INCORPORATING NEUSTEIN URBAN

CITY PLANNING WORKS

URBAN PLANNING & DESIGN

Willoughby Local Government Area

100 Edinburgh Road, Castlecrag, NSW 2068

Amended Planning Proposal for The Quadrangle Shopping Village Renewal

Level 22, Westfield Tower 2
101 Grafton Street
Bondi Junction NSW 2022

PO Box 636 Bondi Junction NSW 1355
office@cityplanningworks.com.au
www.cityplanningworks.com.au
+61 2 9387 1333

Document Control

Version	Date	Issue details	Author	Checked	Authorised
3	31/05/2022	Coordinate with Council	ED and MN	MN	MN
4	01/06/2022	Lodgement in response to Gateway determination	ED and MN	MN	MN
5	30/06/2022	Re-lodgement in response to Department comments	ED and MN	MN	MN
6	08/07/2022	Re-lodgement in response to Council comments	ED and MN	MN	MN
7	21/07/2022	Re-lodgement in response to Department comments	ED and MN	MN	MN

This report is the copyright of Neustein Resources Pty Ltd trading as City Planning Works. Reproduction, in any form, is permitted only for the purposes of project assessment by a public approval body or in conjunction with the assessment of Development Applications or Planning Proposals described in the report.

While the information referenced in this report and the assessment of the proposal have been compiled and carried out with all due care, City Planning Works does not warrant the information provided by third parties is free from error or omissions.

Contents

Executive Summary 1

1 Existing context 10

1.1 The site and its context 10

1.2 The locality 14

1.3 Site history and background 15

1.4 Previous applications 16

1.5 Willoughby LEP 2012 17

1.6 Draft Willoughby LEP 2022 18

2 The proposal 20

2.1 Urban form 20

2.2 The essential characteristics of the proposed development 21

3 Previous Planning Proposal 22

4 Objectives and intended outcomes of the Planning Proposal 23

4.1 Objectives of the planning proposal 23

4.2 Intended outcomes of the proposed development 25

5 Justification and process for the implementation of the proposed amendments and outcomes 26

5.1 Is the planning proposal a result of any strategic study or report? 26

5.2 Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way? 28

5.3 Is the planning proposal consistent with the objectives and actions of the applicable regional, sub-regional or district plan or strategy (including any exhibited draft plans or strategies)? 29

5.4 Is the planning proposal consistent with the council's local strategy or other local strategic plan? 35

5.5 Is the planning proposal consistent with applicable State Environmental Planning Policies? 59

5.6 Is the planning proposal consistent with applicable Ministerial Directions (s.9.1 directions)? ... 63

5.7 Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal? 67

5.8 Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed? 67

5.9 Has the planning proposal adequately addressed any social and economic effects? 68

5.10 Is there adequate public infrastructure for the planning proposal? 71

5.11 What are the views of State and Commonwealth public authorities consulted in accordance with the Gateway determination? 73
5.12 What is the expected timeline for the gazettal of the planning proposal? 73
6 Draft amended environmental planning instrument maps for proposed statutory changes 74
6.1 LEP 74
7 Completed community consultation, including with any relevant government agencies 79
7.1 Agencies that were, or are to be, consulted 79
7.2 Completed community consultations 79
7.3 How feedback impacted design 81
8 Voluntary Planning Agreement 82
9 Assessment of the apartments against the design principles of SEPP 65 and the ADG 83

Executive Summary

I. Introduction

This Planning Proposal has been prepared on behalf of Greencliff Castlecrag Pty Ltd and outlines redevelopment and revitalisation of The Quadrangle shopping village in Castlecrag.

Responding to the future housing and community needs of the area, the Planning Proposal is for activation of the site via a $63.9 million redevelopment for a high-quality local centre with ample public and communal open space, a supermarket, local shops and 53 shop top apartments. The proposal responds to the expected growth in Castlecrag population requiring 74 new dwellings by 2036.

The provision of flexible and diverse housing options is a suitable response to changes in household types as stated in the Willoughby LSPS:

> *couple families with children is expected to remain the biggest household type in the population, however, couple families without children and lone person households will also grow gradually as a share of total households.*[1]

The Planning Proposal is in line with the strategies of the NSW Government, the Greater Sydney Commission and Willoughby City Council, as outlined below.

The Planning Proposal has been formulated to implement the design of FJMT Studio as shown to and discussed with representatives of community groups and individual members of the community.

II. Site and locality

Located within the Willoughby LGA, the subject site has a street address of 100 Edinburgh Road, Castlecrag. The site has a legal description of lot 11 in DP 611594 and lot 1 in DP 43691 with a total site area of 5168m^2.

The site is located approximately 6.5km from Sydney CBD and 3km from Chatswood commercial centre and train station. Surrounding the site are the residential suburbs of Northbridge and Willoughby East. Castlecrag suburb was developed by a company controlled, for a time, by Walter Burley Griffin and Marion Mahony Griffin, husband and wife designers of the nation's capital, Canberra. The suburb still displays much evidence of the Griffins' legacy in its winding roads, its natural environment where rock outcrops are revealed and its architecture including many Griffin buildings.

[1] Willoughby LSPS, 2020, p. 16.

The site is currently zoned B1 (Neighbourhood Centre) with a small strip of 70sqm on the southern boundary RE1 (Public Recreation) under Willoughby Local Environmental Plan (WLEP) 2012.

The site is identified as being a part of the Castlecrag Centre in the *Willoughby Local Centres Strategy to 2036* (2019) and as a focus centre in the *Willoughby City Local Strategic Planning Statement* (LSPS) (2020).

An opportunity for this site is presented by the distinct, Griffin inspired, heritage character of the local area It is the gateway location of Castlecrag and its existing commercial precinct along Edinburgh Road. The centre offers an opportunity to meet the future commercial and residential demands expected of the suburb.

Castlecrag's population increased in recent years, growing by 4.5% between the census years of 2006 and 2016[2] compared with an overall increase of 20.4% for the Willoughby LGA.[3] The population of Castlecrag will age significantly in the next 16 years and provision needs to be made for the changing needs of older residents.

As the proposal locates 53 apartments over a local shopping village adjoining significant bus routes (203 and 275) serving Chatswood regional centre and the North Sydney CBD, the proposal aligns with the Metropolitan Strategy's objective of encouraging a shift from private to public transport. The proposal will not remove the need for residents of the suburb or the project itself to use cars. However, it will reduce the need for many shopping trips or shorten local shopping trips.

III. Proposal

The Planning Proposal seeks an amendment to the Willoughby LEP 2012 to facilitate the development of the subject site for a three-storey high (above Edinburgh Road) mixed-use development with a total GFA of 9,300m^2, an FSR of 1.8:1, to a design by FJMT Studio following a design competition. The development includes:

- 53 new shop top housing units, with an apartment mix of 4% one-bedroom, 55% two-bedroom and 42% three-bedroom units,
- 1740m^2 of retail/commercial floor space for a variety of uses including a supermarket, restaurants, cafes, shops and local services,
- A total of 157 parking spaces located at lower ground and basement levels,
- 1,150m^2 of publicly accessible open space adjoining Edinburgh Road and the neighbourhood shopping village.

[2] ABS Community Profiles: Castlecrag 2008 and 2017.

[3] ABS National Regional Profile: Willoughby 2008 and 2017.

The proposed development will positively contribute to the delivery of the estimated housing demand of 1,500 new dwellings in Willoughby's local centres by year 2036.[4] 74 additional dwellings are planned for Castlecrag.[5]

The subject site due to its generally suitable zoning, prominent location and single ownership has the potential to deliver the majority of these dwellings.

To facilitate the proposed development, the following amendments to Willoughby LEP 2012 are required:

- Addition of the site to the **Schedule 1 Additional permitted uses** to allow residential flat buildings on lot 11 in DP 611594 because the definition of the permitted shop top housing does not fit the proposal which has dwellings on the same storey as the retail and on the storey below the retail.
- Addition of a proposed sub-clause 4.4A(25) to increase the maximum permissible floor space ratio on site to no greater than 1.8:1 of which no more than 1.6:1 shall be above the level of Edinburgh Road. Amendment of the Floor Space Ratio control map to allow an overall FSR of 1.8:1 for the subject site (FSR of maximum 1.6 above Edinburgh Road) **lot 11 in DP 611594**.
- Addition of a proposed sub-clause 4.3A(9) to increase the maximum permissible building height on site to no greater than an AHD of 97.49 as defined within the clause and not including roof top services and access to the communal open space. This will require a related change to the Special Areas Map.

IV. Compliance with strategic planning policies

The Planning Proposal is consistent with the following strategic plans and policies applicable to the site:

- ***The Greater Sydney Region Plan, A Metropolis of Three Cities***, is a plan that aims to achieve a "30 minute city" in which residents can live "within 30 minutes of their jobs, education and health facilities, services and great places".[6] The plan outlines 10 directions for Greater Sydney that establish the goals for the region. These directions are to be achieved over the next 40 years and they inform other strategic and more local documents to achieve these ambitions.

- ***The Future Transport Strategy 2056*** is supported by plans for regional NSW and for Greater Sydney[7] and delineates a 40-year strategy to address health, environmental and congestion issues, through better and safer active travel and public transport. The Quadrangle shopping village's proximity to the two bus routes that service Castlecrag ensures that the Planning

[4] Willoughby LSPS, 2020, p. 41.
[5] Willoughby Housing Strategy, 2020, p. 50
[6] The Greater Sydney Region Plan, A Metropolis of Three Cities, 2018, p. 6.
[7] The Future Transport Strategy 2056, 2018, p. 2.

Proposal enhances the community's access to viable transport options in relation to the local centre.

- ***The North District Plan*** is a guide for achieving the goals of *A Metropolis of Three Cities* in a 20-year timeframe, at a district level. The plan is a bridge to regional and local planning[8] and informs a range of local policies. The plan reflects the local values and aspirations of communities to facilitate the growth and change of the LGAs in the North District. In particular, the plan requires urban renewal to accommodate the demand for additional dwellings and employment over the next 20 years[9]. The Planning Proposal for The Quadrangle assists in the achievement of these aims.

- ***Willoughby Economic Development Study*** is a review of Willoughby Council's economic development policies and land use planning strategies in order to ensure key employment in concentrated areas such as: commercial, retail and industrial precincts in the Willoughby LGA, and to manage the future growth and economic sustainability of employment hubs.[10] The study focuses on retaining existing employment services, achieving growth targets identified in regional strategies and catering for global and local trends as well as land use requirements.[11] The study has informed this Planning Proposal as it identifies The Quadrangle as a small village centre that provides opportunities for revitalisation that should be considered.[12]

- ***Our Future Willoughby 2028, Community Strategic Plan,*** is the Council's community strategic plan, produced through a community engagement process. The plan is based on five outcomes; A City that is green; A City that is connected and inclusive; A City that is liveable; A City that is prosperous and vibrant; A City that is effective and accountable.

- ***Willoughby Housing Strategy 2036***, is a 20-year plan that guides the future housing in Willoughby LGA. The Strategy has analysed residential development factors and conducted community engagement in order to provide an all-encompassing plan. The strategy identifies The Quadrangle as a local centre in Castlecrag having 'future economic and dwelling potential'[13].

- ***Willoughby Local Centres Strategy To 2036***, (draft and adopted versions) which aims to promote a network of thriving, attractive and distinctive village centres. The strategy provides a framework for future planning controls and public domain improvements for eight local centres in the Willoughby LGA. The final, adopted version, with respect to Castlecrag, reduced the recommended height of the building from five to three storeys above Edinburgh Road apparently

[8] The North District Plan, 2018, p. 1.

[9] Ibid, p. 8.

[10] Willoughby Economic Development Study, 2016, p. 1.

[11] Ibid, p. 1.

[12] Ibid, p. 71.

[13] Willoughby Housing Strategy 2036, 2019, p. 48.

based on feedback received from limited public consultation. It preserved the recommendation for an FSR of 1.8:1 with 1.6:1 at or above the Edinburgh Road level.

- ***Willoughby City Local Strategic Planning Statement (LSPS)***, sets a 20-year vision for the LGA by focusing on the economic and social needs of the community. The LSPS answers the questions of what is to remain the same or needs to be changed for Willoughby's housing, centres and environment in response to local, metropolitan, national and global challenges and trends.

To respond to the forecast population growth for the area, a comprehensive approach to new community development is required. Such an approach must respond to social, economic, and environmental challenges. With its location on the Eastern Valley Way transport corridor, and via the bus route its proximity to the Chatswood CBD and train station, Castlecrag is identified as a Focus Area[14]. The site offers an exceptional opportunity to address these challenges through a renewed shopping village, with a focus on facilitating greater housing diversity, sustainable development and protection of the Griffin character of the area.

The proposed revitalisation of the Castlecrag urban village will assist Willoughby City Council and the NSW Government by providing a more diverse housing mix in the area, to meet the changing needs of current and future residents. The project will deliver high quality dwellings in proximity to local shops, services, open space and transport routes.

V. Anticipated impacts

a) Ecological

Previous construction on the subject site for the erection of the existing shopping village 40 years ago was carried out on 100% of the site. A site survey by the arborist has shown that there are no remnant forest species on the site.

b) Site Suitability - contamination and hazardous materials

The site development history is as follows:

- 1920s - 1949 shops
- 1949 – 1978 service station
- 1979 to date – shopping centre with excavated basement for parking.

The geotechnical report notes that rock is exposed on the northern side of the existing basement to a height of between 0.5m and 1.6m, sloping downwards to the east.[15] This suggests that about half of the site depth of 57m (north to south) has been excavated.

[14] Willoughby LSPS, 2020.

[15] Report on Preliminary Geotechnical Assessment, by Douglas Partners, June 2018 p. 2.

The service station on the site would have had underground service tanks (USTs) under its northern apron, close to the road for ease of tanker refuelling. Excavation of the site for the shopping centre appears to have removed the USTs, normally a cause of hydrocarbon pollution of the underlying material. The existing basement is approximately 3m to 4.8m below Edinburgh Road level.

Under the proposal, the basement parking will extend a further 3.8m below the existing basement, requiring further excavation of the rock. If any remnant of the USTs or hydrocarbon pollution is present, it will be excavated and removed with the basement material. Normal testing of the material to be removed is required under DECCW regulations before disposal to appropriate sites or re-use on this site.

c) Archaeology

It is anticipated that the Planning Proposal will not have any impact on potential Aboriginal archaeological remains as 100% of the site area was excavated and levelled 40 years ago. The site is not listed as having archaeological potential[16].

d) Infrastructure

The findings of the *Building Services* report advise the following upgrades to the capacity of the existing site and local infrastructure are necessary to capture the small increase in the future loads:

- Power: A 1,000KVA kiosk substation needs to be installed.
- Drinking water: A new domestic water services supply, connected to the Sydney Water main on Eastern Valley Way, will need to be provided.
- Natural gas services: The existing gas main located on Edinburgh Road has sufficient capacity to provide the proposed development with natural gas.
- Telecommunications: NBN is available at the site and the new development can be connected to NBN upon completion.[17]
- The sewer main connected to the site has sufficient capacity for the additional load generated by the future uses of the site.

In addition to the above recommendations, the installation of solar panels on the roof of the east and west wing buildings and the recycling of rainwater for the irrigation purposes will contribute to the efficient and sustainable use of resources and energy on site. Any proposal will also be subject to a combination of SEPP BASIX and Section J considerations under the National Construction Code (formerly known as the BCA).

[16] Heritage Impact Statement Weir Philips Heritage and Planning, 2021, p 10.

[17] Building services concept report by Meinhardt: August 2021.

e) Traffic and transport

The traffic and parking study shows the proposed mixed-use development will generate about 20 vehicles per hour (two-way) in the weekday morning and afternoon peak periods. This would be a minor increase (1 to 3 seconds) in average delay per vehicle through the intersection of Eastern Valley Way/Edinburgh Road in the AM/PM peak hours and is considered an insignificant impact on the operation of the road network. [18]

New on-site parking and loading facilities, in accordance with Council's DCP, will minimise impact on street parking. Access to the site will be from the existing driveway location on the eastern boundary. No egress to Eastern Valley Way can be provided following refusal of such a proposal when previously discussed with RMS.

A green travel plan (appended) has been prepared at the suggestion of Council. Provision will be made for end of trip facilities including bicycle racks and lockers to encourage residents and shoppers to use bikes. The proximity of the site to two bus stops on Eastern Valley Way and Edinburgh Road that are regularly serviced by buses to Chatswood and the North Sydney CBD provides residents and visitors with a viable and regular alternative to private vehicle use.

f) Solid Waste

Solid waste is proposed to be stored at collecting points on site for either private or Council-managed collection. To the extent possible, sorting of recycling materials will be managed on site. As all storage of waste and its removal will be undertaken on the lower ground level, height clearance for garbage trucks is required for that level.

g) Urban design

The proposal has been designed to respond to the Griffin legacy and to minimise its environmental footprint:

- Orient the east wing and west wing sections in a radial arrangement to mirror the Griffin subdivision
- Create a gateway development for Castlecrag in keeping with the design principles of the Griffins
- Create a separation between the wings to allow sunshine through the development and to the neighbouring properties to the south.
- Restrict the height of the proposal to three storeys above Edinburgh Road to minimise the visual impact and reduce shadowing impact on the low-medium density housing to the south of the site.

[18] Planning Proposal – traffic review by Colston Budd Rogers & Kafes Pty Ltd: September 2021.

- Restrict the proposed excavation and level changes to minimise impacts as reasonably possible upon the mature trees along the southern boundary whilst maintaining all existing street trees to Edinburgh Road and Eastern Valley Way.
- Provide extensive landscaping plus green roofs to reduce heat island effects.
- Create a landscape setting using endemic species.
- Generate onsite power through the installation of photovoltaic panels on the roof.
- Encourage social interaction through providing public open space at ground level adjoining Edinburgh Road and café spaces on site
- Provide an inviting spatial quality to encourage active movement through the site.

The FJMT design of the proposal, incorporating the objectives above, will result in a sustainable building with a minimal environmental footprint in the footsteps of the Griffins.

h) Visual impact

The prime streetscape characteristics of Castlecrag are tree lined streets and front gardens with often substantial foliage. As noted above, the street pattern, topography and street trees limit distant views of the proposed development to the point that the building's striking architecture will only be apparent from very close up. The use of natural materials will serve to reduce the visual impact of the proposal, setting it into its background. Whilst the building has been designed as a gateway to the Griffin suburb, it will not be a dominant building except when seen very close up. Its visual impact will be very limited. (Refer to Annexure 12)

i) Social impact

- Public engagement – The Planning Proposal has been developed in response to an extensive voluntary stakeholder and community engagement process. Ongoing consultation with key stakeholders provided further insight into the desired community facilities for the site and the locality, the ideal location for such facilities, and means for encouraging and optimising use. Engagement with stakeholders has taken place up to the submission of this proposal.

- Renewal - The closing of The Quadrangle shopping village in the near future is inevitable considering the need for commercial renewal after over 40 years.

- Housing – There is increasing demand from the local residents for suitable residential options for downsizing.

- Local centre - Access to quality retail and local services in close proximity to the residential areas of Castlecrag is important to and necessary for the community. The creation of a community hub is also an important community need and the proposal will provide such a hub with outdoor café/dining areas and a publicly accessible open space on Edinburgh Road.

j) Economic impact

- Surrounding centres – It is unlikely that the nearest centre, Northbridge Plaza, will suffer any discernible impact as the gross floor area in that centre is approximately ten times greater than the whole Castlecrag local centre. Castlecrag serves a small demographic which extends along the Edinburgh Road spine to the east.

- Employment – It is estimated that the development, upon completion, will provide 90 jobs[19], in retail and plus up to 18 service contractors associated with the residential part of the development. There will be an economic benefit due to the expenditure of $63.9 million on renewal of The Quadrangle Shopping Village and the construction of housing above.

VI. Conclusions

The Planning Proposal outlines a sustainable transformation of an underutilised local centre into a medium-density mixed-use local centre designed for the 21st century.

Responding to the housing and community needs of the area, the Planning Proposal will meet the future needs of the community by providing housing, public and communal open space, and associated retail facilities. It addresses the strategic planning needs of the region, the Willoughby LGA and the suburb of Castlecrag.

Its strategic location along Eastern Valley Way, a major transport corridor[20], justifies amendment of the existing planning controls to achieve higher density housing and associated facilities, in line with Council and NSW Government's strategic vision for the area, as demonstrated by the adopted FJMT design.

[19] PERS COMM, Quadrangle Centre Management, May 2020.

[20] Willoughby LSPS, 2020, p. 46.

1 Existing context

1.1 The site and its context



Figure 1 – Subject site coloured yellow. Image courtesy of Nearmap.

Located within the Willoughby LGA the subject site is at 100 Edinburgh Road, Castlecrag, with a legal description of lot 11 in DP 611594 and lot 1 in DP 43691 with a total area of 5168m^2. It currently accommodates a shopping village and one level of basement parking built in late 1970s.

The site falls between 5.1m and 5.8m north to south and is almost flat east to west long the northern boundary with a 2m fall along the southern boundary of the site.

The irregular shaped site has two street frontages. To the north is Edinburgh Road and to the west is Eastern Valley Way. The eastern side boundary is shared with another commercial property. To the south are a number of residential properties on lots zoned R2 (Low Density Residential) and E4 (Environmental Living).



Figure 2 – The Quadrangle shopping centre viewed from the north west corner of the Eastern Valley Way and Edinburgh Road junction. Image courtesy of Google Maps.



Figure 3 – Rear, south west corner of the site. Image courtesy of Google Maps.



Figure 4 – Main entry to the shopping centre from Edinburgh Road. Image courtesy of Google Maps.



Figure 5 – Vehicular entry to the basement parking level from Edinburgh Road. Commercial properties adjoining the site to the east are to the left. Image courtesy of Google Maps.

The site boundaries have approximate lengths as follows.

- Northern boundary, along Edinburgh Road, 101m
- Western boundary, along Eastern Valley Way, 60m
- Southern boundary, shared with a number of residential lots, 108m
- Eastern boundary, shared with No.116 Edinburgh Road, 47m

Located immediately west of the Castlecrag Conservation Area, the shopping village is not a heritage item though it is integral to the character of the area. The proposal acknowledges that any redevelopment must pay homage to the Walter Burley Griffin legacy of the suburb and retain the "village feel".

The site is located approximately 6.5km from Sydney CBD, 4.4km from North Sydney station and 3km from Chatswood commercial centre and train station, both accessible via frequent bus services. Surrounding the site are the residential suburbs of Northbridge and Willoughby East. The site and its immediate and larger context are shown on the following map.

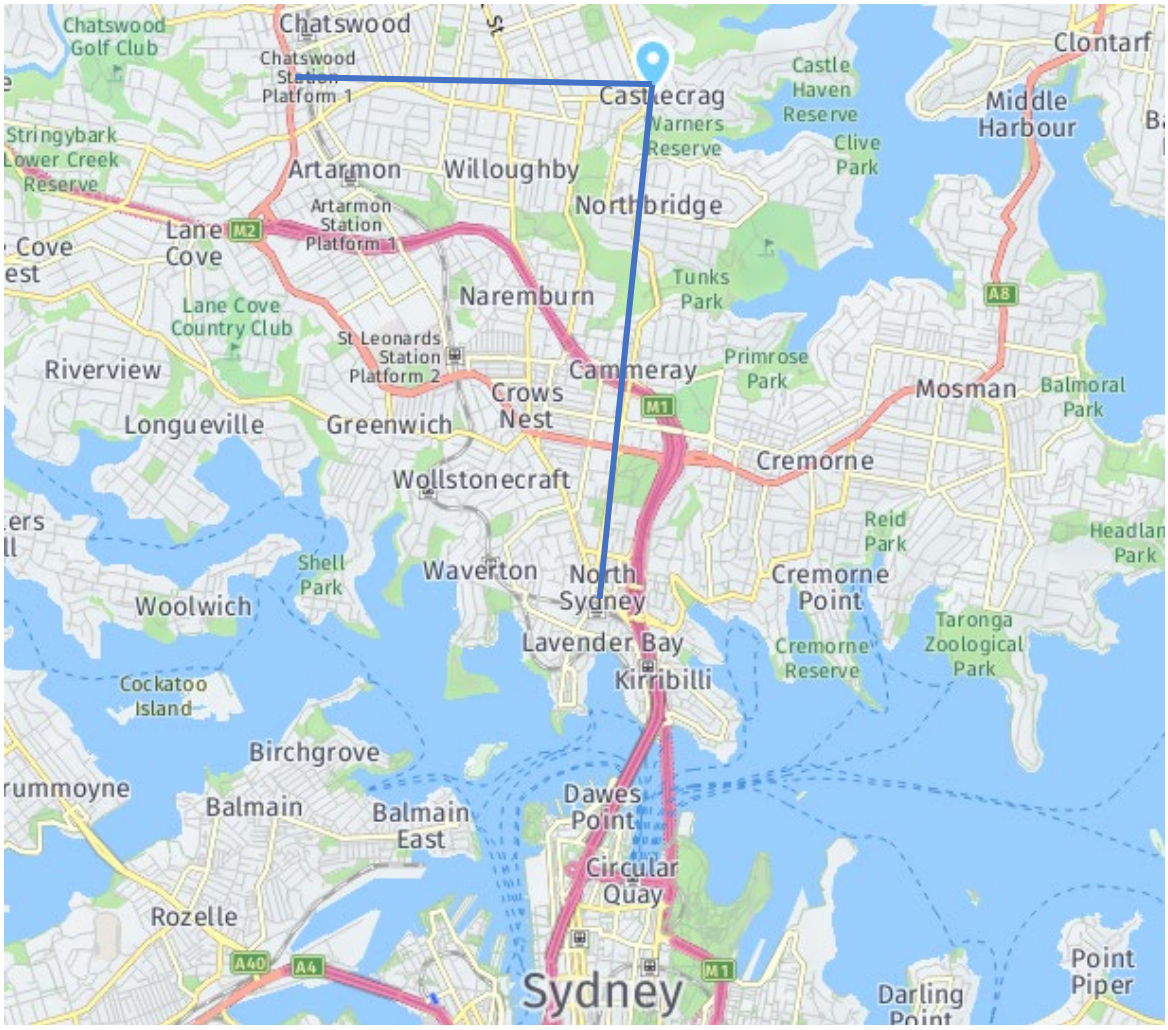


Figure 6 – Site's location in relation to the surrounding suburbs and the distances from the North Sydney CBD and Chatswood train station. Image courtesy of Nearmap.

The site is serviced by bus route numbers 203 and 275, to the North Sydney CBD and Chatswood.



Figure 7 – Castlecrag services by the 203 and 275 bus routes.[21]

The site is currently zoned B1 (Neighbourhood Centre) 5,096m^2 and RE1 (Public Recreation) 70m^2 under Willoughby Council Local Environmental Plan (WLEP) 2012.

As it can be seen from the street views above and as also shown on the architectural drawings, there street trees along the western and northern boundaries of the site. These trees are considered by the community as important factors defining the character of the suburb and the site. These trees will be preserved.

1.2 The locality

The site is located on the corner of Eastern Valley Way, a busy arterial road, and Edinburgh Road, the main local road servicing Castlecrag. Castlecrag suburb extends from the intersection at which the site stands along the spine of Edinburgh Road to the east. 96% of the dwellings in Castlecrag are detached houses[22].

[21] Ibid, p. 68.

[22] Elton Consulting, Community Engagement Report, 2020, p 31.

Eastern Valley Way forms a barrier between Castlecrag and Willoughby East, a barrier which extends to the Castlecrag's self-image as expressed by its residents.

Castlecrag suburb was developed by a company controlled, for a time, by Walter Burley Griffin and Marion Mahony Griffin, husband and wife designers of the nation's capital, Canberra.

The suburb still displays much evidence of the Griffins' legacy in its winding roads, its natural environment where the rock outcrops are revealed and its architecture including many Griffin houses. "To Griffin, architecture, the site planning, town planning and landscape design were inseparable. Any structure had to fit into the overall landscape of the area - being harmonious rather than obtrusive. He achieved this integration through his design philosophy - narrow winding roads following contours, linked open space networks, lack of fences, unobtrusive houses, retention of bushland in the reserves, walkways, nature strips and road islands."[23].

Surrounding the site are the residential suburbs of Willoughby East to the west and Northbridge to the south. The density of these suburbs is increasing from low density to medium density around commercial centres and transport hubs.

The population of Castlecrag experienced very little change between the 2006 and 2016 census when the population grew by 5% compared with 17% for the whole Willoughby LGA.

1.3 Site history and background

> *In 1920 Walter Burley and Marion Mahony Griffin designed the Castlecrag Estate, as it became known, in sympathy with the natural environment, creating bushland reserves that preserved the major landforms and rock outcrops, foreshore reserves, a delightful network of public walkways and roads that followed the contours and respected the landforms.*[24]

Aerial mapping from 1943 shows the site and much of the surrounding area were largely undeveloped. The site had three small buildings, two of which were shops built in 1926 and related to Radio Station2RC. The other building was likely a shed for a dairy business operated from the remainder of the site. This image also shows the street pattern laid out for the residential area to the east of the site, clear evidence of the master plan designed and laid out by Walter Burley Griffin and his wife. Specifically, the residential streets follow the contours of the peninsula highlighting the natural features of the area and the views available.

[23] Heritage Impact Statement Weir Philips Heritage and Planning, 2020, p. 18 & 19.

[24] Willoughby LSPS, 2020, p. 10.



Figure 8 - The site and surrounds in 1943. Image courtesy of SIX Maps

Due to previous works, the site has been cleared and extensively excavated or filled. The existing shopping centre, opened in 1979, covers about 85% of the site. Much of the landscape strip on the southern side of the site is on fill, probably the result of the 1979 development. The trees in that landscape are more recent plantings and are not part of the indigenous forest evident to the east.

1.4 Previous applications

Past development consents and previous uses of the site include:

- An Esso Service Station, built in 1952 to replace the shops,
- An Ampol Petrol Station, built in 1956 to replace the dairy business,
- The Quadrangle shopping village, built in 1979 to replace the petrol station,

The use of the site has not changed since.

An online search for previously approved DAs, involving the subject site on Council online application/ property tracking portal shows the following alterations have been carried out on the subject site:

- DA - 2017/436 - Change of use of shops 23 to 26 to licensed restaurant, internal fit out, modifications to shopfront and outdoor dining.

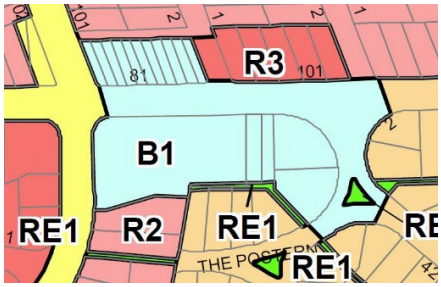
- CD – 2015/116 - Change of use - shop fit out and associated works.
- CD - 2015/116/A - Change of use - shop fit out for liquor store and associated works.

In 2020, an application was lodged for a Planning Proposal, generally along the lines of the then proposed Local centres Study for Castlecrag. The proposal was for an FSR of 2.2:1 in place of the 1.8:1 of the LCS and a part three and part four storey building. The Planning Proposal was ultimately refused by the Sydney North Planning Panel on the basis of its failure to meet the strategic requirements of the Council expressed in its LCS. The Panel did note the high architectural quality of the proposal.

1.5 Willoughby LEP 2012

The proposal is for a complete redevelopment of The Quadrangle shopping village for a medium density mixed-use local centre including residential units, retail tenancies and community open space. The LEP controls that apply to the site are below.

The site is zoned in a B1 Neighbourhood Centre and RE1 Public Recreation area. The RE1 zoning of Lot 1, part of the site, is an anomaly as such zonings are usually designated for public land or land sought to be purchased for public land. This is not the case here. The land is in private ownership but its use will remain open space as a public right of way.



Within a B1 zone, the following uses are permitted:

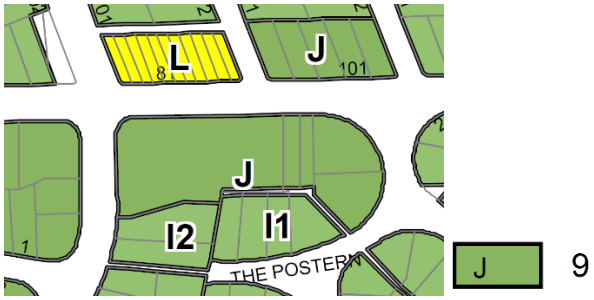
Boarding houses; Building identification signs; Business identification signs; Business premises; Centre-based child care facilities; Community facilities; Medical centres; Neighbourhood shops; Neighbourhood supermarkets; Oyster aquaculture; Respite day care centres; Restaurants or cafes; Roads; Shop top housing; Shops; Take away food and drink premises; Tank-based aquaculture; Any other development not specified in item 2 or 4.

Council has drawn the applicant's attention to the fact that the proposal may not meet the definition of shop top housing which is defined as:

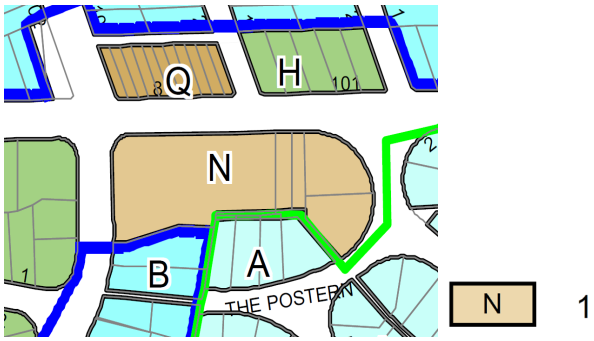
shop top housing means one or more dwellings located above ground floor retail premises or business premises.

As the proposal is for apartments at ground level and also at lower ground level, the additional use of *residential flat building* on the site needs to be added to **Schedule 1 Additional permitted uses**.

The maximum permissible height of building is 9m.



The maximum permissible floor space ratio for the site is 1:1

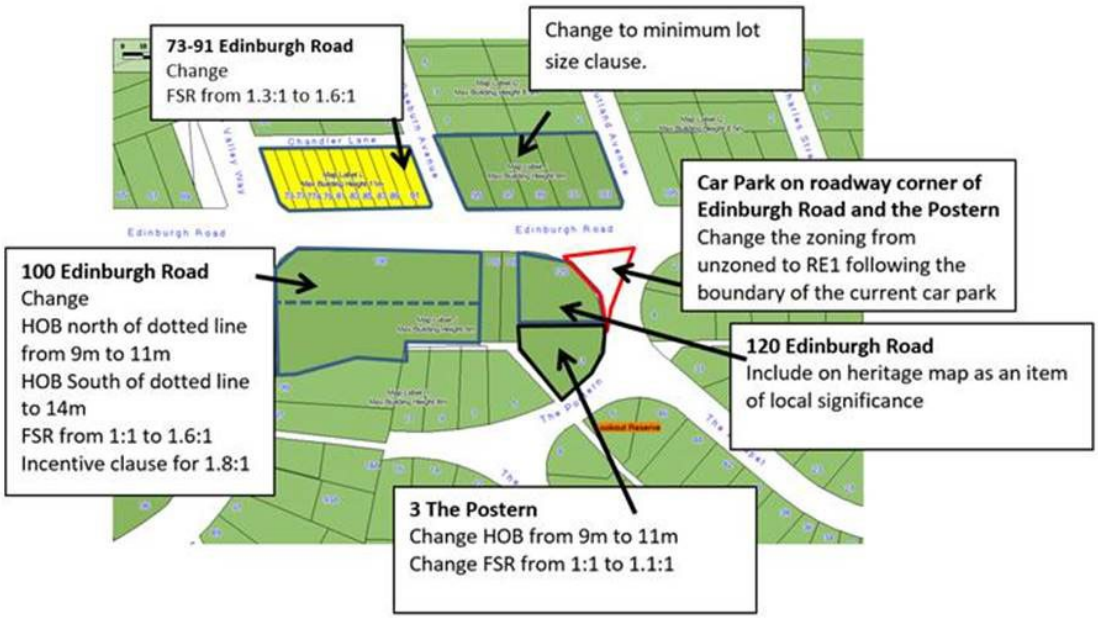


1.6 Draft Willoughby LEP 2022

The Draft Willoughby Local Environmental Plan 2022 (WLEP - PP-2021-6242) has been on public exhibition from 5 March until 7 June 2022. The Comprehensive LEP proposes the following in relation to FSR and building height the site (100 Edinburgh Road):

(13) The maximum Floor Space Ratio on land identified as "Area 4" (being 100 Edinburgh Road, Castlecrag) on the Floor Space Ratio Map may exceed 1.6:1 if —
(a) additional floorspace is located below the Edinburgh Road frontage and
(b) the FSR will not exceed 1.8:1 and the building does not exceed the height on the Height of Building Map.

The draft Height of Building Map for the site proposes a maximum building height of 11m for the front half of the site adjacent to Edinburgh Road, with a maximum building height of 14m being permitted on the rear half of the site. The proposed changes in the Comprehensive LEP that apply to this site and Castlecrag local centre are illustrated in the diagram below:



This planning proposal for 100 Edinburgh Road is considered to be broadly consistent with the Comprehensive LEP as it proposes to:

- Increase to 1.8:1 FSR from the current 1:1, with a maximum FSR of 1.6:1 for the building above the Edinburgh Road level.

- Heights increased across the site from the current 9m maximum to a site-specific clause. The site-specific clause proposes a maximum building height not greater than AHD 97.49 which equates to 11m above Edinburgh Road level and 15.8 m above southern boundary of the site.

- Include an additional permitted land use of "residential flat building" on the site, specifying that land uses facing Edinburgh Road at ground level should be non-residential and that a minimum of 20% of total floorspace should be non-residential uses.

While it is noted that while the maximum rear building height exceeds the *Comprehensive LEP* building height for the southern part of the site, it is considered that this minor variation is justified, taking into account the sloping site and uneven terrain. The building height provisions exclude a number of specified rooftop features including a lift access structure being a maximum of 4.5m above the roof top level.

The proposed FSR provisions for both proposals are consistent. The minimum non-residential uses for the site is consistent in terms of location with the proposed Active Street Frontages Map that is proposed to apply to the site in the *Comprehensive LEP*.

Clause 6.8 Affordable Housing has been amended under the draft Comprehensive LEP to increase the amount of dedicated affordable housing from 4% to 10% of the accountable total floor space. This planning

proposal, based on a scheme proposed in 2021 and the subject of considerable public consultation, complies with providing 4% of affordable housing of the accountable total floor space.

2 The proposal

"The architects of the proposal (FJMT Studio) have taken note of the abrupt termination of Griffin's subdivision pattern on the eastern side of the subject site. The proposal seeks to better integrate the site with the underlaying subdivision pattern of the Conservation Area by extending the fluid geometry of Griffin's subdivision pattern- both the street and lot pattern- into the site. Accordingly, the proposal is orientated to reflect the adjacent curve of both The Parapet and The Rampart, giving the proposal a more organic form than the existing building on the site. Given that the site is the gateway into the Conservation Area, a better integration with the underlying subdivision pattern will have a positive impact."[25]

2.1 Urban form

Described by the proposed masterplan, the urban form of the development has been shaped by key urban design concerns including:

- Response to Griffin legacy and principles,
- "Create a unique development through the integration of architecture and landscape,
- Pay homage to the vision of Marion and Walter Burley Griffin who perceived Castlecrag's bushland flora as the cleanest most delicate and varied native indigenous perpetually blooming flora extent,
- Create a landscape that is an integral part of the built form,
- Reconnect with the surrounding natural landscape qualities,
- Extend natural heritage landscape of Castlecrag into the precinct,
- Strengthen the distinctive Castlecrag community identity,
- Provide a strong sense of place and community pride,
- Develop a contemporary landscape, with references and respect to the historical sentiments and character of the historical Castlecrag landscape.
- Provide a sophisticated bushland environment through considered simplicity of design, while responding to the integrity of the architecture,
- Provide spatial opportunity, through the provision of communal open space, for a variety of recreational activities that cater to both residents and visitors of different age groups,
- Replace removed trees with endemic species in similar numbers"[26],
- Compliance with building separation and solar access requirements of the Apartment Design Guide referenced by SEPP 65,

[25] Heritage Impact Statement Weir Philips Heritage and Planning, 2021, p. 33.

[26] FJMT Planning Proposal Architectural and Landscape Design Report, 2021, p. 35.

- Consideration of the nine principles for urban residential development required by SEPP 65,
- Minimise adverse impacts on adjoining development.

2.2 The essential characteristics of the proposed development

The proposal is for a shopping village with shop top housing units. The essential characteristics of the proposal are:

- Total site area of 5,168 m^2 in single ownership.
- Two storey pavilions above a ground level base storey, with a maximum building height not greater than AHD 97.49 which equates to 11m above Edinburgh Road level and 15.8 m above southern boundary.
- Proposed FSR of 1.8:1, which includes an FSR of 0.25:1 for the section below Edinburgh Road level and an FSR of 1.55:1 for the building above the Edinburgh Road level.
- Total GFA of 9,300m^2 comprising 1,740m^2 retail and commercial space and 6,260m^2 of residential apartments.
- 53 apartments with a mix of 4% one bedroom, 55% two bedroom, and 42% three-bedroom units.
- Half of all units are capable of meeting the adaptable housing standard.
- Public and communal open space - 2,220m^2, including approximately 750m^2 of landscaped plaza along the northern boundary of the site adjoining Edinburgh Road.
- Maintain the existing RE1 strip (Lot 1 DP 43691) at the rear of the site as part of the pedestrian access way linking to The Postern.
- CIV of $63.9million.

3 Previous Planning Proposal

The previous planning proposal (PP-2020/5) was prepared on behalf of Greencliff Castlecrag Pty Ltd for the redevelopment and revitalisation of The Quadrangle shopping village in Castlecrag. The proposal was lodged on the 26 June 2020 and sought an amendment to the Willoughby LEP 2012 to facilitate the development of the subject site for a part three and part four storey high (above Edinburgh Road) mixed-use development. The proposal details included:

- A total GFA of 10,332m^2
- An FSR of 2.2:1
- A maximum permissible building height on site to variously 18.5m, 20.5m, 21m and 22.5m defined strictly in accordance with the LEP definition which took as a base, the excavated level of the car park
- 67 new shop top housing units, with an apartment mix of 21% one-bedroom, 45% two-bedroom, 33% three-bedroom and 1% four-bedroom units,
- 1942m^2 of retail/commercial floor space for a variety of uses including a supermarket, restaurants, cafes, shops and local services,
- A total of 166 parking spaces located at lower ground and basement levels,
- 1,350m^2 of publicly accessible open space.

The planning proposal was referred to the Willoughby Local Planning Panel by Council on 24 November 2020. The Panel formed the view that the proposal did not pass the Strategic Merit test. The record of advice states it was deemed not consistent with the relevant local strategy that had been endorsed by the Department of Planning Industry and Environment with regard to the Willoughby LSPS 2020.

On 8 February 2021 an Ordinary Council Meeting was held to determine Council's view of the planning proposal even though it was no longer the consent authority due to delay. Council did not support the planning proposal and advised that a reduced scheme in line with the Willoughby Local Centres Strategy could be supported.

On 14 April 2021 the rezoning review of the proposal was conducted by the Sydney North Planning Panel. The Panel determined the proposal should not be submitted for a Gateway determination because the proposal had not demonstrated strategic merit. The reason for the decision is as follows:

> *The Panel concurred with Council that the Planning Proposal is inconsistent with the **building heights, bulk and scale** proposed in Willoughby's Local Centres Strategy for the site and therefore fails the strategic test. The Panel is of the view that a Planning Proposal should be compliant with such a recently approved Local Centres Strategy.*
>
> *While the Panel felt the indicative design concept had merit for such a key site, the Panel's focus is necessarily on changes to FSR and Height. In both cases, the Planning Proposal sought significant*

variations to Willoughby's LEP 2012. The proposal sought heights of 18.5m to 22.5m as opposed to the current maximum 9m under the LEP and sought to increase the FSR to 2.2:1 from the existing 1:1 in the LEP.

Since the refused rezoning Greencliff Castlecrag Pty Ltd has revised the original proposal to address the matters raised by Council, the Willoughby Local Planning Panel and the Sydney North Planning Panel. A Pre-PP meeting was held on the 4 August 2021 with Willoughby Council planners to discuss the revised planning proposal and its key issues. The main changes to the current planning proposal are the reduction in height and FSR. The changes are fully consistent with the desired building heights, bulk and scale of the adopted Willoughby Local Centres Strategy and ensure the proposal is effective in achieving a desired community outcome. A comparison of the previous and proposed planning proposals is below:

Planning issues	**Previous planning proposal**	**Revised planning proposal**
FSR	2.2:1	1.8:1
Storey height	Part three and part four above Edinburgh Road	Three above Edinburgh Road
Height of building	Variously 18.5m, 20.5m, 21m and 22.5m	Height limited to an AHD of 97.49 other than roof top services
Publicly accessible open space	1,350m^2	1,150m^2
Apartments with solar access greater than 2 hours/day	70.1%	74% (39 of 53)
Deep soil	760m^2	750m^2
Apartments with cross or natural ventilation	65.7%	60% (32 of 53)
Number of apartments	67	53

Since the previous PP was refused, Council has initiated amendments to the Willoughby LEP to implement the LCS. The current PP should therefore be assessed against the nascent amended LEP with an FSR of 1.8:1 for the site and not the current LEP which permits only 1.0:1.

4 Objectives and intended outcomes of the Planning Proposal

4.1 Objectives of the planning proposal

The principal objective of this planning proposal is to amend the Willoughby Local Environmental Plan 2012 to enable the redevelopment of 100 Edinburgh Road, Castlecrag, for a mixed-use, medium-density apartment building above a neighbourhood shopping village. This can only be achieved through:

- Addition of the use *residential flat* building to *Schedule 1 Additional permitted uses (75)* of the LEP for lot 11 in DP 611594,

- The revision of the Building Height and associated control maps applicable to the site under clause *4.3A – Exceptions to height of buildings* (9),
- The revision of the Floor Space Ratio development standard and the associated control maps applicable to the site under clause *4.4A – Exceptions to floor space ratio (25)*,
- The revision of the *Special Provisions Area Map (f)* to show the site as Area 12 on the control maps.

The proposed objectives of the planning proposal are a combination of the applicable zone objectives under the WLEP 2012 and the proposed objectives by the applicant to emphasise the requirements for the achieving the planned goals of the planning proposal. The relevant objectives of the current land use zones:

Zone B1 – Neighbourhood Centres (5096m^2 of the total site area):

> *To provide a range of small-scale retail, business and community uses that serve the needs of people who live or work in the surrounding neighbourhood.*
>
> *To minimise the effect of business uses on the amenity of adjacent areas having regard to building design, operation and activities, traffic generation and the car parking capacity of local roads*

Zone RE1 – Public Recreation (70m^2 of the total site area):

> *To enable land to be used for public open space or recreational purposes.*
>
> *To maintain and provide visual open space links to a diversity of public and private spaces and facilities as an integral part of the open space system.*
>
> *To provide adequate open space areas to meet the existing and future needs of the residents of Willoughby*

The objectives proposed by the applicant are:

> *To provide new housing opportunities and greater choice for Castlecrag's ageing demography, including affordable housing* - the proposal incorporates apartments to allow residents of Castlecrag to downsize.
>
> *To create a community-centred urban development which provides social and economic benefits and health services to its residents and the residents of surrounding suburbs*
>
> *To encourage walking and cycling* - cycling is encouraged by providing end-of-journey facilities. Walking is encouraged by linking the centre to a pedestrian network that stretches into The Postern.

To connect communal and public open spaces with The Postern.

To place the residential development in a landscaped garden setting in accordance with the Griffin design legacy,

To maximise the sustainable use of water on the site through water sensitive urban design strategies such as rainwater recycling for irrigation purposes.

To maximise the on-site energy generation through the installation of PV panels on the roof areas,

To foster design excellence in architecture, landscape design and infrastructure provision - design excellence in architecture achieved through the design competition process. The landscape and infrastructure provision are addressed by the expert reports and drawings accompanying this application.

To involve the Castlecrag community in the design and implementation of the proposal throughout the process.

4.2 Intended outcomes of the proposed development

The general outcome sought by this Planning Proposal is the renewal of The Quadrangle shopping village as a mixed-use project, as designed by FJMT Studio, which is economically viable and sustainable whilst adhering to the principles established for Castlecrag by the Griffins.

That development will be a mixed use building of three storeys above Edinburgh Road and four along Eastern Valley Way. 53 apartments will be accommodated, above, below and behind 1,740m^2 of retail space, including a minor supermarket, facing Edinburgh Road. 1,150m^2 of publicly accessible open space, facing Edinburgh Road, will be a key feature of the proposal. Parking for 157 cars will be provided in two basement levels, including eight spaces to make up for those removed to make way for a small park on the corner of Edinburgh Road and The Postern. It is anticipated that the project will provide for 105 jobs on a continuing basis.

5 Justification and process for the implementation of the proposed amendments and outcomes

Though Willoughby LGA is expected to grow rapidly over the next 20 years[27], Castlecrag is expected to see only a small increase in population[28]. The Quadrangle shopping village site provides 5,168m^2 of land suitable for a medium-density mixed use local centre, immediately adjacent to Eastern Valley Way the major north south arterial road east of the Pacific Highway connecting North Sydney to Roseville and Forestville. Eastern Valley Way also forms a division between the Griffin estate of Castlecrag and the suburb of Willoughby East on the western side of the road. The subject site is the gateway to Castlecrag and is an important symbolic introduction to the Griffin designed suburb.

Built 40 years ago, The Quadrangle has not been the subject of major renewal and is showing signs of obsolescence with declining tenancies, closures, temporary uses and discounted rents. The current state of the centre provides an opportunity to upgrade the retail offering and to provide much needed accommodation for an ageing population. Castlecrag is 96% detached housing[29] with almost no opportunity for existing residents to leave houses on the suburb's steep slopes for an apartment with modern facilities and essentially step free and slope free access.

The opportunity to re-develop a site of this area, the largest in commercial use in Castlecrag, through a community informed planning process is a once-in-a-lifetime opportunity for the residents of Castlecrag and the Willoughby LGA.

The community, when asked, made clear its preference for the creation of a significant open space on the northern side of the site, adjoining Edinburgh Road. Through the process of a design excellence competition, the applicant has made possible a design which simultaneously relates to the strong, and strongly defended, Griffin legacy as well as meeting community expectations for open space, an enhanced local centre and medium density housing.

Section A – Need for the planning proposal

5.1 Is the planning proposal a result of any strategic study or report?

This planning proposal is informed by the following state and local strategic plans, and by the obvious opportunity of providing a quality shopping village/local centre with new residential units in an already established location.

[27] Willoughby LSPS, 2020, p. 14.

[28] Elton Consulting, Community Engagement Report, 2020, p. 31.

[29] Ibid, p 31.

- ***The Greater Sydney Region Plan, A Metropolis of Three Cities,*** March 2018, the Greater Sydney Commission. The plan envisions a 30-minute city in which communities live with easy access to employment opportunities, housing, community facilities, amenities and public transport. This planning proposal addresses these visions and objectives as discussed in section 5.3.1.

- ***The Future Transport Strategy 2056,*** March 2018, The NSW Government – Transport for NSW. The focus of this plan is on how integrated land use and transport planning can work to create liveable places and spaces. How this planning proposal addresses the objectives of this strategy is discussed in section 5.3.2.

- ***The North District plan***, March 2018, The Greater Sydney Commission. This is the sub-regional plan, which also includes Willoughby LGA. The Plan is a guide for implementing the *A Metropolis of Three Cities – Greater Sydney Region Plan* at a district level and is a bridge between regional and local planning. The objectives and actions of this plan are addressed in section 5.3.3.

- ***Willoughby Economic Development Study***, May 2016, SGS Economics and Planning. Reference to *A Plan for Growing Sydney* strategies have been made in this report. The main focus of the plan is on the revitalisation of retail centres by focusing on the aggregated demand for retail floor space, public transport accessibility issues and an analysis on the capacity-demand gap. The findings of this report are discussed in section 5.4.1.

- ***Our Future Willoughby 2028, Community Strategic Plan,*** June 2018, Willoughby City Council. The Community Strategic Plan provides an overview of the Willoughby Council resident's vision for the area, a larger group than those considered for the Castlecrag proposal. Therefore, this plan is used as a reference when understanding the potential value of the proposal to the wider community, discussed in detail in section 5.4.2.

- ***Willoughby Housing Strategy 2036***, December 2019, Willoughby City Council. The Strategy provides final scenarios proposed for Willoughby local centres, including Castlecrag, in order to accommodate the future projected population growth in the Willoughby LGA. This Strategy outlines Council's recommendation for changes to existing local centres as per the then Draft Local Centres Strategy.

- ***Draft Willoughby Local Centres Strategy to 2036,*** February 2019 which was exhibited from 05 February 2019 to 30 April 2019. This local strategic plan was prepared to guide the future planning controls and public domain improvements for eight local centres, including Castlecrag. Prepared by Architectus for Council, the draft strategy envisaged a scenario of a five storeys above Edinburgh Road development of FSR 1.8:1 on the subject site. Refer to section 5.4.4 below.

- ***(Adopted) Willoughby Local Centres Strategy To 2036***, June 2020, Willoughby City Council. The height of building proposed for the subject site was reduced from five storeys above Edinburgh

Road to three, in response only to the objections of a small section of the community. The proposal responds to the adopted, but lower, scenario proposed refer to 5.4.5.

- ***Willoughby City Local Strategic Planning Statement (LSPS),*** March 2020, Willoughby City Council. The LSPS sets a strategic landuse plan for the coming 20 years in Willoughby considering the environmental, economic and social needs of Willoughby. The proposal aims to facilitate the Willoughby vision for 2036. This is discussed in section 5.4.6.

5.2 Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

As discussed in the previous section of the report, with an expected population growth of 14,000 in Willoughby LGA by 2036[30], there is a need to provide additional housing that is compatible with accessible and adaptable housing standards. Also, these new housing options have to be serviced with modern community facilities and amenities within the easy reach of local residents.

Based on the urban design analyses carried out by Council prior to this proposal, the subject site has the capacity to accommodate a large proportion of the population growth planned for Castlecrag[31], by providing new housing, employment opportunities and community facilities such as the large sun filled public plaza along the northern boundary of the site.

To accommodate the growth within the Northern District, including Castlecrag, *A Metropolis of Three Cities - Greater Sydney Region Plan* (GSC Plan) specifies 40 objectives, focusing on four aspects: *Infrastructure & collaboration, Liveability, Productivity* and *Sustainability*.

Due to its size and location, The Quadrangle site offers Castlecrag local centre the major possibility to realise a model where the focus will be on all four aspects of the GSC plan.

At present, opportunities for the site to improve its viability through a new development are limited by the restrictive FSR and height of building controls. To achieve the *Objectives of the Planning Proposal* as set out under section 3.1 of this report, the development yield of the site needs to be increased to allow for the realisation of the planned development, as recognised in the Local Centres Strategy.

The objectives defined by the applicant, in addition to the zone objectives, are based on the aspiration of the State Planning Policies for future growth and development of Sydney. The proposed objectives are formed to achieve an outcome that is aligned with the hierarchy of current strategic plans.

[30] Willoughby LSPS, 2020, p. 14.
[31] Ibid, p. 28.

The design and consultancy team worked closely to implement the objectives listed under section 2.2 of the Local Centres Strategy, through the proposed scheme for the redevelopment of the Castlecrag shopping village. The Planning Proposal is the best means of achieving the objectives and intended outcomes for the site.

Section B – Relationship to strategic planning framework

5.3 Is the planning proposal consistent with the objectives and actions of the applicable regional, sub-regional or district plan or strategy (including any exhibited draft plans or strategies)?

This planning proposal is consistent with the relevant objectives and actions contained within

- ***The Greater Sydney Region Plan, A Metropolis of Three Cities,*** March 2018, the Greater Sydney Commission.
- ***The Future Transport Strategy 2056,*** March 2018, The NSW Government – Transport for NSW.
- ***The North District plan***, March 2018, The Greater Sydney Commission.

These strategies and relevant objectives and actions are outlined below.

5.3.1 The Greater Sydney Region Plan, A Metropolis of Three Cities

In the plan, published in 2018, Castlecrag is not mentioned though the regional centre of Chatswood is mentioned specifically in terms of the Economic Corridor and investment and business. Castlecrag is a small local centre of approximately 6,500sqm, not comparable with centres like Chatswood or even the nearby Northbridge Plaza. However, some general objectives in the plan can be used to assess the strategic contribution of the proposal to meeting the plan.

> *Development will need to better capitalise on air rights rather than making space by expanding the urban footprint. This will not only require good quality apartment buildings and commercial towers but mixed-use buildings including schools, roof top gardens, vertical farms and innovative energy sources.*[32]

It is hard to conceive a better fit between objective and proposal than that described in this quote from the plan. It is a mixed-use building, utilising the air space above the existing local shopping centre. It also happens to be within 30 minutes travel of two major centres, Chatswood and North Sydney, another objective of the plan.

Of the benefits of mixed-use development, the plan notes:

[32] https://www.greater.sydney/metropolis-of-three-cities/past-present-and-future

Mixed-use neighbourhoods close to centres and public transport improve the opportunity for people to walk and cycle to schools, local shops and services. Enhancing the safety, convenience and accessibility of walking and cycling trips has many benefits including healthier people, more successful businesses and centres and reduced traffic congestion. [33]

The plan also described ideal growth management in terms of community engagement:

Managing growth and change requires meaningful engagement with local communities. Understanding and building on a community's strengths, networks and potential are critical. Infrastructure and services for socially connected communities include:

- *playgrounds, libraries, education facilities and active street life*
- *farmers' markets, eat streets, street verges and community gardens*
- *creative arts centres, theatres, live music and co-working spaces …*[34]

The process undertaken thus far to develop the project design coincides with the ideal process noted by the authors of the plan – refer to the report on the community engagement undertaken by the proponent thus far.
To the considerable extent that the proposal meets the objectives of the plan, it is strategically aligned with the plan for the Greater Sydney Region.

5.3.2 The Future Transport Strategy 2056

The Future Transport Strategy 2056 covers a long-term strategy for the whole of the State. No specific provisions apply to the Willoughby LGA. However, some general objectives are relevant to a development of the scale of the proposal.

Our approach to technology-enabled mobility is underpinned by the Future Transport Technology Roadmap, delivered in 2016, which set out five strategies: …

2. Transform the mass transit network: …and attract customers from private car use [35]

The strategy is focussed on technological solutions to transform public and private transport and notes

Future directions to investigate

The NSW Government has an objective to achieve net-zero emissions by 2050.

---

[33] https://www.greater.sydney/metropolis-of-three-cities/liveability/city-people/communities-are-healthy-resilient-and-socially

[34] https://www.greater.sydney/metropolis-of-three-cities/liveability/city-people/communities-are-healthy-resilient-and-socially

[35] Future Transport Strategy, 2056, 2018, p. 9.

- *Encourage a shift from private car use to public transport* [36]

To the extent that the proposal locates 53 apartments over a local shopping village adjoining significant bus routes (203 and 275) serving Chatswood regional centre and the North Sydney CBD, the proposal can be seen to align with the Strategy's objective of encouraging a shift from private to public transport. The proposal will not remove the need for residents of the suburb or the project itself to use cars. However, it will reduce the need for many shopping trips or shorten local shopping trips.

5.3.3 North District Plan (2018)

The *North District Plan* provides a 20-year plan to manage growth and achieve the 40-year vision, while it aims to enhance Greater Sydney's liveability, productivity and sustainability into the future. The district plan has been prepared to give effect to *A Metropolis of Three Cities – Greater Sydney Region Plan* at a district level through focus on the four areas outlined below.

Consistency with North District Plan (2018)		
Priority	**Objective**	**Consistency**
Infrastructure and Collaboration		
A city supported by infrastructure N1. Planning for a city supported by infrastructure.	O2. Infrastructure aligns with forecast growth… O3. Infrastructure adapts to meet future needs. O4. Infrastructure use is optimised.	The site is serviced by all the necessary civic infrastructure that can support the additional demand generated by the proposed development. The 'assessment of civic services' and the traffic assessment reports that accompany this application show the additional demand can be captured by the current capacity of the system.
A collaborative city N2. Working through collaboration.	O5. Benefits of growth realised by collaboration of government, community and business.	The current proposal is the result of an extensive and long community consultation process that included Willoughby Council officials.
Liveability		
A city for people N3. Providing services and social infrastructure to meet people's changing needs.	O6. Services and infrastructure meet communities' changing needs.	Considering the majority of local residents and future users of the centre are or will be seniors, the design and planning of the proposal have been directed towards

[36] Ibid, p. 142.

Consistency with North District Plan (2018)		
Priority	**Objective**	**Consistency**
		responding to their needs. These strategies include accessible sun oriented outdoor spaces, provision of on-site parking, and the possibility of making half of all units adaptable.
N4. Fostering healthy, creative, culturally rich and socially connected communities.	O7. Communities are healthy, resilient and socially connected. O8. Greater Sydney's communities are culturally rich with diverse neighbourhoods. O9 Greater Sydney celebrates the arts and supports creative industries and innovation.	To the extent that the renewed centre acts as a social hub for residents of Castlecrag, its impact on the cultural life of the suburb will be significant. The project will create a new public open space on Edinburgh Road which is big enough to stage community events such as a school fair or art show, etc.
Housing the city N5. Providing housing supply, choice and affordability with access to jobs, services and public transport.	O10. Greater housing supply. O11. Housing is more diverse and affordable.	The proposed 53 new units including 50% capable of being adaptable and 2 affordable housing units, will assist the planned housing supply for the suburb.
A city of great places N6. Creating and renewing great places and local centres and respecting the District's heritage.	O12. Great places that bring people together. O13. Environmental heritage is identified, conserved and enhanced.	Social and cultural aspects of the proposal include the public plaza along the front boundary of the site that can accommodate community activity are discussed above. The proposal acknowledges and respects Walter Burley Griffin's legacy for the Castlecrag suburb by prioritising landscaping and applying his approach to the design of the building.
Productivity		
A well-connected city N12. Delivering integrated land use and transport planning and a 30-minute city.	O14. A Metropolis of Three Cities – integrated land use and transport creates	The site is serviced by two bus stops, one at its northern frontage and the other less than 30m north along Eastern Valley Way. Residents and visitors can access frequent

Consistency with North District Plan (2018)		
Priority	**Objective**	**Consistency**
	walkable and 30-minute cities.	bus services to Chatswood and the City from these two stops.
N14. Leveraging inter-regional transport connections.	O16. Freight and logistics network is competitive and efficient. O17. Regional connectivity is enhanced.	Not relevant.
Jobs and skills for the city N7. Growing a stronger and more competitive Harbour CBD	O18. Harbour CBD is stronger and more competitive.	Not relevant.
N8. Eastern Economic Corridor is better connected and more competitive	O15. The Eastern, GPOP and Western economic corridor are better connected and more competitive.	Not relevant.
N10. Growing investment, business opportunities and jobs in strategic centres	O22. Investment and business activity in centres.	The site is not a strategic centre, but a local centre. The proposal will maintain job opportunities on site as discussed under section 4.9 of this report.
N13. Supporting growth of targeted industry sectors.	O24. Economic sectors are targeted for success.	Not relevant to the scale of the proposal or its location.
Sustainability		
A city its landscape N15. Protecting and improving the health and enjoyment of Sydney Harbour and the District's waterways	O25. The coast and waterways are protected and healthier.	Separated by 200m from Sailors Bay Creek by residential development, the proposal is not likely to affect the waterway. Rainwater recycling and natural stormwater filtration through landscaping are part of the proposal.
N16. Protecting and enhancing bushland and biodiversity	O27. Biodiversity is protected, urban bushland and remnant vegetation is enhanced.	In 1978 the whole site was cleared and no bushland or native vegetation remains.

Consistency with North District Plan (2018)		
Priority	**Objective**	**Consistency**
N17. Protecting and enhancing scenic and cultural landscapes	O28. Scenic and cultural landscapes are protected.	The Griffin legacy cultural landscape is preserved by the materials chosen for the proposal as well as the landscape design.
N19. Increasing urban tree canopy cover and delivering Green Grid connections	O30. Urban tree canopy cover is increased. O32. The Green Grid links parks, open spaces, bushland and walking and cycling paths.	The area of landscaped open space at ground, lower ground will be significantly increased by the proposed scheme and will provide greater opportunities for walking through site. The site has been designed to reduce the urban heat island effect by extensive landscaping.
N20. Delivering high quality open space	O31. Public open space is accessible. Protected and enhanced.	To cater for the aging population of Castlecrag, accessibility of the significantly expanded open space area has been prioritised. The open space areas located within the site will be well lit and monitored.
An efficient city N21. Reducing carbon emissions and managing energy, water and waste efficiently	O33. A low-carbon city contributes to net-zero emissions by 2050 and mitigates climate change. O34. Energy and water flows are captured, used and re-used. O35. More waste is re-used and recycled to support the development of a circular economy.	The proposal satisfies the sustainability benchmarks through the use of renewable energy sources (solar panels on the roof) and implementation of rainwater recycling system for irrigation purposes. Waste generation and transfer from the site will be managed and monitored through compliance with the waste management regulations and policies established by Council.
A resilient city N22. Adapting to the impacts of urban and natural hazards and climate change.	O36. People and places adapt to climate change and future shocks and stresses. O37. Exposure to natural and urban hazards is reduced. O38. Heatwaves and extreme heat are managed.	The site is not nominated as bushfire prone land and is not affected by flooding. However, the extensive landscaping and greenery proposed for the site will reduce the potential urban heat effect.

5.4 Is the planning proposal consistent with the council's local strategy or other local strategic plan?

This planning proposal is consistent with the relevant objectives of the following plans:

- ***Willoughby Economic Development Study***, May 2016, SGS Economics and Planning
- ***Our Future Willoughby 2028, Community Strategic Plan,*** June 2018, Willoughby Council
- ***Willoughby Housing Strategy 2036,*** December 2019, Willoughby City Council
- ***Willoughby Draft Local Centres Strategy to 2036,*** February 2019, Willoughby City Council
- ***Adopted Willoughby Local Centres Strategy to 2036,*** June 2020, Willoughby City Council
- ***Willoughby City Local Strategic Planning Statement*** **(LSPS)**, March 2020, Willoughby City Council

These plans and relevant objectives are further discussed in the following sections.

5.4.1 Willoughby Economic Development Study

The Willoughby Economic Development Study, published in 2016, was prepared for Council to report on the commercial, retail and industrial precincts in the LGA. The report noted Castlecrag's small village centre and examined the current floorspace profile, floorspace projections and included an analysis of the potential capacity and calculated a demand gap in employment floor space for the centre.

In general, the objectives of the study are supportive of the proposal.

One study objective was to *provide new opportunities for retail and employment floorspace in the smaller retail centres*[37], and the following options were suggested:

1. *Ensure employment floorspace within current FSR envelope.*
2. *Increase overall FSR and quarantine a share for employment.*
3. *Expand footprint and quarantine a share for employment.*
4. *Establish new or expand existing centres (particularly where options 1, 2 and 3 are not possible in any centre where employment floorspace is required).*[38]

The Quadrangle site was purchased in 2017 by the proponent which has found itself owning a declining centre requiring rent discounts to maintain a reasonable level of occupancy. While the study recommended an additional 1,073 sqm of retail floorspace within Castlecrag to 2031"[39], the proponent does not believe that such additional floorspace is viable.

[37] Willoughby Economic Development Study, 2016, p. 103.

[38] Ibid, p. 103.

[39] Ibid, p. 135.

The proposal reduces commercial space from 2,552m^2 to 1,740m^2, with employment is estimated to be about 90 persons plus daily contractors which may increase the total to 15 to service the apartments above. Options 1-3 above are not viable leaving Option 4 to redirect additional employment floorspace elsewhere, possibly Northbridge Plaza which is about ten times the size of the Castlecrag local centre.

The Strategy reiterates the importance of the Small Village Centres in terms of accommodating for the local centres' changing needs:

> *The Village and Small Village centres highlighted (Northbridge, Artarmon, Castlecrag, Victoria Ave/ Penshurst St, Penshurst St/Mowbray Rd) should be a particular focus though the highlighted neighbourhood centres are also likely to provide opportunities for 'overflow' or revitalisation and should also be considered.*[40]

The proposal conforms with the recommended changes to the existing local centres for accommodating the future needs of the Willoughby LGA. Maximum retail employment in the Castlecrag centre post 2018 was 102 with 12 additional employed daily contractors such as cleaners. Due to deteriorating conditions within the centre and the open knowledge that redevelopment was being sought, only 39 employees worked in businesses paying a full market rent. 63 employees worked in businesses that were supported to some degree by the centre's owners. Renewal of the centre, but not expansion of retail floorspace, is the only path to maintain viable retail uses on the site.

5.4.2 Our Future Willoughby 2028 – Community Strategic Plan

The Community Strategic Plan (CSP) represents the highest level of strategic planning undertaken by Council under the integrated planning and reporting framework. It is the key document that expresses the main priorities and aspirations of the community and sets out clear strategies to achieve this vision of the future over a 10-year period and beyond. The Our Future Willoughby 2028 CSP outlines five key strategic outcomes and *priority areas for the next 10 years in order to achieve the community's vision of a "diverse, liveable and prosperous City"*[41]:

Consistency with Our Future Willoughby 2028 - Community Strategic Plan	
Community Priorities	**Consistency**
Outcome 1 – A City that is green	
1.1 Create and enhance green spaces.	Design of the proposal increases green spaces by creating a 750sqm plaza on Edinburgh Road and providing a through-site link to The Postern which gives views to the surrounding landscape suburb.

[40] Ibid, p. 71.

[41] Willoughby LSPS, 2020, p. 24.

Consistency with Our Future Willoughby 2028 - Community Strategic Plan	
Community Priorities	**Consistency**
1.2 Promote sustainable lifestyles and practices.	Sustainable lifestyle is encouraged through: 01. minimising the time of travel for future residents and locals by providing supermarket, shops and other local services on site, 02. producing renewable energy by installing solar panels on the roof, 03. recycling rainwater for irrigation purposes.
1.3 Enhance, protect and respect waterways, bushland, nature, wildlife and ecological systems.	To the extent possible on a fully disturbed site, the proposal follows the Griffin legacy of integration with the bushland of Castlecrag through a carefully designed landscape design highlighting natural plantings and the use of materials compatible with the architecture of the Griffins. By containing all environmental impacts to the site, no impacts beyond the site are expected.
1.4 Reduce energy, water and resource waste and encourage reuse and recycling.	The use of water and energy will be controlled and enhanced through compliance with the requirements of SEPP BASIX and the Section J of the NCC for the residential and commercial sections of the development. Use of renewable energy and rainwater harvesting are noted above. Waste generation and transfer from the site will be managed and monitored through compliance with the waste management regulations established by Council.
1.5 Reduce carbon and greenhouse gas emissions.	The use of new building materials, better thermal insulation methods and provision of natural cross ventilation and access to sunlight will reduce emissions caused by excessive use of energy for thermal comfort. Generating clean energy through installation of solar panels on the roof will further reduce emissions.
Outcome 2 – A City that is connected and inclusive	
2.1 Enhance transport choices and connections throughout the City.	The site is serviced by a major bus service along the Eastern Valley Way that connects the site to Chatswood and North Sydney. The site provides a walking path through the middle of the site connecting north and south, also allows for cycling within and through the site.
2.2 Respect and celebrate our history and heritage sites.	"The site forms a small but vital shopping precinct for residents of the Castlecrag Peninsula and also acts as a social hub. The latter is an important function that ties back into the Griffins' ideals of community. It is generally considered that Castlecrag starts at the eastern side of the intersection of the Eastern Valley Way and Edinburgh Road. As such the site is integral to Castlecrag and the heritage significance ascribed to it"[42]

[42] Heritage Impact Statement Weir Philips Heritage and Planning, 2021, p. 29.

Consistency with Our Future Willoughby 2028 - Community Strategic Plan	
Community Priorities	**Consistency**
	"It clearly recognises the design principles of preservation and conservation of landscape and the integration of built form and the landscape in the work of the Griffins in Castlecrag. The existing trees to the street are retained. Densely planted landscape terraces and colonnades integrate landscape and built form and soften the boundary between public and private space in line with the Griffin's vision for the area"[43].
2.3 Celebrate and encourage our diversity.	The provision of a variety of housing choices, a new public plaza and the modern community facilities on site will encourage a larger group of visitors.
2.4 Reduce parking and traffic congestion.	Considering the ageing local population and the hilly nature of the area use of personal vehicles will remain the main means of travel in the area. The proposed on-site parking satisfies the Council minimum requirements and the traffic generation due to the proposed new residential units and retail spaces will be insignificant. Refer to the traffic report submitted with the proposal.
2.5 Create family friendly neighbourhoods that connect people.	One of the aims of the project is to encourage social interaction by means of the proposed new open space areas that are publicly accessible and which include outdoor café/restaurant seating. The north-south through site pedestrian connection invites neighbouring residents to visit the village for shopping.
2.6 Improve access to digital services in public places.	Will be considered at the later stages of the project (DA and CC).
2.7 Promote accessible services for the community.	Accessibility has been considered in the design which is capable of disabled access throughout but not including the cross-site pathway to The Postern. 50% of the units are designed to be capable of conversion to accessible housing units.
Outcome 3 – A City that is liveable	
3.1 Foster feelings of safety, security and cleanliness.	The design of the proposal maximises passive surveillance of the site boundaries as follows: • Along the north boundary, all the retail tenancies incorporate full height glass facades • Positioning the public plaza to the north opens up the development

[43] Ibid, p. 35.

Consistency with Our Future Willoughby 2028 - Community Strategic Plan	
Community Priorities	**Consistency**
	• The through site link turns the middle of the site into a public place that people to walk there The site will be managed by a future body corporate which will ensure security and cleanliness.
3.2 Create recreation spaces for all.	The proposal maximises the chances of social interaction by delivering larger open space areas, new connections and amenities surrounding the main plaza. The communal open space areas on the roof provide a facility for residents to meet and use for recreational purposes. The level of amenities provided for recreational purposes matches the size and scale of the proposed development.
3.3 Promote an active and healthy lifestyle.	Provision of extensive open space areas at different levels of the development and a cross site connection to The Postern encourage residents to use outdoor areas.
3.4 Create desirable places to be and enjoy.	As above.
3.6 Activate local spaces in creative ways.	Discussed above and throughout report. See architectural drawings for more details.
Outcome 4 – A City that is prosperous and vibrant	
4.1 Facilitate the development of all businesses.	Retail businesses such as a local supermarket, shops, cafes, restaurants and similar uses that benefit residents and the local community and fit the scale and size of the proposal are part of the new development. Business development is the key driver of the proposal overall.
4.2 Build and support a night-time economy.	The variety of cafes and restaurants located along the northern boundary of the site, facing Edinburgh Road and the public plaza will revitalise the night-time economy.
4.3 Create memorable food destinations.	As above.
4.4 Attract visitors and promote local,	Castlecrag is a residential suburb with heritage significance due to Griffin design legacy. However, the suburb is not a tourist destination and the proposal does not aim to change the character of the area by turning the site into a tourist

Consistency with Our Future Willoughby 2028 - Community Strategic Plan	
Community Priorities	**Consistency**
destination-based tourism.	destination. Willoughby has plenty of locations that can contribute to this purpose.
4.5 Diversify our economy including creative and innovative industries.	The proposal provides 1,740 sqm of retail area, a reduction from the current but not viable 2,500 sqm. Employment in the centre is expected to be about 90 plus service contractors who will increase to about 15 to cater for the 53 apartments above.
4.6 Facilitate the viability and vibrancy of our village centres.	Addressed in the above sections of this table and section 4.4.1 Willoughby LSPS.
Outcome 5 – A City that is effective and accountable	
5.1 Be honest, transparent and accountable in all that we do.	The planning proposal is the result of an extensive, three year long, voluntary public consultation process. The whole process from initial design development to design excellence competition stage and finalisation of the proposal have been presented to, and negotiated with, the local community and Council. The feedback provided by different local community groups has been incorporated in the design of the project.
5.2 Demonstrate leadership and advocacy for local priorities.	Local priorities are reflected in the design of the proposal through an iterative design, presentation, modification process. The architectural scheme submitted with this proposal is the result of extensive reviews, amendments and improvements in accordance with the feedback received from the local residents and local organisations. The details of the community consultation processes are recorded and submitted with this application[44].
5.3 Balance the creation of new public assets with the upgrade of existing public assets.	Public assets are not involved though the proposal provides new and extensive public access to a private asset.
5.4 Anticipate and respond to changing community and customer needs.	Provision of 50% adaptable units, accessible paths within the open space areas of the site, amenities such as shops and a supermarket are planned to accommodate the needs of the community.

[44] Elton Consulting, Community Engagement Report, 2020. p 49.

Consistency with Our Future Willoughby 2028 - Community Strategic Plan	
Community Priorities	**Consistency**
5.5 Make it easy for citizens to participate in decision making.	As above, the community have been involved in all stages of design and planning of the proposal.

5.4.3 Willoughby Housing Strategy 2036

The Willoughby Housing Strategy 2036, published in December 2019, presents "a strategic direction for sufficient housing to meet our future needs"[45]. In doing so, Council has recognised the needs of the community and utilised this information to forecast the future housing demands in the area. The Strategy investigates the capacity of the existing land use zones for delivering expected housing demand and the potential rezoning of local centres to contribute to this purpose. The Strategy forecasts a population growth, in the Willoughby LGA of between 6,000-6,700 people by 2036[46], translating to the need for 74 additional dwellings in Castlecrag[47].

The Strategy incorporates community feedback collected during the consultation process. The feedback indicates a demand for units/separate dwellings in order to accommodate the demands of both local aging population, who plan to downsize, and the young couples without dependants.[48] The forecast for household types indicates the greatest increases in different demographic groups between years 2016 and 2036 will be couples without dependants (+2,234) followed by lone person families (+2,351).
The forecast also indicates an increase of couples with families (+1,156)[49], further demonstrating the need for an increase in all housing types:

> *Medium density housing (townhouses and low rise apartments) should be planned in accessible locations close to transport and walkable to services and amenities including open space. Local centres are considered appropriate for this scale of development.*[50]

The proposal is located along a transport corridor serviced by two bus routes along Edinburgh Road and Eastern Valley Way. The development provides considerable open space and ensures good accessibility. The draft housing strategy supports up to five storey high mixed-use buildings, including shop top housing, at The Quadrangle site[51].

---

[45] Willoughby Housing Strategy to 2036, 2019, p. 60.

[46] Ibid, p. 30.

[47] Ibid, p. 50.

[48] Ibid, p. 37.

[49] Ibid, p. 31.

[50] Ibid, p. 31.

[51] Ibid, p. 47.

5.4.4 Draft Willoughby Local Centres Strategy to 2036

The draft Willoughby Local Centres Strategy aims to promote a network of thriving, attractive and distinctive village centres throughout the Council area. When finalised in the form of LEP amendments, it will provide future planning controls and public domain improvements for eight local centres.[52]

It is informed by: The Directions and Objectives set out in the Greater Sydney Region Plan, North District Plan, the Willoughby Community Strategic Plan and Willoughby Local Centres and Housing Position Statements[53];

Strengths[54]

- Distinct heritage character
- Range of dining venues
- Undercover protection through street awnings
- Amenity provided by the small supermarket located within the Quadrangle
- Streetscape is attractive with a landscape character
- Retail amenity
- Fine grain built form of existing shopfronts on Edinburgh Rd
- Mature trees within and around the centre contribute to the visual aesthetics of the centre
- Parking both on street and off street supports the activity of the centre
- Potential views to the south of the centre

Feedback on scenarios[55]
The main issues identified from community feedback are summarised as follows:

- Griffin shops subdivision and the retention of the fabric of Griffin Centre is important
- There are traffic constraints into and out of the Castlecrag peninsula
- Concern regarding a proposal by the owner of Quadrangle Shopping Centre
- Concern that growth could destroy the unique “feel” of the centre
- More public open space is needed
- Careful traffic management is required

Directions[56]
Key suggestions

[52] Ibid, p. 3.
[53] Ibid, p. 3.
[54] Ibid, p. 20.
[55] Ibid, p. 21.
[56] Ibid, p. 21.

The following ideas were developed by the consultants in relation to built form, open space, public domain, and movement. These ideas established strategic principles for how the Centre could grow.

- Consider the redevelopment of The Quadrangle
- Retain existing mature tree canopy
- Investigate potential to redevelop residential properties on Chandler Lane
- Improve pedestrian and cycling conditions
- Consider the redevelopment potential of the Griffin Centre and the office block at 3 The Postern
- Consider future development of adjacent residential properties on Edinburgh Rd

This fourth scenario was developed based on public, stakeholder and Council feedback on three earlier scenarios previously exhibited (see page 9), and was offered for further discussion. General recommendations included the following[57]:

- Retain existing B1 neighbourhood Centre and R3 Medium Density residential for the centre.
- Introduce a minimum non-residential FSR control in the B1 zone.
- Introduce an active ground floor frontage control in the B1 zone.
- Concentrate increased height to the south of Edinburgh Rd to minimise solar access and amenity impacts.

Key Recommendations (LEP)[58]
(Numbering below refers to the above preferred scenario diagram)

1. Increase heights up to 5 storeys with an FSR up to 1.6:1 on The Quadrangle site. An FSR of 1.8:1 could be considered if more economically feasible and allow a future development to utilise the topography of The Quadrangle site without adversely impacting the streetscape and scale of the centre.

Key Recommendations (DCP)[59]

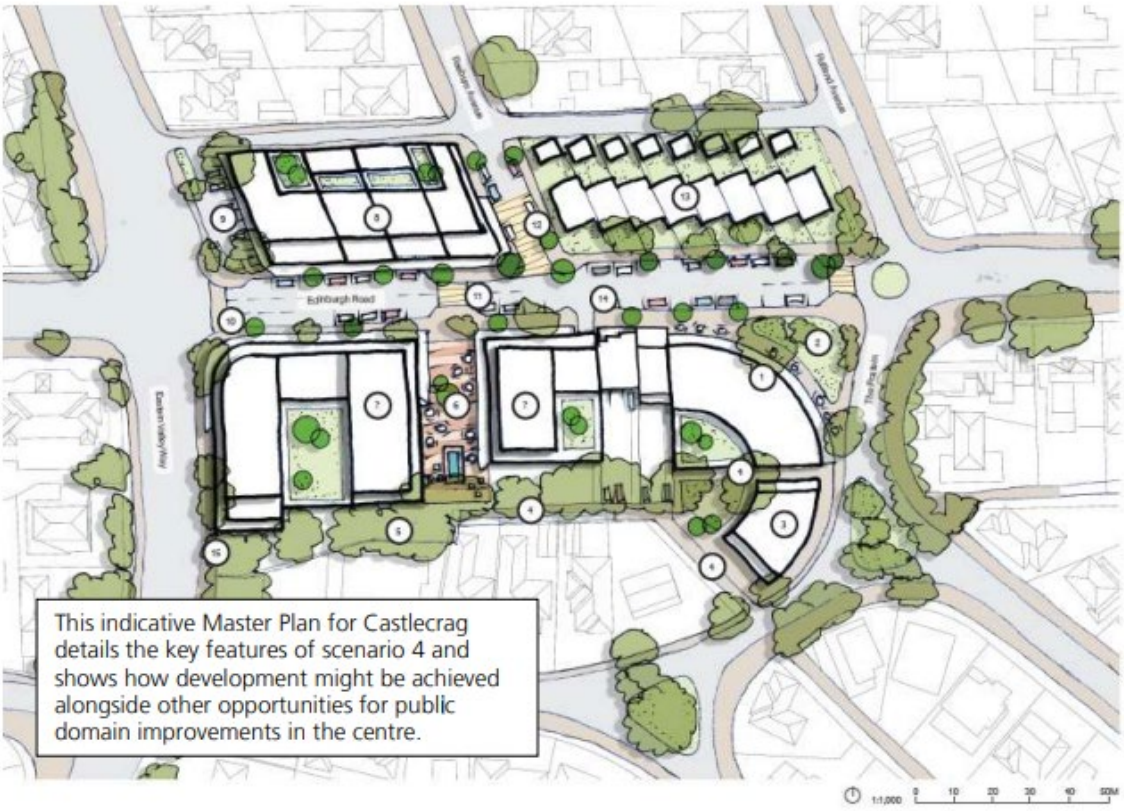
7. Minimum 3m upper level setback (2nd storey) for shop top housing.
8. Provide a new publicly accessible plaza within the Quadrangle site with a minimum width of 18m and clear views to the south.
9. Maintain direct pedestrian through site links from the Quadrangle site to The Postern.
10. Maintain full sun access along the length of the footpath on the southern side of Edinburgh Rd between 9am and 3pm during the winter solstice.
11. Any redevelopment of the Quadrangle site is to retain the mature trees at the rear of the site.

[57] Ibid, p. 22.

[58] Ibid, p. 22.

[59] Ibid, p. 22 & 23.

Indicative Master Plan for Castlecrag



Key features

1. Retention of the Griffin Centre and ground floor facade, roof line and active frontage. Additional shop top housing above.
2. A new park/green space
3. Extension of the curved facade of the Griffin Centre to reinforce The Postern.
4. Pedestrian links through to the Quadrangle site.
5. Mature boundary trees retained
6. A new plaza as part of the Quadrangle development with good solar access and views south through the tree tops.
7. Up to 5 storeys with shop top housing at the Quadrangle site
8. Up to 3 storeys with shop top housing whilst maintaining small scale shop fronts to Edinburgh Road.
9. Retain surface car parking
10. Accommodate RMS intersection improvements
11. Opportunity for kerb blisters to improve mid-block crossing amenity
12. Threshold and kerb blister treatments to improve pedestrian amenity
13. Potential for terrace/row housing with laneway access
14. Potential access to Quadrangle basement
15. Potential for a new left-out (or service) access from the Quadrangle.

Figure 9 – Indicative Master Plan for Castlecrag[60]

[60] Draft Willoughby Local Centres Strategy to 2036, 2019, p. 23.

Yield Analysis The study by SGS projected that the Castlecrag centre would require an additional 1,973sqm of employment space by 2041. A yield of an additional 2,139sqm of non-residential floor space and 8,120sqm of residential floor space or approximately 74 dwellings was envisaged for Castlecrag.[61]

The proponent indicated to Council general support for Scenario 4 of the draft study due to the closeness of study proposed height and FSR with those figures then sought for the economic viability of the proposed redevelopment. The current proposal is meets the FSR and building height in the adopted strategy.

	Storey height above Edinburgh Road	FSR
Draft strategy	5	1.8:1
Proponent at the time	5	2.2:1
Current proposal	3	1.8:1

However, the declining retail situation of the centre, with below market value rents, has meant that the retail floorspace needs to be reduced.

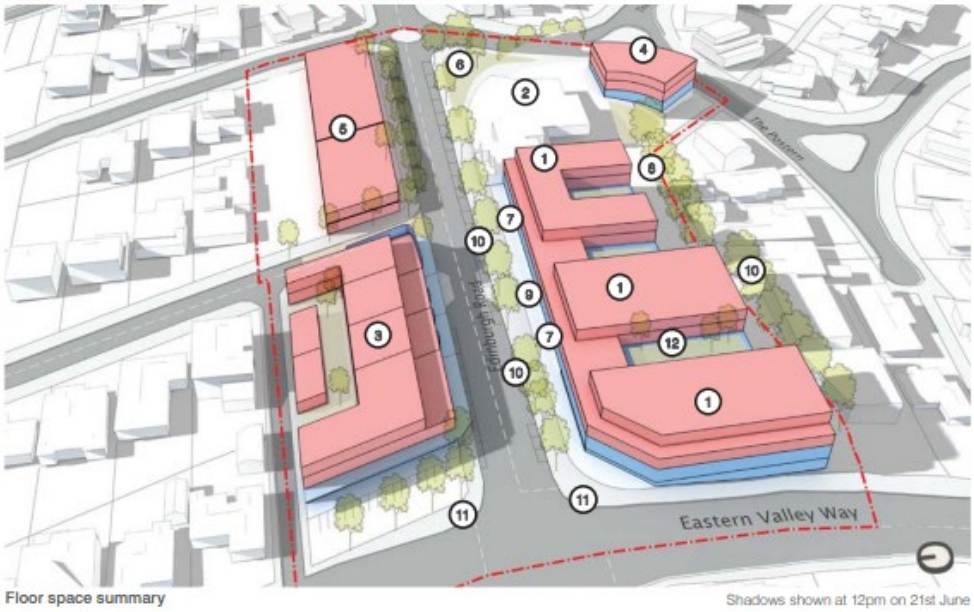
5.4.5 Adopted Willoughby Local Centres Strategy 2036

This final Local Centres Strategy allegedly took into consideration the feedback received with respect to the Preferred Scenario and Masterplan for each of the eight Local Centres.[62] In spite of detailed representations by the proponent, the height of The Quadrangle shown on the indicative urban design drawings was reduced from five storeys above Edinburgh Road to three.

[61] Ibid, p. 24.

[62] Adopted Willoughby Local Centres Strategy to 2036, 2019, p. 13.

INDICATIVE SCALE FOR CASTLECRAG GROWTH



Floor space summary

Shadows shown at 12pm on 21st June

Building Use	Existing GFA (sqm)	Potential GFA (sqm)	Increase GFA (sqm)	Increase GFA (%)
Residential	3,593	10,248	6,654	185%
Non-Residential	4,760	6,287	1,527	32%
Total	8,353	16,535	8,181	98%



Key Recommendations (LEP)

(Numbering below refers to the above scenario diagram)

1. Increase heights up to 4 storeys on Eastern Valley Way and up to 3 storeys above Edinburgh Road with an FSR up to 1.6:1 on the Quadrangle site. An FSR could be considered to 1.8:1 with an additional storey below the Edinburgh Road frontage to utilise the topography of the site without adversely impacting the streetscape and scale of the centre.
2. Retain existing controls for the Griffin Centre and identify as a heritage item.
3. Retain heights up to 3 storeys, with an FSR of 1.6:1 in the B1 zone north of Edinburgh Road.
4. Retain B1 zoning for The Postern, with a height limit of up 3 storeys with an FSR of 1.1:1.
5. Retain R3 zoning and FSR of 0.7:1 for properties in Edinburgh Road (95-103) and allow amalgamation for 2 developed lots.
6. Rezone the Council owned car park adjacent to the Griffin Centre to RE1 Public Open Space.

Key Recommendations (DCP)

7. Minimum 3m upper level setback (2nd storey) for shop top housing.
   Provide a new publicly accessible open space within the Quadrangle site relating to the Edinburgh Rd frontage and achieving good solar access. This may be achieved by providing a setback in the order of 3.5 - 4m along the frontage of the site.
8. Maintain direct pedestrian through site links from the Quadrangle site to the The Postern
9. Maintain full sun access along the length of the footpath on the southern side of Edinburgh Road between 9am and 3pm during the winter solstice.
10. Any redevelopment of the Quadrangle site is to retain the mature trees at the front and rear of the site.
11. Green entry point.
12. Rooftop garden.

Figure 10 – Indicative scale for Castlecrag growth[63]

[63] Ibid, p. 27.

INDICATIVE MASTER PLAN FOR CASTLECRAG

This indicative Master Plan for Castlecrag details the key features for growth and shows how development might be achieved alongside other opportunities for public domain improvements in the centre.



Key features

1. Retention of the Griffin Centre and ground floor facade, roof line and active frontage. Identify as a heritage item.
2. A new park/green space
3. Extension of the curved facade of the Griffin Centre to reinforce The Postern, maximum height of 3 storeys.
4. Pedestrian links through to the Quadrangle site.
5. Mature boundary trees retained
6. A new plaza as part of the Quadrangle development with good solar access.
7. Shop top housing on the Quadrangle site, 4 storeys on Eastern Valley Way and up to 3 storeys above Edinburgh Road.
8. Up to 3 storeys with shop top housing whilst maintaining small scale shop fronts to Edinburgh Road.
9. Retain surface car parking
10. Opportunity for kerb blisters to improve mid-block crossing amenity
11. Threshold and kerb blister treatments to improve pedestrian amenity
12. Rooftop garden
13. Potential access to Quadrangle basement
14. Potential for a new left-out (or service) access from the Quadrangle.
15. Create a green entry point at the intersection of Eastern Valley Way and Edinburgh Road.

Figure 11 – Indicative master plan for Castlecrag[64]

The study by SGS projected that the Castlecrag centre would require an additional 1,973sqm of employment space by 2041. The projection was based on a Castlecrag share of multi-centre economic forecast which did not specifically study the Castlecrag local centre. That may still be possible in the future

[64] Ibid, p. 28.

but the current retail situation of The Quadrangle shopping centre does not support an increase in commercial floorspace.

In response to the adopted strategy, which was followed by the design excellence competition for the site by three months, the proponent commissioned the competition winning firm, FJMT Studio, to meet the reduced FSR and storey height. The current proposal, for a building of three storey height above Edinburgh Road and FSR 1.8:1 is the response to the strategy:

	Storey height above Edinburgh Road	FSR
Adopted strategy	3	1.8:1
Current proposal	3	1.8:1

5.4.6 Willoughby City Local Strategic Planning Statement (LSPS)

The Willoughby LSPS 2020 outlines a 20-year vision for actions and priorities that need to be implemented through the land use planning regime within the LGA. The plan addresses the current and future socio-economic demands of the community and the environmental values of Willoughby that need to be acknowledged and maintained within a defined timeframe. The LSPS establishes the key directions for the proper management of the changes that are necessary to satisfy regional, metropolitan and local strategies and deliver balanced outcomes for the community and the environment.

The proposal is in keeping with the aims and objectives of the statement, one of which is *We recognise the past while creating new liveable places, strong communities and homes for the future.*[65]

The following tables contain assessments of the Planning Proposal against the directions, targets, priorities and actions set by the Willoughby LSPS 2020.

Consistency of the proposal with Willoughby Local Strategic Planning Statement (LSPS) 2020			
Key Directions and Priorities	**Indicator**	**Baseline and Target**	**Consistency**
A LIVEABLE CITY			
Housing the city 1. Increasing housing diversity to cater to families, the aging population, diverse household	Housing completions overall	Baseline: 29,993 existing dwellings (2016). Target: Up to 6,700 new dwellings by 2036 to be established in	The proposed development provides a total of 53 new dwellings containing a mix of 1, 2, and 3-bedroom apartments. The proposal contributes to the provision of 6,700 new dwellings through the development of a mixed-use local centre in Castlecrag that has been identified as a (minor)

[65] Willoughby LSPS, 2020, p. 13.

Consistency of the proposal with Willoughby Local Strategic Planning Statement (LSPS) 2020			
Key Directions and Priorities	**Indicator**	**Baseline and Target**	**Consistency**
types and key workers		line with the Draft Housing Strategy	focus area.[66] The proposal is consistent with the expected outcome for *Focus area 3* under the LSPS that encourages the delivery of 1500 shop top housing units within the nominated local centres, including Castlecrag, through amendment of the existing planning controls.[67] The proposal contains a medium density residential component in the form of shop top housing. The proposed mix of 1, 2- and 3-bedroom units responds to the estimated reduction in the number of persons per household from 2.65 to 2.53 between 2016-2036.[68] The Planning Proposal provides modern housing choices above a modern shopping village that provides easy and quick access to local services and retail tenancies for families and ageing population.
	Medium density housing increased as a component to provide appropriate housing for ageing residents and for new families.	Baseline: 4,210 of total dwellings in 2016 medium density. Target: Increase number of medium density dwellings as component of WCC housing by 2036.	
2. Increase the supply of affordable housing.	Increase the number of affordable housing (AH) units provided	Baseline: AH 4% of GFA with housing uplift. Target: AH 7-10% GFA with new housing uplift by 2036.	The site is not nominated as a Special Provisions Area under Cl.6.8 of the WLEP. Provision of affordable housing units on site is not required by Council. However, the proposal provides two of 53 (3.8%) dwellings as affordable housing.

[66] Ibid, p. 41.

[67] Ibid, p. 41.

[68] Ibid, p. 39.

Consistency of the proposal with Willoughby Local Strategic Planning Statement (LSPS) 2020			
Key Directions and Priorities	**Indicator**	**Baseline and Target**	**Consistency**
A city for people 3. Enhancing walking and cycling connections, Willoughby's urban areas, local centres and landscape features.	Increase in number of resident journeys to work that do not use a car.	Baseline: 49% in 2016 of residents Target: More than 50% by 2021 and 55% by 2036.	The site is well served by existing bus routes which make use of public transport as convenient as possible. Location of essential convenience shops and social hub facilities such as cafes and restaurants, below 53 new dwellings, further contributes to an incentive to avoid or reduce car dependency for the local centre. Creation of a well-managed and secure cross site link to The Postern should also encourage walking rather than car use.
	Extend network of walking and cycling paths and links.	Baseline: to be established. Target: to be established.	
4. Ensuring that social infrastructure caters to the population's changing needs and improve the public domain to foster healthy and connected communities.	Planning for local infrastructure is up to date; provision is as per the relevant Local Infrastructure Plan and Open Space Review currently underway.	Baseline: Northern Sydney Social Infrastructure Strategy to be applied. Target: Plan reviewed every five years; Additional provision of social infrastructure having regard to work being undertaken on needs across the northern Sydney region.	The proposed development provides the necessary social infrastructure suitable for its size and the needs of the community including a local supermarket that provides fresh food produce, cafes and restaurants for social interaction. In relation to the improvement of the public domain, the proposed new landscaped plaza along the northern boundary of the site, through site link that enables pedestrian access to The Postern and extensive landscaping significantly improve the quality of the existing publicly accessible domain.
5. Respect and celebrate our history, heritage sites and attractions of Willoughby City, including more	Maintain heritage protection through regular heritage reviews.	Baseline: Undertake regular heritage reviews. Target: Complete a heritage review every 4 years.	The Quadrangle shopping village underpins the strong heritage character of the area by celebrating the visual connection of Griffin's vision for Castlecrag, which was to share access to the landscape and communal space with gentle privacy transitions to

Consistency of the proposal with Willoughby Local Strategic Planning Statement (LSPS) 2020			
Key Directions and Priorities	**Indicator**	**Baseline and Target**	**Consistency**
dwellings close to open space.	Proportion of residential lots in close proximity to open space.	Baseline: Proportion of dwellings in walkable distance to open space to be established. Target: Increase proportion.	create a true community.[69] While the site is not a heritage item, it adjoins a heritage conservation area to the east. The design of the proposed development, therefore, echoes the design principles of Griffin's works. The development reflects Griffin's design philosophy by incorporating nature and the unique landscape throughout the development, increasing the proportion of communal open space to enhance the amenity of dwellings and compatibility of the development with Castlecrag in general.[70]
6. Facilitate the viability and vibrancy of our strategic and local centres.	Increased retail spending captured in strategic and local centres.	Baseline and target to be established in line with the Local Centres Strategy.	The rental income generated from the current retail tenancies has fallen behind comparable centres and many of the tenancies have been subsidised by discounted rents due to lesser numbers of customers. The proposed new retail tenancies will benefit from the sun filled and landscaped plaza along the front boundary that will attract not only the residents but the general community of Castlecrag. The high quality of design and variety of retail and services delivered by the new shopping village will make up in attractiveness and convenience what it lacks in scale. Castlecrag cannot be a competitor to Northbridge Plaza which is ten times larger.

[69] FJMT Competition Scheme, 2019, p. 15.

[70] Heritage 21, Walter Burley Griffin's Legacy, 2019, p. 41.

Consistency of the proposal with Willoughby Local Strategic Planning Statement (LSPS) 2020			
Key Directions and Priorities	**Indicator**	**Baseline and Target**	**Consistency**
A PRODUCTIVE CITY			
A well-connected city 7. Developing Chatswood's role as a true transport hub for Willoughby City and the North Shore.	Increase in people living and working in Willoughby City LGA.	Baseline: 27% in 2016 Target: 30% in 2026 and 2036 to be set.	Does not apply to Castlecrag.
	Increase in bus and train passengers utilising Chatswood	Baseline: to be set in consultation with TfNSW. Target: to be discussed with TfNSW.	
Facilitate the viability and…			Addressed above.
Jobs and skills for the city 9. Developing Chatswood as …			Does not apply to Castlecrag.
10. Protecting the role of Willoughby's industrial lands as urban service hubs…	Retain share of urban services employment in North District… No loss of industrial zoned land in Artarmon and…		Does not apply to Castlecrag.
11. Supporting St Leonards …	St Leonards high end targets…		Does not apply to Castlecrag.
A SUSTAINABLE CITY			
A city in its landscape 12. Enhancing the health of Willoughby's waterways.	No net decline in the Local Waterway Health Report Card	Baseline: As reported on 2017-2018 Local Waterway Health Report Card results.	The site is separated from the nearest waterway, Sailors Bay Creek, by residential development. The stormwater management plan includes rainwater treatment

Consistency of the proposal with Willoughby Local Strategic Planning Statement (LSPS) 2020			
Key Directions and Priorities	**Indicator**	**Baseline and Target**	**Consistency**
		Target: No decline in the Local Waterway Health Report Card results by 2036.	mechanisms which will ensure that impact on the locality is not increased.
13. Protecting Willoughby's bushland and biodiversity.	No net decline in Willoughby's bushland and biodiversity	Baseline: 330 ha of bushland in 2018 Community Strategic Plan. Target: No net decline across the local bushland by 2036.	As discussed in the earlier sections of this report and shown on the aerial image from 1943, the site was cleared of all vegetation decades ago to allow for the construction of a service station. Proposed plantings will provide for endemic species to restore the former natural character of the site[71].
14. Increasing Willoughby's tree canopy coverage.	Increase in tree canopy coverage in Willoughby LGA	Baseline: 36% in 2016. Target**:** 40% canopy in line with the *North District Plan* by 2036.	Street tree numbers will be augmented by planting small trees on the northern edge of the green plaza adjoining Edinburgh Road. Compensatory planting of endemic species will be provided on the southern boundary where two trees will be lost to construction and four dead trees removed. With the landscaped plaza, balcony plantings, partial roof planting and green walls, the site will be greener overall and less susceptible to the urban heat island effect.
An efficient city 15. Improving the efficiency of Willoughby's built environment.	Amount of waste diverted from landfill per year	Baseline: Annual average 2017/18, 49% of waste diverted from landfill. Target: Greater than 70% of waste diverted	In order to minimise the volume of waste that will be generated on site during construction and ongoing use of the development, suitable waste management plans in accordance with Council regulations and guidelines will

[71] FJMT Planning Proposal Architectural and Landscape Design Report, 2021, p. 47.

Consistency of the proposal with Willoughby Local Strategic Planning Statement (LSPS) 2020			
Key Directions and Priorities	**Indicator**	**Baseline and Target**	**Consistency**
		from landfill per annum by 2021/22.	be prepared and submitted to for the DA and CC. The use of new building materials, better thermal insulation methods and provision of natural cross ventilation and access to sunlight will reduce emissions caused by excessive use of energy for thermal comfort. Generating clean energy through the installation of solar panels on the roof will further reduce emission.
	Reduction in greenhouse gas emissions by the Willoughby City community	Baseline: 1,046,097 tonnes CO2 2016/17. Target: 30% reduction on 2008/09 emissions by Willoughby City community by 2028 with possible further reductions of 38% by 2036.	
A resilient city 16. Increasing resilience to climate change, extreme weather and other shocks and stresses.	Implementation of Resilient Sydney in Willoughby City LGA.	Baseline: and targets to be determined through resilience planning.	Greening the facade and the roof of the development, introducing ample landscaping and maintaining the existing trees will reduce the urban heat effect on site.
A CITY THAT ALIGNS INFRASTRUCTURE WITH GROWTH			
A city supported by infrastructure 17. Augmenting local infrastructure and using existing infrastructure more efficiently to accommodate planned sporting and community demand.	Increased use of public resources such as open space and community facilities.	Baseline: and targets to be established in line with the Regional Sports Plan.	Not relevant to the proposal.

Consistency of the proposal with Willoughby Local Strategic Planning Statement (LSPS) 2020			
Key Directions and Priorities	**Indicator**	**Baseline and Target**	**Consistency**
18. Leveraging major infrastructure investments and projects to support growth.	Local infrastructure contributions fund a greater share of the cost of infrastructure for planned growth.	Baseline: 25% anticipated in Local Contributions Plan. Target: 25% or more.	Not relevant to the proposal
A collaborative city 19. Working with other organisations to provide required infrastructure.	Increase in shared infrastructure provision.	Baseline: Current number of joint use agreements. Target: Increase in number of active joint use agreements.	Not relevant to the proposal.
20. Co-ordinating economic development for Chatswood and St Leonards	High end job targets from District Plan.	Baselines and targets: under priorities 9 and 11 above.	Not relevant to the proposal.

Consistency with LSPS Actions and Priorities	
Actions	**Consistency**
PRIORITY 1: INCREASING HOUSING DIVERSITY TO CATER TO FAMILIES, THE AGING POPULATION, DIVERSE HOUSEHOLD TYPES AND KEY WORKERS	
1.2 Review planning controls in the Chatswood CBD and in local centres to facilitate delivery of an increased number of medium and high-density dwellings, increasing dwelling diversity in the LGA.	The main objective of the planning proposal is to deliver greater housing choice for the community at Castlecrag local centre through a medium density shop top housing development. The review of the height of building and FSR development standards applicable to the site is necessary to facilitate the delivery of an increased number of dwellings as required by this action.
1.3 Generally protect existing low-density areas from development as they provide	The subject site is suitable for the proposed additional housing units, due to its unique location, large size and suitable zoning. The provision of 53 new units on the

Consistency with LSPS Actions and Priorities	
Actions	**Consistency**
diversity and are not needed to ensure sufficient dwelling supply.	subject site will deliver a big proportion of the 74 new housing units planned for Castlecrag and will protect the lower density lots, which are part of the heritage conservation area, from future development for the purpose of high or medium density residential.
1.4 Assess any proposals for increased housing density against the Willoughby Housing Strategy.	An assessment of the proposal against the Willoughby Housing Strategy is provided.
1.5 Ensure that planning controls create dwellings of universal design that are suitable for the changing needs of the community, including smaller and accessible dwellings for the aging population and family-friendly medium and high-density dwellings for new families moving to the area.	The proposal contains a mix of one-, two- and three-bedroom units, including 50% of the total number of units capable of conversion to accessible dwellings to allow aging in place for Castlecrag residents who would like to downsize but remain in the same locality.
1.6 Ensure higher sustainability and resilience targets for all new dwellings in Willoughby City in order to lower life cycle costs for new residents.	The proposed development satisfies the sustainability benchmarks through the use of renewable energy sources (solar panels), rainwater recycling, compliance with the applicable building standards and planning policies such as SEPP BASIX at DA stage.
PRIORITY 2: INCREASING THE SUPPLY OF AFFORDABLE HOUSING	
2.1 Undertake the required feasibility testing to increase the proportion of total floorspace to be delivered as affordable housing in new developments.	Two (4%) of the proposed 53 units will be provided as affordable housing.
2.2 Seek opportunities to deliver increased public benefit through affordable housing when increases in density are sought in major proposals.	As above.
2.5 Focus affordable housing delivery along potential eastern public transport routes and the Metro and North Shore Railway Line.	As above.

Consistency with LSPS Actions and Priorities	
Actions	**Consistency**
PRIORITY 4: ENSURING THAT SOCIAL INFRASTRUCTURE CATERS TO THE POPULATION'S CHANGING NEEDS AND IS ACCESSIBLE TO FOSTER HEALTHY AND CONNECTED COMMUNITIES.	
4.4 Pursue opportunities in new developments to increase public open space areas.	The proposal increases the area, variety and quality of publicly accessible open space on site. The main feature of the master planned new local centre is the sun filled public plaza along Edinburgh Road.
PRIORITY 5: RESPECTING AND ENHANCING HERITAGE AND LOCAL SUBURBAN CHARACTER	
5.1 Generally protect the existing character of low-density suburbs in the LGA.	The unique location of the subject site as the gateway to Castlecrag, its current zoning and large size justifies the proposed medium density mixed-use development to address the housing target of 74 dwellings set for Castlecrag. Provision of 53 new units on site will assist meeting the need for additional housing within the Castlecrag local centre.
PRIORITY 6: PLANNING FOR LOCAL CENTRES WHICH ARE VIBRANT PLACES THAT MEET THE EVERYDAY NEEDS OF THE POPULATION	
6.4 Limit retail development outside of local centres.	The proposal is for the redevelopment of The Quadrangle which is within the Castlecrag local centre.
PRIORITY 12: ENHANCING THE HEALTH OF WILLOUGHBY'S WATERWAYS	
12.2 Embed elements of water sensitive urban design in development to improve waterway health.	Although the site is located 200m away from the nearby Sailors Bay Creek and the proposed development will have no material impact on the quality of the waterway. Rainwater recycling and natural stormwater filtration through landscaping have been considered for the proposal.
PRIORITY 14: INCREASING WILLOUGHBY'S TREE CANOPY COVERAGE	
14.3 Protect existing trees in the LGA through planning controls and require large developments to retain existing trees and plant mature trees where appropriate.	The proposal maintains all existing mature street trees to the west and north of the site as well as nearly all of the existing mature trees on the southern boundary. The proposed new landscaping includes the planting of new endemic trees where appropriate to the south.

Consistency with LSPS Actions and Priorities	
Actions	**Consistency**
14.4 Encourage green roofs or green nature walls and green buildings, particularly in the Chatswood CBD and St Leonards.	1,010m^2 of green roof, landscaping at different levels of the building and the extensive open space areas at ground level are proposed for the development to emphasise the Griffin legacy of prioritising nature over building.
PRIORITY 15: IMPROVING THE EFFICIENCY OF WILLOUGHBY'S BUILT ENVIRONMENT	
15.4 Manage street and off-street parking to encourage public transport use and car sharing and limit growth in travel by private vehicles.	The proposed number of on-site parking is in accordance with the minimum parking rates required by the Council DCP. The site is in close proximity to two bus routes, on both Eastern Valley Way and Edinburgh Road, providing frequent services to Chatswood and North Sydney.
15.6 Advocate for increased energy and water efficiency standards for new buildings including Green Star Certification and the BASIX standards.	The proposal can satisfy the applicable BASIX and section J requirements at the DA stage.
15.7 Encourage the use of cool building materials in any new development to reduce the urban heat island effect, and where appropriate integrate water features both natural and man-made into urban design.	Extensive landscaping including tree planting and green roofs, use of building materials of light colours are proposed to minimise the urban heat effect as is now required following changes to Section J of the NCC. Further design details and possible use of water features will be explored at the DA stage of the project.
15.10 Require increased energy and water efficiency in major development proposals where increases in density or yield are sought.	As above. The proposed solar panels and reuse of rainwater for irrigation purposes contribute to the efficient use of water and energy and exceed Council requirements.
PRIORITY 17: AUGMENTING LOCAL INFRASTRUCTURE AND USING EXISTING INFRASTRUCTURE MORE INTENSIVELY AND EFFICIENTLY TO ACCOMMODATE PLANNED GROWTH	
17.4 Require major development to share any value uplift from changes in development rights to deliver a community benefit through improved local infrastructure.	The addition of the new publicly accessible plaza along Edinburgh Road, the north-south pedestrian access to The Postern and the high-quality local shops are community benefits that the proposal delivers.
17.5 Focus future development and density in places where infrastructure is available,	The site is located adjacent to the Eastern Valley Way corridor, which is considered a major road and tertiary freight corridor as it is a key corridor between Roseville

Consistency with LSPS Actions and Priorities	
Actions	**Consistency**
which is expected to be along the major public transport corridors.	Chase and Northbridge.[72] The road has been identified as such in 'Sydney's Bus Future' as a suburban bus route.[73]

5.5 Is the planning proposal consistent with applicable State Environmental Planning Policies?

The following table contains a list of all the State Environmental Planning Policies and an assessment of the proposal against the aims and objectives of the ones that are relevant to the nature of the proposed development or are applicable to the site.

The proposal does not seek approval to amend any SEPPs. It can satisfy the requirements of applicable SEPPs as detailed in the accompanying consultant reports.

State Environmental Planning Policies (SEPPs)	Relevant aims and objectives of the SEPP	Consistency of the proposal with the SEPP
SEPP (Biodiversity and Conservation) 2021		
Chapter 2—Vegetation in Non-Rural Areas	(a) to protect the biodiversity values of trees and other vegetation in non-rural areas of the State, and (b) to preserve the amenity of non-rural areas of the State through the preservation of trees and other vegetation.	The whole site area had been cleared previously to allow for the construction of the service station~~s~~ and the shopping centre. The existing trees were planted after the construction of the existing shopping centre. The proposal maintains all street trees and nearly all site trees. The project arborist has confirmed the need for the removal of four dead trees on the southern boundary. Two trees will be removed due to construction. There will be a small overall increase in tree canopy at the site.
Chapter 3 & 4—Koala Habitat Protection		Not relevant

[72] HAVE YOUR SAY, Proposed new and extended clearways on Eastern Valley Way/Clive Street, between Roseville Chase and Northbridge, June 2017, RMS.

[73] Sydney's Bus Future, 2013.

State Environmental Planning Policies (SEPPs)	Relevant aims and objectives of the SEPP	Consistency of the proposal with the SEPP
Chapter 5—River Murry lands		Not relevant
Chapter 6—Bushland in Urban Areas	(1) The general aim of this Chapter is to protect and preserve bushland within the urban areas… (2) The specific aims of this Chapter are: … (h) to protect significant geological features, (i) to protect existing landforms, such as natural drainage lines, watercourses and foreshores,	The whole site area had been cleared previously to allow for the construction of the service stations and the shopping centre. No bushland or significant native flora and fauna remained on site. However, the proposal is consistent with the relevant objectives of the policy through minimising the potential adverse impacts of the development on the natural features of the locality as discussed above.
Chapter 7—Canal estate development		Not relevant
Chapter 8–Sydney drinking water catchment		Not relevant
Chapter 9–Hawkesbury-Nepean River		Not relevant
Chapter 10–Sydney Harbour Catchment		Not relevant
Chapter 11–Georges Rivers Catchment		Not relevant
Chapter 12–Willandra Lakes Region World Heritage Property		Not relevant
SEPP (Resilience and Hazards) 2021		
Chapter 2–Coastal management		Not relevant

State Environmental Planning Policies (SEPPs)	Relevant aims and objectives of the SEPP	Consistency of the proposal with the SEPP
Chapter 3–Hazardous and offensive development		Not relevant
Chapter 4–Remediation of land	(2) In particular, this Chapter aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment- (a) by specifying when consent is required, and when it is not required, for a remediation work, and (b) by specifying certain considerations that are relevant in rezoning land and in determining development applications in general and development applications for consent to carry out a remediation work in particular, and (c) by requiring that a remediation work meet certain standards and notification requirements.	The site development history is as follows: 1920s - 1949 shops 1949 – 1978 service station 1979 to date – shopping centre with excavated basement for parking. The geotechnical report notes that rock is exposed on the northern side of the existing basement to a height of between 0.5m and 1.6m, sloping downwards to the east . This suggests that about half of the site depth of 57m (north to south) has been excavated. The service station on the site would have had underground service tanks (USTs) under its northern apron, close to the road for ease of tanker refuelling. Excavation of the site for the shopping centre appears to have removed the USTs, normally a cause of hydrocarbon pollution of the underlying material. The existing basement is approximately 3m to 4.8m below Edinburgh Road level. Under the proposal, the basement parking will be a further 3.8m below the existing basement, requiring excavation of the rock. If any remnant of the USTs or hydrocarbon pollution is present, it will be excavated and removed with the basement material. Normal testing of the material to be removed is required under DECCW regulations

State Environmental Planning Policies (SEPPs)	Relevant aims and objectives of the SEPP	Consistency of the proposal with the SEPP
		before disposal to appropriate sites or re-use on this site.
SEPP (Transport and Infrastructure) 2021		
Chapter 2–Infrastructure	The aim of this Chapter is to facilitate the effective delivery of infrastructure across the State by: (e) identifying matters to be considered in the assessment of development adjacent to particular types of infrastructure development, and	Not relevant to the intent of the proposal, as it does not seek approval for any changes to or construction of new infrastructure. However, the site is located adjacent to Eastern Valley Way that is a major arterial road that connects Castlecrag to the rest of Sydney. This is an important factor justifying the development of the site for the proposed mixed-use shopping village.
Chapter 3–Educational establishments and child care facilities		Not relevant – educational or childcare centres not proposed as part of the development.
Chapter 4–Major infrastructure corridors		Not relevant
Chapter 5–Three ports – Port Botany, Port Kembla and Newcastle		Not relevant
SEPP (Housing) 2021		
Chapter 2—Affordable housing		Affordable housing is proposed as part of this application However, the affordable dwellings are not provided under the SEPP but rather to satisfy the requirements of the Willoughby DCP.
Chapter 3 – Diverse housing		Not relevant

5.6 Is the planning proposal consistent with applicable Ministerial Directions (s.9.1 directions)?

The planning proposal is consistent with the following applicable Ministerial Directions. Considering the majority of the directions do not apply to the site, either due to the nature of the proposal or the specific and location based requirements of the subject directions, they are excluded from the table.

Direction	Relevant Objectives	Proposal
Focus Area 1: Planning Systems		
1.1 Implementation of Regional Strategies	The objective of this direction is to give legal effect to the vision, land use strategy, goals, directions and actions contained in Regional Plans.	The proposal complies with the strategies adopted by Council and signed off by the GSC.
1.3 Approval and Referral Requirements.	The objective of this direction is to ensure that LEP provisions encourage the efficient and appropriate assessment of development.	Once the rezoning sought by the Planning Proposal is in place, the project will not require further Ministerial referral. It will need to have the concurrence of RMS because the site is on a major road.
1.4 Site Specific Provisions	The objective of this direction is to discourage unnecessarily restrictive site specific planning controls.	A gazettal of amendments to the Willoughby LEP 2012 will list the site under the Site Specific Provisions Area Map (sheet SPA_007) as Area 12. The proposal has quite specific controls following extensive consultations with a very active community. The restrictive nature of the controls is designed to implement a design which has been subject to a comprehensive design excellence process carried out with major community input. Council has responded by proposing amendment to its LEP to facilitate the agreed design, aligning the proposed changes to the LEP with those proposed in this planning proposal. The Planning Secretary can be satisfied thatn the inconsistency with Direction 1.4(2) is of minor significance, applying only to the subject site.
Focus area 3: Biodiversity and Conservation		
3.2 Heritage Conservation	The objective of this direction is to conserve items, areas, objects and places of environmental	This Planning Proposal pays tribute to Walter Burley Griffin's legacy in Castlecrag by acknowledging the design elements and concepts used in establishing the neighbourhood and construction of the significant

Direction	Relevant Objectives	Proposal
	heritage significance and indigenous heritage significance.	buildings designed by Griffin's studio. This approach is extensively discussed below and elaborated by the design team in the architectural report submitted with this application.
Focus area 4: Resilience and Hazards		
4.4 Remediation of Contaminated Land	The objective of this direction is to reduce the risk of harm to human health and the environment by ensuring that contamination and remediation are considered by planning proposal authorities.	Contamination of the site is not expected to be encountered due to the extensive excavation of the site prior to 1979. Further excavation to a depth of about 3.8m below the existing carpark will be subject to checking as required by DECCW.
4.5 Acid Sulfate Soils	The objective of this direction is to avoid significant adverse environmental impacts from the use of land that has a probability of containing acid sulphate soils.	According to the WLEP Acid Sulphate Soils Map, the site is within a 500m buffer zone of an area classified as "Class 2", an area where acid sulphate soils are likely to be found below the natural ground surface. Given the site's history, the accompanying contamination report provides a preliminary conceptual model dealing with mitigating/avoiding potential environmental impacts. However, the risk factors for acid sulphate soils on site or adjacent appear very low. The site is on a sandstone ridge well elevated above (AHD 80 to 85) gullies and watercourses which may contain acid sulphate soils. The basement excavation is approximately 8.5m at its maximum adjoining Edinburgh Road, still well above the gullies and watercourses on the south side of the ridge.
Focus area 5: Transport and Infrastructure		
5.1 Integrating Land Use and Transport	The objective of this direction is to ensure that urban structures, building forms, land use locations, development designs, subdivision and street layouts achieve the following planning objectives:	The site is serviced by two bus routes along Eastern Valley Way that connect the site to Chatswood and North Sydney. As well, the proposal opens up/reinforces a cross site link to The Postern to encourage walking access to the centre from the south and east. A green travel plan is annexed to this report. End of trip facilities will be provided.

Direction	Relevant Objectives	Proposal
	(a) improving access to housing, jobs and services by walking, cycling and public transport, and (b) increasing the choice of available transport and reducing dependence on cars, and (c) reducing travel demand including the number of trips generated by development and the distances travelled, especially by car, and (d) supporting the efficient and viable operation of public transport services, and (e) providing for the efficient movement of freight.	
5.2 Reserving land for a public purpose	(a) to facilitate the provision of public services and facilities by reserving land for public purposes, and (b) to facilitate the removal of reservations of land for public purposes where the land is no longer required for acquisition.	(a) The planning proposal has increased the amount of publicly accessible open space on site 1,150m^2. However, it is not intended to reserve the open space as public land, instead providing a public right of way over the land. (b) Not applicable.
Focus area 6: Housing		
6.1 Residential Zones	(a) to encourage a variety and choice of housing types to provide for existing and future housing needs.	Zoned for neighbourhood centre with shop top housing a permitted use, residential use is part of the proposal. The proposal satisfies the relevant objectives as follows: (a) The proposed residential section of the development incorporates a mix of one, two and three bedroom units

Direction	Relevant Objectives	Proposal
	(b) to make efficient use of existing infrastructure and services and ensure that new housing has appropriate access to infrastructure and services, and (c) to minimise the impact of residential development on the environment and resource lands.	with 50% of the units capable of conversion to accessible housing standards. The 53 units proposed will contribute to the 74 sought for the Castlecrag local centre in Council's Housing Strategy. (b) The site is serviced with the necessary infrastructure. The civil services report accompanying this application confirms the proposed development can be serviced by the existing infrastructure. (c) The potential environmental impacts of the development on its surroundings have been discussed in the relevant sections of this report and found acceptable.
Focus area 7: Industry and Employment		
7.1 Business and Industrial Zones	(a) encourage employment growth in suitable locations, (b) protect employment land in business and industrial zones, and (c) support the viability of identified centres.	The proposal will retain the current on-site workforce number through the provision of 1,740m^2 of retail space, including a local supermarket. Although the retail GFA proposed is less than the existing, the variety of retail tenancies will deliver services sought by residents with a more stable employment of about 105 persons including contractors servicing the residential portion of the building. The Quadrangle shopping centre has had trouble holding tenants for three years with the smaller retail outlets having owner subsidised rents. Since the start of the pandemic, the centre has had trouble holding tenants and it has not recovered. Additionally, the centre has increasingly felt the pressure of the Northbridge Plaza Shopping Centre, less than 1km away, which is ten times the floor space and which has a retail attraction much greater than The Quadrangle. Woolworths at Northbridge Plaza has an area greater than the whole of The Quadrangle development. The mixed-use development proposed will maintains the business use of the subject property. A small local supermarket such as the IGA will stay to provide an anchor for the centre.

Direction	Relevant Objectives	Proposal
		The provision of cafes and restaurants facing the new landscaped plaza along the northern site boundary will provide significantly improved viability for the shopping village.

Section C – Environmental, social and economic impacts

5.7 Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?

There is no evidence that the site is a critical habitat or ecological community. It was cleared of native vegetation prior to 1943 (see Figure 8 above) and was thereafter a service station site. In 1979, the existing shopping centre opened on the site following excavation over about 85% of the site and some filling on the southern boundary. Much of the landscape strip on the southern side of the site is on fill, the result of the 1979 development. The trees in that area of landscape are recent plantings, post 1979, and are not part of an indigenous forest (refer Arborist report – Appendix 4).

5.8 Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?

5.8.1 Trees

Four dead trees on the southern side of the site will be removed together with two trees which cannot be saved due to proximity to the construction. Trees on the south boundary, not endemic to the area, have nevertheless reached their genetic potential and will be retained where possible.

The architect addresses the proposed landscaping on site to align with Griffin's legacy - a building that complements the landscape. Removal of trees to the south will be compensated by planting native garden and indigenous trees, to accentuate the natural bushland qualities of the area[74]. The proposal incorporates new trees and landscaping to the north (more than 750m^2), greening a large portion of the site. The green roofs to the residential pavilions promote "long term sustainability of the building"[75] and act to reduce the heat island effect.

[74] FJMT Planning Proposal Architectural and Landscape Design Report, 2021, pg.37.

[75] Ibid, p. 39.

5.8.2 Overshadowing

The conclusions to be drawn from the extensive graphical analysis provided by the architect is that:

- Shadows due to the dense band of evergreen trees on the southern boundary of the site, which are to be retained as per the report of the arborist, must be considered in any analysis
- Shadows due to the trees extend beyond the shadows due to the existing building on the subject site at 21 June
- Shadows due to the proposal, and also the comparative LCS scheme, largely sit within the dense tree shadows at 21 June
- The additional shading impact of the proposed building will be relatively minor at 21 June, the winter solstice
- There will be little overshadowing due to the proposal (or the trees) at the equinox, 21 March or 21 September.

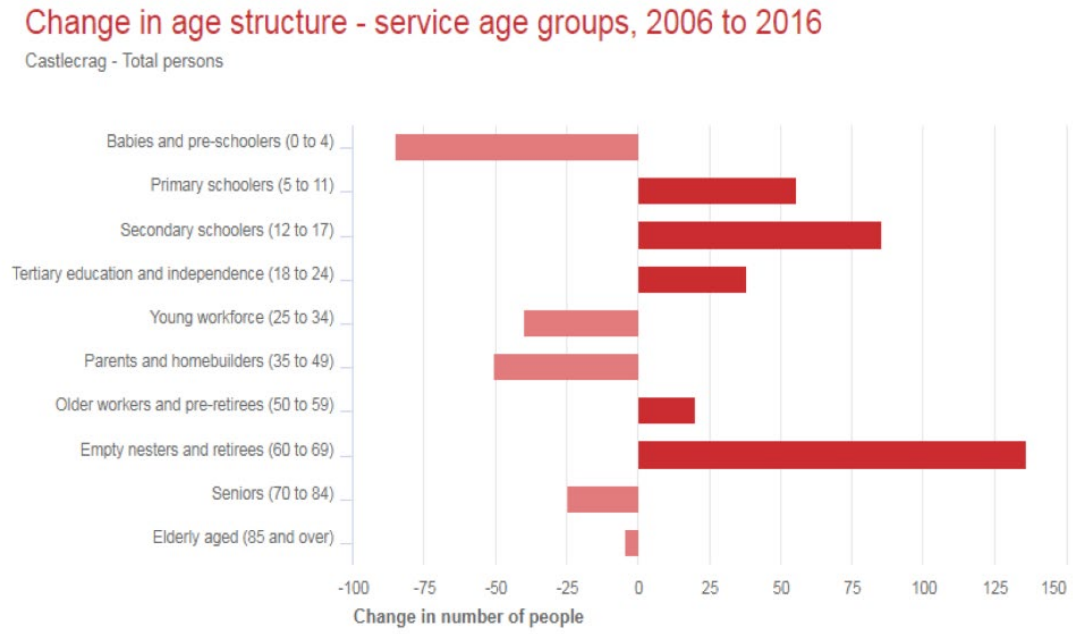
5.8.3 Visual impact

The conclusion of the Visual Impact assessment of the proposal is that it will have only a very limited visibility due to the heavily treed nature of the wider locality of the site. Sight distances from which the proposal can be seen are less than 140m on the main approach roads. In all views, the building sits within the tree canopy height and its impact will be very small.

5.9 Has the planning proposal adequately addressed any social and economic effects?

Social impact

A key characteristic of the proposal will be the renewal of the existing shopping and the development above it of 53 apartments. As noted in the Elton Consulting report, the key characteristics of the suburb of Castlecrag are:



Source: Australian Bureau of Statistics, Census of Population and Housing, 2006 and 2016 (Usual residence data). Compiled and presented in profile.id by .id, the population experts.

As can be seen from the bar chart above, the retiree age population has grown significantly over the decade 2006-2016. The table below notes that there are very few apartments in Castlecrag to which retirees may choose to go if they cannot easily access their houses due to increasing mobility issues.

Population/suburb characteristic	**Statistic**	**Commentary**
Total population 2006	2,798	
Total population 2016	2,938	Increase of 140 in 10 years
Forecast population 2036	3,029	Increase of 91 over next 20 years forecast
Detached dwellings - Castlecrag	96% of all dwellings	
Medium density or other dwelling - Castlecrag	4%	
Medium or high density -Willoughby LGA	50%	Demonstrates how different Castlecrag is within Willoughby LGA
Own or paying off mortgage	83% of households	

As the suburb is characterised by steep hill sides falling to the north and south from the Edinburgh Road ridge, accessibility is an issue for most houses. The ageing population will require accessible housing if it is to allow residents to age in their suburb if not specifically in their detached house.

The proposed project will have a very positive social impact by providing 53 apartments that are sorely needed in a suburb virtually devoid of apartments. During the course of the project to date, some 35 members of the community have placed their names on a contact list to be offered apartments. Acting in the general interest of the Castlecrag community, the Castlecrag Progress Association has received a promise from the applicant that residents of Castlecrag will be offered preferential access to the apartments when they go on sale.

Renewal of the shopping centre, and the shops within it, will provide necessary services for residents of the suburb. The existing supermarket, pharmacy and post office are essential neighbourhood convenience shops and the café and restaurant have the additional social function of a community hub. Their importance to the community may be gauged from the positive community reaction to their renewal as part of the project.

Cultural impact

To the extent that the renewed centre acts as a social hub for residents of Castlecrag, its impact on the cultural life of the suburb could be significant. The project will create a new public open space on Edinburgh Road which is big enough to stage community events such as a school fair or art show, etc. However, the key community cultural focus will remain The Haven, the Walter Burley Griffin and Marion Mahoney amphitheatre which first hosted performances between 1932 and 1934.

Economic impact

The CIV for the project of $63.9 million is estimated on developed design drawings. (We understand that construction job numbers are estimated by the Department of Planning using a Landcom model.)

Maximum retail employment in the centre post 2018 was 102 with 12 additional employed daily contractors such as cleaners. Due to deteriorating conditions within the centre and the open knowledge that redevelopment was being sought, only 39 employees worked in businesses paying a full market rent. 63 employees worked in businesses that were supported to some degree by the centre's owners. Renewal of the centre is the only path to maintain viable retail and commercial uses on the site.

Whilst commercial space will be reduced from 2,552m^2 to 1,740m^2, retail employment is estimated to reduce slightly to 90 and daily contractors may increase by possibly 6 to 18 to service the apartments above.

Impact on the surrounding centres studied in the Local Centres Strategic Plan is unlikely to be measurable due to the loss of gross floor space of The Quadrangle. The nearest centre is that at Northbridge Plaza which has a gross floor area of about 56,635m^2 compared with The Quadrangle (2,140m^2) and Castlecrag as a whole (8,353m^2).

Section D – State and Commonwealth interests

5.10 Is there adequate public infrastructure for the planning proposal?

Traffic and transport

"The site is located on the south eastern corner of the intersection of Eastern Valley Way and Edinburgh Road. This intersection is traffic signal controlled with all movements permitted … Observations of the operation of the intersection found that long delays and queues can occur on Edinburgh Road (westbound approach) in peak periods when traffic turning right into Eastern Valley Way is delayed and blocks through traffic" [76]

"Based on RMS Guidelines the proposed development…would generate some 20 vehicles per hour (two-way) in the weekday morning and afternoon peak periods. This additional traffic has been assigned to the road network and the impact on the operation of the intersection of Eastern Valley Way/Edinburgh Road has been analysed using SIDRA. The analysis found that with development traffic in place, there would be a minor increase in average delay per vehicle through the intersection of some one to three seconds in the AM/PM peak hours. There was no change in the LOS and minor increases in queue lengths. Thus, in summary the proposed development would have minimal impact on the operation of the intersection of Eastern Valley Way and Edinburgh Road."[77]

Infrastructure and utility services

5.10.1 Potable water

"The existing cold water is provided by 50mm diameter water supply, from the 100mm Sydney Water main in Eastern Valley Way, via 50mm cold water meter located at ground level".[78]

It is proposed that a new domestic water service supply be connected to Sydney Water's 150mm water main located on the east side of Eastern Valley Way, subject to Sydney Water's approval.[79]

5.10.2 Natural Gas Services

The existing 75mm Natural Gas main is being supplied from Edinburgh Road and has a working pressure of 210Kpa. The existing gas main will be extended to the proposed site building with a "new regulator to reduce the pressure to 2.75Kpa"[80].

[76] Ibid, p. 3&5.

[77] Planning Proposal – traffic review by Colston Budd Rogers & Kafes Pty Ltd: June 2020 p. 5 & 6.

[78] Building services concept report by Meinhardt: August 2021 p. 17.

[79] Ibid p. 17.

[80] Ibid, p. 20.

The existing main has the capacity to provide the proposed development with natural gas. “Natural gas services will be provided with Safety shut off valve (System III) and connected to Fire indicator panel”[81].

5.10.3 Power

The building services concept report submitted with the application states “The existing building is serviced by a three-phase supply from Ausgrid to an on-site kiosk substation (5062) located on the west side of the building, on Eastern Valley Way via an underground feed into the adjacent Main Switch Board.”[82]

An initial maximum demand calculation to determine the required power infrastructure of the development was undertaken for the proposed 53 units, lower ground and ground floor supermarkets, retail and carpark. It was concluded that the maximum demand of the proposed development will be 930A including 10% future growth. Ausgrid will propose a new kiosk substation to facilitate the maximum power demand required for the development.[83]

5.10.4 Wastewater

The site is connected to the civic sewerage system. The proposed development will be connected to the existing service. The building services concept report states:

“There is a 150mm sewer Sydney Water main on south boundary of the site, the main sewer has been repaired by Sydney water… Application / advice from Sydney Water coordinator regarding the requirements to connect and protect Sydney Water assets will be required”[84].

The main sewer system enters the site from Edinburgh Road. “Subject to Sydney Water’s Section 73 requirements, the sewer connection will be from the existing 150mm sewer main. Sanitary drainage will be provided from sewer drainage and connecting all the stack work together and discharging thereafter to ‘Sydney Water’s sewer system via a boundary trap.

Sanitary drainage will be provided from sewer drainage and connecting all the stack work together and discharging thereafter to ‘Sydney Water’s sewer system via a boundary trap.”[85]

5.10.5 Solid Waste

Solid waste will be stored in the waste storage areas in the basement where garbage trucks collect and transfer the waste to external treatment facilities.

---

[81] Ibid, p. 20.

[82] Ibid, p. 11.

[83] Ibid, p. 12.

[84] Ibid, p. 20.

[85] Ibid, p. 20.

5.10.6 Drainage

The *Stormwater management memorandum* submitted with the application concludes that "The proposed development presents a general improvement of site catchment characteristics, increasing pervious areas and reducing urbanisation".[86]

In addition, the building services reports states: "Rainwater downpipes will be connected to stormwater system, and rainwater from roof downpipes will be used for rainwater harvesting system including filtration system."[87]

5.10.7 Telecommunications

As stated in the building services report the development upon completion will replace the existing telecommunications system with NBN to allow for up-to-date telecommunication services on site. "NBN rollout map shows the NBN is available at the site and the property is ready to connect."[88]

5.11 What are the views of State and Commonwealth public authorities consulted in accordance with the Gateway determination?

The State and Commonwealth are unlikely to have an interest in this proposal other than as a possible recovery project from the current COVID-19 crisis. No public authorities have yet been formally consulted.

5.12 What is the expected timeline for the gazettal of the planning proposal?

Planning Proposal Presented to Council	November 2021
Planning Proposal submitted to Gateway	December 2021
Gateway Determination received by Council	April 2022
Community Consultation (28 days)	August 2022
Outcomes of Community Consultation presented to Council	November 2022
Planning Proposal submitted to Department requesting notification on Government website	December 2022
Gazettal of Planning Proposal	April 2023

[86] Stormwater Management Memorandum by Meinhardt: June 2020. p. 3.

[87] Building services concept report by Meinhardt: June 2020 p. 19.

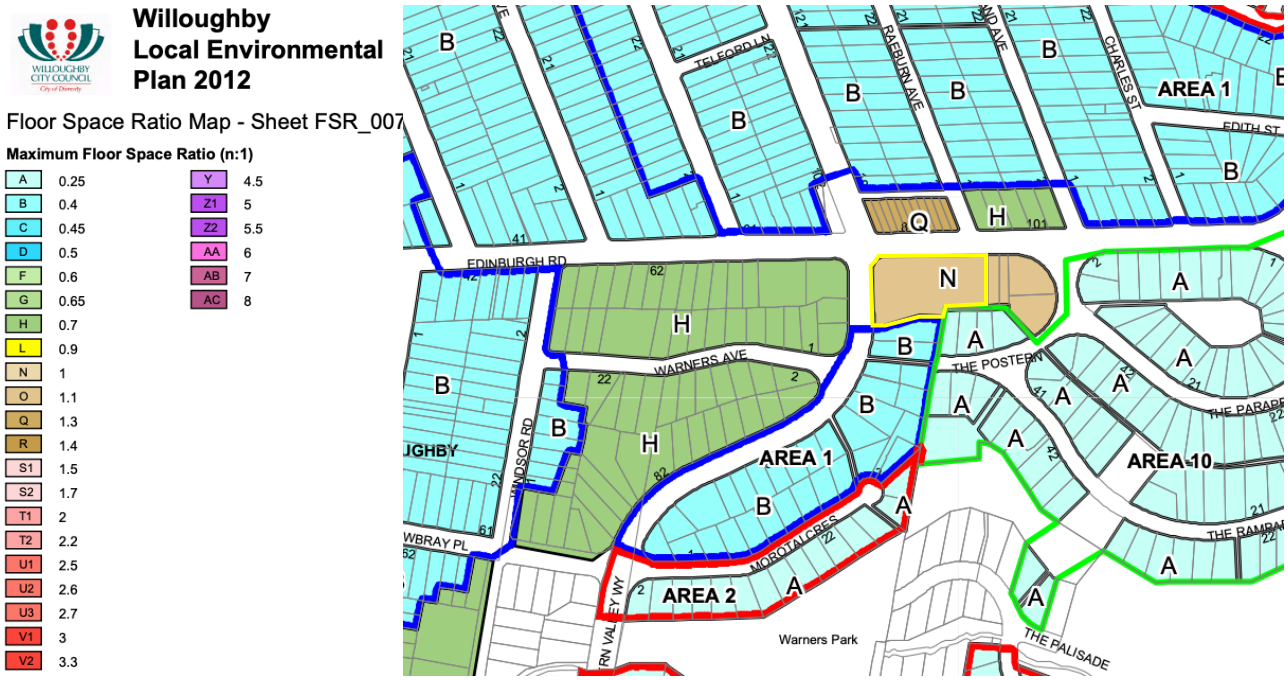
[88] Ibid, p. 16.

6 Draft amended environmental planning instrument maps for proposed statutory changes

6.1 LEP

Current control maps

6.1.1 Maximum Floor Space Ratio



(1) The objectives of this clause are as follows—

(a) to limit the intensity of development to which the controls apply so that it will be carried out in accordance with the environmental capacity of the land and the zone objectives for the land,

(b) to limit traffic generation as a result of that development,

(c) to minimise the impacts of new development on adjoining or nearby properties from disruption of views, loss of privacy, overshadowing or visual intrusion,

(d) to manage the bulk and scale of that development to suit the land use purpose and objectives of the zone,

(e) to permit higher density development at transport nodal points,

(f) to allow growth for a mix of retail, business and commercial purposes consistent with Chatswood's sub-regional retail and business service, employment, entertainment and cultural roles while conserving the compactness of the city centre of Chatswood,

(g) to reinforce the primary character and land use of the city centre of Chatswood with the area west of the North Shore Rail Line, being the commercial office core of Chatswood, and the area east of the North Shore Rail Line, being the retail shopping core of Chatswood,

(h) to provide functional and accessible open spaces with good sunlight access during key usage times and provide for passive and active enjoyment by workers, residents and visitors to the city centre of Chatswood,

(i) to achieve transitions in building scale and density from the higher intensity business and retail centres to surrounding residential areas,

(j) to encourage the consolidation of certain land for redevelopment,

(k) to encourage the provision of community facilities and affordable housing and the conservation of heritage items by permitting additional gross floor area for these land uses.

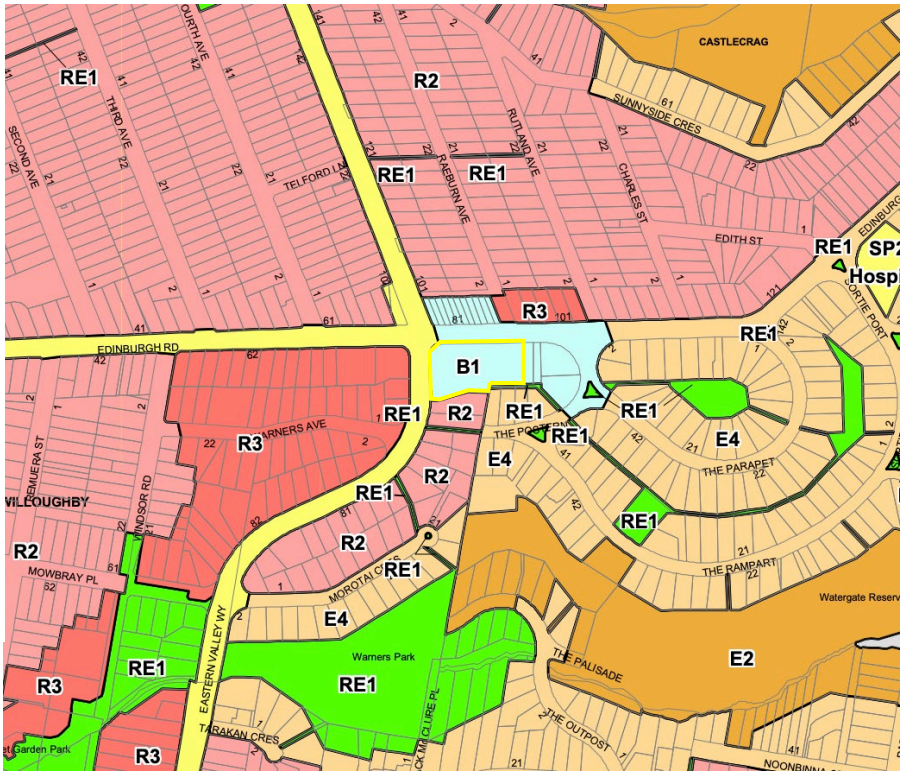
Zoning

Willoughby Local Environmental Plan 2012

Land Zoning Map - Sheet LZN_007

Zone

B1	Neighbourhood Centre
B2	Local Centre
B3	Commercial Core
B4	Mixed Use
B5	Business Development
B7	Business Park
E1	National Parks and Nature Reserves
E2	Environmental Conservation
E4	Environmental Living
IN1	General Industrial
IN2	Light Industrial
R2	Low Density Residential
R3	Medium Density Residential
R4	High Density Residential
RE1	Public Recreation
RE2	Private Recreation
SP1	Special Activities
SP2	Infrastructure



RE1 zone objectives

Objectives of zone

- To enable land to be used for public open space or recreational purposes.
- To provide a range of recreational settings and activities and compatible land uses.
- To protect and enhance the natural environment for recreational purposes.
- To protect and enhance areas of ecological, scientific, cultural or aesthetic value.
- To maintain and provide visual open space links to a diversity of public and private spaces and facilities as an integral part of the open space system.
- To provide adequate open space areas to meet the existing and future needs of the residents of Willoughby.

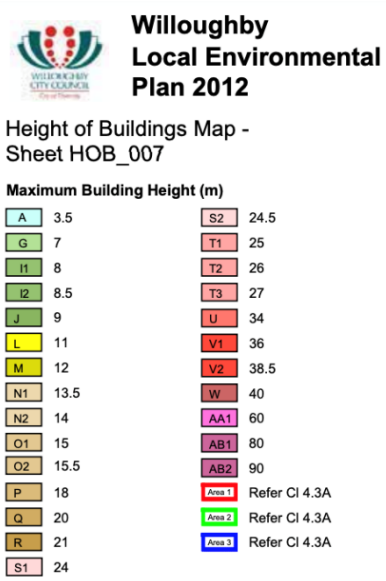
Prohibited: any development not specified in 2 or 3

B1 objectives
Objectives of zone

- To provide a range of small-scale retail, business and community uses that serve the needs of people who live or work in the surrounding neighbourhood.
- To minimise the effect of business uses on the amenity of adjacent areas having regard to building design, operation and activities, traffic generation and the car parking capacity of local roads.

Permitted with consent: Shop top housing

6.1.3 Height of Building





(1) The objectives of this clause are as follows—

(a) to ensure that new development is in harmony with the bulk and scale of surrounding buildings and the streetscape,

(b) to minimise the impacts of new development on adjoining or nearby properties from disruption of views, loss of privacy, overshadowing or visual intrusion,

(c) to ensure a high visual quality of the development when viewed from adjoining properties, the street, waterways, public reserves or foreshores,

(d) to minimise disruption to existing views or to achieve reasonable view sharing from adjacent developments or from public open spaces with the height and bulk of the development,

(e) to set upper limits for the height of buildings that are consistent with the redevelopment potential of the relevant land given other development restrictions, such as floor space and landscaping,

(f) to use maximum height limits to assist in responding to the current and desired future character of the locality,
(g) to reinforce the primary character and land use of the city centre of Chatswood with the area west of the North Shore Rail Line, being the commercial office core of Chatswood, and the area east of the North Shore Rail Line, being the retail shopping core of Chatswood,
(h) to achieve transitions in building scale from higher intensity business and retail centres to surrounding residential areas.

Proposed control maps

The control maps that need to be changed due to the proposed rezoning are the FSR and Height of Building maps. The proposed LEP maps will be finalised prior to exhibition of the proposal.



Height of Building map change proposed – site marked in plum colour and labelled "refer to clause *4.3A(9)*".



Special Provisions Area Map – site outlined in plum and labelled "AREA 12"

Amendment of Willoughby LEP by adding following sections

a) Insert the following at Clause 4.3A Exceptions to height of buildings:

(9) The height of any building at 100 Edinburgh Road, Castlecrag being Lot 11, DP 611594, identified as Area 4 on the height of building map shall not exceed AHD 97.490. For the purposes of this clause, the height of building does not include the following elements:

(a) any balustrade which is less than 1.2m height,

(b) any lift tower allowing disabled access to communal areas on the building roof and access to the lift, not to exceed 4.5m above the roof finished floor level,

(c) any stair enclosure allowing access to the roof, not to exceed 3.5m above the roof finished floor level,

(d) any services installations which are less than 2m in height including but not limited to air conditioning, solar panels, skylights,

(e) any communal facilities such as barbeques, seating and tables, planter boxes,

(f) disabled facilities such as toilets, not to exceed 3.5m above the roof finished floor level.

b) Insert the following at Clause 4.4A Exceptions to floor space ratio:

(25) The floor space ratio of any building on the land at 100 Edinburgh Road identified as Area 21 on the floor space ratio map shall not exceed 1.8:1 of which not more than 1.6:1 shall be above the level of Edinburgh Road.

c) Insert the following at Schedule 1 Additional permitted uses:

75. Use of certain land at 100 Edinburgh Road, Castlecrag

*(1) This clause applies to land at 100 Edinburgh Road, Castlecrag**, being Lot 11, DP 611594**.*

(2) Development for the purpose of residential flat building is permitted with development consent if the consent authority is satisfied that:

(a) Those uses at ground level facing Edinburgh Road are used for non-residential purposes and

(b) A minimum of 20% of the total FSR is provided for non-residential

purposes.

d) *Amend LEP Height of Buildings (HOB) Map to nominate the site as "Area 4" and allow for a maximum height of building described at Clause 4.3A Exceptions to height of buildings sub-clause (9) on the site;*

e) Amend LEP Floor Space Ratio (FSR) Map to nominate the site as "Area 25" and allow for a maximum FSR described at Clause 4.4A(25) Exceptions to floor space ratio sub-clause (25) on the site;

f) To amend the Special Provisions Area Map (Sheet SPA_007) to show 100 Edinburgh Road, Castlecrag, as Area 12 (Clause 6.8 Affordable Housing applies), and Area 12 (Clause 6.23 Design Excellence applies).

It is noted that the Minister's proposed Employment Zones Reforms will apply to the existing B1 Neighbourhood Centre zone which applies to Lot 11, DP 611594. This zone is proposed to be replaced with the E1 Local Centre zone. There is no amendment or introduction of a local provision or Schedule 1 Additional Permitted Uses with these reforms that would impact on this planning proposal. (Refer to Council report in response to Gateway directions.)

7 Completed community consultation, including with any relevant government agencies

7.1 Agencies that were, or are to be, consulted

From late 2018 to mid 2020, the project team consulted Willoughby City Council in direct meetings, by participating in Council engagement meetings convened as part of the preparation of the Local Centres Strategy and by informal discussions with Council officers. No other government agencies have been consulted as the project is not of State significance or even of a regionally significant scale.

However, the proposal will need the involvement of RMS as Eastern Valley Way is a State Road over which RMS has jurisdiction. No vehicular access is proposed to or from Eastern Valley Way.

7.2 Completed community consultations

From late 2018 to mid 2020, Elton Consulting was engaged to manage community consultation:

The Quadrangle Castlecrag project team identified and engaged directly with the following stakeholder groups over the course of two years of community engagement:

- *» Castlecrag residents*
- *» Castlecrag businesspeople*
- *» Quadrangle Liaison Committee (QLC) – a grouping of residents which included CPA members and residents with useful expertise*
- *» Castlecrag Progress Association (CPA)*
- *» Walter Burley Griffin Society (WBGS)*
- *» Friends of the Haven Amphitheatre (FoTHA)*

» *Glenaeon Rudolf Steiner School*
» *Willoughby City Council – Sailors Bay Ward councillors*
» *Castlecrag Conservation Society*
» *Willoughby Environmental Protection Association*

Greencliff and Elton Consulting used several methodologies to engage with stakeholders, tightly focusing on Castlecrag inhabitants:

» *Meetings with stakeholder groups*
» *Meetings with neighbours*
» *Attendance at community group meetings*
» *A letter to residents*
» *A dedicated website.* [89]

Many of these groups were consulted on multiple occasions and sometimes in groups.

*Throughout the two-year engagement process, there were **five persistent themes to community feedback**:*

» ***Transport:** concern for increased traffic congestion and the preservation of existing centre parking*
» ***Community:** Castlecrag residents stressed the importance of preserving the suburb's unique 'village feel'*
» ***Design democracy:** strong support for the Design Excellence Competition process and community participation in it*
» ***Design heritage:** the ultimate design should be sympathetic to the architectural principles of Walter Burley Griffin and Marion Mahoney Griffin*
» ***Nature & landscape:** stakeholders desired the retention of all living trees on the site*

While initially the community rejected any proposal for development over three storeys, as engagement progressed and issues of scale versus public space and amenity were addressed, concerns then became focused on floor space ratios (FSR) and feasibilities. At the end of the community engagement process, stakeholders became more comfortable with a structure over three storeys if open community space at ground level could be guaranteed.

*Ultimately, despite very vocal opposition from a very small minority of residents, support for the redevelopment of the Quadrangle Castlecrag can be demonstrated by exit polling at the final community engagement event, a series of on-site pop-ups held in February and March 2020, at which a total of **77.2% of stakeholders indicated they were positively disposed to the scheme and redevelopment of the site.*** [90]

[89] Elton Consulting, Community Engagement Report, 2020, p. 3.

[90] Elton Consulting, Community Engagement Report, 2020, p. 3.

7.3 How feedback impacted design

When the project was commenced some three years ago, the brief from Greencliff (the proponent) was for a building of up to six storeys above Edinburgh Road with a FSR of 2.2:1. The proponent was aware of a proposal some ten years previously of possibly eight to ten storeys which had been rejected by Council and the community. After preliminary designs were prepared by Bruce Swalwell Architects, the designs were discussed with the CPA which made clear its opposition to a scheme greater than three storeys above Edinburgh Road.

During this time, Council consultants Architectus prepared a draft Urban Design Study of the Castlecrag Centre as part of a wider study of all local centres in Willoughby LGA. The draft urban design study, placed on exhibition November 2017 to January 2018, postulated a building of up to five storeys above Edinburgh Road on The Quadrangle site with a FSR of 1.8:1. Concurrently, the proponent carried out a detailed financial feasibility for the proposal which concluded that a building of four to five storeys and FSR 2.2:1 would be viable. The degree of coincidence between the draft urban design study and the proponent's feasibility encouraged the proponent to continue its community and Council engagement.

In February 2019, at a meeting of the CPA and WBGS, the proponent committed to holding its previously announced design excellence competition ahead of any planning proposal. Three prominent and award-winning architectural firms and four jurors, all nominated by the WBGS and CPA, were invited to contest/judge the competition which was held in October /November 2019. The brief for the competition was for two schemes, one at four storeys and one at five. The FSR was set at 2.2:1 with 1.8:1 above Edinburgh Road.

Francis Jones Morehen Thorp Architects (FJMT) was declared winner in December 2019, only after all schemes were presented to a general meeting of the CPA. At the meeting, the community made clear its preference for a lower, four storey or even three storey, scheme. However, community support for the scheme had increased markedly.

Following the CPA meeting, the proponent requested FJMT to investigate a lower scheme after Council made clear its preference for a three-storey scheme with FSR 1.6:1 at or above Edinburgh Road level. A partly three and partly four storey scheme, FSR 2.2:1, was prepared by the architects and a further financial feasibility conducted.

In December 2019 Council adopted the Local Centres Strategy with The Quadrangle site designated for three storeys and FSR 1.8:1 with 1.6:1 at or above Edinburgh Road. Council's decision was based only on feedback it received in response to its exhibition of the draft urban design study. This was despite proponent submissions as to feasibility and the quality of the final scheme resulting from the design excellence competition. Community engagement data at this time showed an increasing acceptance of the proponent's proposals.

Throughout the whole, lengthy process, the proponent has worked assiduously to find a balance between community views, Council planning studies and financial sustainability. Community engagement has been seriously undertaken and the final scheme, FSR 1.8:1 and three storeys, now has the open support of representatives of the Castlecrag Progress Association, the Walter Burley Griffin Society and the Friends of the Haven. These groups, along with members of a supportive Facebook group with some 440 members, were briefed immediately prior to completion of this PP.

8 Voluntary Planning Agreement

A draft Voluntary Planning Agreement has been prepared and will be subject to consideration and public exhibition by Council. The VPA covers the following items:

- Public domain improvements along Edinburgh Road and Eastern Valley Way
- Creation of publicly accessible area totalling 1,150m^2 on site fronting Edinburgh Road
- Landscaping of pathway along southern boundary to link with Council pathway to The Postern
- Public end-of-trip facilities
- Additional eight car spaces to allow relocation of Council parking from proposed park/garden on the corner of Edinburgh Road and The Postern
- Public art contribution.

9 Assessment of the apartments against the design principles of SEPP 65 and the ADG

An assessment against the design quality principles of SEPP 65 and the design criteria and guidelines of the ADG is provided below.

Design quality principles	Compliance
Principle 1: Context and neighbourhood character	
Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions.	The context is mainly defined by the design legacy of Walter Burley Griffin for Castlecrag that incorporates the natural form of the land in the subdivision pattern of the allotments and curvilinear street patterns. In the Griffin design philosophy, landscaping is prioritised over building. The site is located at the gateway to Castlecrag where development consists of one and two storey buildings with retail at ground level. Located immediately west of the Castlecrag Conservation Area, the shopping village is an integral part of the neighbourhood in defining its character. The proposal acknowledges the heritage of the area and celebrates Walter Burley Griffin's legacy by delivering a shopping village in a landscaped setting to retain the "village feel" of the site, the natural bushland and rock escarpments.
Responding to context involves identifying the desirable elements of an area's existing or future character. Well designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood.	The proposal delivers a three storey above Edinburgh Road development, which has been highlighted in the *Adopted Willoughby Local Centre Strategy to 2036* as a desirable element for the future character of the local centre. The proposal enhances the streetscape by replacing the existing centre with a well-designed modern building that is an outcome of a design excellence competition. The benefits of the proposal for the neighbourhood in relation to its contribution to the economic, social and environmental factors are extensively discussed in the report. The design approach employed by FJMT in developing the proposal incorporates concepts used by Griffin in defining the unique identity of Castlecrag.
Consideration of local context is important for all sites, including sites in established areas, those	The proposal enhances the established character of the locality, a retail strip at ground level. It improves this character by providing large open space areas and through site links that are publicly

Design quality principles	Compliance
undergoing change or identified for change.	available. It creates the mixed-use nature of a local centre through the provision of new housing units above and around the ground level.
Principle 2: Built form and scale	
Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings.	The proposed density and height for the proposal is the result of social, economic and feasibility studies carried out by both Council, i.e. *Willoughby Local Centre Strategy,* and the applicant. An extensive community consultation phase and a design excellence competition further contributed to the proposal. The architectural drawings and report demonstrate how the height, bulk and the scale of the proposed scheme fits well into its context.
Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements.	The proposed site plan positions the sandstone pavilions, the east and the west wing buildings on top of the podium, in a radial arrangement to align with the fluid geometry established by Griffins' master plan for Castlecrag that abruptly stopped at this western corner of the suburb. As stated in the architecture report, the utilisation of the following design details, materials and patterns provide articulation of the proposed facades: *… Sandstone and concrete are used to give depth, weight and connection to the ground of the site. Deep colonnades, openings and reveals will give depth and shade. Timber and concrete pergolas and awning shades integrate with landscape to give further shade and depth.*
Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook.	The north facing open public plaza along Edinburgh Road is bordered by sandstone colonnades and landscaping which delivers a well-defined public domain that will be a meeting and gathering place for local residents. The opening at the centre of the site connects the public plaza to The Postern through a landscaped path and opens views and outlooks towards the south.
Principle 3: Density	
Good design achieves a high level of amenity for residents and each apartment, resulting in a density	A high level of amenity for residents and visitors will be delivered through the building and site design qualities discussed above.

Design quality principles	Compliance
appropriate to the site and its context.	The proposed density has been endorsed through Council's strategic studies for the centre and has been tested through the design development process, as discussed in the planning proposal report, to ensure the development is appropriate for the rejuvenation of Castlecrag.
Appropriate densities are consistent with the area's existing or projected population. Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment.	The proposal responds to the expected need for ~~90~~ 74 new dwellings by the year 2036 in Castlecrag through the provision of 53 new housing units. The proposed density and height are necessary to deliver a development outcome that can: 01. satisfy living standard requirements for residential units under the ADG, 02. provide sufficient separation between building elements to enhance views, vistas, internal and external amenity of the future residents, 03. respect Griffins' legacy through provision of extensive landscaping and quality public domain. 04. maintain neighbourhood retail facilities on site and deliver modern community facilities. The additional density and the subsequent demand for local infrastructure has been assessed by the relevant experts and is found suitable.
Principle 4: Sustainability	
Good design combines positive environmental, social and economic outcomes.	The positive environmental, social and economic outcomes of the proposal are discussed in the report and supported by the expert reports submitted with this application.
Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and liveability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials and deep soil	The development incorporates new building materials that will provide good thermal insulation. The number of units that have access to natural and/or cross ventilation and sunlight satisfies the ADG requirements. The liveability standards will be improved by reducing reliance on technology for providing thermal comfort. The proposed solar panels and the reuse of rainwater for irrigation purposes contribute to the efficient use of water and energy

Design quality principles	Compliance
zones for groundwater recharge and vegetation.	The proposal exceeds the required provision of 7% of site area as deep soil under the ADG by providing deep soil planting that equates to 15% of the site area. Overall, the proposal is designed and will be constructed by incorporating sustainable resource management techniques in accordance with relevant standards.
Principle 5: Landscape	
Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood.	Castlecrag's design is an integration of landscape and architecture in order to demonstrate how to live closer to nature in the bushland setting[91]. The redesign of The Quadrangle evidences this image by providing 42% of the site area as communal/public open space. This is 17% more than the minimum requirement of the ADG. The design qualities of the proposal and its suitability for its context through the provision of ample landscaping is discussed in this report and the landscape concept report provided by FJMT studio.
Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context, co-ordinating water and soil management, solar access, micro-climate, tree canopy, habitat values and preserving green networks.	The aim of the proposal is to maximise landscaping area at different levels, provide a deep soil zone to maximise tree planting, reuse and harvest rainwater for irrigation purposes and connect the proposed new open space areas on site with the surrounding locality. In order to deliver these qualities, the proposed development is sited to minimise impact on street trees and the trees along the southern boundary of the site and to maximise solar access to public, communal and private open space areas. The environmental performance of the development will be improved through the provision of a contemporary landscape that references the bushland character of Castlecrag.
Good landscape design optimises useability, privacy and opportunities for social interaction, equitable access, respect for neighbours' amenity and provides	The proposed landscaped public plaza to the front of the site that is surrounded by cafes, restaurants and shops maximises the opportunities for social interaction between the visitors and the residents.

[91] FJMT Design Competition Scheme 2019

Design quality principles	Compliance
for practical establishment and long term management.	Considering the aging population of the neighbourhood, provision of accessible pathways through the site and between the open space areas has been prioritised in the design of the centre. By maintaining the ownership of the publicly accessible open space areas, the management of the centre will ensure the long-term maintenance of these assets.
Principle 6: Amenity	
Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well being. Good amenity combines appropriate room dimensions and shapes, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas and ease of access for all age groups and degrees of mobility.	39 (74%) of units have access to sunlight for 2 hours or more in winter as per the ADG requirements. The rest of the units still receive ample daylight and mostly enjoy the views and outlook towards the south. 32 of 53 (60%) of units will be naturally ventilated. This exceeds ADG criteria of providing 60% of units with natural cross ventilation. To ensure visual privacy between the buildings on site and the neighbouring buildings, privacy screens will be incorporated to the openings where potential loss of privacy was expected. A detailed analysis will be provided at the DA stage to ensure privacy of future residents and neighbours can be satisfied through design. Compliance with the numerical requirements of the ADG in relation to internal and external amenity of the residents is assessed in a separate table and provided under Appendix 2 of the report.
Principle 7: Safety	
Good design optimises safety and security within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximise passive surveillance of public and communal areas promote safety.	The design of the proposal maximises passive surveillance of the site boundaries by incorporating the following design strategies: • Along the north boundary, all the retail tenancies have full height glass facades looking to the street. • The through site link turns the middle of the site into a publicly accessible area. • Windows and open space areas of upper floors face site boundaries. • CCTV system will be employed to monitor blind spots. In addition, the development will be managed by a future body corporate which will ensure security and cleanliness.

Design quality principles	Compliance
A positive relationship between public and private spaces is achieved through clearly defined secure access points and well lit and visible areas that are easily maintained and appropriate to the location and purpose.	The main pedestrian entry to the site, from Edinburgh Road (north), follows through to the communal/public open space that is visible to residents and visitors. The pedestrian access form The Postern, along the southern boundary, will be passively supervised by the residential units facing the route. The residential and retail premises are oriented towards different site boundaries to establish a secure relationship between private and public spaces. Sufficient but not intrusive lighting will be considered at later stages of design.
Principle 8: Housing diversity and social interaction	
Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.	The proposed development provides an appropriate mix of housing typologies to accommodate for the future residential needs of Castlecrag. The development consists of one, two, three- and four-bedroom apartments. 50% of units are designed to satisfy adaptable unit standards to take account of the ageing population. Also, the provision of 3.8% (two by number) affordable housing units will cater for different demographics including residents with lower incomes.
Well designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix.	The ageing population of Castlecrag needs apartments to replace their often topographically challenging dwelling houses. The project delivers 53 dwellings above a potentially vibrant community hub services by neighbourhood retail. The development will bring life and vitality to the site and provide a place where the community can meet – a social hub.
Good design involves practical and flexible features, including different types of communal spaces for a broad range of people and providing opportunities for social interaction among residents.	The development incorporates different types of communal/public open spaces at both ground level and the rooftop terraces.
Principle 9: Aesthetics	
Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a	The design achieves appropriate proportions and balanced compositions of elements by: 01. prioritising the nature (landscaping) over building and delivering green facades, naturally landscaped pathways and

Design quality principles	Compliance
variety of materials, colours and textures.	platforms to celebrate the dominant bushland character of the area. 02. utilising locally available natural materials, i.e. sandstone, on the façade of the building and other materials with earthy and light colours to maintain the relationship between the building and its context. 03. breaking up the overall development into smaller sections to maintain a good proportion between the site and its surrounds.
The visual appearance of a well designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape.	This project pays tribute to Walter Burley Griffin's legacy in Castlecrag by acknowledging the design elements and concepts used in establishing the neighbourhood and construction of the significant buildings designed by Griffin's studio. Proposing a large public plaza surrounded by sandstone colonnades, natural planting and cafes and restaurants sits well within the existing streetscape.

Part 3 – Siting the development		
Design Criteria and Design Guidelines	**PROPOSED**	**COMPLIES**
3D Communal and public open space		
1. Communal open space has a minimum area equal to 25% of the site (see figure 3D.3)	43% (2,220m^2) of the site is proposed for communal/ public open space.	**Yes**
2. Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid winter)	The development achieves a minimum of 50% of direct sunlight to the principal usable parts of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid winter).	**Yes**
3E Deep soil zones		
1. Deep soil zones are to meet the following minimum requirements:	The development provides 14.5% of the site (750m^2) as deep soil. More than 7% of the site area is provided as deep soil zone with a minimum dimension of 6m along the southern and western boundaries.	**Yes**

<table><tr><th>Site area</th><th>Minimum dimensions</th><th>Deep soil zone (% of site area)</th></tr><tr><td>less than 650m²</td><td>-</td><td rowspan="4">7%</td></tr><tr><td>650m² - 1,500m²</td><td>3m</td></tr><tr><td>greater than 1,500m²</td><td>6m</td></tr><tr><td>greater than 1,500m² with significant existing tree cover</td><td>6m</td></tr></table>		
3F Visual privacy		
1. Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side and rear boundaries are as follows: <table><tr><th>Building height</th><th>Habitable rooms and balconies</th><th>Non-habitable rooms</th></tr><tr><td>up to 12m (4 storeys)</td><td>6m</td><td>3m</td></tr><tr><td>up to 25m (5-8 storeys)</td><td>9m</td><td>4.5m</td></tr><tr><td>over 25m (9+ storeys)</td><td>12m</td><td>6m</td></tr></table>	The proposed buildings on the site are located on a higher ground compared to the residential buildings to the south and will not have a direct sight of line into their windows to cause any concerns with potential loss of privacy. Where the separation distances are less than the required figures under this controls, visual privacy measures such as screens, louvres and angled or highlight windows will be incorporated into the design at the DA.	

Part 4 – Designing the building		
Design Criteria and Design Guidelines	**PROPOSED**	**COMPLIES**
4A Solar and daylight access		
1. Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter in the Sydney Metropolitan Area and…	74% (39) of the units receive a minimum of 2 hours of direct sunlight into their living areas and private open spaces between 9am and 3pm at mid-winter.	**Yes**
3. A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter	26% (14 of 53) of units receive no direct sunlight between 9 am and 3 pm at mid-winter. Apartments that receive no direct sunlight have access to ample private open space to improve the amenity of the units. Some of these units that are located at ground level are split into two levels to maximise access to daylight.	**No, but justified.**

<table>
<tr><td colspan="3">Part 4 – Designing the building</td></tr>
<tr><td>Design Criteria and Design Guidelines</td><td>PROPOSED</td><td>COMPLIES</td></tr>
<tr><td></td><td>It should be noted that the sweeping views of surrounding bushland and Sydney CBD are towards the south. The lack of access to direct sunlight is compensated for by providing prominent views to the living areas and private open spaces of these units.</td><td></td></tr>
<tr><td colspan="3">4B Natural ventilation</td></tr>
<tr><td>1. At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed.</td><td>60% (32 of 53) of units are naturally cross ventilated.</td><td>Yes</td></tr>
<tr><td>2. Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line.</td><td>No cross-through units proposed as part of the mix. None of the units has an overall depth of 18m or more.</td><td>N/A</td></tr>
<tr><td colspan="3">4C Ceiling Heights</td></tr>
<tr><td>1. Measured from finished floor level to finished ceiling level, minimum ceiling heights are:
<table>
<tr><th colspan="2">Minimum ceiling height
for apartment and mixed use buildings</th></tr>
<tr><td>Habitable rooms</td><td>2.7m</td></tr>
<tr><td>Non-habitable</td><td>2.4m</td></tr>
<tr><td>For 2 storey apartments</td><td>2.7m for main living area floor
2.4m for second floor, where its area does not exceed 50% of the apartment area</td></tr>
<tr><td>Attic spaces</td><td>1.8m at edge of room with a 30 degree minimum ceiling slope</td></tr>
<tr><td>If located in mixed used areas</td><td>3.3m for ground and first floor to promote future flexibility of use</td></tr>
</table>
The minimums do not preclude higher ceilings if desired.</td><td>The floor to ceiling height for all the habitable and non-habitable spaces within the proposed units satisfy the minimum dimensions required by this guideline.</td><td>Yes</td></tr>
</table>

Part 4 – Designing the building		
Design Criteria and Design Guidelines	**PROPOSED**	**COMPLIES**
4D Apartment size and layout		
Objective 4D-1		
1. Apartments are required to have the following minimum internal areas: **Apartment type** / **Minimum internal area** Studio / 35m² 1 bedroom / 50m² 2 bedroom / 70m² 3 bedroom / 90m² The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m2 each. A fourth bedroom and further additional bedrooms increase the minimum internal area by 12m2 each.	All the proposed units are capable of satisfying the minimum area requirements as per this design guideline.	**Yes**
2. Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms.	The proposal can satisfy the numerical requirement of this guideline at the DA stage. Considering the architectural scheme is prepared for the purpose of a Planning Proposal provision of this level of detail on the plans is not necessary at this stage.	**Yes**
Objective 4D-2		
1. Habitable room depths are limited to a maximum of 2.5 x the ceiling height.	As above.	**Yes**
2. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window.	As above.	**Yes**
Objective 4D-3		
1. Master bedrooms have a minimum area of 10m2 and other bedrooms 9m2 (excluding wardrobe space).	As above.	**Yes**

<table>
<tr><td colspan="3">Part 4 – Designing the building</td></tr>
<tr><td>Design Criteria and Design Guidelines</td><td>PROPOSED</td><td>COMPLIES</td></tr>
<tr><td>2. Bedrooms have a minimum dimension of 3m (excluding wardrobe space).</td><td>As above.</td><td>Yes</td></tr>
<tr><td>3. Living rooms or combined living/dining rooms have a minimum width of:
• 3.6m for studio and 1 bedroom apartments
• 4m for 2 and 3 bedroom apartments</td><td>As above.</td><td>Yes</td></tr>
<tr><td>4. The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts.</td><td>As above.</td><td>Yes</td></tr>
<tr><td colspan="3">4E Private open space and balconies</td></tr>
<tr><td colspan="3">Objective 4E-1</td></tr>
<tr><td>1. All apartments are required to have primary balconies as follows:
<table><tr><th>Dwelling type</th><th>Minimum area</th><th>Minimum depth</th></tr><tr><td>Studio apartments</td><td>4m²</td><td>-</td></tr><tr><td>1 bedroom apartments</td><td>8m²</td><td>2m</td></tr><tr><td>2 bedroom apartments</td><td>10m²</td><td>2m</td></tr><tr><td>3+ bedroom apartments</td><td>12m²</td><td>2.4m</td></tr></table>The minimum balcony depth to be counted as contributing to the balcony area is 1m.</td><td>The proposal satisfies the numerical requirement of this guideline.</td><td>Yes</td></tr>
<tr><td>2. For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15m2 and a minimum depth of 3m</td><td>As above.</td><td>Yes</td></tr>
<tr><td colspan="3">4F Common circulation and spaces</td></tr>
<tr><td>1. The maximum number of apartments off a circulation core on a single level is eight.</td><td>A maximum of 10 units will be serviced off a circulation core in each building. This results from the division of the building into two pavilions to minimise its bulk and scale to fit into its context.</td><td>No but justified</td></tr>
</table>

<table>
<tr><td colspan="3">Part 4 – Designing the building</td></tr>
<tr><td>Design Criteria and Design Guidelines</td><td>PROPOSED</td><td>COMPLIES</td></tr>
<tr><td colspan="3">4G Storage</td></tr>
<tr><td>1. In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:
<table><tr><th>Dwelling type</th><th>Storage size volume</th></tr><tr><td>Studio apartments</td><td>4m^3</td></tr><tr><td>1 bedroom apartments</td><td>6m^3</td></tr><tr><td>2 bedroom apartments</td><td>8m^3</td></tr><tr><td>3+ bedroom apartments</td><td>10m^3</td></tr></table>At least 50% of the required storage is to be located within the apartment.</td><td>The proposal is capable of providing sufficient storage as per the requirements of this guideline.</td><td>Yes</td></tr>
</table>

Appendix – Landscape and Architectural Report
In separate file.

Appendix – Geotechnical Assessment Report
In separate file.

Appendix – Traffic and Transport Study
In separate file.

Appendix – Arborist Report
In separate file.

Appendix – Building Services Concept Report
In separate file.

Appendix – Stormwater Management Memorandum
In separate file.

Appendix – Community Engagement Report
In separate file.

Appendix – Heritage Impact Statement
In separate file.

Appendix – Capital Investment Value
In separate file.

Appendix – Contamination Report
In separate file.

Appendix 1 – Overshadowing Analysis

Built on the southern edge of the Castlecrag ridge, the site sits above the houses in the cul-de-sac part of The Postern. These houses are south and downslope of the development and the impact of the proposal on solar access to their rear yards needs to be considered. The solar impact of the proposal is the subject of 18 sheets of the 53 sheet PP set – drawings 6201 to 6218.

Sheets 6201 to 6206 show shadows in plan for the winter solstice, 21 June. Three aspects of the development are illustrated – existing shadows, the scheme shown in the adopted LCS and the subject proposal. Sheets 6201 to 6203 are conventional diagrams without trees while 6204 to 6206 show the impact of trees particularly those on the southern boundary. Demonstrating the impact of the trees allows comparison with the aerial photography from Nearmap, particularly important as the trees are evergreens and the subject of extensive commentary from Council and the community. Shadows are shown from 8am to 4pm to capture fully the day.

Sheets 6207 to 6218 also provide an analysis of the overshadowing impact of the three situations, existing, LCS scheme and the proposal, but taken from a “sun eye view”. Use of the sun eye view allows for a more extensive understanding of the impact of one building and trees on others. It also allows assessment of solar access to the proposal itself. In any sun eye view, those windows and balconies which can be seen are in sunlight. Conversely, windows and balconies not visible are in shade. Sheets 6207 to 6212 cover 21 June, with and without trees. Sheets 6213 to 6218 cover 21 March, the equinox, again with and without trees.

These drawings can be related to the two photographs below. The photos are approximations of times illustrated in the solar analysis prepared using a standard drawing system. Figure 11 can be compared with the plan view of the existing situation at noon on sheet 6205. The degree of correspondence is high. This verifies the accuracy of illustrating the tree impact on overshadowing in the diagrams prepared to illustrate the degree of overshadowing due to the proposal.



Figure 11 – Shadows existing at approximately noon, three weeks from winter solstice – courtesy Nearmap



Figure 12 – Extract from sheet 6205 of the architectural drawings

A similarly comparative aerial photo for approximately 11am at the equinox is below together with a sun eye view of the corresponding time.



Figure 13 – Shadows existing at approximately 11am, five days from equinox – courtesy Nearmap

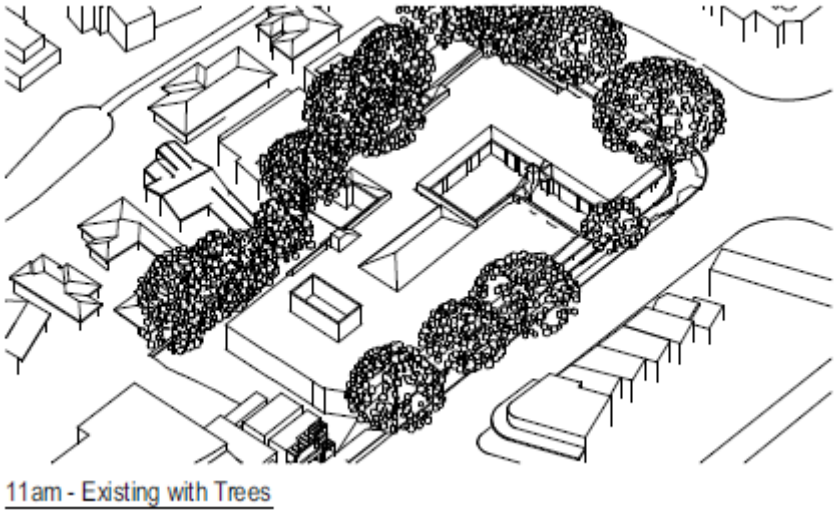


Figure 14 – Sun eye view corresponding with Fig 13. Note the extent of the rear yards visible in the diagram corresponds with the sunlit portions of the rear yards of the houses in The Postern.

The conclusions to be drawn from the extensive graphical information provided by the architect is that:

- Shadows due to the dense band of evergreen trees on the southern boundary of the site, which are to be retained as per the report of the arborist, must be considered in any analysis
- Shadows due to the trees extend well beyond the shadows due to the existing building on the subject site at 21 June

- Shadows due to the proposal, and also the comparative LCS scheme, largely sit within the dense tree shadows at 21 June
- The additional shading impact of the proposed building will be relatively minor at 21 June, the winter solstice
- There will be little overshadowing due to the proposal (or the trees) at the equinox, 21 March or 21 September.

Appendix 2 – Visual analysis

Visual catchment

Inspite of the prominent location of the proposed redevelopment of The Quadrangle at 100 Edinburgh Road, Castlecrag, the visual catchment for a building of mostly 11m height above the Edinburgh Road pavement is very limited. The proposal is within the canopy height of many of the street trees in its immediate and close locality and is thus partly obscured from many possible view positions. Further view limitations result from the tree lined streets around the subject site, the topography and also from the curves or angles in the nearby roads which allow street trees to limit views, not only of the site but also along the streets.

Analysis of the immediate streets around the site allows an accurate estimation of the sight distances along the streets and, from that an assessment of the visual impact of the proposal. The distances from which the subject site is visible, always partly hidden by the tree canopies, is as shown in Photo 1 and Table 1:



Photo 1 – Aerial view of site and surrounds with sight distances shown – courtesy Near Maps

Table 1 – Sight distances

Street	View Direction	Sight distance (rounded)
Edinburgh Road, east of site	West	80m to NE site corner
Eastern Valley Way north of site	South	100 to NW site corner
Edinburgh Road west of site	East	120m to NW site corner
Eastern Valley Way south of site	North	135m to SW corner

Edinburgh Road, east of site

Most of the street trees obscure a clear view of the site. As the proposal sits within the canopy height of the larger tress, it will be a two storey above existing ground level mass behind the trees. The architect's choice of natural materials, in keeping with the Griffin legacy and philosophy, will further merge the building form with the trees in front – refer Photo 2.



Photo 2 - From corner of Rutland Street looking west (courtesy of Google Streetview)

Photos 3 and 4, approaching the site, show that even from in front of the Griffin Centre the street trees still partly hide the mass of the proposal. The grey building on the eastern boundary of the site, No.98 will obscure the first floor of the proposal leaving only the top floor and its services visible against the sky, behind the street trees.



Photo 3 - Photo from outside NE corner of the Griffin Centre (courtesy of Google Streetview)



Photo 4 - From outside Griffin centre in Edinburgh Road looking west (courtesy of Google Streetview)

Eastern Valley Way north of site

The view from Eastern Valley Way north of the site is, like the other views, constrained by the combination of street trees and front yard foliage of houses lining the road. As one approaches the main intersection, it is apparent that the proposal will fill in the sky view to the east of the tree on the street corner immediately adjacent to the subject site, below the top of the tree canopy (refer Photos 5 and 6).



Photo 5 - From outside 106 Eastern Valley Way looking south (courtesy of Google Streetview)



Photo 6 - From outside 102 Eastern Valley Way looking south (courtesy of Google Streetview)

Edinburgh Road west of site

As for the other cardinal viewpoints, the site is framed by street trees as seen in Photos 7 and 8. The proposed design, by FJMT Studio, will fill in a small section of sky behind the street trees and within the height of their canopies. The proposed development is two storeys higher than that existing on the site.



Photo 7 - From corner Fourth Avenue and Edinburgh Road looking east (courtesy of Google Streetview)



Photo 8 - Opposite 80 Edinburgh Road looking east (courtesy of Google Streetview)

Eastern Valley Way south of the site

The edge of the proposal may be seen from Eastern Valley Way about 135m south of the SW corner, possibly from the viewpoint of Photo 9. As one approaches, the building will be largely screened by the trees along the south boundary of the site (Photo 10) but it is unlikely to be visible on the skyline.
Even from much closer (Photo 11) the building will be screened by trees. About 20m from the SW corner, the new building will be visible through the tree screen.

Any other viewpoints

The building is virtually hidden by street trees and houses from all other viewpoints, including from Northbridge shopping Centre. Some limited close up views will be available between the three houses to the immediate south of the site in the cul-de-sac portion of The Postern.

Assessment of visual impact

The prime streetscape characteristics of Castlecrag, and also Northbridge, are tree lined streets and front gardens with often substantial foliage. As noted above, the street pattern, topography and street trees limit distant views of the proposed development to the point that the building's striking architecture will only be apparent from very close up. The use of natural materials will serve to reduce the visual impact of the proposal, setting it into its background. Whilst the building has been designed as a gateway to the Griffin suburb, it will not be an overwhelming or dominant building except when seen very close up. Its visual impact will be very limited.



Photo 9 - Outside 94 Eastern Valley Way looking north (courtesy of Google Streetview)



Photo 10 - Outside 92 Eastern Valley Way looking north (courtesy of Google Streetview)



Photo 11 - Corner of Warners Avenue and Eastern Valley Way looking north (courtesy of Google Streetview)



Photo 12 - Outside 97 Eastern Valley Way looking north (courtesy of Google Streetview)

Appendix 3 – Green Travel Plan

This Green Travel Plan (GTP) outlines the actions which can be implemented to ensure an integrated transport access concept is achieved for the proposal.

12.1 Existing Transport Provisions

Staff and visitors currently have access to the following transport options:

- Bus services
- Pedestrian and bicycle linkages

12.1.1 Bus

The site is serviced by bus route numbers 203 and 275, to the North Sydney CBD and Chatswood, refer to Figure 7.



Figure 7 – Castlecrag services by the 203 and 275 bus routes.[92]

12.1.2 Pedestrian Infrastructure

The site is largely visible from the major traffic route to the east, Eastern Valley Way, and Edinburgh Road as it sits at the gateway to Castlecrag. Topographically the site is somewhat difficult to navigate on foot. Nevertheless, a majority of walking trips to the site will be undertaken by Castlecrag residents who will not need special signage.

[92] Ibid, p. 68.

12.1.3 Cycling Infrastructure

Castlecrag is serviced by a marked on-road bicycle route that starts at the end of Edinburgh Road and leads to a range of bike routes ending in Chatswood CBD, Lane Cove North and Chatswood West - refer to Figure A below.

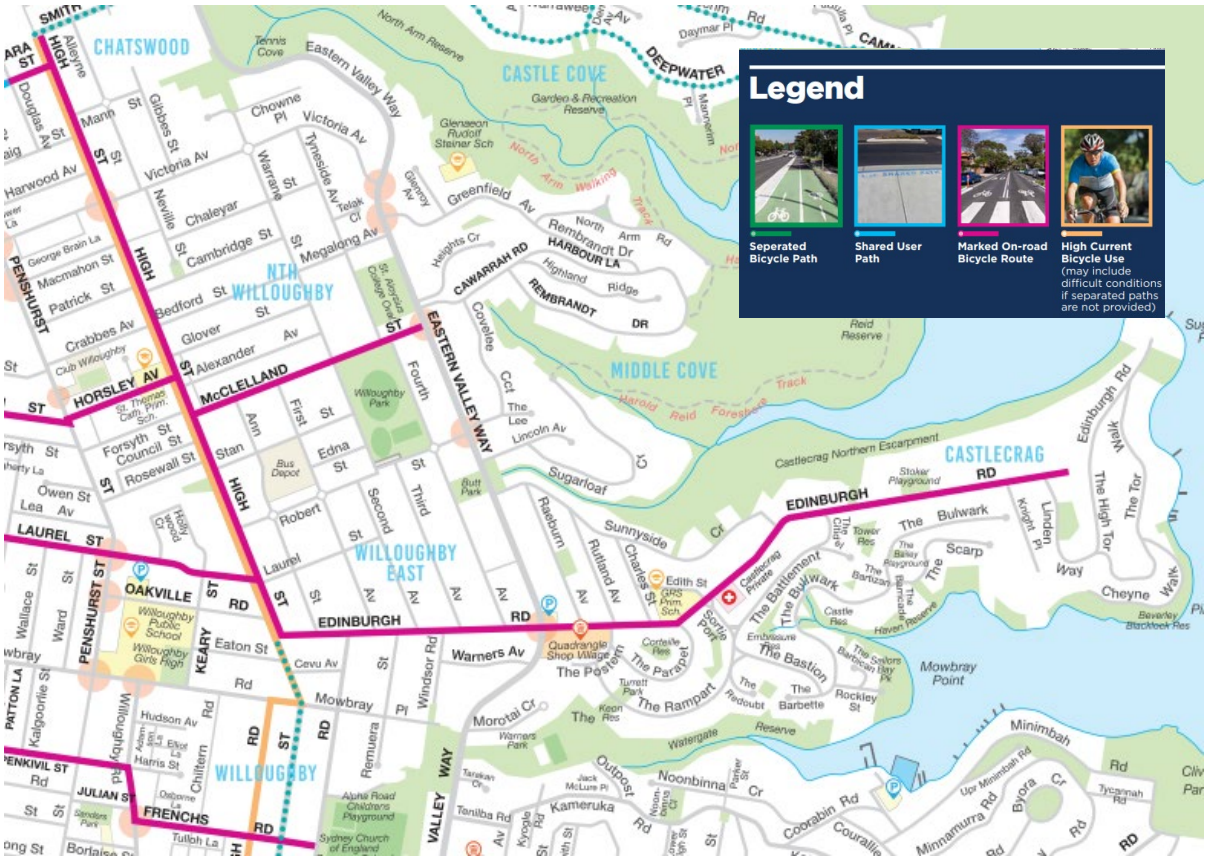


Figure 8– Castlecrag marked on road cycle route.[93]

12.2 Actions

The proposed development incorporates the following actions into the design of the site to ensure equitable access to and from the site is achieved.

Walking

- Provide wayfinding signage to public facilities on site and cross site link to The Postern.

Cycling

- Ensure bicycle parking is clearly sign posted

[93] https://www.willoughby.nsw.gov.au/Residents/Parking-and-transport/Cycling

- Have secure bicycle parking in an easily accessible location
- Provide bicycle parking to meet community needs
- Provide bicycle parking for visitors
- Provide secure bicycle lockers
  Provide end of trip facilities.

Public transport (buses)

- Provide bus timetables in a prominent location on site.

Car Parking

- The application will provide the required number of parking spaces to service the community, its residents and visitors
- Ensure underground visitor parking is clearly sign posted.