DA Form 1 – Development application details

Approved form (version 1.3 effective 28 September 2020) made under section 282 of the Planning Act 2016.

This form **must** be used to make a development application **involving code assessment or impact assessment**, except when applying for development involving only building work.

For a development application involving **building work only**, use *DA Form 2 – Building work details*.

For a development application involving **building work associated with any other type of assessable development (i.e. material change of use, operational work or reconfiguring a lot)**, use this form (*DA Form 1*) **and** parts 4 to 6 of *DA Form 2 – Building work details.*

Unless stated otherwise, all parts of this form **must** be completed in full and all required supporting information **must** accompany the development application.

One or more additional pages may be attached as a schedule to this development application if there is insufficient space on the form to include all the necessary information.

This form and any other form relevant to the development application must be used to make a development application relating to strategic port land and Brisbane core port land under the *Transport Infrastructure Act 1994*, and airport land under the *Airport Assets (Restructuring and Disposal) Act 2008.* For the purpose of assessing a development application relating to strategic port land and Brisbane core port land, any reference to a planning scheme is taken to mean a land use plan for the strategic port land, Brisbane port land use plan for Brisbane core port land, or a land use plan for airport land.

Note: *All terms used in this form have the meaning given under the Planning Act 2016, the Planning Regulation 2017, or the Development Assessment Rules (DA Rules).*

PART 1 – APPLICANT DETAILS

1) Applicant details	
Applicant name(s) (*individual or company full name*)	Northpoint Advisory
Contact name *(only applicable for companies)*	Adam Smith
Postal address *(P.O. Box or street address)*	91 Cylinders Drive
Suburb	Kingscliff
State	NSW
Postcode	2487
Country	
Contact number	0419327861
Email address *(non-mandatory)*	adam@thenorthpointadvisory.com.au
Mobile number *(non-mandatory)*	
Fax number *(non-mandatory)*	
Applicant's reference number(s) *(if applicable)*	

2) Owner's consent
2.1) Is written consent of the owner required for this development application?
☒ Yes – the written consent of the owner(s) is attached to this development application ☐ No – proceed to 3)

PART 2 – LOCATION DETAILS

3) Location of the premises *(complete 3.1) or 3.2), and 3.3) as applicable)*

***Note**: Provide details below and attach a site plan for any or all premises part of the development application. For further information, see DA Forms Guide: Relevant plans.*

3.1) Street address and lot on plan

☐ Street address **AND** lot on plan (*all lots must be listed*), ***or***

☐ Street address **AND** lot on plan for an adjoining or adjacent property of the premises *(appropriate for development in water but adjoining or adjacent to land e.g. jetty, pontoon. All lots must be listed).*

a)	Unit No.	Street No.	Street Name and Type	Suburb
		4-8	Johnston street	Mossman
	Postcode	Lot No.	Plan Type and Number *(e.g. RP, SP)*	Local Government Area(s)
			Lot 40 SP 235262	Douglas Shire
b)	Unit No.	Street No.	Street Name and Type	Suburb
	Postcode	Lot No.	Plan Type and Number *(e.g. RP, SP)*	Local Government Area(s)

3.2) Coordinates of premises *(appropriate for development in remote areas, over part of a lot or in water not adjoining or adjacent to land e.g. channel dredging in Moreton Bay)*

***Note**: Place each set of coordinates in a separate row.*

☐ Coordinates of premises by longitude and latitude

Longitude(s)	Latitude(s)	Datum	Local Government Area(s) *(if applicable)*
		☐ WGS84 ☐ GDA94 ☐ Other:	

☐ Coordinates of premises by easting and northing

Easting(s)	Northing(s)	Zone Ref.	Datum	Local Government Area(s) *(if applicable)*
		☐ 54 ☐ 55 ☐ 56	☐ WGS84 ☐ GDA94 ☐ Other:	

3.3) Additional premises

☐ Additional premises are relevant to this development application and the details of these premises have been attached in a schedule to this development application

☒ Not required

4) Identify any of the following that apply to the premises and provide any relevant details

☐ In or adjacent to a water body or watercourse or in or above an aquifer

Name of water body, watercourse or aquifer:

☐ On strategic port land under the *Transport Infrastructure Act 1994*

Lot on plan description of strategic port land:

Name of port authority for the lot:

☐ In a tidal area

Name of local government for the tidal area *(if applicable)*:

Name of port authority for tidal area *(if applicable)*:

☐ On airport land under the *Airport Assets (Restructuring and Disposal) Act 2008*

Name of airport:

☐ Listed on the Environmental Management Register (EMR) under the *Environmental Protection Act 1994*	
EMR site identification:	
☐ Listed on the Contaminated Land Register (CLR) under the *Environmental Protection Act 1994*	
CLR site identification:	

5) Are there any existing easements over the premises?

Note: Easement uses vary throughout Queensland and are to be identified correctly and accurately. For further information on easements and how they may affect the proposed development, see DA Forms Guide.

☒ Yes – All easement locations, types and dimensions are included in plans submitted with this development application

☐ No

PART 3 – DEVELOPMENT DETAILS

Section 1 – Aspects of development

6.1) Provide details about the first development aspect

a) What is the type of development? *(tick only one box)*

☒ Material change of use ☐ Reconfiguring a lot ☐ Operational work ☐ Building work

b) What is the approval type? *(tick only one box)*

☒ Development permit ☐ Preliminary approval ☐ Preliminary approval that includes a variation approval

c) What is the level of assessment?

☒ Code assessment ☐ Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal *(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots)*:

See attached report

e) Relevant plans

***Note**: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms guide: Relevant plans.*

☒ Relevant plans of the proposed development are attached to the development application

6.2) Provide details about the second development aspect

a) What is the type of development? *(tick only one box)*

☒ Material change of use ☐ Reconfiguring a lot ☐ Operational work ☐ Building work

b) What is the approval type? *(tick only one box)*

☒ Development permit ☐ Preliminary approval ☐ Preliminary approval that includes a variation approval

c) What is the level of assessment?

☒ Code assessment ☐ Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal *(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots)*:

See attached report

e) Relevant plans

***Note**: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms Guide: Relevant plans.*

☒ Relevant plans of the proposed development are attached to the development application

6.3) Additional aspects of development

☐ Additional aspects of development are relevant to this development application and the details for these aspects that would be required under Part 3 Section 1 of this form have been attached to this development application

☒ Not required

Section 2 – Further development details

7) Does the proposed development application involve any of the following?	
Material change of use	☒ Yes – complete division 1 if assessable against a local planning instrument
Reconfiguring a lot	☐ Yes – complete division 2
Operational work	☐ Yes – complete division 3
Building work	☐ Yes – complete *DA Form 2 – Building work details*

Division 1 – Material change of use

***Note**: This division is only required to be completed if any part of the development application involves a material change of use assessable against a local planning instrument.*

8.1) Describe the proposed material change of use			
Provide a general description of the proposed use	Provide the planning scheme definition *(include each definition in a new row)*	Number of dwelling units *(if applicable)*	Gross floor area (m^2) *(if applicable)*
See attached report			

8.2) Does the proposed use involve the use of existing buildings on the premises?
☒ Yes
☐ No

Division 2 – Reconfiguring a lot

***Note**: This division is only required to be completed if any part of the development application involves reconfiguring a lot.*

9.1) What is the total number of existing lots making up the premises?

9.2) What is the nature of the lot reconfiguration? *(tick all applicable boxes)*	
☐ Subdivision *(complete 10))*	☐ Dividing land into parts by agreement *(complete 11))*
☐ Boundary realignment *(complete 12))*	☐ Creating or changing an easement giving access to a lot from a constructed road *(complete 13))*

10) Subdivision				
10.1) For this development, how many lots are being created and what is the intended use of those lots:				
Intended use of lots created	Residential	Commercial	Industrial	Other, please specify:
Number of lots created				

10.2) Will the subdivision be staged?	
☐ Yes – provide additional details below ☐ No	
How many stages will the works include?	
What stage(s) will this development application apply to?	

11) Dividing land into parts by agreement – how many parts are being created and what is the intended use of the parts?				
Intended use of parts created	Residential	Commercial	Industrial	Other, please specify:
Number of parts created				

12) Boundary realignment			
12.1) What are the current and proposed areas for each lot comprising the premises?			
Current lot		Proposed lot	
Lot on plan description	Area (m^2)	Lot on plan description	Area (m^2)
12.2) What is the reason for the boundary realignment?			

13) What are the dimensions and nature of any existing easements being changed and/or any proposed easement? *(attach schedule if there are more than two easements)*				
Existing or proposed?	Width (m)	Length (m)	Purpose of the easement? *(e.g. pedestrian access)*	Identify the land/lot(s) benefitted by the easement

Division 3 – Operational work

***Note**: This division is only required to be completed if any part of the development application involves operational work.*

14.1) What is the nature of the operational work?		
☐ Road work	☐ Stormwater	☐ Water infrastructure
☐ Drainage work	☐ Earthworks	☐ Sewage infrastructure
☐ Landscaping	☐ Signage	☐ Clearing vegetation
☐ Other – please specify:		
14.2) Is the operational work necessary to facilitate the creation of new lots? *(e.g. subdivision)*		
☐ Yes – specify number of new lots:		
☐ No		
14.3) What is the monetary value of the proposed operational work? *(include GST, materials and labour)*		
$		

PART 4 – ASSESSMENT MANAGER DETAILS

15) Identify the assessment manager(s) who will be assessing this development application

16) Has the local government agreed to apply a superseded planning scheme for this development application?
☐ Yes – a copy of the decision notice is attached to this development application
☐ The local government is taken to have agreed to the superseded planning scheme request – relevant documents attached
☒ No

PART 5 – REFERRAL DETAILS

17) Does this development application include any aspects that have any referral requirements?
***Note**: A development application will require referral if prescribed by the* Planning Regulation 2017.

☐ No, there are no referral requirements relevant to any development aspects identified in this development application – proceed to Part 6

Matters requiring referral to the **Chief Executive of the *Planning Act 2016*:**

☐ Clearing native vegetation
☐ Contaminated land *(unexploded ordnance)*
☐ Environmentally relevant activities (ERA) *(only if the ERA has not been devolved to a local government)*
☐ Fisheries – aquaculture
☐ Fisheries – declared fish habitat area
☐ Fisheries – marine plants
☐ Fisheries – waterway barrier works
☐ Hazardous chemical facilities
☐ Heritage places – Queensland heritage place *(on or near a Queensland heritage place)*
☐ Infrastructure-related referrals – designated premises
☐ Infrastructure-related referrals – state transport infrastructure
☒ Infrastructure-related referrals – State transport corridor and future State transport corridor
☐ Infrastructure-related referrals – State-controlled transport tunnels and future state-controlled transport tunnels
☒ Infrastructure-related referrals – near a state-controlled road intersection
☐ Koala habitat in SEQ region – interfering with koala habitat in koala habitat areas outside koala priority areas
☐ Koala habitat in SEQ region – key resource areas
☐ Ports – Brisbane core port land – near a State transport corridor or future State transport corridor
☐ Ports – Brisbane core port land – environmentally relevant activity (ERA)
☐ Ports – Brisbane core port land – tidal works or work in a coastal management district
☐ Ports – Brisbane core port land – hazardous chemical facility
☐ Ports – Brisbane core port land – taking or interfering with water
☐ Ports – Brisbane core port land – referable dams
☐ Ports – Brisbane core port land – fisheries
☐ Ports – Land within Port of Brisbane's port limits *(below high-water mark)*
☐ SEQ development area
☐ SEQ regional landscape and rural production area or SEQ rural living area – tourist activity or sport and recreation activity
☐ SEQ regional landscape and rural production area or SEQ rural living area – community activity
☐ SEQ regional landscape and rural production area or SEQ rural living area – indoor recreation
☐ SEQ regional landscape and rural production area or SEQ rural living area – urban activity
☐ SEQ regional landscape and rural production area or SEQ rural living area – combined use
☐ Tidal works or works in a coastal management district
☐ Reconfiguring a lot in a coastal management district or for a canal
☐ Erosion prone area in a coastal management district
☐ Urban design
☐ Water-related development – taking or interfering with water
☐ Water-related development – removing quarry material *(from a watercourse or lake)*
☐ Water-related development – referable dams
☐ Water-related development –levees *(category 3 levees only)*
☐ Wetland protection area

Matters requiring referral to the **local government:**

☐ Airport land
☐ Environmentally relevant activities (ERA) (*only if the ERA has been devolved to local government)*

☐ Heritage places – Local heritage places

Matters requiring referral to the **Chief Executive of the distribution entity or transmission entity:**
☐ Infrastructure-related referrals – Electricity infrastructure

Matters requiring referral to:
- The **Chief Executive of the holder of the licence**, if not an individual
- The **holder of the licence**, if the holder of the licence is an individual

☐ Infrastructure-related referrals – Oil and gas infrastructure

Matters requiring referral to the **Brisbane City Council:**
☐ Ports – Brisbane core port land

Matters requiring referral to the **Minister responsible for administering the *Transport Infrastructure Act 1994*:**
☐ Ports – Brisbane core port land *(where inconsistent with the Brisbane port LUP for transport reasons)*
☐ Ports – Strategic port land

Matters requiring referral to the **relevant port operator**, if applicant is not port operator**:**
☐ Ports – Land within Port of Brisbane's port limits *(below high-water mark)*

Matters requiring referral to the **Chief Executive of the relevant port authority:**
☐ Ports – Land within limits of another port *(below high-water mark)*

Matters requiring referral to the **Gold Coast Waterways Authority:**
☐ Tidal works or work in a coastal management district *(in Gold Coast waters)*

Matters requiring referral to the **Queensland Fire and Emergency Service:**
☐ Tidal works or work in a coastal management district *(involving a marina (more than six vessel berths))*

18) Has any referral agency provided a referral response for this development application?

☐ Yes – referral response(s) received and listed below are attached to this development application
☒ No

Referral requirement	Referral agency	Date of referral response
Not yet		

Identify and describe any changes made to the proposed development application that was the subject of the referral response and this development application, or include details in a schedule to this development application *(if applicable).*

PART 6 – INFORMATION REQUEST

19) Information request under Part 3 of the DA Rules

☒ I agree to receive an information request if determined necessary for this development application
☐ I do not agree to accept an information request for this development application

***Note**: By not agreeing to accept an information request I, the applicant, acknowledge:*

- *that this development application will be assessed and decided based on the information provided when making this development application and the assessment manager and any referral agencies relevant to the development application are not obligated under the DA Rules to accept any additional information provided by the applicant for the development application unless agreed to by the relevant parties*
- *Part 3 of the DA Rules will still apply if the application is an application listed under section 11.3 of the DA Rules.*

Further advice about information requests is contained in the DA Forms Guide.

PART 7 – FURTHER DETAILS

20) Are there any associated development applications or current approvals? *(e.g. a preliminary approval)*

☐ Yes – provide details below or include details in a schedule to this development application
☒ No

List of approval/development application references	Reference number	Date	Assessment manager
☐ Approval ☐ Development application			
☐ Approval ☐ Development application			

21) Has the portable long service leave levy been paid? *(only applicable to development applications involving building work or operational work)*

☐ Yes – a copy of the receipted QLeave form is attached to this development application
☒ No – I, the applicant will provide evidence that the portable long service leave levy has been paid before the assessment manager decides the development application. I acknowledge that the assessment manager may give a development approval only if I provide evidence that the portable long service leave levy has been paid
☐ Not applicable *(e.g. building and construction work is less than $150,000 excluding GST)*

Amount paid	Date paid (dd/mm/yy)	QLeave levy number (A, B or E)
$		

22) Is this development application in response to a show cause notice or required as a result of an enforcement notice?

☐ Yes – show cause or enforcement notice is attached
☒ No

23) Further legislative requirements

Environmentally relevant activities

23.1) Is this development application also taken to be an application for an environmental authority for an **Environmentally Relevant Activity (ERA)** under section 115 of the *Environmental Protection Act 1994*?

☐ Yes – the required attachment (form ESR/2015/1791) for an application for an environmental authority accompanies this development application, and details are provided in the table below
☒ No

***Note**: Application for an environmental authority can be found by searching "ESR/2015/1791" as a search term at www.qld.gov.au. An ERA requires an environmental authority to operate. See www.business.qld.gov.au for further information.*

Proposed ERA number:		Proposed ERA threshold:	
Proposed ERA name:			

☐ Multiple ERAs are applicable to this development application and the details have been attached in a schedule to this development application.

Hazardous chemical facilities

23.2) Is this development application for a **hazardous chemical facility**?

☐ Yes – *Form 69: Notification of a facility exceeding 10% of schedule 15 threshold* is attached to this development application
☒ No

***Note**: See www.business.qld.gov.au for further information about hazardous chemical notifications.*

Clearing native vegetation

23.3) Does this development application involve **clearing native vegetation** that requires written confirmation that the chief executive of the *Vegetation Management Act 1999* is satisfied the clearing is for a relevant purpose under section 22A of the *Vegetation Management Act 1999*?

☐ Yes – this development application includes written confirmation from the chief executive of the *Vegetation Management Act 1999* (s22A determination)

☒ No

***Note**: 1. Where a development application for operational work or material change of use requires a s22A determination and this is not included, the development application is prohibited development.*

2. See https://www.qld.gov.au/environment/land/vegetation/applying for further information on how to obtain a s22A determination.

Environmental offsets

23.4) Is this development application taken to be a prescribed activity that may have a significant residual impact on a **prescribed environmental matter** under the *Environmental Offsets Act 2014*?

☐ Yes – I acknowledge that an environmental offset must be provided for any prescribed activity assessed as having a significant residual impact on a prescribed environmental matter

☒ No

***Note**: The environmental offset section of the Queensland Government's website can be accessed at www.qld.gov.au for further information on environmental offsets.*

Koala habitat in SEQ Region

23.5) Does this development application involve a material change of use, reconfiguring a lot or operational work which is assessable development under Schedule 10, Part 10 of the Planning Regulation 2017?

☐ Yes – the development application involves premises in the koala habitat area in the koala priority area

☐ Yes – the development application involves premises in the koala habitat area outside the koala priority area

☒ No

***Note**: If a koala habitat area determination has been obtained for this premises and is current over the land, it should be provided as part of this development application. See koala habitat area guidance materials at www.des.qld.gov.au for further information.*

Water resources

23.6) Does this development application involve **taking or interfering with underground water through an artesian or subartesian bore, taking or interfering with water in a watercourse, lake or spring, or taking overland flow water under the *Water Act 2000***?

☐ Yes – the relevant template is completed and attached to this development application and I acknowledge that a relevant authorisation or licence under the *Water Act 2000* may be required prior to commencing development

☒ No

***Note**: Contact the Department of Natural Resources, Mines and Energy at www.dnrme.qld.gov.au for further information.*

DA templates are available from https://planning.dsdmip.qld.gov.au/. If the development application involves:

- *Taking or interfering with underground water through an artesian or subartesian bore: complete DA Form 1 Template 1*
- *Taking or interfering with water in a watercourse, lake or spring: complete DA Form1 Template 2*
- *Taking overland flow water: complete DA Form 1 Template 3.*

Waterway barrier works

23.7) Does this application involve **waterway barrier works?**

☐ Yes – the relevant template is completed and attached to this development application

☒ No

DA templates are available from https://planning.dsdmip.qld.gov.au/. For a development application involving waterway barrier works, complete DA Form 1 Template 4.

Marine activities

23.8) Does this development application involve **aquaculture, works within a declared fish habitat area or removal, disturbance or destruction of marine plants?**

☐ Yes – an associated *resource* allocation authority is attached to this development application, if required under the *Fisheries Act 1994*

☒ No

***Note**: See guidance materials at www.daf.qld.gov.au for further information.*

Quarry materials from a watercourse or lake

23.9) Does this development application involve the **removal of quarry materials from a watercourse or lake** under the *Water Act 2000?*

☐ Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development
☒ No

***Note**: Contact the Department of Natural Resources, Mines and Energy at www.dnrme.qld.gov.au and www.business.qld.gov.au for further information.*

Quarry materials from land under tidal waters

23.10) Does this development application involve the **removal of quarry materials from land under tidal water** under the *Coastal Protection and Management Act 1995?*

☐ Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development
☒ No

***Note**: Contact the Department of Environment and Science at www.des.qld.gov.au for further information.*

Referable dams

23.11) Does this development application involve a **referable dam** required to be failure impact assessed under section 343 of the *Water Supply (Safety and Reliability) Act 2008* (the Water Supply Act)?

☐ Yes – the 'Notice Accepting a Failure Impact Assessment' from the chief executive administering the Water Supply Act is attached to this development application
☒ No

***Note**: See guidance materials at www.dnrme.qld.gov.au for further information.*

Tidal work or development within a coastal management district

23.12) Does this development application involve **tidal work or development in a coastal management district**?

☐ Yes – the following is included with this development application:
- ☐ Evidence the proposal meets the code for assessable development that is prescribed tidal work *(only required if application involves prescribed tidal work)*
- ☐ A certificate of title

☒ No

***Note**: See guidance materials at www.des.qld.gov.au for further information.*

Queensland and local heritage places

23.13) Does this development application propose development on or adjoining a place entered in the **Queensland heritage register** or on a place entered in a local government's **Local Heritage Register**?

☐ Yes – details of the heritage place are provided in the table below
☒ No

***Note**: See guidance materials at www.des.qld.gov.au for information requirements regarding development of Queensland heritage places.*

Name of the heritage place:		Place ID:	

Brothels

23.14) Does this development application involve a **material change of use for a brothel**?

☐ Yes – this development application demonstrates how the proposal meets the code for a development application for a brothel under Schedule 3 of the *Prostitution Regulation 2014*
☒ No

Decision under section 62 of the *Transport Infrastructure Act 1994*

23.15) Does this development application involve new or changed access to a state-controlled road?

☐ Yes – this application will be taken to be an application for a decision under section 62 of the *Transport Infrastructure Act 1994* (subject to the conditions in section 75 of the *Transport Infrastructure Act 1994* being satisfied)
☒ No

Walkable neighbourhoods assessment benchmarks under Schedule 12A of the Planning Regulation

23.16) Does this development application involve reconfiguring a lot into 2 or more lots in certain residential zones (except rural residential zones), where at least one road is created or extended?

☐ Yes – Schedule 12A is applicable to the development application and the assessment benchmarks contained in schedule 12A have been considered

☒ No

***Note**: See guidance materials at www.planning.dsdmip.qld.gov.au for further information.*

PART 8 – CHECKLIST AND APPLICANT DECLARATION

24) Development application checklist	
I have identified the assessment manager in question 15 and all relevant referral requirement(s) in question 17 ***Note**: See the Planning Regulation 2017 for referral requirements*	☒ Yes
If building work is associated with the proposed development, Parts 4 to 6 of *DA Form 2 – Building work details* have been completed and attached to this development application	☐ Yes ☒ Not applicable
Supporting information addressing any applicable assessment benchmarks is with the development application ***Note**: This is a mandatory requirement and includes any relevant templates under question 23, a planning report and any technical reports required by the relevant categorising instruments (e.g. local government planning schemes, State Planning Policy, State Development Assessment Provisions). For further information, see DA Forms Guide: Planning Report Template.*	☒ Yes
Relevant plans of the development are attached to this development application ***Note**: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms Guide: Relevant plans.*	☒ Yes
The portable long service leave levy for QLeave has been paid, or will be paid before a development permit is issued (*see 21*)	☒ Yes ☐ Not applicable

25) Applicant declaration

☒ By making this development application, I declare that all information in this development application is true and correct

☒ Where an email address is provided in Part 1 of this form, I consent to receive future electronic communications from the assessment manager and any referral agency for the development application where written information is required or permitted pursuant to sections 11 and 12 of the *Electronic Transactions Act 2001*

***Note**: It is unlawful to intentionally provide false or misleading information.*

Privacy – Personal information collected in this form will be used by the assessment manager and/or chosen assessment manager, any relevant referral agency and/or building certifier (including any professional advisers which may be engaged by those entities) while processing, assessing and deciding the development application. All information relating to this development application may be available for inspection and purchase, and/or published on the assessment manager's and/or referral agency's website.

Personal information will not be disclosed for a purpose unrelated to the *Planning Act 2016*, Planning Regulation 2017 and the DA Rules except where:

- such disclosure is in accordance with the provisions about public access to documents contained in the *Planning Act 2016* and the Planning Regulation 2017, and the access rules made under the *Planning Act 2016* and Planning Regulation 2017; or
- required by other legislation (including the *Right to Information Act 2009*); or
- otherwise required by law.

This information may be stored in relevant databases. The information collected will be retained as required by the *Public Records Act 2002.*

PART 9 – FOR COMPLETION OF THE ASSESSMENT MANAGER – FOR OFFICE USE ONLY

Date received: | Reference number(s):

Notification of engagement of alternative assessment manager	
Prescribed assessment manager	
Name of chosen assessment manager	
Date chosen assessment manager engaged	
Contact number of chosen assessment manager	
Relevant licence number(s) of chosen assessment manager	

QLeave notification and payment *Note: For completion by assessment manager if applicable*			
Description of the work			
QLeave project number			
Amount paid ($)		Date paid (dd/mm/yy)	
Date receipted form sighted by assessment manager			
Name of officer who sighted the form			

Nos 4-8 JOHNSTON STREET, MOSSMAN

APPLICATION FOR MATERIAL CHANGE OF USE (CLUB ALTERATIONS & ADDITIONS)

Town Planning Report

Rubicon Design & Construct

June 2023

Document status					
Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
A	Client Review	A Smith	A Smith	A Smith	09/06/2023

Approval for issue

A Smith	[Signature]	[Date]

Prepared by:

NORTHPOINT ADVISORY

Adam Smith
Director

4A/92 Marine Parade, Kingscliff NSW 2487

T +61 419327861
E info@thenorthpointadvisory.com.au

Prepared for:

Rubicon Design & Construct

1 Contents

Tables

Figures

Appendices

- Certificate(S) of Title and Search Results
- Douglas Shire Planning Scheme 2018 Version 1 Property Report Proposal Plans
- Planning Scheme Code Responses
- Acoustic Report
- Traffic Impact Assessment
- Proposal Plans
- Landscape Plans

2 Project Summary

Table 1: Summary

Details			
Site Address:	Nos.4-8 Johnston Street, Mossman		
Real Property Description:	Lot 40 SP 235262		
Site Area:	Development Area – 5639m2		
Regional Plan Land Use Designation:	Urban Footprint		
Zone/Precinct:	Recreation & Open Space Zone		
Owner(s):	Mossman Bowls Club		
Proposal			
Brief Description/ Purpose of Proposal	Material Change of Use (Club Alterations & Additions)		
Application Details			
Aspect of Development	Preliminary approval		Development permit
Material change of use	☐		☒
Building Work	☐		☐
Operational Work	☐		☐
Reconfiguration of a Lot	☐		☐
Assessment Category	Code		Impact
Public Notification	No		Yes:
Superseded Planning Scheme Application	Yes		No
Referral Agencies			
Agency	Concurrence	Advice	Pre-lodgement response
N/A	☐	☐	☐ Yes ☐ No
Pre-lodgement / Consultation			
Entity		Date	Contact Name
Council Environment & Planning Team	☒ Yes ☐ No	14/10/2022	J. Elphinstone
Other			
Applicants Contact	Adam Smith Director M: +61 419327861 E: adam@thenorthpointaadvisory.com.au		

3 INTRODUCTION

Northpoint Advisory has been engaged by Rubicon Design & Construct to seek development approval for a Material Change of Use (Club Alterations & Additions) on land located at Nos.4-8 Johnston Street, Mossman, and described as Lot 40 SP 235262.

The Development is otherwise referred to as the Mossman Bowls Club and the proposed development is located on Lot 40 SP 235262 and fronts Johnston Road.

The site is currently improved by the existing Bowls club premises. The site area comprises approximately 5639m2.

It is proposed to undertake a number of alterations and additions to the Club over two stages, and as described in the following:-

Stage 1 comprises the addition of approximately 212m2 of GFA and the reconfiguration of the existing porte cochere arrangement to match same. The proposed additional internal floor area is made up largely of gaming area, much of which represents a relocation of existing gaming on site in a more functional and aesthetically pleasing format. The proposed port cochere reconfiguration also comprises the undertaking of a broader modernisation and aesthetic improvement to the Johnston Street elevation of the building. This includes significant landscaping and improved sheltering to the Club entrance, which will result in improved appearance and improved efficiency for patrons and members entering the club and or being dropped off or picked up there by others (family, friends, buses, uber and taxis alike).

Stage 1 will also comprise the relocation of the existing delivery bay to the west of the site and away from its current location that unfortunately dominates the entrance to the Club is not as efficient as the proposed location.

Stage 2 comprises the addition of approximately 50m2 of GFA and comprises the provision of improved internal amenities and functional facilities, along with the provision of new and much needed external kiosk and amenities facilities aimed at servicing the needs of the clubs' members. Importantly Stage 2 also comprises an internal reconfiguration that accompanies a significant 'opening up' of the Club to address Johnston Street by way of locating a newly configured café / lounge area and DOSA (designated outdoor smoking area) adjacent to the Johnston Street frontage. This element results in significantly greater transparency and articulation when viewed from the street and will have a significant positive impact on the vibrancy of Johnston Street itself.

Figure 1. Existing club appearance from Johnston Street

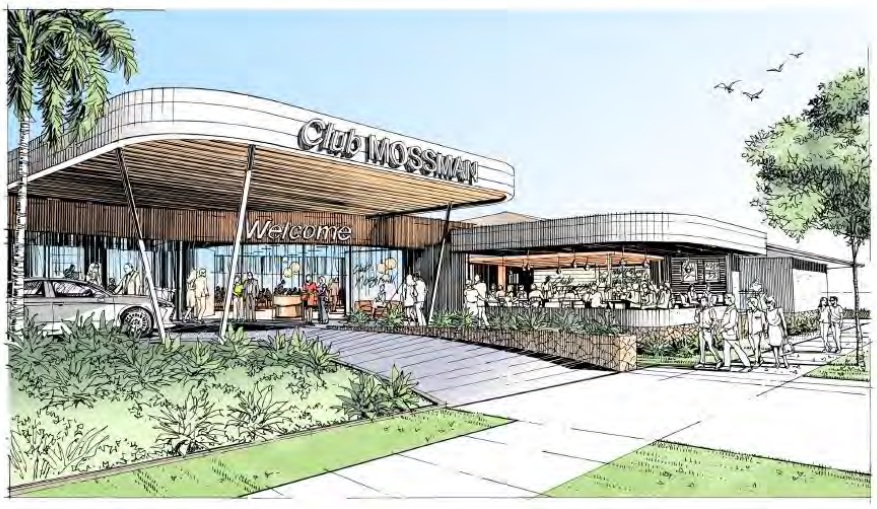


Figure 2. Proposed club appearance from Johnston Street

In addition to the above items, the proposal also comprises the following:-

1. The undertaking of significant landscape improvements across the site resulting in a softer and more climate consistent external outcome.
2. The renovation of the external appearance of the ex. Building by way of introducing significant improved material variation, resulting in a marked improvement in respect of both building articulation and building fenestration. Whilst the new roof configurations have been designed to match the existing, it is pertinent to note that the scale and configuration of these new elements is respectful of the scale and character of surrounding buildings within the existing streetscape.

The proposal will result in the deletion of six (6) car parking spaces, resulting in a total of 42 spaces, albeit in an improved configuration. The quantum of car parking proposed has been the subject of extensive investigation, both independently and by the club itself and there is a significant level of certainty that the proposed number of spaces is consistent with the projected demand generated by this proposal.

The site is located within the Douglas Shire Council area and under the Douglas Shire Planning Scheme 2018 the site is identified within the Recreation & Open Space Zone. In accordance with the Tables of Assessment, the development of the site for a Club requires the submission and approval of a Code Assessable application for Material Change of Use by Douglas Shire Council. As a Code Assessable application, the Council can consider a range of town planning matters in the determination of the application and the application is not required to be subject to public notification.

This report provides greater detail on the nature of the proposal and provides an assessment of the proposal against the relevant planning Assessment Benchmarks.

Based on this assessment the proposal is recommended for approval subject to reasonable and relevant conditions.

4 SITE DETAILS

4.1 Site Particulars

The subject site is located on Nos.4-8 Johnston Street, Mossman, and described as Lot 40 SP 235262.

The site, the subject of this application, is approximately 5700m2 in area and is located on Lot 40 SP 235262 with a frontage to Johnston Road.

The development site is currently improved by the existing Mossman Bowls Club and associated greens and parking areas.

The surrounding area is characterised by a mix of large lot commercial and residential developments that appear to be in transition towards establishing a character consistent with the existing zoning pattern. In this regard, the areas to the east of the site and fronting Captain Cook Highway are zoned for commercial purposes, whilst the club itself then sits between the commercial areas referenced above, and existing residential areas to the west (much of which appears to be zoned for medium density development in the future.

Johnston Street to the north of the site provides for significant on street parking commensurate with the site's proximity to the Commercial core.

The properties to the south of the site comprise lower density residential allotments and further commercial zoned developments with frontage to Captain Cook Highway.

Across the road and fronting Johnston Street are existing commercial zoned allotments comprising existing developments consistent with the existing zoning.

An easement is located at the rear of the site.

The key details of the subject site are as follows:

Table 2: Site Particulars

Site Particulars	
Site Address	Nos.4-8 Johnston Street, Mossman
Real Property Description	Lot 40 SP 235262
Site Area	5639m2
Landowner(s)	Mossman Bowls Club

The site location is shown in Figure 3 below. Certificate/s of title confirming site ownership details are included at Appendix A.

Figure 3. Site Location

Source: Queensland Globe 2023

4.2 Planning Context

The planning context of the site includes the following:

Table 3: Planning Context

Instrument	Designation
State Planning Policy Mapping	
Administrative	• Urban Footprint
Water Quality	• Climatic Regions - Stormwater
Transport Infrastructure	• Transport Noise Corridor • Category 0 Noise Level <58dB(A)
Safety and Resilience to Hazards	• Queensland Food hazard area – Level 1 – Queensland floodplain assessment overlay*
Infrastructure	• Land is adjacent to an Active Transport Corridor (Johnston Road)
Development Assessment Mapping	
SARA DA Mapping	• Area within 100m of a State Controlled Road intersection
Far North Queensland Regional Plan 2009-2031 Douglas Shire Planning Scheme 2018	
Regional Plan designation	Urban Footprint
Strategic framework designation	Recreation & Open Space Zone
Zoning	Recreation & Open Space Zone
Overlays	• Acid Sulfate Soils Overlay o Acid Sulfate Soils (5-20m AHD) • Transport Noise Corridors o Potential Impact • Transport Pedestrian Cycle o Principle Route • Transport Road Heirarchy o Collector Road

The Statutory Land use zoning of the subject site and surrounding lands is shown below in Figure 4.

Figure 4. Land Use Zoning

Source: Douglas Shire Planning Scheme 2018

5 THE DEVELOPMENT PROPOSAL

5.1 Proposal Overview

It is proposed to undertake several alterations and additions to the Club over two stages, and as described in the following:-

Stage 1 comprises the addition of approximately 212m2 of GFA and the reconfiguration of the existing porte cochere arrangement to match same. The proposed additional internal floor area is made up largely of gaming area, much of which represents a relocation of existing gaming on site in a more functional and aesthetically pleasing format. The proposed port cochere reconfiguration also comprises the undertaking of a broader modernisation and aesthetic improvement to the Johnston Street elevation of the building. This includes significant landscaping and improved sheltering to the Club entrance, which will result in improved appearance and improved efficiency for patrons and members entering the club and or being dropped off or picked up there by others (family, friends, buses, uber and taxis alike).

Stage 1 will also comprise the relocation of the existing delivery bay to the west of the site and away from its current location that unfortunately dominates the entrance to the Club and is in no way as efficient as the proposed location.

Stage 2 comprises the addition of approximately 50m2 of GFA and comprises the provision of improved internal amenities and functional facilities, along with the provision of new and much needed external kiosk and amenities facilities aimed at servicing the needs of the clubs' members. Importantly Stage 2 also comprises an internal reconfiguration that accompanies a significant 'opening up' of the Club to address Johnston Street by way of locating a newly configured café / lounge area and DOSA (designated outdoor smoking area) adjacent to the Johnston Street frontage. This element results in significantly greater transparency and articulation when viewed from the street and will have a significant positive impact on the vibrancy of Johnston Street itself.

Figure 5. Existing club appearance from Johnston Street

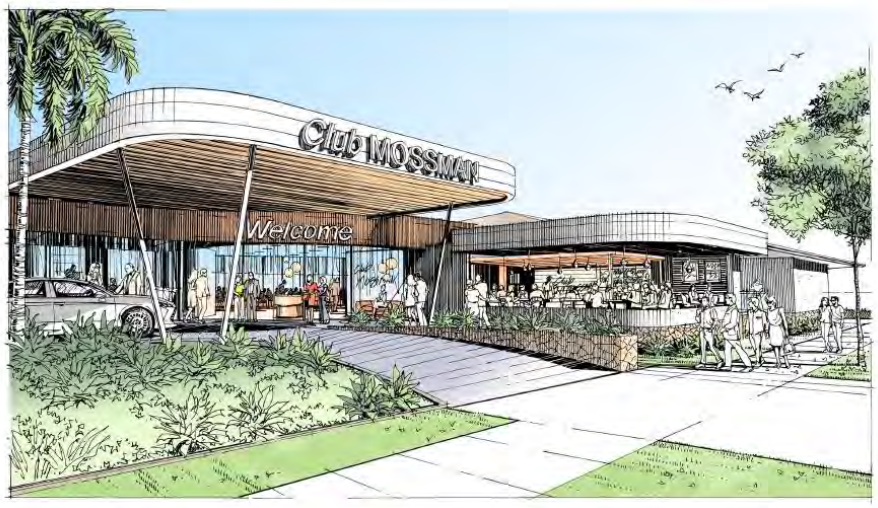


Figure 6. Proposed club appearance from Johnston Street

In addition to the above items, the proposal also comprises the following:-

3. The undertaking of significant landscape improvements across the site resulting in a softer and more climate consistent external outcome.
4. The renovation of the external appearance of the ex. Building by way of introducing significant improved material variation, resulting in a marked improvement in respect of both building articulation and building fenestration. Whilst the new roof configurations have been designed to match the existing, it is pertinent to note that the scale and configuration of these new elements is respectful of the scale and character of surrounding buildings within the existing streetscape.

The proposal will result in the deletion of six (6) car parking spaces, resulting in a total of 42 spaces, albeit in an improved configuration. The quantum of car parking proposed has been the subject of extensive investigation, both independently and by the club itself and there is a significant level of certainty that the proposed number of spaces is consistent with the projected demand generated by this proposal.

Accompanying this application are the following:

- Technical Assessment Report – Acoustic Impact Assessment
- Technical Assessment Report – Traffic Impact Assessment
- Technical & Design Assessment – Landscape Architecture Plans
- Technical & Design Assessment – Architecture Plans

Each of the above assessments conclude that, subject to conditions, that the proposed development is warranting of Council's support.

6 LEGISLATIVE REQUIREMENTS

6.1 Assessment Manager

In accordance with Schedule 8 of the *Planning Regulation 2017*, the assessment manager for this application is Douglas Shire Council.

6.2 Categories of Assessment

The table below summarises the categorising instruments and categories of assessment applicable to this application.

Table 4: Categories of Assessment

Aspect of development	Categorising instrument	Category of assessment
Material Change of Use (Club)	Douglas Shire Planning Scheme 2018	Code Assessment

6.3 Relevant Referrals

The application is identified as triggering a referral requirement as the site is within 100m of a State Controlled Road intersection pursuant to schedule 10 of the *Planning Regulation 2017*.

6.4 Public Notification

This application does not require public notification as it is subject to Code Assessment.

7 STATUTORY PLANNING ASSESSMENT

7.1 Overview

As the application is subject to Code Assessment, the assessment benchmarks, and the matters the assessment manager must have regard to, are those identified in section 45(3) of the *Planning Act 2016* and sections 30 and 31 of the *Planning Regulation 2017*.

7.2 State and Regional Assessment Benchmarks

7.2.1 State Planning Policy

The *Planning Regulation 2017* at Section 30(2)(a)(ii) for Code Assessment requires the assessment manager to assess the application against the assessment benchmarks stated in the State Planning Policy, Part E, to the extent Part E of the State Planning Policy is not identified in the planning scheme as being appropriately integrated into the planning scheme.

It is understood that the State Planning Policy, to the extent they it is relevant to this application, has been appropriately integrated into the Douglas Shire Planning Scheme 2018. On that basis, no further assessment is required in this instance.

7.2.2 Regional Plan

The *Planning Regulation 2017* at Section 30(2)(a)(i) requires the assessment manager to assess the application against the assessment benchmarks stated in the regional plan, to the extent the Regional Plan is not identified in the planning scheme as being appropriately integrated into the planning scheme.

Consistent with the State Planning Policy, it is understood that the Minister has identified that the planning scheme appropriately advances the Far North Queensland Regional Plan 2009-2031, as it applies in the planning scheme area. On this basis, no further assessment of the Regional Plan is required.

7.2.3 Development Assessment under Schedules 9 and 10 (SDAP)

Schedule 10 of the *Planning Regulation 2017* identifies the matters that the assessment manager and/or referral agency assessment must have regard to if the application is identified as triggering referral to the state. In this instance, the application does not trigger referral and, therefore, no state codes apply.

7.3 Local Authority Assessment Benchmarks

As the application is subject to Code Assessment, it is required to be considered against the relevant sections of the Strategic Framework of the Douglas Shire Planning Scheme 2018 and the relevant Planning Scheme Codes.

7.3.1 Strategic Framework

The subject site is identified in the Urban Area on the Strategic Framework Map of the Douglas Shire Planning Scheme. Relevant to the proposed development are the following sections of the Strategic Framework.

7.3.2 Reinforcing Douglas Shire's Sense of Place & Identity

Section 3.2.2.2 is in no way compromised by the proposal.

7.3.3 Catering for Economic Opportunity

Section 3.2.2.3 of the Strategic Framework identifies that tourism and primary production will remain significant drivers and

employers in the Shire and that the Council will support a diverse economy and provide opportunities for residents to participate, live, work and benefit in the shire's healthy environment.

Section 3.2.2.3 is in no way compromised by the proposal.

7.3.4 Theme 1 – Settlement Pattern

Section 3.4.1 is in no way compromised by the proposal, and indeed, the proposal and its accompanying investment is entirely consistent with the strategic theme outlined.

7.3.5 Theme 2 – Environment and Landscape Values

Section 3.5.1 (4) Strategic Outcomes requires development to consider matters of Environmental Significance. Specific Outcome 3.5.3.1 (2) relates specifically to development in areas subject to matters of state environmental significance and local environmental significance (MSES and MLES). This specific outcome requires development to be in areas that avoid significant adverse impacts on matters of state environmental significance (MSES) and matters of local environmental significance (MLES). The proposed development would involve the use and development of an existing site for a use compatible with the amenity of the area and without impact on any matters of environmental significance.

The strategic content of Theme 2 is in no way compromised by the proposal.

7.3.6 Theme 4 – Strong Communities and Identity

Section 3.7 is in no way compromised by the proposal, and indeed, the proposal and its accompanying investment is entirely consistent with the strategic themes and objectives outlined.

7.3.7 Theme 5 – Economy

Section 3.8.1 Strategic outcomes encourages a prosperous community with a strong rural sector, a dynamic tourism industry and commercial and industrial activities offering a diverse range of employment opportunities. They also support the broadening of the Shire's economic base to improve employment opportunities and to provide resilience to any future adverse economic, social and environmental conditions. The associated Specific Outcome at section 3.8.2.1 proposes to facilitate a range of economic initiatives in appropriate locations, including the growth of new and traditional industries; and, providing for higher value jobs, particularly for young people.

The proposed development, which represents an employment opportunity and the enhancement of an existing activity, is considered to be entirely consistent with the objectives of Theme 5.

7.3.8 Mossman Townscape Plan

The proposed development is entirely consistent with the recommended 'Active Frontage' strategy for the site as outlined within the Council's adopted Mossman Townscape Plan. Refer

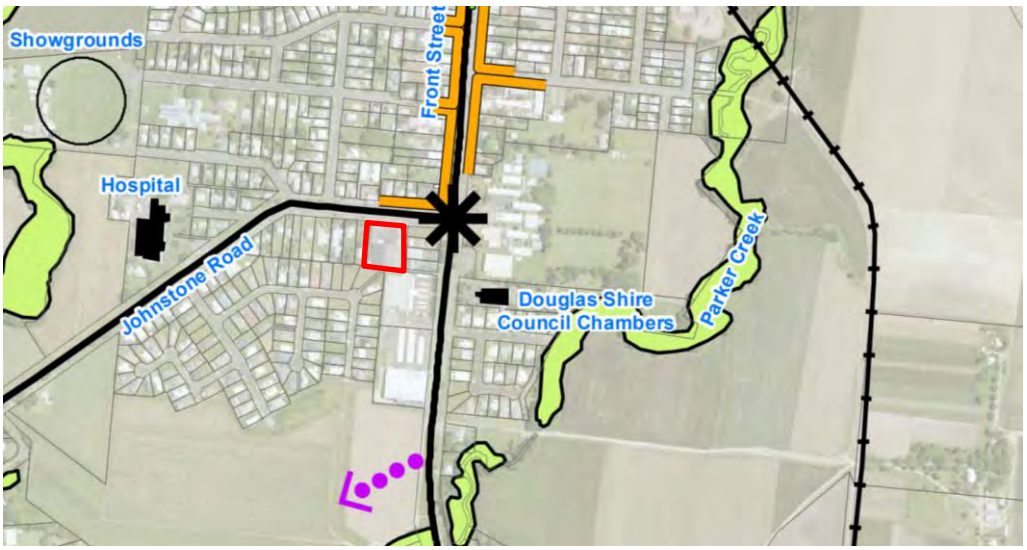


Figure 7. Subject site in context with the adopted Mossman Townscape Plan

7.3.9 Douglas Shire Planning Scheme 2018 Codes

The planning scheme codes applicable to the proposal are identified in Table 5 below:

Table 5: Planning Scheme Code Responses

Planning Scheme Codes	Applicability	Comment
Zone Codes		
Recreation & Open Space Zone Code	Applies	Complies with the applicable Assessment Benchmarks.
Overlay Codes		
Acid Sulfate Soils Overlay Code	Applies	Complies with the relevant Acceptable Outcomes.
Transport Noise Corridors	Applies	Complies with the relevant Acceptable Outcomes.
Transport Pedestrian Cycle	Applies	Generally complies with or is able to comply with the relevant Assessment Benchmarks. Consideration is required in respect of PO1, relating to development occurring within the Flood plain assessment area. Refer below
Transport Road Hierarchy	Applies	Complies with the relevant Acceptable Outcomes.
Development Codes		
Parking and Servicing Code	Applies	Complies with the relevant Acceptable Outcomes.
Environmental Performance Code	Applies	Complies with the relevant Acceptable Outcomes.
Infrastructure Works Code	Applies	Complies with or is able to comply with all relevant Assessment Benchmarks
Landscaping Code	Applies	Complies with the relevant Acceptable Outcomes.
Recreation and Open Space Code	Applies	Complies with the relevant Acceptable Outcomes

A detailed assessment against each of the Planning Scheme Codes is attached at Appendix D.

7.3.10 Statement of Compliance

7.3.11 Flood and Storm Tide Hazard Overlay Code

Performance Outcomes PO1 of the Flood and Storm Tide Hazard Overlay Code states:

PO1

Development is located and designed to:

- *(a) ensure the safety of all persons;*
- *(b) minimise damage to the development and contents of buildings;*
- *(c) provide suitable amenity;*
- *(d) minimise disruption to residents, recovery time, and rebuilding or restoration costs after inundation events.*

Note – For assessable development within the flood plain assessment sub-category, a flood study by a suitably qualified professional is required to identify compliance with the intent of the acceptable outcome.

The associated Acceptable Outcome States:

AO1.1

Development is sited on parts of the land that is not within the Flood and Storm tide hazards overlay maps contained in Schedule 2;

The development area has been identified within the Flood plain assessment area. It is proposed to maintain the existing physical and operational characteristics of the site. Therefore, there would be no additional risk of damage to buildings or safety to persons proposed by the proposal. The proposed development is considered to comply with the requirements of the Performance Outcome.

7.4 Infrastructure Charges

Infrastructure charges will apply to the development pursuant to the Planning Regulation and Council's Adopted Infrastructure Charges Resolution.

In accordance with the Council's Adopted Infrastructure Charges Resolution 2021 (2), a charge may be applicable for the proposed development.

8 CONCLUSION

Northpoint Advisory has been engaged by Rubicon Design & Construct to seek development approval for a Material Change of Use (Club Alterations & Additions) on land located at Nos.4-8 Johnston Street, Mossman, and described as Lot 40 SP 235262.

The site is located within Douglas Shire Council area and under the Douglas Shire Planning Scheme 2018 the site is identified within the Recreation & Open Space Zone. In accordance with the Tables of Assessment, the development of the site for a Club requires the submission and approval of a Code Assessable application for Material Change of Use by Douglas Shire Council. As a Code Assessable application, the Council can consider a range of town planning matters in the determination of the application and the application is not required to be subject to public notification.

An assessment of the proposed development against the relevant Town Planning Assessment Benchmarks has demonstrated that the proposed development is a suitable us of the site and that the site can contain the use. On this basis, the application is submitted for approval subject to reasonable and relevant conditions.

Attachment A

Certificate(s) of Title and Search Results

CURRENT TITLE SEARCH
QUEENSLAND TITLES REGISTRY PTY LTD

Request No: 44818553
Search Date: 21/06/2023 14:16 Title Reference: 50807968
Date Created: 16/04/2010

Previous Title: 21029203
50624255

REGISTERED OWNER

Dealing No: 713176848 14/04/2010

MOSSMAN MEMORIAL BOWLS CLUB INCORPORATED

ESTATE AND LAND

Estate in Fee Simple

LOT 40 SURVEY PLAN 235262
Local Government: DOUGLAS

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 20104049 (POR 2)
Deed of Grant No. 20131201 (POR 69V)
(Lot 1 on RP 723424)
(Lot 2 on RP 723424)

2. EASEMENT IN GROSS No 601420351 (T362312K) 10/08/1988
burdening the land
COUNCIL OF THE SHIRE OF DOUGLAS
over
EASEMENT B ON RP718316

3. EASEMENT IN GROSS No 712690651 27/08/2009 at 13:42
burdening the land
ERGON ENERGY CORPORATION LIMITED A.C.N. 087 646 062
over
EASEMENT A ON SP227596

ADMINISTRATIVE ADVICES - NIL
UNREGISTERED DEALINGS - NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

Requested By: D-ENQ INFOTRACK PTY LIMITED

Attachment B

Douglas Shire Planning Scheme 2018 Version 1
Property Report

2018 Douglas Shire Council Planning Scheme Property Report

The following report has been automatically generated to provide a general indication of development related information applying to the premise.

For more information and to determine if the mapping layers are applicable, refer to the 2018 Douglas Shire Council Planning Scheme. This report is not intended to replace the need for carrying out a detailed assessment of Council and State controls or the need to seek your own professional advice on any town planning instrument, local law or other controls that may impact on the existing or intended use of the premise mentioned in this report. For further information please contact Council by phone: 07 4099 9444 or 1800 026 318 or email enquiries@douglas.qld.gov.au.

Visit Council's website to apply for an official property search or certificate, or contact the Department of Natural Resources, Mines and Energy to undertake a title search to ascertain how easements may affect a premise.

Property Information

Property Address	4-8 Johnston Road MOSSMAN
Lot Plan	40SP235262 (Freehold - 5693m^2)

Selected Property | Easements | Property

Douglas Shire Planning Scheme 2018 version 1.0

The table below provides a summary of the Zones and Overlays that apply to the selected property.

Zoning

Applicable Zone
Recreation and Open Space

More Information
- View Section 6.2.9 Recreation and Open Spaces Zone Code
- View Section 6.2.9 Recreation and Open Spaces Zone Compliance table
- View Section 6.2.9 Recreation and Open Spaces Zone Assessment table

Douglas Shire Planning Scheme 2018 version 1.0

The table below provides a summary of the Zones and Overlays that apply to the selected property.

Local Plans	**Applicable Precinct or Area** Mossman Not Part of a Precinct	**More Information** • View Section 7.2.3 Mossman Local Plan Code • View Section 7.2.3 Mossman Local Plan Compliance table
Acid Sulfate Soils	**Applicable Precinct or Area** Acid Sulfate Soils (5-20m AHD)	**More Information** • View Section 8.2.1 Acid Sulfate Soils Overlay Code • View Section 8.2.1 Acid Sulfate Soils Overlay Compliance table
Transport Noise Corridors	**Applicable Precinct or Area** Category 0: Noise Level < 58 dB(A) Category 1: 58 dB(A) =< Noise Level < 63 dB(A)	**More Information** • View Section 8.2.10 Transport Network Overlay Code • View Section 8.2.10 Transport Network Overlay Compliance table
Transport Pedestrian Cycle	**Applicable Precinct or Area** Principal Route	**More Information** • View Section 8.2.10 Transport Network Overlay Code • View Section 8.2.10 Transport Network Overlay Compliance table
Transport Road Hierarcy	**Applicable Precinct or Area** Collector Road	**More Information** • View Section 8.2.10 Transport Network Overlay Code • View Section 8.2.10 Transport Network Overlay Compliance table

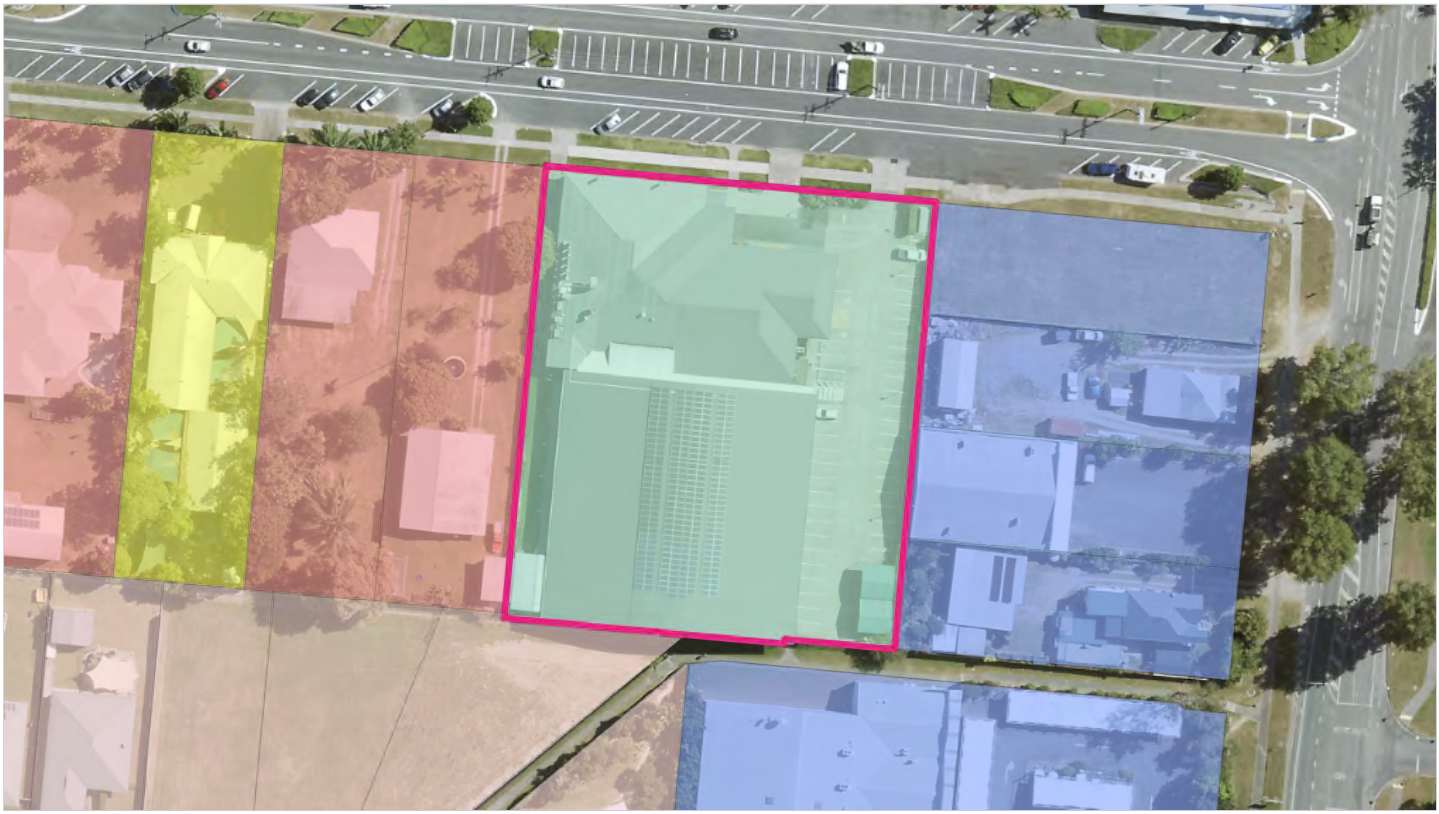
Zoning

Applicable Zone

Recreation and Open Space

More Information

- View Section 6.2.9 Recreation and Open Spaces Zone Code
- View Section 6.2.9 Recreation and Open Spaces Zone Compliance table
- View Section 6.2.9 Recreation and Open Spaces Zone Assessment table



Selected Property

Property

Zoning

- Centre
- Community Facilities
- Conservation
- Environmental Management
- Industry
- Low Density Residential
- Low-medium Density Residential
- Medium Density Residential
- Recreation and Open Space
- Rural
- Rural Residential
- Special Purpose
- Tourism
- Tourist Accommodation

Local Plans

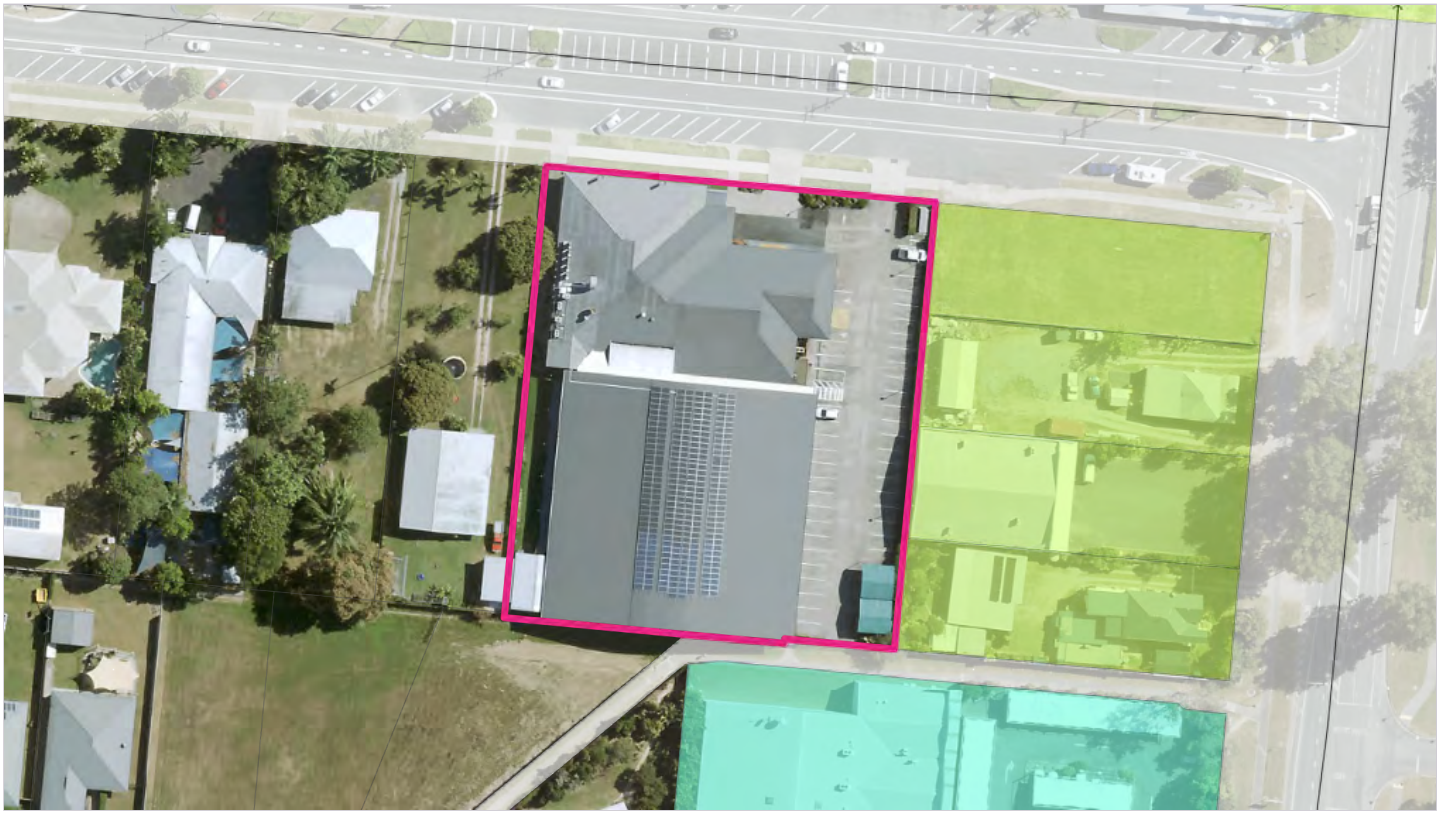
Applicable Precinct or Area

Mossman

Not Part of a Precinct

More Information

- View Section 7.2.3 Mossman Local Plan Code
- View Section 7.2.3 Mossman Local Plan Compliance table



Selected Property

Property

Transport Investigation Corridor

Transport Investigation Corridors

Major Road Connections

Major Road Connections

Major Road Connections (No Arrow)

Major Road Connections

Daintree River to Bloomfield

Daintree River to Bloomfield

Creb Track and Quaid Road

Creb Track

60 metre contour

60 metre contour

Local Plan Boundary

Local Plan Boundary

Local Plan Sub Precincts

1a Town Centre

1b Waterfront North

1c Waterfront South

1d Limited Development

1e Community and Recreation

1f Flagstaff Hill

Local Plan Precincts

Not Part of a Precinct

Precinct 1

Precinct 2

Precinct 3

Precinct 4

Precinct 5

Precinct 6

Precinct 7

Precinct 8

Precinct 9

Live Entertainment Precinct

Live Entertainment Precinct

Indicative Future Open Space

Indicative Future Open Space

Road Reserve Esplanade

Acid Sulfate Soils

Applicable Precinct or Area

Acid Sulfate Soils (5-20m AHD)

More Information

- View Section 8.2.1 Acid Sulfate Soils Overlay Code
- View Section 8.2.1 Acid Sulfate Soils Overlay Compliance table

Selected Property

Property

Acid Sulfate Soils

Acid Sulfate Soils (< 5m AHD)

Acid Sulfate Soils (5-20m AHD)

all others

Transport Noise Corridors

Applicable Precinct or Area

Category 0: Noise Level < 58 dB(A)

Category 1: 58 dB(A) =< Noise Level < 63 dB(A)

More Information

- View Section 8.2.10 Transport Network Overlay Code
- View Section 8.2.10 Transport Network Overlay Compliance table

Selected Property

Property

Transport Noise Corridors Mandatory Area

- Category 0: Noise Level < 58 dB(A)
- Category 1: 58 dB(A) =< Noise Level < 63 dB(A)
- Category 2: 63 dB(A) < Noise Level < 68 dB(A)
- Category 3: 68 dB(A) =< Noise Level < 73 dB(A)
- Category 4: Noise Level >= 73 dB(A)
- all others

Transport Noise Corridors Voluntary Area

- Category 0: Noise Level < 58 dB(A)
- Category 1: 58 dB(A) =< Noise Level < 63 dB(A)
- Category 2: 63 dB(A) < Noise Level < 68 dB(A)
- Category 3: 68 dB(A) =< Noise Level < 73 dB(A)
- Category 4: Noise Level >= 73 dB(A)
- all others

Transport Pedestrian Cycle

Applicable Precinct or Area

Principal Route

More Information

- View Section 8.2.10 Transport Network Overlay Code
- View Section 8.2.10 Transport Network Overlay Compliance table

Selected Property

Property

Pedestrian and Cycle Network

- District Route
- Principal Route
- Future Principal Route
- Strategic Investigation Route
- Iconic Recreation Route
- all others
- Neighbourhood Route

Transport Road Hierarcy

Applicable Precinct or Area

Collector Road

More Information

- View Section 8.2.10 Transport Network Overlay Code
- View Section 8.2.10 Transport Network Overlay Compliance table

Selected Property

Property

Road Hierarchy

Access Road

Arterial Road

Collector Road

Industrial Road

Major Rural Road

Minor Rural Road

Sub Arterial Road

Unformed Road

all others

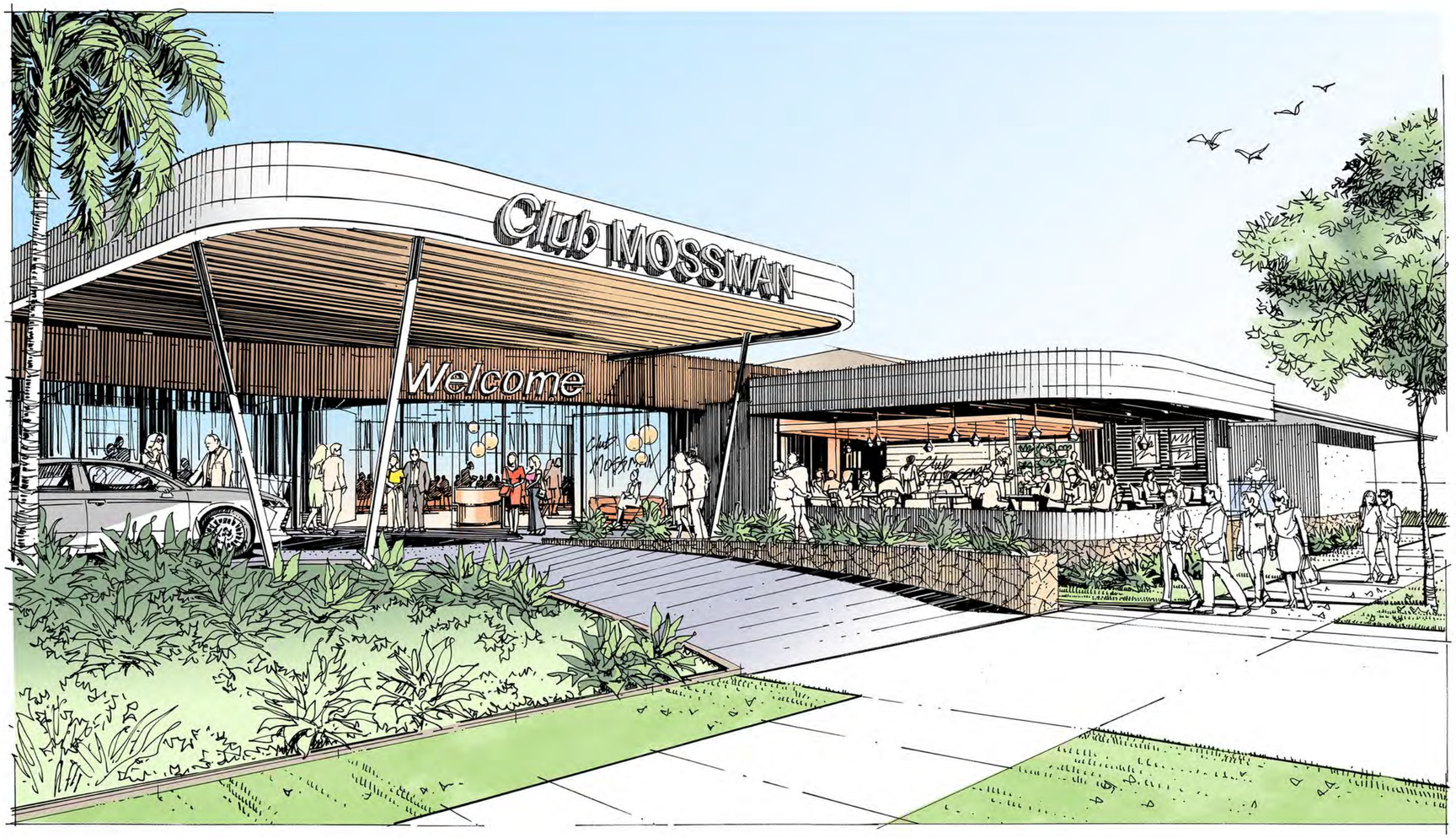
Major Transport Corridor Buffer Area

Disclaimer

This report is not a substitute for a Planning and Development Certificate and should not be relied upon where the reliance may result in loss, damage or injury. While every effort is taken to ensure the information in this report is accurate and up to date, Douglas Shire Council makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs that may occur as a result of the report being inaccurate or incomplete in any way or for any reason.

Attachment C

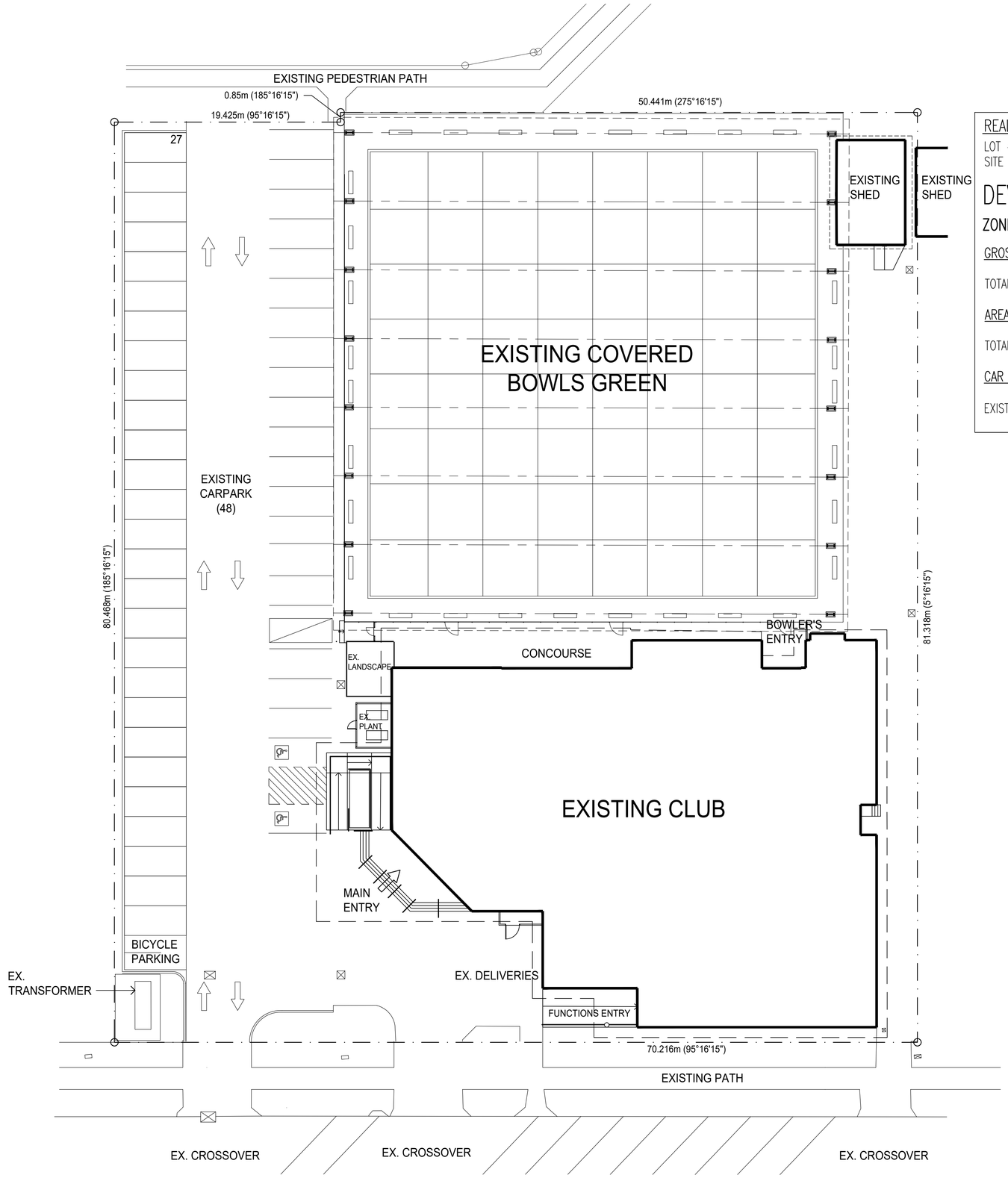
Proposal Plans



MOSSMAN Memorial BOWLS CLUB

MOSSMAN MEMORIAL BOWLS CLUB
PROPOSED REDEVELOPMENT

rubicon DESIGN+ CONSTRUCT



SITE PLAN - EXISTING

REAL PROPERTY DESCRIPTION

LOT 40 on SP235262
SITE AREA: 16307sqm

DEVELOPMENT SUMMARY

ZONE : RECREATION & OPEN SPACE

GROSS FLOOR AREA

TOTAL : 1233.40 SQM

AREA AVAILABLE TO THE PUBLIC

TOTAL : 795.08 SQM

CAR PARKING

EXISTING : 48

notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	16/05/23	DS
2	DA ISSUE	02/06/23	MW
3	DA ISSUE	09/06/23	MW
4	DA ISSUE	09/06/23	MW

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn	date	designed
DS	APRIL 2023	GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

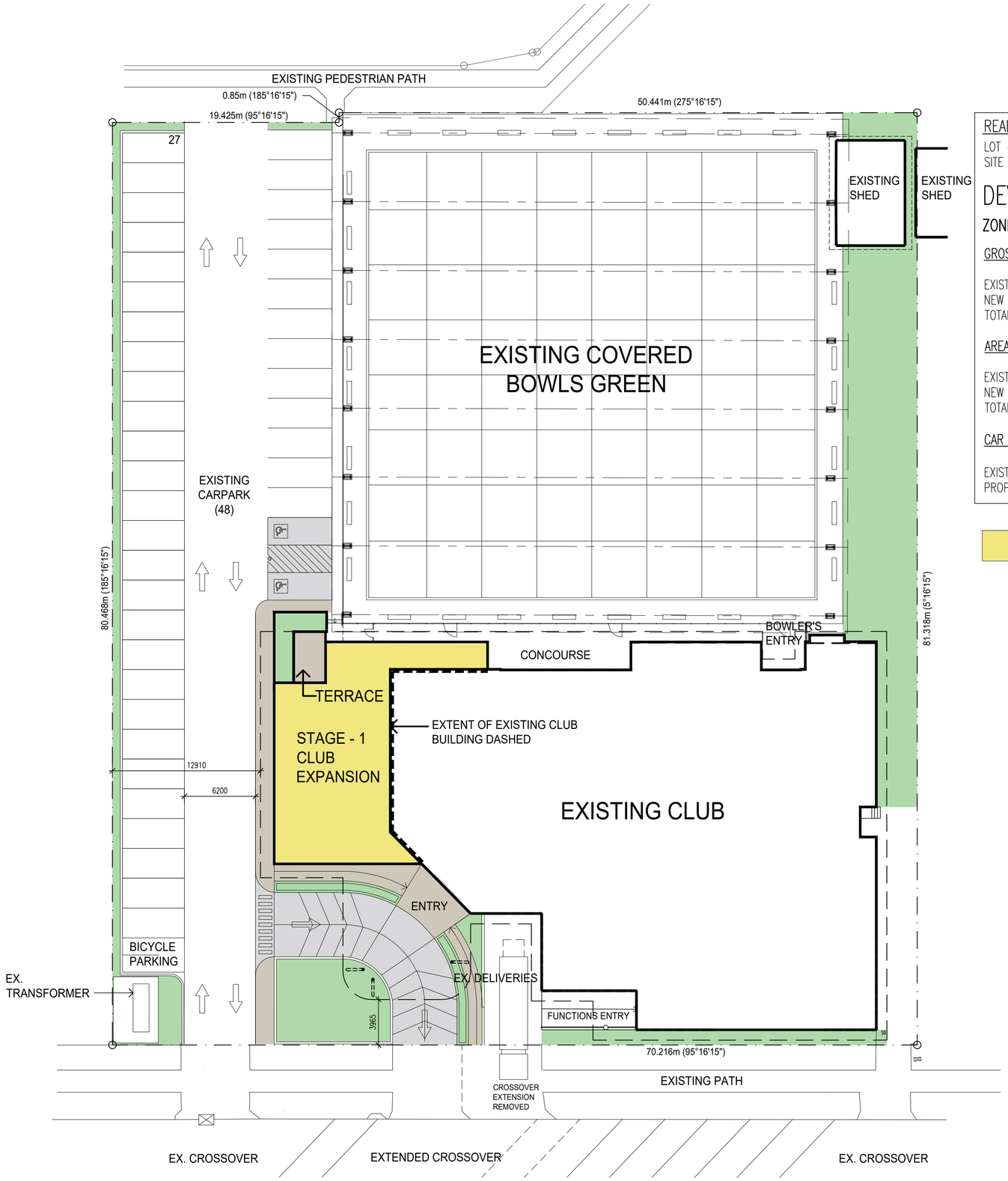
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD
MOSSMAN, QLD 4873

drwg. title
EXISTING SITE PLAN

scale	drwg. no.	amend.
1:200 @ A1	Q2371/SK/0.01	4

DRAWN SCALE
100mm
0 5 10 20 30 40 50



SITE PLAN - STAGE 1

REAL PROPERTY DESCRIPTION

LOT 40 on SP235262
SITE AREA: 16307sqm

DEVELOPMENT SUMMARY

ZONE : RECREATION & OPEN SPACE

GROSS FLOOR AREA

EXISTING :	1233.40 SQM
NEW :	211.60 SQM
TOTAL :	1445.00 SQM

AREA AVAILABLE TO THE PUBLIC

EXISTING :	795.08 SQM
NEW :	165.22 SQM
TOTAL :	960.30 SQM

CAR PARKING (ON SITE)

EXISTING :	48
PROPOSED :	42

NEW FLOOR AREA

notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	16/05/23	DS
2	DA ISSUE	09/06/23	MW
3	DA ISSUE	09/06/23	MW

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn	date	designed
DS	APRIL 2023	GS

W.B.P. reference
2223–072B

rubicon DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

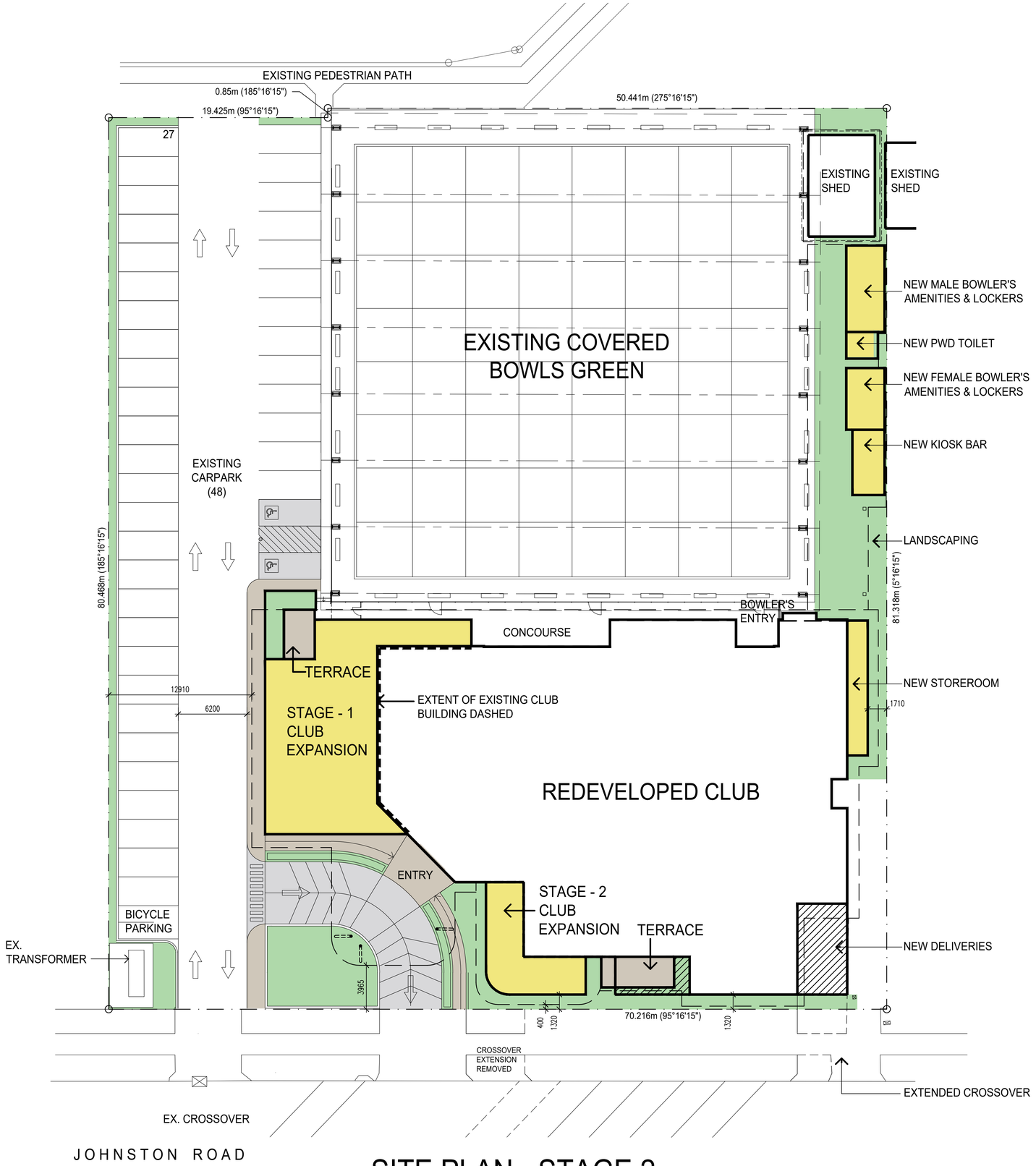
project
PROPOSED STAGED REDEVELOPMENT

location
6–8 JOHNSTON ROAD MOSSMAN, QLD 4873

drwg. title
PROPOSED SITE PLAN STAGE–1

scale	drwg. no.	amend.
1:200 @ A1	Q2371/SK/0.02	3

DRAWN SCALE
100mm
0 5 10 20 30 40 50



SITE PLAN - STAGE 2

REAL PROPERTY DESCRIPTION

LOT 40 on SP235262
SITE AREA: 16307sqm

DEVELOPMENT SUMMARY

ZONE : RECREATION & OPEN SPACE

GROSS FLOOR AREA

EXISTING :	1233.40 SQM
STAGE 1 :	211.60 SQM
STAGE 2 :	50.00 SQM
TOTAL :	1495.00 SQM

AREA AVAILABLE TO THE PUBLIC

EXISTING :	795.08 SQM
STAGE 1 :	165.22 SQM
STAGE 2 :	38.29 SQM
TOTAL :	998.59 SQM

CAR PARKING (ON SITE)

EXISTING :	48
PROPOSED :	42

NEW FLOOR AREA

EXISTING FLOOR AREA REMOVED

notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	16/05/23	DS
2	DA ISSUE	09/06/23	MW
3	DA ISSUE	09/06/23	MW

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn DS | date APRIL 2023 | designed GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT iconic
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

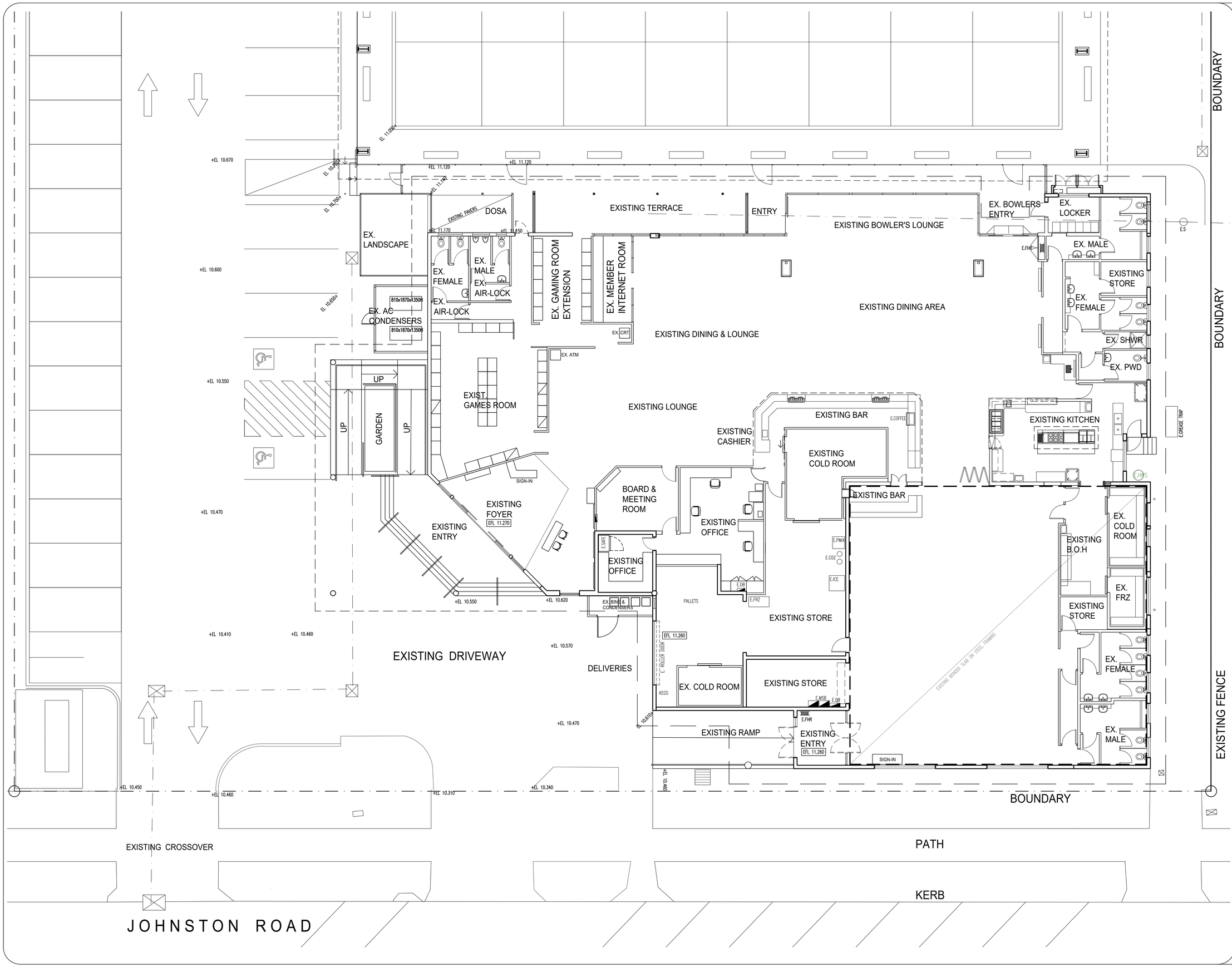
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD
MOSSMAN, QLD 4873

drwg. title
PROPOSED SITE PLAN STAGE-2

scale	drwg. no.	amend.
1:200 @A1	Q2371/SK/0.03	3

DRAWN SCALE
100mm
0 5 10 20 30 40 50



notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	16/05/23	DS
2	SITE INFORMATION COORD	29/05/23	MW
3	DA ISSUE	09/06/23	MW
4	DA ISSUE	09/06/23	MW

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn DS | date APRIL 2023 | designed GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT iconic
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

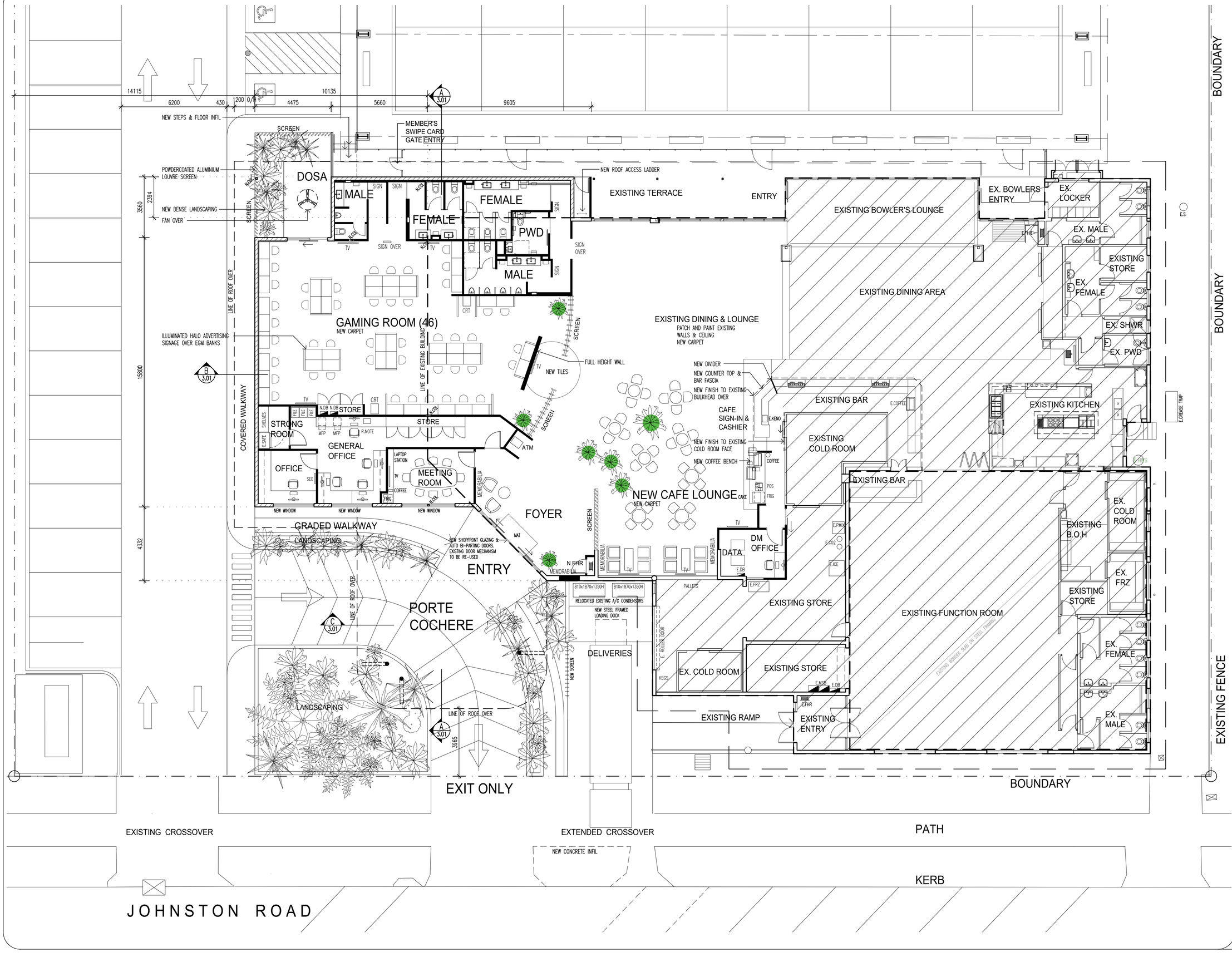
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD
MOSSMAN, QLD 4873

drwg. title
EXISTING FLOOR PLAN

scale	drwg. no.	amend.
1:100 @A1	Q2371/SK/1.01	4

DRAWN SCALE
100mm
0 5 10 20 30 40 50



notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	16/05/23	DS
2	GENERAL UPDATE	29/05/23	MW
3	GENERAL UPDATE	31/05/23	MW
4	DA ISSUE	09/06/23	MW
5	DA ISSUE	09/06/23	MW

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn	date	designed
DS	APRIL 2023	GS

W.B.P. reference
2223–072B

rubicon DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

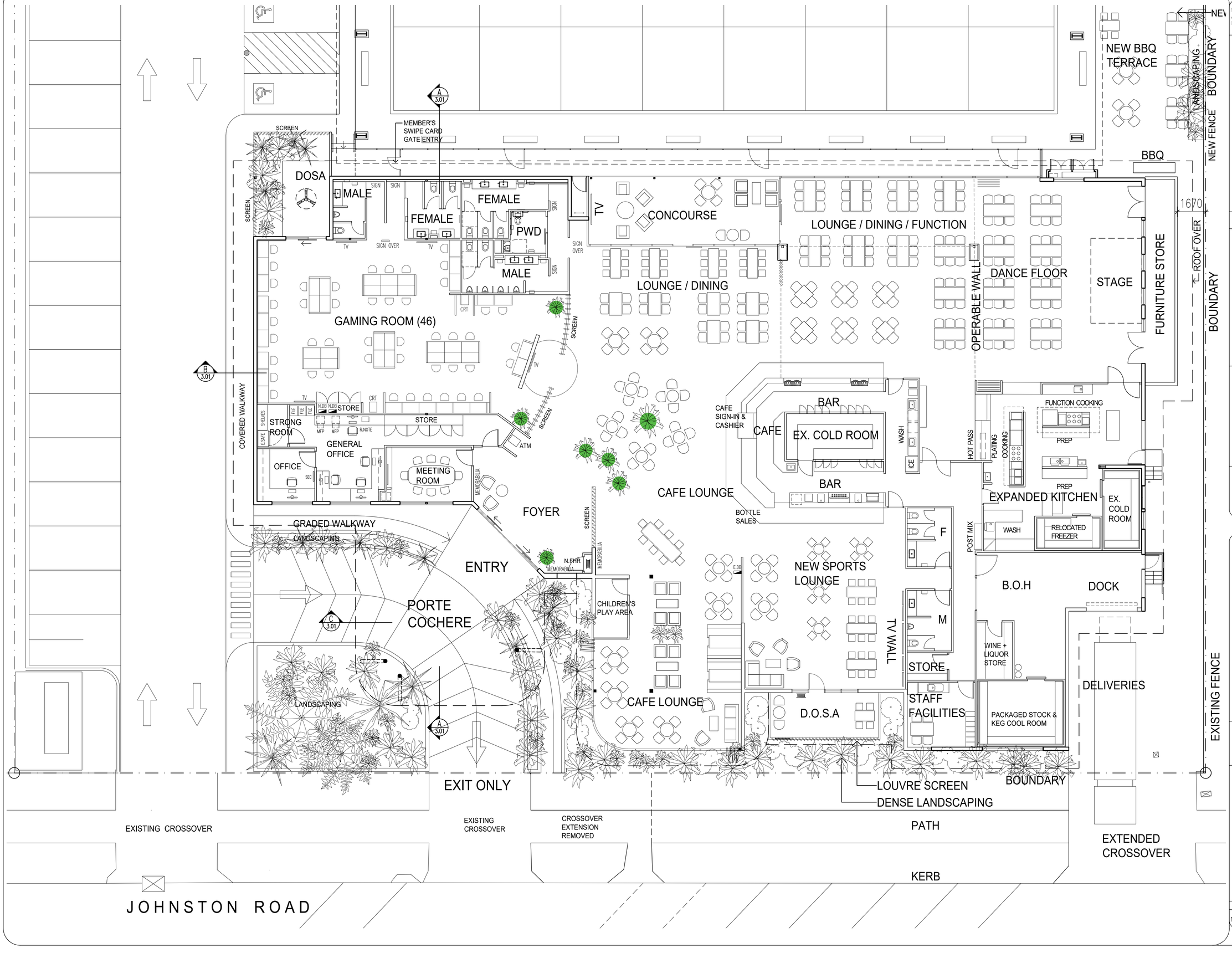
project
PROPOSED STAGED REDEVELOPMENT

location
6–8 JOHNSTON ROAD
MOSSMAN, QLD 4873

drwg. title
PROPOSED FLOOR PLAN
STAGE–1

scale	drwg. no.	amend.
1:100 @A1	Q2371/SK/2.01	5

DRAWN SCALE
100mm
0 5 10 20 30 40 50



notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	16/05/23	DS
2	DA ISSUE	09/06/23	DS
3	DA ISSUE	09/06/23	DS

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn DS | date APRIL 2023 | designed GS

W.B.P. reference
2223–072B

rubicon DESIGN + CONSTRUCT iconic
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

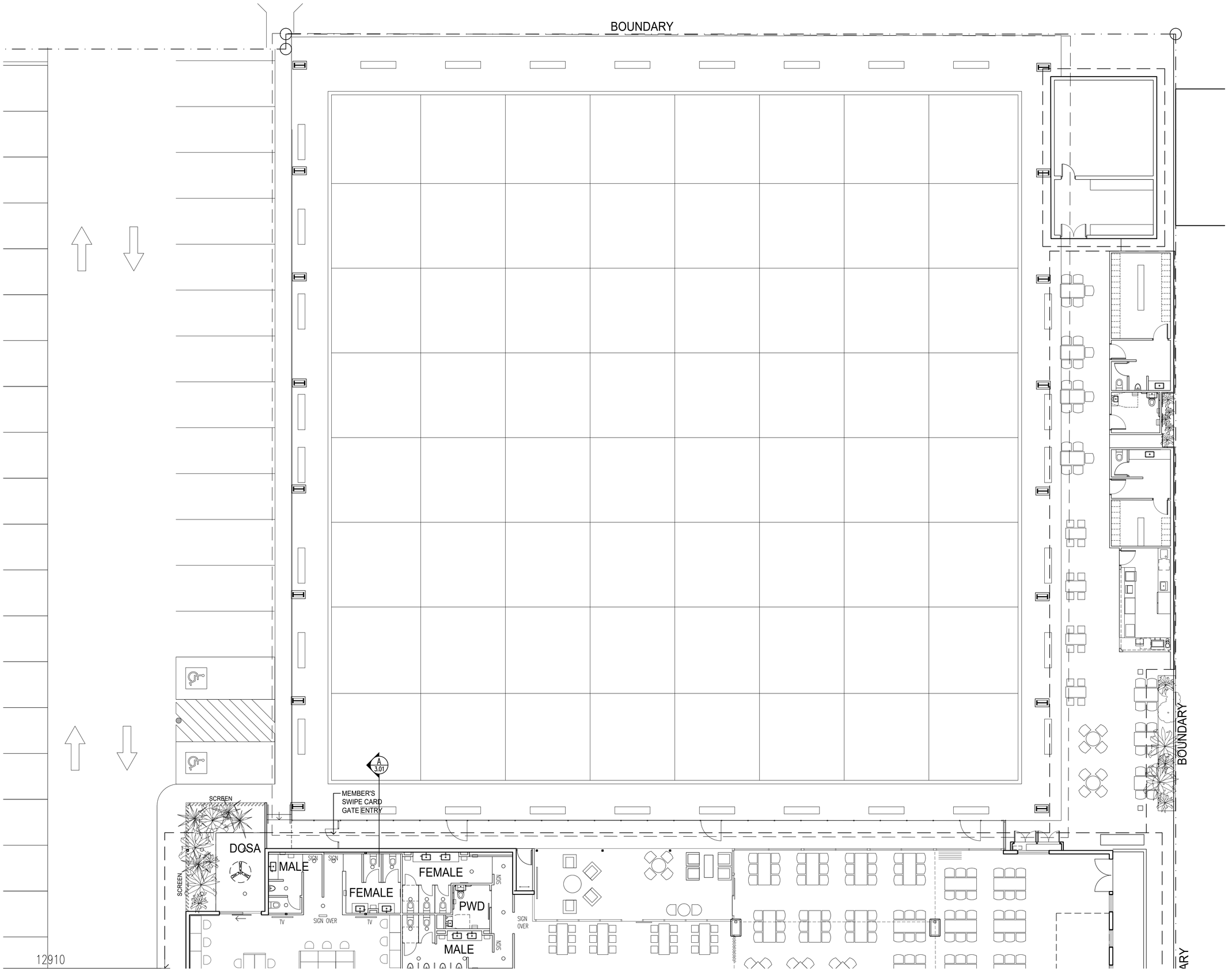
project
PROPOSED STAGED REDEVELOPMENT

location
6–8 JOHNSTON ROAD
MOSSMAN, QLD 4873

drwg. title
PROPOSED FLOOR PLAN
STAGE 2–PART A

scale	drwg. no.	amend.
1:100 @A1	Q2371/SK/2.02	3

DRAWN SCALE
100mm
0 5 10 20 30 40 50



notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N

ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	16/05/23	DS
2	DA ISSUE	09/06/23	DS
3	DA ISSUE	09/06/23	DS

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn	date	designed
DS	APRIL 2023	GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT iconic
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

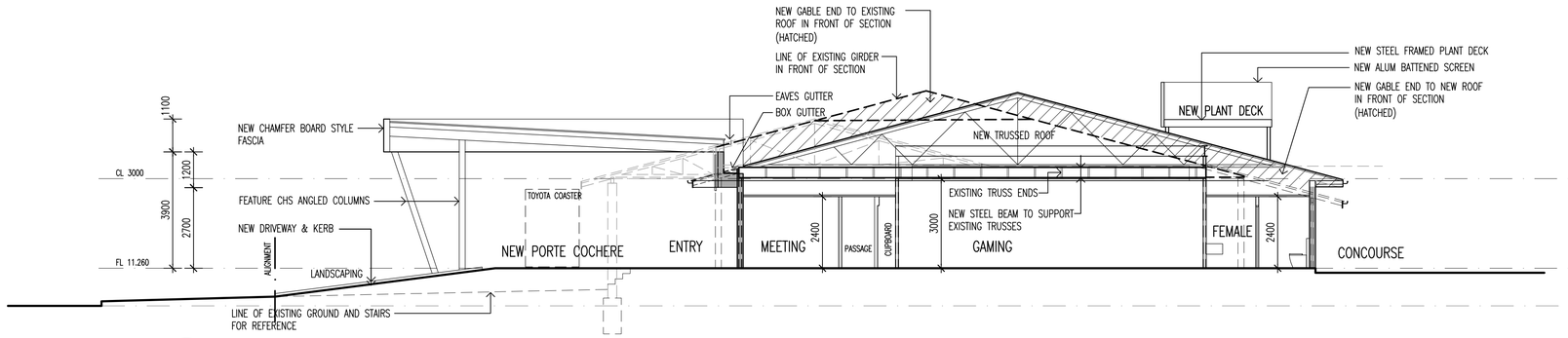
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD MOSSMAN, QLD 4873

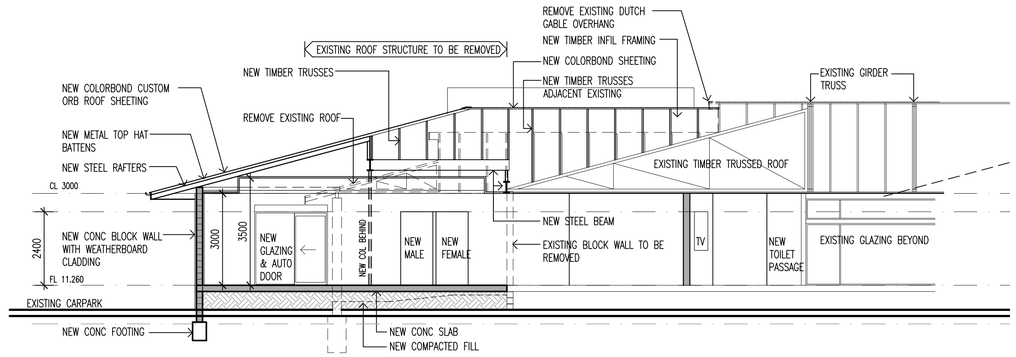
drwg. title
PROPOSED FLOOR PLAN STAGE 2-PART B

scale	drwg. no.	amend.
1:100 @A1	Q2371/SK/2.03	3

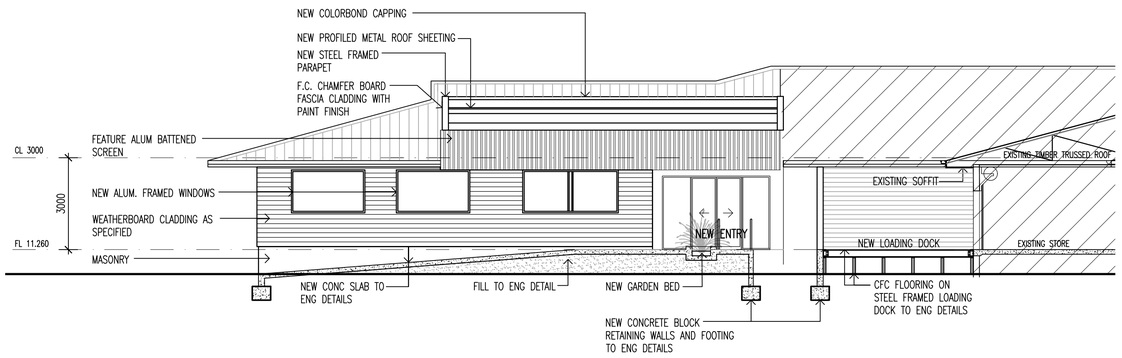
DRAWN SCALE
100mm
0 5 10 20 30 40 50



A — PROPOSED SECTION
THRU PORTE COCHERE SCALE 1:100



B — PROPOSED SECTION
THRU GAMING EXTENTION SCALE 1:100



C — PROPOSED SECTION
THRU PORTE COCHERE SCALE 1:100

notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	23/05/23	MW
2	GENERAL UPDATE	08/06/23	MW
3	DA ISSUE	09/06/23	MW

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn DS | date APRIL 2023 | designed GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

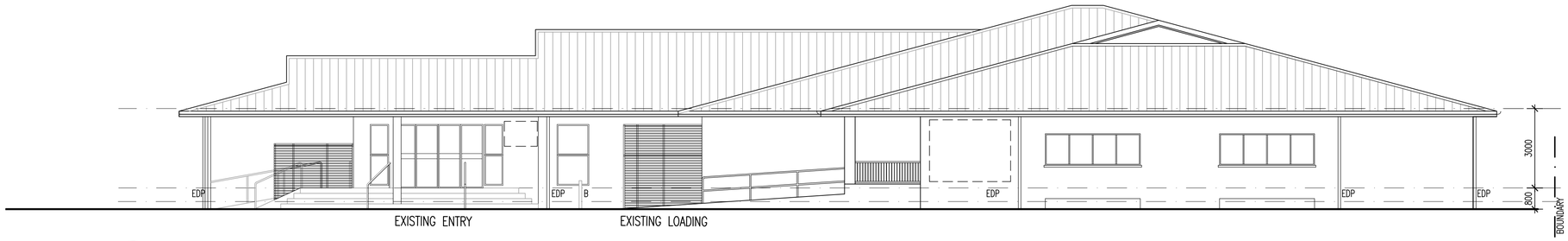
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD
MOSSMAN, QLD 4873

drwg. title
SECTIONS

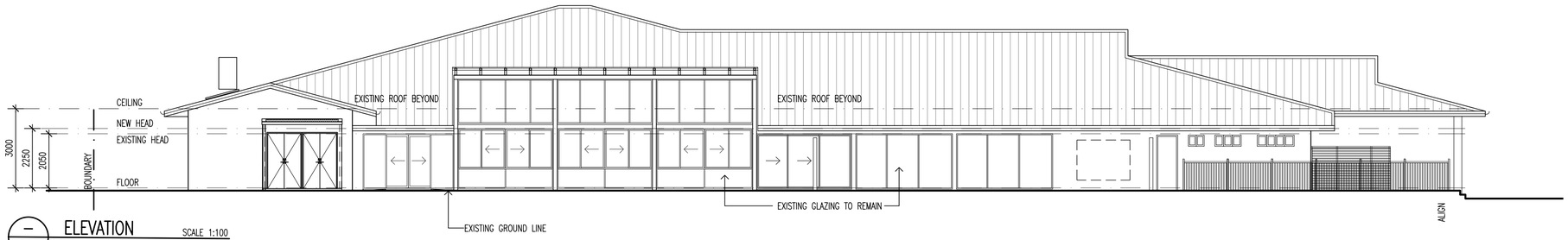
scale	drwg. no.	amend.
1:100 @A1	Q2371/SK/3.01	3

DRAWN SCALE
100mm
0 5 10 20 30 40 50

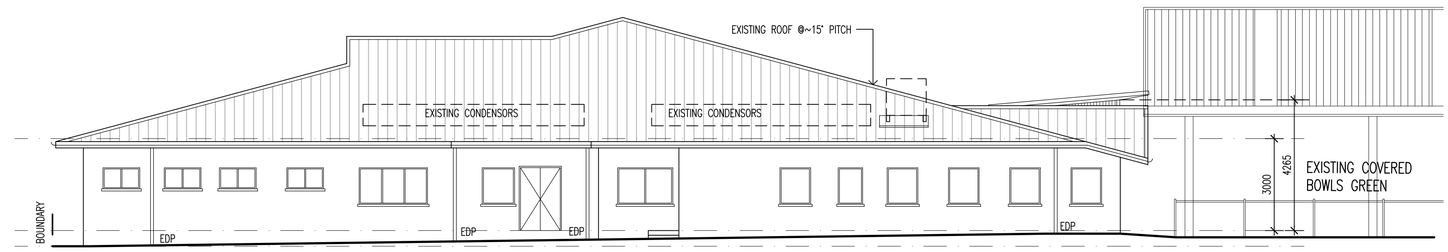


ELEVATION SCALE 1:100
EXISTING NORTH ELEVATION

ELEVATION SCALE 1:100
EXISTING EAST ELEVATION



ELEVATION SCALE 1:100
EXISTING SOUTH ELEVATION



ELEVATION SCALE 1:100
EXISTING WEST ELEVATION

notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	??/05/23	DS
2	DA ISSUE	09/06/23	DS
3	DA ISSUE	09/06/23	DS

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn	date	designed
DS	APRIL 2023	GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT iconic
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

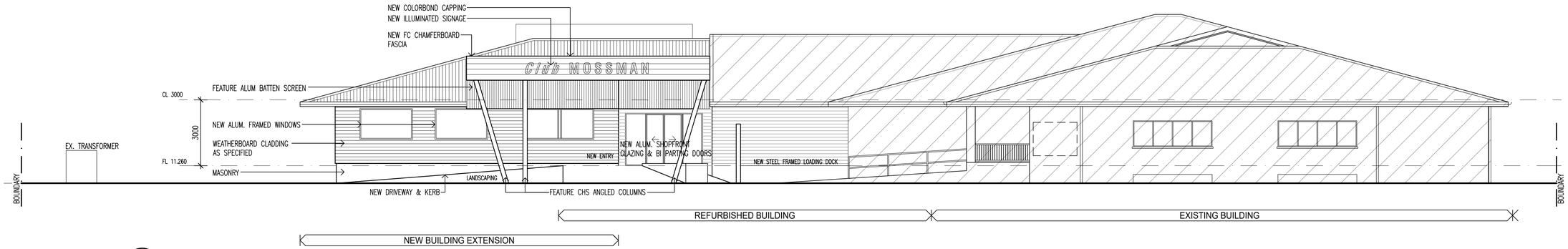
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD
MOSSMAN, QLD 4873

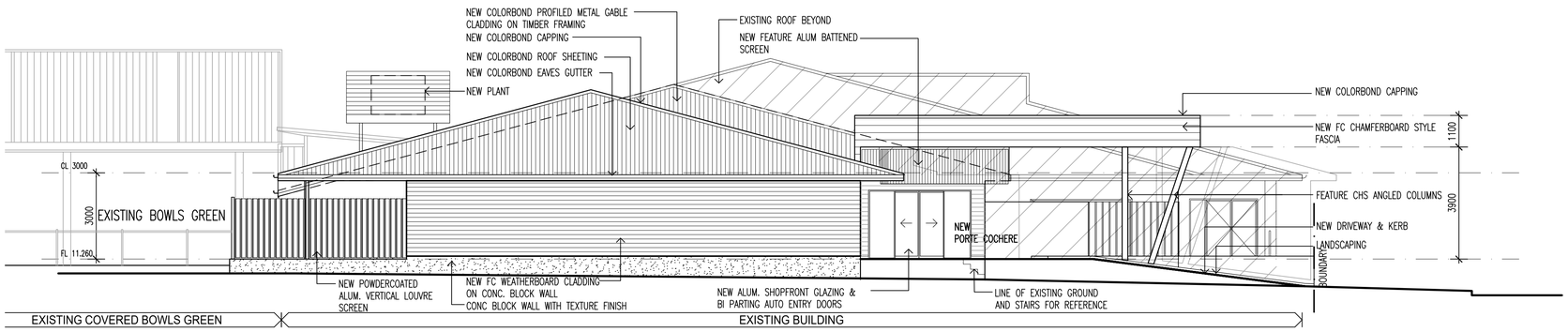
drwg. title
EXISTING ELEVATIONS

scale	drwg. no.	amend.
1:100 @A1	Q2371/SK/4.01	3

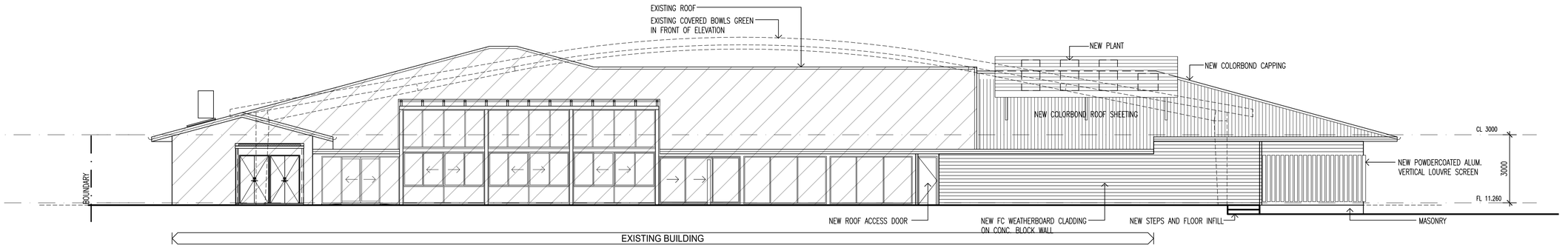
DRAWN SCALE
100mm
0 5 10 20 30 40 50



PROPOSED ELEVATION
NORTH ELEVATION SCALE 1:100



PROPOSED ELEVATION
EAST ELEVATION SCALE 1:100



PROPOSED ELEVATION
SOUTH ELEVATION SCALE 1:100

STAGE 1 ELEVATIONS

notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	??/05/23	DS
2	DA ISSUE	09/06/23	MW
3	DA ISSUE	09/06/23	DS

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn DS | date APRIL 2023 | designed GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT
iconic
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

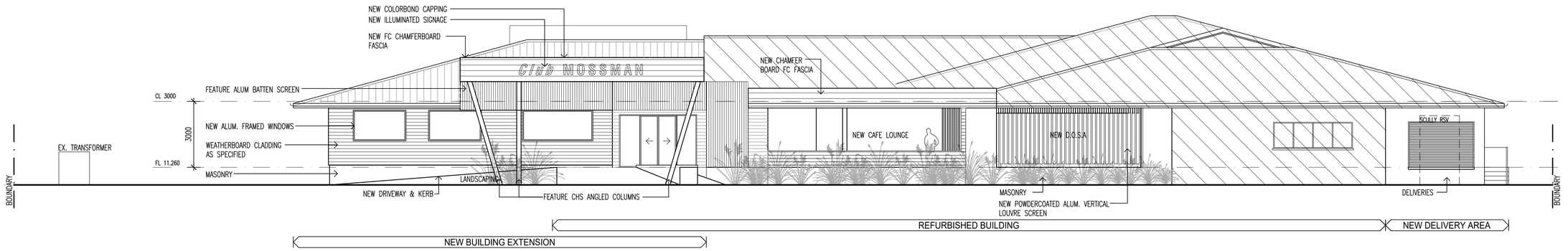
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD MOSSMAN, QLD 4873

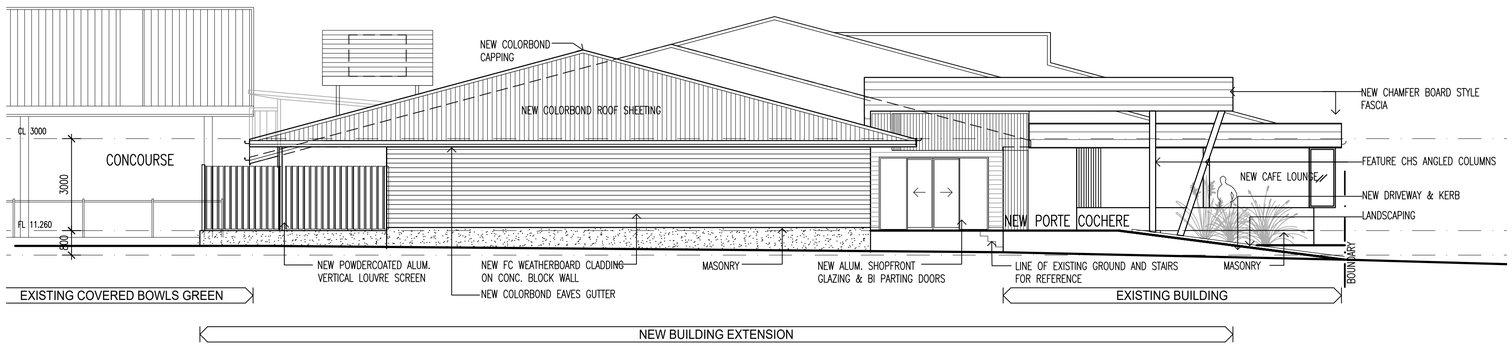
drwg. title
PROPOSED ELEVATIONS STAGE 1

scale	drwg. no.	amend.
1:100 @ A1	Q2371/SK/4.02	3

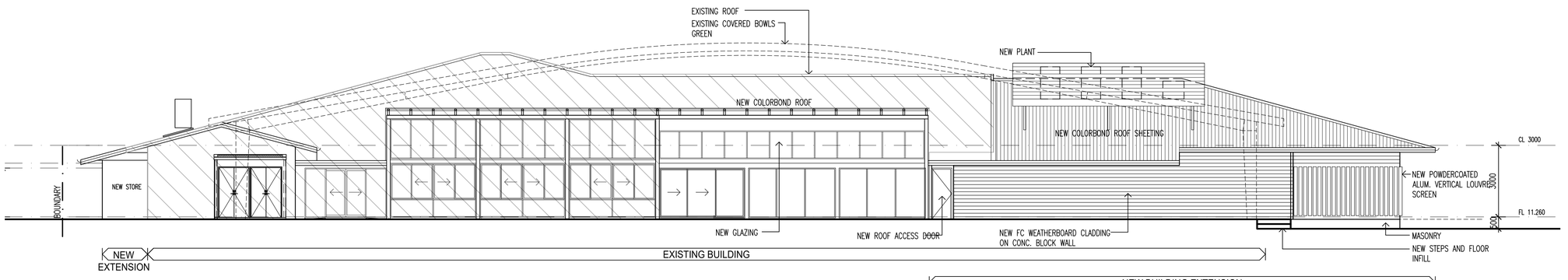
100mm DRAWN SCALE
0 5 10 20 30 40 50



PROPOSED ELEVATION
NORTH ELEVATION SCALE 1:100



PROPOSED ELEVATION
EAST ELEVATION SCALE 1:100



PROPOSED ELEVATION (FROM BOUNDARY)
SOUTH ELEVATION

STAGE 2 ELEVATIONS

notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	??/05/23	DS
2	DA ISSUE	09/06/23	DS
3	DA ISSUE	09/06/23	DS

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn	date	designed
DS	APRIL 2023	GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

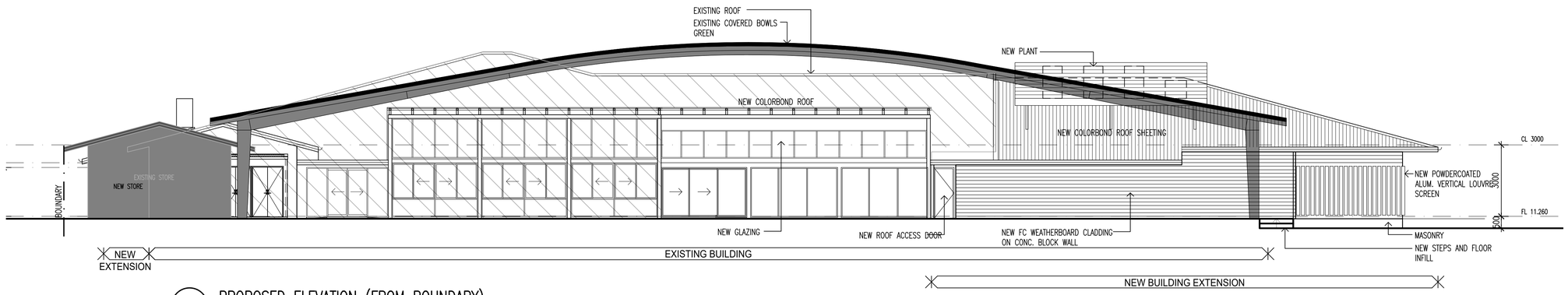
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD MOSSMAN, QLD 4873

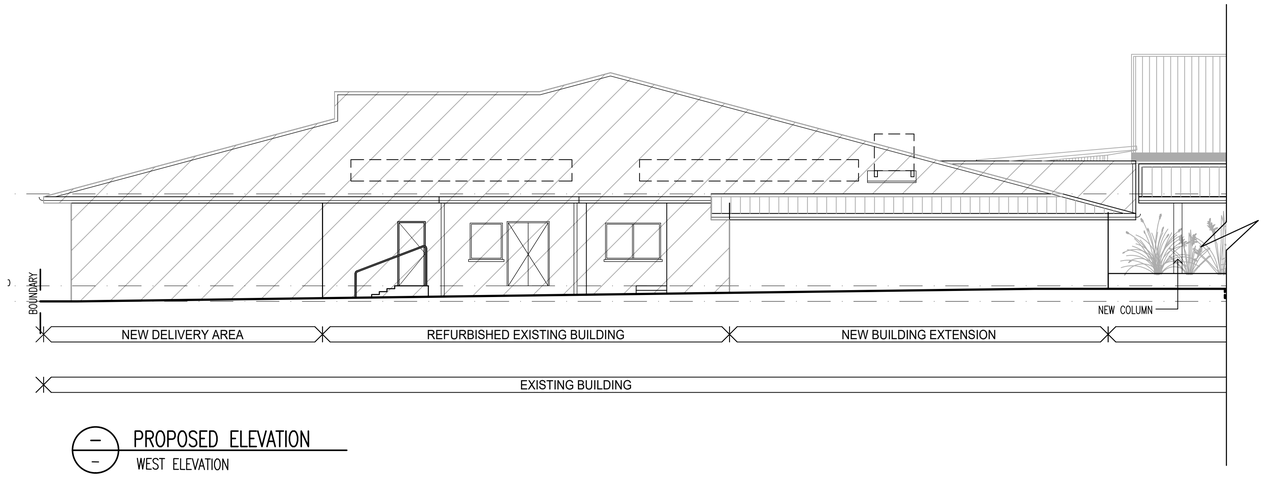
drwg. title
PROPOSED ELEVATIONS STAGE 2

scale	drwg. no.	amend.
1:100 @A1	Q2371/SK/4.03	3

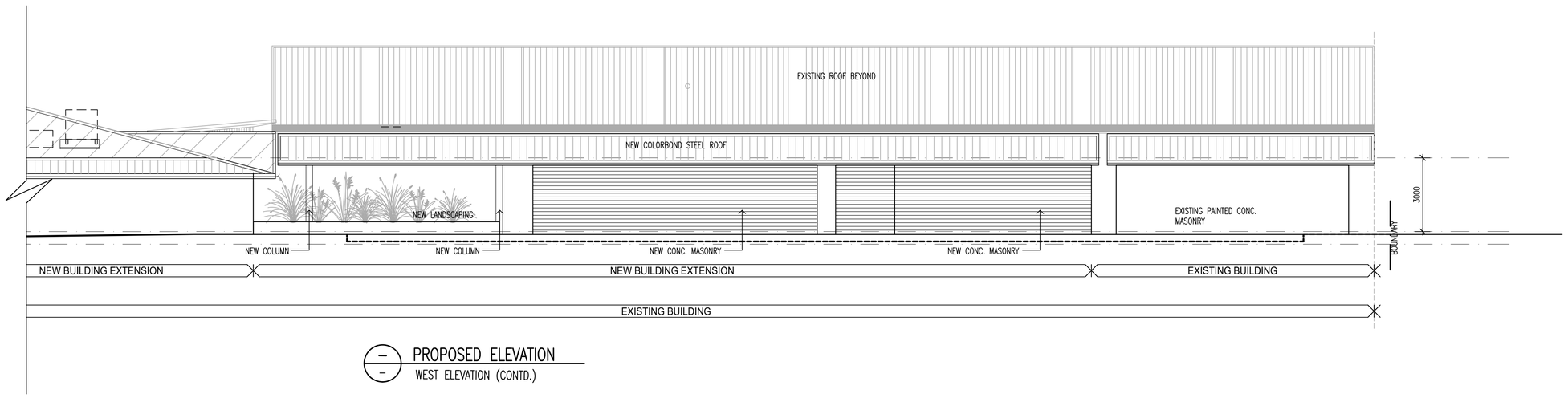
DRAWN SCALE
100mm
0 5 10 20 30 40 50



PROPOSED ELEVATION (FROM BOUNDARY)
SOUTH ELEVATION



PROPOSED ELEVATION
WEST ELEVATION



PROPOSED ELEVATION
WEST ELEVATION (CONTD.)

STAGE 2 ELEVATIONS

notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	DA ISSUE	09/06/23	DS
2	DA ISSUE	09/06/23	DS

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn	date	designed
DS	APRIL 2023	GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD
MOSSMAN, QLD 4873

drwg. title
PROPOSED ELEVATIONS STAGE 2

scale	drwg. no.	amend.
1:100 @A1	Q2371/SK/4.04	2

DRAWN SCALE
100mm
0 5 10 20 30 40 50

Attachment D

Planning Scheme Code Responses

8.2.1 Acid sulfate soils overlay code

8.2.1.1 Application

(1) This code applies to assessing a material change of use, reconfiguring a lot, operational work or building work within the Acid sulfate soils overlay, if:

(a) self-assessable or assessable development where the code is identified as being applicable in the Assessment criteria for the Overlay Codes contained in the Levels of Assessment Tables in section 5.6;

(b) impact assessable development.

(2) Land in the Acid sulphate soils overlay is identified on the Acid sulfate soils overlay map in Schedule 2 and includes the following sub-categories:

(a) Land at or below the 5m AHD sub-category;

(b) Land above the 5m AHD and below the 20m AHD sub-category.

(3) When using this code, reference should be made to Part 5.

8.2.1.2 Purpose

(1) The purpose of the acid sulfate soils overlay code is to:

(a) implement the policy direction in the Strategic Framework, in particular:

(i) Theme 2: Environment and landscape values, Element 3.5.4 Coastal zones.

(ii) Theme 3: Natural resource management, Element 3.6.2 land and catchment management, Element 3.6.3 Primary production, forestry and fisheries.

(2) enable an assessment of whether development is suitable on land within the Acid sulfate soils overlay sub-categories.

(3) The purpose of the code will be achieved through the following overall outcomes:

(a) Development ensures that the release of any acid and associated metal contaminant is avoided by not disturbing acid sulfate soils when excavating, removing soil or extracting ground water or filling land;

(b) Development ensures that disturbed acid sulfate soils, or drainage waters, are treated and, if required, on-going management practices are adopted that minimise the potential for environmental harm from acid sulfate soil and protect corrodible assets from acid sulfate soil.

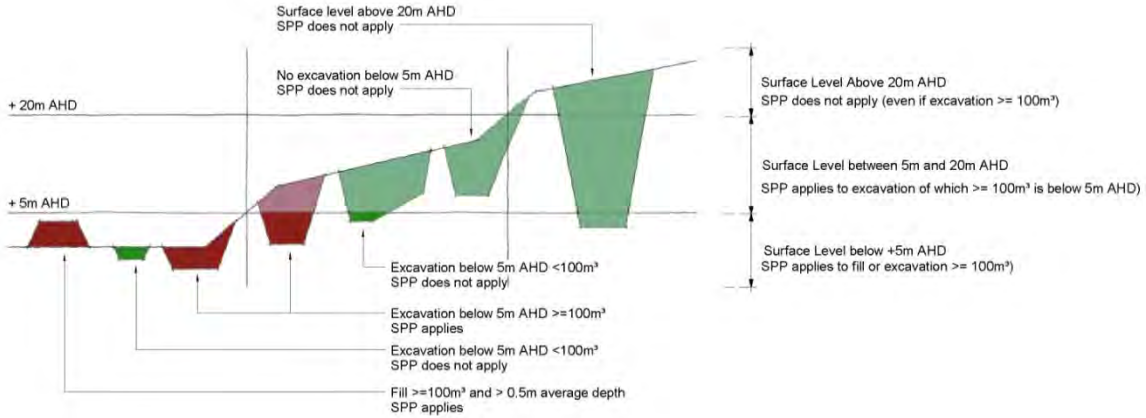
Criteria for assessment

Table 8.2.1.3.a – Acid sulfate soils overlay code – assessable development

Performance outcomes	Acceptable outcomes	Applicant response
For assessable development		
PO1 The extent and location of potential or actual acid sulfate soils is accurately identified.	**AO1.1** No excavation or filling occurs on the site. or **AO1.2** An acid sulfate soils investigation is undertaken. Note - Planning scheme policy SC 6.12– Potential and actual acid sulfate soils provides guidance on preparing an acid sulfate soils investigation.	**The existing ground levels are in excess of 10m AHD and therefore Acid Sulfate Soils are of minimal risk in this instance given that excavation will be limited to no more than 400mm in all likelihood.**
PO2 Development avoids disturbing potential acid sulfate soils or actual acid sulfate soils, or is managed to avoid or minimise the release of acid and metal contaminants.	**AO2.1** The disturbance of potential acid sulfate soils or actual acid sulfate soils is avoided by: (a) not excavating, or otherwise removing, soil or sediment identified as containing potential or actual acid sulfate soils; (b) not permanently or temporarily extracting groundwater that results in the aeration of previously saturated acid sulfate soils; (c) not undertaking filling that results in: (i) actual acid sulfate soils being moved below the water table; (ii) previously saturated acid sulfate soils being aerated. or	**The existing ground levels are in excess of 10m AHD and therefore Acid Sulfate Soils are of minimal risk in this instance given that excavation will be limited to no more than 400mm in all likelihood.**

Performance outcomes	Acceptable outcomes	Applicant response
	AO2.2 The disturbance of potential acid sulfate soils or actual acid sulfate soils is undertaken in accordance with an acid sulfate soils management plan and avoids the release of metal contaminants by: (a) neutralising existing acidity and preventing the generation of acid and metal contaminants; (b) preventing the release of surface or groundwater flows containing acid and metal contaminants into the environment; (c) preventing the in situ oxidisation of potential acid sulfate soils and actual acid sulfate soils through ground water level management; (d) appropriately treating acid sulfate soils before disposal occurs on or off site; (e) documenting strategies and reporting requirements in an acid sulfate soils environmental management plan. Note - Planning scheme policy SC 6.12 – Acid sulfate soils provides guidance on preparing an acid sulfate soils management plan.	
PO3 No environmental harm is caused as a result of exposure to potential acid sulfate soils or actual acid sulfate soils.	**AO3** No acceptable outcomes are prescribed.	**The existing ground levels are in excess of 10m AHD and therefore Acid Sulfate Soils are of minimal risk in this instance given that excavation will be limited to no more than 400mm in all likelihood.**

Figure 8.2.1.3.a – Acid sulfate soils (SPP triggers)



7.2.3 Mossman local plan code

7.2.3.1 Application

(1) This code applies to development within the Mossman local plan area as identified on the Mossman local plan maps contained in Schedule

(2) When using this code, reference should be made to Part 5.

7.2.3.2 Context and setting

Editor's note - This section is extrinsic material under section 15 of the Statutory Instruments Act 1992 and is intended to assist in the interpretation of the Mossman local plan code.

The Mossman local plan area is located at the northern end of the Captain Cook Highway where it continues on to the Daintree township as the Mossman-Daintree Road. The local plan area contains the rural and local administrative centre of Mossman.

The town of Mossman is located on a flat plain framed by the southern portion of the Daintree National Park to the west and Mount Beaufort to the east. The lush Daintree National Park dominates the town with striking views across to Mt Demi (Manjal Dimbi) and the spectacular Mossman Bluff above the Mossman Gorge. South Mossman River and North Mossman river provide significant natural entry and exit gateways to the town supported by Marrs Creek to the west. Parker Creek divides the town midway separating the commercial township from the more predominately residential areas in the southern half of the town.

Mossman developed as a strong sugar producing region at the end of the nineteenth century and quickly developed into a prosperous small town. From the mid-1930s the main commercial street was Mill Street. However Front Street, being the main access from Port Douglas and the Daintree also saw a concentration of commercial development from the 1930s onward. The town focusses on "the Triangle" and central grassed area at the five way junction at the northern end of the town providing a focal community hub that contributes significantly to the town's central setting.

The Mossman Sugar Mill in the north eastern part of the town is the northern most sugar mill in Queensland with its building and chimney stack dominating the town centre while forming part of an important vista along Mill Street looking toward Mount Beaufort. The mill is also the central focus of the cane rail network that radiates outward through the town adding an important character element that contributes to the appeal of the sugar town. Part of the cane rail network runs east-west through the Triangle occasionally delaying north-south vehicular traffic during cane harvesting months.

Mossman is a discrete linear township surrounded by sugar cane cultivation. The established business centre serves much of the northern part of the Shire with generally lower order goods and services. Service industries are concentrated at the southern end of the town providing for the general needs of the community. A limited area of expansion is available if the need arises.

Much of the township's character is derived from its picturesque rural setting and heritage character. Significant stands of mature vegetation (rain-trees and fig trees) dominate parts of the streetscape providing a much valued and identifiable feature to the town.

At the southern end of town centre, Johnston Road heads west from Front Street providing access to the Mossman Gorge, a popular tourist attraction and small indigenous community in the Daintree National Park to the west of the town. This intersection is another important focal point, particularly for tourists finding their way to the gorge. Johnston Road also provides access to the hospital and showgrounds on the western side of the town and the developing residential area off Daintree Horizon Drive: currently the main expanding residential estate in the township.

A more contemporary shopping facility is available at the southern end of Front Street on the western side of the road. Expansion of this shopping precinct has recently been completed. It is not intended that this precinct be expanded any further, and any form of redevelopment of the older retail component, will occur as an integrated development.

On the south western side of the town, off Coral Sea Drive, is a rural residential subdivision providing a green backdrop to the town. It is not intended that further lot reconfiguration occur in this area in order to protect the appeal of the hillside on the western flank of the township.

The indigenous Mossman Gorge community is located approximately three kilometres to the west of Mossman township where improved infrastructure, housing and economic opportunities are to be facilitated.

The Mossman North community located approximately two kilometres north of the Mossman township will remain as a residential community.

7.2.3.3 Purpose

(1) The purpose of the Mossman local plan code is to facilitate development which creates a vibrant and independent community which supports the needs of the local community and surrounding rural areas, while protecting and enhancing the unique local and historic character of the town.

(2) The purpose of the code will be achieved through the following overall outcomes:

- (a) Mossman will continue to develop as the major administrative, commercial and industrial centre in Douglas Shire.
- (b) The key built form and main street character of the town centre is to be retained and reinforced.
- (c) Mossman's identity as Queensland's northern-most sugar mill town is strengthened through the development of a distinct, ordered and attractive streetscape which responds to the tropical climate and the special features of the town's setting and layout.
- (d) Mossman's distinct character is enhanced through appropriate building design and landscaping.
- (e) The significant avenues of rain-trees and fig trees and other such vegetation that contribute significantly to township identity are protected.
- (f) Residential development is encouraged within designated areas to consolidate Mossman's character as a permanent residential settlement.
- (g) Residential areas are pleasant, functional, distinctive and well-defined and residential amenity is maintained and enhanced with all residential areas having good access to services and facilities, while minimising any land use conflicts associated with different urban activities or nearby rural activities.

(h) Development in the Low-medium density residential zone provides a range of housing options and contributes to a high standard of residential amenity, scale and design consistent with the character of Mossman.

(i) Opportunities for a limited range of tourist accommodation and services are facilitated to cater for the requirements of tourists passing through Mossman or visiting the Mossman Gorge.

(j) To provide the opportunity for an alternative truck route to by-pass the town centre for safer and less disruptive access between the sugar mill and Cairns (subject to further investigation as a local initiative).

(k) Improved local land use planning, housing and infrastructure arrangements enable private home ownership, economic development and municipal service delivery for the Mossman Gorge community.

(l) Mossman North will remain as a residential land use community only, with no further outward expansion intended.

(m) Conflicts between alternative land uses are minimised.

(n) Mossman's role as an industrial service centre is enhanced by facilitating the expansion of industrial development adjacent to existing industrial areas and protecting industrial areas from encroachment of incompatible land use activities.

(o) Remnant vegetation areas, riverine corridors and natural features are protected by ensuring any adjacent development is low key and sensitive to its surroundings.

(3) The purpose of the code will be further achieved through the following overall outcomes:

(a) Precinct 1 – Mossman North precinct;

(b) Precinct 2 – Foxton Avenue precinct;

(c) Precinct 3 – Junction Road residential precinct;

(d) Precinct 4 – Junction Road industry precinct;

(e) Precinct 5 – Town Centre precinct;

(f) Precinct 6 – Front Street precinct;

(g) Precinct 7 – Emerging community precinct;

(h) Precinct 8 – Mossman South industry precinct;

(i) Precinct 9 – Mossman Gorge community precinct

Precinct 1 – Mossman North precinct

(4) In addition to the overall outcomes, the outcomes sought for the precinct are to ensure that:

(a) development is restricted to low density residential uses only.

(b) development reliant on exposure to the Mossman-Daintree Road does not occur.

Precinct 2 – Foxton Avenue precinct

(5) In addition to the overall outcomes, the outcomes sought for the precinct are to ensure that:

(a) development occurs that is compatible with the establishment of a botanical garden, including a range of ancillary tourist facilities (not tourist accommodation), educational facilities and research facilities.

(b) Development takes into account physical constraints with particular attention paid to flooding and vegetation.

(c) development is adequately separated from, and protects, the existing cane railway track along the south boundary of the land;

(d) development does not impact on the environmental values of Marrs Creek.

Precinct 3 - Junction Road residential precinct

(6) In addition to the overall outcomes, the outcomes sought for the precinct are to ensure that:

(a) land within the Junction Road residential precinct is developed taking into account the opportunities and constraints with particular attention paid to flooding and vegetation. Any form of urban development is to be free from flood inundation and will not impact on current drainage regimes;

(b) development in the form of lot reconfiguration consists of lot sizes and shapes that match the character and configuration of surrounding lots;

(c) development on the site does not impact on the environmental values of the North Mossman River.

Precinct 4 - Junction Road industry precinct

(7) In addition to the overall outcomes, the outcomes sought for the precinct are to ensure that:

(a) the Mossman Mill is located within Precinct 4 and is the catalyst for encouraging and accommodating further industrial development.

(b) low and medium impact industry uses are located within the Junction Road industry precinct to service the needs of the sugar mill and to consolidate allied industrial uses;

(c) residential areas on the western side of Junction Street are protected from any industrial use, including industrial lot reconfiguration, by a dense screen of vegetation.

Precinct 5 - Town Centre precinct

(8) In addition to the overall outcomes, the outcomes sought for the precinct are to ensure that:

(a) key elements which contribute to the character and integrity of the town centre are retained;

(b) the sense of place which characterises the main town intersection of Foxton Avenue, Mill Street and Junction Road is reinforced with new development or redevelopment contributing to the existing continuity of built form by being built up to the street frontage;

(c) the cane tram line which runs along Mill Street, the vista down Mill Street to Mount Beaufort and the sugar mill chimney are retained as unique features of the town and its sugar town heritage;

(d) views from Front Street of the mountains (from various vantage points) are maintained;

(e) avenue planting within the town centre along the centre median in Front Street is maintained and extended to reinforce the character of the town centre.

Precinct 6 - Front Street precinct

(9) In addition to the overall outcomes, the outcomes sought for the precinct are to ensure that any expansion of the development is integrated with the existing shopping facilities incorporating the following design parameters:

(a) vehicular access is limited to:

(b) the existing access from Front Street opposite the Harper Street intersection;

(c) the existing access at the southern boundary of the precinct limited to commercial vehicles and staff only.

(d) any expansion complements the existing development in scale, height, roof alignment and colour;

(e) any expansion is integrated with existing development such that the final development functions as one shopping/commercial development;

(f) any expansion takes into account adjacent (existing and future) residential development and incorporates service areas, car parking and other utilities which are visually and acoustically screened to protect the residential amenity of the area.

Precinct 7 – Emerging community precinct

(10) In addition to the overall outcomes, the outcomes sought for the precinct are to ensure:

(a) development takes into account the provision of road links, cycle links, pedestrian connections and parkland allocation, generally in accordance with the local plan, to ensure that each land subdivision does not compromise the future development of adjoining land. Open space is provided with extensive road frontage for visibility / utility.

Precinct 8 - Mossman south industry precinct

(11) In addition to the overall outcomes, the outcomes sought for the precinct are to ensure that:

(a) low impact industry uses are the predominant form of industry within the Mossman South industry precinct;

(b) no uses that compete with the commercial and retail primacy of the town centre are established;

(c) development protects the amenity of adjacent and nearby residential land uses.

Precinct 9 – Mossman Gorge community precinct

(12) In addition to the overall outcomes, the outcomes sought for the precinct are to ensure that:

(a) existing commercial, community and residential uses are recognised within the discrete area contained by the Mossman Gorge community;

(b) a flexible approach to land use planning is advanced through the adoption of a structure plan for the community;

(c) a flexible approach to lot reconfiguration is permitted to advance home ownership aspirations for the community;

(d) infrastructure upgrading is undertaken and transitioned to Council for future maintenance.

Criteria for assessment

Table 7.2.3.4.a – Mossman local plan – assessable development

Performance outcomes	Acceptable outcomes	Applicant response
For self-assessable and assessable development		
PO1 Building and structures complement the height of surrounding development	**AO1** Buildings and structures are not more than 8.5 metres in height, except where included in the Industry zone where buildings and structures are not more than 10 metres in height.	**The proposal attempts to maintain both the existing form and scale of the buildings on site, which in turn maintains a consistency with the character of the surrounding area.**

Performance outcomes	Acceptable outcomes	Applicant response
For assessable development		
Development in the Mossman local plan area generally		
PO1 Development retains and enhances key landscape elements including character trees and areas of significant vegetation contributing to the character and quality of the local plan area and significant views and vistas and other landmarks important to the context of Mossman (as identified on the Mossman Townscape Plan map contained in Schedule 2).	**AO1.1** Development provides for the retention and enhancement of existing mature trees and character vegetation that contribute to the lush tropical character of the town, including: (a) the tree covered backdrop of the low density subdivision at Coral Sea Drive and Gorge View Crescent; (b) natural vegetation along watercourses, in particular the Mossman River, the South Mossman River, Parker Creek and Marrs Creek; (c) the avenue of planting in the town centre in Front Street; (d) the Raintrees in Foxton Avenue; (e) the trees on the eastern side of the Mossman-Daintree Road, just north of the North Mossman River; (f) the avenue planting of Melaleucas on the southern approach to the town along Alchera Drive; (g) Mossman sugar mill site. **AO1.2** Development protects and does not intrude into important views and vistas as identified on the Mossman Townscape Plan map contained in Schedule 2, in particular: (a) Mount Demi (Manjal Dimbi); (b) Mossman Bluff; (c) Mount Beaufort; (d) Shannonvale Valley.	**The proposal is consistent with the intent of the adopted Townscape Plan and the proposal represents an improved address of the street.** **Landscaping elements are a feature of the proposal as demonstrated in the attached plans.**

Performance outcomes	Acceptable outcomes	Applicant response
	AO1.3 Important landmarks, memorials and monuments are retained, including, but not limited to: (a) the cane tram line running east west through the town at Mill Street; (b) the general configuration of the 'Triangle' at the intersection of Front Street, Mill Street, Foxton Avenue and Junction Road	
PO2 Development contributes to the protection, reinforcement and where necessary enhancement of gateways and key intersections identified on the Mossman local plan maps contained in Schedule 2.	**AO2** Development adjacent to the gateways and key intersections as identified on the Mossman local plan maps contained in Schedule 2 incorporates architectural features and landscaping treatments and design elements that enhance the sense of arrival and way finding within the town.	**The proposal in no way compromises this clause.**
PO3 Landscaping of development sites complements the existing tropical character of Mossman.	**AO3** Landscaping incorporates the requirements of Planning scheme policy SC 6.2- Landscaping.	**Landscaping elements are a feature of the proposal as demonstrated in the attached plans.**
P04 Development does not compromise the safety and efficiency of the State-controlled road network.	**AO4** Direct access is not provided to a State-controlled road where legal and practical access from another road is available.	**The proposal in no way compromises this clause.**

Performance outcomes	Acceptable outcomes	Applicant response
For assessable development		
Additional requirements for Precinct 2 – Foxton Avenue precinct		
PO5 Development takes into account the opportunities and constraints with particular attention paid to flooding and vegetation.	**AO5** Buildings and structures are located outside areas subject to flooding. Development is undertaken in accordance with the recommendations of a Drainage/Flood Study which outlines the necessary improvements to be undertaken on the site to make it suitable for development and avoid impacts on adjoining land.	**The proposal seeks to maintain existing floor levels within the proposed alterations and additions.**
PO6 Development is adequately separated from and protects the existing cane railway track along the southern boundary of the land.	**PO6.1** Buildings and structures are setback a minimum of 10 metres from the cane railway. **PO6.2** Pedestrian access to the cane railway is restricted.	**n/a**
Additional requirements for Precinct 3 – Junction Road residential precinct		
PO7 Land within the Junction Road residential precinct is developed taking into account of the opportunities and constraints with particular attention paid to flooding and vegetation. Any form of urban development is to be free from flood inundation and will not impact on current drainage regimes.	**AO7** Development is undertaken in accordance with the recommendations of a Drainage/Flood Study which outlines the necessary improvements to be undertaken on the site to make it suitable for residential development and avoid impacts on adjoining land.	**n/a**
PO8 Development in the form of lot reconfiguration consists of lot sizes and shapes that match the character and configuration of surrounding lots.	**AO8.1** Lots have a minimum area of 800m^2. **AO8.2** Lots have a minimum frontage of 20m.	**n/a**

Performance outcomes	Acceptable outcomes	Applicant response
PO9 Development on the site does not impact on the environmental values of the North Mossman River, with any land dedication along the creek provided with access to, at minimum, a partial esplanade road frontage.	**AO9.1** Subject to any greater width requirement as a consequence of the studies required to satisfy AO8, a minimum riparian width of 30 metres is dedicated as open space along the frontage to the Mossman River. **AO9.2** Practical road access is available to the minimum riparian width of 30 metres along the frontage to the Mossman River.	**n/a**
Additional requirements for Precinct 4 – Junction Road industry precinct		
PO10 Residential areas on the western side of Junction Road are protected from any industrial use, including industrial lot reconfiguration, by a dense screen of vegetation.	**AO10.1** A dense screen of vegetation of at least 10 metres depth separates any industrial use, including any lot reconfiguration, along the full frontage of Junction Road except where road access is required. **AO10.2** No individual lots will have direct access to Junction Road across the 10 metre dense screen of vegetation.	**n/a**
Additional requirements for Precinct 5 – Town Centre precinct		
PO11 Buildings in the precinct are designed and sited to complement the existing distinctive and cohesive character of the retail and business area, including: (a) buildings built to the frontage to reinforce the existing built-form character; (b) buildings that address the street; (c) development that incorporates awnings and verandahs providing weather protection for pedestrians.	**AO11** With respect to Front Street, Foxton Avenue, Mill Street and Johnston Road, development incorporates buildings that front the street designed with non-transparent awnings that: (a) provide for pedestrian shelter that are consistent with the character and setting of the town centre; (b) are a minimum of 3.2 metres and a maximum of 3.5 metres above the finished footpath level; (c) extend and cover the adjoining footpath with a 1.5 metre setback to the kerb; (d) are continuous across the frontage of the site;	

Performance outcomes	Acceptable outcomes	Applicant response
	(e) are cantilevered from the main building and where posts are used, posts are non-load bearing; (f) include under awning lighting	
PO12 Development in the precinct contributes positively to the character of the town and is complementary in scale to surrounding development.	**AO12** Development incorporates the following design features: (a) built up to the front' alignment addressing the street frontage and continuing the scale of the existing built form and where necessary providing car parking spaces at the rear of the site;* (b) appropriate built form and roofing material; (c) appropriate fenestration in combination with roof form; (d) appropriate window openings, screens or eaves shading 80% of window openings; (e) minimum of 700mm eaves; (f) orientation of the building to address the street/s; (g) sheltered pedestrian access by enclosed covered common area walkway of 1.5 metres in width from the car park area/s to the development; (h) ground level façades facing streets consist of windows, wall openings or shop fronts; (i) vertical architectural elements a minimum of 3 metres along the length of the ground level façade; (j) inclusion of windows and balconies on the upper levels facing the street façade; (j) provision of lattice, battens or privacy screens; (k) the overall length of a building does not exceed 30 metres and the overall length of any continuous wall does not exceed 15 metres;	**The proposal is consistent with the intent of the adopted Townscape Plan and the proposal represents an improved address of the street.** **Landscaping elements are a feature of the proposal as demonstrated in the attached plans.**

Performance outcomes	Acceptable outcomes	Applicant response
	(l) Any air conditioning plant is screened from the street frontage and public view by use of architectural features. *Note - access to car parking must not adversely impact on 'built up to the front' alignment continuity.	
PO13 Site coverage of all buildings: (a) does not result in a built form that is bulky or visually intrusive to the streetscape; (b) respects the individual character of the town centre.	**AO13** Site cover does not exceed 60%.	**The proposal will result in a site coverage (inc. the approved bowling green coverings) of approximately 60%.** **It is noted that the greens roofing is of an open and transparent nature.**
PO14 Side and rear setbacks: (a) are appropriate for the scale of the development and the character of the town centre; (b) provide adequate daylight for habitable rooms on adjoining sites; (c) adequate separation between residential and non-residential uses.	**AO14.1** For side boundary setbacks, no acceptable measures are specified. **AO14.2** Buildings are setback a minimum of 6 metres from rear boundaries. Note: Building code requirements must be satisfied.	**The proposal maintains the existing setback from Johnston Road and where it has decreased (relative to the ex. building) it has done so in a manner that is consistent with achieving the intent of the adopted Mossman Townscape Plan.**
PO15 Development in the precinct is predominantly retail or office based in nature or has a service delivery function.	**AO15** Development at street level is limited to retail, office or restaurant/cafe based activities or personal services, with residential development limited to minor ancillary residential uses or to tourist accommodation located above ground level, or to the rear of the site at ground level.	**n/a**

Performance outcomes	Acceptable outcomes	Applicant response
Additional requirements for Precinct 6 – Front Street precinct		
PO16 Vehicular access is limited to: (a) the existing access from Front Street opposite the Harper Street intersection; (b) the existing access at the southern boundary of the precinct limited to commercial vehicles and staff only.	**AO16** No acceptable outcomes are prescribed.	**n/a**
PO17 Any expansion complements the existing development in scale, height, roof alignment and colour	**AO17** No acceptable outcomes are prescribed.	**The proposal attempts to maintain both the existing form and scale of the buildings on site, which in turn maintains a consistency with the character of the surrounding area.**
PO18 Any expansion is integrated with existing development such that the final development functions as one shopping/commercial development.	**AO18** No acceptable outcomes are prescribed.	**The proposal attempts to maintain both the existing form and scale of the buildings on site, which in turn maintains a consistency with the character of the surrounding area.**
PO19 Any expansion takes into account adjacent residential development and incorporates service areas, car parking and other utilities which are visually and acoustically screened to protect the residential amenity of the area.	**AO19** No acceptable outcomes are prescribed.	**The proposal attempts to maintain both the existing form and scale of the buildings on site, which in turn maintains a consistency with the character of the surrounding area.**
Additional requirements for Precinct 7 – Emerging Community precinct		
PO20 Development provides road connections, pedestrian and cycling links and open space to establish integrated, connected communities with adjoining land.	**AO20** No acceptable outcomes are prescribed.	**n/a**

Performance outcomes	Acceptable outcomes	Applicant response
Additional requirements for Precinct 8 – Mossman South industry		
PO21 Low impact industry uses are the predominant form of industry.	**AO21** Development for industrial purposes consists of service industry or low impact industry uses.	**n/a**
PO22 No uses that compete with the commercial and retail primacy of the Mossman town centre are established.	**AO22** Office or retail uses: (a) are ancillary to an industrial use; or (b) directly service the needs of the surrounding industrial precinct; (c) do not rely on passing trade from Alchera Drive.	**n/a**
PO23 Development protects the amenity of adjacent and nearby residential land uses.	**AO23** No acceptable outcomes are prescribed.	**The proposal demonstrates a suitable level of consideration with respect to preserving the amenity of the area and particularly where the proposal shares an interface with residential development.**
Additional requirements for Precinct 9 – Mossman Gorge Community		
PO24 No uses that compete with commercial and retail activities in Mossman town centre are established.	**AO24** No acceptable outcomes are prescribed.	**n/a**

6.2.9 Recreation and open space zone code

6.2.9.1 Application

(1) This code applies to assessing development in the Industry zone.

(2) When using this code, reference should be made to Part 5.

6.2.9.2 Purpose

(1) The purpose of the Recreation and open space zone code is to provide for:

- (a) Informal recreation where the built form is not essential to the enjoyment of the space;
- (b) local and district scale parks that serve the recreational needs of a wide range of residents and visitors
- (c) a range of organised activities that includes sport, cultural and educational activities where the uses require a level of built infrastructure.

(2) The local government purpose of the code is to:

- (a) implement the policy direction set in the Strategic Framework, in particular:
  - (i) Theme 1 : Settlement pattern, Element 3.4.5 Residential areas and activities.
  - (ii) Theme 4 – Strong communities and identity, Element 3.7.3 Active communities, Element 3.7.6 – Arts and culture.
- (b) provide land for the recreational needs to enhance liveability and the health and well-being of the Douglas community.

(3) The purpose of the code will be achieved through the following overall outcomes:

- (a) Areas are provided for active sport and recreation to meet community needs, including playing fields, outdoor cultural facilities, educational activities, public swimming pools and outdoor courts.
- (b) Open space is accessible to the general public for a range of outdoor sport and recreation activities.
- (c) A range of functional and accessible open spaces, including local and regional parks and linkages, are available for the use and enjoyment of residents and visitors.
- (d) Ancillary structures and buildings such as shelters, amenity facilities, picnic tables and playgrounds are provided where necessary.
- (e) Sport and recreation areas are planned and designed to enhance community liveability, scenic amenity and provide a retreat from developed areas.
- (f) The use of sport and recreation areas does not unduly affect the amenity of adjacent areas, particularly residential areas.

Criteria for assessment

Table 6.2.9.3.a – Recreation and open space zone code – assessable development

Performance outcomes	Acceptable outcomes	Applicant response
For self-assessable development		
PO1 The height of buildings and structures respects the low-scale character of the area.	**AO1** Buildings and structures, other than pole structures, are not more than 10 metres in height. Note – Height is inclusive of roof height.	**The proposal attempts to maintain both the existing form and scale of the buildings on site, which in turn maintains a consistency with the character of the surrounding area.**
PO2 Buildings and structures are setback to ensure that they do not detract from the open character of the site or impact on any use in the Sensitive land use activity group.	**AO2** Buildings and structures are setback a minimum of: (a) 8 metres from a State-controlled road; (b) 6 metres from road frontages; (c) 6 metres from land within a Residential zone; or (d) 3 metres from land in any other zone.	**The proposal attempts to maintain both the existing form and scale of the buildings on site, which in turn maintains a consistency with the character of the surrounding area.**
PO3 Car parking areas are setback from the boundaries of the site to ensure a high standard of amenity and to ensure the amenity of adjacent sensitive uses is protected.	**AO3** Car parking areas are setback: (a) 6 metres from the road frontage of the site; (b) 3 metres from any other site boundary.	**The proposal maintains the existing car parking proximity to adjoining sites, however additional landscaping and acoustic treatment is proposed in this instance.**
PO4 The setbacks to car parking areas are landscaped to enhance the amenity of the site and to provide a buffer to adjacent residential land, residential uses or any other sensitive land uses.	**AO4** The setback between the road frontage and the car parking area is landscaped with dense planting.	**The proposal maintains the existing car parking proximity to adjoining sites, however additional landscaping and acoustic treatment is proposed in this instance.**
PO5 Lighting of playing fields and club facilities do not adversely impact on the amenity of adjacent areas or uses.	**AO5.1** Structures for lighting: (a) on a site greater than 5000m2 are not more than 25 metres in height. (b) on a site less than 5000m2 are not more than 8.5 metres in height.	**n/a**

Performance outcomes	Acceptable outcomes	Applicant response
	AO5.2 Structures for lighting poles are designed, constructed and operated in a manner which complies with: (a) AS4282-1997 Control of the obtrusive effects of outdoor lighting; (b) AS2560-2007 Sports lighting.	
PO6 Organised sporting activities and training ensure that the hours of operation are consistent with reasonable community expectations for the use and do not impact on the amenity of nearby sensitive land uses.	**AO6.1** Hours of operation of organised sporting and training activities are limited to between 6.00am and 10.00pm.	**No change to operating hours is proposed.**
For assessable development		
PO7 The establishment of uses is consistent with the outcomes sought for the Recreation and open space zone and protects the zone from the intrusion of inconsistent uses.	**AO7** Uses identified in Table 6.2.9.3.b are not established in the Recreation and open space zone.	**The proposal is entirely consistent with the objectives of the zone.**
PO8 Reconfiguration does not prejudice the use of the land for open space and recreational purposes.	**AO8** No acceptable outcomes are prescribed.	**n/a**

Table 6.2.9.3.b - Inconsistent uses within the Recreation and open space zone

Inconsistent uses		
• Adult store • Agricultural supplies store • Animal husbandry • Aquaculture • Brothel • Bulk landscape supplies • Cemetery • Community care centre • Community residence • Crematorium • Cropping • Detention facility • Dual occupancy • Dwelling house • Environment facility • Extractive industry • Garden centre • Hardware and trade supplies	• High impact industry • Home based business • Hospital • Hotel • Intensive animal industry • Intensive horticulture • Low impact industry • Major electricity infrastructure • Marine industry • Medium impact industry • Multiple dwelling • Non-resident workforce accommodation • Nightclub entertainment facility • Office • Outdoor sales • Outstation • Port services • Relocatable home park • Residential care facility	• Renewable energy facility • Research and technology industry • Retirement facility • Rooming accommodation • Rural industry • Rural workers accommodation • Sales office • Service industry • Service station • Shopping centre • Short-term accommodation • Showroom • Special industry • Theatre • Transport depot • Veterinary services • Warehouse • Wholesale nursery • Winery

Note - This table does not imply that all other uses not listed in the table are automatically consistent uses within the zone. Assessable development must still demonstrate consistency through the assessment process.

8.2.10 Transport network overlay code

8.2.10.1 Application

(1) This code applies to assessing a material change of use, reconfiguring a lot, operational work or building work within the Transport network overlay; if:

(a) self-assessable or assessable development where the code is identified as being applicable in the Assessment criteria for the Overlay Codes contained in the Levels of Assessment Tables in section 5.6;

(b) impact assessable development.

(2) Land within the Transport network overlay is identified on the Transport network (Road Hierarchy) overlay map and the Transport network (Pedestrian and Cycle) overlay map in Schedule 2 and includes the following sub-categories:

(a) Transport network (Road Hierarchy) overlay sub-categories:

(i) State controlled road sub-category;

(ii) Sub-arterial road sub-category;

(iii) Collector road sub-category;

(iv) Access road sub-category;

(v) Industrial road sub-category;

(vi) Major rural road sub-category;

(vii) Minor rural road sub-category;

(viii) Unformed road sub-category;

(ix) Major transport corridor buffer area sub-category.

(b) Transport network (Pedestrian and Cycle) overlay sub-categories:

(i) Principal route;

(ii) Future principal route;

(iii) District route;

(iv) Neighbourhood route;

(v) Strategic investigation route.

8.2.10.2 Purpose

(1) The purpose of the Transport network overlay code is to:

(a) implement the policy direction of the Strategic Framework, in particular:

(i) Theme 1: Settlement pattern Element 3.4.2 Urban settlement, Element 3.4.3 Activity centres;

(ii) Theme 6: Infrastructure and transport Element 3.9.4 Transport;

(b) enable an assessment of whether development is suitable on land within the Transport network overlay.

(2) The purpose of the code will be achieved through the following overall outcomes:

(a) development provides for transport infrastructure (including active transport infrastructure);

(b) development contributes to a safe and efficient transport network;

(c) development supports the existing and future role and function of the transport network;

(d) development does not compromise the safety and efficiency of major transport infrastructure and facilities.

Criteria for assessment

Table 8.2.10.3 a – Transport network overlay code – assessable development

Performance outcomes	Acceptable outcomes	Applicant response
For assessable development		
PO1 Development supports the road hierarchy for the region. Note -A Traffic impact assessment report prepared in accordance with Planning scheme policy SC6.10 - Parking and access is one way to demonstrate achievement of the Performance Outcomes.	**AO1.1** Development is compatible with the intended role and function of the transport network as identified on the Transport network overlay maps contained in Schedule 2. **AO1.2** Development does not compromise the safety and efficiency of the transport network.	**The proposal in no way compromises the continued function of the existing and forecasted road heirarchies.**

Performance outcomes	Acceptable outcomes	Applicant response
	AO1.3 Development is designed to provide access via the lowest order road, where legal and practicable access can be provided to that road.	
PO2 Transport infrastructure is provided in an integrated and timely manner. Note - A Traffic impact assessment report prepared in accordance with Planning scheme policy SC6.10 - Parking and access is one way to demonstrate achievement of the Performance Outcomes.	**AO2** Development provides infrastructure (including improvements to existing infrastructure) in accordance with: (a) the Transport network overlay maps contained in Schedule 2; (b) any relevant Local Plan. Note – The Translink Public Transport Infrastructure Manual provides guidance on the design of public transport facilities.	**The Proposal demonstrates compliance in this regard.**
PO3 Development involving sensitive land uses within a major transport corridor buffer area is located, designed and maintained to avoid or mitigate adverse impacts on amenity for the sensitive land use.	**AO3** No acceptable outcomes are prescribed. Note – Part 4.4 of the Queensland Development Code provides requirements for residential building design in a designated transport noise corridor.	**The proponent is committed to ensuring the implementation of suggested landscape and acoustic management measures aimed at ensuring an appropriate response to sensitive matters.**
PO4 Development does not compromise the intended role and function or safety and efficiency of major transport corridors. Note - A Traffic impact assessment report prepared in accordance with Planning scheme policy SC6.10 - Parking and access is one way to demonstrate achievement of the Performance Outcomes.	**AO4.1** Development is compatible with the role and function (including the future role and function) of major transport corridors. **AO4.2** Direct access is not provided to a major transport corridor where legal and practical access from another road is available.	**The Proposal demonstrates compliance in this regard.**

Performance outcomes	Acceptable outcomes	Applicant response
	AO4.3 Intersection and access points associated with major transport corridors are located in accordance with: (a) the Transport network overlay maps contained in Schedule 2; and (b) any relevant Local Plan. **AO4.4** The layout of development and the design of the associated access is compatible with existing and future boundaries of the major transport corridor or major transport facility.	
PO5 Development retains and enhances existing vegetation between a development and a major transport corridor, so as to provide screening to potential noise, dust, odour and visual impacts emanating from the corridor.	**AO5** No acceptable outcomes are prescribed.	**The Proposal demonstrates compliance in this regard.**
Pedestrian and cycle network		
PO6 Lot reconfiguration assists in the implementation of the pedestrian and cycle movement network to achieve safe, attractive and efficient pedestrian and cycle networks	**AO6.1** Where a lot is subject to, or adjacent to an element of the pedestrian and cycle Movement network (identified on the Transport network overlay maps contained in Schedule 2) the specific location of this element of the pedestrian and cycle network is incorporated in the design of the lot layout. **AO6.2** The element of the pedestrian and cycle network is constructed in accordance with the Design Guidelines set out in Sections D4 and D5 of the Planning scheme policy SC6.5 – FNQROC Regional Development Manual.	**N/A**

8.2.10 Transport network overlay code

8.2.10.1 Application

(1) This code applies to assessing a material change of use, reconfiguring a lot, operational work or building work within the Transport network overlay; if:

(a) self-assessable or assessable development where the code is identified as being applicable in the Assessment criteria for the Overlay Codes contained in the Levels of Assessment Tables in section 5.6;

(b) impact assessable development.

(2) Land within the Transport network overlay is identified on the Transport network (Road Hierarchy) overlay map and the Transport network (Pedestrian and Cycle) overlay map in Schedule 2 and includes the following sub-categories:

(a) Transport network (Road Hierarchy) overlay sub-categories:

(i) State controlled road sub-category;

(ii) Sub-arterial road sub-category;

(iii) Collector road sub-category;

(iv) Access road sub-category;

(v) Industrial road sub-category;

(vi) Major rural road sub-category;

(vii) Minor rural road sub-category;

(viii) Unformed road sub-category;

(ix) Major transport corridor buffer area sub-category.

(b) Transport network (Pedestrian and Cycle) overlay sub-categories:

(i) Principal route;

(ii) Future principal route;

(iii) District route;

(iv) Neighbourhood route;

(v) Strategic investigation route.

8.2.10.2 Purpose

(1) The purpose of the Transport network overlay code is to:

(a) implement the policy direction of the Strategic Framework, in particular:

(i) Theme 1: Settlement pattern Element 3.4.2 Urban settlement, Element 3.4.3 Activity centres;

(ii) Theme 6: Infrastructure and transport Element 3.9.4 Transport;

(b) enable an assessment of whether development is suitable on land within the Transport network overlay.

(2) The purpose of the code will be achieved through the following overall outcomes:

(a) development provides for transport infrastructure (including active transport infrastructure);

(b) development contributes to a safe and efficient transport network;

(c) development supports the existing and future role and function of the transport network;

(d) development does not compromise the safety and efficiency of major transport infrastructure and facilities.

Criteria for assessment

Table 8.2.10.3 a – Transport network overlay code – assessable development

Performance outcomes	Acceptable outcomes	Applicant response
For assessable development		
PO1 Development supports the road hierarchy for the region. Note -A Traffic impact assessment report prepared in accordance with Planning scheme policy SC6.10 - Parking and access is one way to demonstrate achievement of the Performance Outcomes.	**AO1.1** Development is compatible with the intended role and function of the transport network as identified on the Transport network overlay maps contained in Schedule 2. **AO1.2** Development does not compromise the safety and efficiency of the transport network.	**The proposal complies in that no adverse impacts are likely in this regard.**

Performance outcomes	Acceptable outcomes	Applicant response
	AO1.3 Development is designed to provide access via the lowest order road, where legal and practicable access can be provided to that road.	**No fundamental changes are proposed to access arrangements.**
PO2 Transport infrastructure is provided in an integrated and timely manner. Note - A Traffic impact assessment report prepared in accordance with Planning scheme policy SC6.10 - Parking and access is one way to demonstrate achievement of the Performance Outcomes.	**AO2** Development provides infrastructure (including improvements to existing infrastructure) in accordance with: (a) the Transport network overlay maps contained in Schedule 2; (b) any relevant Local Plan. Note – The Translink Public Transport Infrastructure Manual provides guidance on the design of public transport facilities.	**The proposal will continue to interact with public transport infrastructure as per the existing arrangements.**
PO3 Development involving sensitive land uses within a major transport corridor buffer area is located, designed and maintained to avoid or mitigate adverse impacts on amenity for the sensitive land use.	**AO3** No acceptable outcomes are prescribed. Note – Part 4.4 of the Queensland Development Code provides requirements for residential building design in a designated transport noise corridor.	**The proposal has been designed to minimize impacts on sensitive receivers.**
PO4 Development does not compromise the intended role and function or safety and efficiency of major transport corridors. Note - A Traffic impact assessment report prepared in accordance with Planning scheme policy SC6.10 - Parking and access is one way to demonstrate achievement of the Performance Outcomes.	**AO4.1** Development is compatible with the role and function (including the future role and function) of major transport corridors. **AO4.2** Direct access is not provided to a major transport corridor where legal and practical access from another road is available.	**No conflict is proposed in respect of the continued efficient role and function of the road network.**

Performance outcomes	Acceptable outcomes	Applicant response
	AO4.3 Intersection and access points associated with major transport corridors are located in accordance with: (a) the Transport network overlay maps contained in Schedule 2; and (b) any relevant Local Plan. **AO4.4** The layout of development and the design of the associated access is compatible with existing and future boundaries of the major transport corridor or major transport facility.	
PO5 Development retains and enhances existing vegetation between a development and a major transport corridor, so as to provide screening to potential noise, dust, odour and visual impacts emanating from the corridor.	**AO5** No acceptable outcomes are prescribed.	**The proposal is committed to implementing the proposed landscape and acoustic mitigation measures outlined in the application.**
Pedestrian and cycle network		
PO6 Lot reconfiguration assists in the implementation of the pedestrian and cycle movement network to achieve safe, attractive and efficient pedestrian and cycle networks	**AO6.1** Where a lot is subject to, or adjacent to an element of the pedestrian and cycle Movement network (identified on the Transport network overlay maps contained in Schedule 2) the specific location of this element of the pedestrian and cycle network is incorporated in the design of the lot layout. **AO6.2** The element of the pedestrian and cycle network is constructed in accordance with the Design Guidelines set out in Sections D4 and D5 of the Planning scheme policy SC6.5 – FNQROC Regional Development Manual.	**Not applicable**

8.2.10 Transport network overlay code

8.2.10.1 Application

(1) This code applies to assessing a material change of use, reconfiguring a lot, operational work or building work within the Transport network overlay; if:

(a) self-assessable or assessable development where the code is identified as being applicable in the Assessment criteria for the Overlay Codes contained in the Levels of Assessment Tables in section 5.6;

(b) impact assessable development.

(2) Land within the Transport network overlay is identified on the Transport network (Road Hierarchy) overlay map and the Transport network (Pedestrian and Cycle) overlay map in Schedule 2 and includes the following sub-categories:

(a) Transport network (Road Hierarchy) overlay sub-categories:

(i) State controlled road sub-category;

(ii) Sub-arterial road sub-category;

(iii) Collector road sub-category;

(iv) Access road sub-category;

(v) Industrial road sub-category;

(vi) Major rural road sub-category;

(vii) Minor rural road sub-category;

(viii) Unformed road sub-category;

(ix) Major transport corridor buffer area sub-category.

(b) Transport network (Pedestrian and Cycle) overlay sub-categories:

(i) Principal route;

(ii) Future principal route;

(iii) District route;

(iv) Neighbourhood route;

(v) Strategic investigation route.

8.2.10.2 Purpose

(1) The purpose of the Transport network overlay code is to:

(a) implement the policy direction of the Strategic Framework, in particular:

(i) Theme 1: Settlement pattern Element 3.4.2 Urban settlement, Element 3.4.3 Activity centres;

(ii) Theme 6: Infrastructure and transport Element 3.9.4 Transport;

(b) enable an assessment of whether development is suitable on land within the Transport network overlay.

(2) The purpose of the code will be achieved through the following overall outcomes:

(a) development provides for transport infrastructure (including active transport infrastructure);

(b) development contributes to a safe and efficient transport network;

(c) development supports the existing and future role and function of the transport network;

(d) development does not compromise the safety and efficiency of major transport infrastructure and facilities.

Criteria for assessment

Table 8.2.10.3 a – Transport network overlay code – assessable development

Performance outcomes	Acceptable outcomes	Applicant response
For assessable development		
PO1 Development supports the road hierarchy for the region. Note -A Traffic impact assessment report prepared in accordance with Planning scheme policy SC6.10 - Parking and access is one way to demonstrate achievement of the Performance Outcomes.	**AO1.1** Development is compatible with the intended role and function of the transport network as identified on the Transport network overlay maps contained in Schedule 2. **AO1.2** Development does not compromise the safety and efficiency of the transport network.	**The Proposal demonstrates compliance in this regard.**

Performance outcomes	Acceptable outcomes	Applicant response
	AO1.3 Development is designed to provide access via the lowest order road, where legal and practicable access can be provided to that road.	
PO2 Transport infrastructure is provided in an integrated and timely manner. Note - A Traffic impact assessment report prepared in accordance with Planning scheme policy SC6.10 - Parking and access is one way to demonstrate achievement of the Performance Outcomes.	**AO2** Development provides infrastructure (including improvements to existing infrastructure) in accordance with: (a) the Transport network overlay maps contained in Schedule 2; (b) any relevant Local Plan. Note – The Translink Public Transport Infrastructure Manual provides guidance on the design of public transport facilities.	**The Proposal demonstrates compliance in this regard.**
PO3 Development involving sensitive land uses within a major transport corridor buffer area is located, designed and maintained to avoid or mitigate adverse impacts on amenity for the sensitive land use.	**AO3** No acceptable outcomes are prescribed. Note – Part 4.4 of the Queensland Development Code provides requirements for residential building design in a designated transport noise corridor.	**The Proposal demonstrates compliance in this regard.**
PO4 Development does not compromise the intended role and function or safety and efficiency of major transport corridors. Note - A Traffic impact assessment report prepared in accordance with Planning scheme policy SC6.10 - Parking and access is one way to demonstrate achievement of the Performance Outcomes.	**AO4.1** Development is compatible with the role and function (including the future role and function) of major transport corridors. **AO4.2** Direct access is not provided to a major transport corridor where legal and practical access from another road is available.	**The Proposal demonstrates compliance in this regard.**

Performance outcomes	Acceptable outcomes	Applicant response
	AO4.3 Intersection and access points associated with major transport corridors are located in accordance with: (a) the Transport network overlay maps contained in Schedule 2; and (b) any relevant Local Plan. **AO4.4** The layout of development and the design of the associated access is compatible with existing and future boundaries of the major transport corridor or major transport facility.	
PO5 Development retains and enhances existing vegetation between a development and a major transport corridor, so as to provide screening to potential noise, dust, odour and visual impacts emanating from the corridor.	**AO5** No acceptable outcomes are prescribed.	**The Proposal demonstrates compliance in this regard.**
Pedestrian and cycle network		
PO6 Lot reconfiguration assists in the implementation of the pedestrian and cycle movement network to achieve safe, attractive and efficient pedestrian and cycle networks	**AO6.1** Where a lot is subject to, or adjacent to an element of the pedestrian and cycle Movement network (identified on the Transport network overlay maps contained in Schedule 2) the specific location of this element of the pedestrian and cycle network is incorporated in the design of the lot layout. **AO6.2** The element of the pedestrian and cycle network is constructed in accordance with the Design Guidelines set out in Sections D4 and D5 of the Planning scheme policy SC6.5 – FNQROC Regional Development Manual.	**The Proposal demonstrates compliance in this regard.**

Attachment E

Acoustic Assessment

CRGACOUSTICS

Postal PO Box 441 Mermaid Beach Qld 4218
Telephone 07 5527 7333
Email jay@crg.net.au
CRG Acoustics Pty Ltd
ACN 151 847 255 ABN 11 708 556 182

Proposed Alterations and Additions
Mossman Memorial Bowling Club

ENVIRONMENTAL NOISE IMPACT ASSESSMENT

Prepared For:

Rubicon Design + Construct

21 June 2023

crgref: 22144 Report REV 2

1.0 INTRODUCTION

This report is in response to a request by Rubicon Design + Construct for an environmental noise assessment of proposed alterations and additions to the existing Mossman Memorial Bowls Club in Mossman.

In undertaking this assessment, attended and unattended noise measurements were conducted and through modelling, predictions of onsite activity noise emissions were produced. Based upon the predicted noise levels, recommendations regarding acoustic treatment at the site have been provided.

2.0 SITE & DEVELOPMENT DESCRIPTION

The proposal relates to Lot 40 on SP2535262, 6 – 8 Johnston Rd, Mossman. The site is bounded by Johnston Rd to the north, vacant land and commercial properties to the east, and residential to the southeast, south and west, and across Johnston Rd to the northeast. For site location refer to Appendix A.

The proposal is for reconfiguration of the internal layout, primarily to the southern and eastern part of the building. Essentially, the following will be undertaken:

STAGE 1

- Reconfiguration of toilets;
- Expansion of Gaming;
- New offices adjacent to Gaming;
- Reconfiguration of DOSA to southeastern corner leading off Gaming;
- New toilets adjacent to Gaming;
- Refurbishment of Dining & Lounge;
- New Sports Lounge replacing part of existing Lounge;
- Refurbishment of existing Entry to include Porte Cochere;
- Removal of existing condensers to new roof mounted plant enclosure to the southeast of the roof.

STAGE 2

- Relocation of loading to northwestern corner of the building;
- New DOSA to centre of the northern facade leading off Sports Lounge;
- Relocate roof mounted plant to new plant enclosure towards the centre of the southern end of the roof.
- Extension to Café Lounge to the northern side of the building (replacing the existing loading area);
- New amenities to the western side of the greens servicing the Bowling Green;
- New BBQ Terrace to southwest corner of the building.

This report assess the ultimate completed Stages 1 and 2 proposed.

All other parts of the site (being Function space, carparking, kitchen, function room and bowling greens) are retained in the current form and usage, with the exception being removal of a limited number of car spaces adjacent to the building. Further, hours of operation are retained from current arrangement, being a maximum of 10am to midnight, 7 days per week.

Changes to activity noise associated the alterations have been assessed to ensure an acceptable level of acoustical amenity can be achieved at the nearest noise sensitive receivers. The nearest offsite noise sensitive receivers to the development include a dwelling to the northeast across Johnston Rd, dwellings to the southeast and south to the rear of the site, and a dwelling to the western boundary. For offsite noise sensitive receiver locations refer to Figure 2 in Appendix A.

We are advised that the Club has been in operation for over 80 years on the subject site.

3.0 AMBIENT NOISE SURVEY

3.1 Instrumentation

The following equipment was used to record ambient noise levels at the subject site locale:

- Svantec SV36 Calibrator;
- Svantec 971 Sound Level Meter with octave band recording.

All instrumentation used in this assessment hold current calibration certificate from a certified NATA calibration laboratory.

3.2 Unattended Background Measurement Methodology

A logger was located in the backyard of the dwelling to the south of the subject site, at 32 Riflebird Crescent. The microphone was in a free-field location approximately 1.4m above ground. Refer to Figure 2 in Appendix A for the logger location.

The logger was set to record noise statistics in 15-minute blocks continually between Tuesday 02/05/2023 and Wednesday 10/05/2023.

All measurements were conducted generally in accordance with Australian Standard AS 1055 *"Acoustics-Description and measurement of environmental noise"*. The operation of the sound level logging equipment was field calibrated before and after the measurement session with no significant drift from the reference signal recorded.

Daily weather observations were obtained from the Bureau of Meteorology's website at the Cairn's Aero weather station. Weather conditions during the noise monitoring period were fine with <1mm of rain on 04/05/2023 and 6mm on 07/05/2023 which didn't affect noise levels, a temperature range between 21 to 31°C and a relative humidity between 49 and 75%.

3.3 Unattended Background Measurement Results

Table 1 below presents the Rating Background noise levels (RBLs) calculated from the logger. The RBL for each period was calculated in accordance with the methodology detailed in the QLD EPA guideline "*Planning for noise control*". Graphical presentation of the measured noise levels is presented in the Appendix C.

Background Noise Descriptor	Time Period	Measured Level dB(A)
L_{90} RBL Daytime	7am to 6pm	37
L_{90} RBL Evening	6pm to 10pm	35
L_{90} RBL Night-time	10pm to 7am	33

Table 1: Rating Background noise levels calculated from measured background noise levels.

Table 2 below presents the measured background noise levels recorded at the logger location. Measured Linear levels were converted to *"C"* Weight levels for presentation in Table 2.

Short-term SPL dB(lin) Hz Octave Band Centre Frequencies						
63	**125**	**250**	**500**	**1k**	**2k**	**AP**
15	18	21	29	25	18	33
Short-term SPL dB(C) Hz Octave Band Centre Frequencies						
63	**125**	**250**	**500**	**1k**	**2k**	**AP**
14	20	23	30	27	26	33

Table 2: Measured octave band ambient noise levels at the logger location.

4.0 NOISE CRITERIA

The Acceptable Outcomes of Performance Outcome PO3 of the Environmental Performance Code, within the Cairns Plan 2016, cites the Environmental Protection (Noise) Policy 2008 as presented below:

Noise	
PO3 Potential noise generated from the development is avoided through design, location and operation of the activity. Note – Planning Scheme Policy – Environmental Management Plans provides guidance on preparing a report to demonstrate compliance with the purpose and outcomes of the Code.	**AO3.1** Development does not involve activities that would cause noise related environmental harm or nuisance; or **AO3.2** Development ensures noise does not emanate from the site through the use of materials, structures and architectural features to not cause an adverse noise impact on adjacent uses. and **AO3.3** The design and layout of development ensures car parking areas avoid noise impacting directly on adjacent sensitive land uses through one or more of the following: (a) car parking is located away from adjacent sensitive land uses; (b) car parking is enclosed within a building; (c) a noise ameliorating fence or structure is established adjacent to car parking areas where the fence or structure will not have a visual amenity impact on the adjoining premises; (d) incorporating a densely vegetated buffer adjacent to car parking areas. Note – The Environmental Protection (Noise) Policy 2008, Schedule 1 provides guidance on acoustic quality objectives to ensure environmental harm (including nuisance) is avoided.

It is noted that the Environmental Protection (Noise) Policy 2008 has now been superceded by the Environmental Protection (Noise) Policy 2019, which has been applied to assess noise emissions from the proposed alterations and additions.

Further, in relation to AO3.3, there are no plans to redevelop the carparking areas, therefore, assessment of onsite carparking has not been undertaken.

Section 6 of the Environmental Protection (Noise) Policy 2019 provides the following framework for environmental values to be enhanced or protected:

6 Environmental values

The environmental values to be enhanced or protected under this policy are—

(a) the qualities of the acoustic environment that are conducive to protecting the health and biodiversity of ecosystems; and

(b) the qualities of the acoustic environment that are conducive to human health and wellbeing, including by ensuring a suitable acoustic environment for individuals to do any of the following—

(i) sleep;

(ii) study or learn;

(iii) be involved in recreation, including relaxation and conversation; and

(c) the qualities of the acoustic environment that are conducive to protecting the amenity of the community.

Section 9 of the Environmental Protection (Noise) Policy 2019 provides the following framework for management intent for noise:

9 Management intent for noise

(1) This section states the management intent for an activity involving noise that affects, or may affect, an environmental value to be enhanced or protected under this policy.

Note—

See section 35 of the *Environmental Protection Regulation 2019*.

(2) To the extent it is reasonable to do so, noise must be dealt with in a way that ensures—

(a) the noise does not have any adverse effect, or potential adverse effect, on an environmental value under this policy; and

(b) background creep in an area or place is prevented or minimised.

(3) Despite subsection (2)(b), if the acoustic quality objectives for an area or place are not being achieved or maintained, the noise experienced in the area or place must, to the extent it is reasonable to do so, be dealt with in a way that progressively improves the acoustic environment of the area or place.

(4) In this section—

background creep, for noise in an area or place, means a gradual increase in the total amount of background noise in the area or place as measured under the document called the 'Noise measurement manual' published on the department's website.

Schedule 1 of the Environmental Protection (Noise) Policy 2019 provides the following specific *"Acoustic Quality Objectives"* to ensure that the above is achieved:

Column 1	Column 2	Column 3			Column 4
Sensitive receptor	**Time of day**	**Acoustic quality objectives (measured at the receptor) *dB(A)***			**Environmental value**
		$L_{Aeq,adj,1hr}$	$L_{A10,adj,1hr}$	$L_{A1,adj,1hr}$	
residence (for outdoors)	daytime and evening	50	55	65	health and wellbeing
residence (for indoors)	daytime and evening	35	40	45	health and wellbeing
	night-time	30	35	40	health and wellbeing, in relation to the ability to sleep

Table 3: Criterion from Schedule 1 of the Environmental Protection (Noise) Policy 2019.

It is noted that the EPP Noise 2019 provides no numeric criteria for control of background creep. For this reason, we have applied the previous criteria applied under the EPP Noise 2008, as follows. Based upon the measured RBL levels presented in Section 3.3, the *"Background Creep"* criterion (as previously defined under the Environmental Protection (Noise) Policy 2008) equates to the following levels at the nearest offsite receivers:

Time Varying Noise Source	**Noise Limit, SPL dB(A) L_{eq}**
Daytime 7am to 6pm	42 (RBL L_{90} level 37 + 5 dB)
Evening 6pm to 10pm	40 (RBL L_{90} level 35 + 5 dB)
Night-time 10pm to 7am	38 (RBL L_{90} level 33 + 5 dB)
Continuous Noise Source	**Noise Limit, SPL dB(A) L_{90}**
Daytime 7am to 6pm	37 (RBL L_{90} level 37 + 0 dB)
Evening 6pm to 10pm	35 (RBL L_{90} level 35 + 0 dB)
Night-time 10pm to 7am	33 (RBL L_{90} level 33 + 0 dB)

Table 4: Noise limit criterion for *"Background Creep"*.

5.0 PREDICTED NOISE IMPACTS

All noise source levels used in the assessment have been collected from similar assessments, including assessments of gaming rooms in Chinderah, Gympie, Murwillumbah and Surfers Paradise. All *"Acoustic Quality Objective"* noise levels have been corrected for impulsiveness or tonality as per Australian Standard AS 1055 *"Acoustics-Description and measurement of environmental noise*".

For patron noise in the lounge and DOSA, we have applied the L_{eq}, L_{10} and L_{01} source levels calculated from the formulas within the technical paper *"Prediction of Noise from Small to Medium Sized Crowds"* (Hayne et al, 2011). Patron numbers are generally based upon available seating.

The following noise source levels would typically occur as part of the proposed alterations and additions and have been assessed within this report.

Activity/Noise Source	**Distance To Source**	**Event Duration Noise Level, SPL dB(A)**		
		L_{eq}	**L_{10}**	**L_{01}**
DOSA (10 patrons daytime & evening & night)	1m	68	71	77
New Sports Lounge (50 patrons) Daytime / evening	1m	77	80	84
New Sports Lounge (20 patrons) Night	1m	73	76	80
Gaming Room (50 machines)	1m	68**	74**	80**
Loading activity	1m	79*	83*	85*
Patrons BBQ terrace (56 patrons) Day/Evening	1m	79	82	85
Patrons BBQ terrace (20 patrons) Night	1m	73	76	80

* Denotes + 5 dB correction for impulsiveness in accordance with AS1055. ** Denotes + 5 dB correction for tonality in accordance with AS1055.

Table 5: Typical noise source levels associated with the proposed alterations and additions.

For the L_{Aeq} levels we have presented both the adjusted 15 minute duration and also the adjusted one hour duration. For assessment of the *"Background Creep"* criterion we have adopted the $L_{Aeq\ 15\ minute}$ duration levels.

Based upon the location of the proposed onsite activities in relation to the nearest offsite noise sensitive receivers (building façades and inside rooms with windows open), we predict the following noise impact levels as presented in Table 6. Note that we have assumed a single storey dwelling will be built, in keeping with other dwellings on Riflebird Crescent, and our combined impacts do not include loading, as this is an existing activity, occurs irregularly, and only during the daytime.

The predicted levels assume that the recommended treatments detailed in Section 6 are incorporated into the development.

For offsite noise sensitive receiver locations refer to Figure 2 in Appendix A.

For point source calculations refer to Appendix C.

It is noted that no changes are proposed to carparking, deliveries or waste collection, therefore, these activities have not been assessed.

Noise Source	Predicted Noise Impact, SPL dB(A) DAY / EVENING						
	Nearest Façade				Inside Windows OPEN		
	$L_{eq\ 15min}$	$L_{eq\ 1hr}$	$L_{10\ 1hr}$	$L_{01\ 1hr}$	$L_{eq\ 1hr}$	$L_{10\ 1hr}$	$L_{01\ 1hr}$
R1: Dwelling to the northeast 3 Johnston Road (Lot 1 RP706259)							
Southeastern DOSA	32	32	35	41	25	28	34
New Sports Lounge day / evening	35	35	38	41	27	30	34
Gaming Room (50 machines)	< 15	19	25	31	< 15	18	24
Loading new dock	39	44	48	50	37	41	43
Northern DOSA	35	35	38	44	27	30	36
Patrons on BBQ Terrace day/evening	< 15	< 15	< 15	17	< 15	< 15	< 15
COMBINED IMPACTS (excl. dock)	**39**	**39**	**42**	**44**	**31**	**34**	**36**
R2: Dwelling to the southeast 61 Captain Cook Highway (Lot 10 RP707030)							
Southeastern DOSA	27	27	30	36	20	23	29
New Sports Lounge day / evening	24	24	27	30	16	19	22
Gaming Room (50 machines)	25	30	36	42	23	29	35
Loading new dock	< 15	< 15	15	17	< 15	< 15	< 15
Northern DOSA	< 15	< 15	< 15	< 15	< 15	< 15	< 15
Patrons on BBQ Terrace day/evening	36	36	39	42	29	32	35
COMBINED IMPACTS (excl. dock)	**37**	**38**	**41**	**42**	**30**	**34**	**35**
R3: Dwellings to the south-southwest 30 - 32 Riflebird Crescent (Lots 19 SP186233; Lot 20 SP186231)							
Southeastern DOSA	35	35	38	44	27	30	36
New Sports Lounge day / evening	26	26	29	32	19	22	25
Gaming Room (50 machines)	24	29	35	41	22	28	34
Loading new dock	29	34	38	40	26	30	32
Northern DOSA	< 15	< 15	< 15	< 15	< 15	< 15	< 15
Patrons on BBQ Terrace day/evening	40	40	43	46	32	35	38
COMBINED IMPACTS (excl. dock)	**41**	**41**	**45**	**46**	**34**	**37**	**38**
R4: Dwelling to the west 10 Johnston Road (Lot 3 RP707030)							
Southeastern DOSA	35	35	38	44	28	31	37
New Sports Lounge day / evening	30	30	33	36	23	26	29
Gaming Room (50 machines)	25	30	36	42	22	285	34
Loading new dock	36	41	45	47	33	37	39
Northern DOSA	< 15	< 15	< 15	15	< 15	< 15	< 15
Patrons on BBQ Terrace day/evening	42	42	45	48	34	3.8	40
COMBINED IMPACTS (excl. dock)	**43**	**43**	**46**	**48**	**36**	**39**	**40**
7am - 10pm Criterion (day/evening)	**42 / 40**	**50**	**55**	**65**	**35**	**40**	**45**

Table 6: Predicted day / evening onsite activity noise impacts at noise sensitive receivers.

Noise Source	Predicted Noise Impact, SPL dB(A) NIGHT						
	Nearest Façade				Inside Windows OPEN		
	$L_{eq\ 15min}$	$L_{eq\ 1hr}$	$L_{10\ 1hr}$	$L_{01\ 1hr}$	$L_{eq\ 1hr}$	$L_{10\ 1hr}$	$L_{01\ 1hr}$
R1: Dwelling to the northeast 3 Johnston Road (Lot 1 RP706259)							
Southeastern DOSA	32	32	35	41	25	28	34
New Sports Lounge night	29	29	32	37	21	24	29
Gaming Room (50 machines)	< 15	19	25	31	< 15	18	24
Northern DOSA	35	35	38	44	27	30	36
Patrons on BBQ Terrace night	< 15	< 15	< 15	< 15	< 15	< 15	< 15
COMBINED IMPACTS	**37**	**37**	**40**	**44**	**30**	**33**	**36**
R2: Dwelling to the southeast 61 Captain Cook Highway (Lot 10 RP707030)							
Southeastern DOSA	27	27	30	36	20	23	29
New Sports Lounge night	18	18	21	26	< 15	< 15	18
Gaming Room (50 machines)	25	30	36	42	23	29	35
Northern DOSA	< 15	< 15	< 15	< 15	< 15	< 15	< 15
Patrons on BBQ Terrace night	29	29	32	37	22	25	30
COMBINED IMPACTS	**33**	**34**	**38**	**42**	**26**	**31**	**35**
R3: Dwellings to the south-southwest 30 - 32 Riflebird Crescent (Lots 19 SP186233; Lot 20 SP186231)							
Southeastern DOSA	35	35	38	44	27	30	36
New Sports Lounge night	20	20	23	28	< 15	16	21
Gaming Room (50 machines)	24	29	35	41	22	28	34
Northern DOSA	< 15	< 15	< 15	< 15	< 15	< 15	< 15
Patrons on BBQ Terrace night	33	33	36	41	25	28	33
COMBINED IMPACTS	**37**	**38**	**41**	**44**	**30**	**34**	**36**
R4: Dwelling to the west 10 Johnston Road (Lot 3 RP707030)							
Southeastern DOSA	35	35	38	44	28	31	37
New Sports Lounge night	24	24	27	32	117	20	24
Gaming Room (50 machines)	25	30	36	42	22	285	34
Loading new dock	36	41	45	47	33	37	39
Northern DOSA	< 15	< 15	< 15	15	< 15	< 15	< 15
Patrons on BBQ Terrace night	35	35	38	43	28	31	35
COMBINED IMPACTS	**39**	**39**	**42**	**44**	**31**	**35**	**37**
10pm to Midnight Criterion (night)	**38**	**N/A**	**N/A**	**N/A**	**30**	**35**	**40**

Table 7: Predicted night onsite activity noise impacts at noise sensitive receivers.

Continuous activity noise source levels have been compiled from similar previous investigations. All noise levels have been corrected for impulsiveness or tonality as per Australian Standard AS 1055:1997 – *"Acoustics-Description and measurement of environmental noise*".

It should be stressed that mechanical plant requirements for the proposed alterations and extensions are not yet known, for this reason; we have applied noise levels from other similar sites as follows:

- New toilet exhaust fans generating 52 dB(A) at 3m.
- Large condenser units each generating 56 dB(A) at 3m.
- Small condenser units each generating 48 dB(A) at 3m.

Based upon the locations of the plant decks in relation to the nearest offsite noise sensitive receivers (building façades and inside rooms with windows open), we predict the following noise impact levels as presented in Table 8.

The predicted levels assume that the recommended treatments detailed in Section 6 are incorporated into the development.

For offsite noise sensitive receiver locations refer to Figure 2 in Appendix A. For point source calculations refer to Appendix C.

Continuous Noise Source	**Predicted Noise Impact, SPL L_{eq} dB(A)**	
	Nearest Façade	**Inside Windows OPEN**
R1: Dwelling to the north		
Combined mechanical plant (2 plant decks)	33	26
R2: Dwellings to the southeast		
Combined mechanical plant (2 plant decks)	34	27
R3: Dwellings to the south-southeast		
Combined mechanical plant (2 plant decks)	34	27
R4: Dwellings to the south		
Combined mechanical plant (2 plant decks)	36	29
7am to 10pm Residential Criterion	**37 / 35**	**35**
10pm to 7am Residential Criterion	**33**	**30**

Table 7: Predicted onsite mechanical plant noise impacts at noise sensitive receivers.

6.0 RECOMMENDED ACOUSTIC TREATMENTS

6.1 Onsite Activity Acoustic Treatment Recommendations

We recommend that the following acoustic treatments be incorporated into the development to mitigate onsite activity noise:

- Staff should be diligent in maintaining acceptable activities and noise levels from the patrons at outdoor DOSA areas, alfresco and terrace areas, particularly after 10pm.
- Goods delivery and waste collection be limited to 7am to 6pm.
- Acoustically absorptive lining be applied on the underside of the ceiling of the southeastern DOSA to achieve a Noise Reduction Coefficient greater than NRC 0.8.
- Solid wall to the western side of the BBQ Terrace. Refer to Sketch No. 3, attached. This is only required at Stage 2 of the development.
- Acoustically absorptive lining be applied on the underside of the ceiling of the BBQ Terrace to achieve a Noise Reduction Coefficient greater than NRC 0.8. Refer to Sketch No. 3, attached. This is only required at Stage 2 of the development.
- New ceilings be solid set plasterboard.
- A 2.2m high acoustical screen be extended along the western side of the loading area. Refer to Sketch No. 1, attached. This is only required at Stage 2 of the development.
- A 2.5m high acoustical screen be extended along the southern boundary. Refer to Sketch No. 4, attached. This is only required at Stage 2 of the development.
- New Café/lounge wall be rated to minimum R_w 38 (e.g. fixed 10.38mm laminated glass).
- Gaming Room to be carpeted or an acoustically absorptive ceiling (Noise Reduction Coefficient greater than NRC 0.8) be hung below the solid set plasterboard ceiling.
- New or relocated mechanical plant be designed and installed to comply with the noise criterion presented in Section 4.2. As final plant selection has not been completed, an assessment of plant should be conducted during the design phase, and a Certificate provided to the Building Certifier confirming that installed plant achieves the noise limit criteria. Based upon assumed source levels, acoustical screens may be required to the east, west and southern sides of the roof plant decks. Refer to Sketch No. 2, attached for an indicative design that may be revised upon detailed design. Note that the western plant screen is only required at Stage 2 of the development, but the eastern plant screen is required at Stage 1.

7.0 DISCUSSION

Onsite activity noise associated with the alterations and additions has been assessed to ensure an acceptable level of acoustical amenity can be achieved at the nearest noise sensitive receivers, which include a dwelling to the northeast, detached dwellings to the southeast and south-southeast, and to the west.

Based upon the worst case scenarios, assumed source levels and acoustic treatments, onsite activity noise emissions associated with the alterations and additions are predicted to impact the nearest offsite noise sensitive receivers within 3 dB of the relevant *"Acoustic Quality Objectives"* and *"Background Creep"* criterion. As the average person cannot detect a 3 dB shift in sound pressure level, an exceedance of 3 dB is not deemed significant.

To minimise noise emissions to the offsite noise sensitive receivers, we have recommended that staff to be diligent in maintaining acceptable activities and noise levels from the patrons at the reconfigured DOSA, particularly after 10pm. Management of patron behaviour is key in ensuring compliance with the noise limits for patron voice, as boisterous behaviour will result in exceedances at nearest dwellings. Further, acoustical screens, barriers and sound absorption has been recommended to mitigate noise impacts – such treatments are viewed as best practice .

We have also provided an indication of potential noise impact levels of likely new or relocated mechanical plant; although the levels are merely a guide as no plant selections have yet been completed. For this reason, additional more detailed assessment/s should be conducted upon determination of plant. Such assessments should be undertaken prior to Building Approval; and be conditioned within the Development Approval.

8.0 CONCLUSIONS

This report is in response to a request by Rubicon Design + Construct for an environmental noise assessment of proposed alterations and additions to the existing Mossman Memorial Bowls Club.

Based upon the assessed attached Development Plans, the proposal can be shown to be within acceptable levels of the adopted noise criterion subject to the recommended treatments detailed in Section 6 being incorporated into the development.

Report Compiled By:

JAY CARTER BSc
Director

APPENDIX A

Subject Site, Measurement Location and Surrounding Noise Sensitive Receivers

Figure No. 1: Subject Site Location (Google Maps).

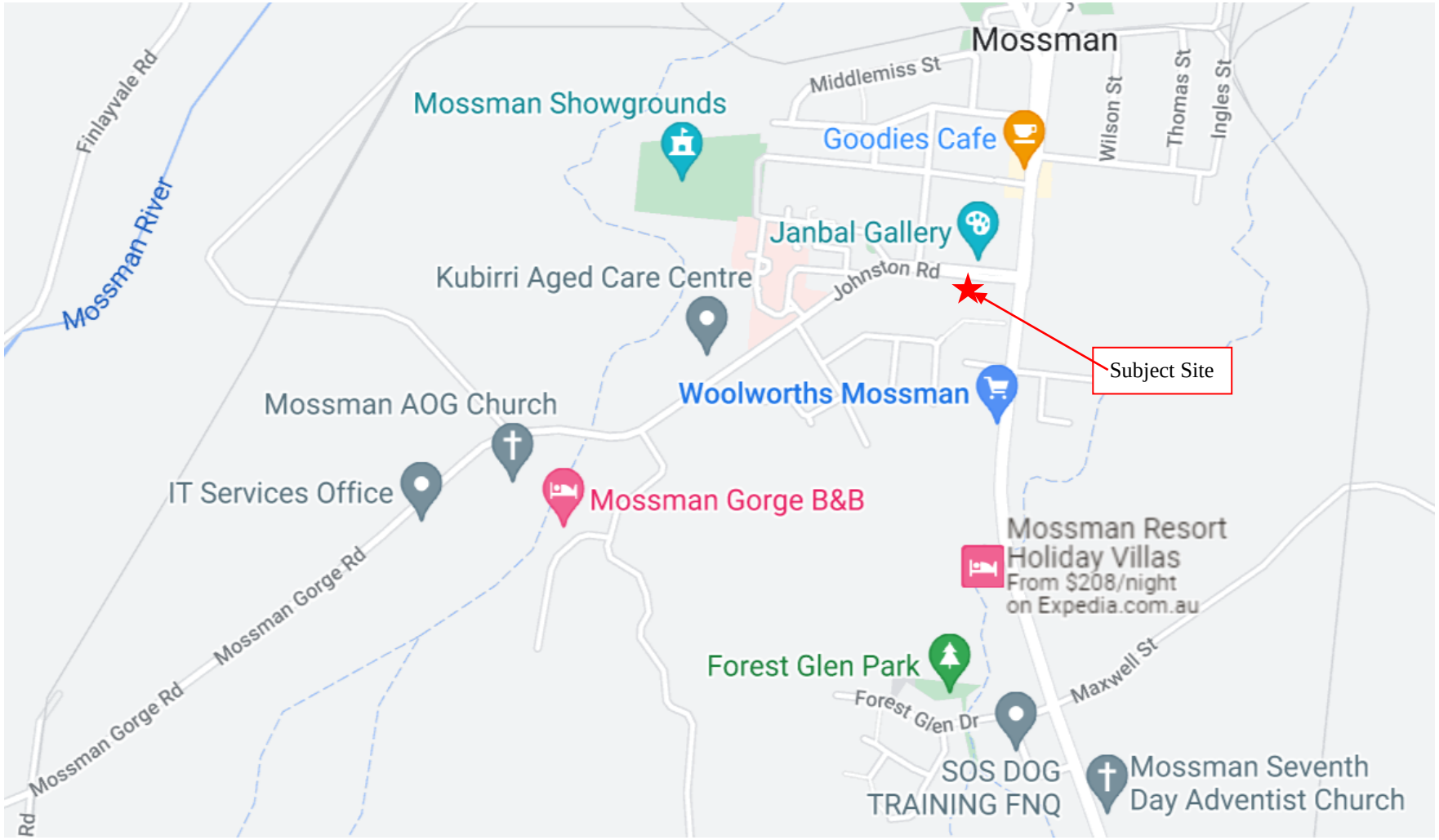


Figure No. 2: Subject Site, Noise Monitoring Location and Surrounding Receivers (QLD Globe).

Photograph Sheet 1

Photograph 1: View looking north from Riflebird Crescent looking across R3 at western dwelling (R4)

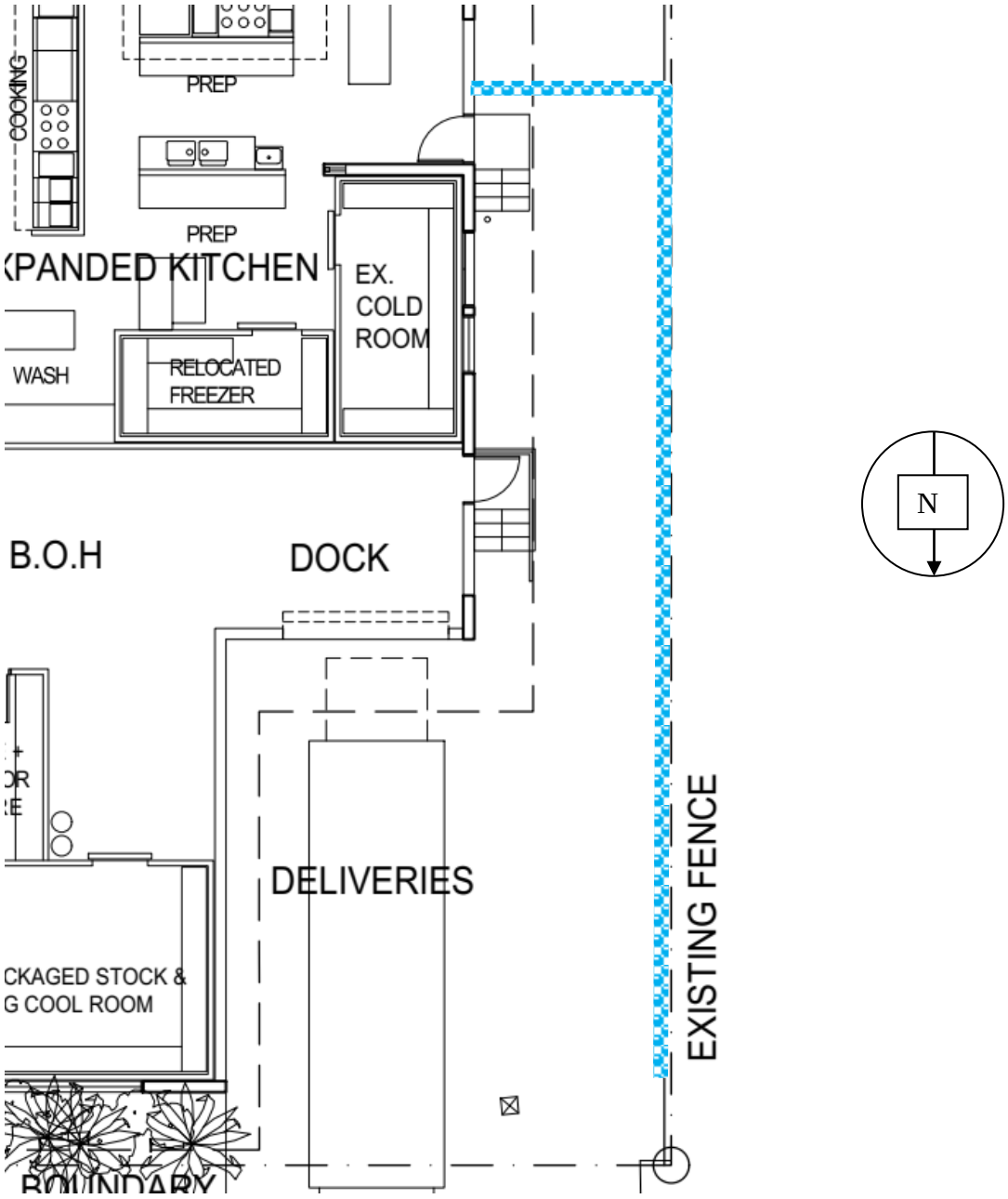
Photograph 2: View looking north from Riflebird Crescent looking at subject site across R3

Photograph Sheet 2

Photograph 3: Dwelling at R3

Photograph 4: Logger in backyard of dwelling at 32 Riflebird Crescent

Sketch No. 1: Recommended Acoustical Barrier – STAGE 2

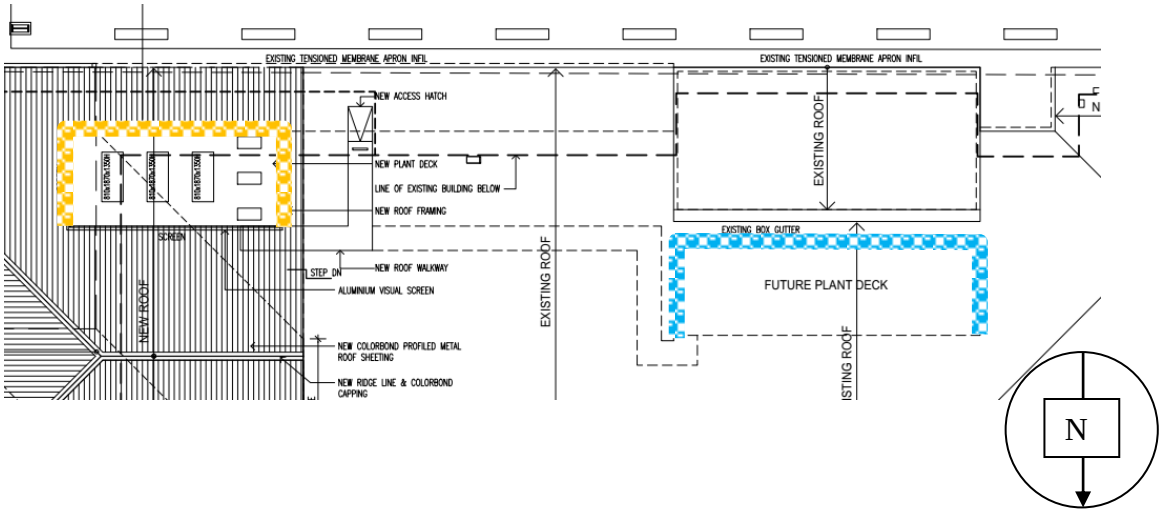


ACOUSTIC TREATMENT LEGEND

Recommended 2.2m high acoustical barrier constructed above the existing or finished carpark grade, whichever is higher.

Barriers are to be free of gaps and holes, including no gaps between the ground and the base of the barrier. Typical materials include 2 layers of colourbond metal sheet, 19mm lapped timber fence (40% overlap), 9mm FC sheet, toughened glass, Perspex, masonry, or a combination of the above (a minimum surface mass of 11kg/m^2 is required).

Sketch No. 2: Indicative Acoustical Screens to Roof Plant Decks – STAGES 1 & 2



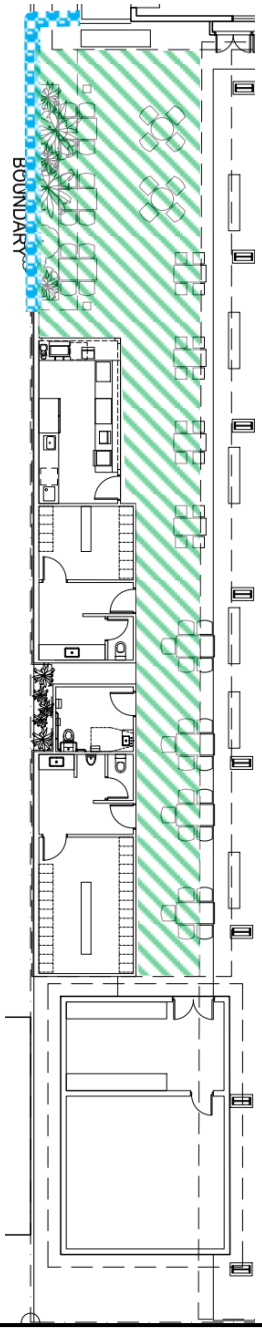
ACOUSTIC TREATMENT LEGEND

Indicative acoustical barrier extending 300mm above top edge of tallest plant on deck. STAGE 2

Indicative acoustical barrier extending 300mm above top edge of tallest plant on deck. STAGE 1

Barriers are to be free of gaps and holes, including no gaps between the ground and the base of the barrier. Typical materials include 2 layers of colourbond metal sheet, 9mm FC sheet, toughened glass, Perspex, masonry, or a combination of the above (a minimum surface mass of 11kg/m^2 is required).

Sketch No. 3: Recommended Acoustical Treatment to BBQ Terrace – STAGE 2

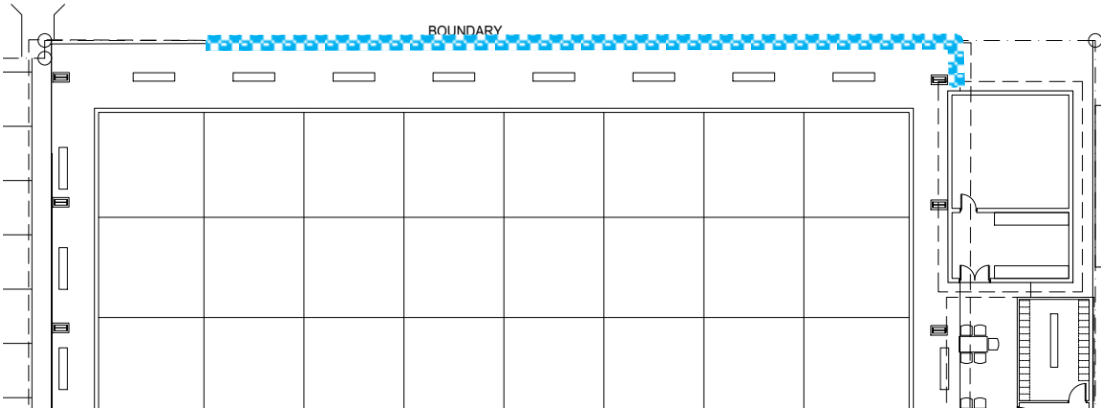


ACOUSTIC TREATMENT LEGEND

Recommended solid wall, may be constructed of 9mm FC sheet, 6mm toughened glass, masonry or combination (a minimum surface mass of 11kg/m^2 is required).

Acoustically absorptive ceiling lining under roof (min NRC 0.8). Typical treatments include Megasorber PN, or fibreglass with an NRC of greater than 0.8, with a hard perforated sheet facing (e.g. plywood or FC sheet) min 12% open face area.

Sketch No. 3: Recommended Acoustical Treatment to Southern Boundary – STAGE 2



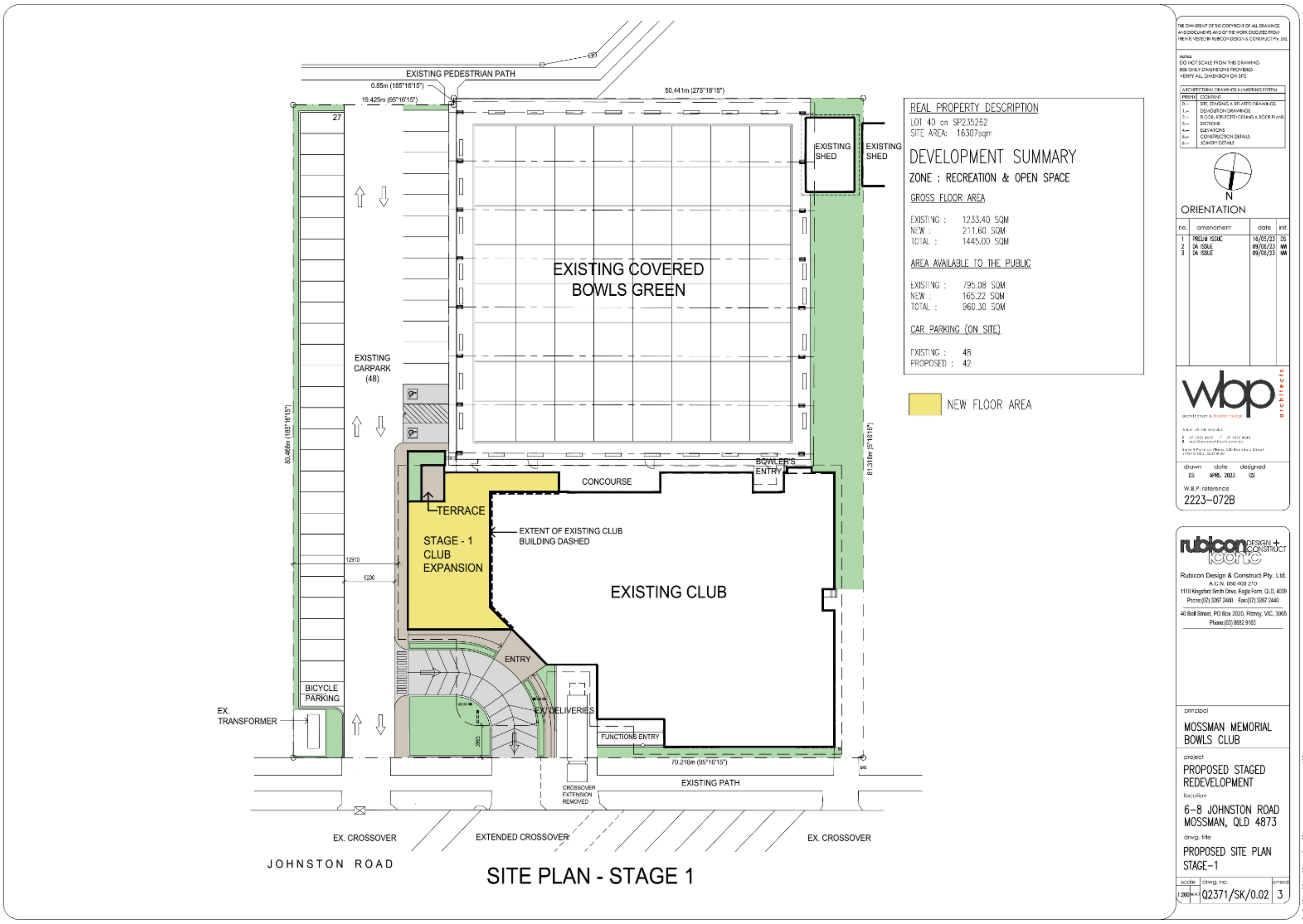
ACOUSTIC TREATMENT LEGEND

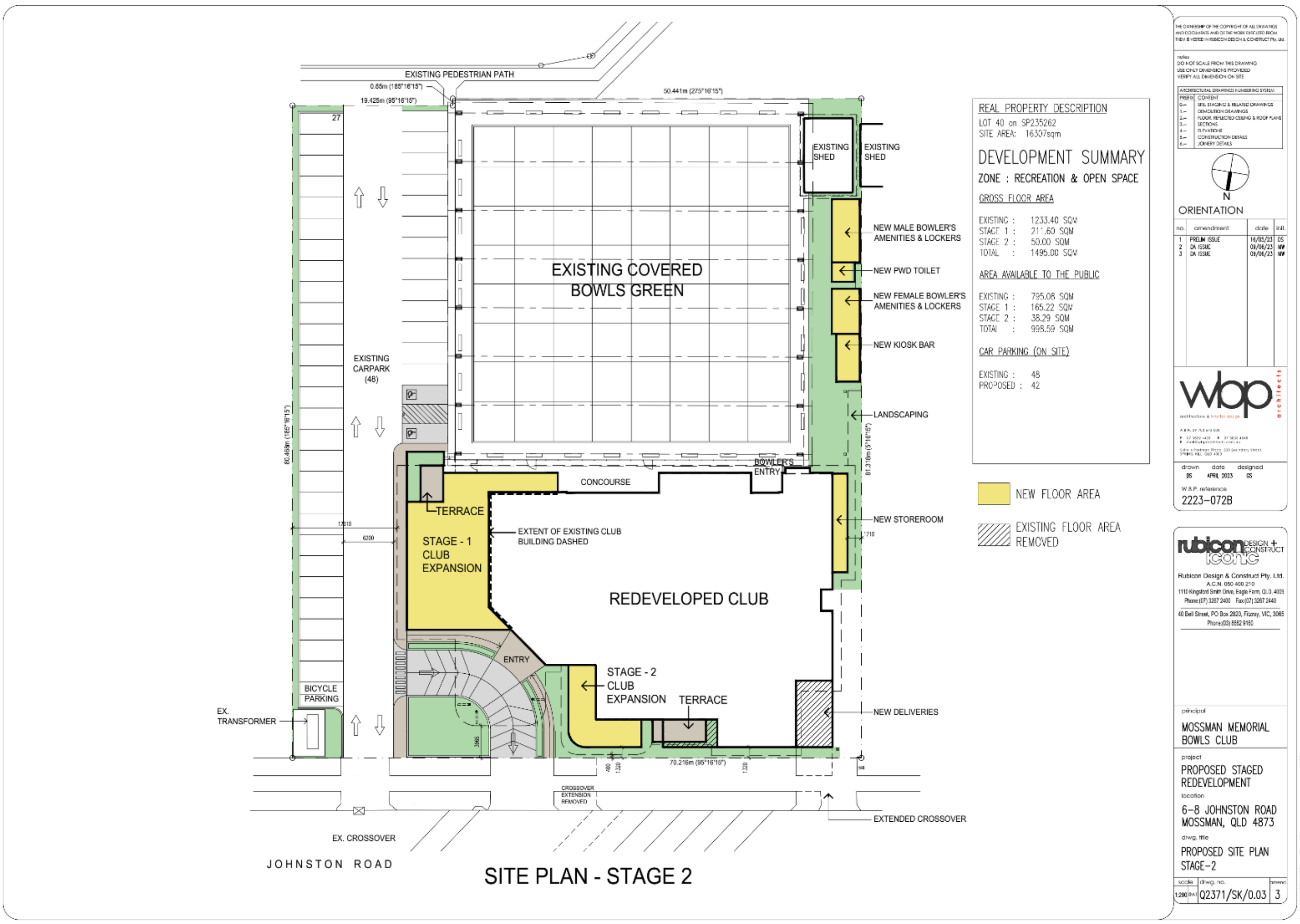
Recommended 2.5m high acoustical barrier constructed above the existing or finished BBQ Terrace level, whichever is higher.

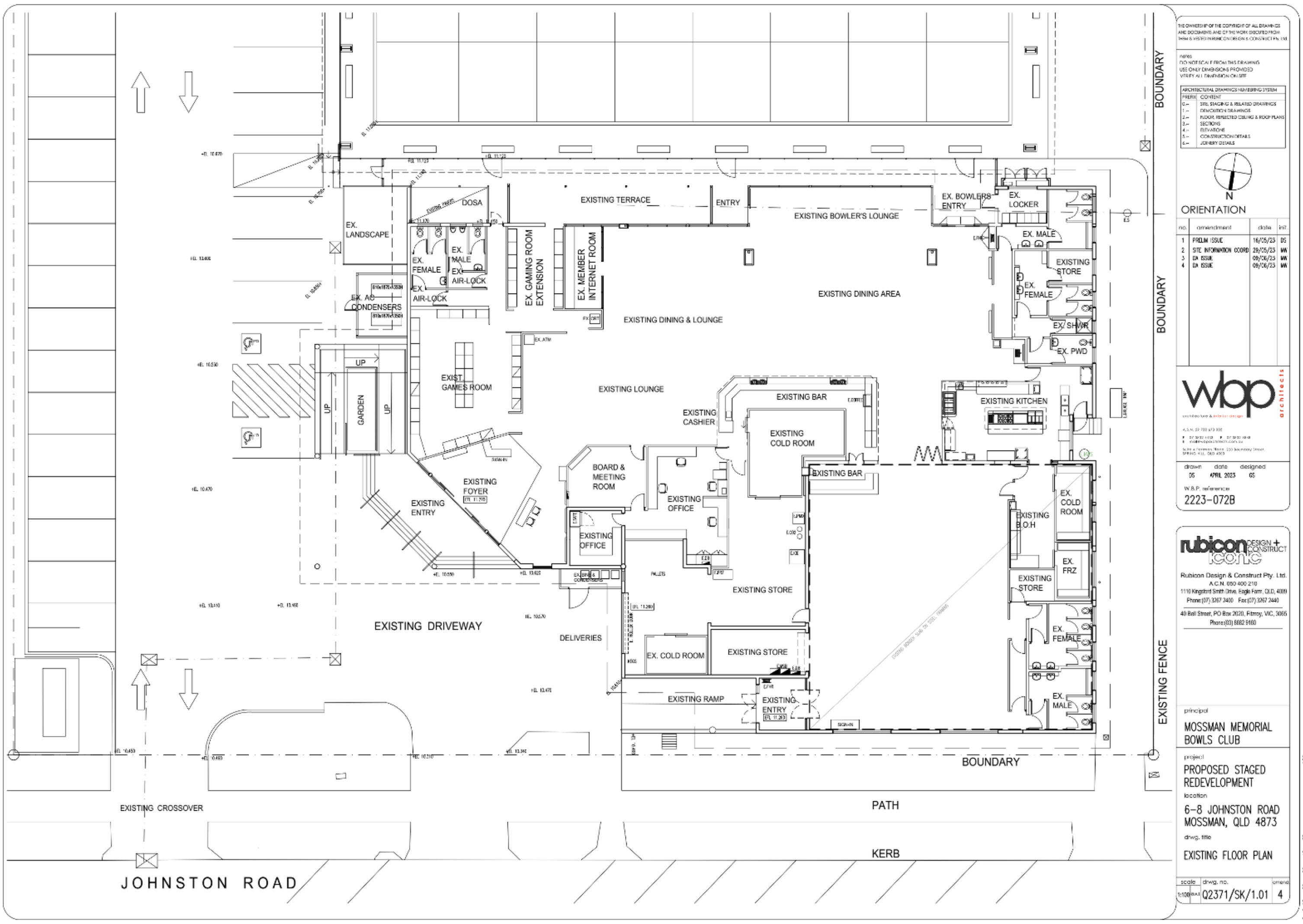
Barriers are to be free of gaps and holes, including no gaps between the ground and the base of the barrier. Typical materials include 2 layers of colourbond metal sheet, 19mm lapped timber fence (40% overlap), 9mm FC sheet, toughened glass, Perspex, masonry, or a combination of the above (a minimum surface mass of 11kg/m^2 is required).

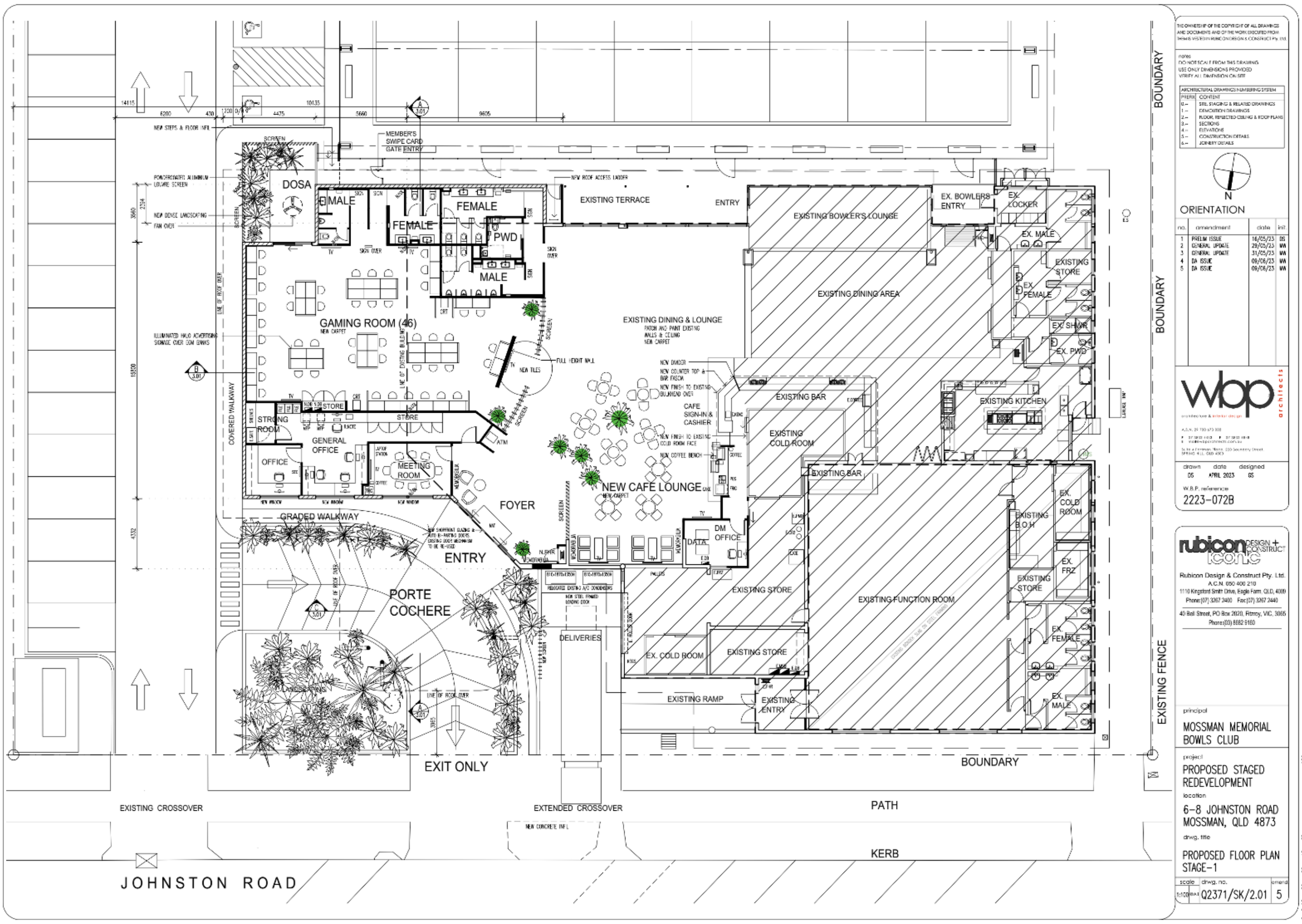
APPENDIX B

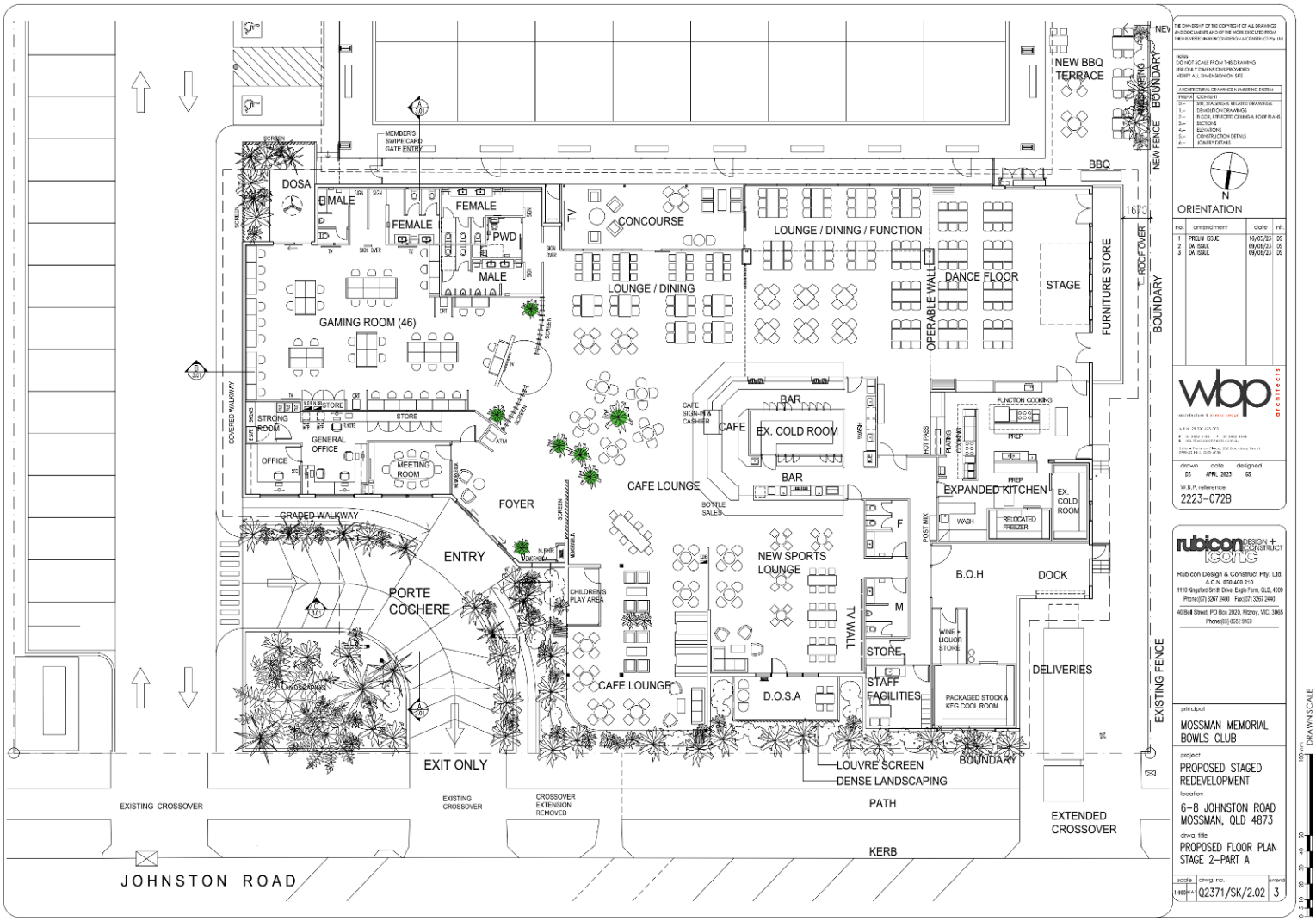
Development Plans

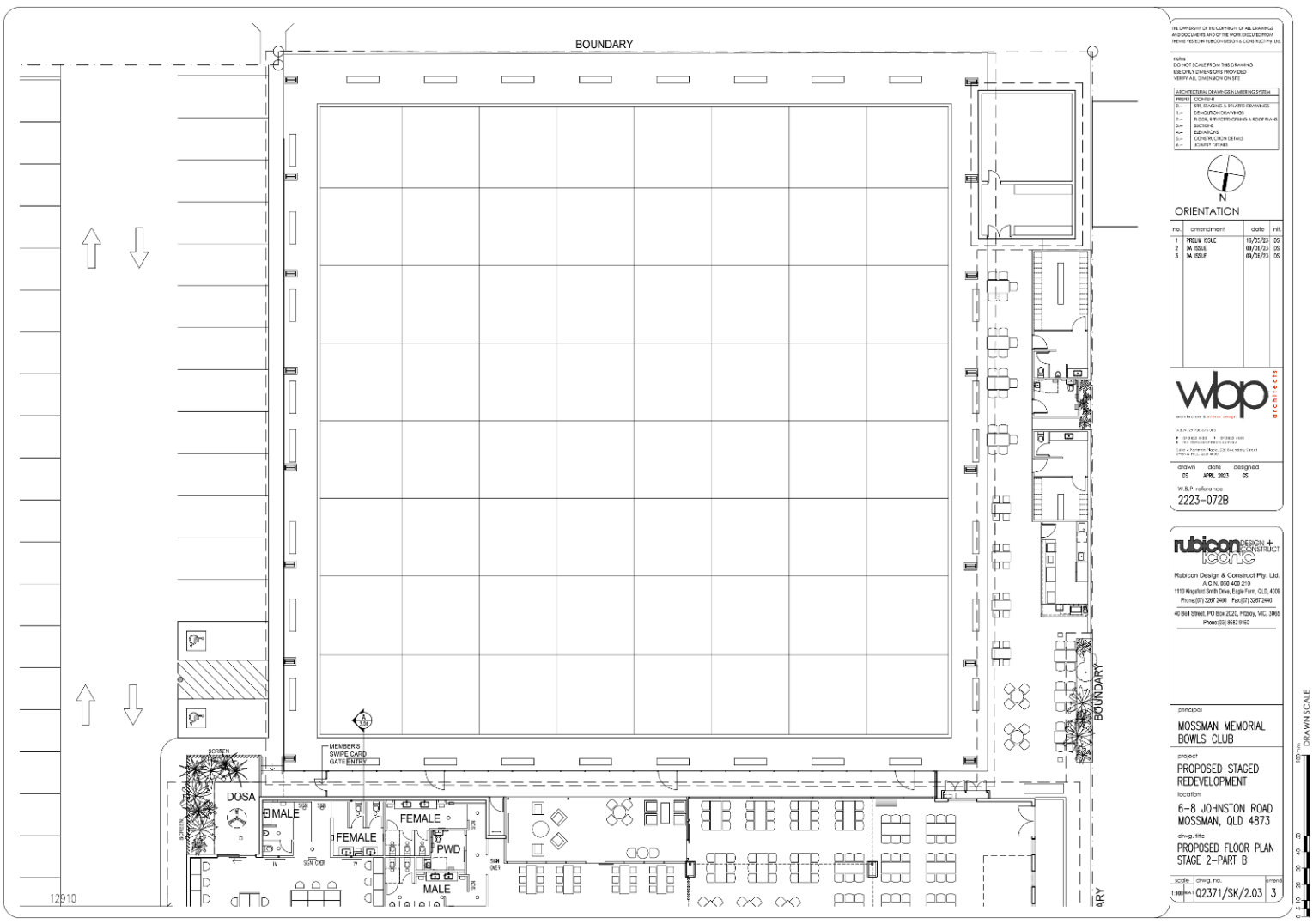

EXISTING PEDESTRIAN PATH
0.85m (185°16'15")
19.425m (95°16'15")
50.441m (275°16'15")
EXISTING COVERED BOWLS GREEN
EXISTING SHED
EXISTING SHED
EXISTING CARPARK (48)
80.468m (185°16'15")
81.318m (5°16'15")
BOWLER'S ENTRY
CONCOURSE
TERRACE
STAGE - 1 CLUB EXPANSION
EXTENT OF EXISTING CLUB BUILDING DASHED
EXISTING CLUB
ENTRY
EX. DELIVERIES
FUNCTIONS ENTRY
BICYCLE PARKING
EX. TRANSFORMER
70.216m (95°16'15")
EXISTING PATH
CROSSOVER EXTENSION REMOVED
EX. CROSSOVER
EXTENDED CROSSOVER
EX. CROSSOVER
JOHNSTON ROAD
SITE PLAN - STAGE 1
REAL PROPERTY DESCRIPTION
LOT 40 on SP235262
SITE AREA: 16307sqm
DEVELOPMENT SUMMARY
ZONE : RECREATION & OPEN SPACE
GROSS FLOOR AREA
EXISTING : 1233.40 SQM
NEW : 211.60 SQM
TOTAL : 1445.00 SQM
AREA AVAILABLE TO THE PUBLIC
EXISTING : 795.08 SQM
NEW : 165.22 SQM
TOTAL : 960.30 SQM
CAR PARKING (ON SITE)
EXISTING : 48
PROPOSED : 42
NEW FLOOR AREA
ORIENTATION
wbp architects
2223-072B
rubicon iconic DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
principal
MOSSMAN MEMORIAL BOWLS CLUB
project
PROPOSED STAGED REDEVELOPMENT
location
6-8 JOHNSTON ROAD MOSSMAN, QLD 4873
drwg. title
PROPOSED SITE PLAN STAGE-1
Q2371/SK/0.02
3
DRAWN SCALE


EXISTING PEDESTRIAN PATH
0.85m (185°16'15")
19.425m (95°16'15")
50.441m (275°16'15")
EXISTING COVERED BOWLS GREEN
EXISTING SHED
EXISTING SHED
NEW MALE BOWLER'S AMENITIES & LOCKERS
NEW PWD TOILET
NEW FEMALE BOWLER'S AMENITIES & LOCKERS
NEW KIOSK BAR
LANDSCAPING
EXISTING CARPARK (48)
BOWLER'S ENTRY
CONCOURSE
TERRACE
STAGE - 1 CLUB EXPANSION
EXTENT OF EXISTING CLUB BUILDING DASHED
NEW STOREROOM
REDEVELOPED CLUB
ENTRY
STAGE - 2 CLUB EXPANSION
TERRACE
NEW DELIVERIES
BICYCLE PARKING
EX. TRANSFORMER
70.216m (95°16'15")
CROSSOVER EXTENSION REMOVED
EXTENDED CROSSOVER
EX. CROSSOVER
JOHNSTON ROAD
SITE PLAN - STAGE 2
REAL PROPERTY DESCRIPTION
LOT 40 on SP235262
SITE AREA: 16307sqm
DEVELOPMENT SUMMARY
ZONE : RECREATION & OPEN SPACE
GROSS FLOOR AREA
EXISTING : 1233.40 SQM
STAGE 1 : 211.60 SQM
STAGE 2 : 50.00 SQM
TOTAL : 1495.00 SQM
AREA AVAILABLE TO THE PUBLIC
EXISTING : 795.08 SQM
STAGE 1 : 165.22 SQM
STAGE 2 : 38.29 SQM
TOTAL : 998.59 SQM
CAR PARKING (ON SITE)
EXISTING : 48
PROPOSED : 42
NEW FLOOR AREA
EXISTING FLOOR AREA REMOVED
ORIENTATION
wbp architects
2223-072B
rubicon iconic DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
principal
MOSSMAN MEMORIAL BOWLS CLUB
project
PROPOSED STAGED REDEVELOPMENT
location
6-8 JOHNSTON ROAD MOSSMAN, QLD 4873
drwg. title
PROPOSED SITE PLAN STAGE-2
Q2371/SK/0.03
3
DRAWN SCALE


EXISTING TERRACE
ENTRY
EXISTING BOWLER'S LOUNGE
EX. BOWLERS ENTRY
EX. LOCKER
EX. MALE
EXISTING STORE
EX. FEMALE
EX. SHWR
EX. PWD
DOSA
EX. LANDSCAPE
EX. FEMALE
EX. MALE
EX. AIR-LOCK
EX. GAMING ROOM EXTENSION
EX. MEMBER INTERNET ROOM
EX. AC CONDENSERS
EXISTING DINING & LOUNGE
EXISTING DINING AREA
EXIST. GAMES ROOM
EXISTING LOUNGE
EXISTING BAR
EXISTING KITCHEN
EXISTING CASHIER
EXISTING COLD ROOM
EXISTING BAR
UP
GARDEN
EXISTING FOYER
EXISTING ENTRY
BOARD & MEETING ROOM
EXISTING OFFICE
EXISTING OFFICE
EX. COLD ROOM
EXISTING B.O.H
EX. FRZ
EXISTING STORE
EXISTING STORE
EXISTING DRIVEWAY
DELIVERIES
EX. COLD ROOM
EXISTING STORE
EXISTING RAMP
EXISTING ENTRY
EX. FEMALE
EX. MALE
BOUNDARY
EXISTING FENCE
EXISTING CROSSOVER
PATH
KERB
JOHNSTON ROAD
ORIENTATION
N
PRELIM ISSUE 16/05/23
SITE INFORMATION COORD 29/05/23
DA ISSUE 09/06/23
DA ISSUE 09/06/23
wbp architects
drawn DS
date APRIL 2023
designed GS
W.B.P. reference 2223-072B
rubicon DESIGN + CONSTRUCT iconic
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
principal MOSSMAN MEMORIAL BOWLS CLUB
project PROPOSED STAGED REDEVELOPMENT
location 6-8 JOHNSTON ROAD MOSSMAN, QLD 4873
dwg. title EXISTING FLOOR PLAN
scale 1:100@A1
dwg. no. Q2371/SK/1.01
amend 4
DRAWN SCALE


MEMBER'S SWIPE CARD GATE ENTRY
DOSA
MALE
FEMALE
FEMALE
PWD
MALE
EXISTING TERRACE
ENTRY
EXISTING BOWLER'S LOUNGE
EX. BOWLERS ENTRY
EX. LOCKER
EX. MALE
EXISTING STORE
EX. FEMALE
EX. SHWR
EX. PWD
GAMING ROOM (46)
NEW CARPET
EXISTING DINING & LOUNGE
PATCH AND PAINT EXISTING WALLS & CEILING NEW CARPET
EXISTING DINING AREA
EXISTING BAR
EXISTING KITCHEN
CAFE SIGN-IN & CASHIER
EXISTING COLD ROOM
EXISTING BAR
STRONG ROOM
STORE
GENERAL OFFICE
OFFICE
MEETING ROOM
ATM
NEW CAFE LOUNGE
NEW CARPET
FOYER
DATA
DM OFFICE
COVERED WALKWAY
GRADED WALKWAY
ENTRY
PORTE COCHERE
DELIVERIES
EXISTING STORE
EXISTING FUNCTION ROOM
EXISTING B.O.H
EX. COLD ROOM
EX. FRZ
EXISTING STORE
EX. COLD ROOM
EXISTING STORE
EXISTING RAMP
EXISTING ENTRY
EX. FEMALE
EX. MALE
EXIT ONLY
BOUNDARY
EXISTING FENCE
EXISTING CROSSOVER
EXTENDED CROSSOVER
PATH
KERB
JOHNSTON ROAD
ORIENTATION
N
PRELIM ISSUE 16/05/23
GENERAL UPDATE 29/05/23
GENERAL UPDATE 31/05/23
DA ISSUE 09/06/23
DA ISSUE 09/06/23
wbp architects
drawn DS
date APRIL 2023
designed GS
W.B.P. reference 2223-072B
rubicon DESIGN + CONSTRUCT iconic
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
principal MOSSMAN MEMORIAL BOWLS CLUB
project PROPOSED STAGED REDEVELOPMENT
location 6-8 JOHNSTON ROAD MOSSMAN, QLD 4873
dwg. title PROPOSED FLOOR PLAN STAGE-1
scale 1:100@A1
dwg. no. Q2371/SK/2.01
amend 5
DRAWN SCALE





THE COPYRIGHT OF THIS DRAWING AND DOCUMENTS AND OF THE WORK EXECUTED FROM THEM IS VESTED IN RUBICON DESIGN & CONSTRUCT Pty. Ltd.

NOTES
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM

PREFIX	DESCRIPTION
0—	SITE, STAGING & RELATED DRAWINGS
1—	DEMOLITION DRAWINGS
2—	FLOOR, STRUCTURE DRAWING & ROOF PLANS
3—	SECTIONS
4—	ELEVATIONS
5—	CONSTRUCTION DETAILS
6—	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	14/03/23	DS
2	DA ISSUE	09/06/23	DS
3	DA ISSUE	09/08/23	DS

wbp architects

drawn	date	designed
DS	APRIL 2023	GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT iconic

Rubicon Design & Construct Pty. Ltd.
A.C.N. 600 409 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone (07) 3267 2400 Fax (07) 3267 2440

40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone (03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD
MOSSMAN, QLD 4873

drwg. title
PROPOSED FLOOR PLAN STAGE 2-PART A

scale	drwg. no.	amend
1:100@A1	Q2371/SK/2.02	3

DRAWN SCALE 100mm 0 5 10 20 30 40 50

THE COPYRIGHT OF THIS DRAWING AND DOCUMENTS AND OF THE WORK EXECUTED FROM THEM IS VESTED IN RUBICON DESIGN & CONSTRUCT Pty. Ltd.

NOTES
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM

PREFIX	DESCRIPTION
0—	SITE, STAGING & RELATED DRAWINGS
1—	DEMOLITION DRAWINGS
2—	FLOOR, STRUCTURE DRAWING & ROOF PLANS
3—	SECTIONS
4—	ELEVATIONS
5—	CONSTRUCTION DETAILS
6—	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	14/03/23	DS
2	DA ISSUE	09/06/23	DS
3	DA ISSUE	09/08/23	DS

wbp architects

drawn	date	designed
DS	APRIL 2023	GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT iconic

Rubicon Design & Construct Pty. Ltd.
A.C.N. 600 409 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone (07) 3267 2400 Fax (07) 3267 2440

40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone (03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

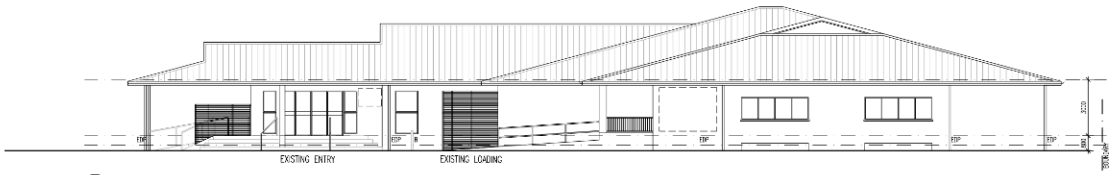
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD
MOSSMAN, QLD 4873

drwg. title
PROPOSED FLOOR PLAN STAGE 2-PART B

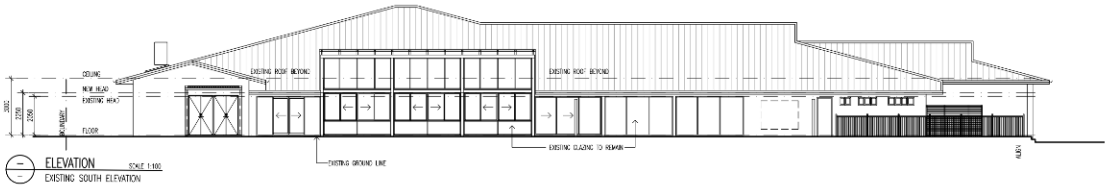
scale	drwg. no.	amend
1:100@A1	Q2371/SK/2.03	3

DRAWN SCALE 100mm 0 5 10 20 30 40 50



ELEVATION SCALE 1:100
EXISTING NORTH ELEVATION

ELEVATION SCALE 1:100
EXISTING EAST ELEVATION



ELEVATION SCALE 1:100
EXISTING SOUTH ELEVATION

ELEVATION SCALE 1:100
EXISTING WEST ELEVATION

NOTES:
DO NOT SCALE FROM THIS DRAWING
KEEP ON 1 TOWN NOW PRIVATE!
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.–	SITE STAGING & RELATED DRAWINGS
1.–	DEMOLITION DRAWINGS
2.–	FLOOR, REFLECTED CEILING & ROOF PLANS
3.–	SECTIONS
4.–	ELEVATIONS
5.–	CONSTRUCTION DETAILS
6.–	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	17/01/23	DS
2	DA ISSUE	28/06/23	DS
3	DA ISSUE	28/08/23	DS

wbp architects
architecture & interior design

drawn: DS | date: APRIL 2023 | designed: CS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
A.C.N. 059 490 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 3400 Fax:(07) 3267 3440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 9682 9180

principal
MOSSMAN MEMORIAL BOWLS CLUB

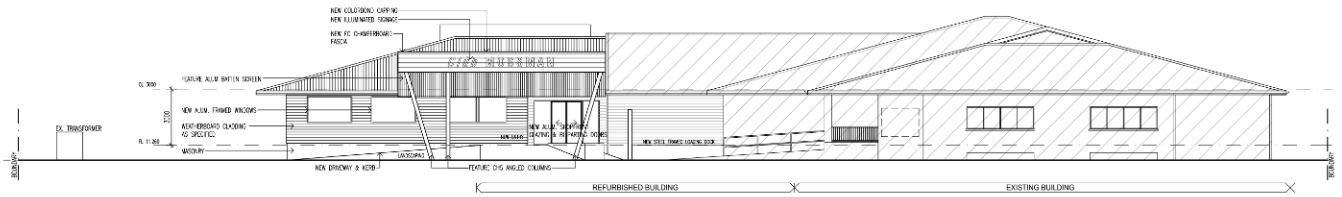
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD
MOSSMAN, QLD 4873

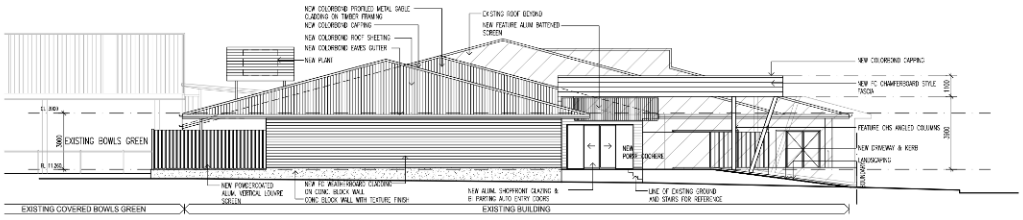
drwg. title
EXISTING ELEVATIONS

scale	drwg. no.	amend.
1:100 @A1	Q2371/SK/4.01	3

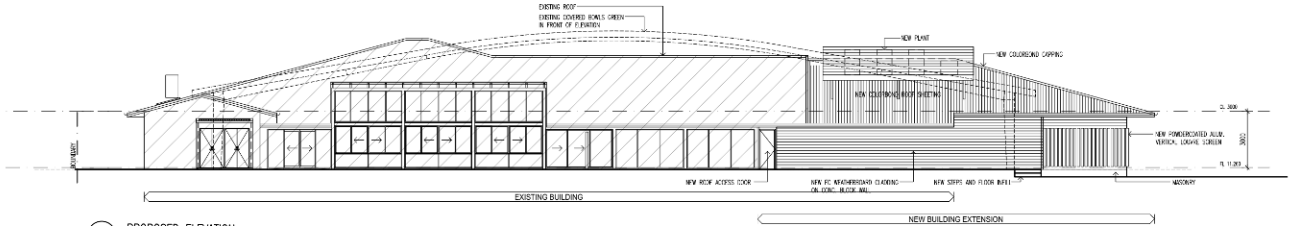
DRAWN SCALE 100mm



PROPOSED ELEVATION
NORTH ELEVATION SCALE 1:100



PROPOSED ELEVATION
EAST ELEVATION SCALE 1:100



PROPOSED ELEVATION
SOUTH ELEVATION SCALE 1:100

STAGE 1 ELEVATIONS

THE COPYRIGHT OF THE COPYRIGHT OF ALL DRAWINGS AND DOCUMENTS AND OF THE WORK EXECUTED FROM THEM IS VESTED IN RUBICON DESIGN & CONSTRUCT PTY. LTD.

NOTES:
DO NOT SCALE FROM THIS DRAWING
KEEP ON 1 TOWN NOW PRIVATE!
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM
PREFIX CONTENT
0.– SITE STAGING & RELATED DRAWINGS
1.– DEMOLITION DRAWINGS
2.– FLOOR, REFLECTED CEILING & ROOF PLANS
3.– SECTIONS
4.– ELEVATIONS
5.– CONSTRUCTION DETAILS
6.– JOINERY DETAILS

N
ORIENTATION

no. amendment date init.
1 PRELIM ISSUE 17/01/23 DS
2 DA ISSUE 28/06/23 MW
3 DA ISSUE 28/08/23 DS

wbp architects
architecture & interior design

drawn: DS | date: APRIL 2023 | designed: CS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
A.C.N. 059 490 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 3400 Fax:(07) 3267 3440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 9682 9180

principal
MOSSMAN MEMORIAL BOWLS CLUB

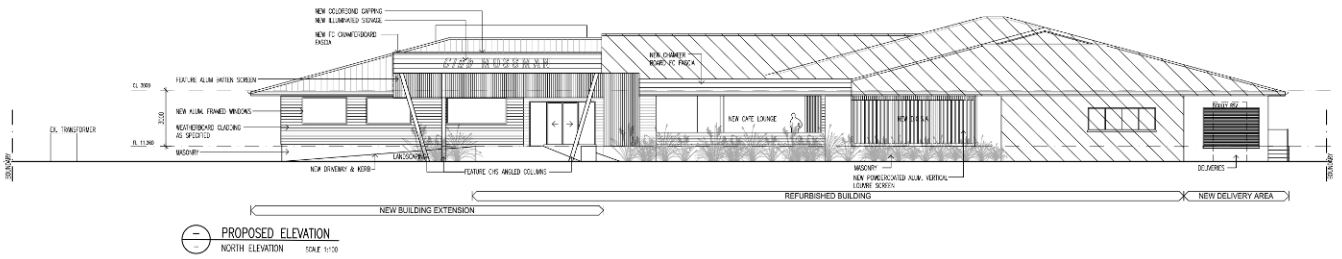
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD
MOSSMAN, QLD 4873

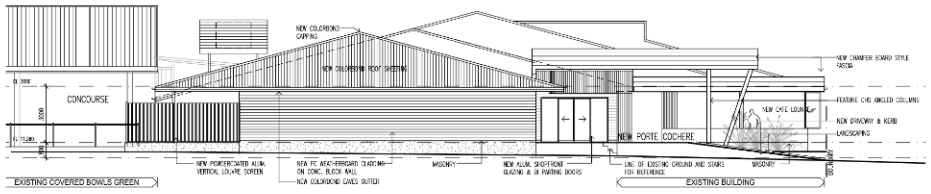
drwg. title
PROPOSED ELEVATIONS STAGE 1

scale: 1:100 @A1 | drwg. no.: Q2371/SK/4.02 | amend.: 3

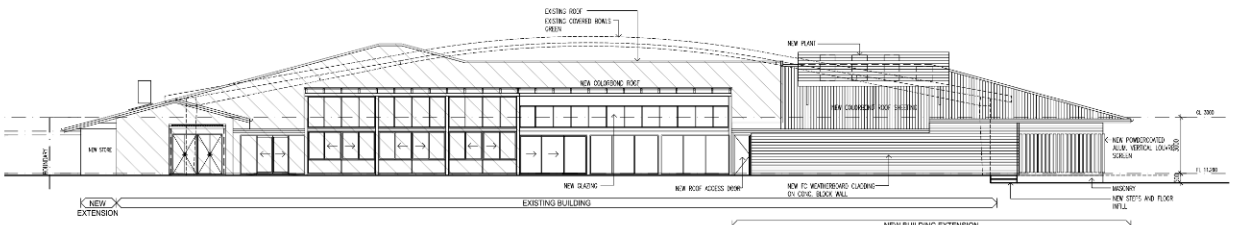
DRAWN SCALE 100mm



PROPOSED ELEVATION
NORTH ELEVATION SCALE 1:100



PROPOSED ELEVATION
EAST ELEVATION SCALE 1:100



PROPOSED ELEVATION (FROM BOUNDARY)
SOUTH ELEVATION

STAGE 2 ELEVATIONS

THE OWNERSHIP OF THE COPYRIGHT OF ALL DRAWINGS AND DOCUMENTS AND OF THE WORK EXECUTED FROM THEM IS VESTED IN RUBICON DESIGN & CONSTRUCT Pty. Ltd.

notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM

PREFIX	CONTENT
0—	SITE, STAGING & RELATED DRAWINGS
1—	EXCAVATION DRAWINGS
2—	FLOOR, EFFECTED CEILING & ROOF PLANS
3—	SECTIONS
4—	ELEVATIONS
5—	CONSTRUCTION DETAILS
6—	JOINERY DETAILS

ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	97/06/23	DS
2	DA ISSUE	09/08/23	DS
3	DA ISSUE	09/08/23	DS

wbp architects

drawn CS | date APRIL 2023 | designed CS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT icons

Rubicon Design & Construct Pty. Ltd.
A.C.N. 890 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8662 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

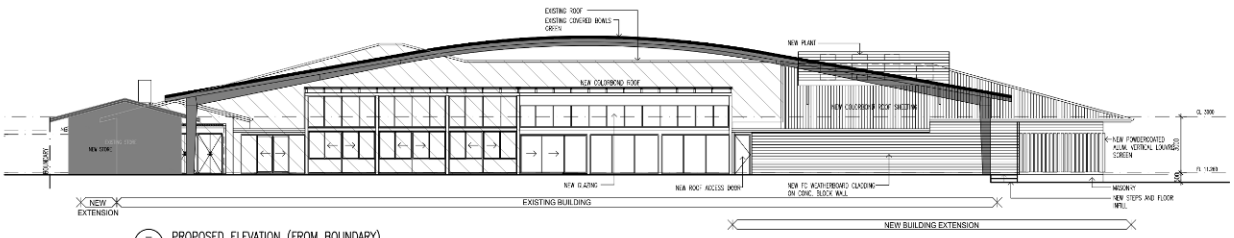
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD MOSSMAN, QLD 4873

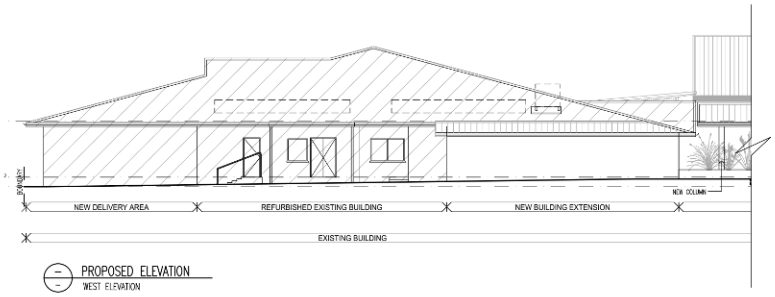
drwg. title
PROPOSED ELEVATIONS STAGE 2

scale	drwg. no.	amend.
1:100@A1	Q2371/SK/4.03	3

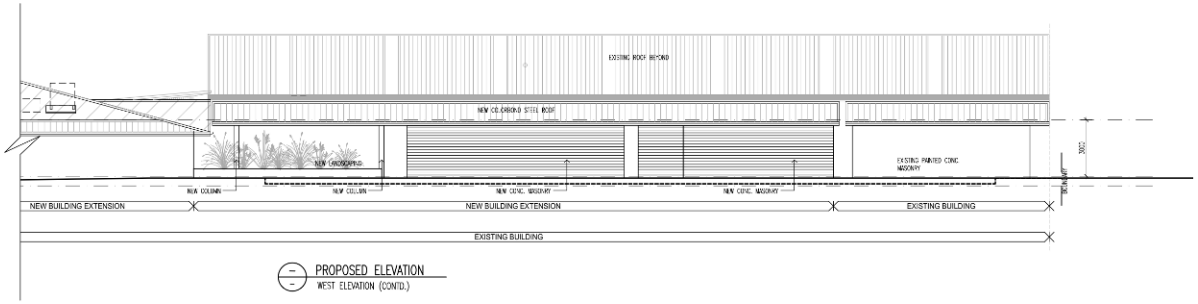
DRAWN SCALE 100mm 0 10 20 30 40 50



PROPOSED ELEVATION (FROM BOUNDARY)
SOUTH ELEVATION



PROPOSED ELEVATION
WEST ELEVATION



PROPOSED ELEVATION
WEST ELEVATION (CONTD.)

STAGE 2 ELEVATIONS

THE OWNERSHIP OF THE COPYRIGHT OF ALL DRAWINGS AND DOCUMENTS AND OF THE WORK EXECUTED FROM THEM IS VESTED IN RUBICON DESIGN & CONSTRUCT Pty. Ltd.

notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM

PREFIX	CONTENT
0—	SITE, STAGING & RELATED DRAWINGS
1—	EXCAVATION DRAWINGS
2—	FLOOR, EFFECTED CEILING & ROOF PLANS
3—	SECTIONS
4—	ELEVATIONS
5—	CONSTRUCTION DETAILS
6—	JOINERY DETAILS

ORIENTATION

no.	amendment	date	init.
1	DA ISSUE	09/08/23	DS
2	DA ISSUE	09/08/23	DS

wbp architects

drawn CS | date APRIL 2023 | designed CS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT icons

Rubicon Design & Construct Pty. Ltd.
A.C.N. 890 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8662 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD MOSSMAN, QLD 4873

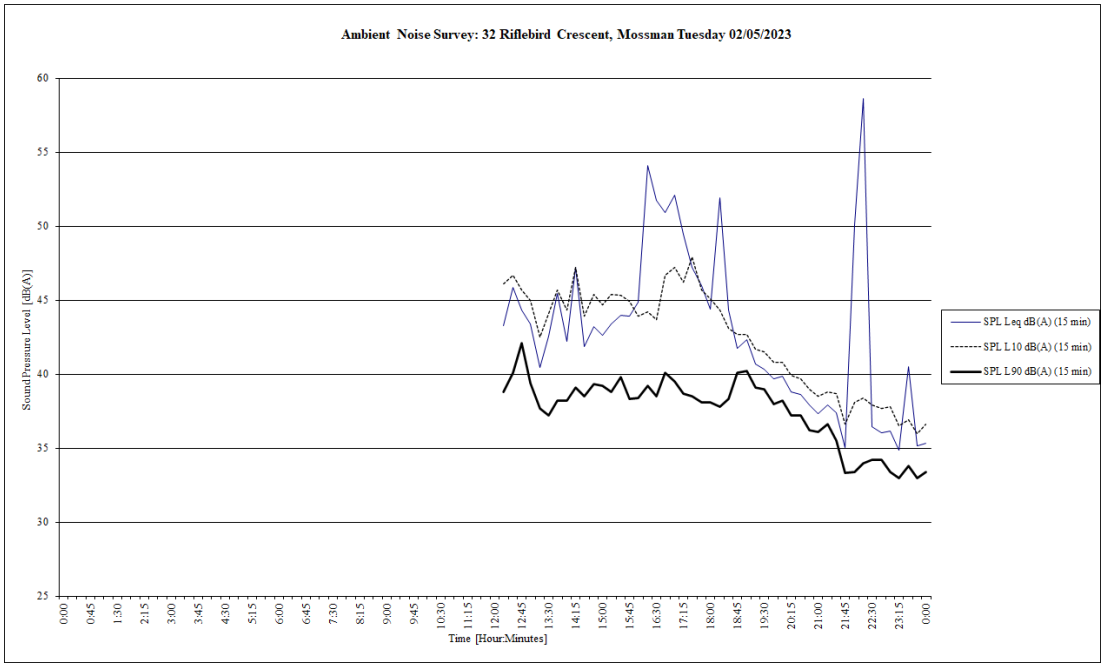
drwg. title
PROPOSED ELEVATIONS STAGE 2

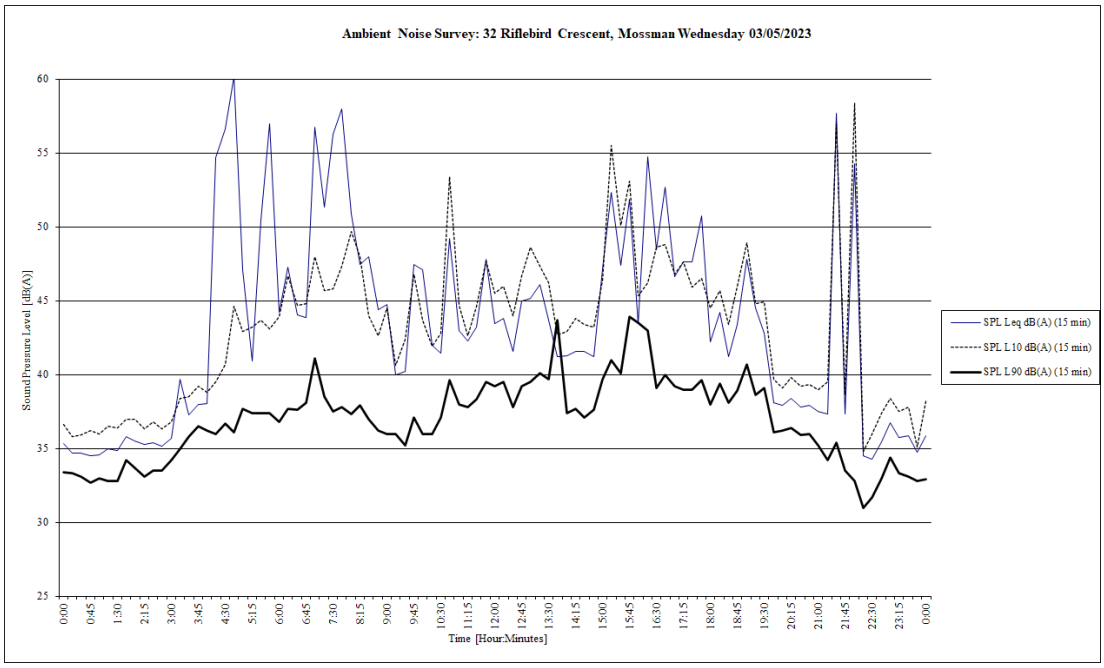
scale	drwg. no.	amend.
1:100@A1	Q2371/SK/4.04	2

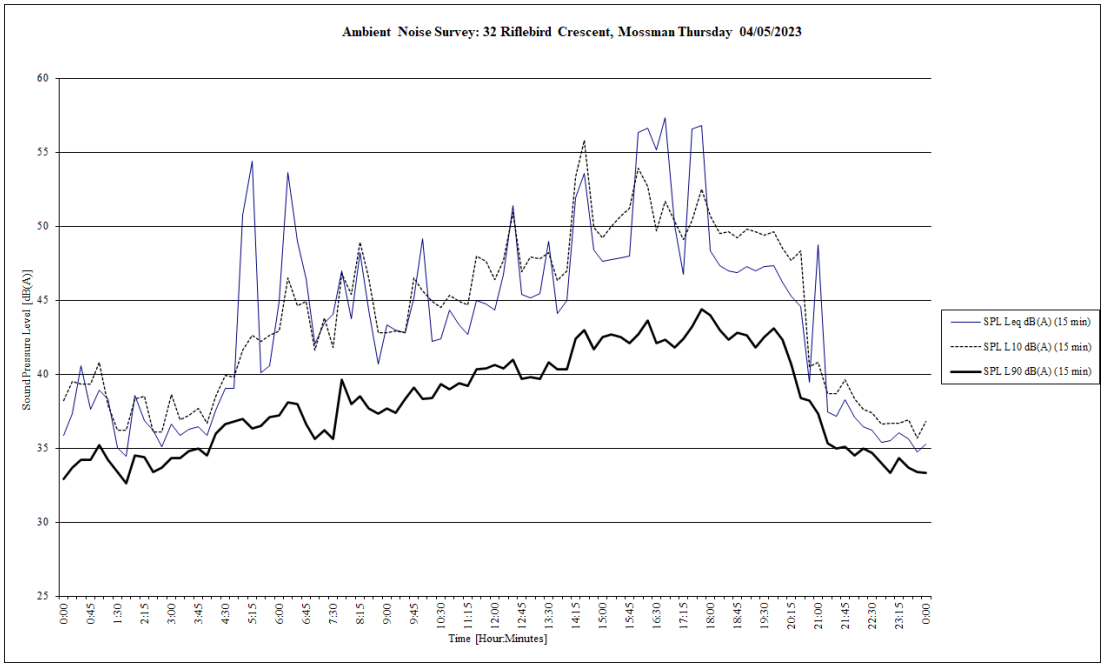
DRAWN SCALE 100mm 0 10 20 30 40 50

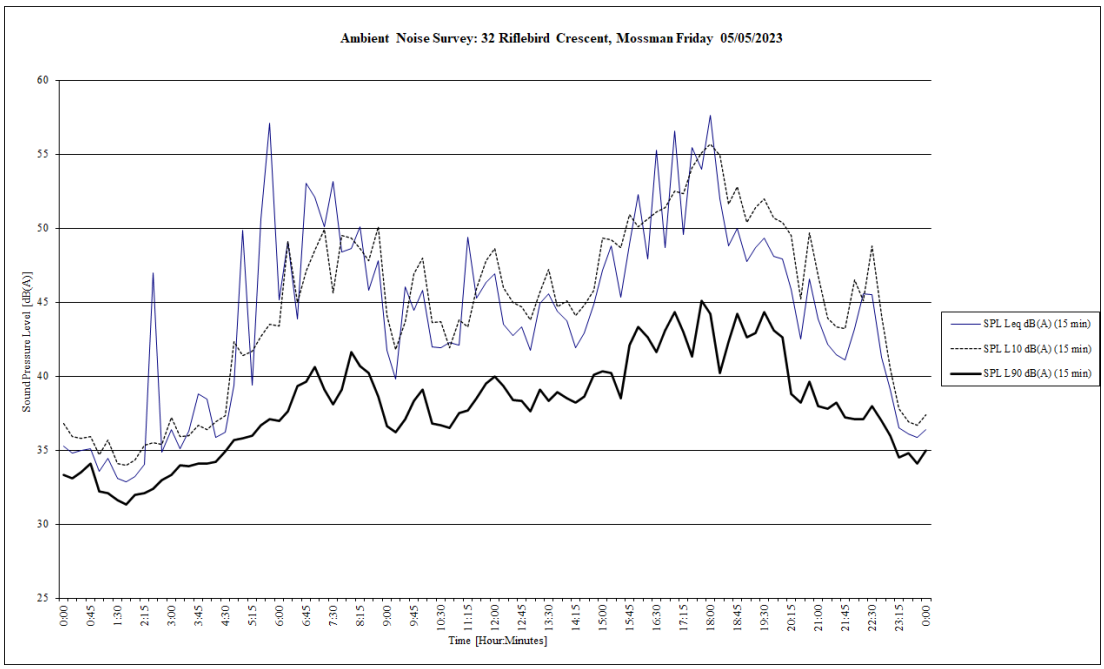
APPENDIX C

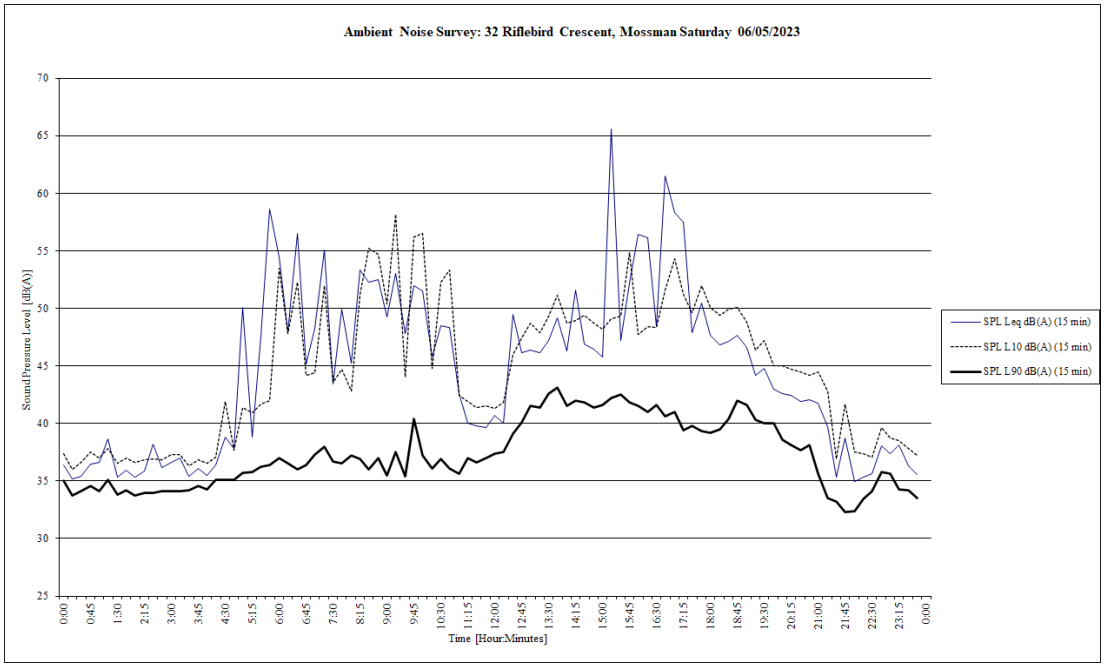
Measurement Results and Model Calculations / Predictions

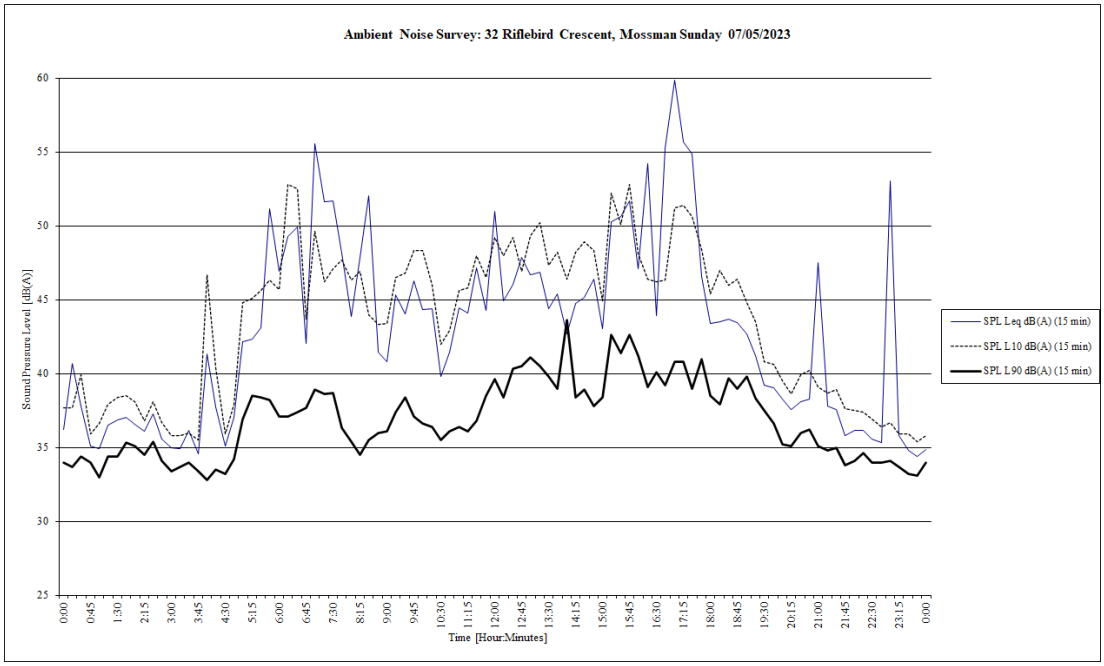

Ambient Noise Survey: 32 Riflebird Crescent, Mossman Tuesday 02/05/2023
Sound Pressure Level [dB(A)]
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)

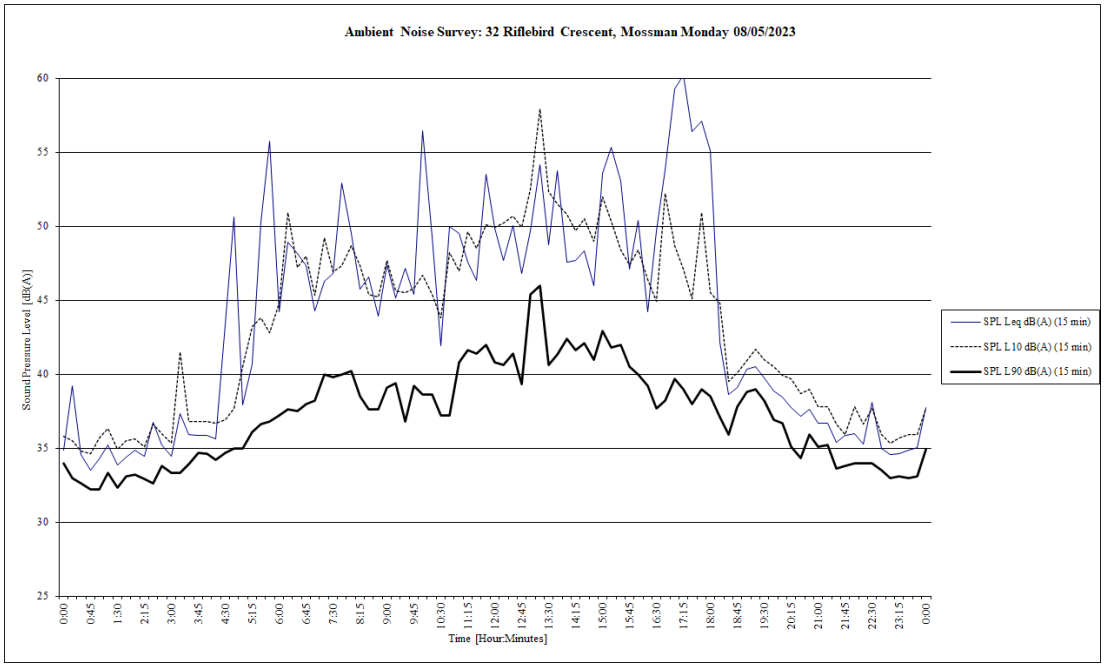

Ambient Noise Survey: 32 Riflebird Crescent, Mossman Wednesday 03/05/2023
Sound Pressure Level [dB(A)]
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)

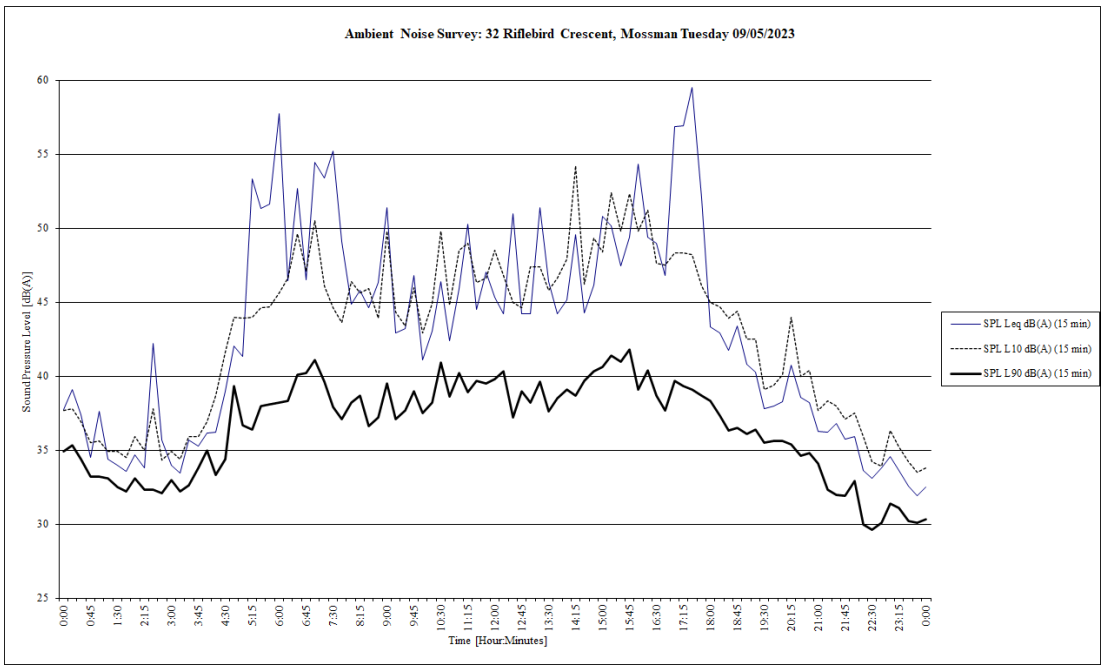

Ambient Noise Survey: 32 Riflebird Crescent, Mossman Thursday 04/05/2023
Sound Pressure Level [dB(A)]
60
55
50
45
40
35
30
25
0:00
0:45
1:30
2:15
3:00
3:45
4:30
5:15
6:00
6:45
7:30
8:15
9:00
9:45
10:30
11:15
12:00
12:45
13:30
14:15
15:00
15:45
16:30
17:15
18:00
18:45
19:30
20:15
21:00
21:45
22:30
23:15
0:00
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)


Ambient Noise Survey: 32 Riflebird Crescent, Mossman Friday 05/05/2023
Sound Pressure Level [dB(A)]
60
55
50
45
40
35
30
25
0:00
0:45
1:30
2:15
3:00
3:45
4:30
5:15
6:00
6:45
7:30
8:15
9:00
9:45
10:30
11:15
12:00
12:45
13:30
14:15
15:00
15:45
16:30
17:15
18:00
18:45
19:30
20:15
21:00
21:45
22:30
23:15
0:00
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)


Ambient Noise Survey: 32 Riflebird Crescent, Mossman Saturday 06/05/2023
Sound Pressure Level [dB(A)]
70
65
60
55
50
45
40
35
30
25
0:00
0:45
1:30
2:15
3:00
3:45
4:30
5:15
6:00
6:45
7:30
8:15
9:00
9:45
10:30
11:15
12:00
12:45
13:30
14:15
15:00
15:45
16:30
17:15
18:00
18:45
19:30
20:15
21:00
21:45
22:30
23:15
0:00
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)


Ambient Noise Survey: 32 Riflebird Crescent, Mossman Sunday 07/05/2023
Sound Pressure Level [dB(A)]
60
55
50
45
40
35
30
25
0:00
0:45
1:30
2:15
3:00
3:45
4:30
5:15
6:00
6:45
7:30
8:15
9:00
9:45
10:30
11:15
12:00
12:45
13:30
14:15
15:00
15:45
16:30
17:15
18:00
18:45
19:30
20:15
21:00
21:45
22:30
23:15
0:00
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)


Ambient Noise Survey: 32 Riflebird Crescent, Mossman Monday 08/05/2023
Sound Pressure Level [dB(A)]
60
55
50
45
40
35
30
25
0:00
0:45
1:30
2:15
3:00
3:45
4:30
5:15
6:00
6:45
7:30
8:15
9:00
9:45
10:30
11:15
12:00
12:45
13:30
14:15
15:00
15:45
16:30
17:15
18:00
18:45
19:30
20:15
21:00
21:45
22:30
23:15
0:00
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)


Ambient Noise Survey: 32 Riflebird Crescent, Mossman Tuesday 09/05/2023
Sound Pressure Level [dB(A)]
60
55
50
45
40
35
30
25
0:00
0:45
1:30
2:15
3:00
3:45
4:30
5:15
6:00
6:45
7:30
8:15
9:00
9:45
10:30
11:15
12:00
12:45
13:30
14:15
15:00
15:45
16:30
17:15
18:00
18:45
19:30
20:15
21:00
21:45
22:30
23:15
0:00
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)

ONSITE ACTIVITY NOISE PREDICTION CALCULATIONS: ($L_{A10\ 1hr}$ and $L_{A01\ 1hr\ levels}$ are represented as N/A if the duration of events do not occur for 10% or 1% of the 1 hour period)

DAY / EVENING SCENARIO

R1: Dwelling to the north

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver		84			m
Distance attenuation (-6 dB per doubling of distance)		-38			dB
Absorptive ceiling mitigation		0			dB
Building screening		0			dB
Façade reflection		2.5			dB
Impact at nearest façade	**32**	**32**	**35**	**41**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**25**	**28**	**34**	**dB(A)**

1593.8659 | 1593.8659 | 3180.1806

SPORTS LOUNGE DAY/EVENING	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	78		81	85	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	78	78	81	85	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver		64			m
Distance attenuation (-6 dB per doubling of distance)		-36			dB
Inside to outside attenuation		-10			dB
Building screening		0			dB
Façade reflection		2.5			dB
Impact at nearest façade	**35**	**35**	**38**	**41**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**27**	**30**	**34**	**dB(A)**

3069.767 | 3069.767 | 6124.9903

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver		64			m
Distance attenuation (-6 dB per doubling of distance)		-36			dB
Inside to outside attenuation		-15			dB
Absorptive ceiling mitigation		0			dB
Building screening		0			dB
Façade reflection		2.5			dB
Impact at nearest façade	**14**	**19**	**25**	**31**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**12**	**18**	**24**	**dB(A)**

27.393029 | 86.624363 | 344.8578

LOADING NEW AREA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	74		78	80	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	74	74	78	80	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver		72			m
Distance attenuation (-6 dB per doubling of distance)		-37			dB
Absorptive ceiling mitigation		0			dB
Building screening		0			dB
Façade reflection		2.5			dB
Impact at nearest façade	**39**	**44**	**48**	**50**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**37**	**41**	**43**	**dB(A)**

8616.5816 | 2724.8.024 | 68443.941

PATRONS NORTHERN DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver		61			m
Distance attenuation (-6 dB per doubling of distance)		-36			dB
Absorptive ceiling mitigation		0			dB
Building screening		0			dB
Façade reflection		2.5			dB
Impact at nearest façade	**35**	**35**	**38**	**44**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**27**	**30**	**36**	**dB(A)**

3022.3913 | 3022.3913 | 6030.9635

PATRONS BBQ TERRACE	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	79		82	85	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	79	79	82	85	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver		103			m
Distance attenuation (-6 dB per doubling of distance)		-40			dB
Absorptive ceiling mitigation		0			dB
Building screening		-30			dB
Façade reflection		2.5			dB
Impact at nearest façade	**11**	**11**	**14**	**17**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**4**	**7**	**10**	**dB(A)**

R2: Dwelling to the southeast

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver		58			m
Distance attenuation (-6 dB per doubling of distance)		-35			dB
Offsite building screening		-8			dB
Inside to outside attenuation		0			dB
Façade reflection		2.5			dB
Impact at nearest façade	**27**	**27**	**30**	**36**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**20**	**23**	**29**	**dB(A)**

529.85175 | 529.85175 | 1057.1933

SPORTS LOUNGE DAY/EVENING	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	78		81	85	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	78	78	81	85	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver		73			m
Distance attenuation (-6 dB per doubling of distance)		-37			dB
Inside to outside attenuation		-20			dB
Onsite building screening		0			dB
Façade reflection		2.5			dB
Impact at nearest façade	**24**	**24**	**27**	**30**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**16**	**19**	**22**	**dB(A)**

235.94982 | 235.94982 | 470.78178

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver		59			m
Distance attenuation (-6 dB per doubling of distance)		-35			dB
Inside to outside attenuation		-5			dB
Absorptive ceiling mitigation		0			dB
Offsite building screening		0			dB
Façade reflection		2.5			dB
Impact at nearest façade	**25**	**30**	**36**	**42**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**23**	**29**	**35**	**dB(A)**

322.32647 | 1019.2858 | 4057.8499

LOADING NEW AREA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	74		78	80	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	74	74	78	80	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver		111			m
Distance attenuation (-6 dB per doubling of distance)		-41			dB
Absorptive ceiling mitigation		0			dB
Building screening		-30			dB
Façade reflection		2.5			dB
Impact at nearest façade	**6**	**11**	**15**	**17**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**3**	**7**	**9**	**dB(A)**

3.6253842 | 11.464472 | 28.797451

PATRONS NORTHERN DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver		100			m
Distance attenuation (-6 dB per doubling of distance)		-40			dB
Absorptive ceiling mitigation		0			dB
Building screening		-30			dB
Façade reflection		2.5			dB
Impact at nearest façade	**1**	**1**	**4**	**10**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**-7**	**-4**	**2**	**dB(A)**

1246318 | 1246318 | 2493956

PATRONS BBQ TERRACE	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	79		82	85	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	79	79	82	85	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver		95			m
Distance attenuation (-6 dB per doubling of distance)		-40			dB
Absorptive ceiling mitigation		0			dB
Building screening		-6			dB
Façade reflection		2.5			dB
Impact at nearest façade	**36**	**36**	**39**	**42**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**29**	**32**	**35**	**dB(A)**

ONSITE ACTIVITY NOISE PREDICTION CALCULATIONS: ($L_{A10\ 1hr}$ and $L_{A01\ 1hr\ levels}$ are represented as N/A if the duration of events do not occur for 10% or 1% of the 1 hour period)

DAY / EVENING SCENARIO

R3: Dwellings to the south-southeast

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	60				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**35**	**35**	**38**	**44**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**27**	**30**	**36**	**dB(A)**
	3123.9772	3123.9772	6233.154		

SPORTS LOUNGE DAY/EVENING	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	78		81	85	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	78	78	81	85	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	55				m
Distance attenuation (-6 dB per doubling of distance)	-35				dB
Inside to outside attenuation	-20				dB
Onsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**26**	**26**	**29**	**32**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**19**	**22**	**25**	**dB(A)**
	415.66168	415.66168	829.35408		

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	65				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Inside to outside attenuation	-5				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**24**	**29**	**35**	**41**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**22**	**28**	**34**	**dB(A)**
	265.5665	839.795	3343.2841		

LOADING NEW AREA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	74		78	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	74	74	78	80	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	79				m
Distance attenuation (-6 dB per doubling of distance)	-38				dB
Absorptive ceiling mitigation	0				dB
Building screening	-10				dB
Façade reflection	2.5				dB
Impact at nearest façade	**29**	**34**	**38**	**40**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**26**	**30**	**32**	**dB(A)**
	715.72439	2263.3193	5685.2009		

PATRONS NORTHERN DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	84				m
Distance attenuation (-6 dB per doubling of distance)	-38				dB
Absorptive ceiling mitigation	0				dB
Building screening	-30				dB
Façade reflection	2.5				dB
Impact at nearest façade	**2**	**2**	**5**	**11**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**-5**	**-2**	**4**	**dB(A)**
	1.5938659	1.5938659	3.1801806		

PATRONS BBQ TERRACE	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	79		82	85	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	79	79	82	85	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	23				m
Distance attenuation (-6 dB per doubling of distance)	-27				dB
Absorptive ceiling mitigation	-5				dB
Barrier screening	-10				dB
Façade reflection	2.5				dB
Impact at nearest façade	**40**	**40**	**43**	**46**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**32**	**35**	**38**	**dB(A)**

R4: Dwelling to the west

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	58				m
Distance attenuation (-6 dB per doubling of distance)	-35				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**35**	**35**	**38**	**44**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**28**	**31**	**37**	**dB(A)**
	3343.1385	3343.1385	6670.4383		

SPORTS LOUNGE DAY/EVENING	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	78		81	85	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	78	78	81	85	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	35				m
Distance attenuation (-6 dB per doubling of distance)	-31				dB
Inside to outside attenuation	-20				dB
Onsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**30**	**30**	**33**	**36**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**23**	**26**	**29**	**dB(A)**
	1026.4299	1026.4299	2047.9968		

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	61				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Inside to outside attenuation	-5				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**25**	**30**	**36**	**42**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**22**	**28**	**34**	**dB(A)**
	301.53681	953.5431	3796.1235		

LOADING NEW AREA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	74		78	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	74	74	78	80	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	43				m
Distance attenuation (-6 dB per doubling of distance)	-33				dB
Absorptive ceiling mitigation	0				dB
Barrier screening	-8				dB
Façade reflection	2.5				dB
Impact at nearest façade	**36**	**41**	**45**	**47**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**33**	**37**	**39**	**dB(A)**
	3828.8036	12107.74	30413.268		

PATRONS NORTHERN DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	53				m
Distance attenuation (-6 dB per doubling of distance)	-34				dB
Absorptive ceiling mitigation	0				dB
Building screening	-30				dB
Façade reflection	2.5				dB
Impact at nearest façade	**6**	**6**	**9**	**15**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**-1**	**2**	**8**	**dB(A)**
	4.0036732	4.0036732	7.9883783		

PATRONS BBQ TERRACE	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	79		82	85	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	79	79	82	85	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	10				m
Distance attenuation (-6 dB per doubling of distance)	-20				dB
Absorptive ceiling mitigation	-5				dB
Building screening	-15				dB
Façade reflection	2.5				dB
Impact at nearest façade	**42**	**42**	**45**	**48**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**34**	**37**	**40**	**dB(A)**

ONSITE ACTIVITY NOISE PREDICTION CALCULATIONS: ($L_{A10\ 1hr}$ and $L_{A01\ 1hr\ levels}$ are represented as N/A if the duration of events do not occur for 10% or 1% of the 1 hour period)

NIGHT TIME SCENARIO

R1: Dwelling to the north

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	84				m
Distance attenuation (-6 dB per doubling of distance)	-38				dB
Absorptive ceiling mitigation	0				dB
Building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**32**	**32**	**35**	**41**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**25**	**28**	**34**	**dB(A)**

1593.8659 | 1593.8659 | 3180.1806

SPORTS LOUNGE NIGHT	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	73		76	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	73	73	76	80	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	64				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Inside to outside attenuation	-10				dB
Building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**29**	**29**	**32**	**37**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**21**	**24**	**29**	**dB(A)**

776.5964 | 776.5964 | 1549.5134

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	64				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Inside to outside attenuation	-15				dB
Absorptive ceiling mitigation	0				dB
Building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**14**	**19**	**25**	**31**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**12**	**18**	**24**	**dB(A)**

27.393029 | 86.624363 | 344.8578

PATRONS NORTHERN DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	61				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Absorptive ceiling mitigation	0				dB
Building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**35**	**35**	**38**	**44**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**27**	**30**	**36**	**dB(A)**

3022.3913 | 3022.3913 | 6030.4635

PATRONS BBQ TERRACE	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	73		76	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	73	73	76	80	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	103				m
Distance attenuation (-6 dB per doubling of distance)	-40				dB
Absorptive ceiling mitigation	0				dB
Building screening	-30				dB
Façade reflection	2.5				dB
Impact at nearest façade	**5**	**5**	**8**	**13**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**-3**	**0**	**5**	**dB(A)**

R2: Dwelling to the southeast

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	58				m
Distance attenuation (-6 dB per doubling of distance)	-35				dB
Offsite building screening	-8				dB
Inside to outside attenuation	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**27**	**27**	**30**	**36**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**20**	**23**	**29**	**dB(A)**

529.85175 | 529.85175 | 1057.1933

SPORTS LOUNGE NIGHT	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	73		76	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	73	73	76	80	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	73				m
Distance attenuation (-6 dB per doubling of distance)	-37				dB
Inside to outside attenuation	-20				dB
Onsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**18**	**18**	**21**	**26**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**10**	**13**	**18**	**dB(A)**

59.691107 | 59.691107 | 119.09932

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	59				m
Distance attenuation (-6 dB per doubling of distance)	-35				dB
Inside to outside attenuation	-5				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**25**	**30**	**36**	**42**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**23**	**29**	**35**	**dB(A)**

322.32647 | 1019.2858 | 4057.8499

PATRONS NORTHERN DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	100				m
Distance attenuation (-6 dB per doubling of distance)	-40				dB
Absorptive ceiling mitigation	0				dB
Building screening	-30				dB
Façade reflection	2.5				dB
Impact at nearest façade	**1**	**1**	**4**	**10**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**-7**	**-4**	**2**	**dB(A)**

1.1246318 | 1.1246318 | 2.2439355

PATRONS BBQ TERRACE	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	73		76	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	73	73	76	80	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	95				m
Distance attenuation (-6 dB per doubling of distance)	-40				dB
Absorptive ceiling mitigation	0				dB
Building screening	-6				dB
Façade reflection	2.5				dB
Impact at nearest façade	**29**	**29**	**32**	**37**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**22**	**25**	**30**	**dB(A)**

ONSITE ACTIVITY NOISE PREDICTION CALCULATIONS: ($L_{A10\ 1hr}$ and $L_{A01\ 1hr\ levels}$ are represented as N/A if the duration of events do not occur for 10% or 1% of the 1 hour period)

NIGHT TIME SCENARIO

R3: Dwellings to the south-southeast

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	60				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**35**	**35**	**38**	**44**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**27**	**30**	**36**	**dB(A)**

3123.9772 3123.9772 6233.154

SPORTS LOUNGE NIGHT	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	73		76	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	73	73	76	80	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	55				m
Distance attenuation (-6 dB per doubling of distance)	-35				dB
Inside to outside attenuation	-20				dB
Onsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**20**	**20**	**23**	**28**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**13**	**16**	**21**	**dB(A)**

105.15501 105.15501 209.81183

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	65				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Inside to outside attenuation	-5				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**24**	**29**	**35**	**41**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**22**	**28**	**34**	**dB(A)**

265.5665 839.795 3343.2841

PATRONS NORTHERN DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	84				m
Distance attenuation (-6 dB per doubling of distance)	-38				dB
Absorptive ceiling mitigation	0				dB
Building screening	-30				dB
Façade reflection	2.5				dB
Impact at nearest façade	**2**	**2**	**5**	**11**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**-5**	**-2**	**4**	**dB(A)**

1.5938659 1.5938659 3.1801806

PATRONS BBQ TERRACE	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	73		76	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	73	73	76	80	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	23				m
Distance attenuation (-6 dB per doubling of distance)	-27				dB
Absorptive ceiling mitigation	-5				dB
Barrier screening	-10				dB
Façade reflection	2.5				dB
Impact at nearest façade	**33**	**33**	**36**	**41**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**25**	**28**	**33**	**dB(A)**

R4: Dwellings to the south

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	58				m
Distance attenuation (-6 dB per doubling of distance)	-35				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**35**	**35**	**38**	**44**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**28**	**31**	**37**	**dB(A)**

3343.1385 3343.1385 6670.4383

SPORTS LOUNGE NIGHT	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	73		76	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	73	73	76	80	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	35				m
Distance attenuation (-6 dB per doubling of distance)	-31				dB
Inside to outside attenuation	-20				dB
Onsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**24**	**24**	**27**	**32**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**17**	**20**	**24**	**dB(A)**

259.6685 259.6685 518.10677

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	61				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Inside to outside attenuation	-5				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**25**	**30**	**36**	**42**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**22**	**28**	**34**	**dB(A)**

301.53681 953.5431 3796.1235

PATRONS NORTHERN DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	53				m
Distance attenuation (-6 dB per doubling of distance)	-34				dB
Absorptive ceiling mitigation	0				dB
Building screening	-30				dB
Façade reflection	2.5				dB
Impact at nearest façade	**6**	**6**	**9**	**15**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**-1**	**2**	**8**	**dB(A)**

4.0036732 4.0036732 7.9983783

PATRONS BBQ TERRACE	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	73		76	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	73	73	76	80	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	10				m
Distance attenuation (-6 dB per doubling of distance)	-20				dB
Absorptive ceiling mitigation	-5				dB
Building screening	-15				dB
Façade reflection	2.5				dB
Impact at nearest façade	**35**	**35**	**38**	**43**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**28**	**31**	**35**	**dB(A)**

ONSITE MECH PLANT NOISE PREDICTION CALCULATIONS:

R1: Dwelling to the north		
Southeast Deck Large condensers	56	dB(A) @ 3m
Number of units	3	units
Southeast Deck Small condensers	48	dB(A) @ 3m
Number of units	3	units
Total noise level	61	dB(A) @ 3m
Distance to receiver	81	m
Distance attenuation (-6 dB per doubling of distance)	-29	dB(A)
Acoustic enclosure	0	dB(A)
Building screening	-5	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	30	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	23	dB(A)

Southwest Deck Large condensers	56	dB(A) @ 3m
Number of units	4	units
Southwest Deck Small condensers	48	dB(A) @ 3m
Number of units	5	units
Total noise level	63	dB(A) @ 3m
Distance to receiver	86	m
Distance attenuation (-6 dB per doubling of distance)	-29	dB(A)
Acoustic enclosure	0	dB(A)
Building screening	-10	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	26	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	19	dB(A)

New toilet exhaust fans	52	dB(A) @ 3m
Number of units	4	units
Total noise level	58	dB(A) @ 3m
Distance to receiver	78	m
Distance attenuation (-6 dB per doubling of distance)	-28	dB(A)
Building screening	-5	dB(A)
Acoustic enclosure	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	27	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	20	dB(A)

R2: Dwelling to the southeast		
Southeast Deck Large condensers	56	dB(A) @ 3m
Number of units	3	units
Southeast Deck Small condensers	48	dB(A) @ 3m
Number of units	3	units
Total noise level	61	dB(A) @ 3m
Distance to receiver	63	m
Distance attenuation (-6 dB per doubling of distance)	-26	dB(A)
Acoustic enclosure	-10	dB(A)
Building screening	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	27	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	20	dB(A)

Southwest Deck Large condensers	56	dB(A) @ 3m
Number of units	4	units
Southwest Deck Small condensers	48	dB(A) @ 3m
Number of units	5	units
Total noise level	63	dB(A) @ 3m
Distance to receiver	63	m
Distance attenuation (-6 dB per doubling of distance)	-26	dB(A)
Acoustic enclosure	-10	dB(A)
Building screening	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	29	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	21	dB(A)

New toilet exhaust fans	52	dB(A) @ 3m
Number of units	4	units
Total noise level	58	dB(A) @ 3m
Distance to receiver	61	m
Distance attenuation (-6 dB per doubling of distance)	-26	dB(A)
Building screening	-3	dB(A)
Acoustic enclosure	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	31	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	24	dB(A)

R3: Dwellings to the south-southeast		
Southeast Deck Large condensers	56	dB(A) @ 3m
Number of units	3	units
Southeast Deck Small condensers	48	dB(A) @ 3m
Number of units	3	units
Total noise level	61	dB(A) @ 3m
Distance to receiver	57	m
Distance attenuation (-6 dB per doubling of distance)	-26	dB(A)
Acoustic enclosure	-10	dB(A)
Building screening	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	28	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	21	dB(A)

Southwest Deck Large condensers	56	dB(A) @ 3m
Number of units	4	units
Southwest Deck Small condensers	48	dB(A) @ 3m
Number of units	5	units
Total noise level	63	dB(A) @ 3m
Distance to receiver	59	m
Distance attenuation (-6 dB per doubling of distance)	-26	dB(A)
Acoustic enclosure	-10	dB(A)
Building screening	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	29	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	22	dB(A)

New toilet exhaust fans	52	dB(A) @ 3m
Number of units	4	units
Total noise level	58	dB(A) @ 3m
Distance to receiver	55	m
Distance attenuation (-6 dB per doubling of distance)	-25	dB(A)
Building screening	-5	dB(A)
Acoustic enclosure	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	30	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	23	dB(A)

R4: Dwelling to the west		
Southeast Deck Large condensers	56	dB(A) @ 3m
Number of units	3	units
Southeast Deck Small condensers	48	dB(A) @ 3m
Number of units	3	units
Total noise level	61	dB(A) @ 3m
Distance to receiver	47	m
Distance attenuation (-6 dB per doubling of distance)	-24	dB(A)
Acoustic enclosure	-10	dB(A)
Building screening	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	30	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	23	dB(A)

Southwest Deck Large condensers	56	dB(A) @ 3m
Number of units	4	units
Southwest Deck Small condensers	48	dB(A) @ 3m
Number of units	5	units
Total noise level	63	dB(A) @ 3m
Distance to receiver	27	m
Distance attenuation (-6 dB per doubling of distance)	-19	dB(A)
Acoustic enclosure	-15	dB(A)
Building screening	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	31	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	24	dB(A)

New toilet exhaust fans	52	dB(A) @ 3m
Number of units	4	units
Total noise level	58	dB(A) @ 3m
Distance to receiver	44	m
Distance attenuation (-6 dB per doubling of distance)	-23	dB(A)
Building screening	-5	dB(A)
Acoustic enclosure	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	32	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	25	dB(A)

Attachment F

Landscape Plans

OVERALL LANDSCAPE CONCEPT PLAN

1 FEATURE PLANTING
Feature planting to provide visual amenity and assist in landscape presentation within the property; Refer Proposed Planting Schedule

2 DENSE SCREEN PLANTING
Provide dense tall screen planting to screen this area from adjacent uses/locations; Refer Proposed Planting Schedule

3 SHRUBS AND GROUNDCOVERS
Mass planting to large areas to assist in building presentation to the streetscape and surrounds as well as to provide visual amenity; Refer Proposed Planting Schedule

4 INTERNAL FEATURE POT PLANTS
Internal feature pot plants to assist in building softening and to provide visual amenity; Refer Proposed Planting Schedule

5 EXISTING HEDGE
Existing established hedge to remain. Protect during construction on site

EXISTING FENCE
1800mm high timber screen fence

EXISTING FENCE
Pool type fence to remain

EXISTING BARRIER
Refer Architectural drawings

EXTENT OF EXISTING CLUB
Refer Architectural drawings

PROPOSED GARDEN EDGE
To future detail

ANDREW GOLD LANDSCAPE ARCHITECTURE
PO BOX 5220, MT GRAVATT EAST QLD 4122
T 07 3420 0006 M 0405 389 243 E andrew@agla.com.au

PROPOSED MOSSMAN MEMORIAL BOWLING CLUB
4-8 JOHNSTON ROAD, MOSSMAN

JOB NUMBER	SHEET NO.	ISSUE	DATE	DRAWN BY
23.105	1	B	13/06/23	AG / JB

1:400@A3
0 2 4 6 8 10 20m

N

LANDSCAPE CONCEPT PLAN

EXISTING FENCE
1800mm high timber screen fence

PROPOSED BBQ TERRACE
Refer Architectural drawings

EXISTING BARRIER
Refer Architectural drawings

EXISTING FENCE
Pool type fence to remain

EXTENT OF EXISTING CLUB
Refer Architectural drawings

EXISTING TRANSFORMER
As shown

PROPOSED DRIVEWAY CROSSOVER
Refer Engineering drawings and DSC Standard drawings

REMOVE EXISTING FOOTPATH
Reinstate turf

EXISTING FOOTPATH
As taken from Survey drawings

PROPOSED GARDEN EDGE
To future detail

PROPOSED DRIVEWAY CROSSOVER
Refer Engineering drawings and DSC Standard drawings

1 FEATURE PLANTING
Feature planting to provide visual amenity and assist in landscape presentation within the property; Refer Proposed Planting Schedule

2 DENSE SCREEN PLANTING
Provide dense tall screen planting to screen this area from adjacent uses/locations; Refer Proposed Planting Schedule

3 SHRUBS AND GROUNDCOVERS
Mass planting to large areas to assist in building presentation to the streetscape and surrounds as well as to provide visual amenity; Refer Proposed Planting Schedule

4 INTERNAL FEATURE POT PLANTS
Internal feature pot plants to assist in building softening and to provide visual amenity; Refer Proposed Planting Schedule

5 EXISTING HEDGE
Existing established hedge to remain. Protect during construction on site

EXISTING FENCE
1800mm high timber screen fence

EXISTING FENCE
Pool type fence to remain

EXISTING BARRIER
Refer Architectural drawings

EXTENT OF EXISTING CLUB
Refer Architectural drawings

PROPOSED GARDEN EDGE
To future detail

ANDREW GOLD LANDSCAPE ARCHITECTURE
PO BOX 5220, MT GRAVATT EAST QLD 4122
T 07 3420 0006 M 0405 389 243 E andrew@agla.com.au

PROPOSED MOSSMAN MEMORIAL BOWLING CLUB
4-8 JOHNSTON ROAD, MOSSMAN

JOB NUMBER	SHEET NO.	ISSUE	DATE	DRAWN BY
23.105	2	B	13/06/23	AG / JB

1:250@A3
0 1 2 3 4 5 10m

agla

PROPOSED PLANTING SCHEDULE

CODE	SPECIES	COMMON NAME	SIZE**	SPACING(m)	HEIGHT(m)	WIDTH (m)
PROPOSED FEATURE PLANTING						
1.1	*Cordyline fruticosa* Rubra	Palm Lily	300mm	0.8	2	1
1.2	*Cyathea cooperi*	Lacey Tree Fern	300mm	as shown	5-10	3
1.3	*Licuala ramsayii*	Australian Fan Palm	300mm	as shown	10-20	2
1.4	*Livistona muelleri*	Australian Dwarf Fan Palm	200L	as shown	5	5
PROPOSED DENSE SCREEN PLANTING						
2.1	*Alocasia macrorrhiza*	Giant Elephant Ear	300mm	1.5	2	1.5
2.2	*Calathea lutea*	Cigar Plant	200mm	1.2	3-4	1.2
2.3	*Heliconia psittacorum* Golden Torch	Parrot's Beak	200mm	1.2	1.5	2

**PLANT CONTAINER SIZE:

200L	200 Litre container stock min	Min. height at time of planting: 3.6m
300mm	300mm dia minimum pot size	
200mm	200mm dia minimum pot size	

The spacing of plants shown on plan have been derived as a compromise between growth rate, anticipated size, and the ability to provide a good vegetative cover within a reasonable space of time.

ANDREW GOLD LANDSCAPE ARCHITECTURE
PO BOX 5220, MT GRAVATT EAST QLD 4122
T 07 3420 0006 M 0405 389 243 E andrew@agla.com.au

PROPOSED MOSSMAN MEMORIAL BOWLING CLUB
4-8 JOHNSTON ROAD, MOSSMAN

JOB NUMBER	SHEET NO.	ISSUE	DATE	DRAWN BY
23.105	3	B	13/06/23	AG / JB

PROPOSED PLANTING SCHEDULE

CODE	SPECIES	COMMON NAME	SIZE**	SPACING(m)	HEIGHT(m)	WIDTH(m)
PROPOSED SHRUBS AND GROUNDCOVERS						
3.1	*Carissa macrocarpa* Green Carpet	Prostrate Desert Star	200mm	1.2	0.3	1.5
3.2	*Crinum pedunculatum*	Swamp Lily	200mm	1	2	2
3.3	*Gardenia psidioides* Glennie River var White Star	Native Gardenia	200mm	1	0.75	2
3.4	*Leptospermum hybrid* Pink Cascade	Tea Tree	200mm	1.2	0.8	1.5
3.5	*Thaumatophyllum* Xanadu	Xanadu	200mm	0.8	1	1
PROPOSED INTERNAL FEATURE POT PLANTS						
4.1	*Dichondra argentea* Silver Falls	Silver Pony's Foot	200mm	as shown	0.3	1.8
4.2	*Microsorum punctatum* Green Flame	Terrestrial Elkhorn Fern	200mm	as shown	0.5	0.5
4.3	*Monstera deliciosa*	Swiss Cheese Plant	300mm	as shown	1.5	1.2
4.4	*Rhapis excelsa*	Broadleaf Lady Palm	300mm	as shown	1.8	1.2
4.5	*Spathiphyllum* Petite	Dwarf Peace Lilly	200mm	as shown	0.6	0.6
4.6	*Spathiphyllum wallisii* Sensation	Peace Lily	300mm	as shown	1	1
4.7	*Zamioculcas zamiifolia*	Zanzibar Gem	200mm	as shown	0.8	0.5

**PLANT CONTAINER SIZE:

300mm	300mm dia minimum pot size
200mm	200mm dia minimum pot size

The spacing of plants shown on plan have been derived as a compromise between growth rate, anticipated size, and the ability to provide a good vegetative cover within a reasonable space of time.

ANDREW GOLD LANDSCAPE ARCHITECTURE
PO BOX 5220, MT GRAVATT EAST QLD 4122
T 07 3420 0006 M 0405 389 243 E andrew@agla.com.au

PROPOSED MOSSMAN MEMORIAL BOWLING CLUB
4-8 JOHNSTON ROAD, MOSSMAN

JOB NUMBER	SHEET NO.	ISSUE	DATE	DRAWN BY
23.105	4	B	13/06/23	AG / JB

Attachment G

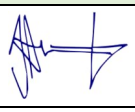
Traffic Impact Assessment

ARO INDUSTRIES

MOSSMAN BOWLS CLUB DEVELOPMENT TRAFFIC IMPACT ASSESSMENT

DOCUMENT CONTROL SHEET

ARO Industries Pty Ltd **Cairns Office:** 51 Sheridan Street Cairns QLD 4870 **Atherton Office:** 57B Mabel Street Atherton QLD 4883 **Telephone: (07) 4281 6897** **www.aroindustries.com.au**	**Project Number:** ARO0362 **Title:** Mossman Bowls Club Development Traffic Impact Assessment **Project Manager:** Andrew Armstrong **Author:** Kael Whitnell **Client:** North Point Advisory **Client Contact:** Adam Smith **Synopsis:** Traffic Impact Assessment to support the development application for proposed development of the Mossman Bowls club.

REVISION/CHECKING HISTORY					
Rev No.	**Author**	**Reviewer**	**Approved for Issue**		
			Name	**Signature**	**Date**
0	**K. Whitnell**	**A. Armstrong**	**A. Armstrong**		**23 June 2023**

DISTRIBUTION	**REVISION**										
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
North Point Advisory	**1**										
ARO Library	**1**										

TABLE OF CONTENTS

1. INTRODUCTION

This Traffic Impact Assessment has been prepared by ARO Industries for the proposed development of the Mossman Bowls Club located at 6-8 Johnston Road, Mossman. This report will support the development application for the proposed development.

The proposed development is on lot 40 on SP235262. The site is 5693m^2 of developed land with access from Johnston Road. The site is located within the jurisdiction of Port Douglas Shire Council and is subject to its planning controls.

Figure 1 shows the proposed layout on site and Figure 2 shows the location of the development. The proposed Site plan is included as Appendix A. The facility consists of 1749m^2 of Gross Floor Area (GFA).

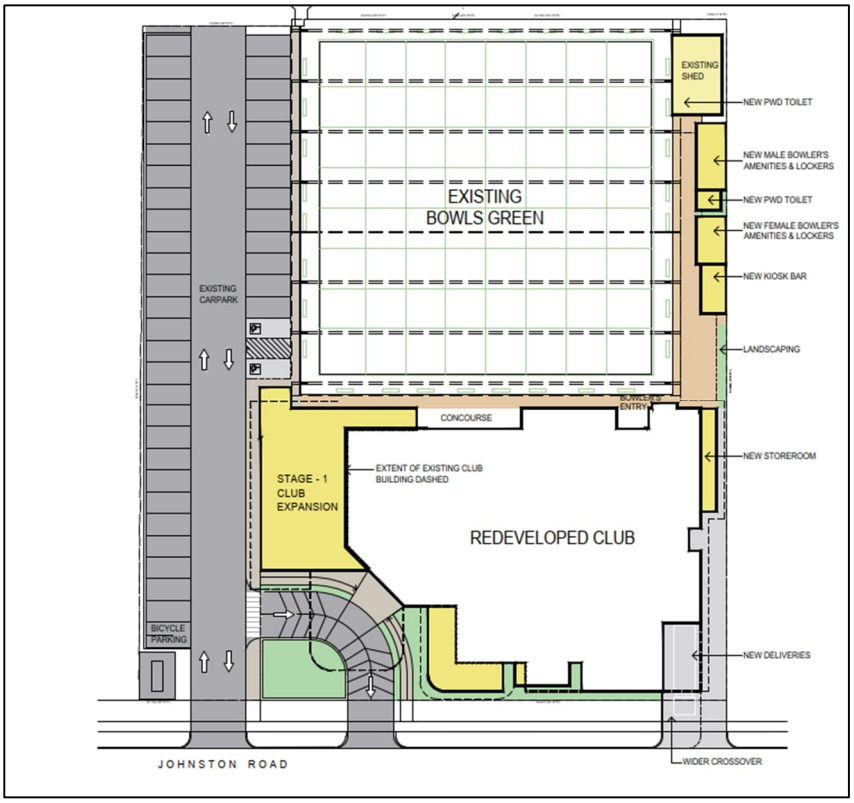


Figure 1 – Site Plan

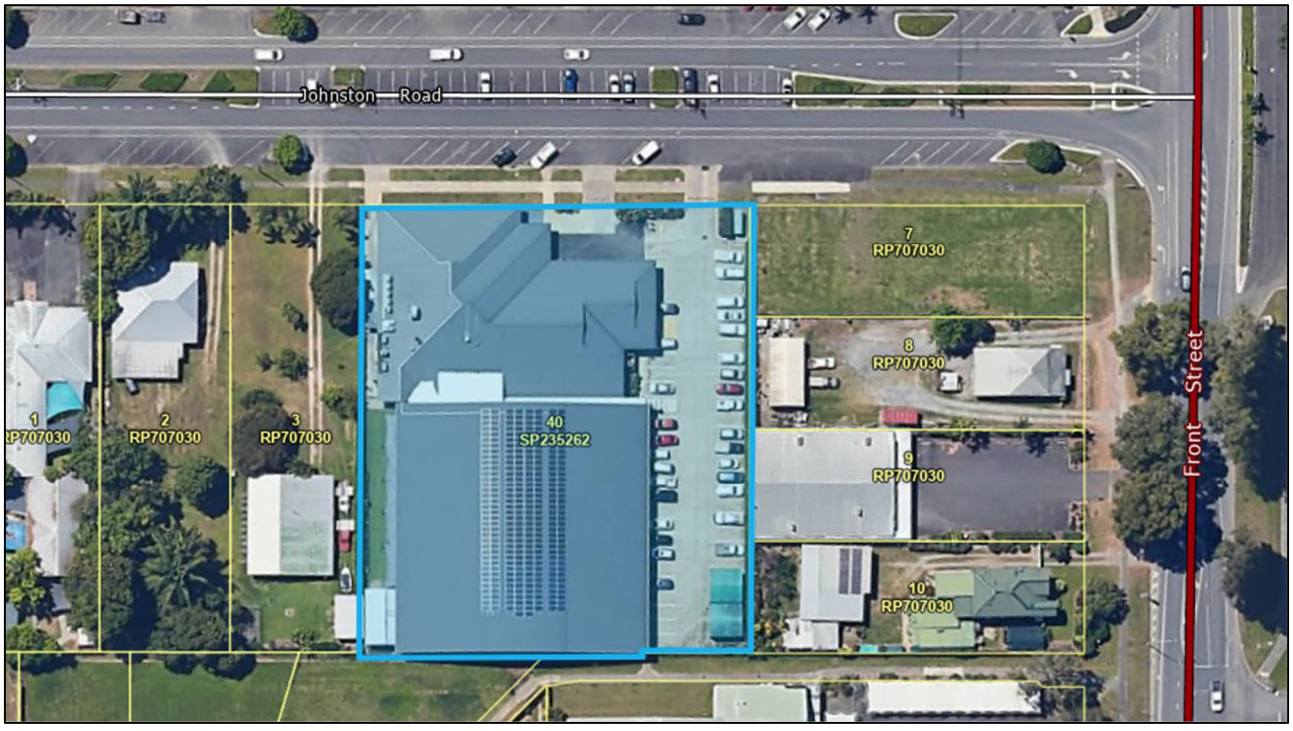


Figure 2 – Locality Plan (Courtesy of Queensland Globe)

2. PARKING REQUIREMENTS

The land use is assessed as being that of a licensed clubroom. Under the planning scheme, a club includes the ancillary preparation and service of food and drink. Bowls club is provided as an example of a club in Table SC 1.1.b.

The planning scheme has a generation rate provided for lawn bowls green of 30 spaces per green (outdoor sport and recreation). This additional parking generation has not been included in the parking generation of the development as we believe the rate provided for a licensed clubroom includes the use of the bowls green (the bowls green is an integral part of the bowls club).

Table 9.4.1.3.b of the Douglas parking and access servicing code requirements are summarised in the Table 1 below.

Table 1 – Vehicle Parking Requirement

Land Use	Area	Parking Requirement	Required Parking Spaces
Licensed Clubroom	1749m^2	1/15m2 GFA	117

It is noted that the generation rate for a licensed clubroom is equivalent to the function facility rate which the development is occasionally used for.

The Douglas Shire Council Planning Scheme prescribed a rate for determining the minimum carparking requirements for the development.

Table 9.4.1.3.a of the Douglas access parking and services code states the at the minimum onsite accessibility parking generated is consistent with AS2890. AS2890 does not provide a generation rate for disabled access parks. A generation of 1 space for every 100 car parking spaces or part thereof has been adopted as this is considered industry standard. Therefore, two (2) of the 117 required parks shall be an accessibility park.

Table 9.4.1.3.b of the Douglas parking and access servicing code states a minimum generation of bicycle parking spaces. These requirements are summarised in the Table 2 below.

Table 2 – Bicycle Parking Requirement

Land Use	Variable	Parking Requirement	Required Parking Spaces
License Clubroom	Assume 12 employees	1/4 employees	3
Outdoor Sports and Recreation (Lawn Bowls)	1 Bowls Green	5 /green	5
Total			**8**

3. CAR PARKING PROVISION

3.1. Vehicle Parking

Off Street

The proposed development reduces the number of off-street car parks from 48 parks (including 2 accessibility parks) to 42 parks (including 2 accessibility parks). This attributes to a shortfall of parking of 75 parking spaces.

On-Street

It is noted that there are 81 on-street parking spaces on Johnston Street in within a 120m radius from the Mossman Bowls club. In additional to the Bowls Club, these parking spaces service the following business on Johnston Road:

- Outside school hours care;
- Early learning centre;
- Take away;
- Training Facility;
- Lawyers office; and
- Accountants office.

The typical hours of operation and estimated peak for these businesses are summarised in Table 3 below.

Table 3 – Surrounding businesses

Land Use	Typical Business Hours	Estimated Peak
Outside School Hours Care	Monday - Friday 7am–8:30am, 4pm-5pm	AM: 7am – 8:30am PM: 4pm-5pm
Early Learning Centre	Monday - Friday 8am–3pm	AM: 7am-8am PM: 2pm-3pm
Takeaway	Monday-Sunday 12pm-9pm	PM: 6pm-7pm
Training Facility	Monday-Friday 9am-5pm	AM: 9am-10am PM: 4pm-5pm
Lawyers Office	Monday-Friday 9am-5pm	AM: 10am-11am PM: 1pm-2pm
Accountants Office	Monday-Friday 9am-5pm	AM: 10am-11am PM: 1pm-2pm

It was indicated by the client that the Mossman Bowls club operates at peak capacity during interclub bowls events, typically midday Saturdays, and Friday afternoons for events such as wakes, conferences or bingo.

The typical hours of operation and peak operation of the surrounding businesses fall outside of the Mossman Bowls peak hours of operation. It is noted that the restaurant/takeaway PM peak overlaps with the identified peak of the Bowls club. However, off-street parking is provided at rear of the restaurant. It is noted that takeaway businesses generally have a high turn over of patrons in terms of parking.

As the bowls club generally operates at the off-peak time in comparison to surrounding business, there will be an increased number of on-street parking available for use as overflow parking for the Bowls Club. Assuming a 95% availability of parking during off-peak hours, 77 parks would be available as overflow for the Bowls Club.

Summary

Both on-street and off-street parking in the vicinity of the development is summarised in Table 4 below.

Table 4 – Parking facilities

Parking Type	No. Parks
Off-Street (Mossman Bowls Club)	42 (incl. 2 accessibility)
On-Street (95% of parks on Johnston Road)	77 (Incl. 1 accessibility)
Total	**119 parks (incl. 3 accessibility)**

In comparison to required parking generation for the bowls club (117), there is sufficient on-street and off-street parking is available to cater for the peak parking requirement of the development.

3.2. Locality Consideration

ARO understand that the Mossman Bowls club plan to implement a courtesy bus for the centre. ARO believe that this initiative should be considered and that its introduction would reduce the number of vehicles requiring car parks.

3.3. Accessibility Parking

The development retains two (2) accessibility car parks in the development. This meets the minimum accessibility parking requirements.

3.4. Bicycle Parking

The development retains the bicycle parking bays at the front of the off-street parking. Drawings provided indicate that the bicycle parking space is consistent in size to a vehicle car park. It is considered that this space will be adequate to accommodate 8 bicycle parks.

4. TRAFFIC ENVIRONMENT

It is understood that existing ingress and egress from the site onto Johnston Road is to be retained as part of the development.

ARO believe the proposed development does not adversely impact the service or performance of the transport network surrounding the development. This assessment is based on the following:

- Existing ingress and egress points are being utilised.
- No proposed modification will inhibit the existing sight distances approaching or departing the development.
- Existing off-street and on-street parking facilities are being utilised.
- The peak operation of the facilities is during the off-peak operation of surrounding businesses.

5. CONCLUSION

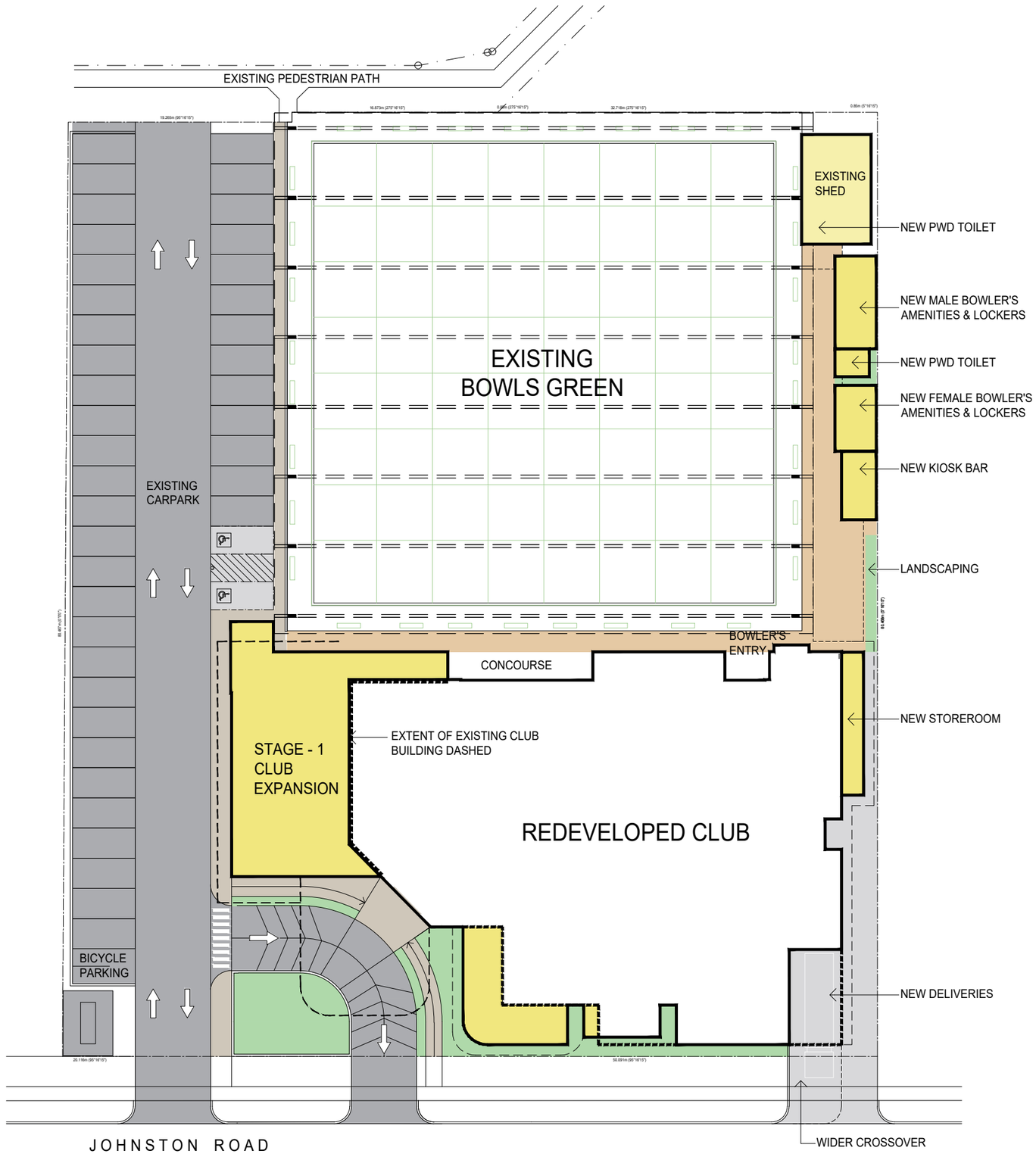
This Traffic Impact Assessment demonstrates that the proposed upgrade to the Mossman Bowls club generally meets the requirements of the Douglas Shire Council Parking and Access code. The development generally meets the parking requirements (considering the surrounding infrastructure and proposed initiatives). The development meets the land use requirements for accessibility parking and bicycle parking. Development parking and requirements are summarised in Table 5 below.

Table 5 – Development parking summary

Parking Use	Requirement (No. Parks)	Development Allowance (No. Parks)
Vehicle Parks	117	119
Accessibility Parks	2	3
Bicycle Parks	8	8

The development has been assessed as not having an adverse impact on the surrounding transport network and businesses. The development site and surrounding road network has the capacity to cater for the parking demand of the proposed development.

APPENDIX A
Site Plan



notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N

ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	16/05/23	DS

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn DS | date APRIL 2023 | designed GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLING CLUB

project
STAGE 1 REDEVELOPMENT

location
6-8 JOHNSTON ROAD MOSSMAN, QLD 4873

drwg. title
PROPOSED SITE PLAN STAGE-2 (MASTERPLAN)

scale	drwg. no.	amend.
1:200 @ A1	Q2371/DA/0.03	1

DRAWN SCALE
100mm
0 5 10 20 30 40 50

Owners Consent

Individual owner's consent for making a development application under the *Planning Act 2016*

I, Mosman Bowls Club, by way of the following authorized officers

GREG CLINT POTTER ~~CHAIR~~ SECRETARY MAN. ERIC SMITH CHAIRPERSON

[Insert full name.]

as owner of the premises identified as follows:

[Insert street address, lot on plan description or coordinates of the premises the subject of the application.]

Lot 40 on SP 235282 or Nos 4-8 Johnston Street MOSMAN

consent to the making of a development application under the *Planning Act 2016* by:

[Insert name of applicant.]

Northpoint Advisory on behalf of Rubicon Design & Construct

on the premises described above for:

[Insert details of the proposed development, e.g. material change of use for four storey apartment building.]

Alterations and Additions to the Mosman Bowls Club

2-6-23 2/6/2023

[signature of owner and date signed]

OVERALL LANDSCAPE CONCEPT PLAN

1 FEATURE PLANTING
Feature planting to provide visual amenity and assist in landscape presentation within the property; Refer Proposed Planting Schedule

2 DENSE SCREEN PLANTING
Provide dense tall screen planting to screen this area from adjacent uses/locations; Refer Proposed Planting Schedule

3 SHRUBS AND GROUNDCOVERS
Mass planting to large areas to assist in building presentation to the streetscape and surrounds as well as to provide visual amenity; Refer Proposed Planting Schedule

4 INTERNAL FEATURE POT PLANTS
Internal feature pot plants to assist in building softening and to provide visual amenity; Refer Proposed Planting Schedule

5 EXISTING HEDGE
Existing established hedge to remain. Protect during construction on site

EXISTING FENCE
1800mm high timber screen fence

EXISTING FENCE
Pool type fence to remain

EXISTING BARRIER
Refer Architectural drawings

EXTENT OF EXISTING CLUB
Refer Architectural drawings

PROPOSED GARDEN EDGE
To future detail

ANDREW GOLD LANDSCAPE ARCHITECTURE
PO BOX 5220, MT GRAVATT EAST QLD 4122
T 07 3420 0006 M 0405 389 243 E andrew@agla.com.au

PROPOSED MOSSMAN MEMORIAL BOWLING CLUB
4-8 JOHNSTON ROAD, MOSSMAN

JOB NUMBER	SHEET NO.	ISSUE	DATE	DRAWN BY
23.105	1	B	13/06/23	AG / JB

1:400@A3
0 2 4 6 8 10 20m

N

agla

LANDSCAPE CONCEPT PLAN

EXISTING FENCE
1800mm high timber screen fence

PROPOSED BBQ TERRACE
Refer Architectural drawings

EXISTING BARRIER
Refer Architectural drawings

EXISTING FENCE
Pool type fence to remain

EXTENT OF EXISTING CLUB
Refer Architectural drawings

PROPOSED DRIVEWAY CROSSOVER
Refer Engineering drawings and DSC Standard drawings

EXISTING TRANSFORMER
As shown

REMOVE EXISTING FOOTPATH
Reinstate turf

EXISTING FOOTPATH
As taken from Survey drawings

PROPOSED GARDEN EDGE
To future detail

PROPOSED DRIVEWAY CROSSOVER
Refer Engineering drawings and DSC Standard drawings

1 FEATURE PLANTING
Feature planting to provide visual amenity and assist in landscape presentation within the property; Refer Proposed Planting Schedule

2 DENSE SCREEN PLANTING
Provide dense tall screen planting to screen this area from adjacent uses/locations; Refer Proposed Planting Schedule

3 SHRUBS AND GROUNDCOVERS
Mass planting to large areas to assist in building presentation to the streetscape and surrounds as well as to provide visual amenity; Refer Proposed Planting Schedule

4 INTERNAL FEATURE POT PLANTS
Internal feature pot plants to assist in building softening and to provide visual amenity; Refer Proposed Planting Schedule

5 EXISTING HEDGE
Existing established hedge to remain. Protect during construction on site

EXISTING FENCE
1800mm high timber screen fence

EXISTING FENCE
Pool type fence to remain

EXISTING BARRIER
Refer Architectural drawings

EXTENT OF EXISTING CLUB
Refer Architectural drawings

PROPOSED GARDEN EDGE
To future detail

ANDREW GOLD LANDSCAPE ARCHITECTURE
PO BOX 5220, MT GRAVATT EAST QLD 4122
T 07 3420 0006 M 0405 389 243 E andrew@agla.com.au

PROPOSED MOSSMAN MEMORIAL BOWLING CLUB
4-8 JOHNSTON ROAD, MOSSMAN

JOB NUMBER	SHEET NO.	ISSUE	DATE	DRAWN BY
23.105	2	B	13/06/23	AG / JB

1:250@A3
0 1 2 3 4 5 10m

agla

PROPOSED PLANTING SCHEDULE

CODE	SPECIES	COMMON NAME	SIZE**	SPACING(m)	HEIGHT(m)	WIDTH (m)
PROPOSED FEATURE PLANTING						
1.1	*Cordyline fruticosa* Rubra	Palm Lily	300mm	0.8	2	1
1.2	*Cyathea cooperi*	Lacey Tree Fern	300mm	as shown	5-10	3
1.3	*Licuala ramsayii*	Australian Fan Palm	300mm	as shown	10-20	2
1.4	*Livistona muelleri*	Australian Dwarf Fan Palm	200L	as shown	5	5
PROPOSED DENSE SCREEN PLANTING						
2.1	*Alocasia macrorrhiza*	Giant Elephant Ear	300mm	1.5	2	1.5
2.2	*Calathea lutea*	Cigar Plant	200mm	1.2	3-4	1.2
2.3	*Heliconia psittacorum* Golden Torch	Parrot's Beak	200mm	1.2	1.5	2

****PLANT CONTAINER SIZE:**

200L	200 Litre container stock min	Min. height at time of planting: 3.6m
300mm	300mm dia minimum pot size	
200mm	200mm dia minimum pot size	

The spacing of plants shown on plan have been derived as a compromise between growth rate, anticipated size, and the ability to provide a good vegetative cover within a reasonable space of time.

ANDREW GOLD LANDSCAPE ARCHITECTURE
PO BOX 5220, MT GRAVATT EAST QLD 4122
T 07 3420 0006 **M** 0405 389 243 **E** andrew@agla.com.au

PROPOSED MOSSMAN MEMORIAL BOWLING CLUB
4-8 JOHNSTON ROAD, MOSSMAN

JOB NUMBER	SHEET NO.	ISSUE	DATE	DRAWN BY
23.105	3	B	13/06/23	AG / JB

PROPOSED PLANTING SCHEDULE

CODE	SPECIES	COMMON NAME	SIZE**	SPACING(m)	HEIGHT(m)	WIDTH(m)
PROPOSED SHRUBS AND GROUNDCOVERS						
3.1	*Carissa macrocarpa* Green Carpet	Prostrate Desert Star	200mm	1.2	0.3	1.5
3.2	*Crinum pedunculatum*	Swamp Lily	200mm	1	2	2
3.3	*Gardenia psidioides* Glennie River var White Star	Native Gardenia	200mm	1	0.75	2
3.4	*Leptospermum hybrid* Pink Cascade	Tea Tree	200mm	1.2	0.8	1.5
3.5	*Thaumatophyllum* Xanadu	Xanadu	200mm	0.8	1	1
PROPOSED INTERNAL FEATURE POT PLANTS						
4.1	*Dichondra argentea* Silver Falls	Silver Pony's Foot	200mm	as shown	0.3	1.8
4.2	*Microsorum punctatum* Green Flame	Terrestrial Elkhorn Fern	200mm	as shown	0.5	0.5
4.3	*Monstera deliciosa*	Swiss Cheese Plant	300mm	as shown	1.5	1.2
4.4	*Rhapis excelsa*	Broadleaf Lady Palm	300mm	as shown	1.8	1.2
4.5	*Spathiphyllum* Petite	Dwarf Peace Lilly	200mm	as shown	0.6	0.6
4.6	*Spathiphyllum wallisii* Sensation	Peace Lily	300mm	as shown	1	1
4.7	*Zamioculcas zamiifolia*	Zanzibar Gem	200mm	as shown	0.8	0.5

****PLANT CONTAINER SIZE:**

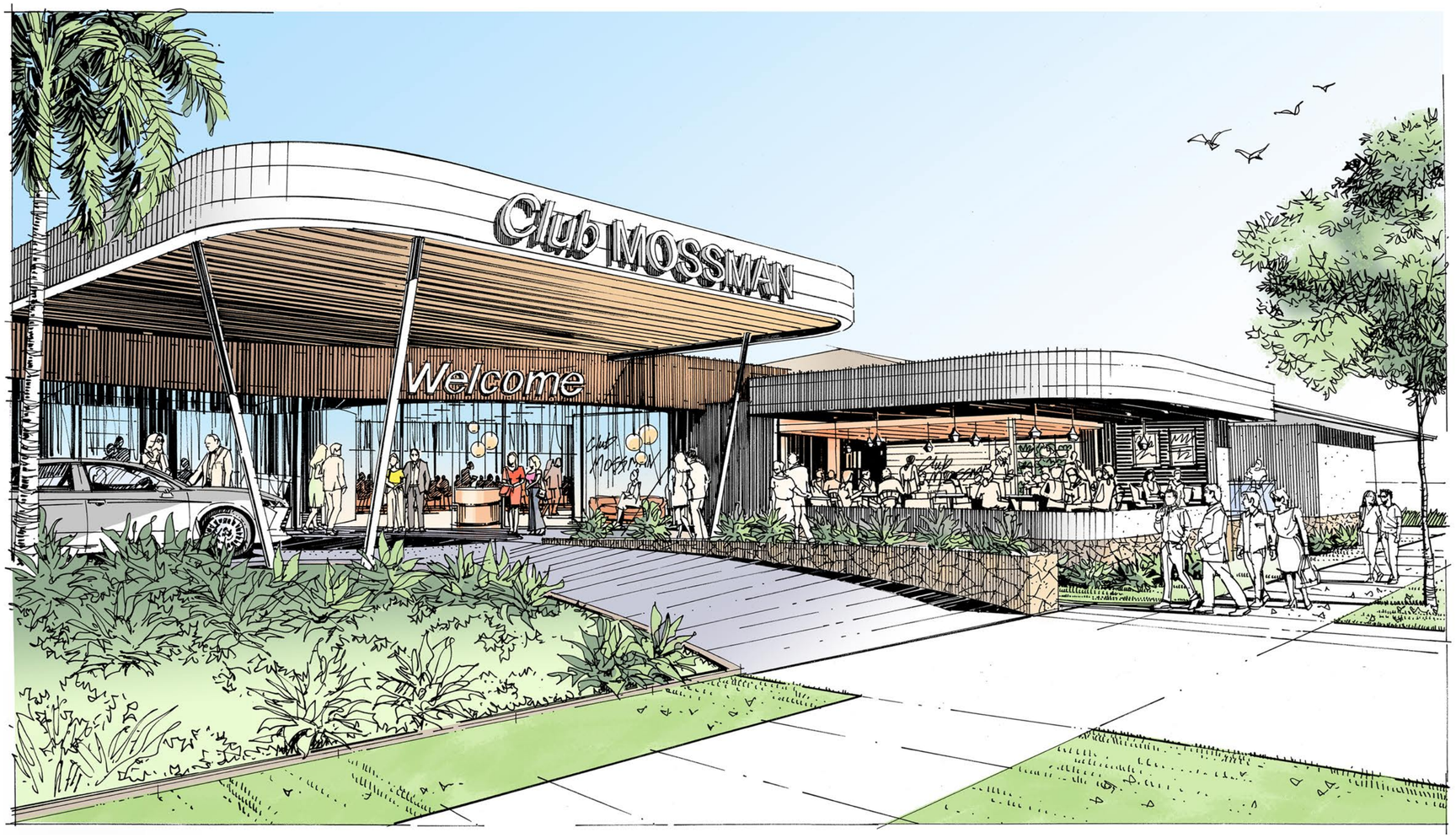
300mm	300mm dia minimum pot size
200mm	200mm dia minimum pot size

The spacing of plants shown on plan have been derived as a compromise between growth rate, anticipated size, and the ability to provide a good vegetative cover within a reasonable space of time.

ANDREW GOLD LANDSCAPE ARCHITECTURE
PO BOX 5220, MT GRAVATT EAST QLD 4122
T 07 3420 0006 **M** 0405 389 243 **E** andrew@agla.com.au

PROPOSED MOSSMAN MEMORIAL BOWLING CLUB
4-8 JOHNSTON ROAD, MOSSMAN

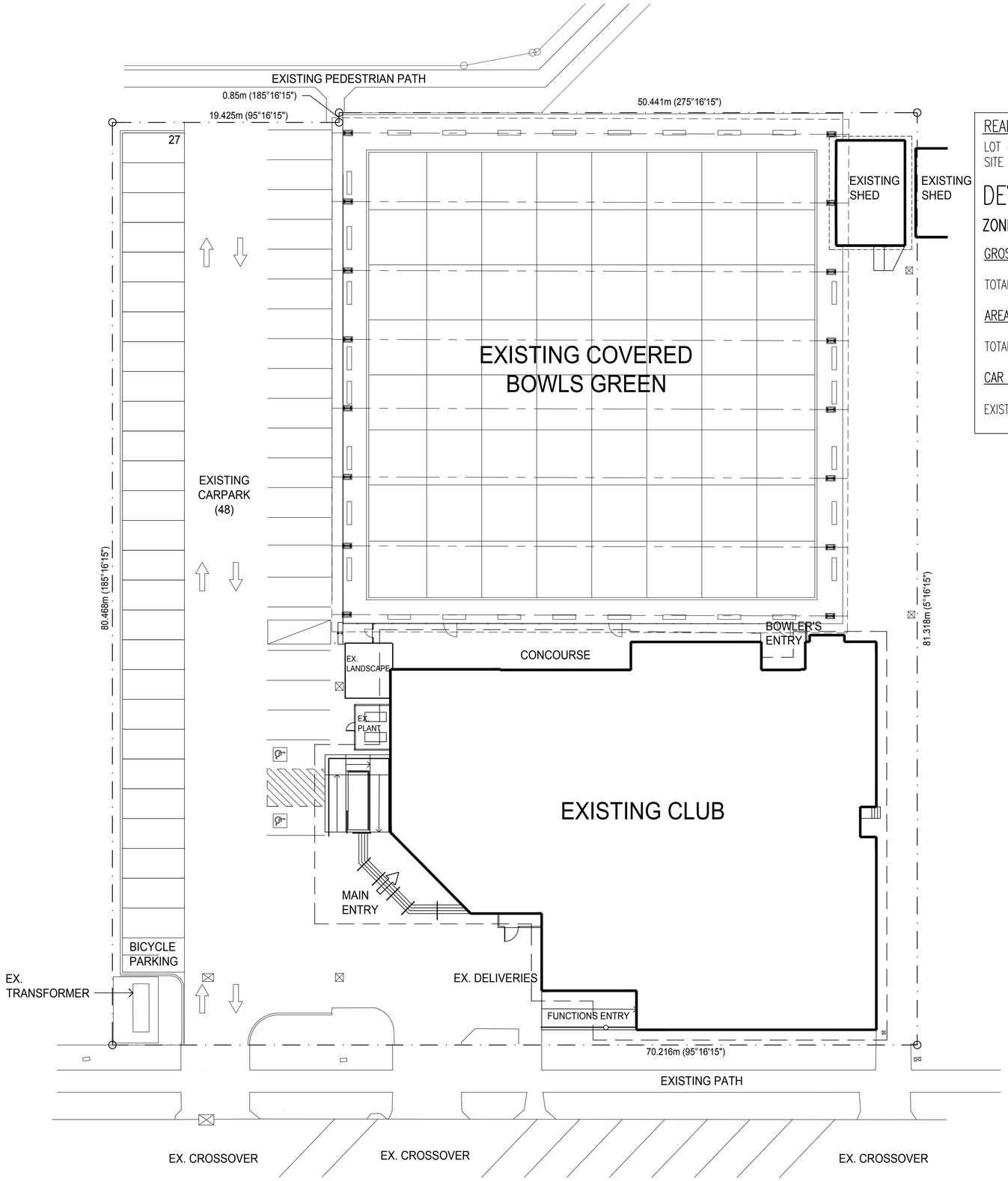
JOB NUMBER	SHEET NO.	ISSUE	DATE	DRAWN BY
23.105	4	B	13/06/23	AG / JB



MOSSMAN Memorial BOWLS CLUB

MOSSMAN MEMORIAL BOWLS CLUB
PROPOSED REDEVELOPMENT

rubicon DESIGN+ CONSTRUCT



SITE PLAN - EXISTING

REAL PROPERTY DESCRIPTION

LOT 40 on SP235262
SITE AREA: 16307sqm

DEVELOPMENT SUMMARY

ZONE : RECREATION & OPEN SPACE

GROSS FLOOR AREA

TOTAL : 1233.40 SQM

AREA AVAILABLE TO THE PUBLIC

TOTAL : 795.08 SQM

CAR PARKING

EXISTING : 48

notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N

ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	16/05/23	DS
2	DA ISSUE	02/06/23	MW
3	DA ISSUE	09/06/23	MW
4	DA ISSUE	09/06/23	MW

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn	date	designed
DS	APRIL 2023	GS

W.B.P. reference
2223–072B

rubicon DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

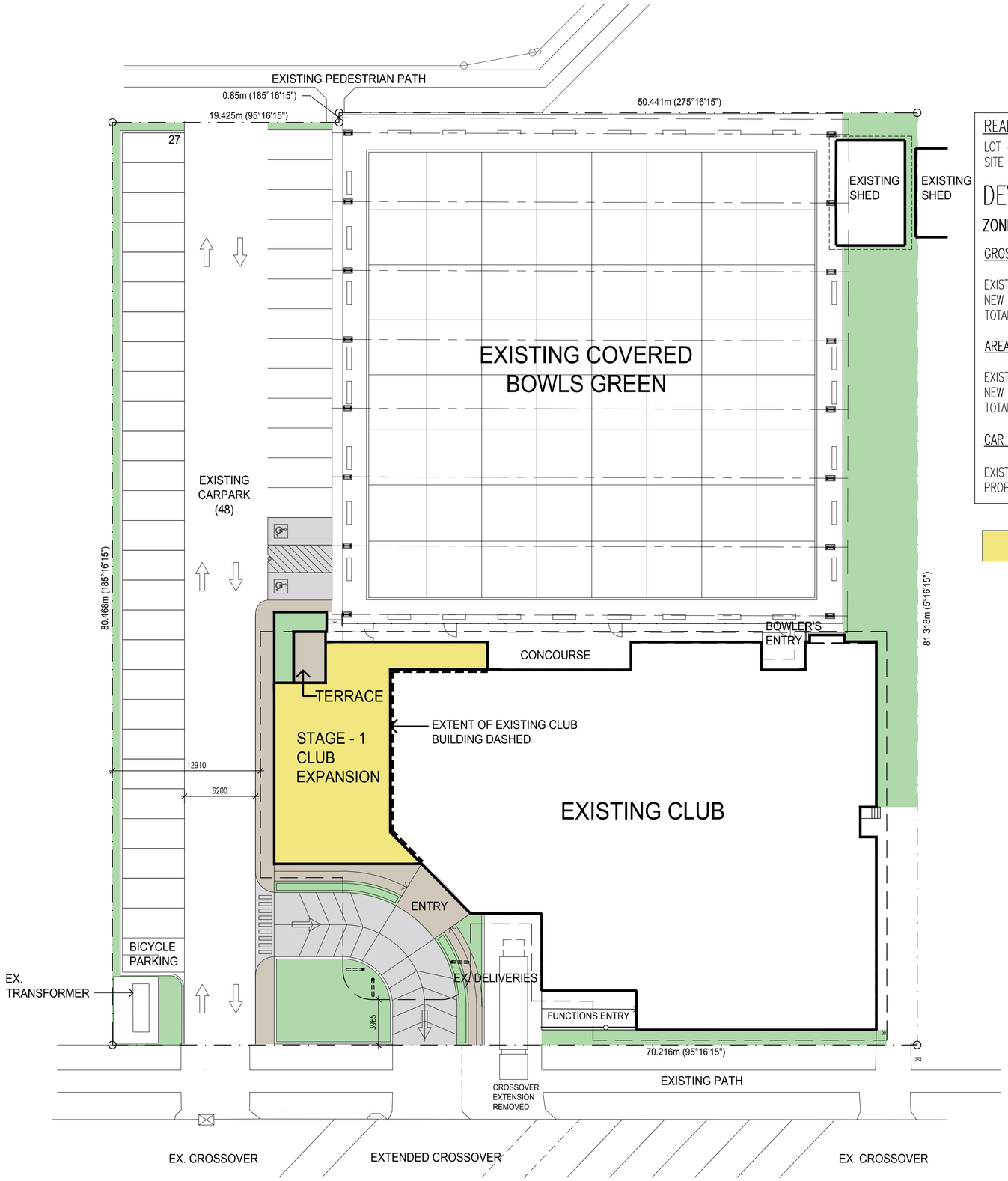
project
PROPOSED STAGED REDEVELOPMENT

location
6–8 JOHNSTON ROAD
MOSSMAN, QLD 4873

drwg. title
EXISTING SITE PLAN

scale	drwg. no.	amend.
1:200 @ A1	Q2371/SK/0.01	4

DRAWN SCALE
100mm
0 5 10 20 30 40 50



SITE PLAN - STAGE 1

REAL PROPERTY DESCRIPTION

LOT 40 on SP235262
SITE AREA: 16307sqm

DEVELOPMENT SUMMARY

ZONE : RECREATION & OPEN SPACE

GROSS FLOOR AREA

EXISTING :	1233.40 SQM
NEW :	211.60 SQM
TOTAL :	1445.00 SQM

AREA AVAILABLE TO THE PUBLIC

EXISTING :	795.08 SQM
NEW :	165.22 SQM
TOTAL :	960.30 SQM

CAR PARKING (ON SITE)

EXISTING :	48
PROPOSED :	42

NEW FLOOR AREA

notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	16/05/23	DS
2	DA ISSUE	09/06/23	MW
3	DA ISSUE	09/06/23	MW

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn	date	designed
DS	APRIL 2023	GS

W.B.P. reference
2223–072B

rubicon DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

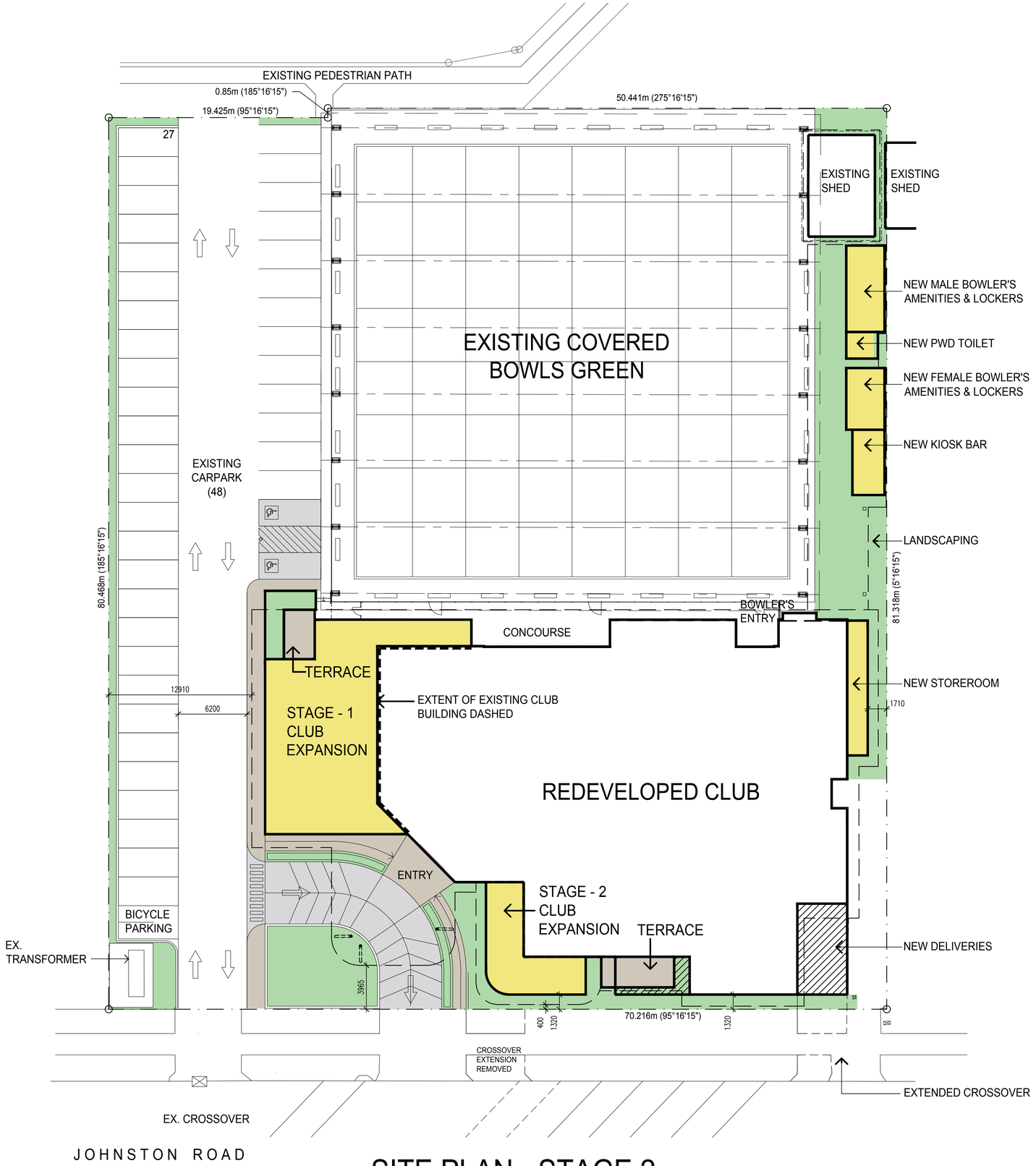
project
PROPOSED STAGED REDEVELOPMENT

location
6–8 JOHNSTON ROAD MOSSMAN, QLD 4873

drwg. title
PROPOSED SITE PLAN STAGE–1

scale	drwg. no.	amend.
1:200 @ A1	Q2371/SK/0.02	3

DRAWN SCALE
100mm
0 5 10 20 30 40 50



SITE PLAN - STAGE 2

REAL PROPERTY DESCRIPTION

LOT 40 on SP235262
SITE AREA: 16307sqm

DEVELOPMENT SUMMARY

ZONE : RECREATION & OPEN SPACE

GROSS FLOOR AREA

EXISTING :	1233.40 SQM
STAGE 1 :	211.60 SQM
STAGE 2 :	50.00 SQM
TOTAL :	1495.00 SQM

AREA AVAILABLE TO THE PUBLIC

EXISTING :	795.08 SQM
STAGE 1 :	165.22 SQM
STAGE 2 :	38.29 SQM
TOTAL :	998.59 SQM

CAR PARKING (ON SITE)

EXISTING :	48
PROPOSED :	42

NEW FLOOR AREA

EXISTING FLOOR AREA REMOVED

notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	16/05/23	DS
2	DA ISSUE	09/06/23	MW
3	DA ISSUE	09/06/23	MW

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn DS | date APRIL 2023 | designed GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT iconic
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

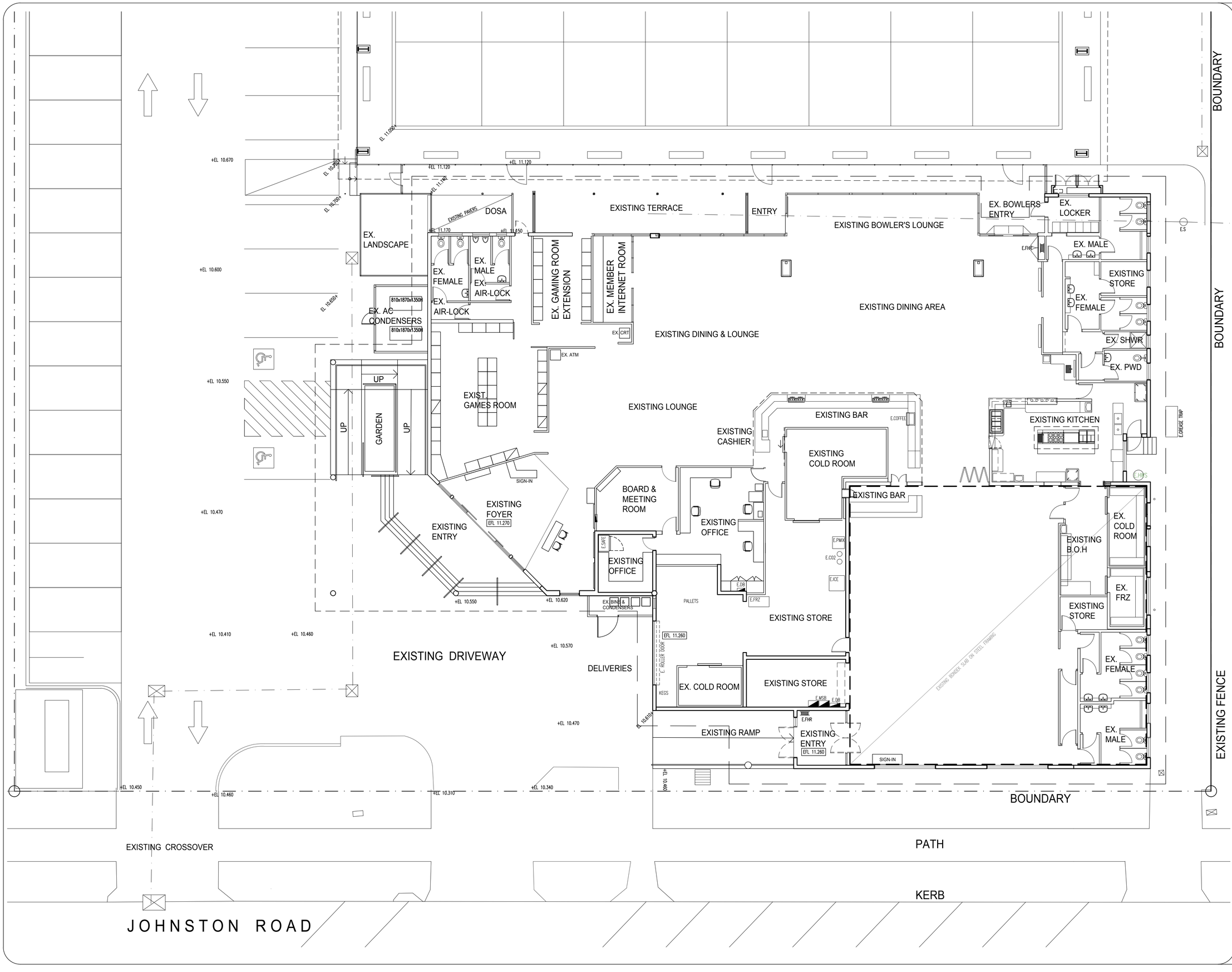
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD
MOSSMAN, QLD 4873

drwg. title
PROPOSED SITE PLAN STAGE-2

scale	drwg. no.	amend.
1:200 @A1	Q2371/SK/0.03	3

DRAWN SCALE
100mm
0 5 10 20 30 40 50



notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	16/05/23	DS
2	SITE INFORMATION COORD	29/05/23	MW
3	DA ISSUE	09/06/23	MW
4	DA ISSUE	09/06/23	MW

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn DS | date APRIL 2023 | designed GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT iconic
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

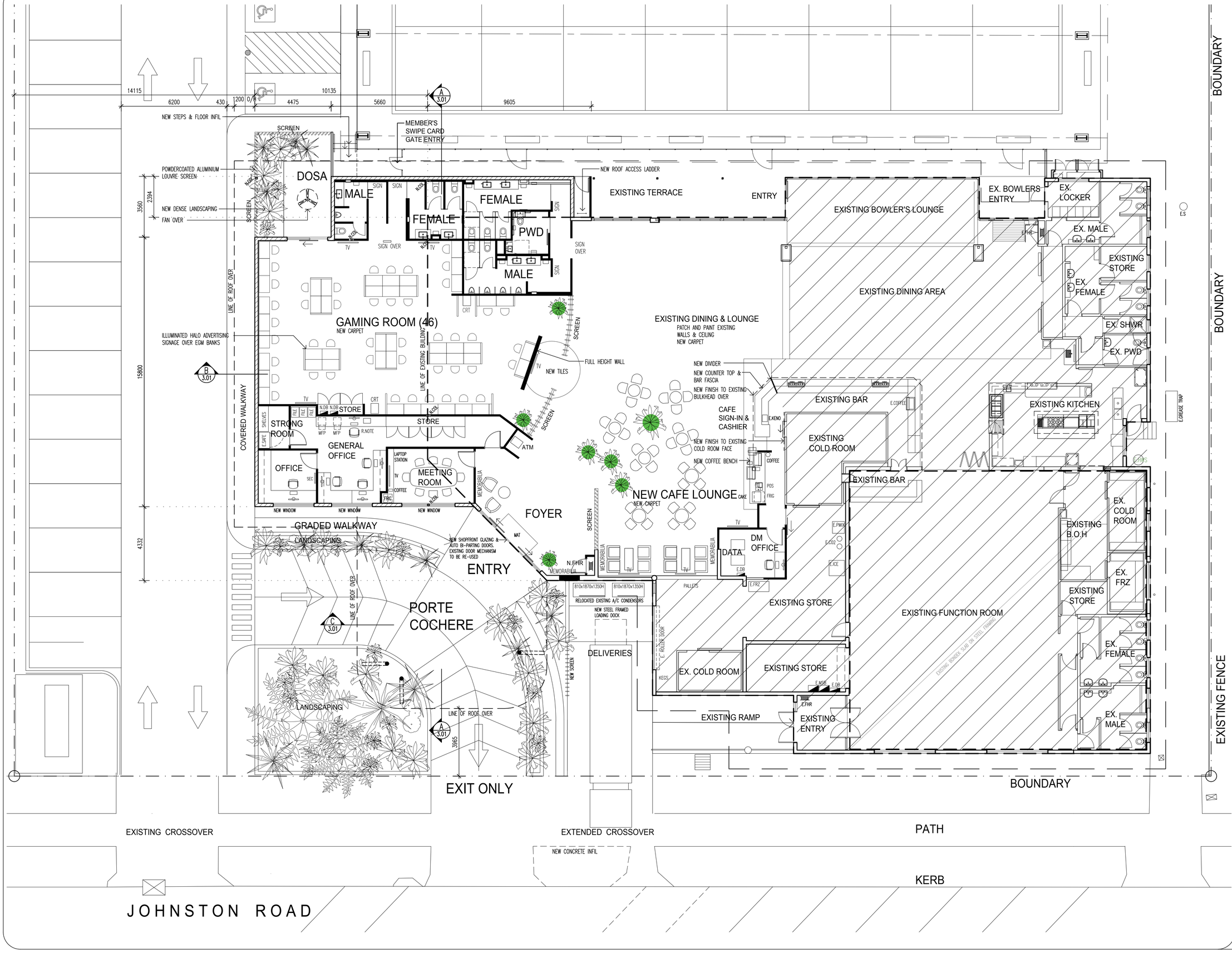
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD
MOSSMAN, QLD 4873

drwg. title
EXISTING FLOOR PLAN

scale	drwg. no.	amend.
1:100 @A1	Q2371/SK/1.01	4

DRAWN SCALE
100mm
0 5 10 20 30 40 50



notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	16/05/23	DS
2	GENERAL UPDATE	29/05/23	MW
3	GENERAL UPDATE	31/05/23	MW
4	DA ISSUE	09/06/23	MW
5	DA ISSUE	09/06/23	MW

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn	date	designed
DS	APRIL 2023	GS

W.B.P. reference
2223–072B

rubicon DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

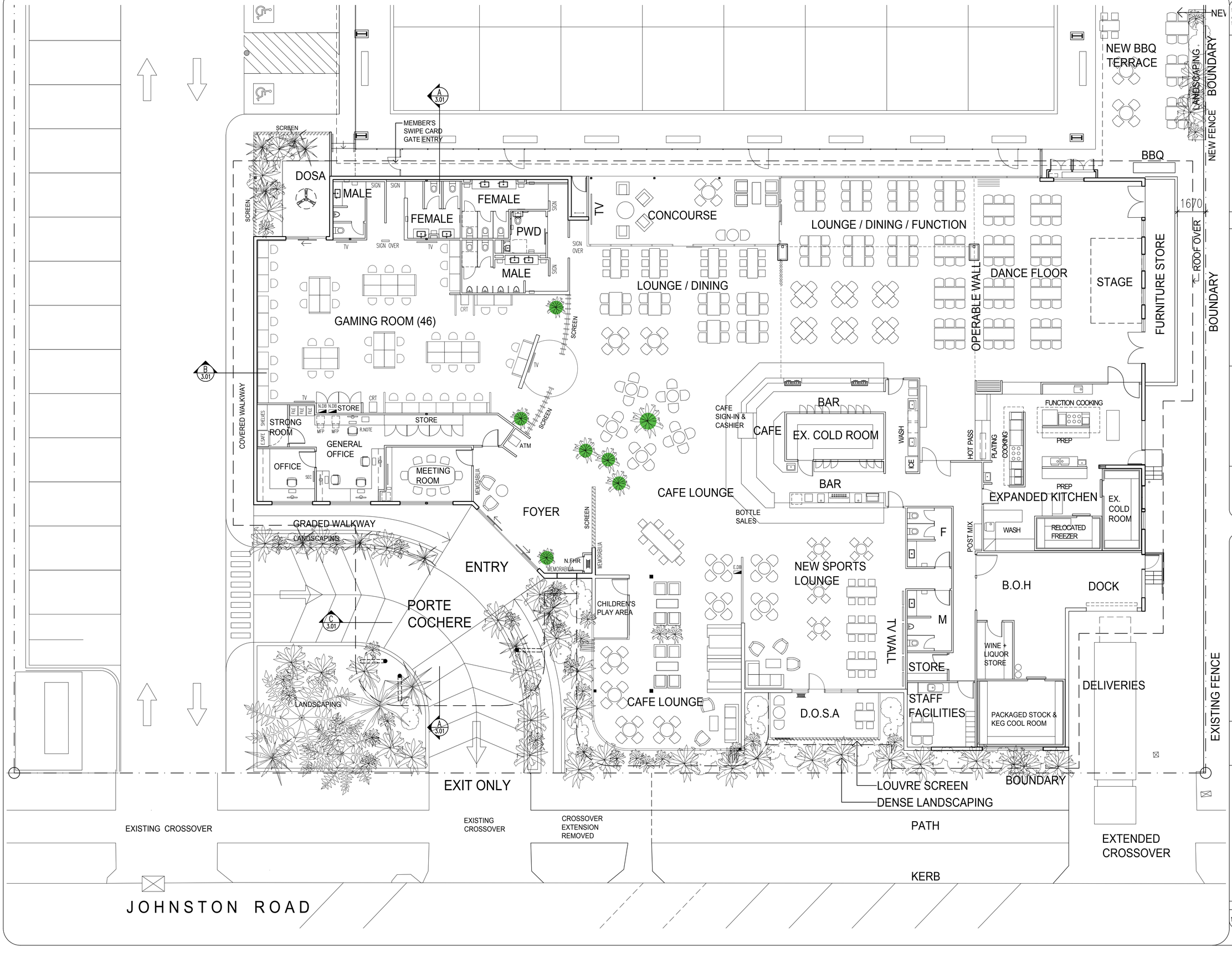
project
PROPOSED STAGED REDEVELOPMENT

location
6–8 JOHNSTON ROAD
MOSSMAN, QLD 4873

drwg. title
PROPOSED FLOOR PLAN
STAGE–1

scale	drwg. no.	amend.
1:100 @A1	Q2371/SK/2.01	5

DRAWN SCALE
100mm
0 5 10 20 30 40 50



notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	16/05/23	DS
2	DA ISSUE	09/06/23	DS
3	DA ISSUE	09/06/23	DS

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn DS | date APRIL 2023 | designed GS

W.B.P. reference
2223–072B

rubicon DESIGN + CONSTRUCT iconic
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

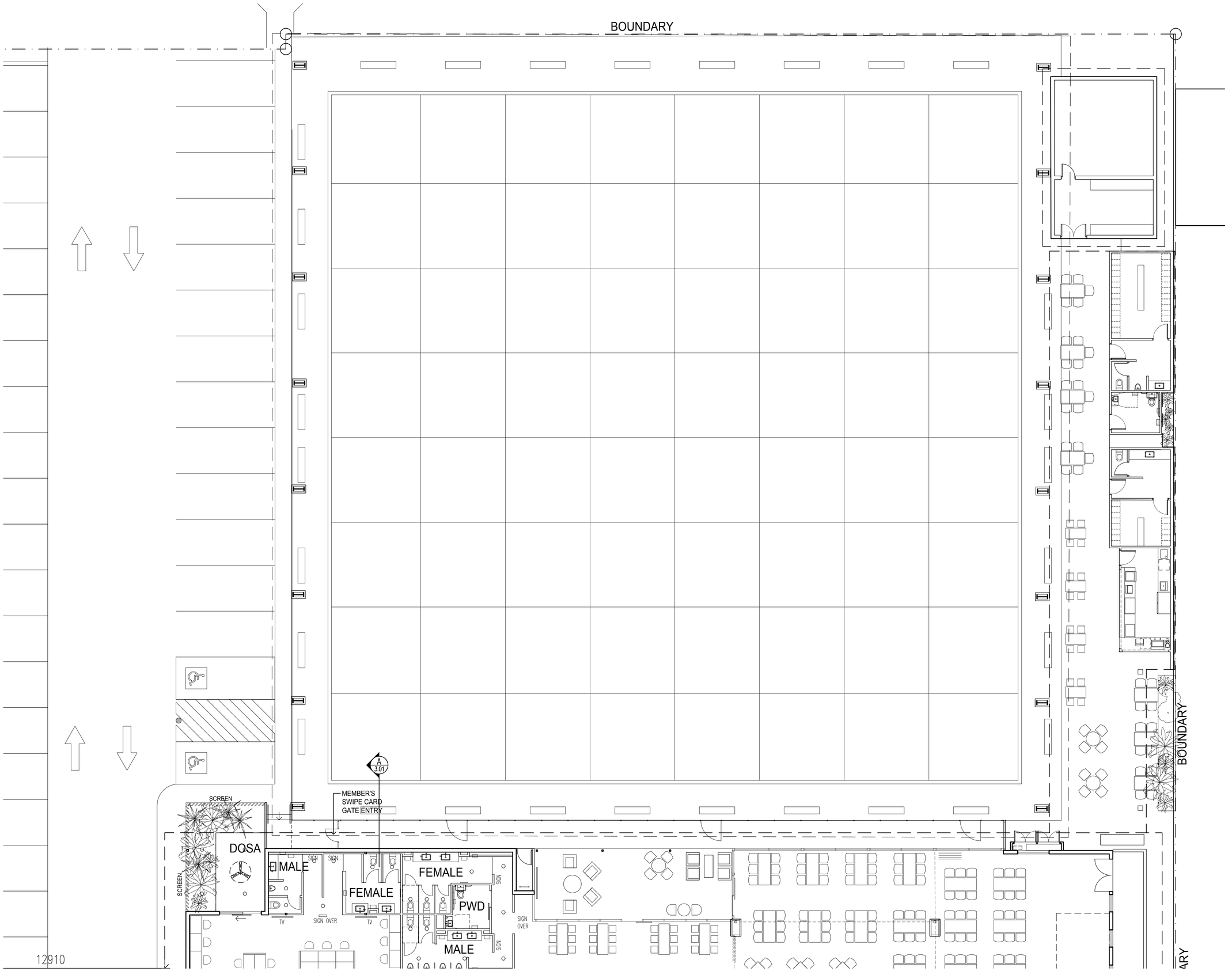
project
PROPOSED STAGED REDEVELOPMENT

location
6–8 JOHNSTON ROAD
MOSSMAN, QLD 4873

drwg. title
PROPOSED FLOOR PLAN
STAGE 2–PART A

scale	drwg. no.	amend.
1:100 @A1	Q2371/SK/2.02	3

DRAWN SCALE
100mm
0 5 10 20 30 40 50



notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N

ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	16/05/23	DS
2	DA ISSUE	09/06/23	DS
3	DA ISSUE	09/06/23	DS

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn	date	designed
DS	APRIL 2023	GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT iconic
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

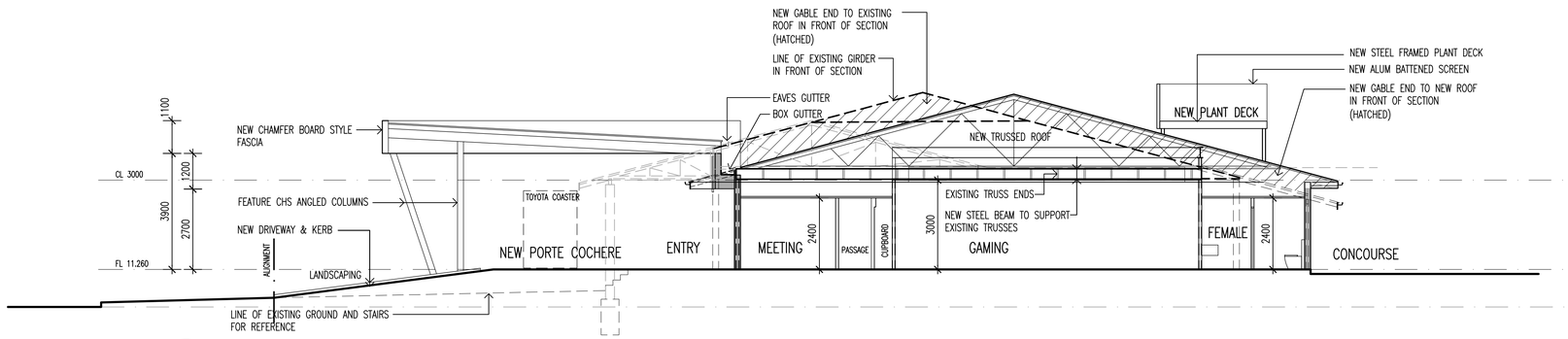
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD MOSSMAN, QLD 4873

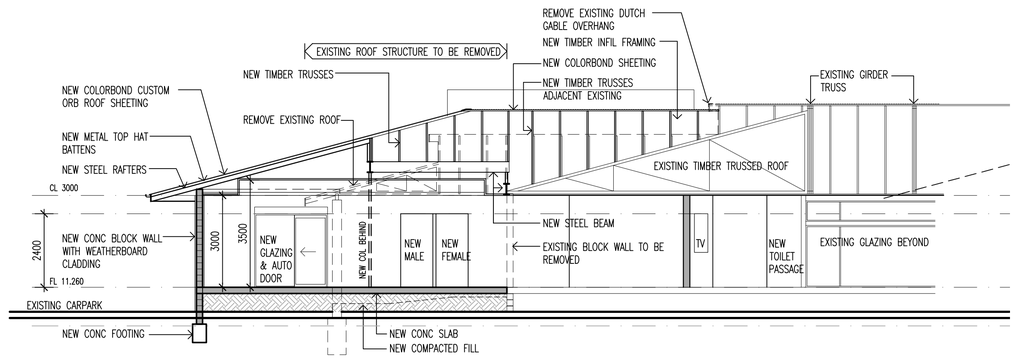
drwg. title
PROPOSED FLOOR PLAN STAGE 2-PART B

scale	drwg. no.	amend.
1:100 @A1	Q2371/SK/2.03	3

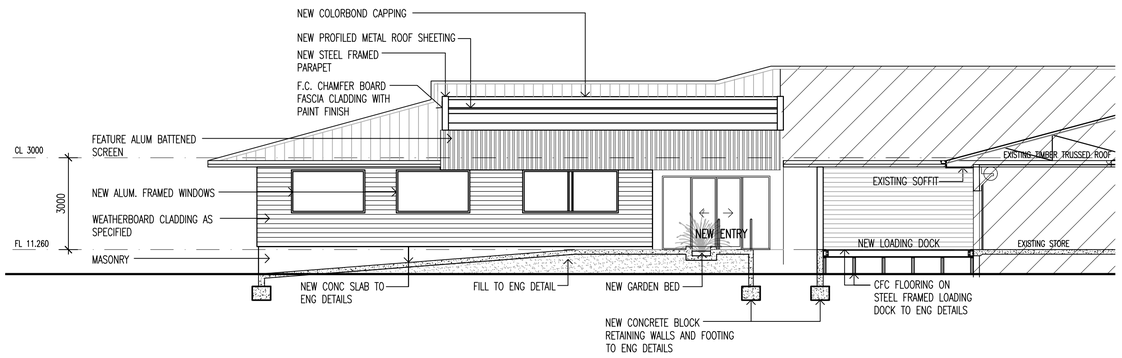
DRAWN SCALE
100mm
0 5 10 20 30 40 50



A — PROPOSED SECTION
THRU PORTE COCHERE SCALE 1:100



B — PROPOSED SECTION
THRU GAMING EXTENTION SCALE 1:100



C — PROPOSED SECTION
THRU PORTE COCHERE SCALE 1:100

notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	23/05/23	MW
2	GENERAL UPDATE	08/06/23	MW
3	DA ISSUE	09/06/23	MW

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn DS | date APRIL 2023 | designed GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

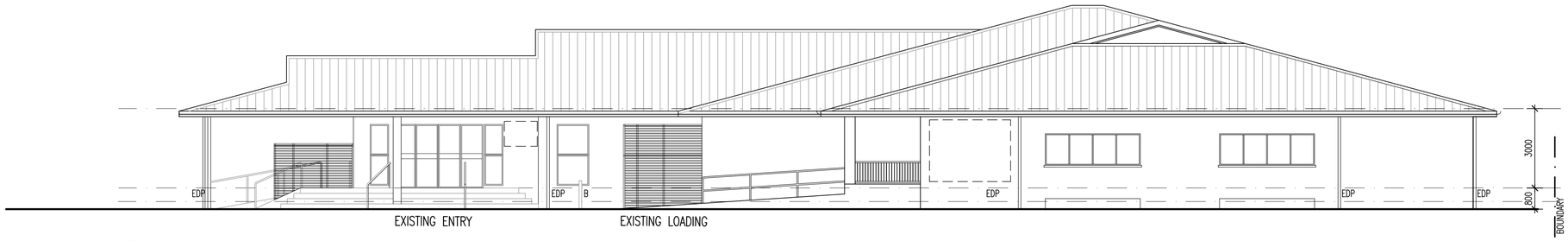
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD
MOSSMAN, QLD 4873

drwg. title
SECTIONS

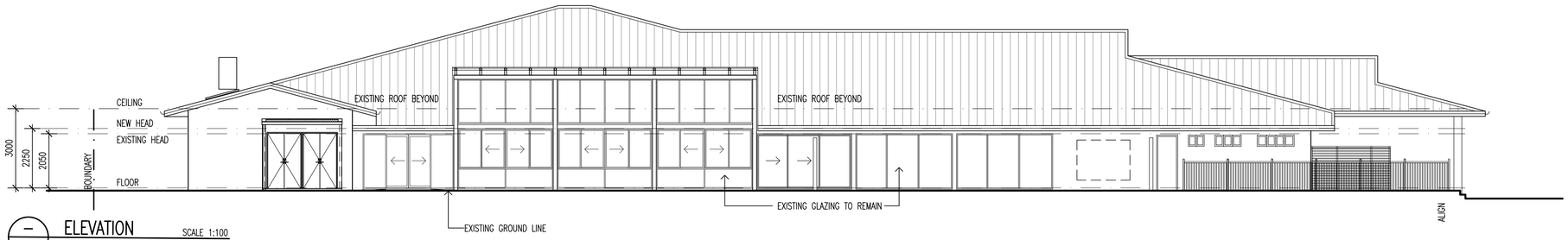
scale	drwg. no.	amend.
1:100 @A1	Q2371/SK/3.01	3

DRAWN SCALE
100mm
0 5 10 20 30 40 50

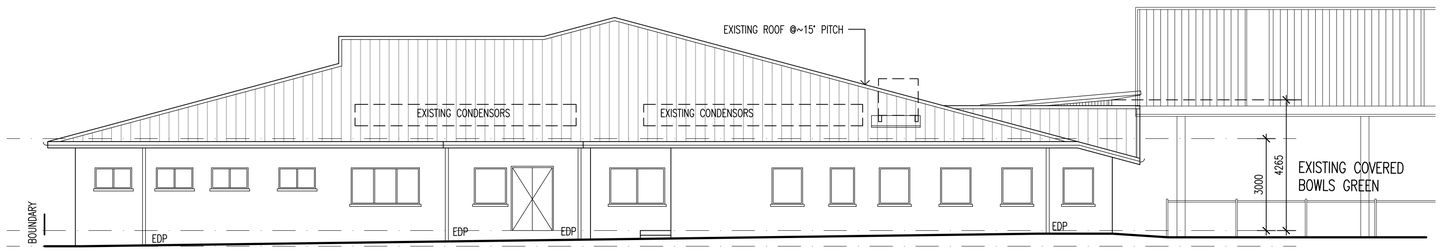


ELEVATION SCALE 1:100
EXISTING NORTH ELEVATION

ELEVATION SCALE 1:100
EXISTING EAST ELEVATION



ELEVATION SCALE 1:100
EXISTING SOUTH ELEVATION



ELEVATION SCALE 1:100
EXISTING WEST ELEVATION

notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	??/05/23	DS
2	DA ISSUE	09/06/23	DS
3	DA ISSUE	09/06/23	DS

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn	date	designed
DS	APRIL 2023	GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT iconic
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

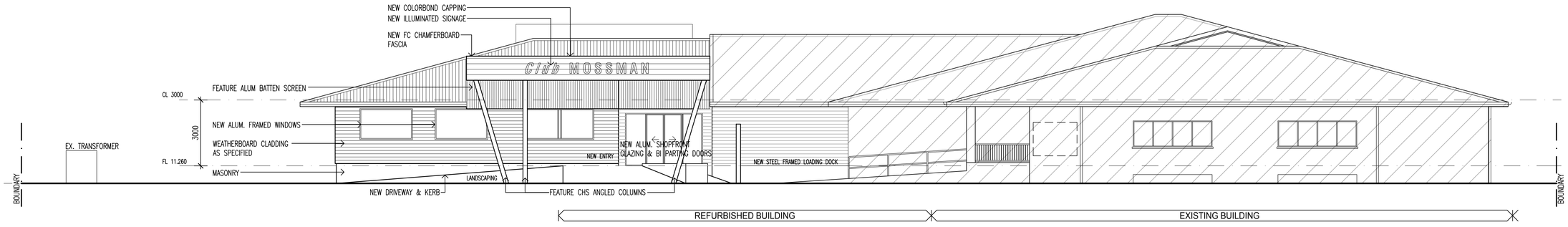
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD
MOSSMAN, QLD 4873

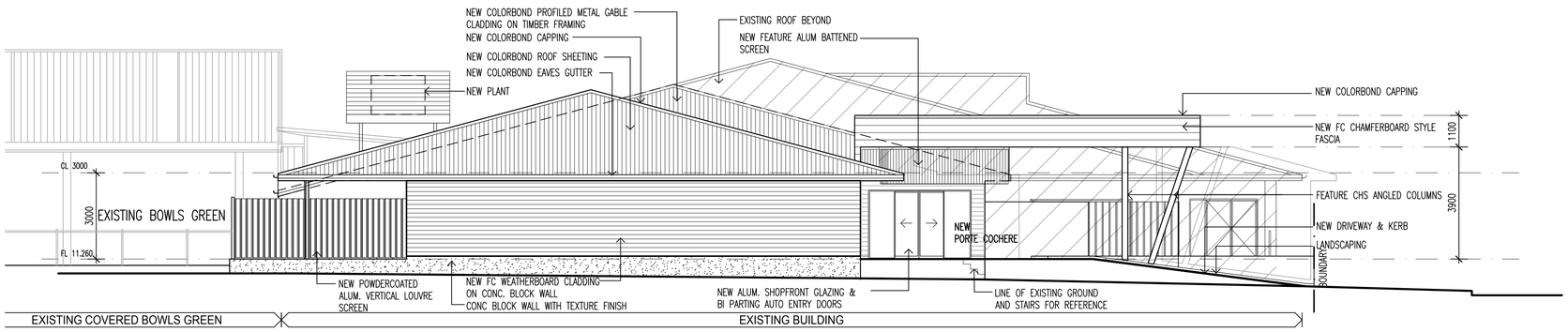
drwg. title
EXISTING ELEVATIONS

scale	drwg. no.	amend.
1:100 @A1	Q2371/SK/4.01	3

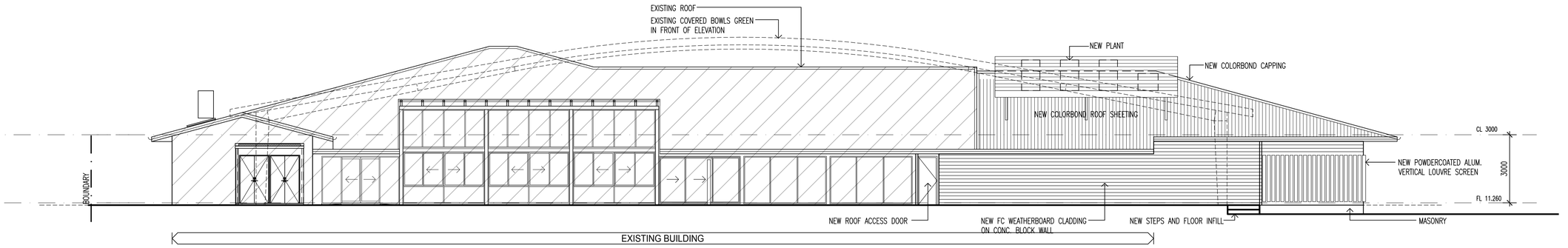
DRAWN SCALE
100mm
0 5 10 20 30 40 50



PROPOSED ELEVATION
NORTH ELEVATION SCALE 1:100



PROPOSED ELEVATION
EAST ELEVATION SCALE 1:100



PROPOSED ELEVATION
SOUTH ELEVATION SCALE 1:100

STAGE 1 ELEVATIONS

notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	??/05/23	DS
2	DA ISSUE	09/06/23	MW
3	DA ISSUE	09/06/23	DS

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn DS | date APRIL 2023 | designed GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

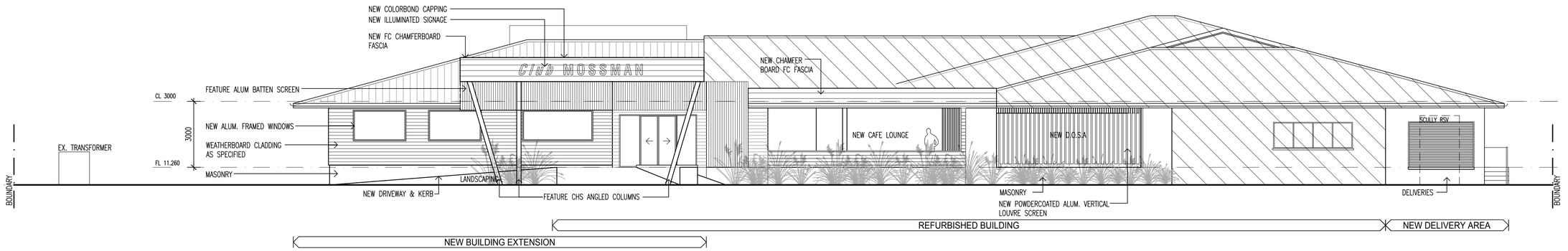
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD MOSSMAN, QLD 4873

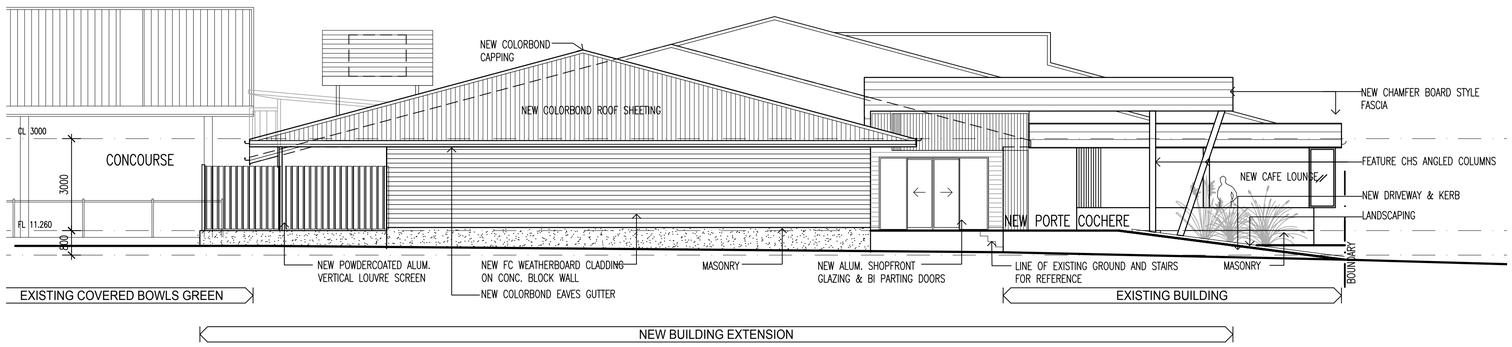
drwg. title
PROPOSED ELEVATIONS STAGE 1

scale	drwg. no.	amend.
1:100 @ A1	Q2371/SK/4.02	3

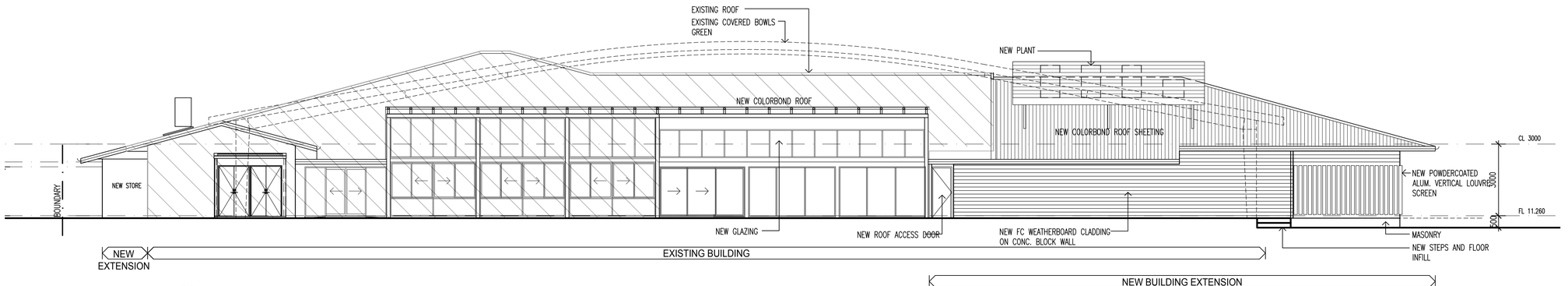
100mm DRAWN SCALE
0 5 10 20 30 40 50



PROPOSED ELEVATION
NORTH ELEVATION SCALE 1:100



PROPOSED ELEVATION
EAST ELEVATION SCALE 1:100



PROPOSED ELEVATION (FROM BOUNDARY)
SOUTH ELEVATION

STAGE 2 ELEVATIONS

notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	??/05/23	DS
2	DA ISSUE	09/06/23	DS
3	DA ISSUE	09/06/23	DS

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn	date	designed
DS	APRIL 2023	GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

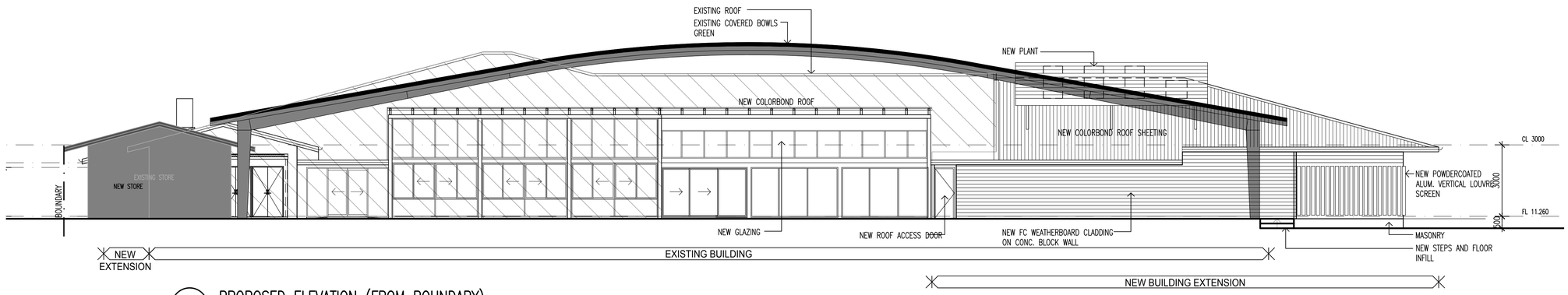
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD MOSSMAN, QLD 4873

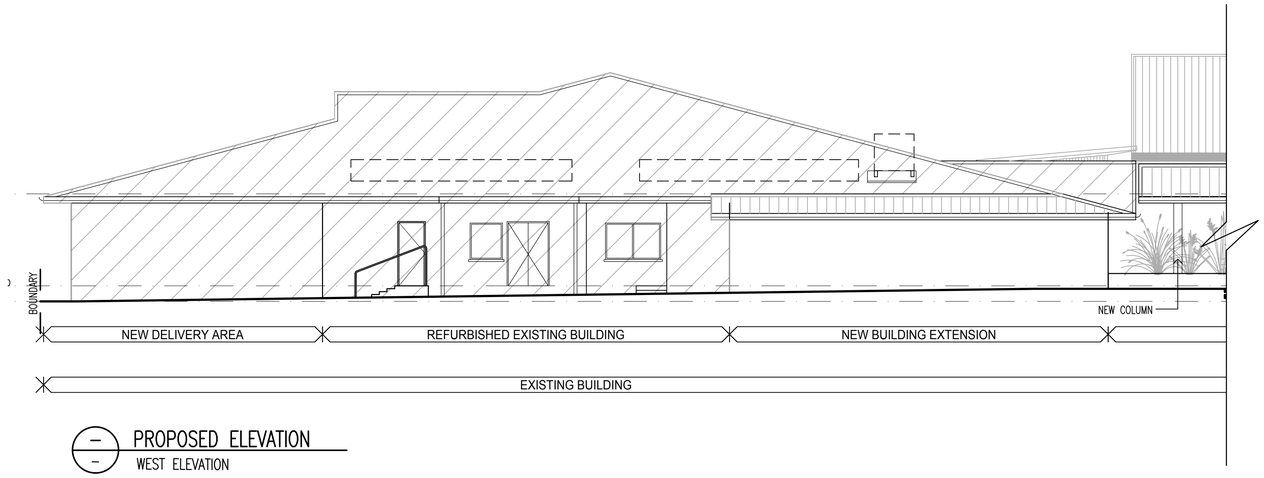
drwg. title
PROPOSED ELEVATIONS STAGE 2

scale	drwg. no.	amend.
1:100 @A1	Q2371/SK/4.03	3

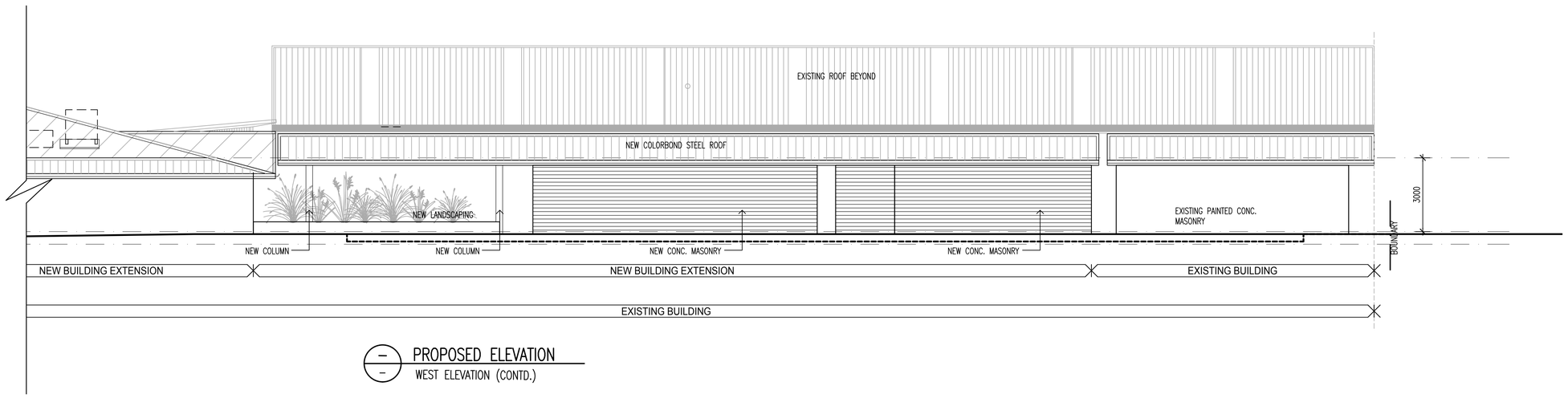
DRAWN SCALE
100mm
0 5 10 20 30 40 50



PROPOSED ELEVATION (FROM BOUNDARY)
SOUTH ELEVATION



PROPOSED ELEVATION
WEST ELEVATION



PROPOSED ELEVATION
WEST ELEVATION (CONTD.)

STAGE 2 ELEVATIONS

notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	DA ISSUE	09/06/23	DS
2	DA ISSUE	09/06/23	DS

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn	date	designed
DS	APRIL 2023	GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD MOSSMAN, QLD 4873

drwg. title
PROPOSED ELEVATIONS STAGE 2

scale	drwg. no.	amend.
1:100 @A1	Q2371/SK/4.04	2

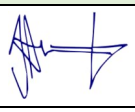
DRAWN SCALE
100mm
0 5 10 20 30 40 50

ARO INDUSTRIES

MOSSMAN BOWLS CLUB DEVELOPMENT TRAFFIC IMPACT ASSESSMENT

DOCUMENT CONTROL SHEET

ARO Industries Pty Ltd **Cairns Office:** 51 Sheridan Street Cairns QLD 4870 **Atherton Office:** 57B Mabel Street Atherton QLD 4883 **Telephone: (07) 4281 6897** **www.aroindustries.com.au**	**Project Number:** ARO0362 **Title:** Mossman Bowls Club Development Traffic Impact Assessment **Project Manager:** Andrew Armstrong **Author:** Kael Whitnell **Client:** North Point Advisory **Client Contact:** Adam Smith **Synopsis:** Traffic Impact Assessment to support the development application for proposed development of the Mossman Bowls club.

REVISION/CHECKING HISTORY					
Rev No.	**Author**	**Reviewer**	**Approved for Issue**		
			Name	**Signature**	**Date**
0	**K. Whitnell**	**A. Armstrong**	**A. Armstrong**		**23 June 2023**

DISTRIBUTION	**REVISION**										
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
North Point Advisory	**1**										
ARO Library	**1**										

TABLE OF CONTENTS

1. INTRODUCTION

This Traffic Impact Assessment has been prepared by ARO Industries for the proposed development of the Mossman Bowls Club located at 6-8 Johnston Road, Mossman. This report will support the development application for the proposed development.

The proposed development is on lot 40 on SP235262. The site is 5693m^2 of developed land with access from Johnston Road. The site is located within the jurisdiction of Port Douglas Shire Council and is subject to its planning controls.

Figure 1 shows the proposed layout on site and Figure 2 shows the location of the development. The proposed Site plan is included as Appendix A. The facility consists of 1749m^2 of Gross Floor Area (GFA).

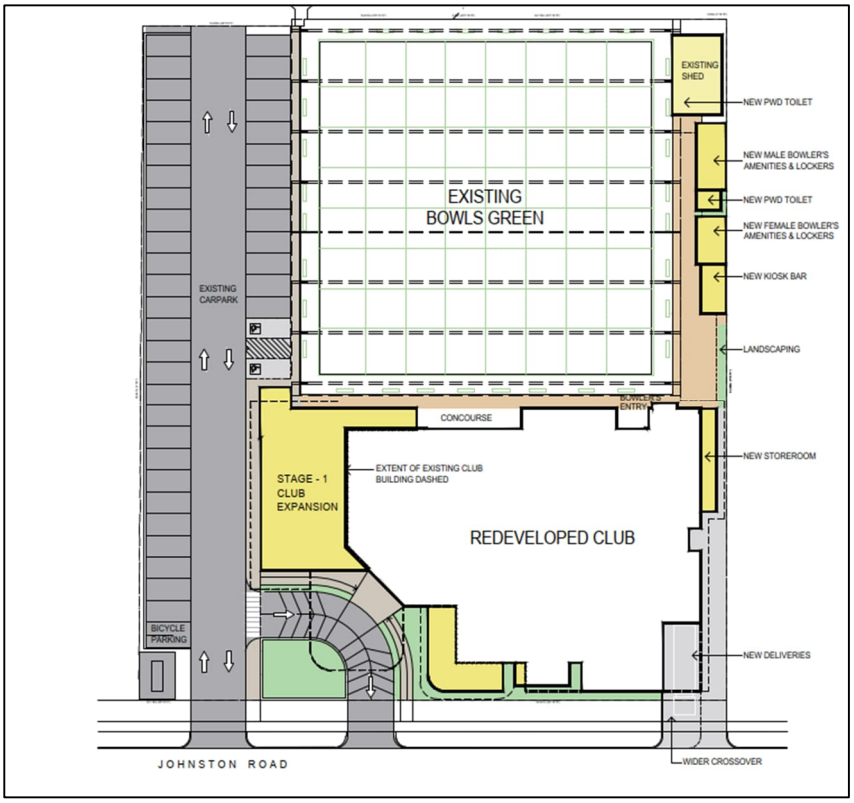


Figure 1 – Site Plan

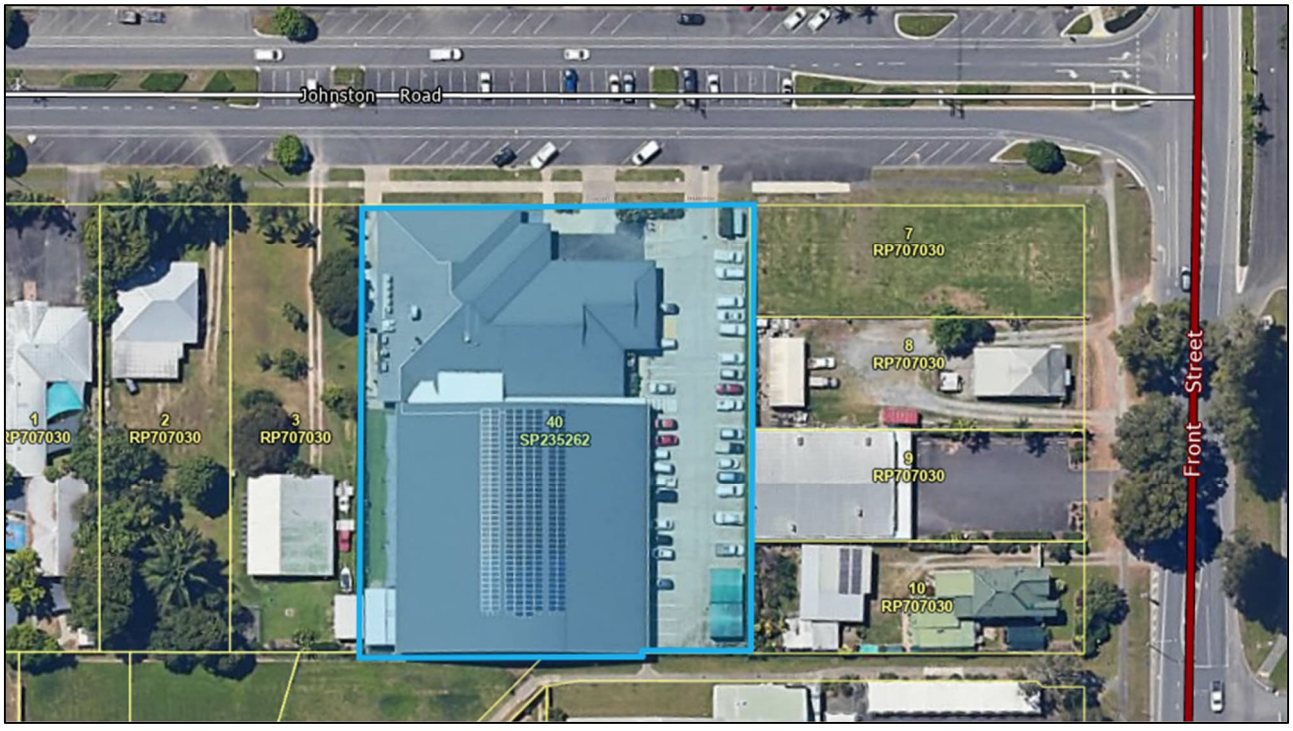


Figure 2 – Locality Plan (Courtesy of Queensland Globe)

2. PARKING REQUIREMENTS

The land use is assessed as being that of a licensed clubroom. Under the planning scheme, a club includes the ancillary preparation and service of food and drink. Bowls club is provided as an example of a club in Table SC 1.1.b.

The planning scheme has a generation rate provided for lawn bowls green of 30 spaces per green (outdoor sport and recreation). This additional parking generation has not been included in the parking generation of the development as we believe the rate provided for a licensed clubroom includes the use of the bowls green (the bowls green is an integral part of the bowls club).

Table 9.4.1.3.b of the Douglas parking and access servicing code requirements are summarised in the Table 1 below.

Table 1 – Vehicle Parking Requirement

Land Use	Area	Parking Requirement	Required Parking Spaces
Licensed Clubroom	1749m^2	1/15m2 GFA	117

It is noted that the generation rate for a licensed clubroom is equivalent to the function facility rate which the development is occasionally used for.

The Douglas Shire Council Planning Scheme prescribed a rate for determining the minimum carparking requirements for the development.

Table 9.4.1.3.a of the Douglas access parking and services code states the at the minimum onsite accessibility parking generated is consistent with AS2890. AS2890 does not provide a generation rate for disabled access parks. A generation of 1 space for every 100 car parking spaces or part thereof has been adopted as this is considered industry standard. Therefore, two (2) of the 117 required parks shall be an accessibility park.

Table 9.4.1.3.b of the Douglas parking and access servicing code states a minimum generation of bicycle parking spaces. These requirements are summarised in the Table 2 below.

Table 2 – Bicycle Parking Requirement

Land Use	Variable	Parking Requirement	Required Parking Spaces
License Clubroom	Assume 12 employees	1/4 employees	3
Outdoor Sports and Recreation (Lawn Bowls)	1 Bowls Green	5 /green	5
Total			**8**

3. CAR PARKING PROVISION

3.1. Vehicle Parking

Off Street

The proposed development reduces the number of off-street car parks from 48 parks (including 2 accessibility parks) to 42 parks (including 2 accessibility parks). This attributes to a shortfall of parking of 75 parking spaces.

On-Street

It is noted that there are 81 on-street parking spaces on Johnston Street in within a 120m radius from the Mossman Bowls club. In additional to the Bowls Club, these parking spaces service the following business on Johnston Road:

- Outside school hours care;
- Early learning centre;
- Take away;
- Training Facility;
- Lawyers office; and
- Accountants office.

The typical hours of operation and estimated peak for these businesses are summarised in Table 3 below.

Table 3 – Surrounding businesses

Land Use	Typical Business Hours	Estimated Peak
Outside School Hours Care	Monday - Friday 7am–8:30am, 4pm-5pm	AM: 7am – 8:30am PM: 4pm-5pm
Early Learning Centre	Monday - Friday 8am–3pm	AM: 7am-8am PM: 2pm-3pm
Takeaway	Monday-Sunday 12pm-9pm	PM: 6pm-7pm
Training Facility	Monday-Friday 9am-5pm	AM: 9am-10am PM: 4pm-5pm
Lawyers Office	Monday-Friday 9am-5pm	AM: 10am-11am PM: 1pm-2pm
Accountants Office	Monday-Friday 9am-5pm	AM: 10am-11am PM: 1pm-2pm

It was indicated by the client that the Mossman Bowls club operates at peak capacity during interclub bowls events, typically midday Saturdays, and Friday afternoons for events such as wakes, conferences or bingo.

The typical hours of operation and peak operation of the surrounding businesses fall outside of the Mossman Bowls peak hours of operation. It is noted that the restaurant/takeaway PM peak overlaps with the identified peak of the Bowls club. However, off-street parking is provided at rear of the restaurant. It is noted that takeaway businesses generally have a high turn over of patrons in terms of parking.

As the bowls club generally operates at the off-peak time in comparison to surrounding business, there will be an increased number of on-street parking available for use as overflow parking for the Bowls Club. Assuming a 95% availability of parking during off-peak hours, 77 parks would be available as overflow for the Bowls Club.

Summary

Both on-street and off-street parking in the vicinity of the development is summarised in Table 4 below.

Table 4 – Parking facilities

Parking Type	No. Parks
Off-Street (Mossman Bowls Club)	42 (incl. 2 accessibility)
On-Street (95% of parks on Johnston Road)	77 (Incl. 1 accessibility)
Total	**119 parks (incl. 3 accessibility)**

In comparison to required parking generation for the bowls club (117), there is sufficient on-street and off-street parking is available to cater for the peak parking requirement of the development.

3.2. Locality Consideration

ARO understand that the Mossman Bowls club plan to implement a courtesy bus for the centre. ARO believe that this initiative should be considered and that its introduction would reduce the number of vehicles requiring car parks.

3.3. Accessibility Parking

The development retains two (2) accessibility car parks in the development. This meets the minimum accessibility parking requirements.

3.4. Bicycle Parking

The development retains the bicycle parking bays at the front of the off-street parking. Drawings provided indicate that the bicycle parking space is consistent in size to a vehicle car park. It is considered that this space will be adequate to accommodate 8 bicycle parks.

4. TRAFFIC ENVIRONMENT

It is understood that existing ingress and egress from the site onto Johnston Road is to be retained as part of the development.

ARO believe the proposed development does not adversely impact the service or performance of the transport network surrounding the development. This assessment is based on the following:

- Existing ingress and egress points are being utilised.
- No proposed modification will inhibit the existing sight distances approaching or departing the development.
- Existing off-street and on-street parking facilities are being utilised.
- The peak operation of the facilities is during the off-peak operation of surrounding businesses.

5. CONCLUSION

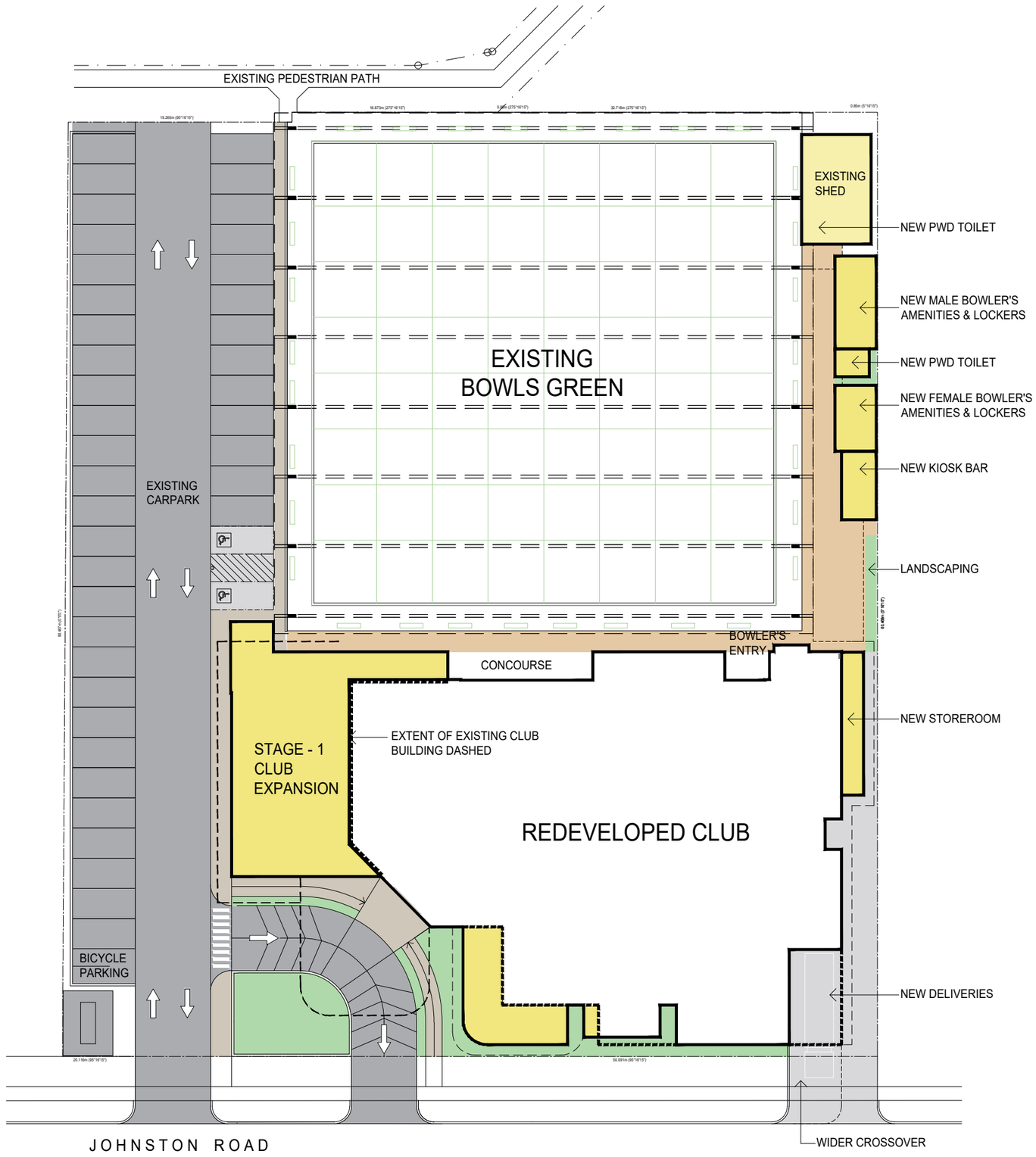
This Traffic Impact Assessment demonstrates that the proposed upgrade to the Mossman Bowls club generally meets the requirements of the Douglas Shire Council Parking and Access code. The development generally meets the parking requirements (considering the surrounding infrastructure and proposed initiatives). The development meets the land use requirements for accessibility parking and bicycle parking. Development parking and requirements are summarised in Table 5 below.

Table 5 – Development parking summary

Parking Use	Requirement (No. Parks)	Development Allowance (No. Parks)
Vehicle Parks	117	119
Accessibility Parks	2	3
Bicycle Parks	8	8

The development has been assessed as not having an adverse impact on the surrounding transport network and businesses. The development site and surrounding road network has the capacity to cater for the parking demand of the proposed development.

APPENDIX A
Site Plan



notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.--	SITE, STAGING & RELATED DRAWINGS
1.--	DEMOLITION DRAWINGS
2.--	FLOOR, REFLECTED CEILING & ROOF PLANS
3.--	SECTIONS
4.--	ELEVATIONS
5.--	CONSTRUCTION DETAILS
6.--	JOINERY DETAILS

N

ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	16/05/23	DS

wbp architects
architecture & interior design
A.B.N. 29 700 673 003
P 07 3832 4433 F 07 3832 4848
E mail@wbparchitects.com.au
Suite 4 Portman Place, 220 Boundary Street, SPRING HILL, QLD 4000

drawn DS | date APRIL 2023 | designed GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLING CLUB

project
STAGE 1 REDEVELOPMENT

location
6-8 JOHNSTON ROAD MOSSMAN, QLD 4873

drwg. title
PROPOSED SITE PLAN STAGE-2 (MASTERPLAN)

scale	drwg. no.	amend.
1:200 @ A1	Q2371/DA/0.03	1

DRAWN SCALE
100mm
0 5 10 20 30 40 50

Individual owner's consent for making a development application under the *Planning Act 2016*

I, Mosman Bowls Club, by way of the following authorized officers

GREG CLINT POTTER ~~CHAIR~~ SECRETARY MAN. ERIC SMITH CHAIRPERSON

[Insert full name.]

as owner of the premises identified as follows:

[Insert street address, lot on plan description or coordinates of the premises the subject of the application.]

Lot 40 on SP 235282 or Nos 4-8 Johnston Street MOSMAN

consent to the making of a development application under the *Planning Act 2016* by:

[Insert name of applicant.]

Northpoint Advisory on behalf of Rubicon Design & Construct

on the premises described above for:

[Insert details of the proposed development, e.g. material change of use for four storey apartment building.]

Alterations and Additions to the Mosman Bowls Club

2-6-23 2/6/2023

[signature of owner and date signed]

CURRENT TITLE SEARCH
QUEENSLAND TITLES REGISTRY PTY LTD

Request No: 44818553
Search Date: 21/06/2023 14:16 Title Reference: 50807968
Date Created: 16/04/2010

Previous Title: 21029203
50624255

REGISTERED OWNER

Dealing No: 713176848 14/04/2010

MOSSMAN MEMORIAL BOWLS CLUB INCORPORATED

ESTATE AND LAND

Estate in Fee Simple

LOT 40 SURVEY PLAN 235262
Local Government: DOUGLAS

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 20104049 (POR 2)
Deed of Grant No. 20131201 (POR 69V)
(Lot 1 on RP 723424)
(Lot 2 on RP 723424)

2. EASEMENT IN GROSS No 601420351 (T362312K) 10/08/1988
burdening the land
COUNCIL OF THE SHIRE OF DOUGLAS
over
EASEMENT B ON RP718316

3. EASEMENT IN GROSS No 712690651 27/08/2009 at 13:42
burdening the land
ERGON ENERGY CORPORATION LIMITED A.C.N. 087 646 062
over
EASEMENT A ON SP227596

ADMINISTRATIVE ADVICES - NIL
UNREGISTERED DEALINGS - NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

Requested By: D-ENQ INFOTRACK PTY LIMITED

CRGACOUSTICS

Postal PO Box 441 Mermaid Beach Qld 4218
Telephone 07 5527 7333
Email jay@crg.net.au
CRG Acoustics Pty Ltd
ACN 151 847 255 ABN 11 708 556 182

Proposed Alterations and Additions
Mossman Memorial Bowling Club

ENVIRONMENTAL NOISE IMPACT ASSESSMENT

Prepared For:

Rubicon Design + Construct

08 June 2023

crgref: 22144 Report

1.0 INTRODUCTION

This report is in response to a request by Rubicon Design + Construct for an environmental noise assessment of proposed alterations and additions to the existing Mossman Memorial Bowls Club in Mossman.

In undertaking this assessment, attended and unattended noise measurements were conducted and through modelling, predictions of onsite activity noise emissions were produced. Based upon the predicted noise levels, recommendations regarding acoustic treatment at the site have been provided.

2.0 SITE & DEVELOPMENT DESCRIPTION

The proposal relates to Lot 40 on SP2535262, 6 – 8 Johnston Rd, Mossman. The site is bounded by Johnston Rd to the north, vacant land and commercial properties to the east, and residential to the southeast, south and west, and across Johnston Rd to the northeast. For site location refer to Appendix A.

The proposal is for reconfiguration of the internal layout, primarily to the southern and eastern part of the building. Essentially, the following will be undertaken:

- Reconfiguration of toilets;
- Expansion of Gaming;
- New offices adjacent to Gaming;
- Reconfiguration of DOSA to southeastern corner leading off Gaming;
- New toilets adjacent to Gaming;
- Refurbishment of Dining & Lounge;
- New Sports Lounge replacing part of existing Lounge;
- Refurbishment of existing Entry to include Porte Cochere;
- Removal of existing condensers to southeastern corner and relocation to existing northern plant enclosure.

All other parts of the site (being Function space, carparking, loading bays, plant servicing coldrooms, kitchen, function room and bowling greens) are retained in the current form and usage, with the exception being removal of a limited number of car spaces adjacent to the building. Further, hours of operation are retained from current arrangement, being a maximum of 10am to midnight, 7 days per week.

Changes to activity noise associated the alterations have been assessed to ensure an acceptable level of acoustical amenity can be achieved at the nearest noise sensitive receivers. The nearest offsite noise sensitive receivers to the development include a dwelling to the northeast across Johnston Rd, dwellings to the southeast and south to the rear of the site, and a dwelling to the western boundary. For offsite noise sensitive receiver locations refer to Figure 2 in Appendix A.

We are advised that the Club has been in operation for over 80 years on the subject site.

3.0 AMBIENT NOISE SURVEY

3.1 Instrumentation

The following equipment was used to record ambient noise levels at the subject site locale:

- Svantec SV36 Calibrator;
- Svantec 971 Sound Level Meter with octave band recording.

All instrumentation used in this assessment hold current calibration certificate from a certified NATA calibration laboratory.

3.2 Unattended Background Measurement Methodology

A logger was located in the backyard of the dwelling to the south of the subject site, at 32 Riflebird Crescent. The microphone was in a free-field location approximately 1.4m above ground. Refer to Figure 2 in Appendix A for the logger location.

The logger was set to record noise statistics in 15-minute blocks continually between Tuesday 02/05/2023 and Wednesday 10/05/2023.

All measurements were conducted generally in accordance with Australian Standard AS 1055 *"Acoustics-Description and measurement of environmental noise"*. The operation of the sound level logging equipment was field calibrated before and after the measurement session with no significant drift from the reference signal recorded.

Daily weather observations were obtained from the Bureau of Meteorology's website at the Cairn's Aero weather station. Weather conditions during the noise monitoring period were fine with <1mm of rain on 04/05/2023 and 6mm on 07/05/2023 which didn't affect noise levels, a temperature range between 21 to 31°C and a relative humidity between 49 and 75%.

3.3 Unattended Background Measurement Results

Table 1 below presents the Rating Background noise levels (RBLs) calculated from the logger. The RBL for each period was calculated in accordance with the methodology detailed in the QLD EPA guideline "*Planning for noise control*". Graphical presentation of the measured noise levels is presented in the Appendix C.

Background Noise Descriptor	Time Period	Measured Level dB(A)
L_{90} RBL Daytime	7am to 6pm	37
L_{90} RBL Evening	6pm to 10pm	35
L_{90} RBL Night-time	10pm to 7am	33

Table 1: Rating Background noise levels calculated from measured background noise levels.

Table 2 below presents the measured background noise levels recorded at the logger location. Measured Linear levels were converted to *"C"* Weight levels for presentation in Table 2.

Short-term SPL dB(lin) Hz Octave Band Centre Frequencies						
63	**125**	**250**	**500**	**1k**	**2k**	**AP**
15	18	21	29	25	18	33
Short-term SPL dB(C) Hz Octave Band Centre Frequencies						
63	**125**	**250**	**500**	**1k**	**2k**	**AP**
14	20	23	30	27	26	33

Table 2: Measured octave band ambient noise levels at the logger location.

4.0 NOISE CRITERIA

The Acceptable Outcomes of Performance Outcome PO3 of the Environmental Performance Code, within the Cairns Plan 2016, cites the Environmental Protection (Noise) Policy 2008 as presented below:

Noise	
PO3 Potential noise generated from the development is avoided through design, location and operation of the activity. Note – Planning Scheme Policy – Environmental Management Plans provides guidance on preparing a report to demonstrate compliance with the purpose and outcomes of the Code.	**AO3.1** Development does not involve activities that would cause noise related environmental harm or nuisance; or **AO3.2** Development ensures noise does not emanate from the site through the use of materials, structures and architectural features to not cause an adverse noise impact on adjacent uses. and **AO3.3** The design and layout of development ensures car parking areas avoid noise impacting directly on adjacent sensitive land uses through one or more of the following: (a) car parking is located away from adjacent sensitive land uses; (b) car parking is enclosed within a building; (c) a noise ameliorating fence or structure is established adjacent to car parking areas where the fence or structure will not have a visual amenity impact on the adjoining premises; (d) incorporating a densely vegetated buffer adjacent to car parking areas. Note – The Environmental Protection (Noise) Policy 2008, Schedule 1 provides guidance on acoustic quality objectives to ensure environmental harm (including nuisance) is avoided.

It is noted that the Environmental Protection (Noise) Policy 2008 has now been superceded by the Environmental Protection (Noise) Policy 2019, which has been applied to assess noise emissions from the proposed alterations and additions.

Further, in relation to AO3.3, there are no plans to redevelop the carparking areas, therefore, assessment of onsite carparking has not been undertaken.

Section 6 of the Environmental Protection (Noise) Policy 2019 provides the following framework for environmental values to be enhanced or protected:

6 Environmental values

The environmental values to be enhanced or protected under this policy are—

(a) the qualities of the acoustic environment that are conducive to protecting the health and biodiversity of ecosystems; and

(b) the qualities of the acoustic environment that are conducive to human health and wellbeing, including by ensuring a suitable acoustic environment for individuals to do any of the following—

(i) sleep;

(ii) study or learn;

(iii) be involved in recreation, including relaxation and conversation; and

(c) the qualities of the acoustic environment that are conducive to protecting the amenity of the community.

Section 9 of the Environmental Protection (Noise) Policy 2019 provides the following framework for management intent for noise:

9 Management intent for noise

(1) This section states the management intent for an activity involving noise that affects, or may affect, an environmental value to be enhanced or protected under this policy.

Note—

See section 35 of the *Environmental Protection Regulation 2019*.

(2) To the extent it is reasonable to do so, noise must be dealt with in a way that ensures—

(a) the noise does not have any adverse effect, or potential adverse effect, on an environmental value under this policy; and

(b) background creep in an area or place is prevented or minimised.

(3) Despite subsection (2)(b), if the acoustic quality objectives for an area or place are not being achieved or maintained, the noise experienced in the area or place must, to the extent it is reasonable to do so, be dealt with in a way that progressively improves the acoustic environment of the area or place.

(4) In this section—

background creep, for noise in an area or place, means a gradual increase in the total amount of background noise in the area or place as measured under the document called the 'Noise measurement manual' published on the department's website.

Schedule 1 of the Environmental Protection (Noise) Policy 2019 provides the following specific *"Acoustic Quality Objectives"* to ensure that the above is achieved:

Column 1	**Column 2**	**Column 3**			**Column 4**
Sensitive receptor	**Time of day**	**Acoustic quality objectives (measured at the receptor) *dB(A)***			**Environmental value**
		$L_{Aeq,adj,1hr}$	$L_{A10,adj,1hr}$	$L_{A1,adj,1hr}$	
residence (for outdoors)	daytime and evening	50	55	65	health and wellbeing
residence (for indoors)	daytime and evening	35	40	45	health and wellbeing
	night-time	30	35	40	health and wellbeing, in relation to the ability to sleep

Table 3: Criterion from Schedule 1 of the Environmental Protection (Noise) Policy 2019.

It is noted that the EPP Noise 2019 provides no numeric criteria for control of background creep. For this reason, we have applied the previous criteria applied under the EPP Noise 2008, as follows. Based upon the measured RBL levels presented in Section 3.3, the *"Background Creep"* criterion (as previously defined under the Environmental Protection (Noise) Policy 2008) equates to the following levels at the nearest offsite receivers:

Time Varying Noise Source	**Noise Limit, SPL dB(A) L_{eq}**
Daytime 7am to 6pm	42 (RBL L_{90} level 37 + 5 dB)
Evening 6pm to 10pm	40 (RBL L_{90} level 35 + 5 dB)
Night-time 10pm to 7am	38 (RBL L_{90} level 33 + 5 dB)
Continuous Noise Source	**Noise Limit, SPL dB(A) L_{90}**
Daytime 7am to 6pm	37 (RBL L_{90} level 37 + 0 dB)
Evening 6pm to 10pm	35 (RBL L_{90} level 35 + 0 dB)
Night-time 10pm to 7am	33 (RBL L_{90} level 33 + 0 dB)

Table 4: Noise limit criterion for *"Background Creep"*.

5.0 PREDICTED NOISE IMPACTS

All noise source levels used in the assessment have been collected from similar assessments, including assessments of gaming rooms in Chinderah, Gympie, Murwillumbah and Surfers Paradise. All *"Acoustic Quality Objective"* noise levels have been corrected for impulsiveness or tonality as per Australian Standard AS 1055 *"Acoustics-Description and measurement of environmental noise*".

For patron noise in the lounge and DOSA, we have applied the L_{eq}, L_{10} and L_{01} source levels calculated from the formulas within the technical paper *"Prediction of Noise from Small to Medium Sized Crowds"* (Hayne et al, 2011). Patron numbers are generally based upon available seating.

The following noise source levels would typically occur as part of the proposed alterations and additions and have been assessed within this report.

Activity/Noise Source	**Distance To Source**	**Event Duration Noise Level, SPL dB(A)**		
		L_{eq}	**L_{10}**	**L_{01}**
Reconfigured southeastern DOSA (10 patrons daytime & evening & night)	1m	68	71	77
New Sports Lounge (50 patrons) Daytime / evening	1m	77	80	84
New Sports Lounge (20 patrons) Night				
Gaming Room (50 machines)	1m	68**	74**	80**

* Denotes + 5 dB correction for impulsiveness in accordance with AS1055. ** Denotes + 5 dB correction for tonality in accordance with AS1055.

Table 5: Typical noise source levels associated with the proposed alterations and additions.

For the L_{Aeq} levels we have presented both the adjusted 15 minute duration and also the adjusted one hour duration. For assessment of the *"Background Creep"* criterion we have adopted the $L_{Aeq\ 15\ minute}$ duration levels.

Based upon the location of the proposed onsite activities in relation to the nearest offsite noise sensitive receivers (building façades and inside rooms with windows open), we predict the following noise impact levels as presented in Table 6.

The predicted levels assume that the recommended treatments detailed in Section 6 are incorporated into the development.

For offsite noise sensitive receiver locations refer to Figure 2 in Appendix A.

For point source calculations refer to Appendix C.

It is noted that no changes are proposed to carparking, deliveries or waste collection, therefore, these activities have not been assessed.

Noise Source	Predicted Noise Impact, SPL dB(A)						
	Nearest Façade				Inside Windows OPEN		
	$L_{eq\ 15min}$	$L_{eq\ 1hr}$	$L_{10\ 1hr}$	$L_{01\ 1hr}$	$L_{eq\ 1hr}$	$L_{10\ 1hr}$	$L_{01\ 1hr}$
R1: Dwelling to the northeast 3 Johnston Road (Lot 1 RP706259)							
Southeastern DOSA	32	32	35	41	25	28	34
New Sports Lounge day / evening	35	35	38	41	27	30	34
New Sports Lounge night	29	29	32	37	21	24	29
Gaming Room (50 machines)	< 15	19	25	31	< 15	18	24
COMBINED IMPACTS	**37**	**37**	**40**	**41**	**29**	**32**	**34**
R2: Dwelling to the southeast 61 Captain Cook Highway (Lot 10 RP707030)							
Southeastern DOSA	27	27	30	36	20	23	29
New Sports Lounge day / evening	24	24	27	30	16	19	22
New Sports Lounge night	18	18	21	26	< 15	< 15	18
Gaming Room (50 machines)	25	30	36	42	23	29	35
COMBINED IMPACTS	**30**	**33**	**37**	**42**	**25**	**30**	**35**
R3: Dwellings to the south-southwest 30 - 32 Riflebird Crescent (Lots 19 SP186233; Lot 20 SP186231)							
Southeastern DOSA	35	35	38	44	27	30	36
New Sports Lounge day / evening	26	26	29	32	19	22	25
New Sports Lounge night	20	20	23	28	< 15	16	21
Gaming Room (50 machines)	24	29	35	41	22	28	34
COMBINED IMPACTS	**36**	**36**	**40**	**44**	**29**	**33**	**36**
R4: Dwelling to the west 10 Johnston Road (Lot 3 RP707030)							
Southeastern DOSA	35	35	38	44	28	31	37
New Sports Lounge day / evening	30	30	33	36	23	26	29
New Sports Lounge night	24	24	27	32	117	20	24
Gaming Room (50 machines)	25	30	36	42	22	285	34
COMBINED IMPACTS	**37**	**37**	**41**	**44**	**30**	**33**	**37**
7am - 10pm Criterion (day/evening)	**42 / 40**	**50**	**55**	**65**	**35**	**40**	**45**
10pm to Midnight Criterion (night)	**38**	**N/A**	**N/A**	**N/A**	**30**	**35**	**40**

Table 6: Predicted onsite activity noise impacts at noise sensitive receivers.

Continuous activity noise source levels have been compiled from similar previous investigations. All noise levels have been corrected for impulsiveness or tonality as per Australian Standard AS 1055:1997 – *"Acoustics-Description and measurement of environmental noise*".

It should be stressed that mechanical plant requirements for the proposed alterations and extensions are not yet known, for this reason; we have applied noise levels from other similar sites as follows:

- New toilet exhaust fans generating 52 dB(A) at 3m.
- New condenser units each generating 63 dB(A) at 3m.

Based upon the assumed locations of the new onsite mechanical plant in relation to the nearest offsite noise sensitive receivers (building façades and inside rooms with windows open), we predict the following noise impact levels as presented in Table 8.

The predicted levels assume that the recommended treatments detailed in Section 6 are incorporated into the development.

For offsite noise sensitive receiver locations refer to Figure 2 in Appendix A. For point source calculations refer to Appendix C.

Continuous Noise Source	**Predicted Noise Impact, SPL L_{eq} dB(A)**	
	Nearest Façade	**Inside Windows OPEN**
R1: Dwelling to the north		
Combined mechanical plant	33	26
R2: Dwellings to the southeast		
Combined mechanical plant	31	24
R3: Dwellings to the south-southeast		
Combined mechanical plant	32	25
R4: Dwellings to the south		
Combined mechanical plant	32	25
7am to 10pm Residential Criterion	**37 / 35**	**35**
10pm to 7am Residential Criterion	**33**	**30**

Table 7: Predicted onsite mechanical plant noise impacts at noise sensitive receivers.

6.0 RECOMMENDED ACOUSTIC TREATMENTS

6.1 Onsite Activity Acoustic Treatment Recommendations

We recommend that the following acoustic treatments be incorporated into the development to mitigate onsite activity noise:

- Staff should be diligent in maintaining acceptable activities and noise levels from the patrons at outdoor DOSA, alfresco and terrace areas, particularly after 10pm.

- Acoustically absorptive lining on the underside of the ceiling of the southeastern DOSA to achieve a Noise Reduction Coefficient greater than NRC 0.8.

- New ceilings be solid set plasterboard.

- Gaming Room to be carpeted or an acoustically absorptive ceiling (Noise Reduction Coefficient greater than NRC 0.8) be hung below the solid set plasterboard ceiling.

- New or relocated mechanical plant be designed and installed to comply with the noise criterion presented in Section 4.2. As final plant selection has not been completed, an assessment of plant should be conducted during the design phase, and a Certificate provided to the Building Certifier confirming that installed plant achieves the noise limit criteria.

7.0 DISCUSSION

Onsite activity noise associated with the alterations and additions has been assessed to ensure an acceptable level of acoustical amenity can be achieved at the nearest noise sensitive receivers, which include a dwelling to the northeast, detached dwellings to the southeast and south-southeast, and to the west.

Based upon the assumed source levels and acoustic treatments, onsite activity noise emissions associated with the alterations and additions are predicted to impact the nearest offsite noise sensitive receivers within the relevant external *"Acoustic Quality Objectives"* and *"Background Creep"* criterion. Onsite activity noise emissions associated with the alterations and additions are predicted to impact inside the noise sensitive receivers (windows open) within the relevant internal *"Acoustic Quality Objectives"* criterion.

To minimise noise emissions to the offsite noise sensitive receivers, we have recommended that staff to be diligent in maintaining acceptable activities and noise levels from the patrons at the reconfigured DOSA, particularly after 10pm. Management of patron behaviour is key in ensuring compliance with the noise limits for patron voice, as boisterous behaviour will result in exceedances at nearest dwellings.

We have also provided an indication of potential noise impact levels of likely new or relocated mechanical plant; although the levels are merely a guide as no plant selections have yet been completed. For this reason, additional more detailed assessment/s should be conducted upon determination of plant. Such assessments should be undertaken prior to Building Approval; and be conditioned within the Development Approval.

8.0 CONCLUSIONS

This report is in response to a request by Rubicon Design + Construct for an environmental noise assessment of proposed alterations and additions to the existing Mossman Memorial Bowls Club.

Based upon the assessed attached Development Plans, the proposal can be shown to be within acceptable levels of the adopted noise criterion subject to the recommended treatments detailed in Section 6 being incorporated into the development.

Report Compiled By:

JAY CARTER BSc
Director

APPENDIX A

Subject Site, Measurement Location and Surrounding Noise Sensitive Receivers

Figure No. 1: Subject Site Location (Google Maps).

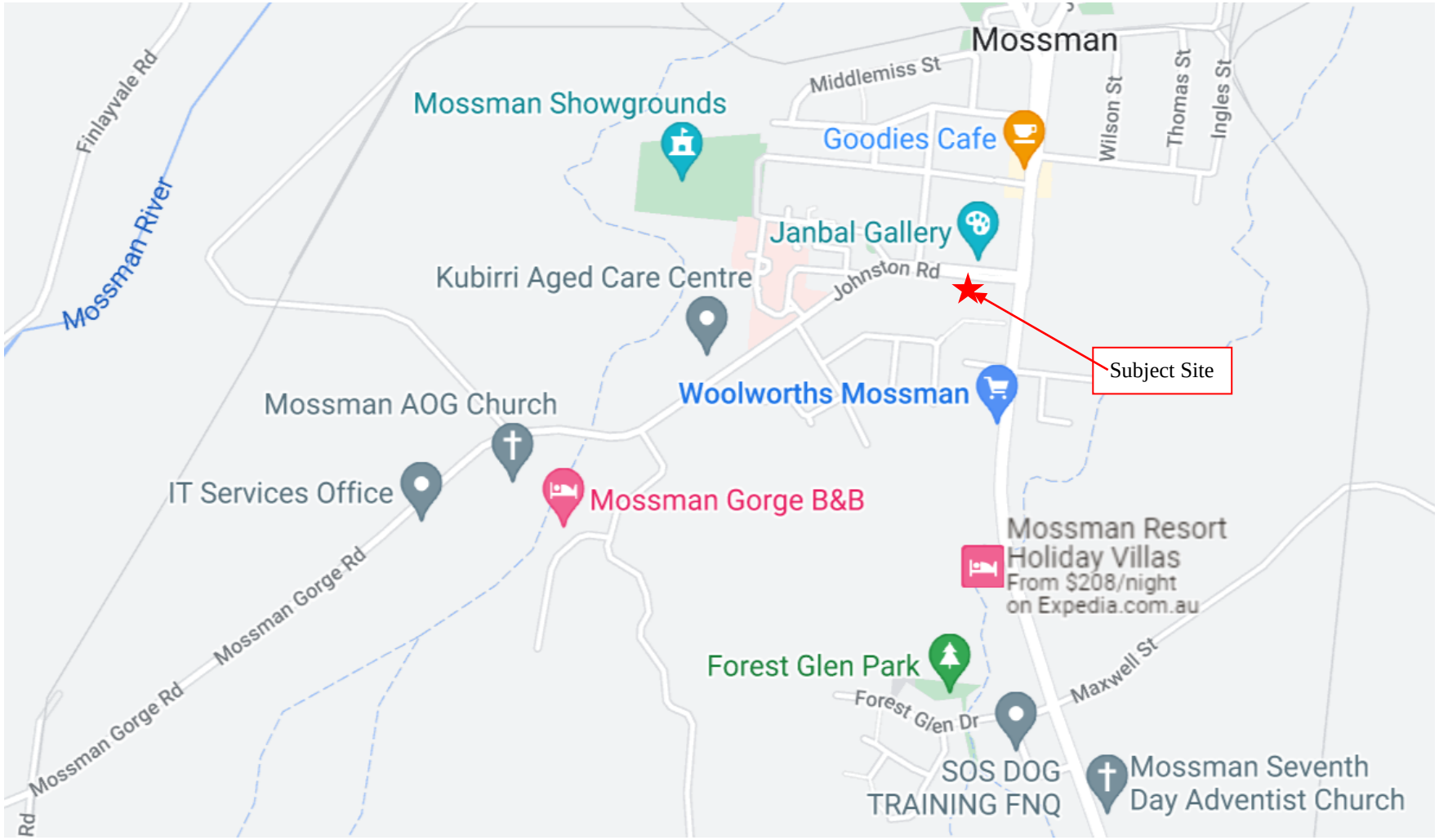


Figure No. 2: Subject Site, Noise Monitoring Location and Surrounding Receivers (QLD Globe).

Photograph Sheet 1

Photograph 1: View looking north from Riflebird Crescent looking across R3 at western dwelling (R4)

Photograph 2: View looking north from Riflebird Crescent looking at subject site across R3

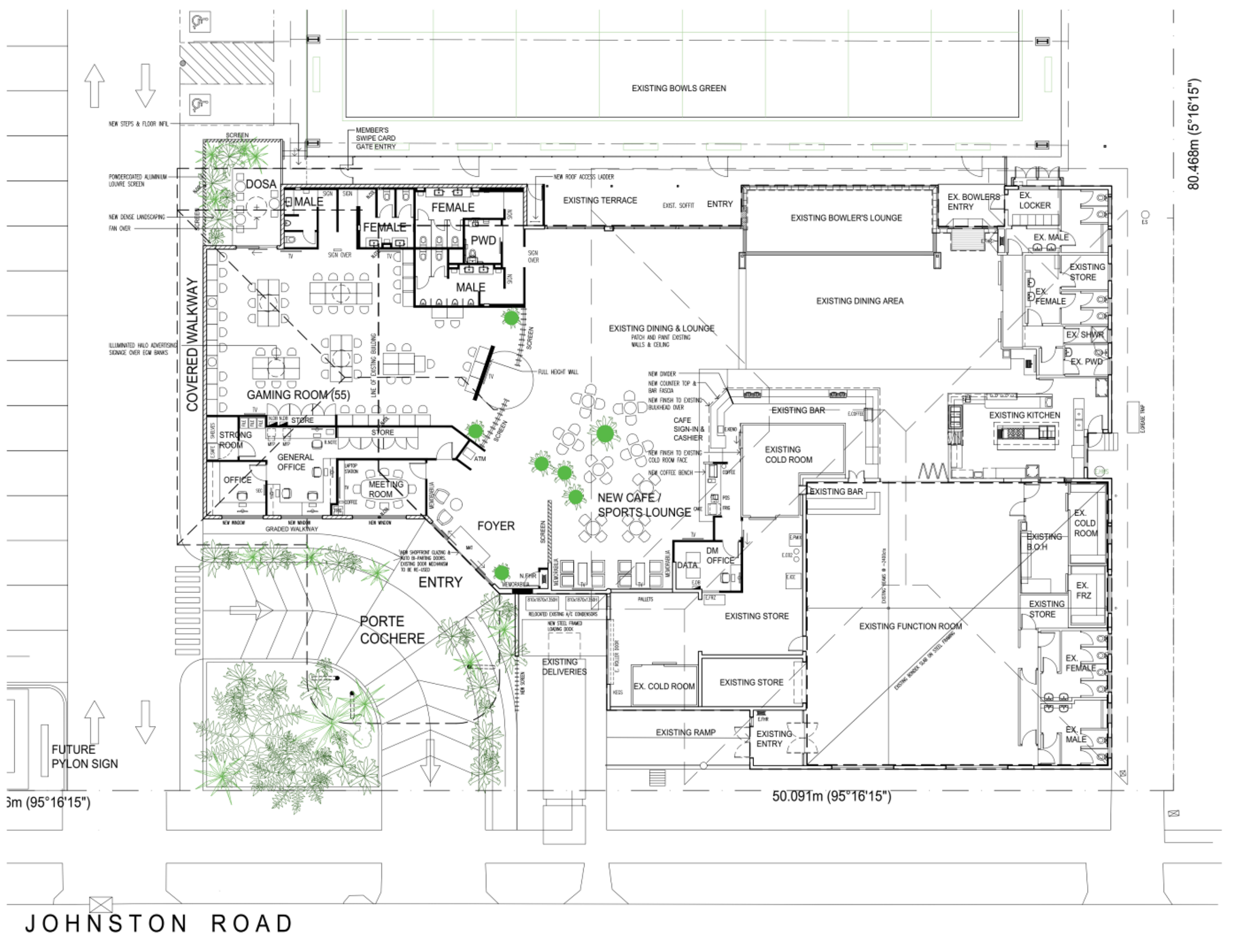
Photograph Sheet 2

Photograph 3: Dwelling at R3

Photograph 4: Logger in backyard of dwelling at 32 Riflebird Crescent

APPENDIX B

Development Plans



notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.–	SITE, STAGING & RELATED DRAWINGS
1.–	DEMOLITION DRAWINGS
2.–	FLOOR, REFLECTED CEILING & ROOF PLANS
3.–	SECTIONS
4.–	ELEVATIONS
5.–	CONSTRUCTION DETAILS
6.–	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	16/05/23	DS
2	GENERAL UPDATE	29/05/23	MW

wbp architects
architecture & interior design

drawn	date	designed
DS	APRIL 2023	GS

W.B.P. reference
2223–072B

rubicon DESIGN + CONSTRUCT iconic
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLING CLUB

project
STAGE 1 REDEVELOPMENT

location
6–8 JOHNSTON ROAD MOSSMAN, QLD 4873

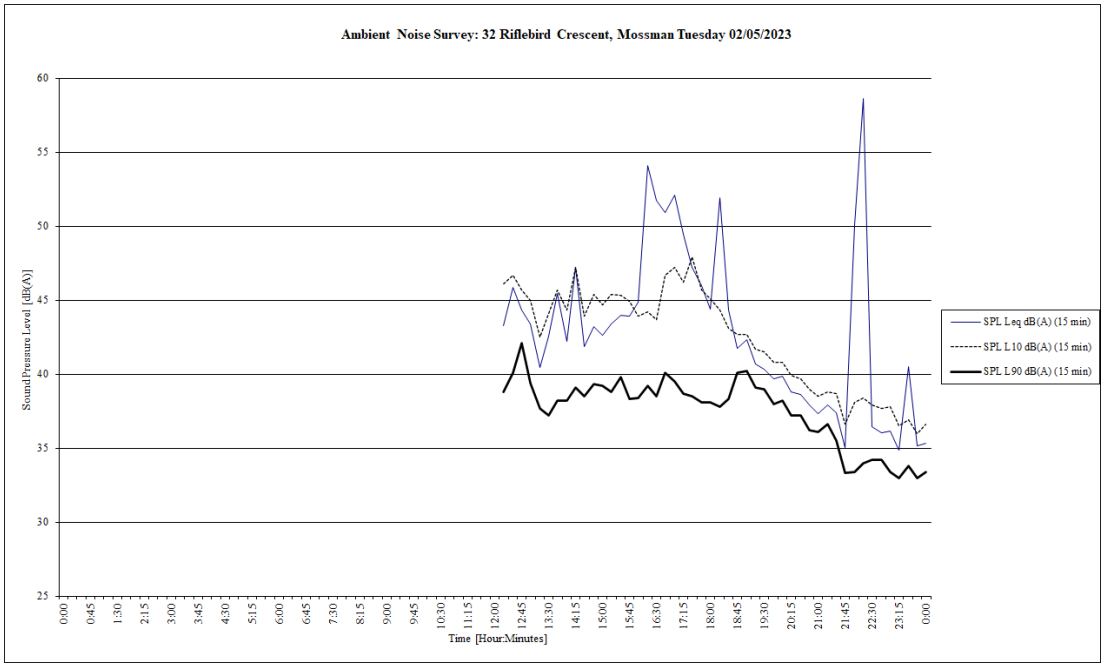
drwg. title
PROPOSED FLOOR PLAN STAGE–1

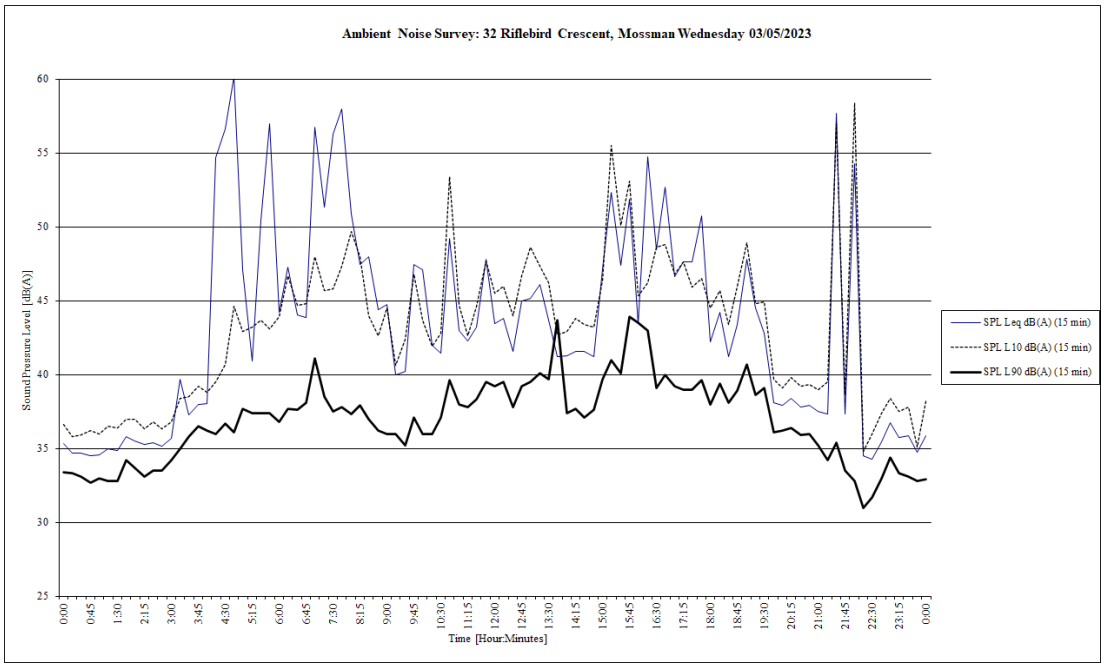
scale	drwg. no.	amend.
1:100 @A1	Q2371/SK/2.01	2

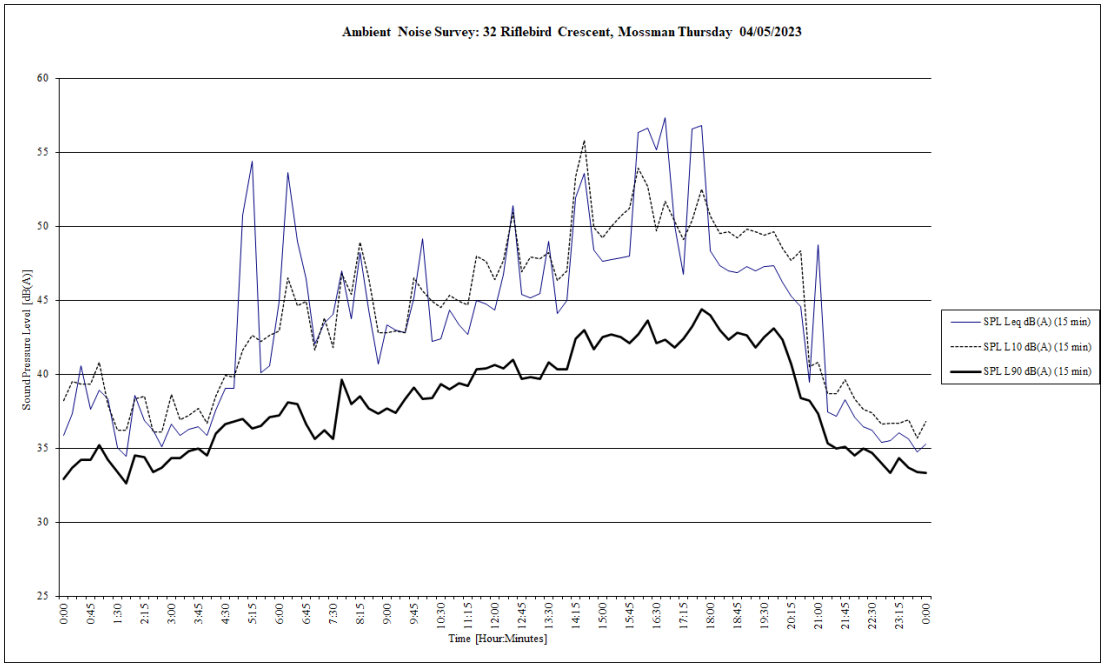
DRAWN SCALE
100mm

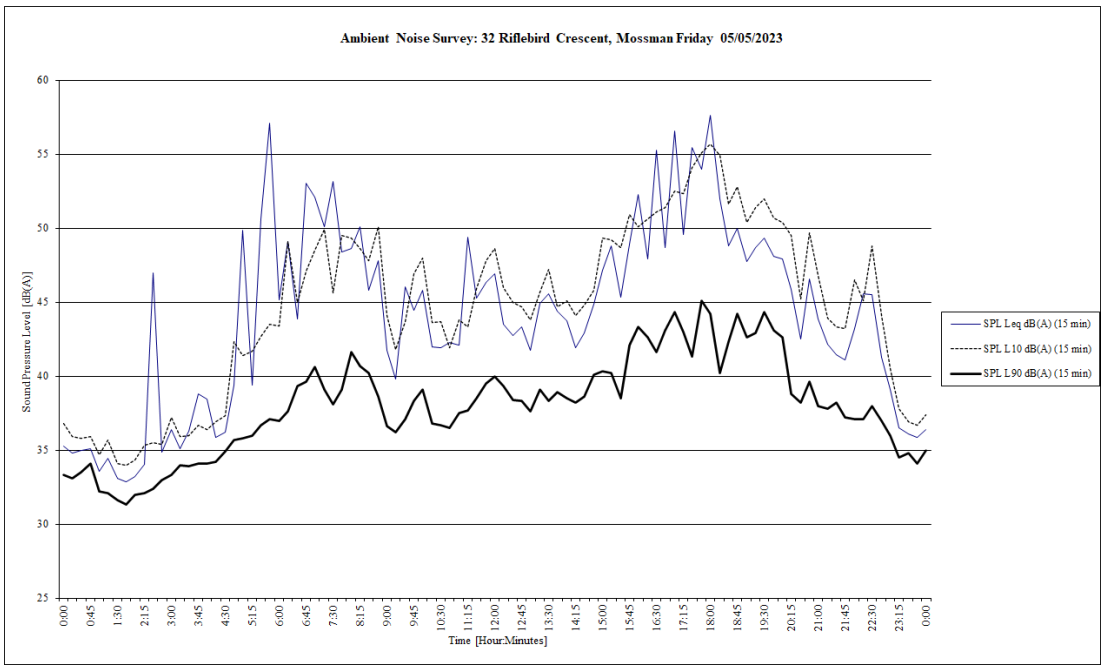
APPENDIX C

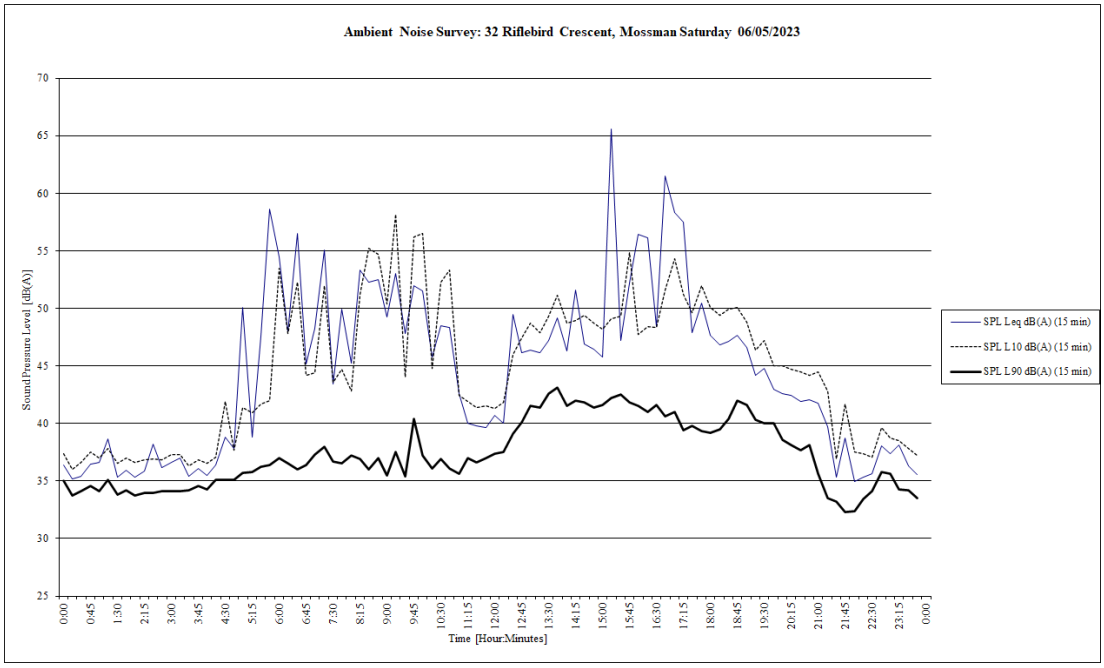
Measurement Results and Model Calculations / Predictions

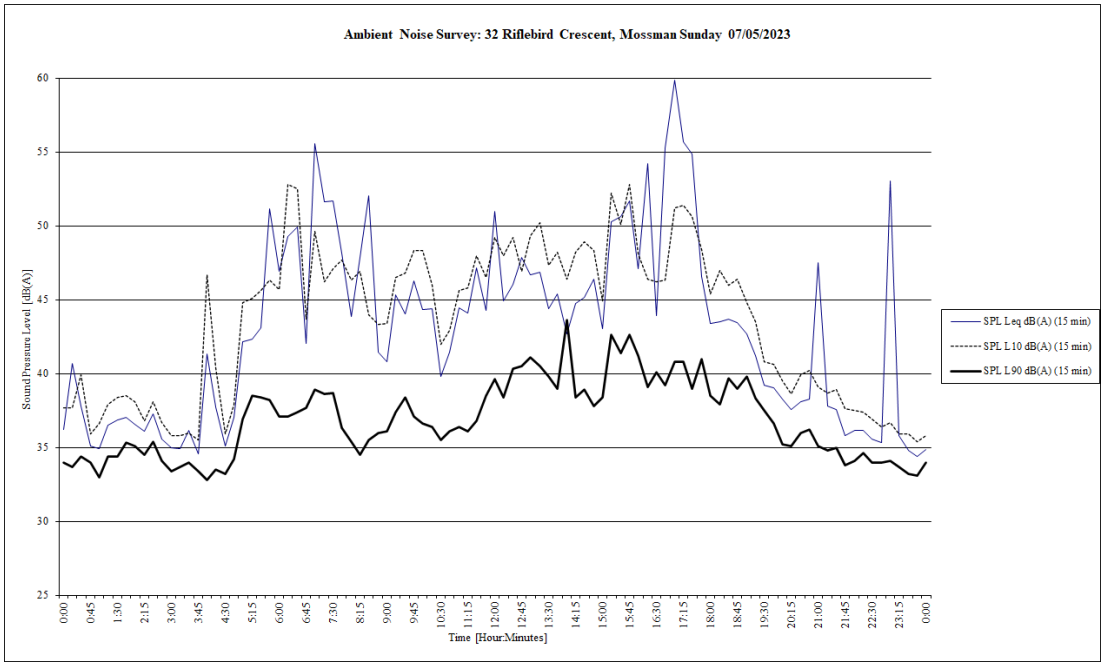

Ambient Noise Survey: 32 Riflebird Crescent, Mossman Tuesday 02/05/2023
Sound Pressure Level [dB(A)]
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)

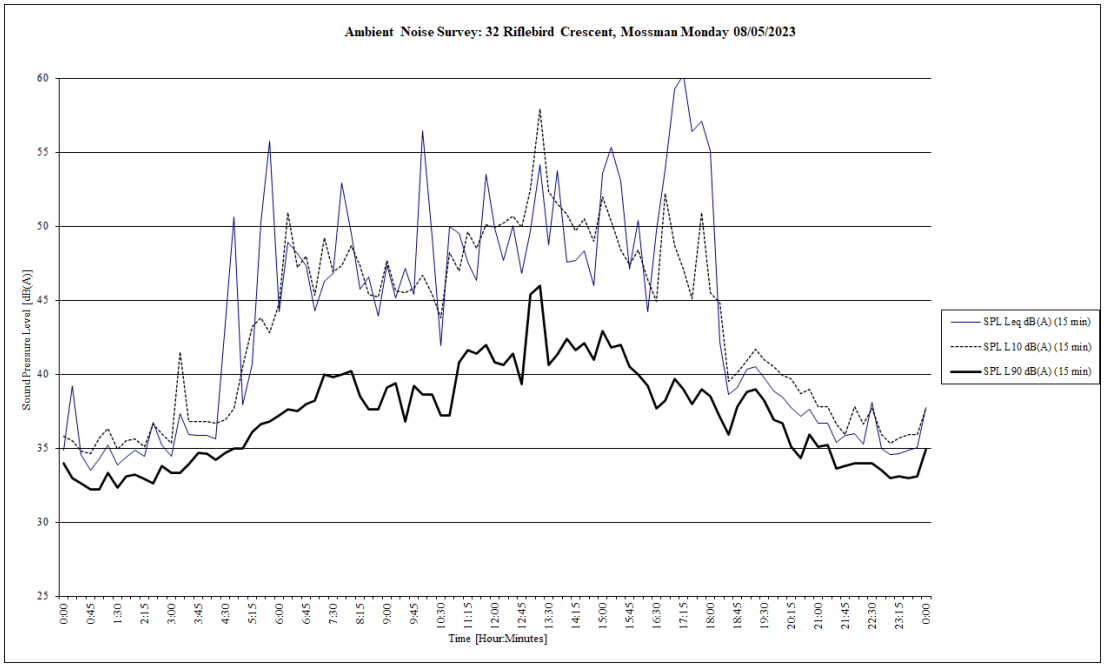

Ambient Noise Survey: 32 Riflebird Crescent, Mossman Wednesday 03/05/2023
Sound Pressure Level [dB(A)]
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)

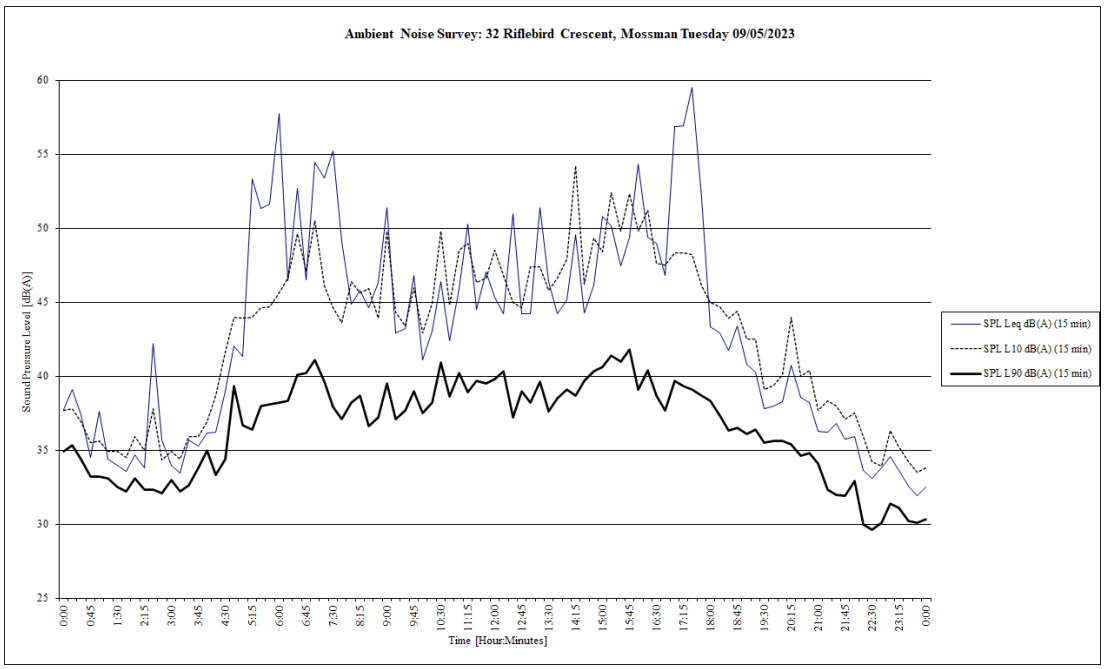

Ambient Noise Survey: 32 Riflebird Crescent, Mossman Thursday 04/05/2023
Sound Pressure Level [dB(A)]
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)


Ambient Noise Survey: 32 Riflebird Crescent, Mossman Friday 05/05/2023
Sound Pressure Level [dB(A)]
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)


Ambient Noise Survey: 32 Riflebird Crescent, Mossman Saturday 06/05/2023
Sound Pressure Level [dB(A)]
70
65
60
55
50
45
40
35
30
25
0:00
0:45
1:30
2:15
3:00
3:45
4:30
5:15
6:00
6:45
7:30
8:15
9:00
9:45
10:30
11:15
12:00
12:45
13:30
14:15
15:00
15:45
16:30
17:15
18:00
18:45
19:30
20:15
21:00
21:45
22:30
23:15
0:00
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)


Ambient Noise Survey: 32 Riflebird Crescent, Mossman Sunday 07/05/2023
Sound Pressure Level [dB(A)]
60
55
50
45
40
35
30
25
0:00
0:45
1:30
2:15
3:00
3:45
4:30
5:15
6:00
6:45
7:30
8:15
9:00
9:45
10:30
11:15
12:00
12:45
13:30
14:15
15:00
15:45
16:30
17:15
18:00
18:45
19:30
20:15
21:00
21:45
22:30
23:15
0:00
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)


Ambient Noise Survey: 32 Riflebird Crescent, Mossman Monday 08/05/2023
Sound Pressure Level [dB(A)]
60
55
50
45
40
35
30
25
0:00
0:45
1:30
2:15
3:00
3:45
4:30
5:15
6:00
6:45
7:30
8:15
9:00
9:45
10:30
11:15
12:00
12:45
13:30
14:15
15:00
15:45
16:30
17:15
18:00
18:45
19:30
20:15
21:00
21:45
22:30
23:15
0:00
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)


Ambient Noise Survey: 32 Riflebird Crescent, Mossman Tuesday 09/05/2023
Sound Pressure Level [dB(A)]
60
55
50
45
40
35
30
25
0:00
0:45
1:30
2:15
3:00
3:45
4:30
5:15
6:00
6:45
7:30
8:15
9:00
9:45
10:30
11:15
12:00
12:45
13:30
14:15
15:00
15:45
16:30
17:15
18:00
18:45
19:30
20:15
21:00
21:45
22:30
23:15
0:00
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)

ONSITE ACTIVITY NOISE PREDICTION CALCULATIONS: ($L_{A10\ 1hr}$ and $L_{A01\ 1hr\ levels}$ are represented as N/A if the duration of events do not occur for 10% or 1% of the 1 hour period)

R1: Dwelling to the north

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	84				m
Distance attenuation (-6 dB per doubling of distance)	-38				dB
Absorptive ceiling mitigation	0				dB
Building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**32**	**32**	**35**	**41**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**25**	**28**	**34**	**dB(A)**

1593.8659 | 1593.8659 | 3180.1806

SPORTS LOUNGE DAY/EVENING	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	78		81	85	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	78	78	81	85	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	64				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Inside to outside attenuation	-10				dB
Building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**35**	**35**	**38**	**41**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**27**	**30**	**34**	**dB(A)**

8069.767 | 8069.767 | 16124.9902

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	64				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Inside to outside attenuation	-15				dB
Absorptive ceiling mitigation	0				dB
Building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**14**	**19**	**25**	**31**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**12**	**18**	**24**	**dB(A)**

R2: Dwelling to the southeast

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	58				m
Distance attenuation (-6 dB per doubling of distance)	-35				dB
Offsite building screening	-8				dB
Inside to outside attenuation	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**27**	**27**	**30**	**36**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**20**	**23**	**29**	**dB(A)**

529.85175 | 529.85175 | 1057.1932

SPORTS LOUNGE DAY/EVENING	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	78		81	85	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	78	78	81	85	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	73				m
Distance attenuation (-6 dB per doubling of distance)	-37				dB
Inside to outside attenuation	-20				dB
Onsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**24**	**24**	**27**	**30**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**16**	**19**	**22**	**dB(A)**

235.94982 | 235.94982 | 470.78178

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	59				m
Distance attenuation (-6 dB per doubling of distance)	-35				dB
Inside to outside attenuation	-5				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**25**	**30**	**36**	**42**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**23**	**29**	**35**	**dB(A)**

R3: Dwellings to the south-southeast

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	60				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**35**	**35**	**38**	**44**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**27**	**30**	**36**	**dB(A)**

3123.9772 | 3123.9772 | 6233.154

SPORTS LOUNGE DAY/EVENING	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	78		81	85	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	78	78	81	85	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	55				m
Distance attenuation (-6 dB per doubling of distance)	-35				dB
Inside to outside attenuation	-20				dB
Onsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**26**	**26**	**29**	**32**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**19**	**22**	**25**	**dB(A)**

415.66168 | 415.66168 | 829.35498

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	65				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Inside to outside attenuation	-5				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**24**	**29**	**35**	**41**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**22**	**28**	**34**	**dB(A)**

R4: Dwelling to the west

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	58				m
Distance attenuation (-6 dB per doubling of distance)	-35				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**35**	**35**	**38**	**44**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**28**	**31**	**37**	**dB(A)**

3343.1385 | 3343.1385 | 6670.4383

SPORTS LOUNGE DAY/EVENING	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	78		81	85	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	78	78	81	85	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	35				m
Distance attenuation (-6 dB per doubling of distance)	-31				dB
Inside to outside attenuation	-20				dB
Onsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**30**	**30**	**33**	**36**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**23**	**26**	**29**	**dB(A)**

1026.4299 | 1026.4299 | 2047.9968

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	61				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Inside to outside attenuation	-5				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**25**	**30**	**36**	**42**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**22**	**28**	**34**	**dB(A)**

ONSITE ACTIVITY NOISE PREDICTION CALCULATIONS: ($L_{A10\ 1hr}$ and $L_{A01\ 1hr\ levels}$ are represented as N/A if the duration of events do not occur for 10% or 1% of the 1 hour period)

R1: Dwelling to the north

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	84				m
Distance attenuation (-6 dB per doubling of distance)	-38				dB
Absorptive ceiling mitigation	0				dB
Building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**32**	**32**	**35**	**41**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**25**	**28**	**34**	**dB(A)**

1593.8659 | 1593.8659 | 3180.1806

SPORTS LOUNGE NIGHT	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	73		76	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	73	73	76	80	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	64				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Inside to outside attenuation	-10				dB
Building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**29**	**29**	**32**	**37**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**21**	**24**	**29**	**dB(A)**

776.5964 | 776.5964 | 1549.5136

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	64				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Inside to outside attenuation	-15				dB
Absorptive ceiling mitigation	0				dB
Building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**14**	**19**	**25**	**31**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**12**	**18**	**24**	**dB(A)**

R2: Dwelling to the southeast

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	58				m
Distance attenuation (-6 dB per doubling of distance)	-35				dB
Offsite building screening	-8				dB
Inside to outside attenuation	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**27**	**27**	**30**	**36**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**20**	**23**	**29**	**dB(A)**

529.85175 | 529.85175 | 1057.1933

SPORTS LOUNGE NIGHT	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	73		76	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	73	73	76	80	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	73				m
Distance attenuation (-6 dB per doubling of distance)	-37				dB
Inside to outside attenuation	-20				dB
Onsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**18**	**18**	**21**	**26**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**10**	**13**	**18**	**dB(A)**

59.691107 | 59.691107 | 119.09942

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	59				m
Distance attenuation (-6 dB per doubling of distance)	-35				dB
Inside to outside attenuation	-5				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**25**	**30**	**36**	**42**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**23**	**29**	**35**	**dB(A)**

R3: Dwellings to the south-southeast

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	60				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**35**	**35**	**38**	**44**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**27**	**30**	**36**	**dB(A)**

3123.9772 | 3123.9772 | 6233.154

SPORTS LOUNGE NIGHT	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	73		76	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	73	73	76	80	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	55				m
Distance attenuation (-6 dB per doubling of distance)	-35				dB
Inside to outside attenuation	-20				dB
Onsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**20**	**20**	**23**	**28**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**13**	**16**	**21**	**dB(A)**

105.15501 | 105.15501 | 209.81183

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	65				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Inside to outside attenuation	-5				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**24**	**29**	**35**	**41**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**22**	**28**	**34**	**dB(A)**

R4: Dwellings to the south

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	58				m
Distance attenuation (-6 dB per doubling of distance)	-35				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**35**	**35**	**38**	**44**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**28**	**31**	**37**	**dB(A)**

3343.1385 | 3343.1385 | 6670.4383

SPORTS LOUNGE NIGHT	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	73		76	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	73	73	76	80	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	35				m
Distance attenuation (-6 dB per doubling of distance)	-31				dB
Inside to outside attenuation	-20				dB
Onsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**24**	**24**	**27**	**32**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**17**	**20**	**24**	**dB(A)**

259.6685 | 259.6685 | 518.10677

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	61				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Inside to outside attenuation	-5				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**25**	**30**	**36**	**42**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**22**	**28**	**34**	**dB(A)**

ONSITE MECH PLANT NOISE PREDICTION CALCULATIONS:

R1: Dwelling to the north		
New condensers adjacent to Loading	63	dB(A) @ 3m
Number of units	2	units
Total noise level	66	dB(A) @ 3m
Distance to receiver	63	m
Distance attenuation (-6 dB per doubling of distance)	-26	dB(A)
Acoustic enclosure	-10	dB(A)
Building screening	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	32	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	25	dB(A)
New toilet exhaust fans	52	dB(A) @ 3m
Number of units	4	units
Total noise level	58	dB(A) @ 3m
Distance to receiver	78	m
Distance attenuation (-6 dB per doubling of distance)	-28	dB(A)
Building screening	-5	dB(A)
Acoustic enclosure	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	27	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	20	dB(A)
Combined impact at façade	33	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	26	dB(A)

R2: Dwelling to the southeast		
New condensers adjacent to Loading	63	dB(A) @ 3m
Number of units	4	units
Total noise level	69	dB(A) @ 3m
Distance to receiver	87	m
Distance attenuation (-6 dB per doubling of distance)	-29	dB(A)
Acoustic enclosure	0	dB(A)
Building screening	-30	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	12	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	5	dB(A)
New toilet exhaust fans	52	dB(A) @ 3m
Number of units	4	units
Total noise level	58	dB(A) @ 3m
Distance to receiver	61	m
Distance attenuation (-6 dB per doubling of distance)	-26	dB(A)
Building screening	-3	dB(A)
Acoustic enclosure	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	31	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	24	dB(A)
Combined impact at façade	31	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	24	dB(A)

R3: Dwellings to the south-southeast		
New condensers adjacent to Loading	63	dB(A) @ 3m
Number of units	4	units
Total noise level	69	dB(A) @ 3m
Distance to receiver	78	m
Distance attenuation (-6 dB per doubling of distance)	-28	dB(A)
Acoustic enclosure	0	dB(A)
Building screening	-30	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	13	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	6	dB(A)
New toilet exhaust fans	52	dB(A) @ 3m
Number of units	4	units
Total noise level	58	dB(A) @ 3m
Distance to receiver	55	m
Distance attenuation (-6 dB per doubling of distance)	-25	dB(A)
Building screening	-3	dB(A)
Acoustic enclosure	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	32	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	25	dB(A)
Combined impact at façade	32	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	25	dB(A)

R4: Dwelling to the west		
New condensers adjacent to Loading	63	dB(A) @ 3m
Number of units	4	units
Total noise level	69	dB(A) @ 3m
Distance to receiver	55	m
Distance attenuation (-6 dB per doubling of distance)	-25	dB(A)
Acoustic enclosure	0	dB(A)
Building screening	-30	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	16	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	9	dB(A)
New toilet exhaust fans	52	dB(A) @ 3m
Number of units	4	units
Total noise level	58	dB(A) @ 3m
Distance to receiver	44	m
Distance attenuation (-6 dB per doubling of distance)	-23	dB(A)
Building screening	-5	dB(A)
Acoustic enclosure	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	32	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	25	dB(A)
Combined impact at façade	32	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	25	dB(A)

CRGACOUSTICS

Postal PO Box 441 Mermaid Beach Qld 4218
Telephone 07 5527 7333
Email jay@crg.net.au
CRG Acoustics Pty Ltd
ACN 151 847 255 ABN 11 708 556 182

Proposed Alterations and Additions
Mossman Memorial Bowling Club

ENVIRONMENTAL NOISE IMPACT ASSESSMENT

Prepared For:

Rubicon Design + Construct

21 June 2023

crgref: 22144 Report REV 2

1.0 INTRODUCTION

This report is in response to a request by Rubicon Design + Construct for an environmental noise assessment of proposed alterations and additions to the existing Mossman Memorial Bowls Club in Mossman.

In undertaking this assessment, attended and unattended noise measurements were conducted and through modelling, predictions of onsite activity noise emissions were produced. Based upon the predicted noise levels, recommendations regarding acoustic treatment at the site have been provided.

2.0 SITE & DEVELOPMENT DESCRIPTION

The proposal relates to Lot 40 on SP2535262, 6 – 8 Johnston Rd, Mossman. The site is bounded by Johnston Rd to the north, vacant land and commercial properties to the east, and residential to the southeast, south and west, and across Johnston Rd to the northeast. For site location refer to Appendix A.

The proposal is for reconfiguration of the internal layout, primarily to the southern and eastern part of the building. Essentially, the following will be undertaken:

STAGE 1

- Reconfiguration of toilets;
- Expansion of Gaming;
- New offices adjacent to Gaming;
- Reconfiguration of DOSA to southeastern corner leading off Gaming;
- New toilets adjacent to Gaming;
- Refurbishment of Dining & Lounge;
- New Sports Lounge replacing part of existing Lounge;
- Refurbishment of existing Entry to include Porte Cochere;
- Removal of existing condensers to new roof mounted plant enclosure to the southeast of the roof.

STAGE 2

- Relocation of loading to northwestern corner of the building;
- New DOSA to centre of the northern facade leading off Sports Lounge;
- Relocate roof mounted plant to new plant enclosure towards the centre of the southern end of the roof.
- Extension to Café Lounge to the northern side of the building (replacing the existing loading area);
- New amenities to the western side of the greens servicing the Bowling Green;
- New BBQ Terrace to southwest corner of the building.

This report assess the ultimate completed Stages 1 and 2 proposed.

All other parts of the site (being Function space, carparking, kitchen, function room and bowling greens) are retained in the current form and usage, with the exception being removal of a limited number of car spaces adjacent to the building. Further, hours of operation are retained from current arrangement, being a maximum of 10am to midnight, 7 days per week.

Changes to activity noise associated the alterations have been assessed to ensure an acceptable level of acoustical amenity can be achieved at the nearest noise sensitive receivers. The nearest offsite noise sensitive receivers to the development include a dwelling to the northeast across Johnston Rd, dwellings to the southeast and south to the rear of the site, and a dwelling to the western boundary. For offsite noise sensitive receiver locations refer to Figure 2 in Appendix A.

We are advised that the Club has been in operation for over 80 years on the subject site.

3.0 AMBIENT NOISE SURVEY

3.1 Instrumentation

The following equipment was used to record ambient noise levels at the subject site locale:

- Svantec SV36 Calibrator;
- Svantec 971 Sound Level Meter with octave band recording.

All instrumentation used in this assessment hold current calibration certificate from a certified NATA calibration laboratory.

3.2 Unattended Background Measurement Methodology

A logger was located in the backyard of the dwelling to the south of the subject site, at 32 Riflebird Crescent. The microphone was in a free-field location approximately 1.4m above ground. Refer to Figure 2 in Appendix A for the logger location.

The logger was set to record noise statistics in 15-minute blocks continually between Tuesday 02/05/2023 and Wednesday 10/05/2023.

All measurements were conducted generally in accordance with Australian Standard AS 1055 *"Acoustics-Description and measurement of environmental noise"*. The operation of the sound level logging equipment was field calibrated before and after the measurement session with no significant drift from the reference signal recorded.

Daily weather observations were obtained from the Bureau of Meteorology's website at the Cairn's Aero weather station. Weather conditions during the noise monitoring period were fine with <1mm of rain on 04/05/2023 and 6mm on 07/05/2023 which didn't affect noise levels, a temperature range between 21 to 31°C and a relative humidity between 49 and 75%.

3.3 Unattended Background Measurement Results

Table 1 below presents the Rating Background noise levels (RBLs) calculated from the logger. The RBL for each period was calculated in accordance with the methodology detailed in the QLD EPA guideline "*Planning for noise control*". Graphical presentation of the measured noise levels is presented in the Appendix C.

Background Noise Descriptor	Time Period	Measured Level dB(A)
L_{90} RBL Daytime	7am to 6pm	37
L_{90} RBL Evening	6pm to 10pm	35
L_{90} RBL Night-time	10pm to 7am	33

Table 1: Rating Background noise levels calculated from measured background noise levels.

Table 2 below presents the measured background noise levels recorded at the logger location. Measured Linear levels were converted to *"C"* Weight levels for presentation in Table 2.

Short-term SPL dB(lin) Hz Octave Band Centre Frequencies						
63	**125**	**250**	**500**	**1k**	**2k**	**AP**
15	18	21	29	25	18	33
Short-term SPL dB(C) Hz Octave Band Centre Frequencies						
63	**125**	**250**	**500**	**1k**	**2k**	**AP**
14	20	23	30	27	26	33

Table 2: Measured octave band ambient noise levels at the logger location.

4.0 NOISE CRITERIA

The Acceptable Outcomes of Performance Outcome PO3 of the Environmental Performance Code, within the Cairns Plan 2016, cites the Environmental Protection (Noise) Policy 2008 as presented below:

Noise	
PO3 Potential noise generated from the development is avoided through design, location and operation of the activity. Note – Planning Scheme Policy – Environmental Management Plans provides guidance on preparing a report to demonstrate compliance with the purpose and outcomes of the Code.	**AO3.1** Development does not involve activities that would cause noise related environmental harm or nuisance; or **AO3.2** Development ensures noise does not emanate from the site through the use of materials, structures and architectural features to not cause an adverse noise impact on adjacent uses. and **AO3.3** The design and layout of development ensures car parking areas avoid noise impacting directly on adjacent sensitive land uses through one or more of the following: (a) car parking is located away from adjacent sensitive land uses; (b) car parking is enclosed within a building; (c) a noise ameliorating fence or structure is established adjacent to car parking areas where the fence or structure will not have a visual amenity impact on the adjoining premises; (d) incorporating a densely vegetated buffer adjacent to car parking areas. Note – The Environmental Protection (Noise) Policy 2008, Schedule 1 provides guidance on acoustic quality objectives to ensure environmental harm (including nuisance) is avoided.

It is noted that the Environmental Protection (Noise) Policy 2008 has now been superceded by the Environmental Protection (Noise) Policy 2019, which has been applied to assess noise emissions from the proposed alterations and additions.

Further, in relation to AO3.3, there are no plans to redevelop the carparking areas, therefore, assessment of onsite carparking has not been undertaken.

Section 6 of the Environmental Protection (Noise) Policy 2019 provides the following framework for environmental values to be enhanced or protected:

6 Environmental values

The environmental values to be enhanced or protected under this policy are—

(a) the qualities of the acoustic environment that are conducive to protecting the health and biodiversity of ecosystems; and

(b) the qualities of the acoustic environment that are conducive to human health and wellbeing, including by ensuring a suitable acoustic environment for individuals to do any of the following—

(i) sleep;

(ii) study or learn;

(iii) be involved in recreation, including relaxation and conversation; and

(c) the qualities of the acoustic environment that are conducive to protecting the amenity of the community.

Section 9 of the Environmental Protection (Noise) Policy 2019 provides the following framework for management intent for noise:

9 Management intent for noise

(1) This section states the management intent for an activity involving noise that affects, or may affect, an environmental value to be enhanced or protected under this policy.

Note—

See section 35 of the *Environmental Protection Regulation 2019*.

(2) To the extent it is reasonable to do so, noise must be dealt with in a way that ensures—

(a) the noise does not have any adverse effect, or potential adverse effect, on an environmental value under this policy; and

(b) background creep in an area or place is prevented or minimised.

(3) Despite subsection (2)(b), if the acoustic quality objectives for an area or place are not being achieved or maintained, the noise experienced in the area or place must, to the extent it is reasonable to do so, be dealt with in a way that progressively improves the acoustic environment of the area or place.

(4) In this section—

background creep, for noise in an area or place, means a gradual increase in the total amount of background noise in the area or place as measured under the document called the 'Noise measurement manual' published on the department's website.

Schedule 1 of the Environmental Protection (Noise) Policy 2019 provides the following specific *"Acoustic Quality Objectives"* to ensure that the above is achieved:

Column 1	Column 2	Column 3			Column 4
Sensitive receptor	**Time of day**	**Acoustic quality objectives (measured at the receptor) *dB(A)***			**Environmental value**
		$L_{Aeq,adj,1hr}$	$L_{A10,adj,1hr}$	$L_{A1,adj,1hr}$	
residence (for outdoors)	daytime and evening	50	55	65	health and wellbeing
residence (for indoors)	daytime and evening	35	40	45	health and wellbeing
	night-time	30	35	40	health and wellbeing, in relation to the ability to sleep

Table 3: Criterion from Schedule 1 of the Environmental Protection (Noise) Policy 2019.

It is noted that the EPP Noise 2019 provides no numeric criteria for control of background creep. For this reason, we have applied the previous criteria applied under the EPP Noise 2008, as follows. Based upon the measured RBL levels presented in Section 3.3, the *"Background Creep"* criterion (as previously defined under the Environmental Protection (Noise) Policy 2008) equates to the following levels at the nearest offsite receivers:

Time Varying Noise Source	**Noise Limit, SPL dB(A) L_{eq}**
Daytime 7am to 6pm	42 (RBL L_{90} level 37 + 5 dB)
Evening 6pm to 10pm	40 (RBL L_{90} level 35 + 5 dB)
Night-time 10pm to 7am	38 (RBL L_{90} level 33 + 5 dB)
Continuous Noise Source	**Noise Limit, SPL dB(A) L_{90}**
Daytime 7am to 6pm	37 (RBL L_{90} level 37 + 0 dB)
Evening 6pm to 10pm	35 (RBL L_{90} level 35 + 0 dB)
Night-time 10pm to 7am	33 (RBL L_{90} level 33 + 0 dB)

Table 4: Noise limit criterion for *"Background Creep"*.

5.0 PREDICTED NOISE IMPACTS

All noise source levels used in the assessment have been collected from similar assessments, including assessments of gaming rooms in Chinderah, Gympie, Murwillumbah and Surfers Paradise. All *"Acoustic Quality Objective"* noise levels have been corrected for impulsiveness or tonality as per Australian Standard AS 1055 *"Acoustics-Description and measurement of environmental noise*".

For patron noise in the lounge and DOSA, we have applied the L_{eq}, L_{10} and L_{01} source levels calculated from the formulas within the technical paper *"Prediction of Noise from Small to Medium Sized Crowds"* (Hayne et al, 2011). Patron numbers are generally based upon available seating.

The following noise source levels would typically occur as part of the proposed alterations and additions and have been assessed within this report.

Activity/Noise Source	**Distance To Source**	**Event Duration Noise Level, SPL dB(A)**		
		L_{eq}	**L_{10}**	**L_{01}**
DOSA (10 patrons daytime & evening & night)	1m	68	71	77
New Sports Lounge (50 patrons) Daytime / evening	1m	77	80	84
New Sports Lounge (20 patrons) Night	1m	73	76	80
Gaming Room (50 machines)	1m	68**	74**	80**
Loading activity	1m	79*	83*	85*
Patrons BBQ terrace (56 patrons) Day/Evening	1m	79	82	85
Patrons BBQ terrace (20 patrons) Night	1m	73	76	80

* Denotes + 5 dB correction for impulsiveness in accordance with AS1055. ** Denotes + 5 dB correction for tonality in accordance with AS1055.

Table 5: Typical noise source levels associated with the proposed alterations and additions.

For the L_{Aeq} levels we have presented both the adjusted 15 minute duration and also the adjusted one hour duration. For assessment of the *"Background Creep"* criterion we have adopted the $L_{Aeq\ 15\ minute}$ duration levels.

Based upon the location of the proposed onsite activities in relation to the nearest offsite noise sensitive receivers (building façades and inside rooms with windows open), we predict the following noise impact levels as presented in Table 6. Note that we have assumed a single storey dwelling will be built, in keeping with other dwellings on Riflebird Crescent, and our combined impacts do not include loading, as this is an existing activity, occurs irregularly, and only during the daytime.

The predicted levels assume that the recommended treatments detailed in Section 6 are incorporated into the development.

For offsite noise sensitive receiver locations refer to Figure 2 in Appendix A.

For point source calculations refer to Appendix C.

It is noted that no changes are proposed to carparking, deliveries or waste collection, therefore, these activities have not been assessed.

Noise Source	Predicted Noise Impact, SPL dB(A) DAY / EVENING						
	Nearest Façade				Inside Windows OPEN		
	$L_{eq\ 15min}$	$L_{eq\ 1hr}$	$L_{10\ 1hr}$	$L_{01\ 1hr}$	$L_{eq\ 1hr}$	$L_{10\ 1hr}$	$L_{01\ 1hr}$
R1: Dwelling to the northeast 3 Johnston Road (Lot 1 RP706259)							
Southeastern DOSA	32	32	35	41	25	28	34
New Sports Lounge day / evening	35	35	38	41	27	30	34
Gaming Room (50 machines)	< 15	19	25	31	< 15	18	24
Loading new dock	39	44	48	50	37	41	43
Northern DOSA	35	35	38	44	27	30	36
Patrons on BBQ Terrace day/evening	< 15	< 15	< 15	17	< 15	< 15	< 15
COMBINED IMPACTS (excl. dock)	**39**	**39**	**42**	**44**	**31**	**34**	**36**
R2: Dwelling to the southeast 61 Captain Cook Highway (Lot 10 RP707030)							
Southeastern DOSA	27	27	30	36	20	23	29
New Sports Lounge day / evening	24	24	27	30	16	19	22
Gaming Room (50 machines)	25	30	36	42	23	29	35
Loading new dock	< 15	< 15	15	17	< 15	< 15	< 15
Northern DOSA	< 15	< 15	< 15	< 15	< 15	< 15	< 15
Patrons on BBQ Terrace day/evening	36	36	39	42	29	32	35
COMBINED IMPACTS (excl. dock)	**37**	**38**	**41**	**42**	**30**	**34**	**35**
R3: Dwellings to the south-southwest 30 - 32 Riflebird Crescent (Lots 19 SP186233; Lot 20 SP186231)							
Southeastern DOSA	35	35	38	44	27	30	36
New Sports Lounge day / evening	26	26	29	32	19	22	25
Gaming Room (50 machines)	24	29	35	41	22	28	34
Loading new dock	29	34	38	40	26	30	32
Northern DOSA	< 15	< 15	< 15	< 15	< 15	< 15	< 15
Patrons on BBQ Terrace day/evening	40	40	43	46	32	35	38
COMBINED IMPACTS (excl. dock)	**41**	**41**	**45**	**46**	**34**	**37**	**38**
R4: Dwelling to the west 10 Johnston Road (Lot 3 RP707030)							
Southeastern DOSA	35	35	38	44	28	31	37
New Sports Lounge day / evening	30	30	33	36	23	26	29
Gaming Room (50 machines)	25	30	36	42	22	285	34
Loading new dock	36	41	45	47	33	37	39
Northern DOSA	< 15	< 15	< 15	15	< 15	< 15	< 15
Patrons on BBQ Terrace day/evening	42	42	45	48	34	3.8	40
COMBINED IMPACTS (excl. dock)	**43**	**43**	**46**	**48**	**36**	**39**	**40**
7am - 10pm Criterion (day/evening)	**42 / 40**	**50**	**55**	**65**	**35**	**40**	**45**

Table 6: Predicted day / evening onsite activity noise impacts at noise sensitive receivers.

Noise Source	Predicted Noise Impact, SPL dB(A) NIGHT						
	Nearest Façade				Inside Windows OPEN		
	$L_{eq\ 15min}$	$L_{eq\ 1hr}$	$L_{10\ 1hr}$	$L_{01\ 1hr}$	$L_{eq\ 1hr}$	$L_{10\ 1hr}$	$L_{01\ 1hr}$
R1: Dwelling to the northeast 3 Johnston Road (Lot 1 RP706259)							
Southeastern DOSA	32	32	35	41	25	28	34
New Sports Lounge night	29	29	32	37	21	24	29
Gaming Room (50 machines)	< 15	19	25	31	< 15	18	24
Northern DOSA	35	35	38	44	27	30	36
Patrons on BBQ Terrace night	< 15	< 15	< 15	< 15	< 15	< 15	< 15
COMBINED IMPACTS	**37**	**37**	**40**	**44**	**30**	**33**	**36**
R2: Dwelling to the southeast 61 Captain Cook Highway (Lot 10 RP707030)							
Southeastern DOSA	27	27	30	36	20	23	29
New Sports Lounge night	18	18	21	26	< 15	< 15	18
Gaming Room (50 machines)	25	30	36	42	23	29	35
Northern DOSA	< 15	< 15	< 15	< 15	< 15	< 15	< 15
Patrons on BBQ Terrace night	29	29	32	37	22	25	30
COMBINED IMPACTS	**33**	**34**	**38**	**42**	**26**	**31**	**35**
R3: Dwellings to the south-southwest 30 - 32 Riflebird Crescent (Lots 19 SP186233; Lot 20 SP186231)							
Southeastern DOSA	35	35	38	44	27	30	36
New Sports Lounge night	20	20	23	28	< 15	16	21
Gaming Room (50 machines)	24	29	35	41	22	28	34
Northern DOSA	< 15	< 15	< 15	< 15	< 15	< 15	< 15
Patrons on BBQ Terrace night	33	33	36	41	25	28	33
COMBINED IMPACTS	**37**	**38**	**41**	**44**	**30**	**34**	**36**
R4: Dwelling to the west 10 Johnston Road (Lot 3 RP707030)							
Southeastern DOSA	35	35	38	44	28	31	37
New Sports Lounge night	24	24	27	32	117	20	24
Gaming Room (50 machines)	25	30	36	42	22	285	34
Loading new dock	36	41	45	47	33	37	39
Northern DOSA	< 15	< 15	< 15	15	< 15	< 15	< 15
Patrons on BBQ Terrace night	35	35	38	43	28	31	35
COMBINED IMPACTS	**39**	**39**	**42**	**44**	**31**	**35**	**37**
10pm to Midnight Criterion (night)	**38**	**N/A**	**N/A**	**N/A**	**30**	**35**	**40**

Table 7: Predicted night onsite activity noise impacts at noise sensitive receivers.

Continuous activity noise source levels have been compiled from similar previous investigations. All noise levels have been corrected for impulsiveness or tonality as per Australian Standard AS 1055:1997 – *"Acoustics-Description and measurement of environmental noise*".

It should be stressed that mechanical plant requirements for the proposed alterations and extensions are not yet known, for this reason; we have applied noise levels from other similar sites as follows:

- New toilet exhaust fans generating 52 dB(A) at 3m.
- Large condenser units each generating 56 dB(A) at 3m.
- Small condenser units each generating 48 dB(A) at 3m.

Based upon the locations of the plant decks in relation to the nearest offsite noise sensitive receivers (building façades and inside rooms with windows open), we predict the following noise impact levels as presented in Table 8.

The predicted levels assume that the recommended treatments detailed in Section 6 are incorporated into the development.

For offsite noise sensitive receiver locations refer to Figure 2 in Appendix A. For point source calculations refer to Appendix C.

Continuous Noise Source	**Predicted Noise Impact, SPL L_{eq} dB(A)**	
	Nearest Façade	**Inside Windows OPEN**
R1: Dwelling to the north		
Combined mechanical plant (2 plant decks)	33	26
R2: Dwellings to the southeast		
Combined mechanical plant (2 plant decks)	34	27
R3: Dwellings to the south-southeast		
Combined mechanical plant (2 plant decks)	34	27
R4: Dwellings to the south		
Combined mechanical plant (2 plant decks)	36	29
7am to 10pm Residential Criterion	**37 / 35**	**35**
10pm to 7am Residential Criterion	**33**	**30**

Table 7: Predicted onsite mechanical plant noise impacts at noise sensitive receivers.

6.0 RECOMMENDED ACOUSTIC TREATMENTS

6.1 Onsite Activity Acoustic Treatment Recommendations

We recommend that the following acoustic treatments be incorporated into the development to mitigate onsite activity noise:

- Staff should be diligent in maintaining acceptable activities and noise levels from the patrons at outdoor DOSA areas, alfresco and terrace areas, particularly after 10pm.
- Goods delivery and waste collection be limited to 7am to 6pm.
- Acoustically absorptive lining be applied on the underside of the ceiling of the southeastern DOSA to achieve a Noise Reduction Coefficient greater than NRC 0.8.
- Solid wall to the western side of the BBQ Terrace. Refer to Sketch No. 3, attached. This is only required at Stage 2 of the development.
- Acoustically absorptive lining be applied on the underside of the ceiling of the BBQ Terrace to achieve a Noise Reduction Coefficient greater than NRC 0.8. Refer to Sketch No. 3, attached. This is only required at Stage 2 of the development.
- New ceilings be solid set plasterboard.
- A 2.2m high acoustical screen be extended along the western side of the loading area. Refer to Sketch No. 1, attached. This is only required at Stage 2 of the development.
- A 2.5m high acoustical screen be extended along the southern boundary. Refer to Sketch No. 4, attached. This is only required at Stage 2 of the development.
- New Café/lounge wall be rated to minimum R_w 38 (e.g. fixed 10.38mm laminated glass).
- Gaming Room to be carpeted or an acoustically absorptive ceiling (Noise Reduction Coefficient greater than NRC 0.8) be hung below the solid set plasterboard ceiling.
- New or relocated mechanical plant be designed and installed to comply with the noise criterion presented in Section 4.2. As final plant selection has not been completed, an assessment of plant should be conducted during the design phase, and a Certificate provided to the Building Certifier confirming that installed plant achieves the noise limit criteria. Based upon assumed source levels, acoustical screens may be required to the east, west and southern sides of the roof plant decks. Refer to Sketch No. 2, attached for an indicative design that may be revised upon detailed design. Note that the western plant screen is only required at Stage 2 of the development, but the eastern plant screen is required at Stage 1.

7.0 DISCUSSION

Onsite activity noise associated with the alterations and additions has been assessed to ensure an acceptable level of acoustical amenity can be achieved at the nearest noise sensitive receivers, which include a dwelling to the northeast, detached dwellings to the southeast and south-southeast, and to the west.

Based upon the worst case scenarios, assumed source levels and acoustic treatments, onsite activity noise emissions associated with the alterations and additions are predicted to impact the nearest offsite noise sensitive receivers within 3 dB of the relevant *"Acoustic Quality Objectives"* and *"Background Creep"* criterion. As the average person cannot detect a 3 dB shift in sound pressure level, an exceedance of 3 dB is not deemed significant.

To minimise noise emissions to the offsite noise sensitive receivers, we have recommended that staff to be diligent in maintaining acceptable activities and noise levels from the patrons at the reconfigured DOSA, particularly after 10pm. Management of patron behaviour is key in ensuring compliance with the noise limits for patron voice, as boisterous behaviour will result in exceedances at nearest dwellings. Further, acoustical screens, barriers and sound absorption has been recommended to mitigate noise impacts – such treatments are viewed as best practice .

We have also provided an indication of potential noise impact levels of likely new or relocated mechanical plant; although the levels are merely a guide as no plant selections have yet been completed. For this reason, additional more detailed assessment/s should be conducted upon determination of plant. Such assessments should be undertaken prior to Building Approval; and be conditioned within the Development Approval.

8.0 CONCLUSIONS

This report is in response to a request by Rubicon Design + Construct for an environmental noise assessment of proposed alterations and additions to the existing Mossman Memorial Bowls Club.

Based upon the assessed attached Development Plans, the proposal can be shown to be within acceptable levels of the adopted noise criterion subject to the recommended treatments detailed in Section 6 being incorporated into the development.

Report Compiled By:

JAY CARTER BSc
Director

APPENDIX A

Subject Site, Measurement Location and Surrounding Noise Sensitive Receivers

Figure No. 1: Subject Site Location (Google Maps).

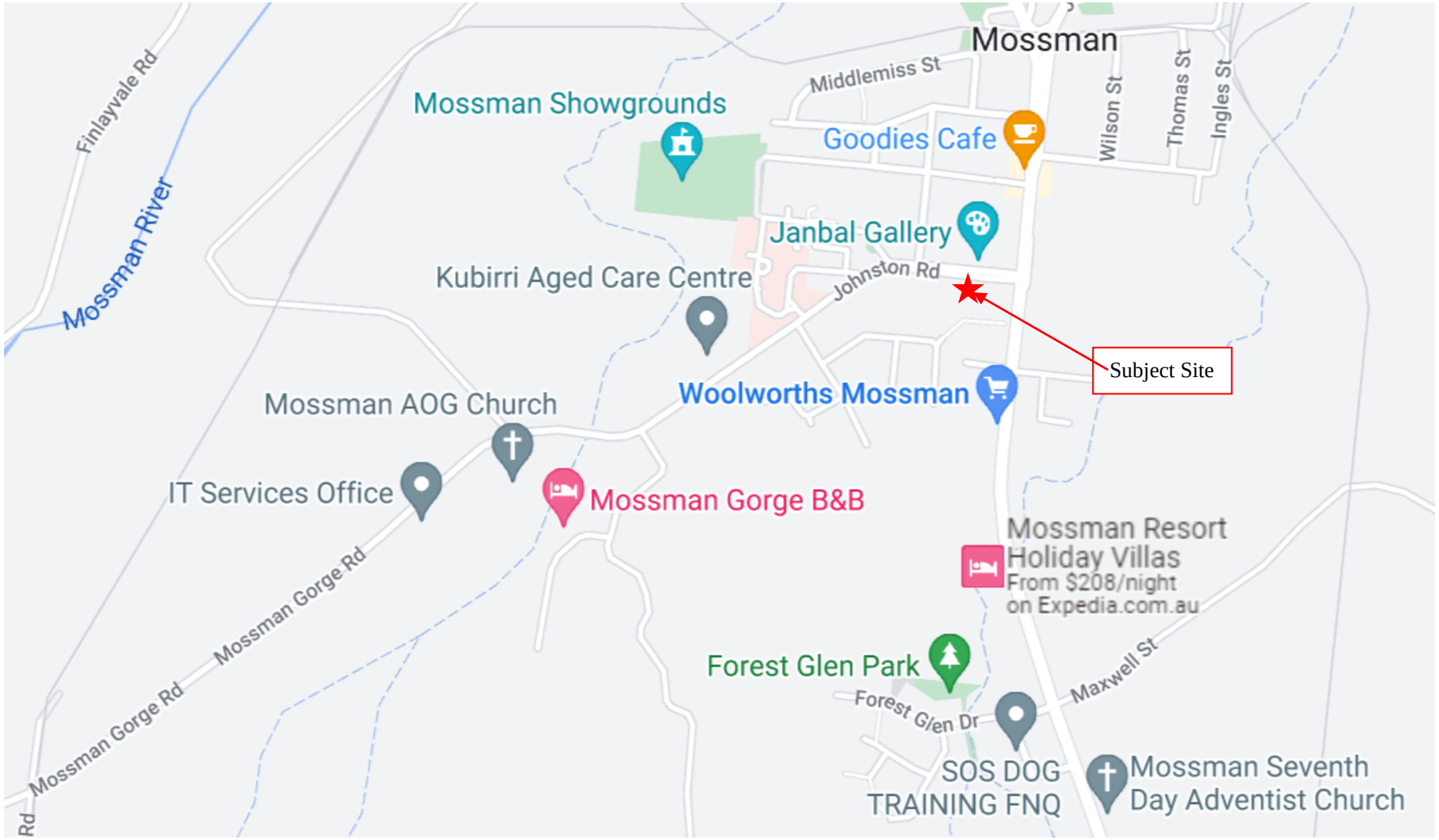


Figure No. 2: Subject Site, Noise Monitoring Location and Surrounding Receivers (QLD Globe).

Photograph Sheet 1

Photograph 1: View looking north from Riflebird Crescent looking across R3 at western dwelling (R4)

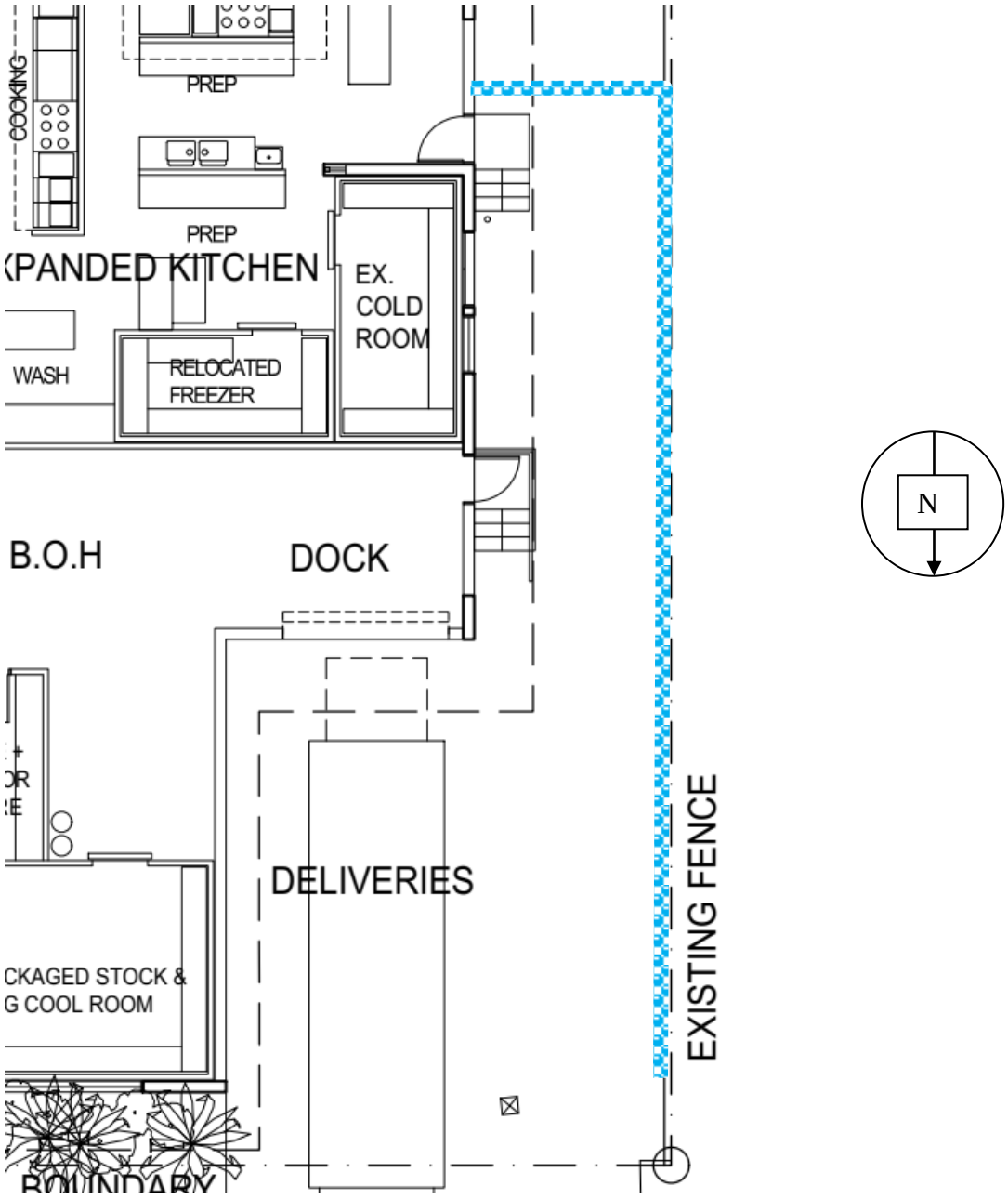
Photograph 2: View looking north from Riflebird Crescent looking at subject site across R3

Photograph Sheet 2

Photograph 3: Dwelling at R3

Photograph 4: Logger in backyard of dwelling at 32 Riflebird Crescent

Sketch No. 1: Recommended Acoustical Barrier – STAGE 2

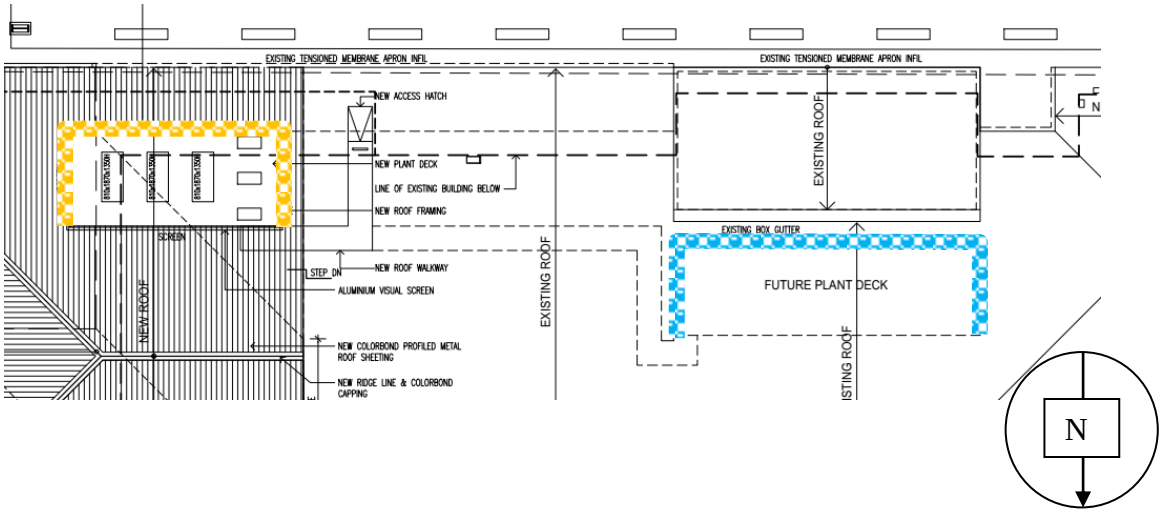


ACOUSTIC TREATMENT LEGEND

Recommended 2.2m high acoustical barrier constructed above the existing or finished carpark grade, whichever is higher.

Barriers are to be free of gaps and holes, including no gaps between the ground and the base of the barrier. Typical materials include 2 layers of colourbond metal sheet, 19mm lapped timber fence (40% overlap), 9mm FC sheet, toughened glass, Perspex, masonry, or a combination of the above (a minimum surface mass of 11kg/m^2 is required).

Sketch No. 2: Indicative Acoustical Screens to Roof Plant Decks – STAGES 1 & 2



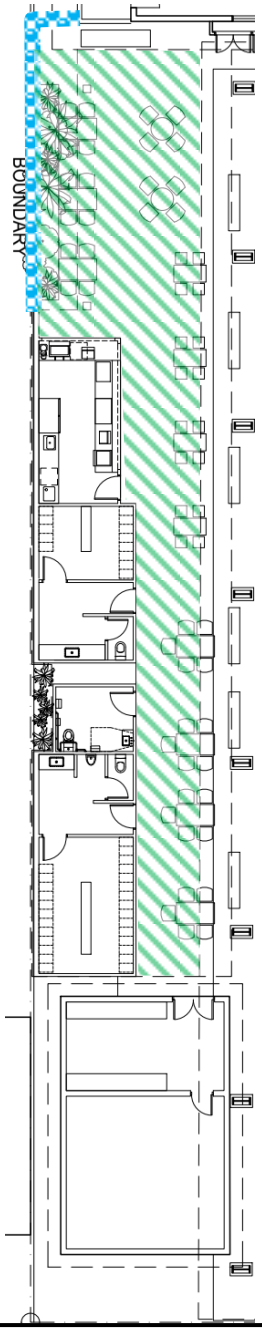
ACOUSTIC TREATMENT LEGEND

Indicative acoustical barrier extending 300mm above top edge of tallest plant on deck. STAGE 2

Indicative acoustical barrier extending 300mm above top edge of tallest plant on deck. STAGE 1

Barriers are to be free of gaps and holes, including no gaps between the ground and the base of the barrier. Typical materials include 2 layers of colourbond metal sheet, 9mm FC sheet, toughened glass, Perspex, masonry, or a combination of the above (a minimum surface mass of 11kg/m^2 is required).

Sketch No. 3: Recommended Acoustical Treatment to BBQ Terrace – STAGE 2

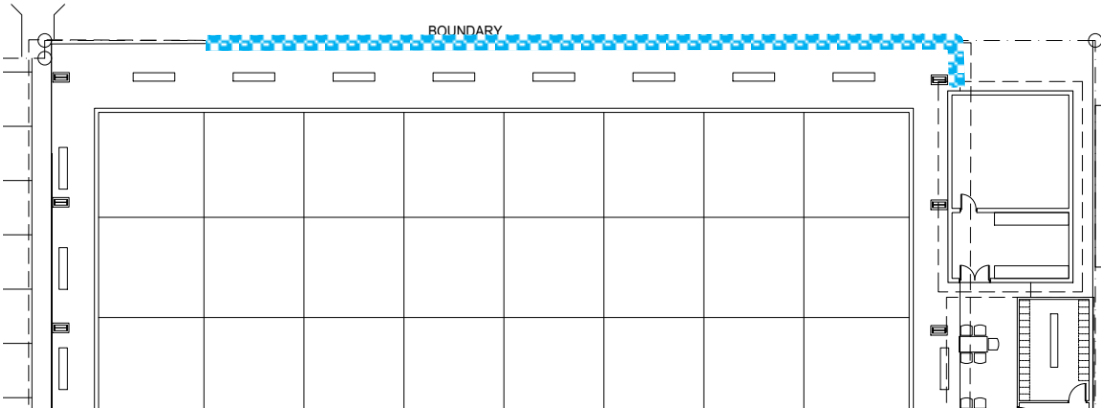


ACOUSTIC TREATMENT LEGEND

Recommended solid wall, may be constructed of 9mm FC sheet, 6mm toughened glass, masonry or combination (a minimum surface mass of 11kg/m^2 is required).

Acoustically absorptive ceiling lining under roof (min NRC 0.8). Typical treatments include Megasorber PN, or fibreglass with an NRC of greater than 0.8, with a hard perforated sheet facing (e.g. plywood or FC sheet) min 12% open face area.

Sketch No. 3: Recommended Acoustical Treatment to Southern Boundary – STAGE 2



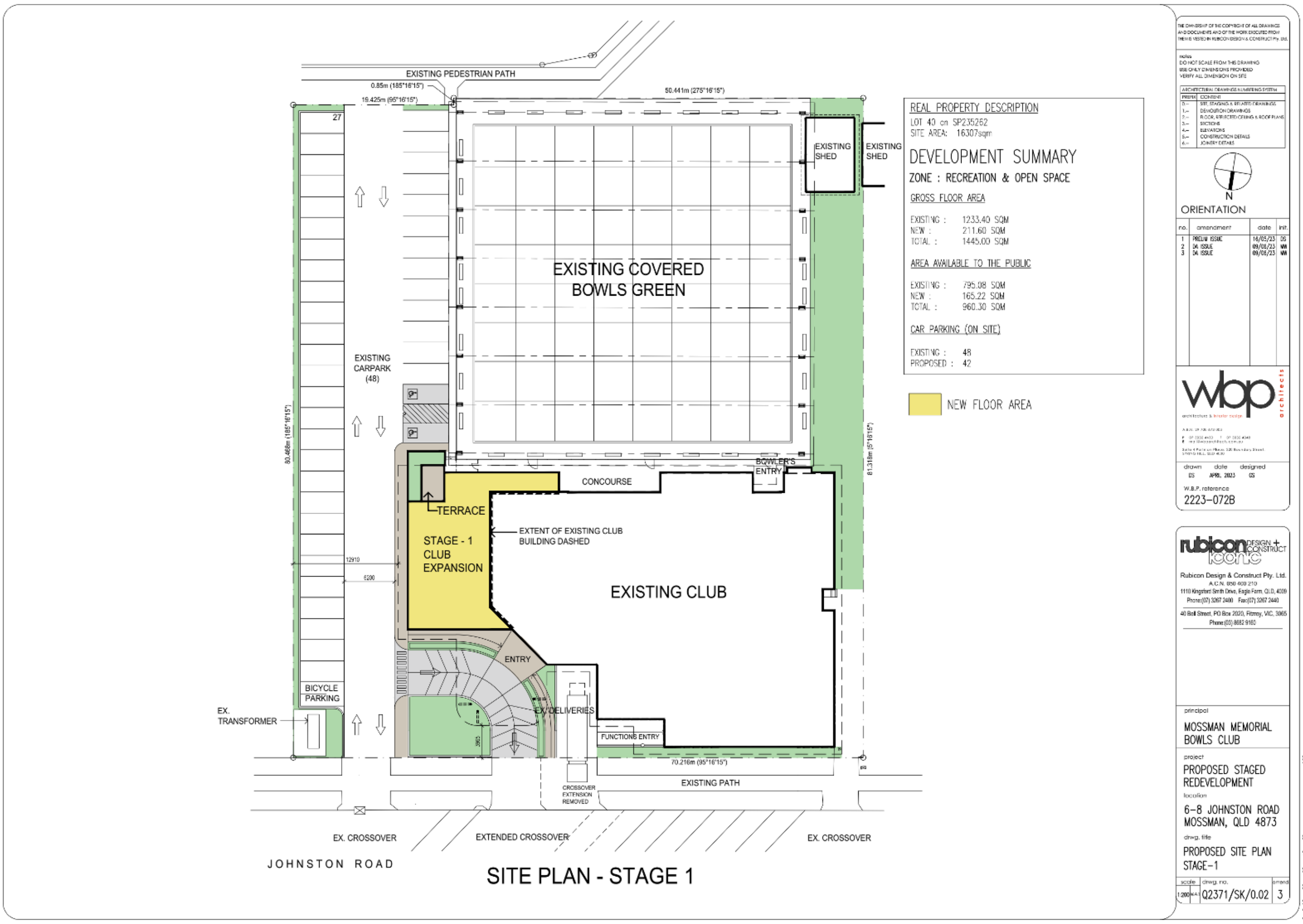
ACOUSTIC TREATMENT LEGEND

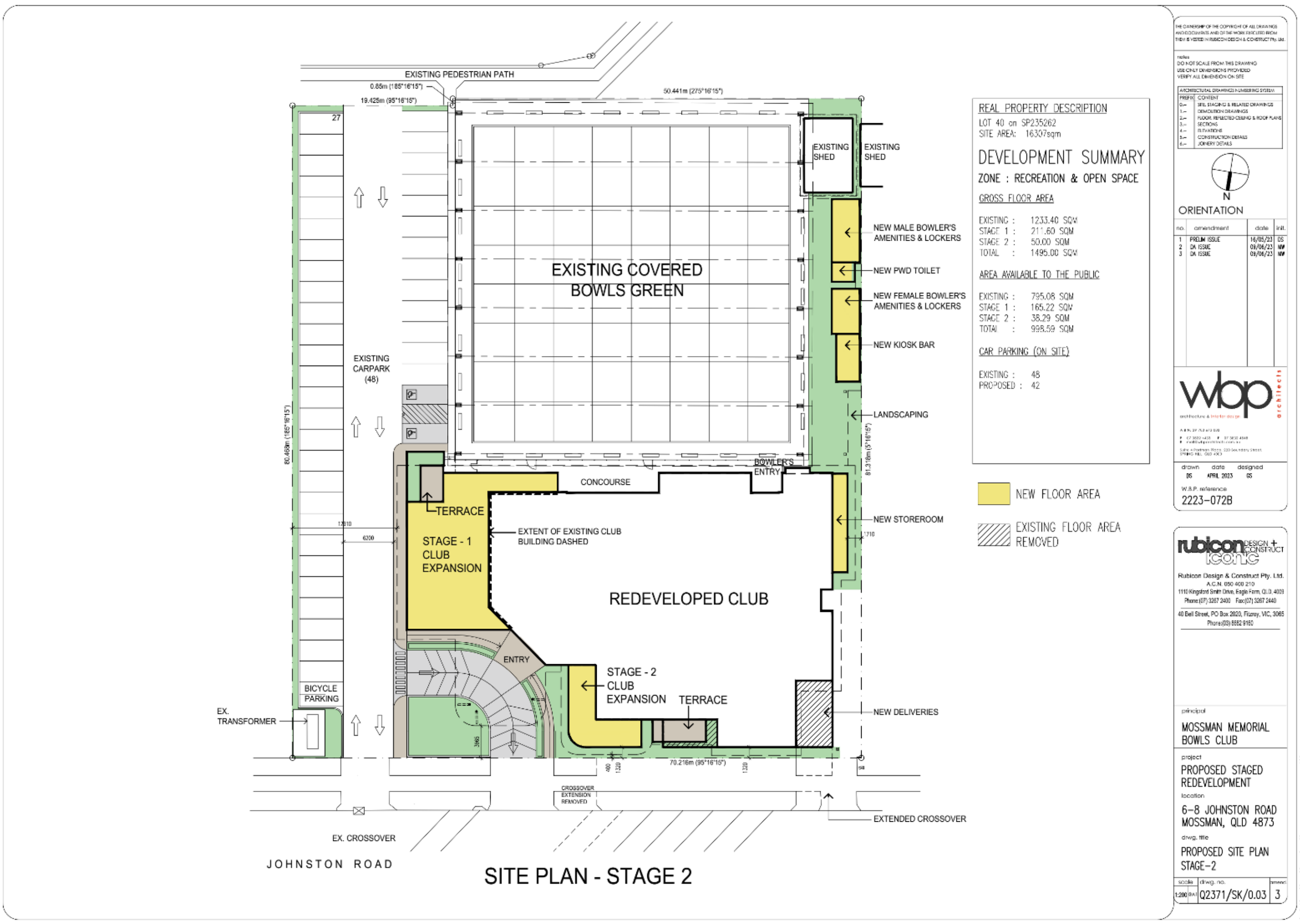
Recommended 2.5m high acoustical barrier constructed above the existing or finished BBQ Terrace level, whichever is higher.

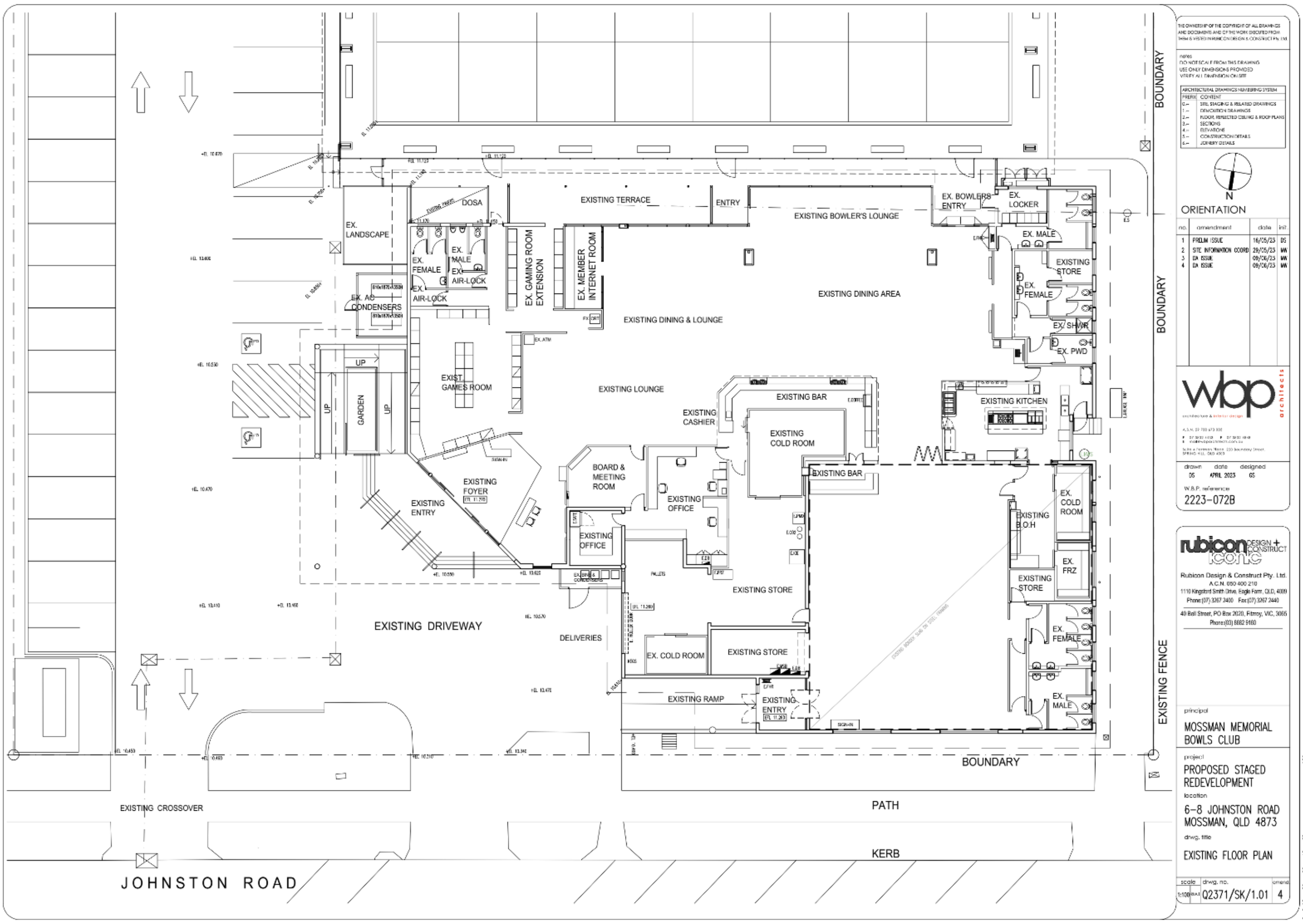
Barriers are to be free of gaps and holes, including no gaps between the ground and the base of the barrier. Typical materials include 2 layers of colourbond metal sheet, 19mm lapped timber fence (40% overlap), 9mm FC sheet, toughened glass, Perspex, masonry, or a combination of the above (a minimum surface mass of 11kg/m^2 is required).

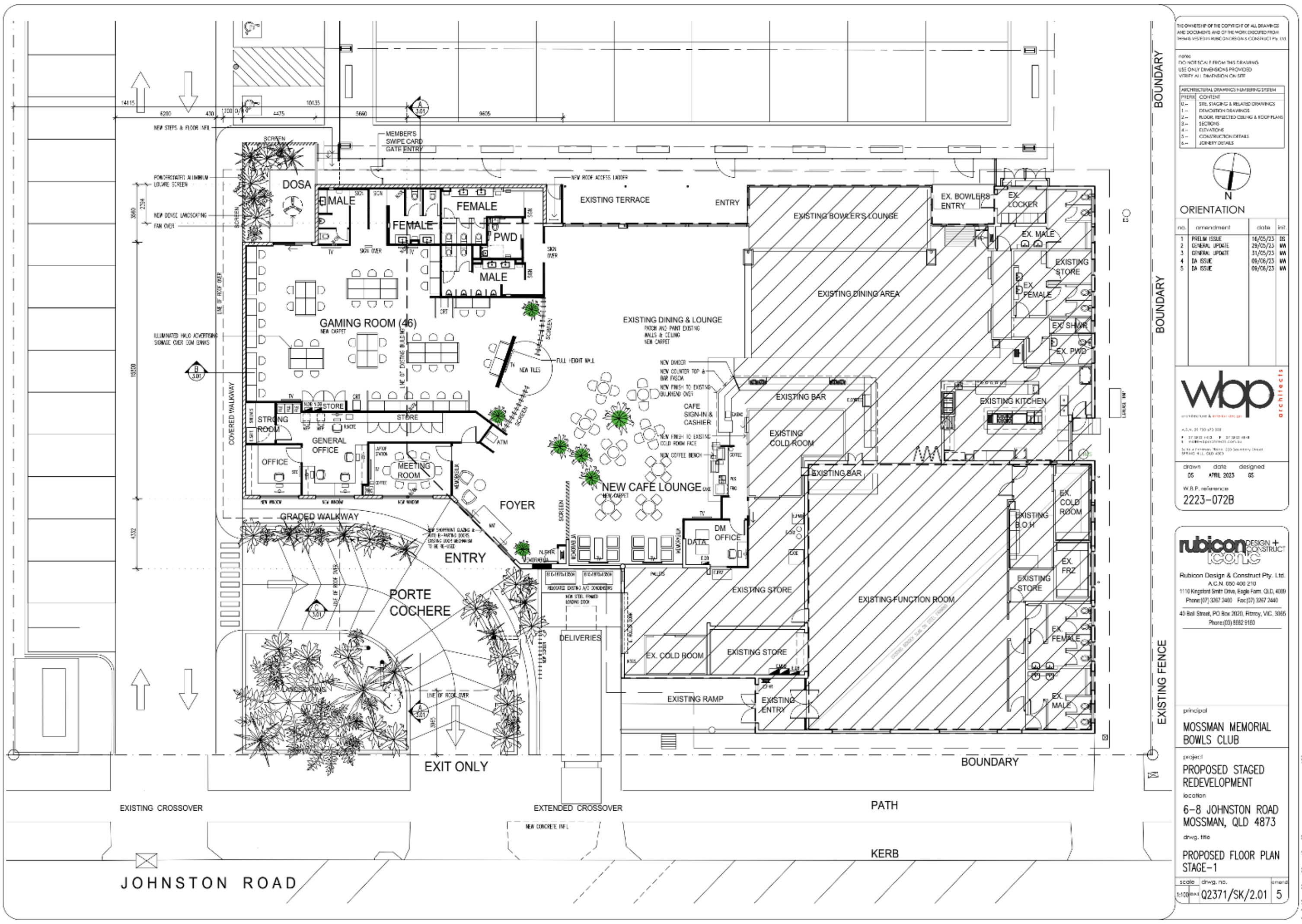
APPENDIX B

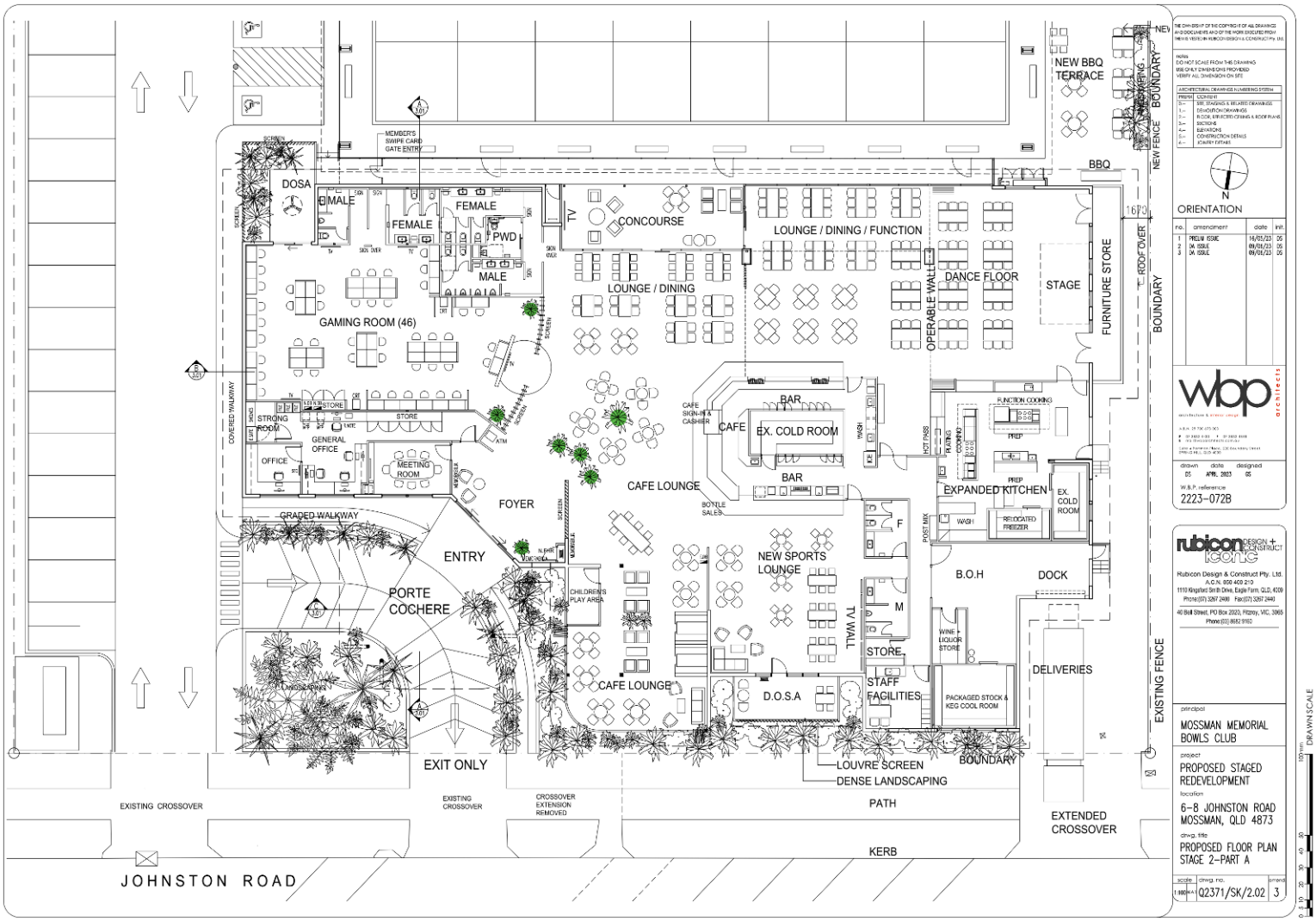
Development Plans

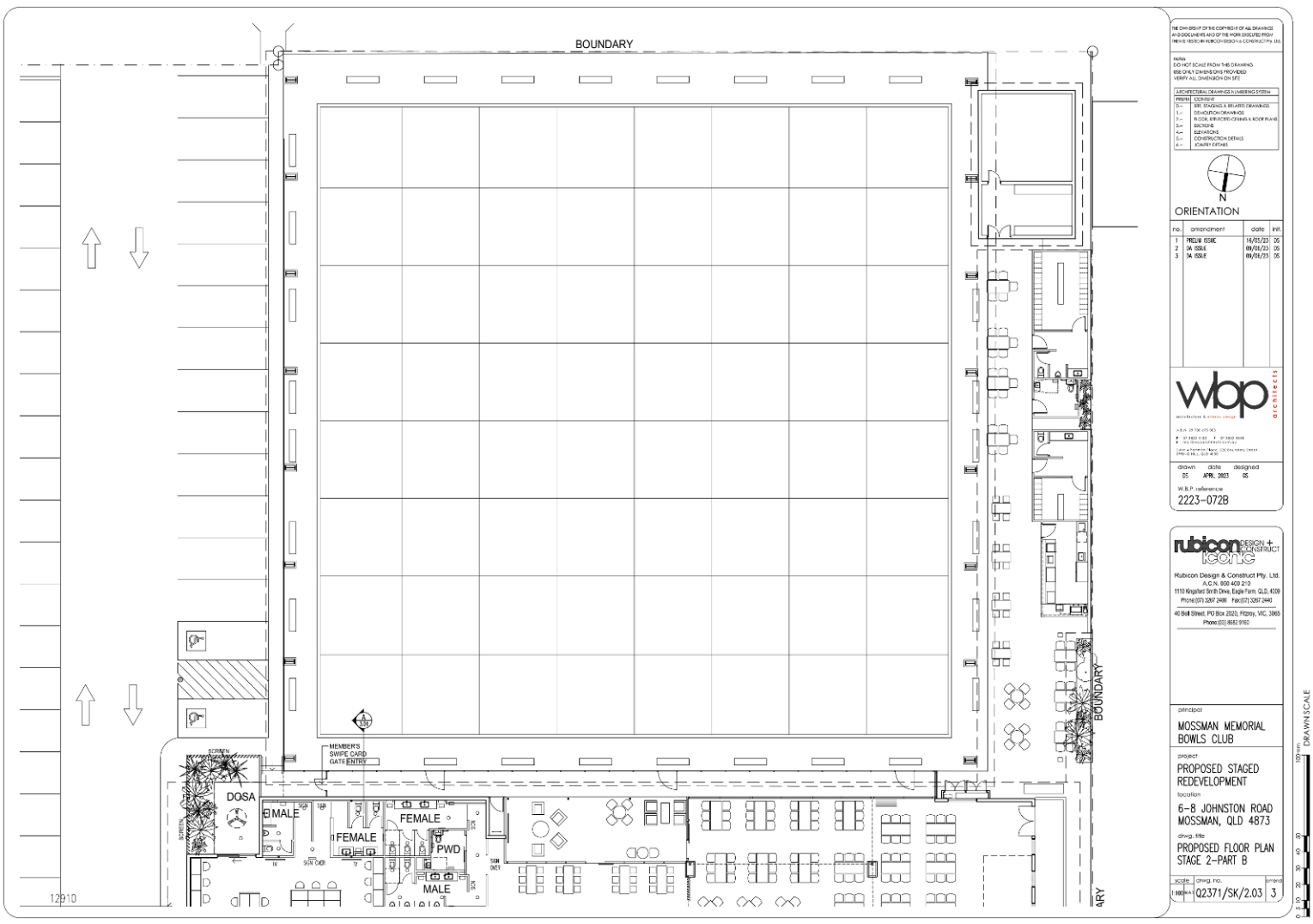

EXISTING PEDESTRIAN PATH
50.441m (275°16'15")
EXISTING COVERED BOWLS GREEN
EXISTING SHED
EXISTING SHED
EXISTING CARPARK (48)
BOWLER'S ENTRY
CONCOURSE
TERRACE
STAGE - 1 CLUB EXPANSION
EXTENT OF EXISTING CLUB BUILDING DASHED
EXISTING CLUB
ENTRY
EX. DELIVERIES
FUNCTIONS ENTRY
BICYCLE PARKING
EX. TRANSFORMER
70.216m (95°16'15")
EXISTING PATH
CROSSOVER EXTENSION REMOVED
EX. CROSSOVER
EXTENDED CROSSOVER
EX. CROSSOVER
JOHNSTON ROAD
SITE PLAN - STAGE 1
REAL PROPERTY DESCRIPTION
LOT 40 on SP235262
SITE AREA: 16307sqm
DEVELOPMENT SUMMARY
ZONE : RECREATION & OPEN SPACE
GROSS FLOOR AREA
EXISTING : 1233.40 SQM
NEW : 211.60 SQM
TOTAL : 1445.00 SQM
AREA AVAILABLE TO THE PUBLIC
EXISTING : 795.08 SQM
NEW : 165.22 SQM
TOTAL : 960.30 SQM
CAR PARKING (ON SITE)
EXISTING : 48
PROPOSED : 42
NEW FLOOR AREA
ORIENTATION
wbp architects
drawn DS date APRIL 2023 designed DS
W.B.P. reference 2223-072B
rubicon iconic DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
principal MOSSMAN MEMORIAL BOWLS CLUB
project PROPOSED STAGED REDEVELOPMENT
location 6-8 JOHNSTON ROAD MOSSMAN, QLD 4873
drwg. title PROPOSED SITE PLAN STAGE-1
Q2371/SK/0.02 3
DRAWN SCALE


EXISTING PEDESTRIAN PATH
50.441m (275°16'15")
EXISTING COVERED BOWLS GREEN
EXISTING SHED
EXISTING SHED
NEW MALE BOWLER'S AMENITIES & LOCKERS
NEW PWD TOILET
NEW FEMALE BOWLER'S AMENITIES & LOCKERS
NEW KIOSK BAR
LANDSCAPING
EXISTING CARPARK (48)
BOWLER'S ENTRY
CONCOURSE
TERRACE
STAGE - 1 CLUB EXPANSION
EXTENT OF EXISTING CLUB BUILDING DASHED
NEW STOREROOM
REDEVELOPED CLUB
ENTRY
STAGE - 2 CLUB EXPANSION
TERRACE
NEW DELIVERIES
BICYCLE PARKING
EX. TRANSFORMER
70.216m (95°16'15")
CROSSOVER EXTENSION REMOVED
EXTENDED CROSSOVER
EX. CROSSOVER
JOHNSTON ROAD
SITE PLAN - STAGE 2
REAL PROPERTY DESCRIPTION
LOT 40 on SP235262
SITE AREA: 16307sqm
DEVELOPMENT SUMMARY
ZONE : RECREATION & OPEN SPACE
GROSS FLOOR AREA
EXISTING : 1233.40 SQM
STAGE 1 : 211.60 SQM
STAGE 2 : 50.00 SQM
TOTAL : 1495.00 SQM
AREA AVAILABLE TO THE PUBLIC
EXISTING : 795.08 SQM
STAGE 1 : 165.22 SQM
STAGE 2 : 38.29 SQM
TOTAL : 998.59 SQM
CAR PARKING (ON SITE)
EXISTING : 48
PROPOSED : 42
NEW FLOOR AREA
EXISTING FLOOR AREA REMOVED
ORIENTATION
wbp architects
drawn DS date APRIL 2023 designed DS
W.B.P. reference 2223-072B
rubicon iconic DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
principal MOSSMAN MEMORIAL BOWLS CLUB
project PROPOSED STAGED REDEVELOPMENT
location 6-8 JOHNSTON ROAD MOSSMAN, QLD 4873
drwg. title PROPOSED SITE PLAN STAGE-2
Q2371/SK/0.03 3
DRAWN SCALE


EXISTING TERRACE
ENTRY
EXISTING BOWLER'S LOUNGE
EX. BOWLERS ENTRY
EX. LOCKER
EX. MALE
EXISTING STORE
EX. FEMALE
EX. SHWR
EX. PWD
DOSA
EX. LANDSCAPE
EX. FEMALE
EX. MALE
EX. AIR-LOCK
EX. AIR-LOCK
EX. AC CONDENSERS
EX. GAMING ROOM EXTENSION
EX. MEMBER INTERNET ROOM
EXISTING DINING & LOUNGE
EXISTING DINING AREA
EXIST. GAMES ROOM
EXISTING LOUNGE
EXISTING BAR
EXISTING KITCHEN
EXISTING CASHIER
EXISTING COLD ROOM
EXISTING BAR
GARDEN
UP
BOARD & MEETING ROOM
EXISTING OFFICE
EXISTING FOYER
EXISTING ENTRY
EXISTING OFFICE
EX. COLD ROOM
EXISTING B.O.H
EX. FRZ
EXISTING STORE
EXISTING STORE
EX. FEMALE
EX. MALE
EXISTING DRIVEWAY
DELIVERIES
EX. COLD ROOM
EXISTING STORE
EXISTING RAMP
EXISTING ENTRY
BOUNDARY
EXISTING FENCE
EXISTING CROSSOVER
PATH
KERB
JOHNSTON ROAD
ORIENTATION
N
wbp architects
rubicon DESIGN + CONSTRUCT iconic
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
drawn DS date APRIL 2023 designed GS
W.B.P. reference 2223-072B
principal
MOSSMAN MEMORIAL BOWLS CLUB
project
PROPOSED STAGED REDEVELOPMENT
location
6-8 JOHNSTON ROAD MOSSMAN, QLD 4873
drwg. title
EXISTING FLOOR PLAN
scale 1:100@A3
drwg. no. Q2371/SK/1.01
amend 4
DRAWN SCALE


MEMBER'S SWIPE CARD GATE ENTRY
DOSA
MALE
FEMALE
FEMALE
PWD
MALE
EXISTING TERRACE
ENTRY
EXISTING BOWLER'S LOUNGE
EX. BOWLERS ENTRY
EX. LOCKER
EX. MALE
EXISTING STORE
EX. FEMALE
EX. SHWR
EX. PWD
GAMING ROOM (46)
EXISTING DINING & LOUNGE
EXISTING DINING AREA
EXISTING BAR
EXISTING KITCHEN
CAFE SIGN-IN & CASHIER
EXISTING COLD ROOM
EXISTING BAR
STRONG ROOM
STORE
STORE
GENERAL OFFICE
OFFICE
MEETING ROOM
NEW CAFE LOUNGE
FOYER
DATA
DM OFFICE
COVERED WALKWAY
GRADED WALKWAY
ENTRY
PORTE COCHERE
DELIVERIES
EXISTING STORE
EXISTING FUNCTION ROOM
EXISTING B.O.H
EX. COLD ROOM
EX. FRZ
EXISTING STORE
EX. COLD ROOM
EXISTING STORE
EX. FEMALE
EX. MALE
EXISTING RAMP
EXISTING ENTRY
EXIT ONLY
BOUNDARY
EXISTING FENCE
EXISTING CROSSOVER
EXTENDED CROSSOVER
PATH
KERB
JOHNSTON ROAD
ORIENTATION
N
wbp architects
rubicon DESIGN + CONSTRUCT iconic
Rubicon Design & Construct Pty. Ltd.
A.C.N. 050 400 210
drawn DS date APRIL 2023 designed GS
W.B.P. reference 2223-072B
principal
MOSSMAN MEMORIAL BOWLS CLUB
project
PROPOSED STAGED REDEVELOPMENT
location
6-8 JOHNSTON ROAD MOSSMAN, QLD 4873
drwg. title
PROPOSED FLOOR PLAN STAGE-1
scale 1:100@A3
drwg. no. Q2371/SK/2.01
amend 5
DRAWN SCALE





THE COPYRIGHT OF THIS DRAWING AND DOCUMENTS AND OF THE WORK EXECUTED FROM THEM IS VESTED IN RUBICON DESIGN & CONSTRUCT Pty. Ltd.

NOTES
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM

PREFIX	DESCRIPTION
0—	SITE, STAGING & RELATED DRAWINGS
1—	DEMOLITION DRAWINGS
2—	FLOOR, STRUCTURE DRAWING & ROOF PLANS
3—	SECTIONS
4—	ELEVATIONS
5—	CONSTRUCTION DETAILS
6—	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	14/03/23	DS
2	DA ISSUE	09/06/23	DS
3	DA ISSUE	09/08/23	DS

wbp architects

drawn	date	designed
DS	APRIL 2023	GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT iconic

Rubicon Design & Construct Pty. Ltd.
A.C.N. 600 409 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone (07) 3267 2400 Fax (07) 3267 2440

40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone (03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD
MOSSMAN, QLD 4873

drwg. title
PROPOSED FLOOR PLAN STAGE 2-PART A

scale	drwg. no.	amend
1:100@A1	Q2371/SK/2.02	3

DRAWN SCALE 100mm 0 5 10 20 30 40 50

THE COPYRIGHT OF THIS DRAWING AND DOCUMENTS AND OF THE WORK EXECUTED FROM THEM IS VESTED IN RUBICON DESIGN & CONSTRUCT Pty. Ltd.

NOTES
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM

PREFIX	DESCRIPTION
0—	SITE, STAGING & RELATED DRAWINGS
1—	DEMOLITION DRAWINGS
2—	FLOOR, STRUCTURE DRAWING & ROOF PLANS
3—	SECTIONS
4—	ELEVATIONS
5—	CONSTRUCTION DETAILS
6—	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	14/03/23	DS
2	DA ISSUE	09/06/23	DS
3	DA ISSUE	09/08/23	DS

wbp architects

drawn	date	designed
DS	APRIL 2023	GS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT iconic

Rubicon Design & Construct Pty. Ltd.
A.C.N. 600 409 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone (07) 3267 2400 Fax (07) 3267 2440

40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone (03) 8682 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

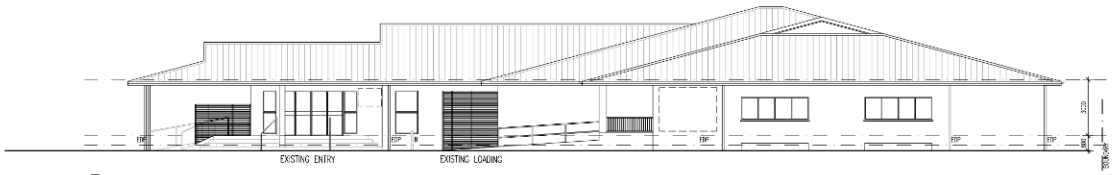
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD
MOSSMAN, QLD 4873

drwg. title
PROPOSED FLOOR PLAN STAGE 2-PART B

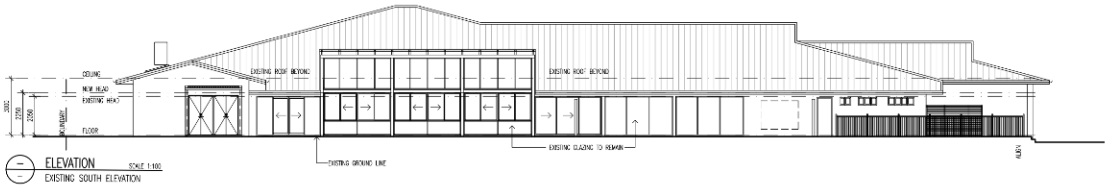
scale	drwg. no.	amend
1:100@A1	Q2371/SK/2.03	3

DRAWN SCALE 100mm 0 5 10 20 30 40 50



ELEVATION SCALE 1:100
EXISTING NORTH ELEVATION

ELEVATION SCALE 1:100
EXISTING EAST ELEVATION



ELEVATION SCALE 1:100
EXISTING SOUTH ELEVATION

ELEVATION SCALE 1:100
EXISTING WEST ELEVATION

NOTES:
DO NOT SCALE FROM THIS DRAWING
KEEP ON 1 TOWN NOW PRIVATE!
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM	
PREFIX	CONTENT
0.–	SITE STAGING & RELATED DRAWINGS
1.–	DEMOLITION DRAWINGS
2.–	FLOOR, REFLECTED CEILING & ROOF PLANS
3.–	SECTIONS
4.–	ELEVATIONS
5.–	CONSTRUCTION DETAILS
6.–	JOINERY DETAILS

N
ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	17/01/23	DS
2	DA ISSUE	28/06/23	DS
3	DA ISSUE	28/08/23	DS

wbp architects
architecture & interior design

drawn: DS | date: APRIL 2023 | designed: CS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
A.C.N. 059 490 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 3400 Fax:(07) 3267 3440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 9682 9180

principal
MOSSMAN MEMORIAL BOWLS CLUB

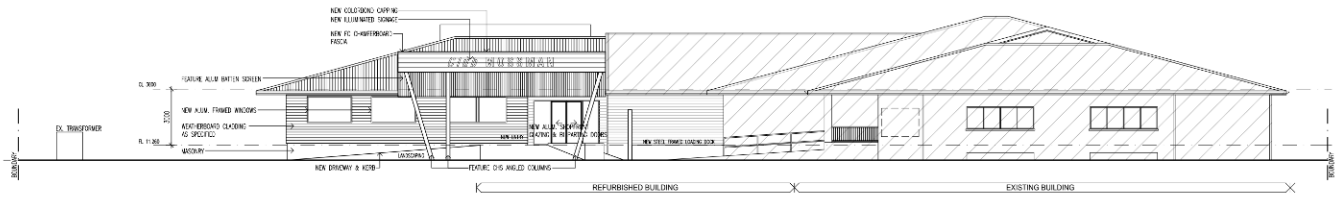
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD
MOSSMAN, QLD 4873

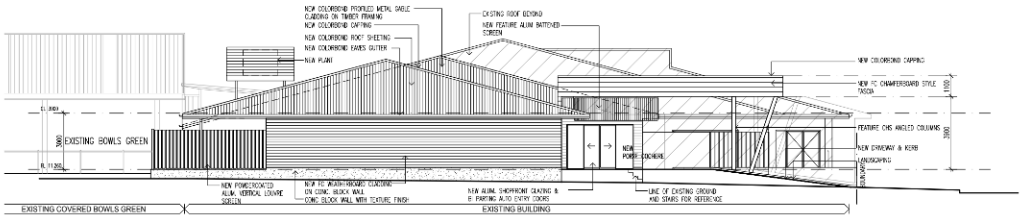
drwg. title
EXISTING ELEVATIONS

scale	drwg. no.	amend.
1:100 @A1	Q2371/SK/4.01	3

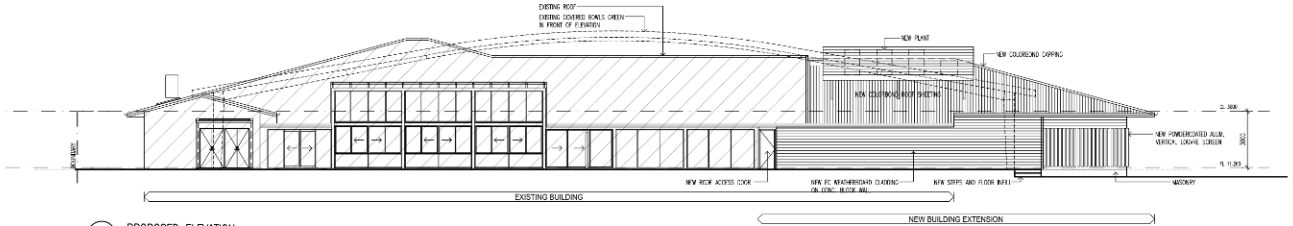
DRAWN SCALE 100mm



PROPOSED ELEVATION
NORTH ELEVATION SCALE 1:100



PROPOSED ELEVATION
EAST ELEVATION SCALE 1:100



PROPOSED ELEVATION
SOUTH ELEVATION SCALE 1:100

STAGE 1 ELEVATIONS

THE COPYRIGHT OF THE COPYRIGHT OF ALL DRAWINGS AND DOCUMENTS AND OF THE WORK EXECUTED FROM THEM IS VESTED IN RUBICON DESIGN & CONSTRUCT PTY. LTD.

NOTES:
DO NOT SCALE FROM THIS DRAWING
KEEP ON 1 TOWN NOW PRIVATE!
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM
PREFIX CONTENT
0.– SITE STAGING & RELATED DRAWINGS
1.– DEMOLITION DRAWINGS
2.– FLOOR, REFLECTED CEILING & ROOF PLANS
3.– SECTIONS
4.– ELEVATIONS
5.– CONSTRUCTION DETAILS
6.– JOINERY DETAILS

N
ORIENTATION

no. amendment date init.
1 PRELIM ISSUE 17/01/23 DS
2 DA ISSUE 28/06/23 MW
3 DA ISSUE 28/08/23 DS

wbp architects
architecture & interior design

drawn: DS | date: APRIL 2023 | designed: CS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT
Rubicon Design & Construct Pty. Ltd.
A.C.N. 059 490 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 3400 Fax:(07) 3267 3440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 9682 9180

principal
MOSSMAN MEMORIAL BOWLS CLUB

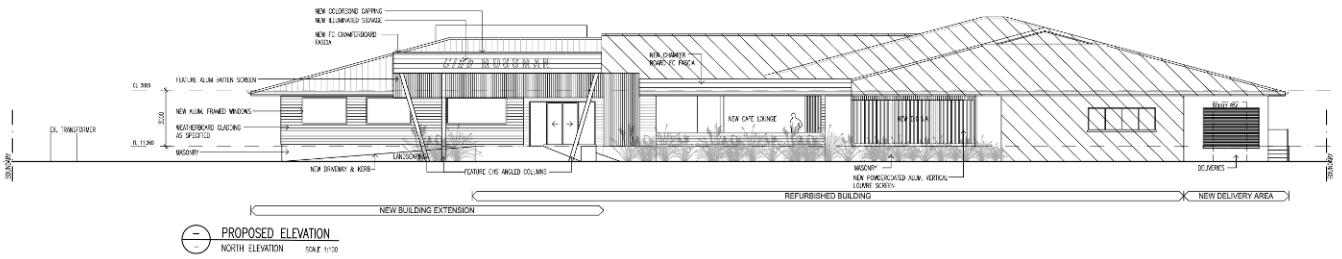
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD
MOSSMAN, QLD 4873

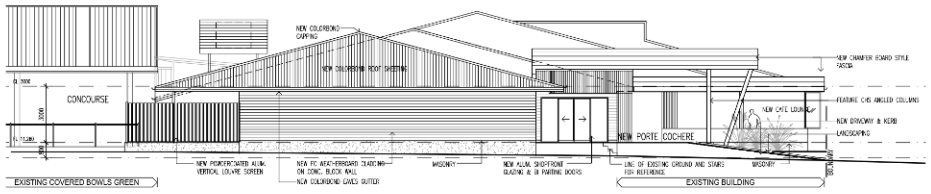
drwg. title
PROPOSED ELEVATIONS STAGE 1

scale: 1:100 @A1 | drwg. no.: Q2371/SK/4.02 | amend.: 3

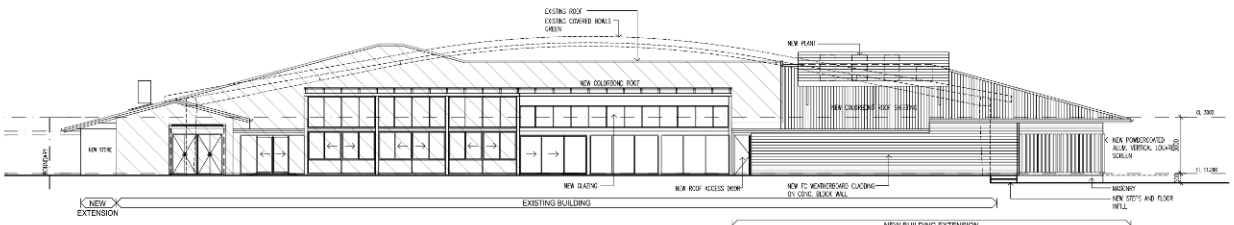
DRAWN SCALE 100mm



PROPOSED ELEVATION
NORTH ELEVATION SCALE 1:100



PROPOSED ELEVATION
EAST ELEVATION SCALE 1:100



PROPOSED ELEVATION (FROM BOUNDARY)
SOUTH ELEVATION

STAGE 2 ELEVATIONS

THE OWNERSHIP OF THE COPYRIGHT OF ALL DRAWINGS AND DOCUMENTS AND OF THE WORK EXECUTED FROM THEM IS VESTED IN RUBICON DESIGN & CONSTRUCT Pty. Ltd.

notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM

PREFIX	CONTENT
0—	SITE, STAGING & RELATED DRAWINGS
1—	EXCAVATION DRAWINGS
2—	FLOOR, EFFECTED CEILING & ROOF PLANS
3—	SECTIONS
4—	ELEVATIONS
5—	CONSTRUCTION DETAILS
6—	JOINERY DETAILS

ORIENTATION

no.	amendment	date	init.
1	PRELIM ISSUE	97/06/23	DS
2	DA ISSUE	09/08/23	DS
3	DA ISSUE	09/08/23	DS

wbp architects

drawn CS | date APRIL 2023 | designed CS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT icons

Rubicon Design & Construct Pty. Ltd.
A.C.N. 890 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8662 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

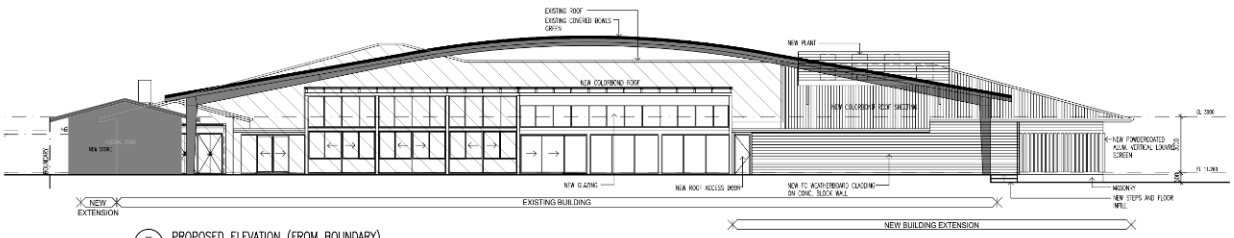
project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD MOSSMAN, QLD 4873

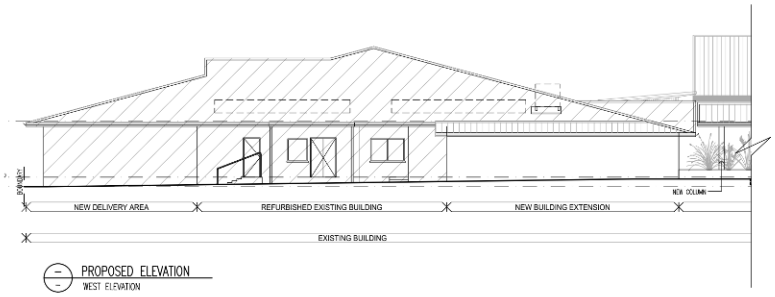
drwg. title
PROPOSED ELEVATIONS STAGE 2

scale	drwg. no.	amend.
1:100@A1	Q2371/SK/4.03	3

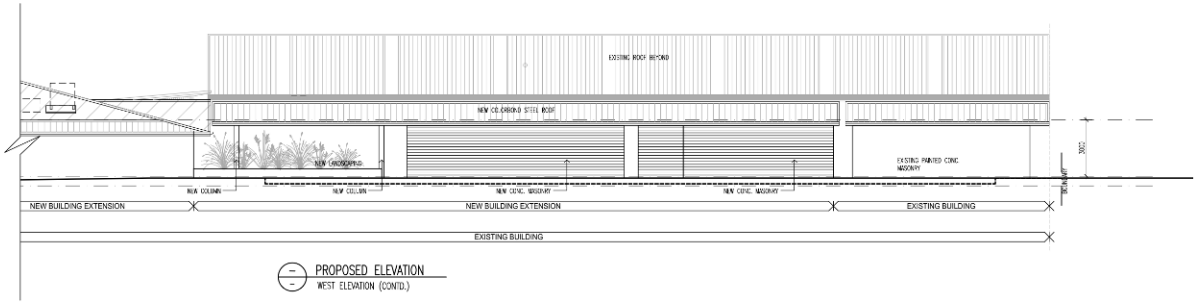
DRAWN SCALE 100mm 0 10 20 30 40 50



PROPOSED ELEVATION (FROM BOUNDARY)
SOUTH ELEVATION



PROPOSED ELEVATION
WEST ELEVATION



PROPOSED ELEVATION
WEST ELEVATION (CONTD.)

STAGE 2 ELEVATIONS

THE OWNERSHIP OF THE COPYRIGHT OF ALL DRAWINGS AND DOCUMENTS AND OF THE WORK EXECUTED FROM THEM IS VESTED IN RUBICON DESIGN & CONSTRUCT Pty. Ltd.

notes
DO NOT SCALE FROM THIS DRAWING
USE ONLY DIMENSIONS PROVIDED
VERIFY ALL DIMENSION ON SITE

ARCHITECTURAL DRAWINGS NUMBERING SYSTEM

PREFIX	CONTENT
0—	SITE, STAGING & RELATED DRAWINGS
1—	EXCAVATION DRAWINGS
2—	FLOOR, EFFECTED CEILING & ROOF PLANS
3—	SECTIONS
4—	ELEVATIONS
5—	CONSTRUCTION DETAILS
6—	JOINERY DETAILS

ORIENTATION

no.	amendment	date	init.
1	DA ISSUE	09/08/23	DS
2	DA ISSUE	09/08/23	DS

wbp architects

drawn CS | date APRIL 2023 | designed CS

W.B.P. reference
2223-072B

rubicon DESIGN + CONSTRUCT icons

Rubicon Design & Construct Pty. Ltd.
A.C.N. 890 400 210
1110 Kingsford Smith Drive, Eagle Farm, QLD, 4009
Phone:(07) 3267 2400 Fax:(07) 3267 2440
40 Bell Street, PO Box 2020, Fitzroy, VIC, 3065
Phone:(03) 8662 9160

principal
MOSSMAN MEMORIAL BOWLS CLUB

project
PROPOSED STAGED REDEVELOPMENT

location
6-8 JOHNSTON ROAD MOSSMAN, QLD 4873

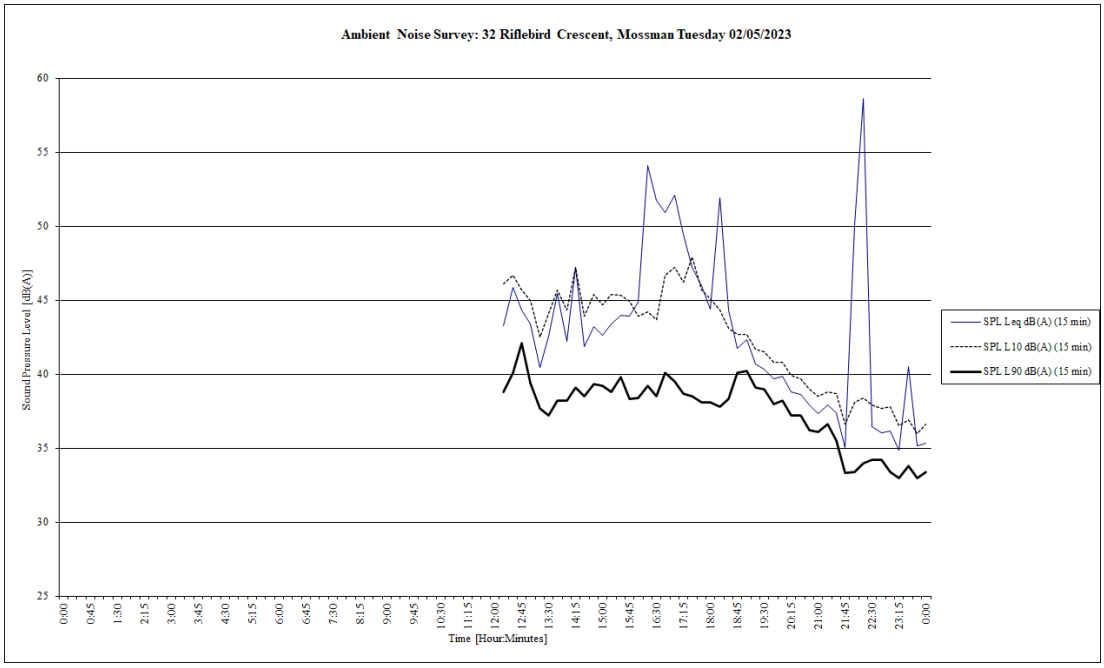
drwg. title
PROPOSED ELEVATIONS STAGE 2

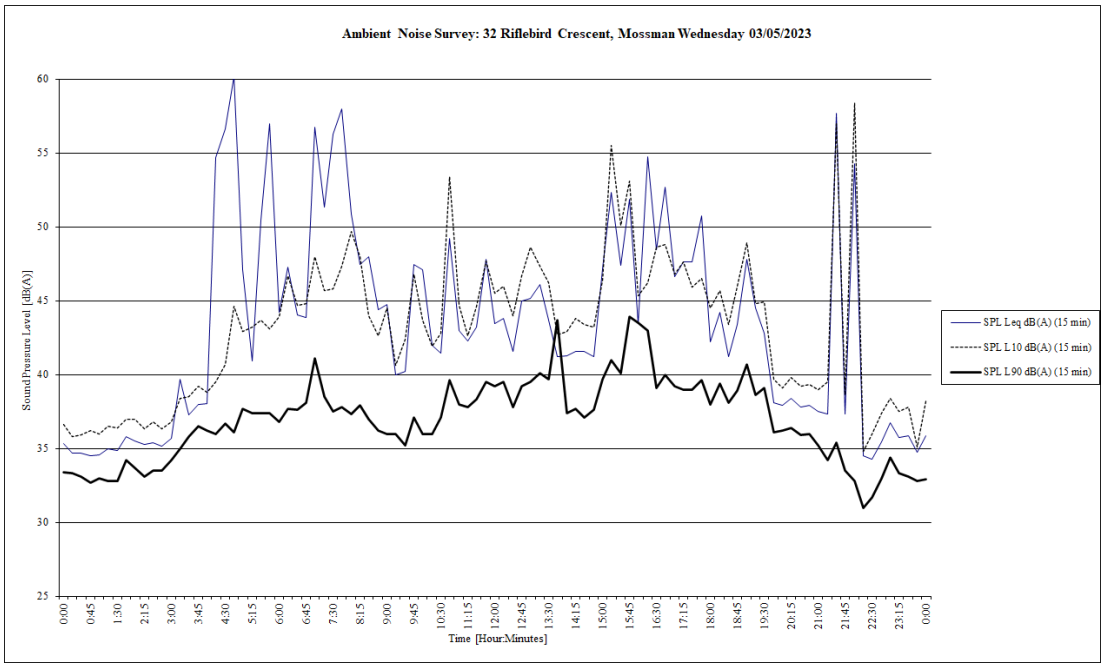
scale	drwg. no.	amend.
1:100@A1	Q2371/SK/4.04	2

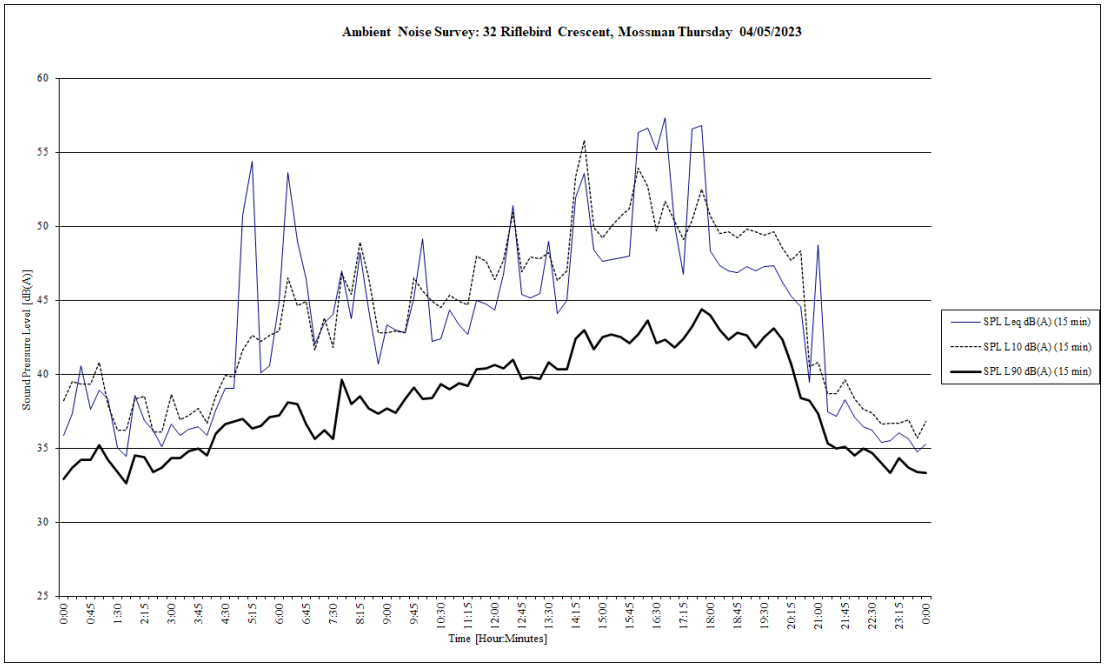
DRAWN SCALE 100mm 0 10 20 30 40 50

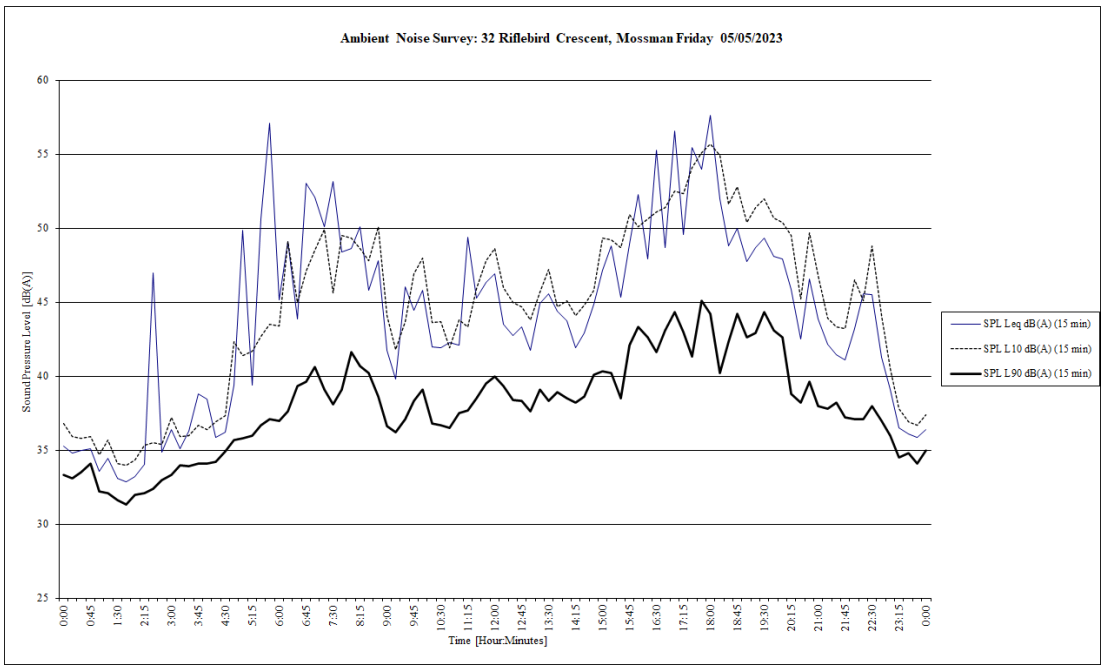
APPENDIX C

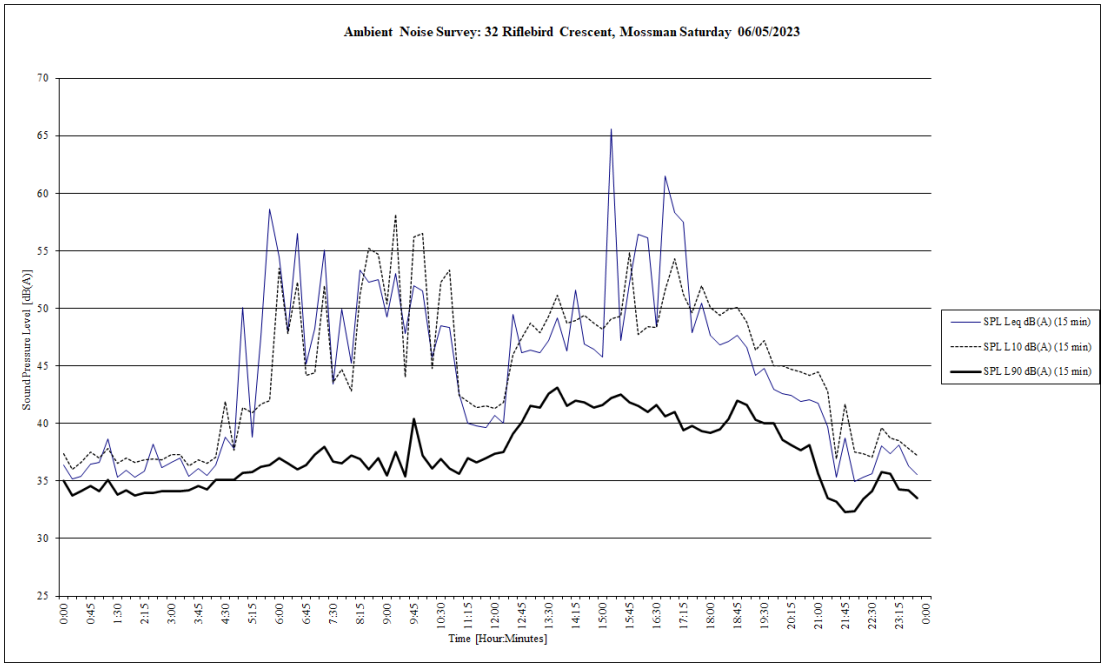
Measurement Results and Model Calculations / Predictions

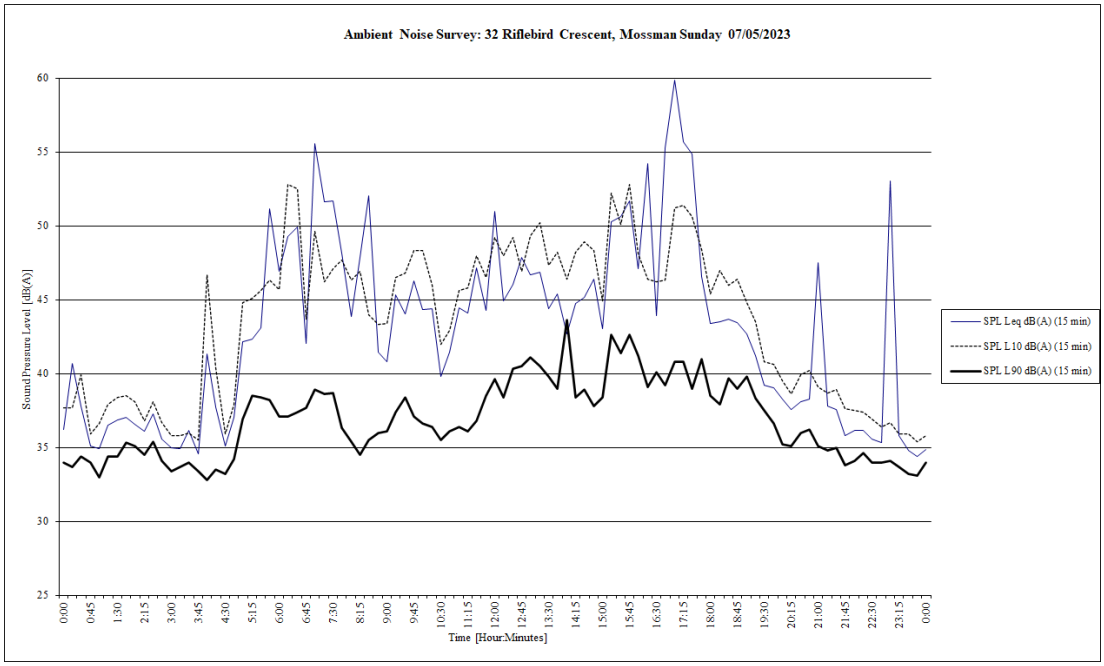

Ambient Noise Survey: 32 Riflebird Crescent, Mossman Tuesday 02/05/2023
Sound Pressure Level [dB(A)]
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)

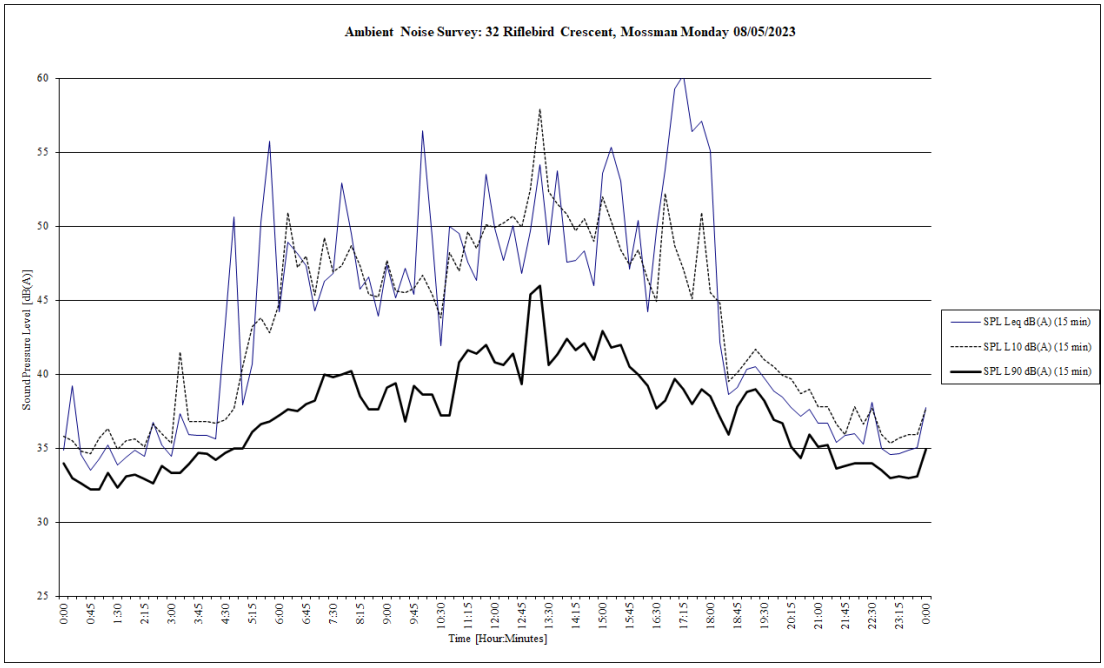

Ambient Noise Survey: 32 Riflebird Crescent, Mossman Wednesday 03/05/2023
Sound Pressure Level [dB(A)]
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)

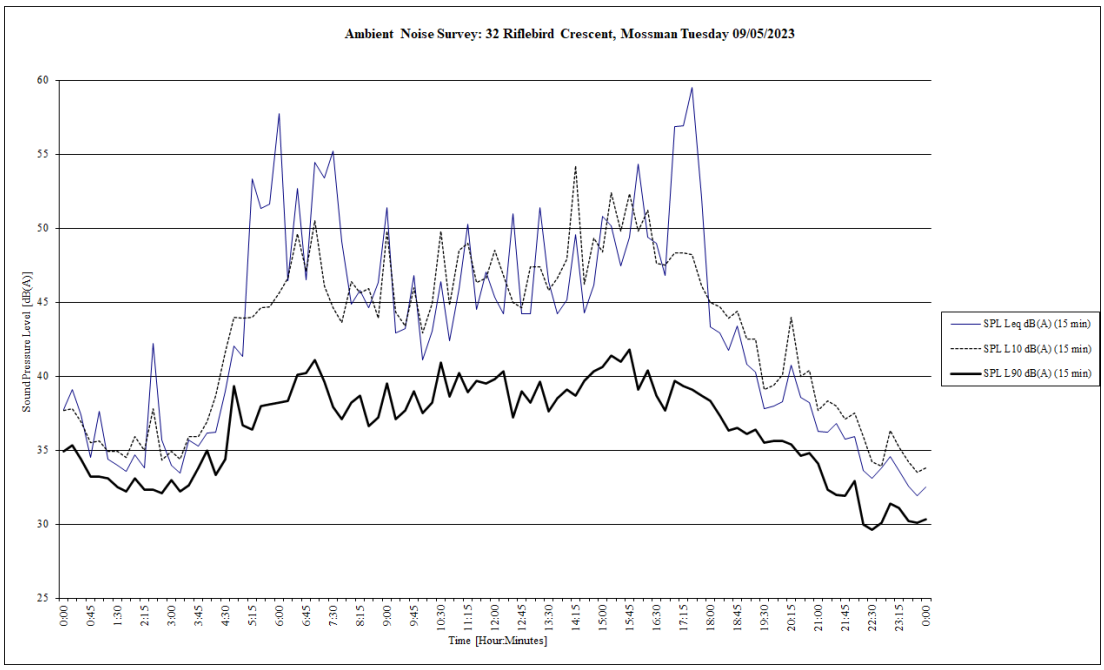

Ambient Noise Survey: 32 Riflebird Crescent, Mossman Thursday 04/05/2023
Sound Pressure Level [dB(A)]
60
55
50
45
40
35
30
25
0:00
0:45
1:30
2:15
3:00
3:45
4:30
5:15
6:00
6:45
7:30
8:15
9:00
9:45
10:30
11:15
12:00
12:45
13:30
14:15
15:00
15:45
16:30
17:15
18:00
18:45
19:30
20:15
21:00
21:45
22:30
23:15
0:00
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)


Ambient Noise Survey: 32 Riflebird Crescent, Mossman Friday 05/05/2023
Sound Pressure Level [dB(A)]
60
55
50
45
40
35
30
25
0:00
0:45
1:30
2:15
3:00
3:45
4:30
5:15
6:00
6:45
7:30
8:15
9:00
9:45
10:30
11:15
12:00
12:45
13:30
14:15
15:00
15:45
16:30
17:15
18:00
18:45
19:30
20:15
21:00
21:45
22:30
23:15
0:00
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)


Ambient Noise Survey: 32 Riflebird Crescent, Mossman Saturday 06/05/2023
Sound Pressure Level [dB(A)]
70
65
60
55
50
45
40
35
30
25
0:00
0:45
1:30
2:15
3:00
3:45
4:30
5:15
6:00
6:45
7:30
8:15
9:00
9:45
10:30
11:15
12:00
12:45
13:30
14:15
15:00
15:45
16:30
17:15
18:00
18:45
19:30
20:15
21:00
21:45
22:30
23:15
0:00
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)


Ambient Noise Survey: 32 Riflebird Crescent, Mossman Sunday 07/05/2023
Sound Pressure Level [dB(A)]
60
55
50
45
40
35
30
25
0:00
0:45
1:30
2:15
3:00
3:45
4:30
5:15
6:00
6:45
7:30
8:15
9:00
9:45
10:30
11:15
12:00
12:45
13:30
14:15
15:00
15:45
16:30
17:15
18:00
18:45
19:30
20:15
21:00
21:45
22:30
23:15
0:00
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)


Ambient Noise Survey: 32 Riflebird Crescent, Mossman Monday 08/05/2023
Sound Pressure Level [dB(A)]
60
55
50
45
40
35
30
25
0:00
0:45
1:30
2:15
3:00
3:45
4:30
5:15
6:00
6:45
7:30
8:15
9:00
9:45
10:30
11:15
12:00
12:45
13:30
14:15
15:00
15:45
16:30
17:15
18:00
18:45
19:30
20:15
21:00
21:45
22:30
23:15
0:00
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)


Ambient Noise Survey: 32 Riflebird Crescent, Mossman Tuesday 09/05/2023
Sound Pressure Level [dB(A)]
60
55
50
45
40
35
30
25
0:00
0:45
1:30
2:15
3:00
3:45
4:30
5:15
6:00
6:45
7:30
8:15
9:00
9:45
10:30
11:15
12:00
12:45
13:30
14:15
15:00
15:45
16:30
17:15
18:00
18:45
19:30
20:15
21:00
21:45
22:30
23:15
0:00
Time [Hour:Minutes]
SPL Leq dB(A) (15 min)
SPL L10 dB(A) (15 min)
SPL L90 dB(A) (15 min)

ONSITE ACTIVITY NOISE PREDICTION CALCULATIONS: ($L_{A10\ 1hr}$ and $L_{A01\ 1hr\ levels}$ are represented as N/A if the duration of events do not occur for 10% or 1% of the 1 hour period)

DAY / EVENING SCENARIO

R1: Dwelling to the north

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver		84			m
Distance attenuation (-6 dB per doubling of distance)		-38			dB
Absorptive ceiling mitigation		0			dB
Building screening		0			dB
Façade reflection		2.5			dB
Impact at nearest façade	**32**	**32**	**35**	**41**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**25**	**28**	**34**	**dB(A)**

1593.8659 | 1593.8659 | 3180.1806

SPORTS LOUNGE DAY/EVENING	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	78		81	85	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	78	78	81	85	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver		64			m
Distance attenuation (-6 dB per doubling of distance)		-36			dB
Inside to outside attenuation		-10			dB
Building screening		0			dB
Façade reflection		2.5			dB
Impact at nearest façade	**35**	**35**	**38**	**41**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**27**	**30**	**34**	**dB(A)**

3069.767 | 3069.767 | 6124.9903

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver		64			m
Distance attenuation (-6 dB per doubling of distance)		-36			dB
Inside to outside attenuation		-15			dB
Absorptive ceiling mitigation		0			dB
Building screening		0			dB
Façade reflection		2.5			dB
Impact at nearest façade	**14**	**19**	**25**	**31**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**12**	**18**	**24**	**dB(A)**

27.393029 | 86.624363 | 344.8578

LOADING NEW AREA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	74		78	80	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	74	74	78	80	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver		72			m
Distance attenuation (-6 dB per doubling of distance)		-37			dB
Absorptive ceiling mitigation		0			dB
Building screening		0			dB
Façade reflection		2.5			dB
Impact at nearest façade	**39**	**44**	**48**	**50**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**37**	**41**	**43**	**dB(A)**

8616.5816 | 2724.8.024 | 68443.941

PATRONS NORTHERN DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver		61			m
Distance attenuation (-6 dB per doubling of distance)		-36			dB
Absorptive ceiling mitigation		0			dB
Building screening		0			dB
Façade reflection		2.5			dB
Impact at nearest façade	**35**	**35**	**38**	**44**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**27**	**30**	**36**	**dB(A)**

3022.3913 | 3022.3913 | 6030.9635

PATRONS BBQ TERRACE	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	79		82	85	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	79	79	82	85	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver		103			m
Distance attenuation (-6 dB per doubling of distance)		-40			dB
Absorptive ceiling mitigation		0			dB
Building screening		-30			dB
Façade reflection		2.5			dB
Impact at nearest façade	**11**	**11**	**14**	**17**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**4**	**7**	**10**	**dB(A)**

R2: Dwelling to the southeast

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver		58			m
Distance attenuation (-6 dB per doubling of distance)		-35			dB
Offsite building screening		-8			dB
Inside to outside attenuation		0			dB
Façade reflection		2.5			dB
Impact at nearest façade	**27**	**27**	**30**	**36**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**20**	**23**	**29**	**dB(A)**

529.85175 | 529.85175 | 1057.1933

SPORTS LOUNGE DAY/EVENING	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	78		81	85	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	78	78	81	85	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver		73			m
Distance attenuation (-6 dB per doubling of distance)		-37			dB
Inside to outside attenuation		-20			dB
Onsite building screening		0			dB
Façade reflection		2.5			dB
Impact at nearest façade	**24**	**24**	**27**	**30**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**16**	**19**	**22**	**dB(A)**

235.94982 | 235.94982 | 470.78178

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver		59			m
Distance attenuation (-6 dB per doubling of distance)		-35			dB
Inside to outside attenuation		-5			dB
Absorptive ceiling mitigation		0			dB
Offsite building screening		0			dB
Façade reflection		2.5			dB
Impact at nearest façade	**25**	**30**	**36**	**42**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**23**	**29**	**35**	**dB(A)**

322.32647 | 1019.2858 | 4057.8499

LOADING NEW AREA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	74		78	80	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	74	74	78	80	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver		111			m
Distance attenuation (-6 dB per doubling of distance)		-41			dB
Absorptive ceiling mitigation		0			dB
Building screening		-30			dB
Façade reflection		2.5			dB
Impact at nearest façade	**6**	**11**	**15**	**17**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**3**	**7**	**9**	**dB(A)**

3.6253842 | 11.464472 | 28.797451

PATRONS NORTHERN DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver		100			m
Distance attenuation (-6 dB per doubling of distance)		-40			dB
Absorptive ceiling mitigation		0			dB
Building screening		-30			dB
Façade reflection		2.5			dB
Impact at nearest façade	**1**	**1**	**4**	**10**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**-7**	**-4**	**2**	**dB(A)**

1246318 | 1246318 | 2493956

PATRONS BBQ TERRACE	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	79		82	85	dB(A)
Duration of single event		900			Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	79	79	82	85	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver		95			m
Distance attenuation (-6 dB per doubling of distance)		-40			dB
Absorptive ceiling mitigation		0			dB
Building screening		-6			dB
Façade reflection		2.5			dB
Impact at nearest façade	**36**	**36**	**39**	**42**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**29**	**32**	**35**	**dB(A)**

ONSITE ACTIVITY NOISE PREDICTION CALCULATIONS: ($L_{A10\ 1hr}$ and $L_{A01\ 1hr\ levels}$ are represented as N/A if the duration of events do not occur for 10% or 1% of the 1 hour period)

DAY / EVENING SCENARIO

R3: Dwellings to the south-southeast

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	60				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**35**	**35**	**38**	**44**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**27**	**30**	**36**	**dB(A)**
	3123.9772	3123.9772	6233.154		

SPORTS LOUNGE DAY/EVENING	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	78		81	85	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	78	78	81	85	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	55				m
Distance attenuation (-6 dB per doubling of distance)	-35				dB
Inside to outside attenuation	-20				dB
Onsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**26**	**26**	**29**	**32**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**19**	**22**	**25**	**dB(A)**
	415.66168	415.66168	829.35408		

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	65				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Inside to outside attenuation	-5				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**24**	**29**	**35**	**41**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**22**	**28**	**34**	**dB(A)**
	265.5665	839.795	3343.2841		

LOADING NEW AREA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	74		78	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	74	74	78	80	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	79				m
Distance attenuation (-6 dB per doubling of distance)	-38				dB
Absorptive ceiling mitigation	0				dB
Building screening	-10				dB
Façade reflection	2.5				dB
Impact at nearest façade	**29**	**34**	**38**	**40**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**26**	**30**	**32**	**dB(A)**
	715.72439	2263.3193	5685.2009		

PATRONS NORTHERN DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	84				m
Distance attenuation (-6 dB per doubling of distance)	-38				dB
Absorptive ceiling mitigation	0				dB
Building screening	-30				dB
Façade reflection	2.5				dB
Impact at nearest façade	**2**	**2**	**5**	**11**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**-5**	**-2**	**4**	**dB(A)**
	1.5938659	1.5938659	3.1801806		

PATRONS BBQ TERRACE	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	79		82	85	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	79	79	82	85	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	23				m
Distance attenuation (-6 dB per doubling of distance)	-27				dB
Absorptive ceiling mitigation	-5				dB
Barrier screening	-10				dB
Façade reflection	2.5				dB
Impact at nearest façade	**40**	**40**	**43**	**46**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**32**	**35**	**38**	**dB(A)**

R4: Dwelling to the west

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	58				m
Distance attenuation (-6 dB per doubling of distance)	-35				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**35**	**35**	**38**	**44**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**28**	**31**	**37**	**dB(A)**
	3343.1385	3343.1385	6670.4383		

SPORTS LOUNGE DAY/EVENING	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	78		81	85	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	78	78	81	85	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	35				m
Distance attenuation (-6 dB per doubling of distance)	-31				dB
Inside to outside attenuation	-20				dB
Onsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**30**	**30**	**33**	**36**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**23**	**26**	**29**	**dB(A)**
	1026.4299	1026.4299	2047.9968		

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	61				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Inside to outside attenuation	-5				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**25**	**30**	**36**	**42**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**22**	**28**	**34**	**dB(A)**
	301.53681	953.5431	3796.1235		

LOADING NEW AREA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	74		78	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	74	74	78	80	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	43				m
Distance attenuation (-6 dB per doubling of distance)	-33				dB
Absorptive ceiling mitigation	0				dB
Barrier screening	-8				dB
Façade reflection	2.5				dB
Impact at nearest façade	**36**	**41**	**45**	**47**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**33**	**37**	**39**	**dB(A)**
	3828.8036	12107.74	30413.268		

PATRONS NORTHERN DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	53				m
Distance attenuation (-6 dB per doubling of distance)	-34				dB
Absorptive ceiling mitigation	0				dB
Building screening	-30				dB
Façade reflection	2.5				dB
Impact at nearest façade	**6**	**6**	**9**	**15**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**-1**	**2**	**8**	**dB(A)**
	4.0036732	4.0036732	7.9883783		

PATRONS BBQ TERRACE	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	79		82	85	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	79	79	82	85	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	10				m
Distance attenuation (-6 dB per doubling of distance)	-20				dB
Absorptive ceiling mitigation	-5				dB
Building screening	-15				dB
Façade reflection	2.5				dB
Impact at nearest façade	**42**	**42**	**45**	**48**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**34**	**37**	**40**	**dB(A)**

ONSITE ACTIVITY NOISE PREDICTION CALCULATIONS: ($L_{A10\ 1hr}$ and $L_{A01\ 1hr\ levels}$ are represented as N/A if the duration of events do not occur for 10% or 1% of the 1 hour period)

NIGHT TIME SCENARIO

R1: Dwelling to the north

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	84				m
Distance attenuation (-6 dB per doubling of distance)	-38				dB
Absorptive ceiling mitigation	0				dB
Building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**32**	**32**	**35**	**41**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**25**	**28**	**34**	**dB(A)**

1593.8659 | 1593.8659 | 3180.1806

SPORTS LOUNGE NIGHT	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	73		76	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	73	73	76	80	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	64				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Inside to outside attenuation	-10				dB
Building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**29**	**29**	**32**	**37**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**21**	**24**	**29**	**dB(A)**

776.5964 | 776.5964 | 1549.5134

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	64				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Inside to outside attenuation	-15				dB
Absorptive ceiling mitigation	0				dB
Building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**14**	**19**	**25**	**31**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**12**	**18**	**24**	**dB(A)**

27.393029 | 86.624363 | 344.8578

PATRONS NORTHERN DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	61				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Absorptive ceiling mitigation	0				dB
Building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**35**	**35**	**38**	**44**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**27**	**30**	**36**	**dB(A)**

3022.3913 | 3022.3913 | 6030.4635

PATRONS BBQ TERRACE	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	73		76	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	73	73	76	80	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	103				m
Distance attenuation (-6 dB per doubling of distance)	-40				dB
Absorptive ceiling mitigation	0				dB
Building screening	-30				dB
Façade reflection	2.5				dB
Impact at nearest façade	**5**	**5**	**8**	**13**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**-3**	**0**	**5**	**dB(A)**

R2: Dwelling to the southeast

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	58				m
Distance attenuation (-6 dB per doubling of distance)	-35				dB
Offsite building screening	-8				dB
Inside to outside attenuation	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**27**	**27**	**30**	**36**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**20**	**23**	**29**	**dB(A)**

529.85175 | 529.85175 | 1057.1933

SPORTS LOUNGE NIGHT	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	73		76	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	73	73	76	80	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	73				m
Distance attenuation (-6 dB per doubling of distance)	-37				dB
Inside to outside attenuation	-20				dB
Onsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**18**	**18**	**21**	**26**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**10**	**13**	**18**	**dB(A)**

59.691107 | 59.691107 | 119.09932

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	59				m
Distance attenuation (-6 dB per doubling of distance)	-35				dB
Inside to outside attenuation	-5				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**25**	**30**	**36**	**42**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**23**	**29**	**35**	**dB(A)**

322.32647 | 1019.2858 | 4057.8499

PATRONS NORTHERN DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	100				m
Distance attenuation (-6 dB per doubling of distance)	-40				dB
Absorptive ceiling mitigation	0				dB
Building screening	-30				dB
Façade reflection	2.5				dB
Impact at nearest façade	**1**	**1**	**4**	**10**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**-7**	**-4**	**2**	**dB(A)**

1.1246318 | 1.1246318 | 2.2439355

PATRONS BBQ TERRACE	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	73		76	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	73	73	76	80	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	95				m
Distance attenuation (-6 dB per doubling of distance)	-40				dB
Absorptive ceiling mitigation	0				dB
Building screening	-6				dB
Façade reflection	2.5				dB
Impact at nearest façade	**29**	**29**	**32**	**37**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**22**	**25**	**30**	**dB(A)**

ONSITE ACTIVITY NOISE PREDICTION CALCULATIONS: ($L_{A10\ 1hr}$ and $L_{A01\ 1hr\ levels}$ are represented as N/A if the duration of events do not occur for 10% or 1% of the 1 hour period)

NIGHT TIME SCENARIO

R3: Dwellings to the south-southeast

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	60				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**35**	**35**	**38**	**44**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**27**	**30**	**36**	**dB(A)**

3123.9772 3123.9772 6233.154

SPORTS LOUNGE NIGHT	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	73		76	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	73	73	76	80	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	55				m
Distance attenuation (-6 dB per doubling of distance)	-35				dB
Inside to outside attenuation	-20				dB
Onsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**20**	**20**	**23**	**28**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**13**	**16**	**21**	**dB(A)**

105.15501 105.15501 209.81183

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	65				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Inside to outside attenuation	-5				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**24**	**29**	**35**	**41**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**22**	**28**	**34**	**dB(A)**

265.5665 839.795 3343.2841

PATRONS NORTHERN DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	84				m
Distance attenuation (-6 dB per doubling of distance)	-38				dB
Absorptive ceiling mitigation	0				dB
Building screening	-30				dB
Façade reflection	2.5				dB
Impact at nearest façade	**2**	**2**	**5**	**11**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**-5**	**-2**	**4**	**dB(A)**

1.5938659 1.5938659 3.1801806

PATRONS BBQ TERRACE	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	73		76	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	73	73	76	80	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	23				m
Distance attenuation (-6 dB per doubling of distance)	-27				dB
Absorptive ceiling mitigation	-5				dB
Barrier screening	-10				dB
Façade reflection	2.5				dB
Impact at nearest façade	**33**	**33**	**36**	**41**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**25**	**28**	**33**	**dB(A)**

R4: Dwellings to the south

PATRONS SOUTHEAST DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	58				m
Distance attenuation (-6 dB per doubling of distance)	-35				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**35**	**35**	**38**	**44**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**28**	**31**	**37**	**dB(A)**

3343.1385 3343.1385 6670.4383

SPORTS LOUNGE NIGHT	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	73		76	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	73	73	76	80	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	35				m
Distance attenuation (-6 dB per doubling of distance)	-31				dB
Inside to outside attenuation	-20				dB
Onsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**24**	**24**	**27**	**32**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**17**	**20**	**24**	**dB(A)**

259.6685 259.6685 518.10677

GAMING ROOM	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	63		69	75	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	63	63	69	75	dB(A)
Tonality / Impulsiveness correction	0	5			dB
Minimum distance to receiver	61				m
Distance attenuation (-6 dB per doubling of distance)	-36				dB
Inside to outside attenuation	-5				dB
Absorptive ceiling mitigation	0				dB
Offsite building screening	0				dB
Façade reflection	2.5				dB
Impact at nearest façade	**25**	**30**	**36**	**42**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**22**	**28**	**34**	**dB(A)**

301.53681 953.5431 3796.1235

PATRONS NORTHERN DOSA	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	68		71	77	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	68	68	71	77	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	53				m
Distance attenuation (-6 dB per doubling of distance)	-34				dB
Absorptive ceiling mitigation	0				dB
Building screening	-30				dB
Façade reflection	2.5				dB
Impact at nearest façade	**6**	**6**	**9**	**15**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**-1**	**2**	**8**	**dB(A)**

4.0036732 4.0036732 7.9983783

PATRONS BBQ TERRACE	Creep	Acoustic Quality Objectives			
	LAeq	LAeq	LA10	LA01	
Noise source level for single event	73		76	80	dB(A)
Duration of single event	900				Seconds
Number of events in the measurement period	1	4			Events
Total time duration of combined events	900.0	3600.0			Seconds
	LAeq	LAeq 1hr	LA10 1hr	LA01 1hr	
Noise source level for assessment time period	73	73	76	80	dB(A)
Tonality / Impulsiveness correction	0	0			dB
Minimum distance to receiver	10				m
Distance attenuation (-6 dB per doubling of distance)	-20				dB
Absorptive ceiling mitigation	-5				dB
Building screening	-15				dB
Façade reflection	2.5				dB
Impact at nearest façade	**35**	**35**	**38**	**43**	**dB(A)**
Reduction through OPEN window		-5	-5	-5	dB
Impact inside open window (excludes façade correction)		**28**	**31**	**35**	**dB(A)**

ONSITE MECH PLANT NOISE PREDICTION CALCULATIONS:

R1: Dwelling to the north		
Southeast Deck Large condensers	56	dB(A) @ 3m
Number of units	3	units
Southeast Deck Small condensers	48	dB(A) @ 3m
Number of units	3	units
Total noise level	61	dB(A) @ 3m
Distance to receiver	81	m
Distance attenuation (-6 dB per doubling of distance)	-29	dB(A)
Acoustic enclosure	0	dB(A)
Building screening	-5	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	30	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	23	dB(A)

Southwest Deck Large condensers	56	dB(A) @ 3m
Number of units	4	units
Southwest Deck Small condensers	48	dB(A) @ 3m
Number of units	5	units
Total noise level	63	dB(A) @ 3m
Distance to receiver	86	m
Distance attenuation (-6 dB per doubling of distance)	-29	dB(A)
Acoustic enclosure	0	dB(A)
Building screening	-10	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	26	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	19	dB(A)

New toilet exhaust fans	52	dB(A) @ 3m
Number of units	4	units
Total noise level	58	dB(A) @ 3m
Distance to receiver	78	m
Distance attenuation (-6 dB per doubling of distance)	-28	dB(A)
Building screening	-5	dB(A)
Acoustic enclosure	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	27	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	20	dB(A)

R2: Dwelling to the southeast		
Southeast Deck Large condensers	56	dB(A) @ 3m
Number of units	3	units
Southeast Deck Small condensers	48	dB(A) @ 3m
Number of units	3	units
Total noise level	61	dB(A) @ 3m
Distance to receiver	63	m
Distance attenuation (-6 dB per doubling of distance)	-26	dB(A)
Acoustic enclosure	-10	dB(A)
Building screening	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	27	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	20	dB(A)

Southwest Deck Large condensers	56	dB(A) @ 3m
Number of units	4	units
Southwest Deck Small condensers	48	dB(A) @ 3m
Number of units	5	units
Total noise level	63	dB(A) @ 3m
Distance to receiver	63	m
Distance attenuation (-6 dB per doubling of distance)	-26	dB(A)
Acoustic enclosure	-10	dB(A)
Building screening	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	29	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	21	dB(A)

New toilet exhaust fans	52	dB(A) @ 3m
Number of units	4	units
Total noise level	58	dB(A) @ 3m
Distance to receiver	61	m
Distance attenuation (-6 dB per doubling of distance)	-26	dB(A)
Building screening	-3	dB(A)
Acoustic enclosure	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	31	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	24	dB(A)

R3: Dwellings to the south-southeast		
Southeast Deck Large condensers	56	dB(A) @ 3m
Number of units	3	units
Southeast Deck Small condensers	48	dB(A) @ 3m
Number of units	3	units
Total noise level	61	dB(A) @ 3m
Distance to receiver	57	m
Distance attenuation (-6 dB per doubling of distance)	-26	dB(A)
Acoustic enclosure	-10	dB(A)
Building screening	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	28	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	21	dB(A)

Southwest Deck Large condensers	56	dB(A) @ 3m
Number of units	4	units
Southwest Deck Small condensers	48	dB(A) @ 3m
Number of units	5	units
Total noise level	63	dB(A) @ 3m
Distance to receiver	59	m
Distance attenuation (-6 dB per doubling of distance)	-26	dB(A)
Acoustic enclosure	-10	dB(A)
Building screening	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	29	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	22	dB(A)

New toilet exhaust fans	52	dB(A) @ 3m
Number of units	4	units
Total noise level	58	dB(A) @ 3m
Distance to receiver	55	m
Distance attenuation (-6 dB per doubling of distance)	-25	dB(A)
Building screening	-5	dB(A)
Acoustic enclosure	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	30	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	23	dB(A)

R4: Dwelling to the west		
Southeast Deck Large condensers	56	dB(A) @ 3m
Number of units	3	units
Southeast Deck Small condensers	48	dB(A) @ 3m
Number of units	3	units
Total noise level	61	dB(A) @ 3m
Distance to receiver	47	m
Distance attenuation (-6 dB per doubling of distance)	-24	dB(A)
Acoustic enclosure	-10	dB(A)
Building screening	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	30	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	23	dB(A)

Southwest Deck Large condensers	56	dB(A) @ 3m
Number of units	4	units
Southwest Deck Small condensers	48	dB(A) @ 3m
Number of units	5	units
Total noise level	63	dB(A) @ 3m
Distance to receiver	27	m
Distance attenuation (-6 dB per doubling of distance)	-19	dB(A)
Acoustic enclosure	-15	dB(A)
Building screening	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	31	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	24	dB(A)

New toilet exhaust fans	52	dB(A) @ 3m
Number of units	4	units
Total noise level	58	dB(A) @ 3m
Distance to receiver	44	m
Distance attenuation (-6 dB per doubling of distance)	-23	dB(A)
Building screening	-5	dB(A)
Acoustic enclosure	0	dB(A)
Façade reflection	2.5	dB(A)
Impact at façade	32	dB(A)
Reduction through OPEN window	-5	dB(A)
Impact inside open window (also minus 2.5 dB façade)	25	dB(A)

8.2.1 Acid sulfate soils overlay code

8.2.1.1 Application

(1) This code applies to assessing a material change of use, reconfiguring a lot, operational work or building work within the Acid sulfate soils overlay, if:

(a) self-assessable or assessable development where the code is identified as being applicable in the Assessment criteria for the Overlay Codes contained in the Levels of Assessment Tables in section 5.6;

(b) impact assessable development.

(2) Land in the Acid sulphate soils overlay is identified on the Acid sulfate soils overlay map in Schedule 2 and includes the following sub-categories:

(a) Land at or below the 5m AHD sub-category;

(b) Land above the 5m AHD and below the 20m AHD sub-category.

(3) When using this code, reference should be made to Part 5.

8.2.1.2 Purpose

(1) The purpose of the acid sulfate soils overlay code is to:

(a) implement the policy direction in the Strategic Framework, in particular:

(i) Theme 2: Environment and landscape values, Element 3.5.4 Coastal zones.

(ii) Theme 3: Natural resource management, Element 3.6.2 land and catchment management, Element 3.6.3 Primary production, forestry and fisheries.

(2) enable an assessment of whether development is suitable on land within the Acid sulfate soils overlay sub-categories.

(3) The purpose of the code will be achieved through the following overall outcomes:

(a) Development ensures that the release of any acid and associated metal contaminant is avoided by not disturbing acid sulfate soils when excavating, removing soil or extracting ground water or filling land;

(b) Development ensures that disturbed acid sulfate soils, or drainage waters, are treated and, if required, on-going management practices are adopted that minimise the potential for environmental harm from acid sulfate soil and protect corrodible assets from acid sulfate soil.

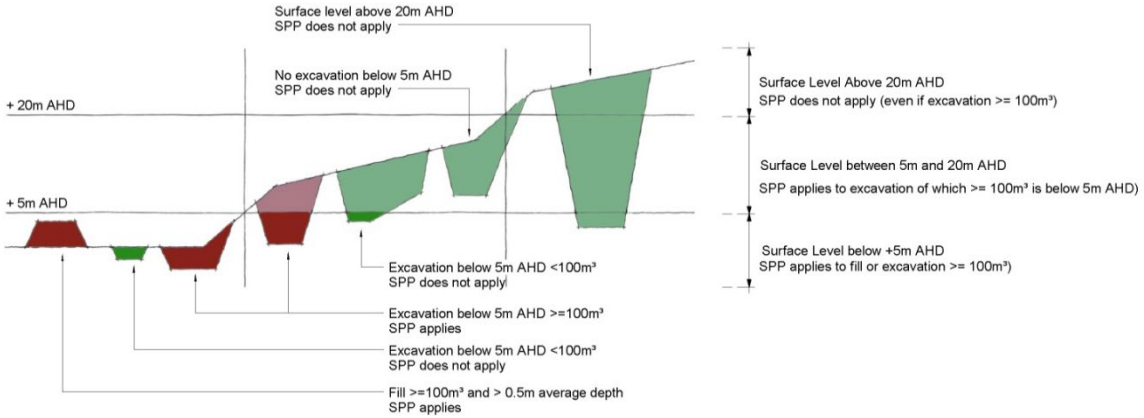
Criteria for assessment

Table 8.2.1.3.a – Acid sulfate soils overlay code – assessable development

Performance outcomes	Acceptable outcomes	Applicant response
For assessable development		
PO1 The extent and location of potential or actual acid sulfate soils is accurately identified.	**AO1.1** No excavation or filling occurs on the site. or **AO1.2** An acid sulfate soils investigation is undertaken. Note - Planning scheme policy SC 6.12– Potential and actual acid sulfate soils provides guidance on preparing an acid sulfate soils investigation.	**The existing ground levels are in excess of 10m AHD and therefore Acid Sulfate Soils are of minimal risk in this instance given that excavation will be limited to no more than 400mm in all likelihood.**
PO2 Development avoids disturbing potential acid sulfate soils or actual acid sulfate soils, or is managed to avoid or minimise the release of acid and metal contaminants.	**AO2.1** The disturbance of potential acid sulfate soils or actual acid sulfate soils is avoided by: (a) not excavating, or otherwise removing, soil or sediment identified as containing potential or actual acid sulfate soils; (b) not permanently or temporarily extracting groundwater that results in the aeration of previously saturated acid sulfate soils; (c) not undertaking filling that results in: (i) actual acid sulfate soils being moved below the water table; (ii) previously saturated acid sulfate soils being aerated. or	**The existing ground levels are in excess of 10m AHD and therefore Acid Sulfate Soils are of minimal risk in this instance given that excavation will be limited to no more than 400mm in all likelihood.**

Performance outcomes	Acceptable outcomes	Applicant response
	AO2.2 The disturbance of potential acid sulfate soils or actual acid sulfate soils is undertaken in accordance with an acid sulfate soils management plan and avoids the release of metal contaminants by: (a) neutralising existing acidity and preventing the generation of acid and metal contaminants; (b) preventing the release of surface or groundwater flows containing acid and metal contaminants into the environment; (c) preventing the in situ oxidisation of potential acid sulfate soils and actual acid sulfate soils through ground water level management; (d) appropriately treating acid sulfate soils before disposal occurs on or off site; (e) documenting strategies and reporting requirements in an acid sulfate soils environmental management plan. Note - Planning scheme policy SC 6.12 – Acid sulfate soils provides guidance on preparing an acid sulfate soils management plan.	
PO3 No environmental harm is caused as a result of exposure to potential acid sulfate soils or actual acid sulfate soils.	**AO3** No acceptable outcomes are prescribed.	**The existing ground levels are in excess of 10m AHD and therefore Acid Sulfate Soils are of minimal risk in this instance given that excavation will be limited to no more than 400mm in all likelihood.**

Figure 8.2.1.3.a – Acid sulfate soils (SPP triggers)



7.2.3 Mossman local plan code

7.2.3.1 Application

(1) This code applies to development within the Mossman local plan area as identified on the Mossman local plan maps contained in Schedule

(2) When using this code, reference should be made to Part 5.

7.2.3.2 Context and setting

Editor's note - This section is extrinsic material under section 15 of the Statutory Instruments Act 1992 and is intended to assist in the interpretation of the Mossman local plan code.

The Mossman local plan area is located at the northern end of the Captain Cook Highway where it continues on to the Daintree township as the Mossman-Daintree Road. The local plan area contains the rural and local administrative centre of Mossman.

The town of Mossman is located on a flat plain framed by the southern portion of the Daintree National Park to the west and Mount Beaufort to the east. The lush Daintree National Park dominates the town with striking views across to Mt Demi (Manjal Dimbi) and the spectacular Mossman Bluff above the Mossman Gorge. South Mossman River and North Mossman river provide significant natural entry and exit gateways to the town supported by Marrs Creek to the west. Parker Creek divides the town midway separating the commercial township from the more predominately residential areas in the southern half of the town.

Mossman developed as a strong sugar producing region at the end of the nineteenth century and quickly developed into a prosperous small town. From the mid-1930s the main commercial street was Mill Street. However Front Street, being the main access from Port Douglas and the Daintree also saw a concentration of commercial development from the 1930s onward. The town focusses on "the Triangle" and central grassed area at the five way junction at the northern end of the town providing a focal community hub that contributes significantly to the town's central setting.

The Mossman Sugar Mill in the north eastern part of the town is the northern most sugar mill in Queensland with its building and chimney stack dominating the town centre while forming part of an important vista along Mill Street looking toward Mount Beaufort. The mill is also the central focus of the cane rail network that radiates outward through the town adding an important character element that contributes to the appeal of the sugar town. Part of the cane rail network runs east-west through the Triangle occasionally delaying north-south vehicular traffic during cane harvesting months.

Mossman is a discrete linear township surrounded by sugar cane cultivation. The established business centre serves much of the northern part of the Shire with generally lower order goods and services. Service industries are concentrated at the southern end of the town providing for the general needs of the community. A limited area of expansion is available if the need arises.

Much of the township's character is derived from its picturesque rural setting and heritage character. Significant stands of mature vegetation (rain-trees and fig trees) dominate parts of the streetscape providing a much valued and identifiable feature to the town.

At the southern end of town centre, Johnston Road heads west from Front Street providing access to the Mossman Gorge, a popular tourist attraction and small indigenous community in the Daintree National Park to the west of the town. This intersection is another important focal point, particularly for tourists finding their way to the gorge. Johnston Road also provides access to the hospital and showgrounds on the western side of the town and the developing residential area off Daintree Horizon Drive: currently the main expanding residential estate in the township.

A more contemporary shopping facility is available at the southern end of Front Street on the western side of the road. Expansion of this shopping precinct has recently been completed. It is not intended that this precinct be expanded any further, and any form of redevelopment of the older retail component, will occur as an integrated development.

On the south western side of the town, off Coral Sea Drive, is a rural residential subdivision providing a green backdrop to the town. It is not intended that further lot reconfiguration occur in this area in order to protect the appeal of the hillside on the western flank of the township.

The indigenous Mossman Gorge community is located approximately three kilometres to the west of Mossman township where improved infrastructure, housing and economic opportunities are to be facilitated.

The Mossman North community located approximately two kilometres north of the Mossman township will remain as a residential community.

7.2.3.3 Purpose

(1) The purpose of the Mossman local plan code is to facilitate development which creates a vibrant and independent community which supports the needs of the local community and surrounding rural areas, while protecting and enhancing the unique local and historic character of the town.

(2) The purpose of the code will be achieved through the following overall outcomes:

- (a) Mossman will continue to develop as the major administrative, commercial and industrial centre in Douglas Shire.
- (b) The key built form and main street character of the town centre is to be retained and reinforced.
- (c) Mossman's identity as Queensland's northern-most sugar mill town is strengthened through the development of a distinct, ordered and attractive streetscape which responds to the tropical climate and the special features of the town's setting and layout.
- (d) Mossman's distinct character is enhanced through appropriate building design and landscaping.
- (e) The significant avenues of rain-trees and fig trees and other such vegetation that contribute significantly to township identity are protected.
- (f) Residential development is encouraged within designated areas to consolidate Mossman's character as a permanent residential settlement.
- (g) Residential areas are pleasant, functional, distinctive and well-defined and residential amenity is maintained and enhanced with all residential areas having good access to services and facilities, while minimising any land use conflicts associated with different urban activities or nearby rural activities.

(h) Development in the Low-medium density residential zone provides a range of housing options and contributes to a high standard of residential amenity, scale and design consistent with the character of Mossman.

(i) Opportunities for a limited range of tourist accommodation and services are facilitated to cater for the requirements of tourists passing through Mossman or visiting the Mossman Gorge.

(j) To provide the opportunity for an alternative truck route to by-pass the town centre for safer and less disruptive access between the sugar mill and Cairns (subject to further investigation as a local initiative).

(k) Improved local land use planning, housing and infrastructure arrangements enable private home ownership, economic development and municipal service delivery for the Mossman Gorge community.

(l) Mossman North will remain as a residential land use community only, with no further outward expansion intended.

(m) Conflicts between alternative land uses are minimised.

(n) Mossman's role as an industrial service centre is enhanced by facilitating the expansion of industrial development adjacent to existing industrial areas and protecting industrial areas from encroachment of incompatible land use activities.

(o) Remnant vegetation areas, riverine corridors and natural features are protected by ensuring any adjacent development is low key and sensitive to its surroundings.

(3) The purpose of the code will be further achieved through the following overall outcomes:

(a) Precinct 1 – Mossman North precinct;

(b) Precinct 2 – Foxton Avenue precinct;

(c) Precinct 3 – Junction Road residential precinct;

(d) Precinct 4 – Junction Road industry precinct;

(e) Precinct 5 – Town Centre precinct;

(f) Precinct 6 – Front Street precinct;

(g) Precinct 7 – Emerging community precinct;

(h) Precinct 8 – Mossman South industry precinct;

(i) Precinct 9 – Mossman Gorge community precinct

Precinct 1 – Mossman North precinct

(4) In addition to the overall outcomes, the outcomes sought for the precinct are to ensure that:

(a) development is restricted to low density residential uses only.

(b) development reliant on exposure to the Mossman-Daintree Road does not occur.

Precinct 2 – Foxton Avenue precinct

(5) In addition to the overall outcomes, the outcomes sought for the precinct are to ensure that:

(a) development occurs that is compatible with the establishment of a botanical garden, including a range of ancillary tourist facilities (not tourist accommodation), educational facilities and research facilities.

(b) Development takes into account physical constraints with particular attention paid to flooding and vegetation.

(c) development is adequately separated from, and protects, the existing cane railway track along the south boundary of the land;

(d) development does not impact on the environmental values of Marrs Creek.

Precinct 3 - Junction Road residential precinct

(6) In addition to the overall outcomes, the outcomes sought for the precinct are to ensure that:

(a) land within the Junction Road residential precinct is developed taking into account the opportunities and constraints with particular attention paid to flooding and vegetation. Any form of urban development is to be free from flood inundation and will not impact on current drainage regimes;

(b) development in the form of lot reconfiguration consists of lot sizes and shapes that match the character and configuration of surrounding lots;

(c) development on the site does not impact on the environmental values of the North Mossman River.

Precinct 4 - Junction Road industry precinct

(7) In addition to the overall outcomes, the outcomes sought for the precinct are to ensure that:

(a) the Mossman Mill is located within Precinct 4 and is the catalyst for encouraging and accommodating further industrial development.

(b) low and medium impact industry uses are located within the Junction Road industry precinct to service the needs of the sugar mill and to consolidate allied industrial uses;

(c) residential areas on the western side of Junction Street are protected from any industrial use, including industrial lot reconfiguration, by a dense screen of vegetation.

Precinct 5 - Town Centre precinct

(8) In addition to the overall outcomes, the outcomes sought for the precinct are to ensure that:

(a) key elements which contribute to the character and integrity of the town centre are retained;

(b) the sense of place which characterises the main town intersection of Foxton Avenue, Mill Street and Junction Road is reinforced with new development or redevelopment contributing to the existing continuity of built form by being built up to the street frontage;

(c) the cane tram line which runs along Mill Street, the vista down Mill Street to Mount Beaufort and the sugar mill chimney are retained as unique features of the town and its sugar town heritage;

(d) views from Front Street of the mountains (from various vantage points) are maintained;

(e) avenue planting within the town centre along the centre median in Front Street is maintained and extended to reinforce the character of the town centre.

Precinct 6 - Front Street precinct

(9) In addition to the overall outcomes, the outcomes sought for the precinct are to ensure that any expansion of the development is integrated with the existing shopping facilities incorporating the following design parameters:

(a) vehicular access is limited to:

(b) the existing access from Front Street opposite the Harper Street intersection;

(c) the existing access at the southern boundary of the precinct limited to commercial vehicles and staff only.

(d) any expansion complements the existing development in scale, height, roof alignment and colour;

(e) any expansion is integrated with existing development such that the final development functions as one shopping/commercial development;

(f) any expansion takes into account adjacent (existing and future) residential development and incorporates service areas, car parking and other utilities which are visually and acoustically screened to protect the residential amenity of the area.

Precinct 7 – Emerging community precinct

(10) In addition to the overall outcomes, the outcomes sought for the precinct are to ensure:

(a) development takes into account the provision of road links, cycle links, pedestrian connections and parkland allocation, generally in accordance with the local plan, to ensure that each land subdivision does not compromise the future development of adjoining land. Open space is provided with extensive road frontage for visibility / utility.

Precinct 8 - Mossman south industry precinct

(11) In addition to the overall outcomes, the outcomes sought for the precinct are to ensure that:

(a) low impact industry uses are the predominant form of industry within the Mossman South industry precinct;

(b) no uses that compete with the commercial and retail primacy of the town centre are established;

(c) development protects the amenity of adjacent and nearby residential land uses.

Precinct 9 – Mossman Gorge community precinct

(12) In addition to the overall outcomes, the outcomes sought for the precinct are to ensure that:

(a) existing commercial, community and residential uses are recognised within the discrete area contained by the Mossman Gorge community;

(b) a flexible approach to land use planning is advanced through the adoption of a structure plan for the community;

(c) a flexible approach to lot reconfiguration is permitted to advance home ownership aspirations for the community;

(d) infrastructure upgrading is undertaken and transitioned to Council for future maintenance.

Criteria for assessment

Table 7.2.3.4.a – Mossman local plan – assessable development

Performance outcomes	Acceptable outcomes	Applicant response
For self-assessable and assessable development		
PO1 Building and structures complement the height of surrounding development	**AO1** Buildings and structures are not more than 8.5 metres in height, except where included in the Industry zone where buildings and structures are not more than 10 metres in height.	**The proposal attempts to maintain both the existing form and scale of the buildings on site, which in turn maintains a consistency with the character of the surrounding area.**

Performance outcomes	Acceptable outcomes	Applicant response
For assessable development		
Development in the Mossman local plan area generally		
PO1 Development retains and enhances key landscape elements including character trees and areas of significant vegetation contributing to the character and quality of the local plan area and significant views and vistas and other landmarks important to the context of Mossman (as identified on the Mossman Townscape Plan map contained in Schedule 2).	**AO1.1** Development provides for the retention and enhancement of existing mature trees and character vegetation that contribute to the lush tropical character of the town, including: (a) the tree covered backdrop of the low density subdivision at Coral Sea Drive and Gorge View Crescent; (b) natural vegetation along watercourses, in particular the Mossman River, the South Mossman River, Parker Creek and Marrs Creek; (c) the avenue of planting in the town centre in Front Street; (d) the Raintrees in Foxton Avenue; (e) the trees on the eastern side of the Mossman-Daintree Road, just north of the North Mossman River; (f) the avenue planting of Melaleucas on the southern approach to the town along Alchera Drive; (g) Mossman sugar mill site. **AO1.2** Development protects and does not intrude into important views and vistas as identified on the Mossman Townscape Plan map contained in Schedule 2, in particular: (a) Mount Demi (Manjal Dimbi); (b) Mossman Bluff; (c) Mount Beaufort; (d) Shannonvale Valley.	**The proposal is consistent with the intent of the adopted Townscape Plan and the proposal represents an improved address of the street.** **Landscaping elements are a feature of the proposal as demonstrated in the attached plans.**

Performance outcomes	Acceptable outcomes	Applicant response
	AO1.3 Important landmarks, memorials and monuments are retained, including, but not limited to: (a) the cane tram line running east west through the town at Mill Street; (b) the general configuration of the 'Triangle' at the intersection of Front Street, Mill Street, Foxton Avenue and Junction Road	
PO2 Development contributes to the protection, reinforcement and where necessary enhancement of gateways and key intersections identified on the Mossman local plan maps contained in Schedule 2.	**AO2** Development adjacent to the gateways and key intersections as identified on the Mossman local plan maps contained in Schedule 2 incorporates architectural features and landscaping treatments and design elements that enhance the sense of arrival and way finding within the town.	**The proposal in no way compromises this clause.**
PO3 Landscaping of development sites complements the existing tropical character of Mossman.	**AO3** Landscaping incorporates the requirements of Planning scheme policy SC 6.2- Landscaping.	**Landscaping elements are a feature of the proposal as demonstrated in the attached plans.**
P04 Development does not compromise the safety and efficiency of the State-controlled road network.	**AO4** Direct access is not provided to a State-controlled road where legal and practical access from another road is available.	**The proposal in no way compromises this clause.**

Performance outcomes	Acceptable outcomes	Applicant response
For assessable development		
Additional requirements for Precinct 2 – Foxton Avenue precinct		
PO5 Development takes into account the opportunities and constraints with particular attention paid to flooding and vegetation.	**AO5** Buildings and structures are located outside areas subject to flooding. Development is undertaken in accordance with the recommendations of a Drainage/Flood Study which outlines the necessary improvements to be undertaken on the site to make it suitable for development and avoid impacts on adjoining land.	**The proposal seeks to maintain existing floor levels within the proposed alterations and additions.**
PO6 Development is adequately separated from and protects the existing cane railway track along the southern boundary of the land.	**PO6.1** Buildings and structures are setback a minimum of 10 metres from the cane railway. **PO6.2** Pedestrian access to the cane railway is restricted.	**n/a**
Additional requirements for Precinct 3 – Junction Road residential precinct		
PO7 Land within the Junction Road residential precinct is developed taking into account of the opportunities and constraints with particular attention paid to flooding and vegetation. Any form of urban development is to be free from flood inundation and will not impact on current drainage regimes.	**AO7** Development is undertaken in accordance with the recommendations of a Drainage/Flood Study which outlines the necessary improvements to be undertaken on the site to make it suitable for residential development and avoid impacts on adjoining land.	**n/a**
PO8 Development in the form of lot reconfiguration consists of lot sizes and shapes that match the character and configuration of surrounding lots.	**AO8.1** Lots have a minimum area of 800m^2. **AO8.2** Lots have a minimum frontage of 20m.	**n/a**

Performance outcomes	Acceptable outcomes	Applicant response
PO9 Development on the site does not impact on the environmental values of the North Mossman River, with any land dedication along the creek provided with access to, at minimum, a partial esplanade road frontage.	**AO9.1** Subject to any greater width requirement as a consequence of the studies required to satisfy AO8, a minimum riparian width of 30 metres is dedicated as open space along the frontage to the Mossman River. **AO9.2** Practical road access is available to the minimum riparian width of 30 metres along the frontage to the Mossman River.	**n/a**
Additional requirements for Precinct 4 – Junction Road industry precinct		
PO10 Residential areas on the western side of Junction Road are protected from any industrial use, including industrial lot reconfiguration, by a dense screen of vegetation.	**AO10.1** A dense screen of vegetation of at least 10 metres depth separates any industrial use, including any lot reconfiguration, along the full frontage of Junction Road except where road access is required. **AO10.2** No individual lots will have direct access to Junction Road across the 10 metre dense screen of vegetation.	**n/a**
Additional requirements for Precinct 5 – Town Centre precinct		
PO11 Buildings in the precinct are designed and sited to complement the existing distinctive and cohesive character of the retail and business area, including: (a) buildings built to the frontage to reinforce the existing built-form character; (b) buildings that address the street; (c) development that incorporates awnings and verandahs providing weather protection for pedestrians.	**AO11** With respect to Front Street, Foxton Avenue, Mill Street and Johnston Road, development incorporates buildings that front the street designed with non-transparent awnings that: (a) provide for pedestrian shelter that are consistent with the character and setting of the town centre; (b) are a minimum of 3.2 metres and a maximum of 3.5 metres above the finished footpath level; (c) extend and cover the adjoining footpath with a 1.5 metre setback to the kerb; (d) are continuous across the frontage of the site;	

Performance outcomes	Acceptable outcomes	Applicant response
	(e) are cantilevered from the main building and where posts are used, posts are non-load bearing; (f) include under awning lighting	
PO12 Development in the precinct contributes positively to the character of the town and is complementary in scale to surrounding development.	**AO12** Development incorporates the following design features: (a) built up to the front' alignment addressing the street frontage and continuing the scale of the existing built form and where necessary providing car parking spaces at the rear of the site;* (b) appropriate built form and roofing material; (c) appropriate fenestration in combination with roof form; (d) appropriate window openings, screens or eaves shading 80% of window openings; (e) minimum of 700mm eaves; (f) orientation of the building to address the street/s; (g) sheltered pedestrian access by enclosed covered common area walkway of 1.5 metres in width from the car park area/s to the development; (h) ground level façades facing streets consist of windows, wall openings or shop fronts; (i) vertical architectural elements a minimum of 3 metres along the length of the ground level façade; (j) inclusion of windows and balconies on the upper levels facing the street façade; (j) provision of lattice, battens or privacy screens; (k) the overall length of a building does not exceed 30 metres and the overall length of any continuous wall does not exceed 15 metres;	**The proposal is consistent with the intent of the adopted Townscape Plan and the proposal represents an improved address of the street.** **Landscaping elements are a feature of the proposal as demonstrated in the attached plans.**

Performance outcomes	Acceptable outcomes	Applicant response
	(l) Any air conditioning plant is screened from the street frontage and public view by use of architectural features. *Note - access to car parking must not adversely impact on 'built up to the front' alignment continuity.	
PO13 Site coverage of all buildings: (a) does not result in a built form that is bulky or visually intrusive to the streetscape; (b) respects the individual character of the town centre.	**AO13** Site cover does not exceed 60%.	**The proposal will result in a site coverage (inc. the approved bowling green coverings) of approximately 60%.** **It is noted that the greens roofing is of an open and transparent nature.**
PO14 Side and rear setbacks: (a) are appropriate for the scale of the development and the character of the town centre; (b) provide adequate daylight for habitable rooms on adjoining sites; (c) adequate separation between residential and non-residential uses.	**AO14.1** For side boundary setbacks, no acceptable measures are specified. **AO14.2** Buildings are setback a minimum of 6 metres from rear boundaries. Note: Building code requirements must be satisfied.	**The proposal maintains the existing setback from Johnston Road and where it has decreased (relative to the ex. building) it has done so in a manner that is consistent with achieving the intent of the adopted Mossman Townscape Plan.**
PO15 Development in the precinct is predominantly retail or office based in nature or has a service delivery function.	**AO15** Development at street level is limited to retail, office or restaurant/cafe based activities or personal services, with residential development limited to minor ancillary residential uses or to tourist accommodation located above ground level, or to the rear of the site at ground level.	**n/a**

Performance outcomes	Acceptable outcomes	Applicant response
Additional requirements for Precinct 6 – Front Street precinct		
PO16 Vehicular access is limited to: (a) the existing access from Front Street opposite the Harper Street intersection; (b) the existing access at the southern boundary of the precinct limited to commercial vehicles and staff only.	**AO16** No acceptable outcomes are prescribed.	**n/a**
PO17 Any expansion complements the existing development in scale, height, roof alignment and colour	**AO17** No acceptable outcomes are prescribed.	**The proposal attempts to maintain both the existing form and scale of the buildings on site, which in turn maintains a consistency with the character of the surrounding area.**
PO18 Any expansion is integrated with existing development such that the final development functions as one shopping/commercial development.	**AO18** No acceptable outcomes are prescribed.	**The proposal attempts to maintain both the existing form and scale of the buildings on site, which in turn maintains a consistency with the character of the surrounding area.**
PO19 Any expansion takes into account adjacent residential development and incorporates service areas, car parking and other utilities which are visually and acoustically screened to protect the residential amenity of the area.	**AO19** No acceptable outcomes are prescribed.	**The proposal attempts to maintain both the existing form and scale of the buildings on site, which in turn maintains a consistency with the character of the surrounding area.**
Additional requirements for Precinct 7 – Emerging Community precinct		
PO20 Development provides road connections, pedestrian and cycling links and open space to establish integrated, connected communities with adjoining land.	**AO20** No acceptable outcomes are prescribed.	**n/a**

Performance outcomes	Acceptable outcomes	Applicant response
Additional requirements for Precinct 8 – Mossman South industry		
PO21 Low impact industry uses are the predominant form of industry.	**AO21** Development for industrial purposes consists of service industry or low impact industry uses.	**n/a**
PO22 No uses that compete with the commercial and retail primacy of the Mossman town centre are established.	**AO22** Office or retail uses: (a) are ancillary to an industrial use; or (b) directly service the needs of the surrounding industrial precinct; (c) do not rely on passing trade from Alchera Drive.	**n/a**
PO23 Development protects the amenity of adjacent and nearby residential land uses.	**AO23** No acceptable outcomes are prescribed.	**The proposal demonstrates a suitable level of consideration with respect to preserving the amenity of the area and particularly where the proposal shares an interface with residential development.**
Additional requirements for Precinct 9 – Mossman Gorge Community		
PO24 No uses that compete with commercial and retail activities in Mossman town centre are established.	**AO24** No acceptable outcomes are prescribed.	**n/a**

6.2.9 Recreation and open space zone code

6.2.9.1 Application

(1) This code applies to assessing development in the Industry zone.

(2) When using this code, reference should be made to Part 5.

6.2.9.2 Purpose

(1) The purpose of the Recreation and open space zone code is to provide for:

- (a) Informal recreation where the built form is not essential to the enjoyment of the space;
- (b) local and district scale parks that serve the recreational needs of a wide range of residents and visitors
- (c) a range of organised activities that includes sport, cultural and educational activities where the uses require a level of built infrastructure.

(2) The local government purpose of the code is to:

- (a) implement the policy direction set in the Strategic Framework, in particular:
  - (i) Theme 1 : Settlement pattern, Element 3.4.5 Residential areas and activities.
  - (ii) Theme 4 – Strong communities and identity, Element 3.7.3 Active communities, Element 3.7.6 – Arts and culture.
- (b) provide land for the recreational needs to enhance liveability and the health and well-being of the Douglas community.

(3) The purpose of the code will be achieved through the following overall outcomes:

- (a) Areas are provided for active sport and recreation to meet community needs, including playing fields, outdoor cultural facilities, educational activities, public swimming pools and outdoor courts.
- (b) Open space is accessible to the general public for a range of outdoor sport and recreation activities.
- (c) A range of functional and accessible open spaces, including local and regional parks and linkages, are available for the use and enjoyment of residents and visitors.
- (d) Ancillary structures and buildings such as shelters, amenity facilities, picnic tables and playgrounds are provided where necessary.
- (e) Sport and recreation areas are planned and designed to enhance community liveability, scenic amenity and provide a retreat from developed areas.
- (f) The use of sport and recreation areas does not unduly affect the amenity of adjacent areas, particularly residential areas.

Criteria for assessment

Table 6.2.9.3.a – Recreation and open space zone code – assessable development

Performance outcomes	Acceptable outcomes	Applicant response
For self-assessable development		
PO1 The height of buildings and structures respects the low-scale character of the area.	**AO1** Buildings and structures, other than pole structures, are not more than 10 metres in height. Note – Height is inclusive of roof height.	**The proposal attempts to maintain both the existing form and scale of the buildings on site, which in turn maintains a consistency with the character of the surrounding area.**
PO2 Buildings and structures are setback to ensure that they do not detract from the open character of the site or impact on any use in the Sensitive land use activity group.	**AO2** Buildings and structures are setback a minimum of: (a) 8 metres from a State-controlled road; (b) 6 metres from road frontages; (c) 6 metres from land within a Residential zone; or (d) 3 metres from land in any other zone.	**The proposal attempts to maintain both the existing form and scale of the buildings on site, which in turn maintains a consistency with the character of the surrounding area.**
PO3 Car parking areas are setback from the boundaries of the site to ensure a high standard of amenity and to ensure the amenity of adjacent sensitive uses is protected.	**AO3** Car parking areas are setback: (a) 6 metres from the road frontage of the site; (b) 3 metres from any other site boundary.	**The proposal maintains the existing car parking proximity to adjoining sites, however additional landscaping and acoustic treatment is proposed in this instance.**
PO4 The setbacks to car parking areas are landscaped to enhance the amenity of the site and to provide a buffer to adjacent residential land, residential uses or any other sensitive land uses.	**AO4** The setback between the road frontage and the car parking area is landscaped with dense planting.	**The proposal maintains the existing car parking proximity to adjoining sites, however additional landscaping and acoustic treatment is proposed in this instance.**
PO5 Lighting of playing fields and club facilities do not adversely impact on the amenity of adjacent areas or uses.	**AO5.1** Structures for lighting: (a) on a site greater than 5000m2 are not more than 25 metres in height. (b) on a site less than 5000m2 are not more than 8.5 metres in height.	**n/a**

Performance outcomes	Acceptable outcomes	Applicant response
	AO5.2 Structures for lighting poles are designed, constructed and operated in a manner which complies with: (a) AS4282-1997 Control of the obtrusive effects of outdoor lighting; (b) AS2560-2007 Sports lighting.	
PO6 Organised sporting activities and training ensure that the hours of operation are consistent with reasonable community expectations for the use and do not impact on the amenity of nearby sensitive land uses.	**AO6.1** Hours of operation of organised sporting and training activities are limited to between 6.00am and 10.00pm.	**No change to operating hours is proposed.**
For assessable development		
PO7 The establishment of uses is consistent with the outcomes sought for the Recreation and open space zone and protects the zone from the intrusion of inconsistent uses.	**AO7** Uses identified in Table 6.2.9.3.b are not established in the Recreation and open space zone.	**The proposal is entirely consistent with the objectives of the zone.**
PO8 Reconfiguration does not prejudice the use of the land for open space and recreational purposes.	**AO8** No acceptable outcomes are prescribed.	**n/a**

Table 6.2.9.3.b - Inconsistent uses within the Recreation and open space zone

Inconsistent uses		
• Adult store • Agricultural supplies store • Animal husbandry • Aquaculture • Brothel • Bulk landscape supplies • Cemetery • Community care centre • Community residence • Crematorium • Cropping • Detention facility • Dual occupancy • Dwelling house • Environment facility • Extractive industry • Garden centre • Hardware and trade supplies	• High impact industry • Home based business • Hospital • Hotel • Intensive animal industry • Intensive horticulture • Low impact industry • Major electricity infrastructure • Marine industry • Medium impact industry • Multiple dwelling • Non-resident workforce accommodation • Nightclub entertainment facility • Office • Outdoor sales • Outstation • Port services • Relocatable home park • Residential care facility	• Renewable energy facility • Research and technology industry • Retirement facility • Rooming accommodation • Rural industry • Rural workers accommodation • Sales office • Service industry • Service station • Shopping centre • Short-term accommodation • Showroom • Special industry • Theatre • Transport depot • Veterinary services • Warehouse • Wholesale nursery • Winery

Note - This table does not imply that all other uses not listed in the table are automatically consistent uses within the zone. Assessable development must still demonstrate consistency through the assessment process.

8.2.10 Transport network overlay code

8.2.10.1 Application

(1) This code applies to assessing a material change of use, reconfiguring a lot, operational work or building work within the Transport network overlay; if:

(a) self-assessable or assessable development where the code is identified as being applicable in the Assessment criteria for the Overlay Codes contained in the Levels of Assessment Tables in section 5.6;

(b) impact assessable development.

(2) Land within the Transport network overlay is identified on the Transport network (Road Hierarchy) overlay map and the Transport network (Pedestrian and Cycle) overlay map in Schedule 2 and includes the following sub-categories:

(a) Transport network (Road Hierarchy) overlay sub-categories:

(i) State controlled road sub-category;

(ii) Sub-arterial road sub-category;

(iii) Collector road sub-category;

(iv) Access road sub-category;

(v) Industrial road sub-category;

(vi) Major rural road sub-category;

(vii) Minor rural road sub-category;

(viii) Unformed road sub-category;

(ix) Major transport corridor buffer area sub-category.

(b) Transport network (Pedestrian and Cycle) overlay sub-categories:

(i) Principal route;

(ii) Future principal route;

(iii) District route;

(iv) Neighbourhood route;

(v) Strategic investigation route.

8.2.10.2 Purpose

(1) The purpose of the Transport network overlay code is to:

(a) implement the policy direction of the Strategic Framework, in particular:

(i) Theme 1: Settlement pattern Element 3.4.2 Urban settlement, Element 3.4.3 Activity centres;

(ii) Theme 6: Infrastructure and transport Element 3.9.4 Transport;

(b) enable an assessment of whether development is suitable on land within the Transport network overlay.

(2) The purpose of the code will be achieved through the following overall outcomes:

(a) development provides for transport infrastructure (including active transport infrastructure);

(b) development contributes to a safe and efficient transport network;

(c) development supports the existing and future role and function of the transport network;

(d) development does not compromise the safety and efficiency of major transport infrastructure and facilities.

Criteria for assessment

Table 8.2.10.3 a – Transport network overlay code – assessable development

Performance outcomes	Acceptable outcomes	Applicant response
For assessable development		
PO1 Development supports the road hierarchy for the region. Note -A Traffic impact assessment report prepared in accordance with Planning scheme policy SC6.10 - Parking and access is one way to demonstrate achievement of the Performance Outcomes.	**AO1.1** Development is compatible with the intended role and function of the transport network as identified on the Transport network overlay maps contained in Schedule 2. **AO1.2** Development does not compromise the safety and efficiency of the transport network.	**The Proposal demonstrates compliance in this regard.**

Performance outcomes	Acceptable outcomes	Applicant response
	AO1.3 Development is designed to provide access via the lowest order road, where legal and practicable access can be provided to that road.	
PO2 Transport infrastructure is provided in an integrated and timely manner. Note - A Traffic impact assessment report prepared in accordance with Planning scheme policy SC6.10 - Parking and access is one way to demonstrate achievement of the Performance Outcomes.	**AO2** Development provides infrastructure (including improvements to existing infrastructure) in accordance with: (a) the Transport network overlay maps contained in Schedule 2; (b) any relevant Local Plan. Note – The Translink Public Transport Infrastructure Manual provides guidance on the design of public transport facilities.	**The Proposal demonstrates compliance in this regard.**
PO3 Development involving sensitive land uses within a major transport corridor buffer area is located, designed and maintained to avoid or mitigate adverse impacts on amenity for the sensitive land use.	**AO3** No acceptable outcomes are prescribed. Note – Part 4.4 of the Queensland Development Code provides requirements for residential building design in a designated transport noise corridor.	**The Proposal demonstrates compliance in this regard.**
PO4 Development does not compromise the intended role and function or safety and efficiency of major transport corridors. Note - A Traffic impact assessment report prepared in accordance with Planning scheme policy SC6.10 - Parking and access is one way to demonstrate achievement of the Performance Outcomes.	**AO4.1** Development is compatible with the role and function (including the future role and function) of major transport corridors. **AO4.2** Direct access is not provided to a major transport corridor where legal and practical access from another road is available.	**The Proposal demonstrates compliance in this regard.**

Performance outcomes	Acceptable outcomes	Applicant response
	AO4.3 Intersection and access points associated with major transport corridors are located in accordance with: (a) the Transport network overlay maps contained in Schedule 2; and (b) any relevant Local Plan. **AO4.4** The layout of development and the design of the associated access is compatible with existing and future boundaries of the major transport corridor or major transport facility.	
PO5 Development retains and enhances existing vegetation between a development and a major transport corridor, so as to provide screening to potential noise, dust, odour and visual impacts emanating from the corridor.	**AO5** No acceptable outcomes are prescribed.	**The Proposal demonstrates compliance in this regard.**
Pedestrian and cycle network		
PO6 Lot reconfiguration assists in the implementation of the pedestrian and cycle movement network to achieve safe, attractive and efficient pedestrian and cycle networks	**AO6.1** Where a lot is subject to, or adjacent to an element of the pedestrian and cycle Movement network (identified on the Transport network overlay maps contained in Schedule 2) the specific location of this element of the pedestrian and cycle network is incorporated in the design of the lot layout. **AO6.2** The element of the pedestrian and cycle network is constructed in accordance with the Design Guidelines set out in Sections D4 and D5 of the Planning scheme policy SC6.5 – FNQROC Regional Development Manual.	**The Proposal demonstrates compliance in this regard.**