

WICKHAM RECREATION PRECINCT FEASIBILITY STUDY – CITY OF KARRATHA

FEBRUARY 2023



Otium Planning Group Pty Ltd

Head Office:

304/91 Murphy Street
Richmond VIC 3121
ABN: 30 605 962 169
Phone: (03) 9698 7300
Email: info@otiumplanning.com.au
Web: www.otiumplanning.com.au

Local Office:

Unit 9 Gallery Suites
185 High Street
Fremantle WA 6160
Contact: David Lanfear
Phone: 0477 708 891
Email: wa@otiumplanning.com.au

Otium Planning Group has offices in Auckland, Brisbane, Cairns, Christchurch, Melbourne, Perth and Sydney.

Document History				
Version	Date	Author	Checked	Recipient
1.0 Draft	15 January 2023	Wayne Stuart	Dave Lanfear	Donna Kelly
2.0 Draft	8 February 2023	Wayne Stuart	Dave Lanfear	Vanessa Pavilla
3.0 Final	16 February 2023	Wayne Stuart	Dave Lanfear	Vanessa Pavilla
4.0				
© 2023 Otium Planning Group Pty. Ltd. This document may only be used for the purposes for which it was commissioned and in accordance with the terms of engagement for the commission.				

Otium Planning Group acknowledges the Australian Aboriginal, Torres Strait and South Sea Islander peoples of this nation. We acknowledge the traditional custodians of the lands on which our company is located and where we conduct our business. We pay our respects to ancestors and to Elders, past, present and emerging. Otium is committed to national reconciliation and respect for indigenous peoples' unique cultural and spiritual relationships to the land, waters and seas, and their rich contribution to society.

Contents

Executive Summary	i
1. Introduction	1
1.1 Methodology.....	2
2. Demographics	4
3. Strategic document review	8
3.1 City documentation	8
3.1.1 Strategic Community Plan 2020 – 2030	8
3.1.2 Corporate Business Plan 2020 – 2025	8
3.1.3 Disability Access & Inclusion Plan 2018-2022 (currently under review)	9
3.1.4 Strategic Asset Management Plan 2019-2024	9
3.1.5 Wickham Aquatic Centre refurbishment scope of work options (2017)	10
3.1.6 Wickham Aquatic Centre – Structural Assessment (2020).....	11
3.1.7 Wickham Amenity Building engagement summary and WRP improvements Feasibility Study (2022).....	11
3.2 State Sporting Association documentation	12
3.2.1 State Sporting Association (SSA) Facility Guidelines	12
3.3 Summary	12
4. Visual audit.....	14
4.1 Multi-purpose courts	14
4.2 Saylor Park	15
4.3 Wickham Aquatic Centre lifeguard station.....	16
4.4 Wickham Amenities Building	17
4.4.1 Wickham sports fields	18
4.5 Summary	18
5. Facility utilisation	19
5.1.1 Multi-purpose courts.....	19
5.1.2 Wickham Aquatic Centre	19
5.1.3 Wickham Amenities Building and oval	20
5.2 Summary	21
6. Site analysis	23
6.1 Site services.....	23
6.1.1 Electrical services.....	23
6.1.2 NBN.....	25
6.1.3 Water.....	25
6.1.4 Sewer	26
6.2 Bushfire risk	26

6.3	Geology and topology	27
6.4	Heritage.....	27
6.5	Environmental.....	27
6.6	Asbestos	27
6.7	Summary	27
7.	Scenario and option analysis.....	29
7.1	Multi-purpose courts	29
7.2	Saylor Park toilets	30
7.3	Lifeguard station	31
7.4	Wickham Amenities Building	34
7.4.1	Access and inclusion	38
8.	Concept plans.....	39
8.1	Multi-purpose courts	39
8.2	Saylor Park toilet	39
8.3	Lifeguard station	41
8.4	Wickham Amenities Building	41
9.	Opinion of probable costs	44
9.1	Staging of works.....	44
10.	Implementation plan.....	46
10.1	Conclusion.....	47
11.	Appendices	48
	Appendix 1: State Sporting Associations Preferred Standards	49
	Appendix 2: Wickham Amenity Building dimensions.....	51
	Appendix 3: Facility Images (all taken by Author)	52
	Appendix 4: Site layout concept plan.....	58
	Appendix 5: Saylor Park toilet block location plan	59
	Appendix 6: Basketball court – roof design concept plan	60
	Appendix 7: Aquatic precinct site layout concept plan.....	61
	Appendix 8: Aquatic precinct building modifications concept plan.....	62
	Appendix 9: Wickham sports amenities building site layout plan	63
	Appendix 10: Wickham sports amenities building concept plan	64
	Appendix 11: Opinion of probable costs	65
	Warranties and Disclaimers.....	66

Executive Summary

The townsite of Wickham was established in 1972, whereby the Wickham Recreation Precinct (WRP) was built to support the operations and families of the region. The WRP is regarded as a district sports and recreation hub, servicing the Wickham, Point Samson and Roebourne communities. Consisting of the Wickham Community Hub, Wickham Aquatic Centre, sporting spaces (fields and courts), the Wickham Amenities Building and Saylor Park.

Historically, the facility management structure for the WRP is through a long term management agreement between two parties; Rio Tinto Iron Ore (RTIO) as the Principal and the City of Karratha (City) as the Service Provider. The Funding Deed provides an estimated \$2.4 million per annum towards the operating costs and minor planned / reactive maintenance, with no provision for asset replacement or improvements under capital funding.

The City and Rio Tinto Iron Ore (RTIO) identified that by modern day standards, some of the infrastructure is considered to be no longer fit-for-purpose, triggering the need to renew, replace or upgrade facilities within the WRP. This Feasibility Study was determined as the most appropriate way to investigate the options for renewal or replacement of the following facilities in an effort to improve the level of service within the community:

- Repositioning and rebuild of the existing lifeguard office and change rooms located at the Wickham Aquatic Centre.
- Refurbishment or rebuild and possible repositioning of the Wickham Amenities Building.
- Redevelopment of the existing multi-purpose courts into a shaded facility.
- Public toilet provision to service Saylor Park and the surrounding public open space.

The Feasibility Study has been developed through research, site and facility analysis while building upon preliminary planning documents in an effort to demonstrate need and nexus. Combined with local context, project parameters for each facility were defined to guide the most efficient use of the WRP, in consideration of all known constraints, prior to development of concept plans. Key findings include:

- The project is supported at the strategic level, identified in City's Corporate Business Plan within the 'Implement long term financial plan improvements at Karratha Leisureplex and WRP' objective.
- The Strategic Community Plan highlights the importance of integrating community wellbeing and active lifestyles with environmental considerations for the benefit of the whole community. This is particularly important in the design of the Wickham Amenity Building which can provide spaces that can cater for a range of activities, not just for sport related activities.
- The City's population is unlikely to increase significantly over the next 20 years, but ageing facilities and improvements of other facilities within the municipality will continue to place pressure on the City to provide the community with access to quality and functional facilities in Wickham.
- The WRP currently caters for a range of sporting and recreational activities including Australian football, cricket, rugby, soccer, basketball, netball, tennis, swimming, health and wellness activities, forming a part of a greater precinct with the Wickham Community Hub and Saylor Park playspace.
- The multi-purpose courts and Wickham Amenities Building are underutilised, and improvements to the two facilities may see an increase in bookings / use. In particular, the quality (age, functionality, accessibility etc) of the Wickham Amenities Building is likely a factor in the low use, and any improvement may see the return of community groups. It is possible that the new building could cater for activities provided for in other standalone or older facilities, in an effort to enhance the sporting precinct.

- There are no significant site constraints, with the exception of existing infrastructure. The City will need to manage the timing of projects, as some facilities will be decommissioned and removed while sport and community activities will continue.
- The City will need to undertake a geotechnical investigation, electrical demand assessment and develop a Bushfire Management Plan for some of the projects. These can form a part of the design consultancy contract.
- In regard to each facility:
 - Three locations were identified for the toilet building at Saylor Park, with the most suitable to be selected.
 - As a district level facility, the multi-purpose courts need to be covered, similar to those at other facilities in the City.
 - It is evident that the existing lifeguard office and change rooms needs to be replaced. Given the complexity of the site (established infrastructure) careful consideration will be needed to achieve an acceptable outcome.
 - The Wickham Amenities Building is at the end of its useful life and needs to be decommissioned and replaced. It is important that the new facility caters for a number of activities at once, in particular after school.
 - The dimensions of the sporting fields are in line with requirements for senior competition, as such no change is required.

Based on the findings several concept plans were developed for each facility, shown below. The concept plans have been developed assuming that all of the infrastructure will be delivered but could be staged in an effort to provide facilities in line with best practice for the relevant activities.

Multi-purpose courts

It was determined that a gable roof would best suit the facility, with its ridge running along a north south axis. This design would allow simple expansion of a similar roof should the City wish to extend over the tennis and indoor cricket courts in the future. The roof will be able to support shade panels, LED lights, backboards that can be lowered from the roof, and will cover the storage shed.



Saylor Park Toilet

The Feasibility Study investigated three locations for a standalone (UAT) toilet block within Saylor Park, with Option 2 being the preferred location. This location is near the main shelter structure, which will provide good surveillance of the Saylor Park playspace area and broader site activity.



Wickham Aquatic Centre Lifeguard Station

This project involves modifications to the existing building, without the need to extend, incorporating the following:

- Repurposing of change rooms 3 & 4 with some modifications required to meet BCA.
- The provision of a new fence and gate, and the removal of the existing fence between the two plant structures.
- The reconfiguration and combining of the first aid / lunch room and store room to incorporate the new lifeguard station and first aid room.
- The conversion of the east wing office into a store room.

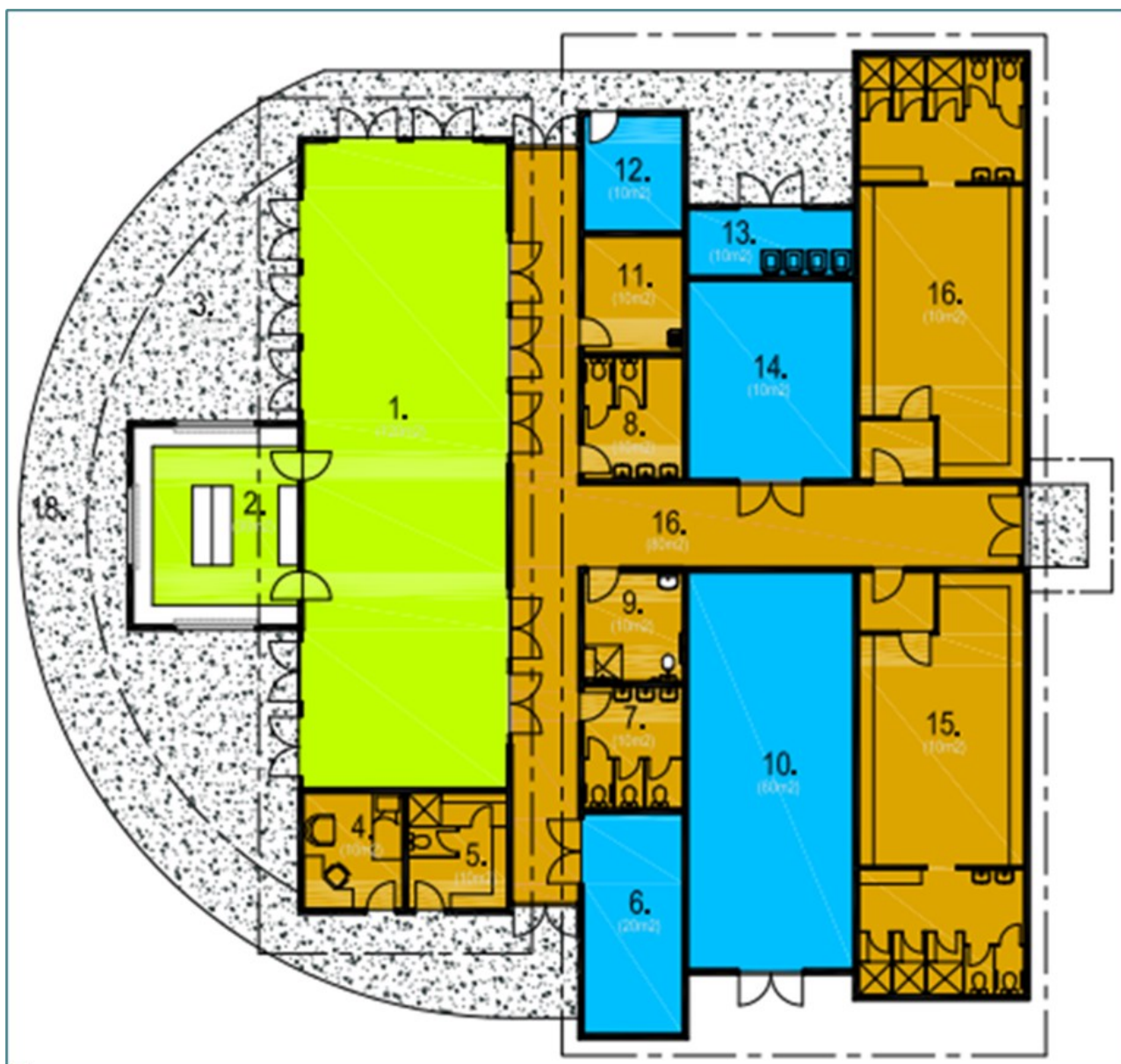


Wickham Amenities Building

It was determined that the location of the existing facility was the most appropriate location for the new facility, as it services both sports fields (north and south). The design for the new facility configured the layout into three main uses:

- Amenities – change rooms (2), toilets, first aid and umpires room.
- Storage – internal and external spaces.
- Function spaces – function room and kiosk.

The building has an internal gross floor area of 530m², and external gross floor area of 260m² (consisting of a verandah and footpath).



An Opinion of Probable Costs (OPC) was developed for each concept plan as follows:

Facility	Cost (ex GST)
Saylor Park Toilet	\$256,695
Multi-purpose Courts	\$4,445,450
Wickham Aquatic Centre Lifeguard Station	\$851,350
Wickham Amenities Building	\$6,274,250
Total	\$11,827,745

The staging of works is critical in regard to the allocation of funds and resources, and the Feasibility Study presents the following:

Stage 1: Design and construction of the Multi-purpose courts. Year 1 involves community consultation to confirm facility requirements.

Stage 2: Design and construction of the Saylor Park toilets. Year 1 involves community consultation to confirm the location for the toilet.

Stage 3: Design and construction of the Wickham Aquatic Centre Lifeguard Station.

Stage 4: Design and construction of the Wickham Amenities building. Year 2 involves community consultation to confirm facility requirements.

An implementation plan identifies core activities and timelines required to address any implications as outlined throughout the Feasibility Study, providing guidance of the recommended actions the City needs to undertake to ensure a quality, well-managed, sustainable development of future facilities.

From this study, the recommendations will be submitted to RTIO via the CEA process to secure full capital funding for the recommendation.

1. Introduction

The City of Karratha (City) is a Local Government Authority (LGA) located in the Pilbara, approximately 1,535km north of Perth. Covering an area of 15,882m² and a resident population of 22,199 (Remplan, 2022), the City consists of five townsites - Dampier, Karratha, Point Samson, Roebourne and Wickham (Figure 1). In servicing its communities, the City has a primary role in providing infrastructure, including public open space and community buildings, that enables the community to access programs, services and facilities in which to recreate.

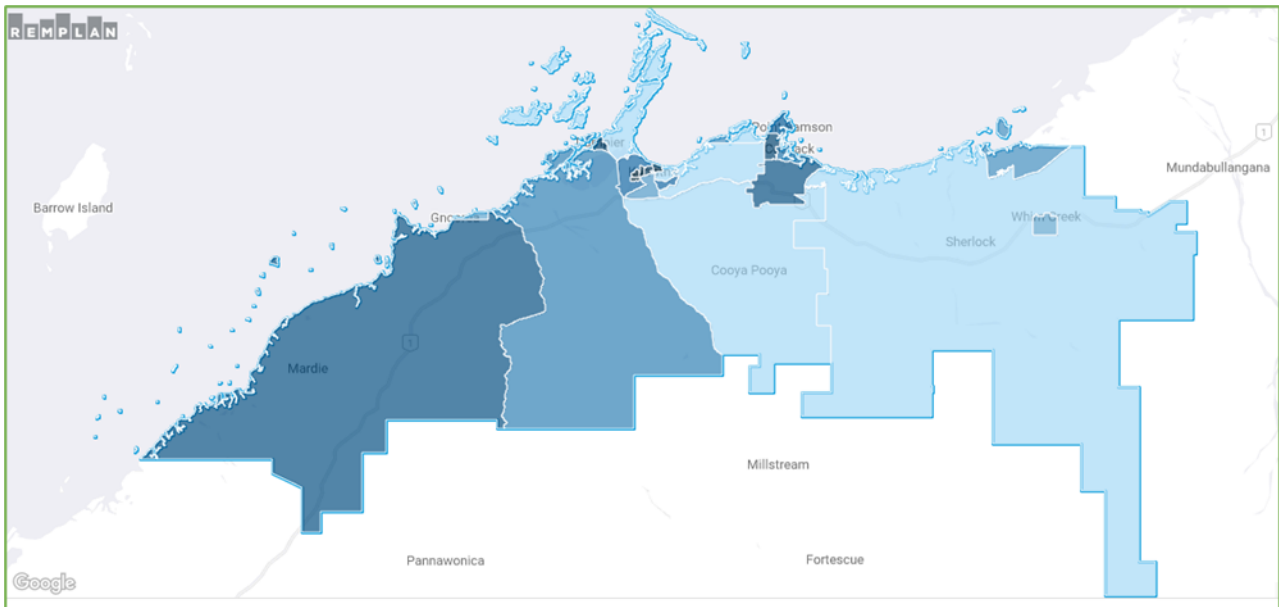


Figure 1: Map of the City of Karratha (Source: Remplan 2022)

The Wickham Recreation Precinct (WRP) is regarded as a districts sports and recreation hub, servicing the Wickham, Point Samson and Roebourne communities. The WRP consists of the following, and is identified in Figure 2:

- Wickham Community Hub – this is the home of the Wickham Library, The Base and skate park.
- Wickham Aquatic Centre which also consists of a 24-hour gym and group fitness (also operated from the Wickham Community Hub).
- Sporting spaces – one oval (AFL / cricket), one rectangular pitch (rugby / soccer), two multi-purpose courts, two tennis courts, and one outdoor (indoor style) cricket court.
- Wickham Amenities Building and separate storage shed.
- Saylor Park consists of a large playground, outdoor exercise equipment and shaded picnic area.

The townsite of Wickham was established in 1972, whereby the WRP was built to support the operations and families of the region. The City currently manages the day to day activities of the WRP in partnership with Rio Tinto Iron Ore (RTIO), which has seen investment into new and existing facilities over a period of time.

Under this arrangement, asset renewal and replacement are identified by the Partnership Management Group and budgeted for through RTIO's Capital Replacement Process (CRP). This process requires the City to provide RTIO with a Capital Expenditure Application (CEA) by 1st of July each year.

This Feasibility Study was determined as the most appropriate way to investigate the options for renewal or replacement of three elements of the WRP namely:

- Repositioning and rebuild of the lifeguard office / change rooms located at the Wickham Aquatic Centre
- Redevelopment of the existing multi-purpose courts into a shaded facility.
- Refurbishment or rebuild and possible repositioning of the Wickham Amenities Building.

In addition, the Feasibility Study was to investigate the provision of a public toilet at Saylor Park, to service the surrounding public open space. From this study a recommendation will be submitted to RTIO via the CEA process to secure full capital funding for the recommendation.



Figure 2: Wickham Recreation Precinct (City of Karratha, 2022)

1.1 Methodology

The Feasibility Study seeks to investigate relevant background information to determine the most suitable options (renewal, upgrade or replacement / new) for each of the above facilities. The Feasibility Study will provide a set of recommendations to be submitted to RTIO via the Capital Expenditure Application process, in order to secure full capital funding.

The following methodology was used in the delivery of this Feasibility Study, providing the City with an evidence based report that will guide the development of the proposed works. The research, analysis and

recommendations will provide the City with modern and functional facilities and supporting amenities to service the needs of the community for years to come.

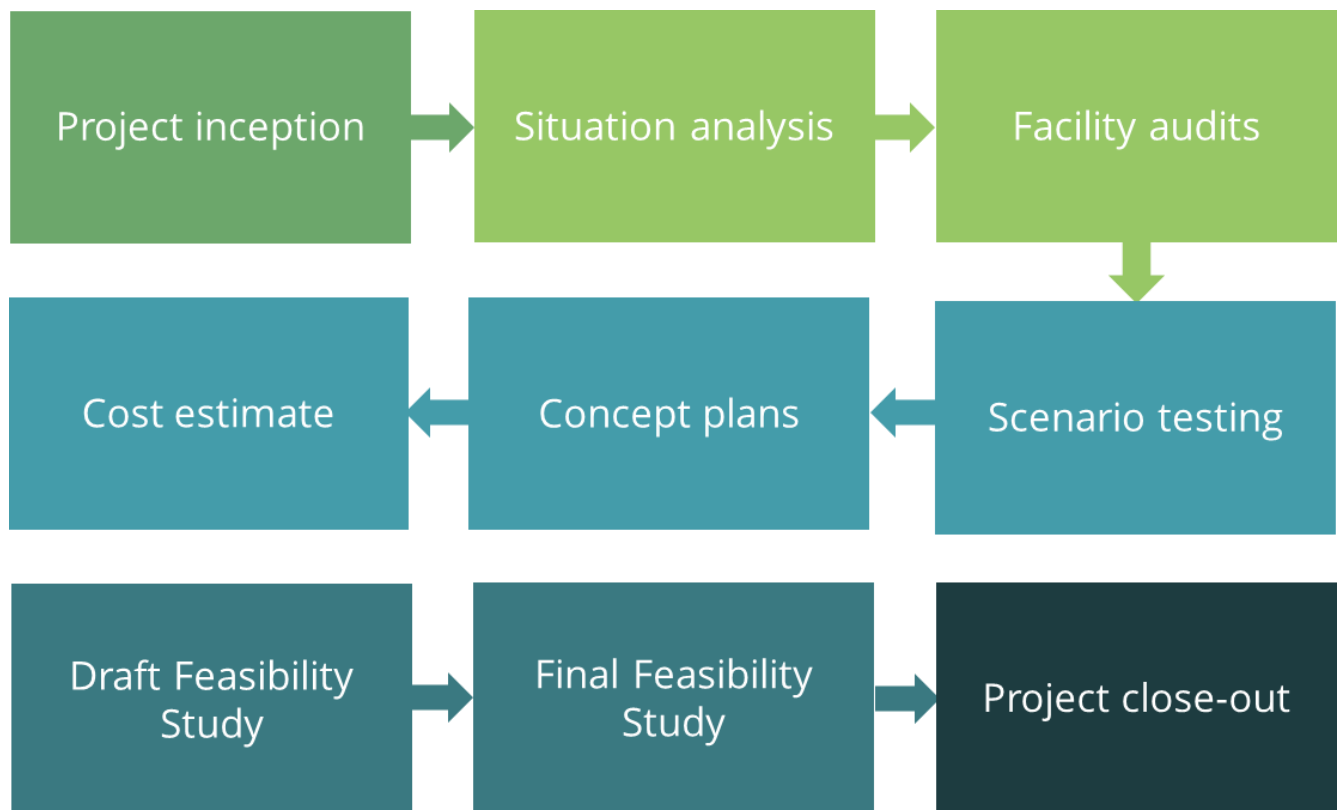


Figure 3: Project methodology

The development of the Feasibility Study has focused on:

- Establishing project parameters through technical research and facility analysis to assess current level of use, functionality (fitness-for-purpose), quality of infrastructure, condition (review of asset management plans and condition audits) and identify potential constraints within each facility component and how these may be overcome / addressed.
- Establishing the implications, constraints and opportunities as it relates to the development within the WRP.
- The development of concept plans for the necessary infrastructure, demonstrating how the components can be achieved within existing constraints. This has considered the renewal and redevelopment (upgrade) of the existing buildings and / or the need for new where required.
- Integrating opportunities in an effort to create functional and contemporary facilities, with due consideration to access and inclusion, environmental sensitivities, whole of life management and materiality and innovation within design to ensure the facility is fit for purpose.
- Establishing an estimate of probable costs along with asset and maintenance considerations.
- Developing an implementation plan that will guide the City to what and when actions should occur to develop the future facilities.

2. Demographics

For sporting infrastructure, it is important to understand the catchment of a given area to establish how a facility may need to be developed. The four facilities that have been identified for improvements provide a range of local, neighbourhood, district and regional level functions within the townsite and broader municipal area. These uses include school programs, club programs, competition (social and formal), casual recreation and play, while catering for events.

The following demographic analysis outlines the key data for the City, which has been obtained using the Remplan 2022. The analysis has focused on the current population profile and age composition. Note: all tables and graphs have been compiled by Otium.

Geographically, Wickham is located 40 minutes (49km) from Karratha, 15 minutes (12km) from Roebourne and 7 minutes (9km) from Point Samson (Figure 4). The current population of the City is estimated to be 22,199 forecasted to grow to 31,657 by 2041 – an annualised average growth rate of 1.27%. This growth can be attributed to new residential development areas and the 2,856 residents working in the mining sector (Figure 5).

Combined, these present a challenge to the most widely accepted method of facility provision, which is driven by ratio of facility per population. The geographical nature of municipality, with travel time distances greater than 20 minutes, will result in the need to provide some facilities to avoid social and well-being disadvantage. It may also result in a facility being over embellished or provided to a high specification (size, quality, etc.) or a larger quantity to ensure all members of the community have equitable access.

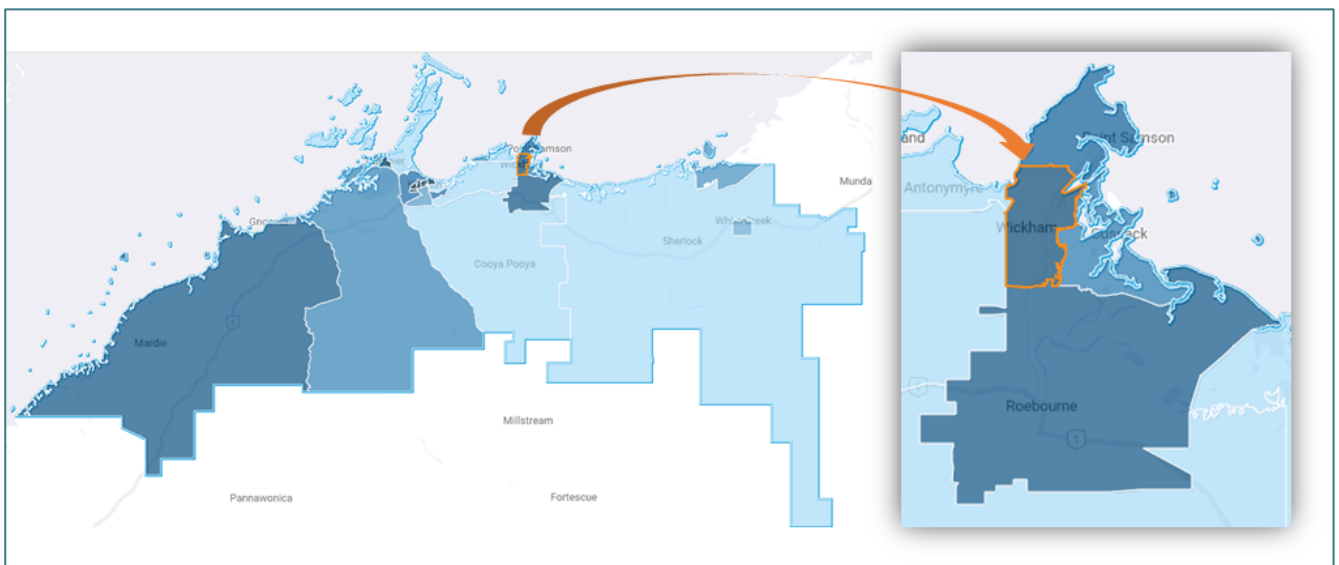


Figure 4: Map of the City of Karratha, identifying the townsite of Wickham (Source: Remplan 2022)

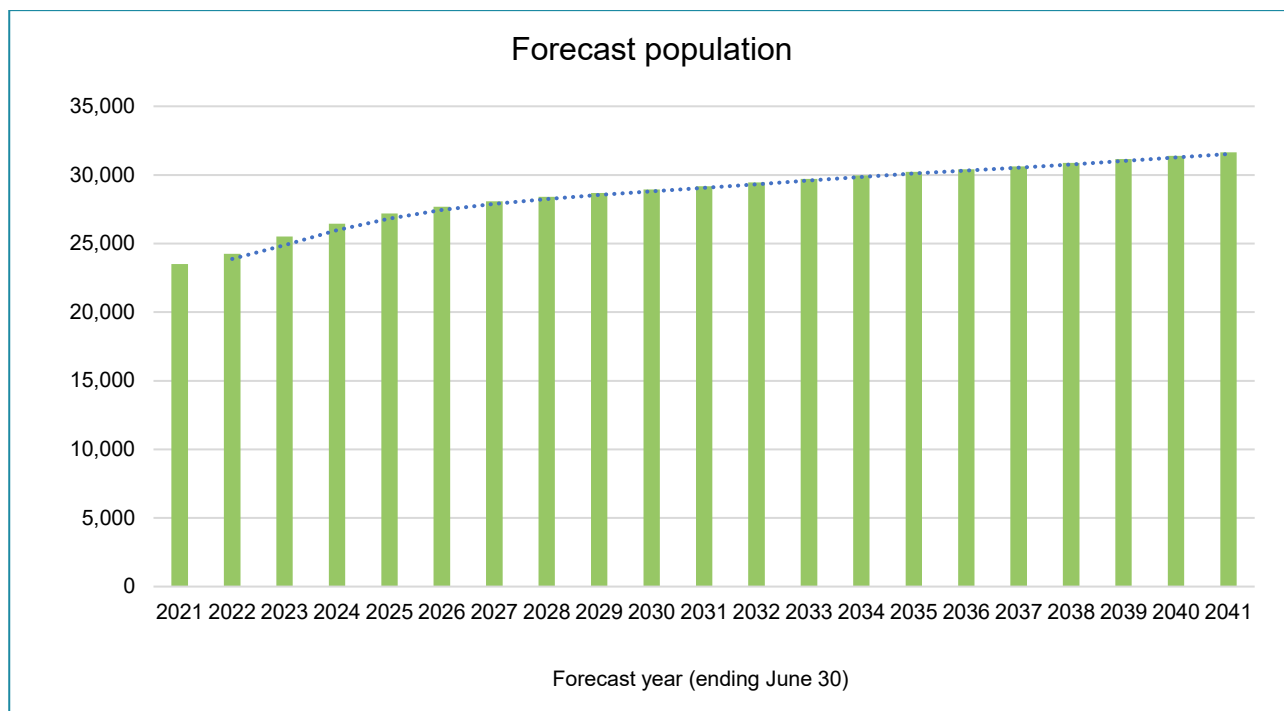


Figure 5: Forecast population 2021 to 2041

When looking at the population for relevant townsites, Wickham / Cossack has 2,036 residents, Point Samson 257 and Roebourne 975 totalling 3,268 people within the City’s eastern corridor (Figure 6). The townsites of Wickham and Roebourne are expected to grow by 408 and 782 respectively. While these numbers are not significant in isolation, the travel time between townsites adds to the significance of the facilities located at the WRP, which would likely function as a district level facility.

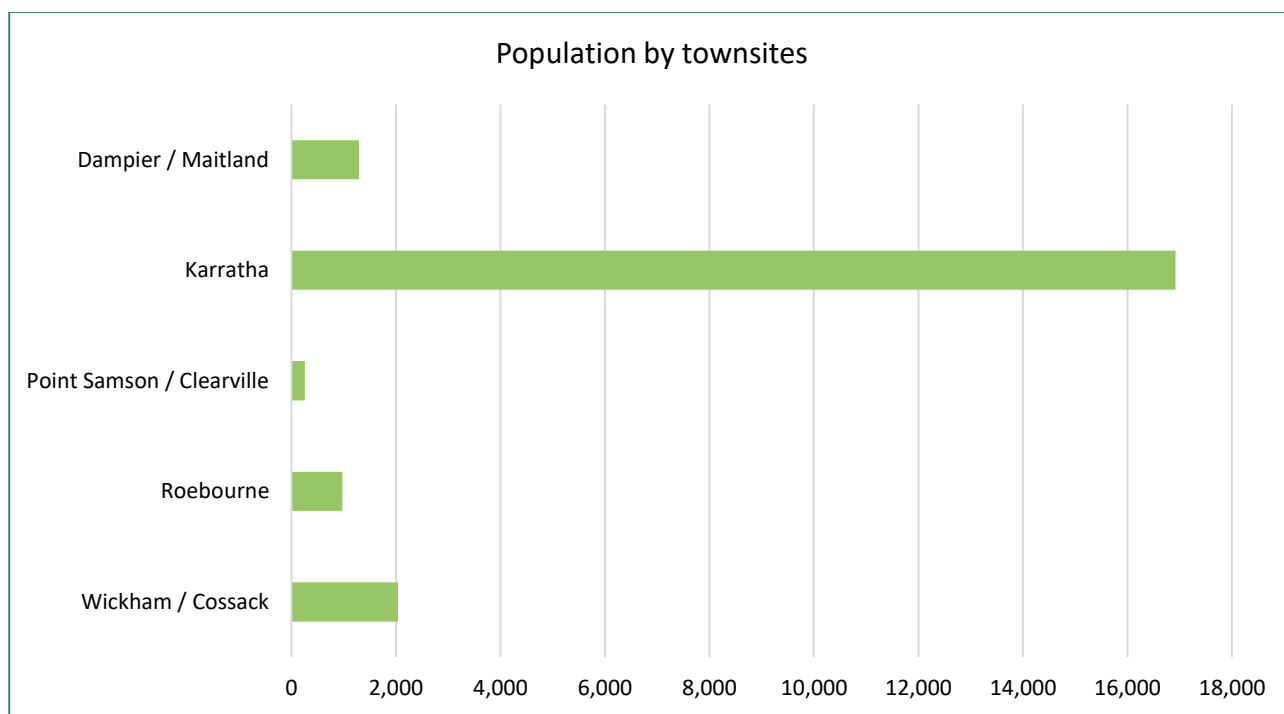


Figure 6: Population of the City townsites

The average age of persons living in the Wickham townsite is 31, which is similar to that of Karratha (33). 20.6% of people are aged between 30-39, closely followed by those aged between 0-9 (19.9%) and 40-49

(16.2%), as shown in Figure 7. The combined cohorts of 10-19 and 20-29 account for 28.1% of the population, with those aged 50 and above, accounting for 15.1% of the population.

These figures, combined with the population projections, indicate the need to cater for couples and families seeking new housing or lifestyle opportunities, presenting a 'likely' demand for open spaces and community buildings, that will serve the needs of children through to adults. It also highlights the relatively low level of ageing population and older family units, which is largely driven by the mining community and families drifting back to Perth for secondary school / higher-further education opportunities.

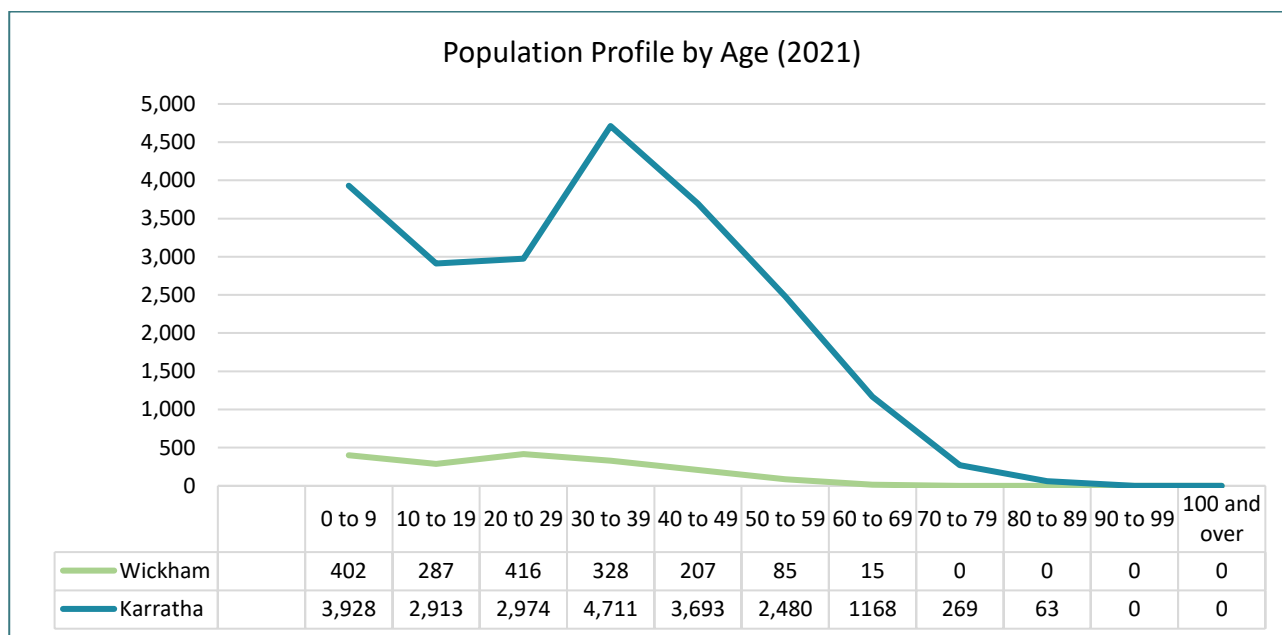


Figure 7: Population age profile

While not available for Wickham, the City's household composition (Figure 8) identifies:

- The dominant household type is (and will continue to be) couple family with children accounting for 41.3% in 2021 before decreasing to 34.5% in 2041.
- The second highest in 2021, is that of couple family with no children at 24.9% in 2021, remaining at a similar figure to 24.3% in 2041.
- The greatest change is that of lone person household increasing from 19.8% in 2021 to 28.7% in 2041.

This supports previous findings that the proportion of people under 50 in the City suggest there is likely to be more of a demand for family-based infrastructure, community, sporting and recreation infrastructure, to service the needs of the resident population. It indicates demand for infrastructure capable of supporting family and multi-generational activities, facilities that encourage use throughout the day and the need to develop facilities that builds community capacity at the local level.

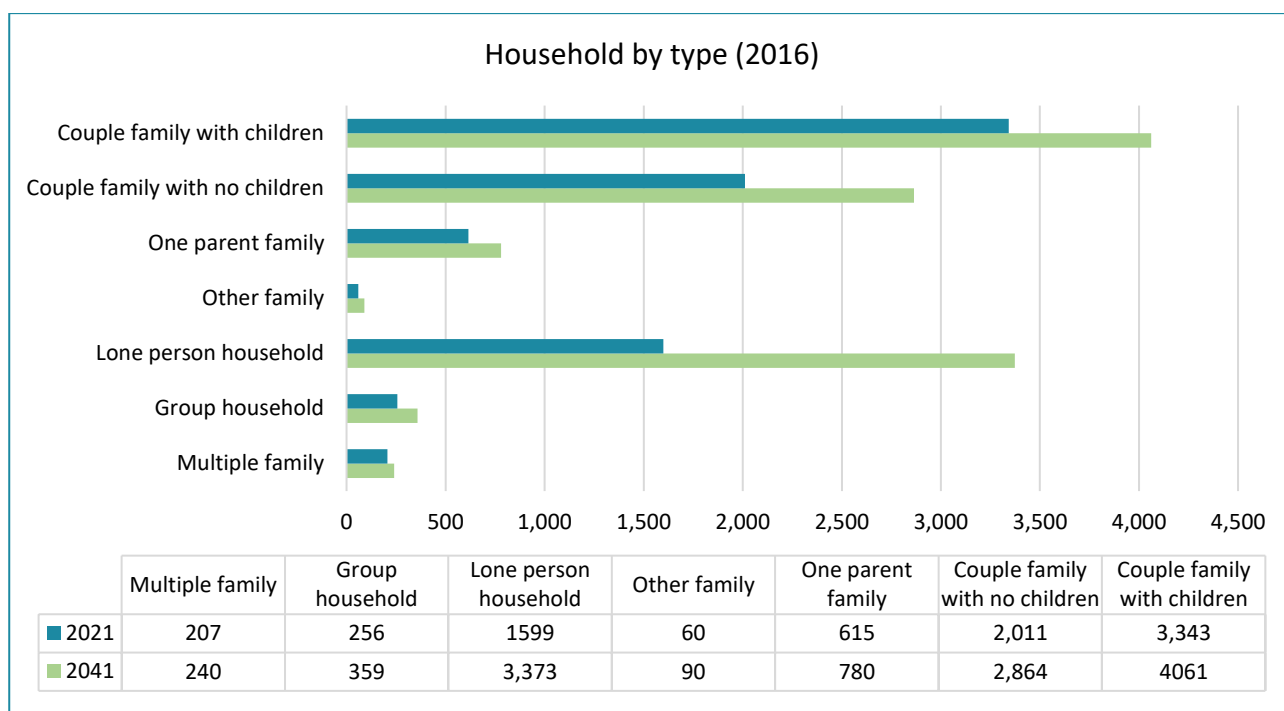


Figure 8: Household type in the City

The analysis supports a whole of life approach in the planning and provision of sport and recreation infrastructure, that will service the needs of the resident population. The age profiling is generally indicative of the higher demand for community / club-based and facility-based infrastructure which provides opportunities for whole of life learning and development. It is important that facilities are inclusive for all, provide access and assist those with physical impairments and provide communities with access to quality, functional and contemporary facilities, which is core to the region's liveability.

When planning a new facility, it is important to consider the positive impact social gathering and community spaces will bring the community, especially in area where the demand for health, well-being and socialisation is clearly identified. Therefore, any development must provide an environment which is conducive to both attracting young families (immediate catchment) and seniors (extended catchment).

The largest cohort are those aged between 30-49, which reflects the types of employment industries within the City. People in this category are likely to have a higher level of disposable income, generally have the ability to contribute to costs for activities (particularly where disposable income levels are high) and seek opportunities for greater social interaction outside of the home. Adversely, they are also likely to have limited time, may be transient, impacting adversely on the volunteer / participation in activities on a weekly basis. Combined, this indicates a need for facilities that provide opportunities to participate in sport (formal and informal), social and recreation pursuits in line with a sustained, yet transient population.

Flexible and adaptable infrastructure should be planned and developed to cater for the changing demographics into the future. This reflects the need to provide facilities and consider repurposing of existing facilities, upgrades that enhance functionality and accessibility and improvements supporting a contemporary level of service (quality, technology, etc).

Overall, the demographic profile of the current community and projected growth, does not indicate an immediate need, or future demand for additional sport and recreation infrastructure, but would support the need to improve the City's level of service through the likes of quality and accessibility. It is most likely that existing facilities will need to be upgraded or expanded to create contemporary multi-purpose facilities.

3. Strategic document review

This section identifies key considerations which have emerged from a review of strategic documentation and reports, relating to the project. It seeks to provide evidence based rationale, as far as practicable, while highlighting the critical components to address the objectives of the review while informing recommendations.

3.1 City documentation

3.1.1 Strategic Community Plan 2020 – 2030

The Strategic Community Plan (SCP) sets the mission, vision and objectives for the City. The strategic priorities to the Feasibility Study are as follows.

Theme 1: Our Community – Inclusive and Engaged

Goal: To activate safe, healthy and liveable communities

- **Outcome 1a:** Quality community facilities
 - 1.a.1: Maintain and manage existing facilities and infrastructure to optimal standards.
 - 1.a.2: Plan and develop quality new facilities and infrastructure to meet future community needs and industry best practice.
- **Outcome 1b:** Improved Community Safety
 - 1.b.1: Apply best practice environmental design to prevent crime.

Project relevance

- The project aligns with the City's strategic priorities and it is evident that the City needs to provide high quality, well-designed and accessible facilities that will meet the current and future needs of the community. The facility will need to be adaptable in order to cater for a broad range of activities, services and programs.
- The critical consideration of the SCP is the development of facilities that enables all members of the community to recreate, socialise and participate in community, sport and recreational activities.
- Facilities must be designed in consideration of:
 - The local and cultural heritage of the determined site ensuring it complements the surrounding landscape.
 - Place connectivity – public transport, bicycle and walking.
 - Environmentally sustainable design (ESD) and Crime Prevention Through Environmental Design (CPTED) principles.
 - Is fit-for-purpose and capable of addressing future technological changes.

3.1.2 Corporate Business Plan 2020 – 2025

The Corporate Business Plan (CBP) seeks to activate the priorities and objectives listed in the SCP above, through the development of actions, level of responsibility and the timing that each action will occur. The CBP lists the following key projects and actions:

Community Facilities Management

- Manage the WRP and associated community facilities in accordance with the Community Infrastructure & Services Program.
- Implement long term financial plan improvements at KLP and WRP.

Building Maintenance

- Complete Wickham Amenities Building.

Infrastructure Projects

- Complete remediation and refurbishment of the Wickham Aquatic Centre.

Project relevance

- The most important aspect of the CBP is its alignment to the Strategic Community Plan and that existing commitments are recognised, while planning for future needs. On review, it is assumed that the four key projects associated with this Feasibility Study is incorporated within the 'Implement long term financial plan improvements at KLP and WRP'. Therefore, the project is supported at the strategic level.

3.1.3 Disability Access & Inclusion Plan 2018-2022 (currently under review)

The Disability Access & Inclusion Plan (DAIP) sets out how the City will ensure all people have equal access to the range of facilities throughout the municipality, with the following relevant to the Feasibility Study.

Outcome 2: People with disability have the same opportunities as other people to access the buildings and other facilities:

- Ensure that all technology used in City facilities is as accessible as possible.
- Ensure all buildings and facilities are accessible to people with a disability.
- Ensure accessible facilities and services are clearly indicated through signage.
- Ensure that all new community projects, such as playgrounds and parks, are physically accessible to people with a disability where practical.
- Increase the accessibility and inclusiveness of our playgrounds and play equipment.
- Ensure adequate ACROD Parking to meet the demand of people with a disability, in terms of quantity and location.
- Work towards sporting and leisure facilities becoming more accessible.

Relevance

- As all members of the community should have access to all facilities and have the opportunity to participate in a variety of social and recreational activities, the design principle of accessibility and facilities being inclusive for all, will be primary consideration in the development of concept plans.
- All designs for major community infrastructure such as the sports amenities building, should be assessed by a certified access consultant. This will assist the City in meeting the requirements of the Building Codes of Australia (BCA), as well as best practice and beyond where required.

3.1.4 Strategic Asset Management Plan 2019-2024

The plan is used to implement the framework as set out in the Asset Management Policy, provide direction for Asset Management Plans (AMP) and define the level of service to be provided to the community by each asset class.

Under the classification the Wickham Aquatic Centre is classed as a multi-purpose centre, the sports amenities building as a sport clubhouse, the courts as a sport / recreation facility – playing surface and the Saylor Park toilet would be 'amenities – toilet'. Three level of service performance measures have been established:

- **Reliability / Safety:** Assets should be reliable and safe. Council's customers will require assets that can be relied upon to deliver the services. Where available, the operational service standards have been utilised to define the level of service outcomes.
- **Quality:** Quality relates to the type of the asset and the extent to which it is fit for purpose rather than its condition. An asset may be poor in quality yet have a condition that is described as good.

- **Capacity:** Assets must have the capacity to meet the needs of the current and future populations.

It reports that the 2022 community survey, resulted in Wickham as the only area that was not performing (marginally) above importance, with the 2017 survey identifying public toilets as an area over under performance.

Project relevance

- The design principles of functionality, safety and quality will be applied in the development of the concept plans. Considerations will include the provision of safe and compliant transitioning spaces between external and internal areas of the buildings, appropriate levels of internal circulation and working spaces, and creating spaces that can be used by multiple user groups for identified activities.

3.1.5 Wickham Aquatic Centre refurbishment scope of work options (2017)

The report investigated seven options regarding the potential upgrades of the aquatic office and change rooms. According to the report, the pool office and change room facility is at the end of its useful life and in poor condition and the options included new / demolish, upgrade and extend, renew / upgrade plus retrofit of the existing store and first aid room in the main building. Option seven was the preferred option which included:

- Converting the existing store and first aid room in the main building, into a larger office to accommodate up to four staff – as shown in Figure 9.
- Relocate store room next to umpires room.
- Construct a new 'kit form' building to include change rooms and first aid room.

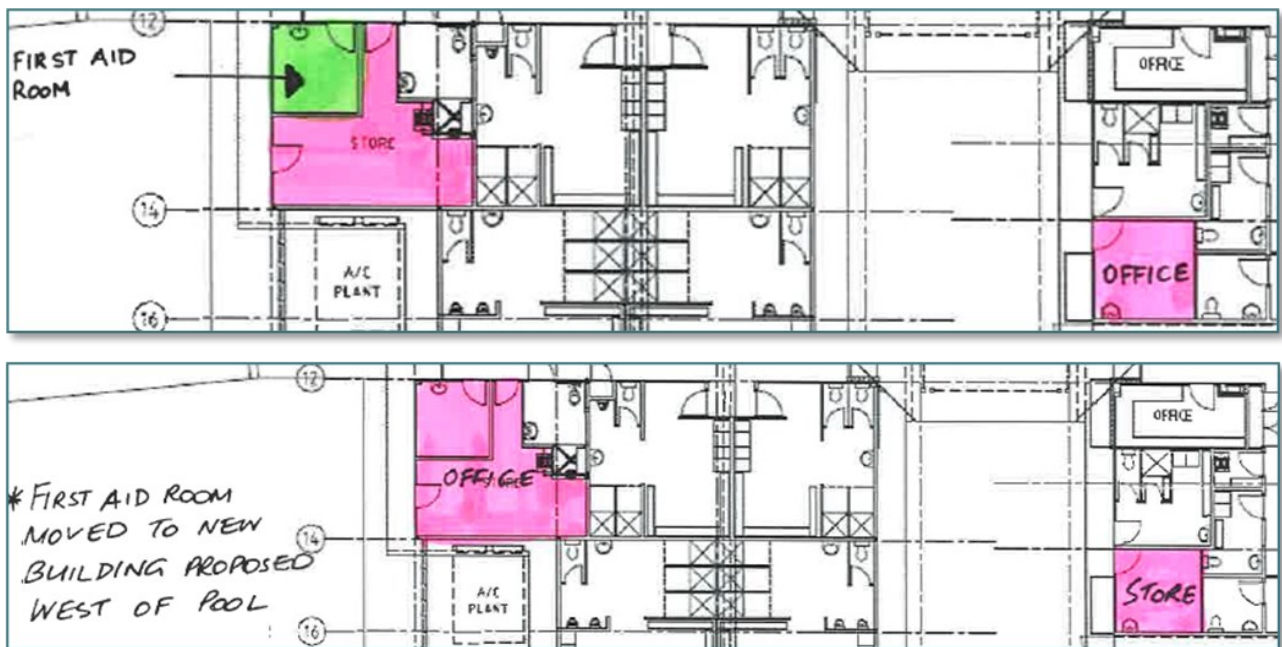


Figure 9: Existing building layout (top) and proposed building changes (bottom)

The report included a 'sketch only' plan for the kit form building, which had a total floor area of 240m². It includes a first aid room / office, cleaners rooms, new universal accessible toilet (UAT), store room, male and female change rooms.

Relevance

- The Feasibility Study will review the outcomes of this report and in discussion with the City, seek to establish design parameters for the concept plan. The intent is to understand the reasoning behind each of the options and why option 7 was the preferred option.

3.1.6 Wickham Aquatic Centre – Structural Assessment (2020)

A visual inspection of the existing pool office and change room facility, located at the Wickham Aquatic Centre was undertaken on the 25 April 2020 by Talis.

- Chemicals and electronic equipment are housed in the store which may pose a fire hazard. There is no fire rated ceiling in the store room, to prevent the spread of fire via the structural timber roof framing.
- Ceilings and partitions may contain asbestos which will require management if these are altered, modified or replaced. If renovations, additions and alterations are to be undertaken to the building, then these should be checked and remediated to comply with current National Construction Code, including disability access.

It states that the building will likely remain in a serviceable condition for the short term – up to 3 years with a limited amount of routine maintenance.

Relevance

- In combination with the options identified in the above report (3.1.6), the existing facility has limited remaining life. The critical consideration for the Feasibility Study is regarding the future status of the existing building and the location for the future change rooms.

3.1.7 Wickham Amenity Building engagement summary and WRP improvements Feasibility Study (2022)

Relevant to the Feasibility Study, the summary provided insight into facility components, as follows:

Building

- Clubroom / function space / multi-purpose space / bar facilities (17 responses).
 - A space for clubs to display trophies, flags, achievements, memorabilia.
 - If the current facility was “gutted” to be a large open space.
 - Accommodate 100 people comfortably.
 - Storage is an issue.
- Shaded outdoor function area/viewing areas / natural & artificial shade (8 responses).
 - Outdoor areas for outdoor functions.
 - A more serviceable space for all sporting clubs.
 - Each club to be able to have their own storage (fridges).
- Kiosk facilities / large kitchen / multi-purpose kitchen / better kiosk facilities (6 responses).
 - Large bench spaces.
 - Served from both sides (indoors and outdoors).
- Child friendly room / crèche (2 responses).
- Umpire room (1 response) – Noting that there is an umpire room located at the WRP.

It also mentioned the lack of public toilets at the WRP, with current facilities only open when there is a hall booking, and there is a need for public toilets in Saylor Park.

The summary indicated greater support (6/10) for a new / upgraded facility at the current site with an increased footprint. It was noted that the building could be moved towards storage sheds, in an effort to increase space for rugby and soccer.

Relevance

- The feedback from the user group identified several key themes that need to be considered in the development of the concept plan for the amenities building:
 - Function / activity room – needs to have enough space to cater for multiple clubs / multi use facility. The room needs to have views to the sporting fields and be climate controlled.
 - Kiosk / kitchen / bar – must be able to service the function / activity room and the external space.
 - Increased shade / pergola all around the facility – most notably on the sides that provide direct lines of site to the sporting fields.
 - Storage – there needs to be more storage for the user groups.
- Interestingly, there was no mention about change rooms, which indicates the quality and design of the change rooms being supplied at the WRP are suitable.
- Of note, the feedback was provided by sports clubs and in the development of a multi-purpose facility, other user groups (and potential user groups) should be considered in the facility provision mix.

3.2 State Sporting Association documentation

3.2.1 State Sporting Association (SSA) Facility Guidelines

Specific design standards across a range of sports which provide a guideline to be adopted when spatially planning a site. The main consideration relates to the extent of facility development desired by the national / international and state bodies, and those realistically within the remit of an LGA to provide. These include, but are not limited to:

- FIBA Guide to Basketball Facilities produced by the FIBA Research and Study Centre (Geneva) in October 2009 – subsequently published in 2010 and updated in 2020.
- AFL Preferred Facility Guidelines (2019).
- Cricket Australia Design Guidelines: Community Cricket Facility Guidelines (2015).
- Rugby AU: National Facility Guidelines (2015).
- Football QLD Building Development Guide (2020).

Relevance

- Each document is slightly different, setting out the parameters for the provision of facilities associated with a pavilion. Appendix 1 summarises the preferred standards in the design of a pavilion, like the one at Wickham.
- It should be noted that these documents are 'guides' and therefore can be developed in accordance with localised need.

3.3 Summary

- The Strategic Community Plan highlights the importance of integrating community wellbeing and active lifestyles, with environmental considerations for the benefit of the whole community. This is particularly important in the design of the Wickham Amenity Building, which can provide spaces that can cater for a range of activities, not just for sport related activities. When not required for sporting use, these types of buildings should be considered for other functional purposes, particularly where there is a recognised deficit in provision.
- The most critical components related to community facility provision is functionality, shared use and colocation. These elements will be considered throughout the Feasibility Study leading to the development of the concept plans.
- It is evident that the existing lifeguard office and change rooms need to be replaced. The Feasibility Study will explore various options to deliver facilities suitable for given activities.

- The most comprehensive state sporting association facility guidelines have been produced by Cricket Australia, AFL, Tennis Australia and QLD Rugby, which highlight the relative hierarchy of each facility and likely catchment they are to serve. Specific contemporary trends include:
 - The orientation of clubhouse infrastructure should ideally be facing away from the setting sun. In the case for two or more fields, the building should be placed at a suitable location, that will enable the greatest flexibility of overtime. As such, it is not recommended to be situated directly between two fields, as this will restrict future extensions, access and ground modifications.
 - Minimum levels of clubhouse infrastructure provide home and away changing facilities, umpire and storage rooms, public toilets (where appropriate), a utility room, social room (size dependent on functionality), kitchen / kiosk, first aid room and shaded viewing area. This includes accommodating the growth in the women's game by incorporating gender equitable infrastructure within all new facilities and the upgrading of existing facilities.
- The City needs to use SSA preferred facility guidelines with caution and must assess each facility against evidence based criteria.

4. Visual audit

As a part of the Feasibility Study, a visual audit of the four facilities (Figure 10) was undertaken to gain an understanding of current level of provision, functional condition and site / facility constraints. These were:

- Saylor Park (green).
- Multi-purpose courts (yellow).
- Wickham Aquatic Centre (blue).
- Wickham Amenities Building (red).

The functional audit has been supplemented by additional documentation such as design drawings, as well as input from the City. Appendix 3 provides the imagery.

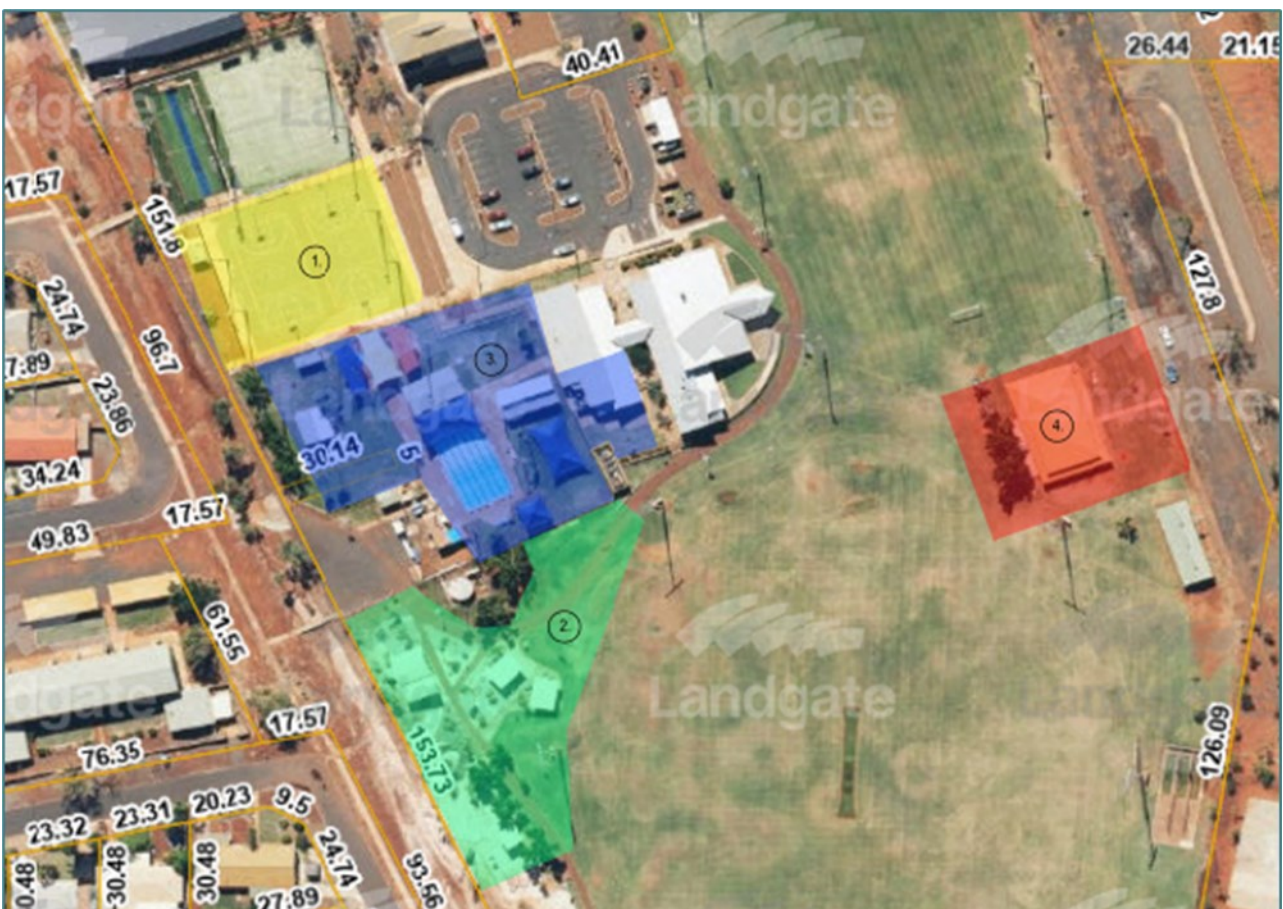


Figure 10: Facilities audited (refer to Appendix 4 for the A3 version)

4.1 Multi-purpose courts

Located to the north of the Wickham Aquatic Centre, the floodlit courts are currently line marked for basketball and netball, with the asset information contained in Table 1. The surface appears to be in good condition but was very dirty and could do with a high pressure clean. The courts are adjacent to a footpath network on all sides, except the northern end, which consists of fence for the tennis courts and indoor court pitch and the main carpark on the eastern side. The facility is serviced by a drinking fountain and change rooms in the squash centre and a small store room at the north-west end of the courts.

Functionally they are suitable but could benefit from an additional fence along the eastern and western sides of the facility, to provide separation between the footpaths (passes by) and vehicles. This may not need to be a full height fence, but rather something to prevent people running in front of vehicles or balls rolling into the car park.

The courts are the only district level courts that are not covered, the others being in Karratha and Roebourne and given the localised climatic conditions, they would benefit from being covered. This would also enable the City to cater for other sports such as tennis, volleyball and the like, to make it a true multi-purpose facility.

The roof over should look to incorporate side curtains to block out the sun as the sun sets. This should be verified through a shade analysis at the design stage. The facility may benefit from the addition of dividing curtains to provide small side competitions, that may not be catered for elsewhere. The City requested that a larger storage building be allowed for within the design to cater for the likes of basketball, netball, tennis and indoor cricket. As directed by the City, a larger footprint will be shown on the concept plan.

Table 1: Asset information

Asset description	id: OST00051
Class	Park/ Recreation / Open Space
Sub-class	Sports / Recreation Facility
Type	Playing Surface
Sub-type	Basketball Courts
Facility components	<ul style="list-style-type: none"> • 2 x standard size courts • 4 x poles sports lighting layout • Acrylic surface

4.2 Saylor Park

Saylor Park is a district park located on the western side of the WRP, with the asset information contained in Table 2. It consists of various nature, water and adventure play elements, outdoor exercise equipment and sheltered picnic facilities. As a district level park, the types of embellishments cater for gatherings, birthday parties and the like, it is considered to be a long-stay park, meaning that people would spend more than two hours at the facility.

With this in mind, the facility does not have a toilet in proximity, with the nearest one located at the Wickham Aquatic Centre or Wickham Amenities Building, when they are open. Functionally, the playspace area is well provided for with a variety of spaces, consisting of artificial and natural shade, that largely caters for ages up to 12 years of age.

In consideration of the planned toilet facility, three locations appear to be the most suitable and will be discussed in the coming sections.

Table 2: Asset information

Asset description	id: PK000195
Class	Park/ Recreation / Open Space
Sub-class	Community Park / Playground
Type	Landscaping
Sub-type	Community Park
Criticality	A

Asset description	id: PK000195
Facility components	<ul style="list-style-type: none"> • Shade • Dual path • Playground equipment • BBQ, seating and shade • Fitness equipment

4.3 Wickham Aquatic Centre lifeguard station

The Wickham Aquatic Centre provides the community with a range of health and wellness activities including learn to swim, lap swimming, gym, group fitness classes located in the west wing and a restaurant (operated by others), creche and change rooms in the east wing. The asset information is contained in Table 3.

Overall, the facility is in excellent condition, with a reasonably new contemporary building that services the 24 hour gym, group fitness and reception for the aquatic facility. The gym is of a reasonable size considering the population, but suffers from not having a separate group fitness contained within the centre itself and arguably a lot of equipment competing for space. The facility provides four change rooms that service the sports fields on match days, that are likely to have capacity for use by the aquatic centre (providing the proposed new Wickham Amenities Building incorporates change rooms). The internal store room has two access points (from inside and outside) and is located next to the first aid room, currently acting as the lunch room and contains the roof access ladder.

The pool and plant have recently been upgraded to include ramp access, new floodlights, covered water play and picnic area. The overall functionality of the outdoor aquatic space is sound, but it is evident that elements have been installed overtime in isolation to service a particular need, where it could have benefited from master planned approach. An example is the sheltered BBQ area, which would have been better placed near the basketball pad, providing parents with views to the pool water play and access to the grass area. This would enable the main building to be extended east if it ever needed to.

The existing lifeguard station, while functional is showing its age and is located in what would be considered an undesirable position, separating the lap pool and the water play area. Specifically, the lifeguard office and store room are small but are well positioned with views to the pool and plant area. The change rooms while small and clean, are not compliant by modern standards and do not provide family or dry changing spaces. Currently, the only UAT is located on the inside of the main building, which is not ideal, as people that need to use it will bring in water, causing a slip risk to patrons. As directed by the City, an additional UAT will be reviewed at the next stage in design.

Table 3: Asset information

Wickham Aquatic Centre lifeguard office / change rooms	
Asset description	id: BC000565
Class	Building
Sub-class	Recreation Facility
Type	Aquatic Centre
Sub-type	Pool Office And Amenities
Criticality	B
Facility components	<ul style="list-style-type: none"> • 37m² Male change room (3 showers+2WC's+2HBs) • 37m² Female change room (3 showers+3WCs+2HBs) • 8.8m² Office

4.4 Wickham Amenities Building

Located on the eastern side of the precinct, centrally located between the rectangular sports field and oval, predominantly services the functions associated grass sports. The building was built in the early 1980's with the asset information contained in Table 4.

Of all facilities visited, this was the least inviting despite being situated in park setting with trees on the western site of the facility. It felt like it was a club facility and not one for community use. A simple rectangular building, providing a verandah around its perimeter and a BBQ area under the trees. The building was slightly higher than the playing fields, which could not be viewed from the inside of the building. To the south there was an additional storage shed that was new.

Internally the function room was a good size at about 88.5m², with the kiosk at 22.6m². Both were in good condition, clean and functional. Industry norms are 100m² for a function room and 20m² for a kiosk, so the sizes are comparable. The complexity is in the management of a facility designed to cater for more than one sport in each season – how do they share one space at the same time?

The building provides one internal store room, which serves community groups and furniture. In comparison, modern / contemporary buildings of a similar nature provide at least two store rooms – one dedicated for furniture and one for community groups. In some instances a food store room and a cool room may also be provided. The external store rooms were in poor condition, but large in size. The couple of rooms inspected showed that one store room was a bar area, and that storage practices from community groups needs to be improved. It was not evident that there was a shortage of external storage but would benefit from the installation of appropriate racking and the like.

Opportunities exist to include more internal storage to accommodate community groups, a furniture store, food store / fridge room. The future facility should ideally have views to both fields, which is difficult due to the layout of the fields and the trees that are proximal to the building. The building needs to consider how it could cater for the broader community or how it could potentially cater for other sports, such as kindy gym or boxing in one sport precinct, before the opportunity is lost.

In summary this facility needs to be replaced to ensure that all communities have equitable access to quality facilities. It is most likely that it would be in the same location, which would mean temporary facilities may be required while the building is being demolished and constructed.

Table 4: Asset information

Asset description	id: unknown
Class	Building
Sub-class	Recreation Facility
Type	Multi-purpose Centre
Sub-type	Sports Clubs
Criticality	C
Facility components	<ul style="list-style-type: none">• 22.6m² Kiosk / kitchen• 13.5m² Store room 1 and 8.8m² Store room 2• 88.5m² Activity room• 36.5m² (each) male / female change room / toilet x 2• 200m² Verandah

According to the asset inspection conducted by the City in September 2021, the facility is generally looking tired and showing signs of age. The verandah structure requires remedial repairs in the short term, to

maintain the structural integrity of the facility. External and internal painting to be considered in the next 1 - 2 years. the facilities overall ratings for its components are as follows:

Table 5: Annual asset assessment conducted in 2021/22

Component	Rating
Structural	4 – Poor condition (in regards to the verandah)
External paint	4 – Poor condition
Internal paint	3 – Fair condition
Floor	2 – Good condition
Toilets / bathrooms	2 – Good condition
Kitchen	2 – Good condition
Mechanical systems	2 – Good condition
Misc. internal fixtures	2 – Good condition
Outdoor installations	2 – Good condition

4.4.1 Wickham sports fields

The WRP consists of two sports fields, one that caters for Australian football (160 x 130m) / cricket (130Ø) with a wicket size of 28 x 2.6m and a rectangle pitch (100 x 68m). These dimensions include a 3m runoff, and >5m in goal area, which are in line with the sporting dimensions for senior competitions in the sports of Australian football, cricket, rugby league / union and soccer. As such there is no evidence that these need to be extended, or any benefit in doing so. As such, pitch modifications will not need to be considered.

4.5 Summary

- Three locations have been identified for the toilet building at Saylor. Each location will be analysed, with the most appropriate to be selected.
- As a district level facility, the courts need to be covered, similar to other facilities in the City.
- The existing lifeguard office / change rooms at the Wickham Aquatic Centre, are at the end of their useful life. Given the complexity of the site (established infrastructure) careful consideration will be needed to achieve an acceptable outcome.
- The Wickham Amenities Building is at the end of its useful life and needs to be decommissioned and replaced. It will be important to design the facility in a way that enables each space to be used at the same time, for different types of activities.
- The dimensions of the sporting fields are in line with requirements for senior competition, as such no change is required.

5. Facility utilisation

The following section provides an overview of facility utilisation for the core facilities – the multi-purpose courts, Wickham Aquatic Centre and Wickham Amenities Building.

5.1.1 Multi-purpose courts

Court one and two are used by the Wickham Netball Club for 5 hours each per week in winter, with the Wickham Wildcats Basketball using both courts of 19 hours in summer, as shown in Figure 11. The facility is mainly used for training, as competitions are held in Karratha, but netball do offer a social competition. They have a high level of use in winter (Wednesday evenings only) and in summer (Thursday evenings only), and moderate use (less than 3 hours) Monday to Friday in summer.

Regarding participation, the Wickham Netball Club has 90 juniors and 80 adult players, accounting for 5 junior teams and 9 adults. The Wickham Wildcats Basketball have 164 juniors and 39 adult players, accounting for 18 junior teams (7 female and 11 male) and 4 adult teams (2 female and 2 male).

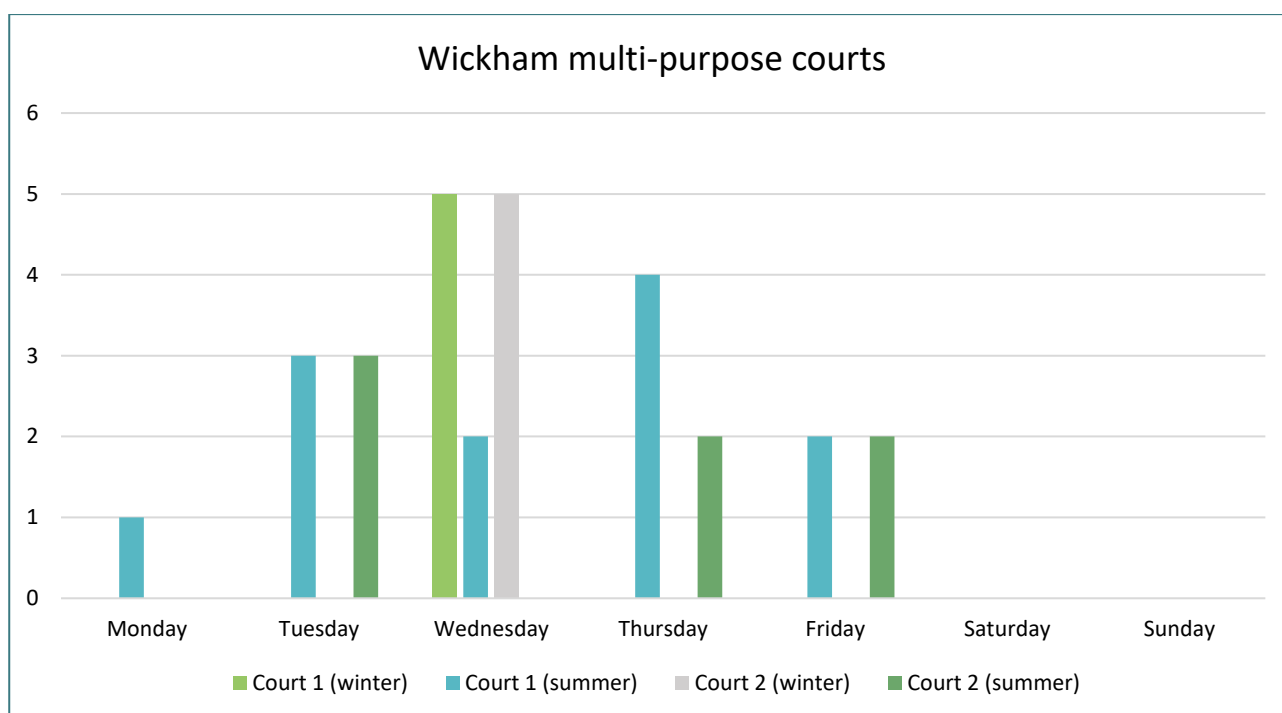


Figure 11: Usage data for the Wickham multi-purpose courts

5.1.2 Wickham Aquatic Centre

The aquatic centre had a total of 26,306 visitations over 2021/22, with October to April being the busiest period (Figure 12). In comparison, the 2021-2022 Aquatic Leisure Centre Group 1 Benchmarking Project by PLA WA, indicates that the average visitation at a regional facility is 284,799. This needs to be referred to with caution as it includes regional facilities such as the KLP, Goldfields Oasis and the Bunbury Sports Centre. Of the three aquatic facilities within the City, the Wickham Aquatic Centre is likely to have second highest visitations per annum behind KLP.

The facility also provides a gym and group fitness classes, which had attendances of 13,957 and 2,718 respectively.

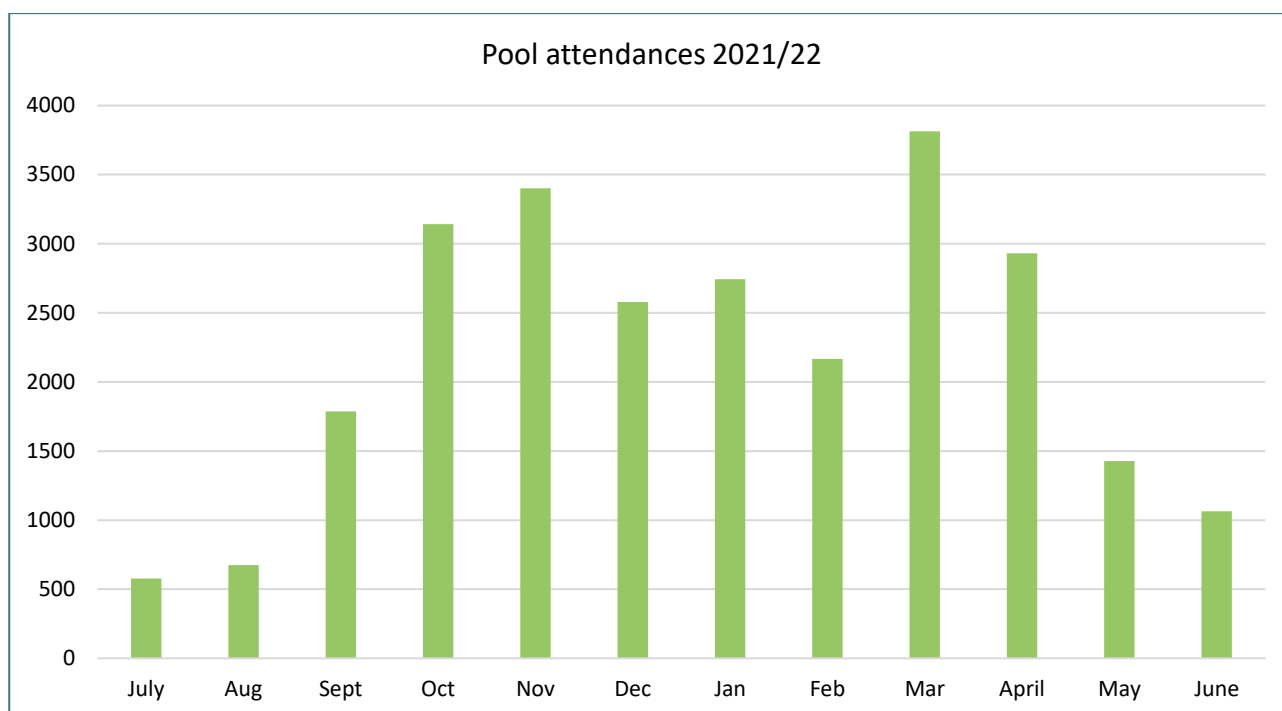


Figure 12: Pool attendances for the Wickham Aquatic Centre

5.1.3 Wickham Amenities Building and oval

The Wickham Amenities Building and oval caters for the following groups:

- Wickham Wallabies Cricket Club – 15 adults (1 team).
- Wickham Wolves Football Club – 285 adults (3 teams) and 195 juniors (7 teams).
- Wickham Women Softball Club – 1 team.
- Wickham Wanderer Soccer Club – 9 teams.

Other users include West Roebourne Teeball Association, Wickham Auskick, Wickham Wasp Rugby League Club, Wickham Netball Association, Wickham Anglican Parish and playgroup.

Generally, a building associated with a sports field would have similar use, as it is booked out for the same time as the fields. Based on this, it can be assumed that the building is used for 69 hours per week in winter and 18.5 hours in summer, with 35 of those hours attributed to Australia football (Figure 13).

The bookings data in Table 6, indicated that the building is only used for seven (7) hours in winter. The data also identifies the bookings for the rooms within the Wickham Community Hub and Not for Profit building rooms.

The Not for Profit building provides small rooms (up to 8 people) and the multi-purpose rooms are of various size up to approximately 200m². The data is useful as the facility is located within the same precinct (a walk across the rectangular field) and has capacity to cater for some club based activities. This indicates that need for smaller breakout or meeting rooms are not required to be included in the design.

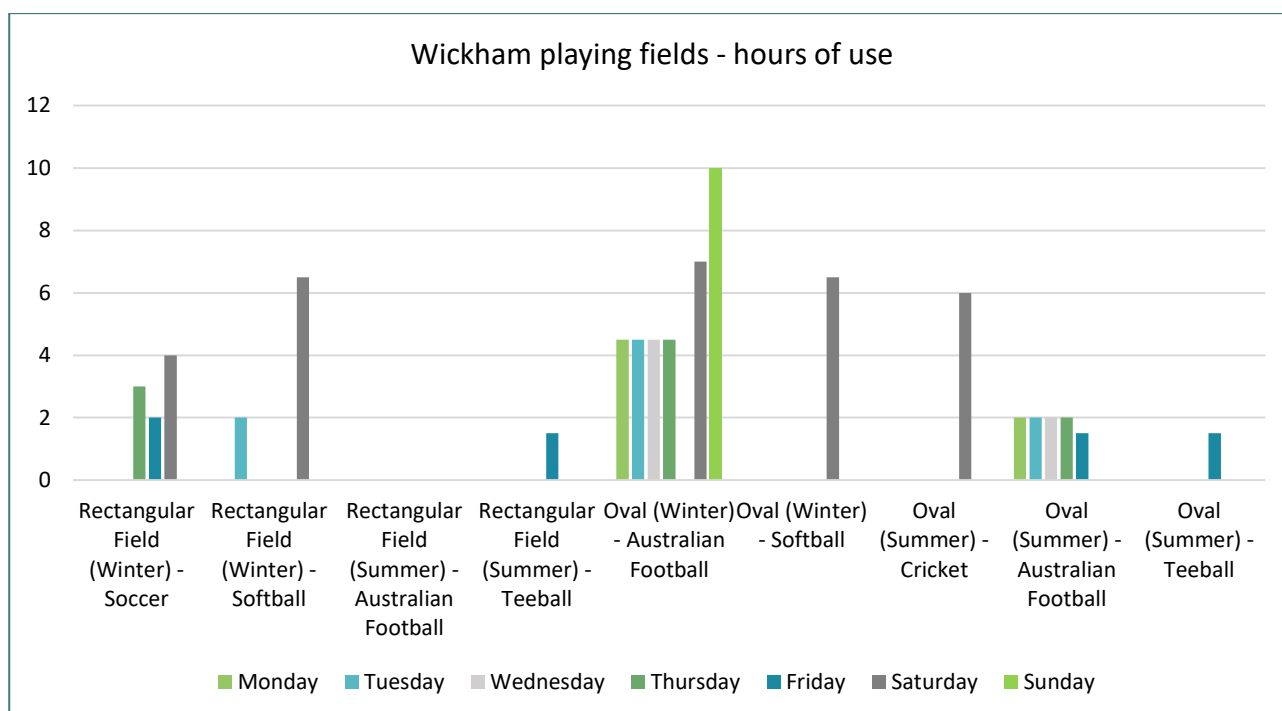


Figure 13: Usage data for the Wickham playing fields (summer and winter season)

Table 6: usage data for the Wickham Amenities Building (blue) and Wickham Community Hub / Not for Profit Building

Wickham Community Hub	Mon	Tues	Wed	Thur	Fri	Sat	Sun	Total
Amenities Building (Summer)								0
Amenities Building (Winter)	7							7
Multi-purpose Room 1 (Summer)	4.5	7.5	4.5	4.5	5	4		30
Multi-purpose Room 1 (Winter)	5	9.5	5	5	2.5	2		29
Multi-purpose Room 2 (Summer)	1	2	1	1	2	2		9
Multi-purpose Room 2 (Winter)		6.5	3	3		2		14.5
Multi-purpose Room 3 (Summer)	6.5	9.5	6.5	6.5	11.5	9.5		50
Multi-purpose Room 3 (Winter)		5	4	4	9.5	7		29.5
Multi-purpose Room 4 (Summer)	6.5	9.5	6.5	6.5	11.5	9.5		50
Multi-purpose Room 4 (Winter)		5	4	4	9.5	7		29.5
Not for Profit Room 1 (Summer)		9						9
Not for Profit Room 1 (Winter)		8						8
Not for Profit Room 2 (Summer)								0
Not for Profit Room 2 (Winter)								0
Not for Profit Room 3 (Summer)								0
Not for Profit Room 3 (Winter)								0

5.2 Summary

- The Multi-purpose courts and Wickham Amenities Building are underutilised and improvements to the two facilities may see an increase in bookings / use. Covering of the courts will provide relief from the sun, keeping the ground underfoot cooler and can potentially provide for other sports – volleyball, futsal, etc.

- Regarding the Wickham Aquatic Centre Lifeguard Station, the project is addressing a need to replace the existing facility and not necessarily due to greater use or more staff. With a maximum allowable attendance for the aquatic area at 150 people, the change rooms would be designed in accordance with BCA.
- The data suggests that the function room at the Wickham Amenities Building is underutilised, as are some of the other meeting and multi-purpose rooms in the Wickham Community Hub and Not for Profit building. It is likely that the Wickham Amenities Building is used a lot more, as a result of multiple key holders, but the data is not evident. The quality (age, functionality, accessibility etc) of facility is likely a factor in the low use and any improvement may see the return of community groups. It is possible that the new building could cater for activities provided for in other standalone or older facilities, in an effort to enhance the sporting precinct.

6. Site analysis

The following section provides an overview of Lot 780 Carse Street, Wickham (Figure 14), that will be used to develop the concepts at the next phase.



Figure 14: WRP, Lot 780 Carse Street

6.1 Site services

A dial before you dig (DBYD) request was submitted in November 2022, providing the following information. This information was reviewed against Landgate's shared location information platform (SLIP).

6.1.1 Electrical services

Power (orange) is connected to site (Figure 15). Advice from Rio Tinto (ref no. 32772) indicates that there are low voltage cables present in the area, although the capacity within the existing switchboard has not been determined. The City will need to undertake a maximum demand assessment as a part of the project works, in particular for the Wickham Amenities and the Multi-use courts. While both facilities are

connected to power, the change in the size of the building, electrical / lighting requirements may result in the need to upgrade capacity. In addition, it is likely trenching will need to occur for the Saylor Park toilets. The City could undertake an estimated / predicted demand assessment prior to progressing to design, in an effort to confirm remaining capacity, condition of electrical infrastructure etc, to assist in budgeting.



Figure 15: Electrical distribution (DBYD, 2022)

6.1.2 NBN

NBN runs along the eastern side of Carse Street and along Acacia Place. Power pits are located on Acacia Place. Two direct buried cables run through the middle of Lot 780, likely terminating at the Wickham Recreation Hub building.

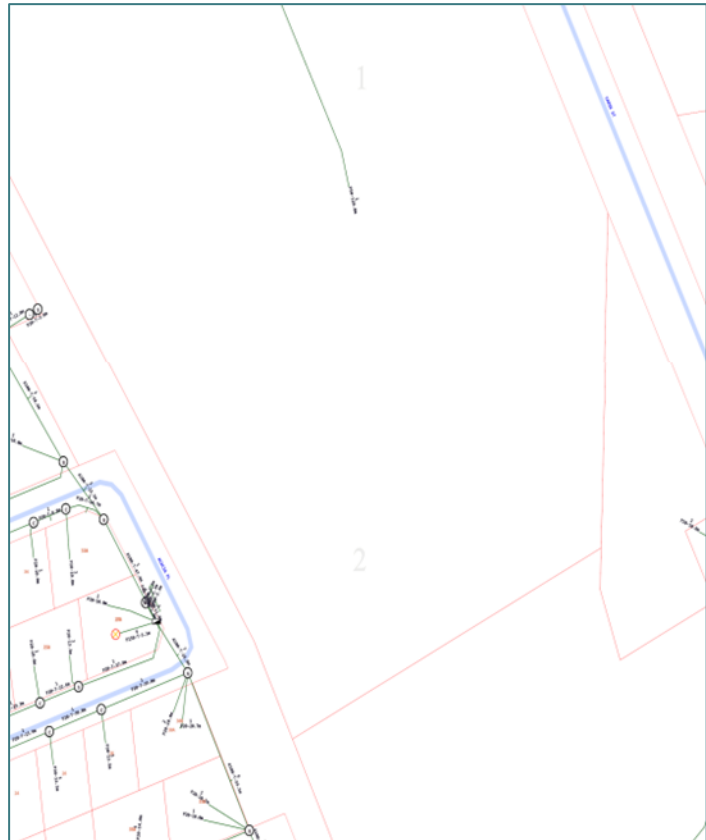


Figure 16: NBN distribution (DBYD, 2022)

6.1.3 Water

Water is connected (blue) to site by a 58mm asbestos cement pipe and a 100mm MDPE (assumed to be a plastic pipe) FS (fire service) / NRS (non rated service) pipe from the 150mm asbestos cement pipe along Acacia Place. All facilities are currently serviced with the exception of the Saylor Park toilets. Similar to that for electrical supply, it is assumed that trenching would occur for the Saylor Park toilet.

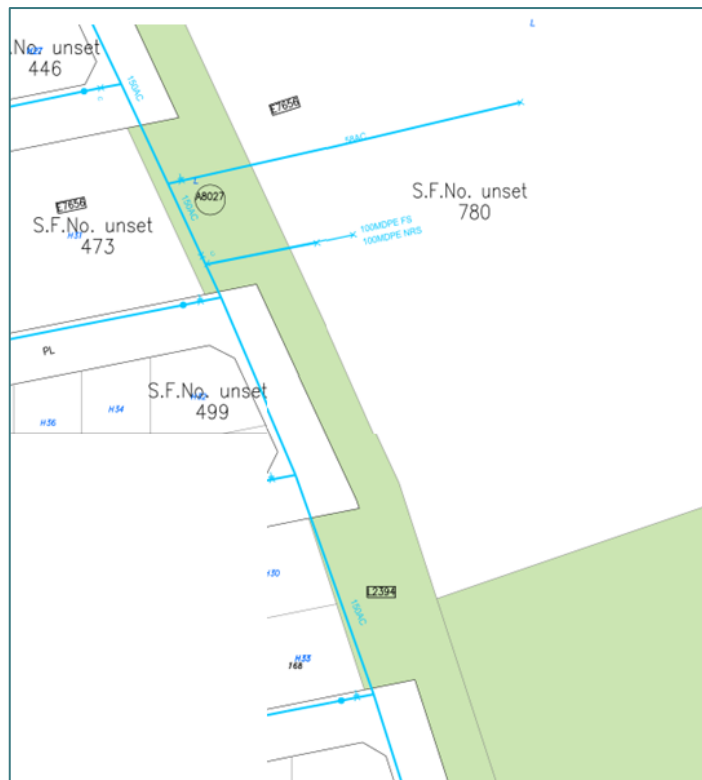


Figure 17: Water distribution (DBYD, 2022)

6.1.4 Sewer

Sewer is connected to site via Acacia Place, with another main line along Carse Street. There are several access chambers along the western boundary of Lot 780, a private pumping station and sewer pressure pipe. Similar to that for electrical supply, it is assumed that trenching would occur for the Saylor Park toilet.

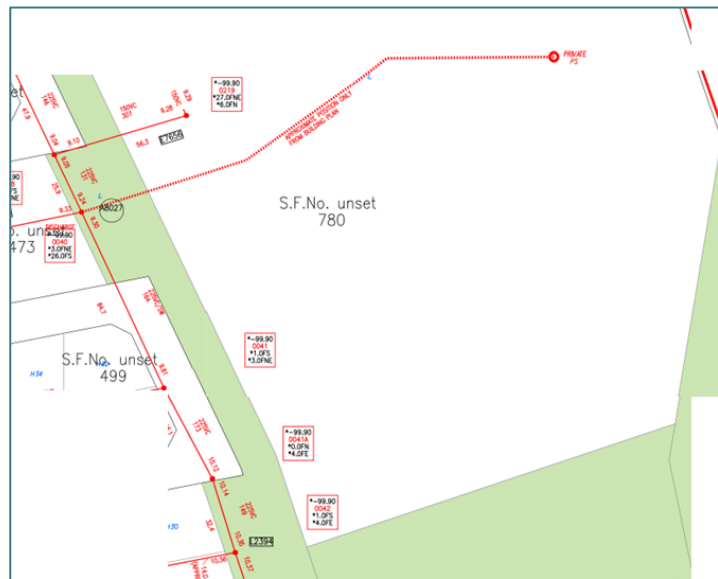


Figure 18: Sewer distribution (DBYD, 2022)

6.2 Bushfire risk

According to Landgate, the eastern side of the WRP is in a bushfire risk area. Based on this information, the City should seek to develop a Bushfire Management Plan (BMP) to best practice standard, compliant with the requirements of State Planning Policy 3.7, the associated Guidelines and relevant Position Statements, corresponding to the specific land use and planning stage for the Wickham Amenities Building. This will provide guidance in regard to risk ratings, fire services and building design.

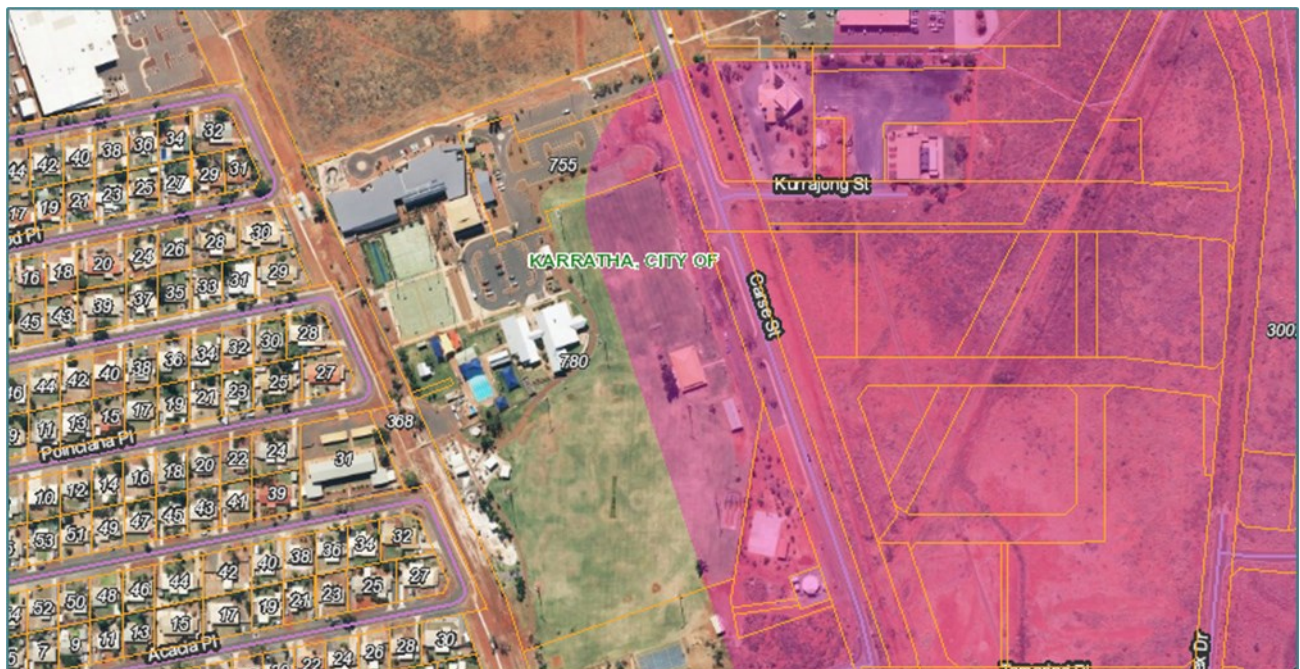


Figure 19: Bushfire prone areas (Landgate, 2022)

6.3 Geology and topology

According to the Australian Soil Resource Information System (on-line), typical soils in the Wickham townsite are predominantly loam, silty loam or sandy clay between 0-30cm below ground level. The site is relatively level, which is to be expected at an established sporting facility.

Recent site investigations within the WRP indicates a low risk of Acid Sulphate Soils (ASS). The Australian Soil Resource Information System (on-line) rates the area as C4 Extremely Low Probability / Very low Confidence and Landgate does not indicate a presence of ASS.

As the information above is not specific to the development area, it is recommended that the City include geotechnical investigation as a part of the design contract for the Wickham Amenities Building, Multi-purpose courts and potentially for the Saylor Park Toilet. This will assist the design engineers and architect with the information needed to progress designs.

6.4 Heritage

While it appears that the land does not intersect with any Aboriginal sites or heritage places, the City will need to ensure Due Diligence is followed in respect to each project. The City will need to consider the requirements of the Department of Planning, Lands and Heritage (DPLH) Aboriginal Cultural Heritage Act 2021, which have been developed to assist in the identification of any risk to Aboriginal heritage and to mitigate risk where heritage sites may be present. The guidelines are available at: www.wa.gov.au/government/document-collections/aboriginal-cultural-heritage-act-2021.

6.5 Environmental

The site does not appear to have any significant environmental constraints, with the exception of several trees to the west of the Wickham Amenities Building. The concept plan will need to retain, as far as practicable these trees, noting that they will likely affect visual line of sight between the new building and the Australian football / cricket field.

6.6 Asbestos

According to the Talis report, no asbestos checks have been completed for the lifeguard office / change rooms and given the age of the Wickham Amenities Building, the City should seek specialist advice prior to progressing to the design development stage.

6.7 Summary

The site appears to have no significant constraints with the exception of existing infrastructure. However, the City will need to have a coordinated approach to assure that all site constraints are addressed during the design process. It is recommended that:

- A geotechnical investigation is undertaken to determine sub-grade conditions for the design to the standard AS1726 Geotechnical Site Investigations. This needs to be included within the scope of the design team. Typically, this involves:
 - Sand Penetrometer (SP) testing from the surface to a depth of between 3-10m (to be determined by the design engineer).
 - A report that outlines soil profile, salinity, alkalinity and groundwater levels with recommendations informing the design of all infrastructure.

- Undertake an electrical demand assessment for the works. This is usually undertaken during the design process, with applications being submitted to Western Power on the basis of the recommendations. It needs to be noted that there are often delays associated with assessment of applications and in the ability for Western Power to schedule and mobilise the works to occur.
- Develop a Bushfire Management Plan to inform the specifications for the development of the Wickham Amenities Building. This could be completed during the design process.
- Engage with the DPLH to determine the full requirements (if any) for the development of the site.

7. Scenario and option analysis

Based on the findings to date, the scenario planning process sought to identify the preferred option for progression to the concept plans. The outcomes for the four key facilities are as follows.

7.1 Multi-purpose courts

The existing basketball courts have a surrounding run off space with an additional concrete footpath to the perimeter of those courts. There are two tennis courts and an indoor cricket pitch, with high fencing but no roof to the north, with a slight offset to the west. The City provided guidance into their requirements, which was to have a similar roof design to those at the Karratha Leisureplex, not like the Roebourne facility. As such only one option was considered, noting the following:

- The existing sport floodlights will need to be decommissioned and removed, with the roof structure having modern LED lighting throughout.
- There is a desire to increase the size of the storage shed (top left – north-west) and the concept plan needs to consider this.
- The roof needs to support shade panels that can be lowered on the western, eastern and northern sides.
- Consideration to be given to enable a cover over the tennis and cricket courts.

Figure 22 shows the maximum footprint of the roof extent for the roof structure (yellow) and the location of storage shed for expansion (red).



Figure 20: Footprint extent for the roof structure (yellow). Current location of storage shed for expansion (red)

7.2 Saylor Park toilets

The Feasibility Study investigated three location options (Figure 21) with the corresponding images in Figure 22), for the inclusion of a standalone (UAT) toilet block to service the Saylor Park playspace area and broader site activity. Two of these locations were off the existing pedestrian pathway linking the main community facility to the western access point.

The first of these sites was hard up against the existing Wickham Aquatic Centre fence line. This was selected to access hydraulic services with ease. The negative aspect of this location is the distance from the playspace and the small space between the fence and the path.

The second location was further west and nestled neatly near the trees, while positioned near the apex of the pathway curve. This location is near the main shelter structure and has good surveillance. It is closer to the sewer, water and electrical services, which can come from the Wickham Aquatic Centre or from the edge of the reserve.

The third site identified is located to the south of the playspaces main shelters, within a small space behind the existing lighting tower. This location is a good position for security and central to the playspace, however it may be more costly due to two factors, namely:

- The distance to connect to the sewer is further away than option 1 and 2.
- The landform of this area is not level and will likely require a 'cut' to the site with some retaining.

For these reasons mentioned above, Option 2 is the recommended site.



Figure 21: Birdseye view of the location options for the toilet at Saylor Park.



Figure 22: Location options for the toilet at Saylor Park. Option 1, 2 and 3 respectively.

In addition, there were two options considered in regard to the type of building. These are the traditional brick building or a modular / off the shelf product (e.g.: Landmark or Exterior), with the latter being favourable as it can be installed easily, maintained and replaced if necessary.

City comments

The City favours option 2 & 3, with a preference for 2 as it services the playspace and sport fields with a good line of sight. It is separated from the playground and BBQ areas, where as option 3 works as well. Option 1 only makes sense if we were to attach the toilet to a new building in the aquatic City, which is unlikely.

The City supports the design for a standalone facility, similar to that at Hearson's Cove & Andover Park, with Sanitation preferring the Hearson's Cove design. Sanitation does not require a cleaners cupboard in the standalone toilet due to proximity to WRP, however a services cupboard would be beneficial along with a hose connection. The preference is for stainless steel fixture as they are more durable and robust – reducing damage associated with vandalism.

Outcome

- Finalise Option 2 as the preferred site.
- Obtain a quote for the supply and installation of a modular / off the shelf product UAT, to compare against a brick build. This will be provided in Section 9.

7.3 Lifeguard station

This element of the project was to retire the existing lifeguard office / change room building and replace or relocate its functions within the Wickham Aquatic Centre. The intent is to provide centre users with a more up to date facility, improving public amenities and to improve the functional areas for staff to operate the centre. Key design consideration and potential treatments are as follows:

- Aquatic staff to have full surveillance of pool and splash pad. Based on this requirement, the existing building will need to be removed, with the new building to be relocated, or integrated (in full or part), into the main building. The existing site would then need to be landscaped with turf and paving, tying into the existing profile. This area could then incorporate future seating.
- Staff to retain views from office and access to reception area when they are managing the reception desk / entrance. The office will need to have unobstructed (as far as practicable) views of the water bodies and will need direct access (one door) between the office and the outdoor area.
- Consider use of change room / toilet facilities inside main building. While BCA will determine this to an extent, the existing change room inside the building was likely signed off at the time of construction in association with the existing change rooms. As such, removing the existing change rooms without increasing the number of toilets and showers may not be compliant with BCA and would need to be confirmed by a Building Surveyor.

- An opportunity may exist to repurpose change rooms 3 and 4, in the west wing, as the aquatic centre change rooms, if two change rooms were to be provided in the proposed Wickham Amenities Building.
- Table 7 shows the total number of toilets, urinals and showers provided within the west wing. Should change rooms 3 and 4 be used, there will be a likely shortfall of three toilets, but will maintain the same number of showers and have an oversupply of urinals. As such, the wet area in the change rooms 3 and 4 will need to be upgrade. This is a cost effective solution considering total budget of \$1.5M for aquatic and building works.

Table 7: Number of toilets and showers

	Existing provision			Provision without change		
	Toilets	Urinal	Shower	Toilets	Urinal	Shower
UAT	1		1	1		1
Male	1		2	1		2
Female	2	1	2	2	1	2
Existing aquatic change rooms						
Male	2	1	3			
Female	3		3			
External change rooms						
Change room 3				1	2	3
Change room 4				1	2	3
Total	9	2	11	6	5	11

City comments

- The design would allow for gym extension should it eventuate.
- Good line of sight provided the office comes. Office should be the full width of the extension to allow views of pool splash pad and courts.
- The use of change rooms 1 and 2 for pool is a good idea, noting they need to be accessible only from the aquatic area.
- First aid room is a priority for the pool. Locate in the lifeguard office.
- Need to think of the inclusion of some safety fencing / separation for when the current aquatic building is demolished, as it acts as a divider between pool and splash pad.
- Include gate to the south fencing for emergency access. Suggested that main storage for pool equipment shed could be located next to the change rooms and a small store room located in the lifeguard pod.
- Inclusion of a meeting area to be for a maximum of four people.

Outcome

A number of configurations were investigated and were design tested in an effort to resolve the design requirements, leading to the design option shown in Figure 23. Options investigated included reviewing the previous options from 2017, a standalone building in several locations and extending the building to west. However, these were discounted for reasons including the existing roof profile, infrastructure and easements would likely result in a more expensive build that may compromise on function. The recommended option involves:

- The repurposing of underutilised change rooms 3 & 4 (green) in the main building. This option would involve some modifications to the change rooms, specially servicing the aquatic centre in line with BCA requirements. This could also be modified to include a UAT and family change rooms – should there be a desire to do so. This option is likely to have considerable savings for the City, especially if no internal modifications are required.

- In order for the above to occur, a new fence and gate will be required (yellow lines) to isolate this area from the external spaces (oval and east wing). The existing fence, shown as the blue dotted line, will need to be removed. This area would provide additional grass spaces for the community to use on busy days or could be used for storage.
- The reconfiguration of the existing lunch / first aid room and store room (red). This has taken the same approach from Option 7 in the 2017, report but with a different internal layout (Figure 24).
- The reconfigured office space includes:
 - Four work stations with two overlooking the pool area and gym reception.
 - First aid area with sink, fridge and first aid bench.
 - The existing door, that exits into the aquatic area, could be modified to have viewing panels to increase site lines.
 - Storage through purpose built cabinetry.
 - Central desk to cater for meetings up to four people.
- In developing this design, it should be noted that the existing first aid room in the east wing (currently used by City staff), would need to be designated as the new store room.
- The two internal walls separating the first aid room and the store room may be structural. If they are, new internal structural modifications would be needed within the ceiling spaces to allow obstruction free space below. This needs to be looked at in more detail in the design phase.
- The 'making good' of the existing buildings site.

One dependency for this project is how the City will allocate change rooms 1 and 2, until such time as the Wickham Amenities Building is constructed. It may be possible to use change rooms 3 and 4 when the aquatic centre is closed, to assist in providing change rooms for sport. If this is an option, then a gate would be required along the dotted blue line, shown in Figure 23, to close off access to the aquatic area.

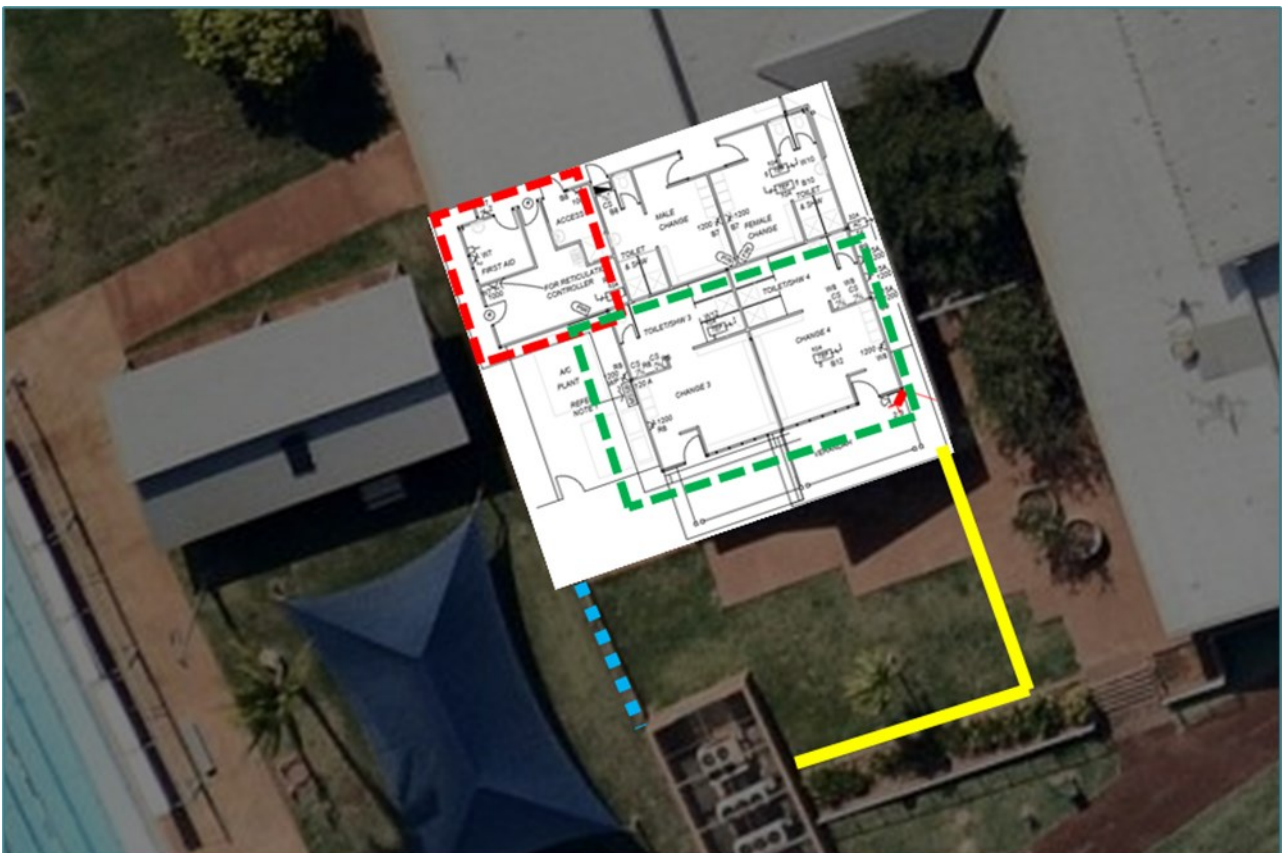


Figure 23: Redevelopment plan for the Wickham Aquatic Centre

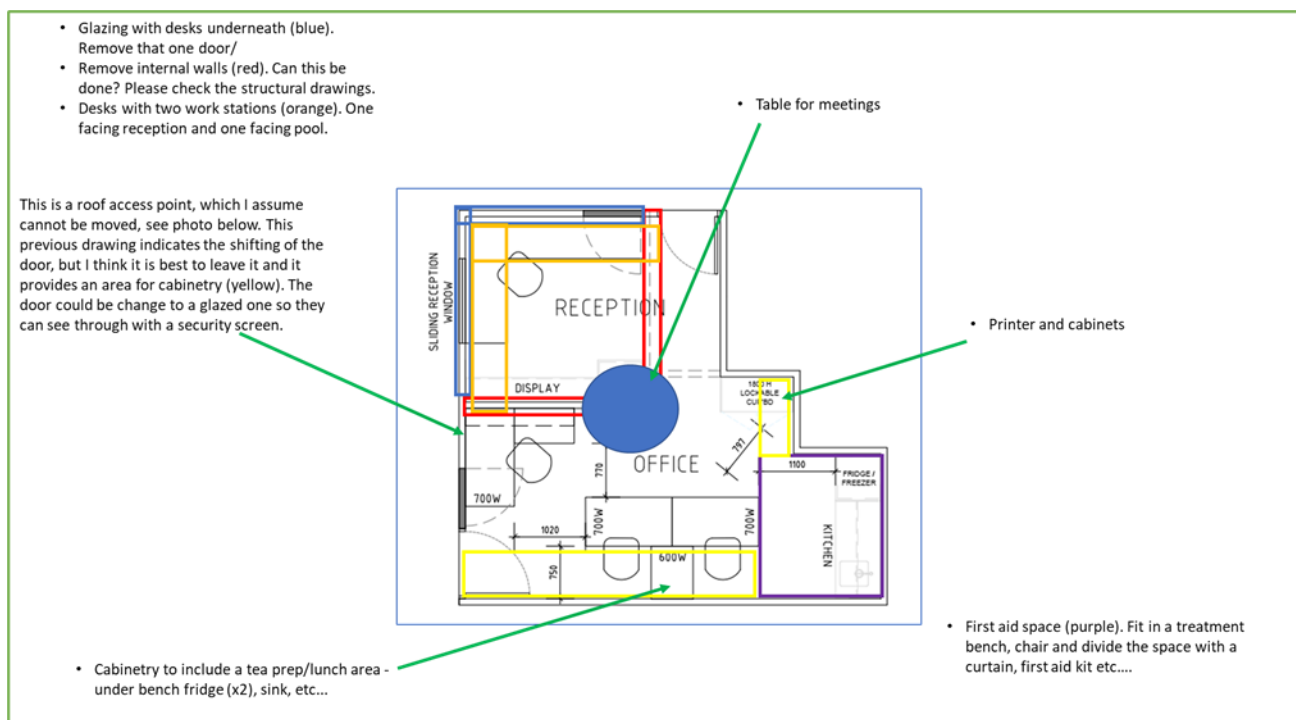


Figure 24: Sketch plan for the office.

7.4 Wickham Amenities Building

Generally, a building of this nature is considered to be a multi-purpose building, that can accommodate the appropriate number of users required to meet the needs of the sporting (senior) depending on the sport. Designs should allow for various parts of the building to be used by different parties at the same time without compromising each other, for example, the kiosk can serve the junior clubs, with the club room area catering for the seniors.

Analysis to date has determined that the Wickham Amenities Building has come to the end of its usable life and that a replacement facility was needed to provide a modern and contemporary facility that would encourage community use. A resultant of the site analysis indicates that the most opportunistic location for the new facility is located within the vicinity of the current building, as shown in Figure 25.



Figure 25: Redevelopment plan for the Wickham Aquatic Centre

With this in mind, the City advised that the following factors must be considered in the development of the concept plan, with proposed treatments where relevant.

- The function room needs to be appropriately sized to cater for club activities. A space of 150m² in total, with ability to divide into smaller areas. It was highlighted that due to local weather and playing under lights, a lot of the spectating is done from on the ground – around the boundary in deck chairs. A function room is generally not used as a spectator vantage point, rather a place to gather after the game. Viewing and lines of sight are perhaps not as important as in other colder areas.
- Viewing from the kiosk to each sports field is needed for volunteers. This is a point that is brought up not only by the Wickham sports groups, but by all sports groups with other facilities. Options may include a full kitchen servicing the oval / function room and a kiosk with servery window

accessible from the outside for the rugby oval and opening into the function room, or having the kiosk located at the front of the function room (western side), servicing both inside / outside.

The layout of the site with the split fields and the need to cater for multiple user groups creates a design constraint. These will need to be rectified at the next stage in design. In the first option, it duplicates unnecessary infrastructure and it is unequitable in its provision between users. With the second option, it will restrict viewing from the function room.

Additionally, there is generally only one activity on at a time, as the City tries to fixture around each other. In winter the football codes play / train on different days and nights and same in summer. A kiosk would only be run by one group at a time. Having said that, it is difficult to attract volunteers to the kiosk if they cannot see their kids in action. With this in mind, the bumping in and out of the kiosk is important to consider in the future design.

- Two change rooms will be required, as change rooms 3 and 4 are some distance away from the Wickham Amenities Building.
- External storage rooms need to be provided in the new building. These need to include dividing 'cages' or access areas, allowing easy access to "in season" equipment that is used regularly by community groups. Items vary in size and shape (Goal post pads / game day kits /etc), as such the dimensions (length, width and height) of the room and door need to be designed accordingly.
- The trees need to be retained and incorporated into an outdoor function space. It should be noted that these will obstruct the view from both the function room and kiosk as they are large. If they do not need to be retained, then the City could get a view to both playing fields from one space.

Outcome

Based on the information to date, an accommodation schedule (Table 8) has been established to guide the development of the Wickham Amenities Building. Each room meets the requirements of the State Sporting Associations, clubs and City, as far as practicable and resulted in development of several relationship diagrams with the preferred shown in Figure 26. These diagrams provide an initial view of facility components (not necessarily at a scale), as a way to work through positioning of the rooms.

A second design was prepared with a two story design layout that provided a high viewing verandah for better spectating. It required significant civil works to create a banked up node to surround the two story structure. It would be required to incorporate disabled ramping and steps for access to the upper level as well as creating ventilation and lighting complications for elements of this design. This option is considered to attract a much higher construction cost to achieve the better spectating result and therefore is not recommended.

Table 8: Wickham Amenities Building accommodation schedule

Rooms description	Area (m ²)	Comments
Function room	120	<ul style="list-style-type: none"> The size of this space is 30m² larger than the existing space. Could be separated into two 60m² rooms, with access to the kiosk, catering for club (and community) use.
Kitchen	30	<ul style="list-style-type: none"> This is for food preparation and will need to accommodate dry storage and a space for the box freezer and a drinks / food fridge. Includes an internal and external food service area. Will include under bench and potentially overhead storage.
First aid room	10	<ul style="list-style-type: none"> A room that all sports clubs can use.
Umpires room	10	<ul style="list-style-type: none"> Not sure this is required, as one is provided in the main building – and needs to be confirmed at the next stage.
Internal store room (furniture)	20	<ul style="list-style-type: none"> For the purpose of tables and chairs only. Note all doors to swing out.
Female toilets	10	<ul style="list-style-type: none"> In line Building Codes of Australia (BCA) / National Construction Code of Australia (NCC).
Male toilets	10	<ul style="list-style-type: none"> In line BCA / NCC.
Universal access toilet (UAT)	10	<ul style="list-style-type: none"> In line BCA / NCC. Needs to include a shower. This will need to be a left hand UAT, as the aquatic centre has a right hand UAT.
External store room	60	<ul style="list-style-type: none"> Large space that can be separated into smaller internal areas, using chain mesh fencing. Note all doors to swing out.
Cleaners room	10	<ul style="list-style-type: none"> It includes a sink and drain and should include a hand basin.
Plant room (dry)	10	<ul style="list-style-type: none"> Communications, electrical distribution board, HVAC, hot water, etc.
Bins storage	10	<ul style="list-style-type: none"> This could be a separate building if required.
Internal store room	30	<ul style="list-style-type: none"> Ideally, one room separated by chain mesh fencing or the like for various community groups. This may need to be bigger if more groups are expected to use it.
Change rooms x 2	55 x 2 = 110	<ul style="list-style-type: none"> A minimum of two (2) non-gender specific change rooms that can accommodate up to 30 people at a time depending on the sport. Includes wet areas: Minimum of three (3) showers and toilets.
Internal circulation	80	<ul style="list-style-type: none"> To be used for memorabilia, notice boards, etc.
Gross Internal Floor Area	530	
Veranda	60	<ul style="list-style-type: none"> A covered verandah is required to support views to the playing fields and can be used as a function space.
Path network	200	
Gross External Floor Area	260	
Total Building Footprint	790	

Note: Consider the provision of a small toddler playground/space to support playgroup.

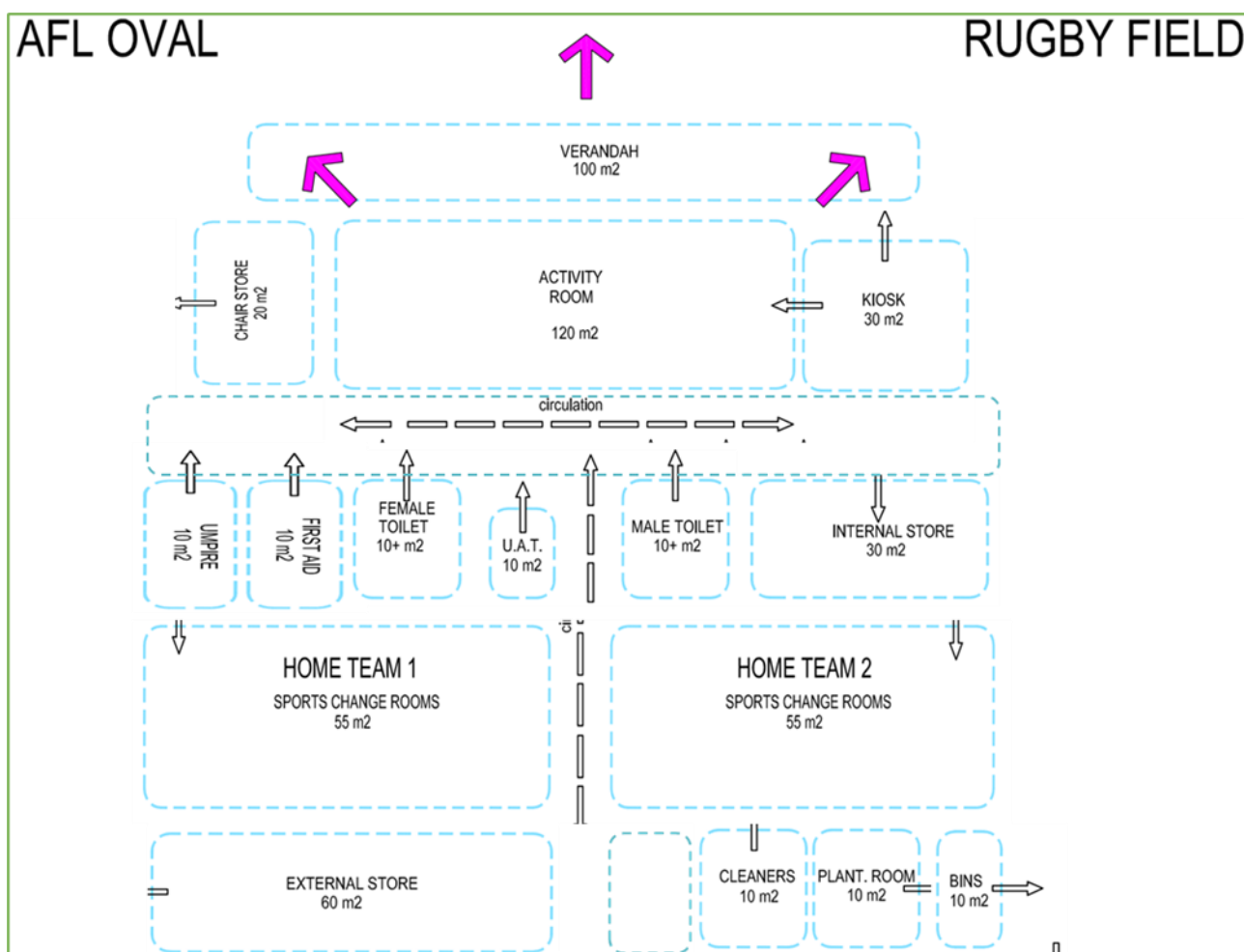


Figure 26: Wickham Amenities Building relationship diagram two

7.4.1 Access and inclusion

The concept plans have been developed in line with the access requirements of people with a disability, the intent of the Disability Discrimination Act 1992, the principles of Universal Design and relevant legislative requirements. Universal Design is defined as ‘the design of products and environments to be usable by all people to the greatest extent possible, without the need for adaptation or specialised design’. Each concept plan will follow the seven Principles of Universal Design, which seeks to best practice across a number of universal design disciplines including the environment, products and communications. Of the seven principles, those to be of particular relevance are presented below:

- Equitable use, where the design is useful and marketable to people with diverse abilities.
- Flexibility in use, where the design accommodates a wide range of individual preferences and abilities.
- Simple and intuitive to use.
- Low physical effort, where the design can be used efficiently and comfortably and with a minimum of fatigue.

It is recommended that the City engage a qualified Access Consultant as a part of the design development process. This will help in the design of an accessible buildings in accordance with Australian Standards and other legislative requirements, prior to the facility being constructed.

8. Concept plans

The following concept plans have been developed in accordance with the outcomes of the scenario planning stage. A concept plan provides an illustrative floor plan, drawn to scale, that clearly articulates the intent of the functional infrastructure components, demonstrating their interaction within a given site and reflects the required functional relationship between spaces within a building and its activities. Refer to Appendix 5-10 for A3 versions of the concept plans.

8.1 Multi-purpose courts

On review of other roofed court projects and their particular detailed designs, it was determined that a gable roof would be best suited, with its ridge running along a north south axis (Figure 27). That type of design would allow simple expansion of a similar roof, should the City wish to extend over the tennis and indoor cricket courts in the future. The concept plan ensured the width of the structure aligned to allow for the slight offset of the northern courts. This allows the existing shed to be contained under the new roof.

The structure is anticipated to be a heavy, hot rolled steel sections, fabricated into a portal frame with a central truss beam spanning north south and possibly with two central columns between the courts. The frame shall be topped with cold rolled galvanised purlins and metal deck roofing. Incorporation of custom side sliding curtains shall be included to all four sides of the structure. The proposed form of construction is a prefabricated steel structure, manufactured off site and rapidly installed with minimal impact on the site.



Figure 27: Roof structure concept plan

One notable risk for this project, is the potential for the new surface to be damaged during the construction phase. While this design does not indicate any structure penetration into the playing surface, it is foreseen that portions of the surface, base and sub-grade may need to be replaced. During construction bog mats and the like could be used to protect the surface, but they are not always 100% effective. As such, a balance between the cost of protecting the surface during the construction phase verses a new surface at the end of the project needs to be reviewed.

8.2 Saylor Park toilet

As previously mentioned, Option 2 is the preferred site with an off the shelf product (Figure 28), with the floor plan shown in Figure 29.



Figure 28: Location for Saylor Park toilet. Inset: Yarra – 1 toilet building (image sourced from Modus, 2022)



Figure 29: Yarra – 1 toilet building floor plan (image sourced from Modus, 2022)

8.3 Lifeguard station

The concept plan (Figure 30) is concerned with modifications to the existing building, without the need to extend. Change rooms 3 & 4 are repurposed, with some modifications required to meet BCA – such as complying with the required number of showers, toilets and basins and the removal of urinals in the female change room. The provision of a new fence and gate and the removal of the existing fence between the two plant structures. The reconfiguration and combining of the first aid / lunch room and store room, to incorporate the requirements mentioned in section 7.3. Note that this design provides the City with the capability to extend gym along the northern section of the main west wing, should it choose to in the future.



Figure 30: Wickham Aquatic Centre lifeguard station location and floorplan

8.4 Wickham Amenities Building

The concept plan (Figure 31) for the Wickham Amenity Building has been based on industry benchmarks and in alignment with the outcomes of consultation identified in Section 4. It should be noted that car parking and wider landscaping treatments have not been included but will need to be considered in the design development phases.

We determined the location of the existing facility was still the appropriate locality for the new facility, as it services both sports fields (north and south). The design for the new facility configured the layout into three main uses:

- Amenities – change rooms, toilets, first aid and umpires room.
- Storage – internal and external spaces.
- Function spaces – function room and kiosk.

The function spaces were located front and central to capture viewing of both oval and pitch, with a curved covered verandah to enhance that widening view range (curved). This front space was divided from the amenities spaces by a T-shaped access / circulation, internal corridors. They acted as the central entry foyer from the road / carpark into the building from the east and separated the two main change rooms.

The corridors provide adequate internal circulation as well as direct access to either the northern or southern sports fields from behind the function space. As a design feature, it prevents players from entering the function spaces between competition rest periods and can provide a space for memorabilia, advertising and public art.

The building design commenced with a spatial arrangement diagram to establish the most appropriate positions for each space relating to its use. In summary:

- This location is considered appropriate as it has direct access to the car parking space and internal road and also services both new and existing fields.
- The function room (120m²) and kitchen kiosk (30m²) have been situated to the east with views to both sports fields.
- A breezeway / foyer exists between the two change rooms (55m² each), which are located nearest the car park.
- Internal store room (30m²), a furniture store room (20m²) and external store room (60m²).
- First aid (10m²) and umpires rooms (10m²). All addressing the southern sports field and protected by the spectator verandah.
- Behind function room and central to building are the amenities spaces. They are accessible via a wide circulation corridor dividing the change rooms and amenities spaces while also providing internal access into the kitchen and main sports activity room.
- Cleaners room, bin store and plant room (10m² each) are located at the northern end of the building with clear access to the car park.
- Verandah area (60m²) overlooking the fields.

The concept plan has been based on industry benchmarks and in alignment with the outcomes of consultation identified in Section 4.



Figure 31: Wickham Amenities Building floor plan

9. Opinion of probable costs

An opinion of probable costs (OPC) has been developed by a Quantity Surveyor, for each concept plan as shown in Table 9, below. The costs are based on 2022 figures, assumes all construction to be completed in the same year, includes design, design contingency (5%), construction contingency (10%), project management costs (10%), professional fees (20%), a regional loading factor (65%) and does not include GST. Refer to Appendix 11 for the detailed breakdown. It is worth noting that \$3,240,445 is included as a result of the regional loading factor, should that not be applicable that would reduce the overall cost to \$8,587,300).

Note: A prefabricated toilet was considered as an option separate to this cost estimate. A quote by a supplier in 2022 indicated a cost of \$30,780 for supply, plus local installation quoted at \$86,000. Note that these costs do not include connecting into the proximal sewer, water and electricity services, and would need to be factored into future costs.

Table 9: Capital build estimate summary (DCWC, 2022)

Facility	Cost (ex GST)
Saylor Park Toilet	\$256,695
Multi-purpose Courts	\$4,445,450
Wickham Aquatic Centre Lifeguard Station	\$851,350
Wickham Amenities Building	\$6,274,250
Total	\$11,827,745

It should be noted that the actual cost of development is significantly higher than would have been the case pre-Covid-19, largely due to uncertainty in the current market and increased costs associated with construction (sourcing / cost of materials, lead times, labour shortages, etc.).

Furthermore, it should be noted that at such an early stage of a project, an OPC delivers a rough order of magnitude (ROM), estimated to have an accuracy of +/- 40-50%, where detailed investigations into ground conditions and designs have not yet been undertaken. These include Geotechnical testing, site and feature surveys, electrical capacity reports or any design detail. As the project progresses, the ROM estimates start to become more concise, as shown in the following example:

- Conceptual estimate - 30% to +30% - usually provided when specialists are involved in the design – electrical, hydraulic, mechanical, irrigation, etc.
- Definitive estimate - 20% to +20% - usually provided at the end of schematic design (buildings) and during the detailed design phase for landscape projects.
- Control estimates - 10% to +10% - during construction.

As such, the costs contained within the OPC should be used to guide an initial budget that must be refined as the project progresses.

9.1 Staging of works

The staging of works is critical in the allocation of funds and resources. Table 9 provides an indicative timeline for the various stages of works. It provides the City with an opportunity to apply in multiple funding rounds (as discussed in the next section), or for clubs to fund raise.

Table 10: Staging of works

Stage	Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
1	Multi-purpose courts		\$471,000	\$1,987,225	\$1,987,225			\$4,445,450
2	Saylor Park toilet		\$27,000	\$229,695				\$256,695
3	Wickham Aquatic Centre lifeguard station		\$90,000	\$741,000	\$20,000			\$851,350
4	Wickham Amenities Building			\$664,000	\$2,805,125	\$2,805,125		\$6,274,250
Total			\$588,000	\$3,621,920	\$4,812,350	\$2,805,125		\$11,827,395

Key

Initiator planning	
Design	
Construction	

Stage 1: Design and construction of the Multi-purpose courts. Year 1 involves community consultation to confirm facility requirements.

Stage 2: Design and construction of the Saylor Park toilets. Year 1 involves community consultation to confirm the location for the toilet.

Stage 3: Design and construction of the Wickham Aquatic Centre lifeguard station.

Stage 4: Design and construction of the Wickham Amenities building. Year 2 involves community consultation to confirm facility requirements.

10. Implementation plan

The Feasibility Study has considered all the implications as outlined throughout the document and developed the following table to clearly outline the recommended actions the City needs to take to ensure a quality, well-managed, sustainable development of future infrastructure. The recommendations have been broken down into the following timeframes, including estimated costs (ex GST), unless otherwise specified:

Immediately	As soon as practicably possible.
Short Term	12 months to 2 years.
Medium Term	3 to 5 years.
Ongoing	Regular and consistent planning and dialogue required throughout the delivery of the project.

Table 11: Implementation Plan

Activity	Description	Timeline
Presentation of Feasibility Study	Disseminate the Feasibility Study and ensure the case is fully understood.	February 2022
Advocacy presentation	Disseminate the Feasibility Study to relevant funding bodies	As relevant
Establish the project on the LTFP	Work with key stakeholders to obtain commitment of funds and continue the planning process, design documentation through to construction. This is needed to ensure that funds are allocated to the works listed within the Implementation Plan. This must include funds in line with the City's maintenance plan.	Ongoing
Funding Strategy	Development of a Funding Strategy is required to explore the options for the development of the infrastructure.	Immediately
Community and Stakeholder consultation	Consult and collaborate with all current and potential facility users to confirm the appropriate level of space required to facilitate their ongoing or future occupation. A key component of this action is to inform them of the works to date, provide an opportunity to feedback on the design and to inform them of what actions are next.	Immediately
Develop the facility specification	<p>Based on community feedback, and other subsequent reports, the City will need to develop design briefs and specifications for each facility. Key activities include developing room data sheets (building only), design briefs and specifications.</p> <p>The design contract for the Wickham Amenities Building should include the need for the Contractor to undertake a site and feature survey, geotechnical investigation, electrical demand assessment, traffic modelling to confirm car park and bushfire management plan requirements and an Access Consultant to review the drawings at the schematic design stage and during the design development phases.</p>	In line with the staging plan.

Activity	Description	Timeline
	The design contract for the Multi-purpose courts roof should include the need for the Contractor to undertake a site and feature survey, geotechnical investigation and electrical demand assessment.	
Construction	Development of the facility in line with the City timelines.	In line with the staging plan.

10.1 Conclusion

A critical consideration in the development of each facility will be the potential to consider the case for investment (i.e. Business Case). This will require the following matters to be assessed and clarified:

- Confirm the strategic positioning and how the development meets the objectives of the City and its stakeholders. This would incorporate a more extensive stakeholder consultation process to test, verify or challenge the outputs of this Feasibility Study.
- Confirm the extent of infrastructure and a clear understanding of how a phased development could occur within the site, seeking to clarify:
 - The extent of all facility infrastructure, as identified in the Feasibility Study.
 - Asset management and maintenance strategies.
 - The development of a detailed design brief for the purpose of procurement.
- Determine the appropriate governance and management model to be employed, including leasing and booking arrangements for the Wickham Amenities Building.
- Undertake a risk analysis at the start of the business case process and review on completion of the Business Case, to ascertain the likely risks and potential mitigation measures which will need to be employed to address them. This is normally required for federally funded projects.
- Develop a procurement strategy to minimise risk to the City. Key items include:
 - Design contract.
 - Construction contract.
 - Supply contract.
- To incorporate all technical studies required to proof the land up for development, as identified in the report.
- Confirm a realistic timeline for delivery and develop an Implementation Plan, taking into account the outcomes of the more detailed technical research.

11. Appendices

Appendix 1: State Sporting Associations Preferred Standards

	Cricket Australia	AFL	Football West	NRL WA	Rugby WA
Name and year	Community Cricket Facility Guidelines (2015)	AFL Preferred Facilities Guidelines (2019)	Football QLD Building Development Guide (2020)	NRL Community Rugby League Preferred Facility Guidelines (2021)	Rugby AU National Facility Guidelines (year unknown)
Minimum building requirements					
Entry / foyer	✓				
Circulation	As required	As required	As required		
Veranda / spectator area	As required	As required	As required	✓	
Multi-purpose room	✓	✓	✓	✓	✓
Meeting / seminar room	Not required	Not required	Not required	✓	✓
Office / administration rooms	Optional	Not required	Not required	✓	✓
First aid room	Access to car parking	✓	✓	✓	✓
Kitchen / kiosk	Internal and external servery	✓	✓	✓	✓
Kitchen / kiosk - storage	✓	✓	✓	✓	✓
Internal storage	Vertical storage	✓	✓	✓	✓
External storage	Vertical storage	✓	✓	✓	✓
Toilets (as per BCA)	✓	✓	✓	✓	✓
UAT with shower (as per BCA)	Baby change table	✓	✓	✓	
Umpire / match official rooms	Home venue only	Two showers (lockable cubicles)	✓	✓	1 shower (lockable cubicle) and 1 toilet.
Change rooms	Two per field	✓	Two per field	Two per field	28 people each 4 (2 male and 2 female)
Number of players	11	30			
Shape	Rectangular				




	Cricket Australia	AFL	Football West	NRL WA	Rugby WA
Seat width per player	600mm				
Seat depth	600mm				
Overall bag depth	1000mm				
Lockers	Yes				
Showers (lockable cubicles)	3 (1 ambulant)	3	2	3	4
Toilets - pans (lockable cubicles)	3	3	2	1	2
Urinals	Not supported		Not supported		

Summer	Winter
Cricket	Soccer
Practice wickets (synthetic)	Pitch Size - 96-105m (l) x 60-68 (w)
Number of lanes - 2 neighbourhood / 3-6 District	Run-off 3m
Enclosed (36m x 3.6m)	Technical area marked by cones
Open (28m x 3.6m)	
Fence length	Rugby Union
Internal (11m, 22m or greater)	Pitch Size - 94-100m (l) x 68-70 (w)
External (11m, 22m or greater)	Run-off 3m
Pile height (9-11mm)	In goal area 10-20m
Cricket ground dimensions (radii)	
<45m	Rugby League
<50m	Pitch Size - 100m (l) x 68 (w)
<55m	Run-off 3-4m
<60	In goal area 8m
>60	
Boundary run-off (3-5m)	AFL
Pitch dimensions	Senior field (135-185m x 110-155m)
Synthetic - 25-18m (l) x 2.4-2.8m (w)	Boundary run-off (3m community)

Appendix 2: Wickham Amenity Building dimensions

Room Description	m ²	Room Description	m ²
Function room	90		
Internal storage 1	13.5		
Kiosk / kitchenette	25		
<i>Linear metre of bench space</i>	13		
<i>Fridge space</i>	1.1		
External storage 1	9	External storage 2	125
Male toilets	12.5	Female toilets	6.5
<i>No. of urinals</i>	1 trough		
<i>No. of pans (reg / ambulant)</i>	2 : 0	<i>No. of pans (reg / ambulant)</i>	2 : 0
<i>No. of hand basins</i>	2	<i>No. of hand basins</i>	2
Change room 1	37	Change room 3	32
<i>Linear metre of setting bench space</i>	20	<i>Linear metre of setting bench space</i>	16
Wet area	12	Wet area	22
<i>No. of showers (reg / ambulant)</i>	4 (open)	<i>No. of showers (reg / ambulant)</i>	4 (open)
<i>No. of urinals</i>	1 trough	<i>No. of urinals</i>	1 trough
<i>No. of pans (reg / ambulant)</i>	1 : 0	<i>No. of pans (reg / ambulant)</i>	1 : 0
<i>No. of hand basins</i>	1	<i>No. of hand basins</i>	1
Change room 2	18	Change room 4	30
<i>Linear metre of setting bench space</i>	10.5	<i>Linear metre of setting bench space</i>	12
Wet area	18.5	Wet area	19
<i>No. of showers (reg / ambulant)</i>	3 : 0	<i>No. of showers (reg / ambulant)</i>	3 : 0
<i>No. of urinals</i>	0	<i>No. of urinals</i>	0
<i>No. of pans (reg / ambulant)</i>	2 : 0	<i>No. of pans (reg / ambulant)</i>	1 : 0
<i>No. of hand basins</i>	2	<i>No. of hand basins</i>	1
Building service requirements			
Plant room (HVAC, water heating, gas etc)	6.5	Circulation - halls, foyers, veranda etc..	7

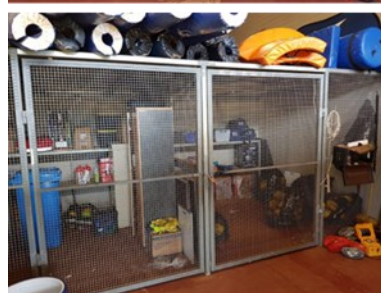
Appendix 3: Facility Images (all taken by Author)

Facility	Images
Wickham Amenities Building (external)	  

Facility

Images

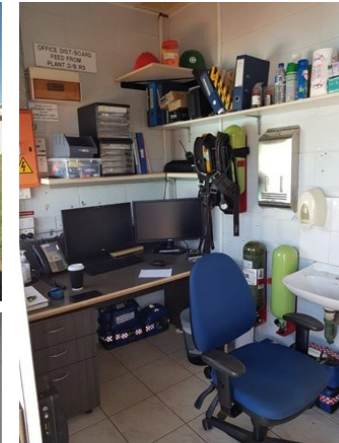
Wickham Amenities Building (internal)




Facility

Wickham Aquatic Centre – lifeguard office and change rooms

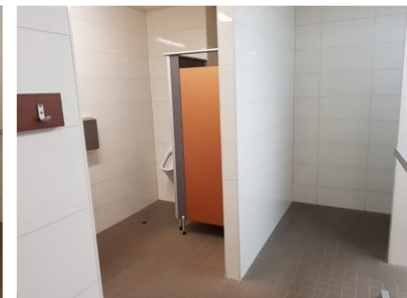
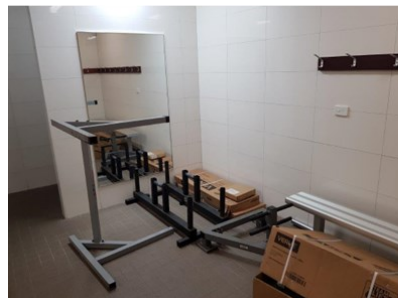
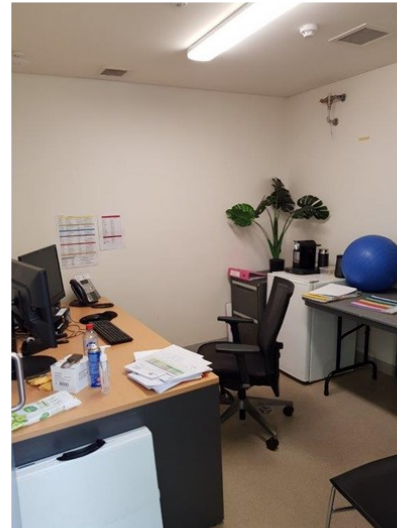
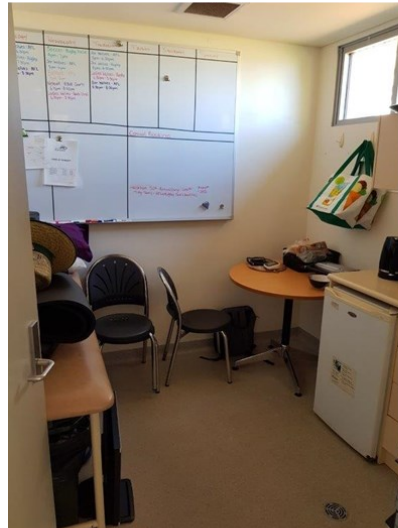
Images











Facility	Images
Wickham Aquatic Centre (external)	
Wickham Aquatic Centre (internal)	

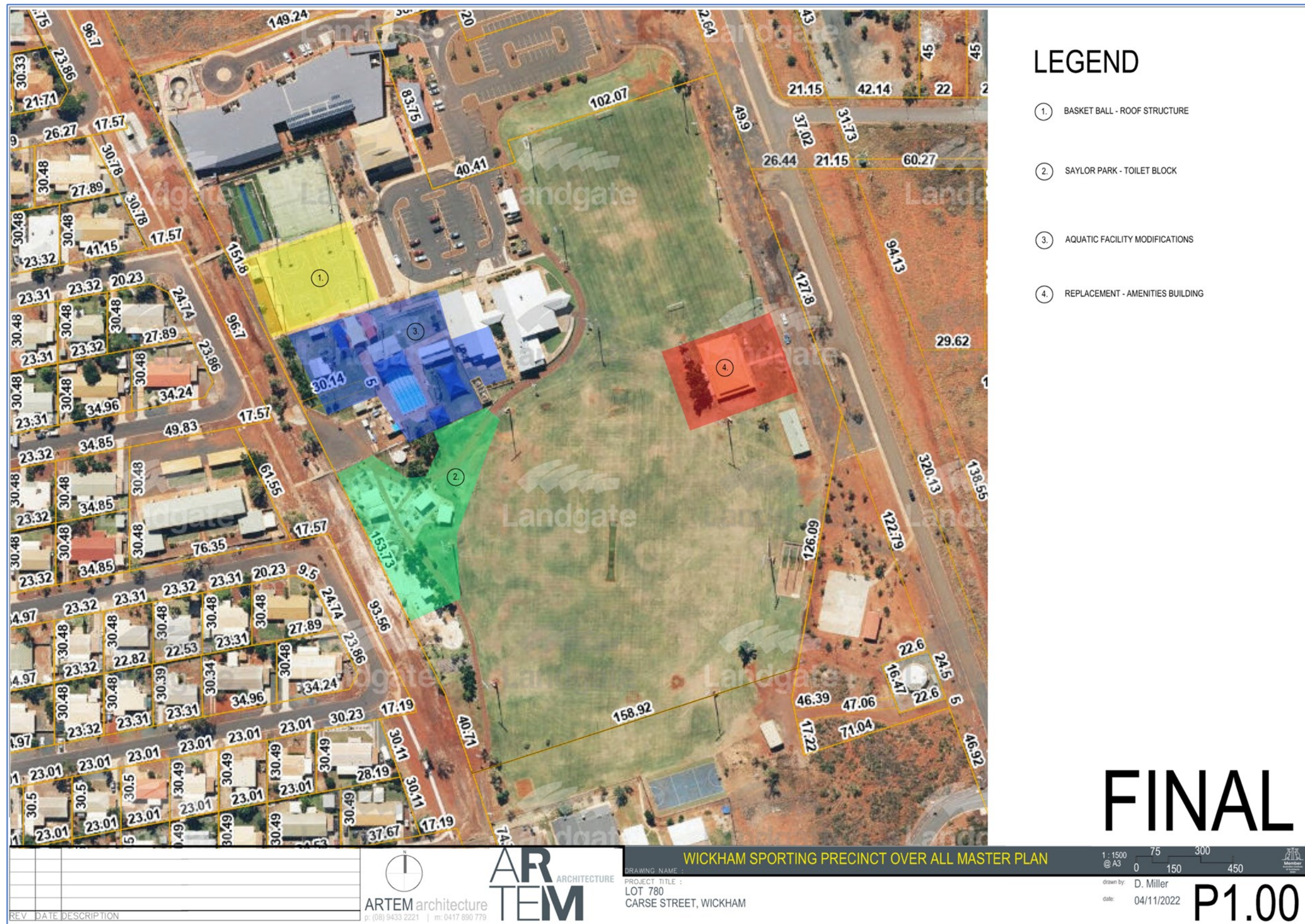
Facility

Images



Facility	Images
Multi-purpose courts	    
Saylor Park locations	  

Appendix 4: Site layout concept plan



Appendix 5: Saylor Park toilet block location plan



LEGEND

- ① NEW PUBLIC TOILET BLOCK - MULTI USER / UNISEX AND UNIVERSAL ACCESS TOILET. OPTION NO 1 - PLUS HARD STAND SURROUND CONNECTED TO EXISTING PEDESTRIAN PATH WAY FOR EASY ACCESS.
- ② NEW PUBLIC TOILET BLOCK - MULTI USER / UNISEX AND UNIVERSAL ACCESS TOILET. OPTION NO 2 - PLUS HARD STAND SURROUND CONNECTED TO EXISTING PEDESTRIAN PATH WAY FOR EASY ACCESS.
- ③ NEW PUBLIC TOILET BLOCK - MULTI USER / UNISEX AND UNIVERSAL ACCESS TOILET. OPTION NO 3 - PLUS HARD STAND SURROUND CONNECTED TO EXISTING PEDESTRIAN PATH WAY FOR EASY ACCESS.



YARRA - 1 TOILET BUILDING
BY MODUS

FINAL

REV	DATE	DESCRIPTION



ARTEM architecture
p: (08) 9433 2221 | m: 0417 890 779



DRAWING NAME :
PROJECT TITLE :
LOT 780
CARSE STREET, WICKHAM

SAYLOR PARK TOILET BLOCK DESIGN OPTIONS.

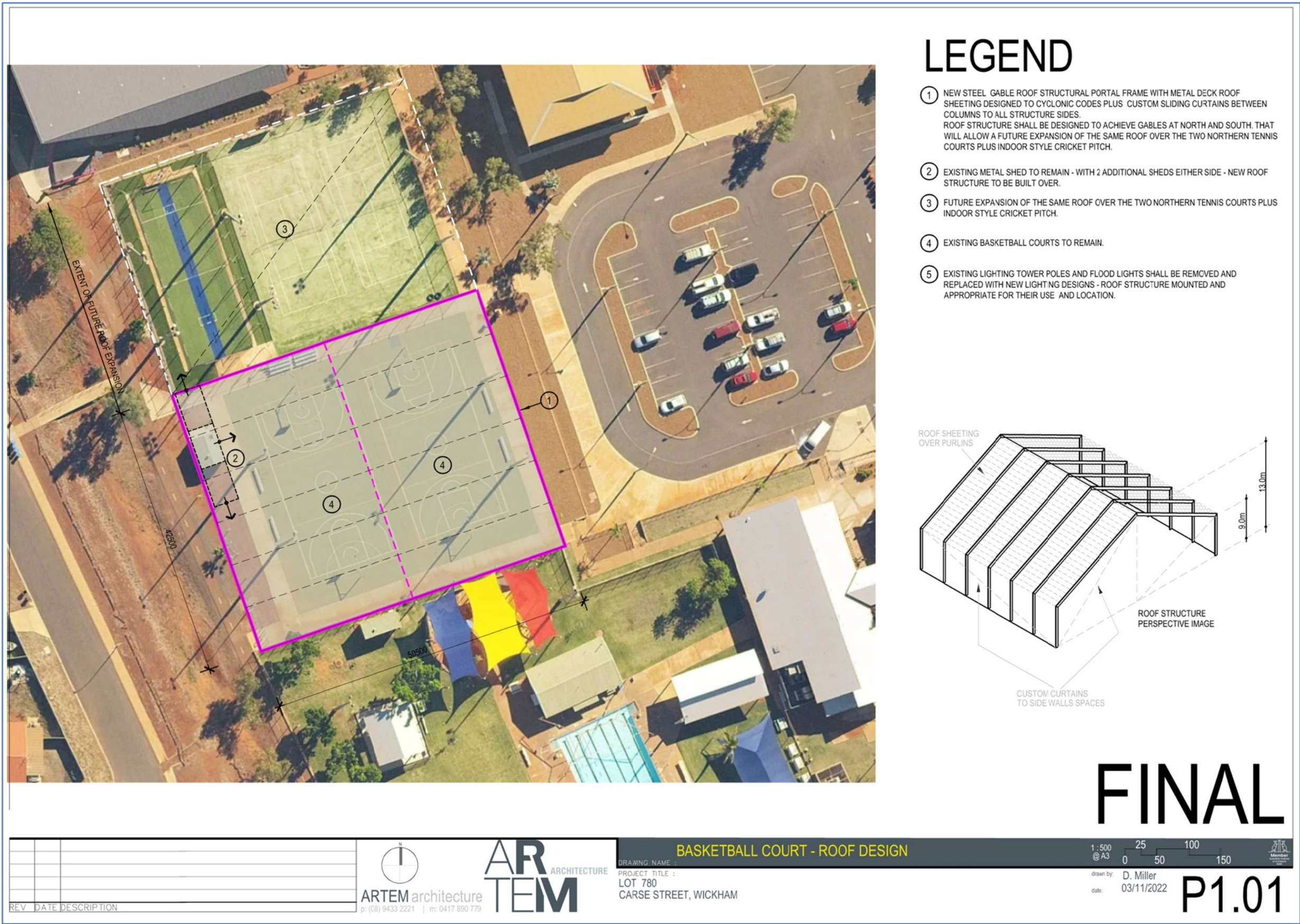
1 : 500
@ A3

drawn by: D. Miller
date: 03/11/2022

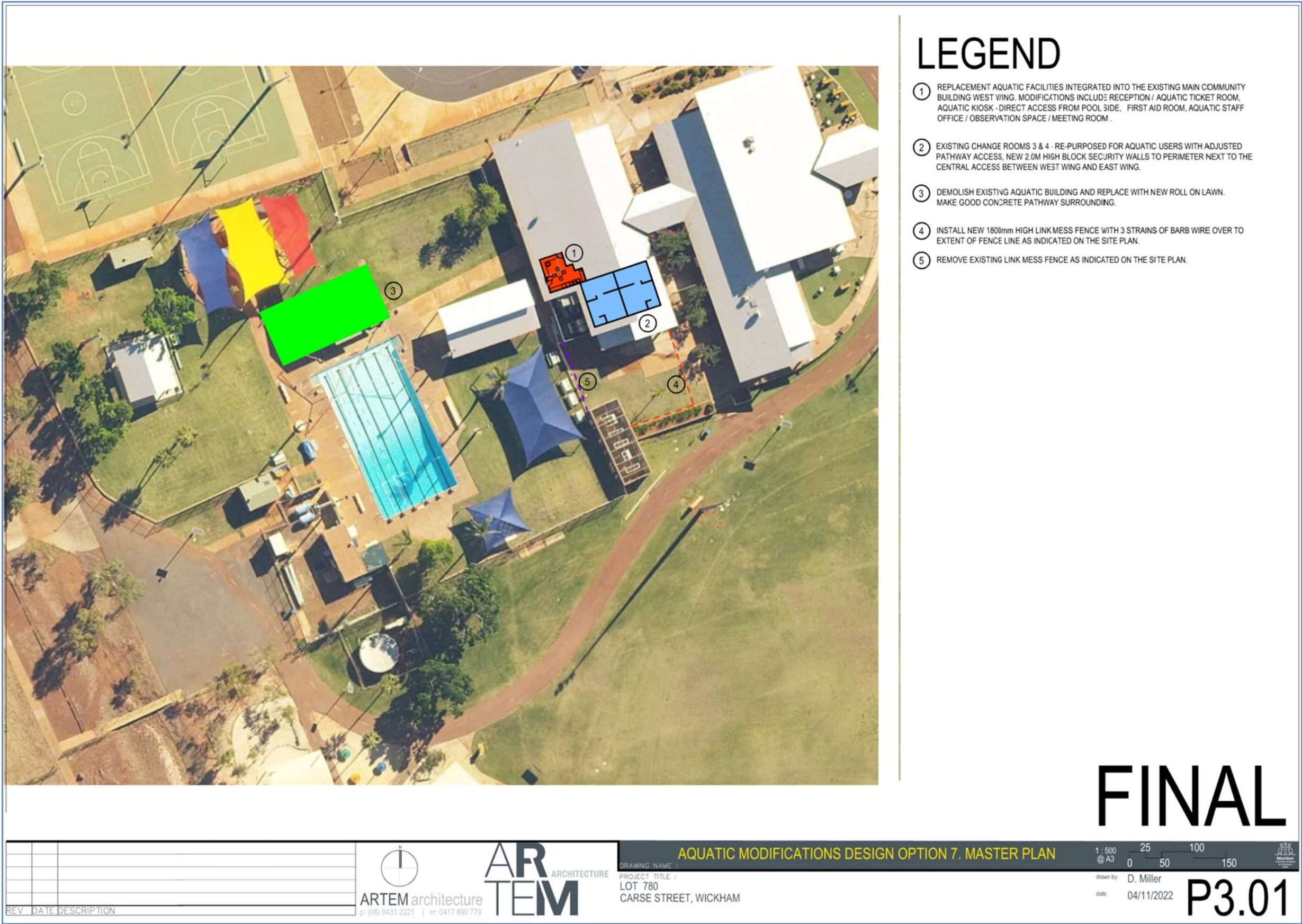
25 100 150

P2.01

Appendix 6: Basketball court – roof design concept plan



Appendix 7: Aquatic precinct site layout concept plan



[illegible]

Appendix 9: Wickham sports amenities building site layout plan



LEGEND

- 1 NEW COMMUNITY AMENITIES FACILITY SERVICING TWO SPORTS - AFL AND RUGBY. THIS FACILITY REPLACES THE EXISTING BUILDING WHICH IS SCHEDULED TO BE DEMOLISHED AS PART OF THIS MASTER PLANNING. REFER TO PROPOSED CONCEPT DESIGN FLOOR PLAN FOR ROOM ACCOMMODATION ND LAYOUTS.
- 2 2 X EXISTING MATURE TREES FORWARD OF THE EXISTING FACILITY SHALL BE RETAINED. THE TWO SMALLER PALM TREE SHALL BE REMOVED. EXISTING BBQ FACILITIES SHALL BE RE LOCATED AND RE USED.
- 3 ALL LAWN AREAS SURROUNDING THE NEW FACILITY THAT HAS BEEN DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH NEW ROLL ON LAWNS OF SIMILAR LAWN TYPES, INCLUDING MODIFICATION OF RETICULATION SYSTEM TO SUITE NEW DESIGNS. SHOW GREEN HATCHED
- 4 EXISTING PATHWAYS, CAR PARKING AND ROAD NETWORK TO REMAIN AS IS.

FINAL

REV	DATE	DESCRIPTION

ARTEM architecture
p: (08) 9433 2221 | m: 0417 890 779

ARTEM ARCHITECTURE

ARTEM

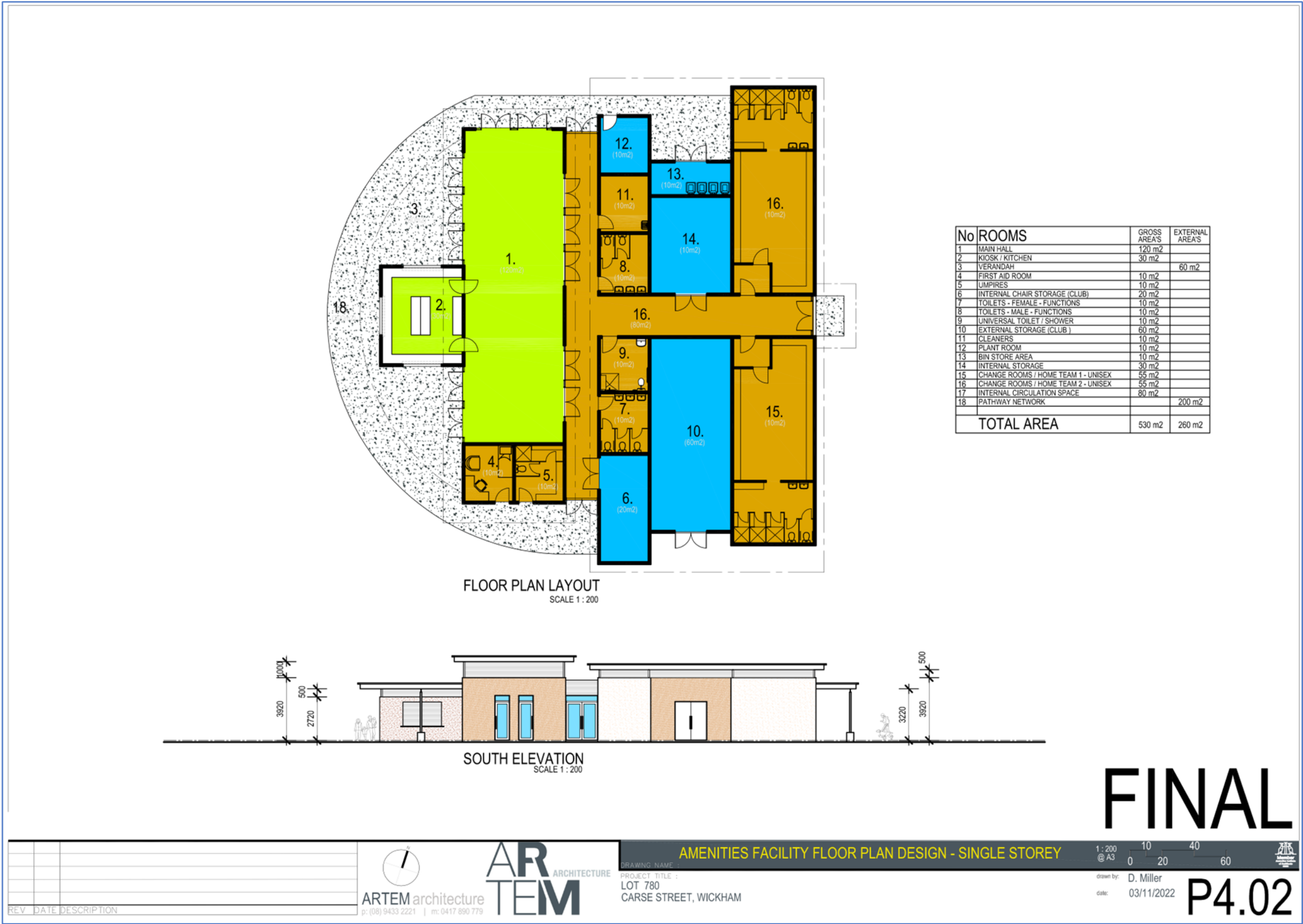
AMENITIES FACILITY MASTER PLAN DESIGN LAYOUT - SINGLE STOREY

DRAWING NAME :
PROJECT TITLE :
LOT 780
CARSE STREET, WICKHAM

1 : 500
@ A3
0 25 50 100 150
drawn by: D. Miller
date: 03/11/2022

P4.01

Appendix 10: Wickham sports amenities building concept plan



Appendix 11: Opinion of probable costs

2022-11-18 - Wickham Recreation Hub
Business Case Budget
25/11/2022



WICKHAM RECREATION HUB MASTERPLAN					BASKET BALL COURT - ROOF STRUCTURE				SAYLOR PARK - TOILET BLOCK (Option 2)				AQUATIC FACILITY MODIFICATIONS				REPLACEMENT - AMENITIES BUILDING			
					\$ 4,445,450				\$ 256,695				\$ 851,350				\$ 6,274,250			
WICKHAM RECREATION HUB MASTERPLAN					BASKET BALL COURT - ROOF STRUCTURE				SAYLOR PARK - TOILET BLOCK (Option 2)				AQUATIC FACILITY MODIFICATIONS				REPLACEMENT - AMENITIES BUILDING			
Item	Description				Quantity	Unit	Rate (\$)	Total (\$)	Quantity	Unit	Rate (\$)	Total (\$)	Quantity	Unit	Rate (\$)	Total (\$)	Quantity	Unit	Rate (\$)	Total (\$)
1.00	BUILDINGS																			
1.01	Allowance for Basketball Court Roof Cover and associated works				2,156	m2	821	1,770,000												
1.02	Allowance for Toilet Block Option 1 (excluded from total project cost)								73	m2	740	54,000								
1.03	Allowance for Toilet Block Option 2 (included in total project cost)								80	m2	688	55,000								
1.04	Allowance for Toilet Block Option 3 (excluded from total project cost)								190	m2	389	74,000								
1.05	Allowance for Aquatic Facility Modifications												101	m2	3,277	331,000				
1.06	Allowance for The Replacement of Amenities Building																662	m2	3,097	2,050,000
	TOTAL BUILDING COST				2,156	m2	821	1,770,000	80	m2	688	55,000	101	m2	3,277	331,000	662	m2	3,097	2,050,000
2.00	External Works & Landscaping																			
2.01	Allowance for Site Clearance							N/A	80	m2	10	1,000				N/A	2,099	m2	10	21,000
2.02	Allowance for demolition of buildings / structures / pavement etc					Note		Incl				N/A	1	P.Sum	23,000	23,000	1	P.Sum	50,000	50,000
2.03	Allowance for ground works / earthworks							N/A	80	m2	30	2,000				N/A	719	m2	30	22,000
2.04	Allowance for car parking complete							N/A				N/A				N/A				N/A
2.05	Allowance for hard and soft landscape including Turf cut of existing							N/A				N/A	30	m2	75	2,000	1,437	m2	105	151,000
2.06	Allowance for fitments; bins, seats, furniture including relocation of existing items							N/A				N/A				N/A	1	P.Sum	2,000	2,000
2.07	Allowance for signage				1	P.Sum	5,000	5,000				N/A				N/A	1	P.Sum	5,000	5,000
2.08	Allowance for Main Contractors Preliminaries and Margin				10%	Sum	5,000	1,000	10%	Sum	3,000	300	10%	Sum	25,000	3,000	10%	Sum	251,000	25,000
	External Works & Landscaping Sub Total							6,000				3,300				28,000				276,000
3.00	Site Services																			
3.01	Allowance for service trench to building					Note		Excluded	1	P.Sum	10,000	10,000		Note		Excluded	1	P.Sum	10,000	10,000
3.02	Allowance for services infrastructure to building					Note		Excluded	1	P.Sum	35,000	35,000		Note		Excluded	1	P.Sum	260,000	260,000
3.03	Allowance for Court/ Carpark Lighting (court lighting assumed using existing SMSB & Conduit)				1	P.Sum		88,000		Note		Excluded		Note		Excluded		Note		Excluded
3.04	Allowance for CCTV					Note		Excluded		Note		Excluded		Note		Excluded	1	P.Sum	20,000	20,000
3.05	Allowance for Main Contractors Preliminaries and Margin				10%	Sum	88,000	9,000	10%	Sum	45,000	5,000				N/A	10%	Sum	290,000	29,000
	External Services Sub Total							97,000				50,000				-				319,000
	TOTAL CONSTRUCTION COSTS (PERTH PRICES)							1,873,000				108,300				359,000				2,645,000
	Regional Loading Factor				65.00%		1,873,000	1,217,450	65.00%		108,300	70,395	65.00%		359,000	233,350	65.00%		2,645,000	1,719,250
	TOTAL CONSTRUCTION COSTS							3,090,450				178,695				592,350				4,364,250
4.01	Design Contingencies				5.00%	Sum	3,090,450	155,000	5.00%	Sum	178,695	9,000	5.00%	Sum	592,350	30,000	5.00%	Sum	4,364,250	218,000
4.02	Construction Contingencies				10.00%	Sum	3,245,450	325,000	10.00%	Sum	187,695	19,000	10.00%	Sum	622,350	62,000	10.00%	Sum	4,582,250	458,000
4.03	Headworks and Statutory Charges					Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
4.04	Building Act Compliance					Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
4.05	Percent for Public Art					Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
4.06	Land Costs (if applicable)					Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
4.07	Other Costs - FFE					Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
4.08	Other Costs - ICT					Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
4.09	Professional Fees (including disbursements)				20.00%	Sum	2,353,000	471,000	20.00%	Sum	136,300	27,000	20.00%	Sum	451,000	90,000	20.00%	Sum	3,321,000	664,000
	On-Costs - Sub Total							951,000				55,000				182,000				1,340,000
	GROSS PROJECT COST							4,041,450				233,695				774,350				5,704,250
5.00	Escalation																			
5.01	Base date of pricing - November 2022																			
5.02	Allowance for escalation to start on site					Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
	Escalation - Sub Total							-				-				-				-
	ESCALATED NET PROJECT COST							4,041,450				233,695				774,350				5,704,250
6.00	Local Authority Managed Costs																			
6.01	Project Management Costs				10%	Sum	4,041,450	404,000	10%	Sum	233,695	23,000	10%	Sum	774,350	77,000	10%	Sum	5,704,250	570,000
	Total Local Authority Costs							404,000				23,000				77,000				570,000
	ESTIMATED GROSS PROJECT (COMMITMENT) TOTAL COST							4,445,450				256,695				851,350				6,274,250

Notes:
Excludes GST
Excludes Environmental Offset / Management Plans etc
Specific exclusions as above
Excludes abnormal ground conditions / contamination etc
Excludes major services diversions
Excludes major utility upgrades / contributions & headworks
Excludes works to any conservation areas
Excludes any work not specifically scheduled above
Excludes feature landscaping
Excludes legal costs, site costs, agents fees, finance etc
Excludes land purchase costs
Budgets are current day (November 2022) therefore need to be escalated once the program is known
Costs assume Competitive Tender process with local builders using basic selection of materials
Loose Furniture and Sports Equipment to new building is excluded
Notes :
OPC based on Artem Architecture Plans, Drawings; P1, P1.01, P2.01, P3.01 P3.02, P4.01 & P4.02 dated November 2022.
All scope, quantities and rates are provisional therefore subject to adjustment

Warranties and Disclaimers

The information contained in this report is provided in good faith. While Otium Planning Group has applied their own experience to the task, they have relied upon information supplied to them by other persons and organisations.

We have not conducted an audit of the information provided by others but have accepted it in good faith. Some of the information may have been provided 'commercial in confidence' and as such these venues or sources of information are not specifically identified. Readers should be aware that the preparation of this report may have necessitated projections of the future that are inherently uncertain and that our opinion is based on the underlying representations, assumptions and projections detailed in this report.

There will be differences between projected and actual results because events and circumstances frequently do not occur as expected and those differences may be material. We do not express an opinion as to whether actual results will approximate projected results, nor can we confirm, underwrite or guarantee the achievability of the projections as it is not possible to substantiate assumptions which are based on future events.

Accordingly, neither Otium Planning Group, nor any member or employee of Otium Planning Group, undertakes responsibility arising in any way whatsoever to any persons other than client in respect of this report, for any errors or omissions herein, arising through negligence or otherwise however caused.