Notes - Construction General (BASIX)

Glazing

- Aluminium framed single clear glazing to internal windows that open to wintergardens
  U-Value: 6.6 (equal to or lower than)
  SHGC: 0.69 (+ or – 10%)

- Aluminium framed double clear glazing to curtain walls & glazing to balcony edge.
  U-Value: 4.4 (equal to or lower than)
  SHGC: 0.5 (+ or – 10%)

Given values are NFRC, total window values

Roof / ceiling insulation

- Concrete roof - No insulation
- Default Colour modelled

- Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.
- Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.
  Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation

- External Wall:
  - Lightweight cladding to all external walls with R1.5 bulk insulation
  - No colour nominated

- Internal walls within units:
  - Plasterboard on studs - no insulation

- Inter-tenancy walls / corridor:
  - 75mm hebel power panel plasterboard lined with R2.0 acoustic insulation to selected units only (7.01 and 8.01)
  - 75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

- Floors:
  - Concrete – R2.1 insulation to all units in level 7 with car park below
  - Concrete – no insulation required between units

Floor coverings

- 1 & 2 bed apartments - tiles to wets areas, carpet to bedrooms and living areas as per plans
- All 3 & 4 bed apartments tiled throughout

Central hot water system

- Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Alternative energy

- Not required by BASIX
Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Glazing
- Aluminium framed double clear glazing to curtain walls & balconies above & slot areas above to all other units.
- U-Value: 6.6 (equal to or lower than) SHGC: 0.69 (+ or – 10%)
- Given no loss to U-Value, total window values will be lower.

Roof:
- Ceiling: Default Colour modelled
- Concrete – R2.1 insulation to all units in level 7 with car park below
- Concrete – no insulation required between units

Level 37
- Given values are NFRC, total window values

Level 36
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 35
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 34
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 33
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 32
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 31
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 30
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 29
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 28
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 27
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 26
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 25
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 24
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 23
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 22
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 21
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 20
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 19
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 18
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 17
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 16
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 15
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 14
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 13
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 12
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 11
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 10
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 9
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 8
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 7
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 6
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 5
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 4
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 3
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 2
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Level 1
- Ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation

Floor coverings
- 1 & 2 bed apartments - tiles to wets areas, carpet to bedrooms and living areas as per plans
- All 3 & 4 bed apartments tiled throughout

Central hot water system
- Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Alternative energy
- Given values are NFRC, total window values
- Given no loss to U-Value, total window values

Notes - Construction General (BASIX)
Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and/or the fabrication of any components. Immediately be referred to the architect for clarification.

Tower Edge
122m SEPP Envelope
Level 39

Glazing
- Aluminium framed
- Aluminium framed

Level 37

glazing to balcony edge.

U-Value: 4.4 (equal to or lower than) SHGC: 0.5 (+ or – 10%)

Level 36

Given values are NFRC, total window values

2. Aluminium fins

Level 35

Default Colour modelled

Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

RL 118.00

Level 33

down lights are proposed at a later stage, BCA loss of insulation

Level 31

External Wall:

RL 108.70

Level 30

Plasterboard on studs - no insulation

75mm hebel power panel plasterboard lined with R2.0 acoustic insulation

4. Colourback glass

Level 26

and living areas as per plans

Central gas-fired boiler with R1.0 (~38mm) insulation to toilets within the building (No rainwater tank required for BASIX compliance)

Level 21

6. Paint finish

Level 20

12

Level 16

Client: Ecove

RL 55.10

Level 13

with solid backing in zone above substation kiosks

9. In situ concrete

RL 39.42

Level 8

Plot File

RL 27.80

Level 6

Drawing no.

RL 23.30

Level 4

Revision

RL 21.80

Level 2

Bates Smart

Level G South Residential

RL 13.00

Level G South

RL 12.05

Level 0

Development Application

Scale

Plot Date

Drawing no.

Revision Date Description Initial Checked

1. Glazed enclosure

8. Terracotta

12. Glazed balustrade

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Tower Edge Plant
122m SEPP Envelope
the architect.

Glazing
- Aluminium framed
single clear
Level 36
RL 124.50
that open to wintergardens
U-Value: 6.6 (equal to or lower than) SHGC: 0.69 (+ or – 10%)
double clear
glazing to curtain walls &
Level 34
RL 118.00
Level 33

Roof:

Ceiling:
Plasterboard ceiling - R2.0 bulk insulation to all units to top floor,
balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all calculations will be required.

Central hot water system

Central gas-fired boiler with R1.0 (~38mm) insulation to
Reticulated alternative water
ringmain and supply risers.
Alternative water supply available from Sydney Olympic Park
Alternative energy
Not required by BASIX

Client: Ecove
3 Olympic Boulevard
Light well
Terrace
Terrace
Parapet North
RL 36.50

RL 34.60
Level 08 North

RL 30.80
Level 06 North

RL 27.80
Level 04 South

RL 23.30
Level 04 North

RL 18.80
Level 02

RL 17.30
Level 01

RL 12.05
Level 00

Figures shown for information only and not for construction purposes.

Architectural & Engineering Services.

Notes - Construction General (BASEX)

Glazed walls:
- Aluminium framed
single clear
Level 36
RL 124.50
that open to wintergardens
U-Value: 6.6 (equal to or lower than) SHGC: 0.69 (+ or – 10%)
double clear
glazing to curtain walls &
Level 34
RL 118.00
Level 33

Roof:

Ceiling:
Plasterboard ceiling - R2.0 bulk insulation to all units to top floor,
balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all calculations will be required.

Central hot water system

Central gas-fired boiler with R1.0 (~38mm) insulation to
Reticulated alternative water
ringmain and supply risers.
Alternative water supply available from Sydney Olympic Park
Alternative energy
Not required by BASIX

Client: Ecove
3 Olympic Boulevard
Light well
Terrace
Terrace
Parapet North
RL 36.50

RL 34.60
Level 08 North

RL 30.80
Level 06 North

RL 27.80
Level 04 South

RL 23.30
Level 04 North

RL 18.80
Level 02

RL 17.30
Level 01

RL 12.05
Level 00

Figures shown for information only and not for construction purposes.

Architectural & Engineering Services.

Notes - Construction General (BASEX)

Glazed walls:
- Aluminium framed
single clear
Level 36
RL 124.50
that open to wintergardens
U-Value: 6.6 (equal to or lower than) SHGC: 0.69 (+ or – 10%)
double clear
glazing to curtain walls &
Level 34
RL 118.00
Level 33

Roof:

Ceiling:
Plasterboard ceiling - R2.0 bulk insulation to all units to top floor,
balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all calculations will be required.

Central hot water system

Central gas-fired boiler with R1.0 (~38mm) insulation to
Reticulated alternative water
ringmain and supply risers.
Alternative water supply available from Sydney Olympic Park
Alternative energy
Not required by BASIX

Client: Ecove
3 Olympic Boulevard
Light well
Terrace
Terrace
Parapet North
RL 36.50

RL 34.60
Level 08 North

RL 30.80
Level 06 North

RL 27.80
Level 04 South

RL 23.30
Level 04 North

RL 18.80
Level 02

RL 17.30
Level 01

RL 12.05
Level 00

Figures shown for information only and not for construction purposes.

Architectural & Engineering Services.
Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components. Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification. All drawings may not be reproduced or distributed without prior permission from the architect.
Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

### Notes - Construction General (BASIX)

**Glazing**

- Doors / windows:
  - Aluminium framed single clear glazing to internal windows that open to winter gardens
    - U-Value: 6.6 (equal to or lower than) SHGC: 0.69 (+ or – 10%)
  - Aluminium framed double clear glazing to curtain walls & glazing to balcony edge.
    - U-Value: 4.4 (equal to or lower than) SHGC: 0.5 (+ or – 10%)

**Roof / ceiling insulation**

- Concrete roof - No insulation
- Plasterboard ceiling - R3.0 bulk insulation to selected units
- Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

**Wall / floor insulation**

- Lightweight cladding to all external walls with R1.5 bulk insulation
- Internal walls within units:
  - Plasterboard on studs - no insulation
  - Inter-tenancy walls / corridor: to selected units only (7.01 and 8.01) 75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.
- Floors:
  - Concrete – R2.1 insulation to all units in level 7 with car park below
  - Concrete – no insulation required between units

**Floor coverings**

- 1 & 2 bed apartments - tiles to wets areas, carpet to bedrooms and living areas as per plans
- All 3 & 4 bed apartments tiled throughout

**Central hot water system**

- Central gas-fired boiler with R1.0 (~38mm) insulation to reticulated alternative water ringmain and supply risers.
- Authority to be used for the irrigation of all landscaping & all toilets within the building (No rainwater tank required for BASIX compliance)

**Alternative energy**

- Reticulated alternative water to be used for the irrigation of all landscaping & all toilets within the building (No rainwater tank required for BASIX compliance)
APPENDIX B
SEPP65 & ADG COMPLIANCE CHECKLIST
### STATE SIGNIFICANT DEVELOPMENT APPLICATION DESIGN REPORT

#### SITE 9 SYDNEY OLYMPIC PARK

### PART 3 SITING THE DEVELOPMENT

#### 3A SITE ANALYSIS

**Objective:** Site Analysis illustrates that design decisions have been based on opportunities & constraints of the site conditions & their relationship to the surrounding context.

<table>
<thead>
<tr>
<th>ADG Ref.</th>
<th>Item Description</th>
<th>Notes</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>3A-1 p47</td>
<td>Design Guidance</td>
<td>Considered</td>
<td>✓</td>
</tr>
</tbody>
</table>

**Each element in the Site Analysis Checklist is addressed.**

#### 3B ORIENTATION

**Objective:** Building types & layouts respond to the streetscape & site while optimising solar access within the development

<table>
<thead>
<tr>
<th>ADG Ref.</th>
<th>Item Description</th>
<th>Notes</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>3B-1 p69</td>
<td>Design Guidance</td>
<td>Considered</td>
<td>✓</td>
</tr>
</tbody>
</table>

**Buildings along the street frontage define the street by facing it & incorporating direct access from the street.**

Where the street frontage is to the east or west, rear buildings are orientated to the north

The proposal is located on a corner allotment with street frontages to the northwest and southwest. The design has been considered with providing optimal solar access to the residential apartments by providing a cone of orientation from the northeast to the northwest to the tower

<table>
<thead>
<tr>
<th>ADG Ref.</th>
<th>Item Description</th>
<th>Notes</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>3B-2 p93</td>
<td>Design Guidance</td>
<td>Considered</td>
<td>✓</td>
</tr>
</tbody>
</table>

**Overhanging of neighbouring properties is minimised during mid winter.**

Where the street frontage is to the north or south, over-shadowing to the south is minimised & buildings behind the street frontage are orientated to the east & west

**Visitor bicycle parking and a generous residential bicycle parking is located at ground level. A generous residential lobby entry is flanked by the through-site link providing opportunities for casual interaction.**

**Upper level balconies & windows overlook the public domain**

Where the street frontage is to the north or south, over-shadowing to the south is minimised & buildings behind the street frontage are orientated to the east & west

<table>
<thead>
<tr>
<th>ADG Ref.</th>
<th>Item Description</th>
<th>Notes</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>3C-1 p91</td>
<td>Design Guidance</td>
<td>Considered</td>
<td>✓</td>
</tr>
</tbody>
</table>

**Transition between private & public domain is achieved without compromising safety & security.**

**Length of solid walls is limited along street frontages**

Street frontages consist predominantly of retail glazed frontages. Solid walls are limited to a secondary lane to the rear and are only provided where required to enclose services spaces.

**Architectural detailing is provided to enhance residential amenity & to provide opportunities for landscaping.**

**Opportunities for casual interaction between residents & the public domain are provided for. Design solutions may include seating at building entries, rear letter boxes & in private courtyards adjacent to streets**

**In developments with multiple buildings and/or entries, pedestrian entries & spaces associated with individual buildings/entries are differentiated to improve legibility for residents, using the following design solutions:**

- Architectural detailing
- Changes in materials
- Plant Species
- Colours
- Opportunities for people to be concealed are minimised

<table>
<thead>
<tr>
<th>ADG Ref.</th>
<th>Item Description</th>
<th>Notes</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>3C-2 p93</td>
<td>Design Guidance</td>
<td>Considered</td>
<td>✓</td>
</tr>
</tbody>
</table>

**Amenity of the public domain is retained & enhanced.**

**COMMUNAL & PUBLIC OPEN SPACE**

**Objective:** An adequate area of communal open space is provided to enhance residential amenity & to provide opportunities for landscaping.

<table>
<thead>
<tr>
<th>ADG Ref.</th>
<th>Item Description</th>
<th>Notes</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>3D-1 p55</td>
<td>Design Criteria</td>
<td>Considered</td>
<td>✓</td>
</tr>
</tbody>
</table>

- **Communal open space has a minimum area equal to 25% of the site.**

- **Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid winter).**
3D-2
Objective: Communal open space is designed to allow for range of activities, respond to site conditions & be attractive & inviting

Design Guidance

Facilities are provided within communal open spaces & common spaces for a range of age groups (see 4F Common Circulation & Spaces), incorporating the following:
- Seating for individuals or groups
- Barbeque areas
- Play equipment or play areas
- Swimming pools, gyms, tennis courts or common rooms

A generous communal open space is provided to the residents with a variety of landscaped areas, seating arrangements and lounge areas to accommodate both individuals and groups of all ages. A community room is also provided adjacent to the communal open space for residential use.

Location of facilities responds to microclimate & site conditions with access to sun in winter, shade in summer & shelter from strong winds & down drafts

The rooftop landscaping proposes mature planting and a variety of enclosed lounge spaces to provide a microclimate to the strong wind conditions and wet weather. The communal open space provides ample access to winter sun with its northern aspect.

Visual impacts of services are minimised, including location of ventilation duct outlets from basement car parks, electrical substations & detention tanks

Services have been designed with minimal visual impact, with majority of outlets integrated within the open carpark facade and/or located on the secondary elevation to the rear.

3D-3
Objective: Communal open space is designed to maximise safety.

Design Guidance

Communal open space & public domain should be readily visible from habitable rooms & private open space areas while maintaining visual privacy. Design solutions include:
- Bay windows
- Corner windows
- Balconies

Communal open space is well lit

Communal open space facilities that are provided for children & young people are safe and contained

3D-4
Objective: Public open space, where provided, responds to the existing pattern & uses of the neighbourhood.

Design Guidance

The proposed development is built to the boundary along the Olympic Boulevard frontage and along side streets off Olympic Boulevard as per the SOP Masterplan guidelines, with an activated colonnade alongside retail facilities at ground level. Whilst public open space is limited the colonnade responds to the existing ceremonial axis of Olympic Boulevard. The through-site link provides pedestrian desire paths and view lines to the adjoining P3 carpark to the east / sports facilities to the west.

3E
DEEP SOIL ZONES

3E-1
Objective: Deep soil zones are suitable for healthy plant & tree growth, improve residential amenity and promote management of water and air quality.

Design Criteria

<table>
<thead>
<tr>
<th>Site Area (sqm)</th>
<th>Minimum Dim. (m)</th>
<th>Deep Soil Zone (% of site area)</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 650</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>650-1500</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>greater than 1500</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>greater than 1500 with significant existing tree cover</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

The proposal has been built to the boundaries in response to the SOPA Masterplan guidelines. Limited deep soil zones are provided at ground however alternative forms of planting has been provided in the rooftop gardens to the north and south podiums, thereby contributing to the objectives of Section 3E.

The landscaped areas on the north and south podium roofs total approximately 790m² and 515m² respectively, accounting for approx. 38% of the site area.

Deep soil zones are located to retain existing significant trees & to allow for the development of healthy root systems, providing anchorage & stability for mature trees. Design solutions may include:
- Basement & sub-basement car park design that is consolidated beneath building footprints
- Use of increased front & side setbacks
- Adequate clearance around trees to ensure long term health
- Co-location with other deep soil areas on adjacent sites to create larger contiguous areas of deep soil

The proposed deep soil zones will allow the development of healthy root systems to mature trees where proposed.
Achieving the design criteria may not be possible on some sites including where:
- location & building typology have limited or no space for deep soil at ground level (e.g. central business district, constrained sites, high density areas, or in centres)
- there is 100% site coverage or non-residential uses at ground floor level
Where a proposal does not achieve deep soil requirements, acceptable stormwater management is achieved & alternative forms of planting provided

### 3F VISUAL PRIVACY

**Objective:** Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external & internal visual privacy.

**Design Criteria**
- Separation between windows & balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side & rear boundaries are as follows:
<table>
<thead>
<tr>
<th>Building Height (m)</th>
<th>Habitable Rooms &amp; Balconies, (m)</th>
<th>Non-Habitable Rooms (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 12 (4 storeys)</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>up to 25 (5-8 storeys)</td>
<td>9</td>
<td>4.5</td>
</tr>
<tr>
<td>over 25 (9+ storeys)</td>
<td>12</td>
<td>6</td>
</tr>
</tbody>
</table>

Note: Separation distances between buildings on the same site should combine required building separations depending on the type of room.

### 3F PEDESTRIAN ACCESS & ENTRIES

**Objective:** Building entries & pedestrian access connects to and addresses the public domain.

**Design Guidance**
- Building access areas including lift lobbies, stairwells & hallways are clearly visible from the public domain & communal spaces
- The design of ground floors & underground car parks minimise level changes along pathways & entries
- Steps & ramps are integrated into the overall building & landscape design
- For large developments electronic access & audio/video intercom are provided to manage access

**Notes:** As noted planting on structures at podium roof level is not proposed in order to achieve the objectives of this section.

**Compliance:** YES
**Site Significance Development Application Design Report**

**Site 9 Sydney Olympic Park**

<table>
<thead>
<tr>
<th>ADG Ref.</th>
<th>Item Description</th>
<th>Notes</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>3G-3</td>
<td>Objective: Large sites provide pedestrian links for access to streets &amp; connection to destinations.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>p67</td>
<td>Design Guidance Considered</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pedestrian links through sites facilitate direct connections to open space, main streets, car parks &amp; public transport</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The colonnade responds to the ceremonial axis of Olympic Boulevard and the through site link provides a pedestrian desire line connecting the existing sports facilities to the west and P3 carpark to the east.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pedestrian links are direct, have clear sight lines, are overlooked by habitable rooms or private open spaces of dwellings, are well lit &amp; contain active uses, where appropriate</td>
<td>Pedestrian links are flanked by retail and residential lobby entries, and contain active uses such as short-term bicycle parking and public WC amenities.</td>
<td>Yes</td>
</tr>
<tr>
<td>3H</td>
<td>Objective: Vehicle access is designed &amp; located to achieve safety, minimise conflicts between pedestrians &amp; vehicles and create high quality streetscapes.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>3H-1</td>
<td>Design Guidance Considered</td>
<td></td>
<td></td>
</tr>
<tr>
<td>p79</td>
<td>Car park access is integrated with the building's overall façade. Design solutions include:</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- materials &amp; colour palette minimise visibility from street</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- security doors/gates minimise visibility in the facade</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- where doors are not provided, visible interiors reflect façade design, and building services, pipes &amp; ducts are concealed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Car park entries are located behind the building line</td>
<td>The carpark entry is located on the boundary and is accessed through a secondary street to the rear of the development.</td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>Vehicle entries are located at the lowest point of the site, minimising ramp lengths, excavation &amp; impacts on the building form and layout</td>
<td>The carpark is located above ground. The vehicle entry is located towards the highest point of the site to minimise ramp lengths.</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Car park entry &amp; access are located on secondary streets or lanes where available</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vehicle standing areas that increase driveway width &amp; encourage approach setbacks are avoided</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adequate separation distances are provided between vehicle entries &amp; street intersections</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The width &amp; number of vehicle access points are limited to the minimum</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The need for large vehicles to enter or turn around within the site is avoided</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garbage collection, loading &amp; servicing areas are screened</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clear sight lines are provided at pedestrian &amp; vehicle crossings</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pedestrian &amp; vehicle access are separated &amp; distinguishable. Design solutions include:</td>
<td>Level and surface changes to footpaths distinguish between pedestrian and vehicle access.</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Changes in surface materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Level changes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Landscaping for separation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3J</td>
<td>Objective: Car parking is provided based on proximity to public transport in metropolitan Sydney &amp; centres in regional areas.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>3J-1</td>
<td>Design Criteria</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>p71</td>
<td>1. For development in the following locations:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- on sites that are within 800m of a railway station or light rail stop in the Sydney Metropolitan Area; or</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- on land zoned, and sites within 400m of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- On the map below, the minimum car parking requirement for residents &amp; visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Car parking needs for a development must be provided off street.</td>
<td>The Masterplan does not specify minimum car parking rates, only maximum, with which the proposal complies.</td>
<td>NA</td>
</tr>
<tr>
<td>3J-2</td>
<td>Objective: Parking &amp; facilities are provided for other modes of transport.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>p71</td>
<td>Design Guidance Considered</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conveniently located &amp; sufficient numbers of parking spaces are provided for motorbikes &amp; scooters</td>
<td>No motorbike provisions are required by the Masterplan.</td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>Secure undercover bicycle parking is provided &amp; easily accessible from both public domain &amp; common areas</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Conveniently located charging stations are provided for electric vehicles, where desirable</td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td>3J-3</td>
<td>Objective: Car park design &amp; access is safe and secure.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>p73</td>
<td>Design Guidance Considered</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Supporting facilities within car parks, including garbage, plant &amp; switch rooms, storage areas &amp; car wash bays can be accessed without crossing car parking spaces</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Direct, clearly visible &amp; well lit access is provided into common circulation areas</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clearly defined &amp; visible lobby or waiting area is provided to lifts &amp; stairs</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For larger car parks, safe pedestrian access is clearly defined &amp; circulation areas have good lighting, colour, line marking and/or bollards</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>3J-4</td>
<td>Objective: Visual &amp; environmental impacts of underground car parking are minimised.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>p73</td>
<td>Design Guidance Considered</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Design Guidance Considered**

- For development in the following locations:
  - on sites that are within 800m of a railway station or light rail stop in the Sydney Metropolitan Area; or
  - on land zoned, and sites within 400m of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre

**Design Criteria**

1. For development in the following locations:
   - on sites that are within 800m of a railway station or light rail stop in the Sydney Metropolitan Area; or
   - on land zoned, and sites within 400m of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre

**Design Guidance Considered**

- For development in the following locations:
  - on sites that are within 800m of a railway station or light rail stop in the Sydney Metropolitan Area; or
  - on land zoned, and sites within 400m of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre

**Design Criteria**

1. For development in the following locations:
   - on sites that are within 800m of a railway station or light rail stop in the Sydney Metropolitan Area; or
   - on land zoned, and sites within 400m of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre

**Design Guidance Considered**

- For development in the following locations:
  - on sites that are within 800m of a railway station or light rail stop in the Sydney Metropolitan Area; or
  - on land zoned, and sites within 400m of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre

**Design Criteria**

1. For development in the following locations:
   - on sites that are within 800m of a railway station or light rail stop in the Sydney Metropolitan Area; or
   - on land zoned, and sites within 400m of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre
**PART 4 DESIGNING THE BUILDING**

### 4A SOLAR & DAYLIGHT ACCESS

**4A-1 p79**

**Objective:** To optimise number of apartments receiving sunlight to habitable rooms, primary windows & private open space.

**Design Criteria**

1. Living rooms & private open spaces of at least 70% of apartments in a building receive a minimum of 2 hrs direct sunlight between 9am - 3pm at mid winter in Sydney Metropolitan Area and in Newcastle and Wollongong local government areas.

2. In all other areas, living rooms & private open spaces of at least 70% of apartments in a building receive a minimum of 3 hrs direct sunlight between 9 am - 3 pm at mid winter.

3. A maximum of 15% of apartments in a building receive no direct sunlight between 9 am - 3 pm at mid winter.

**Design Guidance**

- To maximise number of apartments receiving sunlight, the design maximises north aspect. The number of single aspect south facing apartments is minimised.
- The design maximises north aspect. The number of single aspect north facing apartments is minimised.
- Single aspect, single storey apartments have a northly or easterly aspect.
- To maximise direct sunlight to habitable rooms & balconies a number of the following design features are used:
  - Dual aspect apartments
  - Shallow apartment layouts
  - Two storey & mezzanine level apartments
  - Bay windows

**Notes**

- The design of the apartments has been oriented to maximise solar access to habitable rooms and balconies. Living areas and wintergardens are proposed on the tower corners to benefit from dual aspect.
- The design incorporates shading & glare control, particularly for warmer months.

**Compliance**

- YES
- YES
- N/A
- YES

---

**4B NATURAL VENTILATION**

**4B-1 p81**

**Objective:** All habitable rooms are naturally ventilated.

**Design Guidance**

- The building’s orientation maximises capture & use of prevailing breezes for natural ventilation in habitable rooms.
- Depths of habitable rooms support natural ventilation.
- The area of unobstructed window openings should be equal to at least 5% of the floor area served.

**Compliance**

- YES
Variety

Apartments generally provide open plan living with...

<table>
<thead>
<tr>
<th>ADG Ref.</th>
<th>Item Description</th>
<th>Notes</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>4B-2</td>
<td>Objective: The layout &amp; design of single aspect apartments maximises natural ventilation.</td>
<td>Apartments generally provide open plan living with approximately 8m to the kitchen.</td>
<td>YES</td>
</tr>
<tr>
<td>4B-3</td>
<td>Objective: Number of apartments with natural cross vent is maximised to create comfortable indoor environments for residents.</td>
<td>The first floor of apartments begins on level 7 and as such we have assumed a tower typology for the cross ventilation approach to the apartments. The corner apartments have been typically designed as enclosed wintergardens to mitigate the regularity of strong wind conditions occurring at these tower corners. The remaining apartments have been designed with open balconies to allow adequate natural ventilation.</td>
<td>NO</td>
</tr>
<tr>
<td>4C-1</td>
<td>Objective: Ceiling height achieves sufficient natural ventilation &amp; daylight access.</td>
<td>The floorplate has been designed to provide single apartments at the lower corners to maximise the dual aspect cross ventilation opportunities in these areas.</td>
<td>YES</td>
</tr>
<tr>
<td>4C-2</td>
<td>Objective: Ceiling height increases the sense of space in apartments &amp; provides for well proportioned rooms.</td>
<td>All windows and doors are sized to accommodate the future flexibility of use.</td>
<td>YES</td>
</tr>
<tr>
<td>4C-3</td>
<td>Objective: Ceiling heights contribute to the flexibility of building use over the life of the building.</td>
<td>These minimums do not preclude higher ceilings if desired.</td>
<td>NA</td>
</tr>
</tbody>
</table>

### 4B-2 Objective: The layout & design of single aspect apartments maximises natural ventilation.

**Design Guidance**

- Ceiling heights are maximised in habitable rooms by ensuring that:
  - Well proportioned rooms are provided, for example, smaller rooms feel larger & more spacious with higher ceilings.
  - Ceiling heights are maximised in habitable rooms by ensuring that:
  - Built-in cupboards do not intrude into circulation spaces.
  - Ceiling heights are maximised in habitable rooms by ensuring that:
  - Residential uses of the development are contained within ground floors and on the commercial floors.

**Notes**

- Natural ventilation to single aspect apartments is achieved with the.
- Non-residential uses of the development are contained within ground floors and on the commercial floors.

### 4B-3 Objective: Number of apartments with natural cross vent is maximised to create comfortable indoor environments for residents.

**Design Criteria**

1. At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed.
2. Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line.

**Notes**

- The building includes dual aspect apartments, cross through apartments & corner apartments, and limited apartment depths.
- Apartments are designed to minimise the number of corners, doors & rooms that might obstruct airflow.

### 4C CEILING HEIGHTS

#### 4C-1 Objective: Ceiling height achieves sufficient natural ventilation & daylight access.

**Design Criteria**

1. Measured from finished floor level to finished ceiling level, minimum ceiling heights are:

   | Minimum Ceiling Height for apt and mixed-used buildings (m) | Habitat rooms | 2.7 |
   | Non-habitable rooms | 2.4 |
   | For 2 storey apts | 2.7 for main living area floor |
   | | 2.4 for second floor, where its area does not exceed 50% of the apt area |
   | Attic spaces | 1.8 at edge of room with 30deg minimum ceiling slope |
   | If located in mixed-used areas | 3.3 for ground and first floor to promote future flexibility of use |

**Notes**

- Ceiling height accommodates use of ceiling fans for cooling & heat distribution.
- No ceiling fans are proposed in the development.

#### 4C-2 Objective: Ceiling height increases the sense of space in apartments & provides for well proportioned rooms.

**Design Guidance**

- A number of the following design solutions are used:
  - Larger rooms in apartment are defined using changes in ceiling heights & alternating such as skewed or curved ceilings, or double height spaces.
  - Well proportioned rooms are provided, for example, smaller rooms feel larger & more spacious with higher ceilings.
  - Ceiling heights are maximised in habitable rooms by ensuring that:
  - Built-in cupboards do not intrude into circulation spaces.
  - Ceiling heights are maximised in habitable rooms by ensuring that:
  - Bulky fixations do not intrude into the living areas.

**Notes**

- Non-residential uses of the development are contained within ground floors and on the commercial floors.

#### 4C-3 Objective: Ceiling heights contribute to the flexibility of building use over the life of the building.

**Design Guidance**

- Ceiling heights of lower level apartments should be greater than the minimum required by Design Criteria allowing flexibility & conversion to non-residential uses.

**Notes**

- Non-residential uses of the development are contained within ground floors and on the commercial floors.
### Objective:
The layout of rooms within apartment is functional, well organised & provides a high standard of amenity.

### Design Criteria

<table>
<thead>
<tr>
<th>Apartment Type</th>
<th>Minimum Internal Area (sqm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studio</td>
<td>35</td>
</tr>
<tr>
<td>1 Bedroom</td>
<td>50</td>
</tr>
<tr>
<td>2 Bedroom</td>
<td>70</td>
</tr>
<tr>
<td>3 Bedroom</td>
<td>90</td>
</tr>
</tbody>
</table>

The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5sqm each. A fourth bedroom & further additional bedrooms increase the minimum internal area by 12sqm each.

### Design Criteria

**1 Apartments have the following minimum internal areas:**

<table>
<thead>
<tr>
<th>Apartment Type</th>
<th>Minimum Internal Area (sqm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studio</td>
<td>35</td>
</tr>
<tr>
<td>1 Bedroom</td>
<td>50</td>
</tr>
<tr>
<td>2 Bedroom</td>
<td>70</td>
</tr>
<tr>
<td>3 Bedroom</td>
<td>90</td>
</tr>
</tbody>
</table>

The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5sqm each. A fourth bedroom & further additional bedrooms increase the minimum internal area by 12sqm each.

**2 Every habitable room has a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room.**

Daylight & air is not borrowed from other rooms. In some instances study rooms are provided and rely on borrowed ventilation and daylight from an adjoining room, to satisfy BCA requirements. All bedrooms and living rooms are located adjacent to external walls with access to natural ventilation and daylight.

### Design Guidance

- Kitchens is not located as part of the main circulation space in larger apartments (such as hallway or entry space)
- A window is visible from any point in a habitable room
- Where minimum areas or room dimensions are not met, apartments demonstrate that they are well designed and demonstrate the usability & functionality of the space with realistically scaled furniture layouts & circulation areas.

### Objective:

Environmental performance of the apartment is maximised.

### Design Criteria

1. Habitable room depths are limited to a maximum of 2.5 x the ceiling height

2. In open plan layouts (living, dining & kitchen are combined) maximum habitable room depth is 8m from a window

### Design Guidance

- All living areas & bedrooms are located on the external face of building
- All bathrooms and laundries will be mechanically ventilated in order to maximise available facade frontage to habitable living rooms and bedrooms.

### Objective:

Apartment layouts are designed to accommodate a variety of household activities & needs.

### Design Criteria

1. Master bedrooms have a minimum area of 10sqm & other bedrooms 9sqm (excluding wardrobe space)

2. Bedrooms have a minimum dimension of 3m (excluding wardrobe space)

3. Living rooms or combined living/dining rooms have a minimum width of:
   - 3.6m for studio & 1 bedroom apartments
   - 4m for 2 & 3 bedroom apartments

4. The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts

### Design Guidance

- Access to bedrooms, bathrooms & laundries is separated from living areas minimizing direct openings between living & service areas
- All bedrooms allow a minimum length of 1.5m for robes
- Main bedroom of apartment or studio apartment is provided with a wardrobe of minimum 1.8m L x 0.6m D x 2.1m H

### Objective:

The layout of rooms within apartment is functional, well organised & provides a high standard of amenity.

### Design Criteria

<table>
<thead>
<tr>
<th>ADG Ref.</th>
<th>Item Description</th>
<th>Notes</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>4D-1 p89</td>
<td>Objective: The layout of rooms within apartment is functional, well organised &amp; provides a high standard of amenity.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>4D-1 p89</td>
<td>1 Apartments have the following minimum internal areas:</td>
<td>In some instances study rooms are provided and rely on borrowed ventilation and daylight from an adjoining room, to satisfy BCA requirements. All bedrooms and living rooms are located adjacent to external walls with access to natural ventilation and daylight.</td>
<td>✓</td>
</tr>
<tr>
<td>4D-2 p91</td>
<td>Objective: Environmental performance of the apartment is maximised.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>4D-3 p91</td>
<td>Objective: Apartment layouts are designed to accommodate a variety of household activities &amp; needs.</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

### Design Guidance

- Kitchens is not located as part of the main circulation space in larger apartments (such as hallway or entry space)
- A window is visible from any point in a habitable room
- Where minimum areas or room dimensions are not met, apartments demonstrate that they are well designed and demonstrate the usability & functionality of the space with realistically scaled furniture layouts & circulation areas.

### Design Guidance

- All living areas & bedrooms are located on the external face of building
- All bathrooms and laundries will be mechanically ventilated in order to maximise available facade frontage to habitable living rooms and bedrooms.
4E PRIVATE OPEN SPACE & BALCONIES

4E-1 p95

Objective: Apartments provide appropriately sized private open space & balconies to enhance residential amenity. ✓

Design Criteria

1. All apartments are required to have primary balconies as follows:

<table>
<thead>
<tr>
<th>Apartment Type</th>
<th>Minimum Area (sqm)</th>
<th>Minimum Depth (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studio</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>1 Bedroom</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>2 Bedroom</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>3+ Bedroom</td>
<td>12</td>
<td>2.4</td>
</tr>
</tbody>
</table>

The minimum balcony depth to be counted as contributing to the balcony area is 1m.

2. For apartments at ground level or on podium or similar, a private open space is provided instead of a balcony. It must have minimum area of 15sqm & minimum depth of 3m.

Design Guidance Considered

Balcony use may be limited in some proposals where:
- consistently high wind speeds at 15 storeys & above
- close proximity to road, rail or other noise sources
- exposure to significant levels of aircraft noise
- heritage & adaptive reuse of existing buildings

In these situations,:
- Juliet balconies
- operable walls
- enclosed wintergardens
- bay windows

are appropriate. Other amenity benefits for occupants are provided in the apartments or in the development or both. Natural ventilation is also demonstrated.

4E-2 p96

Objective: Primary private open space & balconies are appropriately located to enhance liveability for residents. ✓

Design Guidance Considered

- Primary open space & balconies are located adjacent to the living room, dining room or kitchen to extend the living space.
- POS & balconies predominantly face north, east or west.

POS & balconies are orientated with the longer side facing outwards or be open to the sky to optimise daylight access into adjacent rooms.

4E-3 p96

Objective: Private open space & balcony design is integrated into & contributes to the overall architectural form & detail of the building. ✓

Design Guidance Considered

- Solid, partly solid or transparent fences & balustrades are selected to respond to the location. They are designed to allow views & passive surveillance of the street while maintaining visual privacy & allowing for a range of uses on the balcony. Solid & partially solid balustrades are preferred.
- Proposed transparent balustrades maximise outlook to the residents. There are no neighbouring high-rise developments which will affect visual privacy.

Full width full height glass balustrades alone are generally not desirable.

A full width full height glass balustrade is proposed with a solid handrail integrated within the overall facade approach. Refer facade design section of the design report.

Operable screens, shutters, hoods & pergolas are used to control sunlight & wind.

Enclosed wintergardens with operable windows are proposed on lower corners to mitigate high wind speeds.

Downpipes & balcony drainage are integrated with the overall facade & building design.

Air-conditioning units are located on roofs, in basements, or fully integrated into the building design. Typically air-conditioning units are located on balconies. These are integrated to be screened from view of the living room or bedroom with a nib wall. The air-conditioning units serving the wintergarden apartments and the upper level 4 bedroom apartments are located either in a plantroom located on each floor or on the top level.

Where clothes-drying, storage or air conditioning units are located on balconies, they are screened & integrated in the building design.

Ceilings of apartments below terraces are insulated to avoid heat loss.

Water & gas outlets are provided for primary balconies & private open space.

4E-4 p96

Objective: Private open space & balcony design maximises safety. ✓

Design Guidance Considered

- Changes in ground levels or landscaping are minimised.

YES
### Site 9 Sydney Olympic Park
#### State Significant Development Application Design Report

<table>
<thead>
<tr>
<th>ADG Ref.</th>
<th>Item Description</th>
<th>Notes</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>4F-1</td>
<td>Balcony design &amp; detailing avoids opportunities for climbing &amp; falling</td>
<td></td>
<td>YES</td>
</tr>
</tbody>
</table>

**4F Common Circulation & Spaces**

**4F-1 Objective:** Common circulation spaces achieve good amenity & properly service the number of apartments

**Design Criteria**

1. The maximum number of apartments off a circulation core on a single level is eight
2. For buildings of 10 storeys & over, the maximum number of apartments sharing a single lift is 40

**Design Guidance Considered**

- Greater than minimum requirements for corridor widths and/or ceiling heights allow comfortable movement & access particularly in entry lobbies, outside lifts & at apartment entry doors
- Daylight & natural ventilation are provided to all common circulation spaces that are above ground
- Windows are provided in common circulation spaces & are adjacent to the stair or lift core or at the ends of corridors
- Longer corridors greater than 12m in length from the lift core are articulated
- Series of foyer areas with windows & spaces for seating
- Wider areas at apartment entry doors & varied ceiling heights
- Primary living room or bedroom windows do not open directly onto common circulation spaces, open or enclosed. Visual & acoustic privacy from common circulation spaces to any other rooms are carefully controlled

**4F-2 Objective:** Common circulation spaces promote safety & provide for social interaction between residents

**Design Guidance Considered**

- Direct & legible access are provided between vertical circulation points & apartment entries by minimising corridor or gallery length to give short, straight, clear sight lines
- The floorplate has been designed to provide a high level of amenity and outlook to the lift lobby which is oriented to a glazed facade, with outlook on every floor. The corridor serving the majority of apartment entries provides straight, clear sight lines to each entry. On a typical floor the remaining two apartments are located directly adjacent to the lift lobby around a secondary lobby for privacy
- Tight corners & spaces are avoided
- Circulation spaces are well lit at night
- Legible signage are provided for apartment numbers, common areas & general wayfinding
- Incidental spaces, eg space for seating in a corridor, at a stair landing, or near a window are provided
- In larger developments, community rooms for activities such as owners corporation meetings or resident use, are provided & are co-located with communal open space

**4G Storage**

**4G-1 Objective:** Adequate, well designed storage is provided in each apartment

**Design Criteria**

1. In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:

<table>
<thead>
<tr>
<th>Apartment Type</th>
<th>Storage Size Volume (cubic m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studio</td>
<td>4</td>
</tr>
<tr>
<td>1 Bedroom</td>
<td>6</td>
</tr>
<tr>
<td>2 Bedroom</td>
<td>8</td>
</tr>
<tr>
<td>3+ Bedroom</td>
<td>10</td>
</tr>
</tbody>
</table>

- At least 50% of required storage is to be located within apartment

**Design Guidance Considered**

- Storage is accessible from either circulation or living areas
- Refer Appendix C for breakdown of storage provisions

**4G-2 Objective:** Additional storage is conveniently located, accessible & nominated for individual apartments

**Design Guidance Considered**

- Storage not located in apartments is secure and clearly allocated to specific apartments
- Storage is provided for larger & less frequently accessed items
- Storage spaces in internal or basement car parks is provided at the rear or side of car spaces or in cages, such that allocated car parking remains accessible
- Storage not located in apartment is integrated into the overall building design & not visible from public domain

**4H Acoustic Privacy**

**4H-1 Objective:** Noise transfer is minimised through the siting of buildings & building layout

**Design Guidance Considered**

- Adequate building separation is provided within the development & from neighbouring buildings/adjacent uses (see 2F Building Separation & 3F Visual Privacy)
- Window & door openings are orientated away from noise sources
- Noisy areas within buildings including building entries & corridors are located next to or above each other while quieter areas are located next to or above quieter areas
<table>
<thead>
<tr>
<th>ADG Ref</th>
<th>Item Description</th>
<th>Notes</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Storage, circulation areas &amp; non-habitable rooms are located to buffer noise from external sources</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The number of party walls (shared with other apartments) are limited &amp; are appropriately insulated</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Noise sources such as garage doors, driveways, service areas, plant rooms, building services, mechanical equipment, active communal open spaces &amp; circulation areas should be located at least 3m away from bedrooms</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Where plant areas are located in proximity to bedrooms (levels 7 &amp; 8) adjoining and suitable attenuation mechanisms in the form of silencers and discontinuous wall construction will be provided</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>4H-2</td>
<td>Objective: Noise impacts are mitigated within apartments through layout &amp; acoustic treatments</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>p103</td>
<td>Design Guidance Considered</td>
<td>Internal apartment layout separates noisy spaces from quiet spaces, using a number of the following design solutions:</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>· Rooms with similar noise requirements are grouped together</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Doors separate different use zones</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Wardrobes in bedrooms are co-located to act as sound buffers</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Where physical separation cannot be achieved, noise conflicts are resolved using the following design solutions:</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Double or acoustic glazing</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Acoustic seals</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Use of materials with low noise penetration properties</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Continuous walls to ground level courtyards where they do not conflict with streetscape or other amenity requirements</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>4J</td>
<td>NOISE &amp; POLLUTION</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>4J-1</td>
<td>Objective: In noisy or hostile environments impacts of external noise &amp; pollution are minimised through careful siting &amp; layout</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>p105</td>
<td>Design Guidance Considered</td>
<td>To minimise impacts the following design solutions are used:</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>· Physical separation between buildings &amp; the noise or pollution source</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Residential uses are located perpendicular to the noise source &amp; where possible buffered by other uses</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Non-residential buildings are sited to be parallel with the noise source to provide a continuous building that shields residential uses &amp; communal open spaces</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Non-residential uses are located at lower levels vertically separating residential component from noise or pollution source. Setbacks to the underside of residential floor levels are increased, relative to traffic volumes &amp; other noise sources</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Buildings respond to both solar access &amp; noise. Where solar access is away from noise source, non-habitable rooms will provide a buffer</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Where solar access is in the same direction as the noise source, dual aspect apartments with shallow building depths are preferred</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Landscape design reduces the perception of noise &amp; acts as a filter for air pollution generated by traffic &amp; industry</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>4J-2</td>
<td>Objective: Appropriate noise shielding or attenuation techniques for building design, construction &amp; choice of materials are used to mitigate noise transmission</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>p105</td>
<td>Design Guidance Considered</td>
<td>Design solutions to mitigate noise include:</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>· Limiting the number &amp; size of openings facing noise sources</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Providing seals to prevent noise transfer through gaps</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Using double or acoustic glazing, acoustic louvres or enclosed balconies (wintergardens)</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Using materials with mass and/or sound insulation or absorption properties eg solid balcony balustrades, external screens &amp; soffits</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>4K</td>
<td>APARTMENT MIX</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>4K-1</td>
<td>Objective: A range of apartment types &amp; sizes is provided to cater for different household types now &amp; into the future</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>p107</td>
<td>Design Guidance Considered</td>
<td>A variety of apartment types is provided</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>· The apartment mix is appropriate, taking into consideration</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Distance to public transport, employment &amp; education centres</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Current market demands &amp; projected future demographic trends</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Demand for social &amp; affordable housing</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Different cultural &amp; socioeconomic groups</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flexible apartment configurations are provided to support diverse household types &amp; stages of life including single person households, families, multi-generational families &amp; group households</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>4K-2</td>
<td>Objective: The apartment mix is distributed to suitable locations within the building</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>p107</td>
<td>Design Guidance Considered</td>
<td>Different apartment types are located to achieve successful facade composition &amp; to optimise solar access</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Larger apartment types are located on ground or roof level where there is potential for more open space, and on corners where more building frontage is available</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>4M</td>
<td>FACADES</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>4M-1</td>
<td>Objective: Building facades provide visual interest along the street while respecting the character of the local area</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>p111</td>
<td>Design Guidance Considered</td>
<td>Design solutions for front building facades include:</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>· Composition of varied building elements</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Defined base, middle &amp; top of buildings</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Revealing &amp; concealing certain elements</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>ADG Ref.</td>
<td>Item Description</td>
<td>Notes</td>
<td>Compliance</td>
</tr>
<tr>
<td>----------</td>
<td>-----------------</td>
<td>-------</td>
<td>------------</td>
</tr>
<tr>
<td></td>
<td>Building facades are well resolved with appropriate scale &amp; proportion to streetscape &amp; with consideration of human scale. Solutions include:</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Well composed horizontal &amp; vertical elements</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Variation in floor heights to enhance the human scale</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Elements that are proportional &amp; arranged in patterns</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Public artwork or treatments to exterior blank walls</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Grouping of floors or elements such as balconies &amp; windows on taller buildings</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Building facades relate to key datum lines of adjacent buildings through upper level setbacks, parapets, cornices, awnings or colonnade heights</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Shadow is created on the facade throughout the day with building articulation, balconies &amp; deeper window reveals</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>4M-2</td>
<td>Objective: Building functions are expressed by the facade</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>p111</td>
<td>Design Guidance</td>
<td>Considered</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Building entries are clearly defined</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Important corners are given visual prominence through change in articulation, materials or colour, roof expression or changes in height</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Roof treatments are integrated into the building design &amp; positively respond to the street</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>4N-1</td>
<td>Objective: Roof treatments are integrated into the building design &amp; respond to the street</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>p113</td>
<td>Design Guidance</td>
<td>Considered</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Roof design relates to the street. Design solutions include:</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Special roof features &amp; strong corners</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Use of skillion or very low pitch hipped roofs</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Breaking down the massing of the roof by using smaller elements to avoid bulk</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Using materials or pitched form complimentary to adjacent buildings</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>The roof design integrates &amp; complements the building</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>The facade rises up one storey to surround the perimeter of the roof level to form a crown to the tower, providing a consistency in scale and materiality. The provision of a perimeter crown serves to conceal the roof plant services and lift overrun.</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>4N-2</td>
<td>Objective: Opportunities to use roof space for residential accommodation &amp; open space are maximised</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>p113</td>
<td>4N-3</td>
<td>Objective: Roof design incorporates sustainability features</td>
<td>N/A</td>
</tr>
<tr>
<td>4O</td>
<td>LANDSCAPE DESIGN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4O-1</td>
<td>Objective: Landscape design is viable &amp; sustainable</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>p115</td>
<td>Design Guidance</td>
<td>Considered</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Landscape design is environmentally sustainable &amp; can enhance environmental performance by incorporating:</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Diverse &amp; appropriate planting</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Bio-filtration gardens</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Appropriately planted shading trees</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Areas for residents to plant vegetables &amp; herbs</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Composting</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Green roofs or walls</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Ongoing maintenance plans are prepared</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Microclimate is enhanced by:</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Appropriately scaled trees near the eastern &amp; western elevations for shade</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Balances of evergreen &amp; deciduous trees to provide shading in summer &amp; sunlight access in winter</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Shade structures such as pergolas for balconies &amp; courtyards</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Trees &amp; shrub selection considers size at maturity &amp; the potential for roots to compete</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>4O-2</td>
<td>Objective: Landscape design contributes to streetscape &amp; amenity</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>p115</td>
<td>Design Guidance</td>
<td>Considered</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Landscape design responds to the existing site conditions including:</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Changes of levels</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Views</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>- Significant landscape features including trees &amp; rock outcrops</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Significant landscape features are protected by:</td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>- Tree protection zones</td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>- Appropriate signage &amp; fencing during construction</td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>The planning guidelines permit development to site boundary extents and as such the permissible development will encroach upon the tree protection zones of the existing trees along Olympic Boulevard. The proposal seeks to remove these trees so as not to cause long term adverse impacts. Refer arborist report for details.</td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>Plants selected are endemic to region &amp; reflect local ecology</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>4P</td>
<td>PLANTING ON STRUCTURES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4P-1</td>
<td>Objective: Appropriate soil profiles are provided</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>p117</td>
<td>Design Guidance</td>
<td>Considered</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Structures are reinforced for additional saturated soil weight</td>
<td></td>
<td>YES</td>
</tr>
</tbody>
</table>
Soil volume is appropriate for plant growth, including:
- Modifying depths & widths according to planting mix & irrigation frequency
- Free draining & long soil life span
- Tree anchorage

Minimum soil standards for plant sizes should be provided in accordance with:

<table>
<thead>
<tr>
<th>Site Area (sqm)</th>
<th>Recommended Tree Planting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 850</td>
<td>1 medium tree per 50sqm of deep soil zone</td>
</tr>
<tr>
<td>850 - 1,500</td>
<td>1 large tree or 2 medium trees per 90sqm of deep soil zone</td>
</tr>
<tr>
<td>Greater than 1,500</td>
<td>1 large tree or 2 medium trees per 90sqm of deep soil zone</td>
</tr>
</tbody>
</table>

4P-2 Objective: Plant growth is optimised with appropriate selection & maintenance

Design Guidance
- Plants are suited to site conditions, considerations include:
  - Drought & wind tolerance
  - Seasonal changes in solar access
  - Modified substrate depths for a diverse range of plants
  - Plant longevity

A landscape maintenance plan is prepared

Irrigation & drainage systems respond to:
- Changing site conditions
- Soil profile & planting regime
- Whether rainwater, stormwater or recycled grey water is used

4P-3 Objective: Planting on structures contributes to the quality & amenity of communal & public open spaces

Building design incorporates opportunities for planting on structures. Design solutions include:
- Green walls with specialised lighting for indoor green walls
- Wall design that incorporates planting
- Green roofs, particularly where roofs are visible from the public domain
- Planter boxes

Note: structures designed to accommodate green walls should be integrated into the building facade & consider the ability of the facade to change over time

4Q Universal Design

4Q-1 Objective: Universal design features are included in apartment design to promote flexible housing for all community members

Design Guidance
- Developments achieve a benchmark of 20% of the total apartments incorporating the Livable Housing Guidelines’s silver level universal design features

4Q-2 Objective: A variety of apartments with adaptable designs are provided

Design Guidance
- Adaptable housing should be provided in accordance with the relevant council policy

4Q-3 Objective: Apartment layouts are flexible & accommodate a range of lifestyle needs

Design Guidance
- Flexible design solutions include:
  - Rooms with multiple functions
  - Dual master bedroom apartments with separate bathrooms
  - Larger apartments with various living space options
  - Open plan ‘loft’ style apartments with only a fixed kitchen, laundry & bathroom

4S Mixed Use

4S-1 Objective: Mixed use developments are provided in appropriate locations & provide active street frontages that encourage pedestrian movement

Design Guidance
- Mixed use developments are concentrated around public transport & centres
- Mixed use developments positively contribute to the public domain
- Development addresses the street
- Active frontages provided
- Diverse activities & uses
- Avoiding blank walls at the ground level
- Live/work apartments on the ground floor level, rather than commercial
### Design Guidance Considered

#### 4S-2

Objective: Residential levels of the building are integrated within the development. Safety & amenity is maximised.

- **Design Guidance**
  - Residential circulation areas are clearly defined. Solutions include:
    - Residential entries separated from commercial entries & directly accessible from the street
    - Commercial service areas separated from residential components
    - Residential car parking & communal facilities separated or secured
    - Security at entries & safe pedestrian routes are provided
    - Concealment opportunities are avoided

- **Notes**
  - Landscaped communal open space are provided at podium or roof

- **Compliance**
  - Yes

#### 4T

**AWNING & SIGNAGE**

- **4T-1**
  - Objective: Awnings are well located and complement & integrate with the building design.
  - Design Guidance: Considered
  - Notes: Not considered appropriate for a development of this scale. Apartments are provided with a combined washer / dryer, which is included in the BASIX assessment.
  - Compliance: N/A

- **4T-2**
  - Objective: Signage responds to context & desired streetscape character.
  - Design Guidance: Considered
  - Notes: A continuous colonnade integrated with the building form is provided at ground level.
  - Compliance: N/A

#### 4U

**ENERGY EFFICIENCY**

- **4U-1**
  - Objective: Development incorporates passive environmental design.
  - Design Guidance: Considered
  - Notes: Adequate natural light is provided to habitable rooms (see 4A Solar & Daylight Access)
  - Compliance: Yes

- **4U-2**
  - Objective: Passive solar design is incorporated to optimise heat storage in winter & reduce heat transfer in summer.
  - Design Guidance: Considered
  - Notes: A number of the following design solutions are used:
    - Use of smart glass or other on north & west elevations
    - Thermal mass maximised in floors & walls of north facing rooms
    - Polished concrete floors, tiles or timber rather than carpet
    - Insulated roofs, walls & floors. Seals on window & door openings
    - Overhangs & shading devices such as awnings, blinds & screens
  - Compliance: Yes

- **4U-3**
  - Objective: Adequate natural ventilation to minimise the need for mechanical ventilation.
  - Design Guidance: Considered
  - Notes: A number of the following design solutions are used:
    - Rooms with similar usage are grouped together
    - Natural cross ventilation for apartments is optimised
    - Natural ventilation is provided to all habitable rooms & as many non-habitable rooms, common areas & circulation spaces as possible
  - Compliance: Yes

#### 4V

**WATER MANAGEMENT & CONSERVATION**

- **4V-1**
  - Objective: Potable water use is minimised.
  - Design Guidance: Considered
  - Notes: A number of the following design solutions are used:
    - Water efficient fittings, appliances & wastewater reuse are incorporated
    - Apartments are individually metered
    - Rainwater is collected, stored & reused on site
    - Drought tolerant, low water use plants are used within landscaped areas
  - Compliance: Yes

- **4V-2**
  - Objective: Urban stormwater is treated on site before being discharged to receiving waters.
  - Design Guidance: Considered
  - Notes: A number of the following design solutions are used:
    - Runoff is collected from roofs & balconies in water tanks and plumbed into toilets, laundry & irrigation
    - Porous & open paving materials is maximised
    - On site stormwater & infiltration, including bio-retention systems such as rain gardens or street tree pits
  - Compliance: Yes

- **4V-3**
  - Objective: Flood management systems are integrated into site.
  - Design Guidance: Considered
  - Notes: Detention tanks are located under paved areas, driveways or in basement car parks
  - Compliance: Yes

#### 4W

**WASTE MANAGEMENT**

- **4W-1**
  - Objective: Waste storage facilities are designed to minimise impacts on streetscape, building entry & amenity of residents.
  - Design Guidance: Considered
  - Notes: Adequately sized storage areas for rubbish bins are located discreetly away from the front of the development or in basement car park
  - Compliance: Yes

- **4W-2**
  - Objective: Waste & recycling storage areas are well ventilated.
  - Design Guidance: Considered
  - Notes: Drought tolerant, low water use plants are used within landscaped areas
  - Compliance: Yes

- **4W-3**
  - Objective: Waste management plan is prepared.
  - Design Guidance: Considered
  - Notes: Not considered appropriate for a development of this scale. Apartments are provided with a combined washer / dryer, which is included in the BASIX assessment.
  - Compliance: N/A
<table>
<thead>
<tr>
<th>ADG Ref.</th>
<th>Item Description</th>
<th>Notes</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>4W-2 p131</td>
<td>Objective: Domestic waste is minimised by providing safe &amp; convenient source separation &amp; recycling.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Design Guidance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All dwellings have a waste &amp; recycling cupboard or temporary storage area of sufficient size to hold two days worth of waste &amp; recycling</td>
<td>YES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communal waste &amp; recycling rooms are in convenient &amp; accessible locations related to each vertical core</td>
<td>YES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For mixed use developments, residential waste &amp; recycling storage areas &amp; access is separate &amp; secure from other uses</td>
<td>YES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternative waste disposal methods such as composting is provided</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4X</th>
<th>BUILDING MAINTENANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>4X-1 p133</td>
<td>Objective: Building design detail provides protection from weathering.</td>
</tr>
<tr>
<td>Design Guidance</td>
<td>Considered</td>
</tr>
<tr>
<td>A number of the following design solutions are used:</td>
<td></td>
</tr>
<tr>
<td>· Roof overhangs to protect walls</td>
<td>YES</td>
</tr>
<tr>
<td>· Hoods over windows &amp; doors to protect openings</td>
<td>YES</td>
</tr>
<tr>
<td>· Detailing horizontal edges with drip lines to avoid staining surfaces</td>
<td>YES</td>
</tr>
<tr>
<td>· Methods to eliminate or reduce planter box leaching</td>
<td>YES</td>
</tr>
<tr>
<td>· Appropriate design &amp; material selection for hostile locations</td>
<td>YES</td>
</tr>
</tbody>
</table>

| 4X-2 p133 | Objective: Systems & access enable ease of maintenance. | ✓ |
| Design Guidance | Considered | |
| Window design enables cleaning from the inside of the building | | |
| The provision of a crown at tower roof level provides an opportunity for a building maintenance system to be easily integrated for cleaning and maintenance | NO | |
| Building maintenance systems are incorporated & integrated into the design of the building form, roof & facade | | |
| The provision of a crown at tower roof level provides an opportunity for a building maintenance system to be easily integrated. | YES | |
| Design does not require external scaffolding for maintenance access | | |
| The provision of a crown at tower roof level provides an opportunity for a building maintenance system to be easily integrated. | YES | |
| Manually operated systems such as blinds, sunshades & curtains are used in preference to mechanical systems | | |
| YES | |
| Centralised maintenance, services & storage are provided for communal open space areas within the building | YES | |

| 4X-3 p133 | Objective: Material selection reduces ongoing maintenance costs. | ✓ |
| Design Guidance | Considered | |
| A number of the following design solutions are used: | | |
| · Sensors to control artificial lighting in common circulation & spaces | YES | |
| · Natural materials that weather well & improve with time, such as face brickwork | YES | |
| · Easily cleaned surfaces that are graffiti resistant | YES | |
| · Robust & durable materials & finishes in locations which receive heavy wear & tear such as common circulation areas & lift interiors | YES |
APPENDIX C

APARTMENT AREA AND STORAGE SCHEDULE
<table>
<thead>
<tr>
<th>Level</th>
<th>Retail / Club</th>
<th>Retail</th>
<th>Comm.</th>
<th>Resi.</th>
<th>Retail / Club</th>
<th>Retail</th>
<th>Comm.</th>
<th>Resi.</th>
<th>1 Bed</th>
<th>2 Bed</th>
<th>3 Bed</th>
<th>4 Bed</th>
</tr>
</thead>
<tbody>
<tr>
<td>39</td>
<td>200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>635</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>719</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>719</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>679</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>679</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>679</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>679</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>679</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>679</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>679</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>679</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>679</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>683</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>683</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>683</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>683</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>683</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>683</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>683</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>683</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>683</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>683</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>683</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>683</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>683</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>6</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>681</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>6</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>681</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>6</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>681</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>6</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>681</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>6</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>592</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>37</td>
<td>1</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>1,185</td>
<td>538</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>5</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1,214</td>
<td>552</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>5</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>83</td>
<td>36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>84</td>
<td>42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>85</td>
<td>28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12</td>
<td>3</td>
<td>34</td>
<td>17</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16</td>
<td>16</td>
<td>34</td>
<td>58</td>
</tr>
<tr>
<td>Ground</td>
<td>869</td>
<td>150</td>
<td>41</td>
<td>35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>34</td>
<td>55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>869</td>
<td>150</td>
<td>2,540</td>
<td>21,869</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12</td>
<td>3</td>
<td>34</td>
<td>304</td>
</tr>
</tbody>
</table>

**TABLE 1: APARTMENT MIX, GFA + PARKING SCHEDULE**

Refer accompanying Traffic Impact Assessment for breakdown of parking provision.
## TABLE 2: APARTMENT TYPE AREA + STORAGE SCHEDULE

Carpark storage cages provided: 229
Number of units achieving SEPP65 storage requirements: 229 (100%)
SOPA storage requirements are equal to that required by the ADG (SEPP65)
Storage allocations per unit type are located on the following pages.
TYPE 1B-A
Storage volume provided within apartment 3.00m³
Storage cage provided in carpark Yes (3m³)
Total storage volume compliant with SEPP 65 guidelines (6.00m³)

TYPE 1B-B
Storage volume provided within apartment 4.87m³
Storage cage provided in carpark Yes (3m³)
Total storage volume compliant with SEPP 65 guidelines (6.00m³)

TYPE 1B-C
Storage volume provided within apartment 3.95m³
Storage cage provided in carpark Yes (3m³)
Total storage volume compliant with SEPP 65 guidelines (6.00m³)

TYPE 1B-B
Storage volume provided within apartment 9.94m³
Storage cage provided in carpark Yes
Total storage volume compliant with SEPP 65 guidelines (8.00m³)

TYPE 2B-B
Storage volume provided within apartment 5.13m³
Storage cage provided in carpark Yes (4m³)
Total storage volume compliant with SEPP 65 guidelines (8.00m³)

TYPE 2B-B
Storage volume provided within apartment 5.25m³
Storage cage provided in carpark Yes (4m³)
Total storage volume compliant with SEPP 65 guidelines (8.00m³)

TYPE 2B-C
Storage volume provided within apartment 5.60m³
Storage cage provided in carpark Yes (4m³)
Total storage volume compliant with SEPP 65 guidelines (8.00m³)

TYPE 2B-D
Storage volume provided within apartment 4.55m³
Storage cage provided in carpark Yes (4m³)
Total storage volume compliant with SEPP 65 guidelines (8.00m³)

TYPE 2B-A
Storage volume provided within apartment 5.92m³
Storage cage provided in carpark Yes (4m³)
Total storage volume compliant with SEPP 65 guidelines (8.00m³)

TYPE 2B-C
Storage volume provided within apartment 78 m² NSA
Storage cage provided in carpark
Total storage volume compliant with SEPP 65 guidelines (8.00m³)

TYPE 2B-B
Storage volume provided within apartment 82 m² NSA
Storage cage provided in carpark
Total storage volume compliant with SEPP 65 guidelines (8.00m³)

TYPE 2B-A
Storage volume provided within apartment 84 m² NSA
Storage cage provided in carpark
Total storage volume compliant with SEPP 65 guidelines (8.00m³)
**Type 2B-F**
- Storage volume provided within apartment: 6.21 m³
- Storage cage provided in carpark: Yes (4 m³)
- Total storage volume compliant with SEPP 65 guidelines (8.00 m³)

**Type 2B-G**
- Storage volume provided within apartment: 5.96 m³
- Storage cage provided in carpark: Yes (4 m³)
- Total storage volume compliant with SEPP 65 guidelines (8.00 m³)

**Type 2B-H**
- Storage volume provided within apartment: 12.45 m³
- Storage cage provided in carpark: Yes
- Total storage volume compliant with SEPP 65 guidelines (8.00 m³)

**Type 2B-I**
- Storage volume provided within apartment: 6.73 m³
- Storage cage provided in carpark: Yes (4 m³)
- Total storage volume compliant with SEPP 65 guidelines (8.00 m³)

**Type 2B-I2**
- Storage volume provided within apartment: 6.84 m³
- Storage cage provided in carpark: Yes (4 m³)
- Total storage volume compliant with SEPP 65 guidelines (8.00 m³)

**Type 2B-A**
- Storage volume provided within apartment: 5.27 m³
- Storage cage provided in carpark: Yes (5 m³)
- Total storage volume compliant with SEPP 65 guidelines (10.00 m³)
**Site 9, Sydney Olympic Park**

**State Significant Development Application Design Report**

- **Type: 3B-B**
  - Storage volume provided within apartment: 5.04m³
  - Storage cage provided in carpark: Yes (5m³)
  - Total storage volume compliant with SEPP 65 guidelines (10.00m³)

- **Type: 4B-A**
  - Storage volume provided within apartment: 5.97m³
  - Storage cage provided in carpark: Yes
  - Total storage volume compliant with SEPP 65 guidelines (10.00m³)

- **Type: 4B-B**
  - Storage volume provided within apartment: 5.63m³
  - Storage cage provided in carpark: Yes (5m³)
  - Total storage volume compliant with SEPP 65 guidelines (10.00m³)

- **Type: 4B-C**
  - Storage volume provided within apartment: 9.44m³
  - Storage cage provided in carpark: Yes
  - Total storage volume compliant with SEPP 65 guidelines (10.00m³)

- **Type: 4B-D**
  - Storage volume provided within apartment: 12.01m³
  - Storage cage provided in carpark: Yes (5m³)
  - Total storage volume compliant with SEPP 65 guidelines (10.00m³)
TYPE 4B-E
Storage volume provided within apartment: 5.00m³
Storage cage provided in carpark: Yes
Total storage volume compliant with SEPP 65 guidelines (10.00m³):
✓

TYPE 4B-F
Storage volume provided within apartment: 10.91m³
Storage cage provided in carpark: Yes
Total storage volume compliant with SEPP 65 guidelines (10.00m³):
✓

TYPE 4B-G
Storage volume provided within apartment: 10.76m³
Storage cage provided in carpark: Yes (5m³)
Total storage volume compliant with SEPP 65 guidelines (10.00m³):
✓
SITE 9 SYDNEY OLYMPIC PARK

STATE SIGNIFICANT DEVELOPMENT APPLICATION DESIGN REPORT

TYPE 4B-H
Storage volume provided within apartment
Storage cage provided in carpark
Total storage volume compliant with SEPP 65 guidelines (10.00m³)

15.79m³
Yes (5m³)
APPENDIX D
MATERIALS SAMPLE BOARD
MATERIAL SAMPLE BOARD

PICTURED
1. Concrete
2. Aluminium facing
3. Aluminium fins
4. Glass
5. Colourback glass
6. Metal framing and cladding
7. Aluminium mesh
8. Terracotta
9. Concrete columns