City of Ryde

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Christie Park Football Centre Master Plan and Feasibility Study

March 2016

SGL Consulting Group Australia Pty Ltd in Association with:

STRATEGIC LEISURE GROUP

graphitearchitects

PARKLAND PLANNERS

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APPENDIX ONE: COMBINED UTILISATION SCHEDULE

Executive Summary

Introduction

The City of Ryde has engaged SGL Consulting Group in association with Strategic Leisure Group, Graphite Architects and Parkland Planners, to prepare a Master Plan and Feasibility Study for the proposed Christie Park Football Centre. The overall aim of the study is to demonstrate how Christie Park Football Centre can meet the current and future needs for football within the City over the next 20 years in a financially sustainable way.

Facility Development and Operation

Through consultation, site planning and market research, the preferred master plan option for Christie Park has been prepared as shown below.



Development stages have been identified as follows:

- Stage 1
  - Includes the two main synthetic fields only and retains existing amenity buildings
  - Estimated construction cost is $5.2m
- Stage 2
  - Consists of a main building located between fields 1 and 2 (Stage 2a) and six futsal/5-aside pitches with a car park extension (Stage 2b)
  - Estimated construction cost is $8.2m
- Stage 3
  - Includes a suspended slab with a third synthetic football field on top with car parking and a potential fitness facility below
  - Estimated construction cost is $12.9m

Two primary operational arrangements were modelled operation of Stage 1. These included:

- Model 1: Hourly Hire – is based on Council's existing administration staff booking out facilities on a range of hourly rates.
- Model 2: Hourly Hire and In House Sports Programs – is based on Council's existing administration staff booking out facilities on a range of hourly rates as well as also directly operating a range of programs on site.

In order to also test the viability of developing the proposed 6 court futsal centre as an expedited second stage of development an additional model 2A was also developed.

'Realistic' Operating results for Model 1 and 2 in the facility's 'base year' (when the business reaches establishment in 2020) are as follows:

Item	Model 1	Model 2
Income	$278,838	$651,985
Expenditure	$208,783	$453,002
Profit (Loss)	**$70,055**	**$198,983**

'Base year' (2020) 'realistic' forecasts for the futsal centre (in addition to Model 2) are:

Item	Model 2A
Income	$594,578
Expenditure	$398,388
Profit (Loss)	**$196,190**

Key Findings

Key findings identified through preparation of the master plan and feasibility study are outlined below. Where necessary, these will need to be catered for appropriately in future detailed planning.

Site Planning

- The detention of stormwater for the site will be affected by the particular ground and soil conditions subject to a detailed geotechnical report as well as site specific hydrology and may include designed in infiltration zones within the playing fields, specifically designed modular subterranean storage/detention, above ground storage tanks, above ground detention basin at the NE corner of the site etc. The size and nature of required detention and/or retention can only be determined in detail following detailed hydraulic design and geotechnical reports. Nevertheless, current planning indicates that there is sufficient space and potential with the new sports fields to accommodate all required Water Sensitive Urban Design Initiatives.
- Benchmarking with similar developments has identified adequate car parking can be provided onsite to support the proposed development.
- Development of the project in stages as outlined in the master plan and cost plan is possible. However, there will be operational impacts on each existing area during construction of later stages. For example, the central building can be built after the main fields as the building site could be access from the North and South, but the technical area and playing field may be need to be 'compressed' temporarily.

Urban Planning

- Development in the E2 zone on the North and Western edge of the site has been avoided to ensure retention of the bushland buffer and avoidance of increased planning requirements. Likewise land categorised as Natural Bushalnd has been avoided. Current planning information indicates that there is sufficient scope in the design of the fields to be able to ensure that the proposed development falls within the defined planning area. The margins at the edges of all zone/category overlays do not perfectly align and some discretion or a detailed identification survey that specifically defines the edges and boundaries of all overlay planning controls would be needed to provide a more specific comparison.

- Development within the area of land categorised as 'Sportsground' will not require the preparation of a specific plan of management to re-categorise land. Stage 1 and 2 facilities have been contained within this area. This ensures that these stages of the project can be commenced sooner.
- Development Approval is not required for outdoor sports facilities, but will be required for indoor facilities and the suspended sports field.

Business Planning and Management

- Core user demand indicates that two synthetic football fields would be fully utilised during peak times for the competitive season (30 weeks); close to capacity in the pre-season (8 weeks) and at approximately 60% capacity for the post-season (12 weeks).
- Strong opportunities for commercial sport programs exist for the facility due to commercial and residential development.
- Projected Operating Outcomes:
    - The comparison of the two management options (realistic scenario) applied to the operation of Stage 1 (two fields) reveals that, in the 'base year' (2020), Model 1 will return an operating profit of $70,055 compared to the Model 2 return of $198,983. A difference of $128,928.
    - As an additional business unit for Model 2, the Futsal Centre (realistic scenario) is forecast to provide an additional operating profit of $196,190 in the base year (2020).
- In addition to the two models presented above, Council could consider leasing the facility to football groups using Model 1 and 2 figures as a guide for establishing an appropriate lease fee depending on how management responsibilities and risk are shared. For example, part of the lease fee could include an allocation for funding the replacement of the synthetic surface by Council at the end of its useful life. This option may provide a low (if any) return to Council but would be a lower risk management option.
- Whilst a lower return compared to Model 2, Model 1 presents a comparatively lower risk for Council.
- If the futsal centre is developed along with Stage 1, consideration could also been given to leasing this facility to football groups. An option to leasing the futsal centre to a commercial operator is likely to require additional/separate amenity facilities.

Recommendations

Based on findings of the master planning and feasibility study process the following primary recommendations are suggested.

1. Project Staging and Funding
    a. Identify and evaluate opportunities to combine Stage 1 and Stage 2 developments where possible.
    b. If capital for Stage 1 can be raised ($5.2m), then along with potential partner funding, this may be used to seek matching state or federal government funds to enable completion of Stage 1 and 2 simultaneously (total estimated cost of $13.3m).
2. Plan of Management
    a. Revise the existing generic plan of management to recategorise land in the short term and prepare a site specific plan of management prior to Stage 2 developments to, amongst other things, re-categorise relevant areas as 'Sportsground' (outdoor fields) and 'General Community' (indoor/built structures).
3. Development Approval
    a. DA should not be required for construction of synthetic fields, but an amendment may be required for floodlighting is light spill is altered. A DA may also be required for the realignment of the tiered seating.

b. Prepare a development application for Stage 2a and 2b (i.e. those improvements in the current Sportsground category); then prepare a DA for Stage 3 in the 'to be re-categorised area' as funds become available.

4. Further Design
    a. Detailed survey and design work will be required to confirm/refine the position of major master plan elements in relation to E2 and Natural Bushland areas (completed).
    b. A formal assessment of car parking requirements may be required for Stages 2b and 3.
    c. Detailed hydraulic design and geotechnical reports to, amongst other things, determine the size and nature of required detention and/or retention structures.
5. Management
    a. Consider management options outlined in section 5.1 and determine a preferred approach based on Council's view of desired:
        i. Facility objectives
        ii. Decision making processes
        iii. Risk management
        iv. Financial outcomes
        v. Management capacity/capability



1 Background

1.1 Introduction

The City of Ryde has engaged SGL Consulting Group in association with Strategic Leisure Group, Graphite Architects and Parkland Planners, to prepare a Master Plan and Feasibility Study for the proposed Christie Park Football Centre. This report details the process and outcomes for developing the master plan and feasibility study.

Key stakeholders in this study include the signatories of a Memorandum of Understanding (MOU) which outlined the intention to develop Christie Park as a Football Centre. Signatories to the MOU included:

- City of Ryde (CoR)
- Gladesville Hornsby Football Association (GHFA)
- North West Sydney Women's Football Association (NWSWFA)
- Gladesville Ryde Magic Football Club (GRMFC)
- Gladesville Ravens Women's Football Club (GRWFC)

The basic intention from the MOU was to create a facility capable of hosting fixtures up to Football NSW Premier League 1 level using a synthetic sports surface.

1.2 Project Objectives

The overall aim of the study is to demonstrate how Christie Park Football Centre can meet the current and future needs for football within the City over the next 20 years in a financially sustainable way. Specific objectives for each of the project components are outlined below.

1.2.1 Master Plan Objectives

The Christie Park Football Centre Master Plan will:

- Set a clear framework for the future use and development of Christie Park Football Centre to ensure the facility will be a financially sustainable location for football within the City of Ryde.
- Facilitate and improve the carrying capacity of the fields through the use of synthetic surfaces, identify possible revenue streams, present opportunities to enhance recreation facilities and improve the interface between the Park and its surrounding local context.
- Ensure all fields meet Football NSW Field requirements and one field meets Premier League 1 field requirements.

1.2.2 Feasibility Study Objectives

The Christie Park Feasibility Study will:

- Examine the financial sustainability and feasibility of the proposed master plan.
- Investigate increasing utilisation of the facility over a minimum of a 20 year period and include all financial information associated with the proposed master plan.

- Review of possible management structures for the facility and provide a recommended structure.
- Establish capital and operating costs for the facility over 20 years.
- Establish the existing and future demand for all aspects of the proposed master plan, provide recommendations on financial contributions from all members of the MOU and explore the costs of access and hire.

1.3 Project Methodology

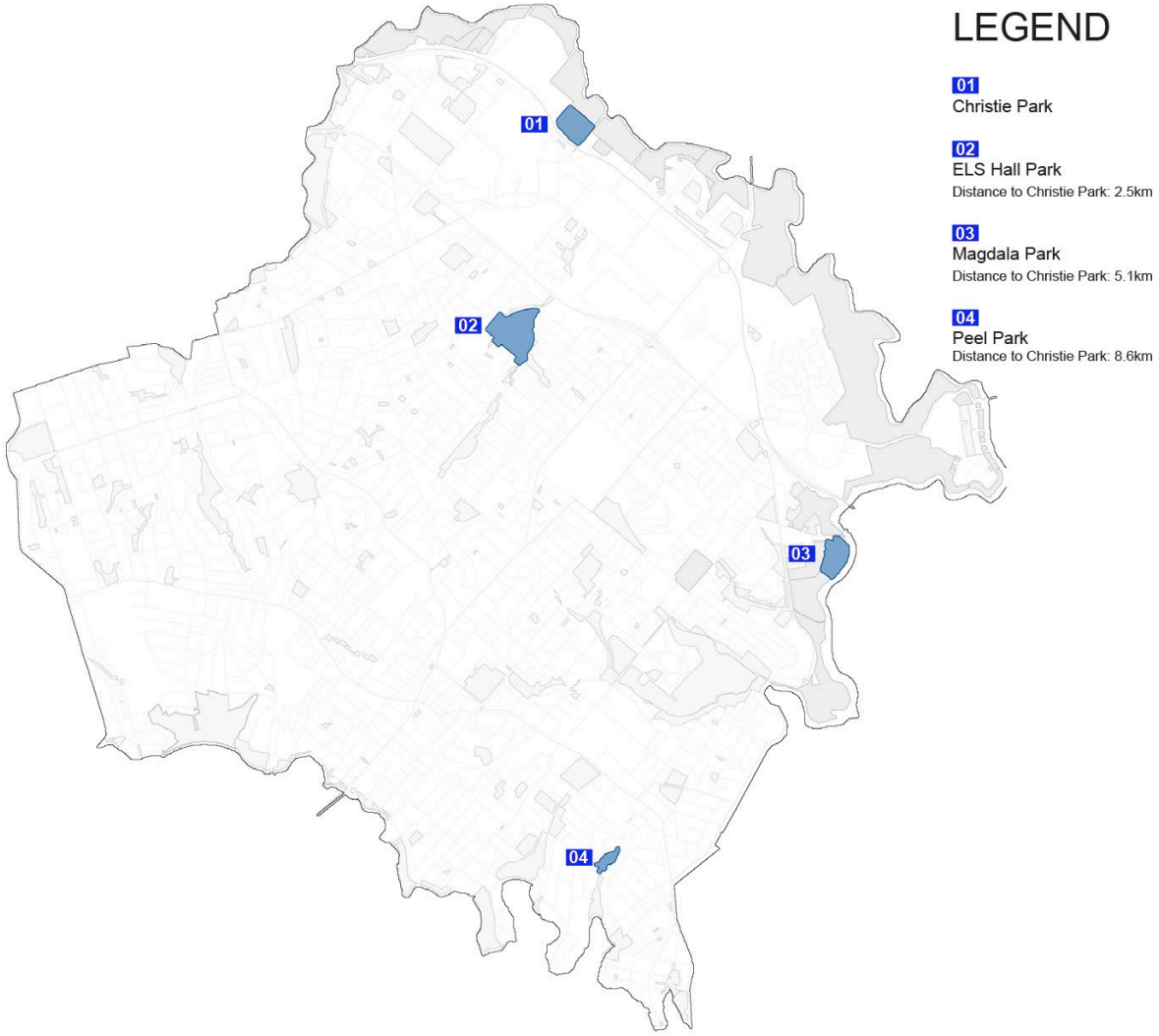
The methodology being used to deliver the project outcomes is shown below.

Phase	Task
PHASE 1A: BACKGROUND REVIEW AND PREPARATION	**Project clarification**
	Review Research
	Review Current Facility Operations
	Demographic Profile and Geographic Spread Impacts
	Sport and Leisure Trends
PHASE 1B: MARKET ANALYSIS AND RESEARCH	**Facility Case Studies and Industry Best Practice Review**
	Demand and Supply Analysis
	Key Stakeholder Interviews
PHASE 2: DEVELOP STRATEGIC DIRECTION	**Identification of Opportunities to Enhance the Centre**
	Potential and Priority Facility Component Plan
	Strategy Development
	Review of Management Options
	Issues and Opportunities Paper
	Key Findings Meeting
PHASE 3: BUSINESS MODEL AND CONCEPT DEVELOPMENT	**Preliminary Design Options**
	Indicative Capital Cost Plans
	Initial Business Case Assumptions
	First Cut Base Case 10 Year Electronic Financial Model
	Draft Feasibility and Concept Design Report
PHASE 4: PLAN REVIEW AND DEVELOPMENT	**Draft Review Workshop**
	Concept Plan
	Business Model
	Capital Cost Plan
PHASE 5: FINAL REPORTING AND PRESENTATION	**Final Feasibility and Concept Design Report**
	Presentation of Final Report

1.4 Project Area

Christie Park is located in Macquarie Park, which is the northern most area of the Ryde Local Government Area (LGA). The figure below shows the Ryde LGA and key sites relevant to this study. These include Christie Park itself which is used primarily by the GHFA, ELS Hall Park (NWSWFA), Magdala Park (GRMFC) and Peel Park (GRWFC).

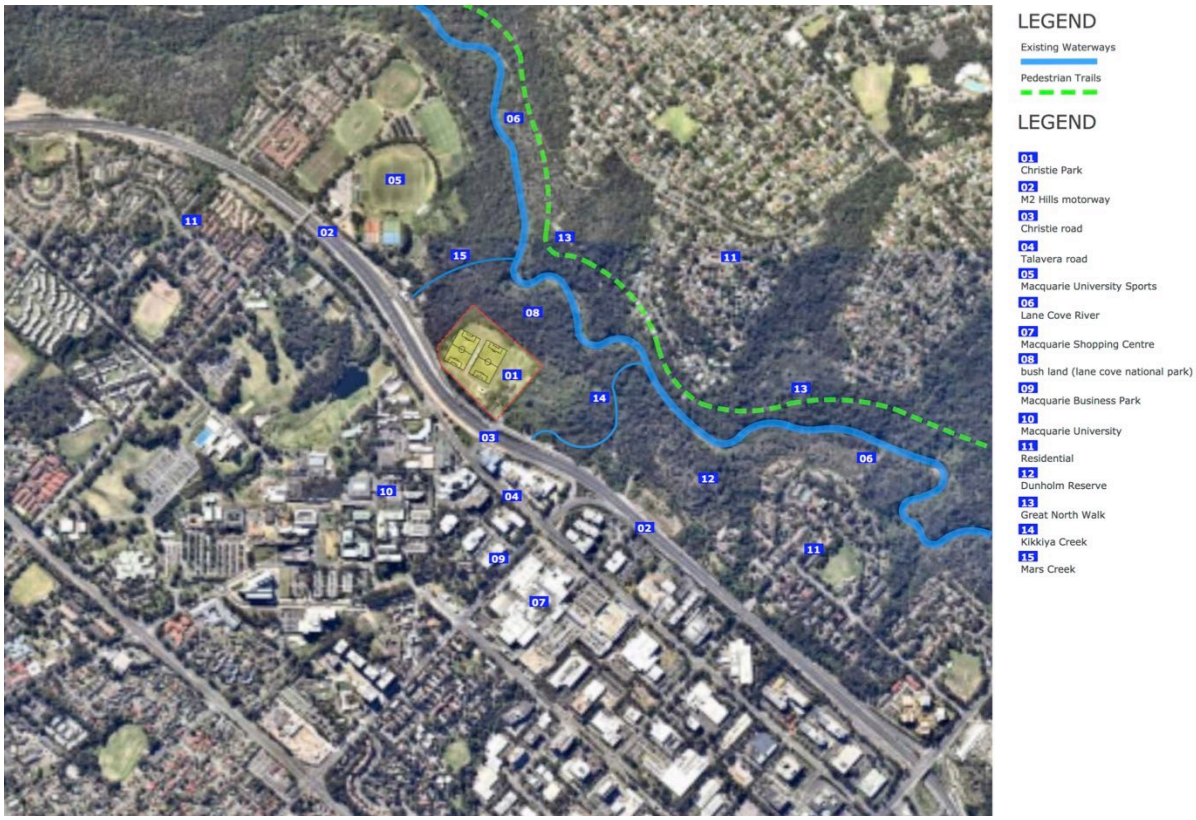
Figure 1 - Site Location within Ryde LGA



Macquarie Park has a significant commercial precinct and includes the main Macquarie University Campus. The location of Christie Park within the local area is shown in the figure below.

Macquarie Park has been identified as a priority precinct by the NSW Department of Planning with significant development (commercial and residential) planned to occur over the next 15 to 20 years.

Figure 2 - Site Context

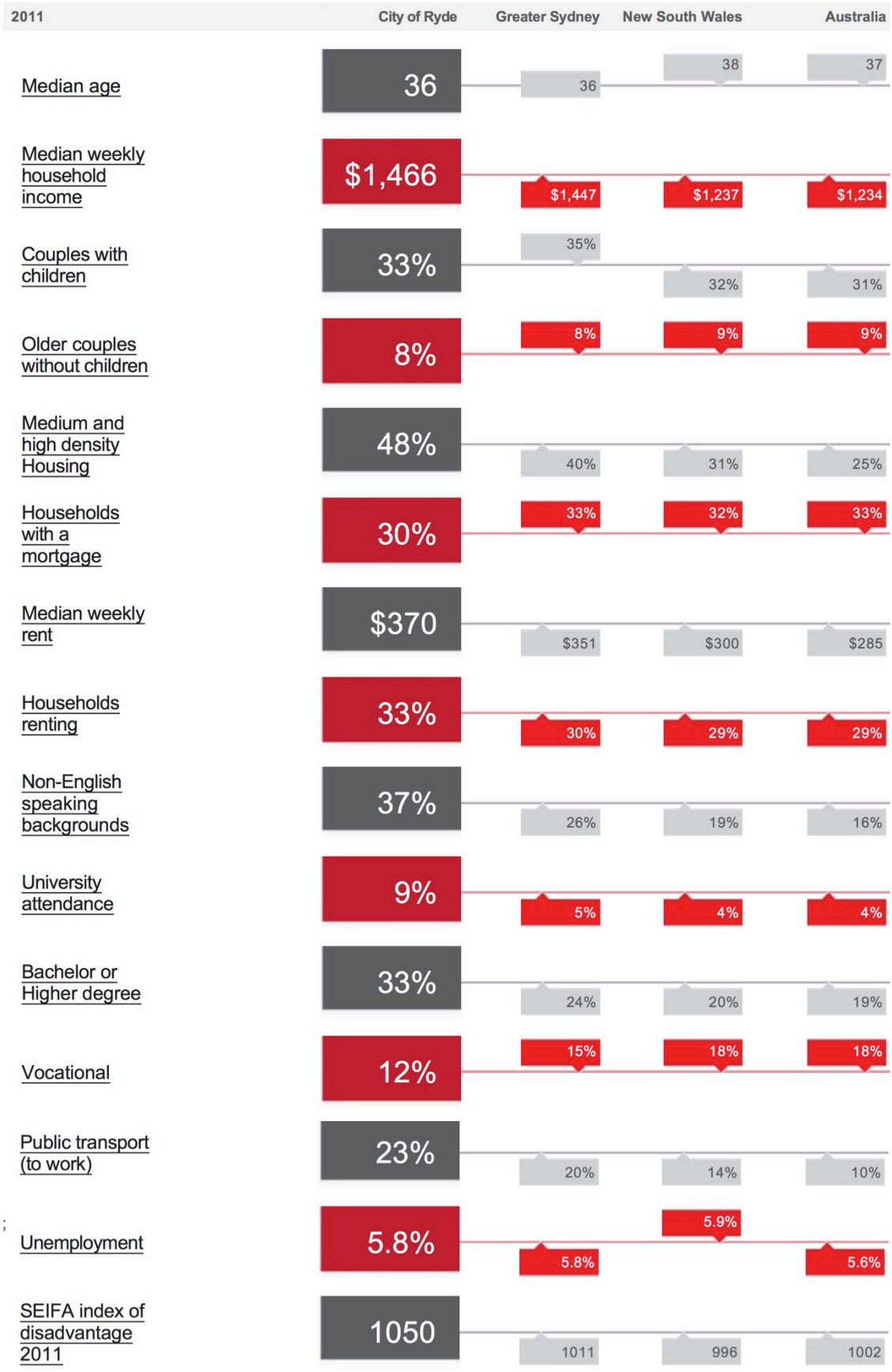


1.5 Demographic Review

Using Council's *Profile.id* site, the following community profile has been prepared based on 2011 Census data. This indicates that the Ryde LGA has:

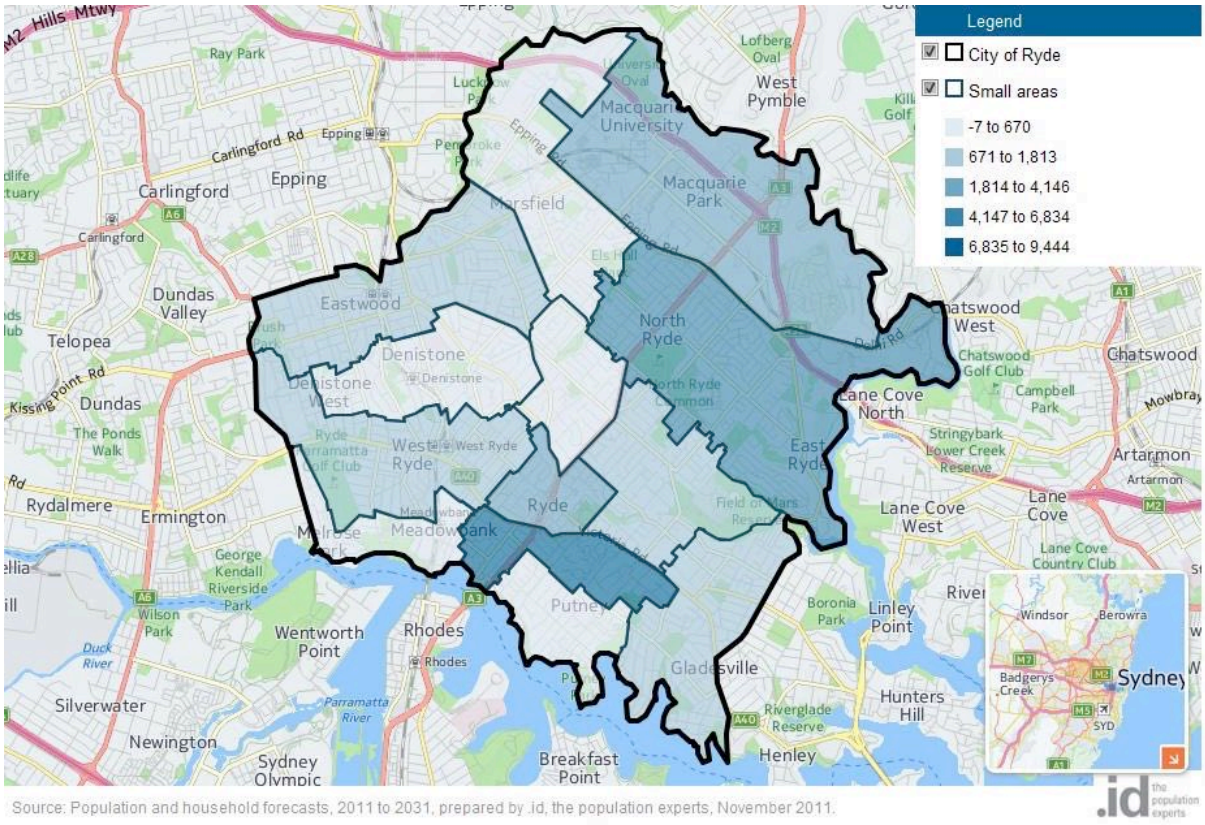
- Higher rate of persons with a non-English speaking background;
- Higher rate of persons with a bachelor or higher degree; and
- Higher rates of medium and high density housing.

Population highlights



From 2016 to 2031, the population of the Ryde LGA is forecast to grow by 20,511 (*Forecast .id*) to 135,508. The Macquarie Park and North Ryde (and East Ryde/West Chatswood) areas will contribute approximately 34% of the new population during this period and have a combined population of 28,946.

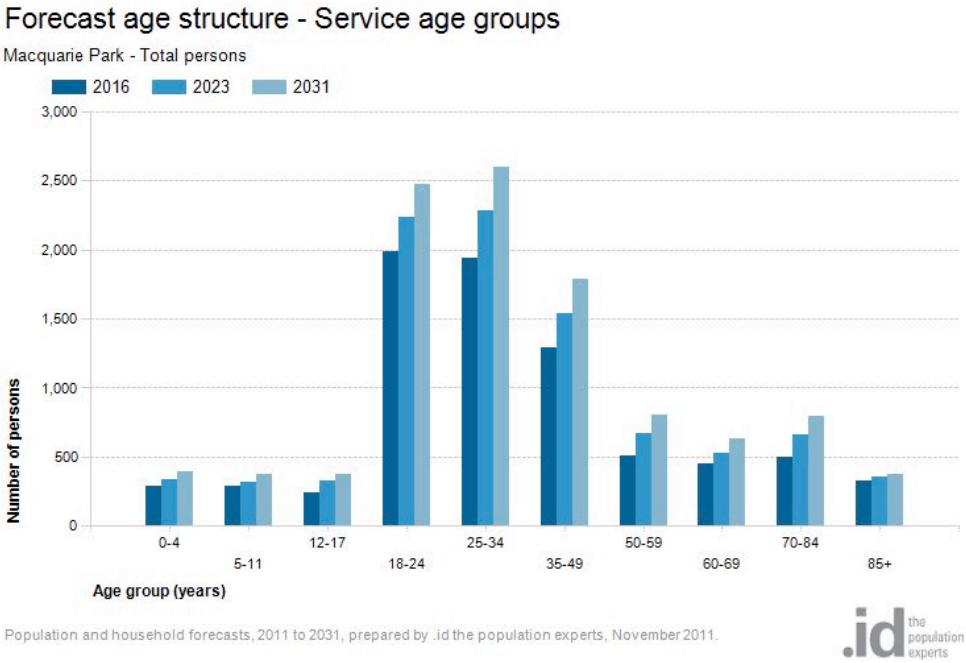
Figure 3 - Future Growth Areas in Ryde



Between 2016 and 2031:

- The age structure category with the greatest increase in persons in Macquarie Park is 'Young workforce (25 to 34)' followed by ‘Parents and home builders’ and ‘Tertiary education and independence’.
- Based on existing participation indicators[1], the Macquarie Park and North Ryde area alone could see an increase in football sports participation of approximately 1,000 people.

[1] Based on ERASS Participation in organised football codes (AFL, Rugby League, Rugby Union, Football and Touch/Oztag)



- The City of Ryde forecasts indicate that Macquarie Park will have the greatest increase in household type 'Group households'.



2 Review of Christie Park

A review of Christie Park was undertaken to identify site issues, opportunities and constraints. This was done in the context of redeveloping the site with synthetic football fields.

2.1 Project Site

Christie Park is approximately 5.2 hectares in size and provides sports fields for football. Christie Park is currently home to the largest Football Association within the LGA and provides the following facilities:

- 1 football field to Football NSW NP1 standard with
  - floodlighting to 200 lux
  - a grandstand seating 300,
- 1 football field with floodlighting to 50 lux
- 1 club house
- 2 change rooms
- 1 umpires room
- 1 canteen
- Car park for approximately 150 cars

The site is bounded by the Lane Cove National Park to the North, undeveloped state government owned land to the East, the M2 Hills Motorway to the South and Macquarie University to the West (bushland). Christie Park is highly accessible by vehicle from both the M2 Motorway (East and West) and Macquarie Park. Macquarie Park Station is an 800m walk from Christie Park.

Figure 4 - Current Site Plan



2.1.1 Current Operations

Council currently directly manages the facility with a seasonal winter booking made by GHFA for approximately 40 hours per week per field. GHFA then manages scheduling of activities on the facility. During the winter season, Field 1 averages approximately 21 hours per week of actual use, whilst Field 2 averages 23 hours per week.

GHFA have contributed to facility improvements at Christie Park over a number of years, with the most recent being the installation of new lighting for Field 1and Field 2.

As noted in Section 1.4, other MOU members currently utilise alternate facilities for their activities. They include Magdala Park (GRMFC), Peel Park (GRWFC) and ELS Hall (NWSWFA). Current weekly hours of use at each of these sites is 28, 16 and 42 respectively.

2.1.2 Previous Planning

The proposal to develop Christie Park via the installation of one or more synthetic pitches has been raised through previous studies and planning. The *Ryde Synthetic Sport Surfaces Study* (2013) recommended the installation of a pitch at Christie Park #2 as a 'medium term' option to assist with alleviating current pressure on natural turf fields.

Since this time, Council has engaged with a group of key stakeholders to consider and develop the concept of establishing a Football Centre at Christie Park. This was formally initiated with the MOU. One outcome of this planning was the preparation of an indicative concept plan showing up to 3 synthetic football fields on the Christie Park Site.

2.2 Site and Facilities Review

Graphite Architects have completed a review of the site and associated facilities including site planning, water and environmentally sensitive design and car parking and site access.

2.2.1 Site Planning

Issue/Constraint	Opportunities/Options	Comment/Recommendation
Size of site limits development	Rotate existing field orientation to increase potential for better utilisation of the park	Review options and facility mix to get the best community and commercial outcome
Existing infrastructure may need to be upgraded with hidden additional costs	Limit development to capacity available or upgrade utility capacity for proposed development	Review utility infrastructure serving the site to confirm actual capacity for expansion and costs
Existing amenities and services building restricts optimal planning for the site	Demolish existing building or retain and work around this constraint	Review optimal planning for playing fields and best location for the amenities building. Review reutilisation of existing services connections to minimise cost.
Existing site is generally flat but falls away steeply to the north and east	Stepped development of new fields and facilities	Review optimal cut and fill proposition to allow the site to be stepped to permit additional utilisation. Consider suspended deck with parking below.

2.2.2 Water and Environmentally Sensitive Design

Issue/Constraint	Opportunities/Options	Comment/Recommendation
Increased 'hard' surface area No water infiltration with synthetic fields	Provide separate infiltration and or detention facility.	Consider incorporating infiltration / retention into site-specific design of synthetic surface system.
Increased hard surface area (roofs)	Potential to harvest water from roof(s) in storage tanks.	Review possibility of incorporating grey water recycling for flushing and irrigation.
Increased hard surface area (car Parking)	Potential to provide surface retention in design of parking area.	Incorporate retention into site-specific design of car parking area.
Water Quality and contamination from car parking areas in particular.	Potential to provide some primary treatment to reduce water quality issues prior to release back to natural waterway.	Review water quality requirements and issues to the site and adjacent bush land. Obtain hydrological advice.
Increased lighting will be required with more fields and higher use with potential for greater light spill from the site.	Placement and direction of additional lighting. Scheduling of events.	Review specific requirements for each component of the proposed plan against lighting requirements to inform design.
Increased noise from higher utilisation	The site is isolated, potential to orient primary noise generators away from nearest residential uses.	Review position and elevation of nearest residential receivers, consider acoustic screening if required, consider scheduling.

2.2.3 Car Parking and Site Access

Issue/Constraint	Opportunities/Options	Comment/Recommendation
Limited capacity for additional car parking due to tight site access constraints. Parking is for recreational facilities of this nature is undefined and is to be determined through a traffic impact statement and surveys	Provide additional capacity on adjacent strip site to the east.	Review total anticipated car parking capacity to serve the site utilisation. Compare against other like sized facilities (e.g. Valentine Park). Further detail for subsequent planning could be provided by a formal traffic study.

Issue/Constraint	Opportunities/Options	Comment/Recommendation
of similar developments.		
Parking used by adjacent commercial and educational uses	Consider options that limit casual non-park related use of the parking. Introduce parking fees for non-park use.	Review parking patterns and consider targeted time limiting, review position of the parking to discourage casual non-park use or consider parking fees.
Poor public transport options	Provide capacity for coach and taxi drop off areas in general car park.	Review pedestrian way finding from nearby commercial and residential areas. Consider nearest public transport options.

2.3 Urban Planning Assessment

Parkland Planners have completed a review of urban planning matters including land ownership, zoning, community land management, and ecological management. This review was based on preliminary plans to develop synthetic football fields on site.

2.3.1 Land ownership

Owners/managers of land adjoining Christie Park are:

- Macquarie University to the north-west
- Office of Environment and Heritage – National Parks and Wildlife Service (Lane Cove National Park) to the north-east
- Former road reserve for former Balaclava Road to the east
- Planning NSW, Transport NSW and its subordinate authorities to the south-east.

The M2 Motorway adjoins Christie Park to the south-west. An extract from Council's land register showing details of land owned by Council is provided below.

City of Ryde

Park Management Information
Included in Generic Plan of Management for Community Land adopted on 27/11/2001

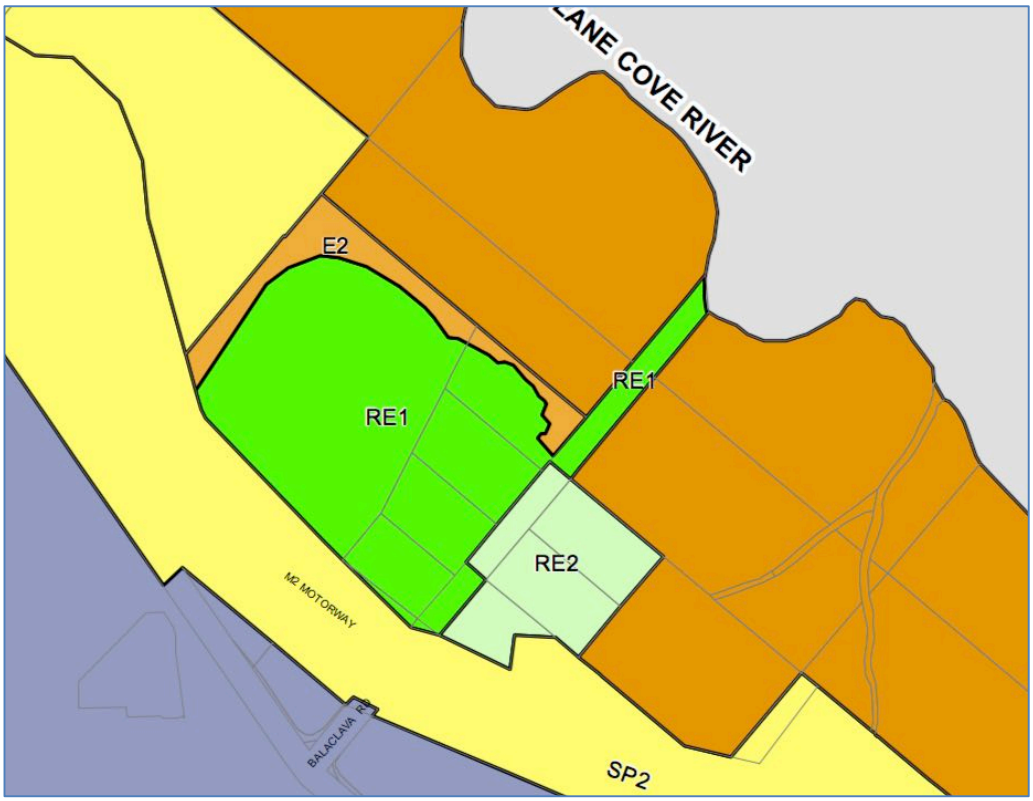
Land Information
Lot 100 dp 865058 is the residue of lot 8 dp 842855 compullsorily acquired By the rta by notice in government gazette # 43 of 24/4/1997.

Address	Section	Part Lot	Lot	DP	Title Reference		Owner	Classification	PoM	Crown Land	Zoning
16 Christie Rd MACQUARIE PARK NSW 2113			6	DP842855	6	842855	City of Ryde	Community Land	Yes	No	LEP 2014 - (RE1) Public Rec
16 Christie Rd MACQUARIE PARK NSW 2113			7	DP851713	7	851713	City of Ryde	Community Land	Yes	No	LEP 2014 - (RE1) Public Rec
16 Christie Rd MACQUARIE PARK NSW 2113			100	DP865058	100	856058	City of Ryde	Community Land	Yes	No	LEP 2014 - (RE1) Public Rec LEP 2014 - (E2) Environ Conservation
16 Christie Rd MACQUARIE PARK NSW 2113			4	DP9130	6348	206	City of Ryde	Community Land	Yes	No	LEP 2014 - (RE1) Public Rec
16 Christie Rd MACQUARIE PARK NSW 2113			5	DP9130	6346	206	City of Ryde	Community Land	Yes	No	LEP 2014 - (RE1) Public Rec
16 Christie Rd MACQUARIE PARK NSW 2113			6	DP9130	6348	206	City of Ryde	Community Land	Yes	No	LEP 2014 - (RE1) Public Rec LEP 2014 - (E2) Environ Conservation

2.3.2 Ryde Local Environment Plan 2014

An extract from the Ryde Local Environment Plan 2014 that relates to the site is shown below.

Figure 5 - Ryde LEP 2014 Christie Park Zoning



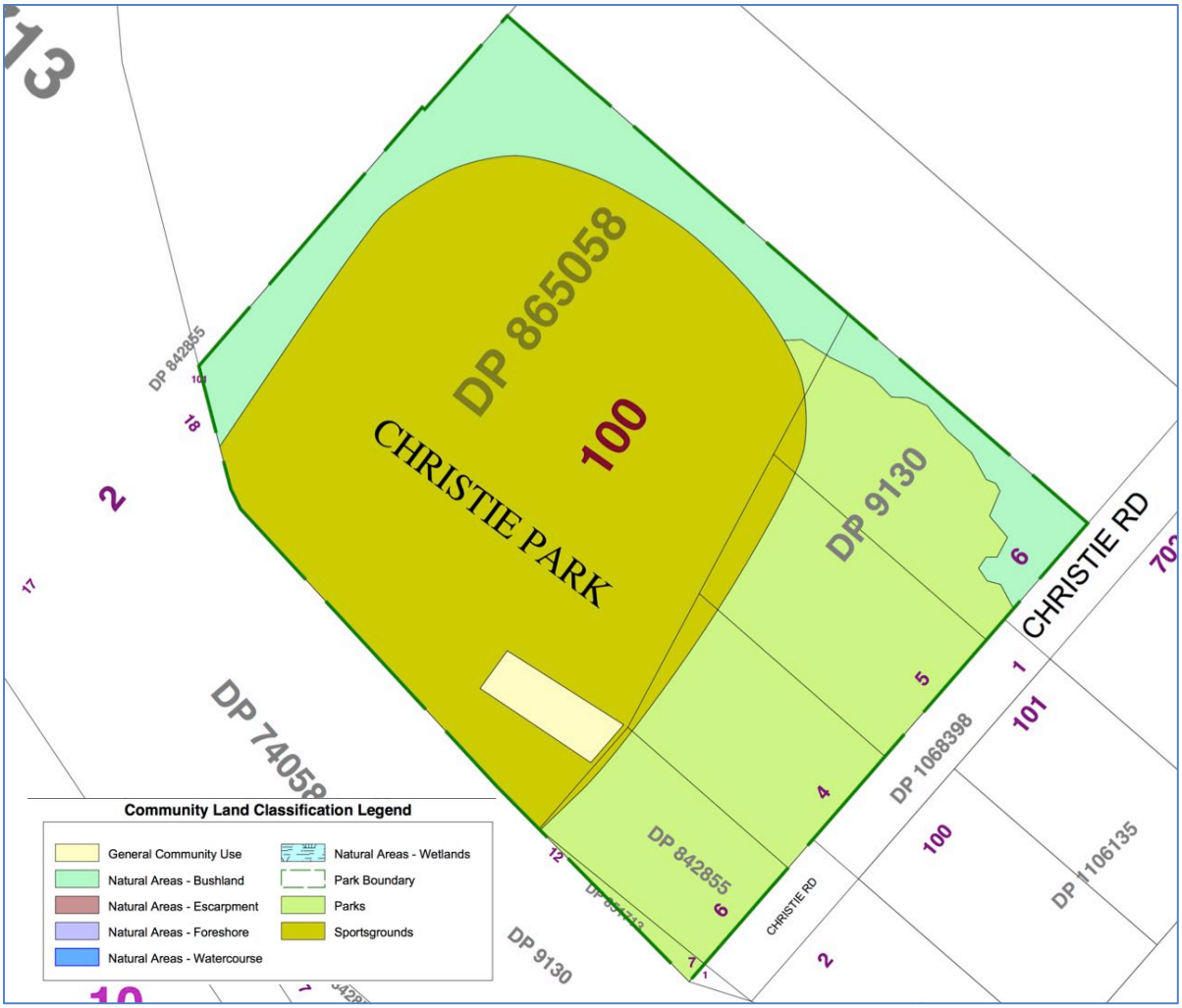
Issue/Constraint	Opportunities/Options	Comment/Recommendation
The proposed sporting fields are consistent with the objectives of the RE1 Public Recreation zone in the Ryde Local Environmental Plan 2014, but are not consistent with the objectives of the E2 Environmental Conservation zone. Recreation facilities (outdoor) are permissible with consent in the RE1 Public Recreation zone in the Ryde Local Environmental Plan 2014, but are prohibited in the E2 Environmental Conservation zone. Under the State Environmental Planning Policy (SEPP) (Infrastructure) 2007 certain development can be undertaken in the RE1 zone without development consent, but would require a Part 5 assessment under the *Environmental Planning and Assessment Act 1979*. Sporting fields are permitted without consent on public parks, but not in bushland. Clause 65(3)(b) of SEPP (Infrastructure) 2007 states that development for outdoor recreational facilities, including playing fields, but not including grandstands, may be carried out by or on behalf of a council without consent on a public reserve	Locate the sporting fields to a north-south orientation which would require development in the E2 zone. A Review of Environmental Factors and a Planning Proposal to rezone the land would be required. Locate the sporting fields entirely within the RE1 Public Recreation zone. Rezoning of the land would not be required. Only consider using SEPP (Infrastructure) provisions if field configuration will affect bushland.	Locate the sporting fields and associated infrastructure entirely in the RE1 zone to avoid prohibited development in the E2 zone and the need for a Planning Proposal to rezone the land.

Issue/Constraint	Opportunities/Options	Comment/Recommendation
under the control of or vested in the council.		
The current use of Christie Park falls under the definition of 'recreation area' under the Ryde Local Environmental Plan 2014 and is permitted with consent in the RE1 Public Recreation zone. Synthetic sporting fields and ancillary structures (grandstand, amenities etc.) would fall under the definition of 'recreation facility (outdoor)', which is also permitted with consent under the Ryde Local Environmental Plan 2014. A Development Application would be required for a grandstand; indoor sports facility and suspended sports field but not sporting fields at current levels.	The proposed works are consistent with the 'recreation facility (outdoor)' definition in the RE1 Public Recreation zone in the Ryde Local Environmental Plan 2014.	Prepare a Development Application for the proposed grandstand.
Bushland adjoining the RE1 Public Recreation zoning in Christie Park is zoned E2 (Environmental Conservation). Lane Cove National Park is zoned E1 (National Parks and Nature Reserves). The permitted land uses in the E2 and E1 zones are limited to environmental protection works (without consent) and environmental facilities (with consent).	Resurfacing of grass sporting fields in Christie Park to a synthetic surface needs to minimise the environmental impacts on the adjoining E2 and E1 zones.	Ensure that any resurfacing of grass sporting fields in Christie Park to a synthetic surface includes environmental protection works to protect the land in the E2 and E1 zones.
Lane Cove National Park is a heritage item in the Ryde Local Environmental Plan 2014.	Ensure that works undertaken at Christie Park take into account the heritage significance of Lane Cove National Park.	Minimise impacts of works at Christie Park on the heritage significance of Lane Cove National Park.

2.3.3 Land Management

An extract from the City of Ryde (2001) *Generic Plan of Management: Sportsgrounds, Parks, Natural Areas, General Community Use* relating to Christie Park is shown below.

Figure 6 - Christie Park, Community Land Categories



Issue/Constraint	Opportunities/Options	Comment/Recommendation
Land comprising Christie Park is owned by City of Ryde.	Council as the sole land owner facilitates development on Christie Park.	Manage the community land in Christie Park according to the *Local Government Ac t 1993*.
The south-eastern boundary of Christie Park adjoins land owned by Planning NSW, Transport NSW and its subordinate authorities which is zoned RE2 Private Recreation. Land on the north-eastern boundary of Christie Park is a road reserve.	Limit the design of the sporting complex to within the boundary of Christie Park.	Limit the design of the sporting complex to within the boundary of Christie Park.

Issue/Constraint	Opportunities/Options	Comment/Recommendation
The northern boundary of Christie Park adjoins Lane Cove National Park. The National Park forms a vegetated buffer to the residential area of West Pymble to the north.		Ensure proposals for Christie Park do not conflict with the values and Draft Plan of Management for Lane Cove National Park.
The western boundary of Christie Park adjoins the Macquarie University Ecological Reserve.		Ensure proposals for Christie Park are consistent with management objectives of Macquarie University for the Macquarie University Ecological Reserve.
Christie Park is categorised as Sportsground, Park, Natural Area – Bushland, and General Community Use in the Generic Plan of Management: Sportsgrounds, Parks, Natural Areas, General Community Use (City of Ryde, 2001) as shown in Figure 4. The proposal is consistent with the Generic Plan of Management: Sportsgrounds. The proposal is not consistent with Generic Plan of Management: Natural Areas. Depending on final configuration and site design, the new sporting fields may not be located on community land categorised as Sportsground. The proposal is consistent with the guidelines and core objectives for the Sportsground and Park categories. The proposal is not consistent with guidelines and core objectives for Natural Area – Bushland category.	Locate the sporting fields on community land categorised as Sportsground where possible so the adopted categorisation is retained. In that case it would not be necessary to prepare a public hearing and report, Council resolution to recategorise the land, or amend the Generic Plan of Management or prepare a stand-alone Plan of Management for Christie Park. Locate the sporting fields on community land categorised as either Natural Area-Bushland, Park or General Community Use. Recategorisation of community land requires a public hearing and report, Council resolution to recategorise the land, and either amending the Generic Plan of Management or preparing a stand-alone Plan of Management for Christie Park.	Locate the stage 1 sporting fields on community land categorised as Sportsground as far as possible. For future stages, hold a public hearing and prepare a public hearing report to recategorise community land in Christie Park which is categorised as Park and General Community Use to Sportsground and General Community Use as required. The proposed General Community Use category would reflect the location of the grandstand, amenities and other indoor facilities excluding the sporting fields.
Option for City of Ryde to enter into a use agreement with GHFA, and others to use and manage the proposed facility. Constraints to granting tenure under the *Local Government Act 1993* are: • the length of a lease (up to 30 years with Ministers consent) • the requirement for community consultation for a use agreement for a period of 5 years or more • activities for which a lease or licence may be granted • limits to the activities for which community land may be sub-leased.	Enter into a licence agreement with GHFA to use the new facility, while allowing other groups to use the facility through a licence agreement. Contributions of sporting groups to capital improvements, and any priority use of the facility in return for investment in facilities, would be negotiated by the sporting group and Council, reflected in the draft use agreement, and publicly exhibited for comment.	Any agreement should in principle be shared use to allow as many groups as possible to use the facility, and avoid exclusive use of facilities on community land.

2.3.4 Ecological Management

Issue/Constraint	Opportunities/Options	Comment/Recommendation
Christie Park is surrounded by bushland on the northern side by Lane Cove National Park, and to the west by the Macquarie University Ecological Reserve. Vegetation in the study area is maintained grassland, and Sydney Sandstone Ridgetop Woodland to the north and west of Christie Park. The thin strip of bushland on the northern and western boundaries of Christie Park provides a buffer to the National Park from uses occurring at Christie Park. The adjoining bushland protects the National Park from an increase in runoff, nutrients, weeds and rubbish generated from the sporting fields. Encroachment of the sporting fields, maintenance access requirements, spectator areas, pathways, seating, and other associated infrastructure further encroaches on the bushland and compromises the vegetation buffer.	-	Locate the sporting fields and associated infrastructure so that bushland is not cleared or impacted. There may be some minor graded fill needed at the NW edge.
Runoff from the synthetic fields Christie Park is in close proximity to Lane Cove River, a major estuary.	Synthetic surfaces result in a net reduction in nutrient runoff and overland flow compared to fertilised and permeable turfed sporting fields.	Treat and re-use water runoff on-site if possible. WSUD potentially can be catered for with structured underground detention / retention to the north. The detention for the options will be affected by the particular ground and soil conditions subject to a detailed geotechnical report as well as site specific hydrology and may include designed in infiltration zones within the playing fields, specifically designed modular subterranean storage / detention, above ground storage tanks, above ground detention basin at the NE corner of the site etc. The size and nature of required detention and / or retention can only be determined in detail following detailed hydraulic design and geotechnical reports.
Christie Park is located within Bushfire Prone Land – Vegetation Buffer – 100 metres and 30 metres. Synthetic materials are combustible and contribute to bushfire hazard.	Recognise the importance of bush fire mitigation measures.	Implement the Planning for Bushfire Protection Guidelines 2006 in the design and operation of the facility. Include an irrigation system with adequate capacity and volume to manage the bushfire risk. Consider egress from the site in the event of a bushfire in the master plan.

2.4 Recreation Planning Review

Parkland Planners completed a review of recreation planning matters relating to Christie Park including passive recreation and access connectivity.

2.4.1 Passive Recreation

Issue/Constraint	Opportunities/Options	Comment/Recommendation
Bush regeneration is undertaken by the Mars Creek Bushcare Group under the direction of NPWS in the bushland to the north of Christie Park.	-	Liaise with NPWS and the Mars Creek Bushcare Group if bushland to the north of Christie Park is likely to be impacted.
	Facilities for social interaction and play would complement the proposed sporting fields.	Include facilities and settings for informal recreation such as picnics/ barbecues in the master plan.

2.4.2 Access and Connectivity

Issue/Constraint	Opportunities/Options	Comment/Recommendation
Limited pedestrian access between Christie Park and Lane Cove National Park. As the residential density in Macquarie Park, and specifically the Herring Road area, increases, pedestrian connections to Lane Cove National Park will become more important.	Improve visibility of and physical access to walking tracks between Christie Park and Lane Cove National Park	Improve visibility of and physical access to walking tracks between Christie Park and Lane Cove National Park by formalising the entrance to the walking track in north Christie Park
The Draft Plan of Management for Lane Cove National Park (Office of Environment and Heritage, 2012) does not propose improvements to walking tracks in the area adjacent to Christie Park, but action 3.6.20 states “Investigate … the feasibility of a walk linking Macquarie University to the Great North Walk.” Communication with NPWS revealed that they would not encourage pedestrian crossings of the lane Cove River.	NPWS proposal for walk linking Macquarie University to the Great North Walk	Liaise with NPWS to facilitate link between Macquarie University and the Great North Walk.
Pedestrian/cycle access between Christie Park and Macquarie University/Macquarie Park, Fontenoy Park and Tuckwell Park. The M2 Motorway is a major visual and physical barrier to access for Christie Park.	Improve visibility of and physical access to Christie Park from Macquarie University/ Macquarie Park, Fontenoy Park and Tuckwell Park. Pedestrian access between Macquarie Park and Christie Park is via existing overpass.	Improve visibility of and physical access to Christie Park from Macquarie University/ Macquarie Park, Fontenoy Park and Tuckwell Park by: • Implementing the City-Wide Link 3: Macquarie Park Centre to Christie Park, Fontenoy Park and Tuckwell Park (Open Space and Environment Strategy, 2010). • Erecting directional signage to Christie Park from Talavera Road, Culloden Road, Herring Road, Macquarie University Hospital, Macquarie Centre, and Macquarie Park railway station.

Issue/Constraint	Opportunities/Options	Comment/Recommendation
Limited pedestrian access between Christie Park and Macquarie University sporting fields	Improve visibility of and physical access between Christie Park and Macquarie University sporting fields. Pedestrian access between Christie Park and Macquarie Park sports fields partially exists to the west of Christie Park. However a pedestrian crossing of Mars Creek is necessary. Pedestrian link and Mars Creek crossing is subject to negotiation with the University	Improve visibility of and physical access between Christie Park and Macquarie University sporting fields by: • erecting directional signage at the entrance to the walking track on the western side of Christie Park • liaising with Macquarie University regarding a crossing of Mars Creek and west to the Macquarie University sporting fields
Limited pedestrian/cycle access to the east of Christie Park to Dunholm Reserve	Improve visibility of and physical access between Christie Park and Dunholm Reserve. The City of Ryde Integrated Open Space Plan shows an indicative pedestrian link between Dunholm Reserve and Christie Park.	Improve visibility of and physical access between Christie Park and Dunholm Reserve by liaising with the state government authorities which own the land to the east of Christie Park regarding a link through the site. Pedestrian access and a potential connection point will depend on negotiations with State government owners of the land to the east of Christie Park, and owners of the land east of Dunholm Reserve; vegetation; topography; etc.



3 Market Research

This section of the report outlines key information relating to demand and supply of synthetic football fields.

3.1 Regional Facility Provision

From a regional perspective, the Northern Sydney area has witnessed a significant take up of synthetic sports surfaces compared to other areas of Sydney. This is set to continue with planning underway for additional facilities. The *Northern Sydney Regional Organisation of Councils Regional Plan for Synthetic Sportsfields* captured details for existing and planned facilities in the region. This information has been updated and is presented below.

NSROC Regional Plan for Synthetic Sportsfields (2014)
This plan noted the following points in relation to the regional context for the provision of synthetic sposrtsfields:

- *Most synthetic sports fields have been developed and planned to meet local demand for additional sports field capacity. Indications from both sport and local government are that a substantial undersupply of sportsfield capacity exists in the NSROC region. Projections of future demand have been made and construction of the synthetic sportsfields, will significantly increase the supply of sportsfield time and space availability. The level of unmet demand will have to be reassessed when all these facilities are constructed. In moving forward, it is important that resources are not wasted by either duplication unnecessary facilities or creating over supply.*
- *When synthetic sports fields are completed, a detailed business case must be prepared for any future synthetic or natural turf sports fields. The business case will address:*
    - *Existing supply of natural and synthetic sports fields in the local and regional catchment, including details of infrastructure and sports played.*
    - *Existing use of natural and synthetic sports fields, identifying venues which are under used, at capacity and over used.*
    - *Potential use of proposed facility.*
    - *Potential impact on use of other sports fields in the local and regional catchment.*
    - *Finance – capital and operational income and expenditure.*
- *In preparing the business case, it will, of necessity, involve substantial discussions and negotiations with all stakeholders, including local governments in the NSROC region and local governments abutting the region. A key point to appreciate is that sport's participation is not restricted by local government boundaries.*

There are ten (10) existing rectangular synthetic playing fields in the Northern Sydney Region of Councils area (NSROC) that are used for multiple sports. Two of these are located at private schools in Ku-ring-gai and Hornsby Council areas. There are five (5) existing synthetic fields dedicated for hockey use only, two of which are situated at schools in the Ku-ring-gai Council area. Eight (8) multi-use synthetic surfaces are planned within the NSROC region.

Current and proposed provision of multi-use synthetic surfaces are outlined below and illustrated by the map shown in Figure 5.

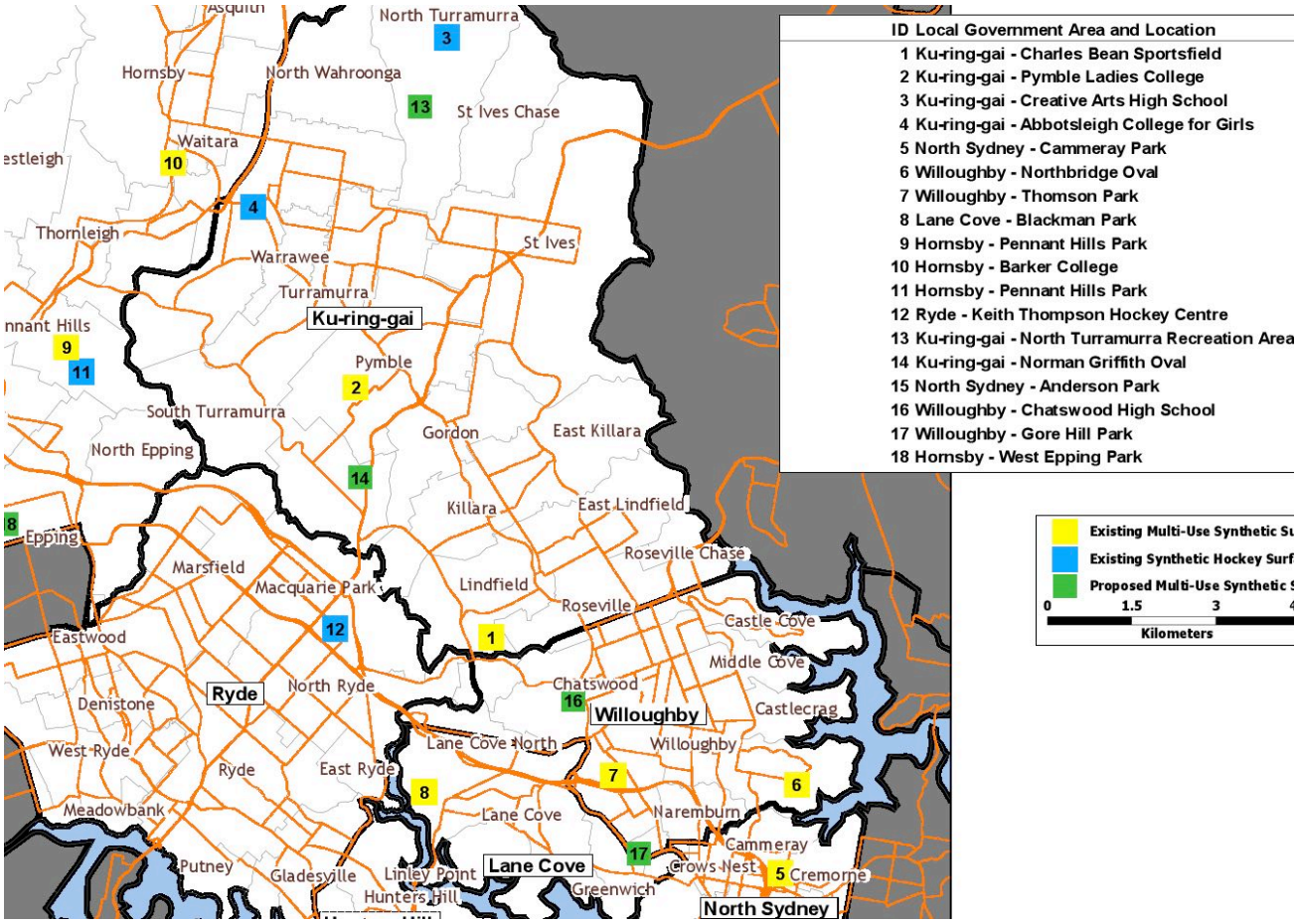
A summary of existing synthetic sportsfields provided in the NSROC area is shown below.

Local Government Area and Location	Details
Ku-ring-gai - Charles Bean Sportsfield	One rectangular field
Ku-ring-gai - Pymble Ladies College	One rectangular field
Ku-ring-gai - Creative Arts High School	One synthetic hockey field
Ku-ring-gai - Abbotsleigh College for Girls	One synthetic hockey field
North Sydney - Cammeray Park	One rectangular field (completed 2015)
Willoughby - Northbridge Oval	One sports field with two football pitches and cricket oval with cricket wicket on a hydraulic platform
Willoughby - Thomson Park	One rectangular field (completed 2015)
Lane Cove - Blackman Park	One sports field with two rectangular fields incorporating an AFL and cricket oval, with the cricket wicket installed on a hydraulic platform
Hornsby - Pennant Hills Park	One rectangular field (completed 2015)
Hornsby - Barker College	One sports field
Hornsby - Pennant Hills Park	Two synthetic hockey fields
Ryde - Keith Thompson Hockey Centre	One synthetic hockey field

A summary of planned synthetic sportsfields (excluding hockey) provided in the NSROC area is shown below.

Local Government Area and Location	Details
Ku-ring-gai - North Turramurra	One rectangular field
Ku-ring-gai - Norman Griffith Oval	One rectangular field (scheduled 2016)
North Sydney - Anderson Park	One rectangular field
Willoughby - Chatswood High School	One rectangular field
Willoughby - Gore Hill Park	Oval with two rectangular fields
Hornsby - West Epping Park	Two rectangular fields

Figure 7 - NSROC, Existing and Planned Synthetic Sportsfields



3.2 Related Research

The establishment of a synthetic sports surface at Christie Park has been identified as a priority in current and previous research to help address the current overuse of natural turf sportsfields.

Draft Synthetic Sport Surfaces Action Plan – City of Ryde (2015)

This study found that of Council's 51 winter sportsfields, 45% were utilised for more than the recommended 22.5hrs per week. One third (33%) were used for more than 30hrs per week beyond which significant damage is expected.

Cumulatively, this overuse amounts to 122 field hours per week. In addition to this, it is estimated that demand generated by new growth will require a further 157 field hours per week over the next ten years. To address the current shortfall and future demand, the action plan identifies potential increased use of existing under-utilised sportsfields and options for developing a range of synthetic surfaces in increase the carrying capacity of sportsfields.

The action plan identifies Christie Park fields 1 and 2 as short-term priorities to assist with addressing the identified shortfalls. Demand research shows that around 50% of this use will be reallocated from other facilities including ELS Hall, Magdala Park and Peel Park. This will contribute directly to addressing the overall over-allocation issue by reducing the use of ELS Hall (currently over-used) and/ or indirectly by providing an opportunity to re-allocate use from other over used facilities to Peel Park and/ or Magdala Park. The increased carrying capacity of the fields will also enable GHFA to schedule more local youth and senior games on the facility, once again reducing the impact on existing fields and creating greater capacity. Finally, concentration of 'pre' and 'post' season activities

at Christie Park will also enable other fields to have a longer period to recover from, and be prepared for, the winter season.

City of Ryde Synthetic Sports Surfaces Study (2013)

This study:

- Identified the following as key sports that would probably need to accommodate growth over the next two decades:
    - Football (soccer)
    - Australian Rules Football
    - Hockey
    - Rugby Codes
- Suggested that the city would be unlikely to be able to accommodate growth just with the current natural sports turf facilities, and recommended that:
    - Due to the growth in demand, Council consider using the synthetic turf technology in order to satisfy growing demand for sporting facilities and reduce the financial impost on Council due to the additional maintenance and renovation cost that will be needed should natural turf fields continue to be over utilised.
- A preliminary assessment of all sports fields was undertaken with ten identified for further assessment. From these, four sites were potential sites were identified and assessed.
    - ELS Hall Park Field #1 - recommended as a multi-sports field incorporating a One-Turf Standards so the Football (soccer), Rugby (Tag and Touch), Australian Rules/Cricket be played there.
    - Christie Park Field #2 - recommended to be considered as a second site, subject to the repositioning of the complex as a community football centre with a clear strategic focus on being more community inclusive.
    - Eastwood Park Upper Oval – not recommended due to issues associated with late night use and impacts on surrounding residents.
    - Magdala Park #1 – not recommended due to issues associated with former use as a landfill site.

3.3 Industry Trends

This section provides a brief overview of relevant industry trends.

Case Studies

As noted in Section 3.1, there are numerous existing synthetic sportsfields located in the NSROC area. Case study information was collected for two of these facilities, Northbridge Oval and Cameray Park. Common characteristics between the two facilities were:

- Winter usage of 60 plus hours per week
- Summer usage of 50 plus hours per week
- Majority use by football
- Estimated surface life of up to 8 years
- Annual surface maintenance costs of circa $35,000
- Direct council management

Commercial Football

A number of commercial football operations operate throughout Sydney. Most of these are based on small sided (5, 6 and 7 aside) formats on weekday evenings. These are branded in numerous ways and have varying 'futsal' affiliations, few of which are connected to Football NSW.

Many futsal competitions are operated from indoor facilities, but there are a growing number of outdoor facilities (both local government and privately owned) which host commercial competitions. The format and type of facilities utilised varies depending on characteristics of each venue. Variations include:

- Team size (based on area available)
- Netting systems (permanent/rebound, temporary and none)
- Surface type

The peak for these operations tends to be the summer period with most operating on a year round basis. Competitions tend to run for approximately 12 weeks. Team costs per game range from $55 to $75.

3.4 Demand and Opportunity Assessment

SGL has conducted a review of supply and demand factors relevant to the preparation of the master plan and feasibility study.

3.4.1 General Sportsfield Demand

As outlined above, previous studies and assessments have established that many of Ryde's sportsfields are over utilised, particularly in the winter season. Football is the largest participation sport and major user of sportsfields in the Ryde area. Football also has the largest growth in aggregate numbers than any other sport.

As demonstrated by the demographic review, this growth is set to continue in line with population growth for the foreseeable future. Increases in key demographic age groups, increased housing density and changes in household types will all contribute to greater demand for sport and recreation opportunities.

The *Draft Synthetic Sport Surfaces Action Plan* (2015) found that installation of two synthetic fields at Christie Park could provide addition 64 'field hours' per week which would contribute to addressing the identified shortfall of 122 hours. This would enable use of current fields being reallocated to Christie Park hereby reducing overuse of these areas and/or creating greater capacity.

3.4.2 Core User Demand

As noted previously the core users of the proposed facility are MOU signatories. Combined, these organisations have an overall membership of 14,000 and this is likely to grow to approximately 15,000 within the next 3 years.

In order to quantify demand from the intended core users of the facility, all MOU football partners were asked to identify their potential 'peak time' utilisation for 'Pre-season' (January to February), 'Competition Season' (March to September) and 'Post Season' (October to December) periods. 'Peak time' was defined as 4pm to 10pm Monday to Friday and 8am to 8pm Saturday and Sunday.

By comparing the field hours requested by core users to the hours supplied by a single field on a given day or period, a 'Field Demand' factor can be calculated. This indicates the number of fields that would need to be provided to meet core user demand on any given day or period.

The following tables summarise the information collected from this process. It should be noted that partners were asked to nominate all potential use, whilst it was acknowledged that the facility is unlikely to be able to meet full demand at all times. In the case of GHFA, they indicated use for 'elite' level utilisation generated by high performance training and competition and 'community' level

utilisation generated by local senior and youth league games. The full combined utilisation schedule is shown in Appendix 1.

Pre-season

- The pre-season analysis shows that, on average, 2.2 fields would be required to meet core demand.
- Whilst current demand shows a peak on Tuesday and Thursday, mid-week demand is averaged at 2.8 fields.
- Weekend demand averages out at just under one and a half fields.

Table 1 - Core User Demand - Pre-season (Jan-Feb)

	Field Hrs/ Season	Weeks/ Season	Av Hrs/ Week	Available Peak Hrs/ Field	Field Demand
Monday	122.0	8	15.3	6	2.5
Tuesday	171.5	8	21.4	6	3.6
Wednesday	122.0	8	15.3	6	2.5
Thursday	181.5	8	22.7	6	3.8
Friday	78.0	8	9.8	6	1.6
Mid Week Subtotal	*675.0*	*8*	*84.4*	*30*	*2.8*
Saturday	100.0	8	12.5	12	1.0
Sunday	176.0	8	22.0	12	1.8
Weekend Subtotal	*276.0*	*8*	*34.5*	*24*	*1.4*
Total	**951.0**	**8**	**118.9**	**54**	**2.2**

Competition Season

Naturally, the key period for demand is the competition (winter) season.

- This period sees an average of 2.9 fields required to meet demand.
- For mid-week demand, Monday (4.5) and Thursday (5.3) are peak periods with an average of 3.6 across the whole period.
- Core weekend demand averages out at 2.1 fields.

Table 2 - Core User Demand – Competition Season (Mar-Sep)

	Field Hrs/ Season	Weeks/ Season	Av Hrs/ Week	Available Peak Hrs/ Field	Field Demand
Monday	810.0	30	27.0	6	4.5
Tuesday	615.0	30	20.5	6	3.4
Wednesday	510.0	30	17.0	6	2.8
Thursday	952.5	30	31.8	6	5.3
Friday	315.0	30	10.5	6	1.8
Mid Week Subtotal	*3202.5*	*30*	*106.8*	*30*	*3.6*
Saturday	610.0	30	20.3	12	1.7
Sunday	886.5	30	29.6	12	2.5
Weekend Subtotal	*1496.5*	*30*	*49.9*	*24*	*2.1*
Total	**4699.0**	**30**	**156.6**	**54**	**2.9**

Post Season

The October to December period represents the lowest demand of the three periods.

- On average, 1.3 fields would be needed to meet demand.
- Mid-week demand shows a peak on Tuesday and Thursday with an average of 1.5 fields required.
- Average weekend demand falls to 1 field required.

Table 3 - Core User Demand – Post Season (Oct-Dec)

	Field Hrs/ Season	Weeks/ Season	Av Hrs/ Week	Available Peak Hrs/ Field	Field Demand
Monday	56.0	12	4.7	6	0.8
Tuesday	177.5	12	14.8	6	2.5
Wednesday	56.0	12	4.7	6	0.8
Thursday	162.5	12	13.5	6	2.3
Friday	96.0	12	8.0	6	1.3
Mid Week Subtotal	*548.0*	*12*	*45.7*	*30*	*1.5*
Saturday	180.0	12	15.0	12	1.3
Sunday	102.0	12	8.5	12	0.7
Weekend Subtotal	*282.0*	*12*	*23.5*	*24*	*1.0*
Week Total	**830.0**	**12**	**69.2**	**54**	**1.3**

Other Football Utilisation

In addition to peak use outlined above, core users indicated that the facility would be used for other football activities during 'off-peak times' through school holiday clinics, general skills clinics and school competitions and programs.

Summary of Observations

Core user demand for peak times indicates that the provision of two synthetic football fields could be viable for the majority of a 12 month period. Based on demonstrated demand, the provision of two fields would result in full utilisation in the competitive season (100% of peak hours) and near capacity in the pre-season (87%). Lower use in the post season period (60%) offers an opportunity to pursue summer football and/or small-sided football revenue.

3.4.3 Other Business and Sport Opportunities

In order to compliment and add to the core use by football stakeholders, a number of other opportunities have been explored. These include health and fitness facilities and commercial sport opportunities.

Health and Fitness

Initial consideration was given to the potential provision of general health and fitness facilities on site to complement general revenue streams. Health and fitness centres within the immediate surrounds of Christie Park were identified as follows:

- Omni Fitness 5/19 Khartoum Rd, Macquarie Park
- Fitness First 109 Waterloo Road, Macquarie Park
- Good Vibes Fitness 7-11 Talavera Rd,
- Macquarie University Sport & Aquatic Centre Gymnasium Rd, North Ryde
- Stamford Fitness Cnr Epping & Herring Roads, North Ryde
- Active Health Club 7-11 Talavera Rd, North

Macquarie Park

- Anytime Fitness 35-41 Waterloo Rd, Macquarie Park
- Plus Fitness 7 Eden Park Dr, Macquarie Park
- Justin's Active Fitness Centre 1/5 Talavera Rd, Macquarie Park

Ryde

- Action Jackson 12 Wilcannia Way, North Ryde
- Maash Sports and Fitness 1 Trafalgar Pl, Marsfield

This indicates an existing high level of supply in the local area. Without other high visitation activity generators (leisure facilities/aquatics, indoor sport) a fitness facility is unlikely to be key business driver. However, it could be considered in association with these types of development if they occur onsite in the future.

Commercial Sport

Commercial sport opportunities are available largely through corporate health and sport programing. These are a relatively new and growing trend in sport. At least two organisations are running commercial daytime competitions in the Macquarie Park area. Information related to these operations are as follows:

- Anderson Events
    - Macquarie University – touch football, soccer (football)
    - Tuckwell Park – touch football, soccer (football)
- Lunchtime Legends
    - Ryde Hockey Club – touch football, soccer (football)
    - Macquarie University – touch football, soccer (football), oztag, softball
- Charges per team in the Macquarie Park area range between $65 and $85 per team for a 30 minute game.
- Usually a minimum of 6 players per team to register.
- Season lengths typically vary between 8 and 10 weeks.

Many small-sided (5, 6 and 7 aside) football competitions are conducted throughout Sydney by commercial operators. These take place on a mixture of privately owned and public courts and in a range of settings. Courts can be indoor or outdoor, utilising a fixed netting system, temporary netting system or no nets depending on availability.

Gaps in field demand from core users (mid-week day time and post-season period) represent an opportunity to generate revenue through commercial sport. The provision of a synthetic surface will provide Christie Park with a significant advantage (wet weather and surface condition issues for natural turf) in attracting commercial sport use. By installing a temporary netting system on one full sized field up to 8 small sided fields can be created.

This opportunity could be extended year round with the addition of purpose built futsal/5-aside courts and provide additional revenue for the centre.

Indoor Sport

Preliminary findings from the City of Ryde Sport and Recreation Strategy have identified a need for additional indoor sport and recreation facilities. The facility mix and design of any future facility would require a site selection process master plan and feasibility study. However, it is acknowledged that indoor sports courts at Christie Park could create operational synergies and complement the proposed outdoor facilities.



4 Facility Development Options

This section of the report outlines facility development options for the site and details associated cost plans.

4.1 Facility Development and Components

Consultation with Council and MOU signatories along with preliminary demand assessment and planning outlined in previous sections, identified the following components as potential core and option developments for Christie Park:

- Core Components
  - Two synthetic football fields
  - Amenities building
  - Cap parking
  - Warm up area
- Optional Components
  - Synthetic futsal courts
  - Additional synthetic full sized field
  - Indoor sports courts
  - Health and fitness facilities

The two master plan options presented below cater for core components in Stage 1 and variations of optional components in Stages 2 and/or 3. Both master plan options include a third synthetic field on a suspended slab with car parking and health and fitness facilities below. Option 1 allows for the creation of six futsal pitches whilst option 2 allows for an indoor sports facility with four courts.

Stage 1 for both master plan options are identical as they are aimed at delivering initial core components. Details of components for Stage 1 are outlined below and shown in following stage 1 plan.

Stage 1 Component List

- Two synthetic football fields (17,220m^2 – approximate field area of 105m x 66m)
- Retain Existing Amenities Building
- One natural turf warm up area approximately 3,500m^2

Given its congruence with the overall aim of the project (i.e. to create a football centre), Master Plan Option One has been identified as the preferred development option and is dealt with in further detail in following sections of the report.

Figure 8 - Stage 1 Development Plan



4.2 Master Plan Option One



LEGEND

Existing Waterways

Pedestrian Trails / Access

Vehicle Access

01 M2 Hills motorway

02 Christie road

03 Talavera road

04 Single Level raised podium spectator stand, shelter, change + club rooms, cafe

05 new on grade car parking (30 spaces)

06 existing car parking (50 spaces)

07 bush land (lane cove national park)

08 main field 1 - proposed synthetic field

09 main field 2 - proposed synthetic field

10 main field 3 - proposed synthetic field on suspended slab

11 6 x Futsal 5 a side synthetic fields

12 service access

13 Lane Cove River

14 Kikkiya Creek

15 Mars Creek

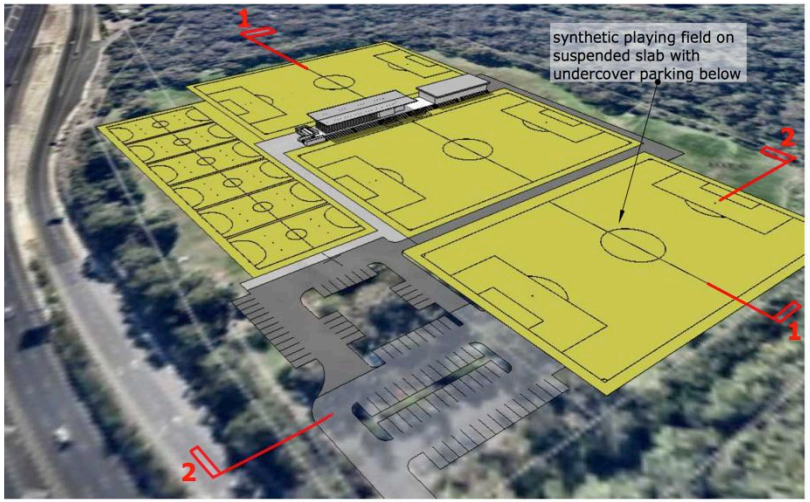
16 Indicative pedestrian link

17 Outline of suspended slab with carparking & possible fitness facility below

As described previously the project could be staged over 3 main stages. For Option One:

- Stage 1 - includes the two main synthetic fields only and retains existing amenity buildings;
- Stage 2 - consists of a main building located between fields 1 and 2 (Stage 2a) and six futsal/5-aside pitches with a car park extension (Stage 2b); and
- Stage 3 - includes a suspended slab with a third synthetic football field on top with car parking and a potential fitness facility below.

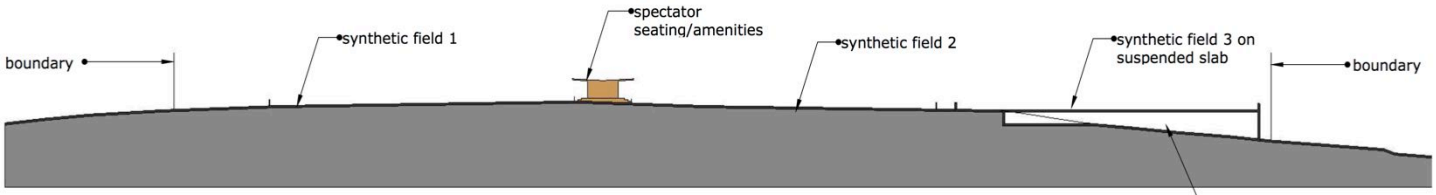
Selected perspectives and sections are shown below with full master plan and stage drawings included in Appendix 1.



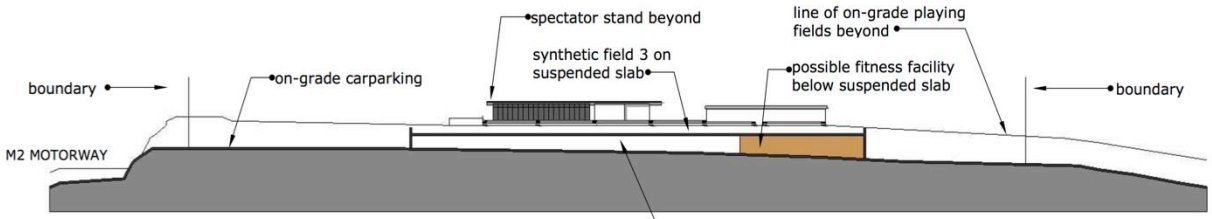
STAGE 3 - VIEW 1 FROM SOUTH EAST



STAGE 3 - VIEW 2 FROM SOUTH WEST



section 1 - 1:1000



section 2 - 1:1000

4.3 Master Plan Option Two



LEGEND

Existing Waterways

Pedestrian Trails / Access

Vehicle Access

01 M2 Hills motorway

02 Christie road

03 Talavera road

04 Single Level raised podium spectator stand, shelter, change + club rooms, cafe

05 new on grade car parking (104 spaces)

06 existing car parking (50 spaces)

07 bush land (lane cove national park)

08 main field 1 - proposed synthetic field

09 main field 2 - proposed synthetic field

10 main field 3 - proposed synthetic field on suspended slab

11 indoor dry sports hall 4 x netball / basketball with provision for future retaractable seating

12 service access

13 Lane Cove River

14 Kikkiya Creek

15 Mars Creek

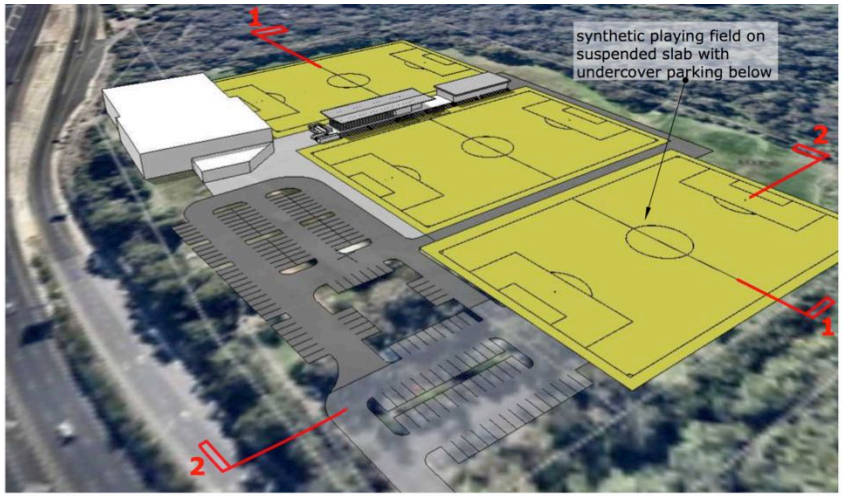
16 Indicative pedestrian link

17 Outline of suspended slab with carparking & possible fitness facility below

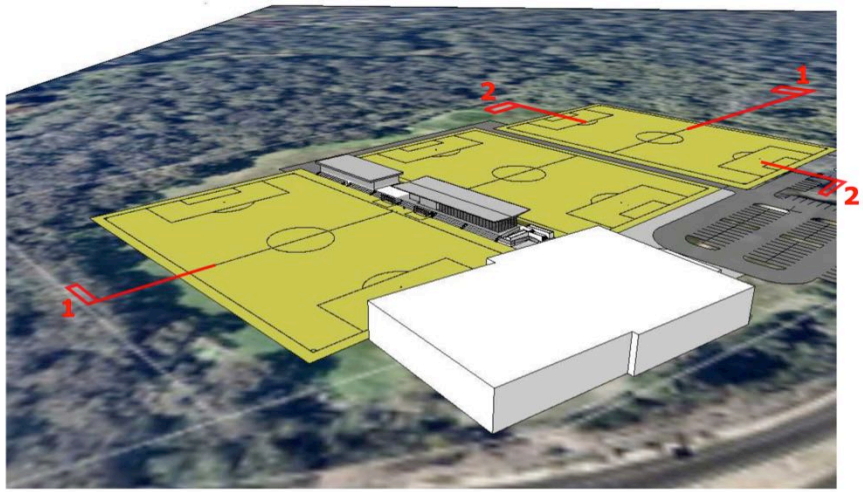
As described previously the project could be staged over 3 main stages. For Option Two:

- Stage 1 - includes the two main synthetic fields only and retains existing amenity buildings;
- Stage 2 - consists of a main building located between fields 1 and 2 (Stage 2a) and a four court sports hall with a car park extension (Stage 2b); and
- Stage 3 - includes a suspended slab with a third synthetic football field on top with car parking and a potential fitness facility below.

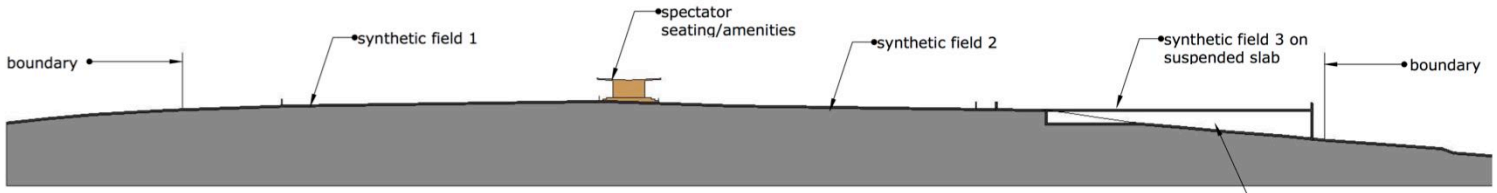
Selected perspectives are shown below with full master plan drawings included in Appendix 1.



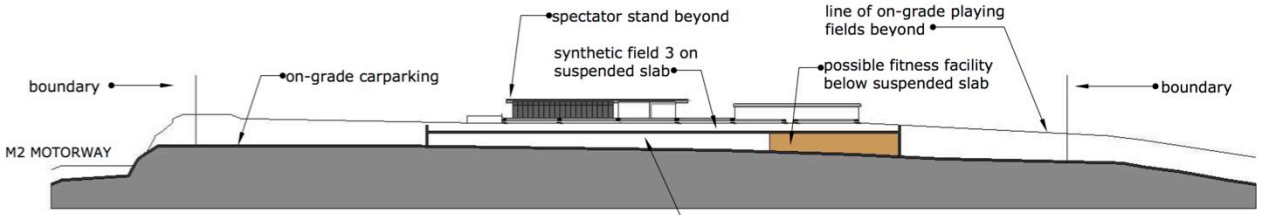
STAGE 3 - VIEW 1 FROM SOUTH EAST



STAGE 3 - VIEW 2 FROM SOUTH WEST



section 1 - 1:1000



section 2 - 1:1000

4.4 Indicative Capital Cost Plan

Quantity surveyors, Turner and Townsend, have developed an indicative capital cost plan for **Option One** to detail cost estimates for major expenditure items by suggested project staging as shown below.

Function	area m2	rate $/m2	Stage 1 cost $	Stage 2a cost $	Stage 2b cost $	Stage 3 cost $
Central Building						
Entry ramp and stairs	89	$ 1,200		$ 106,800		
Admin Office	28	$ 2,400		$ 67,200		
Shared meeting / club room	151	$ 2,200		$ 332,200		
Amenities	44	$ 3,000		$ 132,000		
Café / Kiosk	31	$ 2,900		$ 89,900		
Café equipment	Allow			$ 30,000		
Players amenities	226	$ 2,600		$ 587,600		
Spectator tiers (uncovered, individual seat)	358	$ 1,200		$ 429,600		
Raised podium	808	$ 600		$ 484,800		
Allow to relocate existing tiered seating	Allow		$ 96,000			
Allowance for plant platforms	Allow			$ 60,000		
Allowance for entrance canopy	Allow			$ 60,000		
Allowance for ESD initiatives including water harvesting	Allow	10%		$ 239,000		
Demolition						
Demolish existing spectator stand shelter	Allow			$ 21,000		
Demolish existing change and club rooms	Allow			$ 78,000		
Demolish existing store / garage	Allow			$ 10,000		
Total Building Works			**$ 96,000**	**$ 2,728,100**		
Fitness Facility	2,000	$ 1,800				$ 3,600,000
Allowance for ESD initiatives including water harvesting	Allow	10%				$ 360,000
				$ -		**$ 3,960,000**
Synthetic Turf football field [Fields 1 & 2]	17,255		$ 2,100,000			
Natural turf junior football fields [1 No]	2,823		$ 113,000			
Low level fence around fields	Allow		$ 179,000			
Relocate and reuse existing light towers including new light towers and cabling	Allow		$ 300,000			
Synthetic turf football field incl flood lighting [Futsol x 6]	5687				$ 1,200,000	
Synthetic turf football field incl flood lighting [Field 3]	8827					$ 1,500,000
Suspended deck over carpark incl columns and footings	8827					$ 3,229,000
Carpark on grade under deck	3838					$ 615,000
Total Sports Fields			**$ 2,692,000**	**$ -**	**$ 1,200,000**	**$ 5,344,000**
External Works & Services						
Clear Site incl. remove existing fields, carpark and grassed verge training area	Allow		$ 41,000	$ 106,000	$ 86,000	$ 163,000
Earthworks	Allow		$ 190,000	$ 71,000	$ 57,000	$ 217,000
Retaining walls (NW site corner)	Allow		$ 190,000			
Entry pavement	Allow			$ 205,000		
Footpath	Allow					$ 67,000
New carpark on grade	1446				$ 707,000	
Existing carpark - make good	4426			$ 165,000		
Service Access	1564		$ 117,000	$ 117,000		
Allowance for Landscaping	Allow		$ 30,000	$ 100,000	$ 20,000	$ 30,000
Allowance for External Services comprising connections for water, sewer, power, and stormwater generally	Allow		$ 342,000	$ 317,000	$ 256,000	$ 325,000
- Stormwater detention and treatment system	Allow		$ 250,000			
- Rainwater tanks	Allow		$ 50,000			
- New electrical mains from nearby business park	Allow			$ 300,000		
Total External Works & Services			**$ 1,210,000**	**$ 1,381,000**	**$ 1,126,000**	**$ 802,000**
Construction Cost			**$ 3,998,000**	**$ 4,109,100**	**$ 2,326,000**	**$ 10,106,000**
Design Contingency	10.0%		$ 400,000	$ 411,000	$ 233,000	$ 1,011,000
Construction Contingency	5.0%		$ 218,000	$ 227,000	$ 128,000	$ 556,000
Sub Total			**$ 618,000**	**$ 638,000**	**$ 361,000**	**$ 1,567,000**
Professional Fee Allowance	10.0%		$ 460,000	$ 475,000	$ 269,000	$ 1,168,000
Authority Fees & Charges	Allow		$ 40,000	$ 42,000	$ 24,000	$ 102,000
Substation contribution	Allow		$ 100,000			
Sub Total			**$ 600,000**	**$ 517,000**	**$ 293,000**	**$ 1,270,000**
Stage Total			**$ 5,216,000**	**$ 5,264,100**	**$ 2,980,000**	**$ 12,943,000**
Project Total (Excluding GST)						**$ 26,403,100**



5 Management and Business Models

An operating model focused on Stage 1 of the proposed master plans has been developed as outlined in the following sections. This includes considering management options for the centre and developing a business model for Stage 1.

5.1 Management Options

Five primary management models have been identified (although each model can have multiple variations) to assist the process of establishing a preferred approach for the centre. In practice, these management models fit into two categories outlined below.

1. Management by Council

- Direct management by Council staff
    - Involves employing staff to manage the facility. Council is responsible for all aspects of the facility's operation including operating policies, financial performance and asset management. In some cases, a management committee may be established to help with policy development and to ensure community involvement in management decisions.
- Management by a Committee of Management or Subsidiary of Council
    - An extension of the direct management model is a formally constituted Committee of Management under Section 355 of the Local Government Act. A Council may establish committees to assist in the performance of its functions, for example to manage or administer property, facilities or activities on its behalf.
    - Alternatively a Council can establish a company limited by guarantee under Section 358 of the Local Government Act to manage facilities and/or services on behalf of Council.
- Licence or season permit to use a recreation facility
    - A licence agreement exists where Council enters into a licence detailing the rights and responsibilities of Council and the licensee. Council receives an agreed rental or income (or a percentage of the net surplus) but has no direct control over the day to day management.
    - A licence is used where the licensee has management rights only of grounds and or a facility. A licence does not convey or create an interest in a building or the land to a particular party and is typically utilised for shared use arrangements by sporting associations.
    - Whilst the contract management model (below) may be based on a licence agreement, this management model relates mainly to sporting clubs or associations which use a building or sports facility on a seasonal or other short term, periodic basis.

2. External Management by a Non-Local Government Organisation

- Contract Management
    - Contract management exists where Council contracts out the management of the centre to an individual manager, a community based organisation or a facility management company.
    - Responsibilities of the owner and contractor are set out in a formal contract for a fixed period of time, which may be a Licence, Lease or Management Agreement.
- Lease
    - A lease agreement exists where Council enters into a lease detailing the rights and responsibilities of Council and the lessee. Council receives an agreed rental or income (or a percentage of the net surplus) but has no direct control over the day-to-day management.
    - The lessee has full property rights and is responsible for financial performance, asset maintenance and operational policies. A lease is used where the group has exclusive possession of the premises for a fixed period of time.

3. Potential Management for Christie Park

For each model outlined above a unique solution must be designed to meet the specific needs of Council and its community. There is no single best solution or approach. In simple terms, there are good and bad examples of in-house managed recreation facilities and good and bad examples of externally managed recreation facilities.

A key point to note is that both 'in-house' and 'external' management of recreation facilities will achieve policy outcomes desired by Council if the management model is correctly structured. Given this caveat, in practice the relative importance of a small number of criteria will suggest whether in-house or external management is most appropriate. This can be summarised as follows:

- **Management by Council is not best suited to situations where:**
    - The core purpose of a facility is to provide a commercial return on the investment.
    - Council does not have senior and/or executive staff with skills and experience in managing, operating and/ or maintaining the type of recreation facility under consideration.
- **Management by Council is best suited to situations where:**
    - Council wishes to exert a high level of control over the day-to-day operation of the facility, including elected members making operational decisions on an ad hoc basis.
    - Council wants to ensure that the facility is maintained to a high standard and has the capacity to provide adequate funds for all categories of asset management including cyclical and structural maintenance.
    - Council wants to directly manage its potential risk exposure.
- **External management is best suited to situations where:**
    - Council wishes to minimise the cost of operating the facility.
    - Council wants to attract a substantial capital investment in the facility or plant and equipment.
    - Council wants a fixed budget to operate a recreation facility.
    - The facility competes in a dynamic market, requiring rapid response to changing market conditions.

5.2 Business Model Options

In line with project requirements, 20 year financial modeling has been completed on the facility options to highlight the projected business performance for each option. For the purpose of this report, the first 10 years of operation for each option are presented in the sections below.

All facility models are based on Council managing the facilities directly and the operating scenarios have been completed for the following operating cases:

- Model 1: Hourly Hire – is based on Council's existing administration staff booking out facilities on a range of hourly rates.
- Model 2: Hourly Hire and In House Sports Programs – is based on Council's existing administration staff booking out facilities on a range of hourly rates as well as also directly operating a range of programs on site.

In order to also test the viability of developing the proposed 6 court futsal centre as an expedited second stage of development an additional model 2A was also developed. The results for 2A would be in addition to results for Model 2. (i.e. total result = Model 2 + Model 2A)

5.2.1 Business Assumptions

The following points outline key assumptions for the business models presented below.

- **Management approach/model**
  - Council managed through existing booking systems and resources
- **Fees** (per hour based on full field)
  - Seasonal club hire - $41
  - Casual community hire - $72
  - Schools hire - $13.50
  - Commercial hire – Peak - $200
  - Commercial hire – Off-peak - $100
  - Centre Program – Peak - $1,064 (8 futsal fields with $133 of income per hour [equates to $50 per team per 45 min game])
  - Centre Program – Off-peak - $520 (2 half fields with $260 of income per hour [equates to $65 per team per 30 min game])
- **Lighting costs**
  - Direct charge to user based on actual power costs and maintenance levy
  - Not included in financial model as costs will be on actual cost recovery basis
- **Administration costs**
  - Bookings managed by current systems and resources
  - No direct cost to football centre
- **Surface renewal**
  - Replacement frequency 6.7 years (3 times in 20 year period)
- **Café lease, maintenance and outgoings**
  - Café leased on percentage of sale basis (10%)
    - Average spend of $2
    - Visitor penetration of 50%
  - Lessee to pay for café out goings (water, power, gas, phone etc.)
  - Lessee to maintain fixtures and fittings (allow fair wear and tear)
- **Building lease, maintenance and outgoings**
  - Office and meeting room area to be leased by Football Groups at nominal rate
  - Lessee to pay for relevant outgoings (water, power, gas, phone etc.)

- Lessor to maintain fixtures and fittings (allow fair wear and tear)

- **Other outgoings**
  - Allowance made excluding costs for leased building and café space
- **CPI Increases**
  - Assumes average 2.3% yr. 2 to 10.
- **Business Growth**
  - Assumes yr. 3 is base year at 100% and yr. 2 is discounted by 5% to 95% of yr. 3 and yr. 1 is discounted by 10% to 90% of yr. 3.
  - Business growth yr. 4 101%, yr. 5 102%, yr. 6 103%, yr. 7 104%, yr. 8 105%, yr. 9 106% and yr. 10 106%
- **Real Price Growth**
  - Assumes 1.0% price increases from yr. 2 to yr. 10.
- **Expenditure Increases**
  - Assumes annual expenditure increase of C.P.I as indicated.
- **Pre Opening Expenses**
  - Not included at this stage, unknown start date.
- **Annual Maintenance**
  - Allowances are made for all activity areas.
- **Asset Management and Replacement Allowances**
  - No allowances for asset management and renewals included in the 10 year operating projections at this stage.
- **Depreciation or Loan Repayments**
  - No allowances for annual depreciation or any loan repayments included in the model at this stage.

5.2.2 Usage Projections

The following information has been utilised to develop usage projections for the centre:

- Demand sensitivity used to create an optimistic (100%), realistic (-10% demand) and conservative (-20% demand) scenarios.
- Club use based on demonstrated core user demand
- School use based on core user feedback
- Commercial use based on market review
  - Lunchtime sports programs 3 days per week
  - Summer 5-aside/futsal in post-season period 3 evenings per week on one full sized field (up to 8 futsal fields)
- Utilisation and visitation are consistent between the two models to allow for a direct comparison
  - Results in total annual visits of 220,830 in base year (2020)
- Futsal centre utilisation based schedules and pricing of similar facilities in Sydney
  - Peak participation over summer months, reduces in winter
  - Mix of competitive/social, male/female and age based leagues
  - Skill programs provided by qualified coaches
- Seasonal utilisation patterns
  - Pre-season – January to February (8 weeks)
  - Competitive Season – March to September (30 weeks)
  - Post-season – October to December (12 weeks)

The 10-year business performance summaries are detailed on the following pages and the full 20 year business model information is listed in a separate supporting document.

5.2.3 Model 1 – Hourly Hire

The first model presented below is based on hourly hire bookings managed by Council's existing administration resources. Table 4 summarises average hours of use by user type for each season. Year 3 (2020) is identified as the 'base year' where initial demand is established. Table 5 details forecast income and expenditure for the centre. The models below represent the 'Realistic' scenario (-10% demand sensitivity). Summaries for the 'optimistic and conservative scenarios follow.

Table 4 – Model 1 Base Year (2020) Average Hours of Use Per Field Per Week – 'Realistic'

User Type	Pre-season	Competitive Season	Post Season
Clubs - seasonal	42.3	48.6	29.7
Clubs/community - casual	0.0	0.0	0.0
Commercial	4.2	5.6	13.2
Schools	0.7	2.0	0.9
Centre Program	0.0	0.0	0.0
Total	**47.2**	**56.2**	**43.8**

Table 5 – Model 1 – Hourly Hire – 'Realistic' Operating Forecast

Item	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Income										
Clubs - seasonal	$158,877	$173,276	$188,457	$196,666	$205,213	$214,111	$223,374	$233,016	$240,759	$248,760
Commercial	$74,358	$81,097	$88,202	$92,044	$96,045	$100,209	$104,544	$109,057	$112,681	$116,425
Schools	$1,837	$2,004	$2,179	$2,274	$2,373	$2,476	$2,583	$2,694	$2,784	$2,876
Total Income	**$235,072**	**$256,377**	**$278,838**	**$290,985**	**$303,631**	**$316,796**	**$330,501**	**$344,767**	**$356,224**	**$368,061**
Expenditure										
Routine surface maintenance	$40,000	$40,920	$41,861	$42,824	$43,809	$44,817	$45,847	$46,902	$47,981	$49,084
Professional grooming	$12,000	$12,276	$12,558	$12,847	$13,143	$13,445	$13,754	$14,071	$14,394	$14,725
Annual surface renewal	$104,500	$106,904	$109,362	$111,878	$114,451	$117,083	$119,776	$122,531	$125,349	$128,232
Power	$7,500	$7,673	$7,849	$8,029	$8,214	$8,403	$8,596	$8,794	$8,996	$9,203
Gas	$3,500	$3,581	$3,663	$3,747	$3,833	$3,921	$4,012	$4,104	$4,198	$4,295
Water and rates	$2,000	$2,046	$2,093	$2,141	$2,190	$2,241	$2,292	$2,345	$2,399	$2,454
Surrounds maintenance	$15,000	$15,345	$15,698	$16,059	$16,428	$16,806	$17,193	$17,588	$17,993	$18,407
Building maintenance	$10,000	$10,230	$10,465	$10,706	$10,952	$11,204	$11,462	$11,725	$11,995	$12,271
Ancillary facilities maintenance	$5,000	$5,115	$5,233	$5,353	$5,476	$5,602	$5,731	$5,863	$5,998	$6,136
Total Expenses	**$199,500**	**$204,089**	**$208,783**	**$213,585**	**$218,497**	**$223,522**	**$228,663**	**$233,923**	**$239,303**	**$244,807**
Operating Profit/(Loss)	**$35,572**	**$52,288**	**$70,055**	**$77,400**	**$85,134**	**$93,274**	**$101,838**	**$110,845**	**$116,921**	**$123,255**

Table 6 – Model 1 Base Year (2020) Average Hours of Use Per Field Per Week – 'Optimistic'

User Type	Pre-season	Competitive Season	Post Season
Clubs - seasonal	47.0	54.0	33.0
Clubs/community - casual	0.0	0.0	0.0
Commercial	4.7	6.3	14.6
Schools	0.8	2.2	1.0
Centre Program	0.0	0.0	0.0
Total	**52.4**	**62.5**	**48.6**

Table 7 – Model 1 – Hourly Hire – 'Optimistic' Operating Forecast

Item	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Total Income	$261,191	$284,863	$309,820	$323,316	$337,368	$351,996	$367,224	$383,075	$395,804	$408,957
Total Expenses	$199,500	$204,089	$208,783	$213,585	$218,497	$223,522	$228,663	$233,923	$239,303	$244,807
Operating Profit/(Loss)	$61,691	$80,774	$101,037	$109,732	$118,871	$128,474	$138,560	$149,152	$156,502	$164,150

Table 8 – Model 1 Base Year (2020) Average Hours of Use Per Field Per Week – 'Conservative''

User Type	Pre-season	Competitive Season	Post Season
Clubs - seasonal	37.6	43.2	26.4
Clubs/community - casual	0.0	0.0	0.0
Commercial	3.8	5.0	11.7
Schools	0.6	1.8	0.8
Centre Program	0.0	0.0	0.0
Total	**42.0**	**50.0**	**38.9**

Table 9 – Model 1 – Hourly Hire – 'Conservative' Operating Forecast

Item	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Total Income	$208,953	$227,890	$247,856	$258,653	$269,894	$281,597	$293,779	$306,460	$316,644	$327,166
Total Expenses	$199,500	$204,089	$208,783	$213,585	$218,497	$223,522	$228,663	$233,923	$239,303	$244,807
Operating Profit/(Loss)	$9,453	$23,802	$39,073	$45,069	$51,397	$58,074	$65,116	$72,537	$77,341	$82,359

For the 'Base Year' (2020), the three models provide a range of operating profit from just over $39,000 to just over $101,000 with a realistic forecast of approximately $70,000. The main risk factor with this model is in relation to 'commercial hire'. In the 'realistic' scenario if commercial hire ($88,202) was not secured, then the operating result would be a loss of approximately $18,000 in the 'Base Year'.

5.2.4 Model 2 – Hourly Hire + In-house Sports Programs

The second model allows for commercial sport programs to be run by Council management (off-site) with resources allocated onsite as required to enable programs to be implemented. Table 10 summarises average hours of use by use type for each season. Year 3 (2020) is identified as the 'base year' where initial demand is established. Table 11 details forecast income and expenditure for the centre. The models below represent the 'Realistic' scenario (-10% demand sensitivity). Summaries for the 'optimistic and conservative scenarios follow.

Table 10 – Model 2 Base Year (2020) Average Hours of Use Per Field Per Week - Realistic

User Type	Pre-season	Competitive Season	Post Season
Clubs - seasonal	42.3	48.6	29.7
Clubs/community - casual	0.0	0.0	0.0
Commercial	0.0	0.0	0.0
Schools	0.7	2.0	0.9
Centre Program	4.2	5.6	13.2
Total	**47.2**	**56.2**	**43.8**

Table 11 – Model 2 – Hourly Hire + In-house Sports Programs – 'Realistic' Operating Forecast

Item	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Income										
Clubs - seasonal	$158,877	$173,276	$188,457	$196,666	$205,213	$214,111	$223,374	$233,016	$240,759	$248,760
Schools	$1,837	$2,004	$2,179	$2,274	$2,373	$2,476	$2,583	$2,694	$2,784	$2,876
Centre Program	$388,936	$424,186	$461,349	$481,447	$502,370	$524,153	$546,828	$570,432	$589,388	$608,973
Total Income	**$549,650**	**$599,465**	**$651,985**	**$680,387**	**$709,957**	**$740,740**	**$772,785**	**$806,143**	**$832,931**	**$860,609**
Expenditure										
Routine surface maintenance	$40,000	$40,920	$41,861	$42,824	$43,809	$44,817	$45,847	$46,902	$47,981	$49,084
Professional grooming	$12,000	$12,276	$12,558	$12,847	$13,143	$13,445	$13,754	$14,071	$14,394	$14,725
Annual surface renewal	$104,500	$106,904	$109,362	$111,878	$114,451	$117,083	$119,776	$122,531	$125,349	$128,232
Power	$7,500	$7,673	$7,849	$8,029	$8,214	$8,403	$8,596	$8,794	$8,996	$9,203
Gas	$3,500	$3,581	$3,663	$3,747	$3,833	$3,921	$4,012	$4,104	$4,198	$4,295
Water and rates	$2,000	$2,046	$2,093	$2,141	$2,190	$2,241	$2,292	$2,345	$2,399	$2,454
Surrounds maintenance	$15,000	$15,345	$15,698	$16,059	$16,428	$16,806	$17,193	$17,588	$17,993	$18,407
Building maintenance	$10,000	$10,230	$10,465	$10,706	$10,952	$11,204	$11,462	$11,725	$11,995	$12,271
Ancillary facilities maintenance	$5,000	$5,115	$5,233	$5,353	$5,476	$5,602	$5,731	$5,863	$5,998	$6,136
Centre Program Costs	$233,362	$238,729	$244,220	$249,837	$255,583	$261,461	$267,475	$273,627	$279,920	$286,359
Total Expenses	**$432,862**	**$442,817**	**$453,002**	**$463,421**	**$474,080**	**$484,984**	**$496,138**	**$507,550**	**$519,223**	**$531,165**
Operating Profit/(Loss)	**$116,788**	**$156,648**	**$198,983**	**$216,966**	**$235,877**	**$255,756**	**$276,647**	**$298,593**	**$313,707**	**$329,444**

Table 12 – Model 2 Base Year (2020) Average Hours of Use Per Field Per Week - Optimistic

User Type	Pre-season	Competitive Season	Post Season
Clubs - seasonal	47.0	54.0	33.0
Clubs/community - casual	0.0	0.0	0.0
Commercial	0.0	0.0	0.0
Schools	0.8	2.2	1.0
Centre Program	4.7	6.3	14.6
Total	**52.4**	**62.5**	**48.6**

Table 13 – Model 2 – Hourly Hire + In-house Sports Programs – 'Optimistic' Operating Forecast

Item	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Total Income	$610,722	$666,073	$724,428	$755,985	$788,841	$823,045	$858,651	$895,714	$925,479	$956,232
Total Expenses	$458,791	$469,343	$480,138	$491,181	$502,478	$514,035	$525,858	$537,953	$550,326	$562,983
Operating Profit/(Loss)	$151,931	$196,730	$244,290	$264,805	$286,362	$309,009	$332,793	$357,761	$375,153	$393,249

Table 14 – Model 2 Base Year (2020) Average Hours of Use Per Field Per Week - Conservative

User Type	Pre-season	Competitive Season	Post Season
Clubs - seasonal	37.6	43.2	26.4
Clubs/community - casual	0.0	0.0	0.0
Commercial	0.0	0.0	0.0
Schools	0.6	1.8	0.8
Centre Program	3.8	5.0	11.7
Total	**42.0**	**50.0**	**38.9**

Table 15 – Model 2 – Hourly Hire + In-house Sports Programs – 'Conservative' Operating Forecast

Item	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Total Income	$488,578	$532,858	$579,542	$604,788	$631,072	$658,436	$686,920	$716,571	$740,383	$764,986
Total Expenses	$406,933	$416,292	$425,867	$435,662	$445,682	$455,933	$466,419	$477,147	$488,121	$499,348
Operating Profit/(Loss)	$81,645	$116,566	$153,675	$169,127	$185,391	$202,503	$220,501	$239,425	$252,262	$265,638

For the 'Base Year' (2020), the three models provide a range of operating profit from just over $153,000 to $244,000 with a realistic forecast of approximately $198,000. The main risk factor under this model is securing teams and participants in lunchtime and evening competitions. However, even in the 'conservative' scenario (-20% demand sensitivity), revenue for this item is calculated as $410,088 in 2020.

5.2.4.1 Model 2A – Futsal Centre

In order to assess the viability of the proposed 6 court Futsal Centre as an expedited second stage of development, an additional business model has been created as shown below. Income and expenditure for the Futsal Centre are in addition to those expressed in Model 2 (above).

Table 16 – Futsal Centre Base Year (2020) Average Hours of Use Per Field Per Week - Realistic

User Type	Pre-season	Competitive Season	Post Season
Clubs - seasonal	0.0	1.8	0.0
Clubs/community - casual	1.8	1.8	1.8
Schools	0.5	0.7	0.6
Centre Program	15.5	12.0	18.0
Skill Program	2.7	0.6	2.7
Total	**20.4**	**16.9**	**23.1**

Table 17 – Model 2A – Futsal Centre – 'Realistic' Operating Forecast

Item	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Income										
Clubs - seasonal	$2,916	$3,180	$3,459	$3,610	$3,766	$3,930	$4,100	$4,277	$4,419	$4,566
Clubs/community - casual	$7,290	$7,951	$8,647	$9,024	$9,416	$9,824	$10,249	$10,692	$11,047	$11,414
Schools	$1,115	$1,216	$1,323	$1,381	$1,441	$1,503	$1,568	$1,636	$1,690	$1,746
Centre Program	$442,339	$482,429	$524,695	$547,552	$571,349	$596,122	$621,911	$648,756	$670,314	$692,589
Skill Program	$38,880	$42,404	$46,119	$48,128	$50,219	$52,397	$54,664	$57,023	$58,918	$60,876
Café & Merchandising	$8,887	$9,597	$10,334	$10,678	$11,032	$11,396	$11,771	$12,158	$12,437	$12,723
Total Income	**$501,428**	**$546,778**	**$594,578**	**$620,372**	**$647,223**	**$675,173**	**$704,264**	**$734,542**	**$758,826**	**$783,915**
Expenditure										
Routine surface maintenance	$20,000	$20,460	$20,931	$21,412	$21,904	$22,408	$22,924	$23,451	$23,990	$24,542
Professional grooming	$6,000	$6,138	$6,279	$6,424	$6,571	$6,722	$6,877	$7,035	$7,197	$7,363
Annual surface renewal	$50,000	$51,150	$52,326	$53,530	$54,761	$56,021	$57,309	$58,627	$59,976	$61,355
Power	$3,000	$3,069	$3,140	$3,212	$3,286	$3,361	$3,439	$3,518	$3,599	$3,681
Gas	$2,000	$2,046	$2,093	$2,141	$2,190	$2,241	$2,292	$2,345	$2,399	$2,454
Water and rates	$1,000	$1,023	$1,047	$1,071	$1,095	$1,120	$1,146	$1,173	$1,200	$1,227
Surrounds maintenance	$5,000	$5,115	$5,233	$5,353	$5,476	$5,602	$5,731	$5,863	$5,998	$6,136
Ancillary facilities maintenance	$3,000	$3,069	$3,140	$3,212	$3,286	$3,361	$3,439	$3,518	$3,599	$3,681
Centre Program Costs	$265,404	$271,508	$277,753	$284,141	$290,676	$297,362	$304,201	$311,198	$318,355	$325,677
Skill Program Costs	$25,272	$25,853	$26,448	$27,056	$27,678	$28,315	$28,966	$29,633	$30,314	$31,011
Total Expenses	**$380,676**	**$389,431**	**$398,388**	**$407,551**	**$416,925**	**$426,514**	**$436,324**	**$446,359**	**$456,625**	**$467,128**
Operating Profit/(Loss)	**$120,753**	**$157,346**	**$196,190**	**$212,821**	**$230,298**	**$248,659**	**$267,940**	**$288,182**	**$302,201**	**$316,787**

Table 18 – Futsal Centre Base Year (2020) Average Hours of Use Per Field Per Week - Optimistic

User Type	Pre-season	Competitive Season	Post Season
Clubs - seasonal	0.0	2.0	0.0
Clubs/community - casual	2.0	2.0	2.0
Schools	0.5	0.7	0.7
Centre Program	17.2	13.3	20.0
Skill Program	3.0	0.7	3.0
Total	**22.7**	**18.7**	**25.7**

Table 19 – Model 2 – Hourly Hire + In-house Sports Programs – 'Optimistic' Operating Forecast

Item	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Total Income	$557,142	$607,531	$660,642	$689,302	$719,137	$750,192	$782,515	$816,157	$843,140	$871,016
Total Expenses	$412,973	$422,471	$432,188	$442,128	$452,297	$462,700	$473,342	$484,229	$495,367	$506,760
Operating Profit/(Loss)	$144,170	$185,059	$228,454	$247,174	$266,839	$287,491	$309,173	$331,928	$347,774	$364,256

Table 20 – Futsal Centre Base Year (2020) Average Hours of Use Per Field Per Week - Conservative

User Type	Pre-season	Competitive Season	Post Season
Clubs - seasonal	0.0	1.6	0.0
Clubs/community - casual	1.6	1.6	1.6
Schools	0.4	0.6	0.5
Centre Program	13.8	10.7	16.0
Skill Program	2.4	0.5	2.4
Total	**18.2**	**15.0**	**20.5**

Table 21 – Model 2 – Hourly Hire + In-house Sports Programs – 'Conservative' Operating Forecast

Item	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Total Income	$445,714	$486,024	$528,513	$551,442	$575,309	$600,153	$626,012	$652,926	$674,512	$696,813
Total Expenses	$348,378	$356,391	$364,588	$372,974	$381,552	$390,328	$399,305	$408,489	$417,884	$427,496
Operating Profit/(Loss)	$97,336	$129,633	$163,925	$178,468	$193,757	$209,826	$226,707	$244,437	$256,628	$269,317

For the 'Base Year' (2020), the three models provide a range of operating profit from almost $164,000 to $228,000 with a realistic forecast of approximately $196,000. The main risk factor under this model is securing teams and participants in weekly futsal competitions. However, even in the 'conservative' scenario (-20% demand sensitivity), revenue for this item is calculated as $466,396 in 2020.



6 Summary and Recommendations

This section provides a brief summary of key findings and identifies primary recommendations to progress the project.

6.1 Key Findings Summary

Key findings identified through preparation of the master plan and feasibility study are outlined below. Where necessary, these will need to be catered for appropriately in future detailed planning.

Site Planning

- The detention of stormwater for the site will be affected by the particular ground and soil conditions subject to a detailed geotechnical report as well as site specific hydrology and may include designed in infiltration zones within the playing fields, specifically designed modular subterranean storage/detention, above ground storage tanks, above ground detention basin at the NE corner of the site etc. The size and nature of required detention and/or retention can only be determined in detail following detailed hydraulic design and geotechnical reports. Nevertheless, current planning indicates that there is sufficient space and potential with the new sports fields to accommodate all required Water Sensitive Urban Design Initiatives.
- Benchmarking with similar developments has identified adequate car parking can be provided onsite to support the proposed development.
- Development of the project in stages as outlined in the master plan and cost plan is possible. However, there will be operational impacts on each existing area during construction of later stages. For example, the central building can be built after the main fields as the building site could be access from the North and South, but the technical area and playing field may be need to be 'compressed' temporarily.

Urban Planning

- Development in the E2 zone on the North and Western edge of the site has been avoided to ensure retention of the bushland buffer and avoidance of increased planning requirements. Likewise land categorised as Natural Bushalnd has been avoided. Current planning information indicates that there is sufficient scope in the design of the fields to be able to ensure that the proposed development falls within the defined planning area. The margins at the edges of all zone/category overlays do not perfectly align and some discretion or a detailed identification survey that specifically defines the edges and boundaries of all overlay planning controls would be needed to provide a more specific comparison.
- Development within the area of land categorised as 'Sportsground' will not require the preparation of a specific plan of management to re-categorise land. Stage 1 and 2 facilities have been contained within this area. This ensures that these stages of the project can be commenced sooner.
- Development Approval is not required for outdoor sports facilities, but will be required for indoor facilities and the suspended sports field.

Business Planning and Management

- Core user demand indicates that two synthetic football fields would be fully utilised during peak times for the competitive season (30 weeks); close to capacity in the pre-season (8 weeks) and at approximately 60% capacity for the post-season (12 weeks).

- Strong opportunities for commercial sport programs exist for the facility due to commercial and residential development.
- Projected Operating Outcomes:
    - The comparison of the two management options (realistic scenario) applied to the operation of Stage 1 (two fields) reveals that, in the 'base year' (2020), Model 1 will return an operating profit of $70,055 compared to the Model 2 return of $198,983. A difference of $128,928.
    - As an additional business unit for Model 2, the Futsal Centre (realistic scenario) is forecast to provide an additional operating profit of $196,190 in the base year (2020).
- In addition to the two models presented above, Council could consider leasing the facility to football groups using Model 1 and 2 figures as a guide for establishing an appropriate lease fee depending on how management responsibilities and risk are shared. For example, part of the lease fee could include an allocation for funding the replacement of the synthetic surface by Council at the end of its useful life. This option may provide a low (if any) return to Council but would be a lower risk management option.
- Whilst a lower return compared to Model 2, Model 1 presents a comparatively lower risk for Council.
- If the futsal centre is developed along with Stage 1, consideration could also been given to leasing this facility to football groups. An option to leasing the futsal centre to a commercial operator is likely to require additional/separate amenity facilities.

6.2 Recommendations

Based on findings of the master planning and feasibility study process the following primary recommendations are suggested.

1. Project Staging and Funding
    a. Identify and evaluate opportunities to combine Stage 1 and Stage 2 developments where possible.
    b. If capital for Stage 1 can be raised ($5.2m), then along with potential partner funding, this may be used to seek matching state or federal government funds to enable completion of Stage 1 and 2 simultaneously (total estimated cost of $13.3m).
2. Plan of Management
    a. Revise the existing generic plan of management to recategorise land in the short term and prepare a site specific plan of management prior to Stage 2 developments to, amongst other things, re-categorise relevant areas as 'Sportsground' (outdoor fields) and 'General Community' (indoor/built structures).
3. Development Approval
    a. DA should not be required for construction of synthetic fields, but an amendment may be required for floodlighting is light spill is altered. A DA may also be required for the realignment of the tiered seating.
    b. Prepare a development application for Stage 2a and 2b (i.e. those improvements in the current Sportsground category); then prepare a DA for Stage 3 in the 'to be re-categorised area' as funds become available.
4. Further Design
    a. Detailed survey and design work will be required to confirm/refine the position of major master plan elements in relation to E2 and Natural Bushland areas (completed).
    b. A formal assessment of car parking requirements may be required for Stages 2b and 3.

c. Detailed hydraulic design and geotechnical reports to, amongst other things, determine the size and nature of required detention and/or retention structures.

5. Management

    a. Consider management options outlined in section 5.1 and determine a preferred approach based on Council's view of desired:

        i. Facility objectives

        ii. Decision making processes

        iii. Risk management

        iv. Financial outcomes

        v. Management capacity/capability

References

- City of Ryde (2001) *Generic Plan of Management: Sportsgrounds, Parks, Natural Areas, General Community Use*.
- City of Ryde (2010) *Environment and Open Space Study*.
- City of Ryde (2015) *Review of Environmental Factors: Christie Park Lighting Upgrade*.
- Clouston (2012) *Integrated Open Space Plan*. Prepared for City of Ryde.
- Office of Environment and Heritage (2012) *Lane Cove National Park: Draft Plan of Management*.
- Waratah Ecoworks (2014) *Christie Park Proposed Lighting Upgrade Ecological Assessment*. Prepared for Gladesville Hornsby Football Association, September.

APPENDIX ONE: Combined Utilisation Schedule

Organisation	Activity	Day	Field Area Required	Time Required (Hrs)	Field Hours	Frequency	Recurrences/ Season	Field Hours/ Season
GHFA	SAP	Monday	1	5.00	5.00	Weekly	8	40
GHFA	Spirit Training	Tuesday	1	5.00	5.00	Weekly	8	40
GHFA	SAP/RC	Wednesday	1	5.00	5.00	Weekly	8	40
GHFA	Spirit Training	Thursday	1	5.00	5.00	Weekly	4	20
GHFA	SAP	Friday	1	5.00	5.00	Weekly	8	40
GHFA	SAP	Monday	1	5.00	5.00	Weekly	8	40
GHFA	Spirit Training	Tuesday	1	5.00	5.00	Weekly	8	40
GHFA	SAP/RC	Wednesday	1	5.00	5.00	Weekly	8	40
GHFA	Spirit Training	Thursday	1	5.00	5.00	Weekly	8	40
GHFA	SAP	Friday	1	5.00	5.00	Weekly	4	20
GHFA	GHFA Club trials - prem	Saturday	1	6.00	6.00	Weekly	6	36
GHFA	GHFA Club trials - youth	Saturday	1	6.00	6.00	Weekly	6	36
GHFA	GHFA Club trials - 35s+	Sunday	1	6.00	6.00	Weekly	6	36
GHFA	Spirit Youth Trial Matches	Saturday	1	7.00	7.00	Fortnightly	4	28
GHFA	Spirit Senior Trial Matches	Sunday	1	8.00	8.00	Fortnightly	4	32
NWS KOALAS	NPL1 TRIAL GAME	Sunday	1	9.00	9.00	2 Weekends	2	18
NWS KOALAS	NPL TRAINING	Tuesday	1.5	3.50	5.25	Weekly	8	42
NWS KOALAS	NPL TRAINING	Thursday	1.5	3.50	5.25	Weekly	8	42
NWS KOALAS	Development Squad	Thursday	0.5	1.50	0.75	Weekly	8	6
GRMFC	Under 9 - Training	Monday	0.50	2.00	1.00	Weekly	6.00	6.00
GRMFC	Under 9 - Training	Wednesday	0.50	2.00	1.00	Weekly	6.00	6.00
GRMFC	Under 9 - Training	Thursday	0.50	2.00	1.00	Weekly	6.00	6.00
GRMFC	Under 10 - Training	Monday	0.50	2.00	1.00	Weekly	6.00	6.00
GRMFC	Under 10 - Training	Wednesday	0.50	2.00	1.00	Weekly	6.00	6.00
GRMFC	Under 10 - Training	Thursday	0.50	2.00	1.00	Weekly	6.00	6.00
GRMFC	Under 11 - Training	Monday	0.50	2.00	1.00	Weekly	6.00	6.00
GRMFC	Under 11 - Training	Wednesday	0.50	2.00	1.00	Weekly	6.00	6.00
GRMFC	Under 11 - Training	Thursday	0.50	2.00	1.00	Weekly	6.00	6.00
GRMFC	Under 12 - Training	Monday	0.50	2.00	1.00	Weekly	6.00	6.00
GRMFC	Under 12 - Training	Wednesday	0.50	2.00	1.00	Weekly	6.00	6.00
GRMFC	Under 12 - Training	Thursday	0.50	2.00	1.00	Weekly	6.00	6.00
GRMFC	Under 9 - Trial Match	Sunday	0.50	1.00	0.50	Fortnightly	4.00	2.00
GRMFC	Under 10 - Trial Match	Sunday	0.50	1.00	0.50	Fortnightly	4.00	2.00
GRMFC	Under 11 - Trial Match	Sunday	0.75	1.00	0.75	Fortnightly	4.00	3.00
GRMFC	Under 12 - Trial Match	Sunday	0.75	1.00	0.75	Fortnightly	4.00	3.00
GRMFC	Under 13 - Training	Monday	0.50	1.50	0.75	Weekly	6.00	4.50
GRMFC	Under 13 - Training	Wednesday	0.50	1.50	0.75	Weekly	6.00	4.50
GRMFC	Under 13 - Training	Friday	0.50	1.50	0.75	Weekly	6.00	4.50
GRMFC	Under 14 - Training	Monday	0.50	1.50	0.75	Weekly	6.00	4.50
GRMFC	Under 14 - Training	Wednesday	0.50	1.50	0.75	Weekly	6.00	4.50
GRMFC	Under 14 - Training	Friday	0.50	1.50	0.75	Weekly	6.00	4.50
GRMFC	Under 15 - Training	Monday	0.50	1.50	0.75	Weekly	6.00	4.50
GRMFC	Under 15 - Training	Wednesday	0.50	1.50	0.75	Weekly	6.00	4.50
GRMFC	Under 15 - Training	Friday	0.50	1.50	0.75	Weekly	6.00	4.50
GRMFC	Under 16 - Training	Monday	0.50	1.50	0.75	Weekly	6.00	4.50
GRMFC	Under 16 - Training	Wednesday	0.50	1.50	0.75	Weekly	6.00	4.50
GRMFC	Under 16 - Training	Friday	0.50	1.50	0.75	Weekly	6.00	4.50
GRMFC	Under 13 - Trial Match	Sunday	1.00	1.50	1.50	Fortnightly	4.00	6.00
GRMFC	Under 14 - Trial Match	Sunday	1.00	1.50	1.50	Fortnightly	4.00	6.00
GRMFC	Under 15 - Trial Match	Sunday	1.00	1.50	1.50	Fortnightly	4.00	6.00
GRMFC	Under 16 - Trial Match	Sunday	1.00	1.50	1.50	Fortnightly	4.00	6.00
GRMFC	Under 18 - Training	Tuesday	1.00	1.50	1.50	Weekly	6.00	9.00
GRMFC	Under 18 - Training	Thursday	1.00	1.50	1.50	Weekly	6.00	9.00
GRMFC	Under 20 - Training	Tuesday	1.00	1.50	1.50	Weekly	6.00	9.00
GRMFC	Under 20 - Training	Thursday	1.00	1.50	1.50	Weekly	6.00	9.00
GRMFC	1st Grade - Training	Tuesday	1.00	1.50	1.50	Weekly	6.00	9.00
GRMFC	1st Grade - Training	Thursday	1.00	1.50	1.50	Weekly	6.00	9.00
GRMFC	Under 18 - Trial Match	Sunday	1.00	2.00	2.00	Fortnightly	4.00	8.00
GRMFC	Under 20 - Trial Match	Sunday	1.00	2.00	2.00	Fortnightly	4.00	8.00
GRMFC	1st Grade - Trial Match	Sunday	1.00	2.00	2.00	Fortnightly	4.00	8.00
Ravens	WSL games	Sunday	1	8.00	8.00	Weekly	4	32
Ravens	WSL Training U13-Seniors	Tuesday	1.5	3.00	4.50	Weekly	5	22.5
Ravens	WSL Training U13-Seniors	Thursday	1.5	3.00	4.50	Weekly	5	22.5
					164.75			951.00

	Field Hrs/ Se	Weeks/Seas	Av Hrs/Week	Peak Hrs/ Fi	Field Demand
Monday	122.0	8	15.3	6	2.5
Tuesday	171.5	8	21.4	6	3.6
Wednesday	122.0	8	15.3	6	2.5
Thursday	181.5	8	22.7	6	3.8
Friday	78.0	8	9.8	6	1.6
Mid Week Su	*675.0*	*8*	*84.4*	*30*	*2.8*
Saturday	100.0	8	12.5	12	1.0
Sunday	176.0	8	22.0	12	1.8
Weekend Sui	*276.0*	*8*	*34.5*	*24*	*1.4*
Week Total	**951.0**	**8**	**118.9**	**54**	**2.2**

Organisation	Activity	Day	Field Area Required	Time Required (Hrs)	Field Hours	Frequency	Recurrences/ Season	Field Hours/ Season
GHFA	SAP/Academy	Monday	2	5.00	10.00	Weekly	30	300
GHFA	Spirit Training	Tuesday	1	5.00	5.00	Weekly	30	150
GHFA	SAP/RC	Wednesday	1	5.00	5.00	Weekly	30	150
GHFA	Spirit Training	Thursday	2	5.00	10.00	Weekly	30	300
GHFA	SAP/Academy	Friday	1	5.00	5.00	Weekly	30	150
GHFA	Spirit FC Youth Matches	Saturday	1	7.00	7.00	Fortnightly	15	105
GHFA	Spirit FC Senior Matched	Sunday	1	8.00	8.00	Fortnightly	15	120
GHFA	SAP/Academy	Monday	2	5.00	10.00	Weekly	30	300
GHFA	Spirit Training	Tuesday	1	5.00	5.00	Weekly	30	150
GHFA	SAP/RC	Wednesday	1	5.00	5.00	Weekly	15	75
GHFA	Spirit Training	Thursday	2	5.00	10.00	Weekly	15	150
GHFA	SAP/Academy	Friday	1	5.00	5.00	Weekly	15	75
GHFA	SAP Matches	Saturday	1	7.00	7.00	Fortnightly	15	105
GHFA	RC Matches	Sunday	1	5.00	5.00	Fortnightly	15	75
GHFA	GHFA League Matches	Saturday	1	10.00	10.00	Weekly	20	200
GHFA	GHFA Youth Matches	Saturday	1	10.00	10.00	Weekly	20	200
GHFA	GHFA Over 35s+	Sunday	1	10.00	10.00	Weekly	20	200
GHFA	GHFA Cup matches	Wednesday	1	5.00	5.00	Fortnightly	15	75
NWS KOALAS	NPL1 GAME	Sunday	1	9.00	9.00	Fortnightly	12	108
NWS KOALAS	NPL1 GAME WARM UP AREA	Sunday	0.5	9.00	4.50	Fortnightly	12	54
NWS KOALAS	NPL TRAINING	Tuesday	1.5	3.50	5.25	Weekly	30	157.5
NWS KOALAS	NPL TRAINING	Thursday	1.5	3.50	5.25	Weekly	30	157.5
NWS KOALAS	Development Squad	Thursday	0.5	1.50	0.75	Weekly	30	22.5
GRMFC	Under 9 - Training	Monday	0.50	2.00	1.00	Weekly	30.00	30.00
GRMFC	Under 9 - Training	Wednesday	0.50	2.00	1.00	Weekly	30.00	30.00
GRMFC	Under 9 - Training	Thursday	0.50	2.00	1.00	Weekly	30.00	30.00
GRMFC	Under 10 - Training	Monday	0.50	2.00	1.00	Weekly	30.00	30.00
GRMFC	Under 10 - Training	Wednesday	0.50	2.00	1.00	Weekly	30.00	30.00
GRMFC	Under 10 - Training	Thursday	0.50	2.00	1.00	Weekly	30.00	30.00
GRMFC	Under 11 - Training	Monday	0.50	2.00	1.00	Weekly	30.00	30.00
GRMFC	Under 11 - Training	Wednesday	0.50	2.00	1.00	Weekly	30.00	30.00
GRMFC	Under 11 - Training	Thursday	0.50	2.00	1.00	Weekly	30.00	30.00
GRMFC	Under 12 - Training	Monday	0.50	2.00	1.00	Weekly	30.00	30.00
GRMFC	Under 12 - Training	Wednesday	0.50	2.00	1.00	Weekly	30.00	30.00
GRMFC	Under 12 - Training	Thursday	0.50	2.00	1.00	Weekly	30.00	30.00
GRMFC	Under 9 - Trial Match	Sunday	0.50	1.00	0.50	Fortnightly	15.00	7.50
GRMFC	Under 10 - Trial Match	Sunday	0.50	1.00	0.50	Fortnightly	15.00	7.50
GRMFC	Under 11 - Trial Match	Sunday	0.75	1.00	0.75	Fortnightly	15.00	11.25
GRMFC	Under 12 - Trial Match	Sunday	0.75	1.00	0.75	Fortnightly	15.00	11.25
GRMFC	Under 13 - Training	Monday	0.50	1.50	0.75	Weekly	30.00	22.50
GRMFC	Under 13 - Training	Wednesday	0.50	1.50	0.75	Weekly	30.00	22.50
GRMFC	Under 13 - Training	Friday	0.50	1.50	0.75	Weekly	30.00	22.50
GRMFC	Under 14 - Training	Monday	0.50	1.50	0.75	Weekly	30.00	22.50
GRMFC	Under 14 - Training	Wednesday	0.50	1.50	0.75	Weekly	30.00	22.50
GRMFC	Under 14 - Training	Friday	0.50	1.50	0.75	Weekly	30.00	22.50
GRMFC	Under 15 - Training	Monday	0.50	1.50	0.75	Weekly	30.00	22.50
GRMFC	Under 15 - Training	Wednesday	0.50	1.50	0.75	Weekly	30.00	22.50
GRMFC	Under 15 - Training	Friday	0.50	1.50	0.75	Weekly	30.00	22.50
GRMFC	Under 16 - Training	Monday	0.50	1.50	0.75	Weekly	30.00	22.50
GRMFC	Under 16 - Training	Wednesday	0.50	1.50	0.75	Weekly	30.00	22.50
GRMFC	Under 16 - Training	Friday	0.50	1.50	0.75	Weekly	30.00	22.50
GRMFC	Under 13 - Trial Match	Sunday	1.00	1.50	1.50	Fortnightly	15.00	22.50
GRMFC	Under 14 - Trial Match	Sunday	1.00	1.50	1.50	Fortnightly	15.00	22.50
GRMFC	Under 15 - Trial Match	Sunday	1.00	1.50	1.50	Fortnightly	15.00	22.50
GRMFC	Under 16 - Trial Match	Sunday	1.00	1.50	1.50	Fortnightly	15.00	22.50
GRMFC	Under 18 - Training	Tuesday	1.00	1.50	1.50	Weekly	30.00	45.00
GRMFC	Under 18 - Training	Thursday	1.00	1.50	1.50	Weekly	30.00	45.00
GRMFC	Under 20 - Training	Tuesday	1.00	1.50	1.50	Weekly	30.00	45.00
GRMFC	Under 20 - Training	Thursday	1.00	1.50	1.50	Weekly	30.00	45.00
GRMFC	1st Grade - Training	Tuesday	1.00	1.50	1.50	Weekly	30.00	45.00
GRMFC	1st Grade - Training	Thursday	1.00	1.50	1.50	Weekly	30.00	45.00
GRMFC	Under 18 - Trial Match	Sunday	1.00	2.00	2.00	Fortnightly	15.00	30.00
GRMFC	Under 20 - Trial Match	Sunday	1.00	2.00	2.00	Fortnightly	15.00	30.00
GRMFC	1st Grade - Trial Match	Sunday	1.00	2.00	2.00	Fortnightly	15.00	30.00
Ravens	WSL game	Sunday	1	8.00	8.00	Fortnightly	14	112
Ravens	WSLTraining - seniors	Thursday	1	1.50	1.50	Weekly	30	45
Ravens	WSLTraining - U13-U16	Tuesday	1.5	3.00	4.50	Weekly	5	22.5
Ravens	WSLTraining - U13-U17	Thursday	1.5	3.00	4.50	Weekly	5	22.5
					219.75			4699.00

	Field Hrs/ Se	Weeks/Seası	Av Hrs/Week	Peak Hrs/ Fie	Field Demand
Monday	810.0	30	27.0	6	4.5
Tuesday	615.0	30	20.5	6	3.4
Wednesday	510.0	30	17.0	6	2.8
Thursday	952.5	30	31.8	6	5.3
Friday	315.0	30	10.5	6	1.8
Mid Week Su	*3202.5*	*30*	*106.8*	*30*	*3.6*
Saturday	610.0	30	20.3	12	1.7
Sunday	886.5	30	29.6	12	2.5
Weekend Sui	*1496.5*	*30*	*49.9*	*24*	*2.1*
Week Total	**4699.0**	**30**	**156.6**	**54**	**2.9**

Peak Time Utilisation								
Organisation	Activity	Day	Field Area Required	Time Required (Hrs)	Field Hours	Frequency	Recurrences/ Season	Field Hours/ Season
GHFA	Spirit Training	Tuesday	1	5.00	5.00	Weekly	12	60
GHFA	Spirit Training	Thursday	1	5.00	5.00	Weekly	12	60
GHFA	Spirit FC Trials	Saturday	2	5.00	10.00	Fortnightly	12	120
GHFA	SAP/RC Trials	Sunday	1	5.00	5.00	Fortnightly	6	30
GHFA	Summer Football	Saturday	1	5.00	5.00	Weekly	12	60
GHFA	Summer Football	Sunday	1	5.00	5.00	Weekly	12	60
GHFA	Champion of Champions	Friday	1	8.00	8.00	Fortnightly	12	96
NWS KOALAS	NPL TRAINING	Tuesday	1.5	3.50	5.25	Weekly	10	52.5
NWS KOALAS	NPL TRAINING	Thursday	1.5	3.50	5.25	Weekly	10	52.5
NWS KOALAS	Development Squad	Thursday	0.5	1.50	0.75	Weekly	4	3
GRMFC	Under 9 - Training	Monday	0.50	2.00	1.00	Weekly	8.00	8.00
GRMFC	Under 9 - Training	Wednesday	0.50	2.00	1.00	Weekly	8.00	8.00
GRMFC	Under 9 - Training	Thursday	0.50	0.00	0.00	Weekly	0.00	0.00
GRMFC	Under 10 - Training	Monday	0.50	2.00	1.00	Weekly	8.00	8.00
GRMFC	Under 10 - Training	Wednesday	0.50	2.00	1.00	Weekly	8.00	8.00
GRMFC	Under 10 - Training	Thursday	0.50	0.00	0.00	Weekly	0.00	0.00
GRMFC	Under 11 - Training	Monday	0.50	2.00	1.00	Weekly	8.00	8.00
GRMFC	Under 11 - Training	Wednesday	0.50	2.00	1.00	Weekly	8.00	8.00
GRMFC	Under 11 - Training	Thursday	0.50	0.00	0.00	Weekly	0.00	0.00
GRMFC	Under 12 - Training	Monday	0.50	2.00	1.00	Weekly	8.00	8.00
GRMFC	Under 12 - Training	Wednesday	0.50	2.00	1.00	Weekly	8.00	8.00
GRMFC	Under 12 - Training	Thursday	0.50	0.00	0.00	Weekly	0.00	0.00
GRMFC	Under 9 - Trial Match	Sunday	0.50	1.00	0.00	Weekly	0.00	0.00
GRMFC	Under 10 - Trial Match	Sunday	0.50	0.00	0.00	Weekly	0.00	0.00
GRMFC	Under 11 - Trial Match	Sunday	0.75	0.00	0.00	Weekly	0.00	0.00
GRMFC	Under 12 - Trial Match	Sunday	0.75	0.00	0.00	Weekly	0.00	0.00
GRMFC	Under 13 - Training	Monday	0.50	1.50	0.75	Weekly	8.00	6.00
GRMFC	Under 13 - Training	Wednesday	0.50	1.50	0.75	Weekly	8.00	6.00
GRMFC	Under 13 - Training	Friday	0.50	0.00	0.00	Weekly	0.00	0.00
GRMFC	Under 14 - Training	Monday	0.50	1.50	0.75	Weekly	8.00	6.00
GRMFC	Under 14 - Training	Wednesday	0.50	1.50	0.75	Weekly	8.00	6.00
GRMFC	Under 14 - Training	Friday	0.50	0.00	0.00	Weekly	0.00	0.00
GRMFC	Under 15 - Training	Monday	0.50	1.50	0.75	Weekly	8.00	6.00
GRMFC	Under 15 - Training	Wednesday	0.50	1.50	0.75	Weekly	8.00	6.00
GRMFC	Under 15 - Training	Friday	0.50	0.00	0.00	Weekly	0.00	0.00
GRMFC	Under 16 - Training	Monday	0.50	1.50	0.75	Weekly	8.00	6.00
GRMFC	Under 16 - Training	Wednesday	0.50	1.50	0.75	Weekly	8.00	6.00
GRMFC	Under 16 - Training	Friday	0.50	0.00	0.00	Weekly	0.00	0.00
GRMFC	Under 13 - Trial Match	Sunday	1.00	0.00	0.00	Weekly	0.00	0.00
GRMFC	Under 14 - Trial Match	Sunday	1.00	0.00	0.00	Weekly	0.00	0.00
GRMFC	Under 15 - Trial Match	Sunday	1.00	0.00	0.00	Weekly	0.00	0.00
GRMFC	Under 16 - Trial Match	Sunday	1.00	0.00	0.00	Weekly	0.00	0.00
GRMFC	Under 18 - Training	Tuesday	1.00	1.50	1.50	Weekly	8.00	12.00
GRMFC	Under 18 - Training	Thursday	1.00	1.50	1.50	Weekly	8.00	12.00
GRMFC	Under 20 - Training	Tuesday	1.00	2.00	2.00	Weekly	8.00	16.00
GRMFC	Under 20 - Training	Thursday	1.00	2.00	2.00	Weekly	8.00	16.00
GRMFC	1st Grade - Training	Tuesday	1.00	2.00	2.00	Weekly	8.00	16.00
GRMFC	1st Grade - Training	Thursday	1.00	2.00	2.00	Weekly	8.00	16.00
GRMFC	Under 18 - Trial Match	Sunday	1.00	0.00	0.00	Weekly	0.00	0.00
GRMFC	Under 20 - Trial Match	Sunday	1.00	0.00	0.00	Weekly	0.00	0.00
GRMFC	1st Grade - Trial Match	Sunday	1.00	0.00	0.00	Weekly	0.00	0.00
Ravens	WSL Trials	Sunday	1	6.00	6.00	Weekly	2	12
Ravens	WSL Trials	Tuesday	1	3.00	3.00	Weekly	1	3
Ravens	WSL Trials	Thursday	1	3.00	3.00	Weekly	1	3
Ravens	WSL Training	Tuesday	1.5	3.00	4.50	Weekly	4	18
					95.75			830.00

	Field Hrs/ Se	Weeks/Seas	Av Hrs/Week	Peak Hrs/ Fi	Field Demand
Monday	56.0	12	4.7	6	0.8
Tuesday	177.5	12	14.8	6	2.5
Wednesday	56.0	12	4.7	6	0.8
Thursday	162.5	12	13.5	6	2.3
Friday	96.0	12	8.0	6	1.3
Mid Week Su	*548.0*	*12*	*45.7*	*30*	*1.5*
Saturday	180.0	12	15.0	12	1.3
Sunday	102.0	12	8.5	12	0.7
Weekend Sui	*282.0*	*12*	*23.5*	*24*	*1.0*
Week Total	**830.0**	**12**	**69.2**	**54**	**1.3**