FORM 2

NOTICE OF AN APPLICATION FOR A PLANNING PERMIT
SECTION 52 (1) *PLANNING AND ENVIRONMENT ACT 1987*

Hindmarsh Shire Council

The application reference number is:	**PA1878-2024**
The land affected by the application is located at:	**Faith Street, Dimboola VIC 3414 (LOT 1 ON TITLE PLAN 874548)**
The application is for a permit to allow:	**Use and development of land for a dwelling and outbuildings**
The applicant for the permit is:	[redacted]
Submissions to be received by:	**5pm Friday 24 January 2025**

Viewing the application
You may view the application and any supporting documentation at www.hindmarsh.vic.gov.au/Planning-Permits-on-Public-Notice or by scanning the QR code below. Alternatively, you can call 5391 4444 to arrange a time to view the application at the Nhill office during business hours and free of charge.

Lodging an objection or submission
Any person who may be affected by the granting of the permit may object or make other submissions to Council (the responsible authority). An objection must be made in writing with an explanation of how the objector would be affected by the proposal.

Deciding on the Planning Permit Application
If Council decides to grant the permit despite your objection, you can appeal against the decision. Instructions for appeals are outlined within the Notice of Decision that Council will provide to every objector upon decision of the application.

Privacy and other considerations for lodging an objection or submission
Please note that all personal information contained within a submission will be publicly available until the date of decision, except for any telephone numbers provided.

Ram Upadhyaya
Director of Infrastructure Services

Scan to view documents

Hindmarsh Shire Council

PLANNING PERMIT ON PUBLIC NOTICE

What is a Planning Permit?

Land-use Planning considers the way land is used and developed, and how this impacts the character and amenity (liveability) of the municipality. Assessed against the Hindmarsh Planning Scheme, a Planning Permit is a legal document that gives you permission to use or develop land in a certain way. It usually includes conditions and approved plans, which must be complied with.

What is Public Notice?

S52 of the *Planning and Environment Act 1987* set out Council's responsibilities for public notice. The purpose is to ensure that any persons who may be affected by a land use or development proposal are aware of the proposal, have the opportunity to learn more about the proposal, and have the opportunity to make a submission about or object to the proposal.

How do I lodge a submission

If you believe you will be affected by this proposal, Form 2 (attached) describes the process of lodging a submission.

Viewing the supporting documentation

You can view the supporting documentation by scanning the QR code on Form 2. Some of the information may be redacted or excluded for privacy reasons.

Questions?

Please contact the Nhill Customer Service centre on (03) 5391 4444. Alternatively, you can email development@hindmarsh.vic.gov.au with any questions. Please quote the application number if applicable.

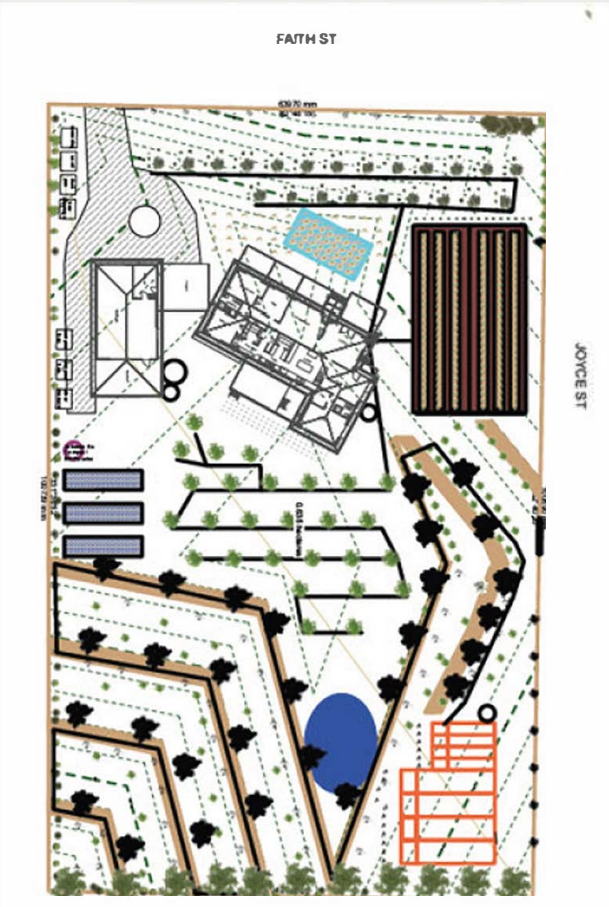
Planning Permit Application PA1878-2024

Lot 1 on TP874548| Faith Street, Dimboola 3414 Dwelling and Associated Outbuildings

A Planning Permit is required under Clause 35.072 and Clause 35.07-2 of the Hindmarsh Planning Scheme for the use and development of land for a dwelling (house) on a lot less than 40ha in the Farming Zone.

This planning permit proposes a dwelling along with a 4 year plan to transform the lot with an orchard, composting and a market garden.

Snippets of Proposal:



Hindmarsh Shire Council	**Office Use Only**	
	VicSmart:	**No**
Planning Enquiries Phone: (03) 5391 4444 Web: http://www.hindmarsh.vic.gov.au/	Specify class of VicSmart application:	-
	Application No:	Date Lodged: **22/11/2024**

Application for
Planning Permit

If you need help to complete this form, read How to complete the Application for Planning Permit form.

⚠ Any material submitted with this application, including plans and personal information, will be made available for public viewing, including electronically, and copies may be made for interested parties for the purpose of enabling consideration and review as part of a planning process under the *Planning and Environment Act 1987*. If you have any concerns, please contact Council's planning department.

⚠ **Questions marked with an asterisk (*) are mandatory and must be completed.**

⚠ **If the space provided on the form is insufficient, attach a separate sheet.**

Application type

Is this a VicSmart Application?*

No

If yes, please specify which VicSmart class or classes:

⚠ If the application falls into one of the classes listed under Clause 92 or the schedule to Clause 94, it is a VicSmart application

Pre-application meeting

Has there been a pre-application meeting with a Council planning officer?

If 'yes', with whom?: **Tim Berger**

Date:**22/10/2024** day / month / year

The Land ⓘ

Address of the land. Complete the Street Address and one of the Formal Land Descriptions.

Street Address*

Unit No:	St. No: **1**	St. Name: **Faith Street**

Suburb/Locality: **Dimboola** Postcode: **3414**

Formal Land Description*
Complete either A or B

⚠ This information can be found on the certificate of title.

A Lot No: **1** ○ Lodged Plan ○ Title Plan ○ Plan of Subdivision No: **TP874548**

OR

B Crown Allotment No: Section No:

Parish/Township Name:

If this application relates to more than one address, please attach details.

The Proposal

⚠ You must give full details of your proposal and attach the information required to assess the application. Insufficient or unclear information will delay your application.

ⓘ For what use, development or other matter do you require a permit?*

The proposal is for a dwelling in Farming Zone

Provide additional information on the proposal, including: plans and elevations; any information required by the planning scheme, requested by Council or outlined in a Council planning permit checklist; and if required, a description of the likely effect of the proposal.

ⓘ Estimated cost of development for which the permit is required*

Cost **$420,000.00**

⚠ You may be required to verify this estimate
Insert '0' if no development is proposed

Insert '0' if no development is proposed (eg. change of use, subdivision, removal of covenant, liquor licence)

Existing Conditions ⓘ

Describe how the land is used and developed now*

Eg. vacant, three dwellings, medical centre with two practitioners, licensed restaurant with 80 seats, grazing.

Site is vacant

Provide a plan of the existing conditions. Photos are also helpful.

Title Information ⓘ

Encumbrances on title*

If you need help about the title, read: How to complete the Application for Planning Permit form

Does the proposal breach, in any way, an encumbrance on title such as a restrictive covenant, section 173 agreement or other obligation such as an easement or building envelope?

- ◯ Yes. (if 'yes' contact Council for advice on how to proceed before continuing with this application.)
- ◯ No
- ◯ Not applicable (no such encumbrance applies).

Provide a full, current copy of the title for each individual parcel of land forming the subject site.
(The title includes: the covering 'register search statement', the title diagram and the associated title documents, known as 'instruments' eg restrictive covenants.)

Applicant and Owner Details ⓘ

Provide details of the applicant and the owner of the land.

Applicant *

The person who wants the permit

Name:
Title:
First Name: [redacted]
Surname: [redacted]

Email: [redacted]
Phone no: [redacted]

Organisation (if applicable): **NRLinks**

Postal Address
Unit No:
St. No:
If it is a PO Box, enter the details here:
St. Name: [redacted]

Suburb/Locality: [redacted]
State: [redacted]
Postcode: [redacted]

Where the preferred contact person for the application is different from the applicant, provide the details of that

Contact person's details*
Same as applicant (if so, go to 'contact information') ☐

person.

Name:

Title: | First Name: [redacted] | Surname: [redacted]

Organisation (if applicable): [redacted]

Postal Address | If it is a PO Box, enter the details here:

Unit No.: | St. No.: | St. Name: [redacted]

Suburb/Locality: [redacted] | State: [redacted] | Postcode: [redacted]

*Please provide at least one contact phone number **

Contact Information

Business Phone: [redacted] | Email: [redacted]

Mobile Phone: [redacted] | Fax:

Owner *

The person or organisation who owns the land

Where the owner is different from the applicant, provide the details of that person or organisation.

Name:

Title: | First Name: D[redacted] | Surname: [redacted]

Organisation (if applicable):

Postal Address | If it is a PO Box, enter the details here:

Unit No.: | St. No.: [redacted] | St. Name: [redacted]

Suburb/Locality: [redacted] | State: [redacted] | Postcode: [redacted]

Owner's Signature (optional): | Date: day / month / year

Owner *

The person or organisation who owns the land

Where the owner is different from the applicant, provide the details of that person or organisation.

Name:

Title: | First Name: [redacted] | Surname: [redacted]

Organisation (if applicable):

Postal Address | If it is a PO Box, enter the details here:

Unit No.: | St. No.: [redacted] | St. Name: [redacted]

Suburb/Locality: [redacted] | State: [redacted] | Postcode: [redacted]

Owner's Signature (optional): | Date: day / month / year

Information Requirements

Is the required information provided?

Contact Council's planning department to discuss the specific requirements for this application and obtain a planning permit checklist.

- ○ Yes
- ○ No

Declaration ⓘ

This form must be signed by the applicant*

⚠ Remember it is against the law to provide false or misleading information, which could result in a heavy fine and cancellation of the permit

I declare that I am the applicant; and that all the information in this application is true and correct and the owner (if not myself) has been notified of the permit application.

Signature:
Electronically Signed.

Date:22 November 2024
day / month / year

This application has been lodged online. The declaration has been electronically signed.

Checklist ⓘ

Have you:

- ☐ Filled in the form completely?
- ☐ Paid or included the application fee?

⚠ Most applications require a fee to be paid. Contact Council to determine the appropriate fee.

- Provided all necessary supporting information and document?
  - ☐ A full and current copy of the information for each individual parcel of land forming the subject site.
  - ☐ A plan of existing conditions.
  - ☐ Plans showing the layout and details of the proposal.
  - ☐ Any information required by the planning scheme, requested by council or outlined in a council planning permit checklist.
  - ☐ If required, a description of the likely effect of the proposal (eg traffic, noise, environmental impacts).

Lodgement ⓘ

Lodge the completed and signed form and all documents with:

Hindmarsh Shire Council
92 Nelson St, Nhill VIC 3418 92 Nelson Street, Nhill
Telephone: (03) 5391 4444

Contact information:
Telephone: (03) 5391 4444
Email: Building@hindmarsh.vic.gov.au

1

Colour Illustration Winter Noon

Scale: 1:100

[redacted]

Mob: [redacted]
Ph: 5[redacted]
email: [redacted]

Reg. Prac. [redacted]
Reg. Prac. No. DP-AD 2332

project: *Proposed Dwelling, Garage, LeanTo and Carport for [redacted] Lot 1 Faith Street, Dimboola, 3414.*

sheet title: *Cover Page*

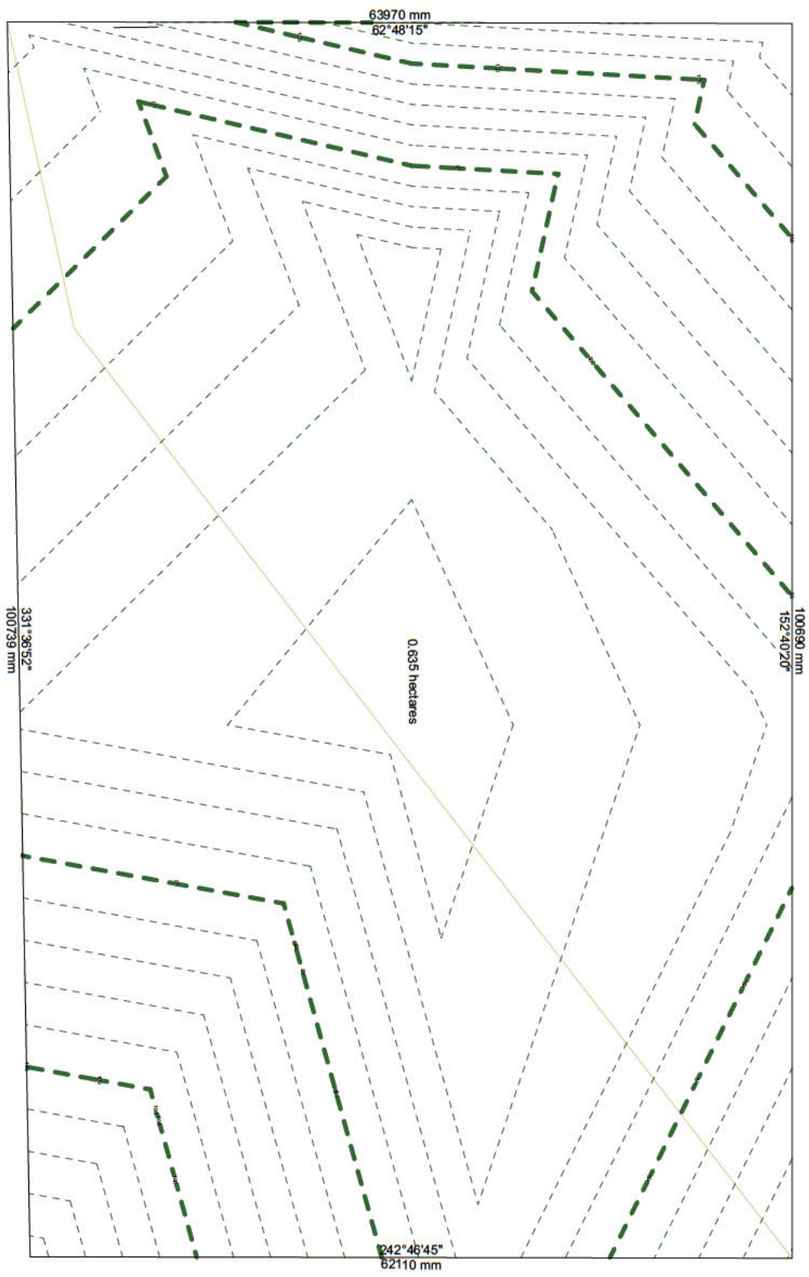
date: *1/11/2024*

sheet no. *A000*

project ID *20241101*

page no. *1 of 17*

FAITH ST



JOYCE ST

N

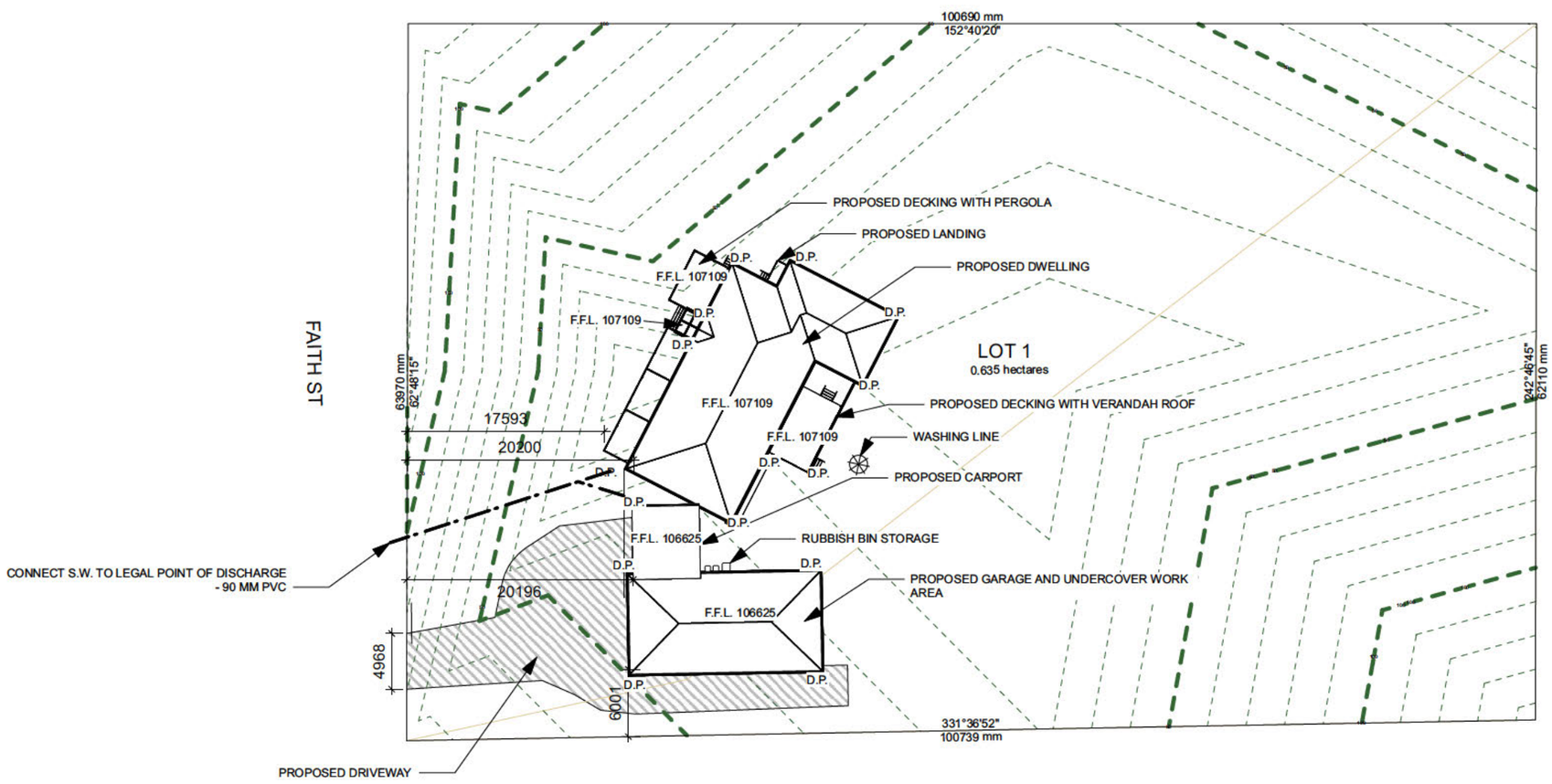
NOTE: ADD 106500 MM TO ALL CONTOURS FOR APPROX. ALTITUDES.

1 Site Plan Existing
Scale: 1:500

[redacted] Mob: [redacted] Ph: email [redacted]	Reg. Prac. [redacted] Reg. Prac. No. DP-AD 2332	project	Proposed Dwelling, Garage, LeanTo and Carport for [redacted] Lot 1 Faith Street, Dimboola, 3414.	Plan- Site Existing sheet title 1/11/2024 date	sheet no. A200 project ID 20241101 page no. 4 of 17

JOYCE ST

FAITH ST



N

1 Site Plan with House and Garage
Scale: 1:500

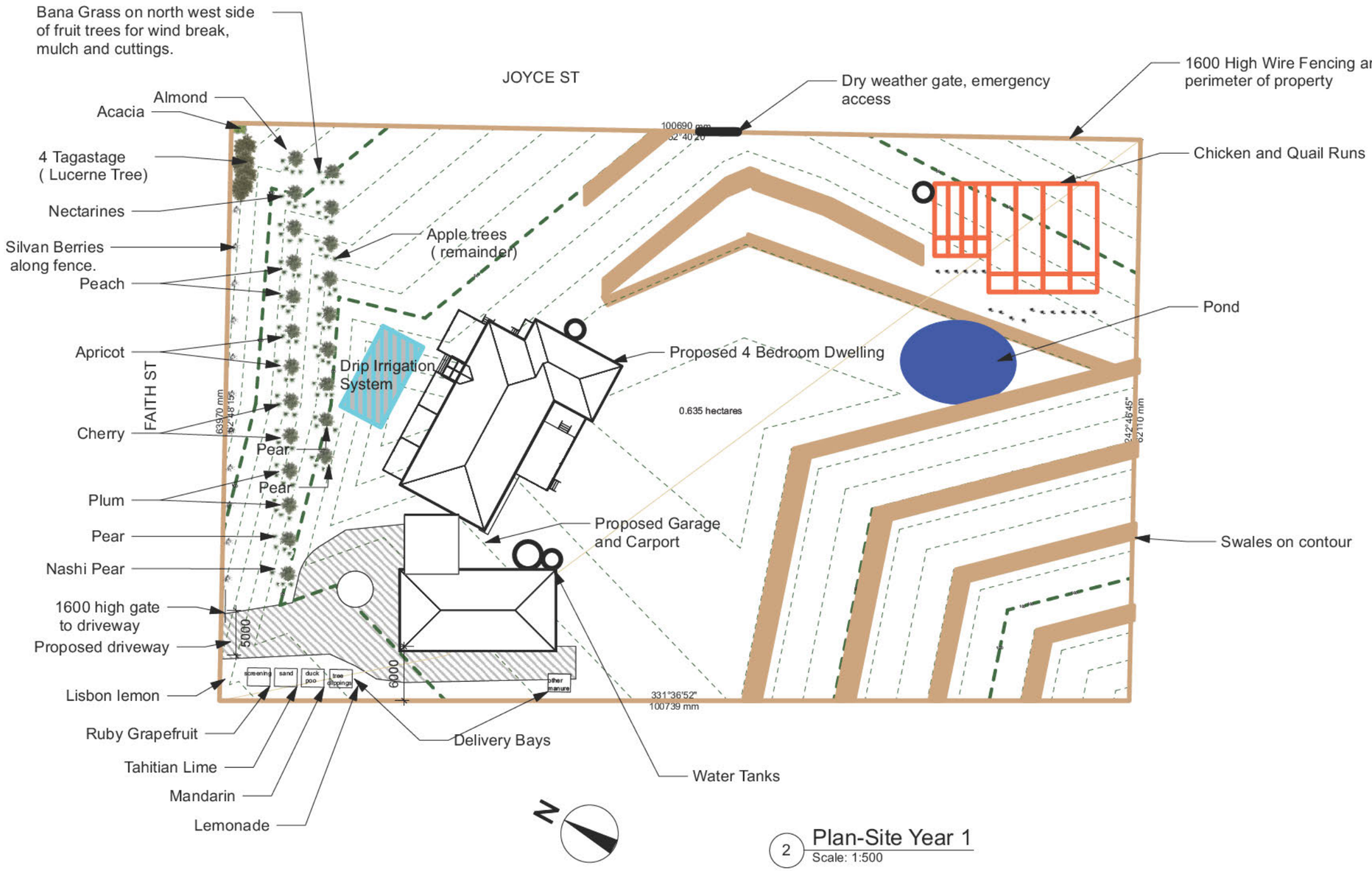
NOTE: ADD 106500 MM TO ALL CONTOURS FOR APPROX. ALTITUDES.

project: Proposed Dwelling, Garage, LeanTo and Carport
for [redacted]
Lot 1 Faith Street, Dimboola, 3414.

sheet title: Plan- Site Proposed House and Garage
date: 9/10/2024

sheet no. A201
project ID 20241101
page no. 5 of 17

[redacted]
Reg. Prac. [redacted]
Reg. Prac. No. DP-AD 2332
Mob: [redacted]
Ph: [redacted]
email: [redacted]



2 Plan-Site Year 1
Scale: 1:500

NOTE: ADD 106500 MM TO ALL CONTOURS FOR APPROX. ALTITUDES.

sheet no. A202
project ID 20241101
page no. 6 of 17

Plan-Site Year 1
sheet title
1/11/2024
date

Proposed Dwelling, Garage, LeanTo and Carport
for
project
Lot 1 Faith Street, Dimboola, 3414.

[redacted]
Reg. Prac. No. DP-AD 2332
Reg. Prac.
[redacted]
Mob:
Ph:
email

3 Site Plan Year 2
Scale: 1:500

NOTE: ADD 106500 MM TO ALL CONTOURS FOR APPROX. ALTITUDES.

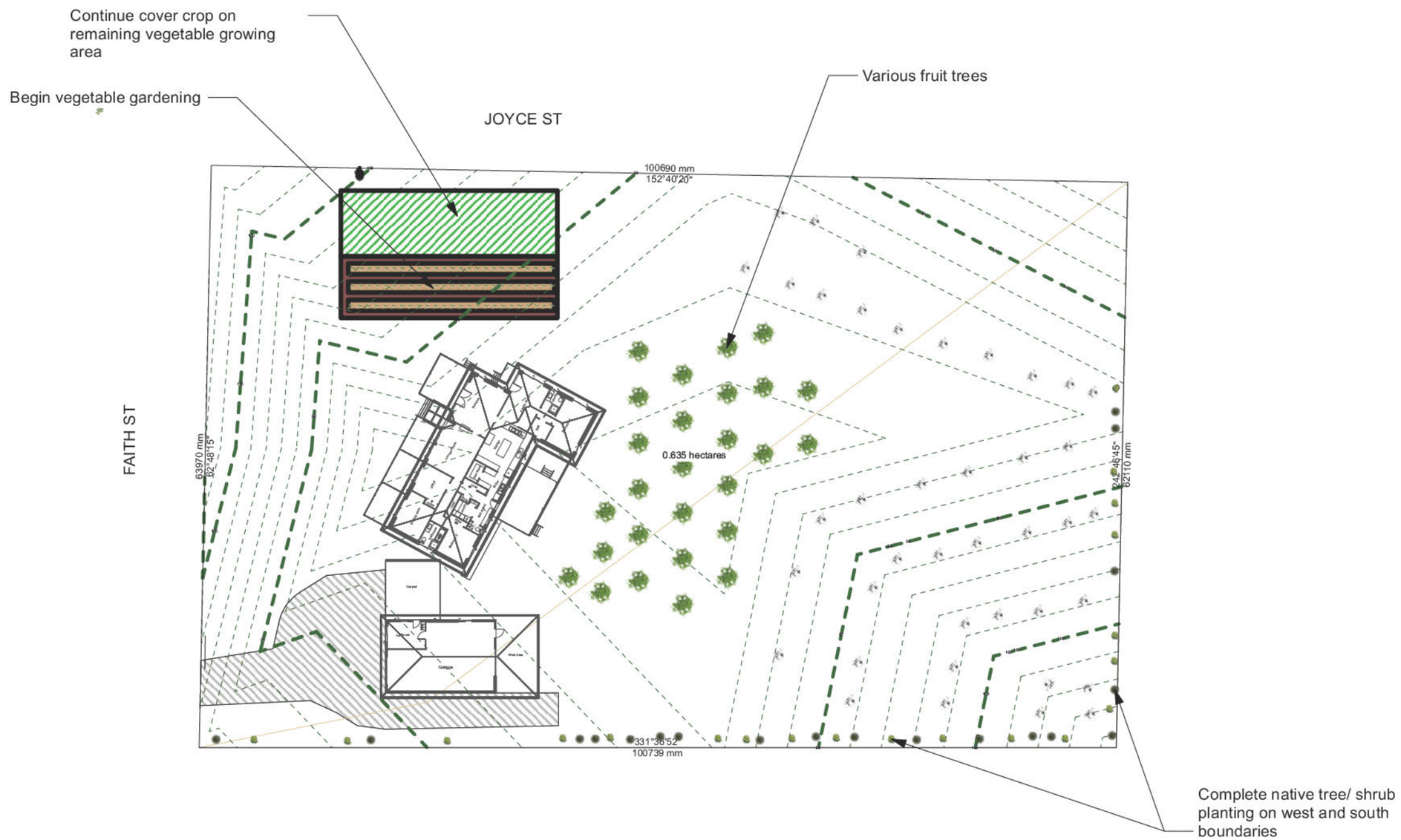
Proposed Dwelling, Garage, LeanTo and Carport
for [redacted]
project
Lot 1 Faith Street, Dimboola, 3414.

Plan- Site Year 2
sheet title

1/11/2024
date

sheet no. A203
project ID 20241101
page no. 7 of 17

[redacted]
Reg. Prac. No. DP-AD 2332
Reg. Prac.
[redacted]
Mob:
Ph:
email:

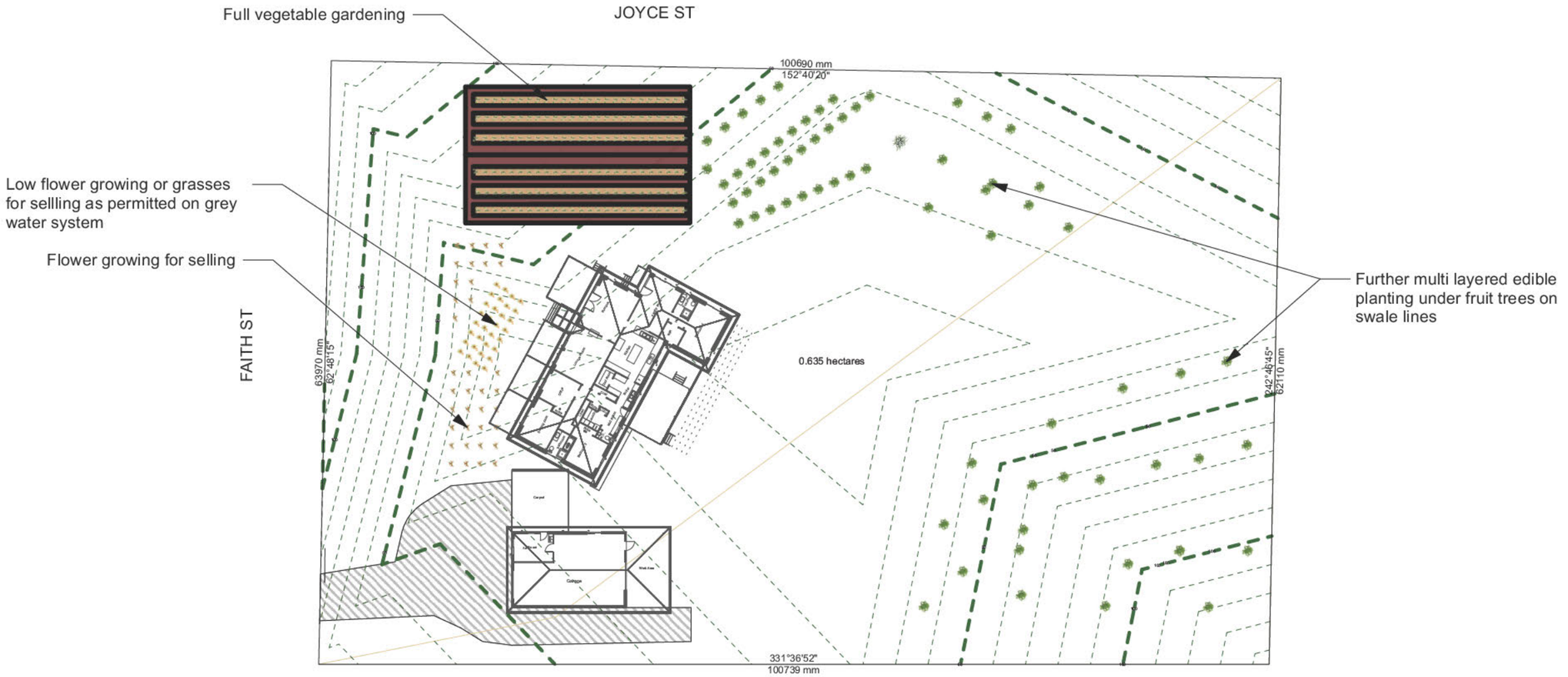


4 Site Plan Year 3 Project
Scale: 1:500

NOTE: ADD 106500 MM TO ALL CONTOURS FOR APPROX. ALTITUDES.

sheet no.	A204
project ID	20241101
page no.	8 of 17
sheet title	Plan- Site Year 3
date	1/11/2024
project	Proposed Dwelling, Garage, LeanTo and Carport for Lot 1 Faith Street, Dimboola, 3414.

[redacted]
Reg. Prac. No. DP-AD 2332
Mob:
Ph:
email:



N

5 Site Plan Year 4
Scale: 1:500

NOTE: ADD 106500 MM TO ALL CONTOURS FOR APPROX. ALTITUDES.

Proposed Dwelling, Garage, LeanTo and Carport
for
project
Lot 1 Faith Street, Dimboola, 3414.

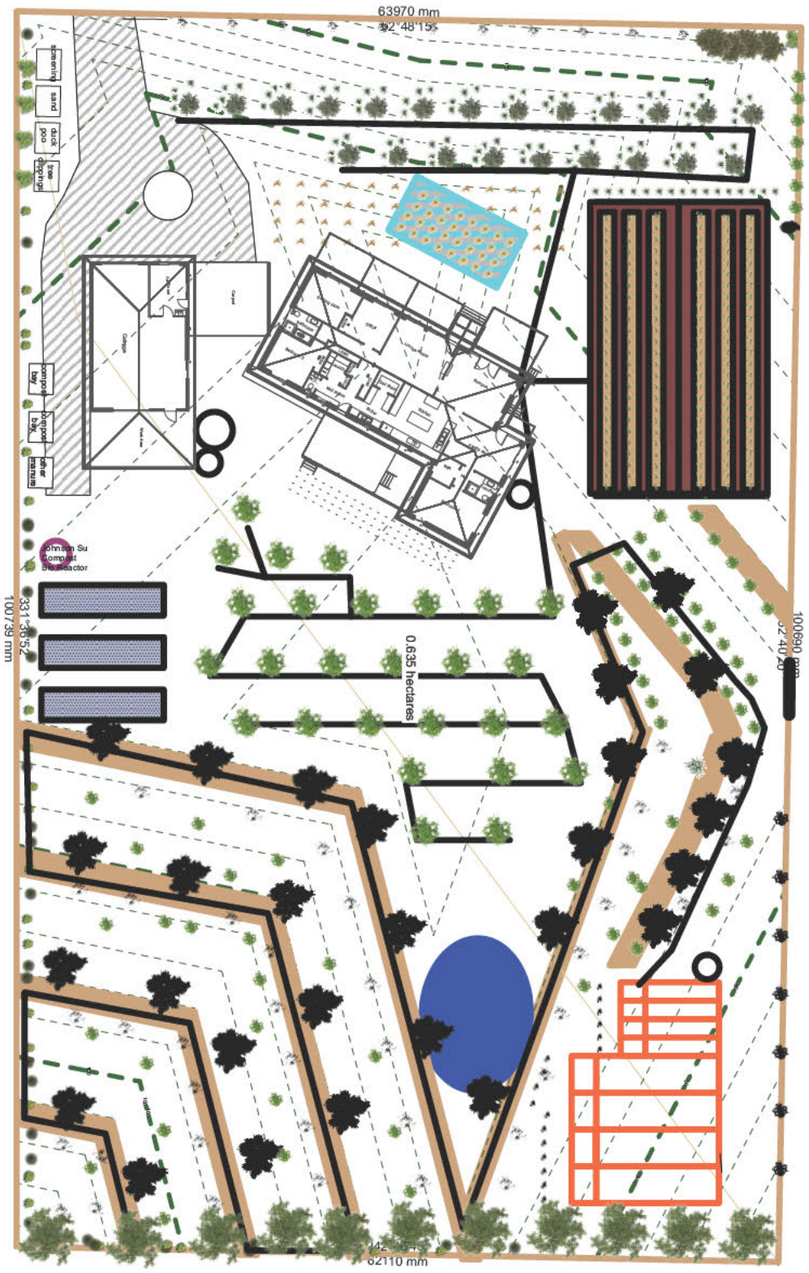
[redacted]
Reg. Prac. [redacted]
Reg. Prac. No. DP-AD 2332
Mob: [redacted]
Ph: [redacted]
email: [redacted]

Plan- Site Year 4
sheet title
1/11/2024
date

sheet no. A205
project ID 20241101
page no. 9 of 17

FAITH ST

JOYCE ST



5 Site Plan Project Summary

Scale: 1:500

NOTE: ADD 106500 MM TO ALL CONTOURS FOR APPROX. ALTITUDES.

[redacted]

Mob: [redacted]
Ph: [redacted]
email: [redacted]

Reg. Prac. [redacted]
Reg. Prac. No. DP-AD 2332

project: *Proposed Dwelling, Garage, LeanTo and Carport*
fo [redacted]
Lot 1 Faith Street, Dimboola, 3414.

Plan- Site Project Summary
sheet title

1/11/2024
date

sheet no. *A206*
20241101
project ID
10 of 17
page no.

☆ = DENOTES DWELLINGS IN FARMING ZONE

1 Site Plan Existing
Scale: 1:5000

N

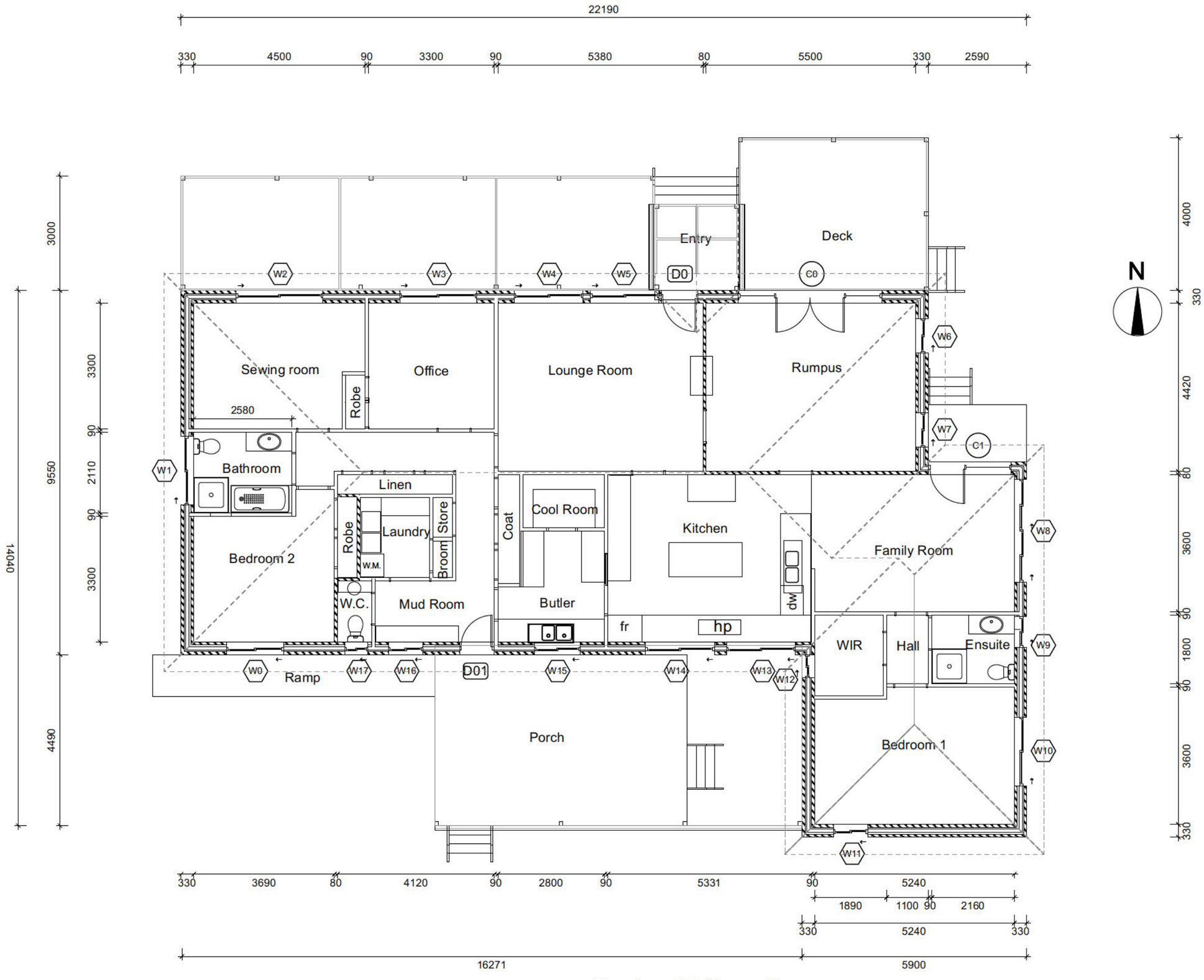
project
Proposed Dwelling, Garage, LeanTo and Carport
for
Lot 1 Faith Street, Dimboola, 3414.

sheet title
Plan- Site Neighbourhood

date
1/11/2024

sheet no. A207
project ID 20241101
page no. 11 of 17

[redacted]
Reg. Prac. [redacted]
Reg. Prac. No. DP-AD 2332
Mob: [redacted]
Ph: [redacted]
email [redacted]



1 **Plan-Level 0 (Ground)**
Scale: 1:100

sheet no. A300
project ID 20241101
page no. 12 of 17

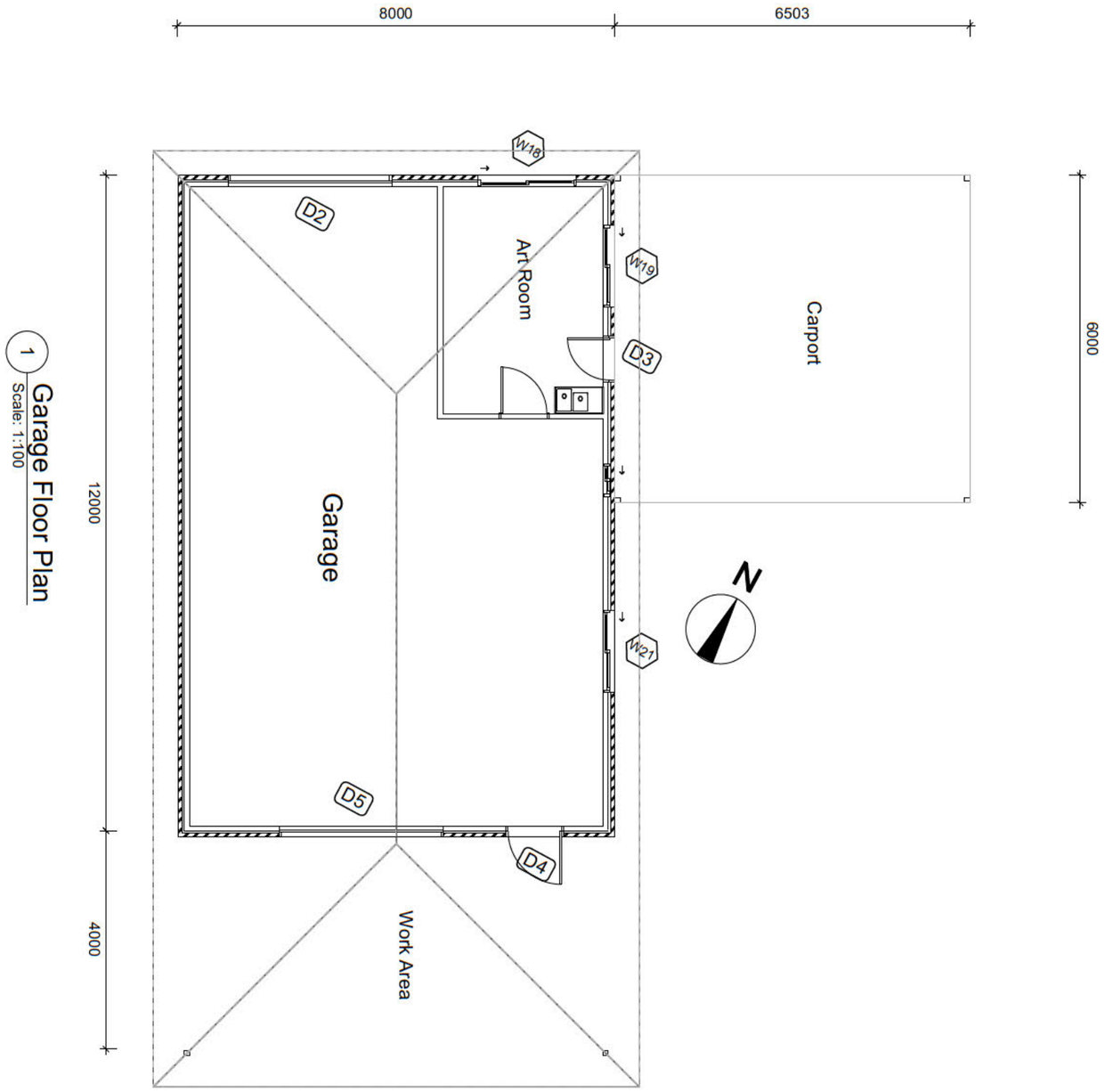
Plan-Level 0 (Proposed)
sheet title

1/11/2024
date

Proposed Dwelling, Garage, LeanTo and Carport
fo
project

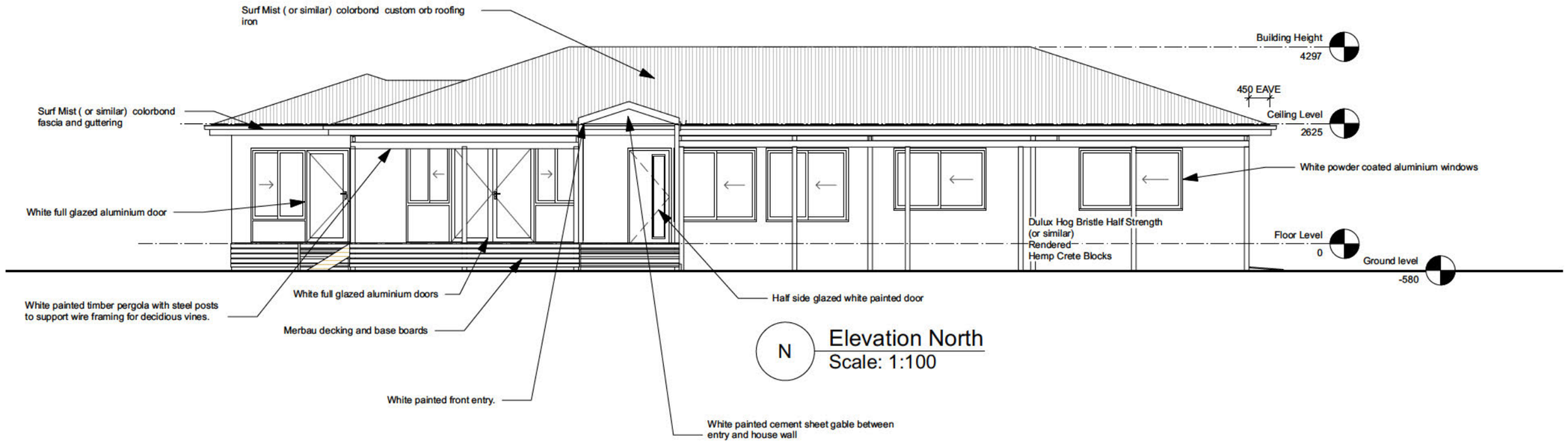
Lot 1 Faith Street,
Dimboola, 3414.

[redacted]
Reg. Prac. No. DP-AD 2332
Reg. Prac.
[redacted]
Mob:
Ph:
email:

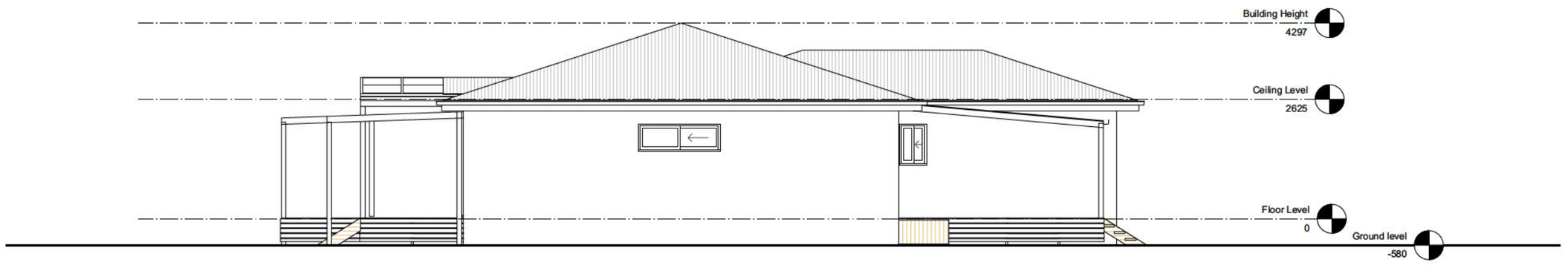


1 Garage Floor Plan
Scale: 1:100

[redacted] Mob: [redacted] Ph: [redacted] email: [redacted] Reg. Prac. [redacted] Reg. Prac. No. DP-AD 2332	project: *Proposed Dwelling, Garage, LeanTo and Carport for [redacted]* Lot 1 Faith Street, Dimboola, 3414.	sheet title: *Plan- Garage (Proposed)* date: *1/11/2024*	sheet no. *A301* project ID *20241101* page no. *13 of 17*



N Elevation North
Scale: 1:100



E Elevation West
Scale: 1:100

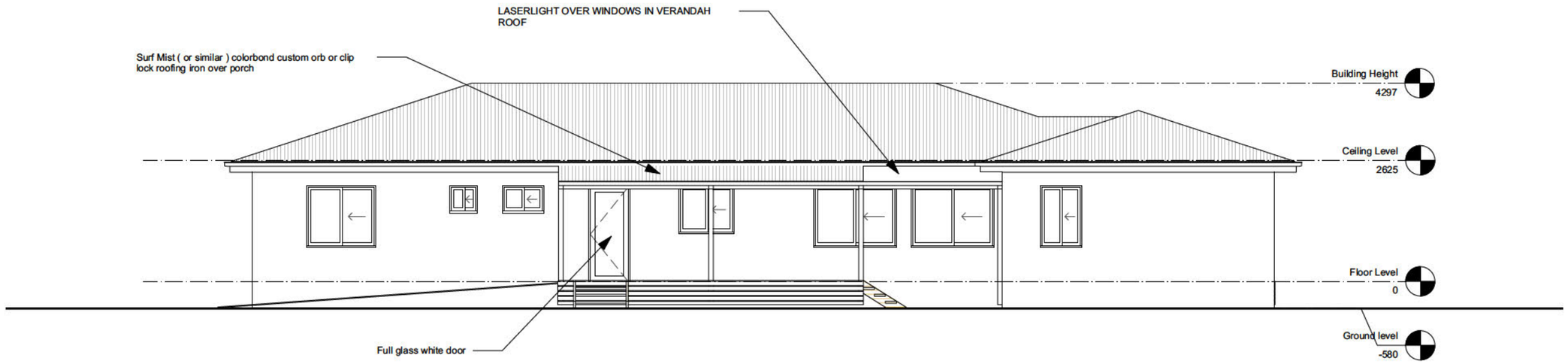
sheet no. A400
project ID 20241101
page no. 14 of 17

Elevations-North+West
sheet title

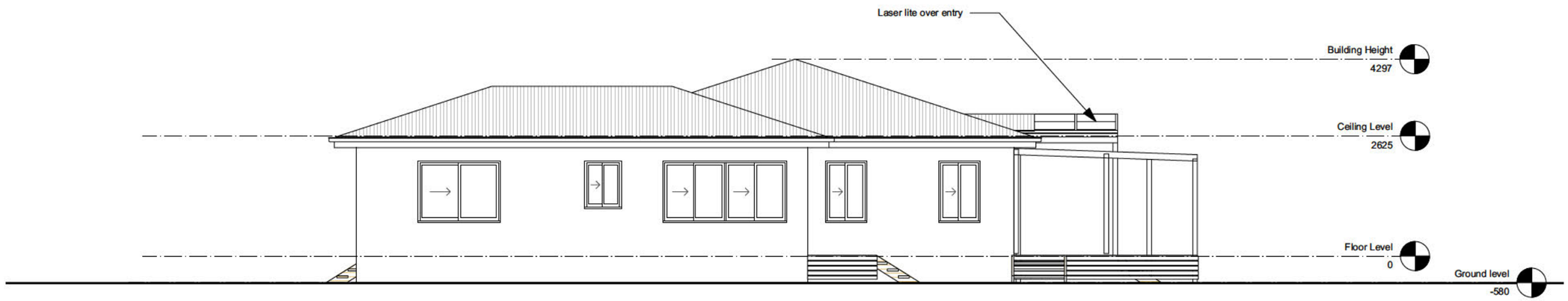
1/11/2024
date

Proposed Dwelling, Garage, LeanTo and Carport
for [redacted]
Lot 1 Faith Street, Dimboola, 3414.
project

[redacted]
Reg. Prac. No. DP-AD 2332
Reg. Prac.
[redacted]
Mob: [redacted]
Ph: [redacted]
email [redacted]



S Elevation South
Scale: 1:100



E Elevation East
Scale: 1:100

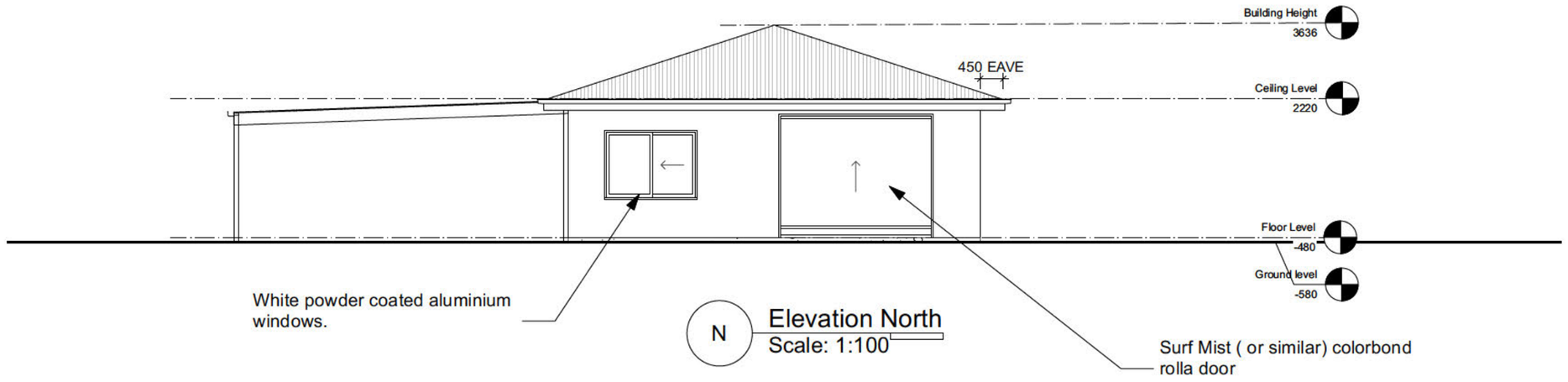
sheet no. A401
project ID 20241101
page no. 15 of 17

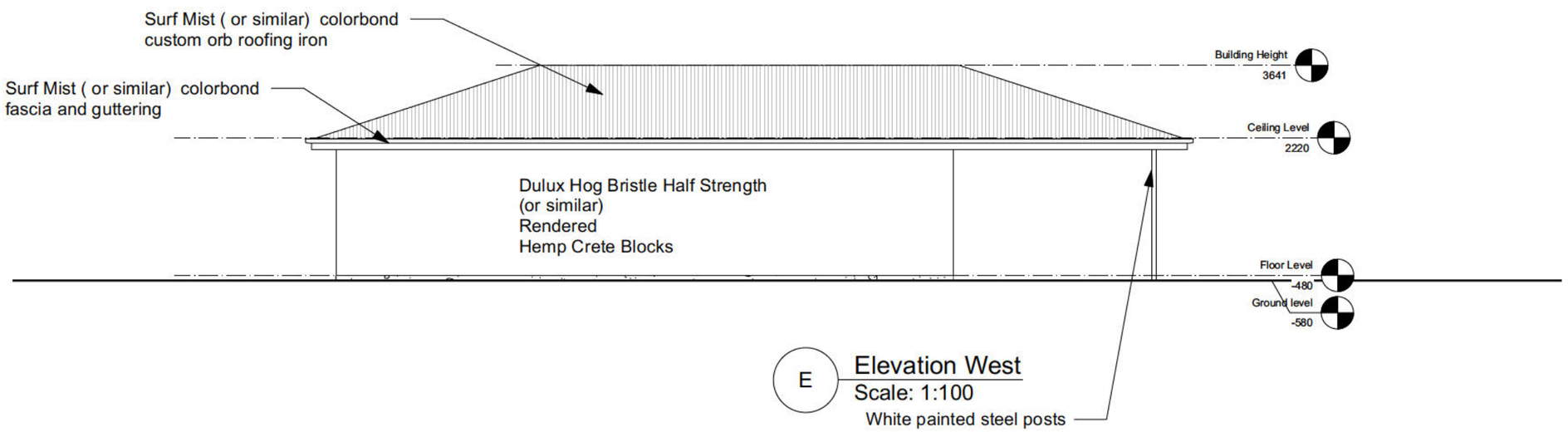
Elevations-South+East
sheet title

1/11/2024
date

Proposed Dwelling, Garage, LeanTo and Carport
for [redacted]
Lot 1 Faith Street, Dimboola, 3414.
project

[redacted]
Reg. Prac. No. DP-AD 2332
Reg. Prac.
Mob:
Ph:
email:





sheet no. A402

project ID 20241101

page no. 16 of 17

sheet title Elevations-North+West - Garage

date 1/11/2024

project Proposed Dwelling, Garage, LeanTo and Carport for [redacted] Lot 1 Faith Street, Dimboola, 3414.

[redacted]

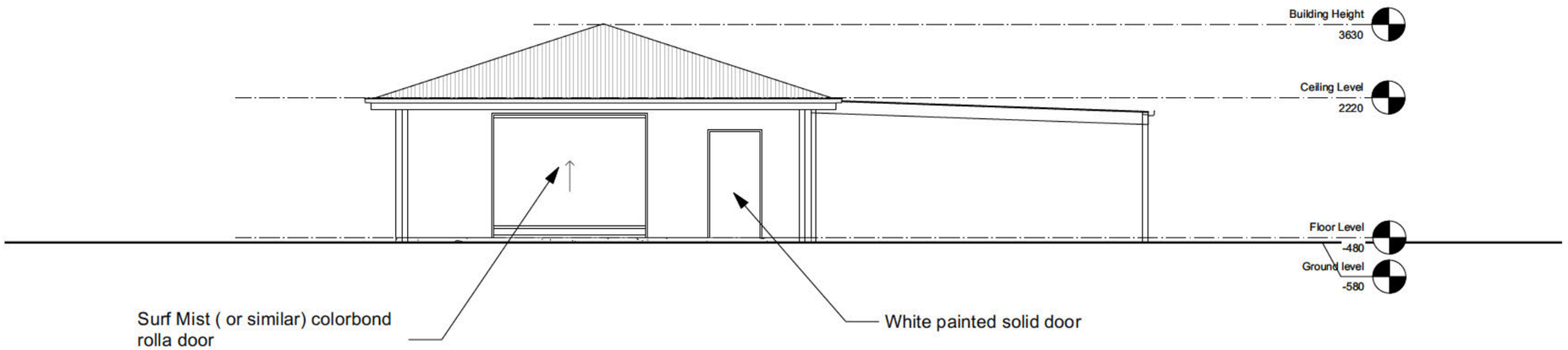
Reg. Prac. [redacted]

Reg. Prac. No. DP-AD 2311

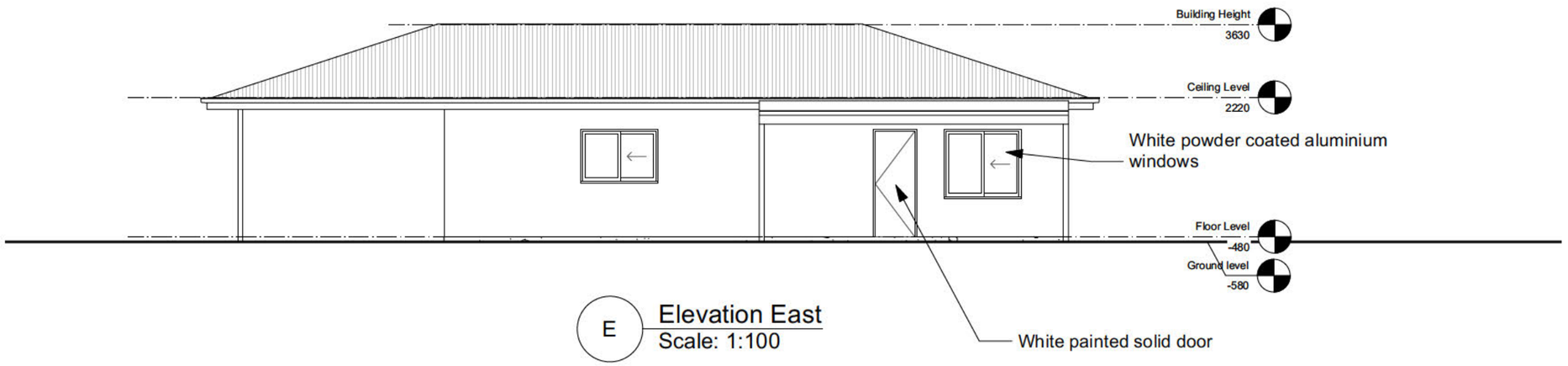
Mob: [redacted]

Ph: [redacted]

email: [redacted]



S Elevation South
Scale: 1:100



E Elevation East
Scale: 1:100

sheet no. A403
project ID 20241101
page no. 17 of 17
sheet title Elevations-South+East - Garage
date 1/11/2024
project Proposed Dwelling, Garage, LeanTo and Carport for [redacted] Lot 1 Faith Street, Dimboola, 3414.
[redacted]
Reg. Prac. No. DP-AD 2332

PLANNING PROPERTY REPORT

Environment, Land, Water and Planning

From www.planning.vic.gov.au at 20 November 2024 03:54 PM

PROPERTY DETAILS

Lot and P an Number:	**Lot 1 TP874548**
Address:	**FAITH STREET DIMBOOLA 3414**
Standard Parce dentifier (SP):	**1\TP874548**
Loca Government Area (Counci):	**HINDMARSH** www.hindmarsh.vic.gov.au
Counci Property Number:	**200691**
P anning Scheme:	**Hindmarsh** Planning Scheme Hindmarsh
Directory Reference:	**Vicroads 546 E8**

UTILITIES

Rura Water Corporation:	**Grampians Wimmera Mallee Water**
Urban Water Corporation:	**Grampians Wimmera Mallee Water**
Me bourne Water:	**Outside drainage boundary**
Power Distributor:	**POWERCOR**

STATE ELECTORATES

is ative Counci :	**WESTERN VICTORIA**
is ative Assemb y:	**LOWAN**

OTHER

Registered Aborigina Party: **Barengi Gadjin Land Council Aboriginal Corporation**

View location in VicPlan

Planning Zones

FARMING ZONE (FZ)
SCHEDULE TO THE FARMING ZONE (FZ)

C1Z - Commercial 1 **FZ - Farming** **GRZ - General Residential**

TRZ2 - Principal Road Network

Note: labels for zones may appear outside the actual zone please compare the labels with the legend.

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Read the full disclaimer at https://www.delwp.vic.gov.au/disclaimer

Notwithstanding this disclaimer, a vendor may rely on the information in this report for the purpose of a statement that land is in a bushfire prone area as required by section 32C (b) of the Sale of Land 1962 (Vic)

PLANNING PROPERTY REPORT

Planning Overlay

ENVIRONMENTAL SIGNIFICANCE OVERLAY (ESO)
ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 6 (ESO6)

ESO - Environmental Significance Overlay

Note: due to overlaps, some overlays may not be visible, and some colours may not match those in the legend

Further Planning Information

P anning scheme data ast updated on 18 November 2024.

A **planning scheme** sets out po icies and requirements for the use, deve opment and protection of and.
This report provides information about the zone and over ay provisions that app y to the se ected and.
nformation about the State and oca po icy, particu ar, genera and operationa provisions of the oca p anning scheme that may affect the use of this and can be obtained by contacting the oca counci
or by visiting https://www.p anning.vic.gov.au

This report is NOT a **Planning Certificate** issued pursuant to Section 199 of the ***Planning and Environment Act 1987.***
t does not inc ude information about exhibited p anning scheme amendments, or zonings that may abut the and.
To obtain a P anning Certificate go to Tit es and Property Certificates at Landata - https://www. andata.vic.gov.au

For detai s of surrounding properties, use this service to get the Reports for properties of interest.

To view p anning zones, over ay and heritage information in an interactive format visit
https://mapshare.maps.vic.gov.au/vicp an

For other information about p anning in Victoria visit https://www.p anning.vic.gov.au

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Notwithstanding this disclaimer, a vendor may rely on the information in this report for the purpose of a statement that land is in a bushfire prone area as required by section 32C (b) of the Sale of Land 1962 (Vic)

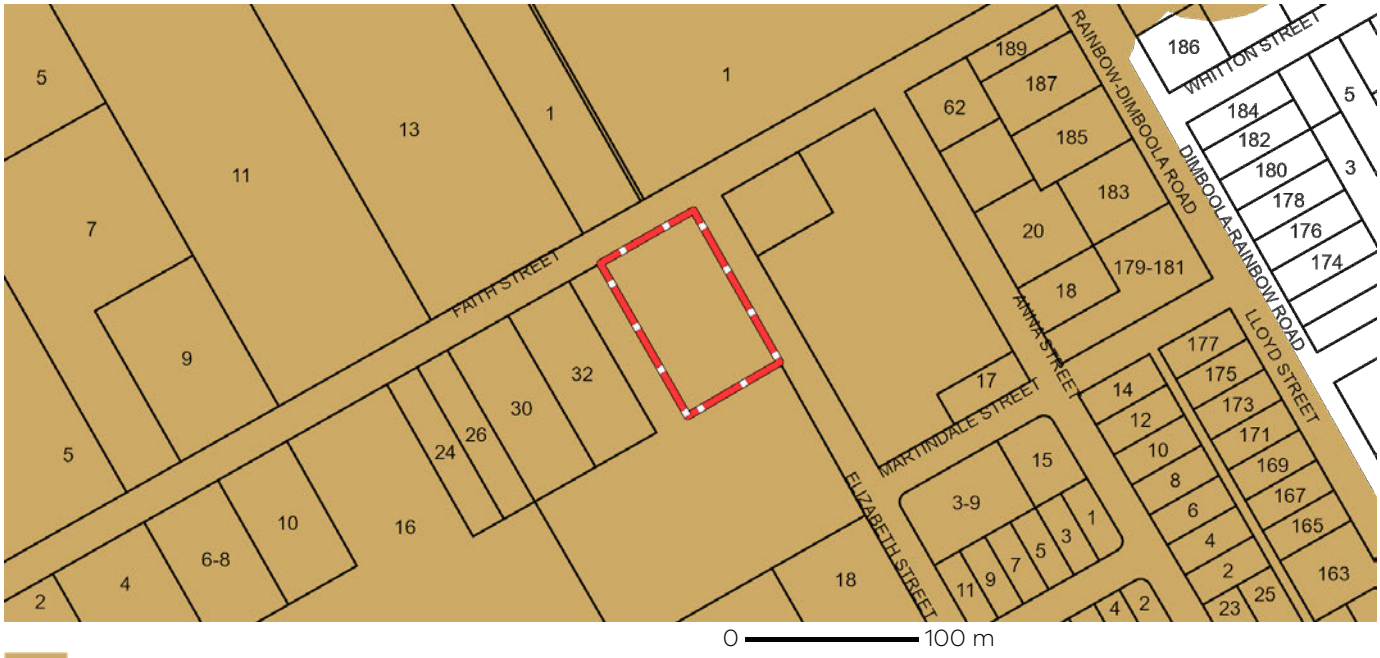
PLANNING PROPERTY REPORT

Designated Bushfire Prone Areas

This parcel is in a designated bushfire prone area. Special bushfire construction requirements apply to the part of the property mapped as a designated bushfire prone area (BPA). Planning provisions may apply.

Where part of the property is mapped as BPA, if no part of the building envelope or footprint falls within the BPA area, the BPA construction requirements do not apply.

Note: the relevant building surveyor determines the need for compliance with the bushfire construction requirements.



Designated Bushfire Prone Areas

Designated BPA are determined by the Minister for Planning following a detailed review process. The Building Regulations 2018, through adoption of the Building Code of Australia, apply bushfire protection standards for building works in designated BPA.

Designated BPA maps can be viewed on VicPlan at https://mapshare.vic.gov.au/vicplan/ or at the relevant local council.

Create a BPA definition plan in VicPlan to measure the BPA.

Information for lot owners building in the BPA is available at https://www.planning.vic.gov.au.

Further information about the building control system and building in bushfire prone areas can be found on the Victorian Building Authority website https://www.vba.vic.gov.au. Copies of the Building Act and Building Regulations are available from http://www.legislation.vic.gov.au. For Planning Scheme Provisions in bushfire areas visit https://www.planning.vic.gov.au.

Native Vegetation

Native p ants that are indigenous to the region and important for biodiversity might be present on this property. This cou d inc ude trees, shrubs, herbs, grasses or aquatic p ants. There are a range of regu ations that may app y inc uding need to obtain a p anning permit under C ause 52.17 of the oca p anning scheme. For more information see Native Vegetation (C ause 52.17) with oca variations in Native Vegetation (C ause 52.17) Schedu e

To he p identify native vegetation on this property and the app ication of C ause 52.17 p ease visit the Native Vegetation nformation Management system https://nvim.de wp.vic.gov.au/ and Native vegetation (environment.vic.gov.au) or p ease contact your re evant counci .

You can find out more about the natura va ues on your property through NatureKit NatureKit (environment.vic.gov.au)

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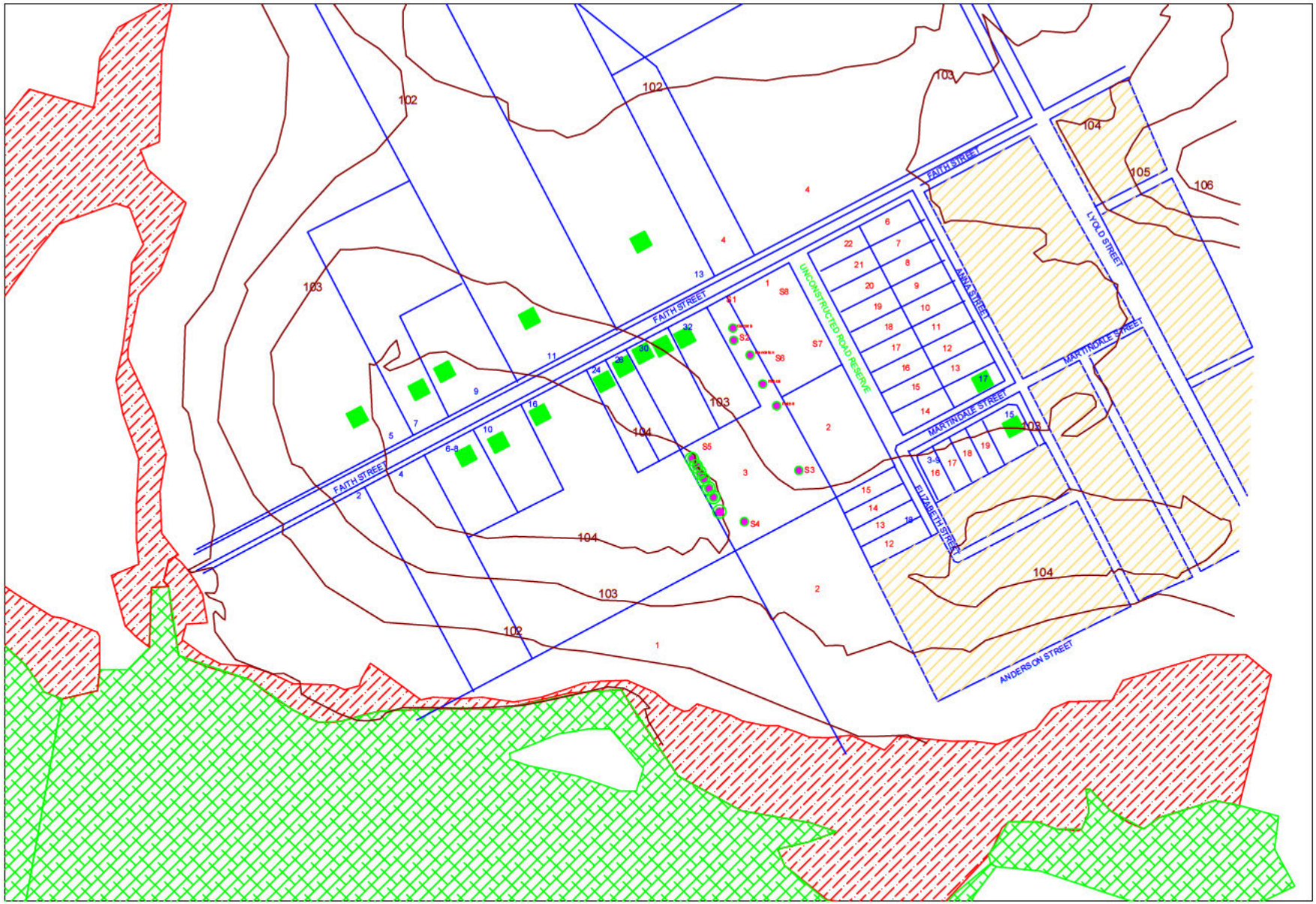

LEGEND

RESIDENTIAL ZONE

PRONE TO INUNDATION

FLOOD OVERLAY

10
EXISTING DWELLING

104
CONTOUR

Note:
The contractor shall verify all dimensions and all underground services at the site before commencing work. The contractor shall verify all levels from the consulting engineer prior to construction.

DO NOT SCALE FROM DRAWINGS

PROJECT:
LOT 3 TP874548
Faith Street,
Dimboola

PROJECT NO: *2669*

DATE:
NOV 2024

DWG TITLE:
EXISTING PLAN

SCALE: 1:5000 @A4

NORTH
West East
South

DRAWINGS FOR PLANNING PERMIT ONLY NOT TO BE USED FOR CONSTRUCTION

NATURAL RESOURCE LINK PTY LTD
54 Frazer Street
Clunes 3370
julie@nrlinks.com.au

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Landsystems version 3

HORSHAM

- Freeway
- Highway
- Arterial
- Sub-arterial
- Collector
- Local
- Main river
- Public land
- Area subject to inundation
- Lake/Dam
- Mangroves
- Salt lake
- Salt pan; Sewerage
- Swamp
- Tile boundary
- 2nd Tier geomorphic units

Landform

- Dune, Plain
- Dune, Plain, Rise
- Dune, Rise
- Present flood plain
- Flood plain, dune
- Flood plain, Swamp
- Hill (relative relief 90-300m)
- Hill, Mountain
- Low Hill (relative relief 30-90m)
- Low Hill, Dune
- Low Hill, Hill
- Low Hill, Rise
- Mountain (relative relief > 300m)
- Mountain, Hill
- Plain above flood level (relative relief < 9m)
- Plain, Coastal Complex
- Plain, Dune
- Plain, Dune, Rise
- Plain, Rise
- Plain, Rise, Dune
- Rise (relative relief 9 - 30m)
- Rise, Low Hill
- Rise, Plain
- Rise, Plain, Coastal
- Rise, Plain, Dune
- Swamp, lunette/water body complex
- Swamp, Plain

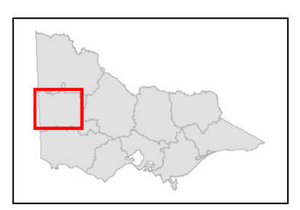
HgP7-11 — Subscript
Landform / Lithology / Lithological age / Climate

N

1:250 000

0 5 10 15 20

Kilometres



Additional information

Base data such as roads, rivers, (1:100 000) towns, CMA boundaries, landsystems (1:250 000) are sourced from DSE/DPI Corporate Geospatial Data Library.

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Map produced May 2004

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Victoria
The Place To Be

ADDRESS: FAITH STREET, DIMBOOLA.

LOT AND PLAN NUMBER:(Lot 1 TP874548)

CLIENT: [redacted]

LOCAL GOVERNMENT: HINDMARSH

JOB NO: 2663

NR LINKS
Your Planning & Permit Consultants

Land class 4

"Regenerative Agriculture is not a completely new farming system; rather, it incorporates features from established sustainable agricultural systems with the primary goal of restoring soil health in order to revitalise degraded land and bring environmental, economic, and social benefits to a broader community. Furthermore, the system could help in carbon sequestration if the recommended management techniques are followed."

Khangura, R.; Ferris, D.; Wagg, C.; Bowyer, J. Regenerative Agriculture—A Literature Review on the Practices and Mechanisms Used to Improve Soil Health. Sustainability 2023, 15, 2338. https://doi.org/10.3390/su15032338

Land/Farm Management Plan for the planning application for a Market Garden/Orchard at Faith Street, Dimboola.
Project: 2669
Julie Lee is a rural planner that is qualified in many areas such as Bushfire Planning, Town Planning, Agroecology (Regenerative Agriculture), Conservation and Land Management, Coastal and Water Management, Horticulture and is a sessional lecturer to the Victorian Planning Institute in Integrated Land Management for Farming zone and Biodiversity.

Natural Resource Link Pty Ltd

[redacted]

REV	DATE	DETAILS
	18/11/2024	FINAL DRAFT TO CLIENT
		FINAL

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Disclaimer
Natural Resource Link Pty Ltd does not accept any liability for an error, omission or loss or other consequence that may arise from relying on this report. The soil health visual inspection for this report follows the methodology for visual soil inspections by G. Shepherd, Soil Scientist (BioAgrinomics.com New Zealand) Soil testing is by EAL Environmental Analysis Laboratory at
Southern Cross University and the review of the results including general recommendation for crops or pasture in this report are general in nature and reflect a brief look of the soils for the planning permit only and the choice of pasture species and ongoing testing of soils will need to be undertaken by an Agronomist.

Contents

Images

Executive Summary

Regenerative Agriculture practices that will be recommended in this report look to increase soil health.

> "Soil health has been defined as the ability of soil to continue to function as a vital living system within ecosystem and land-use boundaries, thereby sustaining biological productivity, maintaining air and water quality, and promoting plant, animal, and human health." Doran, J.W. Soil health and global sustainability: Translating science into practice. Agric. Ecosyst. Environ. 2002, 88, 119–127.

The owner bought the land to have a larger block on which to increase their food production and have lived in Dimboola for many years. They have many years experience in holistic gardening and qualifications in permaculture and have undertaken classes to educate in these field to the local community and for tourism.
Council is looking to increase growth in the Dimboola area and these skills will be essential to development in the Wimmera.
The site they have chosen is 0.693ha of size in a highly developed area to the north-west corner of Dimboola. The site is a rectangular and has direct access to Faith Street which has town water and power.
The site has ground water mapped at >10m and <20m in depth with a use class of C and mostly unusable and the lack of bores in the area is indicative of this classification.
On review of the site (27 September 2024) soil samples were taken and the depth of rooting in the pastures along with a review of the soils were undertaken.
The surrounding landscape abutting the site to the east is the residential area of Dimboola and rural lifestyle low density properties with development and open pastures to the north of the site.
The site is near the Wimmera River which floods and inundates some of the surrounding areas and this development is not shown to be subject to these restrictions.
It is proposed that the owners grow vegetables, develop an orchard and breed a rare pure breed of chickens which is typical of rural areas.
There is a start of the food circular economy at the local laundry with a free pantry and there are local markets such as the Tower Park Market and at Nhill that gives two weekends a month to sell produce.

Image.1 Landscape perspective (Source Landchecker)

The landscape displays a mix of uses with smaller lots in both residential and farming zones areas. The area is well serviced by roads and sewerage, town water and power.

Image.2 Water (Blue), Sewer (Orange) in the location. (Source Wimmera asset Map)

Land use in the area is grazing with some cropping, Agriculture is limited in the area due to the high level of dwellings in the area. Smaller scale Horticultural use is more suited to the area as it does not involve large machinery, spraying and loud noises of other agricultural uses.

The site contained a few isolated patches outside of the development areas of *Austrodanthonia sp.(*Wallaby Grass) sited but they were not a dominant species in the paddocks.

Introduction

This report is being completed to explain the proposed change of use and development on the site and how it responds to the strategies, purpose and objectives of the Victorian Planning Scheme.

This aligns to strategies and purpose of the applicable farming zone by providing a use of Agriculture that is consistent with the landscape and within the capacity of the site.

Land use is based on best practice soil health, capacity of soil and ameliorating climate change and is consistent with the Farming Zone

- List the Farm Management Plan
    - A site plan showing:
    - Buildings
    - Different zones
    - All paddocks and required fencing.
    - Water storage
    - Existing weeds and sightings or scats of pest animals
    - Access points
    - Development and infrastructure

The site was inspected on 27th of September 2024 and all features were recorded and GPS to the site.

Property owners and their aims

The owners of the site wishes to produce an orchard and undertake a market garden to provide for their own use and the community.

Current and historic land use

Image.6 Current Land Use (2017)

Yellow is listed as 5.4.1 Urban Residential

Purple is listed as 5.4.3 Rural Residential without Agriculture.

Aqua is listed as 5.4.2 Rural Residential with Agriculture

Image.7 Land use from Google 2008)

Little has changed in the landscape since 2008 with one additional house across the road from the site evident. The use of the land in the landscape has not altered from this time and remains mostly grazing with some minor cropping.

Development objective.

To take a snapshot of the land including topography, landforms, restrictions, risks, features, capacity of the soil and soil health. To develop a plan that respects the nature of the land and a use that is within the capacity of the soil. To propose how the soil can be sustainably improved to increase soil health and build resilience against climate change. To explain why the site requires development for monitoring, undertaking works and for security. The report demonstrates how all objectives of the planning scheme can be met to ensure a good planning outcome that delivers social, economic and environmental outcomes to best practice.

Methodology

- Planning scheme online maps (DWELP 2023) for zoning, applicable overlays for the site
- Aerial photography- Landchecker, Vic Map, Lassi, Google Earth to review the current and historical use of the site.
- Naturekit to review the current and historic EVC, Bioregional conservation status and Bioregion data.
- NVR Map for applicable condition scores
- Victorian Resources Online (Department of Agriculture 2024) for soil, land use, geology and historic land capability reports.

- Catchment Management Authority that is applicable to the site for contours, geology, flood information.
- Bureau of Metrology for climate data
- Rowe et al Jan 1981, Guidelines for Land Capability Assessment.
- Spatial data mart for applicable GIS data
- Soil test via EAL Laboratories, Lismore, NSW
- Visualising Vic Ground Water for ground water salinity and depth of ground water
- CeRDI portal for additional information (Federation University)
- Map Share for catchment information, fire history.
- Earthshare Resource Maps
- GeoVic for land tenure/mining. Geology
- Atlas of Living Australia for data on flora and fauna
- Victoria's Climate Tool
- Flora of Vic for Flora Details

Proposed Use

The proposed use is to improve soil health by composting, some fertilizer application and choosing appropriate species selection to produce food.

It is proposed to establish a market garden and recycle all clipping and plant waste to a compost heap along with an orchard.

SPECIFY TYPES

Property Characteristics

Image.8 Zoning in the landscape.

Climate data for Dimboola (long term averages for rainfall) is a mean of 407.8mm annually.

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Mean	22.8	23.2	20.9	28.0	40.5	45.1	42.5	43.3	41.6	39.9	30.9	25.8	407.8
Lowest	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.8	2.4	0.8	0.0	0.0	162.9
5th %ile	0.1	0.0	1.3	1.4	8.1	8.9	12.6	11.1	10.2	6.3	3.6	2.4	252.3
10th %ile	1.5	0.3	3.0	3.8	10.8	12.1	17.2	15.2	14.0	8.9	6.3	3.6	279.9
Median	15.1	14.3	15.2	22.0	37.9	43.8	40.7	41.9	37.0	34.5	24.6	18.0	406.0
90th %ile	54.5	57.2	44.0	60.0	74.2	79.8	67.5	72.8	76.7	76.8	58.3	55.7	538.0
95th %ile	76.2	76.0	57.1	79.4	86.0	93.1	77.5	84.7	88.8	99.1	78.5	71.1	572.0
Highest	155.0	170.9	136.4	119.6	136.1	125.6	113.6	120.4	117.7	179.7	130.9	141.0	761.0

Image.9. Mean Rainfall for Dimboola (Source Bureau of Meterology (nd), Monthly Rainfall for Dimboola, http://www.bom.gov.au/jsp/ncc/cdio/weatherData/av?p_nccObsCode=139&p_display_type=dataFile&p_startYear=&p_c=&p_stn_num=078010

The average annual rainfall from 1928-2024 has shown some decrease as follows:

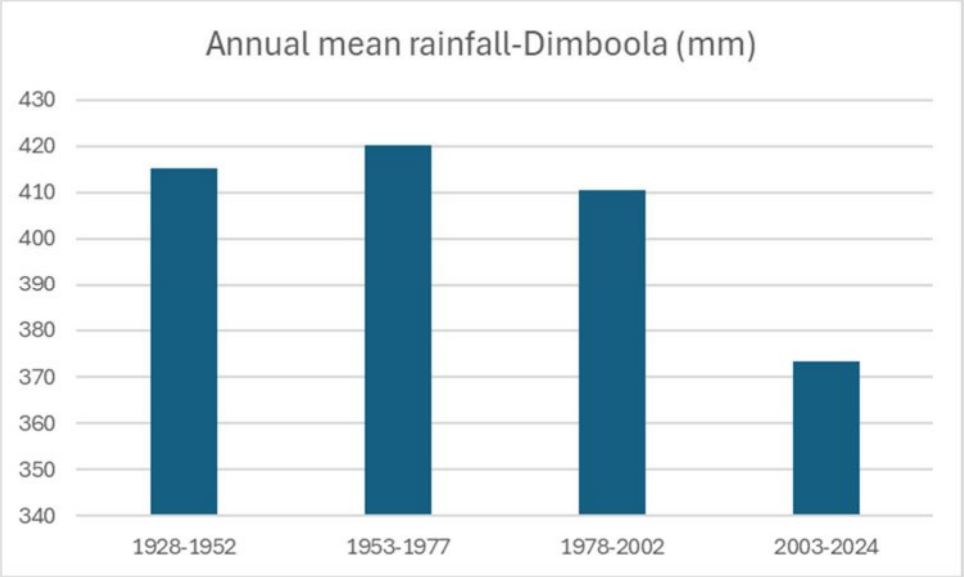


Image.10 adapted from annual rainfall of Dimboola

Recent changes in rainfall are likely the effects of climate change and it is imperative that watering on site look to deepen the roots of woody stock in the orchard to develop resilience against climate change. Rainfall has looked to decrease from 2003-2024 by 9% and resilient crops that have less need for watering will be preferred to make better use of water. It is recommended that is possible all storm water on site be captured to be used on site.

An analysis of rainfall patterns through the growth season have peaked from Winter to Spring (1928-1977 and 2003-2023) whilst the rainfall patterns is highly inconsistent through 1978-2002.

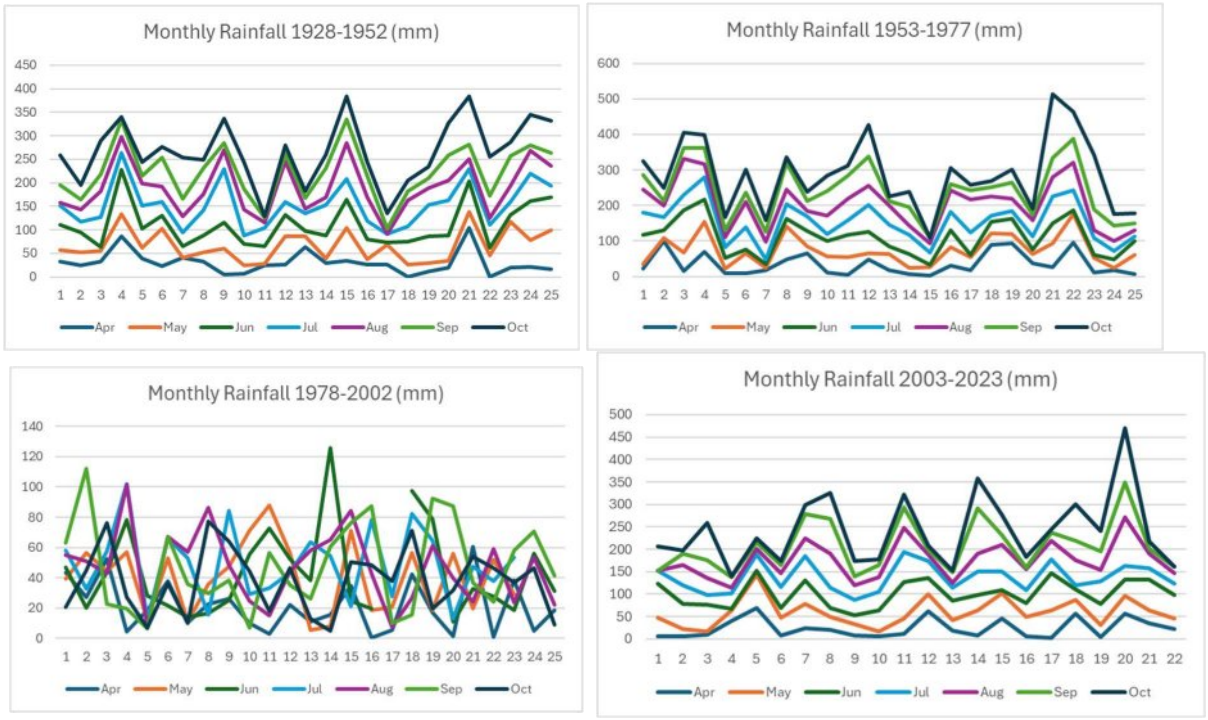


Image.11 adapted from data Historic Rainfall-Dimboola(Source: Bureau of meterology, https://reg.bom.gov.au/climate/data-services/station-data.shtml)

The growing season is on average from April to October each year when rainfall is reliable although this has been projected to change and did change from 1978-2002 and has settle back into the winter-spring pattern in recent years.

Landform, Geology and Topographic features

Land system

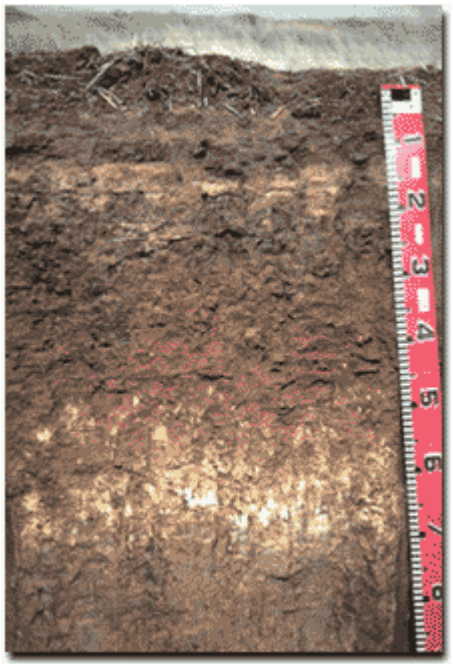
This site is within the Low Calcareous Dunes the dunes formed when the climate was drier than it is today. The soils are dominantly reddish sands overlying a compact loam. Many areas have been cleared for crop growing and grazing.
The site is within the Landform 5.1Pf 4-1 (PfQ4-1) which is a red duplex soil in an alluvial plain with the following susceptibility:

Compaction	4	High
Leaching	2	Low
Mass Movement	1	Nil
Salinisation	4	High (Subsoil Clays)
Water Erosion	2	Low
Water logging	1	Nil
Wind Erosion	3	Moderate

A copy of the landsystem details from Victorian Resources Online is in Appendix.5 for reference. (Source: VRO, 1996- 2024, *Soil/Landform 148*, , https://vro.agriculture.vic.gov.au/dpi/vro/vrosite.nsf/pages/landform_geomorphological_framework_7.1.1Retrieved 22/4/2024.

Soils

The soils mapped for site is VEAD being a Grey Vertisol but on viewing the soils on site; they are reflective of Pilocene Parilla Sands and this matches the soils for the Pre 1750 EVC for the site (EVC 981 Parilla Mallee Murray Mallee Bioregion).
Therefore, I am confident to state the soils are Parilla sands similar to Site Code LS15. These soils morphology is below



Soil Profile Morphology:

Surface Soil

A1 0-15 cmDark brown (10YR3/3); sandy clay loam; weakly structured; weak consistence dry; pH 7.7:

A2 15-20 cm Reddish brown (5YR4/4) sporadically bleached; sandy clay loam; strong consistence dry; pH 7.9; clear change to:

Subsoil

B21 20-30 cm Reddish brown (7.5YR4/4); medium clay; strong medium to coarse prismatic, parting to strong medium blocky structure; strong consistence moist; pH 8.9:

B22 30-50 cm Dark red (2.5YR3/6); heavy clay; moderate medium prismatic, parting to strong medium blocky structure; very strong consistence dry; pH 9.3:

B23 50-75 cm Yellowish red (5YR5/6); light medium clay; structure similar to above; firm consistence moist; contains many (20 - 50%) soft calcareous segregations; pH 9.3:

B24 75-160 cm Light yellowish brown (10YR6/4) with yellowish brown (10YR5/8) and strong brown (7.5YR4/6) mottles; sandy clay; moderate coarse prismatic, parting to coarse polyhedral structure; strong consistence moist; pH 9.2:

C 160+ cm Weathered sandstone.

Image.12. Data LS15 (Source; Victorian Resources Online, LS15
https://vro.agriculture.vic.gov.au/dpi/vro/wimregn.nsf/pages/wim_soilpit_ls15. Retrieved 3/10/2024.

The soils on site were very weakly structured with an organic layer (A1) from 2-10cm in depth with a bleached A2 horizon. The subsoil was often very difficult to dig over 25cm in depth due to the clay subsoil.

Soils on site

Image.13 Soil site.1

Soil site.1 was near the road and the soil has little aggregate stability and has an even red colour. The A2 horizon you can see bleaching to around 10in depth the root extent to under 10cm in depth.

Image.14 Soil Site.2

Soil site.2 with a very shallow organic layer A1 with a bleached A2 with rooting depth to 10cm. You can see the topsoil has a capping of 1cm from the level of silt. The lack of structure makes this soil susceptible to capping from compaction due to the level of silt in the soil.

Image.15 Soil Site.3

Soil site.3 the soil was so highly compacted that the spade could only penetrate a few centimeters in depth. There was aggregate around the roots which did not seem to extent much below the surface.

Image.16 Soil site.4

Soil site.4 the A1 horizon was 1cmwith a bleached A2 horizon . Top soil roots were down 10cm in depth and minor aggregation around the roots.

Pest plants

The main pest plants on site were Gazania, *Hypochoeris radicata* (Flat weed) and *Arctotheca calendula* (Dandelion) and *Salvia verbenaca* was noted in a few patches and is a significant environmental weed in pastures. A large patch to the south of the site is dominated by Ehrharta calycina (Veldt Grass)

Image.17 Mallow

Image.18 Dandelion and Flatweed

Image.19 Salvia

Image.20 Veldt Grass

The weeds on site are indicators of low fertility and a sign of overstocking the soil Flat weed, Dandelion indicate the soils can be deficient in Potassium and Phosphorous.

Pest animals

Image.21 Rabbit scatts and digging.

There were a few patches of rabbit scats on the site, and these will need to be controlled. The owner is going to fence the entire site with a rabbit proof fence.

Agricultural potential and land capability classification

LAND CAPABILITY RATING FOR GRAZING 500-625mm pa rainfall					
SITE: Lot 3 TP 874548					
Class	**1**	**2**	**3**	**4**	**5**
Slope	< 10% (5)	10-20% (5-10)	20% to 30% (10-17)	30% to 45% (17-24)	>45 % (> 24)
Aspect	E, SE	S, SW, NE	N, NW, W		
Soil Group (Northcote)	Gradational soils, Um soils	Duplex soil A horizon 25-40cm	Other duplex soils, Ur, Ug soils	Uc soils	
Average soil depth (A horizon)	More than 1.0m	0.6-1.0m	0.3-0.6m	0.15-0.3m	<0.15m
Surface rock	< 2%	2%-15%	15%-25%	25-40%	>40%

Image. 22 current capacities of the site for Grazing

As per Rowe et.al the grazing potential on site is 0.5DSE/ha and the area for grazing on site is limited to only 1 sheep. Typical grazing at any higher rate will involve supplementary feeding and lead to land degradation.
Areas of bare soil on site was noted to cap and the cover is best only grazed during high growth periods for a short time. This will enable the grazing to stimulate the production of glumen and increase aggregation in the soil.

For horticulture the soils will require soil testing for nutrients and for composting to be undertaken to ensure that this can be added to the soils along with manures to increase the nutrient levels. Nutrients such as Potassium and Phorphorous along with levels of Aluminium are critical for these soils.

High quality Productive Agricultural Land

"High quality productive Agriculture land is defined as follows:

- "Adequately drained but can still hold sufficient moisture as well as nutrients (important for biomass production but also for minimizing off site effects. This generally implies well- developed and favourable structural friability.
- Deep enough to provide plant support with few restrictions to root and water movement down the soil profile.
- Able to adequately cope with traffic (i.e are reasonably resilient to physical disturbance).

(Source: Agriculture Victoria (October 2018, Assessment of Agricultural Land Capability in Melbourne's Green Wedge and Peri-urban Areas,

https://www.vgls.vic.gov.au/client/en_AU/vgls/search/detailnonmodal/ent:$002f$002fSD_ASSET$0
02f0$002fSD_ASSET:1299976/ada?qu=Surface+texture.&d=ent%3A%2F%2FSD_ASSET%2F0%2FSD_A SSET%3A1299976%7EASSET%7E297&ps=300&h=8)

Current assessment of high-quality agricultural land is restricted to Land Class 1 and 2 that have more capacity for Agriculture and in some cases Land Class 3 that has access to potable water.

The dwelling will not result in a loss of productive soil.

Management

Weed control methods per species on site.

Flat weed

Hypochaeris radicata (Flatweed)			
Description	**Life cycle**	**Status**	**Dispersal methods**
Flatweed is a herb to 400 mm wide with yellow daisy type flowers up to 30 mm diameter borne on simple or branched, leafless stalks at any time of the year with a flush in spring to early summer. The small florets all have radiating petal-like blades. The tiny fly-away fruits are topped by a stalked ring of barbed to feathery bristles. The leaves form a flat rosette and are variable being entire to shallowly lobed, and usually somewhat bristly but can be hairless. The flower stems often have galls. It a perennial but often acts as an annual in drier climates. It is difficult to distinguish from Smooth Cat's-ear (Hypochaeris glabra) which is an annual. Hybrids between the two species are common.	**Germination:** Winter occassionally Spring **Flowering:** Most of the year **Fruiting:** Most of the year	Environmental weed	This species reproduces vegetatively via severed taproots and seed spread by wind and carriage on animals.

Distribution across the site
A weed of sandy to sandy clay loams, red earths and red brown earths, shallow stony hillside soils. Less frequent on grey clays. Often in moister areas
Control options within the site
Spray with an approved herbicide.

Dandelion

Taraxacum officinale (Dandelion)			
Description	**Life cycle**	**Status**	**Dispersal methods**
A rosette forming, biennial or perennial plant with backward pointing lobes on its leaves and single bright yellow flowers on long stalks and milky sap. Arise singly, are 10 to 20 mm long overall with a usually short but distinct petiole. They are hairless and have a dark green shiny surface. Tip pointed. Base tapered. Initially leaves have only a few small lobes or backward pointing teeth but as the plant develops the leaves become progressively more lobed and in later rosette leaves may be secondarily divided. The third and older leaves exude a white sap when damaged.	**Germination:** Autumn to a lesser degree in Spring **Flowering:** Spring **Fruiting:** Spring **to** mid summer	Environmental weed	Brown seed , distinctly ribbed with a toothed surface, 3-6 mm long by 1 mm wide and has a 10-12 mm long stalk carrying its 4-6 mm long hairy pappus.

Distribution across the site

Widespread weed in pastures, roadsides and disturbed areas.

Control options within the site

Hand remove removing and spray groups of plants with a herbicide. Spraying is most effective in late Winter.

Salvia

Clary Sage (Salvia verbenaca)			
Description	**Life cycle**	**Status**	**Dispersal methods**
A common weed of pastures, grasslands, grassy woodlands, open forests, lawns, parks, footpaths, crops, roadsides, disturbed sites and waste areas in temperate and semi-arid regions. A long-lived (i.e. perennial) herbaceous plant growing up to 70 cm tall, but usually less than 50 cm in height. It forms a basal rosette of leaves during the early stages of growth and eventually produces one or more upright (i.e. erect) stems from a tough underground rootstock. The purplish tubular flowers (7-13 mm long) are borne in elongated clusters at the tips of the branches (i.e. in terminal racemes), which are often branched at the base.	**Germination:** Throughout the year **Flowering:** Throughout the year **Fruiting:** After flowering	Environmental weed	This species reproduces via seed, which are dispersed by water and in mud adhering to animals, machinery and vehicles. They may also be dispersed in contaminated agricultural produce.

Distribution across the site

Minor infestation on site in clusters

Control options within the site

Suspected of being poisonous to sheep and cattle causing nitrate poisoning. Especially hungry stock on dense infestations. Control with a herbicide and dig out small infestations making sure the tap root is removed to avoid it regrowing. Using a wetting agent is helpful to make sure all parts are thoroughly treated.

Veldt Grass

Perennial Veldt Grass(Ehrharta calycina)			
Description	**Life cycle**	**Status**	**Dispersal methods**
Annual Veldtgrass is an erect, vigorous, tufted annual grass and commonly 50-80 cm tall. The leaf blades have dark stem-clasping bases and a membranous tongue (ligule) between the blade and sheath. The purplish green inflorescence is fairly loose with large drooping spikelets. Each spikelet is 1-3 cm long with 3 florets, but only the upper one is fertile. The outer segment (lemma) of the sterile florets is tapered to a bristle up to 12 mm long. It sets large amounts of seed. Native to South Africa, it is now a widespread and common weed particularly of coastal areas and creek lines. It flowers in winter, spring and summer.	**Germination:** Winter to early Spring **Flowering:** Winter, spring and summer **Fruiting:** After flowering	Environmental weed	Seeds germinate freely but establishment is poor on hard setting soils. Seed only appear to last in the soil for 3 years.

Distribution across the site

Major infestation on site in clusters due to lack of grazing. Weed of roadsides, coastal islands, sandy dunes, stream beds and banks, bushland, gardens and disturbed areas.

Control options within the site

Control with a herbicide and a wetting agent is helpful to make sure all parts are thoroughly treated. Grazing and mowing will assist in control.

Gazania

Gazania sp (Gazania)			
Description	**Life cycle**	**Status**	**Dispersal methods**
Gazanias are a low-growing perennial herb from South Africa. They have become a popular groundcover used in both commercial and home garden planting in Australia. This group of invasive plants has spread into coastal dunes, agricultural areas and along roadsides. Gazanias are a tough, low-growing perennial herb that grow to an average height of 30 cm. They grow in clumps and can also form dense carpets covering large areas.	**Germination:** Seed germinate all year. **Flowering:** All year. **Fruiting:** Spring	Environmental weed.	Gazanias produce an abundance of seed. One flower can produce 60 or more seeds which are spread by the wind up to 1 km from its source. Seed also germinates around the perimeter of the parent plant. New plants therefore grow immediately next to the parent to form a dense carpeting groundcover. Seed can also be dispersed on vehicles or in flood waters. In some situations gazanias can also spread by sending out rhizomes creating new plants.

Gazania linearis

Gazania rigens

Distribution across the site

On site this weed is more prevalent in drier areas, along fences and close to roads.

Control options within the site

Hand remove young plants making sure the whole root system is removed or apply a herbicide to larger infestations.

Regenerative Agriculture methods

Soil Health

Soil testing will note any nutrient deficiencies in the soil that can initially be rectified. Ongoing sustainable management of the soils will work to improve the soil fertility and structure long term.

Image.23 Healthy soil example

Why improve the soil?

"The diversity of organisms living within soils is critical to all earth ecosystems because soil organisms:

- are essential for the cycling of ecosystem nutrients.
- are necessary for plant growth and plant nutrition.
- improve the entry of water into soil and its storage in the soil.
- provide resistance to erosion.
- suppress pests, parasites and disease.
- aid the capture of carbon.
- are vital to the world's gas exchange cycles.
- break down organic matter.
- Soil biodiversity is recognised as a critical influence on agriculture as it can enhance sustainability through improved:
- soil structure
- soil water movement
- nutrient availability
- suppression of pests and diseases.

The Food and Agriculture Organization of the United States (FAO) estimates the socio-economic value of soil biodiversity exceeds US$1542 billion.

Soil health improvements will benefit the viability of the farm in the long run; it takes time to improve soil health. Soil health is imperative to repairing land degradation from historic farming practices. This

site will benefit from improving soil health, undertaking grazing, the use of diverse cover crops, residue retention, minimum tillage, capturing soil carbon, use of compost and rotational grazing.

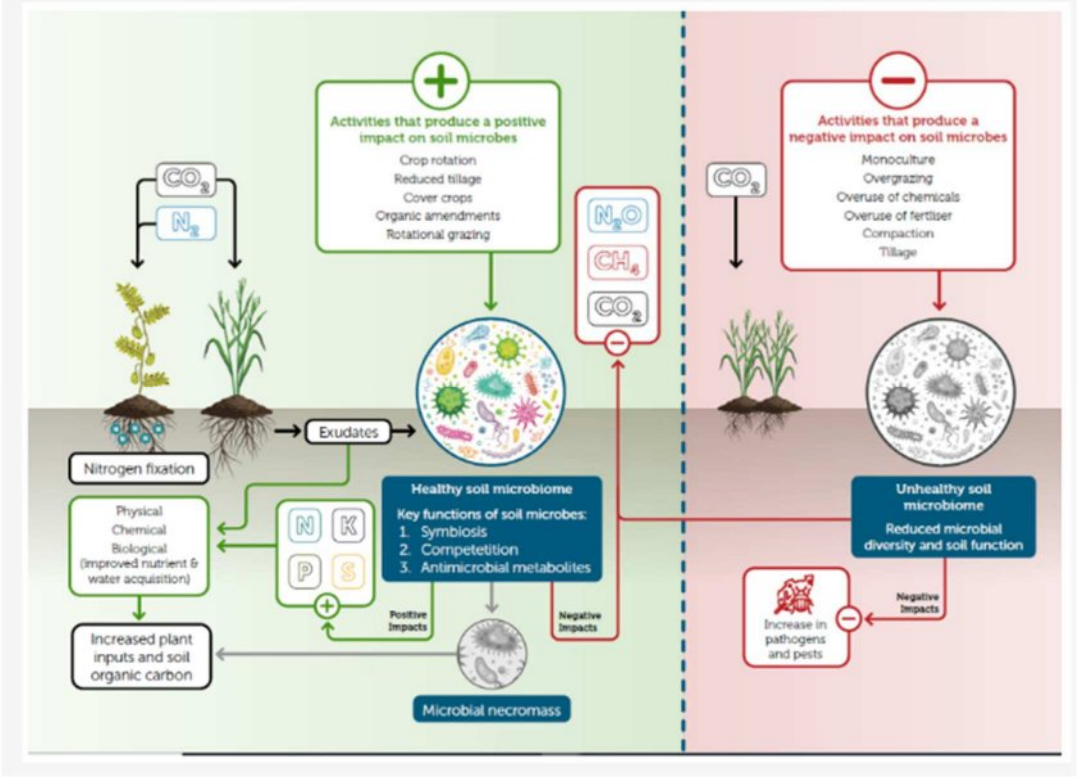


Image.24 Plant × microbe × environment × management interactions impacting soil organic carbon (SOC) and soil health. (: Khangura, R.; Ferris, D.; Wagg, C.; Bowyer, J. Regenerative Agriculture—A Literature Review on the Practices and Mechanisms Used to Improve Soil Health. Sustainability 2023, 15, 2338. https://doi.org/ 10.3390/su15032338,. P.24

RA Principles	RA Practices	RA Benefits	Microbial Mechanisms

•Minimise soil disturbance
•Keep soils covered
•Keep living roots in soil year round
•Encourage diversity
•Integrate livestock
	• No/minimum tillage
	• Stubble retention
	• Diverse crop rotations
	• Multispecies cover crops
	• Intercropping
	• Composting and use biostimulants
	• Rotational grazing
	• Reduce synthetic inputs
		• Improved soil health through
		  • Increased soil carbon
		  • Improved microbial functions and associated nutrient cycling
		  • Improved soil moisture
		  • Improved resilience to pests and diseases
		• Nutrient rich food
		• Reduced greenhouse gas emissions
			•Liquid carbon pathway
			•Improved uptake of water and minerals
			•Enhanced soil aggregation, plant growth and photosynthesis

Image.25. RA (Regenerative Agriculture) principles, practices, and purported benefits and mechanisms to improve soil

health. (: Khangura, R.; Ferris, D.; Wagg, C.; Bowyer, J. Regenerative Agriculture—A Literature Review on the Practices and Mechanisms Used to Improve Soil Health. Sustainability 2023, 15, 2338. https://doi.org/ 10.3390/su15032338,. P.3

Soil Biodiversity

Soils that support natural, non-agricultural ecosystems usually have the greatest soil biodiversity.
In agriculture, soils that receive less manufactured inputs (e.g. chemical fertilisers and pesticides) generally have higher soil biodiversity.
Grazing systems which encourage plant diversity usually have higher soil biodiversity, due to the greater availability of food resources from roots and litter, which support a greater variety of organisms in the soil. Unfortunately due to the size grazing will be limited.
Cropping and Horticultural systems generally have low soil biodiversity, unless they increase inputs of carbon and nitrogen to the soil, which will increase soil microbial populations. Crop management techniques that increase soil organic matter will also increase soil stability and soil biodiversity.
The application of organic matter to the soil, such as crop stubble, supports greater populations of surface feeding creatures including earthworms.
Management techniques such as crop rotation and reduced tillage increase the quantity and quality of organic matter available to soil organisms and develop a more stable environment that encourages more soil biodiversity.
Plant diversity is essential to maintain food production and provides many benefits such as suppression of pest and pathogens, improved water retention. Legume crops are essential to increases Nitrogen into the soil naturally and increases Soil Organic Carbon by at least 6-8% than a monoculture.

Initial Management prior to the dwelling.

Tillage management is imperative to the soil health as reducing tillage or no till will benefit soil microbial health and retain structure in the soils that will build over time. No-tillage or zero tillage is a farming system in which seeds are directly placed into untilled soil which has retained the previous crop residues.
The owner pre moving to the site they should undertake routine testing and have a suitable cover crop established on site. Once the cover crop has matured then it be grazed down or the stubble can pushed down.

Image.26 Example of flattening the cove crop.

The crop is then covered with a tarp or similar for 14 days till it dies off.

Image.27 Example of covering the crop

Then the new crop can be direct sow by hand or machinery.

Image.28 Example of hand sowing or drilling a cover crop.

This will help prepare the soil before the house is built so that when the owners move in and establish the infrastructure and animals then waste can be composted and used to improve the soils.

Ongoing management for the site.

Composting

Composting is a balance of plant (both green and brown) and animal materials.

Image.29 Green Compost

An example is Pig and chicken (animal) manure with young soft non woody cover crops and cycles nutrients and provides essential bacteria to the soils.

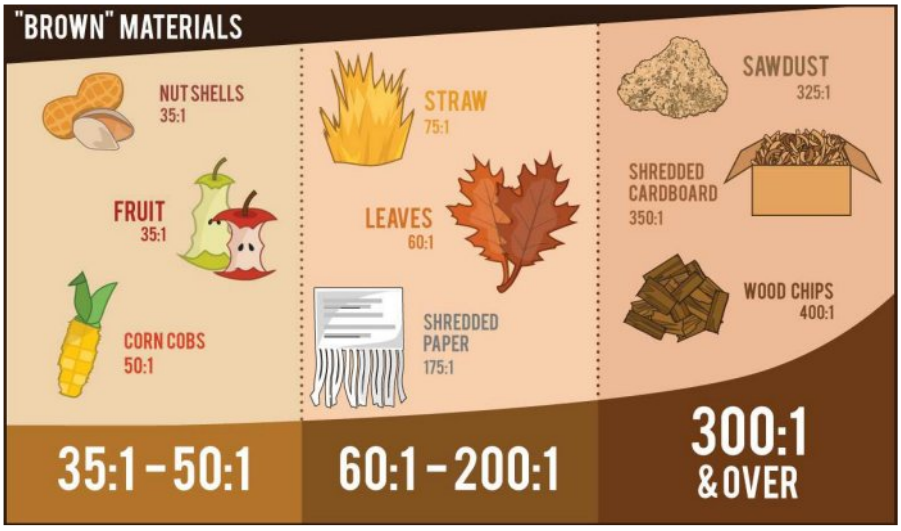


Image. 30 Brown compost

An example is Lignified brown plant material, mature cover crops and manures with bedding. Dry dead plant materials. Brown compost adds fungal life and builds organic matter in soils.

Compost can be produced quickly over 14 days from a mix of 3:1 Brown to Green in windrows and turned every 3 days over a 14-day period. This compost will be a higher bacterial base than a compost developed over a longer period. Soil borne bacteria and fungi assist the market garden by supressing diseases and restore the ecological balance.

Cover crops and diversity.

Maintaining cover always benefits the soils and cover should look to always retain at least a 90% cover on the farm. Typical cropping is not to be undertaken but the site will grow Fruit trees and have a large market garden. At all times these areas will need to make sure bare ground is covered with products such as pea straw, compost or other types of mulch.

Diversity of species in cover crops that are chosen to grow when the main crop has finished to ensure that there is always growth in the soils at all times of the year.

Improve Water- Nutrient retention.

The sandy soils on this site are notorious for low water and nutrient retention and as the soils improve on site the ability to hold water and nutrients will improve. It is essential when improving light soils with low fertility that the owner will need to watch for water being repelled. This will be due to a too high application of organic matter that can be broken down into the soil and the soil has become hydrophobic. The owner would then need to apply a much lower rate next time and use a surfactant to those areas that are repelling water to increase filtration.
Like any application, too dry compost will draw moisture out of the soil and can lead to the soils becoming hydrophobic. Composts need to be a blend of dry and green compost along with manures.

> "A variety of factors influence soil water holding capacity, including soil bulk density, infiltration rate, and crop residues. Soil aggregation, porosity, and infiltration rates can be improved by soil fauna and retaining residues on the soil surface. Parr, J.; Bertrand, A. Water Infiltration into Soils. Adv. Agron. 1960, 12, 311–363"

Orchard

The orchard the owner has stated that he wishes to grow Figs, Pears, Citrus trees, Stone fruits such as Apricots and Peaches, Apples and many nut varieties such as Hazelnuts, Almonds, Walnuts and Chestnuts. These trees can be best sourced as bare rooted stock during early June as they are much more expensive than potted trees at other times of the year.
The species selection above is all suited to the soil type and deep watering irrigation will ensure that the trees develop a deep root system to mitigate the risks of climate change.
Orchards require good drainage, regular watering, good soil, good husbandry and good nutrition. The base of the orchard trees will need manures and micronutrients under a mulch well before the growing season of the variety to provide a good source of "food" to the trees. When trees develop buds, watering is critical and must be increased to support the rapid growth and developing crop. The owner has many years of experience in general gardening and has had fruit trees for many decades and is aware of how and when to prune and how to manage diseases, cross pollination and how to control pests.

To ensure best practice irrigation for the orchard and market garden it is imperative that the owner familiarise himself with the following document.

Department of Natural Resources Oct 2002, Orchard Crops Guide to best practice in Water Management, https://apal.org.au/wp-content/uploads/2019/09/fo-ow-handout-09-sept-best-practice-water-mgmt-boland.pdf

It is essential to streamline the use of water on site and how to monitor and understand the different stages of use per species in order to avoid wasting water and avoiding impacts from salinity in the soils.

Market Garden

There are no recommended species for the market garden as these will be as per the season and what species the owner wishes to grow. The market garden can initially be undertaken in raised beds to enable a good depth of topsoil especially when growing root crops. Root crops will be inhibited by the soil on site as it is over a hard clay layer that will make it difficult for roots to establish.

Suggested Farm Management Timing
Year.1

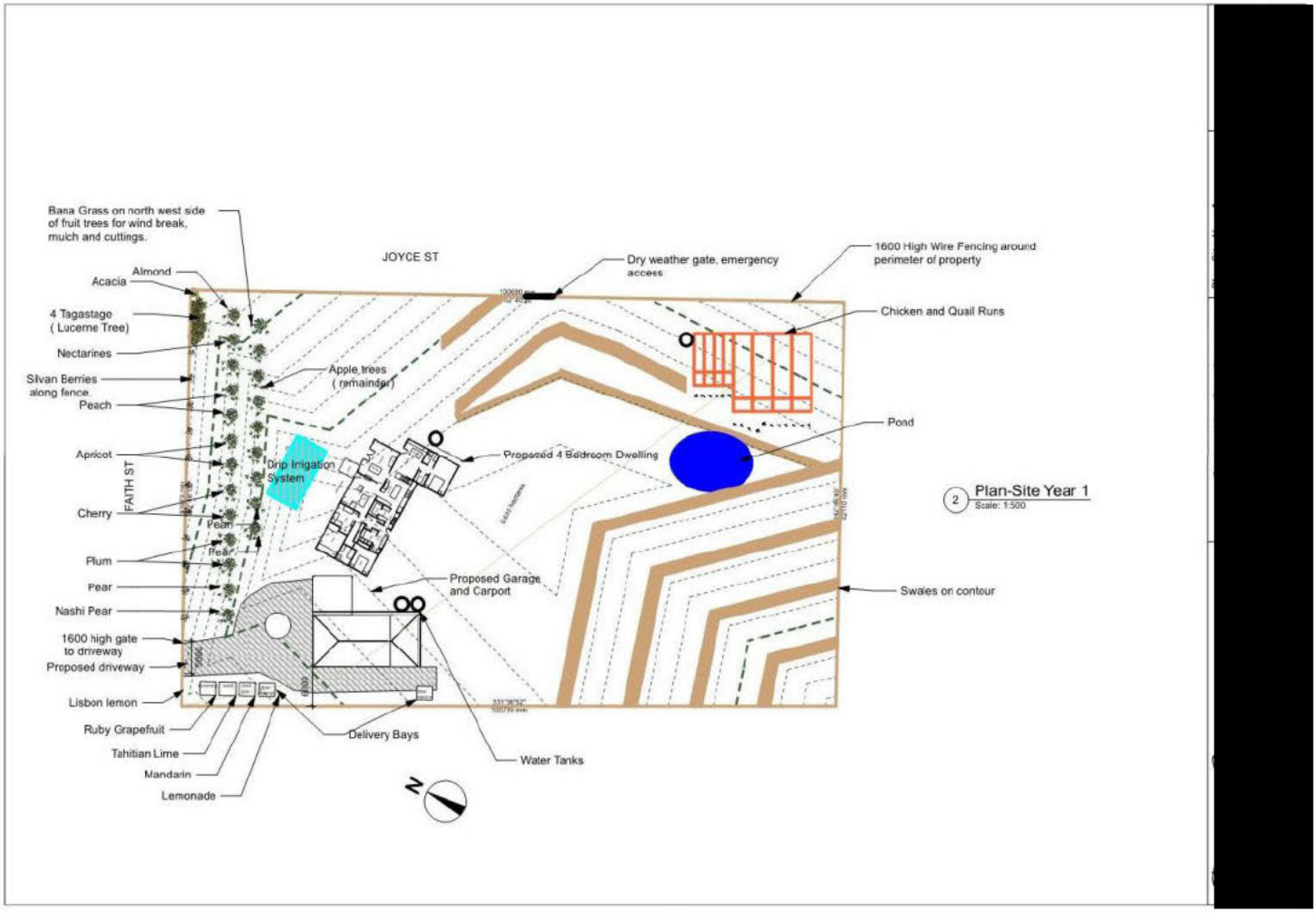


Image.31 Suggested Year.1 Farm Management

The first year is to put infrastructure such as the dwelling, effluent, garage, fruit trees along with the chicken and quail runs and swale the contours.

Year.2

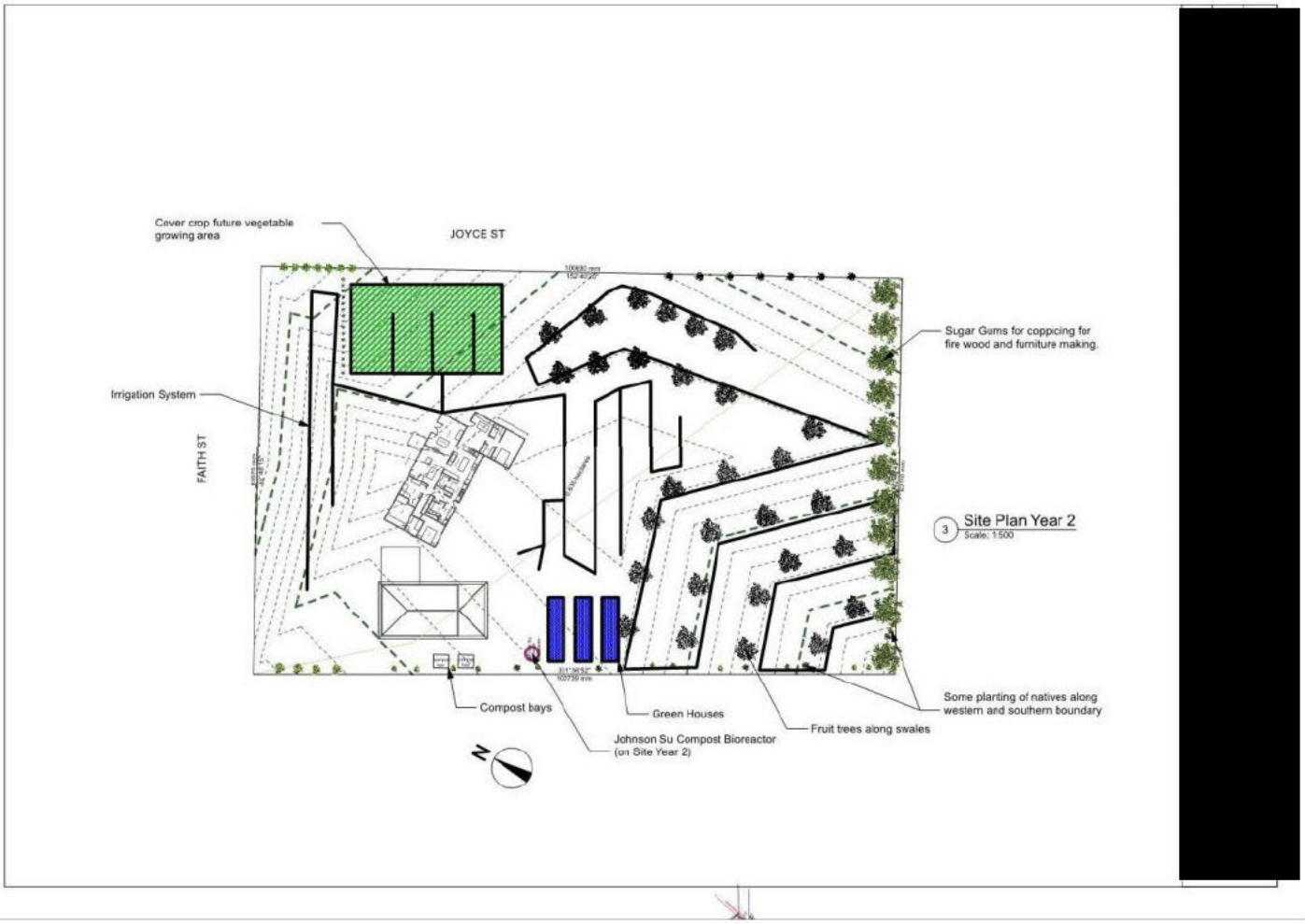


Image.32 Suggested Farm Management Plan- Year.2

The second year will look to establish the drip system rather than hand watering so long periods of watering can assist to establish a deeper root system. 3 Green houses will be constructed along with compost bins and sugar gums for coppicing planted to the rear of the site. More fruit trees will be planted along the swales. A covered area will be constructed to cover the vegetable area.

Year.3

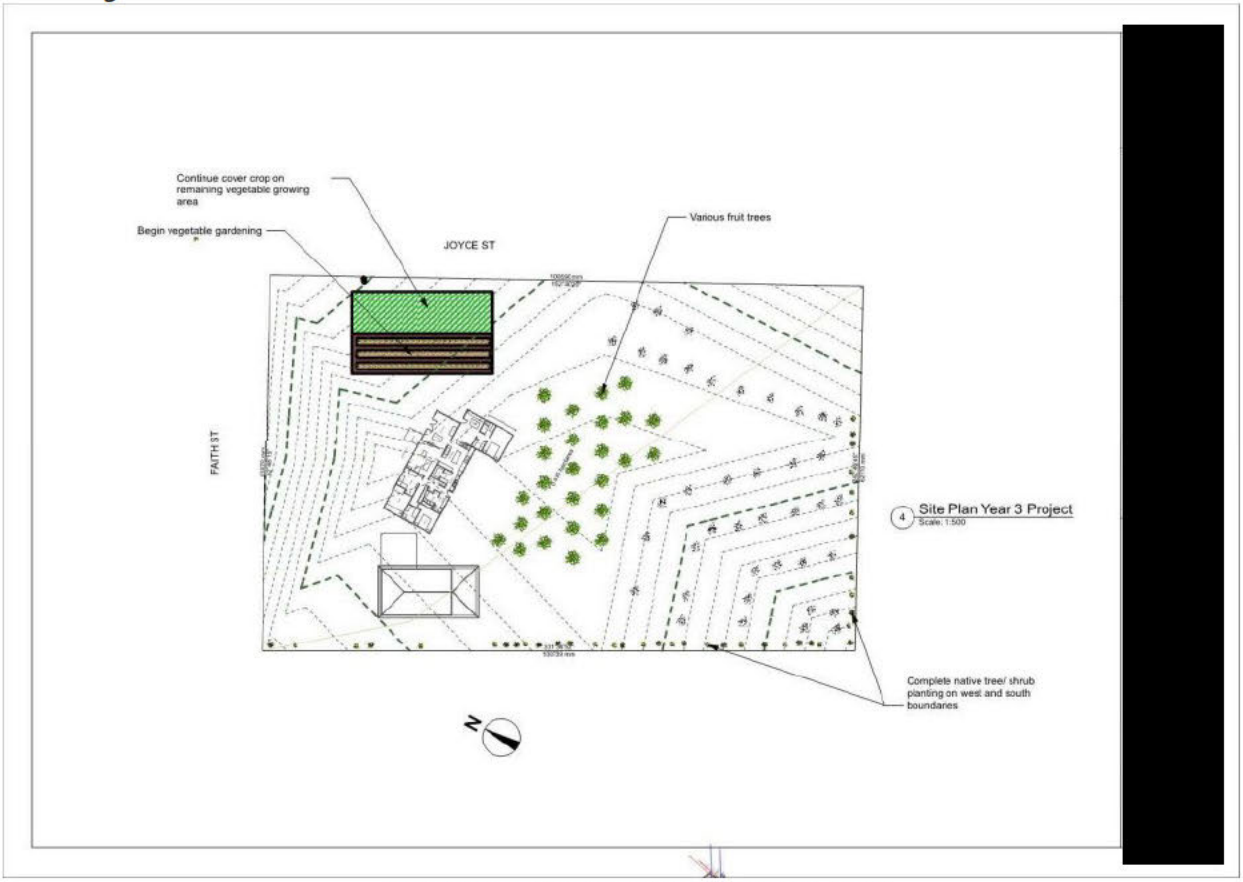


Image.33 Suggested Farm Management Plan- Year.3

The third year will grow a cover crop to the vegetable areas to increase soil health and begin to sow or plant the vegetables. More fruit trees will be planted and all will be hooked up to drip irrigation to ensure long periods of water to ensure roots develop deeply into the subsoil to provide resilience in summer and drought periods.

Year.4

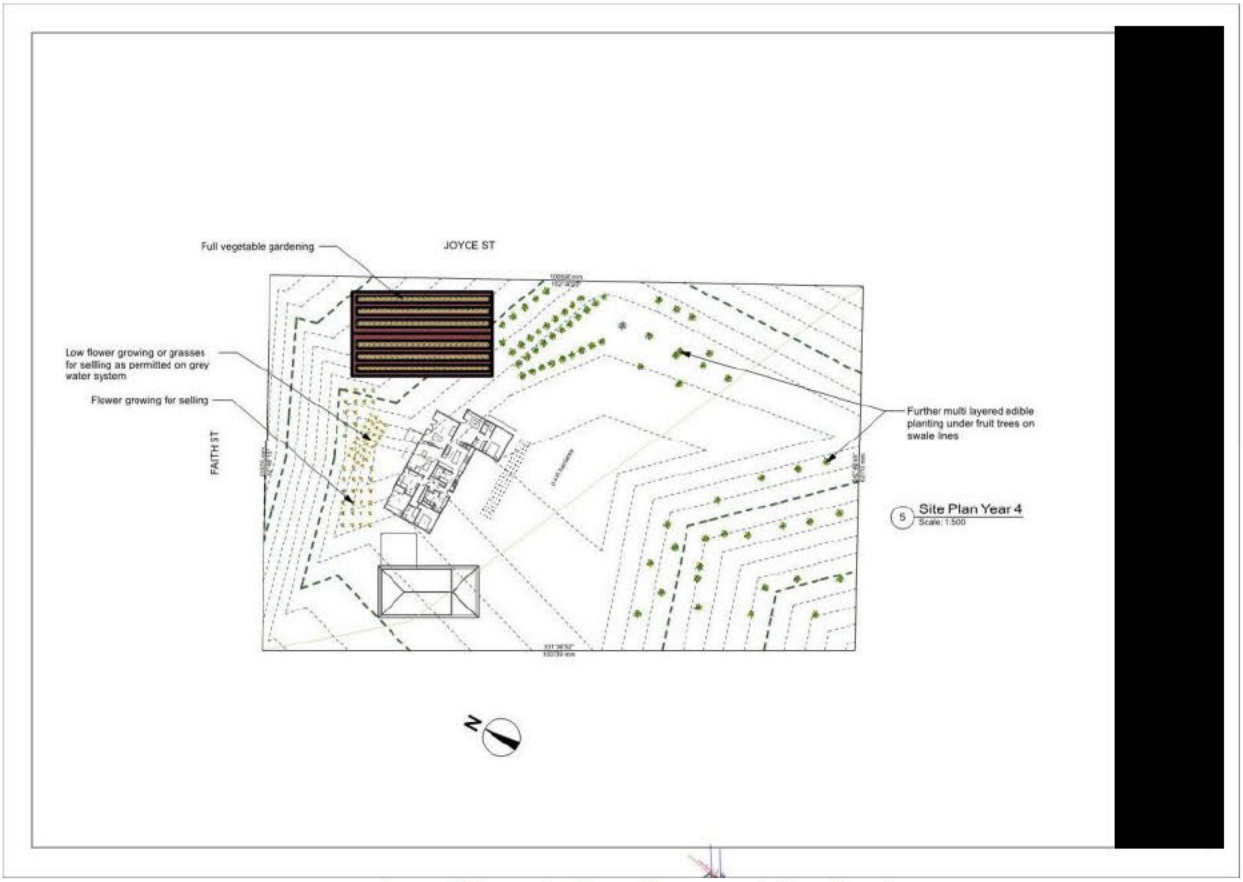


Image.34 Suggested Farm Management Plan- Year.4

Year.4 the farm will look to grow flowers along the grey watering system for sale. And more fruit trees will be planted.

Summary

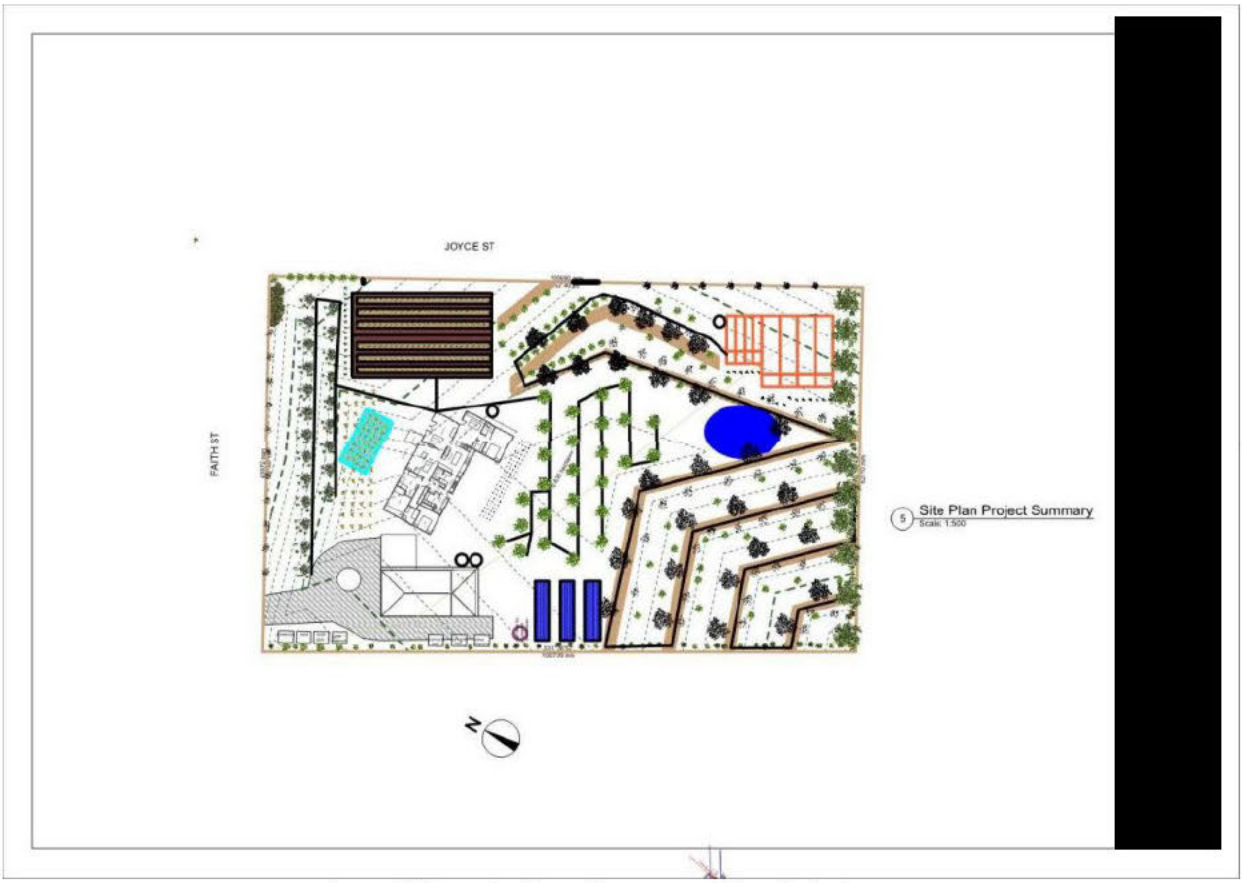


Image.35 Suggested Farm Management Plan- Project summary

Rhode Island

Rhode Island chickens are a very popular dual-purpose poultry breed. The red variety is capable of producing 200- 250 large eggs annually, however the cock is very aggressive. This must be taken into account before choosing this particular breed as a pet or mixing it with other varieties. The Rhode Island has yellow shanks and performs well under most conditions and rarely goes broody.

Classification

Soft feather – heavy

Appearance

Various shades of red with some black. There is also a white-feathered Rhode Island (white is however very rare).

Estimated Weight

Cock	3.9 Kg
Hen	3.0 Kg
Cockerel	3.4 Kg
Pullet	2.5 Kg

Bantam Variety Rhode Island

Rooster	790 – 910 g
Hen	690 – 790 g

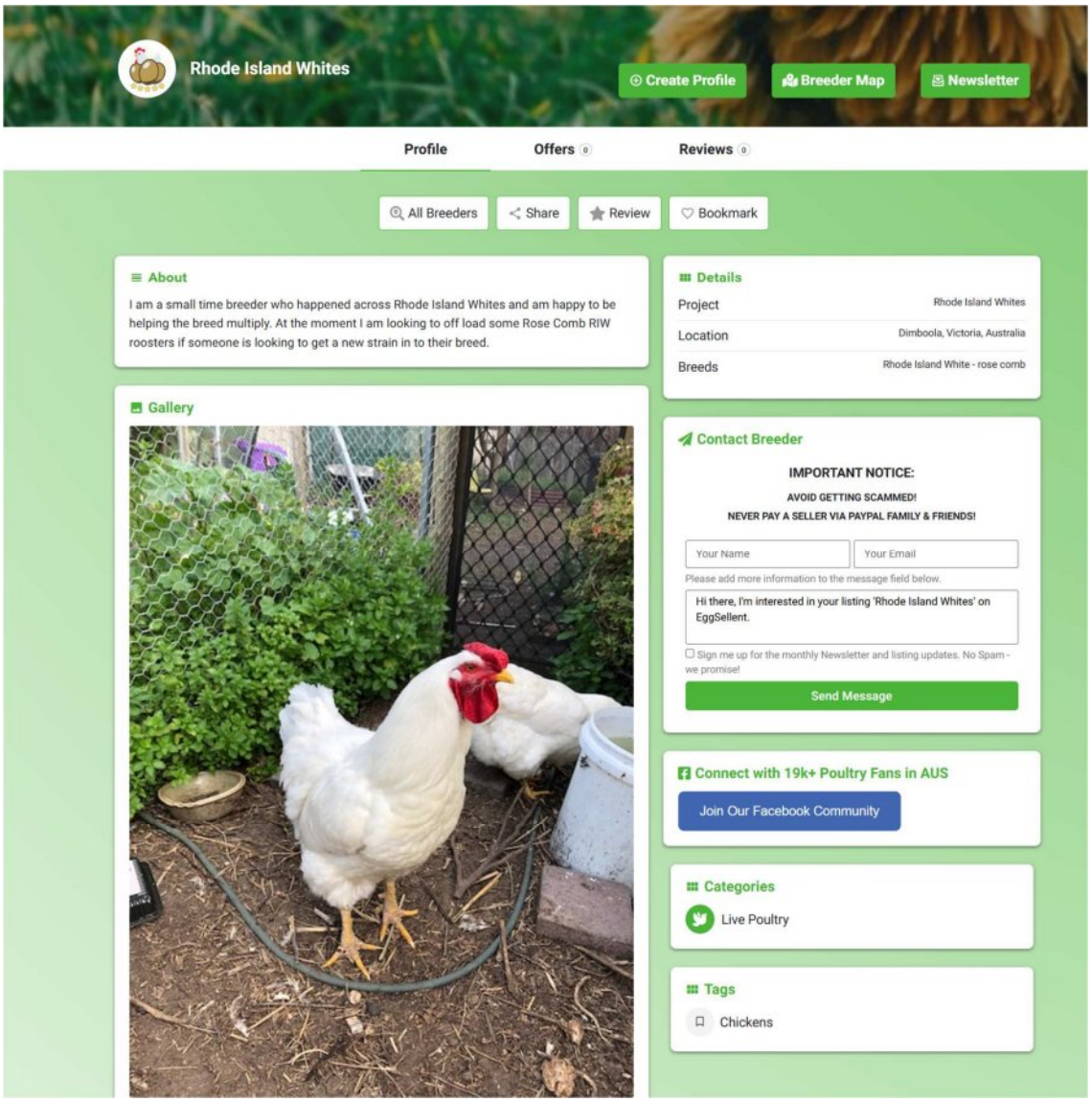
Egg Colour

Brown

Rhode Island Red Female

Rhode Island Red, Male Bantam

Source: https://www.poultryhub.org/all-about-poultry/species/fancy-chicken-breeds/rhode-island



The land owners website page for this breed (Source: https://eggsellent.com.au/poultry-breeder/victoria/rhode-island-whites/)

WARTOOK WOODS ENVIRONMENTAL HEALTH

[redacted]

2/06/2024

LAND CAPABILITY REPORT

[redacted]

[redacted]

[Land Capability Assessment Report for proposed Wastewater System.]

WARTOOK WOODS ENVIRONMENTAL HEALTH

[redacted]

[redacted]

Mobile - [redacted]

LAND CAPABILITY REPORT
SITE AND SOIL EVALUATION/TREATMENT DESIGN
ANZS 1547-2012/VIC EPA COP ONSITE WASTEWATER MANAGEMENT

Red ink indicates critical design item

OUR REFERENCE	**ina/fsd**
CLIENT	[redacted]
SITE LOCATION	[redacted]
TEST/SITE EVALUATION	**Carried out by** [redacted] **Wastewater Assessor CET Acc. Dip. RSH Assoc. EHA**
DATE ASSESSED	**26th May 2024**
SITE ASSESSMENT FACTORS	**See Site and Soil Evaluation Report and Site and Soil Assessment Report (attached to this document)**
SITE SUITABILITY	**The site is suitable for a wastewater treatment system, although there are some constraints.**
SITE AREA	**Approx. 6414.97m² / 0. 647Ha Rural Residential Allotment**
SOIL CLASSIFICATION	**HORIZON B CATEGORY 5 STRONGLY STRUCTURED SILTY CLAY SOIL**
PERMABILITY RATE DESIGN LOADING RATE	**HORIZON A 000-50mm Silty Clay Soil** **HORIZON B 050-600mm Strongly structured clay DLR 5mm/day DIR 3.0 mm/day**
WATER SUPPLY	**Rainwater/reticulated supply available**
RESERVE EFFLUENT AREA	**Available if required**
WASTE FIXTURES	**Toilets 1 Basins 1 Showers 1 Baths 1 Sink 1 Trough 1** **MAX DAILY FLOW RATE = Based on 2 Bedrooms/study (3+1) 4 x (100L/person/day) Grey water only** **= 400L/DAY total maximum flow rate** **Allowing for rate (400L/DAY/DIR 3.0mm/day = 133m²)** **Requires 150m² Irrigation area sub surface drip line** **150m²Reserve Irrigation area.**

Special Notes:- **Efficient water use is essential to reduce hydraulic load in effluent envelope.**

SEPTIC TANK

One SUN-MAR CENTREX 3000 COMPOST WC SYSTEMS is required for this site.
EPA Vic Approval No SMKH 25591
ECO FLO 450L NATURE CLEAR GREYWATER unit
NOTE: The tank lids and IO'S must be above ground level

EFFLUENT DISPOSAL & TREATMENT INSTALLATION DESIGN

The site is suited for the following options:-
The preferred wastewater treatment system should be the option set out below:-

SUN-MAR 3000 COMPOST SYSTEM for WC waste only x2
See attached specification.
ECO FLO 450L NATURE CLEAR GREYWATER SYSTEM
See attached specification. **(Page 9 -9)**

SUB SURFACE DRIP IRRIGATION:-
Filtered grey water to be pumped to drip irrigation under lawn area 150mm below surface. The dip line is designed for grey water. A total minimum area is 150m^2 See site Plan for location.

INSTALL TO COUNCIL REQUIREMENTS including:-
1. Septic tank and effluent dispersal areas to be protected from vehicular traffic and large stock (see site plan)
2. Fit a micro flush cistern to the toilet pan and water saving devices to all water appliances.
3.A minimum setback from boundary is :- 3.0metres.

This is to certify the site and soil assessment and design of this effluent system has been completed in Accordance with the recommendation contained in the ANZS 1547-2012 and Victorian EPA COP Onsite Wastewater Management 2013.

[redacted]
WASTEWATER ASSESSOR
Dip RSH Assoc EHA CET Accred.
Wartook Woods Environmental Health P L

Ref No 0015/24 inv 4224
Date 26/05/2024

Site & Soil Assessment

ina:fsd

Category 5 Soil slowly drained

FEATURES	LAND CAPABILITY CLASS RATING 1	2	3	4	5	COMMENTS Site Value
GENERAL CHARACTERISTICS						
Site Drainage/ run-off	Very slow Remains wet many weeks	Slow Remains wet more than week	Moderate Remains wet less than week	Rapid Drains in less than a day	Very rapid Drains in Several hours	2
Flooding* (% AEP)		Never	<1 in 100	<1 in 30	<1 in 20	1
*Grade % Fall Slope (°)	0-2 < 1 in 50 < 1 °	2 – 8 < 1 in 12.5 < 5°	8 – 12 < 1 in 8 < 7.5 °	12 – 20 1 in 5 < 11 °	< 20 < 1 in 5 < 11 °	1
Land slip	Exempt Not present	Low	MO - M1	M2	H Present	1
Rainfall (mm/yr)	< 450	450 – 650	650 – 750	750 – 1000	> 1000	2
Pan Evap (mm/yr)	> 1500	1250 – 1500	1000 1250	< 1000	-	2
Seasonal Water table	> 5 m	5 – 2.5 m	2.5 – 1.5 m	1.5 – 1 m	< 1 m	1
SOIL PROFILE CHARACTERISTICS						
Soil structure*	High	Moderate	Weak	Massive	Single grain	2
Profile depth	> 2m	1.5 – 2 m		1.0 – 1.5 m	< 1 m	2
Modified* Emerson* test	1 4, 6, 8	5	2 7	3 2, 3	4 1	2
Stoniness * (%)		< 10		10 –20	>20	1
Salinity * (dS/m)	< 0.3	0.3-0.8	0.8-2.0	2.0-4.0 -	>4	1
Percolation* (mm/hr)	50-75	20-50 75-150	15-20 150-300	300-500	< 15 >500	2

Slowly Drained Silty Clay Soil **Category 4** **site rating** **2.4**

The site has a site rating of 2 being identified as generally suitable for on-site effluent disposal but there is a slight hazard expected. No land limitations are present, and the site is compatible with "straight forward" conventional on-site disposal. The wastewater management program will require planning, adherence to specifications and adequate supervision.

WARTOOK WOODS ENVIRONMENTAL HEALTH
SOIL PROFILE INFORMATION AND DATA SHEET

Client name [redacted] Project name: **NEW DWELLING** Excavation no: **1** Logged by: [redacted]

Suburb: **DIMBOOLA** Lot number: [redacted] Map sheet name: Grid reference: **S 35^{0}.' E 142^{0} .'**

Street address [redacted] Surface level: **SLOPE SOUTH - NORTH** Date of inspection **26 . 05. 24** Pit borehole no: 1

Slope: **-2%** form element **PLANAR** Ground cover **GRASSES**

Surface condition **DRY** Indicative drainage **SLOWLY DRAINED** Surface stones **NONE** Vegetation **NA** Water table depth: **N A**

	LOWER DEPTH MM	HORIZON	MOISTURE CONDITION*	COLOUR (MOIST)	FIELD TEXTURE	COARSE FRAGMENTS % VOLUME	STRUCTURE	MODIFIED EMERSON	SOIL CATEGORY	SAMPLE TAKEN (Y/N)	CONSISTENCY	PERM'BILITY RATE	OTHER ASSESMENT DIR
1	**0-50**	**B**	**DRY**	**GREY**	**EVEN**	**-2%**	**moderate**	**NO**	**4**	**YES**	**EVEN**		**3mm/day**
2	**50- 600**	**A**	**DRY**	**GREY**	**EVEN**	**-2%**	**moderate**	**NO**	**4**	**YES**	**EVEN**		**3mm/day**
3													
4													
5													

Use another form if > 5 layers or major horizons. "Describe moisture condition as: dry, moist, very moist, saturated Notes/conunents/observations:

Overall Soil Category assigned: **HORIZON B (EFFLUENT DISPERSAL LAYER) CAT 5 SILTY CLAY SOIL STRONG STRUCTURE COHESIVE, FORM ED 70MM ROD, LOW CLAY CONTENT GRAVEL COMPONENT 0%**

Soil appears favourable for: **SUB SURFACE EVAPORATION/TRANSPIRATION ABSORPTION DISPERSAL OF PRIMARY EFFLUENT**

(List system types) **ECO FLOW GREY WATER** Maximum depth of system : **SUB SURFACE DRIP IRRIGATION- MAX DEPTH (150mm)** Checked by: **GDN**
SUNMAR 3000 COMPOST SYSTEM WC ONLY

Soil Test: Horizon A 50-600mm Category 4 clay soil

View east of Grey Water Irrigation Envelope

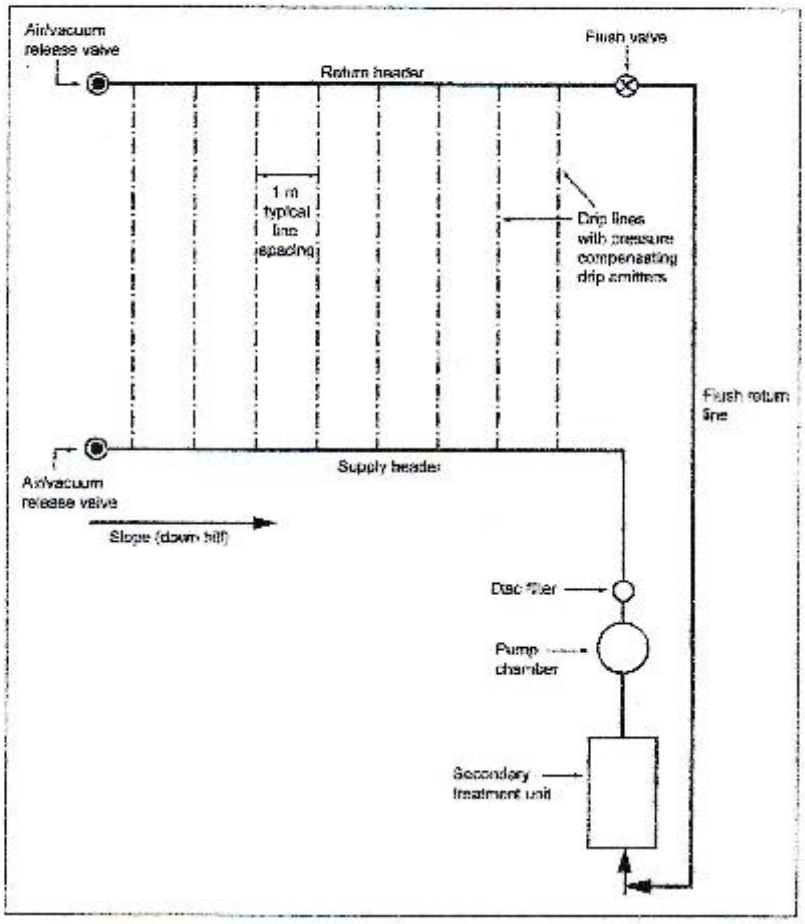


FIGURE M1 DRIP IRRIGATION SYSTEM – EXAMPLE LAYOUT OF COMPONENTS

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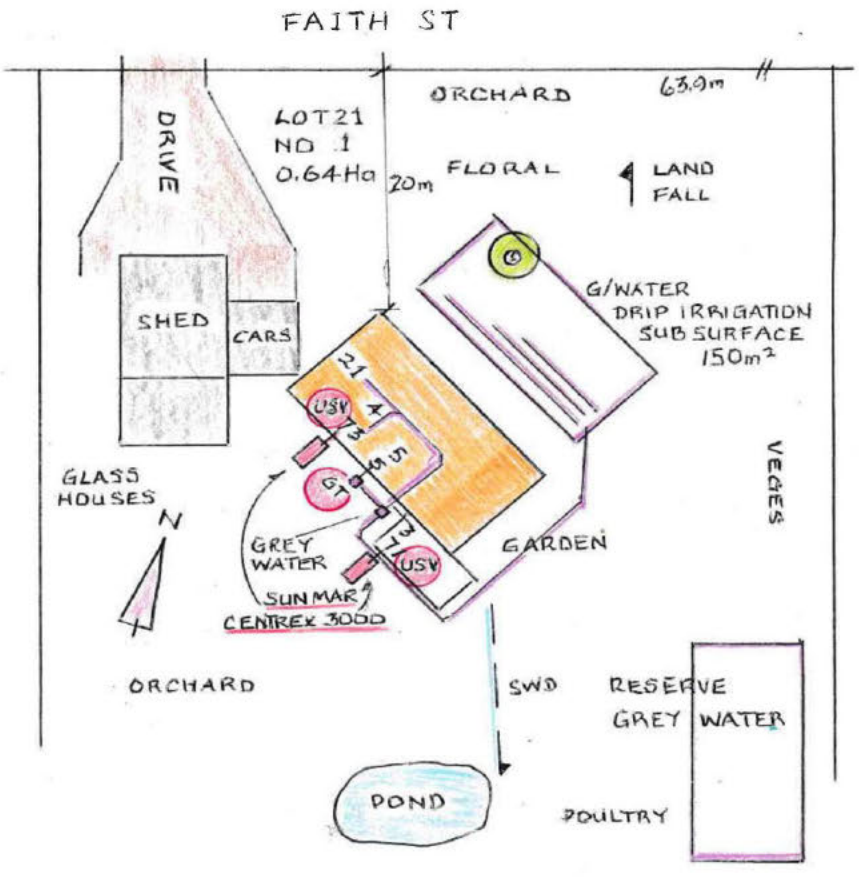
Waste Water Site Layout Plan

Drawn by: [redacted] Date 27 6 24

Site address [redacted]



Legend
AWTS Activated Wastewater Treatment System
DB Distribution Box
DP Down Pipe
EJ Expansion Joint
GT Grease Trap
SSAT Self Supporting Arch Trench
IO Inspection Opening
ORG Overflow Relief Gully
PC Pump Chamber
PPD Plastic Pipe Drain
ST Septic Tank
SWD Stormwater Drain
RV Reflux Valve
PL Power Line
USV Upstream Vent
WP Water Pipe
WT Water Tank
PDI Pressure Drip Irrigation
→ Fall of Land
⇑ North Point
Scale 1/500th
Soil Test Site ①

HOUSE WASTE FITTINGS 1 Shower 2 Bath 3 Basin 4 Trough 5 Sink 6 Dishwasher 7 WC 8 Washing Machine 9 Urinal

Client Name [redacted]

Address

Site Layout Plan
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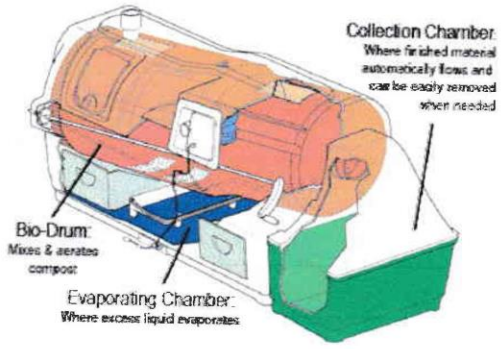

Sun-Mar™ Centrex 3000 (240v)

Greywater Tiny Bundle

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