

**JOINT REGIONAL PLANNING PANEL
(Sydney East Region)**

JRPP No	2012SYE089
DA Number	LDA2012/0314
Local Government Area	City of Ryde
Proposed Development	Construction of a residential tower (known as Building E) and landscaping works.
Street Address	126 Herring Road, Macquarie Park
Applicant/Owner	Toga Macquarie Developments Pty Ltd
Number of Submissions	1
Recommendation	Approval with Conditions
Report by	Sandra Bailey, Team Leader Major Development

Assessment Report and Recommendation

1. EXECUTIVE SUMMARY

The following report is an assessment of a development application for the construction of a residential tower known as Building E on 126 Herring Road, Macquarie Park. This building forms part of an approved Concept Plan (MP09_0195) for a mixed use residential/retail development comprising 4 x 12 storey and 1 x 9 storey building envelopes with basement car parking, road works and landscaping.

Building E is part 12 and part 13 storeys, containing a total of 144 apartments consisting of 95 x 1 bedroom apartments, 46 x 2 bedroom apartments and 3 x 3 bedroom apartments. Three and a half levels of basement car parking will provide parking for 171 vehicles and 60 bicycle parking spaces.

Building E is generally consistent with the subsequent modifications to the Concept Plan Approval and the applicant has provided information to satisfy the Statement of Commitments.

The development results in a number of variations in relation to the Residential Flat Design Code in respect to building depth, number of apartments accessed off a corridor and the number of south facing apartments. These variations are all minor and do not result in any unacceptable impacts.

During the notification period, Council received one submission. The submission raised concerns with trucks exiting the construction site that are currently undertaking illegal turns in the residential area and the impact this has on residential properties. This matter has been addressed via a condition of consent.

The development application is therefore recommended for approval subject to appropriate conditions of consent provided in Attachment 1 of this report.

2. APPLICATION DETAILS

Name of applicant: Toga Macquarie Developments Pty Ltd

Owner of site: Baptist Union of NSW

Estimated value of works: \$33,404,000

Disclosures: The applicant has included a list of political donations made since 2007. This list however does not include any political donations or gifts made to any local Councillor. A copy is available on file.

3. SITE DESCRIPTION

The subject site is located at 126 Herring Road, Macquarie Park. The site is located on the north western side of Herring Road, between Epping Road and University Avenue. Figure 1 demonstrates an aerial photograph of the site.

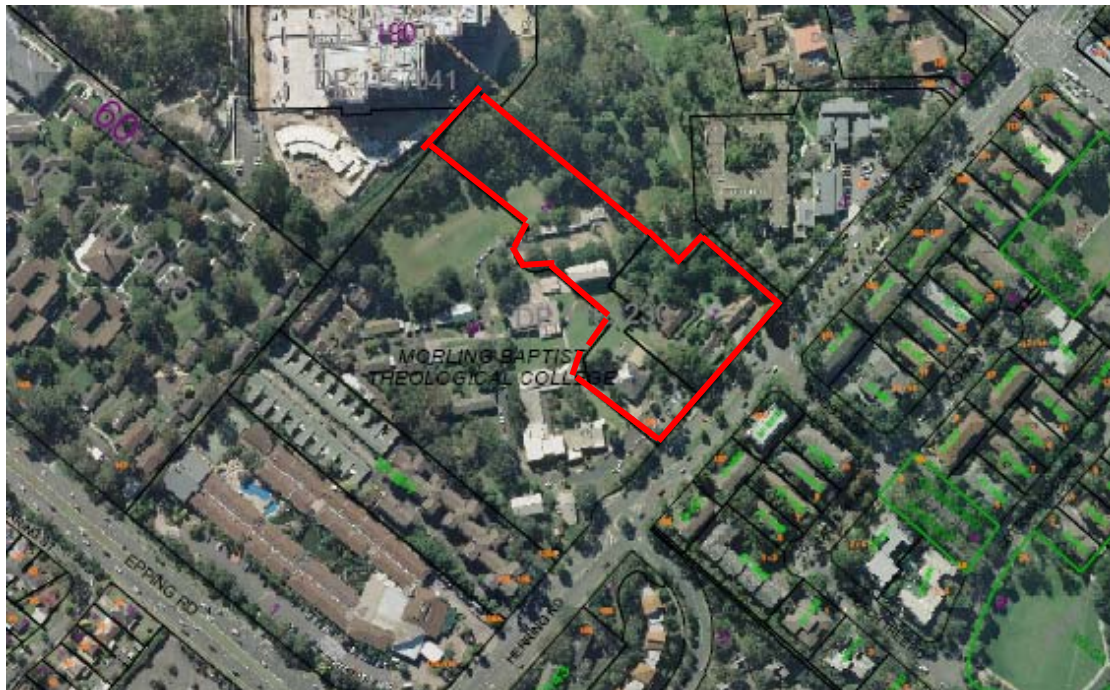


Figure 1. Aerial photograph of the site.

The legal description of the site is Lot B in DP 368446. A Draft Subdivision Plan for the site has been approved by NSW Department of Planning

(MP09_0217 Mod 2). This draft plan subdivides the site into 10 allotments comprising 5 residential allotments, 1 community lot, 2 allotments for the future road and 2 other ancillary lots. This application relates to Lot 7 of the approved Draft Subdivision Plan. This is illustrated in Figure 2.

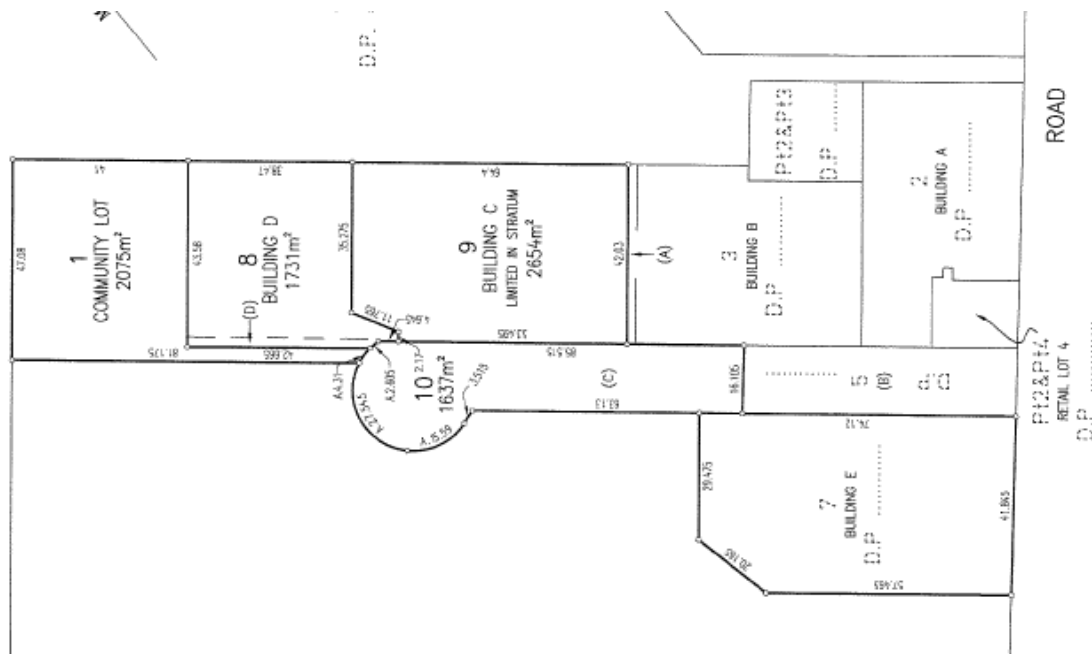


Figure 2. Approved Draft Subdivision Plan. The application relates to lot 7 in the draft plan.

To the west / north west of the site is Macquarie University including Dunmore Lane College. North east of the site is the Robert Menzies College - university housing. South east of the site opposite Herring Road is predominately 3 and 4 storey residential flat buildings. University Creek and the associated riparian zone cross the rear of the site.

4. SITE DETAILS

The following figures are based on the current approved Draft Subdivision Plan.

Total site area – 2,990m².

Frontage to Herring Road – 141.845m

Frontage to new road – 74.12m

5. PROPOSAL

The development application proposes the construction of a residential building known as Building E. This building is part of an approved Concept Plan for a mixed use residential/retail development comprising 4 x 12 storey and 1 x 9 storey buildings with basement car parking, road works and landscaping. The location of Building E is demonstrated in Figure 3.

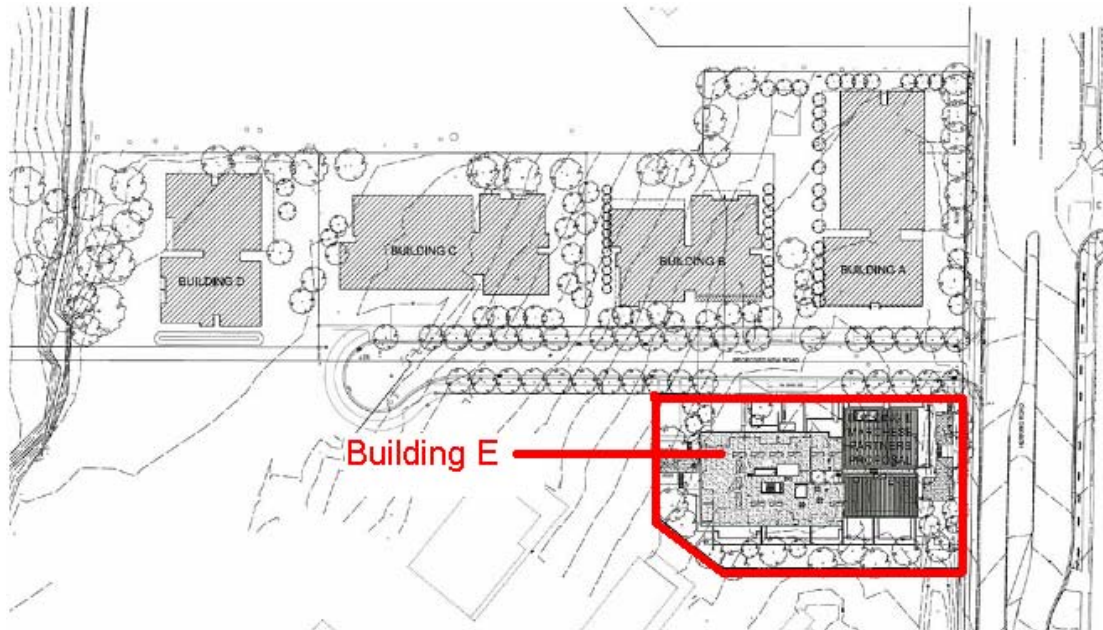


Figure 3. Site Plan showing the location of Building E in relation to Buildings A to D.

Building E is a part 12 and part 13 storey building comprising 144 apartments. The mix of residential apartments includes 95 x 1 bedroom apartments, 46 x 2 bedroom apartments and 3 x 3 bedroom apartments.

Three and a half levels of basement car parking will be proposed with car parking for 171 vehicles and 60 bicycle parking spaces. Access to the basements will be via a new internal road which will be constructed under other development approvals.

The following figure is a photomontage of the proposed development.



Figure 4. Photomontage of the proposed development as viewed from Herring Road and the new Type 3 road approved under MP09_0218.

As part of the development application a Voluntary Planning Agreement (VPA) was submitted. The VPA relates a condition imposed on the Concept Plan (MP09_0195) in respect to the provision of a child care centre. The development is to provide a new child care centre with a maximum gross floor area of 300m² in Building E or in another suitable location. Alternatively, this can be provided as Section 94 contributions for works in kind. The VPA proposes to make a cash contribution in lieu of providing the child care centre. The cash contribution is equivalent to \$310,310 plus GST.

6. BACKGROUND

Previous Approvals

On 20 January 2011 The Deputy Director-General approved the following applications:

- **Concept Plan (MP09_0195)** for a mixed use residential / retail development comprising 4 x 12 storey and 1 x 9 storey building envelopes with basement car parking, road and landscaping.

- **Project Application (MP09_0217)** for staged subdivision into 7 allotments comprising 5 residential allotments and 2 road allotments for the access road.
- **Project Application (MP09_0218)** for the construction of a residential development including demolition and excavation. Construction of a 12 storey residential / retail building (Building A) providing 10,367m² of GFA, 123 dwellings and a 96m² retail tenancy. The approval also includes a 3 level basement car park for 152 cars and ancillary services and facilities, and the construction of the south-eastern portion of the new local public access road, footpath and cycleway off Herring Road.

On 11 July 2011, the Director General approved the following modification applications:

- **Concept Plan (MP09_0195 MOD 1)** for alterations to the building envelopes and gross floor areas for Buildings B, C, D and E in response to modification requirements of terms of conditions B1 and B2 of the original Concept Plan. This related to a reduction in the height of Building B from 15 storeys to 12 storeys, the requirement that adequate solar access to be provided to each Building and the provision of a pedestrian cycleway in the vicinity of Building B connecting the site with Macquarie University.
- **Project Application (MP09_0217 MOD 1)** for the addition of a notation for an access easement as required by conditions of consent and rectification of minor drafting errors.
- **Project Application (MP09_02 MOD 1)** for modifications to Building A to increase the number of units and gross floor area, modify the dwelling mix, and basement car park level and loading spaces, and minor façade changes.

On 13 March 2012, the Acting Director approved the following modification application:

- **Project Application (MP09_017 MOD 2)** for modifications to the Project Approval to change the subdivision type from Torrens Title to Community Title Subdivision.
- **Project Application (MP09_218 MOD 2)** for modifications to the configuration of the basement levels of Building A.

On 23 March 2012 the Acting Director approved the following modification:

- **Concept Plan (MP09_0195 MOD 2)** for modifications to the Concept Plan approval relating to Building C to provide seven additional residential units, increase the building height to part 12 and part 13 stories and provide an additional part level of parking.

On 10 April 2012 the Acting Director approved the following modification:

- **Project Application (MP09_0218 MOD 3)** for modifications to Building A to increase the number of units and modify the basement car park to provide bicycle parking and storage.


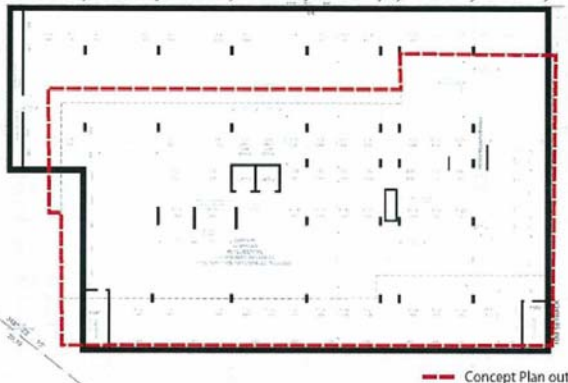
On 15 March 2012 the Joint Regional Planning Panel granted approval for the following:

- **Local Development Application 2011/0578 (2011SYE115)** for the construction of a 12 storey residential building (Building B) providing 8119m² of GFA and 117 dwellings. The approval also included a 3 level basement car park for 137 cars and associated landscaping.

On 9 August 2012 the Joint Regional Planning Panel granted approval for the following:

- **Local Development Application 2012/114 (2012SYE038)** for the construction of two residential towers known as Buildings C and D. Building C contained a GFA of 10,755m² and 149 apartments. Building D will contain 5595m² of GFA and 80 apartments. A total of 267 car parking spaces in 3 levels of basement were also approved.

The current application is based on the Concept Plan MP09_0195 and MP09_0195 MOD 2. A list of the applicable Conditions of Consent, Future Environmental Assessment Requirements and Statement of Commitments from the Approved Concept Plan has been discussed below.

Conditions of Consent	Comment
<p>A5 Determination of Future Applications. The determination of future applications for development is to be generally consistent with the terms of approval of the Concept Plan.</p>	<p>The following diagrams demonstrate the typical floor plan and basement plan in relation to the approved Concept Plan.</p>  <p>Figure 5. Typical floor plan showing the approved concept plan outlined in red.</p>  <p>Figure 6. Basement floor plan showing the</p>

Conditions of Consent	Comment
	<p>approved concept plan outlined in red.</p> <p>As demonstrated the basement exceeds the approved Concept Plan. As this is located below natural ground level, this will not be a visible change. Accordingly, this development is considered to be generally consistent with the approved Concept Plan.</p>
Future Environmental Assessment Requirements	
<p>Flood Levels</p> <p>Future DA's shall comply with the Taylor Thomson Whitting Pty Ltd Consulting Engineers Road Works and Stormwater Report and consider and address any recommendations in relevant state policies at the time of lodgement of future applications to demonstrate the finished floor levels of the buildings will be above the probable maximum flood levels for the site.</p>	<p>University Creek flows from the southwest to the northeast at the rear of the site. Building E will not be affected by flooding from University Creek.</p>
<p>Threatened Species</p> <p>All future development is to consider the <i>"Guidelines for developments adjoining land and water managed by DECCW, June 2010"</i>.</p>	<p>The guidelines referred to have been developed by DECCW to guide Council's when assessing DA's that adjoin land managed by DECCW. This includes lands acquired, reserved or dedicated under the National Parks and Wildlife Act 1974 or marine and estuarine protected areas. The site is not adjacent to one of these areas. The relevant issues required to be considered under the guidelines are erosion and sediment control, stormwater runoff, wastewater, management implications relating to pests, weeds and edge effects, visual, odour, noise, vibration, air quality and amenity impacts, threats to ecological connectivity and groundwater dependent ecosystems. Consideration of these issues has been given further in the body of the report under Section 8 and 9.</p>
<p>Loss of the Childcare Facility</p> <p>Consideration is to be given to the provision of a new child care centre with a minimum gross floor area of 300sqm at the ground floor level of Building E or in another appropriate location easily accessible to the public. This public amenity may be the subject of a Voluntary Planning Agreement with Council or may in the form of Section 94 contributions work-in-kind subject to the agreement of Council.</p>	<p>Rather than provide the childcare centre, the applicant has proposed to enter into a Voluntary Planning Agreement to pay Council \$310,310 plus GST for community facilities. This matter was considered by Council at its meeting held on 13 November 2012 where Council resolved the following:</p> <p>(a) That Council enter into the Voluntary Planning Agreement (VPA) made by Toga Macquarie Developments Pty Ltd as part of Development Application LDA2012/0314.</p> <p>(b) That Council's agreement to enter into the VPA be communicated to the Sydney East</p>

Conditions of Consent	Comment
	Joint Regional Planning Panel when LDA2012/0314 is presented to it for determination.
<p>SEPP 65 Future DA's shall be consistent with the provisions of the SEPP 65 and the Residential Flat Design Code.</p>	This matter has been addressed in detail. There are minor variations to the numeric requirements of the RFDC in respect to building depth, number of apartments accessed off a corridor and the number of south facing apartments. These variations are minor and do not result in any adverse impacts. The variations and the reasons for supporting the variations is discussed in Section 8.6 of the report.
<p>Landscaping Future DA's shall include detailed landscape plans demonstrating that sufficient deep soil can be provided for landscaping, particularly along street frontages.</p>	The applicant has provided detailed landscaping plans. Where planting is provided over building, the plans demonstrate that adequate soil depth can be provided.
<p>Travel Access Guide (TAG)/Green Travel Plan Future DA's shall provide details of any Travel Access Guide (TAG) / Green Travel Plan prior to the occupation of any building on site.</p>	<p>The applicant intends to provide residents and owners with a Travel Access Guide. This will include information such as:</p> <ul style="list-style-type: none"> • A list of green travel options available in the area. • Information about the car share scheme. • Maps detailing the location of bike racks, train stations, bus stops and car share spaces. • Service details for bus and train. • Access arrangements for people with disabilities on public transport routes and at train stations. • Key visual landmarks for people on foot and unfamiliar with the area, closest cross street. • Estimated time of travel from the closest major centres or interchanges. • Telephone numbers and web addresses for public transport service providers. <p>A condition of consent will be imposed to ensure that this occurs (see condition number 85).</p>
<p>Car Share Scheme Future DA's shall require the provision and implementation of a car share scheme utilising the carparking spaces nominated in the Concept Plan prior to the dedication of the internal road to Council.</p>	The Concept Plan required 3 car parking spaces to be designated on the street as car share parking. At this stage the applicant has indicated on civil plans for the internal road that these spaces would be located on that road. Council requires that these 3 spaces be located within one of the buildings rather than on the road. The car share scheme does not

Conditions of Consent	Comment
	need to be finalised until the issue of the Occupation Certificate for Building E. A condition of consent is recommended which requires full details of this car share scheme to be approved prior to the Occupation Certificate for Building E. This condition will also require the spaces in one of the 5 buildings. (See condition 99).
Statement of Commitments	
<p>Section 94 Contributions</p> <p>The form of the Section 94 Contribution for each building within the development will be either a monetary contribution or work in kind to be negotiated with the approval authority in accordance with the Section 94 Plan applying at the time. The Section 94 contributions will be made prior to the issue of the Occupation Certificate in respect of each building.</p>	A works in kind agreement has not been negotiated with Council. Accordingly, a condition of consent will be imposed requiring a monetary contribution. This will be in accordance with Council's Section 94 Contribution Plan. Condition 78 has been imposed on the consent.
<p>Dedication of New Access Road</p> <p>Construction of a Type 3 road which is to be dedicated to Council prior to the issue of the final Occupation Certificate for the 5th building of the development.</p>	The road has been constructed as part of the Project Application for Building A and LDA2012/114 for Building C and D. This road however is not required to be dedicated to Council until the issue of the final Occupation Certificate for Building E. A condition of consent has been included to reflect this requirement. (See condition number 100).
<p>Road Works</p> <p>The Type 3 road is to be constructed in accordance with the following dimensions:</p> <ul style="list-style-type: none"> • 2 x 3m wide travelling lanes. • 2.5m wide parking lane on the northern side of the road. • 3.8m wide verge with footpath and landscaping on each side of the road. • A turning head at the western end of the road. <p>The road construction is to correspond to the staged construction of the residential development.</p>	The road configuration was addressed as part of Project Application for Building A and LDA2012/114 for Buildings C and D. This commitment is not applicable to the current development application.
<p>Parking Provisions</p> <p>Parking is to be provided at the following rates:</p> <ul style="list-style-type: none"> • 1 space per 1 or 2 bedroom unit. • 1.6 space per 3 bedroom unit. • 1 space per 6 units for visitors. <p>In addition 3 car spaces on street are to be designated for car share parking.</p> <p>Car parking numbers are to be determined for</p>	The development proposes 144 apartments consisting of 1, 2 and 3 bedroom apartments. Accordingly, the development is required to provide 146 resident car spaces and 24 visitor car spaces. The development provides 171 car parking spaces which complies with this requirement. A condition has been imposed on the consent to ensure compliance with this requirement. (See condition number 11).

Conditions of Consent	Comment
each application.	
<p>Environmental Sustainability</p> <p>The buildings are to be designed in accordance with the requirements of SEPP (BASIX).</p>	<p>The applicant has submitted a BASIX Certificate for the building. Appropriate conditions will be imposed requiring compliance with the BASIX commitments as detailed within the Certificate. (See condition numbers 3 and 81).</p>
<p>Flora and Fauna</p> <p>The applicant agrees to the following:</p> <ul style="list-style-type: none"> • Creating a riparian corridor along University Creek, including a 10m core riparian zone and a 10m vegetation buffer on the SE side of the creek, free from development. • Regeneration of core riparian zone and vegetation buffer, in accordance with the VMP. • Allow for temporary tree protection measures during construction as outlined with the VMP. • Hand trenching within the safety exclusion zones with a 12m radius x truck diameter at breast height to specific areas of the site, as outlined in the Arborist Report. 	<p>This commitment relates to the riparian zone located at the rear of the site. The applicant was required to provide documentation to demonstrate that they achieve compliance with these commitments as part of the development application for Buildings C and D. This is not applicable to the current development application.</p>
<p>Vegetation Management</p> <p>The applicant agrees to the following:</p> <ul style="list-style-type: none"> • Preparation of a long-term management plan for the riparian corridor to be maintained in perpetuity. • Install and maintain sediment and erosion control measures prior to commencing work on each building. • Revegetation of the riparian corridor with locally indigenous species. • Implementation of a monitoring program for the weed removal and vegetation regeneration works that will commence at establishment of regeneration works and continue for the duration of the maintenance period. • Implementing the biodiversity offset strategy in Addendum 1 to the VMP. 	<p>The matter in respect of the Vegetation Management Plan and the riparian zone relate to LDA2012/0114 for Buildings C and D. Conditions of consent were imposed to ensure that the recommendations in the VMP were adopted. The Statement of Commitments requires that this work is to be carried out prior to the issue of the final Occupation Certificate for the fifth building. Accordingly, it is proposed to include a condition on this consent which will require all of the works detailed in the VMP for the riparian zone to be completed prior to the issue of a final Occupation Certificate for this development. (See condition number 80).</p>
<p>Crime Management and Safety</p> <p>The applicant has agreed to implement the following measures:</p> <ul style="list-style-type: none"> • All street entries will have appropriate levels of lighting. 	<p>Several of the commitments are not applicable to this development application but have already been addressed with earlier DA's. Many of these matters are demonstrated on the architectural and civil plans. Other matters have been addressed with conditions</p>

Conditions of Consent	Comment
<ul style="list-style-type: none"> • Lighting will be provided along the shared pedestrian/cycleway between Buildings B and C. • Where required, AS1158.3.1:1999 “Road Lighting” will be complied with. • The building entrances will be visible from the street and will not be obscured by landscaping. • Construction fencing will be erected along the southern side of the new internal street to secure the site in accordance with workplace safety requirements. • A boundary fence to be erected along the shared boundary with Macquarie University to ensure there is a clear delineation of space between the properties as well as to provide secure private domain areas for residents on site. • Access into the basement car parks is to be controlled by installing physical barriers. • Pedestrian access to the building will be clearly defined by a direct pathway from the street. Access into the buildings to be controlled by electronic pass security devices and intercom for visitors. • The private open space is to be secured from the public domain through landscape planting and fencing. • A maintenance program to be developed for each building. • Hardwearing materials to be utilised to minimise opportunities for vandalism. 	<p>of consent. The development can be conditioned to ensure compliance with this requirement.</p>
<p>Drainage and Stormwater</p> <p>The applicant agrees to install a stormwater management system in accordance with the plans prepared by Taylor Thomas Whitting. This is to include:</p> <ul style="list-style-type: none"> • Stormwater pipe infrastructure within the new road. • Detention, re-use tanks and gross pollutant traps. • Stormwater collected to be discharged into University Creek and to pass through a first flush bioswale treatment system to filter low-flow discharge before being 	<p>The applicant has submitted civil plans which comply with this requirement.</p>

Conditions of Consent	Comment
discharged.	
<p>Geotechnical and Groundwater Management</p> <p>The applicant agrees to the following:</p> <ul style="list-style-type: none"> • All excavated material to be disposed of in accordance with current waste classification guidelines. • Temporary and permanent batter slopes to be designed in accordance with the Geotechnical Investigation report. • All footings to be inspected by a geotechnical engineer. • During construction, groundwater seepage to be controlled by perimeter drains connected to a 'sump and pump' dewatering system. 	<p>These matters are all addressed by either conditions of consent or satisfying the requirements of the BCA.</p>
<p>Construction Management</p> <p>The applicant is to prepare a Construction Management Plan prior to the issue of any Construction Certificate.</p>	<p>A condition of consent will be imposed to ensure a Traffic Management Plan is submitted and approved by Council prior to the issue of any Construction Certificate. (See condition number 33).</p>

Current Development Application

A letter was sent to the applicant on 27 September 2012 requesting further consideration of several issues that were raised by Council's Urban Design Review Panel. These matters related to the following:

- The size of the bedroom window in unit 1.05 (and above) should be enlarged to improve the amenity of the room.
- Concerns are raised in respect to the acoustic privacy between units 1.02 and 1.03 (and above).
- Concerns that the study areas could be converted to bedrooms.
- Concerns were raised in respect of the number of apartments accessed from the internal corridor.

The applicant has addressed these matters and amended plans were submitted to Council on 30 October 2012. These issues have been discussed in further detail further in Section 8.6 of the report.

Voluntary Planning Agreement

The VPA was considered by Council at its meeting held on 13 November 2012. At this meeting, Council resolved as follows:

- (a) That Council enter into the Voluntary Planning Agreement (VPA) made by Toga Macquarie Developments Pty Ltd as part of Development Application LDA2012/0314.
- (b) That Council's agreement to enter into the VPA be communicated to the Sydney East Joint Regional Planning Panel when LDA2012/0314 is presented to it for determination.

7. APPLICABLE PLANNING CONTROLS

The following planning policies and controls are of relevance to the development:

- Section 5A of the Environmental Planning and Assessment Act, 1979
- State Environmental Planning Policy (Major Developments) 2005
- State Environmental Planning Policy (State and Regional Development) 2011
- State Environmental Planning Policy No. 55 – Remediation of Land
- State Environmental Planning Policy (Building Sustainability Index: BASIX)
- State Environmental Planning Policy No 65 – Design Quality of Residential Flat Development
- Deemed SEPP – Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005
- Ryde Local Environmental Plan 2010
- Draft Ryde Local Environmental Plan 2011 and
- City of Ryde Development Control Plan 2010.

8. PLANNING ASSESSMENT

8.1 Section 5A of the Environmental Planning and Assessment Act 1979

The applicant has provided a Flora and Fauna Assessment Report from Total Earth Care Pty Ltd. The following findings have been made in respect of the report:

- The property adjacent to the subject site contains Sydney Turpentine Ironbark Forest (STIF) which is identified as an Endangered Ecological Community. An Assessment of Significance under the EP&A Act has concluded that there is unlikely to be a significant impact on the STIF as a result of the proposal provided precautionary measures to protect the area are implemented during construction. This includes the use of temporary fencing to be installed around the construction area and machinery or materials storage areas to eliminate the potential for accidental damage to the STIF adjacent to the subject site. A condition of consent was imposed in respect to the development application for Buildings C and D to require the protection measures as contained in the Tree Report prepared by Treescan to be implemented. This is not required for the subject development as Building E is not located adjacent to the adjoining site that contains the STIF.

- One endangered plant species was recorded on the site. This is a Wallangarra White Gum. This species does not occur naturally within the Sydney Basin and the tree is a planted specimen. The proposed development will have no impacts on this tree.
- One threatened fauna species was observed flying over the site during nocturnal surveys. This was a Grey-headed Flying Fox. The development will result in the removal of a few potential feed trees however this will be offset by the retention and enhancement of vegetation within the riparian zone, with an overall improvement of the habitat quality of the site in the long term.

The report has concluded that *“the potential impacts will not have a significant impact on the STIF and that a Species Impact Statement is not required. This report as well as the Vegetation Management Plan details actions to be taken to avoid, mitigate and compensate unavoidable impacts on flora and fauna species by improving or maintaining biodiversity values overall on the subject site, particularly by detailing measures to protect and rehabilitate the higher quality riparian zone habitat within the University Creek corridor that occurs on the site and connects with adjoining plant communities.”*

The above findings have been supported by Council’s Landscape Architect.

8.2 State Environmental Planning Policy (Major Developments) Amendment 2011

On 13 May 2011, State Environmental Planning Policy (Major Development) 2005 (SEPP Major Development) was amended by State Environmental Planning Policy (Major Development) Amendment 2011 (SEPP Amendment). The changes meant that proposals for residential, commercial and retail development or for coastal subdivision that were within the classes formerly included in the SEPP Major Development will now require a development application to be lodged with Council for assessment and determination under the appropriate provisions of Part 4 of the EP&A Act. Accordingly, it was necessary to lodge the DA for Building E.

In assessing development under Part 4 where there is an approved Concept Plan, the provisions of the SEPP Amendment are a relevant consideration under section 79C of the EP&A Act. In particular, the SEPP provides that, where there is an approved Concept Plan:

- Development within the terms of the Concept Plan can be carried out with consent.
- The development standards in the Concept Plan will have effect.
- A consent authority must not grant consent unless the development is generally consistent with the provisions of the Concept Plan Approval.
- Consent can be granted without complying with the requirements under any relevant environmental planning instrument or masterplan.

As previously detailed the proposal is generally consistent with the approved Concept Plan.

8.3 State Environmental Planning Policy (State and Regional Development) 2011

As the proposed development has a Capital Investment Value of \$33,404,000, the development application is required to be determined by the Joint Regional Planning Panel.

8.4 State Environmental Planning Policy No 55 – Remediation of Land

The requirements of State Planning Policy No. 55 – Remediation of Land apply to the subject site. In accordance with Clause 7 of SEPP 55, Council must consider if the land is contaminated, if it is contaminated, is it suitable for the proposed use and if it is not suitable, can it be remediated to a standard such that it will be made suitable for the proposed use.

A Phase 2 Contamination Assessment prepared by JBS Environmental Pty Ltd dated April 2012 was submitted with the development application. The report concludes as follows:

Based on the findings of the JBS Investigation the following conclusions are made:

- *The site in its current condition is considered suitable for the intended mixed residential with minimal soil access and commercial (retail) land uses without further investigation or need for long-term site management.*
- *Appropriate site management controls successfully implemented during development of the site for the intended landuses will adequately manage any unexpected finds through appropriate unexpected finds protocols.*

Council's Environmental Health Officer has raised no objections to this development subject to a condition of consent. (See condition number 75).

8.5 State Environmental Planning Policy (Building Sustainability Index: BASIX)

The development is identified under the Environmental Planning and Assessment Regulation 2000 as a BASIX Affected Building. As such, a BASIX Certificate has been prepared (No.422785M-02) which provides the development with a satisfactory target rating.

Appropriate conditions will be imposed requiring compliance with the BASIX commitments detailed within the Certificate. (See condition numbers 3 and 81).

8.6 State Environmental Planning Policy No. 65 – Design Quality of Residential Flat Development

This policy aims to improve the design quality of residential flat development in NSW. It recognises that the design quality of residential flat developments is of significance for environmental planning for the State due to the economic, environmental, cultural and social benefits of high quality design.

The proposal has been assessed against the following matters relevant to SEPP 65 for consideration:

- Urban Design Review Panel;
- The 10 SEPP 65 Design Quality Principles; and
- The NSW Residential Flat Design Code guidelines.

Urban Design Review Panel

Council's Urban Design Review Panel reviewed the preliminary proposal on 13 June 2012. The Panel's comments have been detailed below. The comments have been included in italics and where necessary a comment provided after the issue raised by the Panel.

Ground floor interface and Herring Road

The car park wall dominates the ground floor of the building on all sides with the exception of 2/3 length along the new street elevation. The proposed car park footprint exceeds the concept plan envelope. This additional car park footprint may be acceptable if the benefits to the streetscape in accordance with Council DCP are demonstrated and the Panel's comments below are addressed:

Comment: The following plan shows the location of the approved car parking footprint of the Concept Plan and the proposed basement level plan. The car park extends beyond the approved concept plan in the vicinity of the new road. The car park in this area is below natural ground level.

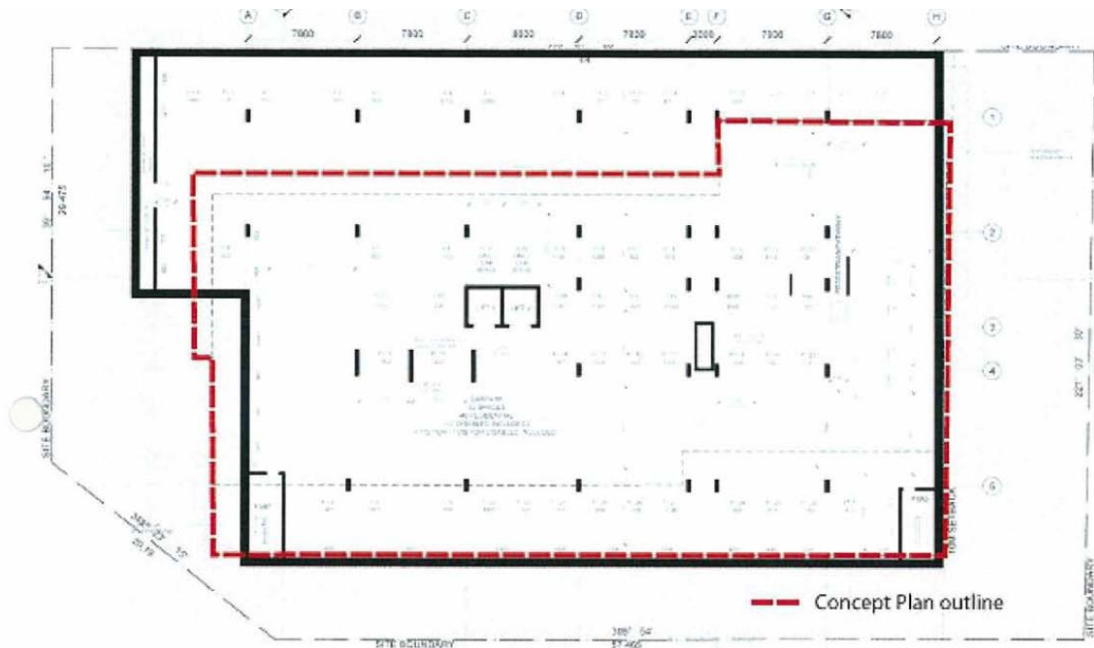


Figure 7. Basement floor plan showing the approved concept plan outlined in red.

This breach does not result in any adverse impacts to the streetscape. Accordingly, the breach is considered acceptable.

New Street - The building entry is located facing the new road. The Panel supports this location. Landscape sections should be provided along the street showing how the terraces, planters, underground car park and ground floor units will relate to the street.

Comment: Information has been provided with the development application. Due to the underground car parking, planting will be provided in small planters adjacent to the new road. As the new road will only service the development rather than being a connecting road within Macquarie Park, this is unlikely to impact on the street or the amenity of the locality.

Herring Road - The south east elevation shows that 50% of the street facade is dominated by an approximately 3m height wall to the car park. Council's DCP includes objectives for activating Herring Road. While the Concept Plan does not require this building to include retail/commercial uses along Herring Road, the objectives to activate the street edge and to provide an appropriate building address and interface are still appropriate. Car parking is specifically excluded. The Panel recommends that a ground floor unit be added facing Herring Road to the south west of Unit G03 and that Unit G03 be reduced in size to allow a window to be provided at the end of the corridor. It is acknowledged that this will impact the car park layout, however as the car park exceeds the concept plan envelope; it is considered an appropriate solution to mitigating the car park impact on the Herring Road elevation. Ground floor units along Herring Road should also address Herring Road elevation. Ground floor units along Herring Road should also address Herring Road with individual courtyard entries. Consideration of potential future small office/home office uses for the ground floor units facing herring Road is recommended.

Comment: The DCP for Macquarie Park does not require street activation along this part of Herring Road. Street activation is required near the entrance to the railway station and Macquarie Shopping Centre. The plans considered by the UDRP did not include the landscaping plans. These plans show the retention of a mound within part of the front setback area in the vicinity of where the UDRP are suggesting a new ground floor unit. Rather than 3m of the car park wall being visible, this is reduced to approximately 1.7m high wall. Landscaping is proposed within this setback to reduce the visual appearance of the car park wall. This is demonstrated in the following diagram.



Figure 8. Herring Road elevation illustrating the mound and proposed landscaping.

It should also be noted that a change such as the one suggested by the UDRP would require a further amendment to the Concept Plan. Given that what is proposed is consistent with the approved Concept Plan, this is a change where Council cannot insist upon.

Side and rear setbacks - The exposed car park wall along the south west elevation exceeds the height of Concept Plan envelope. This is partly a result of solid balustrades and planters along the terrace edges. The Panel recommends that the design of the edge be revised to incorporate glass transparent balustrades to minimise and articulate the height of the wall. In addition it is recommended that the car park is lowered as required so that it will comply with the Macquarie Park DCP.

Similarly along the north west elevation, the design should minimise the appearance of blank walls, and if possible improve connections between units and internal pedestrian circulation spaces and the potential communal open space.

Comment: As demonstrated above the majority of the car park is located within the approved Concept Plan. The exposed wall along the southwest boundary will be set back 5.5m from the adjoining boundary and 13.5m from the northwest boundary. Shrub planting will be incorporated into this setback area which will assist in screening the wall. As planter boxes are proposed along the edge of the terraces, it is not possible to incorporate glass balustrades.

Open space

A generous street setback is required to Herring Road. The current design includes large areas of lawn not intended for residential uses. The Panel recommends reducing the lawn area and its irrigation requirements and replacing it with private courtyards to Unit G03 and the new unit suggested above and beyond these courtyards more sustainable and maintainable ground cover. Vegetation selection should maintain sight lines between the street and ground floor units to promote safety and surveillance.

Comment: The existing landscape character along this part of Herring Road is open communal spaces rather than private courtyards. The suggestion proposed by the UDRP is not supported as it will result in fencing being provided in the setback area which would not compliment to streetscape. The width of landscaping along Herring Road is considered consistent with the DCP requirements.

Communal open space for the Concept Plan is located between Buildings B and C across the new road. To the north of the building is an open space with lawn areas and trees. In its current form the space is segregated from the pedestrian circulation within the site and from adjacent units, which are located at Level 01 above the car park entry ramp. This space has northern aspect and could be made more useful to residents within the building. The proponent should refine the design of this space to provide complementary communal use to the main spaces at Building B and C. The space should be safely accessible by pedestrians within the development.

Comment: Access to the open space areas to the north of the building is via the new road. The space will complement the alternative open space areas within the development as the landscape design has provided grassed areas, shading and seating. There is no other way of accessing this space other than crossing the new vehicular access to the building. Given that traffic using this access will be moving slowly and sight distances are acceptable, Council's Development Engineer has raised no objection to this arrangement. This is considered to be satisfactory.

Deep soil zones are available around the building. The landscape design should maximise opportunities for large canopy trees to supplement the remnant vegetation within this part of the Macquarie Park Corridor.

Comment: The landscaping plan has incorporated large canopy replacement plantings in the deep soil areas.

Internal Corridors

At the ground floor, 3 units are served by a long corridor extending from the lobby lift core. The quality of the corridor could be improved with daylight/natural ventilation introduced at the end. The Panel recommends that Unit G03 be reconfigured to provide an external window to the corridor. This also provides an opportunity to include a second street entry from Herring Road, which could assist in improving the Herring Road interface.

The Panel is concerned with the long kinked corridors on Level 01 to Level 13. The proposal includes 12 units along a double loaded corridor. This exceeds the maximum 8 units off a corridor in the Residential Flat Design Code. The RFDC allows an exception where a design includes a high level of amenity for lobbies, corridors and units. The Panel does not consider that this development achieves a high level of amenity. While an external window is provided at the north-eastern end, the kink in the corridor prevents this window from benefiting the majority of the corridor space. Daylight, views out and natural ventilation are desirable in corridors. The floor plate design for other buildings within the Concept Plan includes corridors with multiple windows and direct lines of sight along corridors. The Panel considers this to be a better outcome than the current proposal. The Panel recommends that the kink in the corridor be removed and/or an additional external window be provided at the kink. A second window could be accommodated by reconfiguring Unit 1.07 or Unit 1.03 and the corresponding units above.

Comment: The applicant has advised “removing the kink will result in undesirable unit sizes, with small apartments located south-west of the corridor and long, narrow apartments located north-east of the corridor. Furthermore, this will be inconsistent with the general building and apartment layout indicated in the Concept Plan”. The applicant has proposed to add further natural light into the corridor by providing a break in the building to permit a window. This is demonstrated on the following figure.



Figure 9. The above figure demonstrates part of the internal corridor on the typical floor level.

Natural light is also gained from the Herring Road elevation of the building. Given the provision of natural light and the width of the corridor varying between 1.6m to 1.8m, this is considered satisfactory.

Unit Design and Amenity

The proponents state that 60% of units achieve cross ventilation. The Panel is not convinced that Units 1.02 and 1.08, corresponding units up to Level 12 and units 13.02 and 13.06 would adequately cross ventilate. Without these units, the proposal achieves 42% cross ventilation, which is well below the 60% Flat Code standard.

Comment: The applicant has provided a report from Cundall in respect to the above units. The following information has been provided in respect of cross ventilation:

“Units 1.08 to 12.08 and 13.06 are all considered cross-ventilated as per image 3.40 of the RFDC. Cross ventilation is effective to a depth of five times the floor to ceiling height, while single sided ventilation is effective to a depth of two times the floor to ceiling height. As the depth of these units is approximately 2.6 times the floor to ceiling height, the addition of a small window to the east is sufficient to generate

effective cross-flow ventilation. While the eastern bedroom window is significantly smaller than the living room's full-height double doors, effective cross-flow ventilation is still achieved, due to the narrow floor plate and the position of the window opening at a high level, allowing warm air to escape.

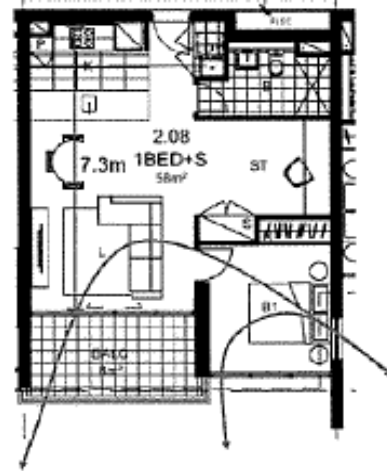


Figure 10. Typical cross ventilation details for units 1.08 (and above) and 13.06.

Units 1.02 to 12.02 and 13.02 have all been reviewed for cross ventilation. These apartments utilize a pressure differential between the large living room and bedroom windows with the small eastern bedroom window. The recessed alcove and fin to the east of the bedroom will provide a negative pressure to draw air through the apartment.

In addition, as per apartment 1.08, the narrow floor plate of the apartment means that effective ventilation can easily be achieved through a large opening and small exit window.”

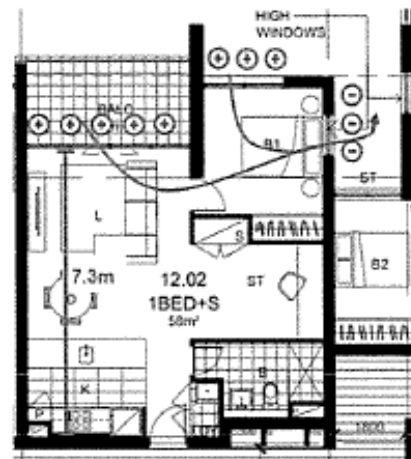


Figure 11. Typical cross ventilation details for units 1.02 (and above) and 13.02.

The notch between units 1.02 and 1.03 (and above) provides ventilation to both a bedroom in unit 1.02 and to a bedroom and living area in unit 1.03.

Acoustic privacy between units may be compromised. The Panel recommends that the high level window to Unit 1.02 (and above) be deleted.

Comment: The applicant has amended the plans that the bedroom window to unit 102 (and above) will be a fixed window. This will ensure acceptable acoustic privacy between units 1.02 and 1.03. This is demonstrated in the following figure. A report has been provided from Cundall to demonstrate that this change will not affect the cross ventilation in the unit.

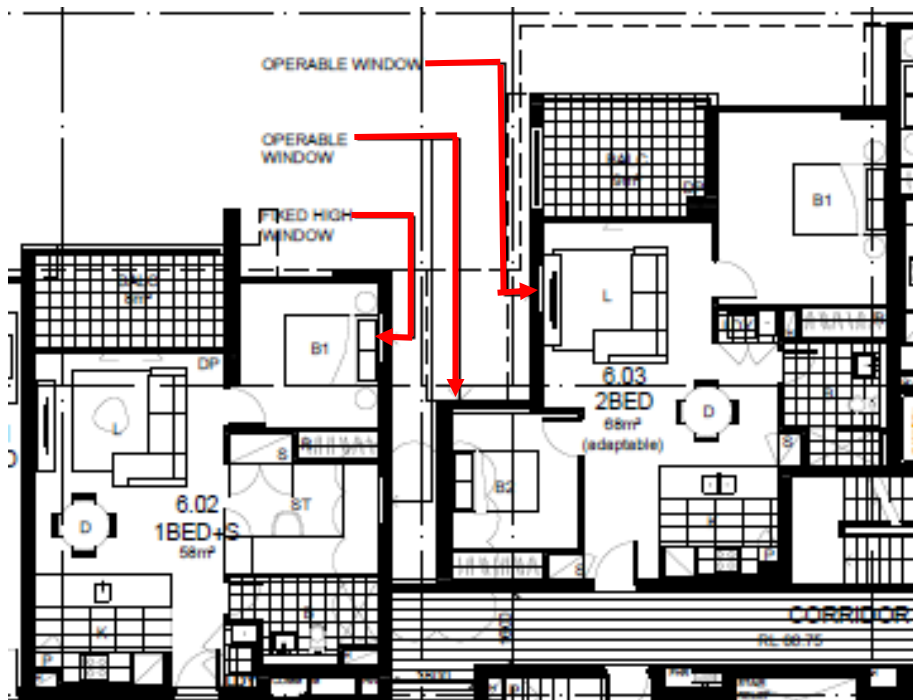


Figure 12. The above figure demonstrates how acoustic privacy will be maintained between apartments 1.02 (and above) and 1.03 (and above).

The high level windows to both bedrooms in Unit 1.05 and above will reduce the amenity of these rooms. They should be replaced with larger windows with lower sills.

Comment: The size of the window has been increased from 1.5m² to 2.1m². This window is not a full sized window as the applicant is trying to maintain flexibility in terms of the arrangement of furniture to this room. The increased window size will allow for improved amenity to the bedroom.

Sun shading is needed for north-east and north-west facing rooms, particularly those where the window is flush with the façade.

Comment: Cundall has provided further comments in respect to the requirement for sun shading devices to the north east facing living spaces. This report has made the following findings:

“Due to the north east orientation of these apartments, solar access amenity is achieved in the morning, which takes advantage of the cooler morning sun. Macquarie Central Building A and B provide northern shading of the lower level apartments and as such level 12 receives the most solar access.

The RFDC encourages direct solar access between March and September and restricted solar access in summer. This guideline is achieved as indicated in the sun path diagrams overleaf. Solar access to the north eastern living space is achieved until 1pm in the winter, midday during mid season and only a fraction of solar access is achieved in the summer months.

In terms of thermal amenity, these apartments all achieve well below the BASIX requirement for the NatHERS cooling load of 59MJ/m². The worst performing apartment is 13.01, which achieves 3259MJ/m² cooling load, almost half of the minimum regulatory requirement. The introduction of fixed shading devices would have little benefit to the thermal amenity of the

apartments as the reduced cooling load would be all but offset by the increase in winter heating load.”

Based on the above information, sun shading is not required.

The Panel does not support inboard rooms that could become bedrooms without a window, for example the ‘studies’ shown in units 1.02 and 1.11. The market demand for student accommodation with study space does not preclude an alternative market for student share housing, where these types of spaces would become bedrooms. The Panel recommends these spaces be deleted (preferred) or minimized by locating the desk/joinery along the long wall to limit their conversion and/or rotating bathrooms to provide a longer narrow study space adjacent to the dining space.

Comment: The applicant has further amended the plans to provide the joinery and cupboard space. A typical layout is demonstrated on the following plan.

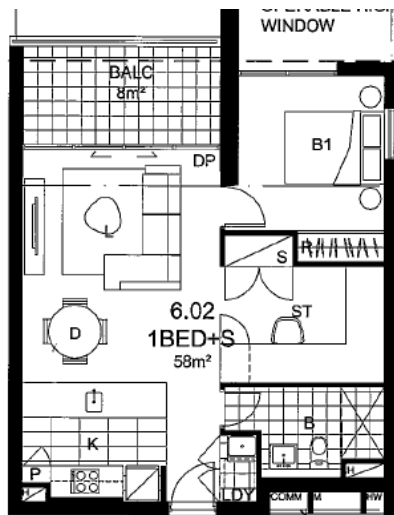


Figure 13. Typical layout of apartments containing a study.

This combined with a condition of consent to restrict the use of the study areas as bedrooms is considered adequate in addressing the Panel’s concern. (See condition No. 71).

SEPP 65 Design Quality Principles

There are 10 design quality principles identified within SEPP 65. The following table provides an assessment of the development proposed against the 10 design principles of the SEPP.

Planning Principle	Comment	Comply
<p>Context Good design responds and contributes to its context. Context can be defined as the key natural and built features of an area. Responding to context involves identifying the desirable elements</p>	<p>Contextually, the buildings are part of the five residential building envelopes approved by the Department of Planning under Part 3A. The proposed development is located adjacent to Macquarie University, in close proximity to the Macquarie Shopping Centre and the railway station with residential flat</p>	<p>Yes</p>

Planning Principle	Comment	Comply
<p>of a location's current character or, in the case of precincts undergoing a transition, the desired future character as stated in planning and design policies. New buildings will thereby contribute to the quality and identity of the area.</p>	<p>buildings of three to four storeys high to the south and east.</p> <p>Macquarie University, which abuts the northern boundary of the site, has a Concept Plan Approval for additional commercial and educational floor space with student accommodation with maximum building height of up to 28 storeys.</p> <p>The height of this development is consistent with recent approvals by the Department of Planning.</p>	
<p>Scale Good design provides an appropriate scale in terms of the bulk and height that suits the scale of the street and the surrounding buildings.</p> <p>Establishing an appropriate scale requires a considered response to the scale of existing development. In precincts undergoing a transition, proposed bulk and height needs to achieve the scale identified for the desired future character of the area.</p>	<p>The Concept Plan Approval for the residential buildings set the parameters in terms of scale and height. The proposed buildings are consistent with these controls. The future character of the area for medium to high density development has been established by the Macquarie University Concept Plan which range in height between 5 to 28 storeys. The height of this development provides a suitable scale transition between the taller buildings located to the north (Macquarie University) and lower developments to the south and east.</p>	Yes
<p>Built Form Good design achieves an appropriate built form for a site and the building's purpose, in terms of building alignments, proportions, building type and the manipulation of building elements.</p>	<p>The built form is considered appropriate for the site and proposed use. The facades of the building will provide visual interest as well as articulation.</p>	Yes
<p>Density Good design has a density appropriate for a site and its context, in terms of floor space yields (or number of units or residents).</p> <p>Appropriate densities are sustainable and consistent with the existing density in an area or, in precincts undergoing a transition, are consistent with the stated desired future density. Sustainable densities respond to the regional context, availability of infrastructure, public transport, community facilities and</p>	<p>The proposed residential density, being 144 units is considered appropriate. The site is located within the Macquarie Park Corridor with close access to retail/commercial and educational facilities and walking distance to public transport. The proposal therefore maximises residential density in relation to established facilities/services.</p>	Yes

Planning Principle	Comment	Comply
environmental quality.		
<p>Resource, energy and water efficiency Good design makes efficient use of natural resources, energy and water throughout its full life cycle, including construction.</p> <p>Sustainability is integral to the design process. Aspects include demolition of existing structures, recycling of materials, selection of appropriate and sustainable materials, adaptability and reuse of buildings, layouts and built form, passive solar design principles, efficient appliances and mechanical services, soil zones for vegetation and reuse of water.</p>	<p>The applicant has provided a BASIX Certificate (No. 422785M _02 dated 20 August 2012) which indicates that the building will meet the energy and water use targets set by the BASIX SEPP.</p> <p>A waste management plan has been submitted and is considered acceptable by Council's EHO.</p> <p>The design has also ensured the development will comply with the passive solar design principles, soil depth, cross ventilation and reuse of water as provided in the Residential Flat Design Code.</p>	Yes
<p>Landscape Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in greater aesthetic quality and amenity for both occupants and the adjoining public domain.</p> <p>Landscape design builds on the existing site's natural and cultural features in responsible and creative ways. It enhances the development's natural environmental performance by co-ordinating water and soil management, solar access, micro-climate, tree canopy and habitat values. It contributes to the positive image and contextual fit of development through respect for streetscape and neighbourhood character, or desired future character.</p> <p>Landscape design should optimise useability, privacy and social opportunity, equitable access and respect for neighbours' amenity, and provide for practical establishment and long term management.</p>	<p>The landscape design for Building E provides areas for communal open space for the occupants of the buildings. A range of plantings is proposed and considered suitable for the proposed use. The landscaping will also soften the appearance of the development.</p> <p>Planting within the front setback will breakdown/soften the development when viewed from Herring Road and the new road.</p>	Yes

Planning Principle	Comment	Comply
<p>Amenity Good design provides amenity through the physical, spatial and environmental quality of a development.</p> <p>Optimising amenity requires appropriate room dimensions and shapes, access to sunlight, natural ventilation, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas, outlook and ease of access for all age groups and degrees of mobility.</p>	<p>The design and orientation of the apartments allows for a sufficient level of amenity for occupants of the flat buildings and residents of surrounding properties. Apartments are practically laid out to provide for solar access, private open space, storage space and to minimise overlooking and noise impacts.</p> <p>The development complies with the controls contained in the Residential Flat Design Code in respect to apartment sizes, access to sunlight, ventilation, visual and acoustic privacy, storage layout and access requirements.</p>	Yes
<p>Safety and Security Good design optimises safety and security, both internal to the development and for the public domain.</p> <p>This is achieved by maximising overlooking of public and communal spaces while maintaining internal privacy, avoiding dark and non-visible areas, maximising activity on streets, providing clear, safe access points, providing quality public spaces that cater for desired recreational uses, providing lighting appropriate to the location and desired activities, and clear definition between public and private spaces.</p>	<p>The proposal makes a positive contribution with respect to safety and security. Passive surveillance opportunities are provided with balconies and windows facing Herring Road, the new road and the communal open space areas.</p> <p>Entrance points are clearly identified and public and private space is clearly delineated through secure entrances and the use of perimeter planting.</p>	Yes
<p>Social Dimensions and Housing Affordability Good design responds to the social context and needs of the local community in terms of lifestyles, affordability, and access to social facilities.</p> <p>New developments should optimise the provision of housing to suit the social mix and needs in the neighbourhood or, in the case of precincts undergoing transition, provide for the desired future community.</p> <p>New developments should address housing affordability by optimising</p>	<p>The development will include the following housing mix:</p> <ul style="list-style-type: none"> • 95 x 1 bedroom apartments; • 46 x 2 bedroom apartments. • 3 x 3 bedroom apartments; <p>The development predominantly contains 1 bedroom apartments. Given that the site is located adjacent to Macquarie University this is considered appropriate. The smaller size apartments will provide for a range of affordable/student accommodation, addressing the need for provision of economic housing choice within an area with good public transport access, social and commercial facilities.</p>	Yes

Planning Principle	Comment	Comply
the provision of economic housing choices and providing a mix of housing types to cater for different budgets and housing needs.	Adaptable units are also proposed.	
Aesthetics Quality aesthetics require the appropriate composition of building elements, textures, materials and colours and reflect the use, internal design and structure of the development. Aesthetics should respond to the environment and context, particularly to desirable elements of the existing streetscape or, in precincts undergoing transition, contribute to the desired future character of the area.	The building aesthetics are considered appropriate. The development presents a contemporary design which is compatible with the existing approvals for Buildings A , B, C and D. The buildings have a distinctive back and front appearance with indentations to provide architectural interest.	Yes

Residential Flat Design Code

The SEPP also requires the Council to take into consideration the requirements of the Residential Flat Design Code. These matters have been raised in the following table.

Primary Development Control and Guidelines	Comments	Comply
Part 01 – Local Context		
Building Height Where there is an existing floor space ratio (FSR), test height controls against it to ensure a good fit.	The building will exceed the maximum height of 21.5m permitted under RLEP 2010. Building E will have a maximum height of 39m. The maximum RL of Building E will not exceed the building height stipulated under the approved Concept Plan. Based on the Concept Plan, the height of the buildings is considered to be satisfactory.	Yes
Building Depth In general, an apartment building depth of 10-18 metres is appropriate. Developments that propose wider than 18m must demonstrate how satisfactory day lighting and natural ventilation are to be achieved.	The building depth ranges from 20m to a maximum of 24m. Although the building exceeds the maximum building depth, it is consistent with the Concept Plan approval. The building will provide satisfactory daylight and natural ventilation. These aspects are discussed in greater detail further in the report. As these aspects are satisfactory, no objection is raised to the variation.	No - variation acceptable.
Building Separation Building separation for buildings 9 storeys and above should be:	The development achieves the required separation in relation to Buildings A and B as well as the residential flat buildings on	Yes

Primary Development Control and Guidelines	Comments	Comply
<p>-24m between habitable rooms/balconies -18m between habitable/balconies and non-habitable rooms -12m between non-habitable rooms. Developments that propose less distance must demonstrate that adequate daylight access, urban form and visual and acoustic privacy has been achieved.</p>	<p>the eastern side of Herring Road.</p> <p>The development is separated a minimum of 12 metres from part of Morling College. This separation distances increases to beyond 20m. Although the development does not achieve the required separation distances for a small portion of Morling College, the development is consistent with the Concept Plan Approval. Also, the development is unlikely to impact on the amenity of the adjoining site due to appropriate screening devices being provided on the balconies.</p>	
<p>Street Setbacks Identify the desired streetscape character. In general, no part of the building should encroach into a setback area.</p>	<p>The development is generally set back 10m to Herring Road and a minimum setback of 5m to the new road. This is consistent with the required setbacks under Ryde DCP 2010. The development encroaches the 10 metre setback to Herring Road in two areas. Firstly, part of the terrace area on the ground floor encroaches into the setback area by 2m. This will provide amenity for the adjoining unit and will not adversely impact on the streetscape design for the street setback. Secondly, the balcony located on level 1 and above in the north east corner of the building will encroach the setback by 0.4m. This is a minor breach and will not be readily visible from Herring Road. Also this needs to be read in conjunction with the rest of the floor level that exceeds the 10 metre setback.</p>	No. Variation acceptable.
<p>Side and Rear Setbacks Relate side setbacks to existing streetscape patterns. These controls should be developed in conjunction with building separation, open space and deep soil zone controls. In general, no part of the building should encroach into a setback area.</p>	<p>The Ryde DCP 2010 requires the development to be setback 10m to the rear and 5m to the side boundaries. The development exceeds these setback requirements. These setbacks will allow for deep soil planting and open space.</p>	Yes
<p>Floor Space Ratio Test the desired built form outcome against the proposed floor space ratio to ensure consistency with building height, building footprint, the three dimensional building envelope and open space requirements.</p>	<p>A maximum FSR of 2:1 is permitted on the site under RLEP 2010. The development proposes a FSR of 3.61:1. Although the development exceeds the permitted FSR, the development is consistent with the floor space approved in the Concept Plan.</p>	Yes
Part 02 – Site Design		
Deep Soil Zones	The majority of the landscaped area is deep	Yes

Primary Development Control and Guidelines	Comments	Comply
A minimum of 25% of the open space area of a site should be deep soil zone. Exceptions may be made in urban areas where sites are built out and there is no capacity for water infiltration.	soil zones. The development exceeds this requirement.	
Fences and Walls Fences and walls are to respond to the identified architectural character for the street and area. They are also to delineate the private and public domain without compromising safety and security.	Fences and walls will be provided along the side and rear boundaries of the site. These will be used to delineate the public and private domain. Landscaping will still be provided along the street frontages to soften the impact of the fencing.	Yes
Landscape Design Landscaping is to improve the amenity of open spaces as well as contribute to the streetscape character.	The landscape design is a continuation of the landscaping already approved on the site in respect of Building A, B, C and D. The landscaping will enhance the streetscape as well as contributing to the amenity of the occupants.	Yes
Open Space The area of communal open space required should generally be at least between 25% and 30% of the site area. Where developments are unable to achieve the recommended communal open space, they must demonstrate that residential amenity is provided in the form of increased private open space and/or in a contribution to public open space.	The landscaped area equates to 930m ² or 31% of the site area which exceeds the RFDC requirements. Residents of Building E are also able to access the landscaped features associated with the other buildings. This includes a pool, BBQ area, seating areas and the riparian zone.	Yes
Orientation Optimise solar access to living areas and associated private open spaces by orientating them to the north and contribute positively to the streetscape character.	The development has orientated as many units and balconies as possible to the north. The development complies with the solar access provisions of the RFDC.	Yes
Planting on Structures In terms of soil provision there is no minimum standard that can be applied to all situations as the requirements vary with the size of plants and trees at maturity. The following are recommended as minimum standards for a range of plant sizes: • Shrubs - minimum soil depths 500 - 600mm	The landscape architect has confirmed that the development will comply with the required soil depth as identified in the RFDC.	Yes
Stormwater Management	The development has been assessed by	Yes

Primary Development Control and Guidelines	Comments	Comply
Reduce the volume impact of stormwater on infrastructure by retaining it on site.	Council's Development Engineer and is considered to be satisfactory subject to a number of conditions of consent. (See condition numbers 35 and 36).	
Safety Optimise the visibility, functionality and safety of building entrances. Improve the opportunities for casual surveillance and minimise opportunities for concealment.	<p>Public and private space is clearly delineated through the use of fencing and landscaping elements.</p> <p>The proposed development is considered acceptable with respect to safety. The design provides for adequate passive surveillance of the streets, landscaped areas and communal spaces. Appropriate access control is provided throughout various parts of the development including the residential lobbies and the secure parking areas.</p> <p>Conditions of consent have been included to reflect appropriate safety and security measures. (See condition numbers 61 to 70).</p>	Yes
Visual Privacy The building separation requirements should be adopted.	Only a small section of the building will not comply with the building separation distances. This occurs in the western corner of the building in the vicinity of Morling College. The design however ensures that the amenity of the adjoining site will not be affected as privacy screens have been incorporated along the edge of the balconies.	Yes
Building Entry Ensure equal access to all. Developments are required to provide safe and secure access. The development should achieve clear lines of transition between the public street and shared private, circulation space and the apartment unit.	The development will provide equitable as well as safe and secure access to both buildings. The use of landscaping and fencing will ensure that the development will provide clear lines of transition between public and private areas.	Yes
Parking Determine the appropriate car parking numbers. Where possible underground car parking should be provided.	<p>The Concept Plan Approval required car parking to be provided at the following rate:</p> <ul style="list-style-type: none"> • 1 space per dwelling with 1 or 2 bedrooms; • 1.6 space per dwelling with 3 or more bedrooms; and • 1 space per 6 dwellings for visitors. <p>The development has proposed 141 apartments that are either 1 or 2 bedrooms and 3 x 3 bedroom apartments. The development is required to provide 146</p>	Yes

Primary Development Control and Guidelines	Comments	Comply
	resident car spaces and 24 visitor car spaces. The development has provided 171 spaces which complies with the Concept Plan approval.	
Pedestrian Access Provide high quality accessible routes to public and semi-public areas of the building and the site. Maximise the number of accessible, visitable and adaptable apartments in the building.	The development will incorporate accessible routes in respect of the public areas. In addition, accessible access has been provided through out the development. The development has provided 15 adaptable apartments. This number complies with Council's DCP requirements.	Yes
Vehicle Access To ensure that the potential for pedestrian / vehicle conflicts is minimised. The width of driveways should be limited to 6 metres. Vehicular entries should be located away from main pedestrian entries and on secondary streets.	Vehicular access to the building is located from the new road. This is consistent with the Concept Plan Approval MP09_0195 MOD. 2. The driveway width is 6.5m. This width will allow turning space in and out of the driveway with a median to separate ingress and egress. Council's Engineers have raised no objection to the location of the vehicular access point.	No – variation acceptable.
Part 03 – Building Design		
Apartment Layout Single aspect apartments should be limited in depth to 8m from a window. The minimum sizes of the apartments should achieve the following; Studio – 38.5m ² 1 bedroom – 50m ² 2 bedroom – 70m ² 3 bedroom – 95m ²	The apartment sizes are as follows: 1 bed – 49m ² to 61m ² 2 bed – 68m ² to 81m ² 3 bed – 109m ² to 125m ² A total of 21 of the apartments do not exceed the minimum requirements. Nine of these apartments are 1 bedroom units with an area of 49m ² and the remaining 12 apartments are 2 bedrooms with an area of 68m ² . However these units demonstrate adequate levels of internal amenity and the rooms will allow for flexibility in furniture configuration over the life of the units. The non-compliance is considered acceptable.	No – variation acceptable.
Apartment Mix The development should provide a variety of types.	Building E will contain 95x1 bedroom units, 46x2 bedroom units and 3x3 bedroom units. Council's controls do not require a particular mix of apartment sizes. The mix as proposed will provide a variety of unit sizes within the development as well as the smaller sized apartments providing affordable student accommodation.	Yes
Balconies Where private open space is not provided, primary balconies with a minimum depth of 2 metres should be provided.	Each apartment is provided with a primary balcony that is accessed from the main living areas of the apartments. All balconies have a minimum depth of 2 metres.	Yes
Ceiling Heights The following recommended	Floor to ceiling heights are at least 2.7 metres for all residential dwellings.	Yes

Primary Development Control and Guidelines	Comments	Comply
<p>dimensions are measured from finished floor level (FFL) to finished ceiling level FCL).</p> <ul style="list-style-type: none"> in general, 2.7m minimum for all habitable rooms on all floors, 2.4m is the preferred minimum for all non habitable rooms, however 2.25m is permitted. 		
<p>Flexibility Provide apartment layouts which accommodate the changing use of rooms.</p>	<p>Building E includes apartments with different layouts. These layouts are all generally flexible and will accommodate the changing use of rooms. Building E will contain 15 adaptable apartments.</p>	
<p>Ground Floor Apartments Optimise the number of ground floor apartments with separate entries and consider requiring an appropriate percentage of accessible units. This relates to the desired streetscape and topography of the site.</p>	<p>Three ground floor apartments are provided. Each of these apartments are provided with a large terrace area with direct access from the new road. This is consistent with the requirement.</p>	Yes
<p>Internal Circulation In general, where units are arranged off a double-loaded corridor, the number of units accessible from a single core/corridor should be limited to eight.</p> <p>Increase amenity and safety of circulation spaces by providing generous corridor widths and ceiling heights, appropriate levels of lighting including the use of natural daylight.</p>	<p>Above the ground floor, the corridor will provide access to between 9 and 12 apartments on each level of the building. This matter has been discussed under the heading of the Urban Design Review Panel and the variation is considered acceptable.</p>	No. Variation acceptable
<p>Mixed Use The development is to choose a mix of uses that complement and reinforce the character, economics and function of the local area. The development must also have legible circulation systems.</p>	<p>Building E is entirely residential. This is consistent with the Concept Plan Approval. Given the location of the site adjacent to Macquarie University, this is considered appropriate.</p>	Yes
<p>Storage In addition to kitchen cupboards and bedroom wardrobes, provide accessible storage facilities at the following rates:</p> <ul style="list-style-type: none"> studio apartments - 6.0m³ one-bedroom apartments - 6.0m³ 	<p>Storage is provided in the unit as well as the basements. The development complies with the requirements of the RFDC.</p>	Yes

Primary Development Control and Guidelines	Comments	Comply
<ul style="list-style-type: none"> two-bedroom apartments - 8.0m³ 50% of the above areas may be allocated within each respective apartment while the remaining 50% is to be located within the car parking area.		
Acoustic Privacy Apartments within a development are to be arranged to minimise noise transitions.	Appropriate acoustic privacy will be provided for each apartment.	Yes
Daylight Access Living rooms and private open spaces for at least 70% of apartments in a development should receive a minimum of three hours direct sunlight between 9.00am and 3.00pm in mid winter. In dense urban areas a minimum of two hours may be acceptable. Limit the number of single aspect apartments with a southerly aspect to a maximum of 10% of the total units proposed.	Given the heights of the buildings approved under the Concept Plan, the site is considered to be in a dense urban area. 70% of the apartments will achieve at least 2 hours sunlight to living areas and private open space on June 21. This is consistent with the requirement. 34% of the apartments however will have a southerly single aspect. This exceeds the RFDC requirement. Despite this, the development will still provide adequate daylight and ventilation. If this building was considered in relation to the entire development on the site, the development would comply with this requirement.	No. Variation acceptable.
Natural Ventilation Building depths which support natural ventilation typically range from 10 to 18 metres. 60% of residential units should be naturally cross ventilated. 25% of kitchens should have access to natural ventilation.	Building E has natural cross ventilation to 60% of the apartments. Only one of the kitchens will have access to natural ventilation. This was not raised as an issue by Council's UDRP and is not considered to be sufficient grounds for refusal.	Yes
Awning Awnings are to encourage pedestrian activity on streets by providing awnings to retail strips.	The development does not propose any awnings on the buildings. This is consistent with the DCP for Macquarie Park.	Yes
Facades Facades are to be of appropriate scale, rhythm and proportion which responds to the building's use and the desired contextual character.	The design of the facades incorporates a number of different building elements including recessed balconies, louvers, slots and glazed balustrades. The building finishes will be rendered masonry / concrete with paint finish. The majority of the paint finish has a neutral colour palette however the development incorporates a range of contemporary colours to each building which will add interest to each building as well as assisting in building identification. This will also enhance the aesthetics of the building when viewed from	Yes

Primary Development Control and Guidelines	Comments	Comply
	the public domain.	
Roof Design Roof design is to relate to the desired built form as well as the size and scale of the building.	The roof is well integrated with the overall building design. Materials, colours and finishes of the roof and top floor complement the overall aesthetics.	Yes
Energy Efficiency Incorporate passive solar design techniques to optimize heat storage in winter and heat transfer in summer. Improve the control of mechanical space heating and cooling.	The energy efficiency of the buildings is consistent with the requirements under BASIX.	Yes
Maintenance The design of the development is to ensure long life and ease of maintenance.	The proposal is considered to be acceptable in terms of building maintenance.	Yes
Waste Management A waste management plan is to be submitted with the development application.	A Waste Management Plan has been submitted with the DA.	Yes

8.7 Deemed State Environmental Planning Policy Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005

Deemed SEPP Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 applies to the subject site and has been considered in this assessment.

The site is located within the designated hydrological catchment of Sydney Harbour and therefore is subject to the provisions of the above planning instrument. However, the site is not located on the foreshore or adjacent to the waterway and therefore, with the exception of the objective of improved water quality, the objectives of the planning instrument are not applicable to the proposed development. The objective of improved water quality is satisfied through compliance with the provisions of Part 8.2 of DCP 2010. The proposed development raises no other issues and otherwise satisfies the aims and objectives of the planning instrument.

8.8 Ryde Local Environmental Plan 2010

The following is an assessment of the proposed development against the applicable provisions from the Ryde Local Environmental Plan 2010.

Clause 2.3 Zone Objectives and Land Use Table

The site is zoned B4 – Mixed Use under Ryde LEP 2010. The use would be defined as a residential flat building. This use is permissible in the zoning with the consent of the consent authority.

The consent authority must have regard to the objectives for development in a zone when determining a development application in respect of land within the zone. The objectives for the B4 Mixed Use zone are as follows:

- To provide a mixture of compatible land uses.
- To integrate suitable business, office, residential, retail and other development in accessible locations so as to maximise public transport patronage and encourage walking and cycling.
- To create vibrant, active and safe communities and economically sound employment centres.
- To create safe and attractive environments for pedestrians.
- To recognise topography, landscape setting and unique location in design and land-use.

The proposal meets the objectives of the zone though providing housing stock for a range of markets such as students and employees of the University and the Macquarie Park Corridor. The subject site is located within walking distance of bus services and retail and commercial services and is therefore considered to be a suitable location for this development. The development will provide active surveillance for residents and pedestrians with a walkway provided to Macquarie University.

Clause 4.3 Height of Buildings

The height of a building on this part of the site is not to exceed the maximum height of 21.5m.

Building E will exceed the height control having a maximum height of 41.2m. However the height of the building has already been approved as part of the Concept Plan Approval MP09_0195 MOD 2. In these circumstances consent can be granted without complying with the requirements of the RLEP 2010.

Clause 4.4 Floor Space Ratio

The floor space ratio of a building is not to exceed the maximum floor space ratio as specified on the Floor Space Ratio Map. The map identifies the site as having a 2:1 floor space ratio.

The development has proposed a FSR of 3.61:1. This calculation is based on the site area of Lot 7 in the approved draft subdivision plan. This exceeds the Council's control however this requirement is superseded by the Part 3A approval. The modification to the Concept Plan Approval proposed a gross floor area of 10,798m² for Building E and the development complies with this requirement.

Clause 5.10 (5) & 7 - Heritage Impact & Archaeological sites

Schedule 5 of RLEP 2010 lists the Macquarie University (Ruins) to the north of the site as a heritage item – local significant.

Council's Heritage Officer has confirmed that the proposal will have no impact on the heritage significance (as the ruins are located in the middle of the Macquarie University site, away from the subject site).

Clause 6.2 Earthworks

Development consent is required for the earthworks associated with the development. Before granting consent for earthworks, the consent authority must consider the following measures:

- The likely disruption of, or any detrimental effect on, existing drainage patterns and soil stability in the locality.
- The effect of the proposed development on the likely future use or redevelopment of the land.
- The quality of the fill or the soil to be excavated, or both.
- The effect of the proposed development on the existing and likely amenity of adjoining properties.
- The source of any fill material and the destination of any excavated material.
- The likelihood of disturbing relics.
- Proximity to and potential for adverse impacts on any watercourse, drinking water catchment or environmentally sensitive area.

The proposed development includes excavation for a 3 level basement car park. Council's Development Engineer requires that a number of conditions be included on the consent to address engineering issues such as a sediment and erosion control plan to be submitted prior to the issue of a Construction Certificate. (See condition number 50).

The site is not known to contain any relics or any other item of heritage significance.

The development is considered satisfactory in respect of this clause.

Clause 6.6 Macquarie Park Corridor:

The site is located within the Macquarie Park Corridor and the objectives of the Macquarie Park Corridor are as follows:

- (a) To promote the corridor as a premium location for globally competitive businesses with strong links to the Macquarie University and research institutions and an enhanced sense of identity.
- (b) To implement the State Government's strategic objectives of integrating land use and transport, reducing car dependency and creating opportunities for employment in areas supported by public transport.
- (c) To guide the quality of future development in the corridor.

- (d) To ensure that the corridor is characterised by a high-quality, well-designed and safe environment that reflects the natural setting, with three accessible and vibrant railway station areas providing focal points.
- (e) To ensure that residential and business areas are better integrated and an improved lifestyle is created for all those who live, work and study in the area.

The proposal meets these objectives as it is consistent with the recent Concept Plan Approval for the site, which provides a mix of apartments to provide housing stock within the locality.

8.9 Draft Ryde Local Environmental Plan 2011

A Section 65 Certificate enabling the formal exhibition of Draft Local Environmental Plan 2011 was issued by the Department of Planning and Infrastructure on 23 April 2012. The Draft Plan was exhibited between 30 May 2012 and 13 July 2012. Under this Draft LEP, the zoning of the property is B4 Mixed Use. The proposed development is permissible with consent within this zoning under the Draft LEP, and it is considered that the proposal is not contrary to the objectives of the Draft LEP or those of the proposed zoning.

8.10 City of Ryde DCP 2010

Council adopted City of Ryde DCP 2010 on 16 June 2009 and its provisions became effective on 30 June 2010. The following sections of DCP 2010 are relevant to the proposed development:

Part 4.5 of DCP 2010 – Macquarie Park Corridor

This part of the DCP provides a framework to guide future development in the Macquarie Park Corridor, North Ryde. The DCP specifies built form controls for all development within the Corridor and sets in place urban design guidelines to achieve the vision for Macquarie Park as a vibrant community, as a place to live, work and visit.

The DCP is divided into four sections. The first section is the structure plan and this sets out the broad framework for development within the Macquarie Park Corridor. The second section deals with special precincts and provides character statements, objectives and development controls for the areas. The third section of the DCP deals with controls applicable for the public domain. The final section contains controls in respect to the siting and planning design. The following table demonstrates the proposals compliance with these requirements.

Control	Comments
s3.0 – Structure Plan	
Street Network 1. Provide new public streets as shown in the Street Network Structure Plan.	The Street Network Structure Plan requires new roads within the site which would have eventually connected up to existing roads and proposed roads in Macquarie University. The

Control	Comments
<p>2. New streets are to be dedicated to Council.</p>	<p>plan required three new local roads across the site.</p> <p>However, due to the Concept Approval for Macquarie University, this street network cannot be achieved. The Department of Planning granted approval for one main access road on the site which terminates at the end of the site and a pedestrian/cycleway between Buildings B and C which will provide access and connectively to the university. This road and the pedestrian/cycleway has been provided in earlier consents.</p>
<p>Open Space Network</p> <ol style="list-style-type: none"> 1. Provide public open space as shown in Figure 4.5.06 Open Space Network. 2. Refer to s5.1 for detailed information regarding the design requirements for each park. 3. Parks are to be in public ownership. 	<p>The site is not required to provide any public open space.</p>
S4.0 – Special Precinct – Macquarie University Station Precinct	
<p>Site & Building Design Height</p> <ol style="list-style-type: none"> 1. Development should comply with Figure 4.5.35 which indicates the maximum number of permissible storeys and supplements the height of buildings indicated on the Adopted LEP 2008 Height Controls (as per Adopted Amendment 1). 	<p>The building height indicated on the map is 8 storeys. Building E is part 12 and part 13 storeys. This is consistent with the approval under Part 3A (MP09_0195 MOD 2).</p>
<p>Setback + Building Zone</p> <ol style="list-style-type: none"> 1. Ensure that the critical building alignments shown in Figure 4.5.36 are provided. Critical building alignments are to be determined by setting out the minimum setback from the closest point to the boundary along the street. This control is necessary to ensure a spatial consistency along streets in the context of irregular and unaligned property boundaries. At least 85% of the building frontage (on all levels) is to be built to this setback. 2. Underground carparking is not permitted to encroach into setback areas unless it can be demonstrated that the basement is designed to support significant mature trees and deep root planting. Refer to the Part Section Street Setbacks for setback controls on sites outside the area of this detail plan. 	<p>The development is required to provide a 10m minimum setback from the Herring Road boundary and 5 metres to the new road. The development complies with this requirement with the exception of a small section of the building adjacent to Herring Road. Part of the terrace area on the ground floor encroaches into the setback area by 2m. This will provide amenity for the adjoining unit and will not adversely impact on the streetscape design for the street setback. Also, the balcony located on level 1 and above in the north east corner of the building will encroach the setback by 0.4m. This is a minor breach and will not be readily visible from Herring Road. This non compliance needs to be read in conjunction with the rest of the floor level that exceeds the 10 metre setback.</p> <p>Underground car parking will encroach into the setback area for the new road. Despite this encroachment, planting will be provided in the setback area.</p>

Control	Comments
<p>Public Domain Interface Vehicular Access + Parking</p> <ol style="list-style-type: none"> 1. Driveways and vehicular crossings are not preferred along Herring Road, for the block south of Waterloo Road 2. Driveways and vehicular crossings are to be provided from secondary streets wherever possible. 3. Vehicle access should not ramp along boundary alignments facing a street or public open space. 	<p>Vehicular access is to be provided from the new road. This is consistent with the DCP requirements. The vehicular access will not ramp along the boundary alignment facing a street.</p>
S5.3 General Public Domain Controls	
<p>Cycle Strategy</p> <ol style="list-style-type: none"> 1. Provide lockable bicycle storage and end-of-trip facilities at train stations and within development. 	<p>Bicycle storage is proposed within the basement for 60 bicycles. This is consistent with Council's requirements. The development does not include end of trip facilities such as common shower areas and lockers. This is appropriate given the nature of the development.</p>
<p>Street Furniture, Paving and Street Lighting</p> <ol style="list-style-type: none"> 1. Design and build streets in accordance with the details provided in the Macquarie Park Public Domain Technical Manual. 2. Utilise paving materials, furniture and lighting standards as identified in the Macquarie Park Public Domain Technical Manual. 	<p>A condition of consent will be imposed to require the Herring Road frontage to be upgraded. This work will be required to be completed in accordance with the Macquarie Park Public Domain Manual. (See condition number 42).</p>
<p>Street Tree & Front Setback Tree Planting</p> <ol style="list-style-type: none"> 1. Street trees and front setback must be provided in accordance with the Street Tree Key Plan in the Macquarie Park Public Domain Technical Manual, and their health guaranteed for a minimum of 5 years. 	<p>The landscaping plan does not adequately demonstrate the street trees to be provided. A condition of consent will be imposed to require the street trees to be included in accordance with the Macquarie Park Public Domain Technical Manual. (See condition number 42).</p>
<p>Community Facilities</p> <ol style="list-style-type: none"> 1. Community facilities are to be provided as required by the Ryde City Council's Section 94 Plan. 	<p>Any development consent would include a condition requiring the payment of Section 94 Contributions. Part of this contribution will be towards the provision of community facilities. (See condition number 78).</p>
<p>Implementation – infrastructure, facilities and public domain improvements</p> <ol style="list-style-type: none"> 1. Public land such as the road verge adjoining a development site is to be embellished and dedicated to Council as part of any new development. 2. The Access network being the roads and open space is to be dedicated to Council as part of a new development is to conform with LEP 2010 – Macquarie Park 	<p>This clause is not applicable to the current development application.</p>

Control	Comments
<p>Corridor – Access Network.</p> <p>3. New community and public domain space, roads, pedestrian ways and infrastructure, shall be dedicated to Council. Where this is not practicable, easements and rights of ways may be created.</p>	
<p>s6.0 – Site & Building Design</p>	
<p>6.1 – General Built Form Controls – Note: Many of the general built form controls are the same as the controls for the Macquarie University Station Precinct or as contained in the Residential Flat Design Code. It is only intended to address any new matters in this Section of the report.</p>	
<p>Site Planning & Staging</p> <p>1. Sites are to be planned to allow for the future provision of new streets and open spaces in accordance with Ryde LEP 2008 Amendment 1 – Access Network.</p> <p>2. Buildings are to be sited to address existing and new frontages in the following order of precedence:</p> <p style="margin-left: 20px;">a) Primary frontages: These are located along existing streets (typically Type 1 or 2 streets).</p> <p style="margin-left: 20px;">b) Secondary frontages: these are generally existing, or new Type 2 or 3 streets.</p> <p>3. Front door and street address is to be located on the primary frontage. Loading docks, vehicular access is not permitted to be located on the primary frontage unless it can be demonstrated that there is no alternative.</p>	<p>The previous approvals required the construction of a new type 3 road which is defined as a secondary frontage in terms of the DCP. Building E has been sited to address this road. This is consistent with the Concept Plan.</p>
<p>Side & Rear Setbacks</p> <p>1. Buildings are to be set back 10m from a rear and 5m from a side site boundary.</p> <p>2. Basement car park structures should not encroach into the minimum required side or rear setback zone unless the structure can be designed to support mature trees and deep root planting.</p>	<p>The issue of setbacks has already been discussed under RFDC. The development has provided adequate side and rear setbacks.</p>
<p>Building Articulation</p> <p>1. Facades are to be composed with an appropriate scale, rhythm and proportion, which respond to the building use and the desired character.</p> <p>2. Façade design is to reflect and respond to the orientation of the site using elements such as sun shading and environmental controls where appropriate.</p>	<p>The facades have been designed to reflect the approved Buildings A, B, C and D and it is intended to use similar materials and finishes. The facades have included vertical as well as horizontal elements as well as articulation with the provision of balconies, solid walls and indents.</p> <p>The Urban Design Review Panel has reviewed the proposal and are generally</p>

Control	Comments
<p>3. Building services such as roof plant and parking ventilation are to be coordinated and integrated with the overall façade and building design, and screened from view. Roof forms, building services and screening elements are to occur within the overall height control.</p>	<p>supportive of the finishes.</p>
<p>Topography & Building Interface</p> <ol style="list-style-type: none"> 1. Level changes across sites are to be resolved within the building footprint. 2. Where buildings are set back from the street boundary, entries are to be provided at street level wherever possible. 3. An accessible path of travel is to be provided from the street through the main entry door of all buildings. 4. Where necessary, stairs and ramps are to be integrated with the landscape design of front setbacks. 5. Publicly accessible open spaces under private ownership must be provided at footpath level. 	<p>The development has complied with these requirements. Where the basement extends above natural ground level, this has been treated with landscaping to assist in softening the appearance of the building.</p> <p>An accessible path of travel has been provided from the street to the entry of the building.</p>
<p>Wind Impact</p> <ol style="list-style-type: none"> 1. All applications for buildings over 5 storeys in height shall be accompanied with a wind environment statement. For buildings over 9 storeys and for any other building which may be considered as exposed building shall be accompanied by a wind tunnel study report. 	<p>A wind study report has not been submitted as part of this application. A Wind Tunnel Study was not required as part of the assessment process of the Part 3A application. It is considered that as the location, height and scale of the buildings have already been approved, the proposal does not necessitate the submission of a wind study.</p>
<p>6.3 – Services & Site Management</p>	
<p>Floodplain Management</p> <ol style="list-style-type: none"> 1. All stormwater leaving the site, at any time, up to a 1-in-20 year stormwater event, is treated/filtered in accordance with ANZECC Guidelines for Urban Stormwater management. 2. Development must not increase peak stormwater flows for rainfall events of up to 1-in-2 year storm. 	<p>The development has been assessed by Council's Engineers and has been found to be satisfactory. (See the Referral section of the report for further information).</p>
<p>Stormwater Drainage</p> <ol style="list-style-type: none"> 1. Development shall comply with the requirements outlined in the Stormwater Drainage Section of the DCP and is to provide a stormwater drainage system in accordance with the "major/minor" system concept set out in Australian Rainfall and Runoff. 	<p>The development has been assessed by Council's Engineers and has been found to be satisfactory. (See the Referral section of the report for further information).</p>

Control	Comments
<p>Waste Management</p> <p>1. All applications for demolition and development must be accompanied by a Waste Management Plan that specifies the type of waste to be produced and the proposed arrangements for ongoing waste management, collection and disposal.</p>	<p>A Waste Management Plan was submitted and is considered to be satisfactory by Council's Environmental Health Officer and Waste Officer.</p>
<p>Soil Management</p> <p>1. Development is to be designed and constructed to integrate with the natural topography of the site to minimise the need for excessive sediment disturbance and prevent soil loss.</p> <p>2. Effective soil management and maintenance practices are to be followed to prevent soil loss.</p>	<p>The development has been conditioned to ensure that appropriate sediment and erosion control measures will be implemented. (See condition number 50).</p>
<p>Site Facilities</p> <p>Residential</p> <p>1. Provide either communal or individual laundry facilities to each dwelling and at least one external clothes drying area. Clothes drying is only permitted on balconies that are permanently screened from view from the public domain.</p> <p>2. Provide storage to dwellings as required by the RFDC.</p> <p>3. Lockable mail boxes are to be provided in a location visible from the public domain.</p>	<p>Each apartment has been provided with individual laundry facilities. Given that many of the balconies are glazed, it is proposed to include a condition on the consent that will prevent clothes drying on the balconies. (See condition number 103).</p> <p>Storage has been provided to the apartments in accordance with the RFDC requirements.</p> <p>The main lobby area will have access to a separate mail area for collection of mail.</p>
<p>Vehicular Access</p> <p>1. Vehicular access is not permitted along streets identified as 'Active Frontages'.</p> <p>2. Where practicable, vehicle access is to be from secondary streets.</p> <p>3. Potential pedestrian/vehicle conflict is to be minimised by:</p> <ol style="list-style-type: none"> Limiting the width and number of vehicle access points. Ensuring clear site lines at pedestrian and vehicle crossings. Utilising traffic calming devices. Separating and clearly distinguishing between pedestrian and vehicular accessways. <p>4. The width of driveways is to be determined in accordance with the requirements of the DCP and Australian Standards.</p>	<p>Vehicular access will be from the new road. This is consistent with the DCP requirement.</p> <p>Given that the road is a cul-de-sac rather than a connecting road, the number of pedestrians will be limited. The development however will limit the potential pedestrian vehicle conflict by designing an appropriate vehicular access to the buildings.</p>
<p>On-Site Parking and Bicycle Parking</p>	<p>The parking will be provided in three</p>

Control	Comments
<ol style="list-style-type: none"> 1. Safe and secure 24 hour access to car parking areas is to be provided for building users. 2. Parking areas are to be screened from view from the street, public domain and communal open space areas, using site planning and appropriate screen planting or structures. 3. Provide safe and direct access from parking areas to building entry points. 4. Basement parking areas should be located directly under building footprints to maximise opportunities for deep soil areas unless the structure can be designed to support mature plants and deep root plants. 5. Ventilation grills or screening devices of car park openings are to be integrated into the overall façade and landscape design of the development. 6. Bicycle parking is required at the following rate: <ul style="list-style-type: none"> • One space per 3 dwellings for residents • One space per 12 dwellings for visitors. 	<p>basement levels. The access will ensure minimal impact on the streetscape. Access to the parking will be via a security gate.</p> <p>The basement beneath Building E will extend into the setback area of the new road. This however will be below natural ground level and the development has incorporated landscaping to ensure the development maintains an appropriate relationship with the new road.</p> <p>The development will provide adequate on site car parking.</p> <p>The development is required to provide a total of 60 bicycle parking spaces. 48 of these are for residents and 12 for visitors. The development complies with this requirement.</p>

Part 7.2 Of DCP 2010 - Waste Minimisation and Management

A concept Waste Management Plan has been submitted with the development application. The information provided generally satisfies the requirements of this part of the DCP.

Part 8.1 of DCP 2010 - Construction Activities

The main construction issues relevant to this proposal will be managing water quality by preventing soil erosion, the management of construction traffic and parking of builder's vehicles, construction noise, dust and the like.

These matters have been addressed by way of appropriate conditions of consent.

Part 8.2 of DCP 2010 - Stormwater Management

Council's Development Engineer has reviewed the proposed development and advised that the stormwater design complies with the requirements of Part 8.2 of DCP 2010.

Part 9.2 of DCP 2010 - Access for People with Disabilities

The DCP requires that the residential buildings must provide an accessible path of travel to all units as well as the provision of 14 adaptable units. The applicant has provided an Access Review Report which demonstrates that the development will comply with the access requirements as well as providing 14 adaptable apartments. A condition of consent has been imposed to ensure that the development complies with the appropriate access standards. (See condition numbers 26 and 27).

Part 9.3 of DCP 2010 - Car Parking

The Concept Plan Approval required car parking to be provided at the following rate:

- 1 space per dwelling with 1 or 2 bedrooms;
- 1.6 space per dwelling with 3 or more bedrooms; and
- 1 space per 6 dwellings for visitors.

A total of 141 apartments consisting of either 1 or 2 bedrooms and 3 x 3 bedroom apartments are proposed. The development is required to provide 146 resident car spaces and 24 visitor car spaces. The development complies with this requirement.

Due to the Concept Plan Approval, Council's DCP rates are not applicable.

8.12 Section 94 Development Contributions Plan 2007 (Amendment 2010)

Development Contributions Plan – 2007 (2010 Amendment) allows Council to impose a monetary contribution on developments that will contribute to increased demand for services as a result of increased development density / floor area.

The contributions that are payable with respect to the increased floor area are based on the following figures being inside Macquarie Park:

Contribution Plan	Contributions	Total
Community and Cultural Facilities	\$327,093.57	
Open Space and Recreation Facilities	\$1,312,137.09	
Civic and Urban Improvements	\$168,787.81	
Roads and Traffic Management Facilities	\$181,151.25	
Cycleways	\$23,324.87	
Stormwater Management Facilities	\$20,657.81	
Plan Administration	\$6,292.56	
Grand Total		\$2,039,454.96

Notes:

- The September 2012 rates have been applied to the development.

Condition 78 requiring the payment of a Section 94 contribution has been included in the recommendation of this report which will further be indexed at

the time of payment if not paid in the same quarter. This condition has required the Section 94 Contribution to be paid prior to the issue of any Occupation Certificate for the buildings as this reflects the Statement of Commitments issued with the Concept Plan Approval.

9. LIKELY IMPACTS OF THE DEVELOPMENT

Many of the impacts associated with the proposed development have already been addressed in the report. Other likely impacts include:

9.1 Vehicular Access and Traffic Generation

Vehicular access is proposed via the new road from Herring Road as approved in the Concept Plan. The initial part of the road is being constructed from Herring Road in association with the construction of Building A. Building E will have access from the initial part of the road. The remaining part of this internal road will be constructed as part of the approval for Buildings C and D.

The new road connection with Herring Road will be left in / left out due to a median in Herring Road. There is however a roundabout in the vicinity of the site that will permit vehicles to turn around as necessary.

The ramp to the basement and the parking layout will comply with the requirements of AS2890.1.

Surveys previously undertaken by the RTA have found that high density residential developments in sub-regional centres generate some 0.29 vehicles per hour per dwelling two-way during weekday morning and afternoon peak hours. The development is likely to generate approximately 40 vehicles per hour two-way during peak hours. This generation rate is consistent with the Concept Plan Approval and is unlikely to have a significant impact on the existing road network.

9.2 Tree Removal

The development involves the removal of 4 trees consisting of *Eucalyptus globoidea* and *Melaleuca armillaris*. These trees are required to be removed as they are located within the building footprint. The location of these trees is demonstrated on the following figure. The removal of these trees was considered during the assessment of the Concept Plan. The removal of the trees is considered acceptable as suitable replacement tree planting has been proposed within the site.

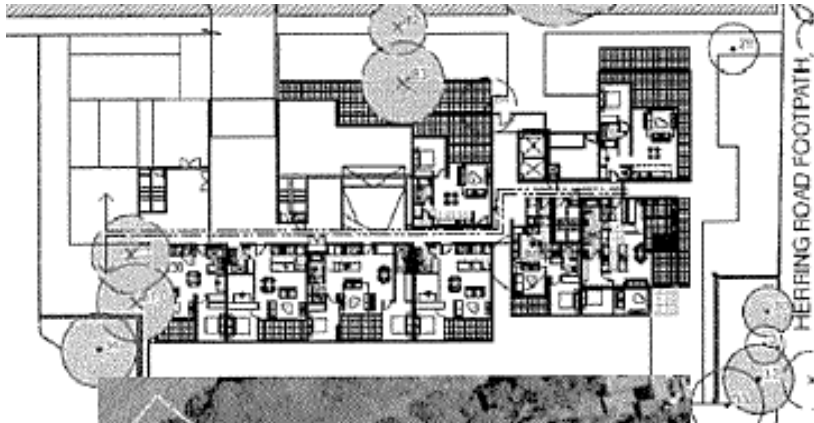




Figure 14. Plan showing the location of existing trees.

Key for above plan:

-  tree to be removed
-  tree to be retained

As part of the development it is proposed to retain at least 4 trees on the site. The applicant has prepared a tree report that includes the various tree protection measures that will be implemented to ensure the protection of these trees during construction. These measures are considered acceptable by Council's Consultant Landscape Architect. A condition of consent will be imposed to require these measures to be implemented. (See condition number 48).

10. SUITABILITY OF THE SITE FOR THE DEVELOPMENT

The subject site is considered suitable for the proposed development for the reasons outlined below.

The site is zoned B4 – Mixed Use under the Ryde LEP 2010, which permits the proposed development. In addition a Concept Plan Approval has been granted for the site and the development is consistent with this approval.

The proposed development is considered suitable for the subject site with respect to traffic and transport impacts. In addition the development will not adversely impact on the amenity of the area.

11. THE PUBLIC INTEREST

The development is considered to be in the public interest as it is consistent with the Concept Plan Approval.

12. REFERRALS

External Referrals
Roads and Maritime Services

RMS has provided the following advisory comments to Council for consideration.

- 1) *All works/regulatory signposting associated with the proposed development are to be at no cost to RMS.* **Comment:** This has been included as a condition on the consent. (See condition number 4).
- 2) *The car parking provision is to be to Council's satisfaction.* **Comment:** The car parking is required to be in accordance with the Statement of Commitments as approved in the Concept Plan. The development complies with this requirement.
- 3) *The layout of the proposed car parking areas associated with the subject development (including driveways, grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) should be in accordance with AS2890.1-2004 and AS2890.2-2002 for heavy vehicle usage.* **Comment:** This has been included as a condition on the consent. (See condition number 32). No heavy vehicle usage is proposed so condition 32 only refers to AS2890.1-2004.
- 4) *Council should ensure that provision is made on-site for building maintenance vehicles and removalists.* **Comment:** A loading bay which will be to accommodate removalists is provided along the northern boundary with access from the new road. Any maintenance vehicles will be able to access the visitor parking areas.
- 5) *A Construction Traffic Management Plan detailing construction vehicle routes, number of trucks, hours of operation, access arrangements and traffic control should be submitted to Council prior to the issue of the Construction Certificate.* **Comment:** This has been included as a condition on the consent. (See condition number 33).

NSW Police

NSW Police have raised no objections to the development. The comments from NSW Police are summarized below:

- **Surveillance:** A number of recommendations have been made to ensure appropriate levels of surveillance throughout the development, including the use of CCTV security cameras, security mirrors at blind corners and a security roller door at the car park entry. These recommendations have been included as Conditions of Consent where necessary. (See conditions 61, 62 and 63).
- **Lighting:** A recommendation for the lighting and control of lighting of all common areas, car parking and stairs was made. This recommendation has been imposed as conditions together with painting of the walls and ceiling of the car park area to be a light colour. (See condition number 64).
- **Territorial reinforcement:** Recommendations are made regarding the types of signage to be provided throughout the development to assist in crime avoidance. This included way finding signage and signage for the

restrictions on the communal open space areas. Given that the development contains entirely residential uses, this signage is not considered necessary. Signage in respect of the communal open space areas is a matter for the Body Corporate.

- **Environmental maintenance:** A recommendation is made requiring a regular maintenance plan together with graffiti management plan be prepared. Condition of Consent has been imposed to reflect these requirements. (See condition number 97).
- **Access control:** Specific access control recommendations were made to ensure appropriate locking systems, electronic security access and parking access were installed to minimise intrusion into the development. These recommendations have been imposed as considered necessary as part of the Conditions of Consent. (See condition numbers 68, 69, 70 and 96).

Sydney Water

No objections were raised to the development subject to a condition of consent being imposed requiring the applicant to obtain a Section 73 Certificate from Sydney Water. (See condition number 84).

Internal Referrals

Development Engineer: No objections subject to conditions of consent. (See condition numbers 12 to 15, 31 to 36, 50 to 52 and 86 to 90).

Environmental Health Officer: No objections to the development application.

Traffic Engineer: No objection to the development subject to the conditions of consent. (See condition numbers 91, 92 and 100)).

Consultant Landscape Architect: No objections to the development subject to a condition on the consent requiring the tree protection measures to be implemented. (See condition number 48 and 49).

Waste: No objection to the development application subject to conditions of consent. (See condition number 43, 106 and 112).

13. PUBLIC NOTIFICATION AND SUBMISSIONS

The proposed development was notified and advertised in accordance with Development Control Plan 2010 – Part 2.1, Notification of Development Applications. The application was advertised on 19 September 2012 in the Northern District Times. Notification of the proposal was from 17 September 2012 until 17 October 2012. During this period, one submission was received.

The submission was received from Ed Catoe of 8/11 Lachlan Avenue. The issue raised in the submission was as follows:

Concerned about the number of heavy vehicles currently using the “T” intersection at the end of Windsor Drive and Lachlan Avenue to turn around

after leaving the Macquarie Central Construction site. These trucks are making an illegal turn at the bottom of the hill right next to Quandong Reserve. This poses a real risk to any pedestrians in the area. They are also destroying the amenity of the area with noise from the trucks. This matter has already been investigated by Council and for a while the issue stopped. However over time, more and more trucks have started to do the same issue.

Comment: The following aerial photograph demonstrates the location of the site, Windsor Drive, Lachlan Avenue and Quandong Reserve.



Figure 15. Aerial photograph of the site including Windsor Drive, Lachlan Avenue and Quandong Reserve.

The applicant has advised as soon as the issue was brought to their attention, the traffic controller advised all trucks not to do enter into this area. The applicant believes that the issue is no longer occurring. To address the issue it is proposed to include a condition on the consent that requires a traffic management plan to be submitted which identifies that trucks are not to access this area. The applicant has also agreed to give the objector contact details of the site supervisor. If trucks continue to undertake this illegal action, the objector will be able to contact the site supervisor immediately.

14. CONCLUSION

The development is a part of the overall redevelopment of the site, known as Macquarie Central. The proposed building is part of a total of five (5) residential flat buildings approved on the site.

The overall development has been designed with a high degree of amenity for future occupants in terms of access to public transport, education facilities, commercial and shopping centre & recreational facilities.

The proposal is consistent with the Part 3A concept approval. The architectural design and finishing of the buildings are in keeping with the approved remaining 4 approved buildings on the site.

Although a number of the numerically based “Rules of Thumb” from the Residential Flat Design Code have not been met, such as building depth, number of apartments accessed off a corridor and the number of south facing apartments, this is a result of the predetermined layout and orientation of the residential buildings as part of the Part 3A approval.

The application has demonstrated that the level of amenity in terms of solar access, communal public space, storage, privacy & energy efficiency can be met and the proposal can be supported subject to conditions.

It is recommended that the application be approved subject to conditions.

15. RECOMMENDATION

Pursuant to Section 80 of the Environmental Planning and Assessment Act, 1979, the following is recommended:

- A. That the Sydney East Region Joint Regional Planning Panel grant consent to development application LDA2012/0314 for the construction of a residential flat buildings known as Building E at 126 Herring Road, Macquarie Park subject to the conditions of consent in Attachment 1 of this report.
- B. That a copy of the development consent be forwarded to the Roads and Maritime Services.
- C. That the objector be advised of the decision.

Report prepared by:

Sandra Bailey
Team Leader Major Development

Report approved by:

Liz Coad
Manager Assessment

Dominic Johnson
Group Manager – Environment and Planning

ATTACHMENT 1

CONDITIONS OF CONSENT

GENERAL

The following conditions of consent included in this Part identify the requirements, terms and limitations imposed on this development.

- 1. Approved Plans/Documents.** Except where otherwise provided in this consent, the development is to be carried out strictly in accordance with the following plans (stamped approved by Council) and support documents:

Document Description	Date	Plan No/Reference
Cover Sheet	Oct 2012	DA0.00 Rev C
Site Plan	Oct 2012	DA1.01 Rev B
Site Analysis Plan	Oct 2012	DA1.02 Rev B
Basement Level 03 Plan	Oct 2012	DA2.01 Rev B
Basement Level 02 Plan	Oct 2012	DA2.02 Rev B
Basement Level 01 Plan	Oct 2012	DA2.03 Rev B
Level Ground Plan	Oct 2012	DA2.04 Rev C
Level 01 Plan	Aug 2012	DA2.05 Rev C
Level 02 Plan	Oct 2012	DA2.06 Rev B
Level 03 Plan	Oct 2012	DA2.07 Rev B
Level 05 Plan	Oct 2012	DA2.08 Rev B
Level 06 Plan	Oct 2012	DA2.09 Rev B
Level 07-09 Plan	Oct 2012	DA2.10 Rev B
Level 10-11 Plan	Oct 2012	DA2.11 Rev B
Level 12 Plan	Oct 2012	DA2.12 Rev B
Level 13 Plan	Oct 2012	DA2.13 Rev B
Level Roof Plan	Oct 2012	DA2.14 Rev B
North east elevation	Oct 2012	DA3.01 Rev C
South east elevation	Oct 2012	DA3.02 Rev C
South west elevation	Oct 2012	DA3.03 Rev C
North west elevation	Oct 2012	DA3.04 Rev C
Sections AA and BB	Oct 2012	DA4.01 Rev C
Section CC	Oct 2012	DA4.02 Rev B
Adaptable unit G.01	Oct 2012	DA7.01 Rev B
Adaptable unit G.02	Oct 2012	DA7.02 Rev B
Adaptable unit G.03	Oct 2012	DA7.03 Rev B
Adaptable unit 03 Levels 1-12	Oct 2012	DA7.04 Rev B
Adaptable unit 13.03 Level 13	Oct 2012	DA7.05 Rev B
Introduction	28/8/12	L2 Rev C
Landscape Plan	28/8/12	L3 Rev C
Section AA	28/8/12	L4 Rev C
Section BB	28/8/12	L5 Rev C
Section CC	28/8/12	L6 Rev C

Materials / Elements	28/8/12	L7 Rev C
Planting Strategy	28/8/12	L8 Rev C

2. **Building Code of Australia.** All building works approved by this consent must be carried out in accordance with the requirements of the Building Code of Australia.
3. **BASIX.** Compliance with all commitments listed in BASIX Certificate numbered 422785M-02, dated 20 August 2012.
4. **Costing of the Works.** All works/regulatory signposting associated with the proposed development are to be at no cost to RMS.
5. **Support for neighbouring buildings.** If the development involves excavation that extends below the base of the footings of a building on adjoining land, the person having the benefit of the development consent must, at the person's own expense:
 - (a) Protect and support the adjoining premises from possible damage from the excavation, and
 - (b) Where necessary, underpin the adjoining premises to prevent any such damage, in accordance with relevant Australian Standards.
6. **Hours of work.** Building activities (including demolition) may only be carried out between 7.00am and 7.00pm Monday to Friday (other than public holidays) and between 8.00am and 4.00pm on Saturday. No building activities are to be carried out at any time on a Sunday or a public holiday.
7. **Hoardings.**
 - (a) A hoarding or fence must be erected between the work site and any adjoining public place.
 - (b) Any hoarding, fence or awning erected pursuant this consent is to be removed when the work has been completed.
8. **Public space.** The public way must not be obstructed by any materials, vehicles, refuse, skips or the like, under any circumstances, without prior approval from Council.
9. **Public Utilities.** Compliance with the requirements (including financial costs) of any relevant utility provider (e.g. Energy Australia, Sydney Water, Telstra, RTA, Council etc) in relation to any connections, works, repairs, relocation, replacements and/or adjustments to public infrastructure or services affected by the development.
10. **Storage Facility:** Each apartment is to be provided with the minimum storage area as required by the Residential Flat Design Code. Details of the location of the storage and dimensions of the storage areas are to be provided on the Construction Certificate plans. The architect is to verify

in writing that the development complies prior to the issue of the Construction Certificate.

11. **Parking/bicycle Spaces:** One hundred and seventy one (171) parking spaces are to be provided for Building E, with one hundred & forty seven (147) spaces for residents and twenty four (24) for visitor parking. The car parking spaces are to be clearly linemarked with the visitor spaces clearly marked "Visitor Parking". Sixty (60) bicycle spaces are to be provided within the development. Forty eight of these bicycle parking spaces are to be available to residents and the remaining 12 spaces are to be available to visitors to the site. Details to be shown on the Construction Certificate plans.
12. **Design and Construction Standards.** All engineering plans and work shall be carried out in accordance with the requirements as outlined within Council's publication *Environmental Standards Development Criteria 1999 and City of Ryde Development Control Plan 2010 Section 8* except as amended by other conditions.
13. **Service Alterations.** All mains, services, poles, etc., which require alteration shall be altered at the applicant's expense.
14. **Restoration.** Public areas must be maintained in a safe condition at all times. Restoration of disturbed road and footway areas for the purpose of connection to public utilities will be carried out by Council following submission of a permit application and payment of appropriate fees. Repairs of damage to any public stormwater drainage facility will be carried out by Council following receipt of payment. Restoration of any disused gutter crossings will be carried out by Council following receipt of the relevant payment.
15. **Road Opening Permit.** The applicant shall apply for a road-opening permit where a new pipeline is proposed to be constructed within or across the footpath. Additional road opening permits and fees may be necessary where there are connections to public utility services (e.g. telephone, electricity, sewer, water or gas) are required within the road reserve. No drainage work shall be carried out on the footpath without this permit being paid and a copy kept on the site.
16. **Trade Waste Permit.** The applicant must contact the Wastewater Source Control Branch of Sydney Water Corporation on Tel. 13 11 10 to determine whether a Trade Waste Permit is required before discharging any trade wastewater to the sewerage system.

PRIOR TO CONSTRUCTION CERTIFICATE

A Construction Certificate must be obtained from a Principal Certifying Authority to carry out the relevant building works approved under this consent.

All conditions in this Section of the consent must be complied with before a Construction Certificate can be issued.

Council Officers can provide these services and further information can be obtained from Council's Customer Service Centre on 9952 8222.

Unless an alternative approval authority is specified (eg Council or government agency), the Principal Certifying Authority is responsible for determining compliance with the conditions in this Section of the consent.

Details of compliance with the conditions, including plans, supporting documents or other written evidence must be submitted to the Principal Certifying Authority.

17. **Payment of VPA Monetary Agreement.** Prior to the issue of any Construction Certificate, the monetary contribution as contained in the Voluntary Planning Agreement between the City of Ryde and Toga Macquarie Developments Pty Ltd that relates to this development application is to be paid to Council.
18. **Compliance with Australian Standards.** The development is required to be carried out in accordance with all relevant Australian Standards. Details demonstrating compliance with the relevant Australian Standard are to be submitted to the Principal Certifying Authority prior to the issue of the **Construction Certificate**.
19. **Structural Certification.** The applicant must engage a qualified practising structural engineer to provide structural certification in accordance with relevant BCA requirements prior to the release of the **Construction Certificate**.
20. **Security deposit.** The Council must be provided with security for the purposes of section 80A(6) of the *Environmental Planning and Assessment Act 1979* in a sum determined by reference to Council's Management Plan prior to the release of the **Construction Certificate**. (category: other buildings with delivery of bricks or concrete or machine excavation).
21. **Fees.** The following fees must be paid to Council in accordance with Council's Management Plan prior to the release of the **Construction Certificate**:
 - (a) Infrastructure Restoration and Administration Fee
 - (b) Enforcement Levy
22. **Long Service Levy.** Documentary evidence of payment of the Long Service Levy under Section 34 of the Building and Construction Industry Long Service Payments Act 1986 is to be submitted to the Principal Certifying Authority prior to the issuing of the **Construction Certificate**.

23. **Mechanical Plant.** Prior to the issue of a Occupation Certificate it will be necessary to undertake a detailed assessment of all external mechanical plant. This assessment is to ensure that the plant noise does not exceed the acoustic criteria as outlined in Section 6.2 of the DA Noise Assessment Report by Acoustic Logic dated 22 May 2012. The assessment is also to determine any acoustic treatments that will be required to ensure acceptable acoustic levels. Details are to be submitted on the certifying authority prior to the issue of an Occupation Certificate.
24. **Survey:** A dilapidation survey is to be undertaken that addresses all properties (including any public place) that may be affected by the construction work. A copy of the survey is to be submitted to the PCA (*and Council, if Council is not the PCA*).
25. **Glare & Reflectivity:** Roofing and other external materials must be of low glare and reflectivity. Details of finished external surface materials, including colours and texture must be provided to the Principal Certifying Authority. The roof material is to be finished in a non reflective surface.
26. **Disabled access:** Prior to the issue of a Construction Certificate, a report is to be provided from a suitably qualified access consultant to verify that the Construction Certificate Drawings fully comply with Development Control Plan 2010 – Access for People with Disabilities, the Building Code of Australia and Australian Standards AS1428.1, AS4299, AS1735.12 and AS2890.6. The report is to be provided to the PCA and Council (if Council is not the PCA).
27. **Adaptable Units:** A total of 15 adaptable units are to be provided within Building E. These apartments are to comply with all of the spatial requirements as outlined in DCP 2010 Part 9.2 and AS4299. Details demonstrating compliance is to be provided on the Construction Certificate plans. Prior to the issue of the Construction Certificate, a suitably qualified access consultant is to certify that the development achieves the spatial requirements of DCP 2010 Part 9.2 and AS4299.
28. **Design verification:** Prior to a Construction Certificate being issued with respect to this development, the Principle Certifying Authority is to be provided with a written Design Verification from a qualified designer. This statement must include verification from the designer that the plans and specification achieve or improve the design quality of the development to which this consent relates, having regard to the design quality principles set out in Part 2 of *State Environmental Planning Policy No. 65 – Design Quality of Residential Flat Development*. This condition is imposed in accordance with Clause 143 of the *Environmental Planning and Assessment Regulation 2000*.
29. **Service infrastructure/utilities:** All service infrastructure/utilities including electrical substations, fire hydrants, gas meters and the like shall be located within the building envelope. Where this is not possible

and subject to Council approval such infrastructure shall be located on the subject site and appropriately screened from view. Details of all service infrastructure/utilities are to be approved prior to the issue of the Construction Certificate.

30. **BASIX Details to be included on the Construction Certificate:** The Construction Certificate plans and specifications are to detail all of the 'CC plan' commitments of the BASIX Certificate.
31. **Driveway Grades.** The maximum grade of all internal driveways and vehicular ramps etc shall comply with relevant section of AS 2890.1 & AS2890.2 where applicable. Detailed engineering plans including engineering certification indicating compliance with this condition are to be submitted with the Construction Certificate application.
32. **Car Parking.** All internal driveways, vehicle turning areas, grades, parking space dimensions, headroom clearance etc shall be designed comply with relevant sections of Australian Standards AS 2890 where applicable.

Detailed engineering plans including engineering certification confirming compliance with this condition is to be submitted with the Construction Certificate application.

33. **Traffic Management.** Traffic management plans must be prepared and procedures must be in place and practised during the construction period to ensure safety and minimise construction traffic conflict with pedestrians and vehicular traffic movement. These procedures and systems must be in accordance with AS 1742.3 1985 and the RMS's Manual – "Traffic Control at Work Sites" where applicable.

Accordingly, a detailed plan of traffic management prepared by a traffic engineer including certification indicating compliance are to be submitted with the Construction Certificate application. This plan is to ensure that heavy vehicles are not to use the "T" intersection at the end of Windsor Drive and Lachlan Avenue to turn around after leaving the Macquarie Central site.

34. **Dilapidation Report.** To determine the extent of restoration works that may be required, the applicant shall submit to Council a pre and post construction dilapidation report on the status of existing public infrastructures in the vicinity of the proposed development. The report is to include photographic records, description and location of any existing observable defects of the following infrastructure and others where applicable:
 - a) Road pavement.
 - b) Kerb and gutter.
 - c) Constructed footpath.
 - d) Drainage pits.

- e) Traffic signs.
- f) Any other relevant infrastructure.

These reports shall be submitted to Council development engineer, prior to the issue of the Construction and Occupation Certificate. The report shall be used by Council as Roads Authority under the Roads Act to assess whether restoration works are required prior to the issue of the Occupation Certificate. All restoration works deemed necessary by Council's development engineer are to be completed to Council satisfaction prior to the issue of Occupation Certificate

35. **Stormwater Runoff.** Stormwater runoff from site shall be collected and piped to Council's underground drainage system via an On-site detention (OSD) system designed in accordance with the City of Ryde, Development Control Plan 2010: - Part 8.2; Stormwater Management. The design shall incorporate but not be limited to the following:

- a. Building E shall be provided with a minimum 55 cubic metres OSD system incorporating a suitably sized orifice plate to restrict discharge from the building to a maximum of 35 l/s in a 1 in 100 year critical duration storm event.
- b. The design shall ensure back water flow will not occur or influence the functioning of the outlet pipe from the OSD tank for all storm events and durations, including preventing the ingress of overland flows into the OSD tank.
- c. All gutters, downpipes and pipeline conveying stormwater runoff to the OSD tank are to be designed for the 1 in 100 year, 5 minute duration storm event.

Accordingly, detailed engineering plans including certification from a chartered civil engineer with NPER registration with Engineers Australia indicating compliance with this condition are to be submitted for approval with the Construction Certificate application.

36. **Water Sensitive Urban Design.** WSUD must be incorporate into the development. Accordingly, the Water Sensitive Urban Design (WSUD) treatment train (comprising of rainwater tanks, bio-retention, bio swale, gross pollutant traps etc.) proposed for the subject site shall be designed to ensure a post development pollutant removal target as set out below will be achieved:

- (a) 90% Reduction in gross pollutants
- (b) 85% reduction in total suspended solids
- (c) 60% Reduction in Total Phosphorous
- (d) 45 % Reduction in Total Nitrogen

Detailed engineering plans including certification indicating compliance with this condition are to be submitted with the Construction Certificate application.

37. **Disabled Car Parking.** The common shared area between the disabled parking spaces must be marked with diagonal stripes 150 to 200mm wide with spaces 200mm to 300mm between stripes. The stripes shall be at an angle of 45+/- 10 degrees to the side of the space. This is to be demonstrated on the submitted Construction Certificate plans. The Construction Certificate plans are also to demonstrate the bollards at the shared parking spaces. The bollards are to be 100mm diameter, 1.2m high, non removable with a 100 mm wide reflective strip around the top of the bollard.
38. **Service Compartments.** The proposed service compartments must comply with Schedule 4.4 of Part 7.2 of the City of Ryde Development Control Plan 2010. Full details are to be submitted on the Construction Certificate plans.
39. **Garbage Chutes.** The garbage chutes must comply with Schedule 4.3 of Part 7.2 of the City of Ryde Development Control Plan 2010. Full details are to be submitted on the Construction Certificate plans.
40. **Waste and Recycling Rooms.** The waste storage and recycling rooms must comply with Schedule 4.2 of Part 7.2 of the City of Ryde Development Control Plan 2010. Full details are to be submitted on the Construction Certificate plans.
41. **Mechanical Ventilation.** Details of all proposed mechanical ventilation systems must be submitted to the Principal Certifying Authority for approval prior to installation. Such details must include:
 - (a) Plans and specifications of the mechanical ventilation systems;
 - (b) A site survey plan showing the location of all proposed air intakes exhaust outlets and cooling towers, and any existing cooling towers, air intakes, exhaust outlets and natural ventilation openings in the vicinity; and
 - (c) A certificate from a professional mechanical services engineer certifying that the mechanical ventilation systems will comply with the *Building Code of Australia* and setting out the basis on which the certificate is given and the extent to which the certifier has relied upon relevant specifications, rules, codes of practice or other publications
42. **Macquarie Park Public Domain Technical Manual.** The public domain along the entire site frontage of Herring Road (Being the frontage of Building E and Building A) is to be upgraded in accordance with the Macquarie Park Public Domain Manual. This includes street lighting, footpath paving, street furniture and street tree plantings. Full details including samples, schedules and plans are to be submitted and

approved by Council prior to the issue of any Construction Certificate for the development.

Where soft planting is proposed, including species selection, the applicant must show evidence that the community association will be obliged to ensure that species health is guaranteed for a minimum of 2 years to ensure the character and appearance of the streetscape is established and maintained. Any species that die within five years of planting must be replaced by the applicant with a specimen of a similar size and maturity.

43. **Bulky Goods Storage Area.** A separate room or caged area must be provided in a convenient location on the premises for the storage of bulky discarded items such as furniture and white goods. Instructive signage is to be provided to advise residents on how to use this area. If possible this area is to be enlarged to a minimum of 6m². Full details are to be submitted on the Construction Certificate plans.
44. **Soil Depth Over Structures.** Where planting is proposed over a structure, the development is to achieve the minimum standards for soil provision suitable to the proposed planting, as contained within the Residential Flat Design Code. Information verifying that the development complies with these requirements to be provided on the Construction Certificate plans.
45. **Sydney Water – quick check.** The approved plans must be submitted to a Sydney Water Quick Check agent or Customer Centre, prior to the release of the **Construction Certificate**, to determine whether the development will affect any Sydney Water assets, sewer and water mains, stormwater drains and/or easements, and if further requirements need to be met. Plans will be appropriately stamped.

Please refer to the website www.sydneywater.com.au for:

- Quick Check agents details - see Building, Developing and Plumbing then Quick Check; and
- Guidelines for Building Over/Adjacent to Sydney Water assets - see Building, Development and Plumbing then Building and Renovating.

Or telephone 13 20 92.

PRIOR TO COMMENCEMENT OF CONSTRUCTION

Prior to the commencement of any demolition, excavation, or building work the following conditions in this Part of the Consent must be satisfied, and all relevant requirements complied with at all times during the operation of this consent.

46. Site Sign

- (a) A sign must be erected in a prominent position on site, prior to the commencement of construction:
 - (i) showing the name, address and telephone number of the Principal Certifying Authority for the work,
 - (ii) showing the name of the principal contractor (if any) or the person responsible for the works and a telephone number on which that person may be contacted outside working hours, and
 - (iii) stating that unauthorised entry to the work site is prohibited.
 - (b) Any such sign must be maintained while the building work, subdivision work or demolition work is being carried out, but must be removed when the work has been completed.
47. **Safety fencing.** The site must be fenced prior to the commencement of construction, and throughout demolition and/or excavation and must comply with WorkCover New South Wales requirements and be a minimum of 1.8m in height.
48. **Tree Protection Measures.** The tree protection measures as outlined in the Tree Report by Treescan Urban Forest Management and dated March 2010 subsequent section 75W and section 96 amendments are to be implemented prior to construction and maintained throughout the construction period.
49. **Site Arborist.** In accordance with the recommendations contained in the Tree Report referred to in condition 46, a site arborist is to be appointed. Council and the PCA is to be notified, in writing, of the name, contact details and qualifications of the Consultant Arborist appointed to the site. Should these details change during the course of works, or the appointed Consultant Arborist alter, Council and the PCA is to be notified, in writing, within seven working days. Prior to any construction commencing, the site arborist is to confirm that all tree protection measures in the Tree Report have been implemented.
50. **Erosion and Sediment Control Plan.** An *Erosion and Sediment Control Plan (ESCP)* shall be prepared by a suitably qualified consultant in accordance with the guidelines set out in the manual "*Managing Urban Stormwater, Soils and Construction*" prepared by the Landcom. These devices shall be maintained during the construction works and replaced where considered necessary.

The following details are to be included in drawings accompanying the *Erosion and Sediment Control Plan*

- (a) Existing and final contours
- (b) The location of all earthworks, including roads, areas of cut and fill
- (c) Location of all impervious areas
- (d) **Location and design criteria of erosion and sediment control structures,**
- (e) Location and description of existing vegetation

- (f) Site access point/s and means of limiting material leaving the site
- (g) Location of proposed vegetated buffer strips
- (h) Location of critical areas (drainage lines, water bodies and unstable slopes)
- (i) Location of stockpiles
- (j) Means of diversion of uncontaminated upper catchment around disturbed areas
- (k) Procedures for maintenance of erosion and sediment controls
- (l) Details for any staging of works
- (m) Details and procedures for dust control.

51. **Compliance Certificate.** A Compliance Certificate should be obtained confirming that the constructed erosion and sediment control measures comply with the construction plan and City of Ryde, Development Control Plan 2010: - Part 8.1; Construction Activities
52. **Vehicle Footpath Crossings.** Concrete footpath crossings shall be constructed at all locations where vehicles cross the footpath, to protect it from damage resulting from the vehicle traffic. The location, design and construction shall conform to the requirements of Council where applicable. Crossings are to be constructed in plain reinforced concrete and finished levels shall conform with property alignment levels issued by Council's Public Works Division. Kerbs shall not be returned to the alignment line. Bridge and pipe crossings will not be permitted.

DURING CONSTRUCTION

Unless otherwise specified, the following conditions in this Part of the consent must be complied with at all times during the construction period. Where applicable, the requirements under previous Parts of the consent must be implemented and maintained at all times during the construction period.

53. **Critical stage inspections.** The person having the benefit of this consent is required to notify the Principal Certifying Authority during construction to ensure that the critical stage inspections are undertaken, as required under clause 162A(4) of the *Environmental Planning and Assessment Regulation 2000*.
54. **Construction noise.** The L₁₀ noise level measured for a period of not less than 15 minutes while demolition and construction work is in progress must not exceed the background noise level by more than 20 dB(A) at the nearest affected residential premises.
55. **Impact to adjoining or nearby properties:** The construction of the development and preparation of the site, including operation of vehicles, must be conducted so as to avoid unreasonable noise or vibration and not cause interference to adjoining or nearby occupations.
56. **Sediment/dust control.** No sediment, dust, soil or similar material shall leave the site during construction work.

57. **Use of fill/excavated material.** Excavated material must not be reused on the property except as follows:
- (a) Fill is allowed under this consent;
 - (b) The material constitutes Virgin Excavated Natural Material as defined in the *Protection of the Environment Operations Act 1997*;
 - (c) the material is reused only to the extent that fill is allowed by the consent.
58. **Construction materials.** All materials associated with construction must be retained within the site.
59. **Site Facilities**
The following facilities must be provided on the site:
- (a) toilet facilities in accordance with WorkCover NSW requirements, at a ratio of one toilet per every 20 employees, and
 - (b) a garbage receptacle for food scraps and papers, with a tight fitting lid.
60. **Site maintenance.** The applicant must ensure that:
- (a) approved sediment and erosion control measures are installed and maintained during the construction period;
 - (b) building materials and equipment are stored wholly within the work site unless an approval to store them elsewhere is held;
 - (c) the site is clear of waste and debris at the completion of the works.
61. **CCTV Cameras:** CCTV cameras will be required to be installed in the following locations:
- The ground floor residential lobby;
 - The car park entry and exit points.
- Digital technology will be required to be used to record images from the camera and this is to be located in a secure location. The surveillance equipment will need to be able to zoom in and out on a person without losing focus. It must be maintained in working order at all times and installed by a qualified and reputable company.
62. **Security Mirrors:** Security mirrors are to be installed within corridors and on blind corners to enable users to see around blind corners if deemed necessary.
63. **Car parking security.** Vehicular entry to residential parking and visitor's parking areas is to be through a secured roller shutter with an intercom system for visitor's access. The doors are to be controlled by locksets such as remote or card operating electronic lock sets. The phasing of the roller door needs to minimise the opportunity for unauthorised pedestrian access after a vehicle enters/exits the car park.
64. **Lighting:** Lighting is to be provided around the site and all lighting is to comply with the following requirements:

- Lighting is to be designed and installed in accordance with the relevant Australian and New Zealand Lighting Standards.
 - A Lighting Maintenance Policy is required to outline the maintenance, monitoring and operation of lighting.
 - To reduce power consumption and comply with the relevant Australian and New Zealand Standards for Lighting, car park lighting is to be interfaced with motion detectors.
 - Lighting is to be provided to all common areas including all car parking levels, stairs and access corridors and communal gardens.
 - Lighting is to be automatically controlled by time clocks and where appropriate, sensors for energy efficiency and a controlled environment for residents.
65. **Graffiti:** All surfaces on the street level that are not glass should use graffiti resistant paints and/or other surfaces that discourage graffiti.
66. **Security:** To enhance the physical security of doors, all glass doors are to be laminated or toughened and the main entry/exit doors to individual units on the ground floor, including balcony doors and fire exit doors to the development are to be fitted with a single cylinder lockset (Australian and New Zealand Standard - Lock Sets), which comply with the Building Code of Australia. Windows to individual units on the ground floor should also be fitted with key operated locksets (Australia and New Zealand Standard - Lock Sets) to restrict unauthorized access to the unit.
67. **Audio Intercom System:** Intercom facilities should be incorporated into these entry/exit points to enable residents to communicate and identify with people prior to admitting them to the development. An auxiliary lock set should also be incorporated into the design of each of the entry/exit points to enable emergency services to access the development particularly in emergency situations.
68. **Balcony doors to units.** Balcony doors to units are to be fitted with keyed locks at ground floor level and snib locks on all other levels to restrict unauthorised access to units.
69. **Unit windows.** The windows to individual units are to be fitted with keyed locks at ground floor level and snib locks on all other levels to restrict unauthorised access to units.
70. **Lift access and security.** Electronic access controls are to be installed on the lift. The equipment should include card readers to restrict access to the level a resident residents on, to the car parking levels and to the Ground Floor.
71. **Studies.** All studies within the development are to be provided with the internal joinery for the construction of a desk and storage areas. At no times are the studies to be used as a bedroom.

72. **Waste Storage Areas.** The paving from the waste storage areas to the collection point must be moderately graded so that the waste containers can be safely and easily manoeuvred.
73. **Council's Stormwater Drainage System.** Only clean unpolluted water is permitted to enter Council's stormwater drainage system.
74. **Pollution Incidents.** Pollution incidents causing or threatening harm to the environment must be reported immediately to all relevant authorities in accordance with Section 148 of the Protection of the Environment Operations Act 1997.
75. **Site Contamination Issues.** Council and the Principal Certifying Authority (if Council is not the PCA) must be notified as soon as practicable if any information is discovered during demolition or construction work that has the potential to alter previous conclusions about site contamination.
76. **Plumbing and Drainage Work.** All plumbing and drainage work must be carried out in accordance with the requirements of Sydney Water Corporation.
77. **Access Doors to the Waste Rooms.** The access door into the waste and recycling storage rooms and the household cleanup storage area is to be keyed in line with Council's central locking system for ease of entry by the contractor.

PRIOR TO OCCUPATION CERTIFICATE

An Occupation Certificate must be obtained from a Principal Certifying Authority prior to commencement of occupation of any part of the development, or prior to the commencement of a change of use of a building.

Prior to issue, the Principal Certifying Authority must ensure that all works are completed in compliance with the approved construction certificate plans and all conditions of this Development Consent.

Unless an alternative approval authority is specified (eg Council or government agency), the Principal Certifying Authority is responsible for determining compliance with conditions in this Part of the consent. Details to demonstrate compliance with all conditions, including plans, documentation, or other written evidence must be submitted to the Principal Certifying Authority.

78. **Section 94.** A monetary contribution for the services in Column A and for the amount in Column B shall be made to Council prior to the issue of any Occupation Certificate:

A – Contribution Type

B – Contribution Amount

Community & Cultural Facilities	\$327,093.57
Open Space & Recreation Facilities	\$1,312,137.09
Civic & Urban Improvements	\$168,787.81
Roads & Traffic Management Facilities	\$181,151.25
Cycleways	\$23,334.87
Stormwater Management Facilities	\$20,657.81
Plan Administration	\$6,292.56
The total contribution is	\$2,039,454.96

These are contributions under the provisions of Section 94 of the Environmental Planning and Assessment Act, 1979 as specified in Section 94 Development Contributions Plan 2007 (2010 Amendment) adopted by City of Ryde on 16 March 2011.

The above amounts are current at the date of this consent, and are subject to **quarterly** adjustment for inflation on the basis of the contribution rates that are applicable at time of payment. Such adjustment for inflation is by reference to the Consumer Price Index published by the Australian Bureau of Statistics (Catalogue No 5206.0) – and may result in contribution amounts that differ from those shown above.

A copy of the Section 94 Development Contributions Plan may be inspected at the Ryde Planning and Business Centre, 1 Pope Street Ryde (corner Pope and Devlin Streets, within Top Ryde City Shopping Centre) or on Council's website <http://www.ryde.nsw.gov.au>.

79. **Landscaping.** All landscaping works approved by condition 1 are to be completed prior to the issue of any Occupation Certificate.
80. **Landscaping within the Riparian Zone.** The landscaping works within the riparian zone as approved in Development Consent LDA2012/0114 and the recommendations in the Vegetation Management Plan, prepared by Total Earth Care Pty Ltd dated September 2010 and subsequent section 75W and section 96 amendments, are to be completed prior to the issue of any Occupation Certificate for the final building that forms part of Concept Plan Approval MP09_0195. Certification from an appropriately qualified person is to be provided to Council and the PCA that all work within the riparian zone has been completed prior to the issue of any Occupation Certificate.
81. **BASIX Commitments:** Prior to the issue of the Occupation Certificate, the Principle Certifying Authority is to ensure that the BASIX commitments have been implemented in accordance with the approved BASIX Certificate. Note: Certificates from suitably qualified persons are to be submitted to the Principle Certifying Authority (if Council is the PCA) verifying that all BASIX commitments listed have been fulfilled in accordance with the BASIX Certificate.

82. **Design Verification:** Prior to an Occupation Certificate being issued to authorise a person to commence occupation or use of a residential flat building, the Principal Certifying Authority (PCA) is to be provided with a Design Verification from a qualified designer. The statement must include verification from a qualified designer that the residential flat development achieves the design quality of the development shown on plans and specifications in respect to any Construction Certificate issued, having regard to the design quality principles set out in Part 2 of the State Environmental Planning Policy No 65 – Design Quality of Residential Flat Development. This condition is imposed in accordance with Clause 154 of the *Environmental Planning and Assessment Regulations 2000*.
83. **Fire safety matters.** At the completion of all works, a Fire Safety Certificate must be prepared, which references all the Essential Fire Safety Measures applicable and the relative standards of Performance (as per Schedule of Fire Safety Measures). This certificate must be prominently displayed in the building and copies must be sent to Council and the NSW Fire Brigade.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Interim/Final Occupation Certificate.

Each year the Owners must send to the Council and the NSW Fire Brigade an annual Fire Safety Statement which confirms that all the Essential Fire Safety Measures continue to perform to the original design standard.

84. **Sydney Water – Section 73.** A Section 73 Compliance Certificate under the Sydney Water Act 1994 must be obtained from Sydney Water Corporation. Application must be made through an authorised Water Servicing Co-ordinator. Please refer to the Building Developing and Plumbing section of the web site www.sydneywater.com.au then refer to “Water Servicing Coordinator” under “Developing Your Land” or telephone 13 20 92 for assistance.

Following application a “Notice of Requirements” will advise of water and sewer infrastructure to be built and charges to be paid. Please make early contact with the Co-ordinator, since building of water/sewer infrastructure can be time consuming and may impact on other services and building, driveway or landscape design.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any Interim/Final Occupation Certificate.

85. **Travel Access Guide.** A Travel Access Guide / Green Travel Plan is to be prepared and a copy of the guide / plan is to be submitted to Council

prior to any Occupation Certificate being issued. A copy of the guide / plan is to be given to residents and owners of each apartment. The guide / plan is to include the following information:

- A list of green travel options available in the area.
- Information about the car share scheme.
- Maps detailing the location of bike racks, train stations, bus stops and car share spaces.
- Service details for bus and train.
- Access arrangements for people with disabilities on public transport routes and at train stations.
- Key visual landmarks for people on foot and unfamiliar with the area, closest cross street.
- Estimated time of travel from the closest major centres or interchanges.
- Telephone numbers and web addresses for public transport service providers.

86. **Disused Gutter Crossing.** All disused gutter and footpath crossings shall be removed and the kerb and footpath reinstated to the satisfaction of Council.

87. **Compliance Certificates – Engineering.** Compliance Certificates should be obtained for the following (If Council is appointed the Principal Certifying Authority [PCA] then the appropriate inspection fee is to be paid to Council) and **submitted to the PCA:**

- Confirming that all vehicular footway and gutter (layback) crossings are constructed in accordance with the construction plan requirements and Ryde City Council's *Environmental Standards Development Criteria – 1999 section 4*.
- Confirming that the driveway is constructed in accordance with the construction plan requirements and Ryde City Development Control Plan 2010: - Part 8.3; Driveways.
- Confirming that the constructed internal car park and associated drainage complies with AS 2890, the construction plan requirements and Ryde City Council's *Environmental Standards Development Criteria – 1999 section 4 and* Development Control Plan 2010: - Part 8.2; Stormwater Management
- Confirming that the site drainage system (including the on-site detention storage system) servicing the development complies with the construction plan requirements and City of Ryde, Development Control Plan 2010: - Part 8.2; Stormwater Management.
- Confirming that the Water Sensitive Urban Design treatment train installed at the site will have ability to treat and achieve the post development pollutant loading reduction percentage target as designed and specified in this consent

- Confirming that after completion of all construction work and landscaping, all areas adjacent the site, the site drainage system (including the on-site detention system), and the trunk drainage system immediately downstream of the subject site (next pit), have been cleaned of all sand, silt, old formwork, and other debris.
 - From Council confirming that all external works in the existing and including new public roads have been completed to Council's satisfaction.
88. **On-Site Stormwater Detention System - Marker Plate.** Each on-site detention system basin shall be indicated on the site by fixing a marker plate. This plate is to be of minimum size: 100mm x 75mm and is to be made from non-corrosive metal or 4mm thick laminated plastic. It is to be fixed in a prominent position to the nearest concrete or permanent surface or access grate. The wording on the marker plate is described in City of Ryde, Development Control Plan 2010: - Part 8.2; Stormwater Management. An approved plate may be purchased from Council's Customer Service Centre on presentation of a completed City of Ryde OSD certification form.
89. **Work-as-Executed Plan.** A Work-as-Executed plan prepared by a Registered Surveyor for the site stormwater drainage and on-site stormwater detention system including the WSUD treatment train if one has been constructed. The WAE plan **is to be submitted to the Principal Certifying Authority (PCA)** and to Ryde City Council if Council is not the nominated PCA. Additionally, If there are proposed interallotment drainage easements on the subject property, **a Certificate from a Registered Surveyor is to be submitted to the PCA** certifying that the subject drainage line/s and pits servicing those lines lie wholly within the proposed easements.
90. **Positive Covenant, OSD & WSUD Treatment Train.** The creation of a Positive Covenant under Section 88 of the Conveyancing Act 1919, burdening the property with the requirement to maintain the On-site stormwater detention system and the Water Sensitive Urban Design Treatment Train on the property. The terms of the instruments are to be generally in accordance with the Council's draft terms of Section 88E instrument for Maintenance of Stormwater Detention Systems and to the satisfaction of Council.
91. **Loading Zone.** The loading zone in front of Building E is to be signposted as a loading zone for garbage collection only. This is to be at no cost to Council. The sign posting is to occur prior to the issue of an Occupation Certificate.
92. **Loading Bay.** The loading bay west of Building E is to be sign posted as a loading bay. This space is to be secured with a bollard for management of unloading and loading. A management plan for the loading and unloading must be provided to the PCA prior to the issue of an Occupation Certificate.

93. **Landscape Maintenance Plan.** A Landscape Maintenance Plan is required prior to the issue of an Occupation Certificate. The Landscape Maintenance Plan should include the following requirements:
- a. Regular maintenance and trimming of shrubs and plantings.
 - b. Shrubs and plantings being appropriately maintained to allow for clear lines of sight over the shrubs from pathways and pedestrians areas, and to avoid any plantings being used as a natural ladder to gain access to any higher parts of the building.
 - c. All other trees on the site are to be appropriately pruned, trimmed and maintained so that passive surveillance is not compromised and there is no opportunity for climbing of trees to gain access to balconies or units.
 - d. Long term maintenance of the riparian zone.
94. **Street/house numbering:** To assist with way finding for emergency services, numbering of street numbers, building numbers, levels of the building and unit numbers should be clearly displayed. Street numbering is to be designed to be visible from the street. Council must be contacted in relation to any specific requirements for street numbering. All letterboxes and house numbering are to be designed and constructed to be accessible from the public way.
95. **Safety and warning signage:** The following safety and warning signs are to be installed prior to the issue of an Occupation Certificate:
- 'Signage (if required) outlining any applicable restrictions in private communal or semi-private communal spaces.
 - Way finding signage in basement car parking levels to locations including residential parking, residential visitor's parking, commercial parking, lifts and exits.
 - '*These doors are to be used for emergency purposes only*' on fire exit doors.
96. **Fire Exit Doors.** Fire exit doors are to be fitted with single cylinder locksets (Australian and New Zealand Standard – Lock Sets) to restrict unauthorised access to the development. Fire exit doors directly accessible from the public domain are to be fitted with metal covering plates to prevent forced entry and manipulation of locks.
97. **Site Maintenance Plan:** A Site Maintenance Plan is required to ensure regular maintenance and monitoring of security devices (including CCTV cameras, security communications devices, graffiti removal and card readers) and lighting, lighting and signage. This is to be established prior to the issue of an Occupation Certificate.
98. **Mechanical Ventilation Systems.** Where any mechanical ventilation systems have been installed a certificate from a professional mechanical

services engineer certifying that the systems comply with the approved plans and specifications must be submitted to the Principal Certifying Authority before the issue of an **Occupation Certificate**.

99. **Car Share Scheme.** Prior to the issue of any Occupation Certificate for Building E, documentation of an approved car share scheme is to be submitted and approved by Council. This documentation is to include the location of the three car share parking spaces. Council requires these three spaces to be provided in one of the 5 buildings approved as part of Concept Plan MP09_0195.
100. **New Road Dedication.** The Type 3 road is to be dedicated to Council prior to the issue of a final Occupation Certificate for Building E. Prior to the dedication of the road the proponent is required to provide the following documentation to Council:
- A certified Works-As-Executed Drawings.
 - An onsite walk through with Council nominated and Developer nominated staff to identify defects, anomalies that require rectification prior to the road dedication.
 - Assets that are to be dedicated to Council must be in asset plan form (ie drawing plan layers eg road layer, street furniture layer etc) to Council's satisfaction.
 - Survey recovery markers are to be installed within the road reserve as directed by Council's Surveyor.
101. All sanitary fixtures must be connected to the sewerage system by gravity flow or pump if the fixture is lower than the sewer line and documentary evidence of compliance must be submitted to the Principal Certifying Authority before the issue of an **Occupation Certificate**.

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102. **Use of Balconies.** At no time are the balconies to be used for clothes drying.
103. **Management of Waste Areas.** Staff or contractors must be employed to:
- (a) Take the recyclables from the service compartments to the waste storage and recycling room on the Ground Floor of the building.
 - (b) Change the waste containers beneath the garbage chutes to ensure that there is no spillage or overflow.
 - (c) Take the waste containers from waste storage and recycling rooms to the container emptying point for servicing and return the containers to the waste storage and recycling rooms after servicing.
 - (d) Clean and maintain the waste storage and handling facilities.

104. **Air handling and water systems.** All air-handling and water systems regulated under the *Public Health Act 1991* must be installed, operated and maintained in accordance with the requirements of the *Public Health (Microbial Control) Regulation 2000*.
105. **Waste Collection Services.** Arrangements must be made with Council for the provision of waste collection services **before occupation commences**.
106. **Maintenance of Waste Areas.** All waste storage areas must be maintained in a clean and tidy condition at all times.
107. **Use of the Premises.** The use of the premises, including any plant or equipment installed on the premises, must not cause the emission of smoke, soot, dust, solid particles, gases, fumes, vapours, mists, odours or other air impurities that are a nuisance or danger to health.
108. **Offensive Noise.** The use of the premises must not cause the emission of 'offensive noise' as defined in the *Protection of the Environment Operations Act 1997*.
109. **Operation of Plant or Equipment.** The operation of any plant or equipment installed on the premises must not cause:
- (a) The emission of noise that exceeds the background noise level by more than 5dBA when measured at the most affected noise sensitive location in the vicinity. Modifying factor corrections must be applied for tonal, impulsive, low frequency or intermittent noise in accordance with the New South Wales Industrial Noise Policy (EPA, 2000).
 - (b) An internal noise level in any adjoining occupancy that exceeds the recommended design sound levels specified in Australian/New Zealand Standard AS/NZS 2107:2000 *Acoustics – Recommended design sound levels and reverberation times for building interiors*.
 - (c) The transmission of vibration to any place of different occupancy.
110. **Acoustic Report.** A report from a qualified acoustical consultant demonstrating compliance with the above noise criteria must be submitted if requested by Council.