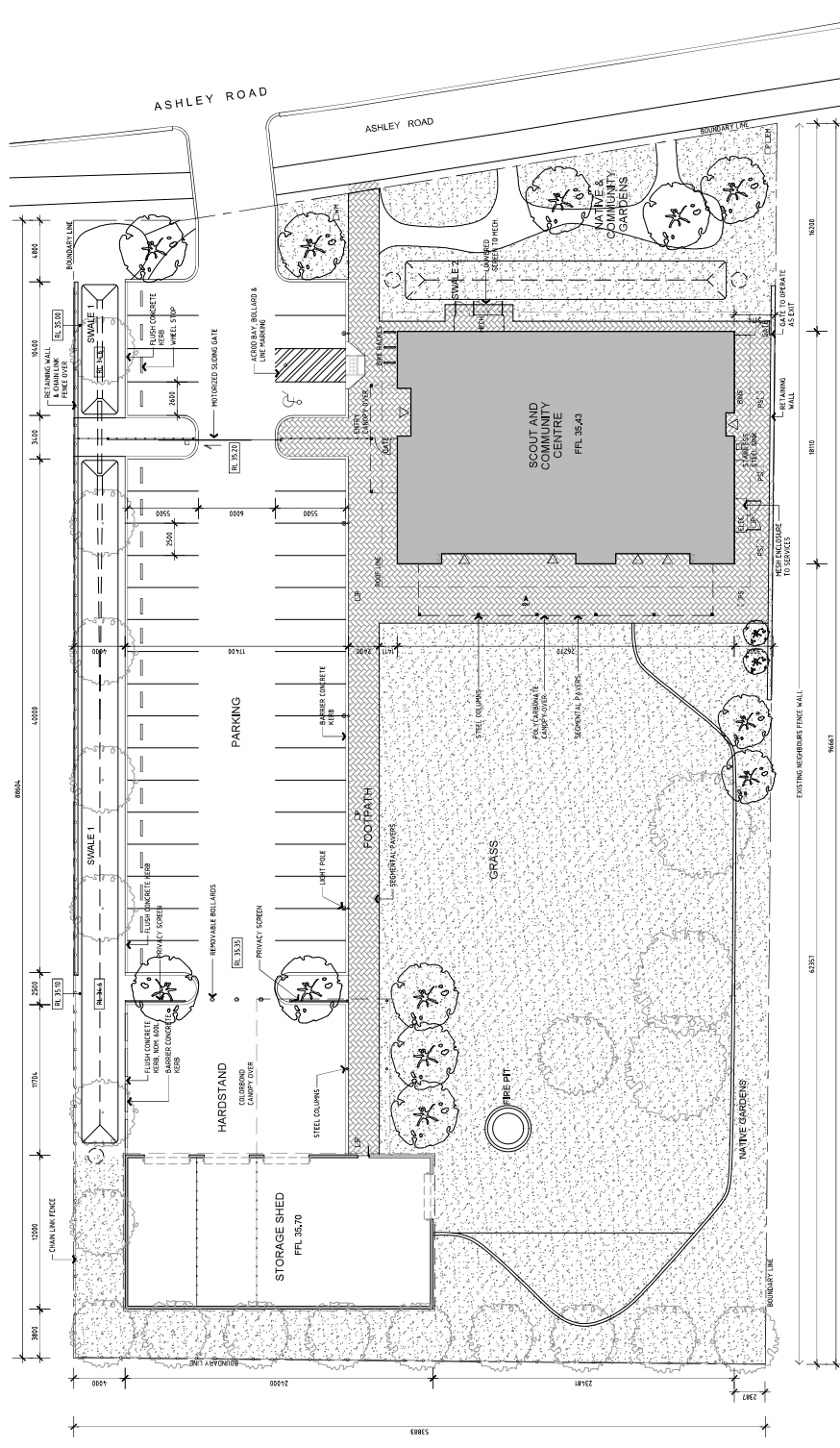


NOTES

DO NOT SCALE PLOT DRAWINGS
 DIMENSIONS & LEVELS OF ALL WORK TO BE CHECKED ON SITE BY CONTRACTOR BEFORE COMMENCEMENT OF WORKS. BEFORE PROVISION OF SHOP DRAWINGS & BEFORE COMMENCEMENT OF ANY COMPONENTS.
 ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
 ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
 SET-OUT POINTS & LEVELS OF BUILDINGS & ROADS TO BE COMPLETED ON SITE WITH REFERENCE TO DATUM POINT. ALL LOW FOR EXISTING LEVELS ARE TO BE RECORDED TO LOCATE EXISTING UTILITIES AND SET-OUT OF THE WORKS.

LEGEND

- NEW BUILDING
- REFURBISHMENT BUILDING
- 10.00 EXISTING LEVEL
- 10.00 NEW LEVEL
- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO BE RETAINED & PROTECTED
- NEW PLANTED TREE ON SOFT LANDSCAPE
- PAVING - LEISURE/SPORTS CONCRETE PAVING
- PAVING - LEISURE/SPORTS CONCRETE PAVING TYPE 1
- PAVING - LEISURE/SPORTS CONCRETE PAVING TYPE 2
- PAVING - ASPHALT
- TURF
- GRAVEL
- GRASS BED
- BASED PLANTER BED
- FIRE APPLIANCE ACCESS ROAD
- HYDRAULIC GREASE TRAP
- HYDRAULIC SILENT TRAP
- HYDRAULIC ACCESS CHAMBER PIT COVERS
- MANHOLE WITH WELDED GATE
- MANHOLE WITHOUT I.D.
- PAVING SUMP WITH WELDED GATE
- FIRE HYDRANT
- WATER REFILL STATION
- RES. RAINWATER LEAVING
- COMMUNICATION PIT
- POWER PIT
- EXISTING COMMUNICATION PIT
- EXISTING POWER PIT
- COMMUNICATION PIT UNDERGROUND
- POWER PIT UNDERGROUND
- EXISTING COMMUNICATION PIT UNDERGROUND
- EXISTING POWER PIT UNDERGROUND
- LIGHT POLE
- BUILDERS CONFOUND EXACT LOCATION OF BUILDINGS ALLOW MINIMAL DEVIATION TO THE OWNERS USE TO ADJUST AND RELOCATE PLANTS AS REQUIRED TO AVOID COLLISION OF PLANTS WITH FOUNDATIONS.



DATE	REV.	NOTE	BY
13.03.23	B	REVISED MANHOLE SIZES	R
23.03.22	A	PRELIMINARY DEVELOPMENT APPLICATION ISSUE	R

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 www.parryrosenthal.com.au

CARRAMAR SCOUT AND COMMUNITY CENTER DEVELOPMENT APPLICATION

SITE PLAN

DRAWN	DATE	APPROVED	REVISED
IR	15/02/22		
SCALE	1:200		
JOB NO.	2023/067		

DA.11 B

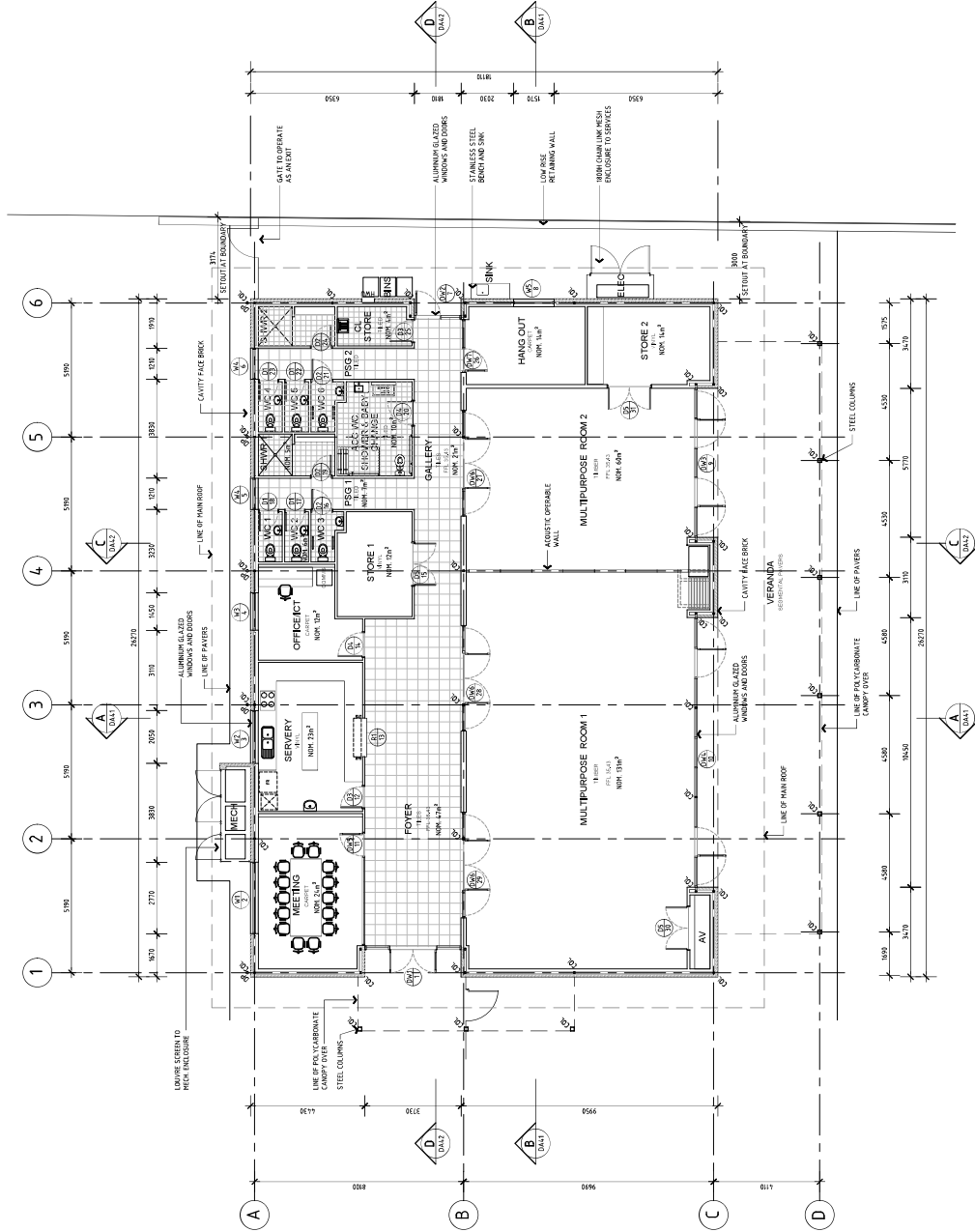


NOTES

- DO NOT SCALE OFF DRAWINGS
- WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE MOST RECENT EDITIONS OF THE INTERNATIONAL BUILDING CODES AND ALL APPLICABLE LOCAL ORDINANCES AND REGULATIONS.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS OF EXISTING WORK PRIOR TO COMMENCEMENT OF WORK.
- ANY DISCREPANCIES BETWEEN DRAWINGS, CALCULATIONS AND THE FIELD SHALL NOT BE ACCEPTABLE.
- CONCEAL ALL PIPEWORK.
- SET-OFF FRAMES TO ALL WINDOWS AND DOORS SHALL BE TO BE CONFORMED TO THE MOST RECENT EDITIONS OF THE INTERNATIONAL BUILDING CODES AND ALL APPLICABLE LOCAL ORDINANCES AND REGULATIONS.
- CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF ALL STRUCTURAL STEELWORK.
- ARCHITECT SHALL REVIEW AND APPROVE ALL STEEL AND ROOF PUMPING FOR ARCHITECT REVIEW PRIOR TO COMMENCING FABRICATION.

LEGEND

NOTE: REFER FINISHES SCHEDULE FOR WALL FINISHES.



DATE	REV.	NOTE	BY
01/03/23	B	ISSUE PERMIT WITH CADD ISSUES	IR
01/03/22	A	PRELIMINARY DEVELOPMENT APPLICATION ISSUE	IR

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CARRAMAR SCOUT AND COMMUNITY CENTER DEVELOPMENT APPLICATION
MAIN BUILDING FLOOR PLAN



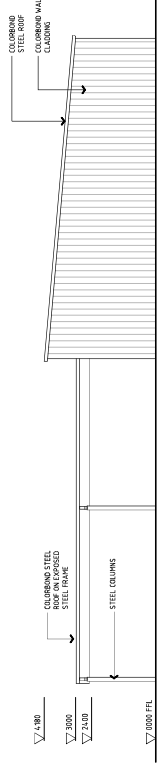
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2023/04/27	15/02/22		DA.21 B
	SCALE	1:100	

NOTES

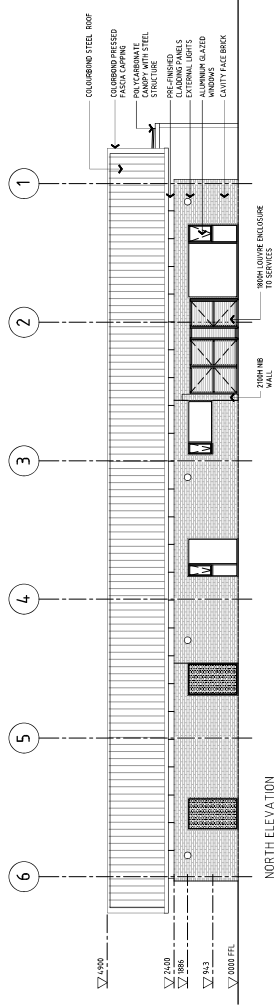
DO NOT SCALE FROM DRAWINGS
 DIMENSIONS & LEVELS OF ALL WORK TO BE CHECKED ON SITE BY
 CONTRACTOR BEFORE COMMENCING WORK. BEFORE PROVISION OF SHOP
 DRAWINGS, CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LEVELS
 AND DISCREPANCY BETWEEN DRAWINGS TO BE REPORTED IMMEDIATELY
 TO THE ARCHITECT.

ELEVATION LEGEND

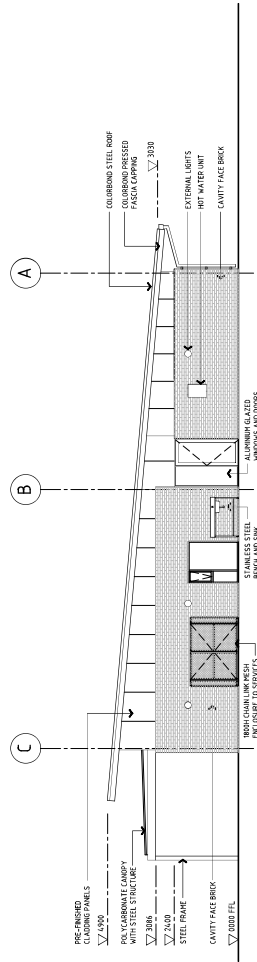
- COLOURBOND STEEL ROOF
- COLOURBOND WALL CLADDING
- PRE-FINISHED FACIA BEAM SPACE
- RAINWATER DOWNSPOUT



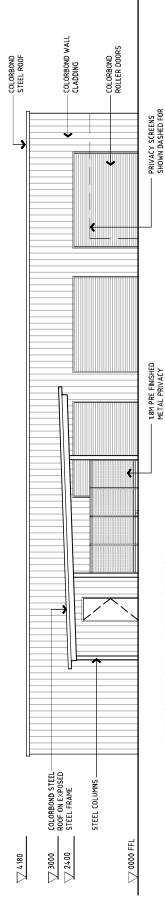
WEST ELEVATION - STORAGE SHED



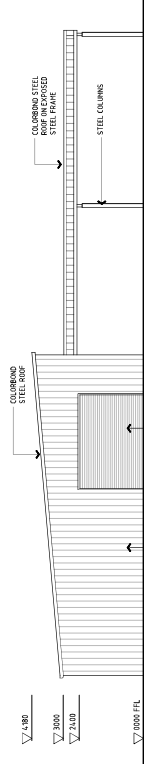
NORTH ELEVATION



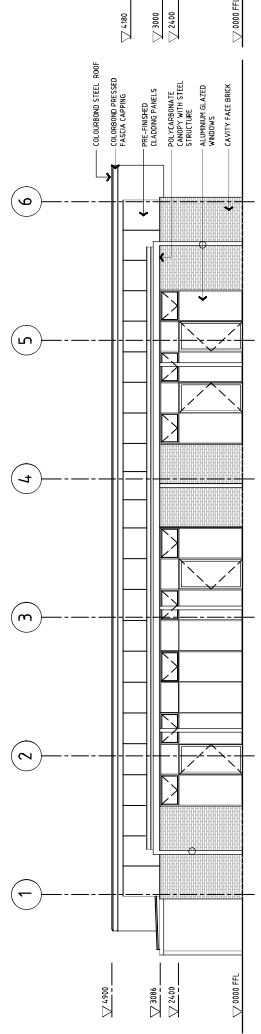
EAST ELEVATION



NORTH ELEVATION - STORAGE SHED



EAST ELEVATION - STORAGE SHED



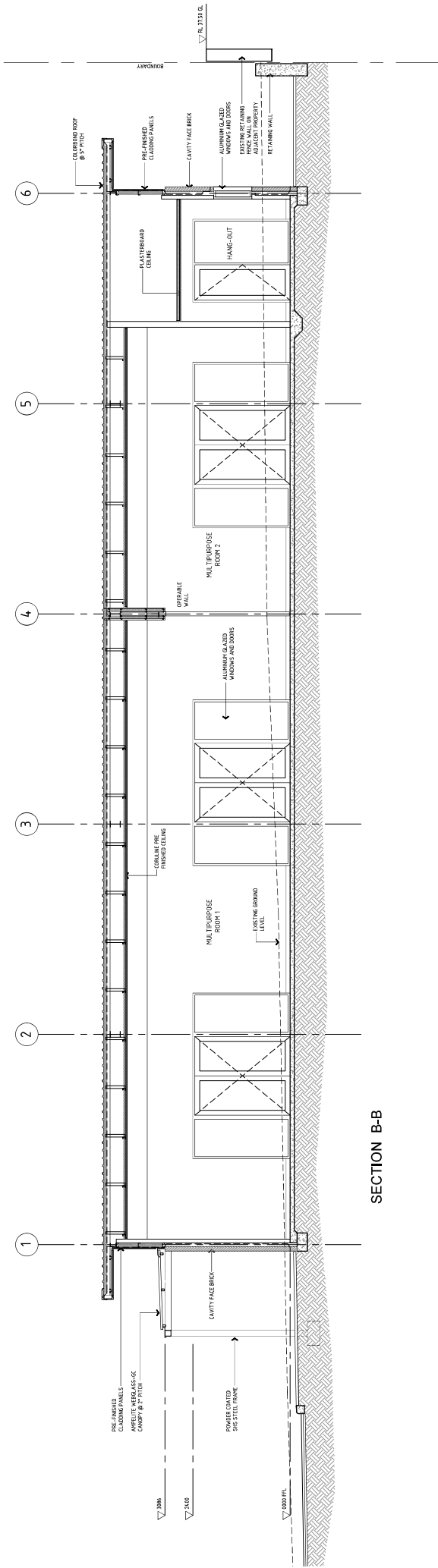
SOUTH ELEVATION

DATE	REV.	NOTE	BY
21.03.23	B	SCHEMATIC WORK COMMENCE	BR
21.03.22	A	PRELIMINARY DEVELOPMENT APPLICATION ISSUE	BR

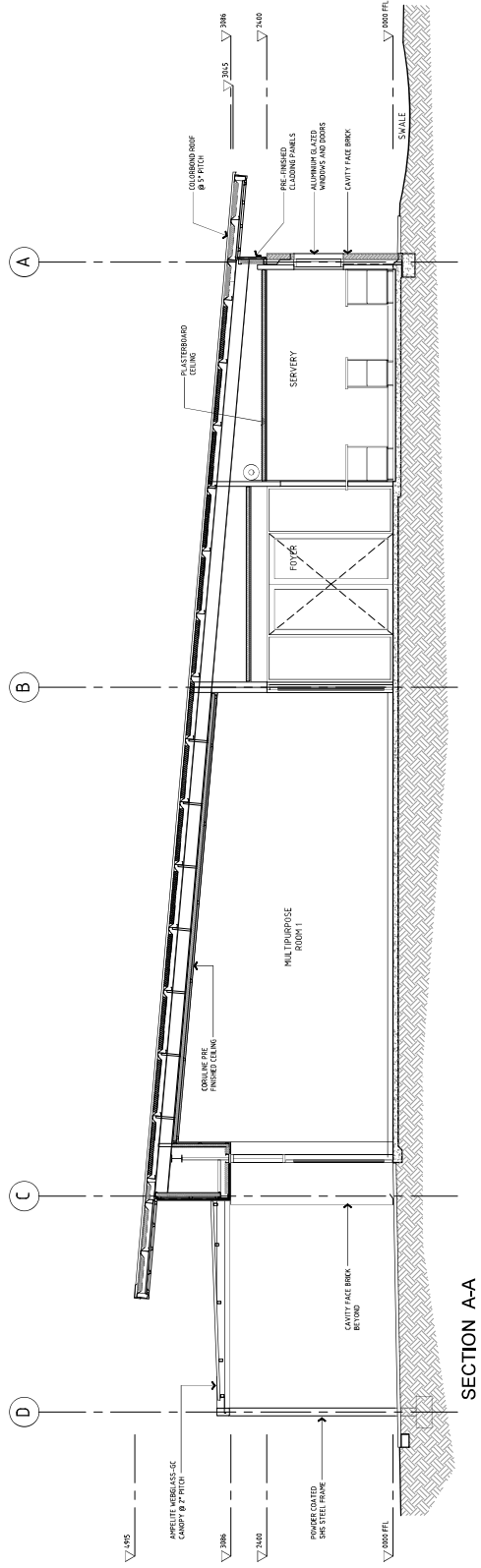
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CARRAMAR SCOUT AND COMMUNITY CENTER DEVELOPMENT APPLICATION ELEVATIONS

DATE	SCALE	APPROVED	DRAWING NO.	REV.
20.01.067	1:100		DA.31	B



SECTION B-B



SECTION A-A

DATE	REV.	NOTE	BY
13.03.23	B	COLONNAD AREA CLADDING ISSUE	IR
21.03.22	A	PRELIMINARY DEVELOPMENT APPLICATION ISSUE	IR

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CARRAMAR SCOUT AND COMMUNITY CENTER DEVELOPMENT APPLICATION

SECTION A-A & B-B

DRAWN	DATE	APPROVED	REV
JAS	15/02/22		
JAS	15/02/22		
JAS	15/02/22		

2023.0007

DD.41 B

Carramar Scout and Community Centre

Landscape Concept Design Report

10/03/2022

SEE DESIGN

EOIN@SEEDSIGNSTUDIO.COM.AU

M. 0423 150 244

WWW.SEEDSIGNSTUDIO.COM.AU





Contents

01. Planting Vibe Imagery

02. Concept Vibe Imagery

03. Landscape Zones

04. Concept Plan

05. Material Selections

06. Tree Plan

07. Tree Selection

08. Planting Selection

01. Planting Vibe Imagery



LOCAL AND HARDY



EDIBLE



SWALE PLANTING



02. Concept Vibe Imagery

ACTIVATION



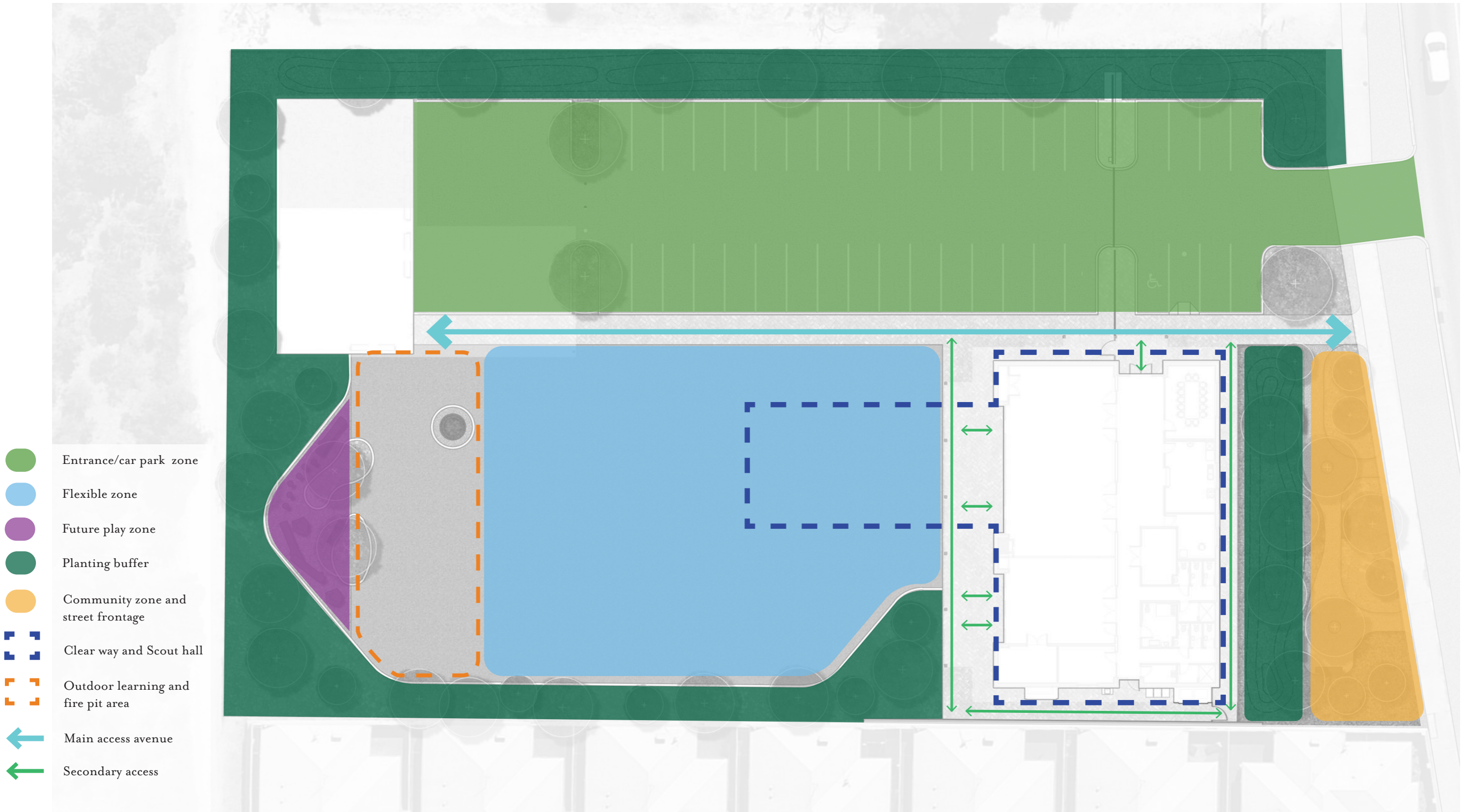
COMMUNITY



PLAY + EXPLORE



03. Landscape Zones



04. Concept plan



LEGEND

1. Main entrance and bike racks
2. Car park area
3. Bush tucker garden with gravel paths
4. Stormwater swale
5. Native planting with 1:3 slope
6. Planting beds with shade trees and seating
7. Turf activity zone
8. Future nature playground
9. In ground brick fire pit
10. Retaining wall

05. Material Selection



Turf
Species - Kikiyu



Mulch
Type -Hardwood Grade A



Paved footpath
Flag stone Paver 60
Colour - Arctic, Tundra,
Geo Kao
Supplier: Midland Brick



Stabilised limestone gravel
Colour - Natural
Finish - Compacted

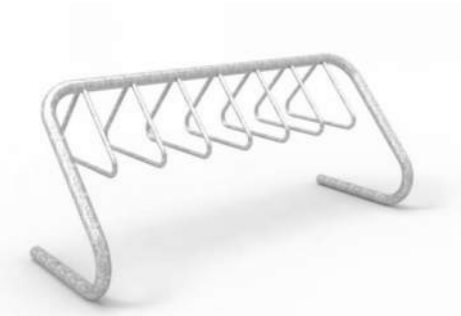


Broom finish concrete
Colour - Grey



Concrete mow curb
Colour - Grey

FURNITURE



Bike Rack
Product: EXPO 7510 (7-10 BIKES)
Material: HDG hand polished
Size: Typical 850Wx 1960L x 850Hmm
Mounting - Surface fixed
Supplier: Cora or approved equivalent



Fire pit
Product: Custom Brick Fire Pit
Material: Brick
Frame: Powdercoated Aluminum
Size: 1500Wx 1500Lx 300Hmm



Bench
Product: Wandin Straight Timber Bench
Material: Spotted Gum
Frame: Powdercoated Aluminum
Size: Typical 1720Hx 405Wx 430Hmm
Mounting - Surface fixed
Supplier: Draffin or approved equivalent

PLAYGROUND EQUIPMENT



Natural playground
steppers



Natural playground logs

06. Tree Plan



-  *Agonis flexuosa*
-  *Banksia grandis*
-  *Eucalyptus caesia*
-  *Eucalyptus tottiana*
-  *Eucalyptus torquata*
-  *Melaleuca leucadendra*

07. Tree Selections

NATIVE TREES



Agonis flexuosa

H15 x W 5m



Banksia grandis

H4 x W 5m



Eucalyptus caesia

H8 x W 4m



Eucalyptus todiana

H6 x W 5m



Eucalyptus torquata

H6 x W 5m

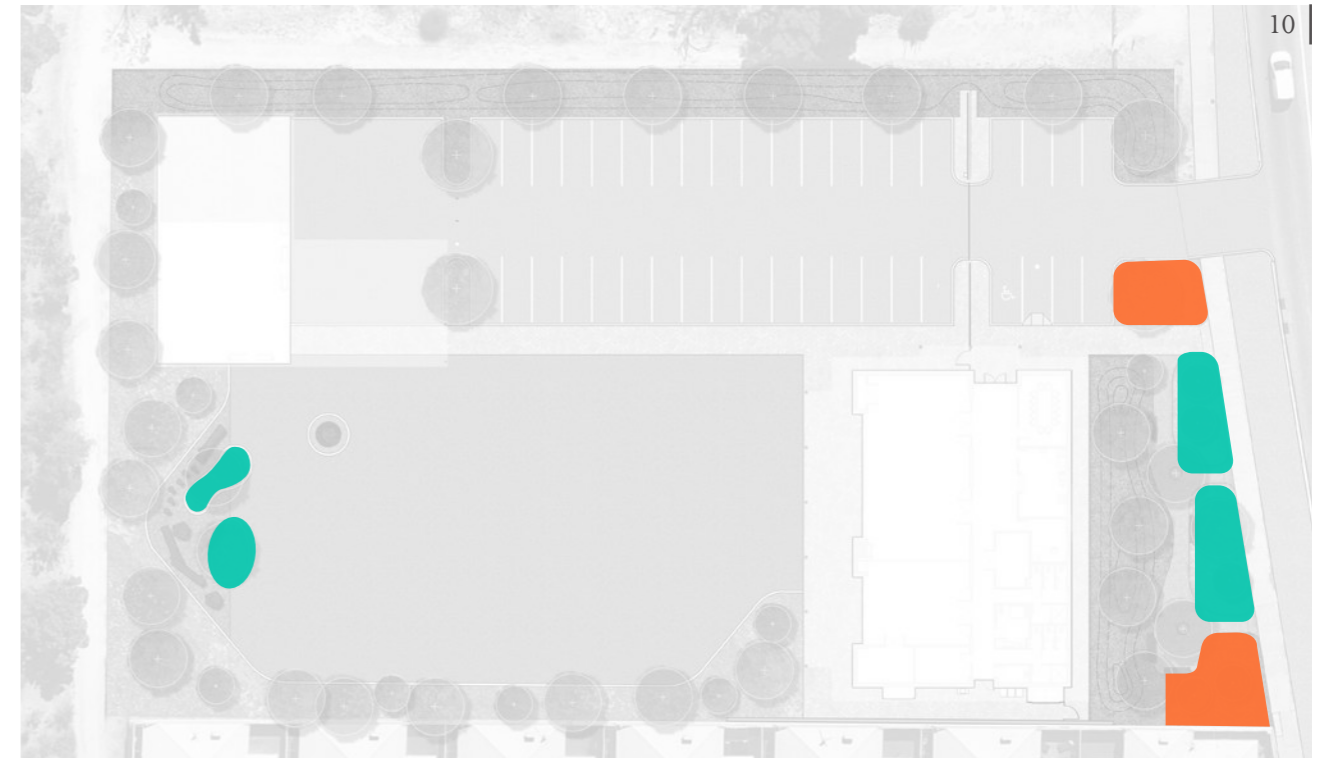


Melaleuca leucadendra

H10 x W 5m

08. Planting Selections

FINAL PLANTING MIX LOCATIONS
TO BE DETERMINED THROUGHOUT
DOCUMENTATION PHASE



ENTRY MIX



Lomandra 'Lime Tuff'



Eremophila 'Kalbarri Carpet'



Hemiandra pungens



Adenanthos cuneatus



Banksia nivea



Myoporum 'Yareena'



Kennedia prostrata



Grevillea "Gin Gin Gem"



Banksia blenchfolia

BUSH TUCKER PLANTS



Banksia menziesii Dwarf



Melaleuca huegelii 'prostrate'



Conostylis candicans



Banksia ashbyi Dwarf



Beaufortia 'Summer Flame'



Rhagodia baccata



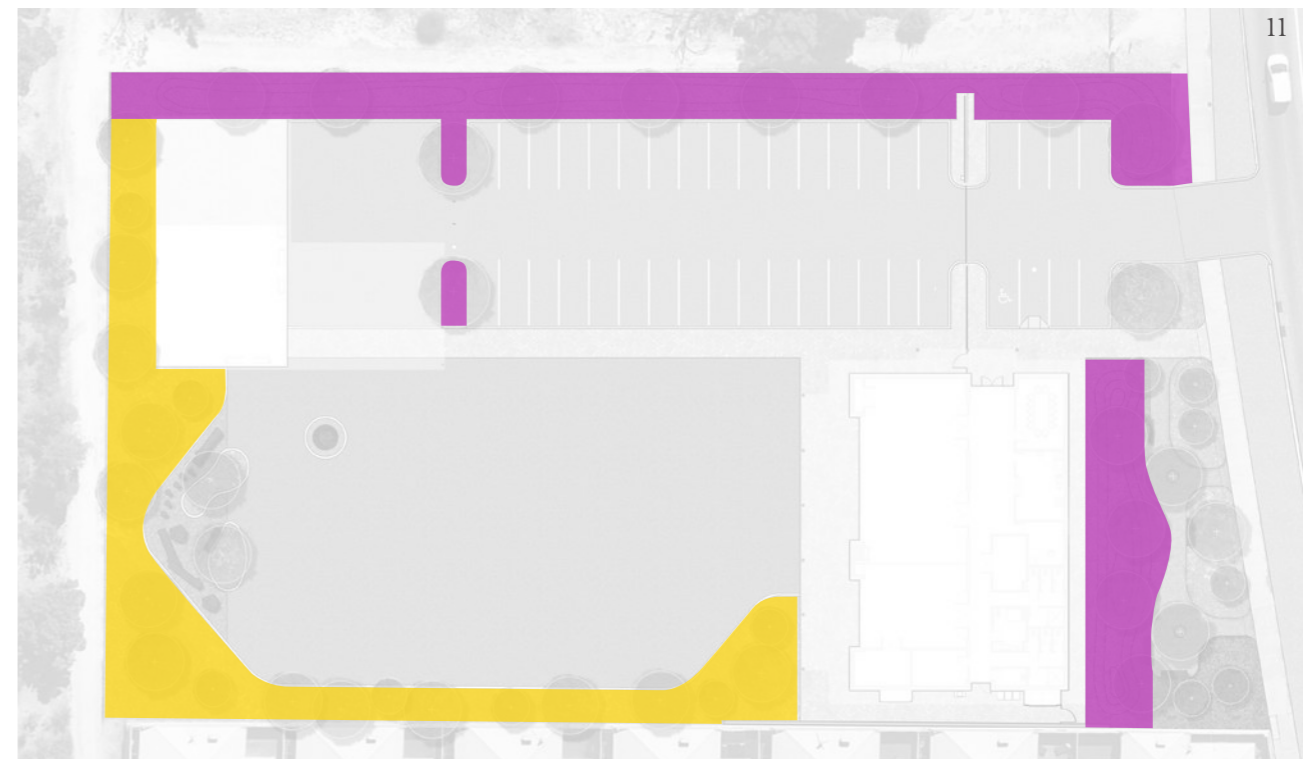
Myoporum insulare prostrate



Haemodorum spicatum



billardiera fusiformis



SWALE



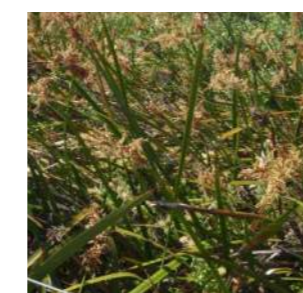
Dianella 'Little Jess'



Ficinia nodosa



Lepidosperma gladiatum



Poa 'Kingsdale'



Patersonia occidentalis



Lomandra 'Tanika'



Lomandra 'Seascape'



Baumea Juncea

NATIVE GARDEN



Adenanthos 'Silver Streak'



Grevillea obtusifolia



Conostylis candicans



Beaufortia 'Summer Flame'



Lomandra 'Tanika'



Melaleuca huegelii 'prostrate'



Banksia ashbyi Dwarf



Banksia menziesii Dwarf



Calothamnus quadrifidus

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Carramar Community Scout Hall

Development Application



Operational Overview Report

1. Proposed Business Activity

a. Operations

This will be a shared-use community facility. Its Principal Occupant and Lessee will be the Carramar Scout Group and its core purpose will be as the home base for meetings, activities, and equipment storage for the Carramar Scout Group and for the Scouts WA Wanneroo District.

The facility will be shared by sub-lease with other values-based community groups and small businesses to create a thriving community hub. The design incorporates multiple flexible spaces that will support the planned uses by means of:

- i. Flexible multipurpose activity spaces
- ii. Servery for the storage and service of pre-prepared food
- iii. Meeting room equipped with flexible table setup and audio visual facilities
- iv. Multiple storage spaces
- v. Foyer and gallery space

In addition to the spaces within the main hall, the site will feature:

- vi. Outdoor camping area and fire pit for use by the Carramar Scout Group along with other Scout Groups on occasion
- vii. Storage shed and hardstand
- viii. Planned native garden to the north of the site facing Ashley Road
- ix. Ample parking on site for users of the facility

b. Management

A Management Committee will be established to meet key operational and management objectives of the facility. It is suggested that it will consist of the following members:

- Carramar Scout Group – up to 3 members
- Sharing community groups – up to 3 members
- A representative from Scouts WA

A City of Wanneroo representative has not been identified at this point. However, given the City's interests in the land and community uses this is something the City might consider.

The Management Committee will ensure the following objectives are met:

- i. The facility is managed to the satisfaction of the Lessor (City of Wanneroo) as well as the Lessee (Scouts WA)
- ii. The facility is accessible to community groups other than the main Occupants (Carramar Scouts)
- iii. The facility and surrounds are properly maintained in a safe and habitable condition over the life of the Ground Lease and beyond

2. Usage Pattern

a. Operation Hours

Operating hours are projected to be from 8am to 9.30pm, 7 days a week.

The facility will not be open for general public access. On request the general public can book an inspection/walkthrough of the facilities guided by a member of the facility's Management Committee.

b. Frequency and Duration of Use

The basic usage pattern of the facility is group/activity based, that attracts people for extended periods of time (as opposed to a short-term churn such as a convenience store or the like).

The primary user of the facility (Carramar Scout Group) will meet on a regular weekly basis or as their needs determine. At present this is typically four times a week, for periods of up to 4 hours at a time – usually between the hours of 5.30pm and 9.30pm.

In addition to the primary users, the Community Hall will be shared by other community groups at times and regularities that suit the primary user and are acceptable to the management committee. The goal is for the facility to maximise use and activity during operating hours.

3. User Metrics

a. Number of employees

The Management Committee comprises of volunteers only. The Committee will manage the administrative and maintenance duties of the Community Scout

Hall – overseen by the Scouts WA Head Office, who are legally responsible for the site as the Lessee. It is estimated that the Committee will comprise of at least three Scouts members. The number of Committee members is expected to fluctuate based on the interest of Community user groups in helping manage the facility. Routinely there will be cleaning and maintenance contractors on site as required.

b. Projected customer and client numbers

The Carramar Scout Group consists of five primary member groups totalling nominally 135. This number fluctuates year on year, but is a reasonable basis for anticipated usage, broken down as follows:

- i. Joey Unit (30 members)
- ii. Cubs Unit (35 members, 2 units)
- iii. Scouts Unit (50 members)
- iv. Venturers & Rovers Units combined (20 members)

Use of the hall by groups from the wider community is foreseen as so:

- i. One community group of at least 40 attendees (eg. A mother's playgroup once a weekday)
- ii. One community group of at least 60 members twice a week (evening meetings) (eg. Girl Guides)
- iii. One community group of 30 people once a week (evening meetings) (eg. A church group)
- iv. One group fitness class of 20 attendees twice a week (eg. Day or evening yoga class)

4. On-Site Parking

Provision for 40 parking bays on-site has been made in the concept design. One ACROD bay will be designated amongst these. Eight bays are on the outside of an operable gate closest to Ashley Road, two will be for loading/short stay use.

The remainder of the parking bays are secured behind an operable gate. To ensure parking is used solely by users of the facility, the gate will have a code security access system.

Additional overflow parking is available at the hardstand next to the storage shed toward the south of the site.

5. On-site Processes/Machinery

a. **Servery**

A servery/reheat kitchen adequate to the Scout Group's needs will be installed, for the serving and storage of pre-prepared food eg. bench for simple food preparation, domestic level refrigeration and cosmetic level cooktop and under-bench oven. It is noted that the kitchen is not designed to be, nor will have the equipment to function as, a full service scattering/cooking kitchen. Nor can it be converted to provide such a function as it will not have a grease trap.

b. **ICT & AV**

An office/ICT room included for the sole use of the Scout Group. It will include the appropriate ICT equipment (NBN interface, modem/router). The facility will have a secure Wi-Fi service for users. Both the meeting room and multipurpose room 1 will be fitted with AV equipment.

c. **Security & Access**

Paid on-site staff will not be present. A CCTV surveillance system will be installed onsite. Access to live feed footage will be granted to select members of the Management Committee and Scouts WA Head Office. Facility access is currently planned to be by way of security coded systems such as smart door locks or smart key boxes.

d. **Mechanical & Electrical**

The facility is planned to have air conditioning and ventilation systems. It will also have low energy use power and lighting systems, and a photovoltaic array that will be battery ready. Enclosed and lockable mechanical & electrical rooms will be included on the eastern external wall of the facility.

e. **Operable walls**

An operable dividing wall will enable the main hall to be divided into two multipurpose rooms, or used as a large hall space (e.g. by a dance group).

6. **Loading and Waste Pick-Up**

a. **Loading Zones**

Loading deliveries for the building are expected to be minimal. Two designated loading/short stay bays are located next to the ACROD bay.

Scout Group loading/delivery activity will be undertaken in the hardstand area.

b. **Waste Pick-Up**

Kerbside waste pick-up is initially planned for as it is not that use will generate

significant volumes of waste. Any usage that can be reasonably foreseen to generate a waste volume greater than a kerbside pick-up capacity will be required to arrange their own waste removal.



ENVIRONMENTAL ACOUSTICS

DEVELOPMENT APPROVAL REPORT

**CARRAMAR SCOUT AND COMMUNITY CENTRE
76 ASHLEY ROAD, TAPPING**

11th March 2022



For

PARRY & ROSENTHAL ARCHITECTS

2nd Floor / 43 Ventnor Avenue
WEST PERTH WA 6005

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Report Version	Author	Notes	Date
Initial Report	Michael Ferguson		11 th March 2022



Gabriels Hearne Farrell Pty Ltd is a Member Firm of the Association of Australasian Acoustical Consultants. The report author is a full member of the Australian Acoustical Society.

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Gabriels Hearne Farrell Pty Ltd and the client. Gabriels Hearne Farrell Pty Ltd accepts no liability where this report is used by any third party who may rely upon this document. No section of this report can be used by a third-party without prior approval from the client and Gabriels Hearne Farrell Pty Ltd. This report should not be reproduced or reviewed, except in full.

1. INTRODUCTION

As requested, this report summarises the potential noise emissions from the proposed new Carramar Scout and Community Centre, located at 76 Ashley Road, Tapping. The purpose of this report is to conduct an assessment of the potential noise emissions, comparing the existing noise experienced by the neighbouring noise sensitive premises to the likely noise emissions once this development is completed.

This report is based upon drawings received from the architect on the 24th February, 2022. This report outlines the following:

- Demonstrates that the project team is aware of their Regulatory obligations with regards to noise emissions,
- Establishes the project specific Assigned Noise Level criteria in accordance with the Regulations,
- Identifies the relevant Noise Sources and the Assigned Noise Levels applicable to each source,
- Identifies acoustic issues that will be addressed in detail during design and documentation stages, to ensure compliance with the Environmental Protection (Noise) Regulations (EPNR),
- Provides an initial assessment and recommendations to ensure compliance with the EPNR where required,
- Provides an assessment of potential noise emissions in comparison to the existing emissions, including:
 - Amplified music breakout from Community Centre
 - Proposed mechanical systems
 - Use of external fire pit area
 - Car door closes

1.1 Qualifications Of Consultant

The author of this report, Michael Ferguson, has been working for Gabriels Hearne Farrell Pty Ltd (formerly Gabriels Environmental Design Pty Ltd) since the beginning of 2010. He became a full member of the Australian Acoustical Society on the 22nd March, 2014. GHF is also a Member Firm of the Association of Australasian Acoustical Consultants.

2. ENVIRONMENTAL NOISE EMISSIONS

2.1 Background

Noise emissions generated by the use of the proposed facilities must comply with the Environmental Protection (Noise) Regulations, 1997 (as amended Dec 2013). The criteria for noise emissions from this development to neighbouring premises are called the Assigned Noise Levels, and vary depending on time of day, receiver location, duration of the noise source etc.

For the purposes of this report, the noise emissions that are required to meet the EPNR are:

- Amplified music breakout from Community Centre
- Proposed mechanical systems
- Use of external fire pit area
- Car door closes

The proposed development is a single storey community hall with two multi-purpose rooms, as well as a meeting room and other back-of-house areas. We have been advised that the site is to be levelled out in the immediate area surrounding the proposed hall down to an RL of approximately 35.35m. Retaining walls to the Eastern residences will therefore be increased in height i.e. there will be a greater elevation change between sites from the existing levels.

The western side of the property has an open air carparking area, with a storage shed located in the South West corner of the site. Adjacent this storage shed at the rear of the property is a designated fire pit zone where small gatherings are likely to take place.

2.2 Noise Sensitive Receivers

The neighbouring highly noise sensitive premises are:

- Residences located to the East of the proposed development. These are all single storey residences, with rear courtyards facing onto the proposed development. The height of these residences appears to be RL 37.5m with the entrance area of the central driveway ramping up to create a level overall site.

Our current calculations and recommendations are based upon these above mentioned properties. The addition of any other noise sensitive premises around the site would require further consideration, however it is our view that this appears unlikely based on land zoning available on the City of Wanneroo's website.

2.3 Influencing Factor

The site specific Assigned Noise Level criteria takes into account the land zoning and traffic flows within 100m and 450m of the relevant receiver locations. This has been based on the satellite imagery provided by Google Earth, as well as the traffic flow information provided by the Mains Roads WA website.

Land Zoning Influencing Factor

There is no commercial land within either the inner circle or outer circle. Therefore there is no influencing factor applied due to land zoning.

Transport Influencing Factor

Typically, the amount of traffic on nearby roads has an influencing factor on the assigned noise levels. In this instance there is a major road just beyond the outer 450m radius (Wanneroo Rd), therefore there is no influencing factor applied for traffic either.

These areas and roads can be seen in the Assigned Noise Level image below:



Image O1 - Relevant Assigned Noise Level Influencing Factors for the most effected Noise Sensitive Receivers

2.4 Assigned Noise Levels

Based on the above, there is no Influencing Factor relevant to the residences in the immediate surrounding area to the proposed development. On this basis, the regulatory Assigned Noise Level criteria to be applied to this development are as follows:

Type of premises receiving noise	Time of day	Assigned Noise Level (dB)		
		L _{A10}	L _{A1}	L _{Amax}
Noise sensitive premises; highly sensitive area. (i.e. within 15m of a residential building)	0700 to 1900 hours Monday to Saturday	45	55	65
	0900 to 1900 hours Sunday and public holidays	40	50	65
	1900 to 2200 hours all days	40	50	55
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays.	35	45	55

Table 01 - Assigned Noise Levels

The sound level parameters used for the various environmental noise criteria are described below, based on an assessment period of 15 minutes up to 4 hours:

L_{A10} is the 'A' weighted noise level which is not to be exceeded for more than 10% of the time, e.g. for more than 10 minutes in 100 minutes. This is the parameter relevant to most HVAC equipment, and emissions from other longer term noise sources that run for extended duration (such as music breakout, mechanical plant, etc.).

L_{A1} is the 'A' weighted noise level which is not to be exceeded for more than 1% of the time, e.g. for more than 1 minute in 100 minutes, or up to 24 minutes in 4 hours. This is the parameter relevant to noise sources that only occur occasionally, for short durations.

L_{Amax} is the 'A' weighted noise level for individual events which is not to be exceeded at any time.

2.5 Adjustments for Noise Character

Regulation 9 requires that the noise emission must be free of annoying characteristics, namely tonality (e.g. whining, droning), modulation (like a siren), and impulsiveness (e.g. thumping). Where noise emissions do exhibit the above noise characteristics, an adjustment is made to the measured/calculated noise level:

<i>Tonality</i>	5dB is added to the measured level
<i>Modulation</i>	5dB is added to the measured level
<i>Impulsiveness</i>	10dB is added to the measured level

Music also has its own category of penalties to apply. Where the music is free from impulsiveness a penalty of +10 dB is applied, however where impulsiveness is present in the music emissions a penalty of +15 dB is applied. Typically we apply a + 10 dB penalty to any music breakout from a facility (i.e. inside to outside) whereas outdoor music incurs a +15 dB penalty.

In our experience of these types of facilities, the following penalties for noise character apply:

<i>Music Breakout</i>	+10 dB penalty for breakout emissions.
<i>Mechanical Plant</i>	+5 dB penalty, due to tonality
<i>Crowd Noise</i>	No penalty applied
<i>Car Door Slamming</i>	+10 dB penalty, due to impulsiveness

The above adjustments only apply where the noise character is audible and measurable at both the noise source and noise receiver.

3. NOISE MODELLING PROCEDURE

The noise emissions from the proposed facility have been modelled using the *SoundPLAN 8.2* software with the *Concawe* algorithm. This software allows the input of topographical data, building heights and forms, meteorological conditions, and noise source data. The software produces noise contour plans, indicating the predicted noise level over a given area.

Note – the output noise levels from *SoundPLAN* are base noise levels not including adjustment for noise character. Adjustments as per the previous section of this report must then be applied.

3.1 Meteorological Conditions

The meteorological conditions used in the calculations were as follows (based on the requirements of the Department of Environment Regulation):

Day-time Assessment

- Temperature – 20°C
- Relative Humidity – 50%
- Wind – 4 m/s in all directions simultaneously
- Pasquil Stability Class - E

Night-time Assessment

- Temperature – 15°C
- Relative Humidity – 50%
- Wind – 3 m/s in all directions simultaneously
- Pasquil Stability Class - F

3.2 Topography and Building Form

The building form, height, and configuration were input into the noise model, based on the architectural drawings, site surveys and the contour information available in online systems.

All roads and carpark areas were input into the noise model as hard reflecting ground surface.

3.3 Noise Level Data

The following noise level data was input into the noise model.

3.3.1 Music Breakout from Community Centre

Previous measurements of similar facilities has been undertaken where amplified music may be utilised. Based on these measurements we have run an assessment of the potential noise breakout, based on a potential sound pressure level at the inside face of the external walls / ceiling materials being approximately 90 dB(A). It is our view this is quite a conservative value to use for the proposed facility, however the results of the modelling can also be adjusted to indicate compliant levels based on this starting point i.e. 90 dB(A) would typically equate to a loud party environment. The spectrum used for this assessment is as follows:

Sound Pressure Level of Music in Community Centre								
	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	dB(A)
At inside face of façade	92	93	89	89	86	77	71	90

Table 02 - Sound Pressure Level of Music at Inside Face of Building Envelope used in EPNR Assessment

3.3.2 Mechanical Noise

An assessment of the potential noise emissions from the external mechanical equipment has been undertaken. This assessment is based on the data supplied by the Mechanical consultant on the 4th March, 2022. The noise levels of these units are as follows:

Sound Power Level of Mechanical Units								
	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	dB(A)
CU 1	82	77	77	72	67	60	52	74
CU 2	78	77	74	72	68	63	60	74
CU 3	84	82	82	80	74	71	68	81

Table 03 - Sound Power Levels of Mechanical Units used in EPNR Assessment

Note exhaust fans were not input at this stage as equipment and locations were currently unknown, however these are typically quieter in noise level and if required silencers can be installed relatively easily.

3.3.3 Crowd Noise

An assessment of the potential noise emissions from the rear located fire pit area / gathering space has been undertaken. Whilst difficult to predict the exact nature of the noise emissions from this space, for the purposes of this assessment we have used the expected noise level of a person talking with a conversational voice level. The data used in this modelling scenario is as follows:

Sound Power Level of 1 Person								
	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	dB(A)
Conversational Voice Level	52	53	63	70	68	62	58	72

Table 04 - Sound Pressure Level of a Person Talking at a Conversational Level

3.3.4 Car Doors

As there is no proposed gate to the car parking area this is generally considered to be a part of the road network. Due to this the braking and propulsion of vehicles is exempt from the Regulations, however the closing of car doors must still be considered.

It must be noted that car door closes can vary in noise level and frequency, however the noise level used in our assessment could be considered a “firm” close. The noise spectrum used is as follows:

Sound Power Level of Car Door Close								
	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	dB(A)
Firm Car Door Close	94	92	85	81	80	74	70	85

Table 05 - Sound Pressure Level of a Car Door Closing

3.4 EPNR Noise Specific Criteria

As discussed above, noise emissions discussed in this report in greater detail are as follows:

- Amplified music breakout from Community Centre
- Proposed mechanical systems
- Use of external fire pit area
- Car door closes

We have been advised that the potential operating times of the Community Hall are between 7am to 9:30pm, seven days a week.

Based on the above, the relevant EPNR criteria are shown against typical times of the proposed activities. The most stringent Assigned Noise Level criteria applicable to these periods will therefore be applied (as seen below).

Noise Emissions from Music Breakout / Crowd Noise / Mechanical Plant		
	Time of Day	Relevant Assigned Noise Level
Daytime - Monday to Saturday	7am to 7pm	L _{A10} 45 dB(A)
Daytime - Sundays & Public Holidays	9am to 7pm	L _{A10} 40 dB(A)
Evening - All Days	7pm to 10pm	L _{A10} 40 dB(A)
Overnight - All Days	All other times from above	L _{A10} 35 dB(A)

Table 06 - Noise Emissions and their Relevant Assigned Noise Levels

Noise Emissions from Car Doors		
	Time of Day	Relevant Assigned Noise Level
Daytime - Monday to Saturday	7am to 7pm	L _{Amax} 65 dB(A)
Daytime - Sundays & Public Holidays	9am to 7pm	L _{Amax} 65 dB(A)
Evening - All Days	7pm to 10pm	L _{Amax} 55 dB(A)
Overnight - All Days	All other times from above	L _{Amax} 55 dB(A)

Table 07 - Relevant Assigned Noise Levels - Car Doors

4. RESULTS OF ACOUSTIC MODELLING

4.1 Noise Breakout from Community Centre

Music breakout from the Community Centre was modelled in accordance with the noise levels previously stated, as well as the current architectural documentation. This modelling is based on the following constructions:

- The external glazing to the South is 6.38mm laminated glass minimum. All fixed or awning type glazing expect for the entrance swing doors.
- The external walls are of a cavity masonry construction (or acoustically equivalent)
- The ceiling is of a perforated type with R2.0 ceiling insulation over
- The roof sheeting is installed with 75mm Anticon insulation under, compressed between the sheeting and purlins.

The results of this noise modelling can be seen below:

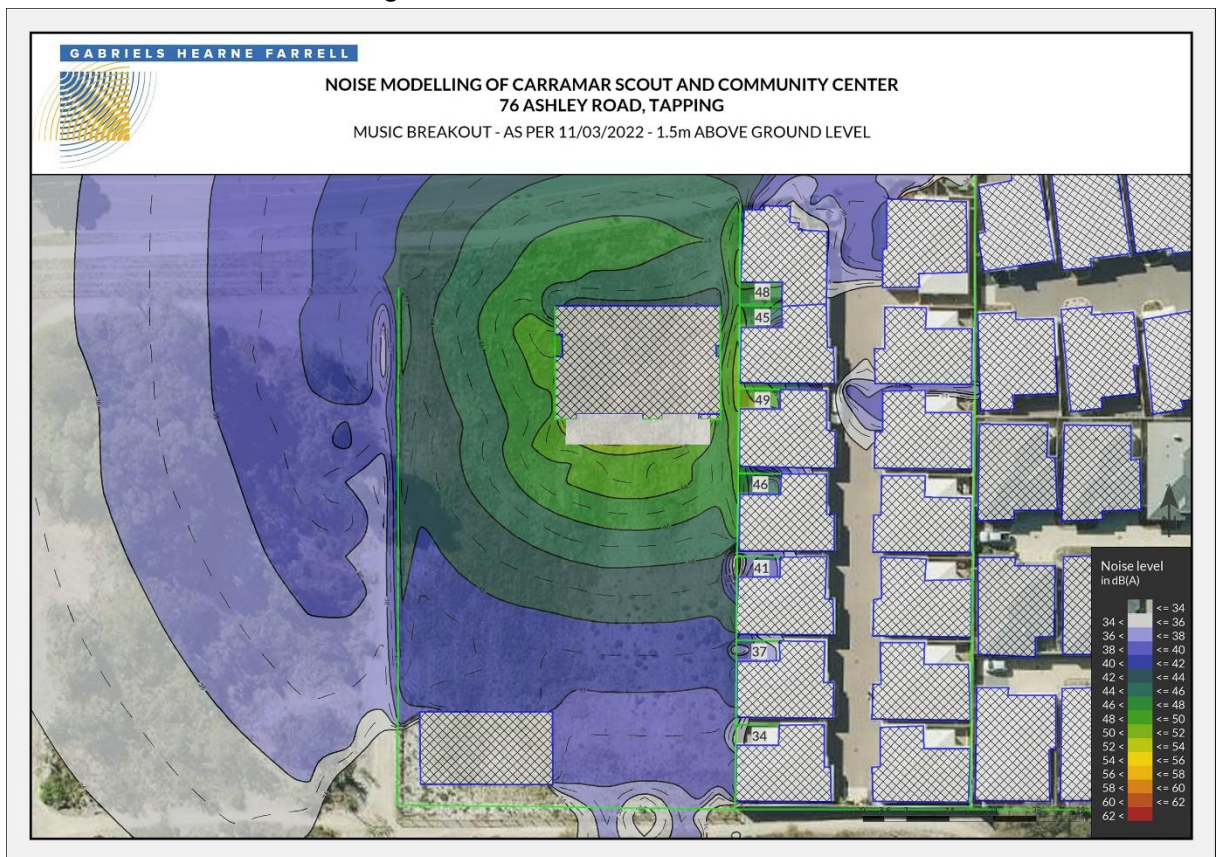


Image 01 - Noise Emissions from Facility - Amplified Music

At the most affected receiver position the predicted noise level is approximately 49 dB(A). Allowing for a +10 dB penalty for music emissions, the resultant noise level is approximately 59 dB(A). At this internal noise level the potential music breakout is expected to exceed the daytime criteria of 45 dB(A) by approximately 14 dB(A). Therefore the internal noise levels for amplified music must be managed to not exceed the following levels:

- 7am to 7pm Mon to Sat 76 dB(A)
- 7pm to 10pm Mon to Sat 71 dB(A)
- 9am to 10pm Sun & Public Holidays 71 dB(A)
- 10 pm to 7am / 9am 66 dB(A)

To reiterate, the above noise levels are to be managed at the inside face of the external façade / ceiling plane. Depending on location, the noise level at 1m from a speaker system could be substantially higher.

4.2 Noise Emissions from Mechanical Noise

All HVAC and other mechanical systems must achieve compliance with the Regulations at all times of the day. Based on the noise levels and locations of the equipment outlined in Section 3.3.2 of this report, the results of the acoustic modelling can be seen in the image below:

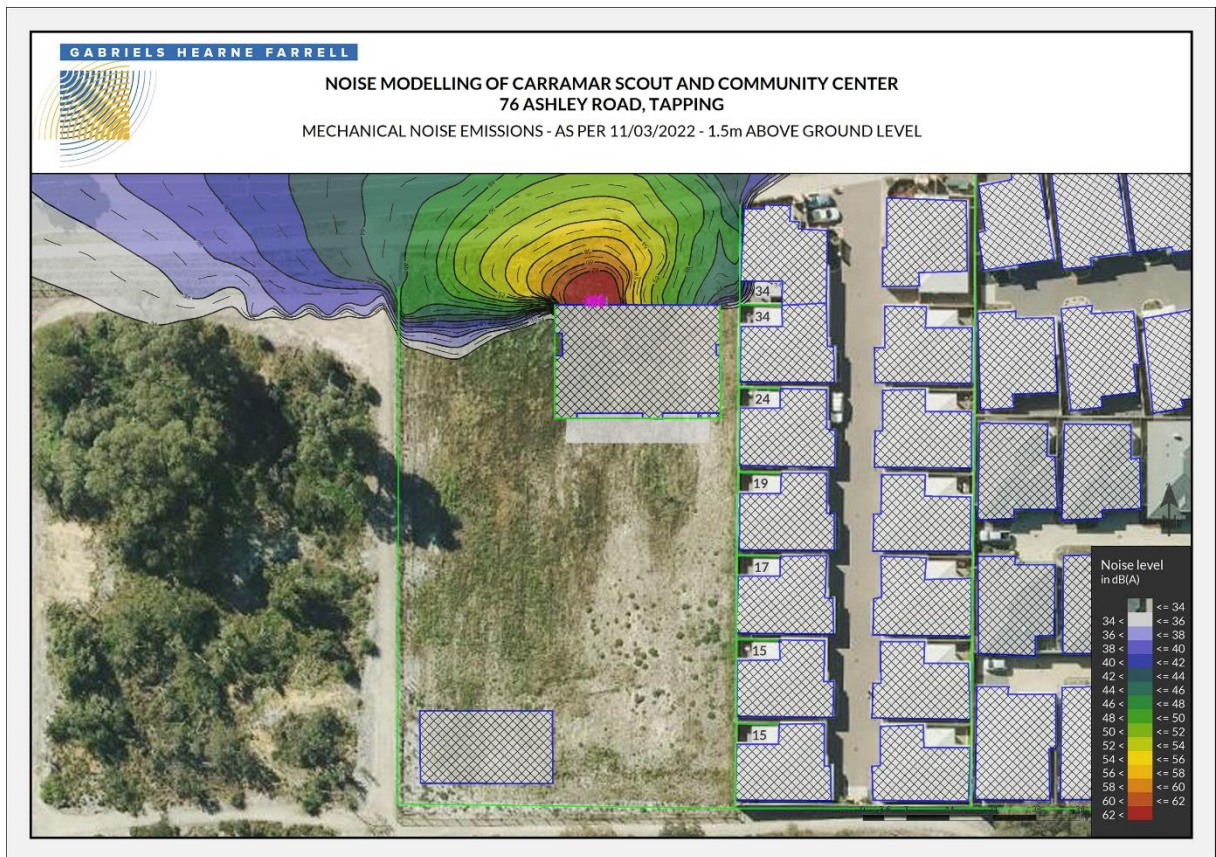


Image 02 - Noise Emissions from Facility - Preliminary Mechanical

The results of this modelling is indicating a noise level of approximately 35 dB(A) at the closest noise sensitive receiver position. Allowing for a +5 dB penalty for tonality, the resultant noise level is approximately 40 dB(A).

At this predicted noise level, compliance is achieved between the hours of 7am to 10pm Monday to Saturday, and 9am to 10pm Sundays and Public Holidays. Further to this it is plausible that the units being run at a lower speed may achieve compliance outside of these hours however without specific data this assessment cannot be confirmed i.e. most units have a lower speed that could be 5 dB(A) or more quieter than the assessed speed, however this data was not available from the supplier on this project. Typically this is referred to as a "night setback mode" or similar.

4.3 Noise Emissions from Fire Pit Area

As mentioned previously, the potential noise emissions from a crowd source can be difficult to determine due to their highly variable nature. For the purposes of this assessment we have allowed for four people each talking within the fire pit area. To be clear, this scenario is not four people having a conversation, it refers to four people talking simultaneously i.e. four people each talking at the same time to smaller groups, with the groups listening.

The results of this modelling scenario can be seen in the image below:

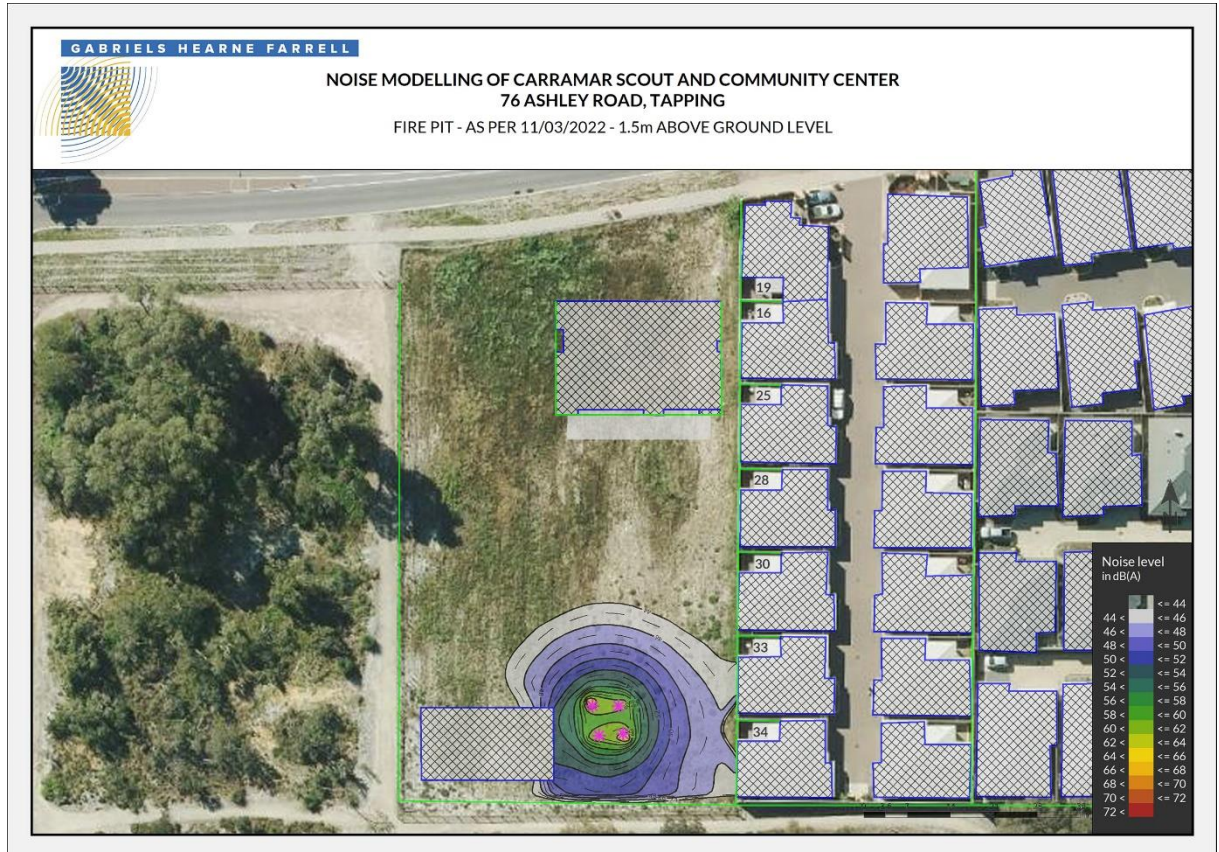


Image 03 - Noise Emissions from Facility - Fire Pit Area

The results of this modelling is indicating a noise level of approximately 34 dB(A) at the closest noise sensitive receiver position. There are no penalties applied to general crowd noise, therefore compliance is achieved at all times of the day.

Further to the above, the difference in noise level between a conversational voice level and a “raised” voice level is approximately 6 dB(A). Therefore should four people raise their voice at the same time the compliance would still be achieved up to 10pm all days.

There may be sporadic instances of higher vocal efforts (or larger numbers of people talking), however given the unlikely extent of this occurring in a managed scenario this should only take place for a short period of time. Therefore these instances would be assessed against a higher Regulatory LA1 or L_{Amax} criteria, likely maintaining the same level of compliance as stated above.

4.4 Noise Emissions from Cars Doors

This scenario demonstrates the potential noise emissions when car doors are closed in the car park area. It must be noted that in this scenario an individual point source was applied to each car bay, however in reality this “scenario” is extremely unlikely to occur at the same time. Therefore the noise level contours are provided for symbolic purposes only, indicating where the point sources were placed within the acoustic model:

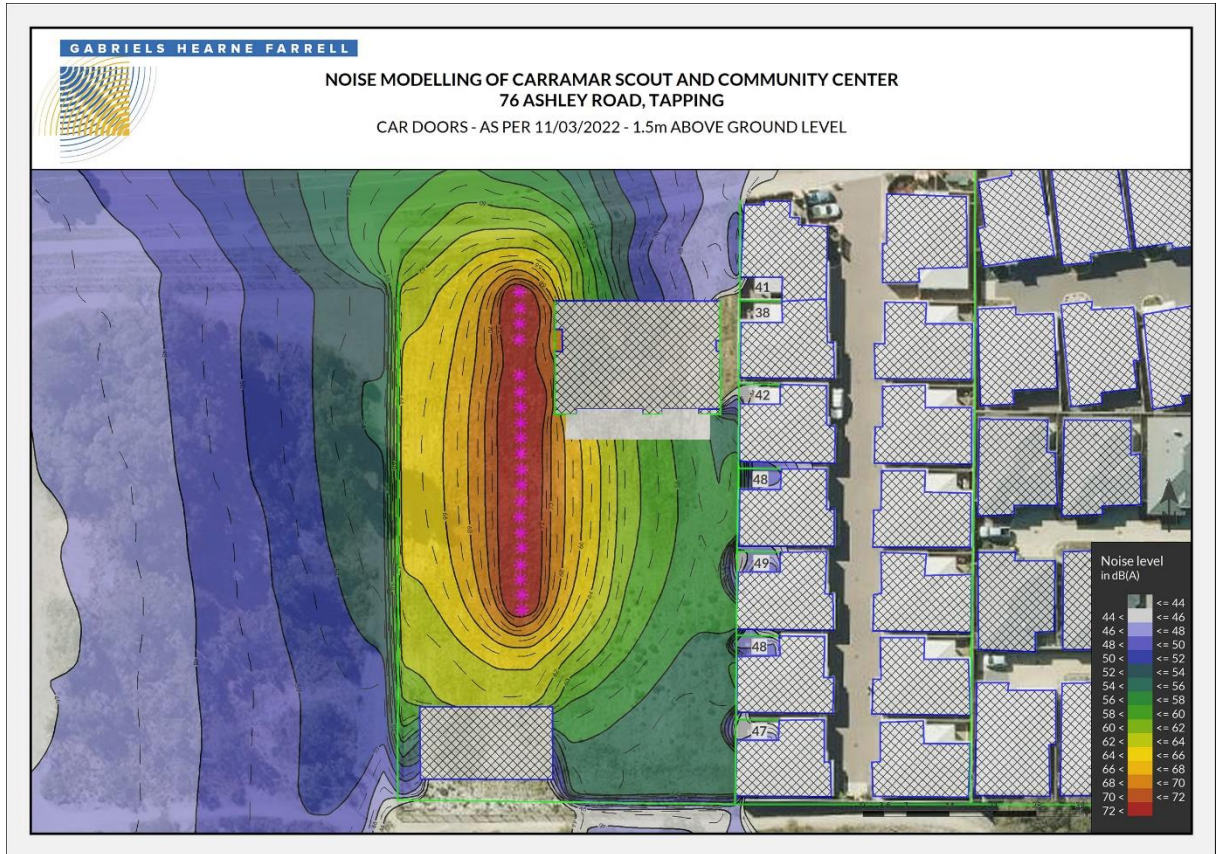


Image 04 - Noise Emissions from Facility - Car Door Closes

Instead the individual noise emissions from the point sources were analysed and have been provided in the detailed chart below.

This noise event is assessed against the L_{Amax} criteria given that the noise is present for less than 1% of the time (it is a very short term noise event).

- L_{Amax} 55dB(A) prior to 7am (9am Sundays); and,
- L_{Amax} 65dB(A) after 7am (9am Sundays).

The results of the individual car bays’ compliance are shown in the tables below (including a +10dB impulsive penalty):

Car Door Closes - SoundPLAN Results							
House Number	1 (North)	2	3	4	5	6	7 (South)
Worst Case Noise Level	47	41	43	47	48	48	47

Table 06 - Individual Noise Levels from Car Door Closes

From the above table of results it can be seen that the predicted noise level from a car door being closed in all car bays achieves compliance at all times of the day.

It is important to note that this noise modelling is based reasonably firm door slams, however in reality these noise emissions can vary quite significant. Therefore it is our recommendation that management of door closes and noisy vehicles is undertaken, particularly for any arrivals before 7am.

5. CONCLUSION

This report summarises the project requirements in terms of compliance with the Environmental Protection (Noise) Regulations, 1997. This includes determination of the relevant site specific Assigned Noise Level criteria.

A description of each noise source and applicable noise level criteria has been provided, including acknowledgment of relevant adjustments required for noise sources with particular characteristics.

Detailed acoustic modelling has been undertaken of the proposal using SoundPLAN v8.2 3D modelling software, with the outcome of this assessment being as such:

Noise Breakout from Community Centre

- Noise breakout from any amplified music within the centre must achieve compliance with the Environmental Regulations. Based on the current architectural documentation the noise level at the inside face of the building façade is to be restricted to greater than:
 - 7am to 7pm Mon to Sat 76 dB(A)
 - 7pm to 10pm Mon to Sat 71 dB(A)
 - 9am to 10pm Sun & Public Holidays 71 dB(A)
 - 10 pm to 7am / 9am 66 dB(A)

Door and windows must be closed for the above levels to be applicable.

- Noise breakout from general internal crowd activities is not expected to exceed the Regulations. Regardless, during times of particularly noisy activities it is recommended to close windows and doors if possible.

Noise Emissions from Mechanical Sources

- A review of the potential noise emissions from the mechanical plant has been reviewed and compliance is achieved between the hours of 7am and 10pm Monday to Saturday, and between 9am and 10pm Sundays and Public Holidays. Compliance outside of these hours is plausible provided the units are run at a lower / quieter speed than those assessed.

Noise Emissions from Fire Pit Area

- The external fire pit area has been assessed in regards to its potential noise emissions. Based on our assessment it is plausible that compliance will be achieved at all times of the day.

Noise Emissions from Car Doors

- Individual car door closes has been assessed for the column of car bays running along the East of the car park area. With a relatively firm door close compliance is achieved at all times of the day in all allocated car bays.

If you have any queries regarding this information please call the undersigned on 9474 5966.

Regards,

Michael Ferguson

Associate Director B.IntArch(Hons) M.A.A.S.



GABRIELS HEARNE FARRELL PTY LTD

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“Opt-Out” Development Assessment Panel (DAP)

THE APPLICANT

Name/Company: Contact Person:

Address:

Contact Number: Fax:

E-mail address:

PROPERTY DETAILS

Lot: Unit/ Street Number:

Street Name:

Suburb: Post Code:

Proposal:

Estimated cost of development (GST Exc) \$

I acknowledge that I am aware that the proposed cost of development (GST Inclusive) for this application is between \$2,000,000 and \$ 10,000,000 and could be considered for assessment and determination by the Development Assessment Panel.

Please be advised that I have elected to have it assessed and determined by the City of Wanneroo.

Signature (Applicant):

Name (Please print):

Date:

Enquires

Further information relating to Development Assessment Panels can be obtained from:

City of Wanneroo
 Planning Implementation
 Phone: (08) 9405 5000
 Fax: (08) 9405 5499
 Email: enquiries@ wanneroo.wa.gov.au
 Website: www.wanneroo.wa.gov.au

Department of Planning
 Development Assessment Panels
 Phone: (08) 6551 9919
 Email: daps@planning.wa.gov.au
 Website: <http://daps.planning.wa.gov.au/default.asp>

STATE PLANNING POLICY 7.0 – DESIGN OF THE BUILT ENVIRONMENT

PROPOSED CARRAMAR SCOUT & COMMUNITY CENTRE

Design of the Built Environment is a State-based policy that aims to ensure the overall quality and consistency are achieved through a robust design review. Below are the ten values that comprise of principles and a response on how the development has fulfilled those requirements.

1. Context and Character

Located within a suburban setting with communal parkland to the north, bush to the south and west and multi-unit dwellings to the east, the proposed Scout & Community Centre utilises a typical domestic palette of face brick and profiled colorbond roofing. The Scout Hall reflects the surrounding modern domestic scale streetscape and environment of the urbanised Tapping area.

2. Landscape Quality

The proposed Scout & Community Centre landscaping scheme will significantly improve the current degraded, vacant parcel of land for the benefit and amenity of the local community. The scheme will showcase native plants, including a proposed 'bush tucker' garden to the front of the centre. A significant number of trees are to be planted providing shade and amenity for users with individual feature areas for nature based activities.

3. Built Form and Scale

The proposed Scout & Community Centre will be single storey in height and is an appropriate, domestic scale comparable to the surrounding developments. It is a simple rectilinear form with a skillion roof. Due to the local topography, the Scout & Community Centre will sit below the adjacent (eastern) multi- dwelling site, further reducing its apparent height in the streetscape.

4. Functionality and Build Quality

The development has been architecturally designed and will be purpose built as a Scout & Community Centre. The design will encourage social and recreational interaction within Scouts WA and the wider community.

Indoor facilities are orientated around two multi-purpose spaces each with direct access to outdoor landscaped areas to improve amenity and encourage outdoor activities. All indoor and outdoor structures will be constructed to a high standard and utilise durable high quality materials.

5. Sustainability

Scouts WA is committed to sustainable development. The centre has incorporated passive solar design principals to reduce reliance on mechanical heating and cooling. The centre will be highly insulated and feature high performance solar glazing. On site disposal of storm

water is via swales which will over time replenish ground water. The installation of a rainwater tank will aid garden reticulation, the future integration of solar panels will make the centre more self-sufficient and significantly reduce power consumption.

6. Amenity

The development has been designed to enhance the amenity of the area through the repurposing of a degraded vacant parcel of land with a high quality, purpose built facility to service the needs of not only local Scout groups but the wider community. The proposed landscape scheme will play an important role, providing significant visual amenity and access to carefully considered green space.

7. Legibility

The site is easily accessible. Vehicle access to the development will be from a clearly defined driveway entrance off Ashley Road. Pedestrian access is provided with a path that links up to the existing council footpath. Highly visible building signage will identify the centre with a canopy structure to mark and define the entry point.

8. Safety

The Scout & Community Centre will be fenced off for practical safety reasons and securely lit to minimise antisocial behaviour. There is a clear pedestrian access point from Ashley Road that connects to the building's main entry to ensure direct and safe access.

9. Community

The development will be a focal point for the local community. It will be a hub not only for Scouts WA but local residents, sporting and social groups alike. As such, the Scout & Community Centre has been designed to facilitate a wide range of activities with practical and multi-functional indoor and outdoor spaces with supporting infrastructure.

10. Aesthetics

As noted previously, Scout & Community Centre a simple rectilinear form with a skillion roof. The centre will have large areas of glazing and doors that will visually and physically connect the building to the external landscape and activity areas. It features a domestic style material palette and will be constructed to an architecturally designed high standard.

Bushfire Management Plan Coversheet

This Coversheet and accompanying Bushfire Management Plan has been prepared and issued by a person accredited by Fire Protection Association Australia under the Bushfire Planning and Design (BPAD) Accreditation Scheme.

Bushfire Management Plan and Site Details

Site Address / Plan Reference: 76 [Lot 1] Ashley Road			
Suburb:	Tapping	State: WA	P/code: 6065
Local government area:	Wanneroo		
Description of the planning proposal:	Scout & Community Centre		
BMP Plan / Reference Number:	220307	Version: B	Date of Issue: 15/03/2022
Client / Business Name:	Scouts WA		

Reason for referral to DFES	Yes	No
Has the BAL been calculated by a method other than method 1 as outlined in AS3959 (tick no if AS3959 method 1 has been used to calculate the BAL)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Have any of the bushfire protection criteria elements been addressed through the use of a performance principle (tick no if only acceptable solutions have been used to address all of the BPC elements)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the proposal any of the following special development types (see SPP 3.7 for definitions)?		
Unavoidable development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Strategic planning proposal (including rezoning applications)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Minor development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
High risk land-use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vulnerable land-use	<input checked="" type="checkbox"/>	<input type="checkbox"/>

If the development is a special development type as listed above, explain why the proposal is considered to be one of the above listed classifications (E.g. considered vulnerable land-use as the development is for accommodation of the elderly, etc.)?

Minors potentially needing supervision during an emergency.

Note: The decision maker (e.g. local government or the WAPC) should only refer the proposal to DFES for comment if one (or more) of the above answers are ticked "Yes".

BPAD Accredited Practitioner Details and Declaration

Name Jeremy Durston	Accreditation Level Level 3	Accreditation No. BPAD-36525	Accreditation Expiry 30/04/2023
Company Bushfire West Pty Ltd		Contact No. 0403328835	

I declare that the information provided within this bushfire management plan is to the best of my knowledge true and correct

Signature of Practitioner



Date 15/03/2022



BushfireWest

Bushfire Management Plan

Development Application:

Carramar Scout & Community Centre

Lot 1 Ashley Road, Tapping



Ref: 220307
Version: B
Mar 2022

REPORT DETAILS

Subject Land

Lot No.	Plan	Development Site
1	DP: 69528	No. 76 Ashley Road
Locality		Tapping (6065)
Zoning		Urban / Civic & Cultural
Local Government		Wanneroo
Proposal description		Carramar Scout & Community Centre

Document Reference

Project ref.220307	Date	Purpose
A	14 Mar 2022	Development application.
B	15 Mar 2022	Updated BAL report.

Author

Practitioner	Accreditation Level	Accreditation No.
Jeremy Durston	Level 3	BPAD-36525

Report Limitations

Bushfire and weather conditions can be extremely dangerous and unpredictable. The management of bushfire risk will depend on, among other things, the actions of property owners and/or occupiers over which the author has no control.

All surveys, forecasts, projections and recommendations made in this report are made in good faith on the basis of information available at the time. All maps included herein are indicative in nature and are not to be used for accurate calculations.

Notwithstanding anything contained therein, the author will not, except as the law may require, be liable for any loss or other consequences arising out of the services provided.

Jeremy Durston
jeremy@Bushfire West.com.au
Bushfire West Pty Ltd



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Appendix 1 – Asset Protection Zone Standards

Appendix 2 – Bushfire Attack Level Assessment Report

1. Proposal Details

Background & Purpose of Report

This Bushfire Management Plan (BMP) is for the proposed development of the Carramar Scout & Community Centre at Lot 1 [DP: 69528] Ashley Road, Tapping. The BMP assesses the proposal against *State Planning Policy 3.7 Planning in Bushfire Prone Areas* (SPP 3.7) and the associated *Guidelines for Planning in Bushfire Prone Areas v1.4* (the Guidelines).

The primary purpose of this report is to provide the required bushfire planning information to inform the assessment process for the development. The bushfire protection measures required to manage the bushfire risk are specified in accordance with the Guidelines.

Subject Site & Existing Conditions

The subject land (Figure 1) is located on Ashley Road approximately 3km to the north of the Wanneroo CBD. The cleared site is located within an urban context and is bounded by residential land to the east, Ashley Road to the north and otherwise by the Ashley Park public open space, which comprises significant native vegetation. To the North of Ashley Road is Jimbub Swamp Park, which comprises maintained playing fields, playgrounds and landscaping. Ashley Road is a through-road connecting with Pinjar Road to the east and with Wanneroo Road to the west. A reticulated water supply is available to the site with firefighting hydrants located along Ashley Road. The Wanneroo Central Volunteer Bush Fire Brigade is approximately 1.6km travel distance from the site.

The areas of remnant, native vegetation within the locality result in the development site being within a bushfire prone area, as designated by the *Western Australia State Map of Bush Fire Prone Areas* (Figure 1).

Proposal Description

The proposed development [Figures 2 & 3] is for the Carramar Scout & Community Centre to incorporate a community hall, storage shed, landscaping, parking and hardstand areas.

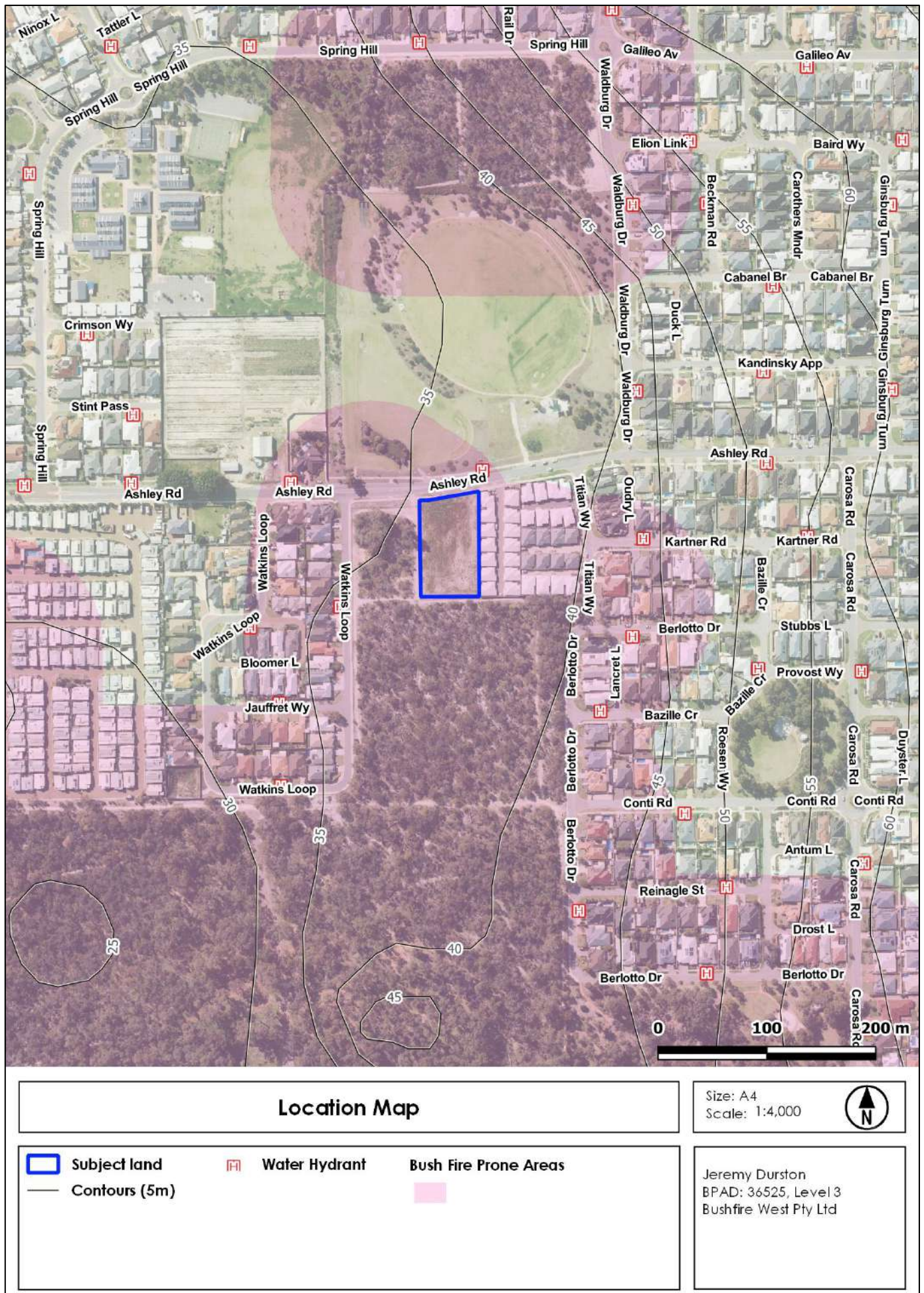


Figure 1: Site Location

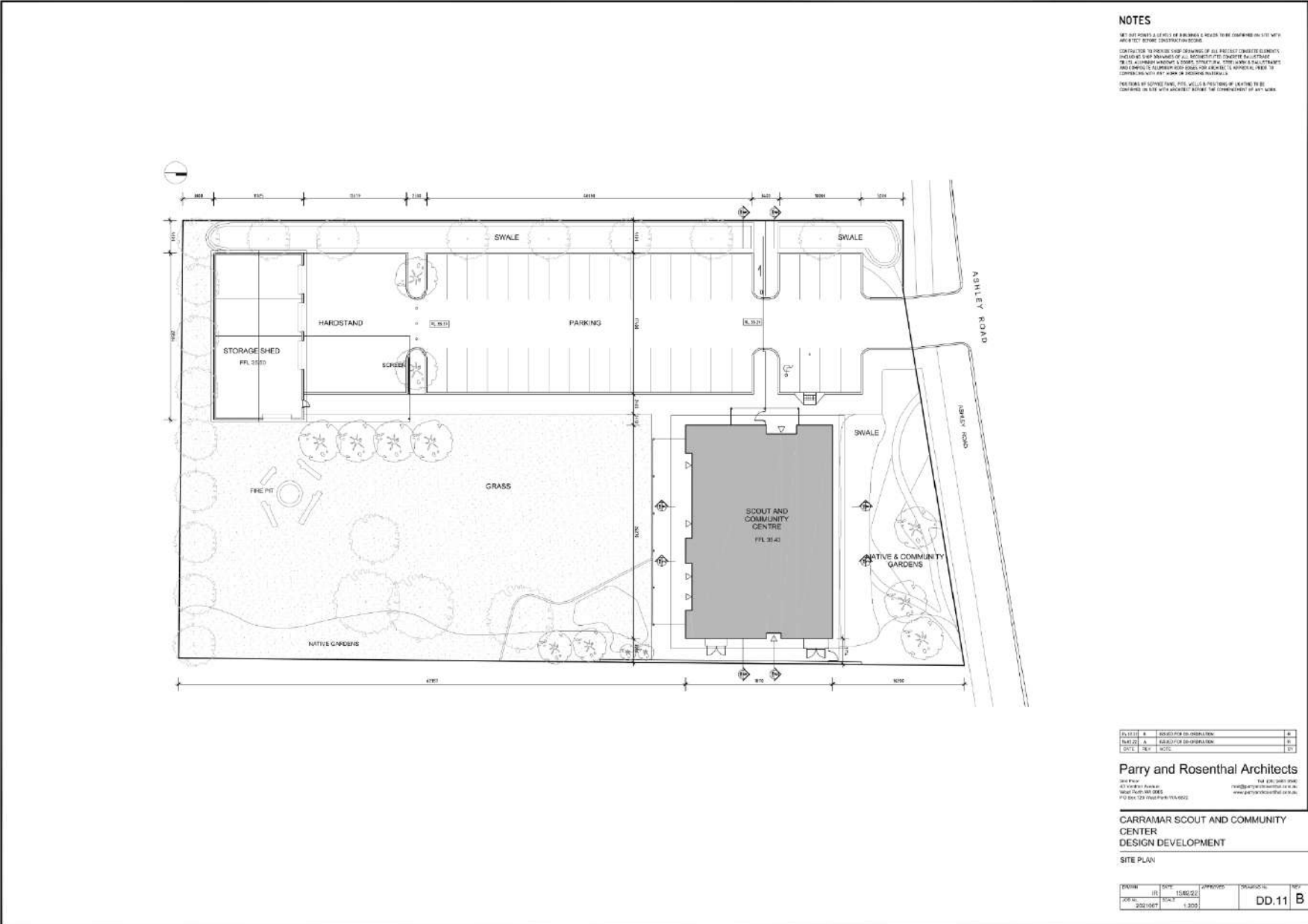


Figure 2: Development Site Plan

2. Vegetation Management & Landscaping

As detailed within this report, all onsite vegetation and landscaping is to be installed and maintained in accordance with Schedule 1: Standards for Asset Protection Zones from the Guidelines, summarised as follows:

Table 1 Standards for Vegetation within Asset Protection Zones

Vegetation Category	APZ Standards
Trees (>5m)	<ul style="list-style-type: none"> - Mature tree trunks to be separated from buildings by at least 6m. - No branches to touch or overhang buildings or powerlines. - Lower branches and loose bark to be removed to a height of 2m above ground & surface vegetation. - Canopy cover less than 15% over the total APZ area. - Canopies to be separated at least 5m apart.
Shrubs (0.5m to <5m)	<ul style="list-style-type: none"> - Shrubs should not be located under trees or within 3m of buildings. - Should not be planted in clumps greater than 5m² in area. - Clumps of shrubs should be separated from each other and from any exposed window or door by at least 10m.
Ground Covers (<0.5m)	<ul style="list-style-type: none"> - Can be planted under trees but must be maintained to remove dead plant material, as prescribed in 'Fine fuel load' below. - Can be located within two metres of a structure, but minimum three metres from windows or doors if >100 millimetres in height.
Grass	<ul style="list-style-type: none"> - Grass should be maintained at a height of 100 millimetres or less, at all times. - Wherever possible, perennial grasses should be used and well-hydrated with regular application of wetting agents and efficient irrigation.
Fine fuel load (Combustible, dead vegetation matter <6 mm in thickness)	<ul style="list-style-type: none"> - Should be managed and removed on a regular basis to maintain a low threat state. - Should be maintained at <2 tonnes per hectare (on average). - Mulches should be non-combustible such as stone, gravel or crushed mineral earth or wood mulch >6 mm in thickness.

In addition to the vegetation standards summarised above, there are Asset Protection Zone requirements applicable to fencing, defendable space around buildings and LP gas cylinders.

Schedule 1: Standards for Asset Protection Zones from the Guidelines is included in Appendix 1.

3. Bushfire Assessment Inputs

A Bushfire Attack Level (BAL) Assessment Report has been prepared by Structerre Consulting Engineers, reference S1052940 version 5 dated 15th March 2022, and is included in Appendix 2. The location and extent of classified vegetation structures, including low-threat exclusions, within 150 metres of the site were assessed within that report, and summarised as follows.

Table 2 Areas of classified vegetation and exclusions:

Vegetation Area	Vegetation Classification	Effective Slope
1	Class D Scrub (southern section of Ashley Park)	0°
2	Exclusion 2.2.3.2 (f) (managed Jimbub Swamp Park)	n/a
3	Exclusion 2.2.3.2 (e) (urban areas incl. subject land)	n/a
4	Class B Woodland (western section of Ashley Park)	0°

4. Bushfire Assessment Outputs

With reference to the BAL Assessment Report the potential, post-development radiant heat impacts to the development are determined as follows:

Table 3: BAL analysis, Scout & Community Centre Building

BAL Analysis – Scout & Community Centre Building				
Relevant Fire Danger Index		80		
BAL Determination Method:		Method 1		
Vegetation Area	Vegetation Classification	Effective Slope	Assessed Separation	BAL
1	Class D Scrub	0°	63m	BAL-12.5
2	Exclusion 2.2.3.2 (f)	n/a	n/a	BAL-LOW
3	Exclusion 2.2.3.2 (e)	n/a	n/a	BAL-LOW
4	Class B Woodland	0°	25m	BAL-19

The BAL rating for the proposed Scout & Community Centre Building is **BAL-19**.

The proposed storage shed, by virtue of being sited not less than 6m from the main Scout & Community Centre Building, is defined as an exempt adjacent structure under AS3959-2018 clause 3.2.3(a).

5. Bushfire Hazard Issues

The following hazard issues are identified:

- The major bushfire hazards are the native vegetation areas within the adjacent Ashley Park public open space. This vegetation connects with extensive vegetation areas located further to the south.
- The siting of the proposed Scout & Community Centre Building results in sufficient hazard separation from offsite vegetation to achieve an acceptable rating of BAL-19.
- The Scout & Community Centre Building will be sited 35m or less from the frontage to Ashley Road.
- Hazard separation will need to be maintained in future by the subject land being managed as an Asset Protection Zone.
- Ashley Road provides access alternatives to the east and west.
- A reticulated water supply is available with hydrants.
- The site is located at a travel distance of approximately 1.6km from the Wanneroo Central Volunteer Bush Fire Brigade.

6. Assessment against the Bushfire Protection Criteria

Following is an assessment against the relevant bushfire protection criteria for tourism, as detailed in Appendix 4 of the *Guidelines for Planning in Bushfire Prone Areas Version 1.4* (the Guidelines).

Table 4: Assessment against the bushfire protection criteria from the Guidelines

Element	Acceptable Solution (A)	Compliance	Notes
1. Location	A1.1 Development location	Yes	The location of the Scout & Community Centre Building is assessed as an acceptable BAL-19.
2. Siting of Development	A2.1 Asset Protection Zone	Yes	An Asset Protection Zone is required over the entire subject land, and the proposed landscaping is to be installed and maintained accordingly. The required Asset Protection Zone standards are detailed in Appendix 1.
3. Vehicular Access	A3.1 Public roads	Yes	Ashley Road complies with the technical requirements of the Guidelines Table 6 Column 1.
	A3.2a Multiple access routes	Yes	Ashley Road provides multiple access routes.
	A3.2b Emergency access way	n/a	A3.2a is satisfied instead.
	A3.3 Through-roads	n/a	Not applicable to a development proposal.
	A3.4a Perimeter roads	n/a	Not applicable to a development proposal.
	A3.4b Fire service access route	n/a	Not applicable to a development proposal.
	A3.5 Battle-axe	n/a	Not applicable.
	A3.6 Private driveways	n/a	Not applicable: - The subject land is serviced by a reticulated water supply with hydrants; and - The Scout & Community Centre Building is entirely located within a 70m hose lay distance from Ashley Road; and - The road speed limit is not greater than 70km/h.
4. Water	A4.1 Identification of future water supply	n/a	Not applicable to a development proposal.
	A4.2 Provision of water for firefighting purposes	Yes	A reticulated water supply with hydrants is installed.

7. Spatial Representation of Bushfire Protection Measures

The required bushfire protection measures from Table 4 are depicted below.



Figure 4: Bushfire Protection Measures

8. Vulnerable Land Use Requirements

Due to the Scout & Community Centre Building being designed for groups of children under the age of 18 years, it is considered a vulnerable land use under SPP3.7. A Bushfire Emergency Evacuation Plan is therefore required with consideration to the Guidelines Section 5.5.4. A separate Bushfire Emergency Evacuation Plan has been prepared for the proposal and is required to be finalised and adopted by the proponent prior to opening of the venue, to the satisfaction of the City of Wanneroo.

9. Bushfire Construction Standards

Class 9 buildings may be occupied by people who require assistance, or be unable, to evacuate the building in the event of a bushfire. Because of this, revised provisions in the National Construction Code are proposed for implementation in 2022, requiring building protections against the impacts of bushfire.

While the new National Construction Code is not due to come into effect until September 2022, the developer should nevertheless consider constructing the Scout & Community Centre building to the applicable standards of AS3959 'Construction of buildings in bushfire-prone areas' with consideration to the revised provisions in the National Construction Code.

10. Local Government Fire Control

The City of Wanneroo Fire Mitigation Notice, issued under Section 33 of the Bush Fires Act 1954, applies from 1st of November through to 30th April (subject to variation). Compliance is required with all applicable measures of the Fire Mitigation Notice in addition to the measures detailed within this Bushfire Management Plan once accepted.

11. Implementation and Management

The responsibilities for implementing and maintaining the required bushfire protection measures are summarised as follows:

Table 5: *Implementation & Management Schedule*

Initial Developer Responsibilities	
A	Install the Asset Protection Zone, incorporating site landscaping, over the entire subject land in accordance with Schedule 1: Standards for Asset Protection Zones from the Guidelines for Planning in Bushfire Prone Areas.
B	Ensure the required Bushfire Emergency Evacuation Plan is finalised and adopted with due consideration to the Guidelines for Planning in Bushfire Prone Areas Section 5.5.4.
Ongoing Facility Management Responsibilities	
C	Ensure the Asset Protection Zone is maintained over the entire subject land in accordance with Schedule 1: Standards for Asset Protection Zones from the Guidelines for Planning in Bushfire Prone Areas.
D	Ensure compliance with all required measures prescribed in the City of Wanneroo Fire Mitigation Notice.

12. Conclusion

In the author's professional opinion, the bushfire protection measures detailed within this report will achieve the required acceptable solutions from the Guidelines for Planning in Bushfire Prone Areas. Accordingly, the aims and objectives of SPP 3.7 can be satisfied and the proposal is therefore recommended for approval.

Appendix 1

Asset Protection Zones Standards

*source: Department of Planning, Lands & Heritage,
Guidelines for Planning in Bushfire Prone Areas version 1.4*



ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

SCHEDULE 1: STANDARDS FOR ASSET PROTECTION ZONES

OBJECT	REQUIREMENT
Fences within the APZ	<ul style="list-style-type: none"> Should be constructed from non-combustible materials (for example, iron, brick, limestone, metal post and wire, or bushfire-resisting timber referenced in Appendix F of AS 3959).
Fine fuel load (Combustible, dead vegetation matter <6 millimetres in thickness)	<ul style="list-style-type: none"> Should be managed and removed on a regular basis to maintain a low threat state. Should be maintained at <2 tonnes per hectare (on average). Mulches should be non-combustible such as stone, gravel or crushed mineral earth or wood mulch >6 millimetres in thickness.
Trees* (>6 metres in height)	<ul style="list-style-type: none"> Trunks at maturity should be a minimum distance of six metres from all elevations of the building. Branches at maturity should not touch or overhang a building or powerline. Lower branches and loose bark should be removed to a height of two metres above the ground and/or surface vegetation. Canopy cover within the APZ should be <15 per cent of the total APZ area. Tree canopies at maturity should be at least five metres apart to avoid forming a continuous canopy. Stands of existing mature trees with interlocking canopies may be treated as an individual canopy provided that the total canopy cover within the APZ will not exceed 15 per cent and are not connected to the tree canopy outside the APZ.
<p>Figure 19: Tree canopy cover – ranging from 15 to 70 per cent at maturity</p>	
Shrub* and scrub* (0.5 metres to six metres in height). Shrub and scrub >6 metres in height are to be treated as trees.	<ul style="list-style-type: none"> Should not be located under trees or within three metres of buildings. Should not be planted in clumps >5 square metres in area. Clumps should be separated from each other and any exposed window or door by at least 10 metres.
Ground covers* (<0.5 metres in height. Ground covers >0.5 metres in height are to be treated as shrubs)	<ul style="list-style-type: none"> Can be planted under trees but must be maintained to remove dead plant material, as prescribed in 'Fine fuel load' above. Can be located within two metres of a structure, but three metres from windows or doors if >100 millimetres in height.



ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

SCHEDULE 1: STANDARDS FOR ASSET PROTECTION ZONES

OBJECT	REQUIREMENT
Grass	<ul style="list-style-type: none">• Grass should be maintained at a height of 100 millimetres or less, at all times.• Wherever possible, perennial grasses should be used and well-hydrated with regular application of wetting agents and efficient irrigation.
Defendable space	<ul style="list-style-type: none">• Within three metres of each wall or supporting post of a habitable building, the area is kept free from vegetation, but can include ground covers, grass and non-combustible mulches as prescribed above.
LP Gas Cylinders	<ul style="list-style-type: none">• Should be located on the side of a building furthest from the likely direction of a bushfire or on the side of a building where surrounding classified vegetation is upslope, at least one metre from vulnerable parts of a building.• The pressure relief valve should point away from the house.• No flammable material within six metres from the front of the valve.• Must sit on a firm, level and non-combustible base and be secured to a solid structure.

* *Plant flammability, landscaping design and maintenance should be considered – refer to explanatory notes*

Appendix 2

Bushfire Attack Level Assessment Report

source: Structerre Consulting Engineers

AS 3959 Bushfire Attack Level (BAL) Assessment Report

This report has been prepared by a representative from StrucTerre Consulting using the Simplified Procedure (Method 1) as detailed in Section 2 of AS 3959 – 2018. All enquiries related to information and conclusion presented in this report must be forwarded to the representative whose details appear below.

Client Details	
Client	Scouts WA
Number	

Site Details			
Address	76 Ashley Rd		
Suburb	Tapping	State	WA
Local Government	Wanneroo		
Building Type	Class 9b		

Report Details	
Job Number	S1052940
Assessment Date	22 November 2021
Report Date/Version	15 March 2022 Version 5



StrucTerre Consulting Representative	
Name	Sarah Grossman
Employee Title	BAL Accredited Assessor
Signature	
Accreditation No:BPAD52808 Accreditation Expiry Date: July 2022	

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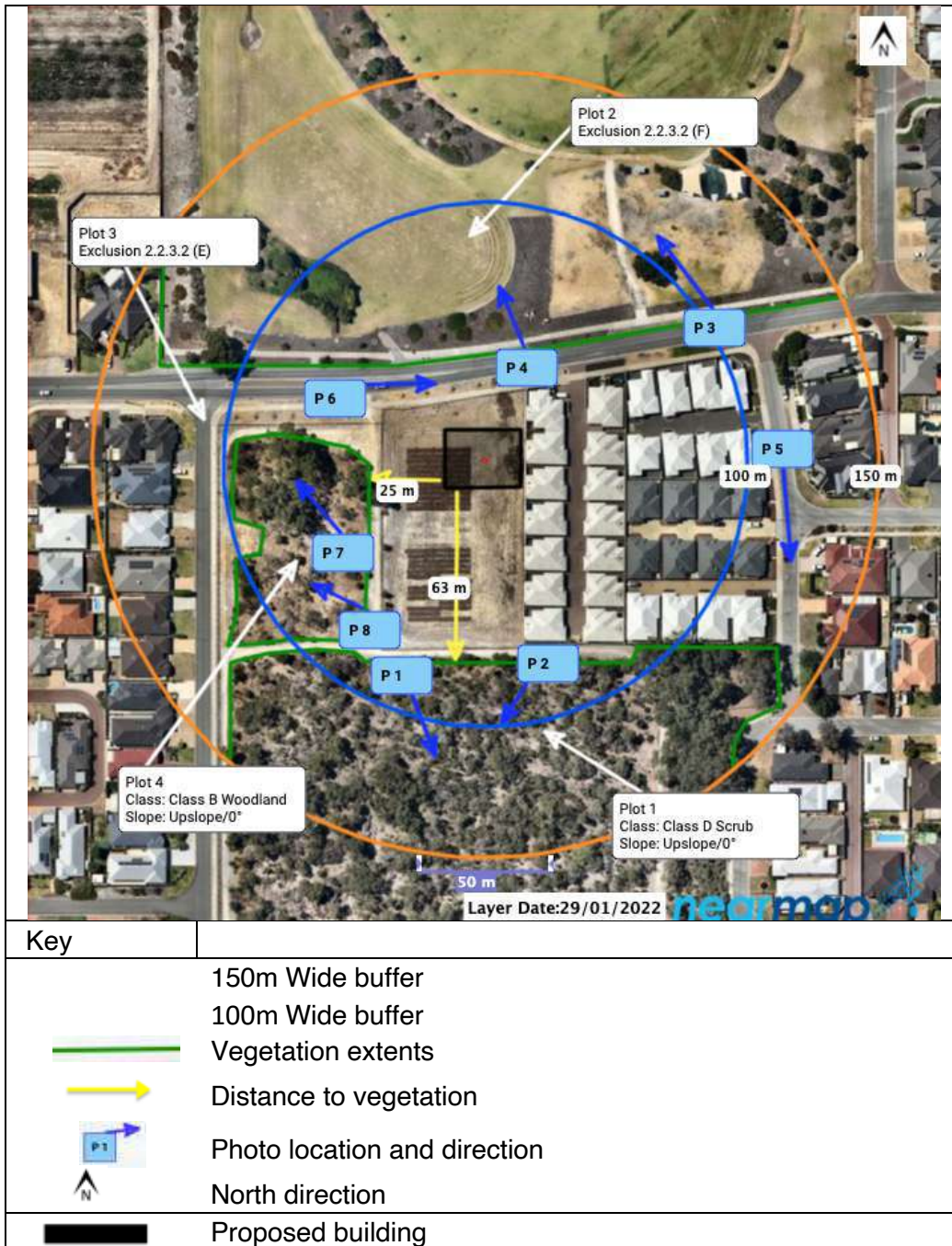
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1.0 SITE ASSESSMENT & SITE PLANS



The assessment of this site / development was undertaken for the purpose of determining the Bushfire Attack Level (BAL) in accordance with AS 3959–2018 Simplified Procedure (Method 1).



Note: The 150m radius depicted on the site plan is used to identify any classifiable vegetation from the centroid of the proposed building envelope. Any vegetation greater than 100m from the proposed building envelope is excluded from classification as per AS-3959–2018.

2.0 VEGETATION CLASSIFICATION

All vegetation within 100m of the site/proposed development was classified in accordance with Clause 2.2.3 of AS 3959-2018. Each distinguishable vegetation area with the potential to determine the bushfire level is identified below.

Plot 1 Class D Scrub	
Description / Justification for Classification	
<p>Scrub vegetation typically with continuous horizontal and vertical vegetation structures, greater than 2 metres high. Shrubs greater than 2 metres in height with >30% foliage cover, the understorey may contain grasses and small shrubs resulting in dense continuous vegetation.</p>	<p>Photo 1</p>  <p>Photo 2</p> 

Plot 2 Exclusion 2.2.3.2 (F)

Description / Justification for Classification

Exclusion clause 2.2.3.2 F,
 Low threat vegetation
 including maintained public
 reserve and parkland.

Photo 3



Photo 4



Plot 3 Exclusion 2.2.3.2 (E)

Description / Justification for Classification

Non-vegetated areas, including roads, footpaths and buildings.



Plot 4 Class B Woodland

Description / Justification for Classification

Trees 2-30 metres high with foliage cover in the range of 10 to 30 per cent at maturity, predominantly dominated by Eucalypts and Acacias. Woodlands are dominated by trees but generally lack the shrubby middle layer and deep surface litter layer that is characteristic of forests and have more grassy ground layer.

Photo 7



Photo 8



3.0 RELEVANT FIRE DANGER INDEX

The fire danger index for this site has been determined in accordance with Table 2.1 or otherwise determined in accordance with jurisdictional variation applicable to the site.

FDI 40 <input checked="" type="checkbox"/> 2.4.5	<input checked="" type="checkbox"/>	FDI 80 <input checked="" type="checkbox"/> 2.4.3	FDI 100 <input checked="" type="checkbox"/> 2.4.2
---	-------------------------------------	---	--

4.0 POTENTIAL BUSHFIRE IMPACTS

The potential bushfire impact to the site / proposed development from each of the identified vegetation areas are identified below.

Plot	Vegetation Classification	Effective slope	Separation	Exclusions	BAL
1	Class D Scrub	Upslope/0°	63 m		12.5
2	Exclusion	-	-	F	LOW
3	Exclusion	-	-	E	LOW
4	Class B Woodland	Upslope/0°	25 m		19

Exclusions apply to AS3959-2018 pg15 sections 2.2.3.2

5.0 BUSHFIRE ATTACK LEVEL (BAL)

The Determined Bushfire Attack Level (highest BAL) for the site / proposed development has been determined in accordance with Clause 2.2.6 of AS 3959-2018 using the above analysis.

Determined Bushfire Attack Level	BAL - 19
----------------------------------	-----------------

6.0 EXPLANATORY NOTES

A bushfire attack level (BAL) Assessment is a means of measuring the severity of a building's potential exposure to ember attack, radiant heat and direct flame contact in a bushfire event, and thereby determining the construction measures required for the dwelling.

The methodology used for the determination of the BAL rating, and the subsequent building construction standards, are directly referenced from the Australian Standard AS3959-2018 Construction of Buildings in Bushfire Prone Areas.

The BAL rating is determined through identification and assessment of the following parameters

- Fire Danger Index (FDI) Rating; confirmed to be FDI-80 for WA;
- All classified vegetation **within 100m** of the subject building;
- Separation distance between the building and the classified vegetation source/s; and
- Slope of the land under the classified vegetation.

AS3959-2018 has six (6) levels of BAL, based on the radiant heat flux exposure to the building, and also identifies the relevant sections for building construction; this is shown in the table below.

Bushfire Attack Level (BAL)	Classified vegetation within 100m of the site and heat flux exposure thresholds	Description of predicted bushfire attack and levels of exposure	Construction Sections (within AS 3959-2018)
BAL-LOW	See clause 2.2.3.2	There is insufficient risk to warrant specific construction requirements.	4
BAL-12.5	$\leq 12.5\text{kW/m}^2$	Ember attack.	3 & 5
BAL-19	$\geq 12.5\text{kW m}^2$ to $\leq 19\text{kW m}^2$	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux.	3 & 6
BAL-29	$\geq 19\text{kW m}^2$ to $\leq 29\text{kW m}^2$	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux.	3 & 7
BAL-40	$\geq 29\text{kW m}^2$ to $\leq 40\text{kW m}^2$	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux with the increased likelihood of exposure to flames.	3 & 8
BAL-FZ	$> 40\text{kW m}^2$	Direct exposure to flames from fire front in addition to heat flux and ember attack.	3 & 9

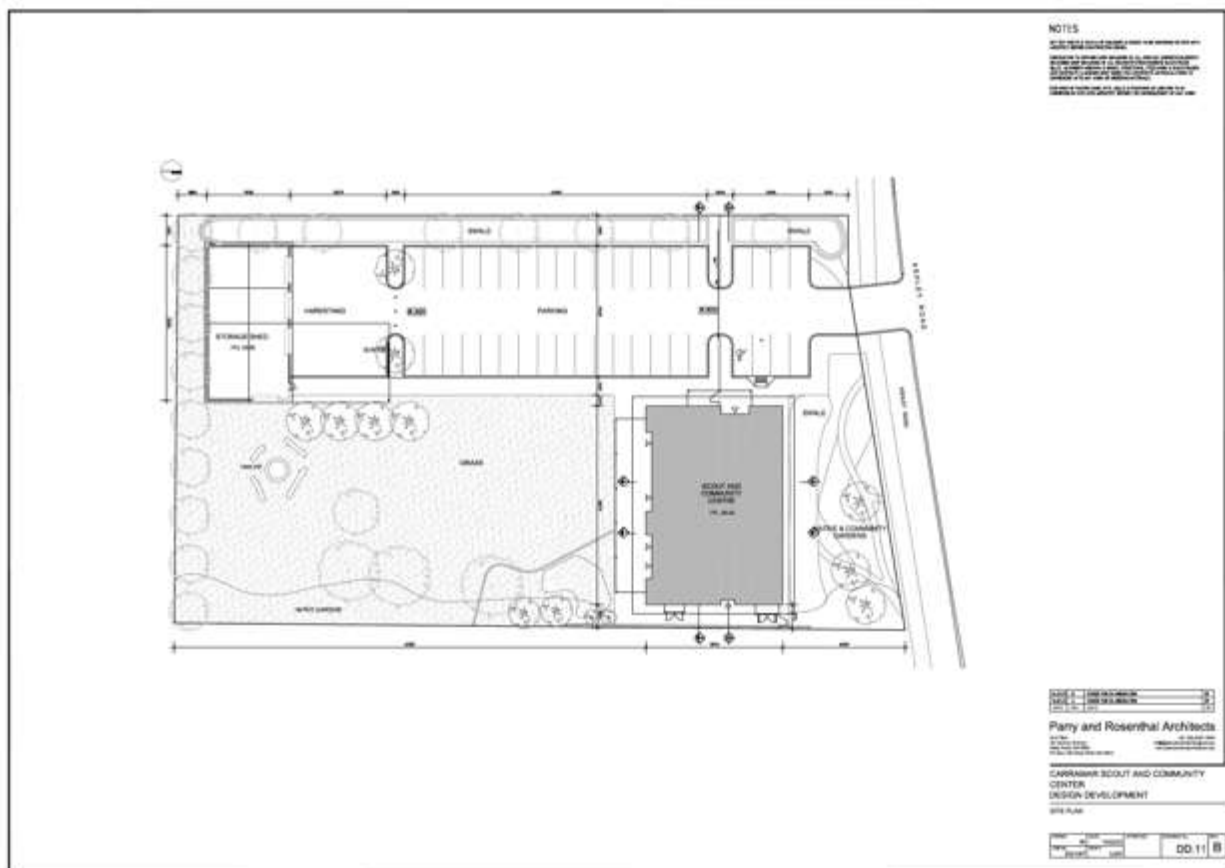
Reference: AS 3959-2018 Construction of Buildings in Bushfire Prone Areas Table 3.1

Refer to the relevant authority before modifying any vegetation at the site, StrucTerre cannot be held liable for any unauthorised vegetation modification or removal.

APPENDIX A: PROPOSED SITE PLAN

Whilst AS3959 sets out to improve the performance of buildings when subjected to bushfire attack in a designated bushfire-prone area, it does not guarantee that a building will survive a bushfire event on every occasion.

This assessment has been conducted in conjunction with the site plans provided by the client, and is limited to the surrounding environment within 100m of the proposed building at the time of the assessment only.



Determined in accordance with AS3959-2018

This Certificate has been issued by a person accredited by Fire Protection Association Australia under the Bushfire Planning and Design (BPAD) Accreditation Scheme. The certificate details the conclusions of the full Bushfire Attack Level Assessment Report (full report) prepared by the Accredited Practitioner.



Property Details and Description of Works

Address Details	Unit No.	Street No.	Lot no	Street Name / Plan Reference	
		76		Ashley	
Main BCA class of the building	Suburb		State	Local Government area	
	Tapping		WA	Wanneroo	
Description of the building or works	Class 1a				
	Single dwelling.				

Determination of the Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	Class B Woodland	Upslope/0°	25 m	19

BPAD Accredited Practitioner Details

Name: Sarah Grossman	I hereby declare that I am a BPAD accredited bushfire practitioner 
Company Details: Structerre Consulting Engineers	
I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS 3959-2018.	
	Accreditation No. BPAD52808 <hr/> Signature  <hr/> Date 15/03/2022 <hr/> Authorised Practitioner Stamp

Reliance on the assessment and determination of the Bushfire Attack Level contained in this certificate should not extend beyond a period of 12 months from the date of issue of the certificate. If this certificate was issued more than 12 months ago, it is recommended that the validity of the determination be confirmed with the Accredited Practitioner and where required an updated certificate issued.



BushfireWest

Bushfire Emergency Evacuation Planning Report

Carramar Scout & Community Centre

No. 76 (Lot 1) Ashley Road, Tapping



Ref: 220307-E

Version: A

Mat 2022

DISCLAIMER AND LIMITATION

This report is prepared solely for Scouts WA (the 'proponent') and is not for the benefit of any other person and may not be relied upon by any other person.

To the maximum extent permitted by the law, Jeremy Durston (the 'author') and Bushfire West Pty Ltd exclude all liability whatsoever for:

1. claim, damage, loss or injury to any property and any person caused by fire or as a result of fire or indeed howsoever caused;
2. errors or omissions in this report except where grossly negligent; and

the proponent expressly acknowledges that they have been made aware of this exclusion and that such exclusion of liability is reasonable in all the circumstances.

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Jeremy Durston
Bushfire West Pty Ltd
BPAD- 36525, Level 3
Exp – April 2023

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1.0 Report Details

Report Details

Name of Site	Carramar Scout & Community Centre
Address	No. 76 Ashley Road, Tapping
Prepared by	Jeremy Durston, BPAD39525, Bushfire West Pty Ltd
Site Operator	Scouts WA
Plan Reference	220307-E version A

Emergency Management Team

Name	Organisation	Contact Details
TBC	Scouts WA	TBC
Jeremy Durston	Bushfire West Pty Ltd	040 332 8835 jeremy@bushfirewest.com.au,

Document Control

Version	Date	Details	By
A	14 Mar 2022	Development application.	JPD

2.0 Vulnerability Assessment

With consideration to Section 5.5.4 of the Guidelines for Planning in Bushfire Prone Areas v1.4, following is an assessment of the vulnerability of the development with respect to the proposed land uses, the evacuation alternatives and the assessed bushfire hazards within the broader locality.

Considerations	Assessment Notes
Type of development	Scout Hall / Community Centre
No. of people	Typically up to 100 with capacity for 210
Length of stay	Day and evening use.
Support needs	Minors requiring assistance in case of emergency.
Onsite supervisors	Typical adult supervision ratios of 1:10 to 1:15 children.
Communications	Mobile network coverage. ABC Radio warnings. Emergence WA online warnings and incident details.
Potential exposure	Potential for smoke and radiant heat exposure.
Safe alternative locations	Jimbub Swamp Park located across Ashley Road incorporates significant public open space beyond Bushfire Prone Areas.
Access & egress	Ashley Road is a through-road providing primary access and egress. It traverses predominantly developed urban land.
Fire Brigade Response	Wanneroo Central Volunteer Bush Fire Brigade is approximately 1.6km travel distance from the site.
Transport	Private transport to and from the site. Transport may not be readily available during use of the building. Potential offsite collection points are provided by parking bays fringing Jimbub Swamp Park.
Shelter-in-place options	The Scout Hall / Community Centre may provide last-resort shelter, however it is not designed for that purpose.
Medical supplies	Medical supplies can be located within the Scout Hall / Community Centre.
Evacuation Responsibilities	Scout Group leaders / community function organisers.
Shelter-in-place Responsibilities	Scout Group leaders / community function organisers.
Potential emergency Triggers	A visible fire, plume or smoke column rising to the south of the site; an 'Advice', 'Watch and Act' or 'Emergency Warning' issued.
Pre-emptive Triggers	Forecast Extreme or Catastrophic fire danger ratings.

The analysis determines the primary action is for early **Evacuation** of all people to an offsite location away from the effects of bushfire. However, if insufficient time is available to conduct a safe evacuation, then procedures are to be carried out for all onsite people to **Shelter-in- place only as a last resort**.

3.0 Responsibilities

People are to be nominated with responsibility for emergency and evacuation procedures, as follows.

Name of Person	Designated Role	Responsibility	Actions
TBC	Scouts WA delegate	Management & maintenance	Site maintenance, adopt/update the Bushfire Emergency & Evacuation Plan, training of supervisors, provision / maintenance of fire extinguishers and medical supplies.
TBC	Fire Warden and site contact	Primary responsibility for emergency response	As detailed in the emergency procedures.
TBC	Deputy Fire Warden	Secondary responsibility for emergency response	As detailed in the emergency procedures.

4.0 Evacuation Locations

The nominated evacuation locations are as follows:

Evacuation Locations	
Evacuation assembly point:	
Grass area at the rear of the Scout Hall / Community Centre.	
Off-site location:	
Name of venue:	Jimbub Swamp Park
Status:	Maintained public open space with some shade, fringing street lights and parking bays, with substantial areas beyond Bushfire Prone Areas.
Distance:	Immediately across Ashley Road.
Travel time:	Less than 1 minute walking.
Collection Points:	Adjacent street parking.
Last-resort onsite shelter:	
Scout Hall / Community Centre building.	

5.0 Site Preparedness

The following actions are required for site preparation for the bushfire season, which in the City of Wanneroo is generally between November to April each year.

Actions		Responsible Person
Ongoing		
1	All site supervisors and assistants to be inducted and trained for bushfire awareness and emergency procedures	TBC Scouts WA delegate
2	Ensure the site is being maintained as an Asset Protection Zone according to the adopted Bushfire Management Plan	
3	Maintain visitor registers with parents / guardians contact details	Fire Warden or nominated delegate
4	Advise parents / guardians of alternate, emergency collection point	
To be completed just prior to the bushfire season		
1	Review the Bushfire Emergency Evacuation Plan and ensure it is current	TBC Scouts WA delegate
2	Ensure all site supervisors and assistants are aware of their roles and responsibilities	
3	Fire extinguishers to be charged and in working order with attached instructions for use.	
4	Ensure a bushfire emergency kit is complete with bushfire procedures, first aid supplies and emergency contact details	
5	Reduce grass levels, trim trees and shrubs near buildings	
6	Clear buildings, roofs and gutters of leaves and litter	
To be completed during the bushfire season		
1	Ensure all site supervisors and assistants are made aware of the bushfire threat	TBC Scouts WA delegate
2	Ensure no flammable materials have accumulated near buildings and camp sites	
3	Comply with the requirements of the local government Fire Control Notice, in addition to the measures specified in the adopted Bushfire Management Plan	
4	Ensure adequate drinking water is available for all supervisors, assistants, and group members.	Fire Warden or nominated delegate

6.0 Awareness and Pre-Emptive Procedures

The following table outlines actions to be undertaken to ensure the site maintains situational awareness of a possible bushfire approaching and pre-emptive procedures.

Actions		Responsible Person
Very High, Severe, Extreme or Catastrophic Fire Danger rating, or an official Bushfire 'Advice' has been issued		
1	Inform supervisors and assistants of potential bushfire conditions	Fire Warden or nominated delegate
2	Check for any bushfire alerts on the EmergencyWA website, DFES phone (133 337) and/ or local ABC Radio.	
3	Consider pre-emptive closure of the site if a Fire Danger Rating of Extreme or Catastrophic is forecast	
4	Maintain awareness for any potential bushfire in the vicinity	
5	Ensure Mobile phones are available and charged	
6	Remove any flammable materials away from buildings	
7	Ensure the bushfire emergency kit is accessible along with first aid supplies	
8	Ensure all people have bottled drinking water	
A Bushfire threatens the site, or an official 'Watch and Act' or 'Emergency Warning' alert has been issued		
1	Alert all supervisors, assistants and group members	Fire Warden or nominated delegate
2	Report to DFES (000) and immediately enact emergency procedures	

7.0 Conclusion

The proposal is for a vulnerable land use under SPP3.7 and a Bushfire Emergency Evacuation Plan is required. This report analyses the site-specific information and requirements for a Bushfire Emergency Evacuation Plan with consideration to the Guidelines Section 5.5.4.

A Bushfire Emergency Evacuation Plan has accordingly been prepared for the proposal and is included in the Appendix. The Bushfire Emergency Evacuation Plan is required to be finalised and adopted by the proponent, prior to opening of the venue, to the satisfaction of the City of Wanneroo.

Appendix: Bushfire Emergency Evacuation Plan

Bushfire Emergency Evacuation Plan

Carramar Scout & Community Centre

This plan is for: Carramar Scout & Community Centre

and has been designed to assist management and visitors to protect life and property in the event of a bushfire.

This Plan outlines procedures for both **EVACUATION** and **SHELTER-IN-PLACE** (remain on-site) to enhance the protection of occupants from the threat of a bushfire.

The Primary Action to follow under normal bushfire conditions is to **EVACUATE**:

Street No & Name:	76 Ashley Road		
Suburb:	Tapping	Postcode:	6065
Name of on-site Contact Persons:	TBC		
Position / Role:	TBC		
Phone Number #1:	TBC	Phone Number #2:	TBC
Type of Facility:	Scout Hall & Community Centre		
Number buildings:	1 hall, and 1 storage shed.		
No. of adult supervisors:	General ratios of 1 to 10 or 15 children	No. of visitors:	Day &/or Evening: typically up to 100 (total capacity 210)
Number of occupants with support needs:	Up to 210		
Description of support needs:	Minors requiring supervision during a bushfire emergency.		

TO BE REVIEWED PRIOR TO COMMENCEMENT THEN ANNUALLY

Bushfire Emergency Evacuation Plan

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Document Control

Version	Date	Details	By
A	14 Mar 2022	Bushfire Emergency Evacuation Plan – development application	JPD

Bushfire Emergency Evacuation Plan

1.0 Emergency Response

Procedures for Evacuation and Shelter-in-place	
Note: Early evacuation should always be the primary action – you should never 'wait and see what happens'. Sheltering-in-place during a bushfire should be a last option when there is insufficient time to evacuate.	
The primary action to follow with an imminent bushfire threat is to:	
EVACUATE <input checked="" type="checkbox"/>	SHELTER-IN-PLACE <input type="checkbox"/>
Trigger to Evacuate	On advice from Fire Warden or any attending emergency services personnel that the site may be impacted by fire and the danger of remaining on site is too high.
Action	Responsible Person
1	Advise DFES (000) of fire if emergency services are not in attendance
2	Act on any advice from emergency services
3	Inform all people at the site of the emergency
4	Collect the bushfire emergency kit
5	Ensure everyone has bottled drinking water
6	Move all people to the designated assembly point
7	Account for all people. Check all buildings and outdoor areas for people
8	Observe outside conditions and monitor buildings
9	Close windows and doors to buildings, turn off any evaporative air conditioners
10	Supervise the orderly evacuation of all people
11	Supervise the crossing of Ashley Road
12	Relocate to the nominated off-site location
13	If evacuation becomes unsafe, move all people into the onsite Shelter-In-Place building and advise DFES (000)
Fire Warden or nominated delegate	

Bushfire Emergency Evacuation Plan

2.0 Emergency Contacts

Name of Organisation	Office/Contact	Contact Details
Fire, Police, Ambulance	Fire or Emergency	000
Department of Fire & Emergency Services	Emergency information	13 DFES (13 33 37)
EmergencyWA	Warnings and incidents	www.emergency.wa.gov.au
WA Police	Non-emergency police assistance	131 444
Main Roads	Road Information & closures	138 138 www.mainroads.wa.gov.au

3.0 Responsibilities

The following outlines the responsibilities for implementing the emergency procedures in the event of a bushfire.

Name of Person	Area of responsibility	Responsibility	Mobile Phone Number
TBC	Fire Warden and site contact	<ul style="list-style-type: none">• Determine the nature of the emergency and implement appropriate action• Respond and take control as appropriate• Co-ordinate and implement emergency procedures• Delegate as required	TBC
TBC	Deputy Fire Warden	<ul style="list-style-type: none">• Assist Fire Warden, or take control in the absence of the Fire Warden• Implement emergency procedures	TBC

4.0 Emergency Locations and Transport

Evacuation	
Designated evacuation assembly point:	
Grass area at the rear of the Scout Hall / Community Centre.	
Off-site location:	
Name of venue:	Jimbub Swamp Park
Address of venue:	Immediately across Ashley Road
Day-time location:	Shaded playground area
Night-time location:	Grass area near streetlights adjacent to Waldburg Drive
Evacuation method:	Supervised walk.
Vehicle pick-up points:	Car bays near street lights adjacent to Park.

Bushfire Emergency Evacuation Plan

Assembly Point, Offsite Evacuation & Last-Resort Shelter



Bushfire Emergency Evacuation Plan

5.0 Recovery

Procedures following the bushfire if EVACUATED		
Action		Responsible Person
1	Account for all people	Fire Warden or nominated delegate
2	Advise DFES (000) once evacuation is complete	
3	Monitor bushfire alerts on the EmergencyWA website, DFES phone (133 337) and/ or local ABC Radio	
4	Keep all people calm and hydrated	
5	Advise parents / guardians of alternative collection point	
6	Await the All Clear advice from DFES	
7	Site to be inspected for impact by fire and/or ember attack	
8	Upon being declared safe, site may re-open	

Procedures following the bushfire if SHELTERED-IN-PLACE		
Action		Responsible Person
1	Account for all people	Fire Warden or nominated delegate
2	Advise DFES (000) of shelter-in-place	
3	Act on any advice from emergency services	
4	Monitor bushfire alerts on the EmergencyWA website, DFES phone (133 337) and/ or local ABC Radio	
5	Keep all people calm and hydrated	
6	Attend to any First Aid needs of people at shelter-in-place	
7	Await the All Clear advice from DFES	
8	Site to be inspected for impact by fire and/or ember attack	
9	Arrange collection by parents / guardians	
10	Supervise the departure of all people as required	
11	Site to remain closed until declared safe	

6.0 Attachments

Attachments	
<input checked="" type="checkbox"/>	Visitor register
<input checked="" type="checkbox"/>	Fire danger ratings
<input checked="" type="checkbox"/>	Emergency warnings

FIRE DANGER RATINGS:

Use this tool daily during bushfire season to monitor conditions in your area.
Based on forecast weather conditions, the higher the rating, the higher the risk of bushfire.



WHERE TO FIND THESE TOOLS AND OTHER IMPORTANT INFORMATION



emergency.wa.gov.au
firechat.wa.gov.au
DFES Twitter & Facebook



Local news
from the tv, radio
and websites



DFES emergency
information line:
13 3337



Your surroundings
could be your best
information source.



BUSHFIRE WARNING SYSTEM



EMERGENCY WARNING

An out of control fire is approaching fast and you need to take immediate action to survive. If you haven't prepared your home it is too late.

You must seek shelter or leave now if it is safe to do so.



WATCH AND ACT

A fire is approaching and there is a possible threat to lives or homes. Put your plan into action. If your plan is to leave, make sure you leave early. If your plan is to stay, check all your equipment is ready.

Only stay and defend if you are mentally and physically prepared.



ADVICE

A fire has started but there is no immediate danger. Stay alert and watch for signs of a fire.

Be aware and keep up to date.

Where can I get information during an emergency?

 emergency.wa.gov.au  13 DFES (13 33 37)

 @dfeswa  @dfes_wa  Local ABC Radio





Transport Impact Statement

Project: Proposed Scout and Community Centre
76 Ashley Road, Tapping

Client: Scouts WA c/o Parry and Rosenthal

Author: Paul Nguyen

Date: 10th March 2022

Shawmac Document #: 2203003-TIS-001

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Certified System



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1. Introduction

1.1. Proponent

Shawmac has been engaged by Parry and Rosenthal Architects on behalf of Scouts WA to prepare a Transport Impact Statement (TIS) for a proposed scout and community centre in Tapping.

This TIS has been prepared in accordance with the Western Australian Planning Commission (WAPC) *Transport Impact Assessment Guidelines Volume 4 – Individual Developments*. The assessment considers the following key matters:

- Details of the proposed development.
- Vehicle access and parking.
- Provision for service vehicles.
- Hours of operation.
- Daily traffic volumes and vehicle types.
- Traffic management on frontage streets.
- Public transport access.
- Pedestrian access.
- Cycle access and end of trip facilities.
- Site specific and safety issues.

1.2. Site Location

The site address is 76 Ashley Road in Tapping. The local authority is the City of Wanneroo.

The general site location is shown in **Figure 1**. An aerial view of the existing site is shown in **Figure 2**.

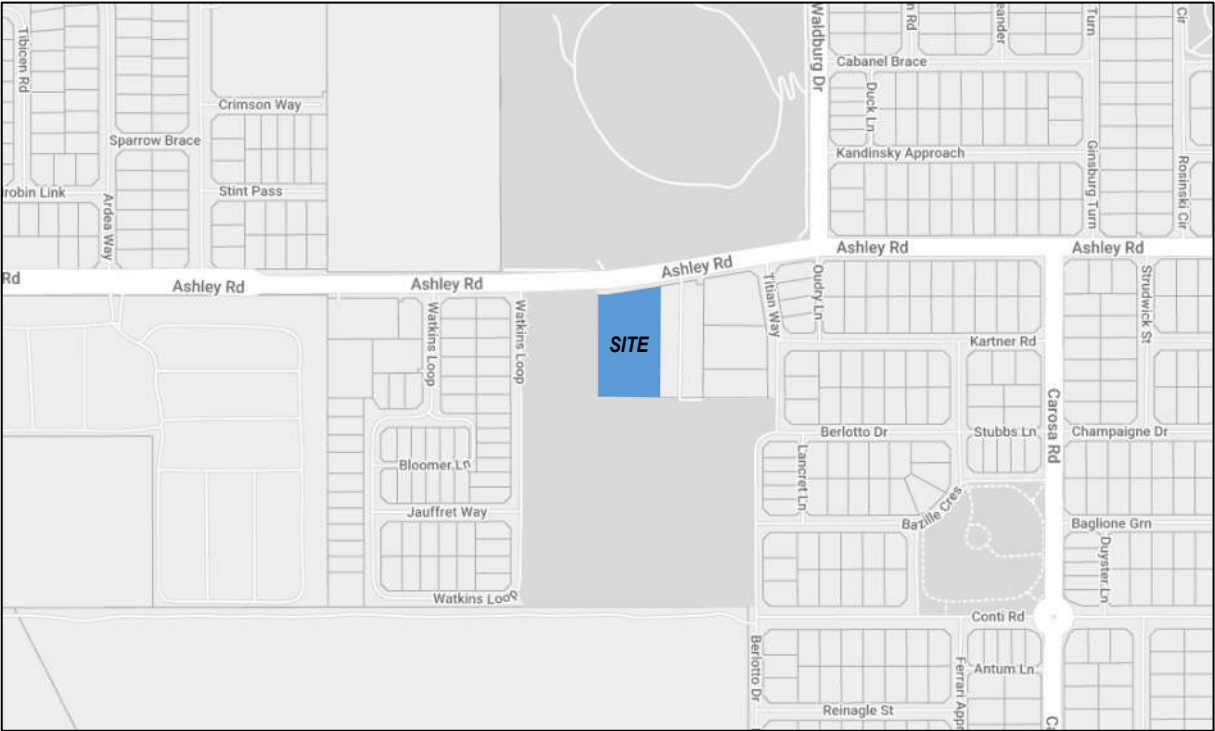


Figure 1: Site Location





2. Proposed Development

2.1. Land Use

The site is currently vacant.

It is proposed establish a scout and community centre that will accommodate the Carramar Scout Group as well community uses such as play groups and fitness classes. The development will include a building, storage shed, car parking and outdoor activity areas.

The proposed operating hours are to be confirmed but are currently estimated to be from 8am to 9:30pm, 7 days per week. Certain activities such as yoga classes may start earlier in the morning.

The main use at the site will be Carramar Scout Group activities which will occur 4 times per week between 5:30pm and 9:30pm. The Carramar Scout Group is currently made up of four units as described below:

- Joeys (30 members aged 5 to 7 years)
- Cubs (35 members aged 8 to 10 years)
- Scouts (50 members aged 11 to 14 years)
- Venturers & Rovers (20 members aged 15 to 25 years)

Each unit may meet twice per week. Some usage of the centre is expected on select weekends for small camps and fundraiser events.

The facility will be available for community use outside of scout activities. Potential community use and estimated attendance includes:

- Play groups (20 to 40 attendees, once per week)
- Soft sports such as badminton (10 to 20 attendees)
- Community interest / church groups (20 to 30 attendees)
- Yoga / fitness classes (30 attendees)

The proposed site layout is shown in **Figure 3**.

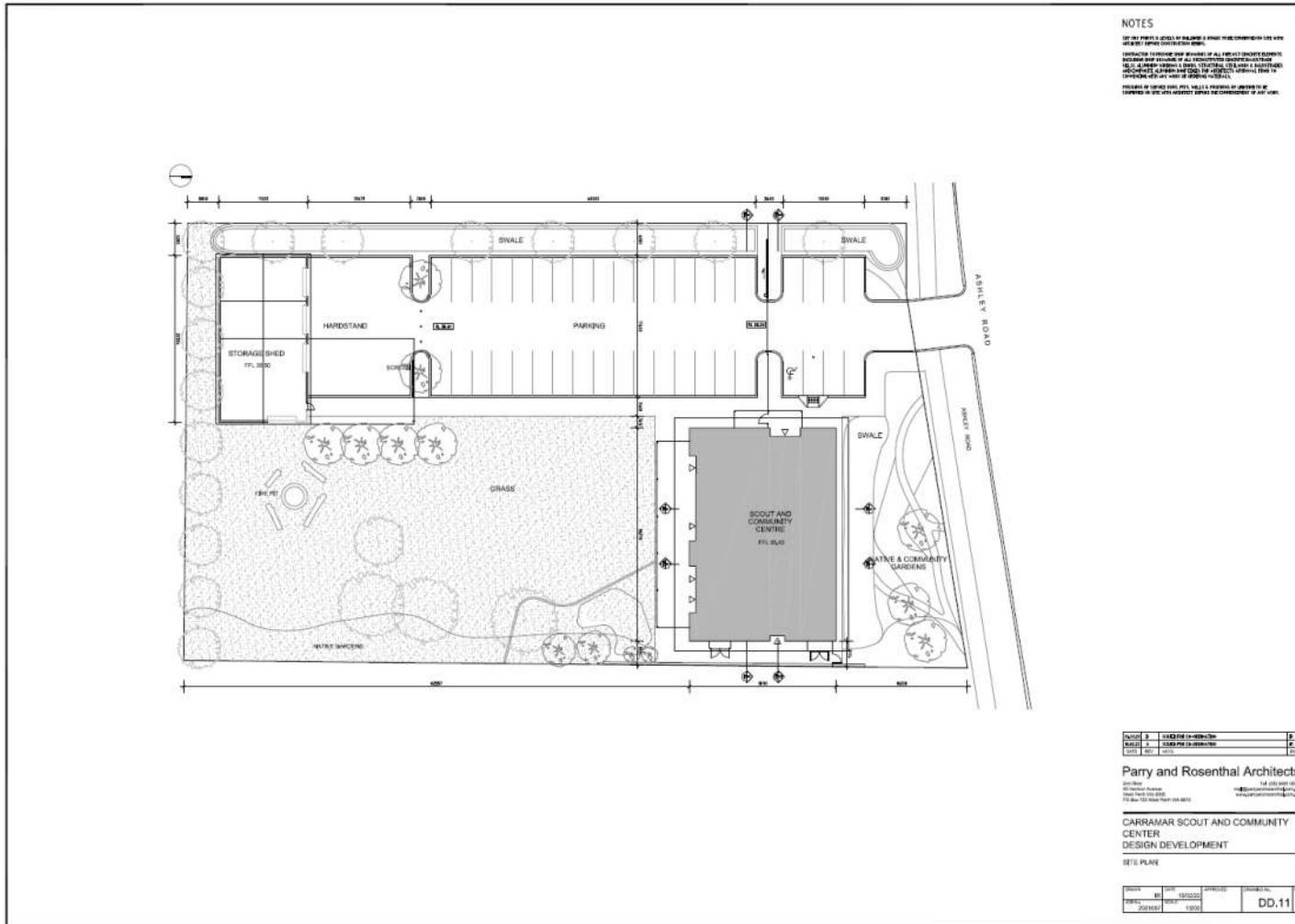


Figure 3: Site Layout

3. Traffic Management on Frontage Streets

3.1. Road Network

3.1.1. Existing Road Layout and Hierarchy

The layout and hierarchy of the existing local road network according to the Main Roads WA *Road Information Mapping System* is shown in **Figure 4**.

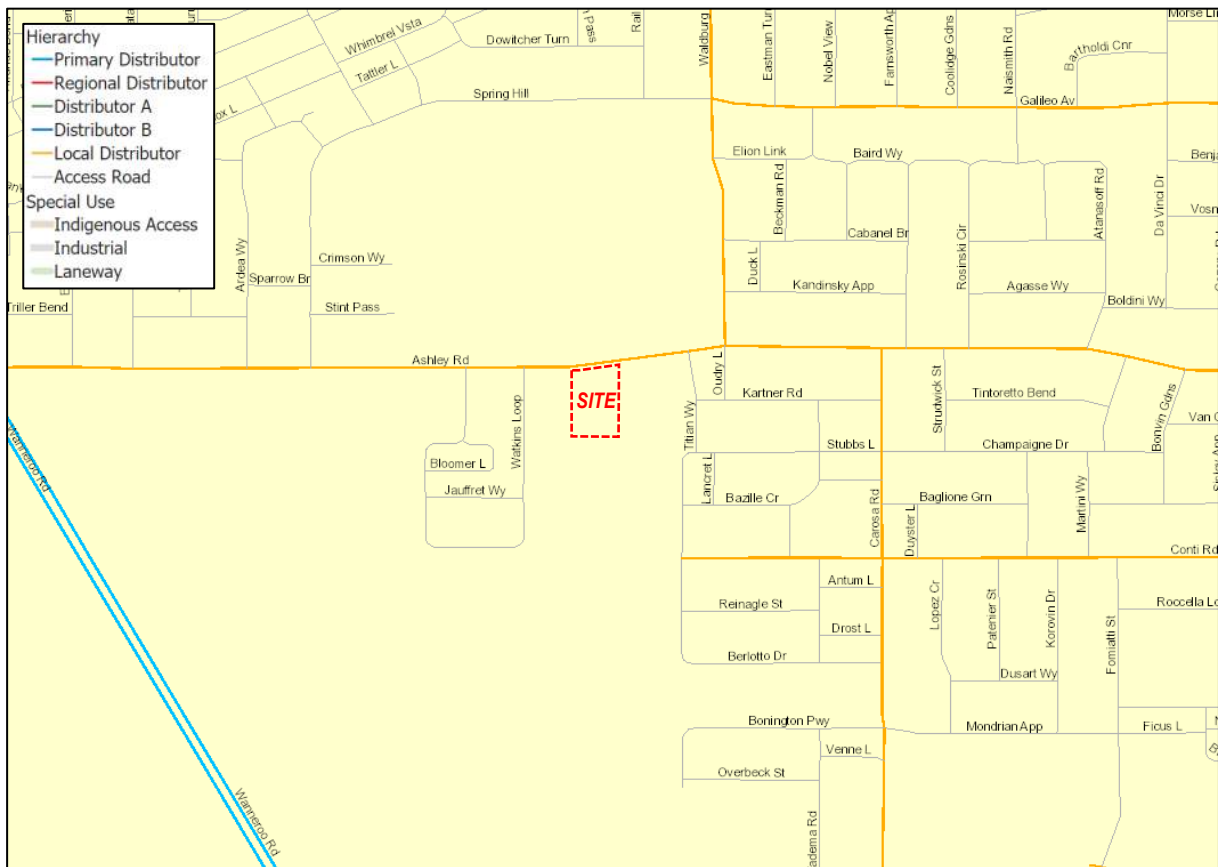


Figure 4: Existing Road Network Hierarchy

Ashley Road is currently constructed as a two-lane, single carriageway road. To the west, on approach to Wanneroo Road, Ashley Road widens to a dual carriageway.

The speed limits are shown in **Figure 5**.

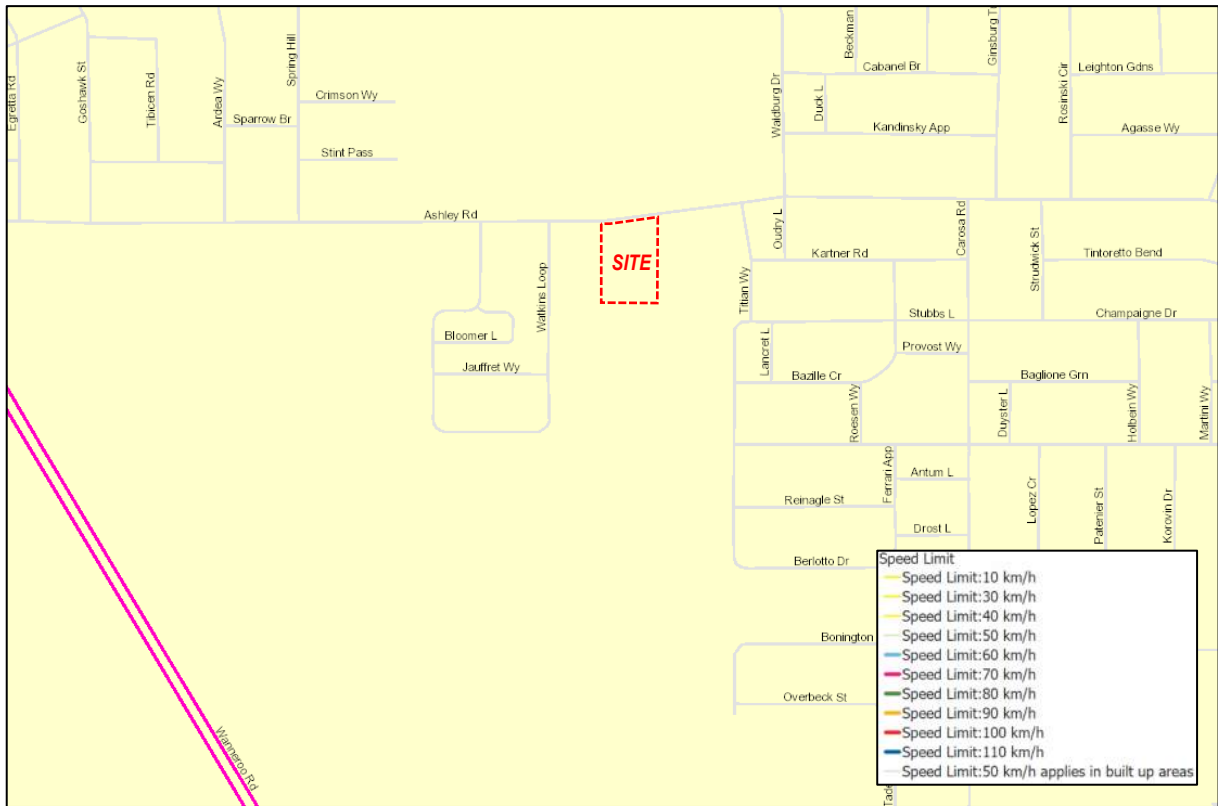


Figure 5: Existing Speed Limits

3.2. Traffic Volumes

The latest traffic volumes on Ashley Road are shown in **Figure 6**.

Road	Date	Location	Volumes – Average Weekday Traffic (AWT)	85th Percentile Speed (Speed at which or below 85% of the motorists are driving)
Ashley Road	November 2020	East of Watkins Loop	3680	60.4 km/h
		West of Carosa Road	3646	57.1 km/h
Waldburg Drive		South of Elion Link	1874	55.8 km/h

Figure 6: Ashley Road Traffic Volumes

According to Main Roads WA's *Functional Road Hierarchy*, the target maximum daily traffic volume for a Local Distributor Road is 6,000 vehicles per day (vpd). WAPC *Liveable Neighbourhoods* suggests a target maximum daily traffic volume of 7,000vpd. The above volumes are well within the target daily traffic volumes.



4. Traffic Generation

The volume of traffic generated by the proposed development has been estimated using the operating information provided by the operator as detailed in Section 2.1.

The busiest activity is likely to be the Carramar Scout Group activities. Based on the 135 members, the peak traffic generation is estimated to be 135 vehicle trips assuming conservatively that each scout member is driven to and from the site individually. It is noted that the regular scout activities occur in the afternoon / evening between 5:30pm and 9:30pm. The arrival period may partially overlap with the afternoon peak hour on the road network but the regular usage of the site will not generate any traffic during the morning peak hour.

With the addition of non-scout activities (outside of scout activity periods), the maximum daily traffic generation is estimated to be in the order of 300 to 400vpd. As activities do not occur every day, there may be some days where the site generates less or no traffic.

As mentioned previously, the current daily traffic volumes along Ashley Road near the site are well within the target maximum daily traffic volume and so the traffic generated by the proposed development can be accommodated within the existing capacity of the road network.

5. Vehicle Access and Parking

5.1. Access

Vehicle access to the site is proposed via a new crossover on Ashley Road. The proposed access arrangement is shown in **Figure 7**.



Figure 7: Vehicle Access Arrangement

5.2. Sight Distance

Sight distance requirements from vehicle exit points are defined in Figure 3.2 of Australian Standard AS2890.1-2004 *Parking facilities Part 1: Off street car parking* (AS2890.1) which is shown in **Figure 8**.

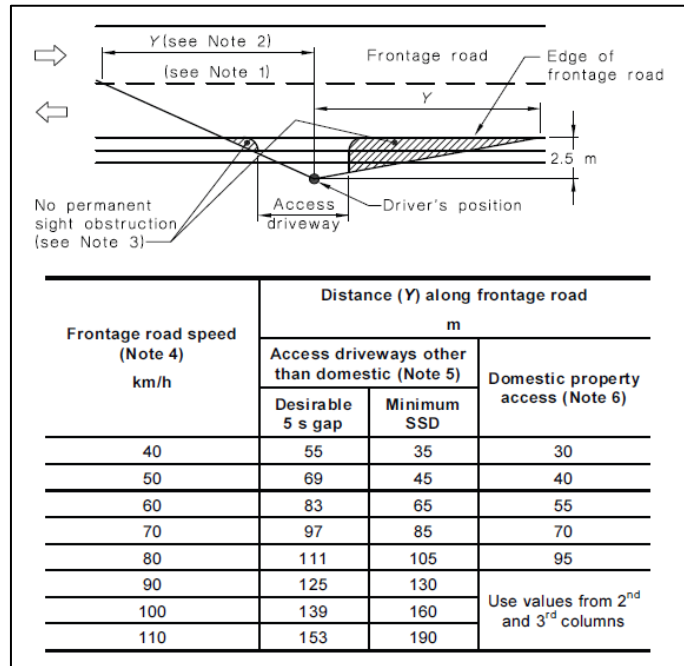


Figure 8: AS2890.1 Sight Distance Requirements

As the 85th percentile speed is closer to 60km/h, the minimum required sight distance is 65m (83m desirable). The available sight distance is shown in **Figure 9**.

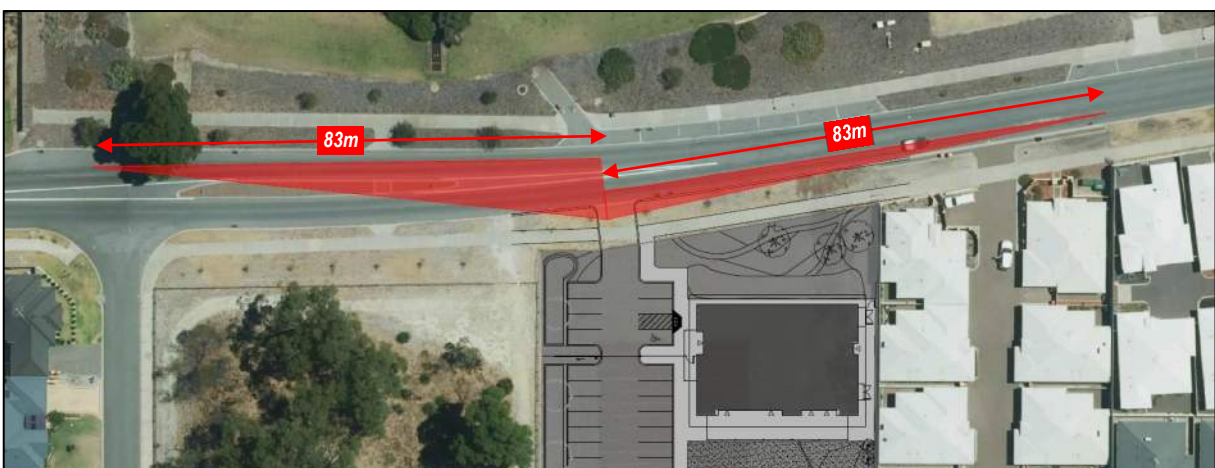


Figure 9: Sight Distance Check

As shown, the minimum and desirable sight distance is achieved in both directions. Vertically, the geometry of Ashley Road is relatively flat with no major crests or sags that impede sight distance.

5.3. Car Parking

5.3.1. City of Wanneroo Requirements

Car parking requirements for non-residential development within the City of Wanneroo are outlined in District Planning Scheme No. 2 (DPS2). The parking requirement for Clubs is 1 bay per 4 people accommodated.

The greatest parking demand is expected to be generated by the Carramar Scouts Group which meet 4 times per week between 5:30pm and 9:30pm. Based on the 135 members and assuming there would be around 5 staff, the parking requirement is calculated to be 35 bays. It is proposed to provide 39 car parking bays (including 1 ACROD bay) which satisfies the DPS2 requirements.

As most scout members will be below driving age, it is assumed that the majority will be dropped off and then picked up and so parking turnover will be relatively high. It is also noted that the activity times for each unit do not fully overlap and so not all members will be on site at the same time.

There are also 13 existing parallel parking bays along the north side of Ashley Road adjacent to the site which may be available during scout activities in the event that additional parking is required. There is a pedestrian crossing on Ashley Road with pram ramps and a median break approximately 25m west of the site.

5.3.2. Parking Design

The parking layout will need to comply with the requirements of Australian Standard AS2890.1. The user class will depend on the purpose of the bay as detailed in **Figure 10**.

9		AS/NZS 2890.1:2004	
TABLE 1.1			
CLASSIFICATION OF OFF-STREET CAR PARKING FACILITIES			
User class	Required door opening	Required aisle width	Examples of uses (Note 1)
1	Front door, first stop	Minimum for single manoeuvre entry and exit	Employee and commuter parking (generally, all-day parking)
1A	Front door, first stop	Three-point turn entry and exit into 90° parking spaces only, otherwise as for User Class 1	Residential, domestic and employee parking
2	Full opening, all doors	Minimum for single manoeuvre entry and exit	Long-term city and town centre parking, sports facilities, entertainment centres, hotels, motels, airport visitors (generally medium-term parking)
3	Full opening, all doors	Minimum for single manoeuvre entry and exit	Short-term city and town centre parking, parking stations, hospital and medical centres
3A	Full opening, all doors	Additional allowance above minimum single manoeuvre width to facilitate entry and exit	Short term, high turnover parking at shopping centres
4	Size requirements are specified in AS/NZS 2890.6 (Note 2)		Parking for people with disabilities

Figure 10: Classification of Parking Facilities



As parking turnover is likely to be relatively high for scout activities, the most appropriate classification would be User Class 3 for short-term parking. An assessment of the AS2890.1 parking requirements is detailed in **Table 1**.

Table 1: AS2890.1 Car Parking Compliance

Dimension	Requirement	Provided
90 degree parking – Class 3		
Car Bay Width	2.6m	2.5m
Car Bay Length	5.4m	5.5m
Parking Aisle Width	5.8m	6.0m

As shown, all relevant dimensions are compliant with AS2890.1 except for the car bay width which is 100mm short. In this instance, the shortfall is largely compensated by the surplus length of the car bays (100mm surplus) and surplus parking aisle width (200mm surplus) which would both allow for easier manoeuvring in and out of the bays.

The minimum dimensions for the ACROD bay and adjacent shared area according AS2890.6 is 2.4m wide by 5.4m long. The ACROD bay and shared area are both 2.5m wide and 5.5m long which is compliant.

As the car park has a single entry/exit point and a blind aisle longer than 6 bays, provision for turning around is required at the end of the parking aisle in the event that the car park is full. It is understood that the proposed bollards at the end of the car park will be removed during operating hours so that vehicles can use the hardstand area to turn around if required.

5.4. Provision for Service Vehicles

It is understood that waste will be collected from Ashley Road and so there is no need to accommodate waste vehicles on-site.

Other service vehicles may need to enter the site for deliveries or to access the storage shed. A swept path analysis has been undertaken to check the manoeuvrability of a small service vehicle. The analysis has been undertaken in Autodesk Vehicle Tracking using the template for the Australian Standard 6.4m Small Rigid Vehicles (SRV). The results of the analysis are attached as **Appendix A** which demonstrates that there is sufficient room for these vehicles to enter the site, turn around and then exit.



6. Pedestrian and Cyclist Access

There are paths along both sides of Ashley Road and all other roads have at least one path except for laneways where traffic speeds are low and pedestrian movements are minimal. There is a crossing on Ashley Road with pram ramps and a median break approximately 25m west of the site.

The external path network is reasonably well established and considered to be adequate for pedestrians and cyclists to safely travel between the site and surrounding areas.

Internally, pedestrian access is proposed from via Ashley Road via a walkway that connects to the existing external footpath. The walkway wraps around the main building and continues along the car park to connect to the storage shed at the rear of the site.

The proposed internal and external path network is considered to be adequate.

7. Public Transport Access

The only existing public transport service that currently operates within reasonable walking distance of the site is Transperth Bus Route 467 which operates between Whitfords Station and Joondalup Station via Pearsall, Hocking and Ashby. The closest stops are Waldburg Drive north of Ashley Road, approximately 250m walking distance of the site.

The demand for public transport is likely to be relatively low based on the proposed uses and so the existing public transport services are considered to be adequate to meet the likely demand.



8. Site Specific Issues and Safety Issues

8.1. Crash History

The crash history of the adjacent road network was obtained from the MRWA Reporting Centre.

No crashes have been recorded along the section of Ashley Road between Watkins Loop and Titian Way over the five-year period ending December 2020.

The proposed development itself will only generate a low to moderate volume of additional traffic and there is no indication that the development would increase the risk of crashes unacceptably.

9. Conclusion

The Transport Impact Statement for the proposed scout and community centre at 76 Ashley Road in Tapping concluded the following:

- The maximum daily traffic generation is estimated to be in the order of 300 to 400vpd. As activities do not occur every day, there may be some days where the site generates less or no traffic.
- As mentioned previously, the current daily traffic volumes along Ashley Road near the site are well within the target maximum daily traffic volume and so the expected volume of traffic can be accommodated within the existing capacity of the road network with no modifications required.
- The minimum sight distance requirement of AS2890.1 is achieved in both directions from the proposed access on Ashley Road.
- The provision of 39 car parking bays satisfies the requirements calculated according to the City's District Planning Scheme.
- The parking layout complies mostly with AS2890.1 and AS2980.6, except for the car bay width which is 100mm short. In this instance, the shortfall is largely compensated by the surplus length of the car bays (100mm surplus) and surplus parking aisle width (200mm surplus) which would both allow for easier manoeuvring in and out of the bays.
- Provision for turning around is required at the end of the parking aisle in the event that the car park is full. It is understood that the proposed bollards at the end of the car park will be removed during operating hours so that vehicles can use the hardstand area to turn around if required.
- The crash history of the adjacent road network did not indicate any safety issue on the adjacent road network and there is no indication that the development would increase the risk of crashes unacceptably.
- The proposed internal and external path network is considered to be adequate.
- The demand for public transport is likely to be relatively low based on the proposed uses and so the existing public transport services are considered to be adequate to meet the likely demand.



Appendix A – Service Vehicle Swept Path



SRV - Small Rigid Vehicle
Overall Length 6.400m
Overall Width 2.330m
Overall Body Height 3.500m
Min Body Ground Clearance 0.398m
Track Width 2.330m
Lock-to-lock time 4.80s
Curb to Curb Turning Radius 7.100m

