This form is only to be used for changes made to a current planning permit application

DECLARATION FOR AMENDMENT TO A PLANNING PERMIT APPLICATION

HUME CITY COUNCIL

PLANNING PERMIT NO:

Office Use Only:

DATE RECEIVED:

FEE PAID: $

Planning and Environment Act 1987 Sections 50 & 50A & 57A. Planning and Environment Regulations, Regulation 16. Council is collecting the information on this form so that it may consider your application in accordance with Part IV of the Planning and Environment Act 1987. Council must make a copy of this application available for any person to inspect free of charge in accordance with Section 51 of the Act.

Please print clearly. Please read the notes on the back before completing this form.

THE APPLICANT: Who is making this amendment

Name: [redacted] - Pezzimenti Designs Pty Ltd

Tel.: [redacted]

[redacted]

THE LAND: Give the address and title particulars of the land.

35 Hothlyn Drive, Craigieburn VIC 3064

PROPOSED AMENDMENTS: what changes are being requested since lodging the original application for planning permit (attach letter if required)

SDA assessment provided
Energy Report provided
POS clearly nomaited for Unit 1
Garden Area calcualtions for entire lot
All council RFI items have been actioned and attended to

THE OWNER: The owner must be notified of these proposed changes

[redacted]

DECLARATION TO BE COMPLETED FOR ALL APPLICATIONS

This form must be signed. Please complete A, B or C

A	I declare that I am the Application and Owner of this land that all information given is true and correct	[redacted]
B	I am the Owner of the land. I have seen this application	
	I/We the Applicant declare that all information given is true and correct	
C	I/We the Applicant declare that I/We have notified the owner about this application and that all information given is true and correct	

This form is only to be used for changes made to a current planning permit application

HOW TO AMEND AN APPLICATION FOR A PLANNING PERMIT

Section 50. Amendment to application at request of applicant before notice

(1) An applicant may ask the responsible authority to amend an application before notice of the application is first given under section 52.
(2) An amendment to an application may include—
- (a) an amendment to the use or development mentioned in the application; and
- (b) an amendment to the description of land to which the application applies; and
- (c) an amendment to any plans and other documents forming part of or accompanying the application.

(3) A request under this section must—
- (a) be accompanied by the prescribed fee (if any); and
- (b) be accompanied by any information or document referred to in section 47(1)(c) to 47(1)(e) that relates to the proposed amendment to the application and that was not provided with the original application; and
- (c) if the applicant is not the owner of the land to which the application applies, be signed by the owner or include a declaration by the applicant, that the applicant has notified the owner about the request.

(4) Subject to subsection (5), the responsible authority must amend the application in accordance with the request.
5) The responsible authority may refuse to amend the application if it considers that the amendment is so substantial that a new application for a permit should be made.
(6) The responsible authority must make a note in the register if any amendment is made to an application under this section.
(7)On the amendment of an application under this section, the amended application is to be taken—
- (a) to be the application for the purposes of this Act; and
- (b) to have been received on the day that the request for amendment was received by the responsible authority.

50A. Amendment of application by responsible authority before notice

(1) With the agreement of the applicant and after giving notice to the owner, the responsible authority may make any amendments to an application that it thinks necessary before notice of the application is first given under section 52.
(2) An amendment to an application may include—
- (a) an amendment to the use or development mentioned in the application; and
- (b) an amendment to the description of land to which the application applies; and
- (c) an amendment to any plans and other documents forming part of or accompanying the application.

(3) The responsible authority may require the applicant—
- (a) to notify the owner under subsection (1); and
- (b) to make a declaration that that notice has been given.

(4) The responsible authority must make a note in the register if any amendment is made to an application under this section.
(5) On the amendment of an application under this section, the amended application is to be taken—
- (a) to be the application for the purposes of this Act; and
- (b) to have been received on the day that the applicant agreed to the amendment.

57A. Amendments to application after notice of application is given

(1) An applicant may ask the responsible authority to amend an application after notice of the application is given under section 52.
(2) An amendment to an application may include—
- (a) an amendment to the use or development mentioned in the application; and
- (b) an amendment to the description of land to which the application applies; and
- (c) an amendment to any plans and other documents forming part of or accompanying the application.

(3) A request under this section must—
- (a) be accompanied by the prescribed fee (if any); and
- (b) be accompanied by any information or document referred to in section 47(1)(c) to 47(1)(e) that relates to the proposed amendment to the application and that was not provided with the original application; and
- (c) if the applicant is not the owner of the land to which the application applies, be signed by the owner or include a declaration by the applicant that the applicant has notified the owner about the request.

(4) Subject to subsection (5), the responsible authority must amend the application in accordance with the request.
(5) The responsible authority may refuse to amend the application if it considers that the amendment is so substantial that a new application for a permit should be made.
(6) The responsible authority must make a note in the register if any amendment is made to an application under this section.
(7) On the amendment of an application under this section—
- (a) the amended application is to be taken—
  - (i) to be the application for the purposes of this Act; and
  - (ii) to have been received on the day that the request for amendment was received by the responsible authority; and
- (b) all objections made in relation to the original application are to be taken to be objections to the amended application.

(8) Nothing in this section affects any right a person may have to make a request under section 87 or 89 in respect of anything done or not done in relation to the original application.
(9) Sections 52 and 55 do not apply to an amended application.

Send your completed form and all documents to the Responsible Authority:

HUME CITY COUNCIL – STATUTORY PLANNING
P O BOX 119, DALLAS 3047
1079 PASCOE VALE RD. BROADMEADOWS

HUME CITY COUNCIL

Office Use Only

Application No.: Date Lodged: / /

Application for
Planning Permit

Planning Enquiries
Phone: 03 9205 2200
Web: http://www.hume.vic.gov.au

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.**

Clear Form

The Land

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

Street Address *

Unit No.: | St. No.: 35 | St. Name: Hothlyn Drive

Suburb/Locality: Craigieburn | Postcode:3064

Formal Land Description *
Complete either A or B.

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

A Lot No.: 230 ◉ Lodged Plan ○ Title Plan ○ Plan of Subdivision No.: 115133

OR

B Crown Allotment No.: | Section No.:

Parish/Township Name:

If this application relates to more than one address, please click this button and enter relevant details. Add Address

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.

(2) **For what use, development or other matter do you require a permit? ***

If you need help about the proposal, read: How to Complete the Application for Planning Permit Form

This planning application proposes the conversion of an Alfresco area for the existing dwelling at 35 Hothlyn Drive, Craigieburn 3064 into a Carport, along with the addition of a concrete driveway and crossover. It also proposes the construction of a second double-storey dwelling at the rear of the property, utilising the existing crossover & driveway.

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.

(3) **Estimated cost of development for which the permit is required ***

Cost $300,000.00 ⚠ You may be required to verify this estimate. Insert '0' if no development is proposed.

If the application is for land within **metropolitan Melbourne** (as defined in section 3 of the *Planning and Environment Act 1987*) and the estimated cost of the development exceeds $1 million (adjusted annually by CPI) the Metropolitan Planning Levy **must** be paid to the State Revenue Office and a current levy certificate **must** be submitted with the application.
Visit www.sro.vic.gov.au for information.

Existing Conditions

(4) **Describe how the land is used and developed now ***

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

Single Storey Dwelling with detached Colorbond ShedGarage.

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

Title Information

5 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 restrictrive 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

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

Applicant *

The person who wants the permit.

Name: [redacted]

Organisation (if applicable): Pezzimenti Designs

Postal Address: If it is a P.O. Box, enter the details here:

Unit No.: [redacted]

Suburb/Locality: [redacted]

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

Contact person's details *

Same as applicant (if so, go to 'contact information') ☑

Name:

Title: Mr [redacted]

Organisation (if applicable): Pezzimenti Designs

Postal Address: If it is a P.O. Box, enter the details here:

Unit No.: [redacted]

Suburb/Locality: [redacted]

*Please provide at least one contact phone number **

Contact information

Business Phone: [redacted]

Email: info@pezzimentidesigns.com.au

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: [redacted]

Same as applicant ☐

Declaration

7 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:

Date: day / month / year

Need help with the Application?

If you need help to complete this form, read How to complete the Application for Planning Permit form
General information about the planning process is available at www.delwp.vic.gov.au/planning

Contact Council's planning department to discuss the specific requirements for this application and obtain a planning permit checklist. Insufficient or unclear information may delay your application.

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

(●) No ( ) Yes

Checklist

9 **Have you:**

- [x] 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.
- [x] Provided all necessary supporting information and documents?
  - [x] A full, current copy of title information for each individual parcel of land forming the subject site
  - [x] A plan of existing conditions.
  - [x] Plans showing the layout and details of the proposal
  - [x] Any information required by the planning scheme, requested by council or outlined in a council planning permit checklist.
  - [x] If required, a description of the likely effect of the proposal (eg traffic, noise, environmental impacts).
  - [ ] If applicable, a current Metropolitan Planning Levy certificate (a levy certificate expires 90 days after the day on which it is issued by the State Revenue Office and then cannot be used). Failure to comply means the application is void.
- [ ] Completed the relevant Council planning permit checklist?
- [x] Signed the declaration (section 7)?

Lodgement

Lodge the completed and signed form, the fee payment and all documents with:

Hume City Council
PO Box 119 Dallas VIC 3047
Pascoe Vale Road Broadmeadows VIC 3047

Contact information:

Telephone: 61 03 9205 2200
Email: email@hume.vic.gov.au
DX: 94718
Translation: 03 9205 2200 for connection to Hume Link's multilingual telephone information service

Deliver application in person, by fax, or by post:

Print Form

Make sure you deliver any required supporting information and necessary payment when you deliver this form to the above mentioned address. This is usually your local council but can sometimes be the Minister for Planning or another body.

Save Form:

Save Form To Your Computer

You can save this application form to your computer to complete or review later or email it to others to complete relevant sections.

General Notes - Residential Works: (NCC 2022 BCA Vol 2):

1- All materials and work practices shall comply with, but not limited to the Building Regulations 2018, National Construction Code Series 2022 Building Code of Australia Vol 2 and all relevant current Australian Standards (as amended) referred to therein.

2- Unless otherwise specified, the term BCA shall refer to National Construction Code Series 2022 Building Code of Australia Volume 2.

3- All materials and construction practice shall meet the Performance Requirements of the BCA. Where a performance solution is proposed then, prior to implementation or installation, it first must be assessed and approved by the Relevant Building Surveyor as meeting the Performance Requirements of the BCA.

4- Glazing, including safety glazing, shall be installed to a size, type and thickness so as to comply with:
- BCA Part 3.6 for Class 1 and 10 Buildings within a design wind speed of not more than N3; and
- BCA Vol 1 Part B1.4 for Class 2 and 9 Buildings.

5- Waterproofing and water resistance of wet areas, being bathrooms, showers, shower rooms, laundries, sanitary compartments and the like shall be provided in accordance with AS 3740-2010: *Waterproofing of Domestic Wet Areas*.

6- These Drawings shall be read in conjunction with any House Energy Rating (HERS) report and shall be constructed in accordance with the stamped plans endorsed by the accredited Thermal Performance Assessor without alteration.
- Risers (R) 190mm maximum and 115mm minimum
- Going (G) 355mm maximum and 240mm minimum
- 2R + 1G = 700mm maximum and 550mm minimum
- with less than 125mm gap between open treads.

7- All treads, landings and the like to have a slip-resistance classification of P4 or R10 for dry surface conditions and P4 or R11 for wet surface conditions, or a nosing strip with a slip-resistance classification of P3 for dry surface conditions and P4 for wet surface conditions.

8- Provide barriers where change in level exceeds 1000mm above the surface beneath landings, ramps and/or treads. Barriers (other than tensioned wire barriers) to be:
- 1000mm min. above finished surface level of balconies, landings or the like, and
- 865mm min. above finished surface level of stair nosing or ramp, and
- vertical with less than 125mm gap between, and
- any horizontal element within the barrier between 150mm and 760mm above the floor must not facilitate climbing where changes in level exceeds 4000mm above the surface beneath landings, ramps and/or treads.

9- Wire barrier construction to comply with NCC 2022 BCA Part 3.9.2.3 for Class 1 and 10 Buildings and NCC 2022 BCA Volume 1 Part D2.16 for other Classes of Buildings.

10- Top of hand rails to be minimum 865mm vertically above stair nosing and floor surface of ramps.

11- Window sizes nominated are nominal only. Actual size may vary according to manufacturer. Windows to be flashed all around.

12- Where the building (excludes a detached Class 10) is located in a termite prone area the building is to be provided with a termite management system.

13- Concrete stumps:
- up to 1400mm long to be 100mm x 100mm (1 No. H.D. Wire)
- 1401mm to 1800mm long to be 100mm x 100mm (2 No. H.D. Wire)
- 1801mm to 3000mm long to be 125mm x 125mm (2 No. H.D. Wire)

14- 100mm x 100mm stumps exceeding 1200mm above ground level to be braced where no perimeter base brickwork provided.

15- Buildings in marine or other exposure environments shall have masonry units, mortar and all built in components and the like complying with the durability requirements of Table 4.1 of AS 4773.1-2015 'Masonry in small buildings Part 1: Design.

16- All stormwater to be taken to the legal point of discharge to the Relevant Authorities approval.

17- These drawings shall be read in conjunction with all relevant structural and all other consultants drawings/details and with any other written instructions issued in the course of the contract.

18- Site plan measurements in metres - all other measurements in millimetres unless noted otherwise.

19- Figured dimensions take precedence over scaled dimensions.

20- The Builder shall take all steps necessary to ensure the stability and general water tightness of all new and/or existing structures during all works.

21- The Builder and Subcontractors shall check and verify all dimensions, setbacks, levels and specifications and all other relevant documentation prior to the commencement of any works. Report all discrepancies to this office for clarification.

22- Installation of all services shall comply with the respective supply authority requirements.

23- The Builder and Subcontractor shall ensure that all stormwater drains, sewer pipes and the like are located at a sufficient distance from any buildings footing and/or slab edge beams so as to prevent general moisture penetration, dampness, weakening and undermining of any building and its footing system.

24- These plans have been prepared for the exclusive use by the Client of PEZZIMENTI DESIGNS ('The Designer') for the purpose expressly notified to the Designer. Any other person who uses or relies on these plans without the Designer's written consent does so at their own risk and no responsibility is accepted by the Designer for such use and/or reliance. No part of the design can be copied in part or in whole, if so legal proceedings will follow.

25- A building Permit is required prior to the commencement of these works. The release of these documents is conditional to the Owner obtaining the required Building Permit.

26- The Client and/or the Client's Builder shall not modify or amend the plans without the knowledge and consent of PEZZIMENTI DESIGNS except where a Registered Building Surveyor makes minor necessary changes to facilitate the Building Permit application and that such changes are promptly reported back to PEZZIMENTI DESIGNS.

27- The approval by this office of a substitute material, work practice, variation or the like is not an authorisation for its use or a contract variation. All variations must be accepted by all parties to the agreement and where applicable the Relevant Building Surveyor prior to implementing any variation.
(soil classification relocated)

STORMWATER
-100 mm DIA. Class 6 UPVC stormwater line laid to a minimum grade of 1:100 and connected to the legal point of stormwater discharge. Provide inspection openings at 9000mm C/C and at each change of direction.
-The cover to underground stormwater drains shall be not less than
- 100mm - under soil
- 50mm - under paved or concrete areas
- 100mm - under unreinforced concrete or paved driveways
- 75mm - under reinforced concrete driveways
Provide 100mm x 50mm downpipes at 12000mm max. ctrs connected to legal point of discharge.

VICTORIAN BUILDING AUTHORITY REGISTERED Building Practitioner

Design Matters National

DIAL 1100 BEFORE YOU DIG

PROPOSED BUILDING WORKS FOR

SALVA HOLDINGS PTY LTD, AT,

LOT 230, 35 HOTHLYN DRIVE,
CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

DRAWINGS PRODUCED BY:

Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 1 of 25

General Notes - Demolition of Residential Works (NCC 2022 BCA Vol 2):

1- All materials and work practices shall comply with, but not limited to, the Building Regulations 2018, the National Construction Code Series 2022 Building Code of Australia Vol 2 and all relevant current Australian standards (as amended) referred to therein. These specifications specify only the minimum standard of work for the demolition works on residential projects, and all workmanship and precautions shall be to best trade practice.

2- Precautions must be taken before and during demolition in accordance with AS 2601-2001: The Demolition of Structures.

3- During the progress of the demolition the works shall be under the continuous supervision of the Demolisher or of an experienced foreman, and demolition shall be executed storey by storey commencing at the roof and working downwards.

4- The demolition must not be commenced until the precautionary measures have been inspected and approved by the Relevant Building Surveyor.

5- The Demolisher shall construct a temporary crossing placed over the footpath, as required by the Council.

6- No part of any external wall on or within 3.00m of a street alignment may be pulled down, except during the hours that the Relevant Building Surveyor directs.

7- Protective outriggers, fences, awnings, hoarding, barricades and the like must be installed where necessary to guard against danger to life or property or when required by the Relevant Building Surveyor.

8- Dust creating material, unless thoroughly dampened down, shall not be thrown or dropped from the building but shall be lowered by hoisting apparatus or removed by material chutes. All chutes shall be completely enclosed and a danger sign shall be at the discharge end of every chute.

9- All practicable precautions shall be taken to avoid danger from collapse of a building when any part of a framed or partly framed building is removed.

10- Demolished material shall not be allowed to remain on any floor or structure if the weight of the material exceeds the safe carrying capacity of the floor or structure, and such material shall not be so piled or stacked that it will endanger workmen or other persons, and shall be removed as soon as practicable from the site.

11- No wall, chimney or other structure or part of a structure shall be left unattended or unsupported in such a condition that it may collapse due to wind or vibration or other-wise become dangerous.

12- Before demolition is commenced, and also during the progress of such works, all electrical cable or apparatus which are liable to be a source of danger - other than cable or apparatus used for the demolition works - shall be disconnected.

13- Arrangements shall be made with the Relevant Electrical Supply Authority for the disconnection of electrical mains supply except that, where partial demolition is proposed, the licensed Electrical Contractor shall satisfy the Relevant Electrical Supply Authority that the portion of the building to be demolished has been isolated.

14- The Demolisher shall be responsible for the disconnection of all telecommunication supplies.

15- The Demolisher shall be responsible to cut and seal any storm water, sewer pipes, water services, gas services and the like.

16- The position of capped sewer and storm water drains, sealed-off water supply lines, gas supply lines and the like are to be clearly marked on the site.

17- Any septic tank(s) on the demolition site shall be emptied and filled with clean sand, or removed entirely, and any soak wells, leach drains or similar apparatus shall be removed or filled with clean sand.

18- Any swimming pools, ponds or the like either on the demolition site or on the neighbouring allotments where affected by the demolition works shall be adequately fenced and made safe, so as to comply with 'AS 1926 Swimming Pool Safety' Parts 1 & 2 prior to commencement of any demolition works.

19- Materials removed or displaced from the building shall not be placed in any street, road or right of way and, before commencing, where required, shall be kept sprayed with water so as to prevent any nuisance from dust.

20- Materials removed or displaced from the building being demolished or materials left standing shall not be burned on the demolition site.

21- Removal of buildings by road must be approved by Relevant Councils Traffic Engineer.

22- A site management plan is to be implemented during demolition works to control sediment run-off in accordance with EPA Victoria publication #275: Construction Techniques for Sediment Pollution Control. Provide 'propex' or equivalent silt fences to the low side of the allotment and around all soil stockpiles and storm water inlet pits/sumps and install 'silt stop' filter bags over all storm water entry pits during demolition works. 'Supergro' or equivalent erosion control fabric to be placed over garden beds to prevent surface erosion during revegitation period.

23- It is the builder's responsibility to carry out an audit prior to the commencement of any works to determine if asbestos is present in the existing works. Where any asbestos product is found in the proposed works area during initial inspection or during the course of the demolition works the builder shall engage an authorised and registered contractor for safe removal and lawful disposal.

24- A building Permit is required prior to the commencement of these works. The release of these documents is conditional to the Owner obtaining the required Building Permit.

VICTORIAN BUILDING AUTHORITY REGISTERED Building Practitioner

Design Matters National

DIAL 1100 BEFORE YOU DIG

PROPOSED BUILDING WORKS FOR

SALVA HOLDINGS PTY LTD, AT,

LOT 230, 35 HOTHLYN DRIVE,
CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

DRAWINGS PRODUCED BY:

Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 2 of 25

NOTE: NEW DOWNPIPES TO BE CONNECTED INTO THE EXISTING ON-SITE STORMWATER DRAINAGE SYSTEM

NOTE: GUTTER & DRAINAGE SYSTEMS TO BE IN ACCORDANCE WITH **AS 3500**

WIND SPEED: N1

DENOTES: GRASS AND VEGETATION TO AREAS OF THE PROPERTY.

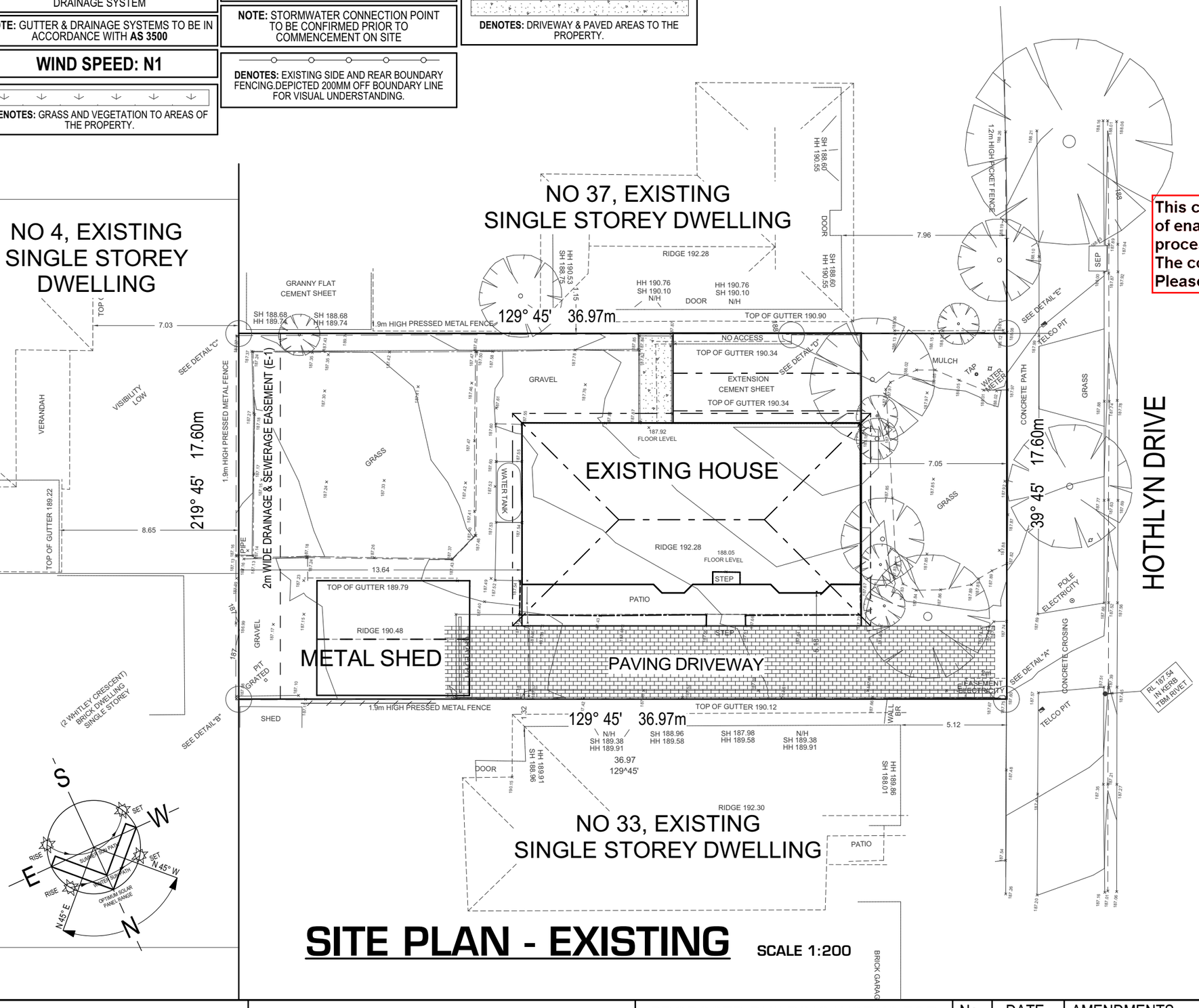
NOTE: TERMITE PROTECTION TO BE IN ACCORDANCE WITH **AS3660 2014**

NOTE: STORMWATER CONNECTION POINT TO BE CONFIRMED PRIOR TO COMMENCEMENT ON SITE

DENOTES: EXISTING SIDE AND REAR BOUNDARY FENCING.DEPICTED 200MM OFF BOUNDARY LINE FOR VISUAL UNDERSTANDING.

NOTE: BAL 12.5

DENOTES: DRIVEWAY & PAVED AREAS TO THE PROPERTY.



SITE PLAN - EXISTING

SCALE 1:200

SITE AND FLOOR PLAN NOTES

SOIL CLASSIFICATION
CLASS 'P'- AS PER SOIL TEST REPORT PROVIDED BY " E2E DESIGN GROUP CONSULTING ENGINEERS"
FILE NO. 6319
DATED: 28/02/2024

G E N E R A L
-CLASSIFICATION OF BUILDING: 1
- CONSTRUCTION TYPE: DOMESTIC
-DESIGN OF ALL SERVICES ARE TO COMPLY WITH THE RELEVANT A.S. STANDARDS, CODES, B.C.A, NCC & LOCAL COUNCIL AUTHORITY REQUIREMENTS.
-ALL LEVELS ARE ARBITRARY DATUM, & MUST BE CHECKED ON SITE PRIOR TO CONSTRUCTION.
-CONTRACTORS MUST VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING OF ANY WORK OR PRODUCING SHOP DRAWINGS.
-USE FIGURED DIMENSIONS ONLY. DO NOT SCALE OR GUESS DRAWINGS. IF IN DOUBT ASK.
-ARCHITECTURAL DRAWINGS TO BE READ IN CONJUNCTION WITH STRUCTURAL ENG'S DRAWINGS & SPECIFICATIONS.
-BUILDER MUST COMPLY WITH LOCAL AUTHORITIES MUNICIPAL BY-LAWS, BUILDING SPECIFICATIONS, VICTORIAN REGULATIONS, THE BUILDING CODE OF AUSTRALIA (BCA) & NATIONAL CONSTRUCTION CODE (NCC).
-ALL WORK SHALL BE CARRIED OUT IN A TRADESMAN LIKE MANNER & COMPLY WITH RELEVANT CODES & TO THE
-SMOKE DETECTORS TO BE PLACED ON CEILING IN PART OF DWELLING THAT CONTAINS BEDROOMS IN ACCORDANCE WITH NCC 9.5.1 & BE DIRECTLY WIRED TO POWER SUPPLY WITH BATTERY BACK UP &
-DRAINS ARE TO BE LOCATED NO LESS THAN 900mm AWAY FROM SLAB PERATE. **NOTE:** WHEN THIS IS NOT ACHIEVABLE, DRAINS ARE TO BE PLACED AS CLOSE TO THE 900mm MINIMUM SETBACK AS POSSIBLE.

E X C A V A T I O N
-EXCAVATE FOOTINGS AND DRAINS AS INDICATED ON PLANS. KEEP EXCAVATIONS DRY AND BACKFILL WITH APPROVED MATERIALS FREE OF ANY BUILDING DEBRIS.
-STORM WATER & AG LINE LAYOUT IS INDICATIVE ONLY & MAY BE REDIRECTED ON SITE BY DRAINAGE CONTRACTOR

S T O R M W A T E R
-ALL PIPE WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL AUTHORITIES, CODES & APPROVALS. THESE DRAWINGS ARE SCHEMATIC & DO NOT SHOW BENDS, FITTINGS, PIPE RUNS, INSPECTION POINTS ETC BUT DO INDICATE THE INTENT OF THE PROJECT. IT'S THE CONTRACTORS RESPONSIBILITY TO COMPLY WITH ALL APPROPRIATE AUTHORITIES & CODES.
-INSTALL 100 DIAM UPVC STORM WATER DRAIN TO MIN FALL OF 1 IN 100 WITH 300mm COVER TO LEGAL POINT OF DISCHARGE AS INDICATED ON PLAN.
-STORM WATER & AG LINE LAYOUT IS INDICATIVE ONLY & MAY BE REDIRECTED ON SITE BY DRAINAGE CONTRACTOR
-PROVIDE 100 DIAM SEWER GRADE SW DRAIN UNDER SLABS & DRIVEWAYS.
-PROVIDE 100x50 COLORBOND DOWNPIPES AT 12m MAX CTRS UNLESS NOTED OTHERWISE.
-SPREADERS TO BE INSTALLED IN ACCORDANCE WITH AS/NZS 3500.3 & AS/NZS 3500.5 AND SHALL BE DISCHARGED TO A LOWER ROOF AREA SUBJECT TO THE FOLLOWING:

a) FOR A TILED ROOF THE LOWER SECTION SHALL BE SARKED A MINIMUM WIDTH OF 1800MM, EITHER SIDE FROM THE POINT OF DISCHARGE, AND EXTENDED DOWN TO THE EAVES GUTTER IN ACCORDANCE WITH AS 2050
b) FOR A CORRUGATED METAL ROOF A MINIMUM WIDTH OF 1800MM ON EITHER SIDE OF THE POINT OF DISCHARGE SHALL BE SEALED FOR FULL LENGTH OF SIDE LAPS

NOTE : TEMPORARY DOWNPIPES TO BE INSTALLED (WHERE REQUIRED AND SUBJECT TO SITE CONDITIONS) PRIOR TO DOWNPIPES BEING CONNECTED TO PREVENT PONDING NEXT TO THE SLAB
NOTE: GUTTER & DRAINAGE SYSTEMS TO BE IN ACCORDANCE WITH AS 3500

F I R E R A T I N G S
EXTERNAL WALLS ON BOUNDARY - FRL 60-60-60
THERMAL INSULATION TO COMPLY WITH ENERGY REPORT

NOTE : THIS SURVEY IS NOT A RE-ESTABLISHMENT SURVEY OF TITLE.
PROPERTY BOUNDARIES ARE UNFENCED UNLESSS NOTED.
TREES UNDER 3m HIGH UNLESS NOTED.
ONLY ADJACENT FEATURES TO 9m LOCATED.

EXISTING SITE COVERAGE		
	m²	**%**
NON-COVERED SURFACES	411.28 m²	63.21 %
COVERED SURFACES	239.39 m²	36.79 %
TOTAL	650.67 m²	100.00 %

EXISTING OVERALL AREA PERMEABILITY		
	m²	**%**
PERMEABLE SURFACES	310.28 m²	47.69 %
NON-PERMEABLE SURFACES	340.39 m²	52.31 %
TOTAL	650.67 m²	100.00 %

VICTORIAN BUILDING AUTHORITY REGISTERED Building Practitioner
Design Matters National
DIAL1100 BEFORE YOU DIG

PROPOSED BUILDING WORKS FOR
SALVA HOLDINGS PTY LTD, AT,
LOT 230, 35 HOTHLYN DRIVE,
CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 W. DRWG DATE: 12.03.2024

DRAWINGS PRODUCED BY:
Pezzimenti Designs

DRAWN: SP MEL. REF.: 387 B1 SHEET No: 3 of 25

NOTE: NEW DOWNPIPES TO BE CONNECTED INTO THE EXISTING ON-SITE STORMWATER DRAINAGE SYSTEM

NOTE: GUTTER & DRAINAGE SYSTEMS TO BE IN ACCORDANCE WITH **AS 3500**

WIND SPEED: N1

DENOTES: GRASS AND VEGETATION TO AREAS OF THE PROPERTY.

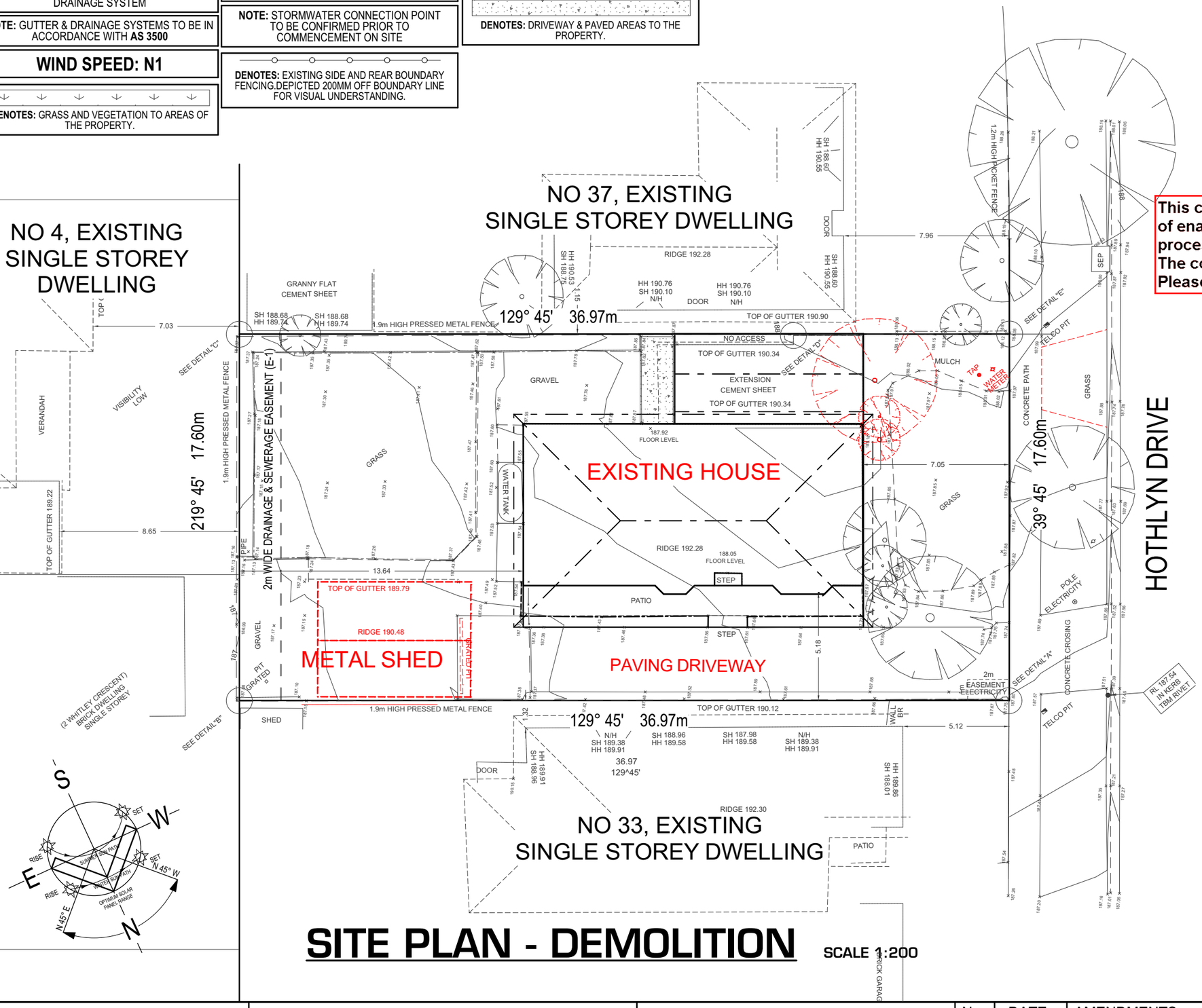
NOTE: TERMITE PROTECTION TO BE IN ACCORDANCE WITH **AS3660 2014**

NOTE: STORMWATER CONNECTION POINT TO BE CONFIRMED PRIOR TO COMMENCEMENT ON SITE

DENOTES: EXISTING SIDE AND REAR BOUNDARY FENCING.DEPICTED 200MM OFF BOUNDARY LINE FOR VISUAL UNDERSTANDING.

NOTE: BAL 12.5

DENOTES: DRIVEWAY & PAVED AREAS TO THE PROPERTY.



SITE PLAN - DEMOLITION

SCALE 1:200

SITE AND FLOOR PLAN NOTES

SOIL CLASSIFICATION
CLASS 'P'- AS PER SOIL TEST REPORT PROVIDED BY " E2E DESIGN GROUP CONSULTING ENGINEERS"
FILE NO. 6319
DATED: 28/02/2024

GENERAL
-CLASSIFICATION OF BUILDING: 1
- CONSTRUCTION TYPE: DOMESTIC
-DESIGN OF ALL SERVICES ARE TO COMPLY WITH THE RELEVANT A.S. STANDARDS, CODES, B.C.A, NCC & LOCAL COUNCIL AUTHORITY REQUIREMENTS.
-ALL LEVELS ARE ARBITRARY DATUM, & MUST BE CHECKED ON SITE PRIOR TO CONSTRUCTION.
-CONTRACTORS MUST VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING OF ANY WORK OR PRODUCING SHOP DRAWINGS.
-USE FIGURED DIMENSIONS ONLY. DO NOT SCALE OR GUESS DRAWINGS. IF IN DOUBT ASK.
-ARCHITECTURAL DRAWINGS TO BE READ IN CONJUNCTION WITH STRUCTURAL ENG'S DRAWINGS & SPECIFICATIONS.
-BUILDER MUST COMPLY WITH LOCAL AUTHORITIES MUNICIPAL BY-LAWS, BUILDING SPECIFICATIONS, VICTORIAN REGULATIONS, THE BUILDING CODE OF AUSTRALIA (BCA) & NATIONAL CONSTRUCTION CODE (NCC).
-ALL WORK SHALL BE CARRIED OUT IN A TRADESMAN LIKE MANNER & COMPLY WITH RELEVANT CODES & TO THE
-SMOKE DETECTORS TO BE PLACED ON CEILING IN PART OF DWELLING THAT CONTAINS BEDROOMS IN ACCORDANCE WITH NCC 9.5.1 & BE DIRECTLY WIRED TO POWER SUPPLY WITH BATTERY BACK UP &
-DRAINS ARE TO BE LOCATED NO LESS THAN 900mm AWAY FROM SLAB PERATE. **NOTE:** WHEN THIS IS NOT ACHIEVABLE, DRAINS ARE TO BE PLACED AS CLOSE TO THE 900mm MINIMUM SETBACK AS POSSIBLE.

EXCAVATION
-EXCAVATE FOOTINGS AND DRAINS AS INDICATED ON PLANS. KEEP EXCAVATIONS DRY AND BACKFILL WITH APPROVED MATERIALS FREE OF ANY BUILDING DEBRIS.
-STORM WATER & AG LINE LAYOUT IS INDICATIVE ONLY & MAY BE REDIRECTED ON SITE BY DRAINAGE CONTRACTOR

STORM WATER
-ALL PIPE WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL AUTHORITIES, CODES & APPROVALS. THESE DRAWINGS ARE SCHEMATIC & DO NOT SHOW BENDS, FITTINGS, PIPE RUNS, INSPECTION POINTS ETC BUT DO INDICATE THE INTENT OF THE PROJECT. IT'S THE CONTRACTORS RESPONSIBILITY TO COMPLY WITH ALL APPROPRIATE AUTHORITIES & CODES.
-INSTALL 100 DIAM UPVC STORM WATER DRAIN TO MIN FALL OF 1 IN 100 WITH 300mm COVER TO LEGAL POINT OF DISCHARGE AS INDICATED ON PLAN.
-STORM WATER & AG LINE LAYOUT IS INDICATIVE ONLY & MAY BE REDIRECTED ON SITE BY DRAINAGE CONTRACTOR
-PROVIDE 100 DIAM SEWER GRADE SW DRAIN UNDER SLABS & DRIVEWAYS.
-PROVIDE 100x50 COLORBOND DOWNPIPES AT 12m MAX CTRS UNLESS NOTED OTHERWISE.
-SPREADERS TO BE INSTALLED IN ACCORDANCE WITH AS/NZS 3500.3 & AS/NZS 3500.5 AND SHALL BE DISCHARGED TO A LOWER ROOF AREA SUBJECT TO THE FOLLOWING:

a) FOR A TILED ROOF THE LOWER SECTION SHALL BE SARKED A MINIMUM WIDTH OF 1800MM, EITHER SIDE FROM THE POINT OF DISCHARGE, AND EXTENDED DOWN TO THE EAVES GUTTER IN ACCORDANCE WITH AS 2050
b) FOR A CORRUGATED METAL ROOF A MINIMUM WIDTH OF 1800MM ON EITHER SIDE OF THE POINT OF DISCHARGE SHALL BE SEALED FOR FULL LENGTH OF SIDE LAPS

NOTE : TEMPORARY DOWNPIPES TO BE INSTALLED (WHERE REQUIRED AND SUBJECT TO SITE CONDITIONS) PRIOR TO DOWNPIPES BEING CONNECTED TO PREVENT PONDING NEXT TO THE SLAB
NOTE: GUTTER & DRAINAGE SYSTEMS TO BE IN ACCORDANCE WITH AS 3500

FIRE RATINGS
EXTERNAL WALLS ON BOUNDARY - FRL 60-60-60
THERMAL INSULATION TO COMPLY WITH ENERGY REPORT

NOTE : THIS SURVEY IS NOT A RE-ESTABLISHMENT SURVEY OF TITLE.
PROPERTY BOUNDARIES ARE UNFENCED UNLESSS NOTED.
TREES UNDER 3m HIGH UNLESS NOTED.
ONLY ADJACENT FEATURES TO 9m LOCATED.

EXISTING SITE COVERAGE		
	m²	%
NON-COVERED SURFACES	411.28 m²	63.21 %
COVERED SURFACES	239.39 m²	36.79 %
TOTAL	650.67 m²	100.00 %

EXISTING OVERALL AREA PERMEABILITY		
	m²	%
PERMEABLE SURFACES	310.28 m²	47.69 %
NON-PERMEABLE SURFACES	340.39 m²	52.31 %
TOTAL	650.67 m²	100.00 %

VICTORIAN BUILDING AUTHORITY REGISTERED Building Practitioner
Design Matters National
DIAL1100 BEFORE YOU DIG

PROPOSED BUILDING WORKS FOR
SALVA HOLDINGS PTY LTD, AT,
LOT 230, 35 HOTHLYN DRIVE,
CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 W. DRWG DATE: 12.03.2024

DRAWINGS PRODUCED BY:
Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 4 of 25

AREAS:	m²	Sqrs
GROUND FLOOR:	67.47	7.26
GARAGE:	37.92	4.08
FRONT PORCH:	5.55	0.60
FIRST FLOOR:	74.64	8.03
ALFRESCO:	6.90	0.74
	192.48 m²	20.71 sqrs

NOTE: NEW DOWNPIPES TO BE CONNECTED INTO THE EXISTING ON-SITE STORMWATER DRAINAGE SYSTEM

NOTE: GUTTER & DRAINAGE SYSTEMS TO BE IN ACCORDANCE WITH **AS 3500**

WIND SPEED: N1

DENOTES: GRASS AND VEGETATION TO AREAS OF THE PROPERTY.

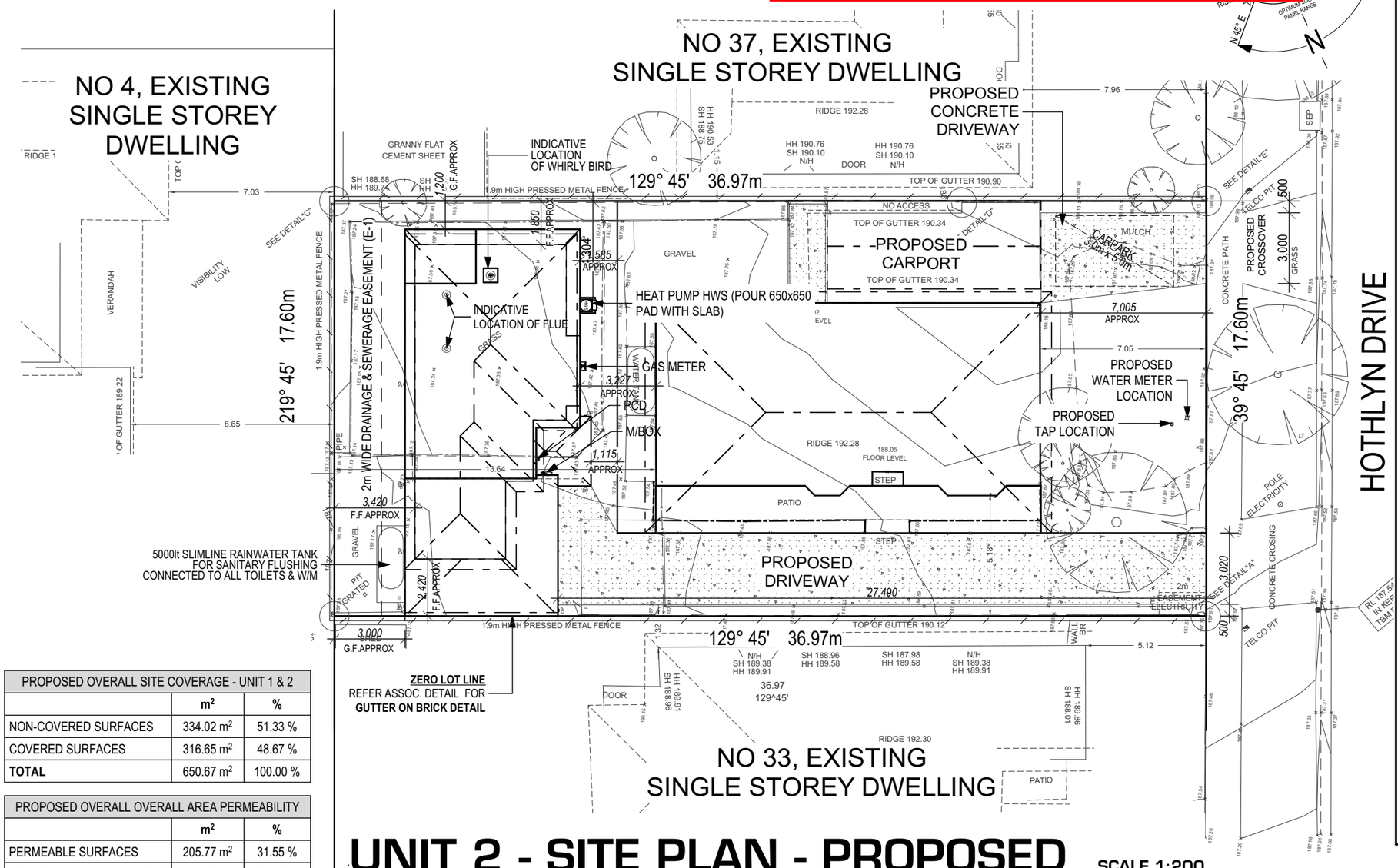
NOTE: TERMITE PROTECTION TO BE IN ACCORDANCE WITH **AS3660 2014**

NOTE: STORMWATER CONNECTION POINT TO BE CONFIRMED PRIOR TO COMMENCEMENT ON SITE

DENOTES: EXISTING SIDE AND REAR BOUNDARY FENCING.DEPICTED 200MM OFF BOUNDARY LINE FOR VISUAL UNDERSTANDING

NOTE: BAL 12.5

DENOTES: DRIVEWAY & PAVED AREAS TO THE PROPERTY.



UNIT 2 - SITE PLAN - PROPOSED

SCALE 1:200

PROPOSED OVERALL SITE COVERAGE - UNIT 1 & 2		
	m²	%
NON-COVERED SURFACES	334.02 m²	51.33 %
COVERED SURFACES	316.65 m²	48.67 %
TOTAL	650.67 m²	100.00 %

PROPOSED OVERALL OVERALL AREA PERMEABILITY		
	m²	%
PERMEABLE SURFACES	205.77 m²	31.55 %
NON-PERMEABLE SURFACES	444.90 m²	68.45 %
TOTAL	650.67 m²	100.00 %

PROPOSED GARDEN AREA - UNIT 1 & 2		
	m²	%
IMPERVIOUS SURFACES	114.05 m²	50.62 %
NON-IMPERVIOUS SURFACES	111.25 m²	49.38 %
TOTAL	225.30 m²	100.00 %

SITE AND FLOOR PLAN NOTES

SOIL CLASSIFICATION
CLASS 'P'- AS PER SOIL TEST REPORT PROVIDED BY " E2E DESIGN GROUP CONSULTING ENGINEERS"
FILE NO. 6319
DATED: 28/02/2024

GENERAL
-CLASSIFICATION OF BUILDING: 1
- CONSTRUCTION TYPE: DOMESTIC
-DESIGN OF ALL SERVICES ARE TO COMPLY WITH THE RELEVANT A.S. STANDARDS, CODES, B.C.A, NCC & LOCAL COUNCIL AUTHORITY REQUIREMENTS.
-ALL LEVELS ARE ARBITRARY DATUM, & MUST BE CHECKED ON SITE PRIOR TO CONSTRUCTION.
-CONTRACTORS MUST VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING OF ANY WORK OR PRODUCING SHOP DRAWINGS.
-USE FIGURED DIMENSIONS ONLY. DO NOT SCALE OR GUESS DRAWINGS. IF IN DOUBT ASK.
-ARCHITECTURAL DRAWINGS TO BE READ IN CONJUNCTION WITH STRUCTURAL ENG'S DRAWINGS & SPECIFICATIONS.
-BUILDER MUST COMPLY WITH LOCAL AUTHORITIES MUNICIPAL BY-LAWS, BUILDING SPECIFICATIONS, VICTORIAN REGULATIONS, THE BUILDING CODE OF AUSTRALIA (BCA) & NATIONAL CONSTRUCTION CODE (NCC).
-ALL WORK SHALL BE CARRIED OUT IN A TRADESMAN LIKE MANNER & COMPLY WITH RELEVANT CODES & TO THE SATISFACTION OF THE BUILDING SURVEYOR.
-SMOKE DETECTORS TO BE PLACED ON CEILING IN PART OF DWELLING THAT CONTAINS BEDROOMS IN ACCORDANCE WITH NCC 9.5.1 & BE DIRECTLY WIRED TO POWER SUPPLY WITH BATTERY BACK UP & INTERCONNECTED.
-DRAINS ARE TO BE LOCATED NO LESS THAN 800mm AWAY FROM SLAB REBATE. **NOTE:** WHEN THIS IS NOT ACHIEVABLE, DRAINS ARE TO BE PLACED AS CLOSE TO THE 800mm MINIMUM SETBACK AS POSSIBLE.
-NO STAR PICKETS ARE TO BE PLACED OVER 600mm FROM SLAB REBATE.

EXCAVATION
-EXCAVATE FOOTINGS AND DRAINS AS INDICATED ON PLANS. KEEP EXCAVATIONS DRY AND BACKFILL WITH APPROVED MATERIALS FREE OF ANY BUILDING DEBRIS.
-STORM WATER & AG LINE LAYOUT IS INDICATIVE ONLY & MAY BE REDIRECTED ON SITE BY DRAINAGE CONTRACTOR

STORM WATER
-ALL PIPE WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL AUTHORITIES, CODES & APPROVALS. THESE DRAWINGS ARE SCHEMATIC & DO NOT SHOW BENDS, FITTINGS, PIPE RUNS, INSPECTION POINTS ETC BUT DO INDICATE THE INTENT OF THE PROJECT. IT'S THE CONTRACTORS RESPONSIBILITY TO COMPLY WITH ALL APPROPRIATE AUTHORITIES & CODES.
-INSTALL 100 DIAM UPVC STORM WATER DRAIN TO MIN FALL OF 1 IN 100 WITH 300mm COVER TO LEGAL POINT OF DISCHARGE AS INDICATED ON PLAN.
-STORM WATER & AG LINE LAYOUT IS INDICATIVE ONLY & MAY BE REDIRECTED ON SITE BY DRAINAGE CONTRACTOR
-PROVIDE 100 DIAM SEWER GRADE SW DRAIN UNDER SLABS & DRIVEWAYS.
-PROVIDE 100x50 COLORBOND DOWNPIPES AT 12m MAX CTRS UNLESS NOTED OTHERWISE.
-SPREADERS TO BE INSTALLED IN ACCORDANCE WITH AS/NZS 3500.3 & AS/NZS 3500.5 AND SHALL BE DISCHARGED TO A LOWER ROOF AREA SUBJECT TO THE FOLLOWING:

a) FOR A TILED ROOF THE LOWER SECTION SHALL BE SARKED A MINIMUM WIDTH OF 1800MM, EITHER SIDE FROM THE POINT OF DISCHARGE, AND EXTENDED DOWN TO THE EAVES GUTTER IN ACCORDANCE WITH AS 2050
b) FOR A CORRUGATED METAL ROOF A MINIMUM WIDTH OF 1800MM ON EITHER SIDE OF THE POINT OF DISCHARGE SHALL BE SEALED FOR FULL LENGTH OF SIDE LAPS

NOTE : TEMPORARY DOWNPIPES TO BE INSTALLED (WHERE REQUIRED AND SUBJECT TO SITE CONDITIONS) PRIOR TO DOWNPIPES BEING CONNECTED TO PREVENT PONDING NEXT TO THE SLAB
NOTE: GUTTER & DRAINAGE SYSTEMS TO BE IN ACCORDANCE WITH AS 3500

FIRE RATINGS
EXTERNAL WALLS ON BOUNDARY - FRL 60-60-60
THERMAL INSULATION TO COMPLY WITH ENERGY REPORT

NOTE : THIS SURVEY IS NOT A RE-ESTABLISHMENT SURVEY OF TITLE.
PROPERTY BOUNDARIES ARE UNFENCED UNLESSS NOTED.
TREES UNDER 3m HIGH UNLESS NOTED.
ONLY ADJACENT FEATURES TO 9m LOCATED.

VICTORIAN BUILDING AUTHORITY REGISTERED Building Practitioner
Design Matters National
DIAL 1100 BEFORE YOU DIG

PROPOSED BUILDING WORKS FOR
SALVA HOLDINGS PTY LTD, AT,
LOT 230, 35 HOTHLYN DRIVE,
CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

DRAWINGS PRODUCED BY:
Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 5 of 25

AREAS:	m²	Sqrs
GROUND FLOOR:	67.47	7.26
GARAGE:	37.92	4.08
FRONT PORCH:	5.55	0.60
FIRST FLOOR:	74.64	8.03
ALFRESCO:	6.90	0.74
	192.48 m²	20.71 sqrs

NOTE: NEW DOWNPIPES TO BE CONNECTED INTO THE EXISTING ON-SITE STORMWATER DRAINAGE SYSTEM

NOTE: GUTTER & DRAINAGE SYSTEMS TO BE IN ACCORDANCE WITH **AS 3500**

WIND SPEED: N1

DENOTES: GRASS AND VEGETATION TO AREAS OF THE PROPERTY.

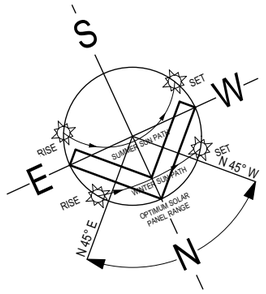
NOTE: TERMITE PROTECTION TO BE IN ACCORDANCE WITH **AS3660 2014**

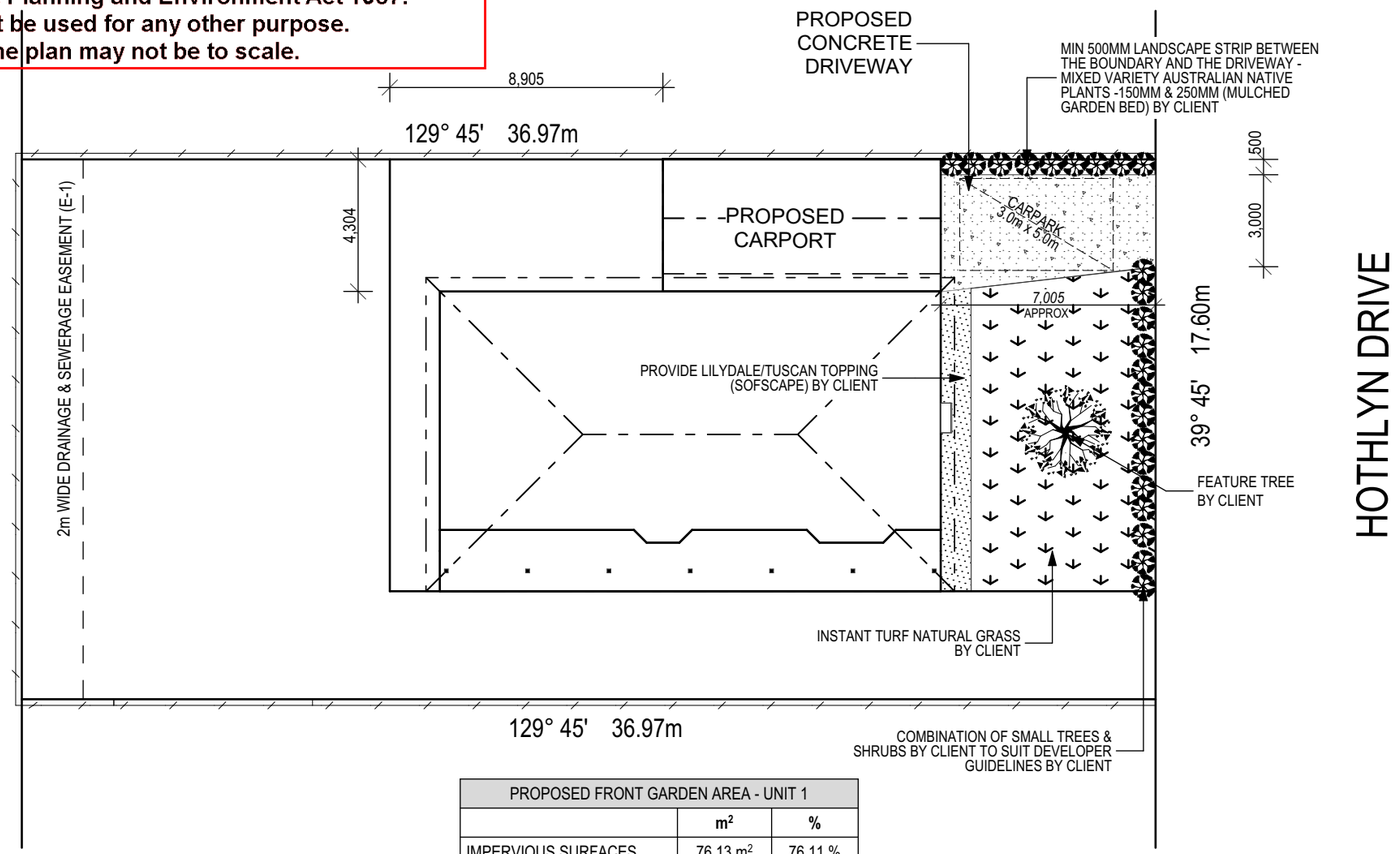
NOTE: STORMWATER CONNECTION POINT TO BE CONFIRMED PRIOR TO COMMENCEMENT ON SITE

DENOTES: EXISTING SIDE AND REAR BOUNDARY FENCING.DEPICTED 200MM OFF BOUNDARY LINE FOR VISUAL UNDERSTANDING.

NOTE: BAL 12.5

DENOTES: DRIVEWAY & PAVED AREAS TO THE PROPERTY.





PROPOSED SITE COVERAGE - UNIT 1		
	m²	%
NON-COVERED SURFACES	151.74 m²	43.29 %
COVERED SURFACES	198.81 m²	56.71 %
TOTAL	350.55 m²	100.00 %

PROPOSED OVERALL AREA PERMEABILITY - UNIT 1		
	m²	%
PERMEABLE SURFACES	124.49 m²	35.51 %
NON-PERMEABLE SURFACES	226.06 m²	64.49 %
TOTAL	350.55 m²	100.00 %

PROPOSED FRONT GARDEN AREA - UNIT 1		
	m²	%
IMPERVIOUS SURFACES	76.13 m²	76.11 %
NON-IMPERVIOUS SURFACES	23.90 m²	23.89 %
TOTAL	100.03 m²	100.00 %

UNIT 1 - LANDSCAPE PLAN - PROPOSED

SCALE 1:200

SITE AND FLOOR PLAN NOTES

SOIL CLASSIFICATION
CLASS 'P'- AS PER SOIL TEST REPORT PROVIDED BY " E2E DESIGN GROUP CONSULTING ENGINEERS"
FILE NO. 6319
DATED: 28/02/2024

GENERAL
-CLASSIFICATION OF BUILDING: 1
- CONSTRUCTION TYPE: DOMESTIC
-DESIGN OF ALL SERVICES ARE TO COMPLY WITH THE RELEVANT A.S. STANDARDS, CODES, B.C.A, NCC & LOCAL COUNCIL AUTHORITY REQUIREMENTS.
-ALL LEVELS ARE ARBITRARY DATUM, & MUST BE CHECKED ON SITE PRIOR TO CONSTRUCTION.
-CONTRACTORS MUST VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING OF ANY WORK OR PRODUCING SHOP DRAWINGS.
-USE FIGURED DIMENSIONS ONLY. DO NOT SCALE OR GUESS DRAWINGS. IF IN DOUBT ASK.
-ARCHITECTURAL DRAWINGS TO BE READ IN CONJUNCTION WITH STRUCTURAL ENG'S DRAWINGS & SPECIFICATIONS.
-BUILDER MUST COMPLY WITH LOCAL AUTHORITIES MUNICIPAL BY-LAWS, BUILDING SPECIFICATIONS, VICTORIAN REGULATIONS, THE BUILDING CODE OF AUSTRALIA (BCA) & NATIONAL CONSTRUCTION CODE (NCC).
-ALL WORK SHALL BE CARRIED OUT IN A TRADESMAN LIKE MANNER & COMPLY WITH RELEVANT CODES & TO THE SATISFACTION OF THE BUILDING SURVEYOR.
-SMOKE DETECTORS TO BE PLACED ON CEILING IN PART OF DWELLING THAT CONTAINS BEDROOMS IN ACCORDANCE WITH NCC 9.5.1 & BE DIRECTLY WIRED TO POWER SUPPLY WITH BATTERY BACK UP & INTERCONNECTED.
-DRAINS ARE TO BE LOCATED NO LESS THAN 800mm AWAY FROM SLAB REBATE. **NOTE:** WHEN THIS IS NOT ACHIEVABLE, DRAINS ARE TO BE PLACED AS CLOSE TO THE 800mm MINIMUM SETBACK AS POSSIBLE.
-NO STAR PICKETS ARE TO BE PLACED OVER 600mm FROM SLAB REBATE.

EXCAVATION
-EXCAVATE FOOTINGS AND DRAINS AS INDICATED ON PLANS. KEEP EXCAVATIONS DRY AND BACKFILL WITH APPROVED MATERIALS FREE OF ANY BUILDING DEBRIS.
-STORM WATER & AG LINE LAYOUT IS INDICATIVE ONLY & MAY BE REDIRECTED ON SITE BY DRAINAGE CONTRACTOR

STORM WATER
-ALL PIPE WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL AUTHORITIES, CODES & APPROVALS. THESE DRAWINGS ARE SCHEMATIC & DO NOT SHOW BENDS, FITTINGS, PIPE RUNS, INSPECTION POINTS ETC BUT DO INDICATE THE INTENT OF THE PROJECT. IT'S THE CONTRACTORS RESPONSIBILITY TO COMPLY WITH ALL APPROPRIATE AUTHORITIES & CODES.
-INSTALL 100 DIAM UPVC STORM WATER DRAIN TO MIN FALL OF 1 IN 100 WITH 300mm COVER TO LEGAL POINT OF DISCHARGE AS INDICATED ON PLAN.
-STORM WATER & AG LINE LAYOUT IS INDICATIVE ONLY & MAY BE REDIRECTED ON SITE BY DRAINAGE CONTRACTOR
-PROVIDE 100 DIAM SEWER GRADE SW DRAIN UNDER SLABS & DRIVEWAYS.
-PROVIDE 100x50 COLORBOND DOWNPIPES AT 12m MAX CTRS UNLESS NOTED OTHERWISE.
-SPREADERS TO BE INSTALLED IN ACCORDANCE WITH AS/NZS 3500.3 & AS/NZS 3500.5 AND SHALL BE DISCHARGED TO A LOWER ROOF AREA SUBJECT TO THE FOLLOWING:
a) FOR A TILED ROOF THE LOWER SECTION SHALL BE SARKED A MINIMUM WIDTH OF 1800MM, EITHER SIDE FROM THE POINT OF DISCHARGE, AND EXTENDED DOWN TO THE EAVES GUTTER IN ACCORDANCE WITH AS 2050
b) FOR A CORRUGATED METAL ROOF A MINIMUM WIDTH OF 1800MM ON EITHER SIDE OF THE POINT OF DISCHARGE SHALL BE SEALED FOR FULL LENGTH OF SIDE LAPS

NOTE : TEMPORARY DOWNPIPES TO BE INSTALLED (WHERE REQUIRED AND SUBJECT TO SITE CONDITIONS) PRIOR TO DOWNPIPES BEING CONNECTED TO PREVENT PONDING NEXT TO THE SLAB
NOTE: GUTTER & DRAINAGE SYSTEMS TO BE IN ACCORDANCE WITH AS 3500

FIRE RATINGS
EXTERNAL WALLS ON BOUNDARY - FRL 60-60-60
THERMAL INSULATION TO COMPLY WITH ENERGY REPORT

NOTE : THIS SURVEY IS NOT A RE-ESTABLISHMENT SURVEY OF TITLE.
PROPERTY BOUNDARIES ARE UNFENCED UNLESSS NOTED.
TREES UNDER 3m HIGH UNLESS NOTED.
ONLY ADJACENT FEATURES TO 9m LOCATED.

VICTORIAN BUILDING AUTHORITY REGISTERED Building Practitioner
Design Matters National
DIAL 1100 BEFORE YOU DIG

PROPOSED BUILDING WORKS FOR
SALVA HOLDINGS PTY LTD, AT,
LOT 230, 35 HOTHLYN DRIVE,
CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

DRAWINGS PRODUCED BY: Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 6 of 25

AREAS:	m²	Sqrs
GROUND FLOOR:	67.47	7.26
GARAGE:	37.92	4.08
FRONT PORCH:	5.55	0.60
FIRST FLOOR:	74.64	8.03
ALFRESCO:	6.90	0.74
	192.48 m²	20.71 sqrs

NOTE: NEW DOWNPIPES TO BE CONNECTED INTO THE EXISTING ON-SITE STORMWATER DRAINAGE SYSTEM

NOTE: GUTTER & DRAINAGE SYSTEMS TO BE IN ACCORDANCE WITH **AS 3500**

WIND SPEED: N1

DENOTES: GRASS AND VEGETATION TO AREAS OF THE PROPERTY.

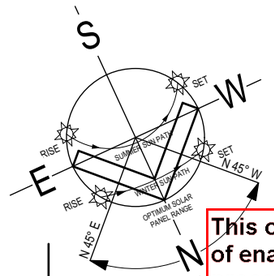
NOTE: TERMITE PROTECTION TO BE IN ACCORDANCE WITH **AS3660 2014**

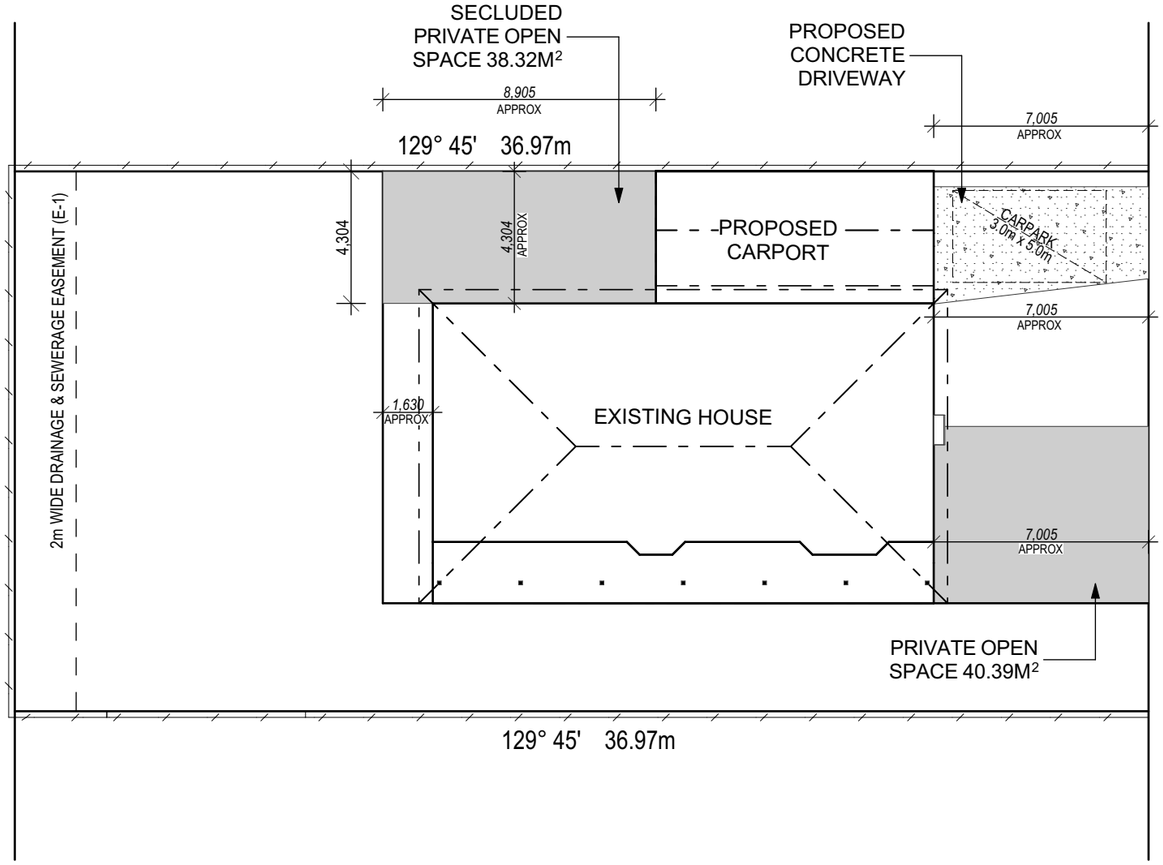
NOTE: STORMWATER CONNECTION POINT TO BE CONFIRMED PRIOR TO COMMENCEMENT ON SITE

DENOTES: EXISTING SIDE AND REAR BOUNDARY FENCING.DEPICTED 200MM OFF BOUNDARY LINE FOR VISUAL UNDERSTANDING.

NOTE: BAL 12.5

DENOTES: DRIVEWAY & PAVED AREAS TO THE PROPERTY.





SITE AND FLOOR PLAN NOTES

SOIL CLASSIFICATION
CLASS 'P'- AS PER SOIL TEST REPORT PROVIDED BY " E2E DESIGN GROUP CONSULTING ENGINEERS"
FILE NO. 6319
DATED: 28/02/2024

GENERAL
-CLASSIFICATION OF BUILDING: 1
- CONSTRUCTION TYPE: DOMESTIC
-DESIGN OF ALL SERVICES ARE TO COMPLY WITH THE RELEVANT A.S. STANDARDS, CODES, B.C.A, NCC & LOCAL COUNCIL AUTHORITY REQUIREMENTS.
-ALL LEVELS ARE ARBITRARY DATUM, & MUST BE CHECKED ON SITE PRIOR TO CONSTRUCTION.
-CONTRACTORS MUST VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING OF ANY WORK OR PRODUCING SHOP DRAWINGS.
-USE FIGURED DIMENSIONS ONLY. DO NOT SCALE OR GUESS DRAWINGS. IF IN DOUBT ASK.
-ARCHITECTURAL DRAWINGS TO BE READ IN CONJUNCTION WITH STRUCTURAL ENG'S DRAWINGS & SPECIFICATIONS.
-BUILDER MUST COMPLY WITH LOCAL AUTHORITIES MUNICIPAL BY-LAWS, BUILDING SPECIFICATIONS, VICTORIAN REGULATIONS, THE BUILDING CODE OF AUSTRALIA (BCA) & NATIONAL CONSTRUCTION CODE (NCC).
-ALL WORK SHALL BE CARRIED OUT IN A TRADESMAN LIKE MANNER & COMPLY WITH RELEVANT CODES & TO THE [illegible]
-SMOKE DETECTORS TO BE PLACED ON CEILING IN PART OF DWELLING THAT CONTAINS BEDROOMS, IN ACCORDANCE WITH NCC 9.5.1 & BE DIRECTLY WIRED TO POWER SUPPLY WITH BATTERY BACK UP & [illegible]
-ROOF DRAINS TO BE LOCATED NO LESS THAN 900mm AWAY FROM SLAB PERATE. **NOTE:** WHEN THIS IS NOT ACHIEVABLE, DRAINS ARE TO BE PLACED AS CLOSE TO THE 900mm MINIMUM SETBACK AS POSSIBLE.
-[illegible]

EXCAVATION
-EXCAVATE FOOTINGS AND DRAINS AS INDICATED ON PLANS. KEEP EXCAVATIONS DRY AND BACKFILL WITH APPROVED MATERIALS FREE OF ANY BUILDING DEBRIS.
-STORM WATER & AG LINE LAYOUT IS INDICATIVE ONLY & MAY BE REDIRECTED ON SITE BY DRAINAGE CONTRACTOR

STORM WATER
-ALL PIPE WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL AUTHORITIES, CODES & APPROVALS. THESE DRAWINGS ARE SCHEMATIC & DO NOT SHOW BENDS, FITTINGS, PIPE RUNS, INSPECTION POINTS ETC BUT DO INDICATE THE INTENT OF THE PROJECT. IT'S THE CONTRACTORS RESPONSIBILITY TO COMPLY WITH ALL APPROPRIATE AUTHORITIES & CODES.
-INSTALL 100 DIAM UPVC STORM WATER DRAIN TO MIN FALL OF 1 IN 100 WITH 300mm COVER TO LEGAL POINT OF DISCHARGE AS INDICATED ON PLAN.
-STORM WATER & AG LINE LAYOUT IS INDICATIVE ONLY & MAY BE REDIRECTED ON SITE BY DRAINAGE CONTRACTOR
-PROVIDE 100 DIAM SEWER GRADE SW DRAIN UNDER SLABS & DRIVEWAYS.
-PROVIDE 100x50 COLORBOND DOWNPIPES AT 12m MAX CTRS UNLESS NOTED OTHERWISE.
-SPREADERS TO BE INSTALLED IN ACCORDANCE WITH AS/NZS 3500.3 & AS/NZS 3500.5 AND SHALL BE DISCHARGED TO A LOWER ROOF AREA SUBJECT TO THE FOLLOWING:
a) FOR A TILED ROOF THE LOWER SECTION SHALL BE SARKED A MINIMUM WIDTH OF 1800MM, EITHER SIDE FROM THE POINT OF DISCHARGE, AND EXTENDED DOWN TO THE EAVES GUTTER IN ACCORDANCE WITH AS 2050
b) FOR A CORRUGATED METAL ROOF A MINIMUM WIDTH OF 1800MM ON EITHER SIDE OF THE POINT OF DISCHARGE SHALL BE SEALED FOR FULL LENGTH OF SIDE LAPS

NOTE : TEMPORARY DOWNPIPES TO BE INSTALLED (WHERE REQUIRED AND SUBJECT TO SITE CONDITIONS) PRIOR TO DOWNPIPES BEING CONNECTED TO PREVENT PONDING NEXT TO THE SLAB
NOTE: GUTTER & DRAINAGE SYSTEMS TO BE IN ACCORDANCE WITH AS 3500

FIRE RATINGS
EXTERNAL WALLS ON BOUNDARY - FRL 60-60-60
THERMAL INSULATION TO COMPLY WITH ENERGY REPORT

NOTE : THIS SURVEY IS NOT A RE-ESTABLISHMENT SURVEY OF TITLE.
PROPERTY BOUNDARIES ARE UNFENCED UNLESSS NOTED.
TREES UNDER 3m HIGH UNLESS NOTED.
ONLY ADJACENT FEATURES TO 9m LOCATED.

UNIT 1 - SITE PLAN - PROPOSED

SCALE 1:200

PROPOSED BUILDING WORKS FOR
SALVA HOLDINGS PTY LTD, AT,
LOT 230, 35 HOTHLYN DRIVE,
CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

DRAWINGS PRODUCED BY: Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 7 of 25

AREAS:	m²	Sqrs
GROUND FLOOR:	67.47	7.26
GARAGE:	37.92	4.08
FRONT PORCH:	5.55	0.60
FIRST FLOOR:	74.64	8.03
ALFRESCO:	6.90	0.74
	192.48 m²	20.71 sqrs

NOTE: NEW DOWNPIPES TO BE CONNECTED INTO THE EXISTING ON-SITE STORMWATER DRAINAGE SYSTEM

NOTE: GUTTER & DRAINAGE SYSTEMS TO BE IN ACCORDANCE WITH **AS 3500**

WIND SPEED: N1

DENOTES: GRASS AND VEGETATION TO AREAS OF THE PROPERTY.

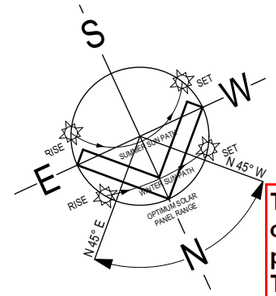
NOTE: TERMITE PROTECTION TO BE IN ACCORDANCE WITH **AS3660 2014**

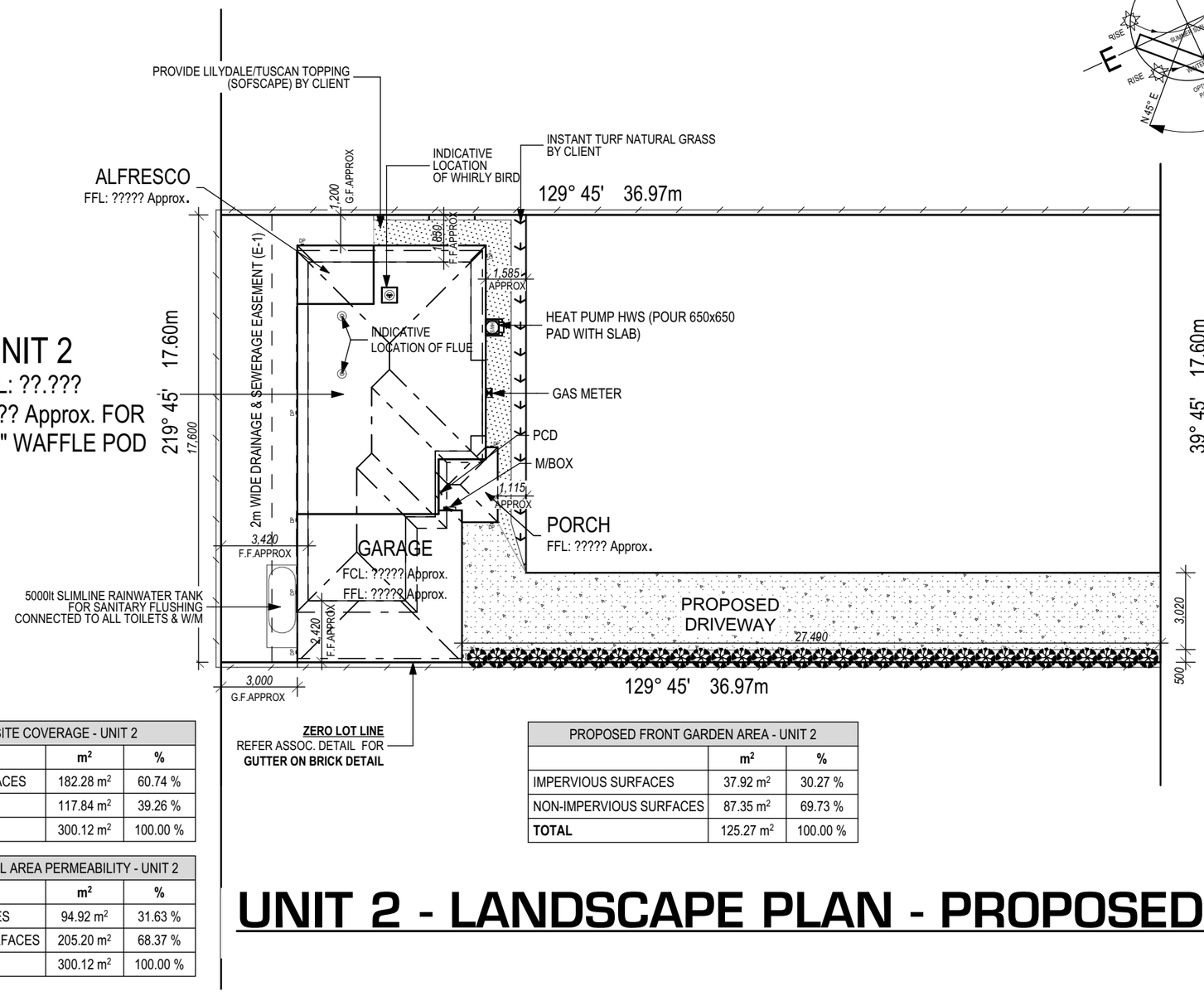
NOTE: STORMWATER CONNECTION POINT TO BE CONFIRMED PRIOR TO COMMENCEMENT ON SITE

DENOTES: EXISTING SIDE AND REAR BOUNDARY FENCING.DEPICTED 200MM OFF BOUNDARY LINE FOR VISUAL UNDERSTANDING.

NOTE: BAL 12.5

DENOTES: DRIVEWAY & PAVED AREAS TO THE PROPERTY.





PROPOSED SITE COVERAGE - UNIT 2		
	m²	%
NON-COVERED SURFACES	182.28 m²	60.74 %
COVERED SURFACES	117.84 m²	39.26 %
TOTAL	300.12 m²	100.00 %

PROPOSED OVERALL AREA PERMEABILITY - UNIT 2		
	m²	%
PERMEABLE SURFACES	94.92 m²	31.63 %
NON-PERMEABLE SURFACES	205.20 m²	68.37 %
TOTAL	300.12 m²	100.00 %

PROPOSED FRONT GARDEN AREA - UNIT 2		
	m²	%
IMPERVIOUS SURFACES	37.92 m²	30.27 %
NON-IMPERVIOUS SURFACES	87.35 m²	69.73 %
TOTAL	125.27 m²	100.00 %

UNIT 2 - LANDSCAPE PLAN - PROPOSED

SCALE 1:200

SITE AND FLOOR PLAN NOTES

SOIL CLASSIFICATION
CLASS 'P'- AS PER SOIL TEST REPORT PROVIDED BY " E2E DESIGN GROUP CONSULTING ENGINEERS"
FILE NO. 6319
DATED: 28/02/2024

GENERAL
-CLASSIFICATION OF BUILDING: 1
- CONSTRUCTION TYPE: DOMESTIC
-DESIGN OF ALL SERVICES ARE TO COMPLY WITH THE RELEVANT A.S. STANDARDS, CODES, B.C.A, NCC & LOCAL COUNCIL AUTHORITY REQUIREMENTS.
-ALL LEVELS ARE ARBITRARY DATUM, & MUST BE CHECKED ON SITE PRIOR TO CONSTRUCTION.
-CONTRACTORS MUST VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING OF ANY WORK OR PRODUCING SHOP DRAWINGS.
-USE FIGURED DIMENSIONS ONLY. DO NOT SCALE OR GUESS DRAWINGS. IF IN DOUBT ASK.
-ARCHITECTURAL DRAWINGS TO BE READ IN CONJUNCTION WITH STRUCTURAL ENG'S DRAWINGS & SPECIFICATIONS.
-BUILDER MUST COMPLY WITH LOCAL AUTHORITIES MUNICIPAL BY-LAWS, BUILDING SPECIFICATIONS, VICTORIAN REGULATIONS, THE BUILDING CODE OF AUSTRALIA (BCA) & NATIONAL CONSTRUCTION CODE (NCC).
-ALL WORK SHALL BE CARRIED OUT IN A TRADESMAN LIKE MANNER & COMPLY WITH RELEVANT CODES & TO THE [illegible]
-SMOKE DETECTORS TO BE PLACED ON CEILING IN PART OF DWELLING THAT CONTAINS BEDROOMS, IN ACCORDANCE WITH NCC 9.5.1 & BE DIRECTLY WIRED TO POWER SUPPLY WITH BATTERY BACK UP & [illegible]
-DRAINS ARE TO BE LOCATED NO LESS THAN 900mm AWAY FROM SLAB PERATE. **NOTE:** WHEN THIS IS NOT ACHIEVABLE, DRAINS ARE TO BE PLACED AS CLOSE TO THE 900mm MINIMUM SETBACK AS POSSIBLE.
-ALL [illegible]

EXCAVATION
-EXCAVATE FOOTINGS AND DRAINS AS INDICATED ON PLANS. KEEP EXCAVATIONS DRY AND BACKFILL WITH APPROVED MATERIALS FREE OF ANY BUILDING DEBRIS.
-STORM WATER & AG LINE LAYOUT IS INDICATIVE ONLY & MAY BE REDIRECTED ON SITE BY DRAINAGE CONTRACTOR

STORM WATER
-ALL PIPE WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL AUTHORITIES, CODES & APPROVALS. THESE DRAWINGS ARE SCHEMATIC & DO NOT SHOW BENDS, FITTINGS, PIPE RUNS, INSPECTION POINTS ETC BUT DO INDICATE THE INTENT OF THE PROJECT. IT'S THE CONTRACTORS RESPONSIBILITY TO COMPLY WITH ALL APPROPRIATE AUTHORITIES & CODES.
-INSTALL 100 DIAM UPVC STORM WATER DRAIN TO MIN FALL OF 1 IN 100 WITH 300mm COVER TO LEGAL POINT OF DISCHARGE AS INDICATED ON PLAN.
-STORM WATER & AG LINE LAYOUT IS INDICATIVE ONLY & MAY BE REDIRECTED ON SITE BY DRAINAGE CONTRACTOR
-PROVIDE 100 DIAM SEWER GRADE SW DRAIN UNDER SLABS & DRIVEWAYS.
-PROVIDE 100x50 COLORBOND DOWNPIPES AT 12m MAX CTRS UNLESS NOTED OTHERWISE.
-SPREADERS TO BE INSTALLED IN ACCORDANCE WITH AS/NZS 3500.3 & AS/NZS 3500.5 AND SHALL BE DISCHARGED TO A LOWER ROOF AREA SUBJECT TO THE FOLLOWING:
a) FOR A TILED ROOF THE LOWER SECTION SHALL BE SARKED A MINIMUM WIDTH OF 1800MM, EITHER SIDE FROM THE POINT OF DISCHARGE, AND EXTENDED DOWN TO THE EAVES GUTTER IN ACCORDANCE WITH AS 2050
b) FOR A CORRUGATED METAL ROOF A MINIMUM WIDTH OF 1800MM ON EITHER SIDE OF THE POINT OF DISCHARGE SHALL BE SEALED FOR FULL LENGTH OF SIDE LAPS

NOTE : TEMPORARY DOWNPIPES TO BE INSTALLED (WHERE REQUIRED AND SUBJECT TO SITE CONDITIONS) PRIOR TO DOWNPIPES BEING CONNECTED TO PREVENT PONDING NEXT TO THE SLAB
NOTE: GUTTER & DRAINAGE SYSTEMS TO BE IN ACCORDANCE WITH AS 3500

FIRE RATINGS
EXTERNAL WALLS ON BOUNDARY - FRL 60-60-60
THERMAL INSULATION TO COMPLY WITH ENERGY REPORT

NOTE : THIS SURVEY IS NOT A RE-ESTABLISHMENT SURVEY OF TITLE.
PROPERTY BOUNDARIES ARE UNFENCED UNLESSS NOTED.
TREES UNDER 3m HIGH UNLESS NOTED.
ONLY ADJACENT FEATURES TO 9m LOCATED.

VICTORIAN BUILDING AUTHORITY REGISTERED Building Practitioner
Design Matters National
DIAL1100 BEFORE YOU DIG

PROPOSED BUILDING WORKS FOR
SALVA HOLDINGS PTY LTD, AT,
LOT 230, 35 HOTHLYN DRIVE, CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

DRAWINGS PRODUCED BY: Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 8 of 25

AREAS:	m²	Sqrs
GROUND FLOOR:	67.47	7.26
GARAGE:	37.92	4.08
FRONT PORCH:	5.55	0.60
FIRST FLOOR:	74.64	8.03
ALFRESCO:	6.90	0.74
	192.48 m²	20.71 sqrs

NOTE: NEW DOWNPIPES TO BE CONNECTED INTO THE EXISTING ON-SITE STORMWATER DRAINAGE SYSTEM

NOTE: GUTTER & DRAINAGE SYSTEMS TO BE IN ACCORDANCE WITH **AS 3500**

WIND SPEED: N1

DENOTES: GRASS AND VEGETATION TO AREAS OF THE PROPERTY.

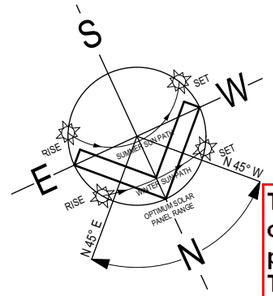
NOTE: TERMITE PROTECTION TO BE IN ACCORDANCE WITH **AS3660 2014**

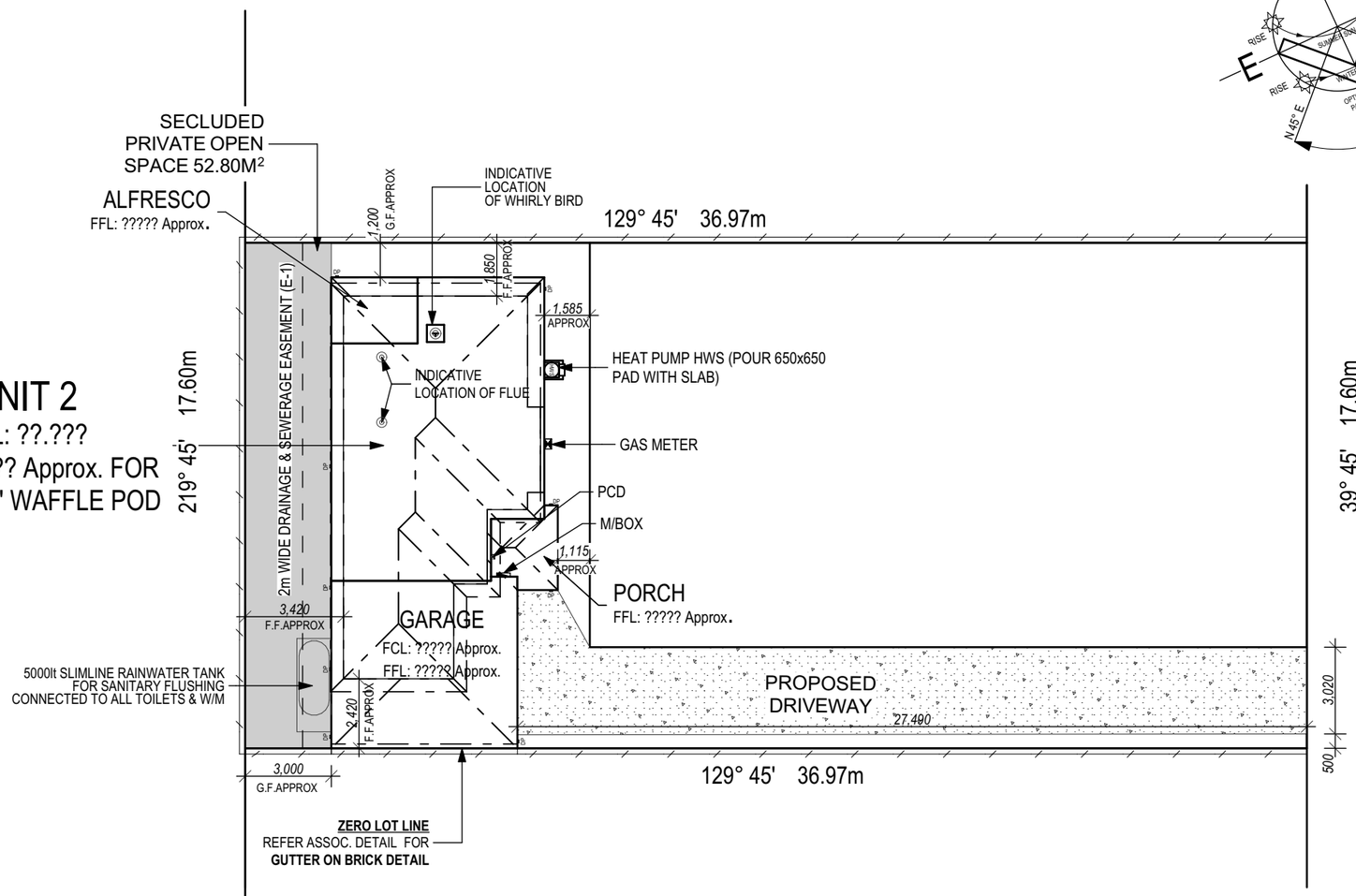
NOTE: STORMWATER CONNECTION POINT TO BE CONFIRMED PRIOR TO COMMENCEMENT ON SITE

DENOTES: EXISTING SIDE AND REAR BOUNDARY FENCING.DEPICTED 200MM OFF BOUNDARY LINE FOR VISUAL UNDERSTANDING.

NOTE: BAL 12.5

DENOTES: DRIVEWAY & PAVED AREAS TO THE PROPERTY.





UNIT 2 - SITE PLAN - PROPOSED

SCALE 1:200

SITE AND FLOOR PLAN NOTES

SOIL CLASSIFICATION
CLASS 'P'- AS PER SOIL TEST REPORT PROVIDED BY " E2E DESIGN GROUP CONSULTING ENGINEERS"
FILE NO. 6319
DATED: 28/02/2024

GENERAL
-CLASSIFICATION OF BUILDING: 1
- CONSTRUCTION TYPE: DOMESTIC
-DESIGN OF ALL SERVICES ARE TO COMPLY WITH THE RELEVANT A.S. STANDARDS, CODES, B.C.A, NCC & LOCAL COUNCIL AUTHORITY REQUIREMENTS.
-ALL LEVELS ARE ARBITRARY DATUM, & MUST BE CHECKED ON SITE PRIOR TO CONSTRUCTION.
-CONTRACTORS MUST VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING OF ANY WORK OR PRODUCING SHOP DRAWINGS.
-USE FIGURED DIMENSIONS ONLY. DO NOT SCALE OR GUESS DRAWINGS. IF IN DOUBT ASK.
-ARCHITECTURAL DRAWINGS TO BE READ IN CONJUNCTION WITH STRUCTURAL ENG'S DRAWINGS & SPECIFICATIONS.
-BUILDER MUST COMPLY WITH LOCAL AUTHORITIES MUNICIPAL BY-LAWS, BUILDING SPECIFICATIONS, VICTORIAN REGULATIONS, THE BUILDING CODE OF AUSTRALIA (BCA) & NATIONAL CONSTRUCTION CODE (NCC).
-ALL WORK SHALL BE CARRIED OUT IN A TRADESMAN LIKE MANNER & COMPLY WITH RELEVANT CODES & TO THE [illegible]
-SMOKE DETECTORS TO BE PLACED ON CEILING IN PART OF DWELLING THAT CONTAINS BEDROOMS, IN ACCORDANCE WITH NCC 9.5.1 & BE DIRECTLY WIRED TO POWER SUPPLY WITH BATTERY BACK UP & [illegible]
-DRAINS ARE TO BE LOCATED NO LESS THAN 900mm AWAY FROM SLAB PERATE. **NOTE:** WHEN THIS IS NOT ACHIEVABLE, DRAINS ARE TO BE PLACED AS CLOSE TO THE 900mm MINIMUM SETBACK AS POSSIBLE.
-[illegible]

EXCAVATION
-EXCAVATE FOOTINGS AND DRAINS AS INDICATED ON PLANS. KEEP EXCAVATIONS DRY AND BACKFILL WITH APPROVED MATERIALS FREE OF ANY BUILDING DEBRIS.
-STORM WATER & AG LINE LAYOUT IS INDICATIVE ONLY & MAY BE REDIRECTED ON SITE BY DRAINAGE CONTRACTOR

STORM WATER
-ALL PIPE WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL AUTHORITIES, CODES & APPROVALS. THESE DRAWINGS ARE SCHEMATIC & DO NOT SHOW BENDS, FITTINGS, PIPE RUNS, INSPECTION POINTS ETC BUT DO INDICATE THE INTENT OF THE PROJECT. IT'S THE CONTRACTORS RESPONSIBILITY TO COMPLY WITH ALL APPROPRIATE AUTHORITIES & CODES.
-INSTALL 100 DIAM UPVC STORM WATER DRAIN TO MIN FALL OF 1 IN 100 WITH 300mm COVER TO LEGAL POINT OF DISCHARGE AS INDICATED ON PLAN.
-STORM WATER & AG LINE LAYOUT IS INDICATIVE ONLY & MAY BE REDIRECTED ON SITE BY DRAINAGE CONTRACTOR
-PROVIDE 100 DIAM SEWER GRADE SW DRAIN UNDER SLABS & DRIVEWAYS.
-PROVIDE 100x50 COLORBOND DOWNPIPES AT 12m MAX CTRS UNLESS NOTED OTHERWISE.
-SPREADERS TO BE INSTALLED IN ACCORDANCE WITH AS/NZS 3500.3 & AS/NZS 3500.5 AND SHALL BE DISCHARGED TO A LOWER ROOF AREA SUBJECT TO THE FOLLOWING:
a) FOR A TILED ROOF THE LOWER SECTION SHALL BE SARKED A MINIMUM WIDTH OF 1800MM, EITHER SIDE FROM THE POINT OF DISCHARGE, AND EXTENDED DOWN TO THE EAVES GUTTER IN ACCORDANCE WITH AS 2050
b) FOR A CORRUGATED METAL ROOF A MINIMUM WIDTH OF 1800MM ON EITHER SIDE OF THE POINT OF DISCHARGE SHALL BE SEALED FOR FULL LENGTH OF SIDE LAPS

NOTE : TEMPORARY DOWNPIPES TO BE INSTALLED (WHERE REQUIRED AND SUBJECT TO SITE CONDITIONS) PRIOR TO DOWNPIPES BEING CONNECTED TO PREVENT PONDING NEXT TO THE SLAB
NOTE: GUTTER & DRAINAGE SYSTEMS TO BE IN ACCORDANCE WITH AS 3500

FIRE RATINGS
EXTERNAL WALLS ON BOUNDARY - FRL 60-60-60
THERMAL INSULATION TO COMPLY WITH ENERGY REPORT

NOTE : THIS SURVEY IS NOT A RE-ESTABLISHMENT SURVEY OF TITLE.
PROPERTY BOUNDARIES ARE UNFENCED UNLESSS NOTED.
TREES UNDER 3m HIGH UNLESS NOTED.
ONLY ADJACENT FEATURES TO 9m LOCATED.

VICTORIAN BUILDING AUTHORITY REGISTERED Building Practitioner
Design Matters National
DIAL1100 BEFORE YOU DIG

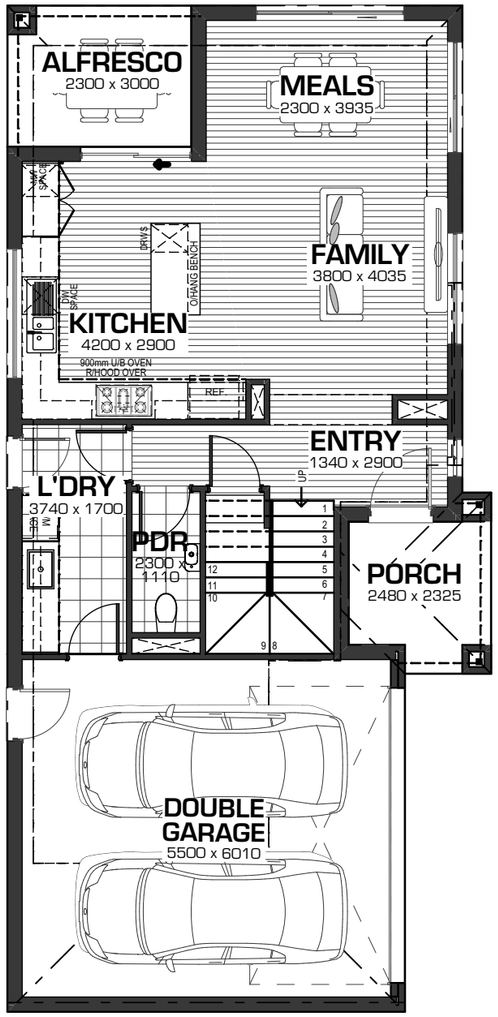
PROPOSED BUILDING WORKS FOR
SALVA HOLDINGS PTY LTD, AT,
LOT 230, 35 HOTHLYN DRIVE,
CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

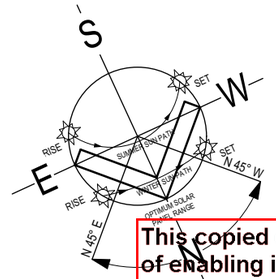
DRAWINGS PRODUCED BY: Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 9 of 25



PROPOSED UNIT 2 - GROUND FLOOR PLAN

SCALE 1:100



NOTE: FIRST FLOOR R2.5 BETWEEN POSI-TRUSSES
EXTERNAL WALLS R2.5 (EXCLUDING GARAGE)
INTERNAL WALLS R2.5 (GARAGE, LAUNDRY AND BATHROOM) ROOF R5.0

NOTE: GARAGE ACCESS DOOR INTO DWELLING TO BE FITTED WITH SEAL TO RESTRICT AIR INFILTRATION IN ACCORDANCE WITH PART 13.4.4 OF THE NCC 2022 VOL.2.

NOTE: ALL GLAZING TO BE IN ACCORDANCE WITH AS1288 & AS2047

NOTE: A VAPOR PERMEABLE MEMBRANE TO BE INSTALLED IN ACCORDANCE WITH AS 4200.2 TO EXTERNAL WALLS.

AIR MOVEMENT: KITCHEN EXHAUST: MIN 40L/s
ENSUITE EXHAUST: MIN 25L/s
AS PER NCC 10.8.2

WATER STOPS AS PER AS3740

SHELVING NOTES:
SHELVING AT 1700mm ABOVE FL TO SIDE OF ADJACENT ROBE
TO WALLS TO FIX SHELVING.
LINEN AND PANTRY SHELFING TO HAVE NOGGINS INSTALLED IN INCREMENTS AS PER SHELVING DETAILS.

LEGEND:

FLOOR BOARDS

FLOOR TILES

GROUND FLOOR:
EXTERNAL FRAME - 43LM
INTERNAL FRAME - 23LM

FIRST FLOOR:
EXTERNAL FRAME - 40LM
INTERNAL FRAME - 38LM

WET AREAS:
TO HAVE IMPERVIOUS FLOOR & WALL TILE FINISH AS PER PLAN

SMOKE ALARMS:
TO BE INSTALLED ADJACENT TO THE BEDROOMS & TO BE HARDWIRED. SMOKE ALARMS TO BE INTERCONNECTED IN ACCORDANCE WITH NCC CLAUSE 9.5.1)

DOWNPIPES:
TO BE PROVIDED AT 1 PER 60m2 OF ROOF AREA & NO MORE THAN 12m CENTRES MAX. EXCLUDING BOX GUTTER AND RAINHEADS.
TEMPORARY DOWNPIPES TO BE INSTALLED BEFORE DOWNPIPES ARE CONNECTED (TO PREVENT PONDING NEXT TO THE SLAB).

TIMBER FRAME: REFER TO TABLE

DOORS & WINDOWS:
ALL GROUND FLOOR INTERNAL DOORS TO BE **2040mm** HIGH HOLLOW CORE.
FIRST FLOOR INTERNAL DOORS TO BE **2040mm** HIGH HOLLOW CORE.
DOORS BY WIDTH AS INDICATED ON PLAN.
FRONT ENTRY DOORS TO BE HOLLOW CORE.
ALL WATER CLOSETS TO HAVE REMOVABLE HINGES TO DOORS IF LESS THAN 1.2m CLEARANCE BETWEEN THE CLOSET PAN & THE DOOR SWING.
PROVIDE RESTRICTIVE WINDERS 125mm MAX. TO FULL OPENABLE WINDOWS WHICH ARE 2.0m ABOVE N.G.L.

STEPS & STAIRS:
ALL INTERNAL & EXTERNAL STEPS SHALL BE A MIN. OF 250mm WIDE WITH A MAX RISER OF 190mm HIGH.
TIMBER STAIR WITH NON-SLIP TREADS OR NOSING IN ACCORDANCE WITH TABLE 11.2.4 OF THE NCC.
CARPET STAIR WITH NON-SLIP TREADS OR NOSING IN ACCORDANCE WITH TABLE 11.2.4 OF THE NCC.
PORCH STEPDOWN TO BE 190mm MAX. AFTER INSTALLATION OF PAVING/TILING & BEFORE OCCUPANCY PERMIT.
STAIRS TO BE CONSTRUCTED AS BELOW:
TREAD WIDTH: 250.00mm
RISER HEIGHT: 162.29mm
BALUSTRADING REQUIRED TO A CHANGE OF LEVEL GREATER THAN 1000mm & TO BE A MIN. OF 865mm HIGH AT TREAD NOSING & 1000mm HIGH AT LANDINGS WITH NO GAPS IN BALUSTRADING GREATER THAN 125mm.

ALL WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS

NOTE:
REFER TO STRUCTURAL DRAWINGS, DETAILS & COMPUTATIONS FOR ALL STRUCTURAL MEMBER LOCATIONS & SIZES.

VICTORIAN BUILDING AUTHORITY REGISTERED Building Practitioner

Design Matters National

DIAL 1100 BEFORE YOU DIG

PROPOSED BUILDING WORKS FOR

SALVA HOLDINGS PTY LTD, AT,

LOT 230, 35 HOTHLYN DRIVE,
CRAIGIEBURN, VIC 3064

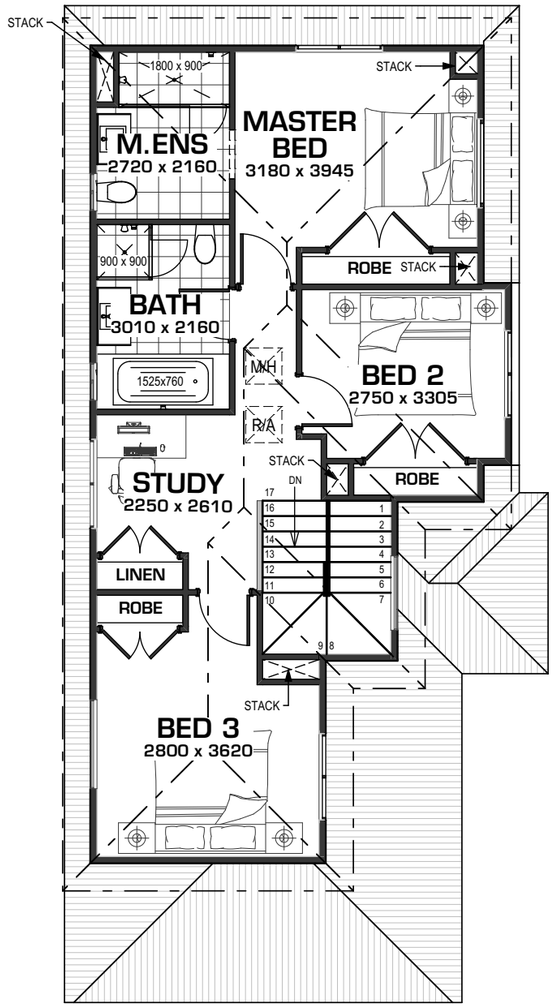
No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

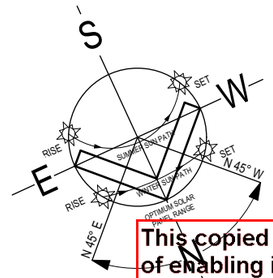
CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

DRAWINGS PRODUCED BY:

Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 10 of 25





PROPOSED UNIT 2 - FIRST FLOOR PLAN

SCALE 1:100

NOTE: FIRST FLOOR R2.5 BETWEEN POSI-TRUSSES
EXTERNAL WALLS R2.5 (EXCLUDING GARAGE)
INTERNAL WALLS R2.5 (GARAGE, LAUNDRY AND BATHROOM) ROOF R5.0

NOTE: GARAGE ACCESS DOOR INTO DWELLING TO BE FITTED WITH SEAL TO RESTRICT AIR INFILTRATION IN ACCORDANCE WITH PART 13.4.4 OF THE NCC 2022 VOL.2.

NOTE: ALL GLAZING TO BE IN ACCORDANCE WITH AS1288 & AS2047

NOTE: A VAPOR PERMEABLE MEMBRANE TO BE INSTALLED IN ACCORDANCE WITH AS 4200.2 TO EXTERNAL WALLS.

NOTE: ALL WET AREAS TO BE MECHANICALLY VENTILATED AS PER NCC 10.8.2
ENSUITE EXHAUST: MIN 25L/s

WATER STOPS AS PER AS3740

NOTE: PROVIDE NOGGINS TO ADJACENT ROBE SHELVING AT 1700mm ABOVE FL TO SIDE OF TOWEL RAIL TO FIX SHELVING.
LINEN AND PANTRY SHELFING TO HAVE NOGGINS INSTALLED IN INCREMENTS AS PER SHELVING DETAILS.

LEGEND:

FLOOR BOARDS

FLOOR TILES

GROUND FLOOR:
EXTERNAL FRAME - 43LM
INTERNAL FRAME - 23LM

FIRST FLOOR:
EXTERNAL FRAME - 40LM
INTERNAL FRAME - 38LM

WET AREAS:
TO HAVE IMPERVIOUS FLOOR & WALL TILE FINISH AS PER PLAN

SMOKE ALARMS:
TO BE INSTALLED ADJACENT TO THE BEDROOMS & TO BE HARDWIRED. SMOKE ALARMS TO BE INTERCONNECTED IN ACCORDANCE WITH NCC CLAUSE 9.5.1)

DOWNPIPES:
TO BE PROVIDED AT 1 PER 60m2 OF ROOF AREA & NO MORE THAN 12m CENTRES MAX. EXCLUDING BOX GUTTER AND RAINHEADS.
TEMPORARY DOWNPIPES TO BE INSTALLED BEFORE DOWNPIPES ARE CONNECTED (TO PREVENT PONDING NEXT TO THE SLAB).

TIMBER FRAME: REFER TO TABLE

DOORS & WINDOWS:
ALL GROUND FLOOR INTERNAL DOORS TO BE **2040mm** HIGH HOLLOW CORE.
FIRST FLOOR INTERNAL DOORS TO BE **2040mm** HIGH HOLLOW CORE.
DOORS BY WIDTH AS INDICATED ON PLAN.
FRONT ENTRY DOORS TO BE HOLLOW CORE.
ALL WATER CLOSETS TO HAVE REMOVABLE HINGES TO DOORS IF LESS THAN 1.2m CLEARANCE BETWEEN THE CLOSET PAN & THE DOOR SWING.
PROVIDE RESTRICTIVE WINDERS 125mm MAX. TO FULL OPENABLE WINDOWS WHICH ARE 2.0m ABOVE N.G.L.

STEPS & STAIRS:
ALL INTERNAL & EXTERNAL STEPS SHALL BE A MIN. OF 250mm WIDE WITH A MAX RISER OF 190mm HIGH.
TIMBER STAIR WITH NON-SLIP TREADS OR NOSING IN ACCORDANCE WITH TABLE 11.2.4 OF THE NCC.
CARPET STAIR WITH NON-SLIP TREADS OR NOSING IN ACCORDANCE WITH TABLE 11.2.4 OF THE NCC.
PORCH STEPDOWN TO BE 190mm MAX. AFTER INSTALLATION OF PAVING/TILING & BEFORE OCCUPANCY PERMIT.
STAIRS TO BE CONSTRUCTED AS BELOW:
TREAD WIDTH: 250.00mm
RISER HEIGHT: 162.29mm
BALUSTRADING REQUIRED TO A CHANGE OF LEVEL GREATER THAN 1000mm & TO BE A MIN. OF 865mm HIGH AT TREAD NOSING & 1000mm HIGH AT LANDINGS WITH NO GAPS IN BALUSTRADING GREATER THAN 125mm.

ALL WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS

NOTE:
REFER TO STRUCTURAL DRAWINGS, DETAILS & COMPUTATIONS FOR ALL STRUCTURAL MEMBER LOCATIONS & SIZES.

VICTORIAN BUILDING AUTHORITY REGISTERED Building Practitioner

Design Matters National

DIAL1100 BEFORE YOU DIG

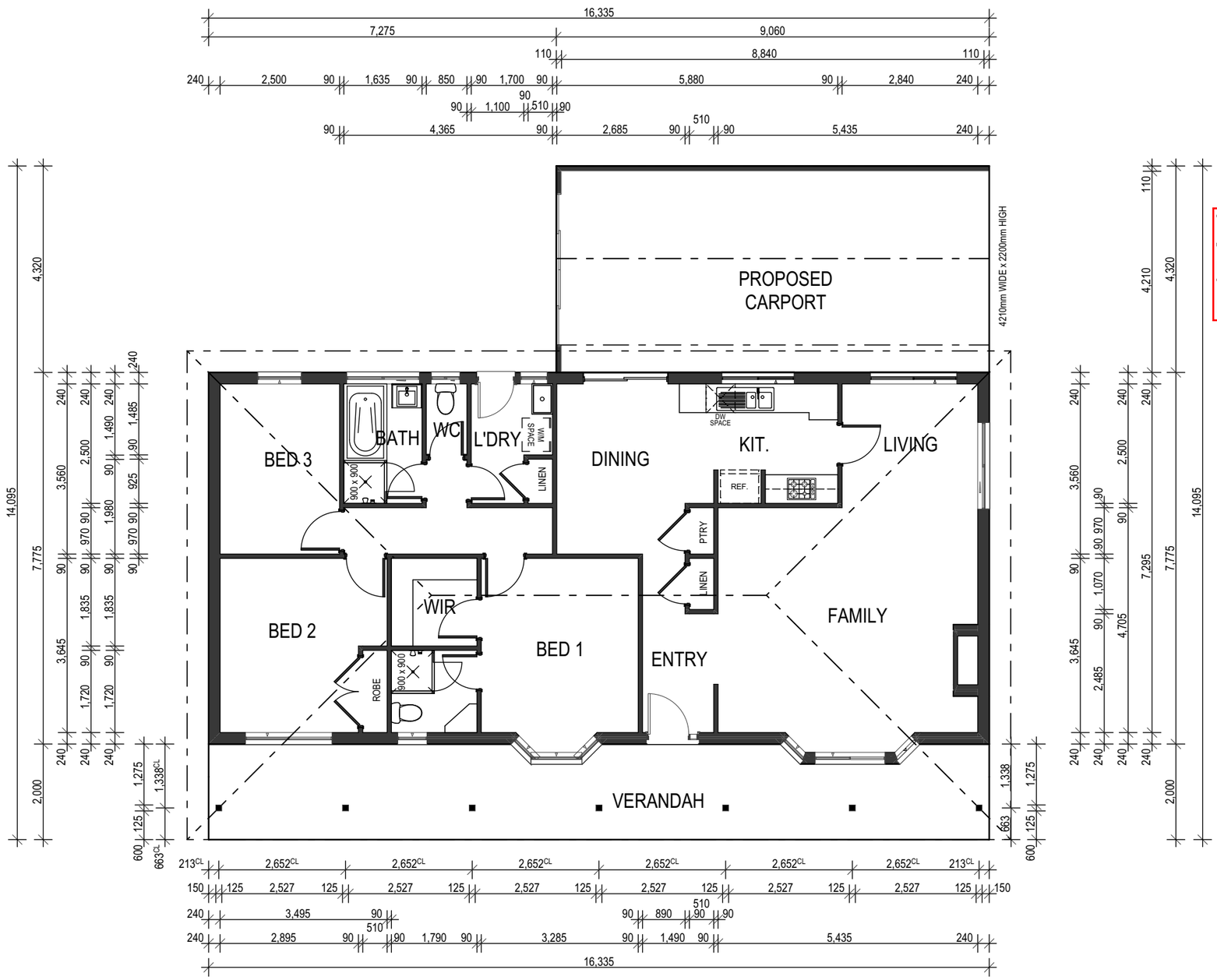
PROPOSED BUILDING WORKS FOR
SALVA HOLDINGS PTY LTD, AT,
LOT 230, 35 HOTHLYN DRIVE,
CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

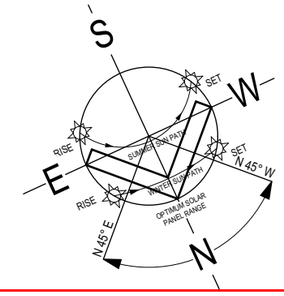
DRAWINGS PRODUCED BY:
Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 11 of 25



UNIT 1 - FLOOR PLAN - PROPOSED

SCALE 1:100



NOTE: FIRST FLOOR R2.5 BETWEEN POSI-TRUSSES EXTERNAL WALLS R2.5 (EXCLUDING GARAGE) INTERNAL WALLS R2.5 (GARAGE, LAUNDRY AND BATHROOM) ROOF R5.0

NOTE: GARAGE ACCESS DOOR INTO DWELLING TO BE FITTED WITH SEAL TO RESTRICT AIR INFILTRATION IN ACCORDANCE WITH PART 13.4.4 OF THE NCC 2022 VOL.2.

NOTE: ALL GLAZING TO BE IN ACCORDANCE WITH AS1288 & AS2047

NOTE: A VAPOR PERMEABLE MEMBRANE TO BE INSTALLED IN ACCORDANCE WITH AS 4200.2 TO EXTERNAL WALLS.

ENSUITE EXHAUST: MIN 25L/s AS PER NCC 10.8.2

WATER STOPS AS PER AS3740

NOTE: PROVIDE 1 SHELVING TO ADJACENT ROBE SHELVING AT 1700mm ABOVE FL TO SIDE OF TOWEL RAIL. FIX SHELVING.
LINEN AND PANTRY SHELFING TO HAVE NOGGINS INSTALLED IN INCREMENTS AS PER SHELVING DETAILS.

LEGEND:

FLOOR BOARDS

FLOOR TILES

GROUND FLOOR:
EXTERNAL FRAME - 43LM
INTERNAL FRAME - 23LM

FIRST FLOOR:
EXTERNAL FRAME - 40LM
INTERNAL FRAME - 38LM

WET AREAS:
TO HAVE IMPERVIOUS FLOOR & WALL TILE FINISH AS PER PLAN

SMOKE ALARMS:
TO BE INSTALLED ADJACENT TO THE BEDROOMS & TO BE HARDWIRED. SMOKE ALARMS TO BE INTERCONNECTED IN ACCORDANCE WITH NCC CLAUSE 9.5.1)

DOWNPIPES:
TO BE PROVIDED AT 1 PER 60m2 OF ROOF AREA & NO MORE THAN 12m CENTRES MAX. EXCLUDING BOX GUTTER AND RAINHEADS.
TEMPORARY DOWNPIPES TO BE INSTALLED BEFORE DOWNPIPES ARE CONNECTED (TO PREVENT PONDING NEXT TO THE SLAB).

TIMBER FRAME: REFER TO TABLE

DOORS & WINDOWS:
ALL GROUND FLOOR INTERNAL DOORS TO BE **2040mm** HIGH HOLLOW CORE.
FIRST FLOOR INTERNAL DOORS TO BE **2040mm** HIGH HOLLOW CORE.
DOORS BY WIDTH AS INDICATED ON PLAN.
FRONT ENTRY DOORS TO BE HOLLOW CORE.
ALL WATER CLOSETS TO HAVE REMOVABLE HINGES TO DOORS IF LESS THAN 1.2m CLEARANCE BETWEEN THE CLOSET PAN & THE DOOR SWING.
PROVIDE RESTRICTIVE WINDERS 125mm MAX. TO FULL OPENABLE WINDOWS WHICH ARE 2.0m ABOVE N.G.L.

STEPS & STAIRS:
ALL INTERNAL & EXTERNAL STEPS SHALL BE A MIN. OF 250mm WIDE WITH A MAX RISER OF 190mm HIGH.
TIMBER STAIR WITH NON-SLIP TREADS OR NOSING IN ACCORDANCE WITH TABLE 11.2.4 OF THE NCC.
CARPET STAIR WITH NON-SLIP TREADS OR NOSING IN ACCORDANCE WITH TABLE 11.2.4 OF THE NCC.
PORCH STEPDOWN TO BE 190mm MAX. AFTER INSTALLATION OF PAVING/TILING & BEFORE OCCUPANCY PERMIT.
STAIRS TO BE CONSTRUCTED AS BELOW:
TREAD WIDTH: 250.00mm
RISER HEIGHT: 162.29mm
BALUSTRADING REQUIRED TO A CHANGE OF LEVEL GREATER THAN 1000mm & TO BE A MIN. OF 865mm HIGH AT TREAD NOSING & 1000mm HIGH AT LANDINGS WITH NO GAPS IN BALUSTRADING GREATER THAN 125mm.

ALL WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS

NOTE:
REFER TO STRUCTURAL DRAWINGS, DETAILS & COMPUTATIONS FOR ALL STRUCTURAL MEMBER LOCATIONS & SIZES.

VICTORIAN BUILDING AUTHORITY REGISTERED Building Practitioner

Design Matters National

DIAL 1100 BEFORE YOU DIG

PROPOSED BUILDING WORKS FOR

SALVA HOLDINGS PTY LTD, AT,

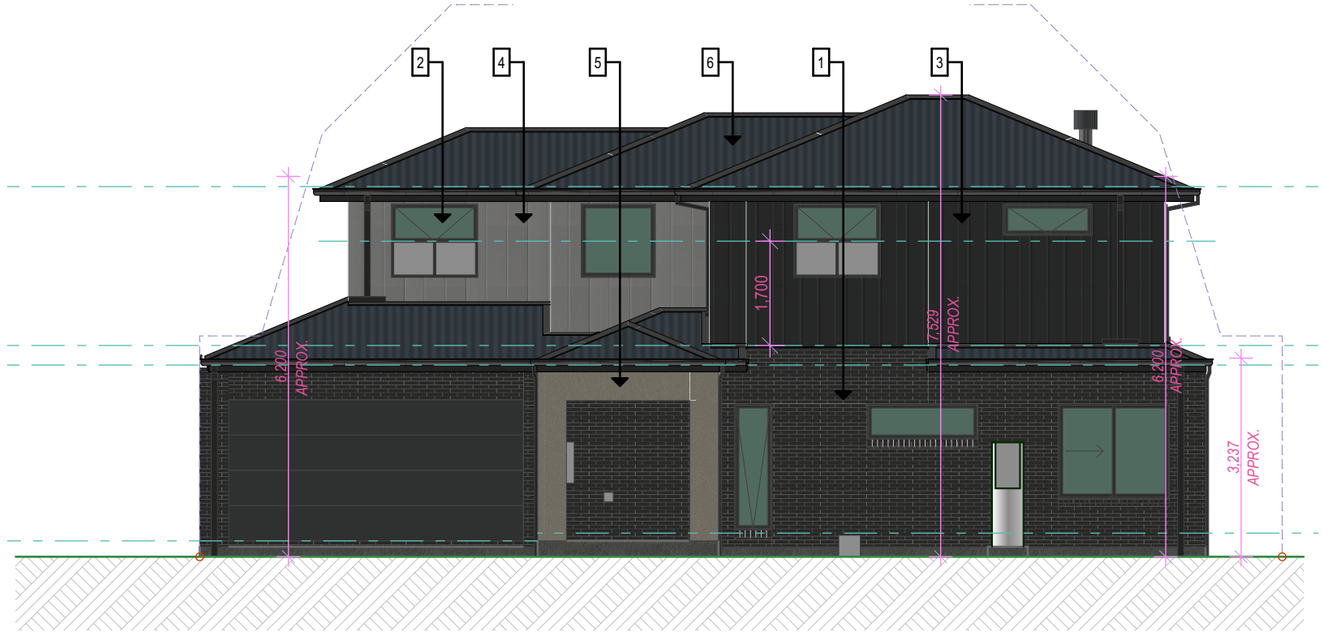
LOT 230, 35 HOTHLYN DRIVE, CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

DRAWINGS PRODUCED BY: Pezzimenti Designs

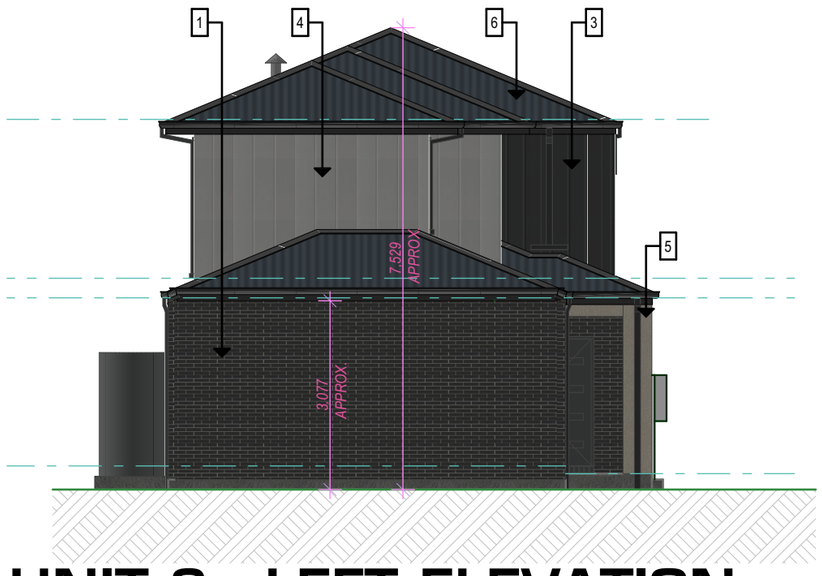
DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 12 of 25



UNIT 2 - FRONT ELEVATION

SCALE 1:100

WEST

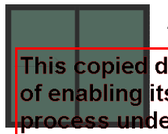
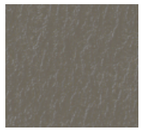


UNIT 2 - LEFT ELEVATION

SCALE 1:100

NORTH

MATERIAL SCHEDULE

1		MORNING MIST BRICK (AUSTRAL BRICKS)
2		ALUMINIUM WINDOWS & DOOR FRAMES INCLUDING GARAGE MONUMENT COLOUR
3		JAMES HARDIE VERTICAL CEMENT SHEET CLADDING - MONUMENT COLOUR
4		JAMES HARDIE VERTICAL CEMENT SHEET CLADDING - SILKWORT COLOUR
5		DULUX SILKWORT RENDERED PILLARS
6		COLORBOND ROOF, GUTTER & DOWNPIPES - MONUMENT COLOUR

VICTORIAN BUILDING AUTHORITY REGISTERED Building Practitioner

Design Matters National

DIAL 1100 BEFORE YOU DIG

PROPOSED BUILDING WORKS FOR

SALVA HOLDINGS PTY LTD, AT,

LOT 230, 35 HOTHLYN DRIVE,
CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

DRAWINGS PRODUCED BY:

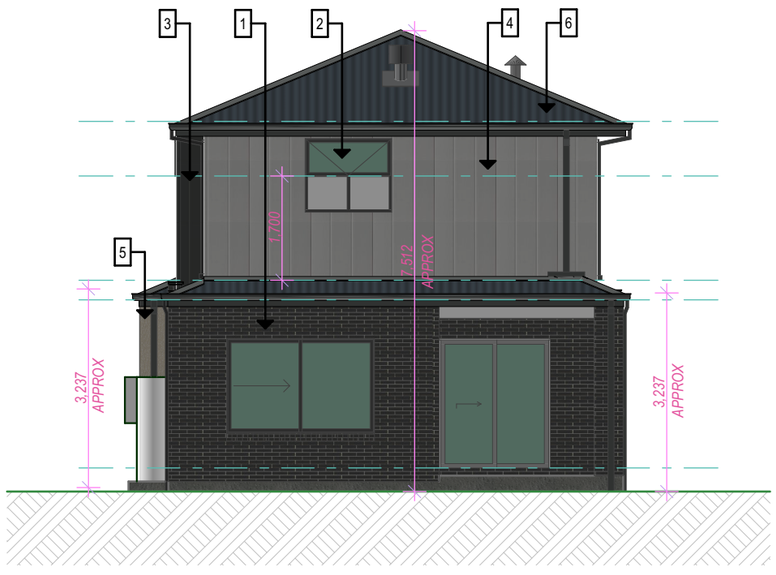
Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 13 of 25

UNIT 2 - REAR ELEVATION

SCALE 1:100

EAST

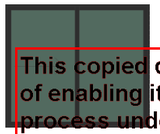
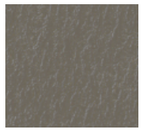


UNIT 2 - RIGHT ELEVATION

SCALE 1:100

SOUTH

MATERIAL SCHEDULE

1		MORNING MIST BRICK (AUSTRAL BRICKS)
2		ALUMINIUM WINDOWS & DOOR FRAMES INCLUDING GARAGE MONUMENT COLOUR
3		JAMES HARDIE VERTICAL CEMENT SHEET CLADDING - MONUMENT COLOUR
4		JAMES HARDIE VERTICAL CEMENT SHEET CLADDING - SILKWORT COLOUR
5		DULUX SILKWORT RENDERED PILLARS
6		COLORBOND ROOF, GUTTER & DOWNPIPES - MONUMENT COLOUR

VICTORIAN BUILDING AUTHORITY REGISTERED Building Practitioner

Design Matters National

DIAL 1100 BEFORE YOU DIG

PROPOSED BUILDING WORKS FOR

SALVA HOLDINGS PTY LTD, AT,

LOT 230, 35 HOTHLYN DRIVE,
CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

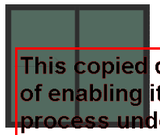
CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

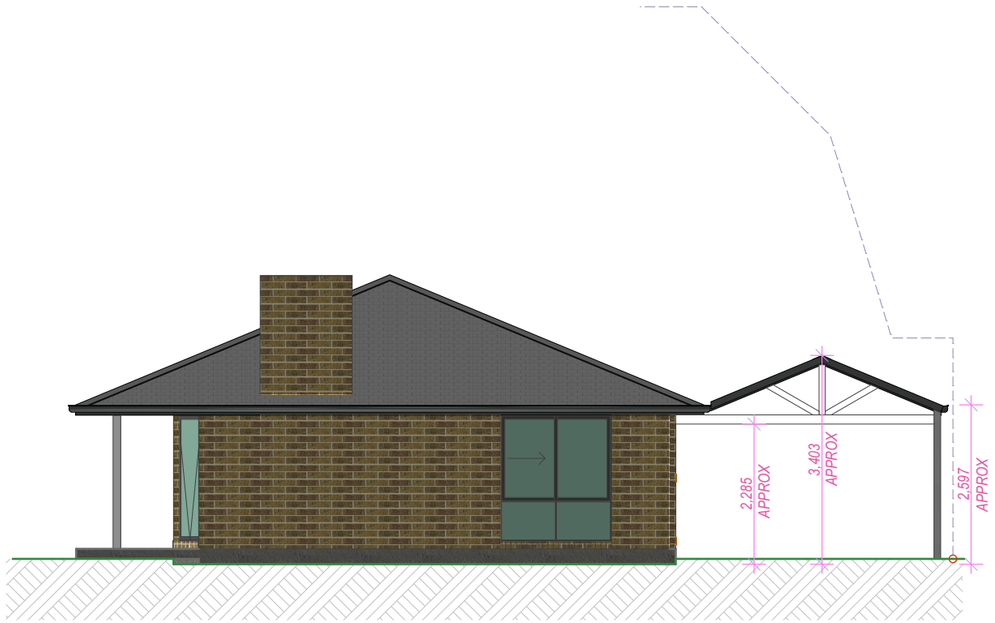
DRAWINGS PRODUCED BY:

Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 14 of 25

MATERIAL SCHEDULE

1		EXISTING BRICK VENEER TEXTURE AND COLOUR
2		ALUMINIUM WINDOWS & DOOR FRAMES INCLUDING GARAGE MONUMENT COLOUR



UNIT 1 - FRONT ELEVATION - PROPOSED

SCALE 1:100

WEST

UNIT 1 - REAR ELEVATION - PROPOSED

SCALE 1:100

EAST

VICTORIAN BUILDING AUTHORITY REGISTERED Building Practitioner

Design Matters National

DIAL 1100 BEFORE YOU DIG

PROPOSED BUILDING WORKS FOR

SALVA HOLDINGS PTY LTD, AT,

LOT 230, 35 HOTHLYN DRIVE,
CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

DRAWINGS PRODUCED BY: Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 15 of 25

UNIT 1 - LEFT ELEVATION - PROPOSED

SCALE 1:100

NORTH

UNIT 1 - RIGHT ELEVATION - PROPOSED

SCALE 1:100

SOUTH

MATERIAL SCHEDULE

1		EXISTING BRICK VENEER TEXTURE AND COLOUR
2		ALUMINIUM WINDOWS & DOOR FRAMES INCLUDING GARAGE MONUMENT COLOUR

PROPOSED BUILDING WORKS FOR

SALVA HOLDINGS PTY LTD, AT,

LOT 230, 35 HOTHLYN DRIVE, CRAIGIEBURN, VIC 3064

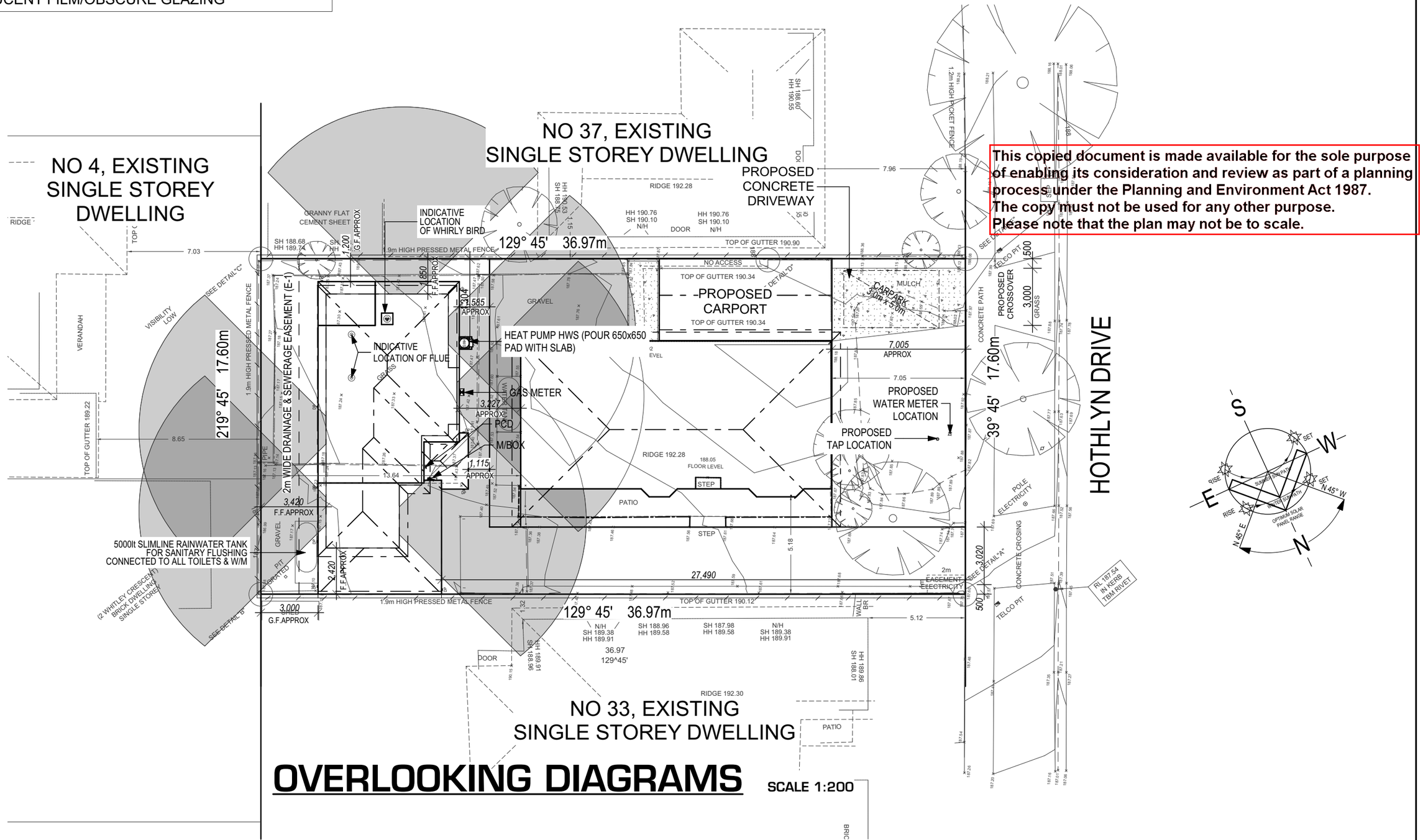
No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

DRAWINGS PRODUCED BY: Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 16 of 25

NOTE: ALL HABITABLE WINDOWS TO THE FIRST FLOOR TO BE OVERLOOKING APPROVED OR PROVIDE TRANSLUCENT FILM/OBSCURE GLAZING



OVERLOOKING DIAGRAMS

SCALE 1:200

PROPOSED BUILDING WORKS FOR

SALVA HOLDINGS PTY LTD, AT,

LOT 230, 35 HOTHLYN DRIVE, CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

DRAWINGS PRODUCED BY: Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 17 of 25

ENTRANCE DOOR SCHEDULE				
ID	D-1	D-2	D-3	D-4
Outside View				
Height	2,110	2,110	2,110	2,040
Width	1,045	865	865	820
Type	Feature Timber Entry Door With Clear Glass	Timber door with Single Glazing	Timber	Timber
Head Option	Brick	Brick	Brick	Plastered Studwall
Location	Entry	Laundry	Garage	Garage/Laundry

SLIDING DOOR SCHEDULE	
ID	SD-1
Outside View	
Height	2,110
Width	1,810
Head Height	2,110
Type	Sliding
Head Option	Brick
Location	Kitchen/Alfresco

GROUND FLOOR WINDOW SCHEDULE					
ID	Wind-1	Wind-2	Wind-3	Wind-4	Wind-5
Outside View					
Height	2,057	580	1,543	1,543	580
Width	610	1,810	1,810	2,410	2,100
Head Height	2,110	2,110	2,110	2,110	1,550
Type	Awning (Double Glazed)	Fixed (Double Glazed)	Sliding (Double Glazed)	Sliding (Double Glazed)	Fixed (Double Glazed)
Head Option	Brick	Brick	Brick	Brick	Brick
Location	ENTRY	FAMILY	MEALS	MEALS	KITCHEN

FIRST FLOOR WINDOW SCHEDULE									
ID	Wind-6	Wind-7	Wind-8	Wind-9	Wind-10	Wind-11	Wind-12	Wind-13	Wind-14
Outside View									
Height	1,200	1,200	1,200	514	1,200	1,027	1,027	1,200	514
Width	1,410	1,210	1,410	1,450	1,410	610	610	1,450	1,450
Head Height	2,310	2,310	2,310	2,310	2,310	2,310	2,310	2,310	2,310
Type	Overlooking (Double Glazed)Awning Window With Translucent Glazing	Fixed Window (Double Glazed)	Overlooking(Double Glazed)Awning Window With Translucent Glazing	Awning (Double Glazed)	Overlooking (Double Glazed) Awning Window With Translucent Glazing	Sliding (Single Glazed)	Sliding (Single Glazed)	Overlooking (Double Glazed) Awning Window With Translucent Glazing	Awning (Double Glazed)
Head Option	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Location	BED 3	STAIRCASE	BED 2	MASTER BED	MASTER BED	ENS	BATH	STUDY	BED 3

PROPOSED BUILDING WORKS FOR

SALVA HOLDINGS PTY LTD, AT,

LOT 230, 35 HOTHLYN DRIVE,
CRAIGIEBURN, VIC 3064

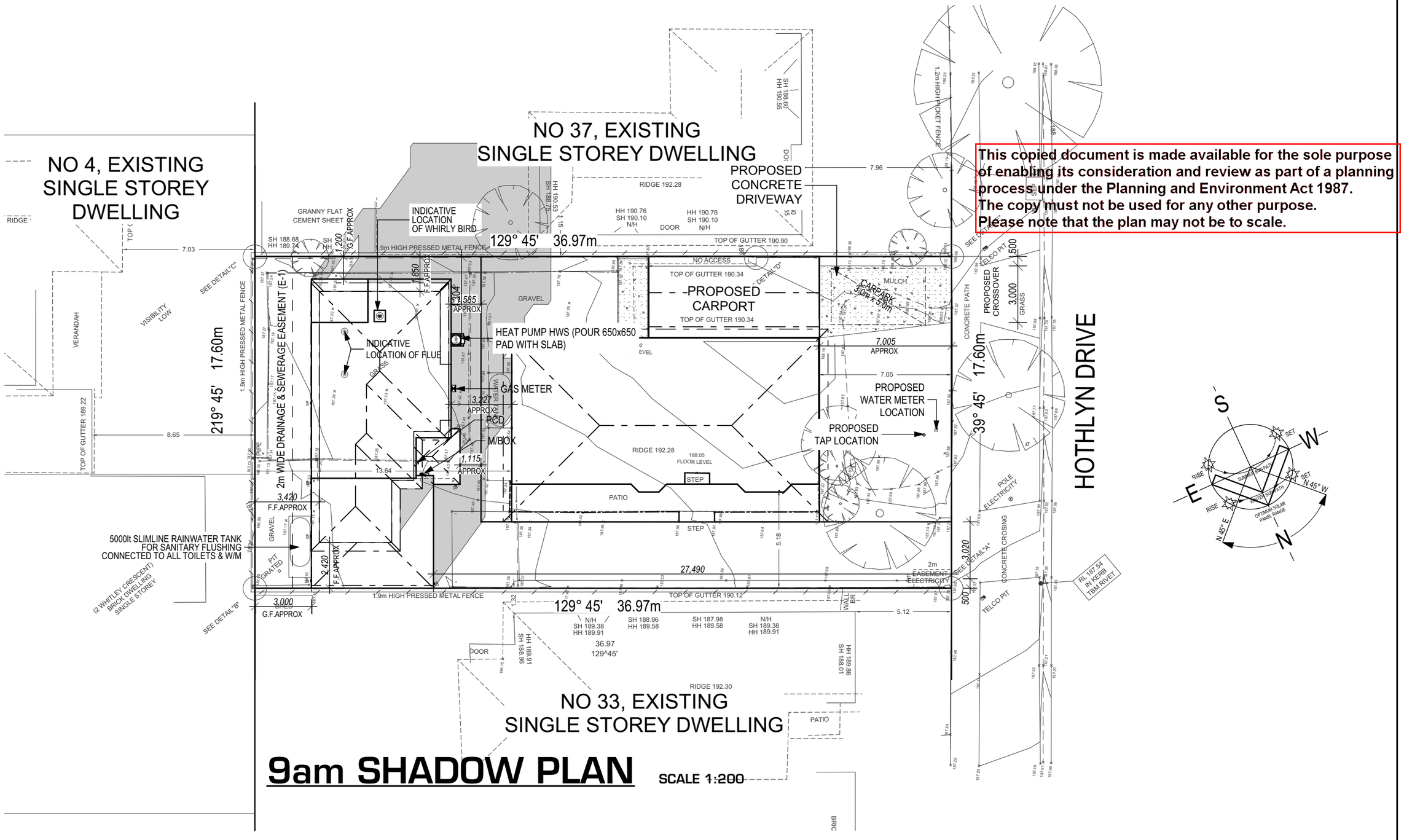
No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

DRAWINGS PRODUCED BY:

Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 18 of 25



9am SHADOW PLAN

SCALE 1:200

VICTORIAN BUILDING AUTHORITY REGISTERED Building Practitioner

Design Matters National

DIAL 1100 BEFORE YOU DIG

PROPOSED BUILDING WORKS FOR

SALVA HOLDINGS PTY LTD, AT,

LOT 230, 35 HOTHLYN DRIVE, CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

DRAWINGS PRODUCED BY: Pezzimenti Designs

CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024 | DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 19 of 25

NO 4, EXISTING SINGLE STOREY DWELLING

NO 37, EXISTING SINGLE STOREY DWELLING

NO 33, EXISTING SINGLE STOREY DWELLING

HOTHLYN DRIVE

10am SHADOW PLAN

SCALE 1:200

PROPOSED CONCRETE DRIVEWAY

PROPOSED CARPORT

HEAT PUMP HWS (POUR 650x650 PAD WITH SLAB)

INDICATIVE LOCATION OF FLUE

INDICATIVE LOCATION OF WHIRLY BIRD

GAS METER

PROPOSED WATER METER LOCATION

PROPOSED TAP LOCATION

5000lt SLIMLINE RAINWATER TANK FOR SANITARY FLUSHING CONNECTED TO ALL TOILETS & W/M

2m WIDE DRAINAGE & SEWERAGE EASEMENT (E-1)

1.9m HIGH PRESSED METAL FENCE

1.2m HIGH PICKET FENCE

129° 45' 36.97m

219° 45' 17.60m

39° 45' 17.60m

RIDGE 192.28

RIDGE 192.30

TOP OF GUTTER 190.90

TOP OF GUTTER 190.34

TOP OF GUTTER 190.12

TOP OF GUTTER 189.22

FLOOR LEVEL 188.05

PATIO

STEP

GRANNY FLAT CEMENT SHEET

GRAVEL

MULCH

CONCRETE PATH

PROPOSED CROSSOVER

GRASS

VERANDAH

VISIBILITY LOW

DOOR

NO ACCESS

SEE DETAIL "A"

SEE DETAIL "B"

SEE DETAIL "C"

SEE DETAIL "D"

(2 WHITLEY CRESCENT) BRICK DWELLING SINGLE STOREY

POLE ELECTRICITY

CONCRETE CROSSING

TELCO PIT

2m EASEMENT ELECTRICITY

RL 187.54 IN KERB TBM RIVET

OPTIMUM SOLAR PANEL RANGE

SUMMER SUN PATH

WINTER SUN PATH

RISE

SET

N 45° W

N 45° E

PROPOSED BUILDING WORKS FOR

SALVA HOLDINGS PTY LTD, AT,

LOT 230, 35 HOTHLYN DRIVE, CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

DRAWINGS PRODUCED BY: Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 20 of 25

NO 4, EXISTING SINGLE STOREY DWELLING

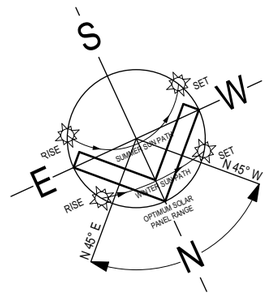
NO 37, EXISTING SINGLE STOREY DWELLING

NO 33, EXISTING SINGLE STOREY DWELLING

HOTHLYN DRIVE

11am SHADOW PLAN

SCALE 1:200



PROPOSED BUILDING WORKS FOR

SALVA HOLDINGS PTY LTD, AT,

LOT 230, 35 HOTHLYN DRIVE, CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

DRAWINGS PRODUCED BY: Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 21 of 25

NO 4, EXISTING SINGLE STOREY DWELLING

NO 37, EXISTING SINGLE STOREY DWELLING

NO 33, EXISTING SINGLE STOREY DWELLING

HOTHLYN DRIVE

PROPOSED CONCRETE DRIVEWAY

PROPOSED CARPORT

INDICATIVE LOCATION OF WHIRLY BIRD

INDICATIVE LOCATION OF FLUE

HEAT PUMP HWS (POUR 650x650 PAD WITH SLAB)

GAS METER

PROPOSED WATER METER LOCATION

PROPOSED TAP LOCATION

5000lt SLIMLINE RAINWATER TANK FOR SANITARY FLUSHING CONNECTED TO ALL TOILETS & W/M

2m WIDE DRAINAGE & SEWERAGE EASEMENT (E-1)

1.9m HIGH PRESSED METAL FENCE

1.2m HIGH PICKET FENCE

129° 45' 36.97m

219° 45' 17.60m

39° 45' 17.60m

12pm SHADOW PLAN

SCALE 1:200

PROPOSED BUILDING WORKS FOR

SALVA HOLDINGS PTY LTD, AT,

LOT 230, 35 HOTHLYN DRIVE, CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

DRAWINGS PRODUCED BY: Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 22 of 25

NO 4, EXISTING SINGLE STOREY DWELLING

NO 37, EXISTING SINGLE STOREY DWELLING

NO 33, EXISTING SINGLE STOREY DWELLING

HOTHLYN DRIVE

1pm SHADOW PLAN

SCALE 1:200

PROPOSED BUILDING WORKS FOR

SALVA HOLDINGS PTY LTD, AT,

LOT 230, 35 HOTHLYN DRIVE, CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

DRAWINGS PRODUCED BY: Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 23 of 25

NO 4, EXISTING SINGLE STOREY DWELLING

NO 37, EXISTING SINGLE STOREY DWELLING

NO 33, EXISTING SINGLE STOREY DWELLING

HOTHLYN DRIVE

129° 45' 36.97m

219° 45' 17.60m

39° 45' 17.60m

PROPOSED CONCRETE DRIVEWAY

PROPOSED CARPORT

HEAT PUMP HWS (POUR 650x650 PAD WITH SLAB)

INDICATIVE LOCATION OF FLUE

INDICATIVE LOCATION OF WHIRLY BIRD

GAS METER

PROPOSED WATER METER LOCATION

PROPOSED TAP LOCATION

5000lt SLIMLINE RAINWATER TANK FOR SANITARY FLUSHING CONNECTED TO ALL TOILETS & W/M

1.9m HIGH PRESSED METAL FENCE

1.2m HIGH PICKET FENCE

2m WIDE DRAINAGE & SEWERAGE EASEMENT (E-1)

2m EASEMENT ELECTRICITY

PROPOSED CROSSOVER

CONCRETE PATH

CONCRETE CROSSING

TELCO PIT

POLE ELECTRICITY

RL 187.54 IN KERB TBM RIVET

OPTIMUM SOLAR PANEL RANGE

SUMMER SUN PATH

WINTER SUN PATH

2pm SHADOW PLAN

SCALE 1:200

PROPOSED BUILDING WORKS FOR

SALVA HOLDINGS PTY LTD, AT,

LOT 230, 35 HOTHLYN DRIVE, CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

DRAWINGS PRODUCED BY: Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 24 of 25

NO 4, EXISTING SINGLE STOREY DWELLING

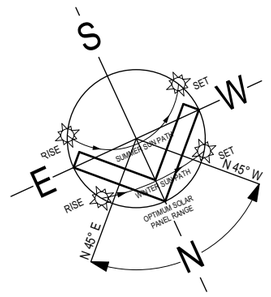
NO 37, EXISTING SINGLE STOREY DWELLING

NO 33, EXISTING SINGLE STOREY DWELLING

HOTHLYN DRIVE

3pm SHADOW PLAN

SCALE 1:200



VICTORIAN BUILDING AUTHORITY REGISTERED Building Practitioner	Design Matters National	DIAL 1100 BEFORE YOU DIG

PROPOSED BUILDING WORKS FOR

SALVA HOLDINGS PTY LTD, AT,

LOT 230, 35 HOTHLYN DRIVE, CRAIGIEBURN, VIC 3064

No.	DATE	AMENDMENTS
6	29.05.2024	SP - AMENDMENTS
7	07.08.2024	SP - COUNCIL RFI
8	27.09.2024	SP - CLIENT AMENDMENTS
9	15.10.2024	SP - COUNCIL RFI (COMBINED GARDEN AREA)
10	25.10.2024	SP - COUNCIL RFI

CONTRACT DATE: 08.02.2024 | W. DRWG DATE: 12.03.2024

DRAWINGS PRODUCED BY: Pezzimenti Designs

DRAWN: SP | MEL. REF.: 387 B1 | SHEET No: 25 of 25

STORM Rating Report

TransactionID: 0

Municipality: HUME

Rainfall Station: HUME

Address: 35 Hothlyn Drive

Craigieburn

VIC 3064

Assessor: [redacted]

Development Type: Residential - Dwelling

Allotment Site (m2): 650.67

STORM Rating %: 101

Description	Impervious Area (m2)	Treatment Type	Treatment Area/Volume (m2 or L)	Occupants / Number Of Bedrooms	Treatment %	Tank Water Supply Reliability (%)
Unit 1 Non-Permeable Surfaces	226.06	Rainwater Tank	5,000.00	3	98.20	100.00
Unit 2 Non-Permeable Surfaces	205.20	Rainwater Tank	5,000.00	3	105.00	99.70

Date Generated: 07-Aug-2024

Program Version: 1.0.0

Pezzimenti Designs

SUSTAINABLE DESIGN ASSESSMENT

PROPOSED RESIDENTIAL DEVELOPMENT

35 HOTHLYN DRIVE, CRAIGIEBURN

SEPTEMBER 2024

Any enquiries regarding the use of this report should be directed to:

Pezzimenti Designs
ABN 49 608 427 290
[redacted]
W: pezzimentidesigns.com.au
E: info@pezzimentidesigns.com.au

1. SUMMARY

This Sustainable Design Assessment (SDA) is intended to support the planning application.

A detailed sustainability review and assessment of the project has been undertaken in accordance with the Hume Council Sustainable Design Assessment in the Planning Process (SDAPP).

The following Key Sustainable Building Categories have been addressed:

1. Indoor Environment Quality
2. Energy Efficiency
3. Water Efficiency
4. Stormwater Management
5. Building Materials
6. Transport
7. Waste Management
8. Urban Ecology
9. Innovation
10. Construction & Building Management

The proposed residential unit will meet the Planning Scheme requirements for Hume. This will ensure an appropriate level of sustainability for the unit and, in doing so, will help manage environmental impact, create benefits for the urban realm and provide occupants with a good level of risk reduction against rising utility costs.

The unit are within an area already well serviced by infrastructure (community, transport, etc.) and will also provide significant sustainability benefits such as the following:

- Efficient lighting.
- Provisions to correctly dispose of recyclable and other waste from the site.
- Ready access to available public transport and cycling.

2. INTRODUCTION

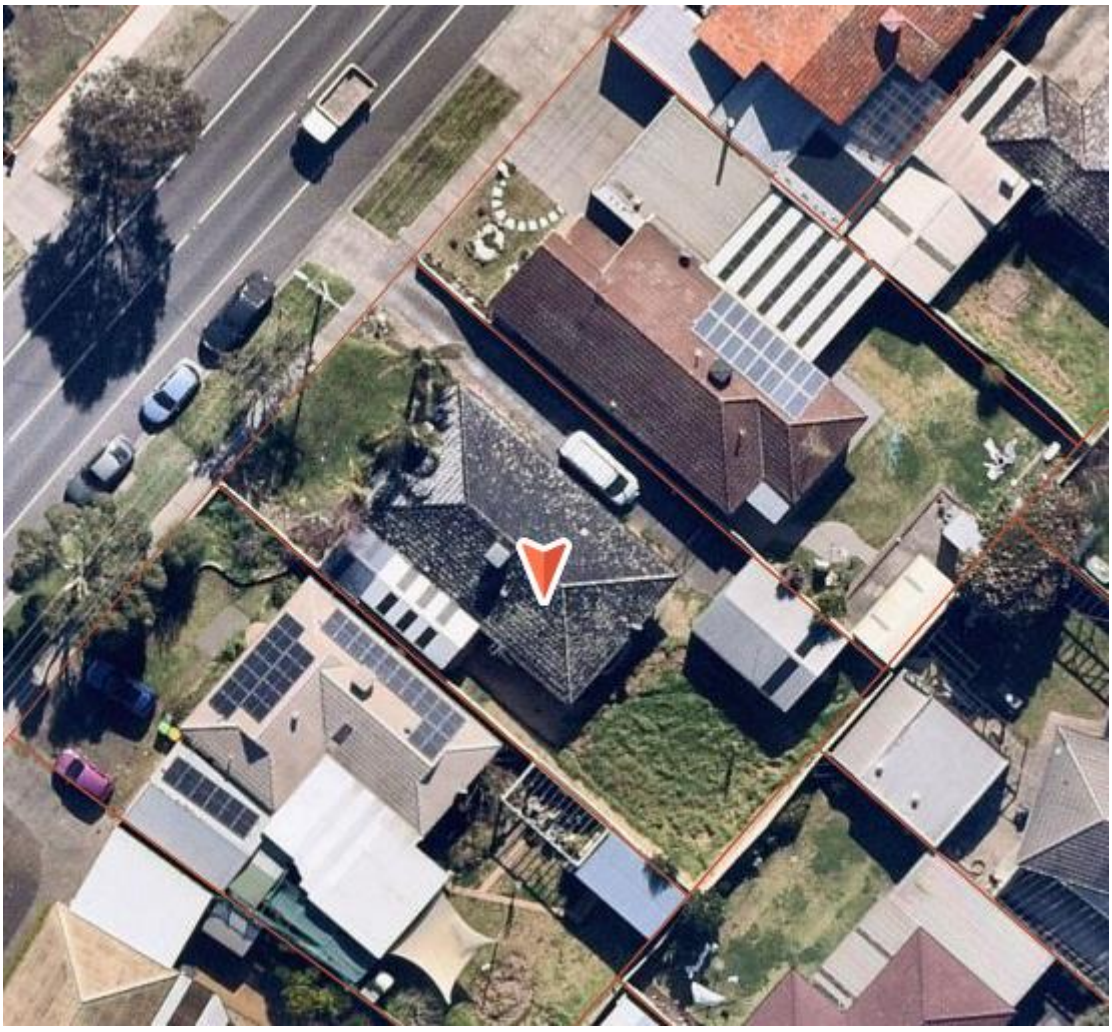
Pezzimenti Designs has been engaged by Salva Holdings to identify and provide sustainability advice in relation to the proposed residential dwellings at 35 Hothlyn Drive, Craigieburn.

This report was based on plans produced by Pezzimenti Designs:

Drawing No.	Description	Revision	Date
1-2	General Notes	7	07 August 2024
3-9	Site & Landscape plans	7	07 August 2024
10-12	Proposed Ground Floor Plan	7	07 August 2024
13-15	Elevations	7	07 August 2024
16	Overlooking Diagrams	7	**07 August 2024**
17	Window & Door Schedules	7	**07 August 2024**
18-24	Shadow Diagrams	7	**07 August 2024**

2.1. SITE DESCRIPTION

The current development site contains a dwelling. The total site is approximately 650 m^2.



An aerial photo showing the location of the site and surrounding is presented above

2.2. BUILDING ELEMENTS

The proposed development comprises of an additional dwelling to the rear of the existing one.

Level	Use
Ground floor	• Garage, Kitchen, Family, Laundry & Powder Room
First floor	• Bedrooms, Study, Bath & Ensuite

3. KEY ESD INITIATIVES

The following key ESD initiatives have been incorporated into this project:

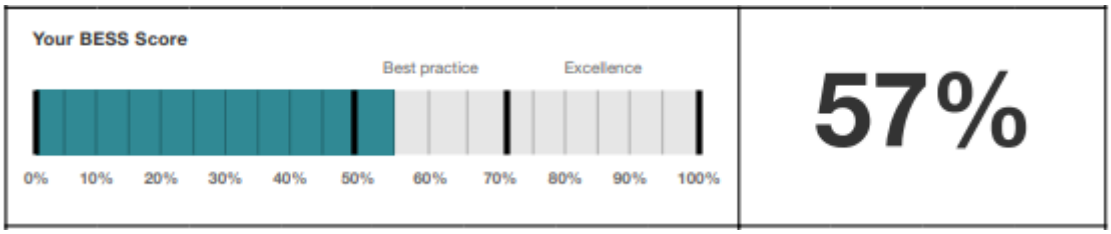
- Efficient air conditioning
- Materials selections to be in accordance with ESD principles.
- Rainwater harvesting for toilet flushing and irrigation.
- Renewable energy system: solar hot water system.

An assessment of sustainable design outcomes of the proposed development has been undertaken with BESS, STORM and FirstRate (Version 5) benchmarking tools.

The BESS results are summarized below:

3.1. BESS

BESS scores for the development are summarized in the following chart.



Please refer to Appendix 3 for details of the BESS results.

4. ESD CATEGORIES

Design criteria	Design response/Performance Commitments Additional Notes
Indoor Environmental Quality	
Daylight / Solar exposure	All habitable rooms have excellent access to natural daylight.
Thermal Comfort	Thermal comfort for occupants will be enhanced by the specification of high performance glazing and adequate insulation combined with high efficiency inverter drive air conditioning units.
Natural Ventilation	All living rooms and bedrooms have access to natural ventilation. Operable windows are located in all habitable rooms and exceed BCA windows opening sizes requirement. There will be cross-flow ventilation. Ventilation openings are located in opposite of the unit with no more than 1 doorway between the ventilation openings.
Noise Attenuation	The inclusion of adequate insulation to external and internal walls/floors and double glazing windows to the unit will buffer excessive noise generated by traffic, neighbours and hard surfaces.
Volatile Organic Compounds	At least 95% of all internal painted surfaces will meet the Total Volatile Organic Compound (TVOC) Content. Low VOC paints will be specified in accordance with the VOC limits set out in the requirements of Credit IEQ-13.1 Indoor Pollutant of the Green Star Design & As Built Version 1.1.
Energy Efficiency	
Building Design	The following sustainable design features have been integrated into the design of the development: • Specification of high performance glazing to all new windows/glazed door to reduce excessive summer heat gain and winter heat loss.
Energy Rating	The proposed residential unit has achieved an average energy rating of 6.0 stars. The development preliminary energy rating achieved meets the NCC 2022 energy efficiency requirements for Class 1 dwellings. Refer to Appendix 2 for details of preliminary energy rating details.
Heating & Cooling	Reverse cycle split systems within a star of the best available will be installed in the unit to provide heating and cooling. Non star-rated unit will have performance co-efficient with similar relative efficiency within the range of products commercially available. Product listings and energy efficiency performance information is located at **www.energyrating.gov.au**
Domestic Hot Water	Domestic hot water will be provided by a heat pump hot water system with highly insulated pipe work to minimise parasitic heat loss.

Lighting	Energy efficient lighting systems will be installed throughout including: • LED lighting (within 4W/m^2). • An energy efficient external lighting system comprising LED or compact fluorescent lighting. • An energy efficient car space lighting system comprising LED or compact fluorescent lighting. All external area lighting will be controlled through motion/daylight sensor. Also external lighting will be designed to avoid light spill to the night sky.
Clothes Line	Private outdoor clothes line will be provided.
Garage Ventilation	All garages are naturally ventilated.
Water Management	
Rainwater Harvesting	Details about rainwater harvesting system proposed for the unit are listed below: • Collection area: All roof areas • 5,000 litres tank to dwelling • Re-use of water for toilet flushing. • Re-use of water for irrigation.
Water Efficient Appliance	Water efficient appliances (where appliances are provided by the developer) will be specified within 1 WELS star of the best available at the time of specification. This includes dishwashers and any other appliances using water.
Water Efficient fittings	Water efficient fittings will be specified in accordance with the following minimum performance standard as rated by the Water Efficiency Labeling Scheme (WELS) • Toilets minimum 4 stars WELS rated. • Tap minimum 5 star WELS rated. • Showers minimum 3 star WELS rated (maximum 7.5L/min).
Stormwater Management	
Stormwater Quality	The development achieves a STORM score of 101%. Rainwater tanks connected to toilets are required to meet the STORM requirement. The STORM score attained demonstrates that the development meets the Best Practice Standard for Urban Stormwater. Refer to Appendix 2 for the STORM report.
Building Materials	

Concrete	Concrete used to construct the dwellings will be specified so that it has reduced the absolute quantity of Portland cement as an average across all concrete mixes, which at the same time will reduce embodied energy by substituting it with industrial waste product(s) or oversized aggregate as follows: • 30% for in situ concrete • 20% for precast concrete • 10%for stressed concrete Non-structural concrete will not use natural aggregate. Note that this is subject to meeting structural requirements and project management constraints.
Timber	All feature timber used in the extension will be recycled or from accredited sustainably harvested plantation sources (FSC or AFS). Note that this is subject to meeting structural requirements and project management constraints.
Flooring	Flooring will be selected from Ecospecifier or will have GECA or ISO14001 Certification. Note that this is subject to meeting structural requirements and project management constraints.
Paint	All interior paints will be low VOC type. Low VOC paints will be specified in accordance with the VOC limits set out in the requirements of Credit IEQ-13.1 Indoor Pollutant of the Green Star Design & As Built Version 1.1.
Sustainable Transport	
Bicycle Racks	Adequate facilities to promote cycling to residents will be provided within the dwellings. Sufficient storage area for 1 bicycle within garages.
Public Transport Access	This site is well serviced by various forms of public transport including rail. These provide access to a number of various places throughout the Hume municipality as well as the CBD and outer suburbs. • Closest train station: Craigieburn train station, which is within 1.0 km of the development.
Urban Ecology	
Topsoil Retention	During construction, topsoil on the site will be removed and re-used beneficially on site.
Landscape	Landscaping has been integrated into the building design. This feature will enhance the ecological value of the development. Drought tolerant plants will be used.

Waste Management	
Operational Waste Management	The following waste management facilities is provided for each dwelling: • 1 x 120 litre bin for general waste. • 1 x 240 litre bin for recyclables. Recyclables and general wastes are collected by the regular Council collection services.
Construction Waste Minimisation	A target recycling rate of 80% of construction and demolition waste has been adopted for the construction phase of the development to minimise the volume of waste to landfill. This will be achieved by the development of a comprehensive waste minimisation strategy including: • Separation of all commercially viable recyclable waste streams. • Training in waste minimisation for all site staff and contractors to form part of site induction training. • Record keeping of landfill waste and recyclable stream volumes to track performance against the 80% recyclable target. A dedicated recycling contractor will be engaged to facilitate separation of commercially viable recyclable waste streams in accordance with the target adopted.

5. CONCLUSION

This report presents the environmentally sustainable design (ESD) principles, strategies and mechanism of proposed residential dwellings at 35 Hothlyn Drive, Craigieburn. Integrated passive and active sustainable design will aid in the delivery of an energy efficient, water efficient and healthy building.

In terms of performance outcomes, the analysis presented in this report demonstrates that the proposed development meets the standard of residential building envelope energy efficiency required to satisfy the Building Code of Australia. Furthermore, the combination of design features and services initiatives meets all the standards of the BESS assessment.

Accordingly the sustainable design outcomes detailed in this report are considered to be consistent with current industry practice for a residential development of this scale.

Yours faithfully,

[redacted]
Director
PEZZIMENTI DESIGNS

_____

Appendix 1: STORM Result

Melbourne Water STORM Rating Report

TransactionID: 0
Municipality: HUME
Rainfall Station: HUME
Address: 35 Hothlyn Drive

Craigieburn
VIC 3064

Assessor: [redacted]
Development Type: Residential - Dwelling
Allotment Site (m2): 650.67
STORM Rating %: 101

Description	Impervious Area (m2)	Treatment Type	Treatment Area/Volume (m2 or L)	Occupants / Number Of Bedrooms	Treatment %	Tank Water Supply Reliability (%)
Unit 1 Non-Permeable Surfaces	226.06	Rainwater Tank	5,000.00	3	98.20	100.00
Unit 2 Non-Permeable Surfaces	205.20	Rainwater Tank	5,000.00	3	105.00	99.70

Date Generated: 07-Aug-2024 Program Version: 1.0.0

Appendix 2: Energy Rating

6 Star Energy Rating Report

Unit 2, 35 Hothlyn Drive, Craigieburn

Revision	
A:	18th September 2024
B:	19th September 2024

Job Details	
Rating Achieved:	**6.0 Stars**
Date:	19th September 2024
Project:	New Residence
Client:	Salva Holdings Pty Ltd
Plan Reference:	387 B1 prepared by Design Matters
Assessor:	Rob Iacono
Job Number:	240811

Climate Region	Location Region	Max Heating load limit (MJ/m² annum)	Max Cooling load limit (MJ/m² annum)	Total (MJ/m² annum)
60	Tullamarine	126	31	138
Project Values		**115.5**	**20.9**	**136.4**

Heating and cooling values are representative of Waffle Pod construction

Insulation Requirements	
Ground Floor:	Waffle Pod, no additional insulation required
First Floor:	**R2.5** insulation installed between all posi-trusses
External Walls:	**R2.5** (excluding garage) + foil
Internal Walls:	**R2.5** to all garage, laundry and bathroom internal walls
External Roof:	**R5.0** (excluding garage)

Glazing Requirements

Aluminium framed singled-glazed

Hinged Door U-Value: 6.7 SHGC: 0.57

- D2

Sliding Window U-Value: 6.7 SHGC: 0.7

- W11, W12

Aluminium framed double-glazed

Awning U-Value: 4.5 SHGC: 0.50

- W01, W06, W08, W09, W10, W13, W14

Sliding Window & Door/Fixed U-Value: 4.5 SHGC: 0.61

- W02, W03, W04, W05, W07, SD1

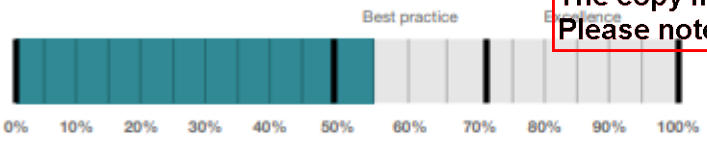
BESS Report

Built Environment Sustainability Scorecard

This BESS report outlines the sustainable design commitments of the proposed development at 35 Hothlyn Dr Craigieburn Victoria 3064. The BESS report and accompanying documents and evidence are submitted in response to the requirement for a Sustainable Design Assessment or Sustainability Management Plan at Hume City Council.

Note that where a Sustainability Management Plan is required, the BESS report must be accompanied by a report that further demonstrates the development's potential to achieve the relevant environmental performance [illegible] outcomes can be achieved.

Your BESS Score

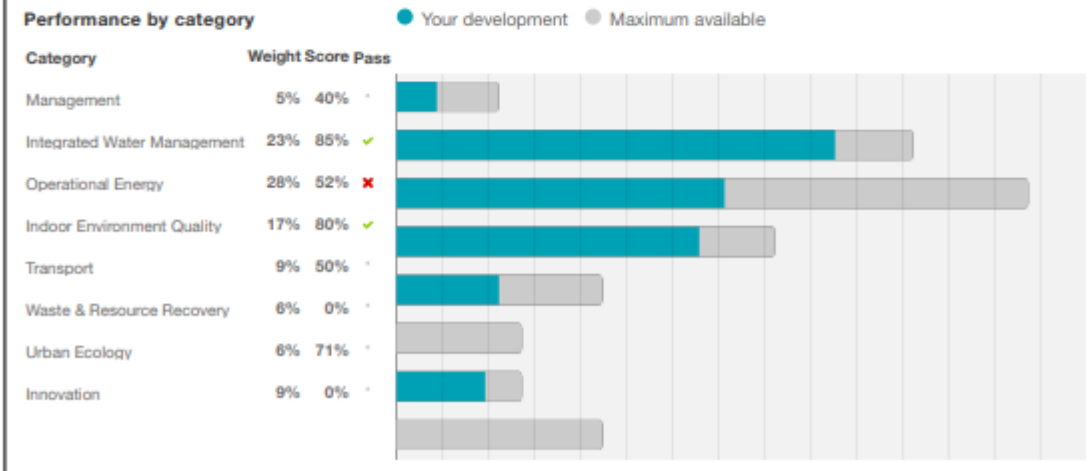


57%

Project details

Address	35 Hothlyn Dr Craigieburn Victoria 3064
Project no	6DE47C77-R2
BESS Version	BESS-9
Site type	Single dwelling
Account	michael.dalgleish15@gmail.com
Application no.	P26024
Site area	300.00 m²
Building floor area	117.00 m²
Date	19 September 2024
Software version	2.0.0-B.559

Performance by category



Dwellings & Non Res Spaces

Dwellings

Name	Quantity	Area	% of total area
Detached dwelling			
Dwelling	1	117 m²	100%
Total	**1**	**117 m²**	**100%**

Supporting information

Floorplans & elevation notes

Credit	Requirement	Response	Status
Integrated Water Management 2.1	Location of any stormwater management systems (rainwater tanks, raingardens, buffer strips)	To be printed	✔
Operational Energy 3.3	Annotation: External lighting controlled by motion sensors	To be printed	✔
Operational Energy 3.4	Location of clothes line (if proposed)	To be printed	✔
Indoor Environment Quality 2.2	Annotation: Dwellings designed for 'natural cross flow ventilation' (If not all dwellings, include a list of compliant dwellings)	To be printed	✔
Indoor Environment Quality 3.1	Annotation: Glazing specification (U-value, SHGC)	To be printed	✔
Indoor Environment Quality 3.2	Shading devices	To be printed	✔
Transport 1.1	Location of residential bicycle parking spaces	To be printed	✔
Urban Ecology 2.1	Location and size of vegetated areas	To be printed	✔
Urban Ecology 3.1	Location of food production areas	To be printed	✔

Supporting evidence

Credit	Requirement	Response	Status
Management 2.1	Preliminary NatHERS assessment	To be printed Energy Rating Report	✔
Integrated Water Management 2.1	STORM report or MUSIC model	To be printed Storm Calculations	✔
Operational Energy 3.5	Average lighting power density and lighting type(s) to be used	To be printed Working Drawings	✔
Indoor Environment Quality 2.2	A list of dwellings with natural cross flow ventilation	To be printed Working Drawings	✔
Indoor Environment Quality 3.1	Reference to floor plans or energy modelling showing the glazing specification (U-value and Solar Heat Gain Coefficient, SHGC)	To be printed Working Drawings	✔
Indoor Environment Quality 3.2	Reference to floor plans and elevations showing shading devices	To be printed Working Drawings	✔

Credit summary

Management Overall contribution 4.5%

		40%	
1.1 Pre-Application Meeting		0%	
2.1 Thermal Performance Modelling - Single Dwelling		100%	

IWM Overall contribution 22.5%

		65%	Pass
1.1 Potable Water Use		100%	✔ Achieved
2.1 Stormwater Treatment		100%	✔ Achieved
3.1 Water Efficient Landscaping		0%	

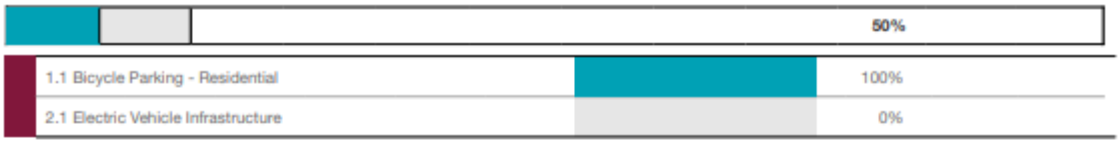
Energy Overall contribution 27.5%

	Minimum required 50%	52%	✔ Pass
1.2 Thermal Performance Rating - Residential		0%	✖ Not Achieved
2.1 Greenhouse Gas Emissions		100%	
2.6 Electrification		0%	⊘ Disabled
Credit is available when the energy supply is set to all-electric (no gas or wood).			
2.7 Energy consumption		100%	
3.3 External Lighting		100%	
3.4 Clothes Drying		100%	
3.5 Internal Lighting - Houses and Townhouses		100%	
4.4 Renewable Energy Systems - Other		N/A	◇ Scoped Out
No other (non-solar PV) renewable energy is in use.			
4.5 Solar PV - Houses and Townhouses		0%	⊘ Disabled
No solar PV renewable energy is in use.			

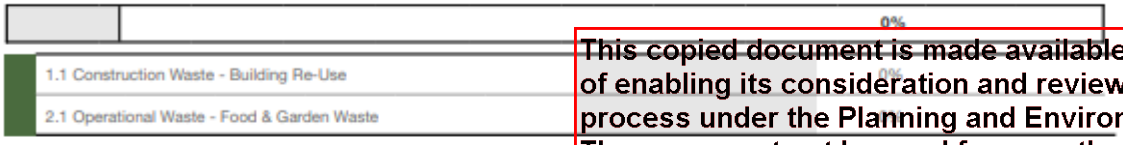
IEQ Overall contribution 16.5%

	Minimum required 50%	80%	✔ Pass
2.2 Cross Flow Ventilation		100%	
3.1 Thermal comfort - Double Glazing		100%	
3.2 Thermal Comfort - External Shading		100%	
3.3 Thermal Comfort - Orientation		0%	

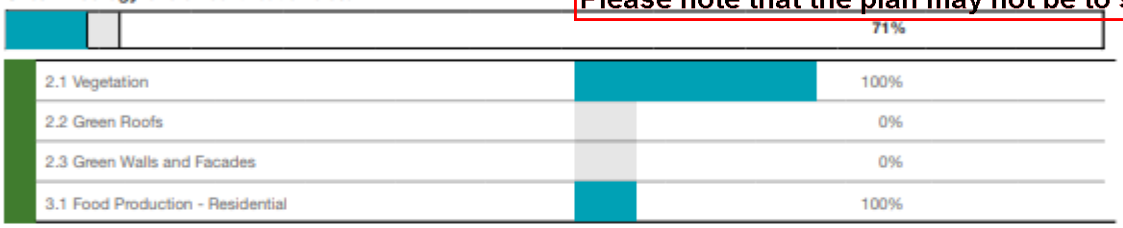
Transport Overall contribution 9.0%



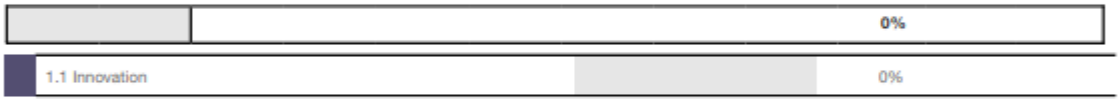
Waste Overall contribution 5.5%



Urban Ecology Overall contribution 5.5%



Innovation Overall contribution 9.0%



Credit breakdown

Management Overall contribution 2%

1.1 Pre-Application Meeting		0%
Score Contribution	This credit contributes 60% towards the category score.	
Criteria	Has an ESD professional been engaged to provide sustainability advice from schematic design to construction? AND Has the ESD professional been involved in a pre-application meeting with Council?	
Question	Criteria Achieved ?	
Project	No	
2.1 Thermal Performance Modelling - Single Dwelling		100%
Score Contribution	This credit contributes 40% towards the category score.	
Criteria	Has a preliminary NatHERS rating been undertaken?	
Question	Criteria Achieved ?	
Detached dwelling	Yes	

Integrated Water Management

Overall contribution 19% Minimum required 0%

Do you have a reticulated third pipe or an on-site water recycling system?:	No
Are you installing a swimming pool?:	No
Stormwater profile	
Which stormwater modelling software are you using?:	Melbourne Water STORM tool
STORM score achieved:	101
Flow:	
Total Suspended Solids:	
Total Phosphorus:	
Total Nitrogen:	
Rainwater tank profile	
What is the total roof area connected to the rainwater tank?: Rainwater Tank 1	118 m²
Tank Size: Rainwater Tank 1	5,000 Litres
Irrigation area connected to tank: Rainwater Tank 1	52.8 m²
Is connected irrigation area a water efficient garden?: Rainwater Tank 1	Yes
Other external water demand connected to tank?: Rainwater Tank 1	50.0 Litres/Day
Fixtures, fittings & connections profile	
Showerhead:	4 Star WELS (>= 4.5 but <= 6.0)
Bath:	Medium Sized Contemporary Bath
Kitchen Taps:	>= 5 Star WELS rating
Bathroom Taps:	>= 5 Star WELS rating
Dishwashers:	>= 5 Star WELS rating
WC:	>= 5 Star WELS rating
Urinals:	Scope out
Washing Machine Water Efficiency:	>= 5 Star WELS rating
Which non-potable water source is the dwelling/space connected to?:	Rainwater Tank 1
Non-potable water source connected to Toilets:	Yes
Non-potable water source connected to Laundry (washing machine):	Yes
Non-potable water source connected to Hot Water System:	No

1.1 Potable Water Use		76%	✔ Achieved
Score Contribution	This credit contributes 33.3% towards the category score.		
Criteria	What is the reduction in total potable water use due to efficient fixtures, appliances, rainwater use and recycled water use? To achieve points in this credit there must be >25% potable water reduction.		
Output	Reference		
Project	220 kL		
Output	Proposed (excluding [illegible])		
Project	163 kL		
Output	Proposed (including [illegible])		
Project	104 kL		
Output	% Reduction in Potable Water Consumption		
Project	52 %		
Output	% of connected demand met by rainwater		
Project	90 %		
Output	How often does the tank overflow?		
Project	Very Often		
Output	Opportunity for additional rainwater connection		
Project	31 kL		
2.1 Stormwater Treatment		100%	✔ Achieved
Score Contribution	This credit contributes 60% towards the category score.		
Criteria	Has best practice stormwater management been demonstrated?		
Output	Min STORM Score		
Project	100		
Output	STORM Score		
Project	101		
3.1 Water Efficient Landscaping		0%	
Score Contribution	This credit contributes 6.7% towards the category score.		
Criteria	Will water efficient landscaping be installed?		
Question	Criteria Achieved ?		
Project	No		

Operational Energy

Overall contribution 15% Minimum required 50%

Are you installing any renewable energy system(s) (other than solar photovoltaic)?:	No
Energy Supply:	Electricity & Natural Gas
Dwellings profile	
Below the floor is:	Ground or Carpark
Above the ceiling is:	Outside
Exposed sides:	
NatHERS Annual Energy Loads - Heat:	
NatHERS Annual Energy Loads - Cool:	
NatHERS star rating:	
Type of Heating System:	
Heating System Efficiency:	3 Stars (2019 MEPS)
Type of Cooling System:	No air conditioning
Cooling System Efficiency:	Current Default / MEPS
Type of Hot Water System:	Electric Heat Pump Band 1
% Contribution from solar hot water system:	< 1 %
Clothes Line:	Private outdoor clothesline
Clothes Dryer:	Occupant to install

1.2 Thermal Performance Rating - Residential 0% ✖ Not Achieved

Score Contribution	This credit contributes 17.6% towards the category score.
Criteria	What is the average NatHERS rating?
Output	Average NATHERS Rating (Weighted)
Detached dwelling	6.0 Stars

2.1 Greenhouse Gas Emissions 100%

Score Contribution	This credit contributes 17.6% towards the category score.
Criteria	What is the % reduction in annual greenhouse gas emissions against the benchmark?
Output	Reference Building with Reference Services (BCA only)
Detached dwelling	2,735 kg CO2
Output	Proposed Building with Proposed Services (Actual Building)
Detached dwelling	1,752 kg CO2
Output	% Reduction in GHG Emissions
Detached dwelling	35 %

2.6 Electrification 0% ⊘ Disabled

This credit is disabled	Credit is available when the energy supply is set to all-electric (no gas or wood).

2.7 Energy consumption		100%	
Score Contribution	This credit contributes 23.5% towards the category score.		
Criteria	What is the % reduction in annual energy consumption against the benchmark?		
Output	Reference Building with Reference Services (BCA only)		
Detached dwelling	24,443 MJ		
Output	Proposed Building with Proposed Services (Actual Building)		
Detached dwelling	7,983 MJ		
Output	% Reduction in total e		
Detached dwelling	67 %		
3.3 External Lighting			
Score Contribution	This credit contributes 2.9% towards the category score.		
Criteria	Is the external lighting controlled by a motion detector?		
Question	Criteria Achieved ?		
Detached dwelling	Yes		
3.4 Clothes Drying		100%	
Score Contribution	This credit contributes 5.9% towards the category score.		
Criteria	What is the % reduction in annual energy consumption (gas and electricity) from a combination of clothes lines and efficient driers against the benchmark?		
Output	Reference		
Detached dwelling	509 kWh		
Output	Proposed		
Detached dwelling	102 kWh		
Output	Improvement		
Detached dwelling	80 %		
3.5 Internal Lighting - Houses and Townhouses		100%	
Score Contribution	This credit contributes 2.9% towards the category score.		
Criteria	Does the development achieve a maximum illumination power density of 4W/sqm or less?		
Question	Criteria Achieved?		
Detached dwelling	Yes		
4.4 Renewable Energy Systems - Other		N/A	◇ Scoped Out
This credit was scoped out	No other (non-solar PV) renewable energy is in use.		
4.5 Solar PV - Houses and Townhouses		0%	⊘ Disabled
This credit is disabled	No solar PV renewable energy is in use.		

Indoor Environment Quality

Overall contribution 13% Minimum required 50%

2.2 Cross Flow Ventilation		100%
Score Contribution	This credit contributes 20% towards the category score.	
Criteria	Are all habitable rooms designed to achieve natural cross flow ventilation?	
Question	Criteria Achieved ?	
Detached dwelling	Yes	
3.1 Thermal comfort - Double Glazing		100%
Score Contribution	This credit contributes [illegible]	
Criteria	Is double glazing (or [illegible]	
Question	Criteria Achieved ?	
Detached dwelling	Yes	
3.2 Thermal Comfort - External Shading		100%
Score Contribution	This credit contributes 20% towards the category score.	
Criteria	Is appropriate external shading provided to east, west and north facing glazing?	
Question	Criteria Achieved ?	
Detached dwelling	Yes	
3.3 Thermal Comfort - Orientation		0%
Score Contribution	This credit contributes 20% towards the category score.	
Criteria	Are at least 50% of main living areas orientated to the north?	
Question	Criteria Achieved ?	
Detached dwelling	No	

Transport

Overall contribution 4%

1.1 Bicycle Parking - Residential		100%
Score Contribution	This credit contributes 50% towards the category score.	
Criteria	How many secure and undercover bicycle spaces are there for residents?	
Question	Bicycle Spaces Provided ?	
Detached dwelling	2	
Output	Min Bicycle Spaces Required	
Detached dwelling	1	
2.1 Electric Vehicle Infrastructure		0%
Score Contribution	This credit contributes 50% towards the category score.	
Criteria	Are facilities provided for the charging of electric vehicles?	
Question	Criteria Achieved ?	
Project	No	

Waste & Resource Recovery Overall contribution 0%

1.1 Construction Waste - Building Re-Use		0%
Score Contribution	This credit contributes 50% towards the category score.	
Criteria	If the development is on a site that has been previously developed, has at least 30% of the existing building been re-used?	
Question	Criteria Achieved ?	
Project	No	
2.1 Operational Waste - Food & Garden Waste		0%
Score Contribution	This credit contributes [illegible]	
Criteria	Are facilities provided [illegible]	
Question	Criteria Achieved ?	
Project	No	

Urban Ecology Overall contribution 4%

2.1 Vegetation		100%
Score Contribution	This credit contributes 57.1% towards the category score.	
Criteria	How much of the site is covered with vegetation, expressed as a percentage of the total site area?	
Question	Percentage Achieved ?	
Project	31 %	
2.2 Green Roofs		0%
Score Contribution	This credit contributes 14.3% towards the category score.	
Criteria	Does the development incorporate a green roof?	
Question	Criteria Achieved ?	
Project	No	
2.3 Green Walls and Facades		0%
Score Contribution	This credit contributes 14.3% towards the category score.	
Criteria	Does the development incorporate a green wall or green façade?	
Question	Criteria Achieved ?	
Project	No	
3.1 Food Production - Residential		100%
Score Contribution	This credit contributes 14.3% towards the category score.	
Criteria	What area of space per resident is dedicated to food production?	
Question	Food Production Area	
Detached dwelling	4.0 m²	
Output	Min Food Production Area	
Detached dwelling	1 m²	

Innovation Overall contribution 0%

1.1 Innovation		0%
Score Contribution	This credit contributes 100% towards the category score.	
Criteria	What percentage of the Innovation points have been claimed (10 points maximum)?	

Pezzimenti Designs

PLANNING REPORT

ALTERATION TO EXISTING AND PROPOSED SECOND DWELLING

35 HOTHLYN DRIVE, CRAIGIEBURN

MAY 2024

1. INTRODUCTION

This planning application proposes the conversion of an Alfresco area for the existing dwelling at 35 Hothlyn Drive, Craigieburn 3064 into a Carport, along with the addition of a concrete driveway and crossover. It also proposes the construction of a second double-storey dwelling at the rear of the property, utilising the existing crossover & driveway.

Attached with this application are the following plans prepared by Pezzimenti Designs:

- Site Plan,
- Existing Plans,
- Proposed Plans,
- Elevations.
- Overlooking Diagrams
- Overshadowing Diagrams

This application has been assessed against the Hume Planning Scheme and is appropriate to the site.

2. SITE CONTEXT

The subject site is at 35 Hothlyn Drive, Craigieburn 3064, and is on the east side of the street. The property is regular in shape comprising an area of 650.67m2, with its frontage being 17.60m and a depth of 36.97m.

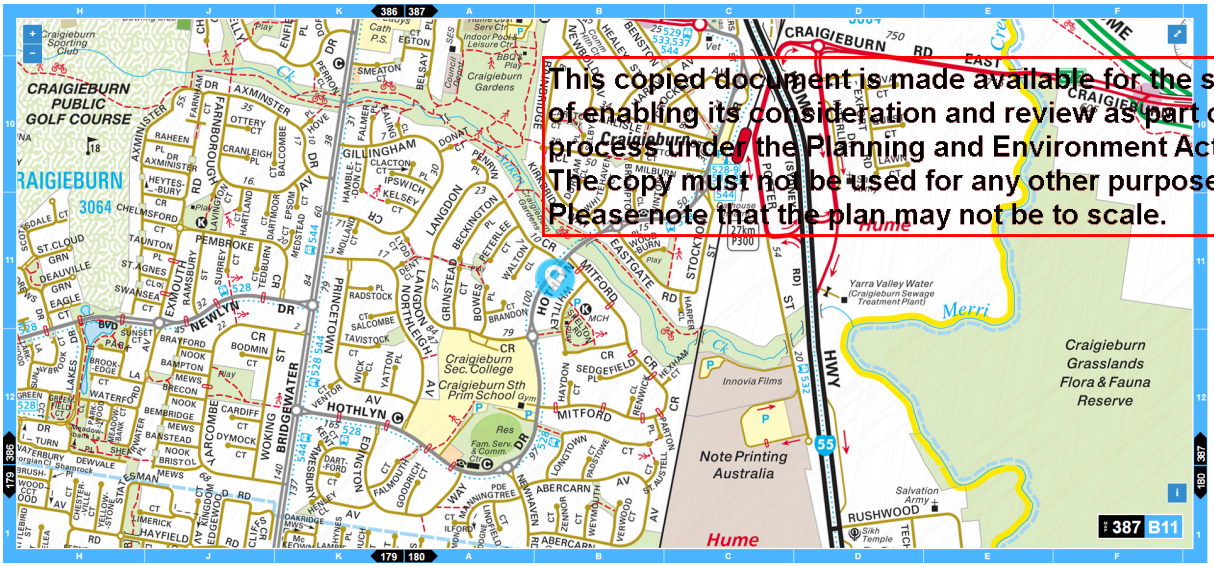


Figure 1: Locality Map (Source: Melways)

The site is located 40km from Melbourne Central Business District & 770m to the Hume Highway. The title description is Lot 230 LP 115133. The site features a 2m wide drainage & sewer easement along the rear boundary. This easement is not impacted by the proposed works.

The site comprises a bungalow-style single-storey brick dwelling with a side-facing entrance, an undercover porch, and a tiled roof. It has a concrete driveway running along the west boundary with a detached metal shed/garage to the rear of the site. The dwelling has a 7.05m front setback and is located on the south side boundary.

Neighbourhood Description

The street is comprised of brick dwellings of various eras with a mix of single and double-storey homes. Some properties on the street are already comprised of subdivided lots and dual dwellings, as per this proposal.

Adjacent Buildings and Outbuildings

The area is primarily residential. Build form, site access and car parking conditions within neighbouring properties are consistent with the prevailing style.

No 33 to the west and No 37 to the east are of a similar size as the subject land, each with double crossover and driveway access.

Figure 2: No 35 Hothlyn Drive Craigieburn (Source: Nearmap)

Figure 3: No 35 Hothlyn Drive Craigieburn (Source: Google Maps)

3. THE PROPOSAL

This permit application proposes the addition of a formed concrete vehicle crossover and driveway along the east boundary of the property, along with the conversion of an existing Alfresco area into a Carport.

It also proposes the addition of a second double-storey dwelling to the rear of the site, accessed via the existing formed concrete vehicle crossover and driveway. This addition is largely in the location of an existing metal shed/garage and a grassed area to the rear of the site. The additional dwelling comprises an area of 117.84m2 with three Bedrooms, 2.5 Bathrooms, a Study Nook, Laundry, Open Plan Living / Dining / Kitchen, Double Garage, Front Porch & Alfresco.

The existing dwelling comprising of 3 Bedrooms, 2.5 Bathrooms, Laundry, Kitchen, Dining, Living & Family with Verandah remains as is with the only alteration of the introduction of a Carport to suit the existing Alfresco structure.

The Pezzimenti Designs drawings sheet 5 includes a site summary that outlines the site coverage of the existing & proposed dwelling being under 50% of the total site.

The proposed dwelling comprises a Ground Floor brick veneer with rendered brick pillars to the Entry and a composite of James Hardie lightweight claddings to the First Floor with colorbond roofing.

4. HUME PLANNING SCHEME

4.1 Zone & Overlays

Zoned General Residential; schedule 1 applies (GRZ1).

The site is zoned General Residential Zone, Schedule 1: “Minimal Change Areas”. The key Purpose of the Zone affecting this application is:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To achieve residential development that respects the existing neighbourhood character or which contributes to a preferred neighbourhood character.
- To encourage residential development that provides reasonable standards of amenity for existing and new residents.
- To encourage residential development that is responsive to the site and the neighbourhood.

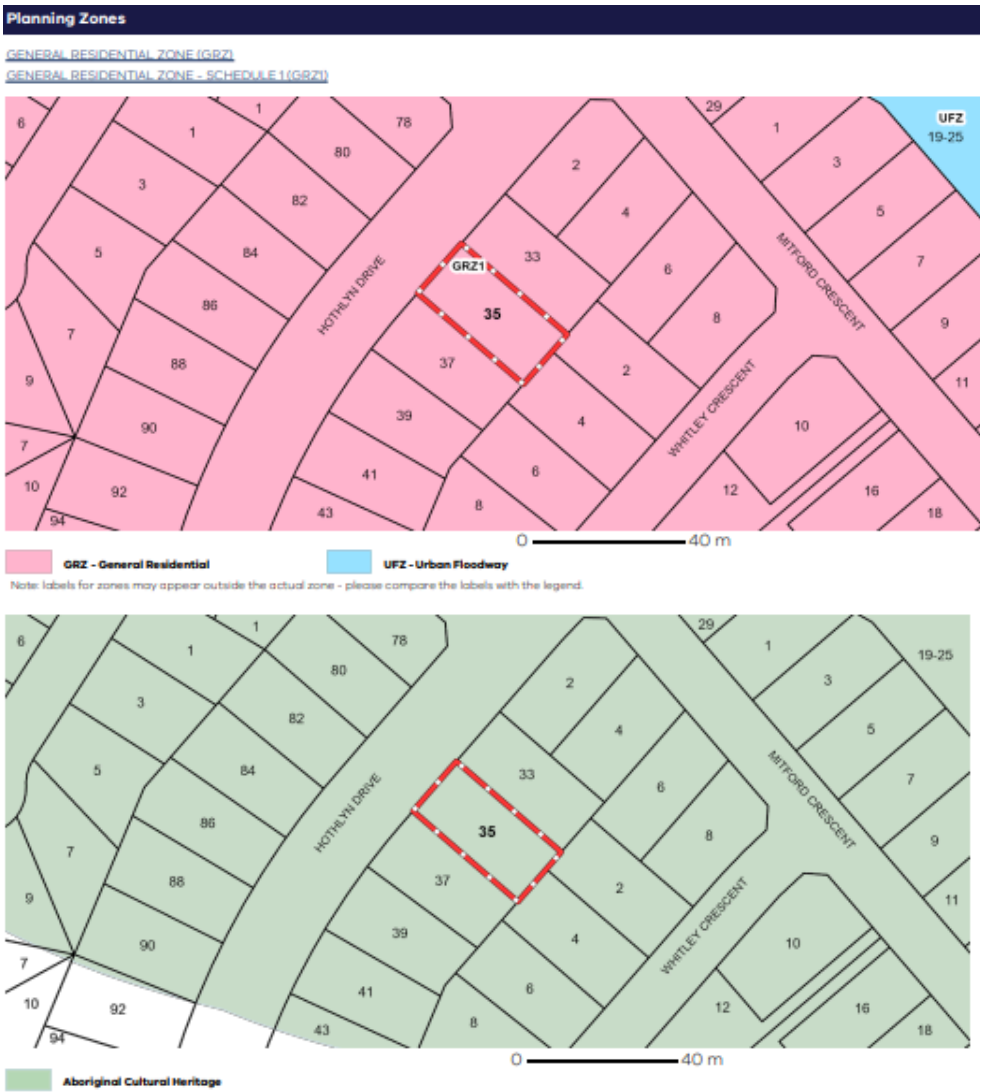


Figure 4: Hume Planning Scheme Zone Map (Source: Vicplan)

A permit is required for the construction of a dwelling if there is at least one dwelling existing on the lot.

5. PLANNING CONSIDERATIONS

The Carport Conversion to the existing dwelling will have minimal impact on the street given that the structure exists with a 7.05m front setback with no neighbourhood character implications.

The planning considerations are limited to that of an amenity assessment under Clause 55 of the Planning Scheme.

Clause 55 is applicable for two or more dwellings on a lot and residential dwellings

Standard	Ref	Description	Design Response
Minimum Street Setback	B6	None Specified	Not applicable
Building Height	B7	None Specified	In Compliance with B7
Site Coverage	B8	None Specified	48.72% site coverage (Unit 1 & Unit 2)
Permeability	B9	None Specified	31.55% Permeability (Unit 1 & Unit 2)
Side & Rear Setback	B17	None Specified	In Compliance with B17
Walls On Boundaries	B18	None Specified	In Compliance with B18
Daylight to existing windows	B19	None Specified	In compliance with B19
North Facing Windows	B20	None Specified	In compliance with B20
Overshadowing	B21	None Specified	In Compliance with B21
Overlooking	B22	None Specified	In Compliance with B22
Daylight to New Windows	B27	None Specified	In Compliance with B27
Private Open Space	B28	None Specified	Unit 1 36.50m2 / Unit 2 52.80m2
Front Fence Height	B32	None Specified	Not Applicable

4.2 Clause 52.06 Car Parking

Both units are in compliance with Clause 52.06

6. CONCLUSION

This proposal has been assessed against the relevant sections of the Hume Planning Scheme, and represents minor impacts on the existing and surrounding dwellings that will be in keeping with the site and adjoining land.

Report produced by:
Michael & Jessica Dalgleish

_____

Yours faithfully,

Sam Pezzimenti
Director
PEZZIMENTI DESIGNS

_____

REGISTER SEARCH STATEMENT (Title Search) Transfer of Land Act 1958

VOLUME 09233 FOLIO 073

Security no : 124115408999P
Produced 30/05/2024 01:41 PM

LAND DESCRIPTION

Lot 230 on Plan of Subdivision 115133.
PARENT TITLE Volume 09175 Folio 337
Created by instrument LP115133 27/09/1977

REGISTERED PROPRIETOR

[redacted]

ENCUMBRANCES, CAVEATS AND NOTICES

[redacted]

DIAGRAM LOCATION

SEE LP115133 FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

----------END OF REGISTER SEARCH STATEMENT----------

Additional information: (not part of the Register Search Statement)

Street Address: 35 HOTHLYN DRIVE CRAIGIEBURN VIC 3064

ADMINISTRATIVE NOTICES

NIL

[redacted]

Imaged Document Cover Sheet

The document following this cover sheet is an imaged document supplied by LANDATA®, Secure Electronic Registries Victoria.

Document Type	**Plan**
Document Identification	**LP115133**
Number of Pages (excluding this cover sheet)	**1**
Document Assembled	**16/02/2024 14:09**

LP115133
EDITION 1

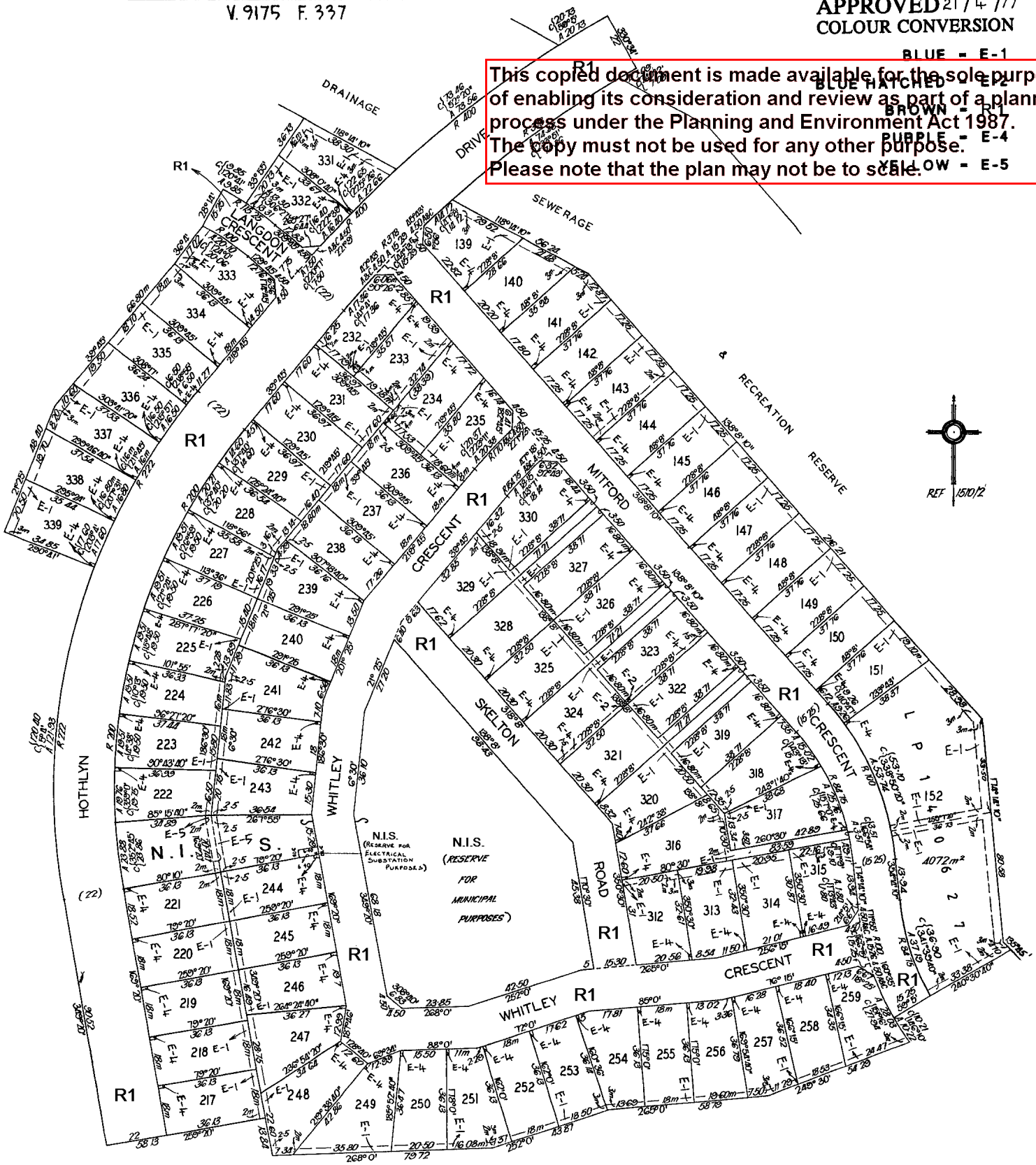
PLAN OF SUBDIVISION
OF PART OF CROWN SECTION 16
PARISH OF YUROKE
COUNTY OF BOURKE

16 8 0 16 32 48
LENGTHS ARE IN METRES

V. 9175 F. 337

APPROPRIATIONS	NOTATIONS
BLUE & BLUE HATCHED DRAINAGE & SEWERAGE BROWN WAY, DRAINAGE & SEWERAGE PURPLE & BLUE HATCHED ELECTRICITY SUPPLY. THE LAND COLOURED PURPLE IS 1 METRE WIDE AND 2 METRES IN LENGTH UNLESS OTHERWISE SHOWN	LOT 1–138 BOTH INCLUSIVE, 153–246 BOTH INCLUSIVE, AND 260–311 BOTH INCLUSIVE, HAVE BEEN OMITTED FROM THIS PLAN YELLOW IMPLIED DRAINAGE & SEWERAGE VIDE LP 115132 PART OF R1 IS FURTHER ENCUMBERED FOR WAY, DRAINAGE & SEWERAGE VIDE LP 115132

APPROVED 21 / 4 /77
COLOUR CONVERSION
BLUE - E-1
BLUE HATCHED - E-2
BROWN - R1
PURPLE - E-4
YELLOW - E-5



6 Star Energy Rating Report
Unit 2, 35 Hothlyn Drive, Craigieburn

Revision		
A:	18th September 2024	Preliminary for review
B:	19th September 2024	Final Report

Job Details	
Rating Achieved:	**6.0 Stars**
Date:	19th September 2024
Project:	New Residence
Client:	Salva Holdings Pty Ltd
Plan Reference:	387 B1 prepared by Design Matters
Assessor:	Rob Iacono
Job Number:	240811

Climate Region	Location Region	Max Heating load limit (MJ/m² annum)	Max Cooling load limit (MJ/m² annum)	Total (MJ/m² annum)
60	Tullamarine	126	31	138
Project Values		**115.5**	**20.9**	**136.4**

Heating and cooling values are representative of Waffle Pod construction

Insulation Requirements	
Ground Floor:	Waffle Pod, no additional insulation required
First Floor:	**R2.5** insulation installed between all posi-trusses
External Walls:	**R2.5** (excluding garage) + foil
Internal Walls:	**R2.5** to all garage, laundry and bathroom internal walls
External Roof:	**R5.0** (excluding garage)

Glazing Requirements

Aluminium framed singled-glazed

Hinged Door U-Value: 6.7 SHGC: 0.57

- D2

Sliding Window U-Value: 6.7 SHGC: 0.7

- W11, W12

Aluminium framed double-glazed

Awning U-Value: 4.5 SHGC: 0.50

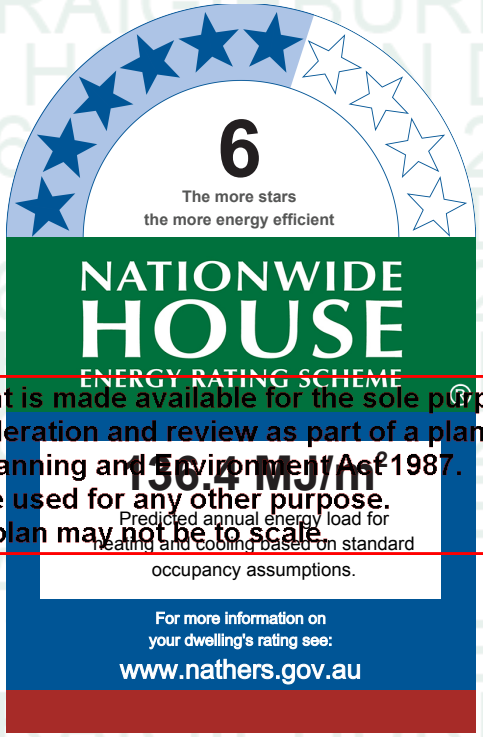
- W01, W06, W08, W09, W10, W13, W14

Sliding Window & Door/Fixed U-Value: 4.5 SHGC: 0.61

- W02, W03, W04, W05, W07, SD1

Nationwide House Energy Rating Scheme
NatHERS Certificate No. M8QYD968ZQ

Generated on 18 Sep 2024 using FirstRate5: 5.3.2b (3.21)



Property

Address	2, 35 Hothlyn Drive, Craigieburn, VIC, 3064
Lot/DP	-
NCC Class*	Class 1a
Type	New Home

Plans

Main plan	387 B1 / 07.08.2024
Prepared by	Design Matters

Construction and environment

Assessed floor area (m²)*	
Conditioned*	106.8
Unconditioned*	45.5
Total	152.3
Garage	32.8

Exposure type
suburban

NatHERS climate zone
60 Tullamarine

Thermal performance

Heating	Cooling
115.5 MJ/m²	**20.9** MJ/m²

About the rating
NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

Accredited assessor

Name	Rob Iacono
Business name	PassivEnergy
Email	rob@passivenergy.com.au
Phone	0401 248 348
Accreditation No.	DMN/11/1259
Assessor Accrediting Organisation	Design Matters National
Declaration of interest	Declaration completed: no conflicts

Verification

To verify this certificate, scan the QR code or visit https://www.fr5.com.au/QRCodeLanding?PublicId=M8QYD968ZQ When using either link, ensure you are visiting www.FR5.com.au.

National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated houses are detailed in 3.12.0(a)(i) and 3.12.5 of the NCC Volume Two. For apartments the requirements are detailed in J0.2 and J5 to J8 of the NCC Volume One.

In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at www.abcb.gov.au.

State and territory variations and additions to the NCC may also apply.

* Refer to glossary.

Certificate Check

Ensure the dwelling is designed and then built as per the NatHERS Certificate. While you need to check the accuracy of the whole Certificate, the following spot check covers some important items impacting the dwelling's rating.

Genuine certificate

Does this Certificate match the one available at the web address or QR code in the verification box on the front page? Does the set of NatHERS-stamped plans for the dwelling have a Certificate number on the stamp that matches this Certificate?

Ceiling penetrations*

Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

Apartment entrance doors

Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

Exposure*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

Provisional* values

Have provisional values been used in the assessment and, if so, noted in "additional notes" below?

Additional Notes

Window and glazed door *type and performance*

Default* windows

				Substitution tolerance ranges	
Window ID	**Window description**	**Maximum U-value***	**SHGC***	SHGC lower limit	SHGC upper limit
ALM-006-01 A	Aluminium B DG Argon Fill Clear-Clear	4.5	0.61	0.58	0.64
ALM-005-01 A	Aluminium A DG Argon Fill Clear-Clear	4.5	0.5	0.48	0.53
ALM-001-01 A	Aluminium A SG Clear	6.7	0.57	0.54	0.6
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7	0.66	0.74

Custom* windows

				Substitution tolerance ranges	
Window ID	**Window description**	**Maximum U-value***	**SHGC***	SHGC lower limit	SHGC upper limit
No Data Available					

Window and glazed door *Schedule*

Location	**Window ID**	**Window no.**	**Height (mm)**	**Width (mm)**	**Window type**	**Opening %**	**Orientation**	**Window shading device***
Kitchen/Family/-Meals	ALM-006-01 A	W03	1543	1810	sliding	45.0	NW	No

* Refer to glossary.

Kitchen/Family/-Meals	ALM-006-01 A	W02	580	1810	fixed	0.0	NW	No
Kitchen/Family/-Meals	ALM-006-01 A	W04	1543	2410	sliding	45.0	SW	No
Kitchen/Family/-Meals	ALM-006-01 A	SD1	2110	1810	sliding	45.0	SW	No
Kitchen/Family/-Meals	ALM-006-01 A	W05	580	2110	fixed	0.0	SE	No
Entry/Stairs	ALM-005-01 A	W01	2057	610	awning	90.0	NW	No
Laundry	ALM-001-01 A	D2	2110	410	casement	90.0	SE	No
Ensuite	ALM-002-01 A	W11	1027	610	sliding	10.0	SE	No
Master Bed	ALM-005-01 A	W09	514	1450	awning	90.0	NW	No
Master Bed	ALM-005-01 A	W10	1200	1450	awning	45.0	SW	No
Bed 2	ALM-005-01 A	W08	1200	1450	awning	45.0	NW	No
Study/Passage/S-tairs	ALM-005-01 A	W13	1200	1450	awning	45.0	SE	No
Study/Passage/S-tairs	ALM-006-01 A	W07	1200	1210	fixed	0.0	NW	No
Bed 3	ALM-005-01 A	W14	514	1450	awning	90.0	SE	No
Bed 3	ALM-005-01 A	W06	1200	1450	awning	45.0	NW	No
Bath	ALM-002-01 A	W12	1027	610	sliding	10.0	SE	No

Roof window *type and performance value*

Default* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Roof window *schedule*

Location	Window ID	Window no.	Opening %	Area (m²)	Orientation	Outdoor shade	Indoor shade
No Data Available							

Skylight *type and performance*

Skylight ID	Skylight description
No Data Available	

Skylight *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m²)	Orient-ation	Outdoor shade	Diffuser	Skylight shaft reflectance

* Refer to glossary.

No Data Available

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
Entry/Stairs	2110	1045	100.0	NE
Laundry	2110	410	100.0	SE
Garage	2300	4800	100.0	NW
Garage	2110	820	100.0	SE

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)*	Bulk insulation (R-value)	Reflective wall wrap*
1	FR5 - Brick Veneer	0.73	Dark	Wool/polyester batt 80/20: R2.5 (R2.5)	No
2	FR5 - Brick Veneer	0.73	Dark		No
3	FR5 - Fibro Clad Framed	0.5	Medium	Wool/polyester batt 80/20: R2.5 (R2.5)	No
4	FR5 - Fibro Clad Framed	0.73	Dark	Wool/polyester batt 80/20: R2.5 (R2.5)	No

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Kitchen/Family/Meals	1	2740	6490	NW	0	Yes
Kitchen/Family/Meals	1	2740	3919	SW	0	No
Kitchen/Family/Meals	1	2740	2293	SE	3100	Yes
Kitchen/Family/Meals	1	2740	3003	SW	2390	Yes
Kitchen/Family/Meals	1	2740	4196	SE	0	Yes
Entry/Stairs	1	2740	2395	NW	2400	Yes
Entry/Stairs	1	2740	1853	NE	2550	Yes
Entry/Stairs	1	2740	1328	NW	0	Yes
Laundry	1	2740	3721	SE	0	Yes
Garage	2	2866	5980	NE	0	Yes
Garage	2	2866	5481	NW	0	Yes
Garage	2	2866	921	SW	2591	Yes
Garage	2	2866	5481	SE	0	Yes
Ensuite	3	2590	2165	SW	548	No
Ensuite	3	2590	2710	SE	534	No
Master Bed	4	2590	3769	NW	550	Yes
Master Bed	3	2590	3933	SW	550	No
Bed 2	4	2160	1408	NE	550	Yes
Bed 2	4	2590	600	NW	550	Yes
Bed 2	4	2590	450	NE	1150	Yes

* Refer to glossary.

Bed 2	4	2590	2736	NW	0	No
Bed 2	4	2590	448	SW	4418	Yes
Study/Passage/Stairs	3	2590	2840	SE	550	No
Study/Passage/Stairs	3	2130	1165	NE	550	Yes
Study/Passage/Stairs	3	2180	2484	NW	550	Yes
Bed 3	3	2590	4252	SE	550	No
Bed 3	3	2020	3609	NE	550	No
Bed 3	3	2590	820	NW	550	Yes
Bath	3	2590	2991	SE	550	No

Internal wall *type*

Wall ID	Wall type	Area (m²)	Bulk insulation
1	FR5 - Internal Plasterboard Stud Wall	65.3	
2	FR5 - Brick Veneer	2.7	Wool/polyester batt 80/20: R2.5 (R2.5)
3	FR5 - Internal Plasterboard Stud Wall	50.9	Wool/polyester batt 80/20: R2.5 (R2.5)

Floor *type*

Location	Construction	Area (m²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Kitchen/Family/Meals	FR5 - 300mm waffle pod, 85mm concrete (R0.63)	34.4	Enclosed	R0.0	Timber
Kitchen/Family/Meals	FR5 - 300mm waffle pod, 85mm concrete (R0.63)	2.9	Enclosed	R0.0	Timber
Kitchen/Family/Meals	FR5 - 300mm waffle pod, 85mm concrete (R0.63)	0.8	Enclosed	R0.0	Timber
Entry/Stairs	FR5 - 300mm waffle pod, 85mm concrete (R0.63)	0.3	Enclosed	R0.0	Timber
Entry/Stairs	FR5 - 300mm waffle pod, 85mm concrete (R0.63)	11	Enclosed	R0.0	Timber
Laundry	FR5 - 300mm waffle pod, 85mm concrete (R0.63)	0.7	Enclosed	R0.0	Tiles
Laundry	FR5 - 300mm waffle pod, 85mm concrete (R0.63)	5.6	Enclosed	R0.0	Tiles
Powder	FR5 - 300mm waffle pod, 85mm concrete (R0.63)	2.9	Enclosed	R0.0	Tiles
Garage	FR5 - 300mm waffle pod, 85mm concrete (R0.63)	12.7	Enclosed	R0.0	none
Garage	FR5 - 300mm waffle pod, 85mm concrete (R0.63)	20.1	Enclosed	R0.0	none
Ensuite	FR5 - Timber Lined	3.3	Elevated	R2.5	Tiles
Ensuite	FR5 - Timber Lined	2.5	Enclosed	R2.5	Tiles
Master Bed	FR5 - Timber Lined	14.5	Enclosed	R2.5	Carpet
Master Bed	FR5 - Timber Lined	0.3	Elevated	R2.5	Carpet
Bed 2	FR5 - Timber Lined	10.3	Enclosed	R2.5	Carpet
Study/Passage/Stairs	FR5 - Timber Lined	16	Enclosed	R2.5	Carpet
Bed 3	FR5 - Timber Lined	14.3	Enclosed	R2.5	Carpet
Bath	FR5 - Timber Lined	6.4	Enclosed	R2.5	Tiles

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Kitchen/Family/Meals	FR5 - Timber Lined	R2.5	No
Kitchen/Family/Meals	Plasterboard	R5.0	No
Kitchen/Family/Meals	Plasterboard	R5.0	No
Entry/Stairs	FR5 - Timber Lined	R2.5	No
Laundry	Plasterboard	R5.0	No
Laundry	FR5 - Timber Lined	R2.5	No
Powder	FR5 - Timber Lined	R2.5	No
Garage	FR5 - Timber Lined	R2.5	No
Garage	Plasterboard	R0.0	No
Ensuite	Plasterboard	R5.0	No
Ensuite	Plasterboard	R5.0	No
Master Bed	Plasterboard	R5.0	No
Bed 2	Plasterboard	R5.0	No
Study/Passage/Stairs	Plasterboard	R5.0	No
Bed 3	Plasterboard	R5.0	No
Bath	Plasterboard	R5.0	No

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Family/Meals	1	Exhaust Fans	100	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
No Data Available		

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Cont:Attic-Continuous	0.0	0.73	Dark

* Refer to glossary.

Explanatory Notes

About this report

A NatHERS rating is a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate an energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances or energy production of solar panels.

Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

Accredited assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

Australian Capital Territory (ACT) licensed assessors may only produce assessments for regulatory purposes using software for which they have a licence endorsement. Licence endorsements can be confirmed on the ACT licensing register

AAOs have specific quality assurance processes in place, and continuing professional development requirements, to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any ongoing training requirements.

Any questions or concerns about this report should be directed to the assessor in the first instance. If the assessor is unable to address these questions or concerns, the AAO specified on the front of this certificate should be contacted.

Disclaimer

The format of the NatHERS Certificate was developed by the NatHERSAdministrator. However the content of each individual certificate is entered and created by the assessor to create a NatHERS Certificate. It is the responsibility of the assessor who prepared this certificate to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce a NatHERS Certificate.

The predicted annual energy load in this NatHERS Certificate is an estimate based on an assessment of the building by the assessor. It is not a prediction of actual energy use, but may be used to compare how other buildings are likely to perform when used in a similar way. Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, indoor air temperature and local climate.

Not all assumptions that may have been made by the assessor while using the NatHERS accredited software tool are presented in this report and further details or data files may be available from the assessor.

Glossary

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
Assessed floor area	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, rangehoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
Exposure category - exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category - open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category - suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category - protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.

National Construction Code (NCC) Class	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
Opening Percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).

E2E DESIGN GROUP
it starts and ends with us

GEOTECHNICAL INVESTIGATION REPORT

LOT 230, NO. 35, HOTHLYN DRIVE, CRAIGIEBURN

Reference Number: 6319
Date: 28 February 2024

[redacted]

SUMMARY OF RESULTS	
Site Classification	CLASS P in accordance with AS2870-2011
Climatic Zone	3 in accordance with AS2870-2011
Wind Rating	N1 in accordance with AS4055-2021
Bushfire Attack Level	Low in accordance with AS3959:2018

admin@e2edesign.com.au | e2edesign.com.au | 7 Ivanhoe Crt, Thomastown, Victoria, 3074

E2E DESIGN GROUP

Report Limitations & Conditions of Use

1. The recommendations within this report have been formulated from the following;
    a. Limited number of test/boreholes conducted during the fieldwork as dated in this report.
    b. Site conditions at the time that the fieldwork was completed.
    c. Visual tactile assessment.
2. This investigation is not capable of locating all soil conditions. The advice given in this report is based upon the assumption that the test results are representative of the overall soil conditions. However, the reader must be made aware that the actual conditions of the site may vary in certain locations than as depicted in this report.
3. This report is not intended to be used for the bases of buying or selling property. A detailed geotechnical report may be required for such purpose.
4. The soil report is based upon the information gathered during the site investigation, therefore the site classification provided does not take into account any past, or future abnormal moisture conditions.
    a. Should the client supply us with further information relevant to the site including but not limited to past effects relating to abnormal moisture conditions, or present site changes (removal of trees, structures, or changes to proposed building locations etc.) this report may be rendered useless/irrelevant or unsuitable.
5. The descriptions of the soil uncovered are described in accordance with AS 1726-2017. The reader should note that colour descriptions may differ than those found on site due to changes in moisture conditions and/or individual interpretations.
6. Soil and drilling depths are provided to a tolerance of +/- 200mm. spot levels or feature survey heights are given to a tolerance of +/- 200mm.
7. If site conditions are found to be different to that which are described in this report, this office must be contacted immediately.

8. E2E Design Group's assessment of flooding is based upon Government/Council planning information available at the time. Site specific analysis of hydrological and rainfall data does not form part of this assessment.
9. As every effort is made to identify the depth of fill material on this site, there are circumstances where fill material is difficult to recognise, for example, site derived material. E2E Design Group will not be held responsible for any financial loss, consequential or otherwise, that may occur as a result of mis-identification of fill material across the site.
10. The reader must be made aware that although every effort is made by this office to identify the presence of organic material within the soil profile situations may arise on developed sites where original organic matter has not been adequately removed prior to development. E2E Design Group will not accept any responsibility for any financial loss, consequential or otherwise that may occur as a result of inadequate removal of organic matter.
11. Under no circumstances shall this report be reproduced, unless produced in full and prior written consent has been provided by E2E Design Group.
12. This report does not assess the potential for land slide, undermining or aggressive soils.
13. This document is copyright all right reserved. Under no circumstances shall this report be reproduced, unless produced in full and prior written consent has been provided by E2E Design Group. This submission is to be used only by the party to whom it is addressed and for no other purpose. No responsibility is accepted to any third party who may use or rely on the whole or any part of the content of this submission. No responsibility will be taken for this report if it is altered in any way, or not reproduced in full. This document remains the property of E2E Design Group until all fees and monies have been paid in full.

Revision history

DATE	REVISION	ENGINEER	COMMENTS
28.02.2024	-	Feri Alipour	Initial submission.

Table of Contents

1.0 Preliminaries

1.1 Scope of Investigation

The purpose of the investigation was to complete a visual tactile assessment of the soil conditions at **Lot 230, No. 35, Hothlyn Drive, Craigieburn**. Three boreholes were advanced via the use of a hand auger of the subject site on the 28.02.2024 to provide a representation of the soil profile at the time that the fieldwork was completed.

The report provides geotechnical recommendations for founding conditions and recommends design parameters for the proposed structure/development.

1.2 Project Description

It is the understanding of this office that the proposed development will consist of a proposed new dwelling to the rear of the existing dwelling.

1.3 Site Conditions

The development is situated to the southeast side of Hothlyn Drive, within an established area. This site is currently occupied with dwellings surrounding it.

The proposed site considered to be flat, and the site drainage is considered to be poor. It has been noted that are trees on site and adjoining sites.

2.0 Investigation Methodology

2.1 Fieldwork

The site was drilled using a hand auger. Three (3) boreholes were drilled to a minimum depth of 0.9m below the existing surface level prior refusal. The sub-surface soil profile was logged and visually classified by a representative of this office in accordance with the Australian Standard AS1726 – 2017, Geotechnical Site Investigations.

3.0 Investigation Results

3.1 Sub Surface Soil Profile & Conditions

The fieldwork has revealed that the sub-surface soil profile consisted of the subsequent soil strata. For further detail and variation of depth in soil profile refer to the logs appended to this report.

- FILL – CLAY.
- SILT.
- CLAY.

3.2 Ground Water

No permanent free draining ground water was encountered during the time of the investigation conducted by this office. It is noted that ground water would not normally be expected within the depths investigated; however, after prolonged periods of rainfall, any fill material and surface layers may be susceptible to moisture ingress. This in turn may lead to reduced strength in shallow soil layers and reduce workability on site.

3.3 Desktop Study

The site geology for the abovementioned address consists of **Quaternary Aged Basalt**.

4.0 Investigation Results

4.1 Site Classification

This site has been classified as **"Class P"** due to abnormal moisture condition – existing structure and trees on site and, trees on adjacent sites. This classification is provided in accordance with **AS2870 – 2011, Residential Slabs & Footings**. The reader is to be aware that other abnormal moisture conditions may be present on site that the author on this report is not aware of. Should other abnormal moisture conditions be discovered or arise prior to construction this office should be notified for further advice.

It is noted that the underlying natural soils present on this site are considered to be classified as **"Class H2"** in the absence of any abnormal moisture conditions. The estimated characteristic surface movement **"Ys"** is considered to be in the range of **60mm to 75mm**. The design engineer should allow additional movement for abnormal moisture conditions present on this site.

Should other geotechnical investigations (by others) be available, E2E Design Group should be provided with this information. It is a condition of this report that all information with regards to site history must be provided to this office for review.

Specific recommendations for footing depths and allowable bearing capacities are noted within this report herein.

4.2 Proposed Building Foundations

Shallow basalt rock/ basalt floaters was encountered on this site as indicated in the bore logs. Due to the shallow depth of rock it is likely that difficulty may be encountered when undertaking excavations at this site. If significant excavations are planned at this site, it is possible that rock breaking equipment and/or blasting may be required.

A new residential dwelling to the rear of the existing dwelling is proposed for the subject site. Footings are to be proportioned in accordance with the below recommendations and founded into respective strata.

Note: Moisture/root barrier(s) and/or deepening of footings may be required if existing trees on the site and on adjacent sites are to remain. Moisture/root barrier(s) and/or deepened footings must be founded onto natural continuous rock or extend to at least 2400mm to 3500mm below surface level depending on proximity of the tree(s) and the climate zone, in accordance with AS2780-2011, of the site. Additional reinforcement may also be required.

4.3 Bored Piers

Bored piers may be required for the purpose of designing in abnormal moisture conditions, building on fill material, and mitigating angle of repose issues. In the event that bored piers are required a 450mm diameter bored pier is to be founded a minimum of 900mm into natural CLAY as indicated on bore logs. At this depth, an allowable end bearing pressure of 200 kPa can be achieved.

Bored piers may be founded on solid continuous rock and alternatively bulk/slotted piers are a suitable option. The design engineer is to be made aware that the depth stated are suitable depths for achieving sufficient end bearing capacity, however, deeper founding depths may be required for moderating the abnormal moisture effects describe above (section 4.1).

The base of the pier must be clean and free of all loose material, and concrete poured without delay at the completion of boring/excavation.

The contractor should be briefed and should supply means of insuring that the bore pier bases are clean and free of disturbed and fallen material. An auger with a single cutting blade (i.e. no tines) may be an option to cleaning the bases of piers.

4.4 Stiffened Raft Slab

It is recommended that a stiffened raft slab is designed to Engineering Principles

as outlined within AS2870 - 2011. However, should provisions be made to adequately remove abnormal moisture conditions on this site prior to construction; the design engineer may adopt a deemed-to-comply design in accordance with AS2870 - 2011 proportioned to that of a "Class H2" classification.

All edge and internal load bearing beams shall be founded 200mm minimum into the natural Clay layer and may adopt an allowable bearing capacity of 100 kPa. Where fill material exceeds 400mm in depth, a suspended slab may be adopted where the edge and load bearing beams are suspended over drilled piles.

4.5 Stiffened Waffle Raft Slab

A stiffened waffle raft slab construction is recommended to be designed to Engineering Principles as outlined within AS2870 - 2011. However, should provisions be made to adequately remove abnormal moisture conditions on this site prior to construction; the design engineer may adopt a deemed-to-comply design to that of a "Class H2" classification, where the slab is proportioned with minimum basic dimensions and reinforcement stipulated within AS2870 – 2011. The design engineer can expect an allowable bearing capacity of 100 kPa 200mm into the natural Clay layer. Where fill material exceeds 400mm in depth, a fully suspended slab over drilled piles may be adopted.

4.6 Wind Rating

During the site investigation, an analysis of the site and the surrounding terrain was conducted for the purpose of identifying the wind classification design speed. The design engineer should note that the maximum design gust speed for this site is 34m/s this is based on wind speed calculations (Vh) for use in ultimate limit state design only, and in accordance within the confines as in AS4055 Section 1.2.

The Wind Rating for this site has been evaluated as N1.

4.7 Climatic Zone & Soil Suction Profile

In accordance with AS2870-2011 Figure D1/D2 & Table 2.5, this site located within climatic zone:

- Zone 3 – Depth of design suction change (Hs) is 2.3m.

4.8 Hold Points & Inspections

A representative of E2E Design Group must undertake inspections at the following stages and be notified at the subsequent hold points.

1. Excavation Stage – Footings are to be inspected where site conditions differ to that described within this report to verify founding material and bearing capacities.
2. Should benching/levelling works exceed 400mm in depth from the existing surface level, this office should be contacted to determine if further investigation is required.

5.0 Construction & Maintenance Concerns for Footing Systems

1. Where additional filling material is required for the purpose of levelling/benching works, the fill material should be of equal or lesser reactivity to site derived material if foreign material to this site is utilised. Any fill shall be either controlled or rolled fill in accordance with AS2870 – 2011. If the total fill material exceeds 400mm or is un-controlled fill, the design engineer shall make the necessary provisions to ensure performance of the structure is maintained.

2. All loose surface fill, tree roots and all organic material should be removed from the proposed building area.

3. Site drainage must be considered particularly on sites that are highly reactive. Excessive wetting and drying cycles may induce significant differential foundation movement. This office recommends that the ground surface is graded away from the dwelling. This office can be contacted for further advice. The drainage system must be completed and in accordance with AS2870-2011. To assist mitigating foundation movement the following considerations should be made;
    a. No moisture should be allowed to pond adjacent to the building foundations during and post construction.
    b. The ground surface immediately adjacent to the building perimeter should be sloped away at a minimum grade of 1:20 over the first 1.0m minimum; however, ideally this would be 1.5m where site conditions permit.

4. Plumbing pipes are to be laid below ground at the minimum grade, rises are to be firmly staked.

5. E2E Design Group recommends a second soil test is undertaken in the following scenarios;
    a. Greater than 400mm site cut for CLAY sites.
    b. Fill placement of greater than 400mm for CLAY fill and greater than 800mm for SAND fill.

c. Removal of existing dwellings.
d. Removal of existing trees on site and on adjoining sites.
e. Planting of trees on site or on adjoining sites.

6. Footings placed in the vicinity of any existing excavations or easements must be deepened to a depth that places the base of the proposed footing at an angle not exceeding 30 degrees for SAND soils and 45 degrees for CLAY soils (measured from the horizontal).

7. Trees and shrubs should not be planted within close proximity to the buildings foundations unless the design engineer is provided with specific landscaping information prior to the commencement of design. It is recommended that vegetation be restricted to a minimum of 1.5 x the mature height away from the building perimeter.

8. This office must be notified if any trees have been planted or removed after the date of fieldwork identified on this document. E2E Design will not take any responsibility for design if this has not occurred.

9. Masonry walls shall be articulated in accordance with Technical Note – TN61 to ensure flexibility of the structure and minimise visible cracking.

10. In line with AS 2870-2011 Appendices B, the owner, future owner, any stakeholder, and any consultant, have a duty of care to ensure that future landscaping will not contribute to an adverse impact on the footing system. Reference should be made to CSIRO's Guide to Home Owners on Foundation Maintenance and Footing (Appendix D).

6.0 Site Specific Considerations

1. The soils encountered on-site could develop a localised perched groundwater during periods of high rainfall which may lead to construction difficulties associated with excavations on this site.

2. Demolition of the existing structure and the removal of existing foundations is likely to leave isolated pockets of loose fill and/or disturbed ground conditions. Proposed foundations must extend a minimum of 200mm below the level of disturbed or loose soil material and into the naturally occurring soil material as indicated by the bore logs.

3. An engineer designed footing system in accordance with AS2870 - 2011 is recommended for this site with consideration of the effect of the trees in relation to the final house siting.

4. The design engineer is to consider the impacts footings placed against other existing footings. Any soft or unsuitable soil is to be removed until a firm base is achieved, resulting undermining of footings will require further engineering consideration.

5. This site contains significant trees which may affect the foundations of the proposed residence. Remove existing trees and tree root material over the proposed building area. Footings must be founded on natural clay. Any fill material that does not respond to compaction or a minimum of 200mm into natural clay.

6. Local experience and bore logs confirm that there is a high likelihood of basalt floaters in this area. The design engineer and the builder should observe that basalt floaters are difficult to excavate or break with standard excavation equipment. In some instances blasting may be required.

REFERENCED STANDARDS:

Standards Australia (2017), *Geotechnical site investigations*, AS 1726-2017, Standards Australia, Sydney, Retrieved from SAI Global.

Standards Australia (2009), *Piling – Design and installation*, AS 2159-2009, Standards Australia, Sydney, Retrieved from SAI Global.

Standards Australia (2011), *Residential slabs and footings,* AS 2870-2011, Standards Australia, Sydney, Retrieved from SAI Global.

Standards Australia (2018), *Construction of buildings in bushfire prone area,* AS 3059:2018, Standards Australia, Sydney, Retrieved from SAI Global.

Standards Australia (2021), *Wind loads for housing,* AS 4055-2021, Standards Australia, Sydney, Retrieved from SAI Global.

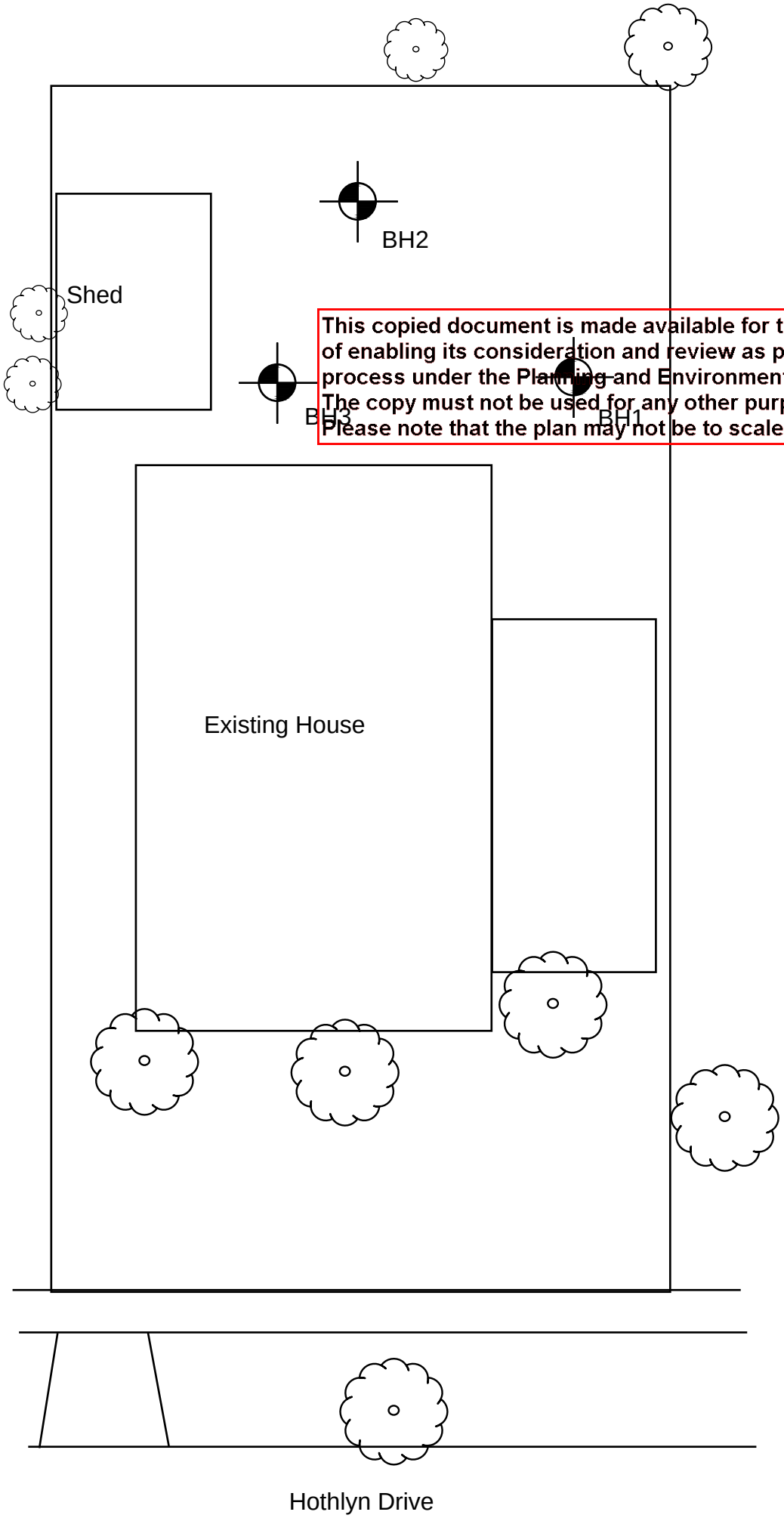
REPORT AUTHOR/S:

Feri Alipour

E2E Design Group
Mrs. Feri Alipour
BSC Geology

Appendix A

Site Plan



Appendix B

Borehole Logs

E2E DESIGN GROUP

Borehole Logs

Client:	Pezzimenti Designs	**Drill type:**	Hand
Address:	Lot 230, No. 35, Hothlyn Drive, Craigieburn	**Logged by:**	DLF
Job No.:	6319	**Checked by:**	PA
Date:	28/02/2024	**FW Date**	28/02/2024

Description	Moisture Condition	Consistency Relative Density	Borehole 1	Borehole 2	Borehole 3
Existing surface level			0	0	0
FILL CLAY with Sand – (CH), brown. - Root material <2mm	W<PL	Firm	0 - 200	0 - 200	0 - 200
SILT with Gravel – (MH), light grey.	W<PL	Firm	-	200 - 400	-
CLAY trace Gravel – (CH), brown.	W<PL	Stiff	200 - 900	400 - 1400	200 - 900
			End of test refusal on Basalt Rock/Basalt Floaters	End of test refusal on Basalt Rock/Basalt Floaters	End of test refusal on Basalt Rock/Basalt Floaters

E2E DESIGN GROUP

Appendix C

BAL Assessment

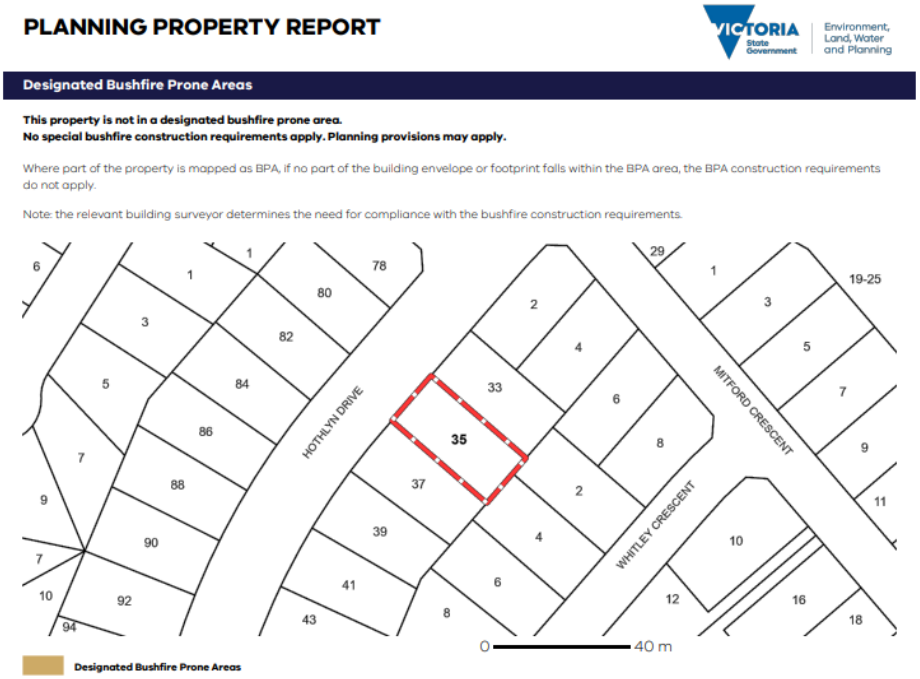
admin@e2edesign.com.au | e2edesign.com.au | 7 Ivanhoe Crt, Thomastown, Victoria, 3074

E2E DESIGN GROUP

Bushfire Attack Level Assessment

The Bushfire Attack Level (BAL) for this site has been calculated using method 1 within the requirements of AS3959: 2018 (construction of buildings in bushfire prone area). For this particular site and in conjunction with the house siting supplied the BAL has been recognised at **Low.**

Note: This site is within a non-designated prone area and special BAL requirements do not apply.



Land Vic Image of Bushfire Prone Area

Below table illustrate classifiable vegetation within 100m of the proposed development accordance with AS3959:2018.

Fire Danger Index (FDI)		100			
Direction		Northern	Southern	Eastern	Western
Classifiable Vegetation within 100m from Proposed building	Excluded/Low threat	-	-	-	-
	Grassland	-	-	-	-
	Non-Grassland	-	-	-	-
Effective slope of land (Under the classified vegetation within 100mm)		-	-	-	-
Distance to classified vegetation		-	-	-	-
Bushfire Attack Level (BAL)		Low			

Notes: The above BAL rating is measured based on the condition of the vegetation at the time of assessment and it is valid on the condition that the vegetation is maintained as such.

E2E DESIGN GROUP

Appendix D

Foundation Maintenance

admin@e2edesign.com.au | e2edesign.com.au | 7 Ivanhoe Crt, Thomastown, Victoria, 3074

Foundation Maintenance and Footing Performance:
A Homeowner's Guide

CSIRO

BTF 18 replaces Information Sheet 10/91

Buildings can and often do move. This movement can be up, down, lateral or rotational. The fundamental cause of movement in buildings can usually be related to one or more problems in the foundation soil. It is important for the homeowner to identify the soil type in order to ascertain the measures that should be put in place in order to ensure that problems in the foundation soil can be prevented, thus protecting against building movement.

This Building Technology File is designed to identify causes of soil-related building movement, and to suggest methods of prevention of resultant cracking in buildings.

Soil Types

The types of soils usually present under the topsoil in land zoned for residential buildings can be split into two approximate groups – granular and clay. Quite often, foundation soil is a mixture of both types. The general problems associated with soils having granular content are usually caused by erosion. Clay soils are subject to saturation and swell/shrink problems.

Classifications for a given area can generally be obtained by application to the local authority, but these are sometimes unreliable and if there is doubt, a geotechnical report should be commissioned. As most buildings suffering movement problems are founded on clay soils, there is an emphasis on classification of soils according to the amount of swell and shrinkage they experience with variations of water content. The table below is Table 2.1 from AS 2870, the Residential Slab and Footing Code.

Causes of Movement

Settlement due to construction
There are two types of settlement that occur as a result of construction:

- Immediate settlement occurs when a building is first placed on its foundation soil, as a result of compaction of the soil under the weight of the structure. The cohesive quality of clay soil mitigates against this, but granular (particularly sandy) soil is susceptible.
- Consolidation settlement is a feature of clay soil and may take place because of the expulsion of moisture from the soil or because of the soil's lack of resistance to local compressive or shear stresses. This will usually take place during the first few months after construction, but has been known to take many years in exceptional cases.

These problems are the province of the builder and should be taken into consideration as part of the preparation of the site for construction. Building Technology File 19 (BTF 19) deals with these problems.

Erosion
All soils are prone to erosion, but sandy soil is particularly susceptible to being washed away. Even clay with a sand component of say 10% or more can suffer from erosion.

Saturation
This is particularly a problem in clay soils. Saturation creates a bog-like suspension of the soil that causes it to lose virtually all of its bearing capacity. To a lesser degree, sand is affected by saturation because saturated sand may undergo a reduction in volume – particularly imported sand fill for bedding and blinding layers. However, this usually occurs as immediate settlement and should normally be the province of the builder.

Seasonal swelling and shrinkage of soil
All clays react to the presence of water by slowly absorbing it, making the soil increase in volume (see table below). The degree of increase varies considerably between different clays, as does the degree of decrease during the subsequent drying out caused by fair weather periods. Because of the low absorption and expulsion rate, this phenomenon will not usually be noticeable unless there are prolonged rainy or dry periods, usually of weeks or months, depending on the land and soil characteristics.

The swelling of soil creates an upward force on the footings of the building, and shrinkage creates subsidence that takes away the support needed by the footing to retain equilibrium.

Shear failure
This phenomenon occurs when the foundation soil does not have sufficient strength to support the weight of the footing. There are two major post-construction causes:

- Significant load increase.
- Reduction of lateral support of the soil under the footing due to erosion or excavation.
- In clay soil, shear failure can be caused by saturation of the soil adjacent to or under the footing.

GENERAL DEFINITIONS OF SITE CLASSES

Class	Foundation
A	Most sand and rock sites with little or no ground movement from moisture changes
S	Slightly reactive clay sites with only slight ground movement from moisture changes
M	Moderately reactive clay or silt sites, which can experience moderate ground movement from moisture changes
H	Highly reactive clay sites, which can experience high ground movement from moisture changes
E	Extremely reactive sites, which can experience extreme ground movement from moisture changes
A to P	Filled sites
P	Sites which include soft soils, such as soft clay or silt or loose sands; landslip; mine subsidence; collapsing soils; soils subject to erosion; reactive sites subject to abnormal moisture conditions or sites which cannot be classified otherwise

Tree root growth
Trees and shrubs that are allowed to grow in the vicinity of footings can cause foundation soil movement in two ways:

- Roots that grow under footings may increase in cross-sectional size, exerting upward pressure on footings.
- Roots in the vicinity of footings will absorb much of the moisture in the foundation soil, causing shrinkage or subsidence.

Unevenness of Movement

The types of ground movement described above usually occur unevenly throughout the building's foundation soil. Settlement due to construction tends to be uneven because of:

- Differing compaction of foundation soil prior to construction.
- Differing moisture content of foundation soil prior to construction.

Movement due to non-construction causes is usually more uneven still. Erosion can undermine a footing that traverses the flow or can create the conditions for shear failure by eroding soil adjacent to a footing that runs in the same direction as the flow.

Saturation of clay foundation soil may occur where subfloor walls create a dam that makes water pond. It can also occur wherever there is a source of water near footings in clay soil. This leads to a severe reduction in the strength of the soil which may create local shear failure.

Seasonal swelling and shrinkage of clay soil affects the perimeter of the building first, then gradually spreads to the interior. The swelling process will usually begin at the uphill extreme of the building, or on the weather side where the land is flat. Swelling gradually reaches the interior soil as absorption continues. Shrinkage usually begins where the sun's heat is greatest.

Effects of Uneven Soil Movement on Structures

Erosion and saturation
Erosion removes the support from under footings, tending to create subsidence of the part of the structure under which it occurs. Brickwork walls will resist the stress created by this removal of support by bridging the gap or cantilevering until the bricks or the mortar bedding fail. Older masonry has little resistance. Evidence of failure varies according to circumstances and symptoms may include:

- Step cracking in the mortar beds in the body of the wall or above/below openings such as doors or windows.
- Vertical cracking in the bricks (usually but not necessarily in line with the vertical beds or perpends).

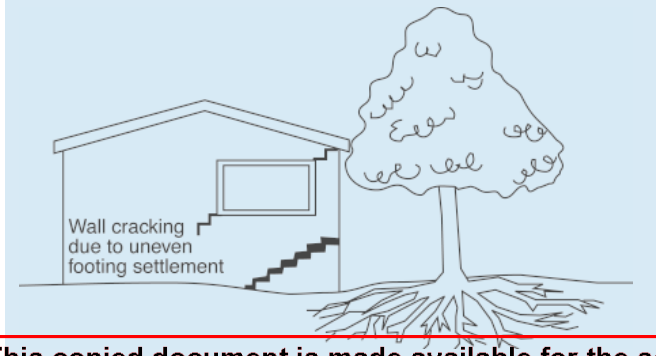
Isolated piers affected by erosion or saturation of foundations will eventually lose contact with the bearers they support and may tilt or fall over. The floors that have lost this support will become bouncy, sometimes rattling ornaments etc.

Seasonal swelling/shrinkage in clay
Swelling foundation soil due to rainy periods first lifts the most exposed extremities of the footing system, then the remainder of the perimeter footings while gradually permeating inside the building footprint to lift internal footings. This swelling first tends to create a dish effect, because the external footings are pushed higher than the internal ones.

The first noticeable symptom may be that the floor appears slightly dished. This is often accompanied by some doors binding on the floor or the door head, together with some cracking of cornice mitres. In buildings with timber flooring supported by bearers and joists, the floor can be bouncy. Externally there may be visible dishing of the hip or ridge lines.

As the moisture absorption process completes its journey to the innermost areas of the building, the internal footings will rise. If the spread of moisture is roughly even, it may be that the symptoms will temporarily disappear, but it is more likely that swelling will be uneven, creating a difference rather than a disappearance in symptoms. In buildings with timber flooring supported by bearers and joists, the isolated piers will rise more easily than the strip footings or piers under walls, creating noticeable doming of flooring.

Trees can cause shrinkage and damage



As the weather pattern changes and the soil begins to dry out, the external footings will be first affected, beginning with the locations where the sun's effect is strongest. This has the effect of lowering the external footings. The doming is accentuated and cracking reduces or disappears where it occurred because of dishing, but other cracks open up. The roof lines may become convex.

Doming and dishing are also affected by weather in other ways. In areas where warm, wet summers and cooler dry winters prevail, water migration tends to be toward the interior and doming will be accentuated, whereas where summers are dry and winters are cold and wet, migration tends to be toward the exterior and the underlying propensity is toward dishing.

Movement caused by tree roots
In general, growing roots will exert an upward pressure on footings, whereas soil subject to drying because of tree or shrub roots will tend to remove support from under footings by inducing shrinkage.

Complications caused by the structure itself
Most forces that the soil causes to be exerted on structures are vertical – i.e. either up or down. However, because these forces are seldom spread evenly around the footings, and because the building resists uneven movement because of its rigidity, forces are exerted from one part of the building to another. The net result of all these forces is usually rotational. This resultant force often complicates the diagnosis because the visible symptoms do not simply reflect the original cause. A common symptom is binding of doors on the vertical member of the frame.

Effects on full masonry structures
Brickwork will resist cracking where it can. It will attempt to span areas that lose support because of subsided foundations or raised points. It is therefore usual to see cracking at weak points, such as openings for windows or doors.

In the event of construction settlement, cracking will usually remain unchanged after the process of settlement has ceased.

With local shear or erosion, cracking will usually continue to develop until the original cause has been remedied, or until the subsidence has completely neutralised the affected portion of footing and the structure has stabilised on other footings that remain effective.

In the case of swell/shrink effects, the brickwork will in some cases return to its original position after completion of a cycle, however it is more likely that the rotational effect will not be exactly reversed, and it is also usual that brickwork will settle in its new position and will resist the forces trying to return it to its original position. This means that in a case where swelling takes place after construction and cracking occurs, the cracking is likely to at least partly remain after the shrink segment of the cycle is complete. Thus, each time the cycle is repeated, the likelihood is that the cracking will become wider until the sections of brickwork become virtually independent.

With repeated cycles, once the cracking is established, if there is no other complication, it is normal for the incidence of cracking to stabilise, as the building has the articulation it needs to cope with the problem. This is by no means always the case, however, and monitoring of cracks in walls and floors should always be treated seriously.

Upheaval caused by growth of tree roots under footings is not a simple vertical shear stress. There is a tendency for the root to also exert lateral forces that attempt to separate sections of brickwork after initial cracking has occurred.

The normal structural arrangement is that the inner leaf of brickwork in the external walls and at least some of the internal walls (depending on the roof type) comprise the load-bearing structure on which any upper floors, ceilings and the roof are supported. In these cases, it is internally visible cracking that should be the main focus of attention, however there are a few examples of dwellings whose external leaf of masonry plays some supporting role, so this should be checked if there is any doubt. In any case, externally visible cracking is important as a guide to stresses on the structure generally, and it should also be remembered that the external walls must be capable of supporting themselves.

Effects on framed structures
Timber or steel framed buildings are less likely to exhibit cracking due to swell/shrink than masonry buildings because of their flexibility. Also, the doming/dishing effects tend to be lower because of the lighter weight of walls. The main risks to framed buildings are encountered because of the isolated pier footings used under walls. Where erosion or saturation cause a footing to fall away, this can double the span which a wall must bridge. This additional stress can create cracking in wall linings, particularly where there is a weak point in the structure caused by a door or window opening. It is, however, unlikely that framed structures will be so stressed as to suffer serious damage without first exhibiting some or all of the above symptoms for a considerable period. The same warning period should apply in the case of upheaval. It should be noted, however, that where framed buildings are supported by strip footings there is only one leaf of brickwork and therefore the externally visible walls are the supporting structure for the building. In this case, the subfloor masonry walls can be expected to behave as full brickwork walls.

Effects on brick veneer structures
Because the load-bearing structure of a brick veneer building is the frame that makes up the interior leaf of the external walls plus perhaps the internal walls, depending on the type of roof, the building can be expected to behave as a framed structure, except that the external masonry will behave in a similar way to the external leaf of a full masonry structure.

Water Service and Drainage

Where a water service pipe, a sewer or stormwater drainage pipe is in the vicinity of a building, a water leak can cause erosion, swelling or saturation of susceptible soil. Even a minuscule leak can be enough to saturate a clay foundation. A leaking tap near a building can have the same effect. In addition, trenches containing pipes can become watercourses even though backfilled, particularly where broken rubble is used as fill. Water that runs along these trenches can be responsible for serious erosion, interstrata seepage into subfloor areas and saturation.

Pipe leakage and trench water flows also encourage tree and shrub roots to the source of water, complicating and exacerbating the problem.
Poor roof plumbing can result in large volumes of rainwater being concentrated in a small area of soil:

- Incorrect falls in roof guttering may result in overflows, as may gutters blocked with leaves etc.
- Corroded guttering or downpipes can spill water to ground.
- Downpipes not positively connected to a proper stormwater collection system will direct a concentration of water to soil that is directly adjacent to footings, sometimes causing large-scale problems such as erosion, saturation and migration of water under the building.

Seriousness of Cracking

In general, most cracking found in masonry walls is a cosmetic nuisance only and can be kept in repair or even ignored. The table below is a reproduction of Table C1 of AS 2870.

AS 2870 also publishes figures relating to cracking in concrete floors, however because wall cracking will usually reach the critical point significantly earlier than cracking in slabs, this table is not reproduced here.

Prevention/Cure

Plumbing
Where building movement is caused by water service, roof plumbing, sewer or stormwater failure, the remedy is to repair the problem. It is prudent, however, to consider also rerouting pipes away from the building where possible, and relocating taps to positions where any leakage will not direct water to the building vicinity. Even where gully traps are present, there is sometimes sufficient spill to create erosion or saturation, particularly in modern installations using smaller diameter PVC fixtures. Indeed, some gully traps are not situated directly under the taps that are installed to charge them, with the result that water from the tap may enter the backfilled trench that houses the sewer piping. If the trench has been poorly backfilled, the water will either pond or flow along the bottom of the trench. As these trenches usually run alongside the footings and can be at a similar depth, it is not hard to see how any water that is thus directed into a trench can easily affect the foundation's ability to support footings or even gain entry to the subfloor area.

Ground drainage
In all soils there is the capacity for water to travel on the surface and below it. Surface water flows can be established by inspection during and after heavy or prolonged rain. If necessary, a grated drain system connected to the stormwater collection system is usually an easy solution.

It is, however, sometimes necessary when attempting to prevent water migration that testing be carried out to establish watertable height and subsoil water flows. This subject is referred to in BTF 19 and may properly be regarded as an area for an expert consultant.

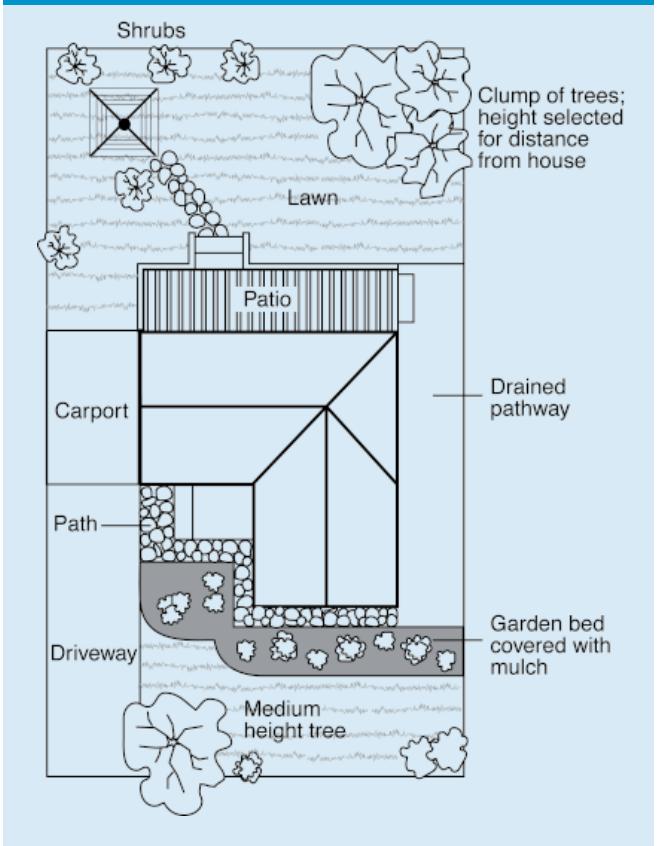
Protection of the building perimeter
It is essential to remember that the soil that affects footings extends well beyond the actual building line. Watering of garden plants, shrubs and trees causes some of the most serious water problems.

For this reason, particularly where problems exist or are likely to occur, it is recommended that an apron of paving be installed around as much of the building perimeter as necessary. This paving

CLASSIFICATION OF DAMAGE WITH REFERENCE TO WALLS

Description of typical damage and required repair	Approximate crack width limit (see Note 3)	Damage category
Hairline cracks	<0.1 mm	0
Fine cracks which do not need repair	<1 mm	1
Cracks noticeable but easily filled. Doors and windows stick slightly	<5 mm	2
Cracks can be repaired and possibly a small amount of wall will need to be replaced. Doors and windows stick. Service pipes can fracture. Weathertightness often impaired	5–15 mm (or a number of cracks 3 mm or more in one group)	3
Extensive repair work involving breaking-out and replacing sections of walls, especially over doors and windows. Window and door frames distort. Walls lean or bulge noticeably, some loss of bearing in beams. Service pipes disrupted	15–25 mm but also depend on number of cracks	4

Gardens for a reactive site



should extend outwards a minimum of 900 mm (more in highly reactive soil) and should have a minimum fall away from the building of 1:60. The finished paving should be no less than 100 mm below brick vent bases.

It is prudent to relocate drainage pipes away from this paving, if possible, to avoid complications from future leakage. If this is not practical, earthenware pipes should be replaced by PVC and backfilling should be of the same soil type as the surrounding soil and compacted to the same density.

Except in areas where freezing of water is an issue, it is wise to remove taps in the building area and relocate them well away from the building – preferably not uphill from it (see BTF 19).

It may be desirable to install a grated drain at the outside edge of the paving on the uphill side of the building. If subsoil drainage is needed this can be installed under the surface drain.

Condensation

In buildings with a subfloor void such as where bearers and joists support flooring, insufficient ventilation creates ideal conditions for condensation, particularly where there is little clearance between the floor and the ground. Condensation adds to the moisture already present in the subfloor and significantly slows the process of drying out. Installation of an adequate subfloor ventilation system, either natural or mechanical, is desirable.

Warning: Although this Building Technology File deals with cracking in buildings, it should be said that subfloor moisture can result in the development of other problems, notably:

- Water that is transmitted into masonry, metal or timber building elements causes damage and/or decay to those elements.
- High subfloor humidity and moisture content create an ideal environment for various pests, including termites and spiders.
- Where high moisture levels are transmitted to the flooring and walls, an increase in the dust mite count can ensue within the living areas. Dust mites, as well as dampness in general, can be a health hazard to inhabitants, particularly those who are abnormally susceptible to respiratory ailments.

The garden

The ideal vegetation layout is to have lawn or plants that require only light watering immediately adjacent to the drainage or paving edge, then more demanding plants, shrubs and trees spread out in that order.

Overwatering due to misuse of automatic watering systems is a common cause of saturation and water migration under footings. If it is necessary to use these systems, it is important to remove garden [illegible]

Existing trees

[illegible] existence or threat of upheaval of footings, if the offending roots are subsidiary and their removal will not significantly damage the tree, they should be severed and a concrete or metal barrier placed vertically in the soil to prevent future root growth in the direction of the building. If it is not possible to remove the relevant roots without damage to the tree, an application to remove the tree should be made to the local authority. A prudent plan is to transplant likely offenders before they become a problem.

Information on trees, plants and shrubs

State departments overseeing agriculture can give information regarding root patterns, volume of water needed and safe distance from buildings of most species. Botanic gardens are also sources of information. For information on plant roots and drains, see Building Technology File 17.

Excavation

Excavation around footings must be properly engineered. Soil supporting footings can only be safely excavated at an angle that allows the soil under the footing to remain stable. This angle is called the angle of repose (or friction) and varies significantly between soil types and conditions. Removal of soil within the angle of repose will cause subsidence.

Remediation

Where erosion has occurred that has washed away soil adjacent to footings, soil of the same classification should be introduced and compacted to the same density. Where footings have been undermined, augmentation or other specialist work may be required. Remediation of footings and foundations is generally the realm of a specialist consultant.

Where isolated footings rise and fall because of swell/shrink effect, the homeowner may be tempted to alleviate floor bounce by filling the gap that has appeared between the bearer and the pier with blocking. The danger here is that when the next swell segment of the cycle occurs, the extra blocking will push the floor up into an accentuated dome and may also cause local shear failure in the soil. If it is necessary to use blocking, it should be by a pair of fine wedges and monitoring should be carried out fortnightly.

This BTF was prepared by John Lewer FAIB, MIAMA, Partner, Construction Diagnosis.

Distributed by

CSIRO PUBLISHING PO Box 1139, Collingwood 3066, Australia

Freecall 1800 645 051 Tel (03) 9662 7666 Fax (03) 9662 7555 www.publish.csiro.au

Email: publishing.sales@csiro.au