited audit consultant.

25. Views

25.1 Objectives

Development should be designed to maintain, within reason, the views and outlook of existing residences. Where possible, buildings should be designed with living areas facing the view.

25.2 Development should be sited and designed to have regard, within reason and as far as practicable, to views and outlook enjoyed by existing adjacent development.

26. Noise

26.1 Objectives

Dwellings and Residential Flat Buildings and ancillary structures should be designed to protect future residential amenity so that:

a. *noise from outside sources including air conditioning units when measured within habitable rooms and in private open space together with adjoining uses is kept to acceptable levels: and*

b. *noise levels within dwellings and in communal and private indoor areas should be contained as far as possible so as to minimise unreasonable transmission to adjoining dwellings.*

26.2 A noise level measurements at the boundary of a site should generally not exceed 5dBA above background noise level.

26.3 Development should be designed to ensure reasonable separation of noise sources from noise sensitive areas (living areas) or habitable areas and external recreation areas.

- 26.4 Where reasonable physical separation cannot be achieved, use should be made of screen barriers or other noise mitigation techniques to Council's satisfaction.
- 26.5 Noise attenuation measures will generally be required for unit/dwellings facing main/arterial roads or a rail line.
- 26.6 Noise attenuation measures be included with the submission of the Development Application.

27. Private Open Space

27.1 Objectives

To provide open space for recreation and use by residents to enhance the quality of the built environment by providing for landscaping.

- 27.2 Private open space means that part of the site not occupied by any buildings, except for swimming pools or other outdoor recreation facilities which is landscaped by gardens, lawns, shrubs or trees and is available usually for the use of the occupants of the dwelling.
- 27.3 Private open space does not include driveways, turning areas, car spaces, narrow elongated curtilage areas within the boundary setback areas, drying yards and service areas.
- 27.4 In locating private open space areas consideration should be given to outlook, natural features of the site and neighbouring buildings and common open space areas (if applicable) in order to maximise the use of this area.
- 27.5 Each dwelling or unit in a Residential Flat Building is to have an identifiable area of private and useable open space or balcony area for recreation, privacy, amenity and general wellbeing of the residents.
- 27.6 Where possible private open space should have direct access to internal living areas of each dwelling and be located so as to maximise solar access.
- 27.7 Enclosing screen walls or fences should be designed to ensure privacy both from adjoining communal open space or accessways and from dwellings and their private open space.

28. Common Open Space

28.1 Objectives

Integrated medium density housing development or Residential Flat Buildings shall be provided with useable communal open space which recognises the potential recreational needs of occupants whilst bearing in mind the overall site amenity.

28.2 The total area required for communal open space shall be assessed using a merit basis approach and take into account:

- * The total number of dwellings in the development;
- * the location of communal open space in relation to residential accessibility, private and noise factors.

28.3 Communal open space shall be located within easy access to all dwellings/units.

28.4 Communal open space shall be appropriately landscaped and provided with a recreational facility or features, for example barbecue area, children's play area, landscape features or the like.

28.5 Communal open space shall be functional and designed in conjunction with pedestrian links through the site.

29. Traffic Car Parking and Access

29.1 Objectives

- a. *To ensure minimal adverse impacts arising from traffic generations associated with any development.*
- b. *To provide safe access onto the site.*
- c. *To permit vehicular movements to and from the site designed to reduce potential conflicts with street traffic.*
- d. *To ensure vehicular and pedestrian safety.*
- e. *To encourage access design to form part of the overall landscape design.*
- f. *To minimise vehicle access points to a public road.*
- g. *To provide on-site car parking at basement level within the building footprint.*
- h. *To provide on-site parking sufficient to meet the needs of residents.*

29.2 Car parking is to be provided on-site in accordance with Council's adopted Car Parking Development Control Plan (DCP 43).

29.3 Design Controls of DCP 43

- a) The number of car parking spaces is to be provided in accordance with the following:

1 bed unit	-	1 space
2 bed unit	-	1.25 spaces
3 bed unit	-	1.75 spaces
Visitors	-	1 space/4 units

Any proposed reduction or addition to this provision is to be accompanied with data demonstrating that an amended provision is required to meet the actual needs of residents and visitors in the particular circumstances.

- b) The minimum dimensions of car parking space for each unit is 2.44m by 5.49m as required by Clause 53(1)(a) of the Ku-ring-gai Planning Scheme Ordinance although to achieve the objectives above, additional space may be required in accordance with the previous design control specifying the number of spaces per unit.

- c) Except as required above, Car Park design is to be in accordance with the Australian Standard.
- d) Car parking areas should not dominate the streetscape and should ideally be located in a basement beneath the development that is designed to best utilise the topography of the site through the careful location of entrances.
- e) Hard surface driveways should be kept to a minimum.

30. Stormwater Management

30.1 Objectives

- a. *To maximise public safety and convenience through the provision and maintenance of an appropriate and effective stormwater drainage system throughout the Council area.*
- b. *To apply the principles and philosophy of total catchment management to stormwater management within the Council area.*
- c. *To preserve and wherever practicable restore the natural drainage system and its environment.*
- d. *To control and minimise the adverse effects of development and urban stormwater runoff on the natural environment, public and private property, the water table and the drainage system.*
- e. *To minimise increase in peak flows within the drainage system resulting from urbanisation.*
- f. *To control and minimise the introduction of sediment, nutrients, and other pollutants into the drainage system and surrounding natural environment.*
- g. *To apply a user pay principle to stormwater management within the Council area.*
- h. *To encourage and facilitate the process of interallotment drainage systems to private properties.*

30.2 Stormwater drainage shall be in accordance with Council's Water Management Plan. Development of the site shall require the following:

- Drainage from the site is to involve the construction of detention systems in line with Council's on-site detention policy.
- Provision of stormwater quality control structures for the site.

- Submission of a plan setting out the staging and management of the site during construction will be required together with an assessment of the impact on adjoining properties and the public. Sediment control, noise generation control, dust control, earthworks, material stockpiles, construction site fencing, construction material delivery areas, vehicle washdown facilities, shaker grids and transport routes are to be addressed.

30.3 Water conservation devices should be installed as part of the development, including:

- Maximum 6/3 litre dual flush cisterns;
- Shower heads with reduced water flows;
- Aerating or lever taps and taps with flow control valves or restrictors;
- Water efficient appliances;
- Swimming pool covers; and
- Garden watering systems that incorporate drip rather than spray mechanisms and are manually operated.

30.4 Landscape designs should have regard to water conservation principles by:

- Choosing species of plants which are suited to the soil type and aspect of the area:
- Placing mulch on garden areas; and
- Minimising the area of lawn, substituting it with ground covers or natural grasses.

31. Facilities/Amenities

31.1 Objective

To provide for essential amenities and facilities to be incorporated within residential developments.

Details of Council requirements should be obtained from Council's Environmental and Regulatory Services Department.

31.2 Letter Boxes

Letter boxes shall be provided in accordance with Australia Post's requirements as listed in its brochure "Requirements for the Positioning and Dimensions of Mail Boxes in New Commercial and Residential Developments".

31.3 TV Antenna/Satellite Dishes

A master antenna shall be provided for any development of more than 2 dwellings.

Satellite dishes shall generally not be approved where they are clearly visible from a public place or adjoining property.

31.4 Services

Public authorities which provide telephone, electricity, gas, water and sewer services are to be consulted to determine their requirements. Service trenches shall not be permitted through tree roots without permission under the Tree Preservation Order.

31.5 House Number

House numbers as allocated by Council shall be clearly visible from the street.

32. Waste Management

32.1 Objectives

- a. *To ensure that adequate facilities are provided for the storage and collection of waste materials.*
- b. *To ensure that such facilities are adequately located so as to be accessible to the residents of the development and Council's garbage collection vehicles, while minimising the visual impact of these areas.*

Development Controls

- Fulfil the design requirements of Council's Policy for Construction and Demolition Waste Management (Development Control Plan No 40).

- Complete and submit a Waste Management Plan to Council in accordance with Development Control Plan No 40 with any Development applications for the subject land.

33. Developers Contributions

33.1 Objectives

To address the likely demand placed on public amenities and public services by increasing residential population.

33.2 Where development requires the provision of or increases the demand for public amenities and public services, Council will require a contribution to those amenities or services in accordance with its adopted Section 94 Contributions Plan.

33.3 Applicants should consult with Council's Department of Planning and Environment to determine the level of Section 94 Contribution.

34. Non-Residential Development

It is the case that certain non-residential development is permissible within the 2(d), 2(e) and 2(h) residential zones..

Council's general objective for non-residential development in the medium density zones is that it have similar bulk, scale, form, height, siting and appearance as that of the surrounding built residential environment. To meet this objective, special attention to finishes, roof form, materials and landscaping will be required.

Applications for non-residential uses will be considered on the merits of the particular application. Depending on the scale of the non-residential development, Council may require the submission of additional information to demonstrate that the development will not adversely affect the existing or future amenity of the surrounding residential area. Such information may include noise studies, advice on traffic generating potential and/or evidence that the proposed land use cannot be accommodated within another zone or area that is more appropriate for that purpose.

Council will have particular regard to the effects of non-residential development in the medium density zones and will consider whether:

- a. As a result of the scale of any buildings, the development will be out of character with surrounding residential development;
- b. An undesirable effect on the amenity of the surrounding area will be created;

- c. A noise nuisance will be created;
- d. Adequate car parking access and loading facilities are provided;
- e. Adequate provision is made for access by disabled persons (where appropriate); and
- f. Adverse traffic impact will be created.

35. Managing Construction

35.1 Site Management

Objectives

To minimise site disturbance during construction in order to preserve the various natural elements and habitats such as soil profile, vegetation, natural rock shelves and watercourses.

Development Controls

Site organisation during construction should prevent unwarranted soil compaction, erosion and damage to vegetation. This may be achieved by:

- Restricting machinery and vehicle movement to the building footprint and access corridor;
- Excavating from inside the proposed building area to avoid excavation beyond the building area;
- Locating drainage lines close to the building within previously excavated areas;
- Confine storage areas to previously disturbed parts of the site, away from the drip-line of trees to be retained.

35.2 Pollution Control

Objective

To ensure that pollution does not increase as a result of construction.

YOU COULD BE FINED

Owners and builders are responsible for preventing sediment and construction waste water leaving a building site. Ku-ring-gai Council has officers who are authorised under the Clean Waters Act 1970 to issue substantial on-the-spot fines. These fines are issued where water is, or is likely to be, polluted.

Development Controls

a. Sediment and run-off from development sites should be controlled to minimise pollution of the local area, creeks, waterways and the catchment of which it is part, as part of an erosion and sediment control plan that must be prepared for the subject land. This may be achieved by:

- Placing geotextile re-inforced sediment fences or straw bales along the contour immediately downslope of proposed construction prior to work commencing;
- Installing perimeter drainage structures such as a diversion bank or catch drain;
- Minimising the area of the site disturbed by development;
- Minimising the number of entry and exit points from the site;
- Ensuring that all materials stockpiled are protected to prevent erosion;
- Ensure that building materials are never placed in the street gutter where they will wash away in a rainstorm;
- Installing downpipes as soon as the roof is on, connected to the stormwater system;
- Progressively re-vegetating the site as soon as possible; and
- Stockpiling top soil for re-use.

The type of sediment control measures adopted should reflect the soil type and hence the erosion characteristics of the site. Contact Council's Department of Environmental and Regulatory Services staff for details on adequate sediment control measures for the subject land before preparing and lodging an erosion and sediment control plan with the Development Application for approval.

b. Ensure effective installation and maintenance of controls. This may be achieved by:

- Improved education about the importance of sediment control:

- Installation of sediment controls prior to any work starting on-site; and
 - Maintaining sediment controls throughout construction.
- c. Airborne substances should be controlled to minimise sediment loss and pollution. This may be achieved by damping dusty sites to reduce the amount of airborne sediment loss.
- d. Paint and other pollutants should be prevented from entering local creeks and waterways. This may be achieved by:
- Washing brushes with water based paint over grass or soil but never near the sink, pathways, or stormwater drains;
 - Putting used solvents, cleaners and paints in suitable containers and taking them to special collection centres (this should be noted on the Waste Management Plan submitted in accordance with DCP No 40); and
 - Ensuring that sawdust, stripped paint and plaster are not hosed or swept into the gutter.

35.3 Waste and Resource Management

Objective

To save resources by minimising waste at the construction stage.

Development Controls

- a. A complete Waste Management Plan **must** be submitted to council at application stage. Refer to DCP No 40 (Construction and Demolition Waste Management Policy) for further information on completing this.
- b. Consideration should be given to appropriate purchasing policies and project management requirements. This may be achieved by:
- Ordering the right quantities of materials;
 - Prefabrication of materials;
 - Careful consideration of design to reduce the need for off-cuts; and
 - Co-ordination and sequencing of various trades.

- c. Opportunities to re-use building materials should be maximised. This may be achieved by the careful separation of off-cuts and surplus materials to facilitate re-use, resale or recycling.
- d. Opportunities to recycle building materials should be maximised. If properly source separated and kept uncontaminated, construction waste is nearly 100% recyclable. This includes steel, non-ferrous metals, glass, paper, concrete and cardboard packaging material.
- e. Measures to minimise site disturbance and limit unnecessary excavation should be provided. Good management involves allocating areas of the site for specific purposes such as the storage of materials, stockpiling of top soil, vehicle movement as well as nominating “no go” areas to protect trees and other site vegetation.
- f. Opportunities to reduce waste through the choice of landscaping should be maximised. This may be achieved by:
 - Re-using weed-free vegetation and disease free soil stockpiled during construction;
 - Re-using existing paving, garden ornaments, plants etc. in landscape works;
 - Chip vegetation that is removed for future use as mulch in garden areas.

35.4 Tree Protection

Objective

To ensure the protection of existing trees from any adverse impacts of construction nearby.

Development Controls

Appropriate measures should be implemented and maintained to ensure the long term preservation of trees to be retained. This may include:

- Protective fencing, preferably chain mesh at least 1.8 metres high, alternatively star pickets and a minimum of three strands of wire;
- Tree trunk protection where fencing is impossible;
- Mulching beneath the canopy of trees to prevent compaction; and

- Avoid storage of materials below tree canopies.

Note that a bond may be required to undertake remedial works where there is a potential for tree protection to fail.

35.5 Noise Control

Objective

To protect the amenity of the surrounding locality by ensuring that persons living or working in the neighbourhood of the building site are not exposed to offensive noise or noise at unreasonable hours.

Development Controls

- a. Working hours on building sites on the subject land shall be restricted to ensure that noise is not generated at unreasonable times. Generally, working hours shall be restricted to between the hours of 7.00am and 5.30pm Mondays to Fridays inclusive and between 8.00am and 12noon on Saturdays. No work shall be performed on Sundays or Public Holidays.
- b. Noise generation limits should be set to ensure that nuisance does not occur. Reference should be made to Council's Code for the control of noise on building sites. Note that additional requirements may be imposed where excavation of rock or shale is required.

35.6 Heritage Protection

Objective

To maintain the structural integrity of heritage items in the vicinity of the development site during and as a result of the construction process.

Design Controls

An application for development on the subject site must demonstrate that the construction process will not result in structural damage to nearby heritage-listed items. Such damage may include movement of foundations and cracking of the structure as a result of vibrations from excavation or changes to the water table in the vicinity.

**SECTION IV
PARTICULARS TO BE SUBMITTED WITH
APPLICATION**

36. Administration

All development applications are to be submitted in accordance with the Environmental Planning and Assessment Act and Regulations thereto. The information required to be submitted for any proposed residential redevelopment of the site, includes:

1. 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).
2. A detailed construction cost estimate including the square metre rate used for calculating, building, landscaping and civil works together with the application fee. (Note: The application may be returned within 7 days if not complete in any respect).

The submission of a scale model of the proposed development where the cost of development exceeds \$1 million or where Council determines it was necessary as a result of the location and/or sensitivity of the site or adjoining buildings and/or streetscape may be required.

3. Six (6) copies of a survey or site plan at a scale of 1:200, which indicates:
 - Site dimensions;
 - Changes of levels on the site;
 - The position of any building on the site and adjoining sites and the ridge lines and eaves levels of those buildings;
 - Existing trees and vegetation, showing species of tree, canopy spread of trees, diameter of trunk at chest height and ground levels at the base of the trees (trees are to be numbered and a schedule provided on the drawing);
 - Spot levels of street frontages including road gutters; and
 - Easements for drainage and services affecting or benefiting the subject land.
4. Six (6) copies of the site analysis as outlined in Section II, including a statement of how the proposed development has addressed the site constraints identified.
5. Six (6) copies of the site development plan as referred to in Section II (Clause 14), including a statement of how it guides the design, location and orientation of proposed buildings.
6. Six (6) copies of architectural plans/drawings at a scale of 1:100 indicating:

- a. the location of proposed new buildings or works in relation to the land's boundaries and adjoining development;
 - b. floor plans of proposed buildings showing layout, partitioning, room sizes and intended uses of each part of the building;
 - c. elevations and sections showing proposed external finishes and heights;
 - d. proposed finished levels of the land in relation to buildings and roads;
 - e. building perspectives, where necessary to illustrate the proposed building;
 - f. proposed parking arrangements, entry and exit points for vehicles and provision for movement of vehicles within the site;
 - g. proposed landscaping and treatment of the land(indicating plant type and their height and maturity);
 - h. proposed methods of draining the land;
 - i. proposed methods of waste storage and collection.
7. An A4 notification plan (8 copies,A4 size) indicating the location, height and external configuration of the proposed development.
 8. A Statement of Environmental Effects which:
 - Explains how the proposal has resolved the relevant items contained in 79C of the Environmental Planning and Assessment Act 1979 (as amended);
 - 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.
 9. A stormwater management plan prepared in accordance with Council's Water Management Plan, specifying the proposed method of draining the site and provision of on-site stormwater detention. Location, diameter, invert levels and specifications of all proposed piping with supporting calculations are to be included.
 10. A waste management plan prepared in accordance with Council's Policy for Construction and Demolition Waste Management (DCP No 40).

11. A landscape plan showing the location of existing trees, indicating those that are to be retained and proposed landscaping of the completed development. See Council's brochure "Preparing a Landscape Plan".
12. An assessment of the energy efficiency of the development in accordance with the NATHERS System.
13. A statement of heritage impact which considers the impact of the development on any nearby heritage items.
14. Shadow diagrams for all buildings two or more storeys in height showing the effect of 9am, 12noon and 3pm shadows during mid-winter. Council is able to prepare these on behalf of applicants for the appropriate fee.
15. Details of the methods of securing the site during the course of construction including details of erosion and sediment control measures.
16. SEPP 1 Objections for breaches of development standards contained within the Ku-ring-gai Planning Scheme Ordinance, outlining why compliance with the relevant standard is unreasonable or unnecessary.
17. Specifications,
18. Full driveway longitudinal section where grades exceed 15%.
