

Communities Plus – Ivanhoe at Macquarie Park

Community Infrastructure and Recreation Demand Study

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Executive summary

Introduction

As lead developer of the Aspire Consortium, Frasers Property Australia (Frasers) commissioned Elton Consulting to investigate community infrastructure requirements and demand for recreational facilities for the Ivanhoe Estate Redevelopment to inform the Concept Development Application for the project.

This report assesses the existing and planned community infrastructure and open space in the suburb of Macquarie Park in relation to the existing and forecast population at Ivanhoe and Macquarie Park. Based on this information, it details implications for the provision of community infrastructure and open space for Ivanhoe and makes recommendations based on leading practice thinking and trends in provision, standards, and benchmarks.

As the first project to be delivered under the State Government's Future Directions program, the Ivanhoe Estate redevelopment project provides an opportunity to demonstrate a collaborative approach between the public (NSW Land and Housing Corporation), private (Frasers and Citta Property Group) and not for profit (Mission Australia Housing) sectors to deliver better outcomes for social housing tenants.

The project will see the redevelopment of 259 social housing dwellings into a mixed tenure community with approximately 3,500 dwellings (subject to future Development Applications and design development) made up of:

- » Approximately 1,000 social housing units including around 140 independent living units (ILUs) and
- » Approximately 2,500 market and affordable housing properties including around 100 ILUs.

Definitions

For the purpose of this study, **community infrastructure** is defined as community facilities (centres, hubs, halls) libraries and cultural centres, childcare centres, schools and health care facilities.

Open and recreational spaces can be both active and passive.

Active open space is land set aside for the primary purpose of formal outdoor sports for the community. Active open space supports team sports, training and competition and typically features sports facilities such as playing fields, change rooms, grandstand and car parks.

Passive open space is land set aside for parks, gardens, linear corridors, conservation bushland and nature reserves. These areas are made available for passive recreation, play and unstructured physical activity¹.

Existing situation

Macquarie Park has a relatively young population profile with a median age of 29. It is characterised by high proportions of lone person and couple households, students, and residents who speak a language other than English. Private rental is the dominant tenure and a high number of people work in the professional, scientific and technical services.

The community facilities available to residents in Macquarie Park are located in the outer suburbs of Ryde LGA with only Marsfield Community Centre located within a reasonable distance. Other existing community infrastructure around the Ivanhoe Estate include:

- » Over 20 child care and early learning centres located within Macquarie Park and Marsfield.

¹ These definitions are from Greater Sydney Commission (2016), *Greater Sydney Public Open Space Audit*, https://gsc-public-1.s3.amazonaws.com/s3fs-public/Greater_Sydney_Open_Space_Audit.pdf.

- » A number of public secondary schools (see Table 3), three public primary schools and one private school located with a reasonable distance from the Ivanhoe Estate. The 2017 NSW state budget committed to developing a new primary school at Smalls Road Ryde, a new K-12 school in Meadowbank, 20 new classrooms at Kent Road Public School and 14 new classrooms for West Ryde Public School.
- » A number of private medical centres located in Macquarie Park, many of which offer bulk billing. The nearest hospital is the private Macquarie University Hospital.

An analysis of the existing open space and recreation facilities in and around the Ivanhoe Estate showed that:

- » The only council owned regional recreation facility located in the City of Ryde is the Aquatic Leisure Centre. Macquarie University also provides the Macquarie University Sport and Aquatic Centre for public use and is located in close proximity to the Ivanhoe Estate.
- » Many of the parks located within Macquarie Park and Marsfield are more than 5,000m² in size with two open space areas over 10.0ha, ELS and Pembroke Park.
- » Marsfield has a relatively high quantum of open space at 4.94ha per 1,000 people. However, much of this space is dedicated to sporting activities with limited provision of play equipment.
- » Macquarie Park has a significantly lower quantum of provision, with most of the open space concentrated in the North along Lane Cove National Park. The City of Ryde has predicted a reduction in open space in Macquarie Park from 2.13ha per 1,000 people to 0.17ha per 1,000 people by 2036 as both the worker and resident population increases. Currently there are no large scale regional sporting or recreational facilities within Macquarie Park.
- » The Ivanhoe Estate is located in close proximity to three dedicate passive open spaces located along Shrimptons Creek – Elouera Park (0.65ha), Quandong Reserve (0.26ha) and Wilga Reserve (1.84ha). Epping Road presents a major barrier for Ivanhoe residents in accessing to open spaces for children to the south west of the site.

Future population profile

It is estimated there will be approximately 6,885 people living in the future Ivanhoe in 2036.

The highest proportion of people living in Macquarie Park is projected to be the young workforce aged 25 to 34 and the tertiary education and independence group aged 18 to 24 years (see Table 9). The residents living in the approximately 2,500 market and affordable dwellings are projected to reflect this trend whereas the occupants of the approximately 1,000 social housing dwellings may be concentrated at either end of the age spectrum with over 20% under 18 years old and nearly a third aged over 60.

When compared to Macquarie Park (see Table 8) there are projected to be more children at Ivanhoe, less people of working age, and more people over 50.

The likely characteristics of the future population at Ivanhoe will be affected by the type of dwellings constructed, the high-density environment and the social housing component. An analysis of the characteristics of people living in higher density housing in Sydney (see section 4.2.2) compared to those living in Greater Sydney as a whole shows these populations have:

- » Significantly lower proportions of children
- » A significantly higher proportion of couple and single person households
- » A higher proportion of residents born overseas, with a particularly high proportion born on the Asian continent
- » High rates of labour force participation and high proportions of the workforce engaged in professional or managerial roles
- » Higher median weekly household income.

Comparatively, an analysis of social housing register data indicates people living in social housing at Ivanhoe will include:

- » A higher proportion of children and people aged 50-84 years old
- » High proportions of lone person households
- » A culturally diverse population with around half speaking a language other than English at home, particularly Mandarin, Cantonese and Korean. There is also likely to be a higher proportion of Indigenous households living in social housing than in the rest of Macquarie Park.

This analysis reveals the diversity of the future Ivanhoe community and indicates a need for a range of community infrastructure and open space that can meet a variety of needs.

Proposed provision of community infrastructure and open space

The following table provides an overview of the community infrastructure and open space proposed for Ivanhoe. It includes a total of approximately 1,300m² of community facility space and approximately 2.05ha of public open space.

Proposed community infrastructure	Inclusions
700m ² community hub	Located adjacent to the village green – including meeting rooms, activity space, and an Express Library
700m ² multi-purpose community facility	Includes a hall and gymnasium to be co-located with the non-government school
Two childcare centres	Capacity for 150 children from 0-4 years old
Independent secondary school	Capacity for 1,000 students
Aged care facility & wellbeing centre	120 bed residential aged care facility and wellbeing centre
Proposed open space	Inclusions
3,300m ² of Village Green Recreational Oval and Playground	Formal and informal gathering spaces
3,900m ² of Forest Playground	
5,137m ² of regenerated forest through improvements to Shrimpton's creek	Includes running and cycle trails, exercise stations and shaded areas
25m aquatic facility	Will be designed to support hydrotherapy and learn to swim programs
2,195m ² of forest thresholds	Provides opportunities for small gatherings, exercise and access to the forest beyond
3,533m ² of ecological corridor	
1,046m ² school garden	
1,431m ² town square space	

Community infrastructure requirements

Chapter 5 considers the likely needs of the Ivanhoe population for community infrastructure and the ways in which those needs will be met.

The following points relate to community infrastructure requirements for Ivanhoe:

- » The forecasted population of approximately 6,500 – 7,000 requires the delivery of one community centre approximately 600-800m² in size based on benchmarks in the City of Ryde Section 94 Contributions Plan. The provision of the community hub and multi-purpose community facility will meet this need.

- » Council has indicated the new library planned for Macquarie Park will serve as a district level library for the Ivanhoe development. There is also an opportunity to deliver an Express Library (50-150 m²) within the community hub to provide residents access to a suite of core public technology including computers, Wi-Fi, an online library and an IT kiosk with access to Council services.
- » There are over 20 child care and early learning centres located within Macquarie Park and Marsfield, although none are currently located within Ivanhoe Estate. It is estimated there will be approximately 337 children aged 0-4 years in Ivanhoe by 2036 creating a need for 112 long day care places. The provision of two 75 place childcare centres will meet this need and may create a small surplus within Ivanhoe.
- » The Ivanhoe proposal incorporates a new independent secondary school for 1,000 students. While the forecast number of secondary schoolers in Ivanhoe does not trigger the need for a standalone school on the site, surrounding secondary schools are approaching capacity and there are clear social benefits in providing a secondary school at Ivanhoe.
- » Ivanhoe is well serviced by private medical centres located in Macquarie Park, many of which offer bulk billing. There are a number of public health services within the City of Ryde, however they are located in nearby suburbs. The proposal includes a 120 bed residential aged care facility with a wellbeing centre.

Open space requirements

Chapter 6 considers the likely needs of the Ivanhoe population for open space, sporting and recreation facilities and the ways in which those needs will be met.

The following points relate to open space requirements for Ivanhoe:

- » While Council has not adopted a quantum of open space per head of population approach to open space planning, benchmarking against comparable urban renewal developments in Sydney indicates a minimum of 0.7ha of open space for Ivanhoe. Proposed provision at Ivanhoe is approximately triple this amount at 2.05ha.
- » The Ivanhoe proposal meets the only firm standards contained in the City of Ryde's Integrated Open Space Plan that:
 - > Local parks should be a minimum of 0.2ha to permit a variety of recreational uses
 - > All residences should be a maximum of 400m (10 minute walk) walking distance from some form of public open space in urban areas.
- » The project also has the capacity to provide the open space required for educational facilities with an estimated 1,400m² of outdoor area for the two childcare centres and options for delivering open space for the high school.
- » Based on the participation data (outlined in Section 6.1.3) which suggests participation in active recreation significantly decreases after age 17, it can be expected that the greatest demand for open space from the future Ivanhoe population will be for passive, unstructured open spaces, noting that the majority of the population are between 18 and 34, and a significant proportion of social housing occupants are likely to be aged over 60. This suggests the need for lower impact and flexible physical activity opportunities such as walking and bike riding. Linear connections and a network of walking and cycling tracks should be provided to support walking and provide links to key destinations and recreation nodes.
- » Due to the diverse nature of Ivanhoe's future population, it will be critical that open space in Ivanhoe provides a diversity of recreation settings and opportunities for all age groups and all abilities. The design of the open space should also encourage community interaction, with smaller spaces that foster conversation-based interaction and larger recreation parks that provide a focus for community activities including play, bike riding, picnics, barbecues and social gathering opportunities. Off leash exercise areas for dogs also provide opportunities for informal community interaction.
- » The greatest demand for open space will most likely be for passive, unstructured open spaces, but Council has indicated to satisfy their needs as a result of the entire priority precinct broader Macquarie Park are, the need for either a full-sized sports field (approximately 6,000m²) or a junior sized field

(4,500m²) to be accommodated on the Ivanhoe site. There is limited capacity to provide a sports field of this size on the site. Additionally, a single sports field on site is likely to be less useful to sporting organisations than a facility with multiple fields. It may therefore be preferable to embellish existing sporting facilities in the area such as ELS Hall Reserve.

- » There will be demand for courts for sports such as netball, basketball and tennis. While the proposed population will not be large enough to warrant enough courts to create a district cluster within the site, there may be opportunities for shared use of the rooftop court facilities within the school. It will also be important to consider providing some facilities for informal games, such as a half basketball court, within local parks, to provide active recreation opportunities for young people. The indoor facility proposed for the development will also help meet some of the demand for court sports.
- » Council has also indicated a desire to see a youth recreation hub with a mix of playgrounds, parks and public spaces that are designed to be friendly to young people and allow for informal games like half basketball courts, rebound walls, and other outdoor activity opportunities such as bike tracks.

1 Introduction

1.1 Background

The redevelopment of the Ivanhoe Estate is the largest social housing renewal project in Australia and the first major project to be delivered under the Communities Plus program. The NSW Government awarded the redevelopment contract to the Aspire Consortium comprising development partners Frasers Property Australia (Frasers), Citta Property Group and community housing provider Mission Australia Housing (MAH).

The provision of over 1,000 social and affordable housing properties at Ivanhoe will support the government policy objectives of increasing social housing supply to meet need, providing pathways out of social housing, and increasing the supply of private housing. The Ivanhoe redevelopment will be a leading example of partnership between the public, private and not for profit sectors to achieve a diverse and sustainable community. The opportunities for residents to access employment, education, transport and community facilities in close proximity to Ivanhoe will be important in creating a place where every resident can achieve their potential.

Learning from previous social housing renewal projects in NSW such as the Bonnyrigg Living Communities Project, the Aspire Consortium is keenly aware of the importance of delivering meaningful outcomes for the community through this project. As a nationally significant example of mixed-tenure urban renewal the Ivanhoe redevelopment must address the diverse needs of the new community. This means providing the adequate level of community infrastructure and open space as well as supporting existing infrastructure in the surrounding areas as required.

1.2 Scope of the report

As lead developer of the Aspire Consortium, Frasers commissioned Elton Consulting to investigate community infrastructure requirements for the Ivanhoe Estate Redevelopment in support of the upcoming Concept Development Application to be submitted in 2018. As part of this assessment, Elton has included a Recreation Demand Study (see Chapter 6) in response to Secretary's Environmental Assessment Requirements (SEARs) released by the Department of Planning and Environment (DPE).

This report assesses the existing and planned community infrastructure and open space in the suburb of Macquarie Park in relation to the existing and forecast population at Ivanhoe and Macquarie Park. Based on this information, it details implications for the provision of community infrastructure and open space for Ivanhoe and makes recommendations based on leading practice thinking and trends in provision, standards, and benchmarks.

Key definitions

For the purpose of this study, **community infrastructure** is defined as community facilities (centres, hubs, halls) libraries and cultural centres, childcare centres, schools and health care facilities.

Open space and recreation can be both active and passive. The following definitions are provided in the Greater Sydney Commission's 2016 document, *Greater Sydney Public Open Space Audit*:

Active open space is land set aside for the primary purpose of formal outdoor sports for the community. Active open space supports team sports, training and competition and typically features sports facilities such as playing fields, change rooms, grandstand and car parks.

Passive open space is land set aside for parks, gardens, linear corridors, conservation bushland and nature reserves. These areas are made available for passive recreation, play and unstructured physical activity.

1.3 Development proposal

The project will see the redevelopment of 259 social housing dwellings into a mixed tenure community with approximately 3,500 dwellings (subject to future Development Applications and design development) made up of:

- » Approximately 1,000 social housing units including around 140 independent living units (ILUs) and
- » Approximately 2,500 market and affordable housing properties including around 100 ILUs.

MAH will have an office on the site to deliver tenancy and property management services as well as to link social housing residents to education, training and employment services. Tenants able to transition to housing independence will be encouraged to do so and the provision of on site transitional affordable housing will facilitate this process. The redevelopment will generate \$21 million over 20 years for MAH to fund services for social housing and other residents at Ivanhoe.

A range of community facilities including a multi-purpose hall, a community hub, two child care centres and a non-government vertical high school will be provided on the site. The proposal also includes approximately 2.05ha of open space.

1.3.1 Locational context

Macquarie Park is located 14 kilometres North West of the Sydney CBD. Its role as an internationally recognised commercial, technology and research hub provides significant opportunities, but also creates challenges in planning for future residential needs due to the highly urbanised setting.

In line with work being completed by DPE, the City of Ryde and Transport for NSW on identifying the overall infrastructure needs for Macquarie Park, the Ivanhoe study area relates to the following three areas within the Macquarie Park Corridor:

- » Macquarie University (Herring Road) Precinct (MUP)
- » North Ryde Station Precinct (NRSP)
- » Macquarie Park Investigation Area (MPIA).

The Ivanhoe Estate is located within the MUP at the corner of Epping and Herring Roads in Macquarie Park and spans 8.2 hectares. The site is located within the City of Ryde LGA and is a Statistical Area within the suburb of Macquarie Park (see Figure 1).

Figure 1 Context Map of Ivanhoe Estate, Macquarie Park and surrounding Priority Precincts

BOUNDARIES



-  MACQUARIE PARK
-  CITY OF RYDE
-  IVANHOE ESTATE

1.4 Our methodology

Preparation of this study has involved:

- » A review of relevant plans, policies and background studies from State and Local Government
- » Analysis of the social context of Ivanhoe, including the demographic characteristics of the surrounding community
- » An assessment of the existing community facilities and open space in the areas around Ivanhoe and identification of current gaps and spare capacity
- » A project meeting with staff from the City of Ryde about existing services, social planning approaches and future requirements of the forecast population
- » Assessment of community infrastructure and open space requirements for the future Ivanhoe.

2 Policy context

The Community Infrastructure and Recreation Demand Study is informed by the following NSW Government and City of Ryde policies and policy documents.

State Government:

- » Future Directions for Social Housing in NSW
- » Communities Plus
- » A Plan for Growing Sydney
- » Draft North District Plan
- » Sydney's Open Spaces: Volume 2

Local Government:

- » Ryde 2025 Community Strategic Plan
- » City of Ryde S94 Development Contributions Plan 2007 – interim update (2014)
- » City of Ryde Voluntary Planning Agreements (VPA) Policy 2015
- » City of Ryde Affordable Housing Policy 2016-2031
- » Ryde Local Environmental Plan 2014 (Amendment 1 – Macquarie Park (RLEP)
- » Libraries for Ryde 2014-2024
- » City of Ryde draft Social and Cultural Infrastructure Framework (2014)
- » City of Ryde Cultural Spaces and Places Plan – Stage I (2011) and Stage II (2012)
- » City of Ryde Community Hubs Plan (2012)
- » City of Ryde Community Safety and Crime Prevention Plan (2011-2014)
- » City of Ryde Integrated Open Space Plan (2012)
- » City of Ryde Integrated Open Space Plan (2012) – Macquarie Park 2016 Update

Macquarie Park Corridor Studies

- » Macquarie Park Plan Review (2012)
- » Draft Macquarie Park Recommendations Paper (2013)
- » Macquarie University Station (Herring Road) Priority Precinct Finalisation Report
- » North Ryde Station Urban Activation Precinct Finalisation Report
- » Lachlan's Line Voluntary Planning Agreement (draft)

For detailed summaries of the above documents, please refer to Appendix C.

2.1 Implications for Ivanhoe

- » As the first project to be delivered under the Future Directions program, the Ivanhoe Estate redevelopment project provides an opportunity to demonstrate a collaborative approach between the public (LAHC) private (Fraser and Citta) and not for profit (MAH) sectors to deliver better outcomes for social housing tenants.

- » This project is also consistent with the City of Ryde's ambition to become a leading council in the provision of affordable housing, working with the NSW Government, the development industry, community housing providers and community members to achieve this goal.
- » The City of Ryde's *Draft Social and Cultural Infrastructure Framework* (2014) identifies Macquarie Park as a site for a future District Level Community Facility although this is noted as a low priority. This facility would include a range of activity and program space as well potential office space for community organisations and service providers. This facility would provide district level community space that would serve the local community including the new Ivanhoe population.
- » Macquarie Park is identified as a Strategic Centre within the Global Economic Corridor. The *Sydney's Open Spaces: Volume 2* audit notes that there is a need to carefully plan for open space in the part of the subregion that forms part of Sydney's 'Global Economic Corridor', due to the high amount of population and job growth projected.
- » Council's *Integrated Open Space Plan* (IOSP) identifies Macquarie Park as having a local open space deficit, suggesting a need for future acquisition. This is particularly important given the relatively high dwelling densities in the area which implies limited access to private open space and therefore a premium on easily accessible public open space.
- » The 2016 update to the IOSP identifies the additional open space that is to be delivered through the implementation of the Priority Precincts and Planning Proposals in the Macquarie Park Corridor, including 0.45ha (4,500m²) of open space required for Ivanhoe.
- » The *Macquarie Park Plan Review* (2012) also identifies a need to improve utilisation of Shrimptons Creek parklands which is located in close proximity to the Ivanhoe Estate site, including by improving passive surveillance opportunities and safety and the need to improve pedestrian connectivity and amenity across the precinct.

3 Social context

This section provides an overview of the existing demographic profile around the Ivanhoe Estate to assist in understanding the social context of the proposed development. It also identifies the existing and proposed community infrastructure, recreation facilities and open space in and around the Ivanhoe Estate.

3.1 Current demographic profile

ABS data for the Macquarie Park suburb, the City of Ryde LGA and the Greater Sydney region have been compared to identify significant population characteristics (Table 1).

Table 1 Service age groups of existing population in 2016

	Macquarie Park	City of Ryde	Greater Sydney
Population			
Number of people	8,172	116,302	4,823,991
Number of households	3,233	43,020	1,719,676
Age	%	%	%
Median age	29	36	36
Babies and pre-schoolers (0 to 4)	5.9	6.1	6.4
Primary schoolers (5 to 11)	3.5	7.5	8.8
Secondary schoolers (12 to 17)	1.9	5.5	6.9
Tertiary education and independence (18 to 24)	23.3	10.7	9.6
Young workforce (25 to 34)	27.4	18.2	16.1
Parents and homebuilders (35 to 49)	17.9	21.0	21.1
Older workers and pre-retirees (50 to 59)	5.6	11.7	12.2
Empty nesters and retirees (60 to 69)	5.3	9.1	9.5
Seniors (70 to 84)	3.7	7.5	7.5
Elderly aged (85 and over)	2.0	2.6	2.0
Tenure	%	%	%
Renting social housing	6.5	3.9	4.6
Renting privately	56.9	32.8	27.6
Home owners	12.5	28.3	27.7
Household composition	%	%	%
Couple with children	18.2	34.5	35.3
Couples without children	28.2	23.6	22.4

	Macquarie Park	City of Ryde	Greater Sydney
Group households	9.3	5.4	4.5
Lone person households	29.3	22.3	20.4
One parent family	5.7	8.5	10.4
Average persons per dwelling	2.08	2.61	2.72
Cultural diversity	%	%	%
Language other than English	57.5	47.9	35.8
Aboriginal and Torres Strait Islander	N/A	0.3	N/A
Recent arrivals - between 2011-2016	49.3	26.7	21.4
People born overseas			
People born in China	15.2	12.5	4.7

Source: profile.id.com.au/ryde

The residential population in **Macquarie Park** has the following characteristics:

- » Half are 18-34 years old with a median age of 29
- » Most people live alone or are couples without children
- » Over half of all residents speak a language other than English
- » Private rental is the dominant tenure type, 56.9%.

Since 2011 Macquarie Park has experienced an increase in the proportion of 25-34 and 35-49 year olds and a decline in the number of people aged 50-64 and 65 or older.

There are less lone person households than in 2011 and more couples without children in Macquarie Park which may relate to the fact a higher proportion of people across the area are living in high density dwellings. There are significantly more two-bedroom or less dwellings than four or more bedroom dwellings. The high density nature of the area means there are more car-less households.

There are now more people renting from a private landlord and less people owning their home outright. A higher proportion of residents in Macquarie Park are experiencing housing and rental stress compared to 5 years ago.

Macquarie Park is also characterised by:

- » A high proportion of students with around a quarter of people currently attending University
- » A high proportion of new arrivals to Australia at 48.7% of people
- » A high number of people working in the professional, scientific and technical services (14.8%)
- » A slightly higher proportion of social housing dwellings than the Sydney average.

3.2 Existing and proposed community infrastructure, recreation facilities and open space

This chapter identifies the existing and proposed community infrastructure, recreation facilities and open space around the Ivanhoe Estate.

Community facilities and libraries

Table 2 below identifies the community facilities in close proximity to Ivanhoe including community centres, halls and libraries. These are also identified in Figure 2.

Facilities available to residents are located in the outer suburbs of Ryde LGA with only Marsfield Community Centre within a reasonable distance.

There are a relatively high number of facilities, of variable size and provision, located within the City of Ryde. However, the majority of the community facilities are classified as neighbourhood with a small number meeting the requirements for a district community facility. Currently there are no regional community facilities. More information about community facility classifications is provided in Appendix B.

Table 2 Community facilities

Facility	Suitability	Capacity	Distance from Ivanhoe (approx.)
Eastwood Community Hall	<ul style="list-style-type: none"> » Meeting rooms » Community groups » Seminars » Small group activities » Training 	>100 pax	5km
Eastwood Library	<ul style="list-style-type: none"> » Meeting rooms » Small group activities 	>45 pax	4.5km
Gladesville Library	<ul style="list-style-type: none"> » Meeting room » Small group activities 	>42 pax	7km
Marsfield Community Centre	<ul style="list-style-type: none"> » Children's birthday parties » Family events » Community groups » Training » Playgroup 	>80 pax	2.5km
North Ryde School Library and Community Centre	<ul style="list-style-type: none"> » Concerts » Theatre » Large events » Weddings » Festivals » Trade fairs 	Stand up: >300 pax Sit down: >200 pax	6km
Ryde Civic Centre	<ul style="list-style-type: none"> » Large events » Weddings » Festivals » Trade fairs 	Stand up: >700 pax Sit down: >460 pax	4km
Ryde Library	<ul style="list-style-type: none"> » Meeting rooms 	-	4km
Shepherd's Bay Community Centre	<ul style="list-style-type: none"> » Meeting rooms » Seminars » Small group activities » Training 	>120 pax	6km
West Ryde Hall	<ul style="list-style-type: none"> » Seminars » Birthdays » Training 	>100 pax	5km

Facility	Suitability	Capacity	Distance from Ivanhoe (approx.)
	» Presentations		
West Ryde Library	» Meeting room	-	5km

In addition to the listed community facilities there are also a number of small scout and sporting club halls located that may be available for community use.

Childcare

There are over 20 child care and early learning centres located within Macquarie Park and Marsfield. With the projected resident and worker population figures, including the development of Ivanhoe it is likely that there will need to be additional facilities located in the immediate area. The facilities in close proximity to the site are identified in Figure 3.

Education – Secondary Schools

There are a small number of secondary schools in the vicinity of Ivanhoe Estate, see Table 3.

Table 3 Secondary Schools

School	2016 Enrolments	Years	School Type	Distance from Ivanhoe (by road)
Epping Boys High	1152	7-12	Government	2.3km
Arden Anglican School	746	K-12	Non-government	4.0km
Ryde Secondary College	1089	7-12	Government	5.9km
Marsden High	753	7-12	Government	6.8km
Turramurra High School	1266	7-12	Government	9.0km

The Aspire Consortium proposes to develop a non-government secondary school at Ivanhoe. Information regarding demand for an additional school at Ivanhoe can be found in Section 5.2.3. The learning centres in close proximity to the site are identified in Figure 3.

Education – Primary Schools

There are three public primary schools and one private school located with a reasonable distance from the Ivanhoe Estate. School enrolments shown in Table 4 have increased over the past five years indicating sustained demand for school places in proximity to the Ivanhoe Estate. The 2017 NSW state budget committed to the development of:

- » A new primary school at Smalls Road in Ryde
- » A new kindergarten to Year 12 school in Meadowbank
- » 20 new classrooms at Kent Road Public School
- » 14 new classrooms for West Ryde Public School.

Table 4 Primary School Enrolments

School	2011 Enrolments	2016 Enrolments	% Increase
Kent Road	314	595	57%
North Ryde	247	354	30%

School	2011 Enrolments	2016 Enrolments	% Increase
Truscott Street	294	332	11%

Health

The Ivanhoe Estate is well serviced by private medical centres located in Macquarie Park, many of which offer bulk billing. The nearest hospital is the private Macquarie University Hospital. There are a number of public health services within the City of Ryde, however they are located in nearby suburbs. The closest public health facility is Marsfield Early Childhood and Community Health. Ryde Hospital is the closest public tertiary centre and emergency department and is easily accessible by road and public transport.

Regional recreation facilities

The only council owned regional recreation facility located in the City of Ryde is the Aquatic Leisure Centre. Macquarie University also provides the Macquarie University Sport and Aquatic Centre for public use. In addition to these major facilities there are a number of small council owned and private sporting amenities located throughout the LGA.

Table 5 Regional recreation facilities

Facility	Offering	Public / Private
Macquarie University Sport and Aquatic Centre	<ul style="list-style-type: none"> » Sporting fields » Indoor sport » Aquatic Centre » Venue hire » Group fitness » Children's programs » Adult programs 	Private Macquarie University
Ryde Aquatic Leisure Centre	<ul style="list-style-type: none"> » Aquatic Centre » Indoor sport » Group fitness » Children's programs » Adult programs 	Public City of Ryde

The location of the facilities above is identified in Figure 2.

Planned and proposed community infrastructure

There are also a number of planned and proposed community infrastructure items for The City of Ryde, Macquarie Park including:

- » Macquarie Park
 - > Multi-purpose hall – 700m², located at Ivanhoe
 - > Community hub –700m², located at Ivanhoe
 - > Two additional childcare facilities – 1,203m², located at Ivanhoe
 - > Library and Creative Hub – 5,000m², located within the shopping precinct. The new Library and Creative Hub will comprise a 3,788m² regional library and a 1,212m² cultural space to address a significant shortfall in community facilities, spaces for hire for private gathering and community meeting places and high-quality public open spaces. Development of this facility will help meet future needs of the future population of both Macquarie Park and Ivanhoe Estate.
- » City of Ryde

- > Regional civic and community facility – to be located on the current Civic Centre site
- > Community centre – 2,500m² facility as part of the Lachlan's Line development.
- > Residential aged care facility and wellbeing centre.

Figure 2 Community Infrastructure and Recreation Facilities



COMMUNITY AND CULTURAL FACILITIES

- A1 Eastwood Community Hall
- A2 Ryde Library, Civic and Community Centre
- A3 PROPOSED CULTURAL CENTRE
- A4 NSW Schoolhouse Museum of Public Education
- A5 North Ryde School Library and Community Centre
- A6 PROPOSED LIBRARY
- A7 Macquarie Park Leisure and Learning Centre
- A8 Macquarie University Art Gallery
- A9 Ivanhoe Community Room

PUBLIC HEALTH FACILITIES

- B1 Early Childhood Health Centre - Mansfield
- B2 Ryde Hospital
- B3 West Ryde Early Childhood Centre
- B4 Ryde Hospital & Community Health
- B5 Gladesville Early Childhood Health Centre
- B6 Gladesville Hospital
- B7 Cox's Rd Dental Clinic

RECREATIONAL FACILITIES

- C1 Ryde Aquatic and Leisure Centre
- C2 PROPOSED RECREATION CENTRE

MACQUARIE PARK

CITY OF RYDE

IVANHOE ESTATE

Figure 3 Learning Centres



CHILD CARE AND EARLY LEARNING

- A1 Marsfield Early Childhood Centre
- A2 Banksia Cottage
- A3 Mia Mia Child and Family Study Centre
- A4 Gumnut Cottage
- A5 YMCA Child Care
- A6 Korean Australian Family Daycare
- A7 Explore & Develop - North Ryde
- A8 St John's Pre-School Centre
- A9 Sydney Cove Childrens Centre
- A10 Explore and Develop - Macquarie Park
- A11 Explore and Develop - North Ryde
- A12 Creative Learning Preschool and Childcare
- A13 Macquarie Park Montessori Academy
- A14 Nought to Five Early Childhood Centre
- A15 CA Montessori Children's Centre
- A16 Little Learning School
- A17 Macquarie Park Long Day Care
- A18 North Ryde Early Learning Centre
- A19 Acre Wood Early Learning Centre
- A20 Good Start Early Learning Centre
- A21 ABC Learning Centre
- A22 Greenwood

PRIMARY AND SECONDARY SCHOOLS

- B1 Kent Road Public School
- B2 North Ryde Public School
- B3 Holy Spirit Catholic Primary School
- B4 Truscott Street Public School
- B5 PROPOSED SCHOOL
- B6 Epping Boys High School

MACQUARIE PARK

IVANHOE ESTATE

Existing and proposed open space

The Ivanhoe Estate has access to a number of active and passive open spaces of all levels. Table 4 provides a breakdown of accessible and existing open space using the City of Ryde Open Space Hierarchy as outlined in the Integrated Open Space Plan (IOSP), 2012. Further detail can be found in [Appendix A](#).

Table 6 Open Space Hierarchy

Open Space	Passive Level	Active Level	Open Space	Passive Level	Active Level
Macquarie Park			Marsfield		
Christie Park	2	1	Booth Reserve	2	
Dunholm Reserve	1		Catherine Park	1	
Elouera Park	1		Dunbar Park	2	1
Fontenoy Park	2	1	Els Hall Park	2	1
Porters Park			Ivanhoe Reserve		
Quandong Reserve	1		Jordan Park	2	
Tasman Park			Kenneth Park	1	
Tuckwell Park	2	1	Kotara Park	1	
Wilga Reserve			Marsfield Park	3	1
Yurrah Reserve	2		Pioneer Park	2	1
			Stewart Park	2	
			Talavera Reserve	1	
			Trafalgar Reserve	1	1
			Waterloo Park	2	

Source: City of Ryde 2012, prepared by Oneighty Leisure Solutions and Clouston Associates

Many of the parks located within Macquarie Park and Marsfield are more than 5,000m² in size with two open space areas over 10.0ha, ELS and Pembroke Park. Distribution across both of the suburbs is uneven with large deposits of natural bushland along the Western boundary of Marsfield and Lane Cove National Park (LCNP).

Marsfield has a relatively high quantum of open space at 4.94ha per 1,000 people. However, much of this space is dedicated to sporting activities with limited provision of play equipment. Epping Road also presents a major barrier for Ivanhoe residents, reducing accessibility to open spaces for children.

Macquarie Park has a significantly lower quantum of provision, with most of the open space concentrated in the North along LCNP. The City of Ryde has predicted a reduction in open space from 2.13ha per 1,000 people to 0.17ha per 1,000 by 2036 as both the worker and resident population increases. Currently there are no large scale regional sporting or recreational facilities within Macquarie Park.

The Ivanhoe Estate is relatively well serviced with three dedicated passive open spaces located along Shrimptons Creek:

- » Elouera Park, 0.65ha
- » Quandong Reserve, 0.26ha
- » Wilga Reserve, 1.84ha.

Figure 4 shows open space in and around Macquarie Park.

Lane Cove National Park

LCNP is a key regional open space. It covers an area of 670ha that extends along the Lane Cove River from the suburbs of Wahroonga and Thornleigh in the north-west to east Ryde in the south-east. LCNP contains picnic and barbecue facilities, kiosks, walking tracks including a section of the Great North walk, cycling trails, canoeing and boating facilities, and campgrounds, cabin and upmarket accommodation.

LCNP is located within a half hour walk of Ivanhoe Estate. Currently the M2 creates a significant barrier for pedestrians, though this may be rectified as the MUP Report notes the investigation of a pedestrian crossing to the LCNP across the M2 to improve access and usability.

Figure 4 Open Space Provision



PASSIVE OPEN SPACE A1 Trafalgar Reserve A2 Talavera Reserve A3 Pioneer Park A4 Kotara Park A5 Jordan Park A6 Santa Rosa Park A7 Kenneth Park A8 Catherine Park A9 Booth Reserve A11 Wilga Reserve A12 Guangdong Reserve A13 Elouera Reserve A14 Blenheim Park A15 Porters Park A16 Tuckwell Park A17 Fontenoy Park A18 Yurrah Reserve A19 Tasman Park A22 Dunholm Reserve	RECREATIONAL FACILITIES C1 Macquarie University Sport and Aquatic Centre C2 Ryde Community Sports Centre MACQUARIE PARK IVANHOE ESTATE SHRIMPTONS CREEK NATIONAL PARK	ACTIVE OPEN SPACE B1 Macquarie University Sporting Fields B2 Waterloo Park B3 Dunbar Park B4 ELS Hall Park B5 PROPOSED ACTIVE SPACE B6 Christie Park B7 PROPOSED ACTIVE SPACE
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3.3 Summary

This section included an analysis of the existing population surrounding the Ivanhoe Estate and identified the existing and proposed community infrastructure, recreation facilities and open space in and around the Ivanhoe Estate. Key findings include:

- » The existing residential population in the **Macquarie Park** includes high proportions of people aged 18-34, lone person and couple households, students, and residents who speak a language other than English. Private rental is the dominant tenure and a high number of people work in the professional, scientific and technical services.
- » Community facilities available to residents are located in the outer suburbs of Ryde LGA with only Marsfield Community Centre within a reasonable distance. The majority of the community facilities in the City of Ryde are classified as neighbourhood with a small number meeting the requirements for a district community facility. Currently there are no regional community facilities.
- » There are over 20 child care and early learning centres located within Macquarie Park and Marsfield. With the projected resident and worker population figures, including the development of Ivanhoe it is likely that there will need to be additional facilities located in the immediate area.
- » There are a number of public secondary schools and three public primary schools and one private school located with a reasonable distance from the Ivanhoe Estate. School enrolments for primary schools have increased over the past five years indicating sustained demand for school places in proximity to the Ivanhoe Estate. The 2017 NSW state budget committed to developing a new primary school at Smalls Road Ryde, a new K-12 school in Meadowbank, 20 new classrooms at Kent Road Public School and 14 new classrooms for West Ryde Public School.
- » The Ivanhoe Estate is well serviced by private medical centres located in Macquarie Park, many of which offer bulk billing. The nearest hospital is the private Macquarie University Hospital.
- » The only council owned regional recreation facility located in the City of Ryde is the Aquatic Leisure Centre. Macquarie University also provides the Macquarie University Sport and Aquatic Centre for public use and is located in close proximity to the Ivanhoe Estate.
- » Many of the parks located within Macquarie Park and Marsfield are more than 5,000m² in size with two open space areas over 10.0ha, ELS and Pembroke Park.
- » Marsfield has a relatively high quantum of open space at 4.94ha per 1,000 people. However, much of this space is dedicated to sporting activities with limited provision of play equipment. Epping Road also presents a major barrier for Ivanhoe residents, reducing accessibility to open spaces for children.
- » Macquarie Park has a significantly lower quantum of provision, with most of the open space concentrated in the North along LCNP. The City of Ryde has predicted a reduction in open space from 2.13ha per 1,000 people to 0.17ha per 1,000 by 2036 as both the worker and resident population increases. Currently there are no large scale regional sporting or recreational facilities within Macquarie Park.
- » The Ivanhoe Estate is located in close proximity to three dedicate passive open spaces located along Shrimptons Creek:
 - > Elouera Park, 0.65ha
 - > Quandong Reserve, 0.26ha
 - > Wilga Reserve, 1.84ha.

4 Population forecasts

4.1 Projected population profile

Developing population forecasts for new development relies on selecting appropriate occupancy rates for the different types of housing tenures that will comprise the development. Given that the future Ivanhoe Estate will be mixed-tenure, the occupancy rate for the surrounding suburb of Macquarie Park has been used for the market and affordable housing dwelling yields and the occupancy rate for the forecasted social housing population has been calculated using data from the NSW Housing Register. Table 7 Occupancy rates applied for projecting the population at Ivanhoe Estate

Tenure type	Occupancy rate projected for 2036
Market dwellings	2.01
Affordable housing dwellings	2.01
Social housing dwellings	1.86

Table 8 Future Ivanhoe: key indicators of age and household type in 2036

	Ivanhoe (%)	Macquarie Park (%)	City of Ryde (%)
Service age group			
Babies and pre-schoolers (0 to 4)	4.9	4.8	5.8
Primary schoolers (5 to 11)	4.5	2.8	6.7
Secondary schoolers (12 to 17)	3.8	2.6	5.5
Tertiary education and independence (18 to 24)	20.3	25.6	12.5
Young workforce (25 to 34)	22.9	29.0	18.2
Parents and homebuilders (35 to 49)	19.2	19.6	20.6
Older workers and pre-retirees (50 to 59)	7.3	4.7	10.2
Empty nesters and retirees (60 to 69)	7.1	3.4	7.9
Seniors (70 to 84)	7.7	4.7	9.5
Elderly aged (85 and over)	2.2	2.8	3.1
Household type			
Number of households	3,500	11,913	64,419
Target number of dwellings	3,500	12,412	66,855
Average household size	1.97	2.01	2.50

	Ivanhoe (%)	Macquarie Park (%)	City of Ryde (%)
Couples with children	N/A	16.2	30.1
Couples without children	N/A	23.1	26.0
Group households	N/A	12.2	6.2
Lone persons	N/A	39.9	26.3
Single parent family	N/A	6.4	7.9
Other families	N/A	2.2	3.5

Source: Calculated using data from Profile.id (November 2017) and the NSW Housing Register (June 2016)

Table 9 Future Ivanhoe Estate: population and age by housing tenure type, 2036

	Market and Affordable (%)	Social Housing (%)	Total Ivanhoe (%)
Population			
Forecast population	5,025	1,860	6,885
Target number of dwellings	2,500	1,000	3,500
Service age groups			
Babies and pre-schoolers (0 to 4)	4.8	5.2	4.9
Primary schoolers (5 to 11)	2.8	9.2	4.5
Secondary schoolers (12 to 17)	2.6	7.0	3.8
Tertiary education and independence (18 to 24)	25.6	6.4	20.3
Young workforce (25 to 34)	29.0	7.0	22.9
Parents and homebuilders (35 to 49)	19.6	18.3	19.2
Older workers and pre-retirees (50 to 59)	4.7	14.2	7.3
Empty nesters and retirees (60 to 69)	3.4	16.6	7.1
Seniors (70 to 84)	4.7	15.4	7.7
Elderly aged (85 and over)	2.8	0.6	2.2

Source: Calculated using data from Profile.id (November 2017) and the NSW Housing Register (June 2016)

4.2 Likely characteristics

The forecast population for Macquarie Park in 2036 is 27,348. It is estimated there will be approximately 6,885 people living in the future Ivanhoe by this time.

Table 9 above shows the highest proportion of people will be the young workforce aged 25 to 34 and the tertiary education and independence group aged 18 to 24 years. The residents living in the approximately 2,500 market and affordable dwellings will reflect this trend whereas the occupants of the approximately

1,000 social housing dwellings will tend to be concentrated at either end of the age spectrum with over 20% under 18 years old and nearly a third aged over 60.

The comparison between Ivanhoe, Macquarie Park and the City of Ryde (see Table 8) shows Ivanhoe bridges the gap between the population differences in Macquarie Park and the City of Ryde. When compared to Macquarie Park there will be more children at Ivanhoe (13% v. 10%), less people of working age (63% v. 74%), and more people over 50 (24% v. 16%).

The likely characteristics of the future population at Ivanhoe will be affected by the type of dwellings constructed, the high-density environment and the social housing component.

4.2.1 Type of dwellings

Two-bedroom apartments will be predominant within the market dwellings at Ivanhoe, though the market ILUs will be largely one-bedroom. The social housing properties will be an approximate even split between studio/one-bedroom apartments and two-bedroom apartments with the social ILUs being mostly one-bedroom. This bedroom mix drives the lower projected household size for Ivanhoe (1.97) as compared with Macquarie Park (2.01) and Ryde as a whole (2.50).

4.2.2 High density environment

We have examined the characteristics of people living in higher density housing in Sydney to provide insight into the way this influences population characteristics. This examination has drawn on an analysis of the characteristics of apartment dwellers living in urban transformation areas or new higher density developments adjacent to the harbour, (as opposed to apartments across the metropolitan area as a whole), using the examples of Pyrmont, Zetland, Rhodes and Meadowbank.

Specific areas of difference between people living in high density versus those living in Greater Sydney as a whole include:

- » Significantly lower proportions of children
- » A higher proportion of private dwellings that are not occupied
- » A different household structure, with a significantly higher proportion of households comprising couples without children and single persons, and a correspondingly much smaller proportion of households comprising families with children
- » A higher proportion of residents born overseas, with a particularly high proportion born on the Asian continent
- » High rates of labour force participation and high proportions of the workforce engaged in professional or managerial roles
- » Higher median weekly household income, reflecting high levels of workforce participation, high levels of full-time employment and relatively high proportions with tertiary qualifications and in professional / managerial positions.

This profile is reinforced by a recent survey of people living in apartments in Sydney undertaken by the Urban Taskforce Australia², which found:

- » About half of apartments are occupied by owner occupiers and half occupied by renters
- » Renters are predominantly younger adults (under 45 years), while the majority of owner occupiers are over 45 years
- » For both renters and owner occupiers, about two thirds of households are either single persons or couples without children. Families with young children make up around 10-15% of households, but mature families with older children comprise a very small proportion of households (4-7%)

² Urban Taskforce Australia (2015), *Who Lives in Apartments?*, *Urban Ideas* (May 2015)

- » 32% of apartments have only one person living in them, with over half of these in a two or three bedroom apartment.

4.2.3 Social housing

The projected age profile for social housing residents at Ivanhoe is a key reason this area is likely to have a higher proportion of children and people aged 50-84 years old than in the whole of Macquarie Park.

The social housing population will also be culturally diverse with around half speaking a language other than English at home, particularly Mandarin, Cantonese and Korean. There is also likely to be a higher proportion of Indigenous households living in social housing at approximately 1.5% (noting this may be an underestimate as it is based on self-reported data) than in the rest of Macquarie Park.

It is anticipated that a local allocation strategy will be developed for the social housing at Ivanhoe. The strategy will determine the mix of social housing tenants across the two groups identified in Future Directions for Social Housing in NSW:

- » The 'safety net group' – people who require support for an extended period of time
- » The 'opportunity group' – people who can be helped to become more independent so they no longer require social housing and government assistance.

The implementation of this strategy may change the projected population profile of social housing residents in Ivanhoe.

5 Addressing needs for community infrastructure

This section considers how the needs of the future Ivanhoe population for community infrastructure will be addressed, including community facilities, childcare, libraries and cultural facilities, schools, healthcare and residential aged care.

5.1 Approach to provision of community infrastructure

Community infrastructure requirements have been considered in terms of the facilities and services that will be provided within the development, and those provided in the surrounding area and broader district.

Overall, a forecast population of approximately 6,885 people is considered to provide a small catchment able to support a limited range of local level facilities and services within the development. It will not be large enough to warrant the provision of higher order district and regional level facilities and services, and will instead rely on those provided in the wider area, particularly in Macquarie Park.

5.1.1 Council priorities

The City of Ryde's *Section 94 Development Contribution Plan 2007, interim report updated in 2014*, recognises that there is to be substantial growth in the Macquarie Park Corridor from the ongoing development of this significant area but notes that there is no capacity for future residents and workers in the existing library system. To cater for future demand, Council states it will provide a Macquarie Park Learning, Leisure and Library Facility.

The Contributions Plan also identifies:

- » A future shortfall in childcare and proposes Council provide another two new childcare centres together with four additional centres provided by the private sector
- » There is no surplus capacity for arts facilities to cater for likely future demand and a need for gallery and performing space (noting that some needs are met by multi-purpose activity space with appropriate embellishment).

We understand these priorities may be subject to change and that Council is proposing to update its Section 94 Plan and develop a childcare strategy next year. The priorities in the existing Section 94 Plan have therefore been used as a guide.

5.1.2 Standards for provision

In community infrastructure planning, numerical standards have traditionally been used to provide an initial indication of requirements for a given population. They are usually expressed as the number of facilities, places, floor space or land area required for a population of a given size.

In Australia, there is no set of nationally agreed or endorsed standards for community infrastructure for either greenfield or urban renewal areas.

Standards are useful in providing a starting point for identifying community infrastructure requirements. However, a purely mathematical approach to facility planning is not recommended as standards need to be balanced by local social, political and economic conditions, needs and priorities and considered in reference to existing infrastructure in the area. They must be applied with some flexibility and the understanding that services/facilities, design, size, location, staffing and management may alter in response to demographic change in the local community, changing community expectations and improved models of service delivery.

Importantly, the standards should be interpreted in conjunction with the guiding principles for community facilities identified in Chapter 5.1.4.

The City of Ryde's *Section 94 Development Contributions Plan 2007 (interim update 2014)*, provides indicative standards for the provision of community infrastructure.

It is worth noting that the interim update (2014) views the standards listed in the following Table as providing a benchmark and context, noting that new facilities may not always be appropriate, with expansion of existing provision often being better practice.

Table 10 City of Ryde Standards for provision of Council facilities

Facility	Standard	Floorspace requirements
Long day care	1 place per 11 children 0-4 years	3,000m ² site with building of 300-400m ² for a 60 place facility
Youth centre	1 per 20,000 persons or 1 per 3,000 13-19 year olds	300-400m ²
Community centre	1 per 7,000 – 10,000 persons	600-800m ²
Library	District: 1 per 30,000 persons Branch: 1 per 5,000 persons Resources: 1 item per 2.5 persons	1,000m ² 600-700m ² Not applicable
Seniors centre	1 per 30,000 persons	1,000-2,000m ²

Source: City of Ryde S94 Development Contributions Plan 2007 – interim update (2014), p. 27

In addition to the standards outlined in the above table, Elton Consulting typically recommends (as a starting point) a rate of provision of about 80-100m² internal floor area for every 1000 people for Council-owned community centres and community support facilities. This is based on analysis of comparative rates of provision (from a range of local government areas) and derived through testing provision rates on a number of successful projects.

Elton Consulting typically proposes that this 80-100 m²/1000 people rate of provision be distributed across a hierarchy of facilities as follows:

- » 20m²/1000 people for sub-regional level facilities
- » 60-80m²/1000 people for district and local level facilities (combined).

5.1.3 Likely needs

Based on discussions with Council and the likely characteristics of the future population outlined in Section 4, it is likely that the broad needs of the Ivanhoe population will include the following:

- » A high proportion of young adults indicates a need for access to a range of entertainment and lifelong learning activities
- » The predominance of one and two bedroom units indicates the need for spaces for hire for private functions (birthday parties and other private celebrations) as well as spaces to study, read, relax and meet friends outside the home
- » The higher proportion of lone person households highlights the need for public places that promote social interaction and community participation
- » The high proportion of people renting will likely lead to a higher level of turnover, indicating the need for places and activities that enable people to meet others

- » The demographically diverse communities typically associated with in urban infill areas require a variety of social infrastructure and multi-purpose facilities and spaces that cater to a broad range of interests and needs. They also require places that encourage interaction between groups of different ages and backgrounds to strengthen community cohesion
- » The high proportion of people aged over 65 and with a disability, particularly within the social housing resident group, highlights the need for accessible public space and connections to aged care and disability support services.

5.1.4 Guiding principles

It is recommended social infrastructure provision in Ivanhoe be guided by the following principles.

Community infrastructure should:

- » Contribute to the **health, well-being and quality of life** of residents, support their lifestyle needs and choices and encourage the development of social capital
- » Make **best use of existing facilities** in the surrounding area first, through considering options for upgrading, expansion and access improvements that would enable their more intensive use before new facilities are provided
- » Make the most efficient use of limited land and other resources, where appropriate designing facilities and spaces to be **multi-purpose, co-located** and able to accommodate **shared and multiple uses**
- » Encourage clever and innovative use of resources, with a **focus on quality**, rather than quantity of space
- » Contribute to the **identity, activation and vibrancy** of the Precinct, through clustering related facilities to provide focal points that enhance a sense of community, encourage social interaction and create a lively mix of activities
- » Ensure **flexibility** in the design and use of facilities and space, so they can respond and adapt as needs change. Where appropriate, buildings and space should be capable of accommodating a range of activities, rather than designated for single uses or specific target groups that may become outdated as the population changes over time
- » Provide facilities and spaces that are **sustainable**, not only in terms of built form, but also in terms of sustainable ownership, governance, management and maintenance arrangements. This means ensuring viable levels of on-going resourcing, particularly recurrent funding for staff and programs, not just initial capital development
- » Consider how to **benefit the existing local community** as well as the new, through sizing, siting and accessibility of community infrastructure. This also means considering opportunities to address existing shortfalls in facilities, spaces and services, where appropriate
- » Seek **opportunities for partnerships** and private sector funding, to extend the scope of community infrastructure that can be provided.

5.2 Community infrastructure requirements

5.2.1 Community facilities

The new population will need access to spaces for meeting and gathering, for local social, leisure and learning activities and programs and for community and cultural events and celebrations. These needs are typically met in community facilities.

The City of Ryde Section 94 Contributions Plan proposes that a new district-level community centre between 600-800m² floor area per 7,000-10,000 persons will be required to address the future population of the LGA. The estimated future population of Ivanhoe is approximately 6,885. Using the standard outline above the Aspire Consortium is required to contribute one new community centre in Ivanhoe.

The proposal includes a 700m² community hub adjacent to the village green. The community hub will facilitate community inclusion by providing a meeting place for all community members within Ivanhoe and others in Macquarie Park. The design and ongoing management of this facility will be critical to its success and acceptance by the wider community. Council is prepared to provide advice on the design and management of the community hub using its experience as owner and manager of a number of community facilities within the City of Ryde.

The facility should be multi-purpose and adaptable with a range of meeting and activity spaces that are flexible enough to meet the various needs of the population. The space could be used in a range of ways, including for meeting rooms, social events, an Express Library, and the social enterprise planned for the site.

It is important that community space is provided early in the project. If the community hub is not scheduled for early delivery, temporary community centre space could be provided for the incoming community in the interim. This will be important in developing community cohesion and providing access to services from day one of the development.

The proposal includes a 700m² multi-purpose hall with a gymnasium to be co-located with the non-government school. Assuming the school will use the facility on weekdays, it will be available for public use after 5pm on weekdays and on weekends. It will be important to specify this shared use arrangement as a requirement for the sale of the school site. This facility has the potential to address the needs of seniors for recreation and community activity space as well as arts and cultural activities which has been identified as a need in the area.

The residential aged care facility on site will incorporate a wellbeing centre that will provide classes and social events for residents of the facility and the broader community, as well as space for medical consulting rooms.

A 25-metre aquatic facility that can support hydrotherapy and learn to swim programs will also be delivered within the Ivanhoe project.

5.2.2 Childcare centres

A number of different forms of childcare and activities for young children are generally provided in a community, including long day care, family day care, pre-school, occasional care and playgroups. Additionally, services to support families with young children may be provided. While the Australian Childcare Alliance has recently suggested the Ryde LGA will experience an oversupply of childcare places by 2020³, the City of Ryde has noted that the significant increase in residential housing supply in the area will create demand for childcare services.

Current Council standards allow for the provision of one place per every 11 children aged 0-4 within a 300-400m² 60 place childcare centre (on a 3,000m² site). This is a relatively low standard of provision and the City of Sydney, for example, adopts a standard of one place for every two children aged 0-5 years, based upon current levels of demand. Current evidence is that across Australia around one in three children aged 0-4 years attend long day care⁴.

If we use a standard of one place for every three children aged 0-4 years, this suggests a need of 112 places based on a project population of 337 children aged 0-4 years in Ivanhoe by 2036.

The development proposal includes a total of 150 childcare places in two centres on the site at the northeast and northwest corners of the site. The combined floor area of the childcare centres is 1,203m². As a result, there may be a small surplus of childcare places at Ivanhoe.

Importantly the childcare centres will provide an agreed number of subsidised places for children of social housing residents at Ivanhoe.

³ Australian Childcare Alliance (2017), *Submission to NSW Planning – Draft Education and Childcare SEPP can create more childcare oversupply*.

⁴ Baxter, J.A. (2015), *Child care and early childhood education in Australia*, Australian Institute of Family Studies.

The Aspire Consortium also proposes to deliver a family day care scheme during the initial stages of the project to meet demand before the child care centres are developed. The scheme will cater for up to 150 children.

5.2.3 Schools

At present most schools in the Macquarie Park area are at, or near, capacity. Established schools such as the nearby Epping Boys High, Ryde Secondary College and Turrumurra High School have over 1,000 students each with a steady rate of enrolment over the last decade. This is considered to be close to full capacity given these secondary schools have been in operation since the 1960s.

The smaller Arden Anglican School at Beecroft is the closest private school to Ivanhoe with tuition fees ranging from \$5,632 to \$19,572 per annum.

At this stage the Department has not identified the need for another secondary school in the area, however, it is clear the Ivanhoe redevelopment will contribute to increasing demand for schools in the Ryde LGA due to the significant incoming residential population. It is estimated that there will be 261 secondary schoolers (aged 12-17) at Ivanhoe by 2036. This is on top of additional population growth in the area.

Demand for independent non-government schools is based on the socio-economic and religious profile of an area as well as the availability of private schools in the surrounding area. These schools also tend to attract students from a broad catchment area, not just the immediate surrounding area. Independent schools undertake detailed demographic and feasibility assessments before committing to new development areas.

The Aspire Consortium proposes to develop a non-government co-educational high school for years 7-12 on the site that will accommodate up to 1,000 students. The school will be co-located with the multi-purpose centre that includes the hall and gymnasium. It is proposed the school will provide access for out of school hours adult education. Importantly the school will also offer scholarships for disadvantaged students. An agreed number of subsidised places will be made available to residents living in social housing at Ivanhoe on a no fee basis. These places will be advertised to social housing residents at Ivanhoe.

The broader community benefits of providing access to education have been widely acknowledged and include increased literacy rates, improved health outcomes, broader participation in democratic processes, reduced crime and poverty, environmental sustainability and social equity. The specific benefits of providing a secondary school at Ivanhoe include:

- » Greater opportunities for intergenerational interaction, particularly due to the close proximity of the school to the aged care facility
- » Enhanced social interaction between students living at Ivanhoe and others in the Ryde LGA
- » Access for residents to recreational space within the school
- » Greater access to educational opportunities for social housing residents through the provision of scholarships to the school
- » The development of pathways to tertiary education through partnership with Macquarie University
- » Local employment opportunities for people living at Ivanhoe and the surrounding area.

5.2.4 Libraries and cultural facilities

To cater for future demand, Council is planning to provide a Macquarie Park Learning, Leisure and Library Facility with 5,000m² of space within the Macquarie Shopping Centre.

Council's standards suggest a population of approximately 6,885 people would create the need for a new branch library of around 600m². However, the State Library of NSW's floor space benchmark for new libraries is 39m² per 1000 people plus 20% circulation space. Under this standard, a population of 6,885 people would generate a requirement of about 322m² of additional floor space.

Council has indicated that the new library planned for Macquarie Park will serve as a district level library for the Ivanhoe development. There is also an opportunity to deliver an Express Library (50-150m²) within the

community hub to provide residents access to a suite of core public technology including computers, Wi-Fi, an online library and an IT kiosk with access to Council services.

Council is also planning to deliver a Civic Centre and Arts and Cultural Facility (Top Ryde) which will meet the demand for regional level arts and cultural space for the future Ivanhoe population. Local arts and cultural activities could be accommodated in the community centre.

5.2.5 Healthcare and residential aged care

The future population at Ivanhoe will continue to access the tertiary hospital network provided through the Northern Sydney Local Health District as well as the private hospital located within Macquarie University. Health facilities and services are implemented in accordance with the Local Health District's Strategic Plan.

The City of Ryde has identified need for new Home and Community Care facility in the area to meet the demand of the future population. Site criteria include proximity to shops, services, community facilities and public transport, and so such facilities should be located close to district and neighbourhood activity centres.

The Ivanhoe proposal includes a 120 bed residential aged care facility with a wellbeing centre providing coordination of in home care packages for all residents as well as classes and social events. There will also be approximately 140 social housing ILUs and around 100 private ILUs provided on the site to provide opportunities for residents to age in place.

5.3 Summing up

This Chapter has considered the likely needs of the Ivanhoe population for community infrastructure and the ways in which those needs will be met.

The following points relate to community infrastructure requirements for Ivanhoe:

- » The City of Ryde Section 94 Contributions Plan proposes that a new district-level community centre between 600-800m² floor area per 7,000-10,000 persons will be required to address the future population of the LGA. The forecasted population of approximately 6,500 – 7,000 requires the delivery of one community centre approximately 600-800m² in size. The provision of the community hub and multi-purpose community facility will meet this need.
- » Council has indicated the new library planned for Macquarie Park will serve as a district level library for the Ivanhoe development. There is also an opportunity to deliver an Express Library (50-150m²) within the community hub to provide residents access to a suite of core public technology including computers, Wi-Fi, an online library and an IT kiosk with access to Council services.
- » There are over 20 child care and early learning centres located within Macquarie Park and Marsfield. None are currently located in Ivanhoe. It is estimated there will be approximately 337 children aged 0-4 years in Ivanhoe by 2036 creating a need for 112 long day care places. The provision of two 75 place childcare centres will meet this need and may create a surplus within Ivanhoe.
- » The Ivanhoe proposal incorporates a new independent secondary school for 1,000 students. The forecast number of secondary schoolers in Ivanhoe does not trigger the need for a standalone school on the site, but surrounding secondary schools are approaching capacity and there are clear social benefits in providing a secondary school at Ivanhoe.
- » Ivanhoe is well serviced by private medical centres located in Macquarie Park, many of which offer bulk billing. There are a number of public health services located within the City of Ryde, however they are located in nearby suburbs. The proposal includes a 120 bed residential aged care facility with a wellbeing centre. There will be approximately 140 social housing ILUs and 100 private ILUs provided on the site.

6 Addressing needs for open space and recreation facilities

This section outlines the likely needs of the Ivanhoe population for open space, sporting and recreation facilities and the ways in which those needs will be met.

6.1 Approach to provision of open space and recreation facilities

The provision of high quality open space in urban renewal areas is key to creating liveable higher density environments. Higher density living means that residents rely on public open space in a different way than in less dense settings – activities which might be undertaken in backyards in suburban settings are often carried out in public space in higher density environments. Open space is used by different people and different population groups for a wide range of leisure and recreation activities. In the urban renewal context it is particularly important to gain an understanding of the future community and what their key needs for open space are likely to be.

In order for Ivanhoe to support healthy, active lifestyles and meet the needs of the future community, including students at the proposed school, it is important to understand key trends in open space and recreation provision and the future population's likely preferences for its use to gain an indication of the demand for open space and recreation facilities.

6.1.1 Trends

A range of data suggests there have been important changes in the ways in which people participate in physical activity for both leisure and sport. Key trends in physical recreation participation and facility use summarised in the Australian Sports Commission's report *The Future of Australian Sport* (2013) include:

- » A movement from organised, team sports to a focus on individual fitness
- » Substantial growth in indoor sport and recreation, and greater demand for indoor facilities that are available all day, every day of the year
- » Flexibility in the times that people enjoy their recreation, as demands on time increase and work practices change

Open space planning for the Ivanhoe development will need to ensure that the quality and design of open space reflects these lifestyle trends.

6.1.2 Council priorities and plans

Through discussions with Council and a review of relevant Council strategies and plans, we have identified a number of gaps in open space and recreation facilities for the LGA and Macquarie Park more specifically. These include:

- » Indoor facilities receive high levels of use, especially amongst the culturally and linguistically diverse communities
- » Sports fields in the Macquarie Park area are well used and currently at capacity. Improvements to sports fields to achieve greater capacity out of existing reserves is particularly important for the Macquarie Park area

- » There is a need to optimise access to open spaces and the existing recreational network by creating and improving walking and cycling links
- » There is a need for improved facilities for young people (skating, hang out spaces, etc)
- » There is a need to provide more variety in park and open space settings and character.

Council has received \$5 million in funding from the NSW Department of Planning and Environment Precinct Support Scheme to link and enhance parklands and open spaces along the Shrimptons Creek Corridor. This upgrade will include:

- » Improved public access between parks
- » Upgraded seating, signage and lighting
- » An amphitheatre and stage for community events
- » Fitness stations
- » Upgraded playground and park improvements in Elouera Reserve
- » New amenities building in Wilga Park
- » Improved water quality and natural vegetation along Shrimptons Creek
- » Upgraded shared user path between Waterloo Road and Wilga Park.

The City of Ryde has also recently upgraded ELS Hall Park to include a new synthetic, multi-purpose playing surface, suitable for AFL, soccer and cricket. Council has indicated through discussions that there are further upgrades planned for this park. The Aspire Consortium could consider making financial contributions through a VPA to assist in the upgrade of this facility.

6.1.3 Participation data

The most recent sports participation data is contained in the results of the Australian Bureau of Statistics *2013–14 Multipurpose Household Survey* (ABS 2015). For people 15 years and over in NSW, the sport and recreation activities with the highest participation rates in NSW are shown in the following table:

Table 11 Most popular physical recreation activities in NSW by participation rate, over time

Activity/sport	Participation rate 2005-06 (%)	Participation rate 2009-10 (%)	Participation rate 2011-12 (%)
Walking	22.5	21.2	23.6
Fitness/gym	12.3	13.2	16.6
Swimming/diving	5.8	4.1	8.6
Jogging/running	4.6	6.8	8.1
Cycling/BMXing	5.6	5.3	6.1
Golf	5.2	4.2	5.3
Tennis	5.8	4.1	4.7
Soccer (outdoor)	4.1	3.4	3.5
Bushwalking	3.6	2.7	2.8
Football sports	N/A	N/A	2.7
Yoga	2.1	2.1	2.2

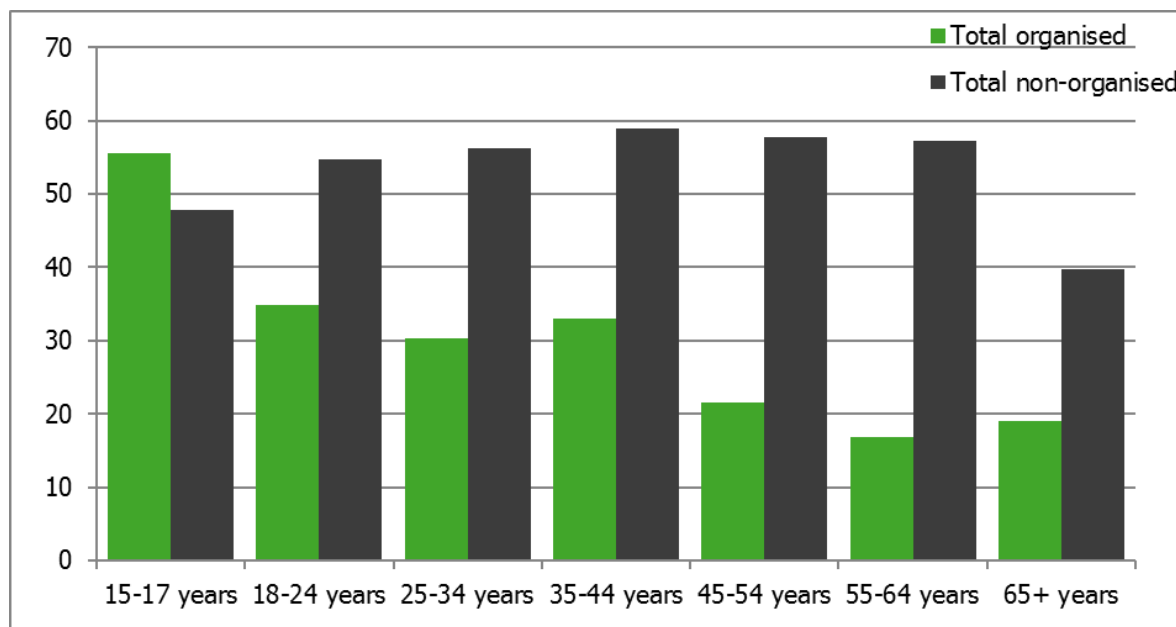
This data shows that the most participated in activities are the more informal and unstructured activities. These activities not only have higher participation rates in the most recent data (2011-2012), but the general trend from the 2005-2006 data indicates they are increasing in participation levels.

The City of Ryde's *Integrated Open Space Plan 2012* shows a strong correlation with these patterns of participation when compared with statistics available for participation in the City of Ryde. The Plan shows that the highest participation across the City is in informal activities, including walking, bushwalking, cycling and informal open space uses (e.g. runabout, play, picnics, BBQs, etc).

The above participation data suggests that emphasis should be placed on the provision of spaces and places for unorganised, unstructured recreation and leisure including both active forms such as walking, running and gym activities. Also important are places for relaxation, contemplation, pet exercise and general social interaction.

The following table based on 2011 – 2012 ABS participation in sport and physical recreation data also indicates that involvement in organised sport generally decreases with age. Critically, those aged 15-17 years were the only group which participated in organised physical activity more than non-organised physical activity. This information, considered with the likely age profile of the Ivanhoe population, reinforces the importance of non-organised physical activity and the need to ensure that adequate space is provided for those more informal, unstructured activities.

Figure 5 Type of participation in physical activity in NSW 2011-12 by age



ABS Participation in Sport and Physical Recreation, Australia, 2011-12 – New South Wales

While the population projections indicate lower levels of children living in Ivanhoe in the future compared to the City of Ryde LGA, (particularly children aged 5-17 years), the projections still show larger proportions of children aged 5-17 years when compared to Macquarie Park (see Section 4). This suggests it will be important to consider the needs of this age group when planning for active and passive recreation.

The ABS *Survey of Children's Participation in Culture and Leisure Activities, Australia, 2012* provides data in relation to the participation of children in sport and recreation across Australia. This data also indicates trends that may inform the planning of sport and recreation infrastructure for Ivanhoe. Key findings from this survey are outlined below.

Amongst Australian children (5-14 years) in 2012:

- » Of boys participating in organised sport, the most popular sports were outdoor soccer (22%), swimming/diving (16%), Australian Rules football (15%) and basketball (9.2%)
- » Of girls participating in organised sport, the most popular sports were dancing (27%) swimming/diving (19%), netball (16%) and gymnastics (8%)

- » 60.2% of all children participated in organised sport. Participation decreased from 63% in 2009.

The survey also examined participation in the informal/non-organised activities of bike riding, skateboarding, rollerblading and scooter riding and identified an increase in participation in these activities by both boys and girls.

6.1.4 Guiding principles

Based on the likely needs of the population and best practice open space provision research, the following principles have been developed to guide the design and delivery of open space in the new Ivanhoe.

Open spaces in Ivanhoe should:

- » Be **meaningful** and **appealing** to the community. They should integrate the geographic and heritage features of the precinct, reflect and complement the natural and visual character of the local topography, vegetation and riparian corridors, and capitalise on features unique to the area, such as views from and to key features.
- » Be **diverse, multi-functional** and **adaptable** to changing needs to allow a range of users to enjoy them. Open spaces should maximise joint use and co-location and enable a range of activities and different users to occupy and enjoy the space. Open spaces should cater for all age groups, genders, different cultural backgrounds, physical abilities and levels of socio-economic status. This means incorporating universal access principles and incorporating features such as shade and shelter, BBQs, seating, lighting and pathways. In a good open space you can enjoy a range of experiences both individually and with others
- » Encourage **social interaction**, recognising that the public domain provides a focal point for meeting and gathering and design features should encourage both incidental and planned social interaction and cultural activity. A good open space is a place where you can meet your neighbours and where even when by yourself you feel like you a part of the community
- » Promote **health and wellbeing**, through encouraging physical activity, providing spaces for rest and relaxation and enhancing a sense of safety and personal security through the application of Crime Prevention through Environmental Design (CPTED) principles. Chief among these is the principle of promoting natural surveillance of open space areas, with parks having an active frontage with good surveillance from surrounding uses and nearby movement corridors
- » Be **well connected** with its surrounding area and uses. Open space should have a strong relationship with the surrounding streetscape. Open space should be highly visible, accessible to all and recognisable as a public and community space. In a well connected open space you can see where you are and where you are going. To make access to public open space convenient, easy and safe, open space areas should be linked and connected physically to each other and to the surrounding movement network. Links should include off-road paths, shared paths and cycle ways that connect key destinations and open spaces
- » Add to the **activity** and **vibrancy** of the street. Edge activation is critical to the creation of active and vibrant spaces. Strong relationships with compatible adjoining uses adds to the activity, surveillance and vitality of public open space. In a good open space you can see that there are other people around, people are enjoying themselves and the company of others, there are places to meet and interact, to play, explore, recreate and unwind
- » Provide **equity** and **accessibility**. Open space should be provided to ensure public access, and it should provide recreation opportunities that are inclusive of all members of the community. It is important to ensure that all public spaces are visibly and evidently public in nature to encourage use by all members of the community. A good open space includes a variety of user groups and is well used throughout most hours of the day
- » Provide a **comfortable** and **safe** place that is not too exposed to unpleasant noise, wind, heat, rain, traffic or pollution. It can be used without having to pay and is a space where people can be themselves and feel included as part of the community. In good open space people feel comfortable to walk through, sit in, stand, play, talk, read or just relax and contemplate

- » Embody **sustainability** (environmental, social, cultural and financial). This includes to protect and conserve watercourses, water bodies and wetlands and incorporate natural areas and riparian corridors into the open space corridors where possible. It also includes to integrate the network of open space with stormwater management and water-sensitive urban design.

6.1.5 Determining quantum of provision

The City of Ryde's *Integrated Open Space Plan* notes that 'while formulae have existed for many years for calculating quantum of open space per head of population (e.g. NPFA standard of 2.48ha/1000 persons) these are generally deemed too simplistic in contemporary planning practice and a more site and context responsive assessment based on land use types, population, geography and accessibility tender to yield more sustainable outcomes'.

The City of Ryde has adopted an approach to open space planning which considers a range of parameters beyond total quantum, including detailed open space assessment at a suburb level, accessibility to open space and understanding community needs and demand.

The only firm standards contained in the Plan are:

- » Local parks should be a minimum of 0.2ha to permit a variety of recreational uses. However, the Plan identifies 0.5ha as optimal for local open spaces.
- » 400m (10 minute walk) walking distance should be maximum distance / time between all residences and some form of public open space in urban areas.

Appendix 4 of the City of Ryde's *Integrated Open Space Plan* provides an update on the population projections and new open space supplied or proposed within Macquarie Park to October 2016. This update identifies the additional open space that is to be delivered through the implementation of the Priority Precincts and Planning Proposals in the Macquarie Park Corridor, including 0.45ha (4,500m²) of open space required for Ivanhoe. Through discussions with Council, it is understood that this 4,500m² should be some form of active open space.

The *City of Ryde Section 94 Development Contributions Plan 2007 (Interim Update 2014)* takes a strategic approach to the levying and apportionment of section 94 contributions for recreation and open space facilities. This approach is based on:

- » Reflecting anticipated demand and preferences
- » Considering quality of open space as well as quantity
- » Matching existing levels of provision where possible or otherwise increasing carrying capacity to cater to demand
- » Being compatible with the corporate and strategic aims of council
- » Being compatible with current trends in open space planning
- » Meeting accepted accessibility criteria.

The Plan also states that 'Council has determined that an approach focussed largely on increasing the carrying capacity of the existing open space network (as opposed to large-scale acquisition) is the preferred approach to satisfying future open space and recreation demand' due to the high costs of land acquisition.

Another mechanism utilised for determining the amount of open space is the percentage of land area approach. The following table shows the range of percentages used in different urban renewal projects and the open space area if applied to the Ivanhoe development.

Table 12 Percentage of land area open space – urban renewal sites

Place	% land area open space	Open space area if applied to Ivanhoe
Harold Park	36	2.8ha

Place	% land area open space	Open space area if applied to Ivanhoe
North Eveleigh	14	1.1ha
Green Square	10 – 14	0.8 – 1.1ha
Barangaroo South	10.5	0.8ha
DOP 2010 guidelines	9 – 15	0.7 – 1.2ha

The above table indicates that taking a benchmarking approach of comparable urban renewal sites, a minimum of 0.7ha of open space would be required for the Ivanhoe development. The Ivanhoe proposal incorporates approximately 2.05ha of open space or approximately 25%.

6.1.6 Open space for educational facilities

Educational facilities also need to incorporate open space for student play and recreation. The Department of Planning and Environment notes in the *Draft Childcare Planning Guideline*⁵ that education and care service premises must provide a minimum of 7m² of unencumbered outdoor space per child. This would require a total of 1,050m² of open space for the two childcare centres on site.

There are no relevant standards for the proposed private vertical school at Ivanhoe. The Department of Education uses a standard of 10m² of open space per student⁶ for government schools. This includes formal and informal play space like ovals, lunch spaces, breakout spaces and games courts. However, existing private vertical schools, such as St Andrew's Cathedral School and McDonald College Strathfield, do not meet this standard.

6.2 Open space and active recreation requirements

This chapter identifies open space and active recreation requirements for the future Ivanhoe, based on discussions with Council, the findings of the studies outlined above and the likely characteristics of the future population outlined in Section 4. Some of these needs will be satisfied by local open space and facilities to be provided within the Ivanhoe site, while others will be addressed by accessing facilities in the wider district and more broadly in the region.

6.2.1 Passive open space

Ivanhoe's future population will be diverse including people from different socio-economic backgrounds, cultural backgrounds and age groups. Passive open space in Ivanhoe should provide a diversity of recreation settings and opportunities for all age groups and all abilities.

It is also important to ensure that some kind of useable open space is located within 400-500m of residents.

The design of the open space should also encourage community interaction. The potential for less family households, more single person households and a lack of private space for social gatherings increases the importance of spaces that encourage social connection and overcome social isolation. The Ivanhoe development will need to incorporate a variety of spaces including smaller and more intimate spaces that foster conversation-based interaction and larger recreation parks that provide a focus for community activities including play, bike riding, picnics, barbecues and social gathering opportunities. Off leash exercise areas for dogs also provide opportunities for informal community interaction.

⁵ NSW Department of Planning and Environment, 2017, *Draft Child Care Planning Guideline*, <http://www.planning.nsw.gov.au/~media/Files/DPE/Guidelines/draft-child-care-planning-guideline-2016-12.ashx>.

⁶ NSW Department of Education, 2017, *Mixed Use Developments, School Design Requirements – A Guide for the Development Sector*.

The large proportion of adults suggests likely high demand for lower impact and flexible physical activity opportunities such as walking and bike riding. Linear connections and a network of walking and cycling tracks should be provided to support the potential high participation in walking and provide links to key destinations and recreation nodes.

Given the proportion of smaller dwellings proposed, there will be demand for outdoor areas for celebrations and larger gatherings e.g. extended family and group picnics, children's birthday parties.

The higher proportion of children aged 5-17 years when compared to Macquarie Park suggests the need for playgrounds, parks and public spaces that are designed to be friendly to young people and allow for informal games such as half basketball courts, rebound walls, and other outdoor activity opportunities including bike tracks and skate parks. Playgrounds encourage children to engage in non-organised physical activity and provide important community meeting places that encourage social interaction and assist social cohesion. These playgrounds should collectively provide a range of play environments for children of various ages and a range of play experiences. Based on Council's Children's Play Implementation Plan the future population of Ivanhoe create demand for at least a local level playground.

Opportunities to enjoy bushland, water and other natural settings, for picnics, bushwalking and as spaces for reflection, rest and relaxation will also be valuable to broaden recreation opportunities.

Based on the participation data outlined in Section 6.1.3, it can be expected that the greatest demand for open space from the future population will be for passive, unstructured open spaces. This is based on the fact demand for active recreation space decreases significantly with age, particularly after age 17. Chapter 4 shows that just 13.2% of the population will be 17 or younger, with high proportions aged 18 to 24 (20.5%), 25 to 34 (23.2%) and over 50 (23.8%).

The proposal seeks to address these requirements through the provision of approximately 2.05 hectares of public open space within Ivanhoe, including:

- » A Village Green Recreational Oval and Playground of 3,300m², including formal and informal gathering spaces
- » A Forest Playground of 3,900m²
- » Improvements to the Shrimpton's Creek Corridor including 5,137m² of regenerated forest, running and cycle trails, exercise stations and shaded areas.
- » 2,195m² of forest thresholds that provide opportunities for small gatherings, exercise and access to the forest beyond.
- » 3,533m² of ecological corridor
- » 1,046m² school garden
- » 1,431m² of town square space.

Options are also being considered for the provision of community gardens within private open space on the site.

6.2.2 Active recreation

Sports fields

Good access to multi-purpose playing fields that are suitable for a variety of field sports, and able to accommodate both junior and adult sporting activities will be required to accommodate the demand of the new Ivanhoe population.

As discussed in Section 6.1.2 existing sports fields in the Macquarie Park area are already being used to capacity and have limited ability to absorb the additional demand likely to be generated by the Ivanhoe development. Council staff have advised their preference that this development will meet its own needs for active open space, rather than rely on facilities in the surrounding area.

Based on an estimated population of approximately 6,885 people, Council has advised that they would require a full sized sports field located in Ivanhoe, requiring a site of around 6,000m² (with a minimum

dimension in one direction of 100m) or a junior level soccer field if a full sized field cannot be accommodated (around 4,500m² plus amenities and parking). However, there is limited capacity to provide a sports field of this size on the site. Additionally, a single sports field on site is likely to be less useful to sporting organisations than a facility with multiple fields. It may therefore be preferable to embellish existing sporting facilities in the area such as ELS Hall Reserve.

The Aspire Consortium has signalled that it is willing to make financial contributions to improve local sports fields such as Wilga Reserve and ELS Hall Reserve and intensify their use. Council has indicated there are opportunities to increase existing capacity at ELS Hall Reserve although they are limited. It will be important to improve access to ELS Hall Reserve by providing better connections between Ivanhoe and active open space opportunities at the Reserve.

Outdoor sports courts

Courts for sports such as tennis and netball are usually provided in clusters to meet district competition needs, rather than as single courts scattered throughout a development.

While the proposed population will not be large enough to warrant enough courts to create a district cluster within the site⁷, there may be opportunities for shared use of the rooftop court facilities within the school. It will also be important to consider providing some facilities for informal games (e.g. half basketball court) within local parks, to provide active recreation opportunities for young people.

The closest outdoor courts facility is located at Macquarie University. These courts are available for hire to the community and are well utilised. The indoor facility proposed for the development will also help meet some of the demand for court sports.

Indoor recreation and aquatic facilities

The development will also create demand for aquatic facilities and indoor courts for sports and activities such as dance, martial arts, yoga, fitness, gym.

As noted in Section 6.1.2 indoor facilities receive high levels of use and are in high demand across the LGA especially amongst culturally and linguistically diverse communities. The development proposal includes the provision of an indoor recreation facility which is proposed to function as a shared facility between the community and the high school. This facility should include spaces to accommodate a range of indoor activities and the design should support shared use arrangements.

Council has indicated that a 50-metre aquatic facility will not be required within the Ivanhoe site and instead the population will rely on existing facilities in the surrounding areas including the Macquarie University facility for competition sized aquatic facilities. Council has expressed a preference for a 25-metre facility that can accommodate hydrotherapy and learn to swim classes. This is incorporated within the redevelopment proposal.

6.2.3 Educational facilities

A mix of passive and active open space will be required for the 1,000 student high school and the two 75 place childcare centres. Current NSW Government standards indicate the need for 1,050m² for the two childcare centres (525m² in each facility). There are no relevant standards for private vertical schools.

Council has highlighted the demand that will be generated by the high school as a key reason for the on-site provision of a sports field. However, existing private vertical schools, like St Andrew's Cathedral School and International Grammar School in Sydney, do not provide sports fields onsite. Both inner city schools include large rooftop play areas including facilities such as cricket nets and basketball courts. But for larger sporting facilities both schools use the nearby Wentworth Park, university facilities and the Ian Thorpe Aquatic

⁷ Based on City of Sydney's *Open Space, Sports and Recreation Needs Study* 2016 provision rate of 1 full-sized outdoor sports court per 2,179 people

Centre⁸. For facilities that are further away, the schools provide buses to transport the students to the facilities.

It is therefore expected the school would include some of the required open space within the school site, including the provision of some active recreation space (basketball courts, cricket nets etc) on the school building rooftop, the school playground, and at the podium level. However, as there is limited capacity to provide a full sized sports field on the site, it may therefore be preferable to embellish existing sporting facilities in the area such as ELS Hall Reserve to accommodate use by the school.

The school would also incorporate passive open spaces in the school garden and within the building itself. The school would still require access to other secure open space for lunchtime and outdoor classroom activities. This could be provided at the village green and/or the parkland around Shrimpton's Creek.

The two childcare centres will also provide an estimated 1,400m² of outdoor area (700m² each) for children. Importantly, the centres would also have ready access other open spaces within the site and the surrounding area, including the forest playground.

6.3 Summing up

This Chapter has considered the likely needs of the Ivanhoe population for open space, sporting and recreation facilities and the ways in which those needs will be met.

The following points relate to open space requirements for Ivanhoe:

- » While Council has not adopted a quantum of open space per head of population approach to open space planning, benchmarking against comparable urban renewal developments in Sydney indicate a minimum of 0.7ha of open space for Ivanhoe. Proposed provision at Ivanhoe is approximately triple this amount at 2.05ha.
- » The Ivanhoe proposal meets the only firm standards contained in the City of Ryde's *Integrated Open Space Plan* that:
 - > Local parks should be a minimum of 0.2ha to permit a variety of recreational uses. The Plan identifies 0.5ha as optimal for local open spaces
 - > All residences should be a minimum of 400m (10 minute walk) walking distance from some form of public open space in urban areas.
- » The project has the capacity to provide some active open space (basketball courts, cricket nets etc) on the school building rooftop, the school playground, and at the podium level. However, as there is limited capacity to provide a full sized sports field on the site, it may therefore be preferable to embellish existing sporting facilities in the area such as ELS Hall Reserve to accommodate use by the school.
- » The project also has the capacity to provide the passive open space required for educational facilities with an estimated 1,400m² of outdoor area for the two childcare centres and options for delivering passive open space for the high school.
- » Based on the participation data outlined in Section 6.1.3 which suggests participation in active recreation significantly decreases after age 17, it can be expected that the greatest demand for open space from the future Ivanhoe population will be for passive, unstructured open spaces, noting that the majority of the population are between 18 and 34, and a significant proportion of social housing occupants are likely to be aged over 60. This suggests the need for lower impact and flexible physical activity opportunities such as walking and bike riding. Linear connections and a network of walking and cycling tracks should be provided to support the potential high participation in walking and provide links to key destinations and recreation nodes.
- » Due to the diverse nature of Ivanhoe's future population, it will be critical that open space in Ivanhoe provides a diversity of recreation settings and opportunities for all age groups and all abilities. The design

⁸ <http://www.smh.com.au/national/non-government-schools/innercity-facilities-and-culture-add-value-20140226-33iyt.html>

of the open space should also encourage community interaction, with smaller spaces that foster conversation-based interaction and larger recreation parks that provide a focus for community activities including play, bike riding, picnics, barbecues and social gathering opportunities. Off leash exercise areas for dogs also provide opportunities for informal community interaction.

- » While the greatest demand for open space will most likely be for passive, unstructured open spaces, Council has indicated the need for either a full sized sports field (approximately 6,000m²) or a junior sized field (4,500m²) to be accommodated on the Ivanhoe site. There is limited capacity to provide a sports field of this size on the site. Additionally, a single sports field on site is likely to be less useful to sporting organisations than a facility with multiple fields. It may therefore be preferable to embellish existing sporting facilities in the area such as ELS Hall Reserve.
- » There will also be demand for courts for sports such as netball, basketball and tennis. While the proposed population will not be large enough to warrant enough courts to create a district cluster within the site, there may be opportunities for shared use of the rooftop court facilities within the school. It will also be important to consider providing some facilities for informal games (e.g. half basketball court) within local parks, to provide active recreation opportunities for young people. The indoor facility proposed for the development will also help meet some of the demand for court sports.
- » Council has also indicated a desire to see a youth recreation hub with a mix of playgrounds, parks and public spaces that are designed to be friendly to young people and allow for informal games e.g. half basketball courts, rebound walls, and other outdoor activity opportunities such as bike tracks.

APPENDICES

A City of Ryde – Open Space Hierarchy

Hierarchy	Objectives	Preferred Uses/Functions/Facilities	Accessibility	Preferred Size (Ha)
Level 4	<p>Local open spaces cater for passive recreation for residents within walking distance.</p> <p>These spaces also contribute to the character and identity of the local area.</p>	<ul style="list-style-type: none"> » accessible to all residents within their immediate locality » passive un-irrigated area » low key planting » shade (trees, not shelters) » seating (natural or bench) » play equipment catering primarily for junior play opportunities (0-6yrs) and not all parks » paths only as required to access park and seats/play » no organised sport 	<p>Within a maximum of 400 metres actual walking distance or 10 minutes walking time</p> <p>No on-site parking</p>	<p>Min 0.2ha and usually up to 0.5ha</p>
Level 3	<p>Level 3 open space caters for broader population catchments and provides convenient access to passive and active recreation opportunities for local residents of all age groups.</p> <p>These open spaces attract greater levels of use, encourage longer stays and contribute to the identity and character of the local area.</p>	<ul style="list-style-type: none"> » play spaces » sports facilities that accommodate informal and or junior sport training with no permanent sports infrastructure nor floodlighting » picnic / low key BBQ facilities and shade/tables » informal active areas with passive elements for family recreation including kickabout » potentially toilets, but preferably these would be in adjoining building in street » other possible uses may include: <ul style="list-style-type: none"> > community gardens > community / public art > dog off leash exercise areas 	<p>1 km actual walk or 15-20 minutes walking time</p> <p>No on site car parking but preferably close to public transport e.g. nearby bus stop</p>	<p>Min 0.5 ha and preferably up to 1 ha</p>

Level 2	<p>Open spaces are larger and provide for a variety of active and passive recreation needs of the residents for the City of Ryde.</p> <p>These open spaces can accommodate large group activities, organized sports and offer opportunities for cultural expression and environmental education.</p>	<ul style="list-style-type: none"> » play spaces for all ages » sports facilities that accommodate multiple sports and hard floodlighting, seating, change rooms and canteens » courts with supporting infrastructure such as cultural and civic spaces for events and or ceremonies » specific areas of interest including natural areas, bushland and beaches and riverside settings. » single and group picnic areas » park amenity buildings. » other possible uses may include: <ul style="list-style-type: none"> > community gardens and nursery > community / public art and other interpretative items > youth spaces including multi use areas and skate > facilities > dog off leash exercise areas > on and off-street car parking areas > boat ramps, river jetties and access to the River for water sports 	<p>Within 5kms or 10-15 min drive from all residents. Readily accessed by public transport and with some limited on site parking to reduce day-to-day impact on adjoining streets</p>	<p>Min 1.0 ha and usually up to 2-5 ha</p>
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Level 1	<p>Level 1 open space provides a variety of active and passive recreation opportunities for the residents of the City of Ryde and visitors to the City. These open spaces are commonly large in size and can accommodate large community activities, organized sports and offer opportunities for cultural expression and environmental education.</p> <p>These spaces may provide unique recreation opportunities or landscape settings that are considered a regional attraction. In some cases, especially where environmental or cultural heritage values are high, these spaces may not be large but may still be a regional drawcard.</p>	<ul style="list-style-type: none"> » large children's play areas that may include adventure play » and inclusive play » regional sports facilities that accommodate multiple sports and » hard courts with supporting infrastructure such as floodlighting, » grandstands, change rooms and canteens. » cultural and civic spaces for large community events and or ceremonies » areas of natural significance » areas of open space for specific events that attract local and regional tourism » single and group picnic areas. » other possible uses may include: <ul style="list-style-type: none"> > community and sports centres > food and beverage opportunities that may include, kiosks, cafes and or restaurants > community / public art and other interpretative items > youth spaces including multi use areas and skate facilities > dog off leash exercise areas > on and off street car parking areas > boat ramps, river 	<p>Between 30 and 90 minutes travel by car or public transport.</p> <p>Access by public transport should be practical and site will contain significant on-site parking, often in more than one car park</p>	<p>Usually 10 Ha or more, but if a particular feature (e.g. Heritage Property) could be much smaller</p>
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B City of Ryde - Classification of Community Buildings

Category	Description
Neighbourhood Community Facility	<ul style="list-style-type: none"> » Single purpose facility » Primarily the types of facilities that Ryde has now » Targeting immediate and surrounding suburbs. - Locating usually only one organisation / service » Usually does not contain halls, only small meeting rooms that the community and smaller community organisations can utilise » Usually quite small, not located near a key transport node, not well equipped, not able to address multiple needs » Usually have higher management and maintenance costs associated with them » For more isolated areas of the LGA, a neighbourhood community building may provide a key connection point within the community, and an effective means of delivering some local services.
District Community Facility	<ul style="list-style-type: none"> » Multi-purpose facility » Targeting a range of suburbs across the LGA » Locating a range of services, including a hall and general meeting space Located in a key centre, near a key transport node and a retail / commercial hub » Multi-purpose spaces and flexible design » Multiple services and activities, comprising a service hub for the community. - Accommodation for a number of service providers » Provision of a hall and general meeting / activity space » Often contains retail or commercial space to offset the cost for Council » Can also include public amenities such as toilets, changing facilities, bike racks, lockers etc.
Regional Community Facility	<ul style="list-style-type: none"> » Targeting the whole LGA and wider » Located near a key transport node and preferably in a key centre » Usually has a specific purpose (e.g.: sport, cultural etc)

Source: City of Ryde Community Facilities Plan 2010

The MUP is at the northern end of the Macquarie Park Corridor and is focused on Macquarie University railway station and Macquarie shopping centre. The MUP was planned to deliver up to 5,800 new homes by 2031 and includes major projects on the Macquarie University campus and within the Macquarie shopping centre (owned by AMP).

In addition to the Ivanhoe Estate, the MUP includes:

Forming the southern boundary of the MUP, this creek corridor and the open space areas along it provide important amenity and recreation areas that are important to the current and future for residents and workers in the precinct. The City of Ryde (Council) has prepared a Plan of Management for Shrimptons Creek and a masterplan for improvements to Wilga Park. Funding of \$5 million provided through the NSW

Government's Precinct Support Scheme will assist Council with the early delivery of these works. The works are due to be completed by mid-2018.

Macquarie Centre

Council has been negotiating a Voluntary Planning Agreement with AMP, owners of Macquarie Centre, for a large new multi-purpose hub as part of its future redevelopment. This facility will include a regional library and creative hub, for use by residents of the wider area.

The NRSP is located adjacent to North Ryde Station and comprises the Station Precinct (south of Delhi Road) and NSW's Lachlan's Line (north of Delhi Road). This precinct was rezoned in 2013 with the potential to deliver 3,900 new dwellings by 2031 at two locations:

Lachlan's Line

Lachlan's Line is an UrbanGrowth NSW housing development. Upon completion, the area will have around 2,700 apartments and will house around 5,000 new residents. Civil construction works at Lachlan's Line finished in 2016. There will be ongoing development of apartments and mixed-use precinct from 2017 through to 2019.

North Ryde Station

To the south of Delhi Road and North Ryde station, the following developments are approved:

- » a mixed-use development at 1-7 Delhi Road, next to North Ryde Station, containing 380 apartments in 4 buildings up to 14 storeys
- » a mixed-use development near North Ryde station, at 27-37 Delhi Road, known as 'Ryde Garden' will contain 830 residential apartments in 3 buildings up to 27 storeys.

The MUP and NRSP Priority Precincts provide context and residential communities to support any future growth within the MPIA.

C Extended policy context

The key State Government, Local Government and Macquarie Park Corridor studies and policies affecting the Ivanhoe Estate Redevelopment are summarised below.

C-1 State Government Policy

Future Directions for Social Housing in NSW Strategy

The NSW Government's *Future Directions for Social Housing in NSW* (Future Directions) sets out the pathway for social housing over the next 10 years. It is the blueprint for the role of the Department of Family and Community Services, and within it the Land and Housing Corporation (LAHC), in supporting the State's social housing system. The strategy looks at how to assist tenants transition out of social housing into housing independence. Future Directions is underpinned by three interconnected strategies:

- » Significant expansion and redevelopment of stock through partnerships with private sector developers and finance
- » Transferring significant tenancy management responsibility to non-government housing providers
- » "wrap-around" services to support tenants build their capabilities and take advantage of the economic opportunities.

It aims to achieve the following outcomes:

- » Increase successful transitions out of social housing by 5%
- » Increase the proportion of young people who successfully move from specialist homelessness services to long term stable accommodation by 10%.

Future Directions is supported by Social and Affordable Housing Fund which will provide ongoing financial support to deliver access to 3,000 social and affordable houses in its first tranche. Success of Future Directions lies in its ability to collaborate with the private sector, the not for profit sector and all levels of government.

This strategy focuses on need by identifying two broad groups of social housing tenants:

- » The 'safety net group' – people who require support for an extended period of time
- » The 'opportunity group' – people who can be helped to become more independent so they no longer require social housing and government assistance.

The Ivanhoe redevelopment project is the first to be delivered under the Future Directions program. The project will demonstrate a collaborative approach to service delivery between the public (LAHC) private (Fraser and Citta) and not for profit (MAH) sectors to deliver better outcomes for social housing tenants and those on the waiting list. At Ivanhoe 15% of social housing dwellings will be targeted to people from the 'opportunity cohort'. A Local Allocation Strategy will be developed to determine the distribution of social housing tenants across the cohorts.

Communities Plus

Under the Future Directions strategy LAHC is delivering the Communities Plus program in order to grow the social housing portfolio. The program will deliver up to 23,000 new and replacement social housing dwellings, 500 affordable housing dwellings and up to 40,000 private dwellings.

Communities Plus redevelops land by engaging private sector developers such as Fraser and community housing providers such as MAH to design, fund and build social, affordable and market housing.

As each development is completed, new social housing properties are handed over to LAHC as payment for the land, making the program entirely self-funding. The community housing providers are responsible for managing the social housing properties and the affordable housing component.

A Plan for Growing Sydney

Sydney's Metropolitan Strategy, *A Plan for Growing Sydney* (NSW Government 2014), sets the overall context for development within Sydney and contains many directions and actions aimed at accelerating housing supply and improving housing choice in both urban renewal and greenfield precincts. A key goal includes creating a city with strong, healthy and well-connected communities through a network of interlinked, multi-purpose open and green spaces across Sydney.

Macquarie Park is identified as a Strategic Centre within the Global Economic Corridor which extends from Port Botany and Sydney Airport, through the CBD, Parramatta and Sydney Olympic Park. This Corridor generates over 41% of the NSW Gross State Product.

Strategic Centres are identified as areas for urban renewal. Their economic growth is to be supported by investing to increase jobs and housing and to "create vibrant hubs of activity".

Key directions for the Macquarie Park Strategic Centre contained in the Plan include:

- » Work with Council to remove barriers to growth and promote more efficient land use outcomes
- » Accelerate new housing in designated infill areas through the priority precincts in which the Government is working to match population growth with investment in infrastructure
- » Work with Council to retain a commercial core for long-term employment growth
- » Work with Council to concentrate capacity for additional mixed-use development around train stations, including retail, services and housing
- » Facilitate delivery of the MUP and NRSP.

Draft North District Plan

The City of Ryde, including the Macquarie Park Corridor, falls within the Greater Sydney Commission's *Draft North District Plan* (the Plan). The Plan links the strategic directions of *A Plan for Growing Sydney* with more detailed planning controls for local areas.

Action P-3 aims to "Create a sense of place, grow jobs and diversify activity in Macquarie Park". The Plan references consideration of a Special Infrastructure Contribution as an option to fund improvements to transport, open space and community and education facilities. The Plan identifies the Macquarie Park Corridor as a "Collaboration Area", which is defined as a place where a significant productivity, liveability or sustainability outcome is better achieved through the collaboration of different levels of government and in some cases the private sector or landowners.

The Plan also sets a jobs target for Macquarie Park of between 73,000 to 79,000 by 2036.

Sydney's Open Spaces: Volume 2

The NSW Government Architect's Office (GAO) has been working to undertake an audit of open spaces across the Sydney Metropolitan Area. Using detailed Geographic Information System data sourced from councils across the region, the audit covers the six planning subregions identified in *A Plan for Growing Sydney*. Importantly, the audit has not yet been finalised and is not considered part of Government policy. However, it does provide important information for open space provision at a subregional and regional level.

The *North Subregion Regional Open Space Audit* (Revision 3, draft version) issues of relevance include:

- » 56% of land in the North Subregion is open space, of which 72% is regional open space managed by the National Parks and Wildlife Service (NPWS)
- » The audit suggests that there will be a shortfall in active open space in the subregion
- » There is insufficient **regional active open space** within the subregion
- » There is a large amount of **non-regional active open space** countering the deficit at the regional level and

- > the size of non-regional active open space is notably less than the recommended minimum (5ha for local and 5-10ha for district open space)
- > non-regional open space is well distributed throughout the subregion.

The audit notes that there is a need to carefully plan for open space in the part of the subregion that forms part of Sydney's 'Global Economic Corridor', due to the high amount of population and job growth projected.

C-2 Local Government Policy

Ryde 2025 Community Strategic Plan

The City of Ryde *Community Strategic Plan* (CSP) identifies seven outcomes. Of relevance are:

- » A city of liveable neighbourhoods, characterised by a range of well-planned clean and safe neighbourhoods, and public spaces, designed with a strong sense of identity and place
- » A city of wellbeing, defined as healthy community, with all supported throughout their life by services, facilities and people
- » A city of harmony and culture, which includes residents having access to an inclusive range of community spaces and places.

The CSP also identifies specific challenges related to reinvigorating the suburb of Macquarie Park. These include addressing its traffic issues and building on the close relationship between the business park and Macquarie University.

City of Ryde S94 Development Contributions Plan 2007 – interim update (2014)

The purpose of the City of Ryde *S94 Development Contributions Plan* (Contributions Plan) is to provide the necessary framework for the efficient and equitable determination, collection and management of developer contributions towards the provision of public amenities and services including community and cultural facilities, and open space and recreation facilities. It discusses current provision and stipulates several relevant requirements related to the future provision of social infrastructure for new residents.

City of Ryde Voluntary Planning Agreements (VPA) Policy 2015

The City of Ryde's VPA Policy objectives are to:

- » establish a fair, transparent and accountable framework governing the use of Planning Agreements by the City of Ryde
- » give stakeholders in development greater involvement in the type, standard and location of public facilities and other public benefits
- » adopt innovative and flexible approaches to the provision of infrastructure and other public benefits in a manner that is consistent with Council's strategic and infrastructure plans.

With reference to developer contributions the City of Ryde will consider contributions that mitigate or compensate for impact of the relevant development while meeting Council's policy planning objectives including those set out in section 94 or section 94A contributions plans. Contributions can be considered if they meet the requirements of Council's public infrastructure works program and/or the objectives of other relevant draft or adopted Council policies, strategies or plans.

City of Ryde Affordable Housing Policy 2016-2031

This Policy is a comprehensive framework to advocate for, facilitate, provide and manage affordable housing in the Ryde LGA between now and 2031. The City of Ryde intends to become a leading council in Sydney in the provision of affordable housing, working with the NSW Government, the development industry, community housing providers and community members to achieve this goal. The policy identifies a target of 5% new dwellings built between 2016 and 2031 will be affordable housing dwellings. Based on current population demand and housing forecasts, this could equate to between 40 new affordable housing dwellings per year.

The Policy advocates for the NSW Government to deliver 500 new affordable housing dwellings on government-owned land and through the development approval process. The City of Ryde will review its planning and development assessment processes to remove barriers to housing supply, housing diversity or affordable housing.

Ryde Local Environmental Plan 2014 (Amendment 1 – Macquarie Park) (RLEP)

The *Ryde Local Environment Plan* (RLEP) included an Amendment in its 2013 draft with a Planning Proposal specifically for Macquarie Park. The RLEP Amendment seeks to:

- » Support growth and development in Macquarie Park by ensuring infrastructure (including new roads and open spaces) meets the needs of existing and future residents and workers
- » Reinforce the importance of Macquarie Park as a significant employment centre and part of Sydney's Economic Global Arc
- » Enable the delivery of new road and park infrastructure to support the growth of the area.

Overall, the RLEP Amendment aims to develop innovative planning mechanisms that meet community needs and ensure attractive and sustainable neighbourhoods for workers and residents. This includes the delivery of new roads designed to offer faster, easier and greater route choices for cars, pedestrians and cyclists, as well as improving access to stations and facilities. The RLEP Amendment also includes a component that ensures a suite of local parks are distributed across the precinct, providing a haven for a quiet lunchbreak or weekend family picnic.

Libraries for Ryde 2014-2024

Libraries for Ryde 2014-2024 (the Strategy) reviews the current status of libraries within Ryde LGA, explores issues that could impact future library needs, and discusses alternative approaches to addressing those issues while ensuring that libraries remain dynamic and reflect the community's needs.

Key to the Strategy is the adoption of a new Library Service Delivery Model (LSDM) tailored to the specific needs of the LGA. At the time of writing the Model envisaged a 4-level hierarchy, comprising:

1. City Library of 2,000-3,500m² (Ryde Library)
2. Town Centre Library of 1,500-2,000m²
3. Neighbourhood Library of 500-700m²
4. Express Library of 50-150m².

In recognition of the need for flexibility, the Strategy details several scenarios that could trigger changes to the current library hierarchy.

City of Ryde draft Social and Cultural Infrastructure Framework (2014)

The *City of Ryde draft Social and Cultural Infrastructure Framework* (the Framework) provides a 25-year framework for the provision of social and cultural infrastructure, drawing on national and international best practice. Detailed design principles build on the following five directions:

1. Locate new facilities within key centres
2. Create community hubs, inclusive of multi-purpose community facilities
3. Maximise access and utilisation of community buildings
4. Enhance and invest in sustainable community buildings
5. Use a whole of Council and partnership approach to planning and delivering community facilities.

The Framework identifies Macquarie Park as a site for a future District Level Facility, although this attracts a low priority (15-20 years). District level infrastructure is described as providing a range of activity and program space as well as accommodation for community organisations and service providers, usually with a permanent staff presence.

City of Ryde Cultural Spaces and Places Plan – Stage I (2011) and Stage II (2012)

Stage I of this plan developed a vision for cultural facilities and spaces that will meet needs and desires of the Ryde community in the long term.

The vision for community facilities is:

“The Ryde community has access to well designed, sustainable facilities and public places which promote a vibrant community with strong connections and enable the citizens of Ryde to tell their stories and express and experience the richness and diversity of cultural life” (p21).

Macquarie Park was found to lack cultural spaces and could benefit from creation of a sense of place and a central focus for cafes and dining that is separate from the Macquarie Shopping Centre.

Stage I finds:

- » Ryde’s existing multi-purpose community facilities were built to cater for existing populations and do not have spare capacity to accommodate future growth, meaning refurbishments, extensions or construction of new facilities will be required to meet future demand
- » Planning standards for the provision of community centres are typically 1:10,000 residents of approximately 600-800m². This rate is broadly met through Council’s 12 community halls
- » A new multi-purpose community centre should be located in a visible and easily accessible location that will encourage local activity and opportunities for community interaction
- » The resident and workforce population growth is expected to create demand for 1.25 additional libraries, including one at Macquarie Park that would be funded entirely through S94 contributions
- » A study to investigate the functionality of the proposed multicultural community arts hub at Macquarie Park should be undertaken.

Stage II further examines opportunities for proposed cultural facilities. The Multicultural Creativity and Learning Hub proposed for Macquarie Park would ideally be realised through a partnership between Macquarie University and Council to maximise utilisation of spaces.

Recommendations for the types of provision of spaces within the Multicultural Creativity and Learning Hub include shared spaces for creative production such as workshops, studios, exhibition, performance rehearsal/workshop space.

City of Ryde Community Hubs Plan (2012)

The *City of Ryde Community Hubs Plan* (2012) aims to guide the planning and delivery of community facilities in key positions in the City of Ryde and builds on other Council policies and the *Community Facilities: Future Directions report* (June 2010). The Hubs Plan notes Macquarie Park represents a strong potential location for a future community hub and the area shows a significant shortfall in community facilities at present.

Other relevant findings include:

- » The need for spaces that cater to young people particularly near Macquarie Centre
- » The Development of Ryde *Youth Service Model* highlights a proposal for a new Salvation Army youth space at 47 Community House, Wilga Reserve subject to the findings of further investigations and development of an appropriate model for the facility
- » The *Ryde Section 94 Development Contributions Plan* proposes acquisition of land for a Macquarie Park Learning – Leisure and Library facility. The S94 Plan also identifies a future shortfall in childcare and proposes Council provide another two new childcare centres together with four additional centres provided by the private sector
- » The *Ryde Cultural Places and Spaces Plan* supports the S94 Plan in providing a library at Macquarie Park. Stage II further investigated the opportunity for a Multicultural Creativity and Learning Hub and proposes accommodation for creative organisations, a youth services provider, a workshop, studio, performance and exhibition spaces, meeting rooms, catering facilities and an enterprise café. Two sites are proposed, including as part of the Macquarie Centre expansion.

City of Ryde Community Safety and Crime Prevention Plan (2011-2014)

The *City of Ryde Community Safety and Crime Prevention Plan* identifies Macquarie Park as a key crime hotspot in the LGA and the primary focus of Council actions. The area had the highest crime density in the City of Ryde for nearly every mapped crime including for assault (non-domestic violence), break and enter (non-dwelling), motor vehicle theft, steal from motor vehicle, steal from persons, and malicious damage.

Strategies Council has identified to prevent situational crime in Macquarie Park include:

- » Installing CCTV security cameras, Park Smarter Signage and street lighting in key areas
- » Pruning vegetation to increase sight lines
- » Informing residents and business owners about crime opportunities and ways they can report crime or suspicious behaviour.

City of Ryde Integrated Open Space Plan (2012)

The *Integrated Open Space Plan* (IOSP) sets out principles and objectives for future actions to conserve, enhance and extend open space in the City of Ryde to meet a range of active and passive recreational and sporting needs. Council controls almost 200 areas of open space, of which around one third are over 1 ha in size and another third are very small (less than 0.2ha) in size.

- » The IOSP found there is a very high dependence on many small reserves, although some suburbs contain a small number of larger open spaces. Overall, compared with historic standards of 2.83 ha per 1,000 persons, the City of Ryde provides sufficient open space for its population at 3.41 ha/1000 people, based on the 2011 population.
- » The IOSP identifies that Lane Cove National Park (LCNP), although managed by the NSW National Parks and Wildlife Service (NPWS), provides a significant amount of bushland near the precinct and plays a significant recreational role because of its highly urban location and important links to Macquarie University, the Lane Cove River Valley and a section of the Great North Walk.
- » The IOSP identifies Macquarie Park as having a local open space deficit, suggesting a need for future acquisition. This is particularly important given the relatively high dwelling densities in the area which implies limited access to private open space and therefore a premium on easily accessible public open space.
- » In addition to the aim of meeting the leisure and recreational needs of the City's growing residential population, the IOSP notes the importance of providing "open space for the growing working population of Macquarie Park" (p64).
- » The City of Ryde has adopted an approach to open space planning which considers a range of parameters beyond total quantum, including detailed open space assessment at a suburb level, accessibility to open space and understanding community needs and demand.

City of Ryde Integrated Open Space Plan (2012) – Macquarie Park 2016 Update

Since the IOSP was prepared in 2012, two significant urban renewal projects have been announced by the State Government in the Macquarie Park Corridor; Macquarie University (Herring Rd) Precinct (MUP) and North Ryde Station Precinct (NRSP).

Conclusions from updated analysis relating to open space include:

- » The character of Macquarie Park will be transformed over the next 20 years by growth of up to 40,000 and an ever-increasing worker population. This results in a reduction in the provision of open space per capita from 2.13ha/1,000 to 0.17ha/1,000 based on the projected residential population within the corridor. Once the increasing worker population is included the provision rate drops to 0.05ha/1,000. Unless this trend is addressed through land dedication, acquisitions, and embellishments, the health and wellbeing of the population will be significantly compromised.
- » Current population (2016) is relatively low (5% of the City) and ratio of open space is also low but growth projections are extremely high (average 11.3% per annum), creating the need for more local open space essentially in the centre of the suburb and active recreation surrounding the corridor.

Approved and proposed LEP amendments to business and residential land use will continue to add to this demand.

- » Council planning for the corridor is ongoing. Given the significant growth in residential and worker population already approved through the Urban Activation Precincts, there is a need for significant development negotiations for new open space at all Levels for active and passive recreation, specifically 3 and 4 and open space expansion surrounding the corridor. Improving cycle and pedestrian access in northeast/southwest axis, especially with M2 and Epping Rd is important.
- » This update identifies the additional open space that is to be delivered through the implementation of the Priority Precincts and Planning Proposals in the Macquarie Park Corridor, including 0.45ha (4,500m²) of open space required for Ivanhoe.

C-3 Macquarie Park Corridor studies

Macquarie Park Plan Review (2012)

The *Macquarie Park Plan Review* (2012) prepared for Council by Architectus to support the RLEP Amendment (summarised above) reviews the framework, development controls and delivery mechanisms for proposed roads and open space in Macquarie Park. It identifies a number of key issues to be addressed of relevance for this study, including:

- » The need to improve community access to and knowledge of facilities and open space at Macquarie University which are available to the public
- » The need to improve access to LCNP (although the review recognises this has been difficult in the past)
- » The need to develop a central hub of attractors near Macquarie Park Rail Station
- » A need to improve utilisation of Shrimptons Creek parklands, including by improving passive surveillance opportunities and safety
- » The need to improve pedestrian connectivity and amenity across the precinct.

Draft Macquarie Park Recommendations Paper (2013)

The *Draft Macquarie Park Recommendations Paper* (2013) prepared for Council by Architectus to support RLEP Amendment 1 (summarised above) outlines the recommendations for planning controls and public domain issues for Macquarie Park. It also proposes a funding model that can deliver the necessary infrastructure and open space. Relevant open space recommendations include:

- » Consolidate the open space into fewer larger, more usable and flexible public open spaces, including providing three main open spaces along Waterloo Road which form the central spine of the MPIA
- » Provide fitness trails throughout the area, in particular with links to Macquarie University and the relevant facilities within, and to LCNP
- » Provide urban plazas with cycling facilities, high quality public domain and active edges, at all three train stations and at the connection of Macquarie University and Macquarie Shopping Centre
- » Retain the existing green space in the centre of Thomas Holt Drive for passive recreation
- » Provide a new green space in Riverside Park adjacent to the new road connecting Julius Avenue West with Newbigin Close with opportunities for informal sporting and lunchtime recreation activities of workers
- » Provide a small triangular park at the rear of the North Ryde Station plaza as passive space for workers and residents.

Macquarie University Station (Herring Road) Priority Precinct Finalisation Report

The MUP Finalisation Report provides an overview of the Herring Road precinct which is expected to become a vibrant centre “that makes the most of the available transport infrastructure and the precinct’s proximity to jobs, retail and education opportunities within the Macquarie Park Corridor” (p3).

Additional infrastructure needed to support additional growth in the precinct will be funded through local contributions to Council, works in kind, and \$5 million through a NSW Government Precinct Support Scheme. In addition, the precinct will contain four new local parks and improved pedestrian access through Macquarie University and to LCNP. Other small local parks could be dispersed throughout the precinct and connected to existing open spaces as individual developers opt to dedicate land and carry out works in lieu of Section 94 contributions.

New local community facilities, such as libraries and community rooms, are needed to meet the demand generated by the additional population in the precinct. These would be funded through local contributions collected by the Council and tailored to community needs as the population grows over time.

North Ryde Station Urban Activation Precinct Finalisation Report

The NUP Finalisation Report details the NSW Government's proposal to rezone the Urban Activation Precinct at North Ryde Station for high density residential and mixed uses. More than 2.4 hectares will also be provided as open space to accommodate a range of active and passive uses.

An assessment of existing social infrastructure and future needs recommended that the precinct contain a 2000m² multi-purpose community facility and significant public open space.

The Finalisation Report raised issues in relation to the funding and construction of the proposed community facility, but suggests a childcare centre or commercial uses could be permitted to generate income to support its viability.

No active regional open space is proposed because of the Precinct's constrained access arrangements. However, the Report recognises that this will place additional demand on existing parks and reserves which are already operating at or above capacity. Open space and public domain areas throughout the Precinct will include provision of central open space (adjoining the proposed multi-purpose community centre) potentially with a futsal field or basketball court, a community park, urban plazas around the North Ryde Station entrance, a bushland park and pedestrian circulation and cycleways to support active transport through the Precinct. Funding of \$6 million has been allocated for a new 7,000 m² park at 45-61 Waterloo Road as part of the rezoning.

Lachlan's Line Voluntary Planning Agreement (draft)

This draft Voluntary Planning Agreement includes provision for land and works for a 2,500m² community facility, civic plaza, Central Park, Linear Park, shared pathways and public art. The community facility would be located on Delhi Road, near an overbridge connecting to North Ryde station to the south and adjacent to Central Park to the north.



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