

# VC MITCHELL PARK DONNYBROOK

SCHEMATIC DESIGN REPORT MARCH, 2023









# DOCUMENT CONTROL

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DONNYBROOK

### VC MITCHELL PARK, DONNYBROOK, WA - SCHEMATIC DESIGN REPORT

REV. NO	DATE	REVISION DETAILS	AUTHORS	VERIFIER	APPROVER
Rev. A	21/02/2023	Schematic Design Report Draft	FF	CF	PK
Rev. B	03/03/2023	Schematic Design Report Final	FF	CF	PK









PRINCIPAL SHIRE OF DONNYBROOK BALINGUP

P22023 PROJECT NO.

VC Mitchell Park Donnybrook PROJECT TITLE

CONTRACTOR PERKINS BUILDERS

Brent Rowe- Project Manager CONTRACTOR CONTACT KEY STAKEHOLDERS Shire of Donnybrook Balingup

Department of Local Government, Sport and Cultural

Industries

Donnybrook Football Club Donnybrook Tennis Club

Donnybrook Balingup Communities

Donnybrook Hockey Club Donnybrook District High School Donnybrook Primary School Donnybrook Recreation Centre Donnybrook Cricket Club Donnybrook Netball Club

Donnybrook Basketball Club

CONSULTANT TEAM:

Forth Consulting – Colin Rose STRUCTURAL AND CIVIL

Link Engineering Consultants - Sven De Jonghe MECHANICAL

ESC Engineering- Tarron Abraham ELECTRICAL, COMS AND DRY FIRE

Stantec-Ben Hyde HYDRAULIC AND WET FIRE

Tecon Australia: Gary Fitzgerald CERTIFIER

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### INTRODUCTION

Under the Head Design & Construct Contract with the Shire of Donnybrook Balingup, Perkins Builders have engaged Cameron Chisholm Nicol as Architects for the design and documentation for the proposed stage 1 redevelopment of the VC Mitchell Park pavilions in Donnybrook, WA.

The scope of works includes

#### PAVILION 1 (NEW MULTI-PURPOSE FACILITY ADJACENT TO THE MAIN OVAL REPLACING THE CURRENT PAVILION), including:

- Lower level: Multi-Purpose sporting changerooms and warm-up room, public toilets, first aid, umpire change facilities, service areas, GMO office, canteen with lift and stairs to upper levels and new seating plats overlooking the oval.
- Upper level: Community rooms, bar and kitchen with associated stores and services areas, public toilets, secure storage, multi-purpose rooms, and community centre manager's office. Lobby with lift and stairs to lower level.

#### PAVILION 2 (ALTERATIONS AND ADDITIONS TO TENNIS PAVILION), INCLUDING

- New toilet and changeroom facilities
- New roof cover with new roof insulation
- New terrace and steps to tennis court.
- New entry statement

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New path to tennis courts

#### NEW SERVICES INFRASTRUCTURE (REFER TO ENGINEERING REPORTS FOR DETAILS)

This schematic Design report outlines the Design approach, concepts and extents, and provides an overview of the critical issues, and areas of the design requiring further stakeholder input or design clarification.









#### PROJECT BACKGROUND

#### KEY ASPIRATIONS/DELIVERABLES

- Rejuvenation of sport and recreation facilities within the Shire.
- Opportunity for shared-use community facilities and events in the VC Mitchell Park precinct.
- Deliver broader social, health and economic benefits to the local community.

#### KEY DRIVERS

#### Community Hub Development

To fully utilise the synergies, advantages and benefits of co-locating a variety of sport, recreation and community activities within a single, integrated precinct. To create:

- New passive recreational facilities/amenities and initiatives.
- · Indoor and outdoor events space.
- Consideration for improved sports facility usage through sports lighting and other services infrastructure. (pending budget availability).
- · Flexible community-use space.

To prioritise flexibility in the accommodation of the varying needs of the multiple sporting clubs and community organisations as stated within the Functional Brief and Master Plan.

#### Sport Club Growth

Support the growth requirements of sporting clubs in the region through improved facilities, allowances for growth in population as the region expands as well as ability to support increased divisions such as State or Regional competitions.

**Ageing Infrastructure** – to facilitate identified functional shortcomings with the existing Infrastructure, and to consider resolution of existing technical faults within the precinct in the context of the Master Plan. This includes replacement of aged and inefficient services infrastructure to and within the site.

Sustainability – To develop facilities that are operationally sustainable by virtue of the co-location, of multipurpose and energy efficient facilities. This will include consideration of environmental sustainability in particular where the initiatives support the longer-term efficiency and operational costs for the precinct.

**Accessibility** — Community facilities should be designed to comply with the principles of universal access and inclusive design by facilitating access and use of the facility by individuals and groups of all abilities.











#### **DESIGN APPROACH**

On initial engagement Cameron Chisholm Nicol undertook an Opportunities and Constraints Analysis that is included within this schematic design report. This analysis identified several planning opportunities and compliance issues in relation to the initial concept designs prepared by MCG architects.

Alternative planning options were presented to the Principal and stakeholders, and following an iterative design process the planning was agreed as finalised in this report.

Once the planning was resolved, the 3d form of the Pavilion was developed, informed by contextual analysis of the Donnybrook region site topography climatic analysis including passive solar design principles, building function, low maintenance, and durability considerations.

#### MATERIALS AND FINISHES:

The built form and materiality proposed, have been selected in response to the local vernacular architecture, particularly the rural shed vernacular, reinterpreted into a contemporary and low maintenance building. The robust materials palette is simple and honest. Materials such as a masonry [face block] to the ground floor and corrugated galvanized or zincalume sheeting above, with low maintenance and visually permeable stainless steel mesh balustrades and a simple and functional roof form that avoids roof penetrations where possible, dry pans to kitchen exhaust penetration, and avoids box or valley gutters. This will provide a low maintenance, rural inspired yet contemporary community facility. Furthermore, the roof structure will be designed to make allowance to the provision for future photovoltaic panels to roof and future proof conduits.

#### SUSTAINABILITY:

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Passive solar design principles have been a key driver of the proposed plans with function rooms that have been located to have a northern orientation whilst also overlooking the oval. This will provide optimum protection from southerly wind and rain and better passive solar design whilst not compromising the outlook across the oval to the Donnybrook town and hills beyond.

Natural ventilation has been used where possible, and where not possible, mechanical extraction will be used in lieu of more costly HVAC systems which are reserved for the function rooms and other public communal spaces.

Water minimisation will be addressed through the appropriate use of timer taps for public amenities, low flush urinals and water saving shower heads.

Robust, low maintenance materials will be selected, particularly for external cladding and player change-areas

Structural provision for future PV cell installation on the roof is also accommodated.

#### VALUE MANAGEMENT:

Further areas for discussion include:

- Review whether future provision for a large operable wall is needed. This will require substantial structural support and the resultant long and narrow function spaces may not be very practical.
- Further optimisation of the roof and cladding
- Extent of glass and nature of doors (sliding v hinged)
- Extent of ceilings
- Strategies to achieve flush thresholds and drainage at doorways
- Rationalise access ramps where cost effective









### DESIGN QUALITY SUMMARY AGAINST SPP 7.0

<b>DESIGN PRINCIPLE</b> Context and Character	<b>DESCRIPTION</b> Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.	APPROACH  The built form and materiality proposed, responds to the rural shed vernacular of the Donnybrook region yet is distinctively contemporary. The use of 'honest', robust materials is proposed such as a masonry (face block) and corrugated galvanised sheeting above, with low maintenance and visually permeable stainless steel mesh balustrades and a simple and functional roof form that avoids box or valley gutters. This will provide a low maintenance, rural inspired yet contemporary community facility.
Landscape quality	Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.	The proposed new multi-purpose pavilion will be a new building within an existing landscape. There will be minimal impacts to the existing landscape with some feathering of levels to match the new footprint.
Built form and scale	Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.	One of the key features of the proposed new pavilion is the utilisation of the significant level change across the site for access to the new pavilion from the upper tennis court pavilion level, thereby better connecting Pavilion 1 and 2. The new pavilion will therefore be well integrated into the natural contours of the site.
Functionality and build quality	Good design meets the needs of users efficiently and effectively, balancing functional requirements to perform well and deliver optimum benefit over the full life-cycle.	The new pavilion 1 has been designed to optimise the functionality requested by stakeholders, providing high quality change areas with gender neutral amenities, flexible changerooms that can accommodate back to back games without needing to share changerooms, dual umpires rooms catering—for male and female umpires and a canteen connected to the kitchen level above. The function rooms have been designed for future provision to be split into 2 rooms whilst the function rooms. Lobby and sports bar have been designed to operate flexibly to accommodate simultaneous functions or for integration into one open space.
Sustainability	Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.	One of the other key changes to the design has been the decision to flip the former plan so that the functions rooms have a northern orientation whilst also overlooking the oval. This will provide optimum protection from . southerly wind and rain and better passive solar design whilst not compromising the outlook across the oval to the Donnybrook town anc hills beyond.
		Robust, low maintenance materials will be selected, particularly for external cladding and player change-areas



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### DESIGN QUALITY SUMMARY AGAINST SPP 7.0

Amenity Go	Good design (	optimises	internal	and	external
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amenity for occupants, visitors and neighbours providing environments that are comfortable, productive and healthy.

Gender neutral change room facilities for Pavilion 1 will accommodate male and female teams playing back to back

Additional storage rooms, additional public toilet facilities and a meeting room have been provided in response to opportunities and constraints analysis and stakeholder feedback respectively.

Pavilion 2 will include new changerooms and amenities and a new roof, integrated with the existing pavilion. Passive solar design principles have been the driver for significant changes to the planning of pavilion1

Legibility Good design results in buildings and places

that are legible, with clear connections and

their way around.

Public access to the new Pavilion via the upper level (tennis pavilion level) is a key feature of the proposed design to improve legibility and provide DDA access to community rooms. Internal circulation to the lower level changerooms easily identifiable elements to help people find and access to the changerooms from lower level parking, provides grade separation of players and public and the ability for player training and functions to occur simultaneously without conflicting with each-other.

Safety Good design optimises safety and security,

minimising the risk of personal harm and supporting safe behaviour and use.

Access to player changerooms has been relocated to the north and south elevations for improved passive surveillance. Consolidated public access from the upper level also provides improved passive surveillance opportunities. DFES hardstand and access has been addressed, pending further consultation with DFES.

Community Good design responds to local community

needs as well as the wider social context. providing environments that support a

diverse range of people and facilitate social

interaction.

DDA access to all levels of the club, gender-neutral change facilities as well as ambulant and UAT facilities and flush thresholds to both Pavilion 1 and 2, optimises inclusion and addresses DDA considerations for these community

facilities. Universal access between the Pavilion and oval is also achieved via a 1:20 graded walkway.

Aesthetics Good design is the product of a skilled,

judicious design process that results in attractive and inviting buildings and places

that engage the senses.

The design aesthetic is inspired by the tradition of practical, simple and honest rural buildings that have an unconscious beauty in their strength of purpose and visual impact.



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### **CRITICAL ISSUES**

- 1. Building Certifier BCA review of the design, particularly regarding egress travel distances and the impact of operable walls on travel distances and also toilet calculations, fire rating requirements etc
- 2. Services Coordination including review of ceiling zone spatial allowances for FCUs and ductwork as well as maintenance access  $\,$
- 3. Waste Management review including operational requirements for the requested garbage chutes.
- 4. Gas storage location to be confirmed
- 5. Site works: Confirmation of in-scope works and works required by others in relation to DDA and egress.
- 6. Structural provision for future operable wall. The structural and cost implications for this future provision are significant. Consider the usability of 2 narrow functions rooms along with the potential cost savings for omitting the operable wall.
- 7. Minimising roof penetrations where possible
- 8. Lift pit and overrun provision
- 9. Improve connectivity between pavilion 1 and 2 (whilst retaining separate roofs)
- 10. Roof options over terraced seating and its impact on visibility of the oval from first floor.
- 11. Kitchen consultant recommended to review function and operation of the kitchen, storage and waste



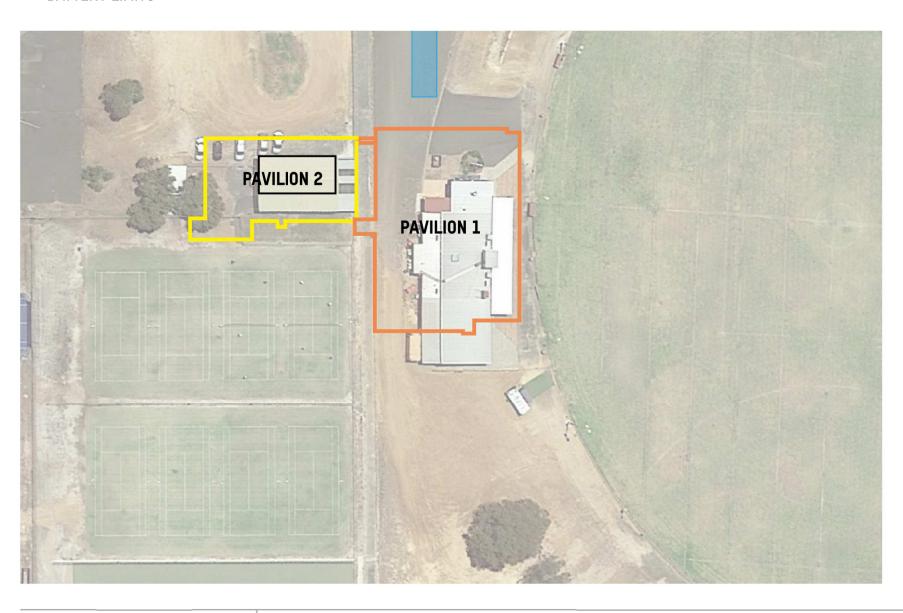


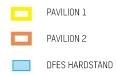




# PROJECT VISION AND OBJECTIVES

**BATTERY LIMITS** 



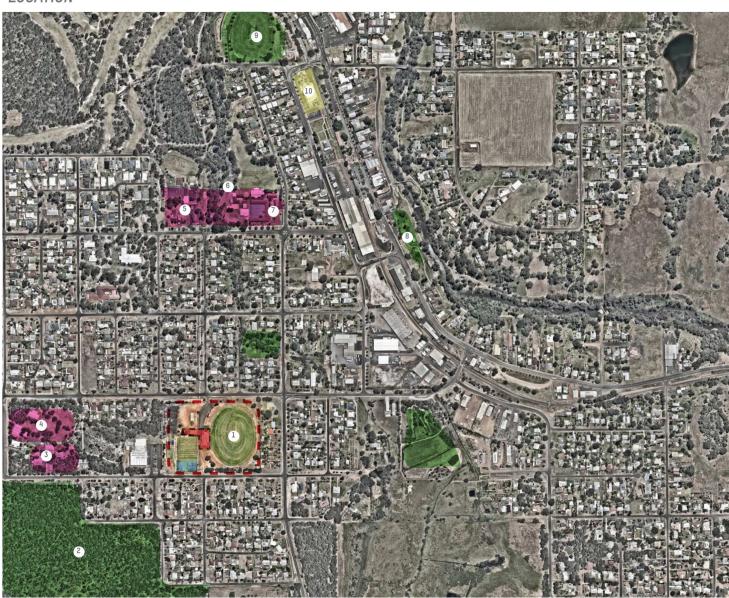








**LOCATION** 



### **LEGEND**





PUBLIC RECREATION



PUBLIC OPEN SPACE/PARKS



EDUCATION

- 1 SITE
- 2 BOYANUP STATE FOREST
- 3 TREE HOUSE CHILD CARE CENTRE
- DONNYBROOK DISTRICT PRIMARY AND HIGH SCHOOL
- 5 ST MARY'S PRIMARY SCHOOL
- 6 OUR LADY OR ASSUMPTION CHURCH
- 7 DONNYBROOK DISTRICT HIGH SCHOOL
- 8 APEX PARK / DONNYBROOK AMPITHEATRE
- 9 EGAN PARK / CRICKET GROUNDS
- 10 APPLE FUN PARK







SITE ANALYSIS



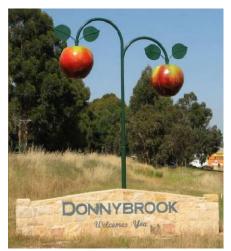








# CONTEXT & CHARACTER **DONNYBROOK**







DONNYBROOK IS SITUATED ON THE BANKS OF THE PRESTON RIVER AND WAS ORIGINALLY A TIMBER MILL SETTLEMENT. THE TOWN BECAME THE SCENE FOR ONE OF THE NATION'S GOLD RUSHES IN THE 19TH CENTURY. FOLLOWING ON FROM THE GOLD RUSH, MINERS **EVENTUALLY TURNED THEIR SKILLS TO** GROWING FRUIT; GIVING WAY FOR THE ESTABLISHED APPLE CAPITAL OF THE WEST.

THE TOWN IS ALSO RECOGNISED FOR ITS WARM CLIMATE AND BEAUTY OF THE LOCAL SANDSTONE THAT HAS BEEN USED FOR LOCAL BUILDINGS AS WELL AS LANDMARKS SUCH AS THE PERTH GPO. IT IS ALSO KNOWN FOR ITS BACKGROUND OF STUNNING JARRAH AND MARRI BUSHLAND.

THE VALLEY SLOPES HAVE BEEN EVOLVED INTO VINEYARDS PRODUCING GRAPES, OLIVES AND NUTS.

NOONGAR PEOPLE BORN IN THIS AREA BELONG TO TWO FAMILY GROUPS; REPRESENTED BY THE WHITE COCKATOO (MANTJIMAT) MONARCH SPIRIT TOTEM OR











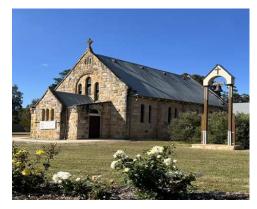




















### DONNYBROOK SANDSTONE & JARRAH











THE COLOUR OF THE STONE VARIES FROM WHITE TO DEEP BUFF OR PINK. DONNYBROOK SANDSTONE IS AVAILABLE IN THE VICINITY OF DONNYBROOK, SOUTH WESTERN AUSTRALIA.

THE TOWN IS ALSO KNOWN FOR ITS BACKGROUND IN JARRAH AND MARRI TREES ALONG WITH ITS ABUNDANT OLD GROWTH FORESTS.















### A MULTI-PURPOSE COMMUNITY FACILITY











#### STAKEHOLDERS:

THE WIDER DONNYBROOK BALINGUP COMMUNITIES

SHIRE OF DONNYBROOK BALINGUP

DEPARTMENT OF LOCAL GOVERNMENT, SPORT AND CULTURAL INDUSTRIES

DONNYBROOK FOOTBALL CLUB

DONNYBROOK TENNIS CLUB

DONNYBROOK COMMUNITIES

DONNYBROOK HOCKEY CLUB

DONNYBROOK DISTRICT HIGH SCHOOL

DONNYBROOK PRIMARY SCHOOL

DONNYBROOK RECREATION CENTRE

DONNYBROOK CRICKET CLUB

DONNYBROOK NETBALL CLUB

DONNYBROOK BASKETBALL CLUB

VC MITCHELL PARK IS A ONCE-IN-A-GENERATION INVESTMENT INTO COMMUNITY FACILITIES IN THE SHIRE, FOCUSED ON REFRESHING THE PRECINCT FOR THE PUBLIC, AND FOR THE FUTURE. IT IS ONE OF THE MAJOR HUBS OF OUTDOOR ACTIVITY IN DONNYBROOK. THE FACILITY ACCOMMODATES COMPETITIVE AND SOCIAL SPORTING FIXTURES.

THE DONNYBROOK FOOTBALL & SPORTING CLUB WAS FOUNDED IN 1897 AND HAS A PROUD HISTORY OF PROVIDING AN INTERACTIVE CLUBHOUSE INVOLVING THE MEMBERS, PLAYERS AND LOCAL COMMUNITY. PRIOR TO 1953 THERE WERE ALWAYS TWO DONNYBROOK TEAMS WHICH PLAYED AGAINST LOCAL CLUBS; KIRUP, BALINGUP, NANNUP, NOGGERUP, ARGYLE AND OTHER SMALL LOCALITIES OVER THE EARLY YEARS.

THE DONNYBROOK TENNIS CLUB INCLUDES: 8 GRASS COURTS MAINTAINED BY VOLUNTEER LABOUR AND IN SUPERB CONDITION. 4 NEWLY RE-SURFACED HARD COURTS WHICH ARE AVAILABLE FOR HIRE.









SITE ANALYSIS

































### **GAP ANALYSIS**

### MCG CONCEPT MASTERPLAN











### **GAP ANALYSIS**

### MCG CONCEPT PLANS

- Tennis Locker room, Tennis and other changerooms and Tennis Club
   office identified on the Functional Brief- Accommodation Schedules are
  to be located in the Tennis Pavilion
- Multipurpose Club meeting room, Football Club office, Coaches offices and Coaches rooms identified on the Functional Brief- Accommodation Schedules but not on MCG's concept sketch plans.

### **CONSTRAINTS AND OPPORTUNITIES**

- $\widehat{ ext{G1}}$  POTENTIAL TO CONSOLIDATE SERVICES AND DRIVEWAY TO RELEASE SPACE TO THE VERANDAH..
- ACCESS TO THE CHANGEROOM FROM THE BACK OF THE PAVILION IS PROBLEMATIC. WAYFINDING IS LESS
  LEGIBLE AND CIRCULATION INEFFECTIVE. POTENTIAL SECURITY AND SAFETY CONCERNS
- THE CANTEEN AND PUBLIC TOILETS ARE LOCATED CENTRALLY TO THE PAVILION WHICH ALLOWS EASY

  ACCESS BETWEEN CANTEEN AND KITCHEN ABOVE, HOWEVER MAY OPEN UP QUEUING ISSUES AND FURTHER
- THE 3M WIDE VERANDAH FACILITATES MAIN CIRCULATION AROUND THE NEW PAVILION, CATERS FOR MULTIPLE ENTRY ACCESSES TO THE GROUND LEVEL FACILITIES, AND POTENTIAL ACCOMMODATION FOR ACCESSIBLE/WHEELCHAIR SEATING. THE VERANDAH WIDTH MAY NOT BE SUFFICIENT
- (65) AMBULANCE ACCESS TO FIRST AID IS PROBLEMATIC WHEN THE NORTH VEHICULAR ENTRY IS RELOCATED

S-SW AFTERNOON COOL BREEZE







PREFABRICATED GALV STEEL STEPS INCLUDING HANDRAILS,

POSSIBLE MAIN SWITCH BOARD

UNDERCROFT

EXISTING DRAIN O BE ADJUSTED

SUGGESTED GAS BULLET LOCATION TO GAS

SUPPLIERS REQUIREMENTS INCLUDING BOLLARDS

SUGGESTED PLANT &

EQUIPMENT AREA

HOT WATER UNITS, A/C CONDENSERS ET

DRIVE THROUGH

EXISTING BITUMEN MADE GOOD AS REQUIRED INDICATES BOLLARDS R = REMOVABLE OR FOLD DOWN

CHANGEROOM

PERFORMANCE BASED FLOOR FINISH

ABLUTIONS 4

ABLUTIONS 3

CHANGEROOM 3

PERFORMANCE BASED

INDICATES BOLLARDS

R = REMOVABLE OR FOLD DOWN

WARM UP 1 BRUSHED CONC SEALED

PRESENTATION

POINT

CHANGEROOM

PERFORMANCE BASED FLOOR FINISH

SLIDING LOCKABLE

REMOVABLE BENCHES

ABLUTIONS 1

ABLUTIONS 2

SLIDING LOCKABLE CIVIDING WALL WITH REMOVABLE BENCHES

CHANGEROOM 2

PERFORMANCE BASED FLOOR FINISH

EACH SIDE

PRESENTATION

WARM UP 2 RUSHED CONC SEALED

DIVIDING WALL WIT

EACH SIDE

STRAP 1

COVED S.VINYL

CANTEEN COVED S.VINYL

COVED S.VII

GROUNDS

MANAGER COVED S.VINYL

G I

STRAP2 CL1

COVER S VINY

RECESSED

DOOR MAT

LIFT/STAIR CORE1

VERANDAH

■ SEALED

STAIRS TO INCLUDING

VERANDAL

VANDAL PROOF

( G4 )

HANDRAILS, TACTILES AND STAIR NOSINGS ALL TO BCA & AS1428

> SEATING TO BE REFURBISHED REFER EXTERNAL DATA

TACTILES AND STAIR NOSINGS ALL TO BCA & AS1428

BRIDGE OVER

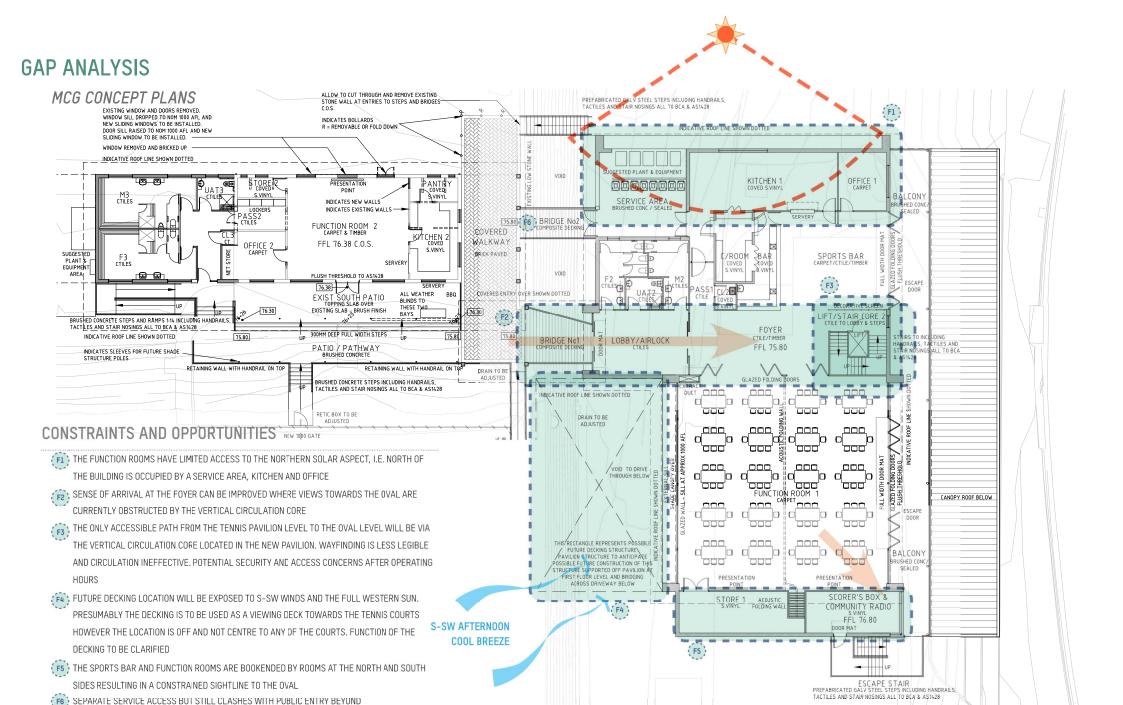
BRIDGE OVER



ESCAPE STAIR
PREFABRICATED GALV STEEL STEPS INCLUDING HANDRAILS,
TACTILES AND STAIR NOSINGS ALL TO BCA & AS1428

DATE CREATED











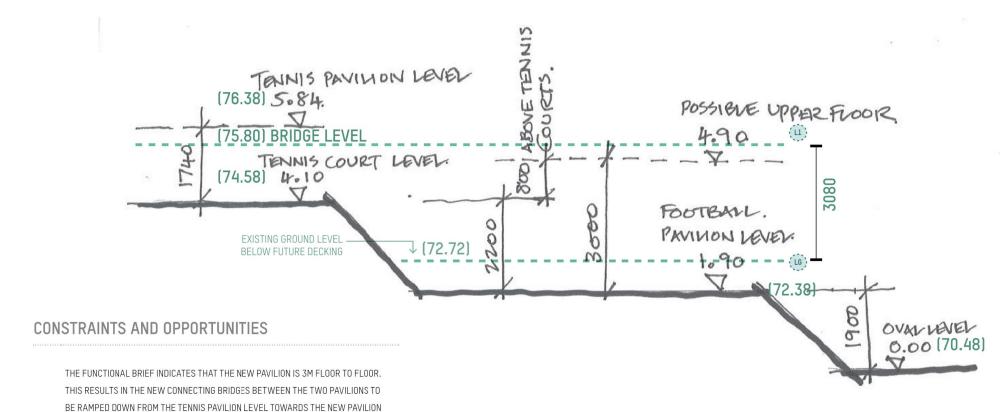






### **GAP ANALYSIS**

### SECTION LEVELS



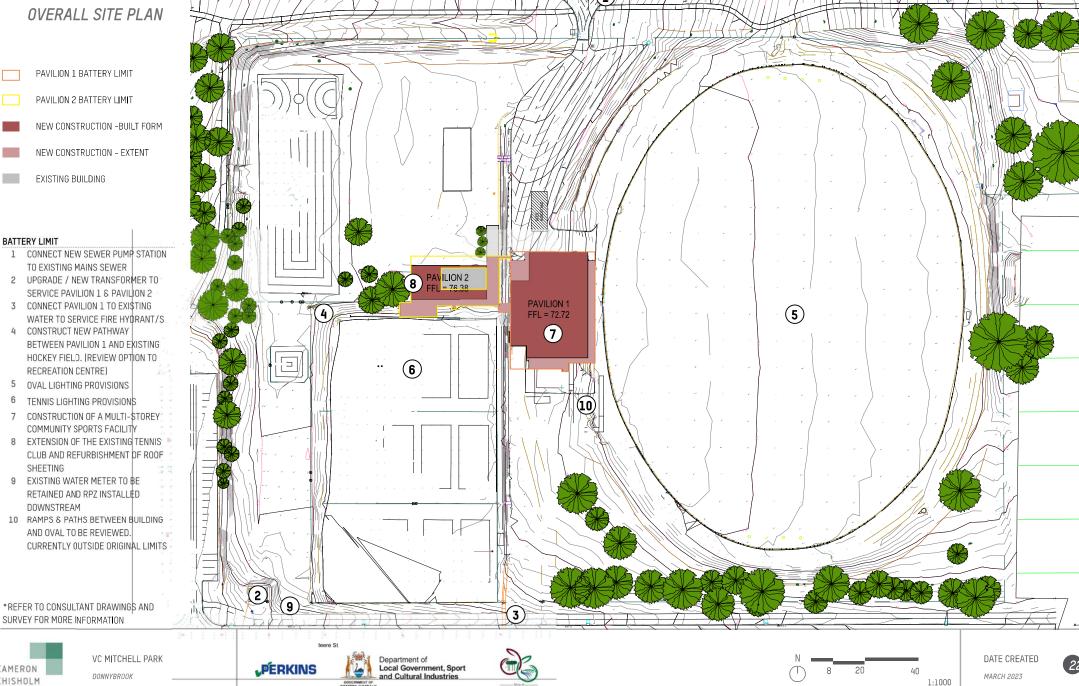


LEVEL.



















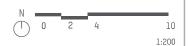




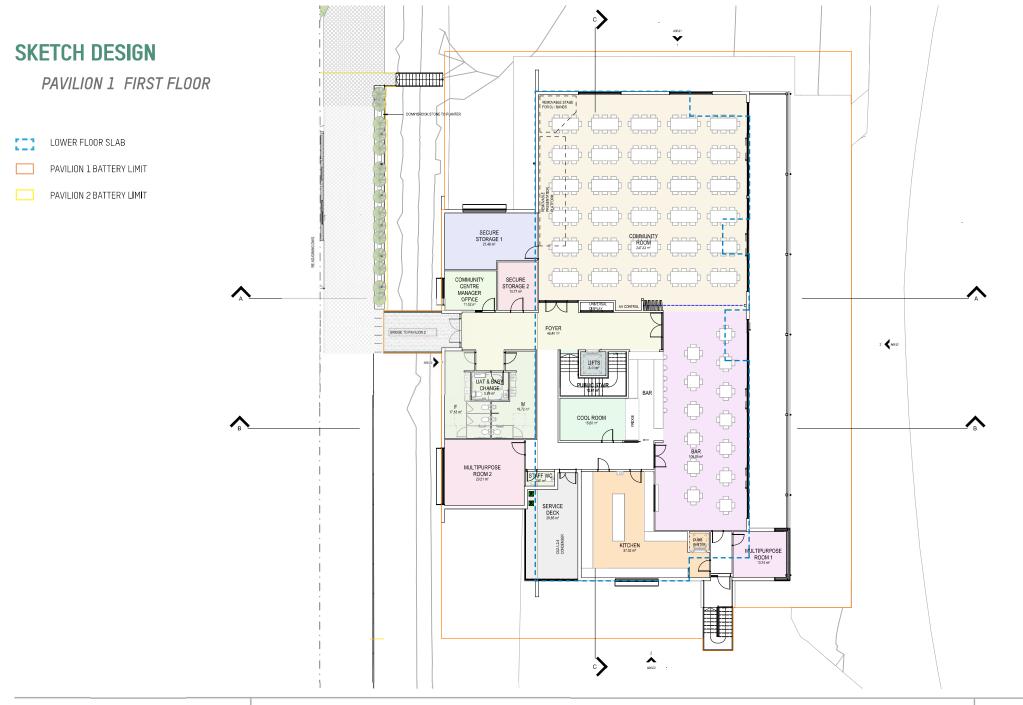




















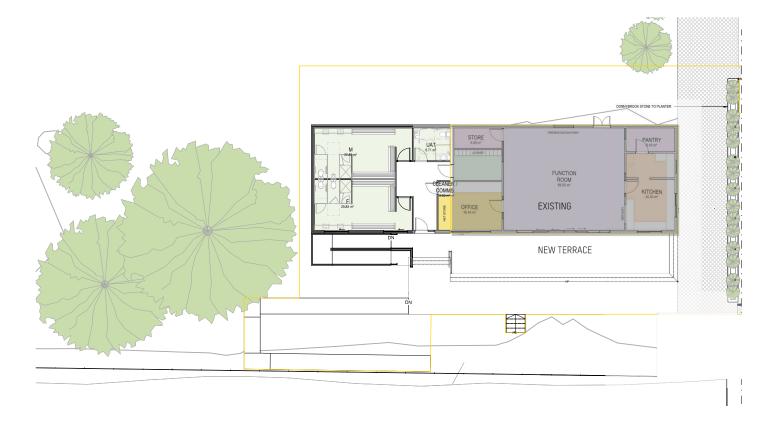




PAVILION 2 PLAN

PAVILION 1 BATTERY LIMIT

PAVILION 2 BATTERY LIMIT

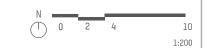




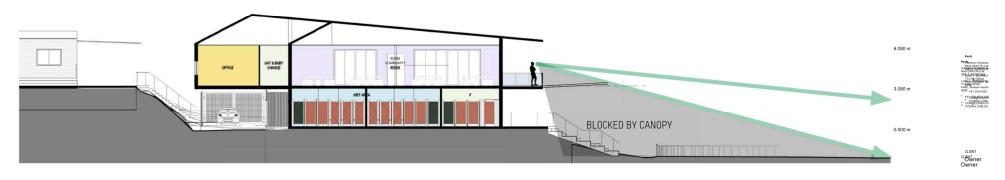








SIGHTLINE DIAGRAM - Level 1 Canopy Option



1 SIGHT LINE DIAGRAM 1:100





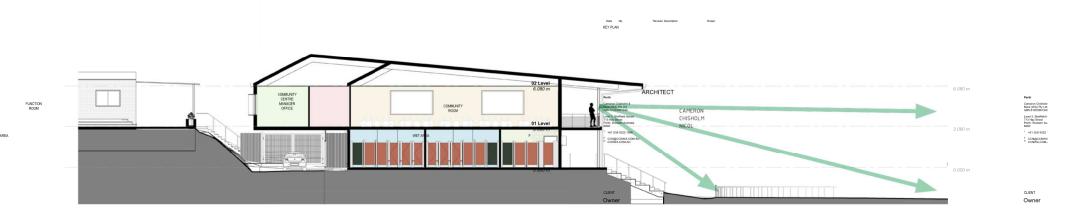








# SIGHTLINE DIAGRAM - Extended Roof Option



1 SIGHT LINE DIAGRAM 1:100

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ELEVATIONS - Extended Roof Option Shown





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ELEVATIONS - Extended Roof Option Shown



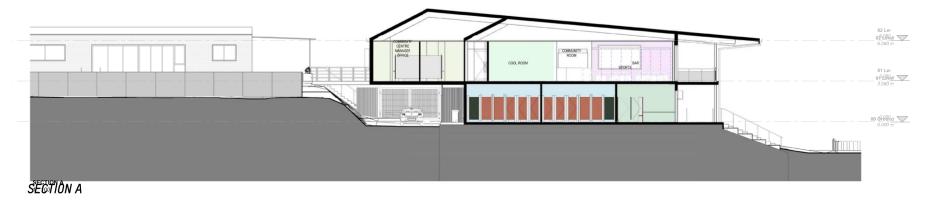
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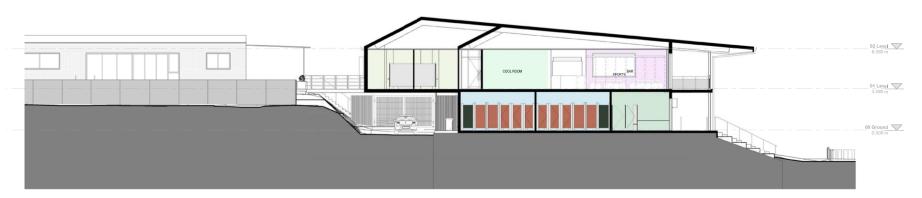




### SECTIONS A & B



**SECTION B** 1:100



### SECTION B

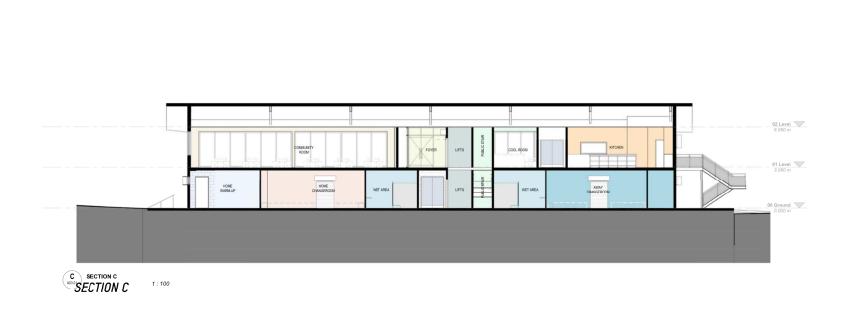
**SECTION B** 1: 100







SECTION C











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PAVILION 1 PERSPECTIVE

