Googong DCP

Part 7

Small Lots, Studio Dwellings, Multi Dwellings, Dual Occupancies and Residential Flat Buildings

<table>
<thead>
<tr>
<th>Principal Plan adopted by Council:</th>
<th>13 October 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document:</td>
<td>C18110514</td>
</tr>
</tbody>
</table>

Ref: SF180210
Offices: 144 Wallace St, Braidwood
10 Majara St, Bungendore
256 Crawford St, Queanbeyan

Contact: Ph: 1300 735 025
E: council@qprc.nsw.gov.au
W: www.qprc.nsw.gov.au
Part 7 – Controls for Small Lots of 130m², Studio Dwellings, Dual Occupancies, Multi Dwelling Housing, and Residential Flat Buildings

Section A: Streetscape and Urban Character

7.1. Introduction

This Part contains the controls for small lots of 130m² – 330m², Studio Dwellings, Multi Dwelling Housing, Dual Occupancies and Residential Flat Buildings. Development applications must consider these controls, as well as those contained within the Queanbeyan DCP 2012 and policies.

Multi Dwelling Housing is defined in the QLEP 2012 to be:

- “3 or more dwellings (whether attached or detached) on one lot of land, each with access at ground level, but does not include a residential flat building.” These include dwelling forms such as villas and townhouses.

Attached dwelling is defined in the QLEP 2012 to be: a building containing 3 or more dwellings, where:
- (a) each dwelling is attached to another dwelling by a common wall, and
- (b) each of the dwellings is on its own lot of land, and
- (c) none of the dwellings is located above any part of another dwelling.

Residential flat buildings, serviced apartments and shop top housing are defined in the QLEP 2012 to be:

- Residential flat building: “a building containing 3 or more dwellings, but does not include an attached dwelling or multi dwelling housing.”
- Serviced apartment: “a building (or part of a building) providing self-contained accommodation to tourists or visitors on a commercial basis and that is regularly serviced or cleaned by the owner or manager of the building or part of the building or the owner’s or manager’s agents.”
- Shop top housing: “one or more dwellings located above ground floor retail premises or business premises.”
Dual Occupancy (attached) is defined in the QLEP 2012 to be:
- "2 dwellings on one lot of land that are attached to each other, but does not include a secondary dwelling."

Dual Occupancy (detached): is defined in the QLEP 2012 to be:
- "2 detached dwellings on one lot of land, but does not include a secondary dwelling."

Studio dwelling: is defined in the QLEP 2012 to be:

A studio dwelling means a dwelling that:

(a) Is established in conjunction with another dwelling (the principal dwelling), and
(b) is on its own lot of land, and
(c) is erected above a garage that is on the same lot of land as the principal dwelling, whether the garage is attached to, or is separate from, the principal dwelling, but does not include a semi-detached dwelling.

7.2. Streetscape

Streetscape and Urban Character is made up of the visual elements of a street, including the road, adjoining buildings, fencing, trees and open spaces, etc, that combine to form the desired urban character.

Objectives:

1) To promote new development that is of a scale and architectural quality which contributes to the existing and future desired built form and character of the various areas of the new township of Googong as envisaged in the Master Plan.
2) To ensure that new development is sensitive to the landscape setting and environmental conditions of the locality.

The following additional objectives apply for Residential Flat Development;

3) Establish a high quality residential environment where all dwellings within residential flat buildings have a good level of amenity.
4) Encourage the development of mixed use residential/commercial development in the town and neighbourhood centres within easy walking distance of public transport.
5) Ensure that the design of mixed use developments maintains residential amenities and preserves compatibility between uses.

Controls:

a) Development shall be generally in accordance with the Neighbourhood Structure Plan.
 b) A mix of materials compatible with the streetscape are to be used including masonry, timber and glass and the provision of simple and articulated building and roof forms.
 c) New buildings shall adhere to the minimum building line setbacks as set out in relevant Tables in this Part.
 d) On corner sites the façade treatment should address both street frontages in order to promote a strong and legible character while maintaining sight lines.
 e) Fencing should be designed to provide a clear distinction between private and public space and to encourage casual surveillance of the street.
 f) Fencing should be consistent with the established style and pattern of fences in the locality.
 g) Elements such as fences, walls, hedges, level changes and landscaping or a
combination of these elements are to define the front boundary.
h) Where front fences / walls are used they are to be a maximum height of 1.2m to the primary street frontage.
i) Front fencing is to be predominately open in design, such as picket fences, hedges or palisade style fencing.
j) Maximum height of fences to secondary street frontage is 1.8m. A fence on a secondary street frontage that is 1.8m must not extend more than 50% of the lot depth. Fences to secondary street frontage that extend beyond the 50% lot depth are considered to be front fencing and have a maximum height of 1.2m.
k) Side fences between residential lots are to start at least 1m behind the primary building frontage of the dwelling.
7.3. Streetscape – Public and Private Laneways

Laneways have the potential to lack amenity, become neglected and create a streetscape that is undesirable and lacks safety and security. Laneways need to act as more than simply a services corridor and should develop their own activated streetscape.

Objectives:

1) To ensure that laneways are constructed in a manner which promotes activation and safety through regular use and both active and passive surveillance.
2) To provide development that is of a scale and architectural quality that contributes to the laneways' streetscape.
3) To provide a visually acceptable streetscape through landscaping, articulation and setbacks along the laneways and through limiting laneway length.
4) To ensure the laneway's use as a service corridor is not compromised by a design which encourages inappropriate, unsafe parking, encourages the erection of obstructions or otherwise prevents the passage of service and resident vehicles.
5) To provide vehicular access to the rear or side of lots where front access is restricted or not possible, particularly narrow lots where front garaging is not permitted.
6) To reduce garage dominance in residential streets.
7) To maximise on –street parking spaces and landscaping in residential streets.
8) To facilitate the use of attached and narrow lot housing.
9) A continuous run of studio dwellings or small lots along the lane is to be avoided, as it changes the character, purpose and function of the lane.
Controls:

a) Laneways shall be limited in length as provided in Section 5.0 of this DCP and constructed with decorative elements in the pavement to break up the laneway surfaces.

b) Laneways in adjacent housing blocks shall not be continuous over access streets to prevent the appearance of long, gun barrel laneways unless appropriate measures such as using staggered laneways are taken to eliminate the gun barrel effect.

c) No more than 1 in 4 dwellings (excluding street corner lots with studio dwelling at the lane entry) are to be studio dwellings.

d) Straight layouts across the blocks are preferred for safety and legibility, but the detailed alignment can employ subtle bends to add visual interest and avoid long distance monotonous views, subject to meeting the minimum construction requirements for turning paths.

e) Rear fences to laneways shall be constructed so that they are a minimum 50% transparent material to improve surveillance of the laneway.

f) Articulation of building forms and fencing shall be interspersed with drought resistant, soft landscaping to improve visual amenity. An area shall be provided on each laneway frontage to plant at least one medium sized tree. Landscaping treatments with pavers, gravel or similar hardstand materials is not acceptable.

g) Laneways shall be provided with street lighting.

h) The minimum garage doorway widths for manoeuvrability are 2.4m (single) and 4.8m (double).

i) The configuration of the laneway, associated subdivision and likely arrangement of garages arising from that subdivision should create ordered, safe and tidy laneways by designing out ambiguous spaces and unintended uses such as casual parking, the storage of trailers, bin stacking etc.

j) Passive surveillance along the laneway from the upper storey rooms is encouraged.

k) Ground floor habitable rooms on laneways are to be avoided unless they are located on external corners (laneway with a street) and face the street to take advantage of the residential street for an address.

7.4. Building Form and Design

Façades are the public face of buildings. Their architectural quality contributes to the character and design of the public domain. High architectural quality requires the appropriate composition of building elements, textures, materials and colours and reflects the use, internal design and structure of a development.

The composition and detailing of the building façade has an impact on its apparent scale as well as its appearance and consistency with the desired future characters of the various areas within Googong.

Objectives:

1) To ensure that the bulk, scale and height of proposed development provides good neighbour amenity and maintains an appropriate residential character.

2) To ensure that adequate sunlight access and ventilation for living areas and private open spaces of new and neighbouring dwellings is provided for.
3) Provide quality architecture through richness in detail and architectural interest and complementary to the particular Precinct within Googong.

4) Support the development of the town and neighbourhood centres of Googong as a separate rural town settlement.

5) Provide legibility of building function.

6) Maintain pedestrian scale in the articulation of details on lower levels.

7) Ensure that balconies are integrated into the overall architectural form and detail of residential buildings and contribute to the safety and liveliness of the street by allowing for casual overlooking and address.

8) Establish a high quality residential environment where all dwellings within residential buildings have a good level of amenity.

9) Encourage the development of mixed residential/commercial developments in the town and neighbourhood centres within easy walking distance to public transport.

10) Ensure that design of mixed use developments maintains residential amenities and preserves compatibility between uses.

11) Encourage façade articulation of individual buildings to enhance the streetscape, such as highlighting front entries to give the building a sense of address.

Controls:

a) Development is to exhibit a high degree of design quality and provide attractive street frontages by ensuring that all dwellings have a main element to address the street.

b) The design of new development is to address shading from summer sun, ventilation and topography.

c) Studio dwellings are to be located at the rear of the lot only where the lot has access from a rear lane or secondary street on a corner lot.

d) Rear garages with studio dwellings may have first level balconies facing the lane provided the balcony remains within the lot boundary. Where 2m deep, overhanging balconies provide for principal private open space the application must demonstrate how garages setback underneath avoid creating an overly wide lane and ambiguous space opportunities for illegally parked cars, trailers, bins etc.

e) Studio dwellings are to have balconies or living areas that overlook laneways for casual surveillance.

f) Large expanses of blank walls or ‘glass box style’ developments will not be permitted as these are considered to be inconsistent with the desired character of Googong. Features that may break up blank walls include: balconies, awnings and screens, fixed and/or operable sun screens and articulated façades.

g) Articulation zones shall be designed to adhere to the requirements set out in relevant tables in this Part.

h) The ‘Articulation zone’ consists of architectural elements which address the street frontage and assist in creating a character in an area. Elements permitted in the articulation zone include entry features or porticos, awnings or other features over windows including sun shading, balconies (roofed or unroofed) or window box treatments to any first floor element, recessing or projecting architectural elements, open verandahs, bay windows or similar features.

i) The building design and architectural style (including articulation) is to interpret and respond to the character of the locality, including dominant patterns, textures and compositions of buildings.

j) Articulation should reduce the appearance of building bulk and express the elements of the building’s architecture.

k) Articulation elements should provide visual interest from the street.

l) The facades of buildings should be designed with a balance of horizontal and vertical
m) Alterations and additions are to be compatible with design elements of the building.

Articulation zone

Building Entries

a) Define building entries clearly using setbacks, canopies, different materials, textures and colours.

Roof Design

a) Articulate roofs to provide a quality roofscape. Roof design is to:
   i. Minimise impact on tree-top skyline viewed from beyond the site.
   ii. Avoid glare, high colour contrast and screen unsightly roof mounted services.
   iii. Obscure roof mounted structures when viewed from higher dwellings and the public domain.

b) Pitched hip and gable roof forms shall predominate.

c) Strong colours and black shall be avoided.

d) Roof design shall fully integrate and coordinate services. Antennae, plant and solar panels should not be viewed from public areas where practical.

e) Where a studio dwelling is built over a rear garage and separated from the upper levels of the principal dwelling, there must be a minimum separation of 5m between the upper floor rear façade of the principal dwelling and studio dwelling.

Shop Top Housing

a) Shop top housing shall encourage pedestrian activity on streets by providing awnings to ground floor retail, commercial or public uses which:
   i. Give continuous cover in areas which have a desired pattern of continuous awnings.
   ii. Complement the height, depth and form of the desired character or existing pattern of awnings.
   iii. Provide sufficient protection for sun and rain.
   iv. Contribute to the legibility of development and amenity of the public domain by locating local awnings over building entries.
v. Enhance safety for pedestrians by providing under-awning lighting.

The following additional controls apply for Residential Flat Buildings:

a) Residential flat buildings shall be located generally in accordance with the Neighbourhood Structure Plan.

b) Residential flat buildings must be designed to be consistent with the principles outlined in *State Environmental Planning Policy (SEPP) 65 – Residential Apartment Development and Apartment Design Guide*.

c) Residential flat buildings shall provide for the articulation of the roofscape where appropriate.

![Broken wall planes and articulation](image1.png)

![Articulated roof – Height variations, individual dwellings detailed and parking from rear. Light wall colours provide contrast to landscape.](image2.png)

*Figure 1: Maximum wall length for attached dwellings and Shop-top housing.*
7.5. Height and Floorspace

Objectives:

1) To promote a mix of housing and to control the scale of development to promote a low to higher density residential environment.

Controls:

a) The maximum permissible floor space ratio for development within the Googong Town Centre and the Neighbourhood Centres shall be in accordance with the requirements of the QLEP 2012 (Refer to relevant Floor Space Ratio Map).

b) The maximum heights within the new Googong Township shall be in accordance with the requirements of the QLEP 2012 (refer to relevant Height of Buildings Map).

7.6. Privacy and View Sharing

Designing for privacy protects the ability of the occupants of the building to carry out functions within all rooms and private open spaces without visual intrusion. Visual privacy is influenced by site configuration, topography, scale of the proposed development, building layout and relationship to adjoining developments.

Objectives:

1) To provide visual and acoustic privacy in residential dwellings and associated private open spaces.

2) To maximise opportunities for view sharing.

Visual Privacy Controls:

a) Windows of upper-level habitable rooms and balconies are to be designed to avoid overlooking of the private open space of neighbouring properties.

b) Appropriate screening, which is permanent, fixed and durable, is to be provided in cases where overlooking cannot be prevented.

c) Narrow or high sill windows may be used to reduce overlooking. Unscreened outlooks into a habitable room on an adjacent dwelling are to have a minimum distance of 6m at the ground floor level or 9m on upper floor levels.

d) Screening is not required in circumstances where the windows are within non-hhabitable rooms (e.g. bathrooms, toilets, storage or laundries) and have translucent glazing or high sill windows.

e) Where dwellings are built to a zero lot line on a side boundary, windows are not to be located on the zero lot wall unless that wall adjoins a laneway, public road, public open space or drainage land.

f) Windows of upper-level habitable rooms facing a habitable room of a neighbouring dwelling within 9m are to:

i. Be offset by 1m; or

ii. Have high sill windows; or

iii. Have fixed obscure or frosted glazing installed in window above ground level of a dwelling where the sill height is less than 1.6m.

iv. Balconies to have fixed obscure or frosted glazing; or

v. Provide other suitable solutions.
View Sharing Controls:

a) Development is to be designed to minimise loss of views from neighbouring properties. Significant views within Googong such as to hilltops, Googong Common and the surrounding farmlands are to be valued and shared.

b) A visual analysis illustrating the impacts of the proposed development upon views may be required by Council for lots with prominent views.

Acoustic Privacy Controls:

a) Shared walls and floors to be constructed in accordance with the sound transmission and insulation requirements of the *Building Code of Australia*.

b) Where buildings adjoin major external noise sources (e.g. parking / recreation areas / garbage collection / air conditioning units, major roads etc), proper consideration is to be given to the following design issues:
   i. Appropriate separation.
ii. Use of buildings as noise buffers i.e. less sensitive land uses to be located close to the noise source.
iii. Locating sensitive areas of use such as bedrooms away from noise sources.
iv. Use of acoustic glazing, solid-core doors, solid wall construction and other appropriate noise preventative design measures.
v. Separating plumbing for each dwelling and containing them to prevent transmission of noise between dwellings.

c) Noise sources such as air conditioners, exhaust fans and the like shall be located away from sensitive areas such as bedrooms.

Areas not sensitive to noise provide buffers to noise sensitive areas
Source: Brisbane City Plan

7.7. Safety and Security

Objectives:

1) Maximise personal and property security for residents and visitors by ensuring siting and design of built form and open space are planned to facilitate casual surveillance to decrease the opportunity for crime.

2) Ensuring the community will utilise the streets, open space and other areas of the public realm with a perception of community safety.

Controls:

a) Design buildings and landscaping in accordance with Part 2.9 of the Queanbeyan Development Control Plan 2012 – Safe Design.
7.8. Access and Mobility for Multiple Dwelling Houses and Residential Flat Buildings.

This section of the DCP is informed by Landcom’s Universal Housing Guidelines 2008 which are based on a review of the Australian Standards for Adaptable Housing and for Access and Mobility. These principles support the ‘Planning to Stay’ concept.

This section contains key principles for designing houses that age with us.

Objectives:

1) To provide a diversity of apartment types, which cater for different household requirements now and in the future.
2) To encourage housing designs which meet the broadest range of the occupants’ needs as possible.
3) To encourage adaptive re-use.

Controls:

a) Multiple Dwelling Houses and Residential Flat Buildings must comply with AS4299-1995 Adaptable Housing on the following ratio:
   i. One adaptable dwelling for every 10 dwellings in the development.
   ii. Where the number of dwellings is less than 10 dwellings and not less than five dwellings, provision is to be made to providing at least one adaptable dwelling.

b) For Adaptable Housing direct and level access is to be provided from the car parking space to the dwelling or lift access.

c) Car parking spaces for adaptable housing shall have at least 6.0m in length with and 3.8m in width.

d) Front entrances are to have a minimum internal clearance of 850mm.

e) Internal entry level doorways to have a minimum internal clearance of 820mm.

f) Internal entry level corridors to have a minimum width of 1,000mm.

g) A living/family room; a room/space capable of being used as a bedroom; and a bathroom are to be located on the ground/entry level.

h) A living/family room is to be provided with circulation space of at least 2.25m diameter (clear of furniture).

i) Bedroom space (on ground/entry level) is to be large enough for a queen size bed and include wardrobe and circulation space (i.e. 3.5 x 3.2m/3.7 x 3.0m).

j) One bathroom (on ground/entry level) is to have minimum dimensions of 2.4 x 2.4m, with hobless shower, full floor waterproofed and strengthened walls around the toilet and shower (at 700–1,500mm and 700–1,850mm above floor level respectively).

k) Kitchen with a minimum of 2.7m between walls.

l) Laundry with a minimum clear circulation space of 1.55m diameter.

m) Window sills on the ground/entry level at a maximum height of 730mm above floor level (excluding the bathroom and kitchen).
Section B: Site Amenity

7.9. Pedestrian Access and Building Entries

Design is to focus on delivering high quality, safe and pleasant walking environments for pedestrians. Potential for pedestrian/vehicle conflict must be avoided in the design of developments. Pedestrian access must be enjoyable, logical and available equally to all people who live in, work or visit a development.

Objectives:

1) To promote developments which are well connected to the street and contribute to the accessibility of the public domain.
2) To ensure that all users of developments, including people with strollers, wheelchairs and bicycles, are able to reach and enter shop, office, apartment, other use areas, and communal areas via minimum grade ramps, paths, access ways or lifts.

Controls:

a) The planning of the site is to optimise accessibility for all to the development from the public domain.
b) High quality accessible routes are to be provided to public and semi-public areas of residential buildings and the site, including major entries, lobbies, communal open spaces, site facilities, parking areas, public streets and internal roads.
c) The main building entrance is to be accessible for all from the street and car parking areas.
d) Pedestrian ramps are to be integrated into the overall building and landscape design.
e) Ground floor shops, offices and apartments are to be designed to be accessible for all from the street.
f) Pedestrian and vehicle access ways are to be separated and clearly distinguishable.
g) The provision of public through-site pedestrian access ways is to be considered in the development of all large sites.
h) The access requirements from the street or car parking area to the entrances of buildings are to be clearly identified.
i) For studio dwellings access is to be separate from the principal dwelling and is to front a public street, lane or shared private access way. If appropriately designed, a combined access for the principal dwelling and studio dwelling can be through communal land but this must be shown on the subdivision plan for separate titling.

7.10. Principal private open space and Landscape Design

Well designed buildings and landscaped areas work together, resulting in greater aesthetic quality and amenity for occupants and the adjoining public domain.

Private open space is the ‘breathing space’ for development. It is required to be provided for amenity, environmental sustainability, solar access, visual privacy, natural ventilation, and opportunities for recreation and social interaction.

‘Principal Private Open Space’ is that part of open space primarily intended for outdoor living activities which enjoy a reasonable amount of privacy.
Googong DCP – Part 7 – Small Lots, Studio Dwellings, Multi Dwellings, Dual Occupancies and Residential Flat Buildings

‘Landscape area’ refers to a permeable area of a lot that is capable of growing plants, grasses and trees or impervious surfaces.

Objectives:

1) Landscape design shall optimise useability, privacy, equitable access and respect for neighbour’s amenity as well as providing areas for deep soil planting.
2) Provide sufficient open space for the reasonable recreation needs of residents.
3) Allow northerly aspect into the principal private open space of new residential buildings.
4) Provide for landscaping that is low maintenance in the long term without long term reliance on watering systems.
5) Private open space shall provide a pleasant outlook.

Controls:

a) Refer Tables 1, 2 and 3.

b) The principal private open space is to be:
   • Located behind the building line to the main street frontage, unless specifically permitted otherwise by a Neighbourhood Structure Plan.
   • Directly accessible from, and adjacent to, a habitable room, other than a bedroom;
   • Located to have a northerly aspect, where possible;

Where the principal private open space is permitted to be forward of the building line by a Neighbourhood Structure Plan the following additional controls apply:

• The front setback to the main building line for the ground floor level is to be a minimum of 4.5m. An articulation zone may intrude into the main building line and set back 3.0m.
• The principal private open space must have a minimum dimension of 4m.
• A 0.5m wide landscape zone with screen planting must be provided located between the principal private open space and the front boundary.
• The principal private open space is to be located between 350 and 500mm above...
the general level of the street verge.

- A front fence is to be provided which is a maximum combined height of retaining wall and fence of 1.5m. The maximum height of the fence is to be 1.2m.
- The front door to the home is to be clearly visible and accessible from the street.
- The front fence is to have as a minimum 25% open elements.
- Blade walls are to be incorporated into the dwelling design to further enhance privacy from adjacent dwellings. Blade walls can project up to 1 metre in-front of the dwelling (this is to be measured from the 4.5m setback line).
- At least 25% of private open space must be provided behind the main building line and include a service area to include clothes drying facilities screened from the public realm.

c) A landscape plan is to be prepared in relation to private and communal open space in the case of Small lot housing, Multi Unit/Dual Occupancy development, Residential Flat Buildings and Shop-top Housing. Such a landscaping plan must be prepared by a Council accredited consultant in accordance with Part 2.6 Landscaping of the Queanbeyan Development Control Plan 2012.

d) For studio dwellings the principal private open space shall be in the form of a balcony directly accessed off living space having a minimum size of 12m² with a minimum dimension of 2m. It must be north facing where possible with a minimum of 3 hours solar access between 9am-3pm on 21 June.

e) Solar access and privacy to the principal private open space of neighbouring lots is not to be significantly reduced or compromised.

7.11. Car Parking and Garages

Objectives:

1) To ensure adequate provision of secure and accessible onsite parking for residents and visitors.
2) To integrate adequate car parking and servicing access without compromising street character, landscape or pedestrian amenity and safety.
3) Provide safe and functional parking areas.
4) To integrate the location and design of car parking with the design of the site and the building.
5) Ensure the dwelling façades are dominant, with the garage a recessive element in the streetscape.

Controls:

a) All on-site parking is to be provided in accordance with the Tables 1, 2 and 3.
b) The provision of parking meets the needs of the activity associated with any land use to be accommodated on-site.
c) Car parking structures shall be incorporated into the design of residential buildings so as not to dominate the appearance of the building when viewed from public streets or internal private roadways. However it is understood that for studio dwellings and small lots, the garage will dominate the appearance of the building from the rear.
e) Parking may be provided in tandem where two spaces are provided for one dwelling.
f) For studio and one bedroom dwellings on small lots, one on-site car space is required.
Garages for separately titled studio dwellings may have a zero lot setback to one side boundary and may be attached to another garage/studio dwellings on an adjoining lot, (still retaining the 1 studio dwelling in a group of 4 dwellings) particularly where the studio dwelling is associated with an attached or semi-detached dwelling.

g) Garage doors of residential developments are to be set back at least:
   i. 1m behind the front façade of the home.
   ii. 5.5m from the street boundary to allow another car to park on site in driveway if necessary.
   iii. 0m setback where garages are rear loaded for small lots or studio dwellings.

h) Double garages are only permitted on lots 12.5m wide or greater.
i) Garages on corner lots shall be preferably accessed from the secondary street.
j) Driveways to be a minimum of 1.5m from street trees.
k) Provide landscaping between the driveway and the side boundary.
l) Where bicycle parking is provided in multi dwelling housing and residential flat buildings such bicycle parking should be located in proximity to building entrances in highly visible and illuminated areas to minimize theft and vandalism.
m) Garages are to be treated as an important element of the dwelling façade and are to be integrated with and complementary, in terms of design and material, to the dwelling design.
n) Garage doors are to be visually recessed through use of materials, colours, and overhangs.
o) When facing the street, the maximum total width of a garage or carport door is to be 50% of the building façade length.
p) Garages and covered parking spaces with a column or structure on one or both sides are to be at least 5.5m long with a clear width of at least 3m and a clear height of 2.2m.
q) The maximum width of a driveway at the property boundary is to be 4.5m.
r) Long straight driveways (gun barrel developments) are to be avoided.
s) Large expanses of concrete or sealed surfaces are to be avoided. Different surface treatments to be utilised.
t) The opening of basement parking spaces shall not occupy more than 50% of the total width of the street elevation of the building. This does not apply to rear lanes.
u) No parking is required for secondary dwellings.
v) In finalising the parking numbers required the total number is to be rounded up to the next whole number.
w) Parking provision shall be provided at a rate of not less than one disabled space per disability unit in accordance with Australian Standards 2890.1 and Part D3.5 of the Australian Standards.
7.12. Site Facilities

Objectives:

1) To have adequate provision made for site facilities including: garbage areas, mail boxes, service meters etc.
2) To have site facilities that are functional, accessible and easy to maintain.
3) To have site facilities thoughtfully and sensitively integrated into development so as not to be obtrusive, noisy or unsightly.

Controls:

a) Refer to 7.16 for specific waste storage area requirements.
b) Communal waste bin enclosure areas are to be located so as to:
   i. Conceal their contents from view from the dwellings, public spaces and adjacent properties.
   ii. Avoid creating an odour nuisance for dwellings on the development site and adjoining properties.
   iii. Avoid creating a noise nuisance during servicing for dwellings on the development site and on adjoining properties.
   iv. Be incorporated into the landscaping if provided at ground level.
c) One television antenna is provided to serve all dwellings in residential building. Likewise for other communication antennae or dishes.
d) Each dwelling is provided with a lockable external store of waterproof construction with a minimum volume of 6m$^3$. A lockable garage or locker in a carport is acceptable.
e) Appropriately designed, clearly visible signage is to be provided indicating the address (and name) of the building for ease of identification.
f) Developments are to be provided with secure, open air clothes drying facilities screened from street view.
g) Open air, common clothes drying facilities are provided to be easily accessible to all residents and visually screened from streets and other public areas. If clothes drying facilities are located on private balconies, 2m$^2$ is to be provided in addition to the minimum private open space requirements and screened when viewed from outside the development.
h) Mechanical plant is to be designed as integral to the building and structure. Mechanical plant for individual apartments (such as air conditioner heat pumps) is to be visually and acoustically screened from public spaces and neighbouring dwellings.
i) Mailboxes are to be convenient for residents and delivery services. They should be provided in a safe, secure, well lit location. Mail boxes must be located within the development site.
j) Studio dwellings and small lots provisions shall be made for separate services, such as mail delivery and waste collection, and on-site garbage storage areas so that bins are not visible from a street or laneway. Services are to be located on a street address that is able to be accessed by garbage collection and mail delivery services. Where it is more appropriate due to design and layout such services may be serviced from the front residential street via the principal dwelling lot.
7.13. Studio Dwellings and Small Lots

Objectives:

1) Studio dwellings provide passive surveillance and monitor laneway activities.
2) Studio dwellings and small lots of 130-170m² are to be rear loaded.
3) Studio dwellings and small lots do not detrimentally impact the amenity of adjoining residential land (overshadowing, privacy or visual).
4) Studio dwellings are developed in a complementary architectural style to the principal dwelling.
5) Design quality of corner lots should be considered in terms of streetscape, setback, solar access and parking.

Controls:

a) Studio dwellings and small lot developments in Googong shall comply with Table 1.

Table 1: Small Lot Housing and Studio Dwellings

<table>
<thead>
<tr>
<th>Lot Size</th>
<th>Studio Dwellings</th>
<th>130&lt;170m²</th>
<th>170 &lt; 250m²</th>
<th>250 &lt; 330m²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot Width (minimum)</td>
<td>Not applicable</td>
<td>4.5 metres</td>
<td>6.0 metres</td>
<td>6.0 metres</td>
</tr>
<tr>
<td>Site Coverage</td>
<td>Not applicable</td>
<td>70% including all ancillary buildings.</td>
<td>70% including all ancillary buildings.</td>
<td>70% including all ancillary buildings.</td>
</tr>
<tr>
<td>Building height</td>
<td>As per QLEP 2012</td>
<td>As per QLEP 2012</td>
<td>As per QLEP 2012</td>
<td>As per QLEP 2012</td>
</tr>
<tr>
<td>Setback (minimum) Front Side</td>
<td>Not applicable</td>
<td>3.0 metres</td>
<td>3.0 metres</td>
<td>3.0 metres</td>
</tr>
<tr>
<td></td>
<td>0.9 metres</td>
<td>0.9 metres</td>
<td>Zero lot line to both side boundaries is accepted but must only extend 60% of the lot length for the ground floor. The extension of the zero lot line for the 2nd storey will be assessed on merit.</td>
<td>Zero lot line to both side boundaries is accepted but must only extend 60% of the lot length for the ground floor. The extension of the zero lot line for the 2nd storey will be assessed on merit.</td>
</tr>
<tr>
<td></td>
<td>Note: Detached garages are not included in calculations.</td>
<td>Note: Detached garages are not included in calculations.</td>
<td>Note: Detached garages are not included in calculations.</td>
<td>Note: Detached garages are not included in calculations.</td>
</tr>
<tr>
<td>Lot Size</td>
<td>Studio Dwellings</td>
<td>130&lt;170m²</td>
<td>170 &lt; 250m²</td>
<td>250 &lt; 330m²</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------------</td>
<td>-----------</td>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Garage setback to front boundary</td>
<td>Not permitted</td>
<td>Not permitted</td>
<td>5.5 metres</td>
<td>5.5 metres</td>
</tr>
<tr>
<td>Corner Lot – Secondary street setback for garages and carports</td>
<td>As per garage setback</td>
<td>5.5 metres</td>
<td>5.5 metres</td>
<td>5.5 metres</td>
</tr>
<tr>
<td>Corner Lot – Secondary street setback (excluding garages and carports)</td>
<td>1.5 metres</td>
<td>1.5 metres</td>
<td>1.5 metres</td>
<td>2.0 metres</td>
</tr>
<tr>
<td>Articulation of front façade</td>
<td>Not applicable</td>
<td>Articulation element of 1.5 metres is encouraged</td>
<td>Measured from the minimum setback of the lot, 1.5 metres encroachment for 60% of the dwelling width on the side at which the articulation zone is proposed.</td>
<td>Measured from the minimum setback of the lot, 1.5 metres encroachment for 60% of the dwelling width on the side at which the articulation zone is proposed.</td>
</tr>
<tr>
<td>Rear setback (minimum) where there is no rear laneway for building wall height up to 4.5 metres</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>3.0 metres</td>
<td>3.0 metres</td>
</tr>
<tr>
<td>Rear setback (minimum) where there is no rear laneway for building wall height greater than 4.5 metres</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>4.0 metres</td>
<td>4.0 metres</td>
</tr>
</tbody>
</table>
### Small Lot Housing and Studio Dwellings

<table>
<thead>
<tr>
<th>Lot Size</th>
<th>Studio Dwellings</th>
<th>130&lt;170m²</th>
<th>170 &lt; 250m²</th>
<th>250 &lt; 330m²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rear setback (minimum) to private or public laneway for a garage or carport</td>
<td>0 metres</td>
<td>0 metres</td>
<td>0 metres</td>
<td></td>
</tr>
<tr>
<td>Landscaped area (minimum permeable area, grasses, trees etc)</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>10% of the area of the lot. 50% of the landscaped area must be located behind the building line of the primary road.</td>
<td>10% of the area of the lot. 50% of the landscaped area must be located behind the building line of the primary road.</td>
</tr>
<tr>
<td>Principal private open space (PPOS) Minimum area</td>
<td>12m² – balcony only Minimum dimension of 2 metres.</td>
<td>16 m² PPOS is to be directly accessible from living areas, with a minimum width of 3 metres.</td>
<td>24m² PPOS is to be directly accessible from living areas, with a minimum width of 3 metres. Where lots have a width of at least 6 metres but less than 10 metres, the PPOS can be reduced to 16m².</td>
<td>24m² PPOS is to be directly accessible from living areas, with a minimum width of 3m. Where lots have a width of at least 6 metres but less than 10 metres, the PPOS can be reduced to 16m².</td>
</tr>
<tr>
<td>Solar access to principal private open space as measured between 9am and 3pm on 21 June</td>
<td>Balcony to be north facing where practical. Minimum 3hrs required. 3hrs to adjoining living room windows and PPOS on neighbour's land.</td>
<td>Principal private open space will be North facing where practical. Minimum 3hrs to 50% of principal private open space. 3hrs to adjoining living room windows and PPOS on neighbour's land.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Car parking spaces</td>
<td>1 space</td>
<td>1 space for 1 bedroom dwellings and 2 spaces for 2 or more bedroom dwellings. Car spaces can be uncovered and stacked and are not to replace PPOS.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Small Lot Housing and Studio Dwellings

<table>
<thead>
<tr>
<th>Lot Size</th>
<th>Studio Dwellings</th>
<th>130&lt;170m²</th>
<th>170&lt;250m²</th>
<th>250&lt;330m²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garage to house frontage (front façade only)</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>All door openings must not exceed 3.2m or if the lot is greater than12m wide, garage doors must not exceed 6m.</td>
<td></td>
</tr>
<tr>
<td>Underground parking</td>
<td>Not permitted</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Earthworks</td>
<td>1.5 metres maximum cut and fill.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fences and retaining walls</td>
<td>Maximum height of fences to secondary street frontage is 1.8 metres. A fence on a secondary street frontage that is 1.8m must not extend more than 50% of the lot depth. Fences to secondary street frontage that extend beyond the 50% lot depth are considered to be front fencing and have a maximum height of 1.2 metres.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothes drying</td>
<td>Nil</td>
<td>Provide open air clothes drying area screened from public street.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garbage area</td>
<td>Locate behind building line. Garbage areas are not serviced from any laneway. A minimum of 3 waste bins required per dwelling. In circumstances where there is no ground floor private open space garbage bins can be located adjacent to a garage but must be accessible to the laneway and be adequately screened from laneway and public view.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 7.14. Multi Dwelling Housing and Dual Occupancy

**Objectives:**

1. To ensure multi dwelling housing and dual occupancies are designed to achieve a high level of amenity.
2. To ensure multi dwelling housing and dual occupancies make a positive contribution to the streetscape.
3. To ensure multi dwelling housing and dual occupancies do not detrimentally impact the amenity of adjoining residential land (overshadowing, privacy or visual).

**Controls:**

a) Multi dwelling housing and dual occupancy developments in Googong shall comply with Table 2.
### Table 2: Multi Dwelling Housing and Dual Occupancy

| Minimum lot size | Dual Occupancy – 600m²  
| Multi Dwelling Housing – 750m² (Refer to Clause 4.1B of the QLEP 2012) |
| Minimum lot width | Dual Occupancy – 18.0 metres  
| Multi Dwelling Housing – 25.0 metres  
| However, Council will consider reducing the minimum lot width for multi dwelling housing to 20.0 metres where the development application for the subdivision includes a dwelling design for each lot, and where it can be demonstrated the design is not inconsistent with the building form and design criteria set out in Section 7.4 of this DCP. |
| Site coverage max | Dual occupancy – 40%  
| Multi Dwelling Housing – 50% |
| Building height | As per QLEP 2012 |
| Front setback minimum | Dual Occupancy – 6.0 metres  
| Multi Dwelling Housing  
| • 4.0 metres where principle private open space is not located within the front setback.  
| • 6.0 metres where principle private open space is located within the front setback |
| Articulation zone | 1.5 metres.  
| The articulation zone must meet the performance based criteria outlined in Section 7.4 (i) to (m) of this DCP. |
| Corner lot - Secondary Setback (minimum) | Where façade length is less than 9m in length the minimum setback is 3.0 metres  
| Where façade length is greater than 9m in length the minimum setback is 4.0 metres. |
| Garage setback to front or secondary boundary (minimum) | Front Boundary  
| 5.5 metres  
| Secondary Boundary  
| • Where direct garage access from secondary frontage is proposed – 5.5 metres.  
| • Where no direct garage access proposed from secondary frontage – the setback is to be consistent with the minimum secondary setbacks for corner lots set out above in this table. |
| Side setback minimum | Dual Occupancies  
| Up to 2 Storeys – 3.0 metres  
| Subsequent stories – an additional 0.5 metres per storey  
| Multi Dwelling Housing  
| Ground floor – 3.0 metres  
| Subsequent stories – an additional 0.5 metres per storey |
## Multi Dwelling Housing and Dual Occupancy

| Rear setback minimum | Dual Occupancy – 4.0 metres  
| Multi Dwelling Housing  
| Ground Floor - 3.0 metres  
| Subsequent stories – an additional 0.5m per storey |
| Garage setback to public or private rear lane | 0 metres |
| Principal private open space – On ground Minimum area | 24m² – North facing, directly accessible from living areas. Must have a minimum width of 4 metres to be counted as principal private open space. 50% of PPOS to be permeable and landscaped. |
| Principal private open space – Balcony Minimum area | Dual Occupancy  
| Must be north facing  
| 12m² minimum area  
| 2m² minimum dimension  
| Multi Dwelling Housing  
| 1 bedroom – 8m²  
| 2 bedrooms – 10m²  
| 3+bedrooms - 12m² minimum area  
| 2.0 metre minimum dimension for all  
| (The minimum balcony PPOS requirements only apply where ground level PPOS cannot be provided – otherwise no restriction) |
| Solar access to principal private open space as measured between 9am and 3pm on 21 June | Minimum 3 hrs to 50% of POS.  
| At least 80% of dwellings shall have living room windows and PPOS which receive a minimum of 3 hours direct sunlight into primary window surfaces. Minimum 3 hrs to adjoining living room windows and PPOS on neighbour’s land. |
| Communal Landscaped Area (minimum) | 20% (60% of communal open space to be landscaped as permeable surface, grasses, trees, etc).  
| Deep soil zones required alongside and rear boundaries. |
| Car Parking – minimum number of spaces | 1 bed- 1 space  
| 2 bed - 2 spaces  
| 3 bed - 2 spaces |
| Visitor parking - minimum number of spaces | 3-5 dwellings – 1 space  
| 6-10 dwellings – 2 spaces  
| 11-15 dwellings – 3 spaces  
| For every 5 units thereafter – 1 additional space  
| Council may accept off site visitor parking spaces where kerbside parking is provided to the site and where the development has at least 3 street frontages. |
### Multi Dwelling Housing and Dual Occupancy

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Underground parking</strong></td>
<td>Underground parking permissible where the slope of the land provides the opportunity</td>
</tr>
<tr>
<td><strong>Garage to building frontage (front façade only)</strong></td>
<td>No more than 50% of street façade. Double width garage doors not permitted. Two separate doors are to be used with a minimum 230mm separation. No common gable over both doors.</td>
</tr>
<tr>
<td><strong>Maximum length of multi dwelling buildings</strong></td>
<td>Buildings should not exceed a total length of 60 metres. Wall planes should not exceed 15 metres in length without the roof and wall design being broken.</td>
</tr>
<tr>
<td><strong>Minimum gap between multi dwelling buildings</strong></td>
<td>4.0 metres</td>
</tr>
<tr>
<td><strong>Earthworks</strong></td>
<td>1.5 metres maximum cut and fill</td>
</tr>
</tbody>
</table>

### 7.15. Residential Flat Buildings and Shop Top Housing

**Objectives:**

1. Establish a high quality residential environment where all dwellings within residential flat buildings have a good level of amenity.
2. Encourage the development of mixed use residential/commercial development in the town and neighbourhood centres within easy walking distance of public transport.
3. Ensure that the design of mixed use developments maintains residential amenities and preserves compatibility between uses.

**Controls:**

a) Residential flat buildings and shop top housing developments in Googong shall comply with Table 3.

**Table 3: Residential Flat Buildings and Shop-Top Housing**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minimum Lot Size</strong></td>
<td>1000m² (Refer to Clause 4.1B of the QLEN 2012)</td>
</tr>
<tr>
<td><strong>Lot width (minimum)</strong></td>
<td>25 metres</td>
</tr>
<tr>
<td><strong>Site coverage max</strong></td>
<td>40%</td>
</tr>
<tr>
<td><strong>Building Height</strong></td>
<td>As per QLEN 2012</td>
</tr>
<tr>
<td><strong>Front setback minimum</strong></td>
<td>Residential Flat Buildings - 6.0 metres</td>
</tr>
<tr>
<td></td>
<td>Shop top housing</td>
</tr>
<tr>
<td></td>
<td>Ground Floor -0m setback</td>
</tr>
<tr>
<td></td>
<td>First Storey – 0m setback</td>
</tr>
<tr>
<td></td>
<td>Subsequent Storeys – 6.0 metres</td>
</tr>
<tr>
<td><strong>Corner Lot Secondary Setback</strong></td>
<td>Residential Flat Buildings</td>
</tr>
<tr>
<td>(minimum)</td>
<td></td>
</tr>
</tbody>
</table>
Googong DCP – Part 7 – Small Lots, Studio Dwellings, Multi Dwellings, Dual Occupancies and Residential Flat Buildings

<table>
<thead>
<tr>
<th>Residential Flat Buildings and Shop Top Housing</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Where façade length is less than 9m in length setback is 3.0m</td>
<td></td>
</tr>
<tr>
<td>Where façade length is greater than 9m in length setback is 4.0 metres</td>
<td></td>
</tr>
<tr>
<td><strong>Shop top housing</strong></td>
<td></td>
</tr>
<tr>
<td>Ground Floor - Zero setback</td>
<td>First Storey – 0 metres setback</td>
</tr>
<tr>
<td><strong>Articulation zone</strong></td>
<td>1.5 metres articulation zone – 40% of width of building</td>
</tr>
<tr>
<td><strong>Garage setback to front boundary (minimum)</strong></td>
<td>6.0 metres</td>
</tr>
<tr>
<td><strong>Garage setback to secondary boundary (minimum)</strong></td>
<td>5.5 metres</td>
</tr>
<tr>
<td><strong>Side setback minimum</strong></td>
<td>Residential Flat Buildings</td>
</tr>
<tr>
<td>3.0 metres – up to two storeys plus an additional 0.5 metres – for each floor over two storeys</td>
<td></td>
</tr>
<tr>
<td><strong>Shop Top Housing</strong></td>
<td></td>
</tr>
<tr>
<td>Ground Floor - 0 metres setback</td>
<td>First Storey – 0 metres setback</td>
</tr>
<tr>
<td><strong>Rear setback minimum (excluding garaging)</strong></td>
<td>Residential Flat Buildings</td>
</tr>
<tr>
<td>4.0 metres</td>
<td><strong>Shop Top Housing</strong></td>
</tr>
<tr>
<td>Ground Floor - 0 metres setback</td>
<td>First Storey – 0 metres setback</td>
</tr>
<tr>
<td><strong>Garage setback to rear public or private lane</strong></td>
<td>0 metres</td>
</tr>
<tr>
<td><strong>Principal private open space On Ground Minimum area</strong></td>
<td>24m²</td>
</tr>
<tr>
<td><strong>Principal private open space Balcony Minimum area</strong></td>
<td>12m²</td>
</tr>
<tr>
<td><strong>Solar access to principal private open space (PPOS) as measured between 9am and 3pm on 21 June</strong></td>
<td>Minimum 3 hrs to 50% of POS.</td>
</tr>
<tr>
<td><strong>Residential Flat Buildings and Shop Top Housing</strong></td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Communal Landscaped Area</strong>&lt;br&gt;(minimum)</td>
<td>20% (60% of communal open space to be landscaped as permeable surface, grasses, trees, etc).&lt;br&gt;Deep soil zones required alongside and rear boundaries.</td>
</tr>
<tr>
<td><strong>Garage to building frontage</strong>&lt;br&gt;(front façade only)</td>
<td>No more than 50% of street façade.</td>
</tr>
<tr>
<td><strong>Number of car spaces</strong>&lt;br&gt;(minimum)</td>
<td>1 bed – 1 space&lt;br&gt;2 bed – 2 spaces&lt;br&gt;3 bed or more – 2 spaces&lt;br&gt;1 disabled space for each adaptable dwelling</td>
</tr>
<tr>
<td><strong>Visitor parking</strong></td>
<td>3-5 dwellings – 1 space&lt;br&gt;6-10 dwellings – 2 spaces&lt;br&gt;11-15 dwellings – 3 spaces&lt;br&gt;For every 5 units thereafter – 1 additional space</td>
</tr>
<tr>
<td><strong>Underground parking</strong></td>
<td>Permissible – 3 metres to side boundaries&lt;br&gt;Minimum basement height - 2.2 metres</td>
</tr>
<tr>
<td><strong>Earthworks</strong></td>
<td>1.5 metres maximum cut and fill</td>
</tr>
<tr>
<td><strong>Maximum length of residential flat buildings and shop top housing</strong></td>
<td><strong>Residential Flat Building</strong>&lt;br&gt;Buildings should not exceed a total length of 60 metres.&lt;br&gt;Wall planes should not exceed 30 metres in length without the roof and wall design being broken.&lt;br&gt;<strong>Shop Top Housing</strong>&lt;br&gt;Buildings should not exceed a total length of 60 metres.&lt;br&gt;Wall planes should not exceed 15 metres in length without the roof and wall design being broken.</td>
</tr>
<tr>
<td><strong>Minimum gap between residential flat buildings and shop –top housing</strong></td>
<td>6 metres</td>
</tr>
</tbody>
</table>
Section C: Energy Efficiency

7.16. Thermal Performance
The ability of buildings to optimise thermal performance, thermal comfort and day lighting will contribute to the energy efficiency of buildings, provide increased amenity to occupants and reduce greenhouse emissions and hence, the cost of supplying energy.

Objectives:

1) To reduce the necessity for mechanical heating and cooling.
2) To reduce reliance on fossil fuels.
3) To minimise greenhouse gas emissions.
4) To promote renewable energy initiatives.
5) Buildings shall be designed to take advantage of energy saving technology such as solar panels.

Controls:

a) All dwellings within the Googong township are to comply with the relevant energy efficiency requirements of State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004. A BASIX Certificate is to accompany all development applications for new dwellings or alterations and additions to existing dwellings having an estimated construction cost of $50,000 or more.

7.17. Solar Access
A significant element of the level of amenity of a dwelling is its access to sunlight. Maximising solar access to dwellings, particularly principle living spaces also has significant benefits for energy conservation.

Objectives:

1) Allow adequate daylight into habitable room windows.
2) Minimize the degree of over shadowing of neighbouring properties.
3) Encourage energy efficient principles and practices.

Controls:

a) Buildings shall be sited and designed to maximise sunlight to north facing windows
b) Principal Private Open Space (PPOS) shall not have sunlight reduced to less than three hours between 9am and 3pm on 21 June.
c) Living areas are to generally have a northern orientation and be directly accessible to principal private open space areas.
d) Windows are to be protected from direct summer sun with appropriate shading devices such as hoods, eaves or louvers.
e) Windows to habitable rooms shall open to the sky or a verandah.
7.18. **Energy and Natural Ventilation**

Designing for natural ventilation is one of the cornerstones of sustainable development, by eliminating the need for the mechanical cooling of buildings. Natural air flow can be harnessed by the careful orientation of buildings and windows.

**Objectives:**

1) Improve the energy efficiency and comfort of housing by designing to make the best use of natural ventilation.
2) Reduce energy consumption within the Googong township.
3) Promote greater energy efficiency and ecologically sustainable development.

**Controls:**

a) Buildings shall be designed and orientated to take optimal advantage of passive solar access and prevailing breezes.
b) To reduce energy consumed by clothes drying machines, all dwellings are to be provided with secure, open air clothes drying facilities.
c) Where feasible make use of solar energy and solar hot water.
d) Ventilation of residential buildings can be achieved by permanent openings, windows, doors or other devices.

---

![House with large windows facing north maximise solar access and verandah down the western façade to shade from summer afternoon sun.](image)

Openable roof top windows improve natural ventilation

Dual purpose sun shading and ventilation external louvers
7.19. Waste Management

Objectives:

1) To plan for the types, amount and disposal of waste to be generated during demolition, excavation and construction.

2) To encourage waste minimisation, including source separation, reuse and recycling.

3) To ensure efficient storage and collection of waste and quality design of facilities.

Controls:

a) Each dwelling shall be provided with sufficient room on site to store 3 x 240L mobile garbage bins (MGBs). The minimum space required is 2,300mm long by 750mm wide. Storage areas shall have an easily cleaned all weather surface.

b) Storage areas shall be located so that:
   i. MGBs are not visible from public view and located behind the building setback.
   ii. MGBs can be transferred from their storage location to the street frontage for collection without needing to be wheeled over steps or through the dwelling unit.

c) On any collection day residents will be required to wheel two full MGB’s to the kerbside. As a general rule MGBs shall not be wheeled more than 75 m. For aged persons or persons with a disability this shall not exceed 50m. Grades shall be less than 1:14.

d) For multi unit developments with nine or more units or a frontage less than 20m and for residential flats each development shall be provided with an external communal storage bay for MGBs. Communal MGB’s shall be stored in this area for the use of all occupiers. MGBs shall not be removed from the storage area by occupiers. Council's waste contractors will remove bins from the storage area, empty bins and place the emptied bins back in the storage area.

e) Storage bays shall be located within 6m of the boundary on the road from which they will be serviced.

f) Storage bays shall be constructed as follows:
   i. Wall height shall be a minimum of 1,200mm.
   ii. Floors shall be a minimum 100mm reinforced concrete graded to drain to the outside.
   iii. The opening to the storage area shall be a minimum of 2,000mm wide and where practical located so that it does not open directly onto the street.
   iv. The opening shall be provided with a gate or roller style door. In larger developments a personal access door may also be required to allow occupiers ease of access to the storage area.
   v. For a single row of bins the minimum internal width of the storage area shall be 2,750mm. For a double row of bins (along each side of the enclosure) the minimum width is 3,500mm.
   vi. An area 600mm wide x 750mm deep shall be provided for each MGB.
   vii. Provision shall be made for the following number of MGBs -1 x 240L MGB (red lid garbage) for every two units - 1 x 240L MGB (yellow lid bin) for every two units.

g) Roofed storage areas are generally discouraged except where overlooking is likely to occur from balconies above. Roofed storage areas shall be provided with ventilation panels in external walls.

h) A graded wash down point connected to the sewer is permitted in the floor of roofed storage areas.
i) It is recommended that a layby be constructed as close as possible to the waste storage area to allow residents leaving the premises to park briefly to utilise the storage area.

Note: For multi unit developments between 7 and 8 units please discuss the particular circumstances of the site with Council staff who will determine whether the single dwelling provisions or a communal storage area will need to be provided. In developments with particularly wide frontages the single dwelling provisions may be applied to developments with 9 or more units after discussion with Council staff.

7.20. Water Conservation

Objectives:

1) To optimise the conservation of potable water.
2) To minimise impacts of development on the stormwater system of receiving waters.

Controls:

a) Development applications for new developments are required to include a Water Management Statement. This is a statement that summarizes proposed water management measures and expected performance levels compared to BASIX performance standards and should include details of how water usage is minimised and how the quality and quantity of water discharge from the site is managed, details of the potential for water recycling and rainwater harvesting and reuse options.

b) Details of proposed installation of appliances and plumbing hardware are to be provided in accordance with relevant standards.

c) Rainwater tanks are required to be installed where BASIX certificates require such items connected to all new residential dwellings.

7.21. Stormwater Management

Objectives:

1) To control stormwater runoff and minimise discharge impacts on adjoining properties and into natural drainage systems before, during and after construction.
2) To prevent flood damage to the built and natural environment, inundation of dwellings and stormwater damage to properties.
3) To ensure that proposed development does not adversely affect the operational capacity of the downstream stormwater system.
4) To encourage reuse, recycling and harvesting of stormwater to reduce wastage.

Controls:

a) Where any development will result in an increase in stormwater runoff, Council will require the developer to make satisfactory arrangements for the efficient disposal of stormwater from the site. These arrangements may include (but not be limited to) onsite detention of stormwater and/or appropriate augmentation of Council’s stormwater disposal system.

b) The stormwater discharge for development sites shall not exceed the 5 year ARI storm event. Typically an onsite stormwater detention system will be required to reduce the velocity of stormwater discharge.

c) Stormwater should be gravity drained to Council’s drainage system, which may require inter - allotment drainage.

da) An easement may be required over downstream properties. In this circumstance a
letter of agreement from the owner(s) of the downstream properties is to be submitted with the development application.

e) Such agreement must state that they have no objection to the discharge of stormwater through their properties to reach Council's drainage system nor do they have objection to the creation of necessary easements over the pipelines.

f) If an easement is necessary over downstream properties this must be created prior to the development consent becoming active, that is, deferred commencement consent would be issued in such cases where an easement is outstanding.

g) The collection and pumping of stormwater upslope shall be limited to on-site stormwater harvesting and the pump out of underground car parks to provide discharge to the street gutter or stormwater system.