



Gunyama Park and Green Square Aquatic Centre
Recreation and Park Uses Study

REVISION 5



About this document

This document is the park uses study concerning the multipurpose field. It excludes the play BBQ, and skate moment facilities – as these are the responsibility of others.

The document was revised on 9 July 2015.

Note: the population study projects likely user numbers and outlines the assumptions underpinning these.

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1. Introduction

The brief

The brief calls for a Recreation and Park Uses Study. This report will:

“Test the options for sports on the playing field and confirm unstructured and play opportunities in the park”

“Prepare a sports matrix that details each sport requirement including, playing surface materials, required field size and structures, operational and maintenance requirements.” and

“The design will allow for a variety of activities and events.”

Following further discussions additional detail around demand and recommendations related to the provision of specific activities and facilities have been requested.

Note @leisure’s brief did not include play facilities, as other play consultants were contracted to undertake this task.

Investigations

The findings of this report follow:

- Meetings with staff and other design team members
- Investigations into the nature of compatible sports
- The review of previous literature to determine likely demand for activities
- Comparison of surface requirements and dimensions for multiple sports
- Meeting with key state sporting associations organised by Council.
- Feedback from Council.

Policy and planning Context

Several previous studies provide a context for the function and who is likely to use Gunyama Park. These are the Green Square Town Centre DCP 2012, the Green Square Town-Centre Public-Domain-Strategy 2013 and the City of Sydney Demand Study 2009.

The GSTC DCP 2012 as amended May 2014 includes the following key information under **3.1 Public open space**:

Definitions

“Open Space includes all publicly owned land that is set aside with unrestricted public access, and managed exclusively for leisure, recreation and amenity.”

“Linear Parks will provide informal recreational opportunities and act as both a visual and physical connection between open spaces, parks, streets (existing and proposed) and the pedestrian and cycle network. Linear parks will be provided along water channels and linked with new and existing public streets, enhanced with wide verges and shade tree planting.”

Objectives: Open Space

(a) Achieve a strong definition of the public domain with integration of design themes and signature elements to give Green Square Town Centre a sense of place and to establish it as the focal point of the Green Square Urban Renewal Area.

(b) Achieve an adaptable public domain capable of accommodating a broad range of uses and events (including major events), experiences and activities.

(c) Establish a diverse and sustainable range of public spaces, plazas and parks throughout the centre that encourage social interaction and use by everyone.

(d) Achieve a variety of spaces that are inclusive of particular needs and desires of key community groups such as children, young people, older people, people on low incomes and people with a disability.

- (e) Achieve desirable public open spaces with high levels of amenity addressing safety, climate, activity, circulation, seating and enclosure.
- (f) Integrate the Town Centre and surrounding communities by providing a community focus and spaces for people to meet, walk, recreate and feel safe.
- (g) Enable the provision of appropriate facilities within the public domain to enhance the usability of the Town Centre.
- (h) Integrate the management of stormwater and floodwater into the design of public open spaces.
- (i) Achieve well-integrated interpretive water elements, ecologically sustainable and landmark public art to create a more visually interesting and culturally diverse public domain.

Table 9.1: Social Sustainability Requirements indicates the following:

“Open Space and Recreation

- Provide multiple public open spaces including public parks suitable for a range of passive and unstructured active recreation.
- Connects with the City of Sydney’s Green Liveable Network
- Ensure increased opportunities for biodiversity as part of the provision of public open space.”

“Fresh Food Access

- Provide fresh food opportunities such as community gardens that support local access to fresh food and encourages home gardening.”

Relationship with other spaces

Diversity is an important recreation planning principle that may be beneficial to apply in this instance. Providing a diversity of opportunities and experiences across multiple open spaces increases choice and ensures the greatest range of the population is provided with satisfying experiences, now and in the futures. This diversity should be present across each space as well as across the network of open spaces in a given area.

Some indication of function and embellishment of other open spaces in the vicinity to Gunyama Park are provided by recent City of Sydney documents and high-level investigations of function and landscape setting type.¹

There are some thirteen parks and open spaces within one kilometre of the site – and these are likely to compete with Gunyama Park for users.

Attachment 3. Provides an overview of park and sports facilities within a broad catchment around Green Square.

As green spaces, most will provide important restorative values, however as most are small walkways or retention basins they are constrained in the ability to provide for organised sport and physical recreation.

Many of these spaces are quite diverse in themselves but provide similar activities and experiences to each other.

Rather than focus the larger spaces on specific types of activity a similar suite of activities for social /family recreation, play and relaxation are provided in each: such as space for kick to kick, court/ hit up wall/bowling game/ ping pong in addition to community garden, treed and landscaped area for seating etc. The disadvantages of this approach are: the low critical mass for one small space on its own – such as one ball court and a very small playground in each space for example will limit the sphere of attraction for each and hence use overall, and will increase the cost of management. The advantage of this approach is convenience to neighbouring residents.

¹ Note: these findings are from secondary sources and documents and maps are from different dates. Data has not at this point been checked on site.

Note: The brief for Gunyama Park called for skateable moments and a district play space.

An alternative strategy is to be selective about which places have play equipment, and hard courts and sports areas for example and provide a greater focus on fewer activities in each space and greater scale for each activity in each spaces.

This report questions whether it is advisable to have play space and skateable elements at both Matron Ruby Park – as well as Gunyama Park – given the relatively small sites and high demand for activity. An alternative strategy would be to extend skate elements at one, or focus skate elements in an adjacent paved plaza rather than in a park whether the Landscape settings is treed parkland or managed lawn, or where a skate park is already provided (Fernside Skate Park).

Characteristics of parks and affect on use

Apart from activities provided through design, several other factors will impact on use: size, programmability, solar access and other encumbrances such as their function as retention basins.

The small size of multiple parks in a relatively dense urban environment will impact on solar access to each. Size will affect the ability to host multiple age groups and activities without conflict, the number of people at one time and scale of facilities – for example: the sports that can be played and the length of a perimeter pathway for running.

Most open spaces nearby have an important heritage value which need to be interpreted.

Activities that are not likely to be able to be undertaken in open spaces immediately adjacent to Gunyama Park are: running, and social or competitive sports. None of the parks within 1 km have a perimeter exercise trail (although several have the potential to provide this Waterloo Oval and to lesser extent Turruwul park (it has a sealed path mostly around the edges).

Where possible Gunyama Park should provide the longest perimeter exercise trail possible and a sports field suitable for at least social competitive sport and development programs feeding into club sport.

In view of the relatively small space in Matron Ruby Park and Gunyama Park it may be beneficial to provide greater differentiation between the two – not providing skate and play equipment in both for example, and having a longer perimeter trail around Gunyama Park and a greater focus on sport and outdoor fitness. The closest playing fields are Waterloo Oval 800m and Turruwul Park about 1km from Gunyama Park.

Whilst it would be beneficial to provide courts at Gunyama Park for social tennis, and netball /futsal that could also be programmed for social leagues in conjunction with the sports fields, other nearby parks have outdoor courts, and there may be greater benefit of adding another full sized court to one existing complex.

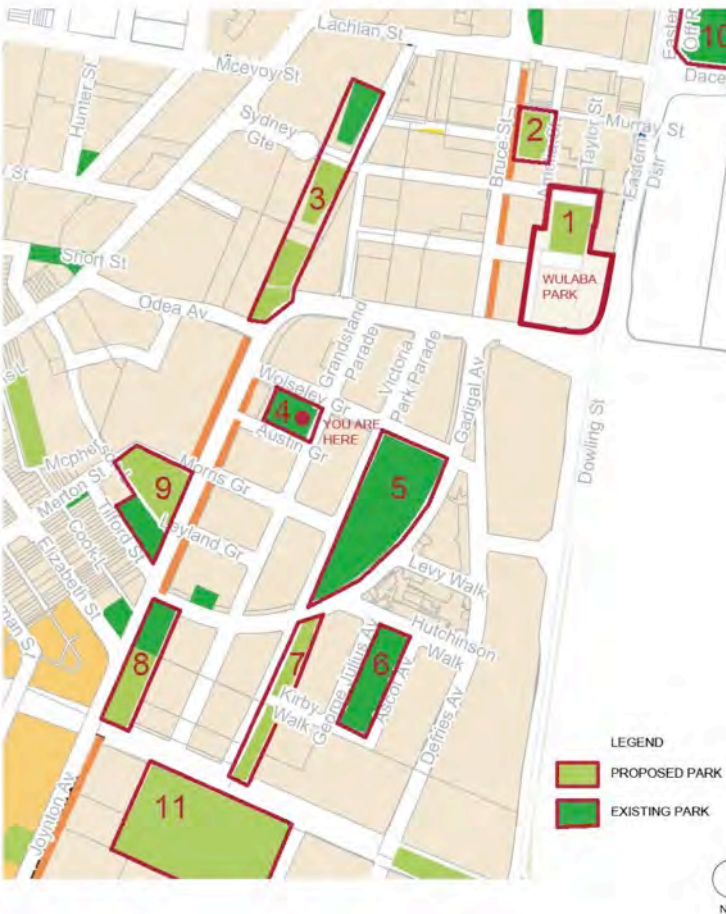
One outdoor hard court basketball/ tennis court and hit up wall is provided at Nutfield Park (approximately 300m from Gunyama Park). Two are provided at Beaconsfield Park (two hard acrylic coated hard court tennis courts with lights) approximately 1km from Gunyama Park, and Turruwul Park has 2 tennis /netball courts, some 1 km from Gunyama. In addition Turruwul Park has a field of suitable size for soccer, with a cricket wicket (junior size only) with cricket practice nets.

Whilst hard courts are good for basketball, netball and tennis competition, some diversity of surfaces is desirable and could enable programming. Social players and program providers may prefer to have some synthetic grass courts for tennis and futsal.

An all weather sports field at Gunyama Park will add to the nature of sporting places and programs available, and provide access to sport in times when other spaces larger enough for sport may not be able to be played as they also service a retention basin function.

Your neighbourhood parks

Whilst not all parks offer the same facilities, across the entire precinct all facilities can be found. This plan below shows the location of all the parks in the local area, both existing and proposed.



- 1. Wulaba Park**
 - A neighbourhood park for passive and active recreation
 - Play 'island' for ages 3-12 years old
 - Natural play features
 - Table tennis and card/dices tables
 - Shelter for activities and barbecues
 - Picnic spaces and areas for groups to gather or for people to sit alone
- 2. Dyuralya Park**
 - A neighbourhood square
 - A space for activities
 - Event space for public events
- 3. The Rope Walk Park**
 - A linear park with seating and children's play
 - Play features for children of 3 years plus will be integrated throughout the gardens
 - Some gardens will have an emphasis on edible or sensory planting
- 4. Tote Park**
 - An intimate local park
 - Green area for informal ball games
 - Play area for 1-5 year olds
 - Public toilet
- 5. Joynton Park**
 - A neighbourhood park suitable for dog walking
 - Shady green area for passive recreation
 - Open grassy areas for active play
 - Public toilet
 - Water sculpture/play feature
 - Plaza for community events and market
 - Community kiosk
- 6. Nuffield Park**
 - A local park with sports facilities
 - Tennis and basketball courts
 - Tennis practice wall
 - Shady gardens
 - Public toilets
 - Grass area for informal ball games

- 7. Linear Park**
 - A local park and streetscape with large scale tree planting
 - Shady areas for passive recreation
 - Picnic tables and shade structures
- 8. Woolwash Park**
 - A local linear park with large scale tree planting
 - Water gardens and pond
 - Shady seating areas for passive recreation
 - Timber boardwalk through wetlands
- 9. Mary O'Brien Park**
 - A neighbourhood family park
 - Two playgrounds catering for 0-5 years and 5-8 year olds
 - Water play area for all ages
 - Barbecues and picnic areas
 - Open grassy areas for informal ball games
 - Ornamental planting with feature trees
- 10. Moore Park**
 - A large public park predominantly an 18 hole golf course
 - Tennis and netball courts
 - Areas for people to sit and relax in the sun or shade
- 11. Gunyama Park**
 - A district recreation area
 - All weather sports fields
 - Aquatic centre
 - Infrastructure for events
 - Comprehensive play area
 - Access to toilets
 - Barbecue and picnic areas
 - Circuit training facilities

Key trends relevant to the outdoor multipurpose field and associated parkland

Due to the **declining access to private open space** there is increasing demand for public space for additional activities such as private celebrations and gatherings, physical activity, exercising and socialising pets. With an increasing proportion of the population that are obese there is high demand for places to exercise in close proximity to home.

With more people living in higher density housing there is a corresponding need for proximate green space for restorative values and to enhance wellbeing.

As education about health and well being increases and the benefits of exercise, social engagement and green space, community's expectations have also increased about the quality of public recreation facilities and parks available to them.

The number participating in non-organised activities is almost double that for participation in organised activities. Walking was the most commonly reported physical recreation activity for both males and females, followed by gym/fitness, swimming and cycling.

This reinforces the need to accommodate walking and jogging and social ball games and water play in the facilities at Gunyama Park.

Participation in sports activities fluctuates every few years affected by social and economic factors as well as the supply of facilities and marketing and recruitment campaigns by government, sport, and health organisations.

The implication of this trend is that flexibility of use is important in the design of outdoor playing fields so that as demand increases from one sport to another, fields can be used in different ways. At the same time it is recognised that most sports have clear guidelines or standards for what types of facilities are required to be fit for purpose for that sport.

There is a declining number of people participating in organised and club environments due to opportunity cost, scheduling and time commitments, and less demand for ongoing volunteer roles in clubs. At the same time there has been a corresponding increase in demand and availability of modified sports (ie 5/ 7 aside football etc,) low contact sports and those that can be played socially, as well as those provided by commercial entities and non-club providers. The implications of this trend, in addition to the already unmet demand for club sports and low carrying capacity of grass playing fields, is that there is likely to be high demand to program the field for "pay as you play sports", as well as club training and social use by residents.

The propensity to participate in sport and physical activity tends to increase with income, education and employment and decreases with age and in populations with high numbers of people born overseas and from non English speaking backgrounds, and with poor health. The implication for this project is that there is likely to higher than average demand for sport, and physical activities in this location.

Synthetic grass playing fields. An increasing proportion of fields for football are being provided in synthetic turf, and the quality of the products and playability is increasing.

As the current demand for playing fields cannot be met within the carrying capacity of natural turf fields and there is demand for a synthetic grass field. There are benefits of providing a synthetic field in this instance, largely due to the high level of demand every day from different type of users, the small space available as well as the ability to use such a field up to 15 hours per day. (This assumes people are willing to play a premium for lights and such a surface, and play early in the morning and late night). The cost of use is often not that different to a natural grass field when the life of the facility is considered, except that due to demand there may be greater opportunities to recoup that cost through hire charges. One of the benefits of synthetic grounds is the consistent standard of playing surface (flat, even etc,) – especially following high use and the ability to play after rain.

Sports club sustainability

There is high demand for junior development programs and modified sports activities that seek to assist the growth of sports and address the inability of schools to deliver foundation sport skills. There is an increasing demand by clubs for facilities in the off-season for training, practice matches and revenue raising activities. As the cost of running clubs increases it is imperative that the design and availability of facilities is compatible with cost effective scheduling and use of such facilities by clubs.

Secondary demand information

A review of sport & recreation needs for Perry Park² found the following:

“Amongst the activities of relevance to the current study, the most popular in NSW (i.e. those with the highest participation) were soccer, touch football, netball and basketball all with at least 2.5% of the population participating at least once in the previous 12 months. Two of these team sports – soccer and touch football – were in the ten most popular physical recreation activities in NSW overall.”

“The existing population is large enough to support a large number of indoor and outdoor sports facilities (e.g. around 30-45 indoor sports courts in the primary catchment area comprising Sydney City, Randwick, Botany Bay and Woollahra and Waverley).

- The forecast catchment population increase implies parallel increases in sports facility needs (unless offset by declining rates of participation).
- The lower than average proportion of 'children' and 'youth' in the primary catchment would normally imply lower than average sports demand - but this is more than offset by the higher than average proportion of (high participation) 'young adults'.
- Overall, the age profile implies an above-average level of demand for sports opportunities in the City of Sydney and surrounding areas.
- Based on the current age-related population forecasts for Sydney City, this

above average demand will continue for at least the next 20 years.”

The report concluded “therefore that, while the demand for sports facilities is likely to decline across the Sydney metropolitan and SSROC regions over the next 25 years (in keeping with the lower participation rates of older people) this will most likely not be the case within and around the City of Sydney.” In conclusion, this study supports the expansion of the Alexandria Basketball Stadium and the development of a synthetic hockey field in Perry Park.

The City of Sydney Sports Facilities Demand Study³ found the following:

“The City experiences significant competing demands for space for urban development and other land uses such as sport. Within land reserved for open space in the City, informal recreation, biodiversity and heritage considerations further limit the land available for sport.”

² Perry Park Review of Sport & Recreation needs by Recreation Planning Associates 2009.

³ City Of Sydney Sports Facilities Demand Study October 2013 Strategic Leisure Group

“There is growing demand in soccer, AFL, rugby league, rugby union and cricket. The casualisation of sport to “show up and play” has seen an increase in the popularity of small team, half-size fields sports such as 6-a-side soccer, touch football and Oztag. “

“Analysis using current participation data and assumptions of field capacity suggest a current rate of supply of around 1 field per 5,100 residents in the City. However, sporting fields in the City experience a high rate of use that impacts on their condition and suitability for sport. “

The recommended rate of provision of sporting fields in the City is 1 field per 4,500 residents. The weekday population (workforce which visits the City each day but does not reside in the LGA) should be considered in provision planning, with one additional multi-use field per 45,000 workers provided.”

Relevant to this project the study recommends the following:

- Seek to develop full size sports fields (120 x 75 metres) at Barangaroo, Green Square, Perry Park (Alexandria) and at other new open space sites exceeding 15,000 square metres
- Seek to develop half size sports fields (68 x 50 metres) at Green Square, Ashmore Estate, Federal Park, and at other new open space sites exceeding 5,000 square metres.
- Increase the use of synthetic sports surfaces on existing sports field sites
- Seek to develop synthetic sports fields in partnership with adjoining open space managers e.g. Centennial Parklands, Royal Botanic Gardens and Domain Trust
- Investigate better use of underutilised resources such as space and fields at schools, and
- Continue the enhancement program for existing natural turf fields.

2. Multipurpose playing field

The provision of a multiuse synthetic turf playing field is highly recommended in this location due to the likely profile of the population and associated demand for social sports, the limited availability and high demand for social and club competition sport, the absence of sports facilities in the immediate neighbourhood, and the small space available for physical activity.

Key goals related to the field are to:

- Determine the best artificial turf surface that meets the priority activities
- Provide a good mix of activities suitable for a range of age groups, sports, and game formats that have similar field requirements and can be accommodated on a field footprint of 90*65m of synthetic grass surface plus 4m run out space at goal ends and 3m at sidelines
- Assist in meeting the objects of the Sports Facilities Demand Study, and go some way toward addressing the undersupply of winter fields sports facilities, whilst at the same time encouraging participation from employees, school students, visitors and residents within the immediate catchment
- Provide a range of compatible social and competitive forms of sport to be played on the same field without major compromises to personal safety and requirements of the activity
- Provide a viable mix of sports activities that meet club, corporate and community demand for activities, with consideration to the cost of use and willingness to pay.

Priority Use

The criteria for selection of priority sports

The following criteria are proposed to fit with the context of the site, the field surface and size of the footprint available, and close proximity to housing and other park uses.

- Must be able to fit within a footprint of 90*65m of sports turf (including run offs)
- Can be played on the same type of artificial turf pitch
- Preferred times of use do not exceed 6:00 am -10.30 pm (reasonable for a residential area)
- Preferred game type is half field and non high ball kicking games – due to risk to other users and adjacent residences
- High demand sport -based on soccer football and modified league games
- Combination of time slots and uses that provide opportunities for:
 - A commercial operator / the centre to run corporate and social leagues
 - Weekend slots of non-organized/community use
 - Weekday school use, and
 - Club based training and modified games/development programs, after school and weekend morning.

The most sports, and those in higher demand and that are compatible in this case, are those that require medium to long pile artificial turf surfaces. These are primarily football codes.

The size, and compatibility with other sports excludes these with short pile artificial turf or other artificial surface requirements, such as competition hockey and tennis.

The sports identified as being able to be accommodated and most compatible are generally: social, junior or modified forms of Rugby league, Soccer-football, and AFL:

- Tag League/League Tag or Oztag/Touch
- Soccer- football – 7V7s or C&D grade club
- AFL Nines/AusKick
- Mod League (U12yrs)

Hockey may be able to use the space for development programs currently being piloted. These use a soft ball and don't require a competition pitch surface.

Field sizes and requirements

For risk management and sustainability purposes it is necessary to determine the preferred activity and core field sizes so that the appropriate surface type can be selected, supplementary infrastructure provided and use maximised.

It is assumed that the run-off area should provide a similar gradient to the synthetic turf playing area and the pitch run-off areas are surfaced with the same type of carpet as the playing area.

A run off of 5m around any designated field is desirable (or a minimum of 3m to any structure).

The sports matrix provided (See Attachment 1) details the core requirements for each of the sports deemed likely to use such a facility (in addition to others as requested).

Due to the size and context of the field it is not recommended that the space be physically divided into more than two fields by nets for example, on a permanent basis.

The division of the field should be possible with netting. Additional park netting will enable the use of the field for additional activities and protect adjacent users. However significant netting of the field will be very costly and may impact on the aesthetics of the park and possibly the placement of other park elements.

The following core field sizes are recommended taking into account the above criteria, and the context the preferred mix of activity and compatibility of activities:

A) 1 Large footprint field (90m * 65m + run offs) running north south:

- Soccer football (C or D grade)
- Touch rugby/League Tag/ Mod League
- Australian Rules football (5-yrs. Minikick and AusKick)

The field would be marked only for touch and Soccer-football- full fields and 2 small football. See Figure 1 below.

B) 2 Small footprint fields (50m x35 m + run offs) running east west:

- Oz/League Tag/Tag League
- 7 aside Soccer-football
- Multiple Small Sided Football games.

The size of the field excludes senior/A/B competition for all football codes (including Gaelic and gridiron) with the exception of Touch rugby. The field as proposed is not suitable or large enough for competitions for cricket, tennis, hockey, lacrosse, diamond or target sports.

In a synthetic field night games for soccer-football are not permitted for juniors under 18 yrs.

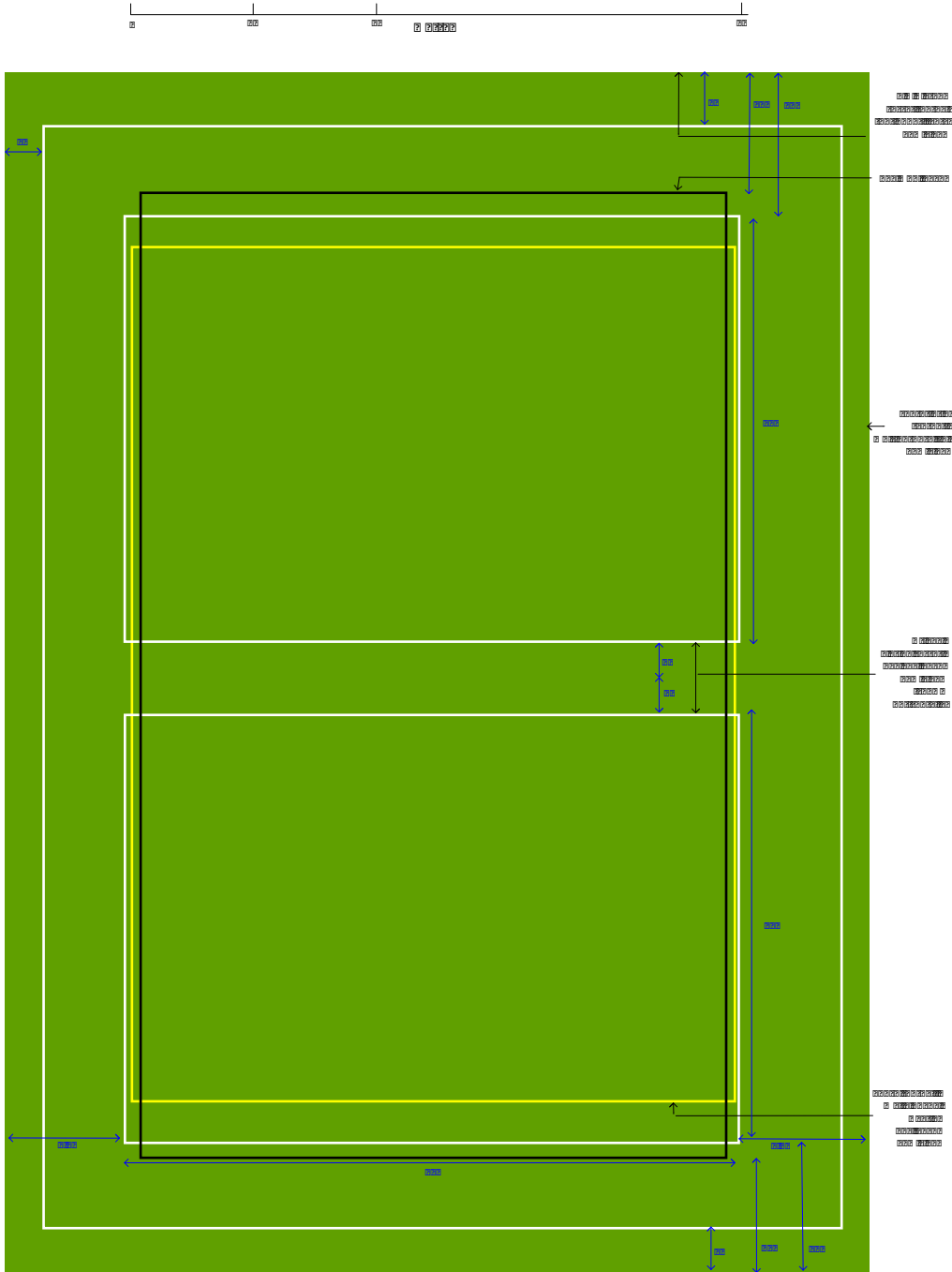
The size of the field could not be used small for competition Ultimate Flying Disc⁴ unless the end zones are modified. The field is 64*37m with end zones of 18 m.

The specific requirements for each likely sports code are provided in the Sports Matrix in Attachment 1.

⁴ Assuming compliance to the World Flying Disc Federation used by Ultimate in Australia

Figure 1. Footprint of the multipurpose field and most compatible sports

The diagram below shows field dimensions that are compliant within an area of 90*65, including run offs. The field lines show soccer football, and touch north south and multiple fields for modified and 7V7 football codes and OzTag/ Tag League for example.



Type of surface

The most compatible synthetic sport surface is likely to be a 3G medium to long pile 50-60 mm artificial grass surface with a shock pad.

Medium to long pile heights are not suitable for sports such as lawn bowls, tennis, hockey and cricket, due to the nature of the sports.

Attachment 1. Includes the types of surfaces suitable for each key sport.

The site is too small for multiple courts required for tennis and a number of social tennis courts are provided in adjacent reserves. The site is not large enough and suitable for hockey, although in very high demand.

Note: the provision of a synthetic sports turf is not advisable in a retention basin or in areas that are subject to flooding or overland water flow, or in areas subject to subsidence.

Repairs and replacement to the carpet and the base are likely to be very expensive if damaged due to inundation, or from the velocity of water. The following image shows damage after a synthetic field was inundated by floodwater.



The life of the surface will be dependant on the nature of surface/ product, level of use and maintenance regimes.

The warranty period is a guide to surface life. Most current sports turf surfaces are unlikely to be fit for purpose after seven years.

Support facilities

To support the use of an artificial sport turf by community school, clubs and corporate sports providers, some basic support facilities will be required pitch side. These include:

- Referee/program office
- Storage
- First aid
- Undercover area
- Accessible toilet that can be used for change.
- A small number of toilet and change rooms.
- Additional full change facilities could be available (by arrangement) in the aquatic centre
- Supports to divide the pitch into two fields and field edge netting – if permanent high fencing is not provided.
- Line marking (it is suggested that a soccer - football field of 90* 65m is marked in white, a 70m*50m field be marked in yellow, and two fields of 50* 30m be marked in blue
- Lights to 150 lux.

Note: the lighting study undertaken for this project suggests a Lux level of 50. Few codes would deem this acceptable, even for training, and the field may be used for night competitions. The Australian Standards concerning sports lighting are included in the Sports Matrix in attachment 1.

Due to the need for sports lights and the possibility of loose balls, the design of adjacent housing should respond to these constraints, so as not to impact on the nature and hours of use of the field.

The numbers and types of facilities required within the support facility are likely to be largely dependent on management. However it is suggested that would need to service all park users and the synthetic playing field. These amenities would be best grouped into one central amenity block conveniently adjacent to the playing field (desirable on the north west of the main field of play).

Feedback from key user groups suggested that they are happy for storage to be separate and decentralised from a toilet change facility.

Based on our assumptions about types and program of use for the park we estimate that the mean average of up to 90 users in the park at one time. Three female and two male toilets with an additional accessible toilet and change at each end of the building are desirable.

Two small team change rooms (unisex) will be required that can be used as a home and away team change for example when the pitch is being used by single gender players, or as one male and one female change other wise. We assume that the bulk of field users will be male, and a higher proportion of park users will be female (fitness and families with children), hence a 50% /50% apportionment of space will be reasonable.

Unless in the case of large school groups for example, it would not be practical to utilise the change rooms in the aquatic centre for the playing field users.

Desirably a support facility is provided on the north or west side of the playing field to aid viewing due to sun angles. However in this instance fields will be used in both north south and east west orientations.

As competition is most likely to be conducted in 1 field format in the north south orientation, the north or west side of the field is the best location for a support facility if this is suitable for serving the rest of the park.

A canteen or café in the park would be desirable however it is unlikely to be economically viable. Access to a canteen for club activities is desirable also however club competition and development program are proposed only for a small amount of the time available. An option would be to service the park with a mobile coffee van or food truck.

The support facility will require a small office with views over the pitch, a central shelter for field users, drinking and wash station, (could be outside change rooms), and a referee/ first aid room.

An example of a support pavilion serving multi-use synthetic courts in Stonnington, Victoria is shown in the two following image. This includes program office, café and toilet and change and sports club pavilion.



In the case of Gunyama Park a smaller footprint – without the clubroom and potentially the café is acceptable.

Note: the Access to Premises Standards also requires an ambulant accessible toilet cubicle in each male and female toilet block. An ambulant accessible toilet cubicle includes features such as a higher toilet seat and handrails. This is good universal design practice to encourage use of the park by older people.

There is likely to be a high demand for car parking for club training and development programs for example, and less so for social leagues after work hours. During weekdays schools are likely to travel by bus or public transport and employees are likely to walk or ride.

Use will favour immediate residents and employees if car parking is not formally provided.

Access to the facility via separated bike lanes or off road paths is essential and public transport use should be encouraged.

Fencing and field netting

A permanent fence/ back net (9m in height) is needed along the north and south of the synthetic multipurpose sports field, and at least a 1.2m fence between the field and the boardwalk.

At the north end this permanent fence/ back net would extend about 40m in length and in the south, up to 50m behind the goals and adjacent to residences. Four support poles are likely to be required across the length of the netting.

It is also proposed that the sports field be divided in two with a temporary or transportable net running east to west across the field. This would be approximately 3m in height.

The dividing net will require either an overhead cable wire to support a curtain style net, or four support posts and one centre post in a sleeve in the field. Alternatively transportable netting could be attached to support posts on wheels.

Examples of the style of netting and fencing are provided below.



Image 2. Example (2) of permanent perimeter sports field netting

Alternatively, a suitable style of permanent fencing includes that shown in the following image.



Image 3. Example (3) of permanent perimeter sports field fencing



Image 1. Example of permanent perimeter sport field netting

Examples of field divider nets to enable programming and enhance use are shown in the following images.



Image 3. Example (4) of a transportable field divider net, on wheels



Image 4. Example (4) field divider netting supported by overhead cable



Image 5. Example (5) field divider netting supported by overhead cable as in previous photo, with netting drawn open

Goal posts

It is not proposed to provide one set of permanent goals posts in the surface, due to the need to run at least two games east west in peak times, and to accommodate multiple sports codes with different fields dimensions.

The preferred type of goal posts for soccer - football competition (as provided at the Victorian State Football Centre), are shown in the following image.



Image 6: portable goal posts at the State Football Centre in Knox Victoria

The advantage of these movable goals is that they can be moved quickly and easily and stored off pitch (as above). In addition, they absolve the need to provide metal sleeves in the pitch, which can be a risk to player safety.

Portable equipment to be stored

Football NSW advise the following equipment would be desirable to store:

- Bownet football goals would be used, which pack up into a size of about 1.3m x 0.3m x 0.2m.
- Two pairs of 9v9 goals
- Four pairs of 7v7 goals
- Total of 12 goals to store
- Eight popup mini goals, (approx.. 1.5m by a 1m high) and a few centimetres deep.
- Several stacks of cones

Operation

Likely level and program of use

Several options for programming the pitch were prepared.

Following the submission of likely usage figures by the Sports User Group, the likely program has been revised to include additional sport club usage. The program below provides a balanced mix between commercial school club and community use.

The likely program is shown in the following diagram. This includes: personal trainers and resident exercise, school sports/ gala days, private and academy use, corporate sports, club sports (junior and modified games and training) and social sports league competitions. Weekend timeslots for non-organised use – and casual community access are also provided for.

This program illustrates the following hours of use per week by type of user.

Table 1. Multipurpose field; probable types of use and potential hours per week

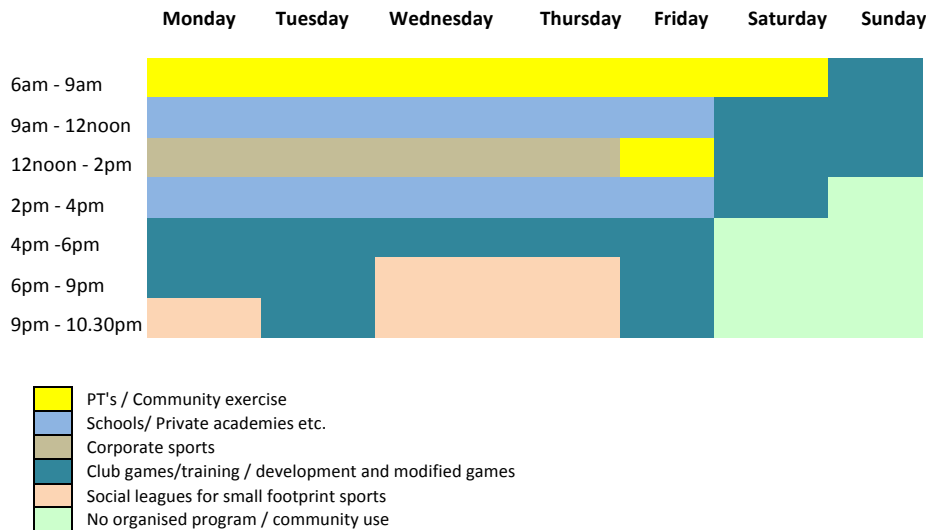
Type of use	Potential hrs.
Club games and preseason training -weekends	13
Clubs- weekday night	22
Club total	35
Personal trainers	20
Schools	25
Social sports leagues	10.5
Corporate sports	8
Community - no programmed use	10.5

This programs tries to provide a balance between club use and a range of more social sport users. See figure 2. following.

The total numbers projected to use the pitch may be up to 3800 people per week depending on programming, pricing and management.

Projected figures for each of the options are detailed in Attachment 2.

Figure 2. Preferred Option (1b): Likely schedule of use



Other use options

The two other options for the multi-use playing field are:

Option 2. Clubs, school and community use only

This option includes local club sports training and use on the weekends and open community use for the rest of the time, and no other programmed use – for example during the week and for social leagues.

In this option would have significantly less use than the preferred option, with some 2400 uses projected. It would have more club use- between 6 and 9pm, four nights a week and between 2-4pm on weekends, and the same amount of community use as Option 1. It would have less ability to raise revenue than Option 1.

Option 3. School, corporate, social program and community use, and no club use

This use will also be less than option 1, with some 3300 projected users per week.

This is not the most desirable option because club facilities are under supplied and development programs and juniors are a priority in growing communities. These types of club use can be accommodated in this size and type of facility. This option has significantly more community use and less ability to raise revenue than Option 1.

Management

Management models

The following management models could be applied to the multipurpose field:

a) Management directly from Council or the organisation managing the aquatic centre

In this case a staff member may need to be located pitch-side. In this model a staff member would be responsible for taking casual bookings as well as organising social leagues and providing game referees, setting up goals and nets and signing players on etc.

Clubs (Option 1) and school use (Option 3) could be arranged through a seasonal or casual hire arrangement/permit. PTs similarly could be through a term contract or casual hire. Council or the organisation managing the aquatics centre could also manage Option 2; where there is only club, school and community use. The operator of the aquatics centre could arrange use or they could be booked through the allocation system used for other Council playing fields.

In this model on-site storage of goals, balls, bibs and nets etc. would be required.

b) Management separately by an external party

The alternative to Council managing the pitch is that the whole of the field is contracted to a third party – either the entity who manages the aquatic centre – or a separate entity altogether. In this model a separate entity would be contracted to undertake booking, hire and programming of the pitch. This would be similar to the way that tennis courts are managed. The entity would run coaching, corporate and social leagues as well as enabling community use through an online booking service for example.

In this model Council still may wish to set guidelines for fees for example. The entity would bring all their own equipment and systems for booking and hire.

As it is likely that school and club use would be subsidised by Council and organised in a seasonal basis for example, in a similar way to Council's other sportsgrounds. Therefore there may not be any advantage for these uses to be included in a management contract to a commercial or not for profit entity.

Council could manage these within its existing sports field booking system and give some time slots to a contractor to hire or program the facility, for example.

Peak time slots of 12-2:00pm and 4-6pm are time slots most suited to contract to a commercial entity.

c) Split responsibilities. In this model the corporate and social leagues could be contracted out to a private operator who would bring all their own equipment and systems for booking and hire. All other uses could be organised by Council, directly or by a contractors operating on their behalf. All casual, term and season use of the multi-purpose field could be booked through the Council's current sports booking systems.

Other possible management responsibilities

If the park is fenced, and a management presence provided, then it could be possible to provide movable seats (see image below) as well as play props (loose materials, stackable crates and toys for use in a sand pit for example), and control use.



These will enhance user experiences and the flexibility of use.

Maintenance

Artificial turf needs substantial maintenance in order to maintain player safety, pitch performance, aesthetics and pitch longevity.

The life of a field will be compromised by the lack of and poor maintenance. Ball speed, bounce and consistency of roll can be easily affected by poor or irregular maintenance.

Organic materials should be prevented from settling on the surface, as organic growth may occur.

An ongoing program of brush cleaning, algae removal (if partly shaded or subject to leave fall for example) and grooming is required to maintain turf in an acceptable condition.

Artificial turf, like any turf is also subject to damage from heavy vehicles driving across it, chemical spills and vandalism.

A program of weekly inspections of the surface is required to check for debris, seam separation, damage and tears.

- Following construction and prior to use the performance of the surface should be assessed and certified as compliant.
- This will ensure that there are no significant defects in the surface and the surface is fit for purpose. This assessment should check for:
 - Uneven fill - low or proud areas
 - Seam failures of any type
 - Looped yarn/pile
 - Exposed goal sockets/ loose bungs for goal sockets
 - Loose or dangerous goal structures, flags which do not comply with safety

The surface should be assessed to comply with: IRB Regulation 22, IRB Artificial Rugby Turf Performance Specification, AFL/Cricket Australia Synthetic Turf Program 2007 specifications and FIFA Quality Concept for Football Turf, January 2012.

Maintenance regimes

The manufacturer should prescribe an ongoing maintenance regime, and warranties may be voided by lack of maintenance.

Artificial turf will typically require brushing and debris removal (soil leaves, tape / gum etc) at least once a week, and following a game or storm event.

Petroleum-based products (ie from vehicles and line marking) are generally harmful to artificial grass surfaces. Contaminants should be removed from the field as soon as possible.

Pitch surrounds – in order to prevent contamination of the surface/other facilities onsite the pitch surrounds must be kept clean.

Weekly brushing of the surface is required to clean leaf litter, remove contaminants and to adjust the level of in-fill (where present) to ensure the uniformity of the surface. Penalty spots and the corners may need to be brushed more regularly

During hot weather (on some surfaces) friction/skin burn occurs and watering may be required.

Irrigating/watering the field can lubricate the surface, clean off pollutants, as well as cool the surface and stabilise the infill.

Equipment

Council, or the pitch owner or management contractor will need to have access to the following equipment recommended by FIFA:

- Drag brushes mats and nets
- Hard road-sweeping brush for levelling infill and removing debris
- High-pressure cleaner (wet cleaning with a pressure of approx. 200 bar)
- Manually operated sweeping machines with an hourly capacity of around 1,000m² or a sweeping and suction machine, self-propelled, with an hourly capacity of 3,000m²

Equipment or vehicles required to groom and clean synthetic turf surfaces are typically lightweight and specifically designed for this purpose.

Typically only manual machine or small light vehicles/ tractors are used to clean, brush and groom synthetic sports surfaces. See image below of equipment used by GrassSports Aust.



Heavy vehicles including garbage trucks should not be able to access or cross the field, as this will compact the surface and may damage the base and create depressions.

Council should budget \$30,000 per annum to cover the likely costs of maintenance.

Accessible and emergency access requirements

Medium to high pile height synthetic grass is not accessible to people in common manual wheel chairs unless the chair is fitted with special sports tyres.

Regular use of these surfaces by electric wheel chairs is not advisable given compaction.

An accessible path of travel should be provided to the field edge and around the field so people using a wheel chair, mobility device or pram can access social areas, coach from the sidelines or make contact with players.

Access to the field edge is required for emergency vehicles and maintenance.

Management of casual use

Many users may not be familiar with playing on synthetic surfaces, and the care is required to protect quality and presentation.

Uncontrolled use can increase the cost of maintenance considerably and impact on the quality of presentation and usability of the field for others.

Council could provide a standard code of use and advice for users on its website and on signage at the entry to the facility.

Players using the synthetic multipurpose pitch may be required not to wear steel studded shoes, and to clean mud off shoes before entering the pitch.

Food and drink should not be allowed on the pitch.

For organised users Council's hire or occupancy agreements could require clubs and operators to provide advice to users about codes of conduct and use. This should: include advice about suitability of activities, appropriate footwear; prohibit use by dogs, food, cigarettes, glass and rubbish such as tape, and bandages; and suggest control when kicking high balls unless fences are provided, for example.

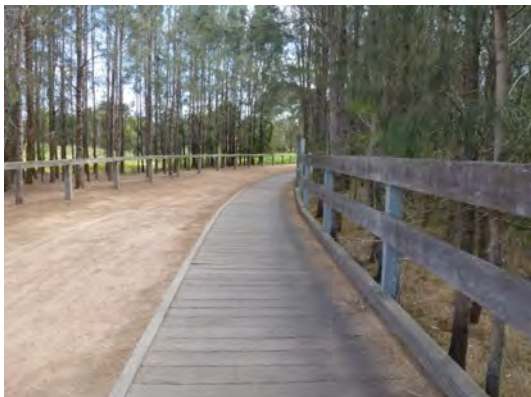
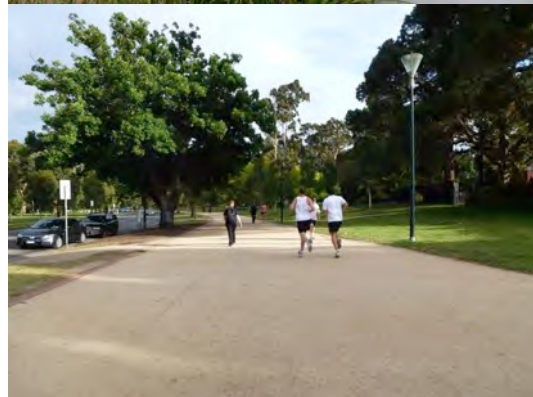
3. Other park elements

Perimeter path circuit

Where possible a perimeter path circuit of 2.5m around the entire park and green space, with trees or vegetation on each side, should be constructed providing approximately a minimum of .6km trail for running, skating and children’s small wheeled toys.

Residents, employees, personal trainers, sports clubs, as well as for events, would use this track for fitness and training. If well designed, this facility could generate more than 3000 people per week⁵, almost as many users as the sports ground.

Styles of running tracks around parks are shown in the images below: Sydney Olympic Park, Sydney Olympic Park, Wentworth, and The Tan track, Princes Park Carlton, and Manly Foreshore. Levels and types of uses will be determined by length, nature of surface and design.



⁵ This is based on the number of people who will walk or run (unorganised), based on current participation rates, and the likely age profile of walkers/ runners.



@leisure advises against the proposed board walk being the primary exercise circuit, due to the hardness of the surface, as the demand is very high for running and limited opportunities are provided for this in other parks in the vicinity.

The boardwalk has considerable merit as a place to sit, relax, and watch activity at the field and for general circulation.

Fitness stations

Due to the potential contested nature of any field surround and any shared trail or exercise circuit and the anticipated use, it is our recommendation that there be several (three are suggested) stations of with combination exercise equipment.

These should be seen as a destination in their own right not necessarily as part of the path network. These should be in clusters and allow use by personal trainers and use from multiple people at the one time.



Attachment 1. Sports Matrix

Sport and Product	Synthetic Playing surface	Field Dimensions	Run out: Goal line and Side line	Associated Structures	Lighting Lux.	Toilet Change rooms / referee Club room /social / Canteen
Soccer - Football: Junior /masters (C or D level facility)	<ul style="list-style-type: none"> ▪ FIFA Star 1: recreational + community use (C and D clubs). ▪ Long pile (35-65 mm) w/ infill ▪ 300m mowing strip around edge of field. ▪ Best orientation: Between 20 degrees west of north and 45 degrees east of north. ▪ Lines woven in or water based spray paint ▪ Max. gradient 1% of the pitch. ▪ Goals to be provided in sleeves or as portable goals ▪ Markings must be in white and no less than 100 mm in width ▪ Any extraneous markings must not be in white and not be greater than 75 mm in width. 	<ul style="list-style-type: none"> ▪ 96-105m* 60-68m. ▪ 82*50 is suitable for day light under 14 competition (FA UK) 	<ul style="list-style-type: none"> ▪ 3m to any structure/ fence. ▪ If inside parkland without fence 1m sidelines and 2m goal lines to edge of synthetic. 	<ul style="list-style-type: none"> ▪ Space for team benches or equivalent seating for 8 people C, 5 people D). ▪ No scoreboard or race requirements. ▪ Provision for either a temporary 1m rope or barrier a 1.2m fence on the edge of the synthetic or supports for netting to separate small footprint sport along midline of large footprint and along sidelines of the large footprint field (which will be goal lines for the small footprint games) ▪ A fence or equivalent barrier of 2m will be required along the park behind the goal lines of the large footprint field. 	<ul style="list-style-type: none"> ▪ A minimum of 100 lux - 140 lux) lighting of the sports field is recommended (amateur club competition and match practice football all codes –(AS2560 part 2.3 2007. Note FA UK recommends 120 lux. AFL recommends 150 lux. ▪ Light should have adjustable lux levels ▪ Night games not permitted for boys U18 (4) 	<ul style="list-style-type: none"> ▪ Public Toilets (no more than 50m from ground). ▪ Two cubicles (unisex accessible toilets providing for casual change facilities). ▪ Officials / referee room 20m2/ office for commercial provider 10m2 ▪ Shelter to house 25 people standing for marshalling, wet weather / schools ▪ Storage for balls and nets 20m ▪ Access to first aid

Sport and Product	Synthetic Playing surface	Field Dimensions	Run out: Goal line and Side line	Associated Structures	Lighting Lux.	Toilet Change rooms / referee Club room /social / Canteen
7 a side soccer - football	<ul style="list-style-type: none"> ▪ Long pile (35-65 mm) w/ infill ▪ 300mm mowing strip around edge of field. ▪ Best orientation: Between 20 degrees west of north and 45 degrees east of north. Note orientation would be opposite full sized fields, as this would be played on half -sized field. Hence trees/ may need to be provided on the edge of the park to minimise low sun glare ▪ Lines woven in or water based spray paint ▪ Max. gradient 1% of the pitch. ▪ Note 5v5 and small sided can play within the footprint 	50*35m	3m to any structure/ fence.			
Australian Rules football - AusKick/ Mini Kick	<ul style="list-style-type: none"> ▪ Medium pile carpet ▪ 40mm pile height: turf 20mm shock pad, 20mm of sand infill packed in – and 20mm grass. ▪ Orientation: Between 20 degrees west of north and 45 degrees east of north. 	<ul style="list-style-type: none"> ▪ 5-8 yr. olds (75m x 50m (3 x 25m zones). 	<ul style="list-style-type: none"> ▪ Min 4m- 5 preferred. 	<ul style="list-style-type: none"> ▪ Public Toilets (no more than 50m from ground). 	<ul style="list-style-type: none"> ▪ AusKick played in the weekend morning 	<ul style="list-style-type: none"> ▪ Access to first aid ▪ Shelter from weather ▪ 2 unisex accessible toilet / change
AFL Nines	<ul style="list-style-type: none"> ▪ Played on a rectangular field similar to soccer (football) ▪ Medium pile carpet ▪ Orientation: Between 20 degrees west of north and 45 degrees east of north. 	<ul style="list-style-type: none"> ▪ 100m x 50m preferred 	<ul style="list-style-type: none"> ▪ Min 4m- 5 preferred. 	<ul style="list-style-type: none"> ▪ No associated facilities required, only markings/markers for the turf and goal posts, which can be portable. 	<ul style="list-style-type: none"> ▪ 100-50 lux 	<ul style="list-style-type: none"> ▪ Access to first aid ▪ Shelter from weather ▪ 2 unisex accessible toilet / change
Touch Rugby	<ul style="list-style-type: none"> ▪ A shorter, denser pile than the standard filled system -18-20mm. ▪ 60% of the fibre height, which are considered suitable for hockey, (training), touch rugby, lacrosse and cricket (fielding practice). 	<ul style="list-style-type: none"> ▪ 70m *50m (90m length including both end zones). 	<ul style="list-style-type: none"> ▪ 5-10m in touchdown zone – goal line. ▪ (Min 3m around entire field). 		<ul style="list-style-type: none"> ▪ Competition 100 lux. 	<ul style="list-style-type: none"> ▪ Access to first aid ▪ Shelter from weather ▪ 2 unisex accessible toilet / change
OzTag (Rugby Union based)	<ul style="list-style-type: none"> ▪ 60mm pile height with shock pad 	<ul style="list-style-type: none"> ▪ 50m * 30m (70m including both end zones). 	<ul style="list-style-type: none"> ▪ 5-10m 			<ul style="list-style-type: none"> ▪ Access to first aid ▪ Shelter from weather ▪ 2 unisex accessible toilet / change

Sport and Product	Synthetic Playing surface	Field Dimensions	Run out: Goal line and Side line	Associated Structures	Lighting Lux.	Toilet Change rooms / referee Club room /social / Canteen
Tag League /League Tag (Rugby League based)	<ul style="list-style-type: none"> ▪ Designed to play across a full sized rugby field (between 10-40m lines) ▪ 60 mm Pile height with shock pad (IRB One Turf) 	<ul style="list-style-type: none"> ▪ Tag league: 50m *30m U9 yrs., 70m* 50m (O13 yrs) ▪ League Tag O13yrs 68*30m 	<ul style="list-style-type: none"> ▪ 10m 			<ul style="list-style-type: none"> ▪ Access to first aid ▪ Shelter from weather ▪ 2 unisex accessible toilet / change
Rugby League: Development program: Mini footy (U6yrs) Mod league (U 9/U12 yrs.	<ul style="list-style-type: none"> ▪ Orientation: Between 20 degrees west of north and 45 degrees east of north. ▪ 60mm pile height with shock pad with shock pad (IRB One Turf) 	<ul style="list-style-type: none"> ▪ Mini Footy: 68*30m (U9yrs) ▪ Mod league: 80*48m – (U12yrs) 	<ul style="list-style-type: none"> ▪ 8m max in goal line ▪ 10m sideline and goal line 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ 50 lux (training). 	<ul style="list-style-type: none"> ▪ Access to first aid ▪ Shelter from weather ▪ 2 unisex accessible toilet / change
Cricket	<ul style="list-style-type: none"> • Synthetic wicket 9-11 mm height glued to a concrete base (no infill). • Outfield 40mm medium -short pile. See AFL cricket guidelines. 	<ul style="list-style-type: none"> ▪ Turf wicket is 3.05m wide. ▪ Non turf wicket is min. 17.68m length*1.83m wide ▪ The pitch is 20.12m long between the centre line of the stumps and 1.52 each side of the centre stump. 	<ul style="list-style-type: none"> ▪ 64-68.6m radii from centre of the pitch. ▪ 	<ul style="list-style-type: none"> ▪ Practice nets. ▪ Boundary rope at least 2.74 from any structure. ▪ Site screen. 	<ul style="list-style-type: none"> ▪ 50 lux –recreation training ▪ 100 lux – amateur competition, semi-pro match practice, professional training ▪ 200 lux – semi-pro competition, professional match practice ▪ 500 lux – professional competition ▪ 1500 lux – all televised games 	<ul style="list-style-type: none"> •
Junior cricket / In2 cricket / modified		<ul style="list-style-type: none"> ▪ Under 15 yrs. - 40-50m radii. ▪ Under 8yrs or super 8 - 25-30m radii. ▪ Dual pitch 20/20 under 12yrs - 45m radii. 				

Sport and Product	Synthetic Playing surface	Field Dimensions	Run out: Goal line and Side line	Associated Structures	Lighting Lux.	Toilet Change rooms / referee Club room /social / Canteen
Hockey	<ul style="list-style-type: none"> • Global: the turf carpet must be of an unfilled type that requires watering and 10-12mm pile height. • National: the turf carpet may be of an unfilled or filled type, which does not necessarily require watering; usually 10-13mm high with medium-pile density, sand-dressed hybrid carpets (sand to approximately 60% of the pile height). • Multi-sport: the turf carpet may be of an unfilled or filled type that does not necessarily require watering. • Orientation: Between 45 degrees west of north and 45 degrees east of north. • FIH recommend 15 degrees east or west of nth. • Preferred fence FIH 1.5m or 3m between pitches rising to 4.5 or 5m high at the 21m section goal areas. 	<ul style="list-style-type: none"> ▪ 91.44m* 54.86. ▪ 6m sideline 5m goal lines preferred. 	<ul style="list-style-type: none"> ▪ The run-off must have the same qualities of synthetic turf, slope, smoothness and for pitches requiring watering, pitch irrigation watering facilities, as the field of play. ▪ For overruns: 2m at the sidelines (1m will match the pitch material) and 3m at the backlines (of which 2m match the pitch material). 	<ul style="list-style-type: none"> ▪ Toilets, security facilities (lockers), official's rooms, first aid rooms, maintenance/cleaning store, public toilets (accessible). 	<ul style="list-style-type: none"> ▪ 200 lux (class 3). ▪ 250 lux (class 2) ▪ 500 (class 1) (non-televised). ▪ 800-1000 lux (televised regional). ▪ 1500-3000 lux (televised national, international) (televised). 	<ul style="list-style-type: none"> ▪ 1 "with views", and entrance lobby. ▪ 2 "of adequate size".

Sport and Product	Synthetic Playing surface	Field Dimensions	Run out: Goal line and Side line	Associated Structures	Lighting Lux.	Toilet Change rooms / referee Club room /social / Canteen
Hockey 5's	<ul style="list-style-type: none"> The Rules do not specify the type of surface on which Hockey5s is played. "It is perfectly acceptable to play the game on any surface including natural grass, synthetic turf and hard recreational play areas."⁶ 	<ul style="list-style-type: none"> A line of 50 cm length is marked in the middle of the field: the centre line, at 11 metres from the centre of one back-line and 11 metres from the centre of the other back-line. Lines are marked on the boundary-boards parallel to the centre line and 11 metres lines. All lines are 75 mm wide and are part of the field of play 	<ul style="list-style-type: none"> The field of play is rectangular, 55 metres long and 41.70 metres wide. (Half of a full sized field). Goals are positioned outside the field of play at the centre on each back-line. 	<ul style="list-style-type: none"> Boundary-boards with a height of 25 cm may mark the side-lines and back-lines (not the goal-lines). Penalty spots 150 mm in diameter are marked in front of the centre of each goal with the centre of each spot 6.40 metres from the inner edge of the goal-line. Boundary-boards may be 'rounded' in the corners so that the ball does not become trapped. 	<ul style="list-style-type: none"> See Hockey Above 	<ul style="list-style-type: none"> See Hockey Above

⁶ Personal Communication Hockey Victoria

Sport and Product	Synthetic Playing surface	Field Dimensions	Run out: Goal line and Side line	Associated Structures	Lighting Lux.	Toilet Change rooms / referee Club room /social / Canteen
Tennis	<ul style="list-style-type: none"> ▪ ITF Approved surfaces include lawn, cushioned acrylic hardcourt and clay (red porous) ▪ Lawn (requires significant maintenance in order to keep operational) ▪ Acrylic hard court (suitable for year-round use) ▪ Clay or red porous ▪ SFAG- is suitable only for community level play. It is not an ITF competition surface. 	<ul style="list-style-type: none"> ▪ 23.77m x 10.97m (to the end of the doubles lines) ▪ Courts should be oriented between 20 degrees west of north and 35 degrees east of north. 	<ul style="list-style-type: none"> ▪ 3.05m from sideline, and 5.5m from baseline (club standard) ▪ Minimum distance between 2 courts – 3.66m 	<ul style="list-style-type: none"> ▪ Adequate storage areas for court, coaching and maintenance equipment ▪ Fencing required – to an Australian standard of 3-3.6m height for club and public environments 	<ul style="list-style-type: none"> ▪ 250lux (social play) ▪ 350 lux (club competition) ▪ 1000 lux (international competition) 	<ul style="list-style-type: none"> ▪ Clubhouse required, size dependent on the size of facility ▪ Canteen/kiosk with outside & inside servery ▪ Toilets, showers and change rooms that comply with the building code requirements.

Attachment 2. Potential use of the multisport pitch

Table 1. Player numbers and game duration

Game	Players per team	Substitutes / Spectators	Game duration
OzTag	8	2	2 x 13 minute halves with a 2-minute half-time break.
Tag League/ League tag	8	2	2 x 13 minute halves with a 2 minute half-time break.
Soccer- football – 7s	7	2	2*25mins
Soccer –football- Under 14 yrs. club	11	8	2*30 min halves
Touch	6	2	2*20 min halves
Afl Nines	9	3	Approx. 2 * 16 mins - 40 mins total
AusKick	50	15	1 hour to 90 mins

The table below illustrated the potential for use of a pitch on a weekly basis. This option has slightly more club sport and less social leagues on week day nights and community use on Saturdays, than the second option provided over leaf.

This level of use is likely to be achievable during school terms and in the winter months. Some additional patronage from gala days may also be achievable.

Table 2. Potential numbers of users by type and time slot

Option 1B. preferred by the sports user group

	M	T	W	T	F	S	S	
6am - 9am	30	30	30	30	30	30		130
9am – 12pm	75	75	75	75	75	114		130
12pm - 2pm	150	150	150	150	20	114		130
2pm - 4pm	60	60	60	60	60	114		40
4pm -6pm	60	60	60	60	60	40		40
6pm - 9pm	60	60	200	200	60	30		30
9pm - 10.30pm	44	60	44	44	60	15		15
Sub Total	479	495	619	619	365	258	390	3225
Community use						199	125	324
Total								3549

Option 1A. Slightly less club use than Option 1B

	M	T	W	T	F	S	S	
6am - 9am	30	30	30	30	30	30	30	
9am - 12pm	75	75	75	75	75	114	130	
12pm - 2pm	150	150	150	150	20	114	130	
2pm - 4pm	60	60	60	60	60	40	40	
4pm - 6pm	60	60	60	60	60	40	40	
6pm - 9pm	200	200	200	200	200	30	30	
9pm - 10.30pm	44	44	44	44	44	15	15	
Sub Total	619	619	619	619	489	258	290	3513
Community use						125	125	250
Total								3763


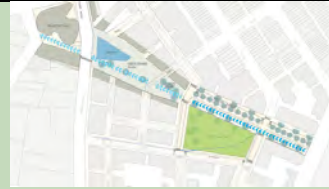
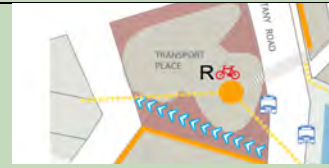

Option 2. No social leagues or corporate sport









	M	T	W	T	F	S	S	
6am - 9am	30	30	30	30	30	30	30	
9am - 12pm	75	75	75	75	75	114	130	
12pm - 2pm	15	15	15	15	20	114	130	
2pm - 4pm	60	60	60	60	60	40	40	
4pm - 6pm	60	60	60	60	60	40	40	
6pm - 9pm	60	60	60	60	60	30	30	
9pm - 10.30pm	15	15	15	15	15	15	15	
Sub Total	315	315	315	315	320	258	290	2128
Community use						125	125	250
Total								2378







Option 3. No club use


	M	T	W	T	F	S	S	
6am - 9am	30	30	30	30	30	30	30	
9am - 12pm	75	75	75	75	75	120	40	
12pm - 2pm	150	150	150	150	20	120	40	
2pm - 4pm	60	60	60	60	60	40	40	
4pm - 6pm	80	80	80	80	80	40	40	
6pm - 9pm	200	200	200	200	200	30	30	
9pm - 10.30pm	44	44	44	44	44	15	15	
Sub Total	639	639	639	639	509	270	110	3445
Community use						125	125	250
Total								3695











Attachment 3. Sports fields and parks around Green Square






Park name	Address Suburb	Sports Facility Type		Sport Image	Park			Park Image	Skate / Play facilities	
		Other	ARF, S-F, Touch, RU, C, RL, Oz/League Tag, H, NB, BB-Soc.		Landscape Setting / veg	Primary Function	Other key features (planned) ie wetlands, dog off lead etc.		Skate/ BMX	Playground / SFR
Immediate neighbourhood										
The Drying Green			NIL		Open Parkland	Retarding basin	To provide for play, events. Deep soil planting. To provide soft landscaping 5,500sqm. For outdoor performances, events and temporary art installations. BBQs, and shade structures. play area/playground for children. Sunlight for 50% of park between 11-2pm.			Play
Shea Stream Corridor			NIL		Water body	Heritage	Abutting the Drying Green			
Neilson Square			Nil		Plaza	SFR	Informal play, soft landscaping 1,559sqm. Includes transit corridor. Small, temporary markets			
Transport Place			NIL		Plaza paved	Access	Pedestrian, cycle, public transport interchange			
Green Square (Civic Place)	Green Square		NIL		Premier Plaza (Community Identity and Learning	Play elements, large markets community gathering seating forecourt to library – café edge. Note: very limited solar access). Major community events and gatherings			


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Within 1km										
The Rope Walk	O'Dea Avenue, Waterloo, NSW, 2017		NIL		Treed Parkland	Linear Park	Seating and children's play, edible and sensory planting			
Wulaba Park	Amelia Street, Waterloo, NSW, 2017			NIL	Open grassy area Wetland	Retarding basin	"A neighbourhood park. Play 'island' for ages 3-12 years old. Natural play features. Table tennis and card/chess tables. Shelter for activities and barbecues. Picnic spaces. Gathering space		No	Play space 3-12 yrs
Joynton Park	Victoria Park Parade, Zetland, NSW 2017		Touch/ OzTag may be possible - other sports training or modified sports		Treed park land (and open grassy area)	Retarding basin	Off lead dogs. Kick to kick, seating under tree canopy. Public toilet. Kiosk. Water sculpture/play feature. 15,000sq m. area 50*90 could be used for fitness and sports training.		No	No Water sculpture/play feature
Nuffield Park	Zetland, NSW 2017	Tennis /basketball court + practice wall Social	BB, Touch/ OzTag may be possible along with other sports training or modified sports		Open grass area/ synthetic sports surface	Retarding basin	Has basketball, tennis hit up wall, as well as grass retarding basin with small stage and kick to kick space Seating areas. Toilets. Note: Could have put two courts here. Best if lit.		No	
Mary Obrien Park	Tilford Avenue Zetland, NSW 2017		Nil				2 playgrounds Barbeque, water play and barbecues with picnic areas.			2 playgrounds, Equipment for children aged up to 8 years Waterplay feature.
Waterloo Public School	237 Botany Road Waterloo, NSW 2017		BB -Soc							

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Woolwash Park	Zetland, NSW 2017		Nil			Linear park	Large scale tree planting, picnic tables and shade.			
Open space over the road from Woolwash Park	Zetland, NSW 2017		Nil							
Matron Ruby Grant Park	Waterloo, NSW 2017				Mature vegetation	Heritage and cultural values	“Some formal and informal seating; small scale events and open air vending”. 750sqm. Existing mature vegetation. Shade and some formal and informal seating.		Skate able elements	
Turruwul Park	Rothschild Avenue Rosebery, NSW 2018	2 Tennis court - social	S-F, Touch, RU, RL, Otag, NB,							Swing set, spider-rope climb, cubby house, Covered BBQ area
Janet Beirne Reserve	235 Victoria Street, Beaconsfield NSW 2015		Nil							Shaded playground, swings, climbing apparatus, BBQ area, Café style furniture










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Beacons Field Park	54 Queen Street Beaconsfield, NSW 2015	2 hard court tennis	BB – Soc ½ court		Open space grassy area	SFR	Open grassed area for kick to kick plus hard courts and play equipment			Large, partially fenced and shaded community playground. Public toilets available.
Perry Park	Maddox Street Alexandria, NSW 2017	Practice cricket wickets and	C BB - Soc		Managed Turf	SFR	2 half court BB back to back			Proposed new facility
Waterloo Park and Oval	Cnr Elizabeth Street/McEvoy Street Waterloo, NSW 2017		C, RL, (Touch/ OzTag ?)		Managed Turf	Sport	Includes partially fenced; neighbourhood playground		The Fernside Skate Park Skate park with street-plaza-style facilities.	Play space with climbing structures, Metal slide, Monkey bars, See-saw, Plenty of space to run and play
Tote Park	Austin Grove Zetland, NSW 2017		NIL		Treed Parkland	Retarding Basin	Play space Green area for informal ball games Toilets.			Neighbourhood playground with climbing structures, slides and swings. Play area for 1-5yr olds
Within 2km										
Redfern Oval	Chalmers St Redfern, NSW 2016		S-F, Touch, RU, RL, OzTag							



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Erskinesville Oval	Cnr Swanston Street/Fox Avenue Erskinesville, NSW 2043		RL, RU, Touch, Oztag							
Alexandria Oval	Buckland Street Alexandria, NSW 2015	2 tennis courts	RU, C, NB, BB-Soc							
Sydney Park Alan Davidson Oval	400 Sydney Park Road Alexandria, NSW 2043		ARF, C				Café, BBQ		Bike track Cycling centre	Accessible play space
Marriott Street Reserve	Section of Marriott Street between Boronia and Cooper Streets, Redfern. Redfern, NSW 2016		Nil		Treed Parkland	Road reserve (closed)	BBQ facilities, large trees, synthetic softfall			Junior Playground
Prince Alfred Park	Chalmers Street Surry Hills NSW 2010	Swimming Pool, 5 tennis courts.	BB - Soc		Open Grassy Area	Social Family Recreation	Dog friendly playground, large trees		BBQ and seating, 1km exercise circuit	2 playgrounds: seesaws, swings and custom-made play equipment

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Vice Chancellors Oval	Henderson Road Eveleigh, NSW 2015	Dog friendly	S-F (training)						Undercover BBQ's	
Cook Community Garden	Cnr of Raglan and Pitt Streets Waterloo, NSW 2017	Community gardens	Nil				Community garden			
2+kms										
Federal Park	Chapman Road Annandale, NSW 2038		Nil			Social Family Recreation	Dog park. Barbecues, picnic centre. Public toilets. Play facility	 	Skate ramp	Large, fenced and shaded adventure playground Plenty of climbing equipment.

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Jubilee Oval	5 Victoria Road Glebe, NSW 2037		C, ARF, H, Touch, OzTag				Tai chi & kung fu park locations			
Reg Bartley Oval	Waratah Street Rushcutters Bay, NSW 2011	3 tennis courts	C, S-F, RU, RL, Touch, OTag				Kiosk, personal trainers		Nil	
Wentworth Park	Wentworth Park Road Ultimo, NSW 2008	Greyhound track	S-F, Touch, RU, RL, OzTag				Fitness, equipment, playground, open lawns, large shady trees		Nil	A shaded neighbourhood playground with equipment for children of all ages.
Centennial Park and Moore Park Trust	Centennial Parklands Centennial Park, NSW 2021	Pond for model yachting, athletics, golf course, tennis	S-F, NB							
The Domain	Sir John Young Crescent Sydney, NSW 2000	Outdoor fitness locations, Volleyball	S-F, NB, Touch, OTag,							
National Centre of Indigenous Excellence	166-180 George Street Sydney, NSW 2016	Frisbee, Tennis, 25m pool	S-F, Touch, RU, RL, OTag, H, BB-Soc, NB				Outdoor fitness			

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The Lakes Golf Course & Astrolabe Park	Cnr. King Street/Vernon Avenue Mascot NSW 2020	Golf course								
East Gardens Track & Field	Denison Street Eastgardens NSW 2036		S-F, Touch, RU, RL, OTag							
Woollahra Playing Field & Golf	Manion Avenue Rose Bay, NSW 2029	Outdoor fitness, golf course	S-F, Touch, RU, C, RL, OTag							
Women's Athletic Field	Hastings Avenue Chifley, NSW 2036	Baseball/softball, cycle paths, skate facilities	C, new multipurpose field suitable for training RL, RU, Touch, OTag							
Yarra Bay Bicentennial Park & Market Gardens	Koorngai Avenue Philip Bay, NSW 2036	Next to Yarra Bay sailing club	S-F, Touch, RU, RL, OTag							
Latham Park	Moverly Road South Coogee, NSW 2034	6 tennis courts, 3 bowling greens, Dog-friendly	S-F, Touch, RU, RL, OzTag,							

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Snape Park	15 Snape Street Maroubra, NSW 2035	6 tennis courts, 3 cricket nets	C, NB, RL, RU, Touch, OzTag							
Jellicoe Park	Park Parade Pagewood, NSW 2035		S-F, C							Playground -shaded
Cromwell Park	4R Dacre St Malabar, NSW 2036		Nil		Treed Parkland	Social family recreation				Playground -shaded
Pioneers Park	1160-1196R Anzac Parade Malabar, NSW 2036	Baseball, Cycling track Rifle Range	RL, RU, Touch, OTag, ARF		Managed Turf					
David Phillips Field (UNSW) & Rowland Park	Banks Avenue Daceyville, NSW 2032	Golf course, hockey field, 4 tennis courts	S-F, C, H, NB							
Bowden Playground	103 Lawrence Street Alexandria NSW 2015				A community space for local families	Play	(Closed road)		Nil	Natural shade and a medium-sized fenced playground

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Mutch Park	Heffron Rd Pagewood	Squash, tennis courts, cricket nets			Treed Parkland	Sport	Picnic Tables Public Toilets Rotunda Shade Areas		Nil	Playground

Legend: Sports facilities:

ARF Australian Rules Football	S-F Soccer - Football	Touch Touch Football	RU Rugby Union	C Cricket	RL Rugby League	Oztag OzTag/ League Tag	H Hockey	NB Netball	BB-Soc. Basketball (social)	LB Lawn Bowls
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