URBIS

FINAL SOCIAL INFRASTRUCTURE AND OPEN SPACE ASSESSMENT

Aland Leppington Residential Core Dharawal Country

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Urbis acknowledges the important contribution that Aboriginal and Torres Strait Islander people make in creating a strong and vibrant Australian society.

We acknowledge, in each of our offices, the Traditional Owners on whose land we stand.

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Project code	P0040609
Report number	Final

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1.1 INTRODUCTION

Purpose of this study

This Social Infrastructure Assessment has been undertaken by Urbis Pty Ltd (Urbis) on behalf of Aland to inform a Master Plan and Planning Proposal for Aland Leppington Residential Core (the site). The site is located at 156-166 Rickard Road, Leppington.

The purpose of this assessment is to identify the likely social infrastructure and open space needs of the incoming population and how this can be supported as part of the proposal.

This report documents assessment findings and provides additional recommendations to inform detailed planning and design phases.

Approach to assessment

Planning for social infrastructure, whether in new or established communities, is a complex task. This assessment takes a best practice approach to identifying likely social infrastructure and open space needs of the future site population by:

- Reviewing relevant strategies and policies to understand the strategic directions for facility provision across the area and to inform the approach to benchmarking (Section 2)
- Analysing the demographics of the existing population in Leppington to understand current demands (Section 2)
- Reviewing existing social infrastructure and open space near the site to understand rates of supply and indicative capacities (Section 2)
- Undertaking stakeholder consultation to discuss directions and priorities for the Leppington Town Centre (including in relation to social infrastructure and open space) (Section 3).
- Identifying the size and likely characteristics of the future population to understand the likely extent and demand for social infrastructure generated by the proposal (Section 4)
- Undertaking a benchmarking and qualitative assessment to identify the likely future demand for social infrastructure and open space generated by the proposal and providing directions for how this can be met (Sections 4 6).

The assessment approach is summarised in Figure 1.

Figure 1: Approach to assessment



1.2 SCOPE OF ASSESSMENT

Defining social infrastructure

Social infrastructure is a broad term, with a range of understanding and meanings. The Australian Infrastructure Audit defines social infrastructure as "the facilities, spaces, services and networks that support the quality of life and wellbeing of our communities" (2019: 388). In this sense, social infrastructure can be seen as a combination of 'hard' infrastructure (i.e. the buildings and spaces which serve a social need) and 'soft' infrastructure (i.e. the programs, classes and networks that run from a building or space).

This assessment examines the likely need for hard infrastructure. The types of social infrastructure assessed in this study are outlined in Table 1.

Defining open space

Open space comes in a variety of forms, from structured sportsfields to natural ecosystems. All open space types have a role in supporting the social, environmental and economic needs of communities.

This assessment addresses the provision of public open space which can support outdoor recreation uses. As outlined by the GANSW Draft Greener Places Design Guide (2020), outdoor recreation encompasses a range of activities that people undertake for fun, relaxation or fitness. This includes activities such as formal sport, self-directed endurance activities, appreciation of nature, socialising, picnicking, walking and informal group activities. Some of these activities are organised while others are more informal.

The types of open space that can support recreation can therefore be classified into two key categories; open space for structured recreation and open space for unstructured recreation. These are outlined in Table 1. It is important that both structured and unstructured recreation uses are provided when planning for open space. This enables the community to have access to a range of recreational opportunities which are not dominated by one particular setting.

This assessment considers the range of open space areas and settings that can support structured and unstructured recreation.

Table 1: Types of social infrastructure and open space considered in this assessment

Community facilities • Multipurpose comm

- Multipurpose community centres, halls and meeting rooms
- Libraries
- Spaces for young people and older people
- Community arts, culture and 'maker' spaces.



Schools

- Primary schools
- High schools.



Early education and care

- Long day care centres
- Out of hours school centres.



Health facilities

- Medical centres and aged care services
- Community health centres
- Public hospitals.



Open space for structured recreation

Open space areas that predominately support directed, physical activity such as outdoor sport or formal play. Generally consist of the following open space areas:

- Sportsfields and grounds
- Playgrounds
- Outdoor exercise areas.



Open space for unstructured recreation

Open space areas that predominately support casual, physical, social or cultural activities, such as picnicking, walking or group gatherings. Generally consists of the following open space areas:

- Natural areas and bushland
- Linear trails and accessible riparian areas
- Gardens and parklands.

1.3 PROJECT CONTEXT AND PROPOSAL

Project context

In 2017, the Department of Planning and Environment (DPE) commenced a review of the Leppington Town Centre, to investigate a potential new vision and associated land use controls for the area. Following this review, DPE announced a new approach to precinct planning in 2019, returning precinct planning and rezoning powers back to Liverpool and Camden Council. Both Councils have conducted a number of technical studies to inform a new planning proposal and rezoning of the town centre. The Council planning proposal proposal is further addressed in Section 2.4.

Aland Leppington - Civic Centre

The Aland Leppington Residential Core Planning Proposal seeks to amend State Environmental Planning Policy (Precincts – Western Parkland City) 2021 (Parkland City SEPP) for the lots located at 156-166 Rickard Road (referred to as 'the site'). The site is strategically located, towards the centre of the Leppington Town Centre, within the Southwest Growth Area (SWGA) and to the south of the Leppington train station and immediate north of Leppington Public School. It is intended for the site to serve a central and residential accommodating function within the context of the town centre. The Planning Proposal is supported by the Leppington Residential Core Master Plan which facilitates the realisation of the Leppington Town Centre vision through the provision of a mixed use zoned land, that is intended to primarily facilitate residential uses, retail and other community serving uses.

The site is under the single ownership of the proponent and presents a highly capable land parcel, to the near south of the Leppington train station, that by its nature and location will function as an exemplar transit-oriented development in the Leppington Town Centre and South West Growth Area (SWGA). As such, the site presents an immediate opportunity to deliver new homes and jobs as part of a holistic and integrated land use and transport-oriented development. To the west of the Leppington Residential Core is an adjoining Aland landholding at 173-183 Rickard Road, Leppington which will form part of future development stages and will be subject to a separate planning application.

The proposal seeks to rezone the site comprising 4.2ha of land in the in the Leppington Town Centre Precinct which was first identified by the NSW Government in 2013 as a key strategic centre within the SWGA to deliver new homes and jobs in close proximity to public transport. This was followed by the

announcement of the Western Sydney International Airport (WSI) in 2014 and in anticipation of the delivery of Leppington Train Station in 2015.

The Leppington Residential Core proposal provides a site-specific planning framework that will help support Council's vision for the Leppington Town Centre and enable it to transition into a new thriving transit-oriented residential community that builds on the NSW Government's vision and aspirations under the Western Sydney Growth Area program.

The Leppington Residential Core Master Plan is a potential 'catalyst project' that would complement the delivery of the wider Leppington Town Centre plan proposed by Camden Council. The proposal leverages the unique opportunity offered by the site's strategic location within the town centre and its close proximity to transport and educational infrastructure, by rezoning the site to enable transit-oriented development within a town centre and increasing building height and floor space ratio development standards to enable additional housing supply and diversity. A concept design strategy for site is shown in Figure 2 on the following page.

1.4 SITE PLANS

Figure 2: Aland Leppington Residential CoreLandscape Plan

- 1. Rickard Road
- Civic Boulevard
- Neighborhood Streets
 Shared Streets
- 5. Civic Plaza Market Space
- Leppington Public School
 Neighborhood Semi-Private Courtyard
 Active Park Playground
 Public Nature Park

- 10. Neighborhood Semi-Private Park
- 11. Linear Park Green Spine
- 12. Green Corridor Park and
- retail spill with civic plaza

 13. Cumberland Plain Existing
 Tree Clusters
- 14. Stair access to Neighborhood Semi-Private Park





Source: McGregor Coxall 2023



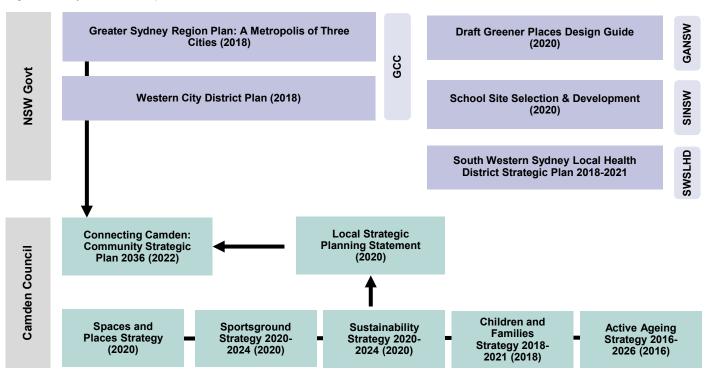
2.1 POLICY AND STRATEGIC CONTEXT

Overview

A range of state and local strategic planning documents have been developed to guide the provision of social infrastructure and open space in the Camden LGA and across Leppington. These documents outline desired land use objectives, committed infrastructure priorities and community aspirations for the future of the area. They also outline key community needs and guiding principles around the provision and delivery of social infrastructure and open space.

The adjacent diagram outlines the strategic documents which were reviewed as part of this assessment. The directions contained in these documents provide a basis to the approach for social infrastructure and open space provision across the site and have informed the needs analysis provided in Sections 4-5. Key findings from the policy review, as it relates to the proposal, are summarised on the following pages.

Figure 3: Policy framework snapshot



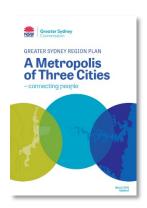
SINSW - School Infrastructure NSW

GANSW – Government Architect NSW

GCC – Greater Cities Commission

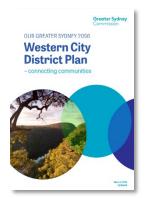
SWSLHD - South Western Sydney Local Health District

2.2 STATE, REGIONAL AND DISTRICT POLICY DIRECTIONS



Greater Sydney Region Plan

The Plan outlines the strategic direction for land use planning and infrastructure delivery for Greater Sydney over the next 20 years.



Western City District Plan

The Plan aims to guide place-based outcomes around key infrastructure, including transport nodes and strategic centres, to support communities in accessing essential social infrastructure and open space.



Draft Greener Places Design Guide (2020)

The Guide outlines desired performance outcomes to guide the delivery of better quality and more easily accessible open spaces, aligned to population density.



School Site Selection and Development

The Guideline provides criteria for the selection of new school sites, including standards for site size, accessibility, open space and safety by design.



South Western Sydney Local Health District Strategic Plan 2018-2021

The Strategy seeks to guide the provision of high quality and equitable health and services across the district.

Implications of state, regional and district policy directions for the planning and provision of social infrastructure and open space:

- Co-locating different types of social infrastructure in key places (such as transport interchanges and town centres) increases accessibility to a greater cross-section of people. Providing direct and safe walking/cycling connections to these facilities also enhances access and improves liveability outcomes.
- As the population grows and land availability decreases, there will be an increasing demand for accessible social infrastructure and open space. Integrated delivery, shared use of agreements and flexible designs provide new opportunities to increase access to social infrastructure, particularly to community spaces and sportsgrounds.
- Six core principles are proposed by the GANSW to guide the planning and delivery of open space for recreation. These include accessibility and connectivity, distribution, size and shape, quantity, quality and diversity.

- High density dwellings over 60 dwellings/ha should be located within 200m of open space and all dwellings should be located within 400m of open space. These spaces should be durable, multifunctional and accessible to a wide variety of users.
- Schools should be accessible to the population they intend to serve, with connections to a range of active transport infrastructure. There are also opportunities for schools to share facilities with the community (outside of school hours) to help increase access to social infrastructure facilities and ensure more efficient use of space.
- The development of new housing and transport infrastructure provides opportunities for cross sector partnerships to improve the health of the community.
- Integrating community health needs into the planning and design of new places helps to create safe and healthy built environments, and contributes to improved wellbeing outcomes.

2.4 LOCAL POLICY DIRECTIONS



Connecting Camden: Community Strategic Plan 2036

The CSP describes the community's vision and aspirations for the LGA, with key strategic directions to help achieve this.



Camden Local Strategic Planning Statement

The Camden LSPS sets out the 20 year land use vision for the LGA and how change will be managed into the future.



Draft Camden Draft Libraries Strategy 2021-2025

The Camden Libraries Strategy outlines a strategic framework to deliver community services, aligned to the community hubs model.



Camden Spaces and Places Strategy 2020

The Strategy aims to identify future demands in the provision of open space, recreation and community facilities in the LGA, and provides an action plan to help address these needs.



Camden Sportsground Strategy 2020-2024

The Strategy provides a strategic framework and action plan to support the provision of high quality and well-maintained sporting fields and amenities throughout the LGA.

Implications of local policy directions for the planning and provision of social infrastructure and open space:

- The community's aspirations for the Camden LGA are reflected in five longterm objectives in the Community Strategic Plan. These are for the LGA to be welcoming, liveable, balanced and leading.
- Challenges for social infrastructure provision across the LGA include the increasing costs of acquiring land to provide additional facilities, car dependency, limited public transport options and high levels of population growth.
- It is important that social infrastructure and open space is planned and designed in accordance with Council's hierarchy of regional, local and neighbourhood provision (as outlined on page 23 of this report).
- Consideration should also be given to key planning and design trends when
 planning for social infrastructure. In summary, these include providing larger,
 multipurpose facilities, co-locating social infrastructure with other key services
 to create 'community hubs', incorporating sustainable design and adopting
 unique partnership models.
- Different demographic groups have different social infrastructure and open

- space needs. For example, older people and seniors generally require accessible spaces that focus on unstructured recreation or low impact structured recreation activities (such as tennis, bowls or walking), while teenagers may need spaces where structured recreation activities (such as organised sport) can be undertaken.
- Contemporary libraries are often co-located with other social infrastructure (such as community centres) and public transport infrastructure to maximise accessibility. They consist of multipurpose spaces that can be adapted over time to suit evolving community needs. Libraries are also increasingly providing non-traditional service offerings such as digital and maker spaces (i.e. 3D printers, video editing spaces) and support links to key social services.
- To accommodate significant population growth in the Leppington town centre, a range of social infrastructure is proposed. This includes a new TAFE campus, an aquatic/indoor recreation facility, a cultural/community centre, a library, a health facility and additional open space and recreation areas.
- Larger, consolidated sportsfield sites with at least two fields is the preferred delivery model for sportsfields.

2.4 LOCAL POLICY DIRECTIONS [CONTINUED]



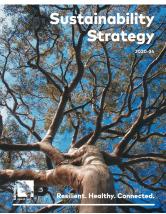
Camden Children and Families Strategy 2018-2021

The Strategy aims to make the LGA a place where all children (12 years and under) receive a safe, happy and healthy start in life, are actively connected and have a voice in the community.



Camden Active Ageing Strategy 2016-2026

The Strategy provides a framework to improve access to information, services and facilities for older people in the LGA.



Camden Sustainability Strategy

The Strategy addresses key sustainability themes, including building sustainable communities and urban environments, and improving resilience to climate change.

Implications of local policy directions for the planning and provision of social infrastructure and open space for key demographic groups:

- Camden's Children and Family Strategy highlights a range of social infrastructure which are highly valued by children within the LGA. This includes libraries, swimming pools, walking tracks, parks, playgrounds and other open space areas.
- Providing access to high quality education to children is a key priority for Council. Council is committed to working with the DPE and the NSW Department of Education to ensure primary schools are provided in a timely manner in growth areas to help meet expected population demand.
- While most older people within the LGA believe it is a good place to live, they also face several challenges. This includes poor public transport connections to health services and unaffordable costs for social and recreation infrastructure. Interactions with family and friends, and being physically active were also identified by older people as the two most important factors to staying health and happy as they age.
- These insights indicate that social infrastructure and open space provision should be affordable, accessible and accommodative of a range of activities for older people. Open spaces could be made more accessible to older by implementing different design measures such as frequent seating, level paths and age-friendly exercise equipment.
- Urban heat is a key health issue affecting all demographic groups in the LGA.
 Increasing green roofs/walls and water sensitive urban design measures are identified as key mechanisms to help mitigate the urban heat island effect.

2.5 TOWN CENTRE PLANS AND DIRECTIONS



Draft Leppington Town Centre Planning Proposal

Camden and Liverpool City Councils' joint Draft Leppington Town Centre Planning Proposal (2023) supports the intent for Leppington Town Centre to become a new strategic centre within the Western Parkland City. The Planning Proposal includes an ILP (included on the following page) that identifies land-uses and proposed social infrastructure and open space within the town centre.



Draft Leppington Town Centre Precinct Social Infrastructure and Open Space Assessment

DPE commissioned this assessment to provide a framework and directions to guide the planning of social infrastructure and open space in the Leppington Town Centre and determine key social infrastructure and open space required to meet future needs.

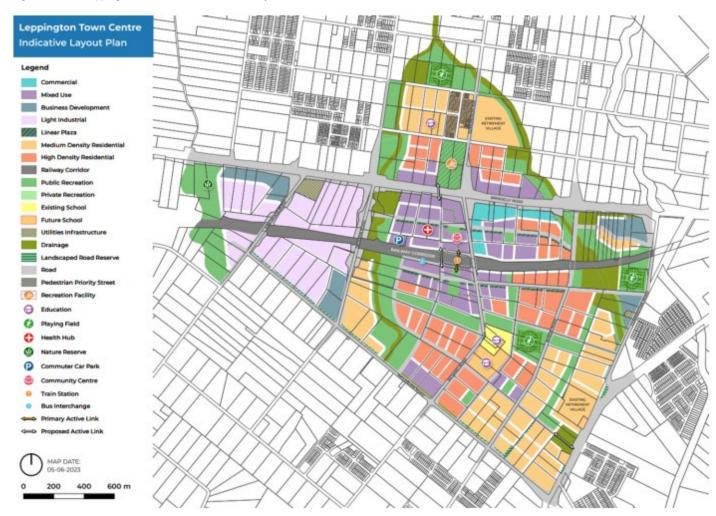
Implications of local plans and studies for the planning and provision of social infrastructure and open space:

- The Draft Planning Proposal ILP proposes high density residential and public open space for the Aland Leppington Residential Core site.
- The Draft Planning Proposal ILP proposes the following social infrastructure and open space within the town centre:
 - Three playing fields/sporting open spaces within the town centre, including one sporting open space in close proximity (to the immediate east) of the site
 - An integrated health hub
 - o A regional indoor aquatic and recreational facility
 - A site that can accommodate community facilities
 - o An east-west linear open space which traverses the site.
- The Master Plan prepared for the proposal differs in somewhat in terms of land-uses, as a predominantly residential rather than mixed uses are proposed. While a linear public open space to the south of the site is included, it is substantially narrower than that proposed in the Councils' ILP.
- The ILP also identifies existing and potential education sites and notes that

- SINSW advised that school investigations are underway, including for upgrades to the existing Leppington Public School, a preferred location adjacent to the existing primary school for a high school, a preferred location north of Bringelly Road for a potential second primary school and options for a potential selective high school to support South West Sydney.
- The Draft Leppington Town Centre Precinct Social Infrastructure and Open Space Assessment (Elton Consulting, 2022) proposes a hierarchy, principles, standards and benchmarks for social infrastructure and open space for the Leppington town centre precinct, that have been considered and informed the demand assessment undertaken in this report.
- The assessment also identifies needs for social infrastructure and open space for the Leppington town centre that were considered in Councils' Planning Proposal and ILP and have also been considered in this assessment.

2.4 LOCAL POLICY DIRECTIONS [CONTINUED]

Figure 4: Draft Leppington Town Centre Indicative Layout Plan



Source: Draft Leppington Town Centre Planning Proposal (Liverpool City Council, 2023)

2.5 EXISTING COMMUNITY PROFILE

This section provides an overview of the current and future demographic profile of Leppington suburb and Camden LGA using data from the 2021 ABS Census and population projections from Forecast id.

Current population

In 2021, Leppington (suburb) was home to 9,423 people representing approximately 8% of the Camden LGA. Key characteristics of this community include:

- Leppington is home to a young, family population. Most of the suburb are children aged 0 9 years (20%) and young adults aged 30 39 years (21%). This is a slightly higher rate compared to the Camden LGA (18% respectively for both age groups).
- The suburb is more culturally diverse compared to Camden LGA, with 43% of the population born overseas and 54% speaking a non-English language at home. This is a significantly higher rate than the LGA (26% and 28%).
- Leppington has a lower proportion of Aboriginal and Torres Strait
 Islander people (1.5%) compared to the Camden LGA (3.2%).
- The suburb is predominately low density, with separate houses representing 95% of all dwellings. This is consistent with the Camden LGA (96%).
- There are fewer people with long term health conditions (25%) compared to the LGA (30%) and Greater Sydney (31%).

Future population

The Economic Assessment (MacroPlan 2023) prepared for the planning proposal contains population projections for the Leppington Town Centre (where the site is located).

MacroPlan forecast that the town centre will experience considerable population growth, increasing from 500 people in 2021 to 18,200 in 2041. This represents a **3,540% population increase**.

The town centre is expected to have similar age characteristics to the existing Leppington suburb community, remaining dominated by a young, family age population.

Demographic implications for social infrastructure and open space planning:



A highly diverse community will likely see greater demand for **inclusive and accessible spaces** that celebrates the community and helps foster social cohesion.



A fast growing community will introduce new residents to the area, many of whom are unlikely to have existing local connections or social supports. The accessibility of community facilities will therefore be critical to **provide spaces where people can socialise, create and connect** with others.

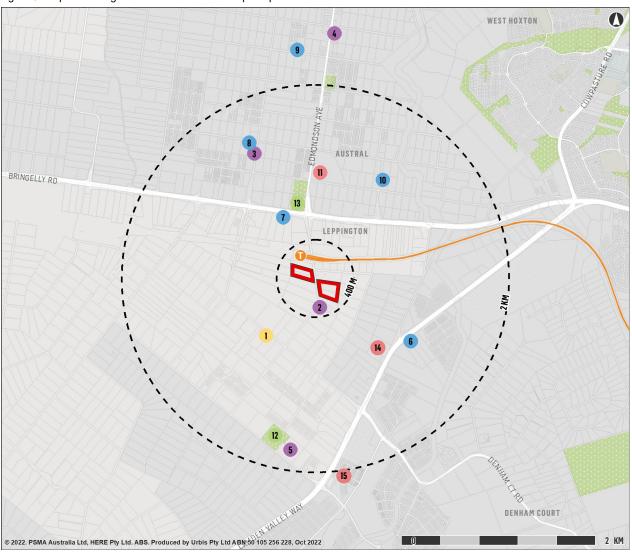


The rate of population growth will place a significant and concentrated demand for social infrastructure and open space facilities which are accessible from people's homes and workplaces. This will rely on the **delivery of timely infrastructure**, aligned to population growth and needs.

2.6 AUDIT OF EXISTING SOCIAL INFRASTRUCTURE AND OPEN SPACE

As part of this assessment, all social infrastructure and open space within a 2km radius of the site was mapped to understand the existing level of provision and potential future need. Figure 5 outlines this map which a summary of provision provided overleaf (refer to Table 2).

Figure 5: Map of existing social infrastructure and open space



- Project site
- Leppington train station
 - Community facilities
 - Leppington Progress Hall
 - **Schools**
 - 2 Leppington Public School
 - 3 Unity Grammar
 - 4 Austral Public School
 - 5 Leppington Anglican College
 - Early education and care facilities
 - 6 Care for Kindies
 - 7 Annabelle Early Learning Centre
 - 8 Unity Juniors
 - 9 Kids Kinder Childcare
 - 10 Community Kids Austral
 - **Health facilities**
 - 11 Scalabrini Austral
 - 14 Leppington Medical Centre
 - 15 My Family Health Medical Centre
 - Open space
 - 12 Leppington Oval and Pat Kontista Reserve
 - 13 WV Scott Memorial Park

2.7 SUMMARY OF EXISTING SOCIAL INFRASTRUCTURE AND OPEN SPACE

A summary of existing social infrastructure within 2km of the site (as identified in Figure 5) is provided below.

Table 2: Summary of existing social infrastructure and open space provision



Community facilities

There is one community facility within 2km of the site, Leppington Progress Hall. This facility is managed by the Leppington Progress Association and is available for community hire. A desktop review indicates the facility is small, with a floor area of approximately 228 sqm. The hall was also constructed in the 1950s and is generally outdated.



Schools

There are three schools within 2km of the site. A summary of these schools based on a desktop review (including data from the Australian Curriculum, Assessment and Reporting Authority) is provided below:

- Leppington Public School: a primary school with approximately 450 students enrolled in 2021. Enrolments at the school have increased considerably, growing from 121 students in 2016. This represents a 272% enrolment growth.
- Unity Grammar: a kindergarten to year 12 school with a focus on Islamic faith. The school was established in 2008 and accommodated approximately 1,086 students in 2021. Student enrolments have been increasing since 2018.
- Leppington Anglican College: a kindergarten to year 12 school with a planned enrolment capacity of 1,300 students. The school is currently under construction and is expected to open in 2023.



Early education and care centres

As of December 2022, there are four early education and long day care centres within 2km of the site. Based on a desktop review, there are approximately 408 approved places across all four centres. There are existing vacancies within the network, with two of the four centres reporting vacancies across all days of the week and one centre reporting vacancies on three days of the week.



Health facilities

There are three health facilities within 2km of the site. Two of these facilities are medical centres providing general practitioner (GP) services, while the third facility (Scalabrini Austral) is a not-for-profit aged care organisation. The facility provides residential aged care support which also includes dedicated health services, such as dementia care and chronic and complex care.



Open space for structured and unstructured recreation

There are two key open spaces within 2km of the site. This spaces support both structured and unstructured recreation and include the following areas:

- WV Scott Memorial Park: contains two full sized football fields, two junior football fields, an outdoor basketball court, change rooms and a playground.
- Leppington Oval and Pat Kontista Reserve: the oval contains two football fields, a playground and change rooms. Pat Kontista Reserve is located immediately adjacent to Leppington Oval and contains a single tennis court, picnic facilities and a playground.



A draft master plan was endorsed for Leppington Oval and Pat Kontista Reserve by Camden Council in September 2022. The master plan proposes to redesign both open spaces to accommodate three full sized football fields and tennis courts, a multipurpose outdoor court, nature play opportunities and a range of supporting amenities. It also proposes new facilities outside of the current park boundaries, including a shared path and youth playspace north of Leppington Oval along Scalabrini Creek.



3.1 STAKEHOLDER CONSULTATION

Consultation with Council

An online meeting was conducted with representatives from Camden Council and members of the proposal technical team on 7 March 2023. The meeting was undertaken to understand Council's plans for the Leppington town Centre, directions and priorities (including in relation to social infrastructure and open space). Key points discussed are summarised below and reflect the views of Council representatives and the status of Council plans at the time of consultation:

- Greater certainty from SISNW is required regarding the location of a new secondary school and clarity in relation to site requirements and constraints.
- Council's documentation is extensive around open space principles. Refer to Section 6.2 of the Draft Leppington Urban Design and Landscape Report (Turf, 2022) The report provides a clear justification for proposed open space in the town centre.
- The Leppington Town Centre DCP, supporting Councils' Draft Leppington Town Centre Planning Proposal, documents a plan for the east-west open space corridor, which transverses the site.
- It is important to consider the vision for and proposed identity of the town centre as place for people to gather and meet.
- It is important to consider the broader context when designing the proposal sites, particularly in the layout and design of open space.

Consultation with School Infrastructure NSW (SINSW)

An online meeting was conducted with representatives from SINSW and members of the proposal technical team on 1 March 2023. The meeting was undertaken to understand SINSW plans for school provision in the Leppington town centre and key priorities for the agency in relation to the planning proposal. Key points discussed of relevance to this study are summarised below and reflect the status of SINSW planning at the time of consultation:

- A business case and master plan for a new primary school site is in progress.
- Investigations of several locations across the Leppington town centre for a secondary school site are being undertaken.
- There are plans to increase the capacity of Leppington Public School from 350 to a maximum of 1,000 students.
- Attention should be given to the design of the southern interface of the site with Leppington Public School. The built form should minimise overshadowing and adjoining land uses should be compatible with the school.
- SINSW's School Site Selection and Development Guidelines and Master Planning Guidelines for Schools should guide the planning and design of school sites and surrounds.
- It is SINSW intention for school sites to be self-sufficient and not to be reliant on adjoining land. SINSW is not relying on any of the green space to the north of Leppington Public School proposed in Councils' Draft Leppington Town Centre Planning Proposal.
- Facilitating safe active and public transport access to schools is a key interest and focus. Students should be crossing as few roads as possible and walking routes should have good passive surveillance.
- SINSW is generally supportive of the green corridors in Councils' Draft
 Leppington Town Centre Planning Proposal as they will promote walkability,
 however representatives noted that a 90m wide open space corridor is not
 necessarily required and may impact the level of passive surveillance and
 therefore user comfort and sense of safety.



4.2 INCOMING POPULATION

To assess community needs, it is critical to understand the number of people a proposal will introduce into an area. This is typically understood by applying occupancy rates to the expected development yield to project the likely incoming population size.

This following section provides an overview of the approach.

Occupancy rates

Macroplan undertook an analysis of the likely average household size for the proposal. This analysis involved reviewing the existing average household size for 4+ storey 2-bedroom apartment buildings across south west and outer south west Sydney. This review found an average household size of 2.25 persons per dwelling. When allowing for 2% vacancy rate, the average household size was projected to be 2.2 persons.

The dwelling yield, proposed occupancy rate and expected incoming population of the proposal is summarised in Table 3.

Table 3: Expected incoming population based on revised occupancy rates

Dwelling yield		Revised occupancy rate	Expected population	
	1,305	2.2	2,871 people	

Indicative age profile

An indicative age profile has been developed for the projected incoming population and is outlined in Table 5 overleaf.

The indicative age profile has been developed by considering and applying the following data:

- ABS Census 2021 Statistical Area (SA1) current age profile data for two
 existing greenfield areas with similar development densities to the proposal
 (Edmondson Park and Rouse Hill) and
- Projected age profile data for Leppington North Leppington Precincts Small Area, sourced from Forecast.id.

The above comparison areas are summarised in Table 4.

Table 4: Areas applied to inform the indictive age profile

Area	Geography	Code	Source
Edmondson Park (2021)	SA1	12703173006	ABS Census of Population and Housing 2021
Rouse Hill (2021)	SA1	12703173006	ABS Census of Population and Housing 2021
Leppington North – Leppington Precincts (2041)	Small Area	N/A	Forecast id 2041 projection

4.3 INDICATIVE AGE PROFILE

The age profile suggests that the incoming population will comprise predominately of young families and workers. The incoming population will require adaptable and accessible social infrastructure and spaces that can accommodate multigenerational groups.

Table 5: Incoming population projected age profile

Age bracket	Edmondson Park SA1 (2021)	Rouse Hill SA1 (2021)	Leppington North - Leppington Precincts (2041)	Indicative %	Likely incoming population to the site
Babies and pre-schoolers 0 – 4	7.3%	5.2%	9.0%	7.2%	206
Primary schoolers 5 – 11	4.5%	7.3%	12.9%	8.3%	237
Secondary schoolers 12 – 17	2.8%	4.6%	9.0%	5.5%	157
Young adults 18 – 24	14.2%	6.2%	7.5%	9.3%	266
Young workforce 25 – 34	41.3%	19.0%	14.3%	24.9%	714
Parents and homebuilders 35 – 49	17.1%	26.5%	27.3%	23.7%	679
Older workers and pre-retires 50 – 59	6.3%	13.1%	10.4%	9.9%	285
Empty nesters and retirees 60 – 69	4.7%	7.5%	5.7%	6.0%	171
Older adults 70 – 84	2.4%	10.0%	3.4%	5.3%	152
Elderly 85+	0.7%	0.0%	0.6%	0.4%	12

Due to rounding the sum of the likely incoming population in the table above is slightly higher than 2,871



5.1 APPROACH TO SOCIAL INFRASTRUCTURE BENCHMARKING

General approach

Planning for future infrastructure, whether in new or established communities, is a complex task. Benchmarks are only one tool that can be used. This study takes a good practice approach to identifying social infrastructure and open space requirements of the site by:

- Identifying the demographic characteristics of the current community and the likely demographic characteristics of the future population to understand future needs and demands for social infrastructure and open space
- Understanding the existing provision of social infrastructure and identifying key gaps in provision.
- Understanding the site and strategic context of the area that are guiding future planning decisions with consideration for stakeholder consultation undertaken.
- Considering Council and leading practice principles and benchmarks, and applying these appropriately to the site.

Rates of provision

There are currently no universal standards or approaches to the planning of social infrastructure in NSW. In the absence of these, most councils have established their own approaches, which has resulted in the adoption of different social infrastructure benchmarks in different places.

For the purposes of this study, preference has been given to the benchmarks provided by Camden Council and, where relevant, compared to industry standards to ensure best practice.

Planning for social infrastructure generally operates within a hierarchy of provision, with different scales of infrastructure serving varying sized catchments. Council's Spaces and Places Strategy (2020) advocates for community spaces to be delivered under a three tier community facility hierarchy. Using this hierarchy and the expected incoming population size of the proposal, this study has focused on the provision of neighbourhood – local facilities. Consideration has been given to regional facilities as appropriate, as the proposal will likely contribute to some cumulative need.

Figure 6: Social infrastructure hierarchy

Regional

Serves the Camden LGA and an extended catchment of surrounding LGAs (approximately 40,000 people).

Local (LGA wide)

Serves the Camden LGA or multiple suburbs within the LGA (approximately 20,000 people).

Neighbourhood

Serves a single suburb or small local area within the Camden LGA (approximately 10,000 people).

Source: Adapted from Camden Spaces and Places Strategy (2020)

5.2 SOCIAL INFRASTRUCTURE DELIVERY TRENDS

Over time, the planning and delivery of social infrastructure needs to adapt to changes in the social, economic and environmental context. To meet the challenges associated with delivery of greenfield development, including population growth and increased urban density, governments around the world are reviewing the way they plan and design social infrastructure. Current trends in the planning and design of social infrastructure are outlined below and have been considered as part of the assessment approach to social infrastructure need and delivery.

Planning trends



Co-design of facilities with the end users to encourage community ownership and a fit for purpose design



Partnerships which provide alternative approaches to funding and delivery of infrastructure, including share-use arrangement and public-private partnerships



Integrated delivery of community services in a single facility to improve service delivery and to create efficiencies through common areas and amenities



Accessibility of facilities by public, private and active transport is maximised to support a reduction in car use and convenience for different users



Co-location of social infrastructure to provide user convenience and encourage cross utilisation of clustered facilities



Extension of the home as backyards are shrinking and people need open space and social infrastructure as places to connect and gather with others

Design trends



Flexible spaces and fittings that can respond to changing preferences over time and avoid redundancy of facilities and equipment



Multi-purpose facilities and open space that are designed to support a range of user groups, including different ages, abilities and activities in one location to support increased utilisation by creating spaces that serve multiple functions



Compact designs that enable the delivery of critical social infrastructure in areas that are constrained by spaces or land values



Technology enabled facilities, including free wi-fi for users, online booking systems and high-tech maker spaces that may provide 3D printing, computer programming and music and movie production



Smart buildings and spaces to help social infrastructure providers minimise the long term maintenance and environmental costs of infrastructure

5.3 COMMUNITY, CULTURAL FACILITIES AND LIBRARIES



Role of community, cultural facilities and libraries

- Community, cultural facilities and libraries are critical to supporting the health and wellbeing of communities. They provide spaces to socialise, create, learn, celebrate, engage in programs and activities and access information and support services.
- Community, cultural facilities and libraries are particularly important in greenfield areas, where most of the incoming population are new to the area and do not have established social ties. This emphasises the need to provide public gathering spaces outside of the home where people can meet and socialise with others.
- Major arts and cultural centres are typically planned at a regional or district level and play an important role in activating large centres.
- Smaller art and creative facilities and spaces can be incorporated into multipurpose community facilities. These facilities cater to local community needs and foster local creative industries.

Current provision



There is one community facility within 2km of the site and no libraries. Existing Leppington residents would generally need to travel to Carnes Hill Library (4km away) to access library services.

Existing and planned provision

- There is only one existing community facility within 2km of the site, the Leppington Progress Hall. At 228sqm, the facility is small and is suitable for single group gatherings or activities.
- There are no existing libraries in 2km of the site. Carnes Hill Library is the closest library to the site and is located approximately 4km away. The library is approximately 3,000sqm and is intended to serve the population needs of Liverpool LGA.
- Planning for the South West Priority Land Release Areas indicates a range of new social infrastructure will be needed to support the expected population growth demands of the area. The 2013 planning package prepared by DPE for the Austral and Leppington North Precinct indicates this will include a new civic precinct to be developed immediately north of Leppington Station.
- As noted in Section 2.5, the Draft Leppington Town Centre Planning Proposal also identifies a site north of the Station for community facilities and the Draft Leppington Town Centre Precinct Social Infrastructure and Open Space Assessment (Elton Consulting, 2022) also recommends provision of a colocated regional library, multipurpose community centre and arts and cultural centre.
- Council's Draft Library Strategy recommends for the provision of a 5,000 6,500sqm co-located library and community centre within the Leppington town centre. While the location was not specified in the draft strategy, it's likely that this facility would be located within the planned civic precinct for the town centre. The draft strategy recommends that this facility provides a range of performing art spaces to support the existing and projected demand for arts and cultural facilities in the area.

5.3 COMMUNITY, CULTURAL FACILITIES AND LIBRARIES [CONTINUED]

Target provision benchmarks

Council's Spaces and Places Strategy (2018) and Contributions Plan (2011) provides a target provision rate of 55sqm of community facility space per 1,000 people. This consists of 42sqm for neighbourhood facilities and 13sqm for district and regional facilities. This has been adopted from provision rates implemented in the Growth Centres Development Code (2006).

Given these rates were developed over 15 years ago, a review of other provision rates was undertaken to understand more recent and contemporary approaches.

Several councils across Greater Sydney (including Hornsby Shire Council, City of Parramatta, Ku-ring-gai Council, Blacktown City Council and the City of Ryde) have applied the provision rate of 80sqm per 1,000 people. This provision rate is intended to encompass a range of community facility functions and spaces, as outlined in Section 1.2. The adoption of this higher provision rate also reflects contemporary best practice models to deliver fewer but larger, multipurpose community facilities.

Liverpool City Council's Contributions Plan for Austral North and Leppington (2014) has adopted a similar rate of 60 – 85sqm of community facility space per 1,000 people. Liverpool City Council's Contributions Plan also states that local multi-purpose community centres (serving 10,000 people) should be a minimum of 600sqm, while larger centres (serving 20,000 – 60,000 people) should be approximately 1,500sqm.

Based on this review, the provision rate adopted by Camden Council is lower than that of neighbouring Council's and reflects historical preference to provide multiple small centres across the LGA. Given more contemporary approaches, this study has adopted the target provision benchmark of **80sqm of community facility space per 1,000 people**. Consideration has also been given to Camden Council's hierarchy of provision in the adoption of this rate.

The demand for library space is assessed using the provision benchmarks provided in the NSW State Library Guidelines (2016). For a district library (35,000-65,000 people), this is a benchmark of **42 sqm of library space for every 1,000 residents**.

Assessment of likely needs

- The incoming population will generate demand for 230sqm of community facility floor space and 121sqm of library floorspace space, contributing to cumulative demand for new facilities within the town centre.
- The incoming population will also contribute to demand for cultural centres as well as arts and creative spaces that can be accommodated in a multipurpose community centre.



Recommendations

- As site is in close proximity to the earmarked community/civic centre north of the Leppington Station, this facility presents the most suitable option for meeting the incoming population's needs, as opposed to provision of small on-site facilities. This approach would also align with trends towards larger, consolidated, integrated facilities. Contributions towards offstie provision to accommodate the needs of the incoming population is therefore recommended.
- Consideration should be given to the incorporation of affordable office and consultation spaces, for community organisations providing community support services, within the proposal site. These could be accommodated within the mixed-use buildings which would support easy and direct access from Leppington Station.
- Adequate provision of communal spaces should also be provided on-site for residents for activities such as family gatherings, private functions, studying, music practice etc, to cater to the needs of people living in high density dwellings where space in the home may be limited. This will relieve some pressure from public community facilities in the town centre for these types of activities.

5.4 SCHOOLS

Role of school facilities



- Schools provide essential education and development services to children aged around 5 – 18 years.
- Schools are also critical community assets which provide an important role beyond education services. They are often the first place where residents meet each other and start forming social connections. School facilities can also be used by the wider community to host a range of events and activities.

Current provision



There are two existing schools and one future school within 2km of the site. This includes Leppington Public School (K-6), Unity Grammar (K-12) and the future Leppington Anglican College (K-12).

Existing and planned provision

- Leppington Public School is the only government school within 2km of the site.
 Its current catchment is the Leppington suburb boundary. The school shares a boundary with the site.
- Leppington Public School has experienced steady enrolment growth over the past five years, increasing from 121 students in 2016 to 450 in 2021. The NSW Government 2022 2023 budget included funding to upgrade Leppington Public School to help accommodate this growth. School Infrastructure NSW (SINSW) Delivery Strategy allocated \$25-75 million to deliver this project. Councils' Draft Leppington Town Centre Planning Proposal also acknowledges plans for expansion of the school.
- The closest government high school to the site is John Edmondson High School, located approximately 4.8km away. The site is within the current catchment area for the school and has 1,142 enrolled students. Media reports indicate that the school is currently 20% over its current student capacity, with six demountables constructed on site to accommodate this demand (Carroll 2022, Sydney Morning Herald).
- In 2020, the NSW Department of Education announced a new primary school would be constructed on Commissioners Drive to support the growing Leppington community. The school Denham Court Public School opened in 2021 and is designed to accommodate 940 students. The school is located approximately 2.8km from the site, however its catchment area is currently confined to the suburb of Denham Court and does include the Leppington suburb.

- In 2019, the NSW Government also announced plans for construction of a new selective, government high school in Leppington as part of the 2021 – 2022 budget. The plans for this school have not been released.
- As noted in Section 2.5, the Councils' Draft Leppington Town Centre Planning Proposal and Indicative Layout Plan (ILP) also identifies existing and education sites. It notes that SINSW advised investigations are underway for a new high school with a preferred location adjacent to the existing primary school and for a new high school north of Bringelly Road. The Planning Proposal also notes that SINSW has advised that it is investigating options for a potential selective high school to support South Western Sydney.
- Other non-government schools within 2km of the site include Unity Grammar (1,068 enrolled K – 12 students) and the Leppington Anglican College which opened in 2023. The college is expected to accommodate up to 1,300 kindergarten to Year 12 students.

5.4 SCHOOLS [CONTINUED]

Target provision benchmarks

The SINSW School Site Selection and Development Guidelines (2020) provide the following standards:

- Primary school: 1,000 student capacity with a 1.5ha site area
- High school: 2,000 student capacity with a 2.5ha site area.

The incoming population projections outlined in Section 3 have been used in this assessment. Based on this, the development is likely to introduce 237 children aged 5 - 11 years and 157 children aged 12 - 17 years.

Assessment of likely needs

- The incoming population will introduce approximately 237 primary schoolaged children to the area. SINSW benchmarks suggest this represents some demand towards a primary school.
- Approximately 157 high school-aged people will also be introduced by the proposal, also contributing to cumulative demand for high school places in the area.
- Population growth has placed significant enrolment pressure on the existing school network, with enrolments at nearby schools increasing considerably over the past five years. A number of school developments are proposed to help accommodate growth, including an upgrade to Leppington Public School, the construction of the new Leppington Anglican College, and the potential delivery of additional new schools.

Recommendations



- The site is in close proximity to Leppington Public School. As there are plans to upgrade the school and potentially for a new high school adjacent, these schools present the most suitable option to addressing in part the school needs of the incoming population.
- Ongoing consultation with SINSW is recommended to ensure the incoming population is considered in the planning of new schools and the timing of development aligns with school planning and delivery.

5.4 EARLY EDUCATION AND CARE FACILITIES



Role of early education facilities

- Childcare facilities support significant social and economic benefits. Research from the Australian Institute of Health and Welfare (2017) showed that access to high quality children's services helps to reduce the effects of social disadvantage and positively develops children's social competency.
- This assessment focuses on two key early education services: long day care (ages 0 6) and outside of school hours care (OSHC) (ages 5 11 years).

Current provision



There are four early education and care centres within 2km of the site. Collectively, these centres provide 408 approved places.

Existing and planned provision

- There are four early education and care centres within 2km of the site, which as of December 2022, provide a collective total of 408 enrolment places. Based on a desktop audit (as outlined in Section 2), there are existing vacancies within most of these centres.
- Leppington Public School currently does not accommodate OSHC services on its site. The closet OSHC service is approximately 1km from the school at Annabelle Early Learning Centre.
- More broadly, the site has access to approximately ten other childcare centres in the surrounding suburbs of West Hoxton, Horningsea Park, Edmondson Park and Denham Court. These centres are all within a 10minute drive from the site, with a desktop review indicating vacancies at four of these centres.
- Consultation undertaken to inform Council's Children and Families Strategy (2018) indicates that the Camden community highly values quality early education and care services. Workers and parents of these services also identified the need to provide more flexible opening hours for OSHC, to help assist parents who work later in the evening or who get held up in traffic.



Figure 7: Annabelle Early Learning Centre

Source: Annabelle Early Learning Centre 2022

5.4 EARLY EDUCATION AND CARE FACILITIES [CONTINUED]

Target provision benchmarks

Camden Council and Liverpool City Council currently do not have a target provision benchmark for early education and care facilities. In the absence of Council benchmarks, this study applies the following benchmarks from the City of Parramatta Council's Community Infrastructure Strategy (2019):

- 1 long day care place for every 2.48 children aged 0 4 years
- 1 OSHC place for every 2.70 children aged 5 11 years.

The incoming population projections outlined in Section 4 have been used in this assessment. Based on this, the proposed development is likely to introduce 206 children aged 0-4 years and 237 children aged 5-11 years.

Assessment of likely needs

- The incoming population will generate demand for approximately 83 long day care places and 88 out of hours school care places.
- Current provision trends indicate an increase in the development of larger, multipurpose childcare facilities. The capacity of childcare centres in a 2km radius of the site ranges from 59 to 230 approved places. The incoming population will therefore generate demand for approximately one medium sized centre.
- Given the reported vacancies in the area, some demand for long day care places may be absorbed by existing facilities close to the site. However, based on the size of the incoming population and significant growth in the area, additional centres will likely be needed.
- Childcare centres should ideally be accessible and central to the population they serve, with consideration to transport connections and worker movements. Centres should also be co-located with other services to maximise user convenience and encourage greater cross utilisation of clustered facilities.
- It is recognised that privately operated childcare and OHSC centres are often delivered according to market demand. As the population within Leppington increases, it is expected that more services will become available. This includes within the Leppington town centre, where childcare centres are permissible in a range of the land uses zones currently proposed.

Recommendations

- The site is in a suitable location for early education and care facilities, given its strategic locations within a town centre, and proximity to the Leppington Station, future workplaces and residential dwellings.
- Early education and care facilities can be accommodated in the proposed land-use zonings.
- It is recommended investigations are undertaken during detailed planning phases to accommodate at least one early education and care centre on-site, with a focus on accommodating not-for-profit providers of high quality, affordable services, including long day care and OSHC places.
- Continue to consult with SINSW and NSW Department of Education regarding the proposal and timing to inform planning for OSHC services within public schools.

5.5 HEALTH FACILITIES



Role of health facilities

- The concept of 'health' covers range of physical, mental and social wellbeing outcomes, all of which should be considered in the planning of built environments. This assessment focusses on one core element of health planning: access to health infrastructure and services.
- Access to health services is vital to maintaining a healthy, vibrant and productive community.

Current provision



There are three health facilities within 2km of the site. This includes two medical centres and one residential aged care facility, with specialist health services.

Existing and planned provision

- With a growing population, access to health services will be critical to the successful development of Leppington and the surrounding areas. Council's Active Ageing Strategy (2017) identified that poor public transport connections to health services was a key challenge faced by older residents in the LGA.
- There are currently three health facilities within 2km of the site. This includes two medical centres providing GP services and a specialist residential aged care facility.
- The site is also serviced by Liverpool Hospital and Campbelltown Hospital, both of which are located approximately 13km from the site. Both hospitals are undergoing major upgrades to increase their service and carrying capacity in response to population growth across south-west Sydney. Upgrades to Liverpool Hospital are scheduled for completion in 2026 and late 2023 for Campbelltown Hospital.
- Hoxton Park Community Health Centre is the closet community health centre to the site, located approximately 5.5km away. The centre is managed by the South West Sydney Local Health District (SWSLHD) and offers child and family health services, a community health nurse service, counselling, sexual assault services and aged care services.

Figure 8: Hoxton Park Community Centre



Source: SWSLHD 2019

5.5 HEALTH FACILITIES [CONTINUED]

Target provision benchmarks

In the absence of target provision benchmarks from Council, benchmarks have been sourced from the NSW SWSLHD Integrated Primary and Community Care Development Plans for the South West Growth Centre (2021). This includes:

- One GP practice for every 4,000 to 5,000 people, with up to five general private GP's in each
- One primary care clinic for 15,000 18,000 people with six to eight private GPs in each

Assessment of likely needs

- Based on benchmarks, the incoming population will generate some demand for a general medical practice. The incoming population will not alone generate demand for a new primary health care clinic.
- Contemporary planning for regional and acute planning facilities (such as hospitals) generally does not rely on population-based benchmarks. Planning for these facilities is instead based on a comprehensive understanding of complex community needs, detailed capacity analysis and response times, which is overseen by the local health districts. Given the planned upgrades to Liverpool and Campbelltown Hospitals, it's likely the acute care needs of the incoming population can be met by these facilities.



Recommendations

- Medical centres and allied health services can be accommodated within retail and commercial spaces. Future planning should investigate opportunities to provide a medical centre on the proposal site to meet incoming population and broader community needs.
- The incoming population's primary health needs could be met through contributions towards the planned health hub identified in the Draft Leppington Town Centre Planning Proposal.



6.1 OVERVIEW OF OPEN SPACE ASSESSMENT

As outlined in Section 1, this assessment addresses the provision of open space which can support structured and unstructured recreation. A summary of these uses is provided in Table 6 for ease of reference.

Approach to assessment

Like social infrastructure, there are currently no universal standards or approaches to the planning of open space in NSW.

At a state level, the Government Architect of NSW (GANSW) has released a set of guidelines around open space planning under the Greener Places series.

These guidelines were released in 2020 and have remained in draft form. Given these documents are relatively recent, several councils have established their own approaches to open space planning. In Camden Council, planning for open space is generally guided by the Spaces and Places Strategy (2020).

As the approach to open space is continually evolving, a review of current and emerging practices was undertaken to provide direction on the approach used in this assessment. Key findings from this review are provided on the following pages.

Parks

Table 6: Types of open space assessed

Open space for structured recreation

Open space areas that predominately support directed, physical activity such as outdoor sport or formal play.

This generally consists of:

- Sports fields and courts
- Playgrounds
- Outdoor exercise areas.

Open space for unstructured recreation

Open space areas that predominately support casual, physical, social or cultural activities, such as picnicking, walking or group gatherings.

Generally consists of:

- Natural areas and bushland
- Linear trails and accessible riparian areas
- Gardens and parklands
- Beaches and foreshores.

Figure 9: Examples of open space types



Sports fields









Playgrounds

Trails and walkways

6.2 REVIEW OF OPEN SPACE QUANTITY PROVISION APPROACHES

Determining a suitable approach to the planning of open space, and the quantity of open space required for a population, is a complex task. There is not currently a fully resolved and agreed approach in NSW.

There are two main approaches utilised by different agencies and in different jurisdictions:

- 1. By area per head of population (population-based approach)
- 2. By proportion of land area (proportion-based approach).

Population-based approach

Historically, NSW has taken an area-based approach. For example, the superseded Growth Centres Development Code (2006) contained a benchmark of 2.83ha per 1,000 people for 'open space and recreation'. While the benchmark is framed in the Code as a 'guiding threshold', and is caveated with a note stating 'May be refined through specific studies', the 2.83ha per 1,000 people benchmark has been widely used in open space planning in NSW.

The 2.83ha per 1,000 people provision rate is based on patterns of recreation and from the UK over 100 years ago. There is no evidence base for the use of this rate as a default standard in 21st century Australia, despite its frequent use.

The Draft Greener Places Design Guide (Government Architect NSW, 2020) argues for a performance-based approach which moves away from the quantification of space altogether. It states:

"Planning that relies on a spatial standard such as 2.8ha/1,000 people is only effective with high levels of quality control and often works against opportunities for multiple use and innovative solutions. Equally, past approaches such as specifying a percentage of land did not have any direct link to the demand arising from a development, as densities can vary greatly yet the percentage stayed fixed." (2020; 11)

However, in submissions to the Draft Greener Places Design Guide, a number of outer metropolitan councils suggested using a balance of performance based and qualitative spatial standards for open space (*Greener Places Design Guide Consultation Report* 2021, p.8).

Proportion-based approach

The development of the Draft Urban Design Guideline (DPE, 2021) aimed to find this balance and proposed a proportion-based approach, whereby 15% of net developable area (NDA) was set aside for open space. This was complemented by a range of performance-based criteria. The Guidelines were removed from exhibition in March 2022 alongside the Draft State Environmental Planning Policy for Design and Place.

Several other states in Australia however have adopted proportion-based approaches for open space provision for large development precincts and new release areas. For example:

- South Australia's offset scheme under the Planning, Development and Infrastructure Act (2016) requires large subdivisions to set aside 12.5% of land for open space.
- Victoria's Precinct Structure Planning Guidelines for New Communities in Victoria (2021) recommends 10% of NDA be set aside for local parks and sports fields, with 3-5% for local parks and 5-7% for sports fields.
- Western Australia's Development Control Policy 2.3 requires 10% gross subdividable area for open space, which may include regional open space.

The proportion-based approach is particularly relevant in metropolitan areas experiencing population growth, increased densification and significant constraints in relation to the availability, suitability and cost of land for new open spaces.

For example, DPE recently prescribed a proportion-based approach in the Strategic Framework developed for the Greater Penrith to Eastern Creek (DPE, 2023). The framework specifies that, in areas where medium to high density residential and mixed-use development is proposed and it is not feasible to provide open space in line with the relevant council's strategic open space planning, the 15% of NDA should be allocated as freely accessible public open space, excluding regional open space.

Local approaches

There are differing benchmarks proposed in the local context.

The Camden Spaces and Places Strategy (2020) specifies a population-based benchmark of 2.83ha per 1,000 people, while the Camden Contributions Plan (2011) specifies a population-based benchmark of 3.64ha per 1,000 people.

As noted in Section 2.4, the Draft Leppington Town Centre Precinct Social Infrastructure and Open Space Assessment (Elton Consulting, 2022) proposes applying either a population-based benchmark of 2.83 ha per 1,000 people or a proportion-based benchmark of 15% of total site area (9% local and district function, 6% regional).

Key State and local quantitative and qualitative benchmarks and standards are summarised on the following page for comparison.

6.3 CURRENT OPEN SPACE PROVISION DIRECTIONS FOR CAMDEN LGA

Table 7: Summary of key directions for open space across strategic documents

Quantity	Hierarchy and sizes	Accessibility
Draft Greener Places Design Guide (2020)		
Does not include a quantity provision rate	Local park Size: 0.5 – 0.7ha (medium to low density areas) Size: 0.3ha (high density) also notes some parks can be as small as 0.15ha but need to supported by larger open spaces within the surrounding network District park Size: 2 – 5ha Regional Size: Greater than 5ha	Local 400m walk from dwellings or 200m in high density areas District 2km walk from dwellings Regional 5-10km from most dwellings Up to 30 minutes travel time on pubic transport or by vehicle
Camden Contributions Plan (2011)		
3.64ha per 1,000 people	Local open space Size: 0.2ha minimum District open space Size: 5ha minimum	Local 500m – 700m walk from dwellings District 2km from dwellings Close to public transport or be easily accessible to cars, pedestrians and public transport.
Camden Spaces and Places Strategy (2020)		
2.83ha per 1,000 people	Neighbourhood Size: 0.5-1.5ha Local Size: 1.5-10ha Regional Size: 10ha+	Does not include distance requirements
Draft Leppington Town Centre Precinct Social Infrastructure and Open Space Assessment (2022)		
2.83 ha per 1,000 people or 15% of total site (9% local and district function, 6% regional)	Aligned with Draft Greener Places Design Guide performance standards	Aligned with Draft Greener Places Design Guide performance standards

6.4 SUMMARY OF APPROACH FOR THE PROPOSAL

Summary of findings

The document review described relevant state and local directions for open space provision. Key insights are captured below.

- Current NSW guidelines are advocating for a performance-based approach to open space which moves away from the quantification of open space altogether. While there is some support for this model (notably from inner metropolitan and regional councils), some outer metropolitan councils suggest a combination of performance based and quantitative standards for open space is needed. Several states in Australia have already adopted a quantitative, proportion-based approach.
- Council has adopted a quantitative based approach to open space provision, although there are conflicting standards across their strategic documents. It's noted that Council's benchmark of 3.64ha of open space per 1,000 people (as noted in the Contributions Plan) is higher than the widely used 2.83ha of open space per 1,000 people benchmark. This benchmark stems from patterns of recreation from the UK over 100 years ago and there is no evidence based for the use of this rate as a default standard in 21st century Australia, despite its frequent use.
- All council and state guidelines reviewed use a hierarchy of provision for open space planning. Alongside quantitative measures for each level in the hierarchy, guidance around open space function, size and accessibility is provided to enable a well-balanced network of open space and recreation opportunities.
- Current NSW guidelines recommend a multi-criteria approach to open space assessment and provision that considers a range of factors such as local context, accessibility, quality and usability.

Approach to provision

This assessment considers open space demand generated by the proposal for structured and unstructured recreation uses.

To determine an appropriate amount and configuration of open space that will provide good community outcomes for the future population, this study has applied both **performance based** and **quantitative spatial standards** for open space.

Performance based principles, considering criteria around accessibility, quality and configuration of spaces, are drawn from the Draft Greener Places Guide (refer to Figure 10 on page 42) and Council's Spaces and Places Strategy.

In regard to quantitative spatial standards, the planning principles for open space and recreation in the Technical Document associated with Council's Contribution Plan state that the "quality of open space is more important than quantity" (2019, p.22). Nonetheless, the Contributions Plan includes a standard provision rate of 3.64ha per 1,000 people, while the Spaces and Places Strategy includes a rate of 2.83ha per 1,000 people. As previously discussed, the 2.83ha rate is based on a UK standard from the early 1900s, of which there is no evidence base for its current use.

The 3.64ha or 2.83ha per 1,000 people is also generally unachievable in higher density areas where there is limited land supply. This would likely be the case for the Leppington town centre, where increased residential and commercial density would be concentrated around the station to maximise accessibility and productivity outcomes.

Given the proposed density and current plans for the Leppington town centre, a per head of population benchmark is not considered appropriate and has therefore not been used in this assessment.

This study draws on the proportion-based approach utilised in other jurisdictions and the benchmark referenced in the Draft Leppington Town Centre Precinct Social Infrastructure and Open Space Assessment (2022) of the allocation of 15% of total site area (9% local and district function, 6% regional).

6.5 OPEN SPACE AND RECREATION ASSESSMENT





Role of open space and facilities for recreation

- Access to open space is vital to the health, wellbeing and vibrancy of a community. Open spaces provide places for people to relax, socialise and exercise, while also supporting environmental outcomes.
- Access to open space is particularly important in high density areas where there is limited private open space. In these communities, it is critical that open space is of a high quality and multi-functional to support a variety of uses and user groups.
- Indoor sport and recreation facilities, such as aquatic centres and indoor sports centres, provide places for aquatic activities, indoor ball and other sports (e.g. basketball, futsal, badminton, volleyball, dance and martial arts). They can cater to competitions, training, programs and informal recreational uses.

Existing and planned provision

- Council's Spaces and Places Strategy identifies that the Growth District (which includes the suburb of Leppington) will have the largest deficit of open space across the LGA by 2036, with a deficit of 182ha. This is based on a provision rate of 2.83ha of open space per 1,000 people.
- The Spaces and Places Strategy expects there will be an increasing demand to maintain a network of neighbourhood and local open spaces across the Leppington precinct. This is due to the expected high density development which will occur around the train line and the subsequent lack of access to backyard spaces for incoming residents.
- To help improve provision to active open space areas, the Spaces and Places Strategy recommends for Council to investigate and implement shared use arrangements to private assets, such as school facilities.
- The councils' Draft Leppington Town Centre Planning Proposal and Draft Leppington Town Centre Precinct Social Infrastructure and Open Space Assessment (Elton Consulting, 2022) propose a regional aquatic and indoor sports centre on the corner of Bringelly Road and Edmondson Avenue. The facility is proposed to accommodate an indoor 50 metre Olympic pool and several smaller training and leisure pools, four full-sized indoor sports courts

Current provision



There are two key open space areas within 2km of the site; WV Scott Memorial Park and Leppington Oval and Pat Kontista Reserve. Both areas support a range of structure and unstructured recreation uses.

- and a kiosk and café. The site for the proposed regional aquatic and indoor sports centre is located on land which is currently WV Memorial Park.
- The Draft Leppington Town Centre Precinct Social Infrastructure and Open Space Assessment (Elton Consulting, 2022) assesses the need for open space within the Leppington Town Centre Precinct. The assessment identifies demand for 66ha of open space, including the following:
 - 40ha of passive open space (including 12ha of regional open space along Kemps Creek)
 - 26ha of active open space which could accommodate 12 sportsfields (however given land constraints the report recommends that 20ha of open active open space and 4 double sportsfields is provided)
 - o 14 outdoor sports courts
 - o Regional, district and local play spaces.
- The open space proposed in councils' Draft Leppington Town Centre Planning Proposal includes several local parks (min 0.3ha each), two district parks (min 3ha each) with the remaining open space contained along riparian corridors and water cycle management areas.
- The Planning Proposal notes that additional regional open space needs would be accommodated by the Western Sydney Parklands.

6.5 OPEN SPACE AND RECREATION ASSESSMENT [CONTINUED]

Target provision benchmarks - open space

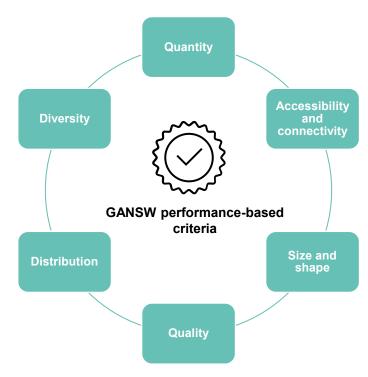
This assessment draws from the Draft Greener Places Design Guide performance-based criteria for open space (as outlined on previous pages) and leading proportion-based standards. A comparison against Council's quantitative standards has also been included.

Table 8: Quantitative demand for open space and recreation facilities

Benchmark	Application of benchmark	Proposed provision	
Evidence based standard			
15% of NDA* as publicly accessible open space (9% local and district function, 6% regional)	0.65ha	0.70ha (16% of NDA)	
Comparison to Council's quantitative standards for open space			
2.83ha:1,000 people	8.12ha	0.24ha:1,000 people	
Recreation benchmarks applied from Council's Spaces and Places Strategy (2020)			
1 playspace:2,000 people	2 playspaces	No formal playspaces are proposed within the landscape	
1 multisport court:3,000 people	1-2 courts	plans.	
1 sportsfield:1,850 people	2-3 sportsfields	No sportsfields or sports courts are proposed on site	

^{*}All local roads, commercial land, residential land and open space areas are included in the NDA. As a result, the NDA for the proposal is considered to 4.3ha.

Figure 10: GANSW performance-based criteria



Source: NSW Government Architect (2020) Draft Greener Places Design Guide

6.5 OPEN SPACE AND RECREATION ASSESSMENT [CONTINUED]

Target provision benchmarks - recreation facilities

Camden Council currently does not have a target provision benchmark for aquatic and indoor sport centres. In the absence of Council benchmarks, this study applies the following benchmarks:

- 1 aquatic centre for every 100,000-150,000 people
 Source: Indoor Aquatic and Recreation Facility Development Guidelines, Aquatics and Recreation Victoria (2011)
- 1 multipurpose sport and recreation centre for every 50,000-100,000 people
- Approximately 1 court for every 20,000 people
 Source: Guidelines for Community Infrastructure, Parks and Leisure Western Australia (2020)

Assessment of likely need and proposal inclusions

- The proposal includes 0.65ha of publicly accessible open space across the site. The total quantity of open space proposed (15.2% of the NDA) achieves the proportion-based benchmark (of 15% of NDA). The open space is well distributed across the site.
- The proposal includes three publicly accessible open spaces within the site:
 - The north-east open space (0.33ha) meets the Draft Greener Places
 Design Guide minimum size standards for local open space (0.3ha)
 - The south-west open space (0.24ha) is below the minimum size standards for local open space, however it is above the minimum standards for open space in high density areas (0.15ha)
 - The south-east open space (0.13ha) is below the Draft Greener Places Design Guide minimum size standards for high density areas (0.15ha).
- The landscape plans for the site (McGregor Coxall, 2023 refer Figure 11, p. 44) indicate a mix of well embellished public spaces that will support a range of structured and unstructured recreational opportunities. These include an open grass area, a civic plaza, playground, and a mix of flexible spaces supporting small scale community meeting and gathering. These are complemented by embellished semi-private and communal open spaces that will further support the open space needs of the incoming population.

- The playspace proposed in the south-west section of the site includes equipment, such climbing structure and shaded play area. This space will be able to accommodate the incoming population's needs for playspaces and play opportunities in line with Council's benchmarks.
- Open spaces are street facing, helping to maximise public use and activate the site, facilitate passive surveillance and promote user safety.
- Based on Council's benchmarks, the incoming population will contribute to broader demand for sportsfields, outdoor courts and larger recreation facilities. Open space and facilities for sporting use are not accommodated on the site.
- The Draft Leppington Town Centre Planning Proposal ILP illustrates a wide linear open space along the southern section of the site. While the proposal will not provide a space of the width/scale indicated in the Councils' Planning Proposal, the linear open space provided along the southern edge of the site will provide an east-west active open space link connecting to the proposed district open space and sportsfields east of the site, as intended.

6.5 OPEN SPACE AND RECREATION ASSESSMENT [CONTINUED]





Recommendations

- Given the incoming population will be living in a higher density environment, with limited access to private open spaces, the open space provided on site should be of high quality and very well embellished.
- Public open spaces should be designed to support a range of structured and unstructured recreational uses for a diverse range of community members throughout the day and night.
- Detailed design of public open spaces on site should support public access, promote public awareness and activation and be guided by Crime Prevention Through Environmental Design principles.
- The landscape plans propose a play area in the south western part of the site. Ensure open spaces also provide recreational opportunities for young people (e.g. basketball hoops, climbing structures, kick-about spaces to meet and socialise).
- Provide a dog park on site, within public and/or communal open space to support incoming residents.
- The incoming population's needs for sport and recreation facilities could be met through contributions to large, consolidated facilities servicing the town centre and surrounding population. The Councils' Draft Leppington Town Centre Planning Proposal ILP includes provision of three sportsfield sites, outdoor sports courts and an indoor aquatic/recreation facility that could present opportunities to meet the incoming population's needs.
- The incoming population will also need access to larger district and regional open spaces, which could be met through contributions to the delivery or upgrade of open space proposed in the Councils' Planning Proposal.



7.1 SUMMARY OF SOCIAL INFRASTRUCTURE NEEDS AND RECOMMENDATIONS

Summary of key needs

- The incoming population will contribute to cumulative demand for community and cultural facilities and libraries within the town centre.
- The incoming population will generate demand for primary school and high school places and contribute to broader, cumulative demand for new schools within the area.
- The incoming population will generate demand for approximately one medium sized long day care centre.
- The incoming population will generate some demand for a general medical practice as well contribute to cumulative demand for primary health services.

Key recommendations for the proposal

- As site is in close proximity to the earmarked community/civic centre north of the Leppington Station, this facility presents the most suitable option for meeting the incoming population's needs, as opposed to provision of small on-site facilities. This approach would also align with trends towards larger, consolidated, integrated facilities. Contributions towards off-stie provision to accommodate the needs of the incoming population is therefore recommended.
- Consideration should be given to the incorporation of affordable office and consultation spaces, for community organisations providing community support services, within the proposal site. These could be accommodated within the mixed-use buildings which would support easy and direct access from Leppington Station.
- Adequate provision of communal spaces should also be accommodated on-site for residents for activities such as family gatherings, private functions, studying, music practice etc, to cater to the needs of people living in high density dwellings where space in the home may be limited. This will relieve some pressure from public community facilities in the town centre for these types of activities.
- The site is in close proximity to Leppington Public School. As there are plans to upgrade the school and potentially for a new high school adjacent, these schools present the most appropriate approach to addressing in part the school needs of the incoming population. Ongoing consultation with SINSW is recommended to ensure the incoming population is considered in the planning of new schools and the timing of development aligns with school planning and delivery.
- The site is in a suitable location for early education and care facilities, given its strategic location within a town centre, and proximity to the Leppington train station, future workplaces and residential dwellings. Early education and care facilities can be accommodated in the proposed land-use zonings.
- It is recommended investigations are undertaken during detailed planning phases to accommodate one or more early education and care centres on-site, with a focus on accommodating not-for-profit providers of high quality, affordable services, including long day care and OSHC places.
- Continue to consult with SINSW and NSW Department of Education regarding the proposal and timing to inform planning for OSHC services within public schools.
- Medical centres and allied health services can be accommodated within retail and commercial spaces onsite.
- The incoming population's primary health needs could be met through contributions towards the planned health hub identified in the Draft Leppington Town Centre Planning Proposal.

7.2 SUMMARY OF OPEN SPACE AND RECREATION NEEDS AND RECOMMENDATIONS

Summary of needs and assessment of the proposal

- The incoming population will require access to local open spaces to support their needs for informal recreation, including spaces to relax, exercise and play, meet, gather and socialise.
- The incoming population will also contribute to broader, cumulative demand for sporting open spaces, indoor sport and recreational facilities and regional open spaces.
- The proposal includes a quantity of open space on site that aligns with leading and emerging proportion-based benchmarks.
- The proposal includes two key spaces that will function as local/neighbourhood parks for the incoming population and immediate surrounding community. The proposal also includes several communal open spaces for incoming residents.
- The proposal also includes linear open spaces providing active transport links.

Key recommendations for the proposal

- Given the incoming population will be living in a higher density environment, with limited access to private open spaces, the open space provided on site should be of high quality and very well embellished.
- Public open spaces should also be designed to support a range of structured and unstructured recreational uses for a diverse range of community members throughout the day and night.
- Detailed design of public open spaces on site should support public access, promote public awareness and activation and be guided by Crime Prevention Through Environmental Design principles.
- Provide dog parks within public and/or communal open space on the site to support incoming residents.
- The incoming population's needs for sport and recreation facilities could be met through contributions to large, consolidated facilities servicing the town centre and surrounding population. The Councils' Draft Leppington Town Centre Planning Proposal ILP includes provision of three sportsfield sites, outdoor sports courts and an indoor aquatic/recreation facility which could present opportunities to meet some of the incoming population's needs.
- Consideration should be given to providing at least one informal half court on the site to provide local informal sport and recreation opportunities for residents.
- The incoming population will also need access to larger district and regional open spaces, which could be met through contributions to the delivery or upgrade of open space proposed in the Councils' Planning Proposal.



APPENDIX A: REFERENCE LIST

Technical reports prepared for the proposal

Woods Bagot, 2023, Master Plan report and dwelling yields.

McGregor Coxall, 2023, Landscape report.

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