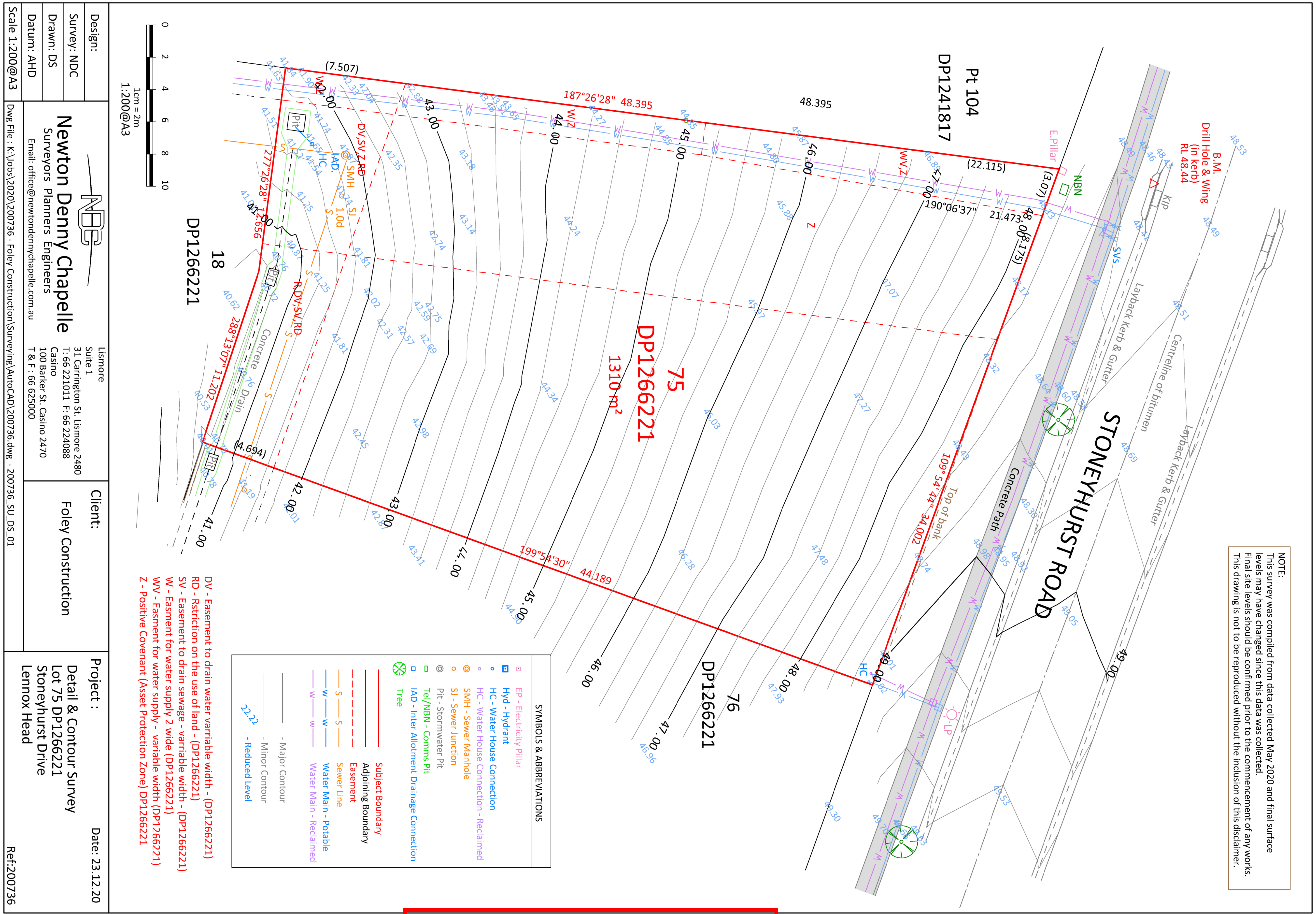
NTS



Design:
Survey: NDC
Drawn: DS
Datum: AHD
Scale 1:200@A3
Newton Denny Chapelle
Surveyors Planners Engineers
Email: office@newtondennychapelle.com.au
Lismore
Suite 1
31 Carrington St. Lismore 2480
T: 66 221011 F: 66 224088
Casino
100 Barker St. Casino 2470
T & F : 66 625000
Client:
Foley Construction
Project:
Detail & Contour Survey
Lot 75 DP1266221
Stoneyhurst Drive
Lennox Head
Date: 23.12.20
Ref:200736
Dwg File : K:\Jobs\2020\200736 - Foley Construction\Surveying\AutoCAD\200736.dwg - 200736_SU_DS_01
1cm = 2m
1:200@A3
75
DP1266221
1310 m²
18
DP1266221
76
DP1266221
Pt 104
DP1241817
STONEYHURST ROAD
Concrete Path
Concrete Drain
Layback Kerb & Gutter
Centreline of bitumen
Top of bank
B.M.
Drill Hole & Wing
(in kerb)
RL 48.44
187°26'28" 48.395
199°54'30" 44.189
109°54'44" 34.002
288°13'07" 11.202
277°26'28" 14.656
190°06'37" 21.473
SYMBOLS & ABBREVIATIONS
EP - Electricity Pillar
Hyd - Hydrant
HC - Water House Connection
HC - Water House Connection - Reclaimed
SMH - Sewer Manhole
SJ - Sewer Junction
Pit - Stormwater Pit
Tel/NBN - Comms Pit
IAD - Inter Allotment Drainage Connection
Tree
Subject Boundary
Adjoining Boundary
Easement
Sewer Line
Water Main - Potable
Water Main - Reclaimed
Major Contour
Minor Contour
Reduced Level
DV - Easement to drain water variable width - (DP1266221)
RD - Restriction on the use of land - (DP1266221)
SV - Easement to drain sewage - variable width - (DP1266221)
W - Easement for water supply 2 wide (DP1266221)
WV - Easement for water supply - variable width (DP1266221)
Z - Positive Covenant (Asset Protection Zone) DP1266221
NOTE:
This survey was compiled from data collected May 2020 and final surface levels may have changed since this data was collected.
Final site levels should be confirmed prior to the commencement of any works.
This drawing is not to be reproduced without the inclusion of this disclaimer.

N

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PAN-169476

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LVL 1/144 JOHNSON STREET BYRON BAY | PO BOX 1285 NSW 2481
T: 02 66809690 | E: office@harleygraham.com | ABN: 85158246003 | NSW 7892

Project	Drawing Name	Job No.	Drawing No.	Scale
STONEYHURST	SURVEY	HGA303	DA.F.02	See dwg titles
Client	**Location**	**Date**	**Revision**	
#Client Full Name	LOT 75 STONEYHURST DRIVE - LENNOX HEAD	15/7/24	DA-E	

LANDSCAPE PLAN
1:250

AREAS

LAND	1310m²
DRIVEWAY	465m²

FSR

UNIT 1	134m²
UNIT 2	85m²
UNIT 3	85m²
UNIT 4	85m²
TOTAL	**389m²**
FSR	**30%**

BASIX

REF REPORT ATTACHED

LANDSCAPE KEY

TURFED AREA	573m² (44% OF LAND SIZE)
PRIVACY PLANTING	73m² (5% OF LAND SIZE)
TOTAL LANDSCAPED AREA	646m² (50% OF LAND SIZE)

TREES

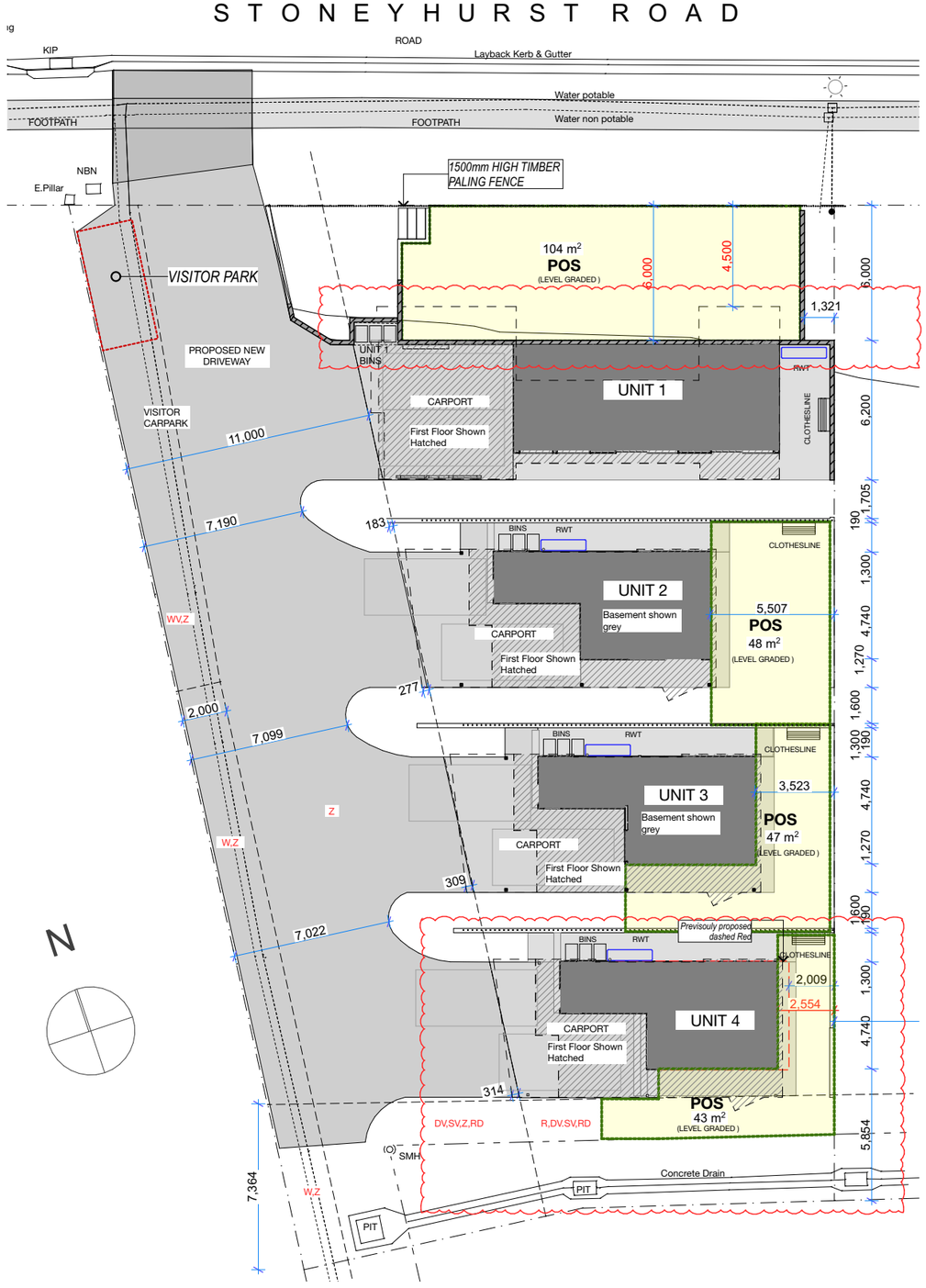
- BANKSIA (Banksia integriflora) 5m
- GREVILLEA BANKSII 3m

SHRUBS

- WEEPING BOTTLEBRUSH (Callistemon Viminalis)
- LILLY PILLY

GROUND COVERS, SMALL PLANTINGS

- AGAVE
- MONDO GRASS



N

DV - Easement to drain water varriable width - (DP1266221)
RD - Rstriction on the use of land - (DP1266221)
SV - Easement to drain sewage - varriable width - (DP1266221)
W - Easment for water supply 2 wide (DP1266221)
WV - Easment for water supply - variable width (DP1266221)
Z - Positive Covenant (Asset Protection Zone) DP1266221

SITE PLAN
1:250

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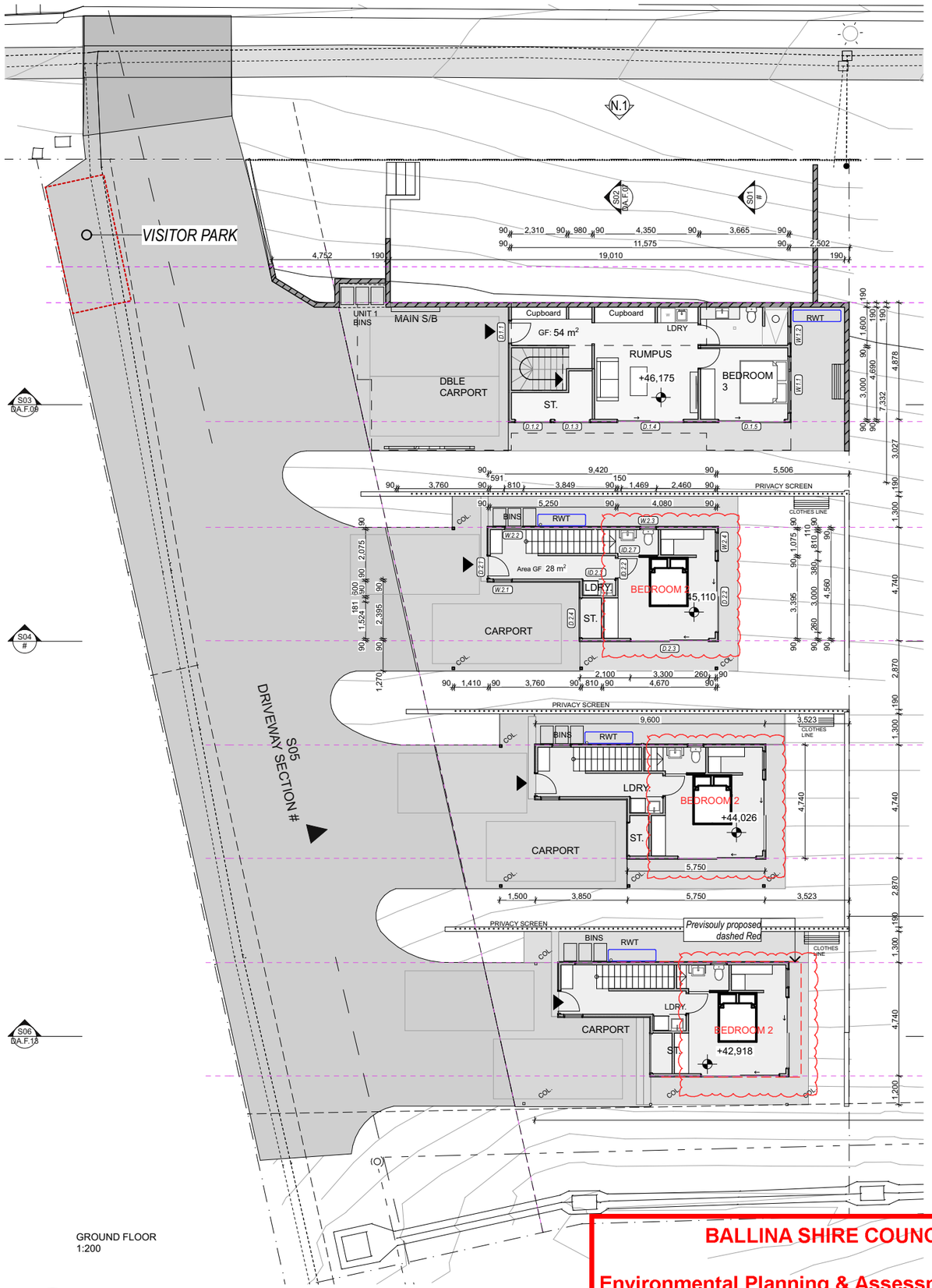
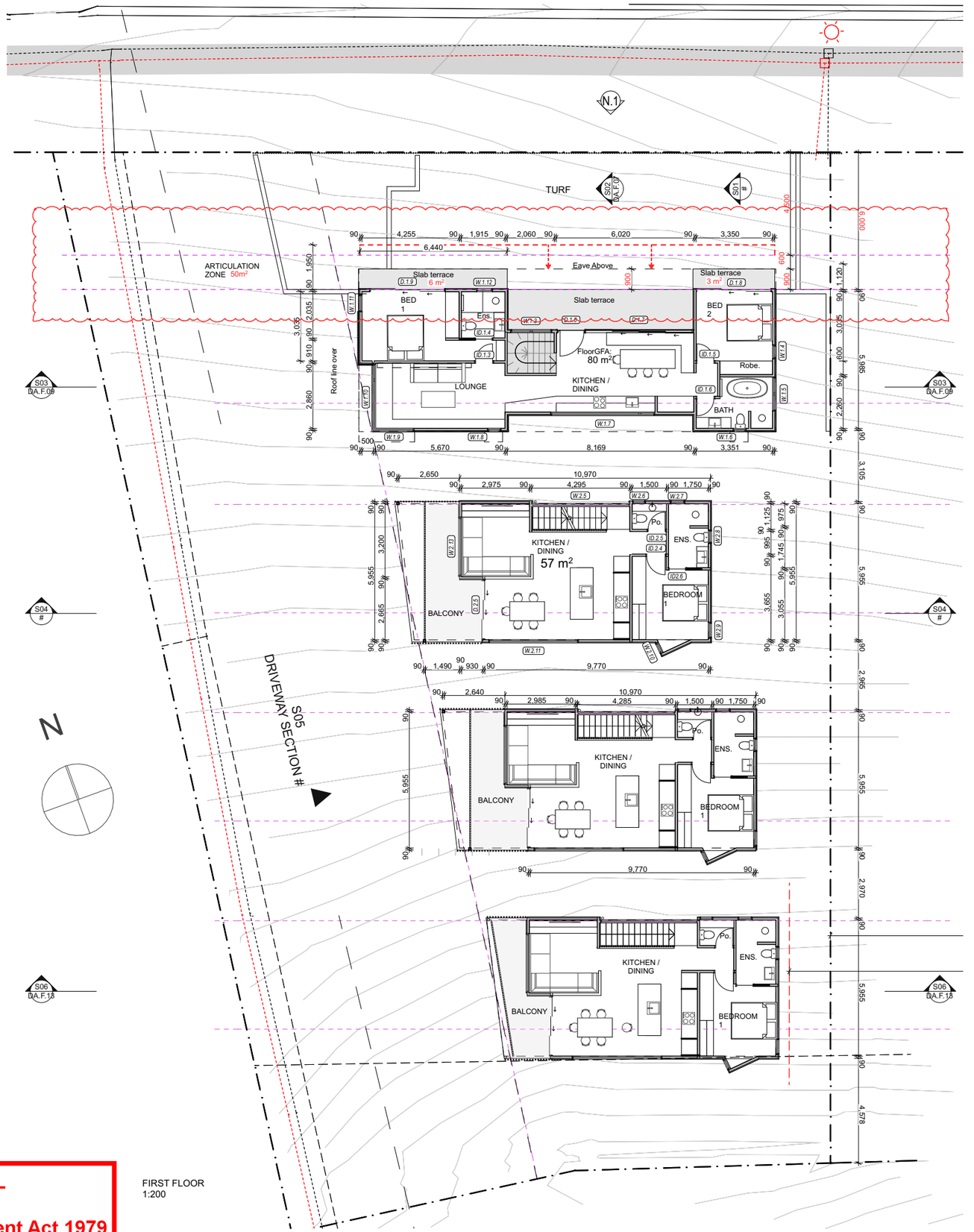
Project STONEYHURST	**Drawing Name** LANDSCAPE PLAN/ SITE PLAN / NOTES	**Job No.** HGA303	**Drawing No.** DA.F.04	**Scale** See dwg titles
Client #Client Full Name	**Location** LOT 75 STONEYHURST DRIVE - LENNOX HEAD	**Date** 15/7/24	**Revision** DA-E	



GROUND FLOOR
1:200



FIRST FLOOR
1:200

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PAN-169476

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Project
STONEYHURST

Client
#Client Full Name

Drawing Name
GROUND & FIRST FLOOR 1:200

Location
LOT 75 STONEYHURST DRIVE - LENNOX HEAD

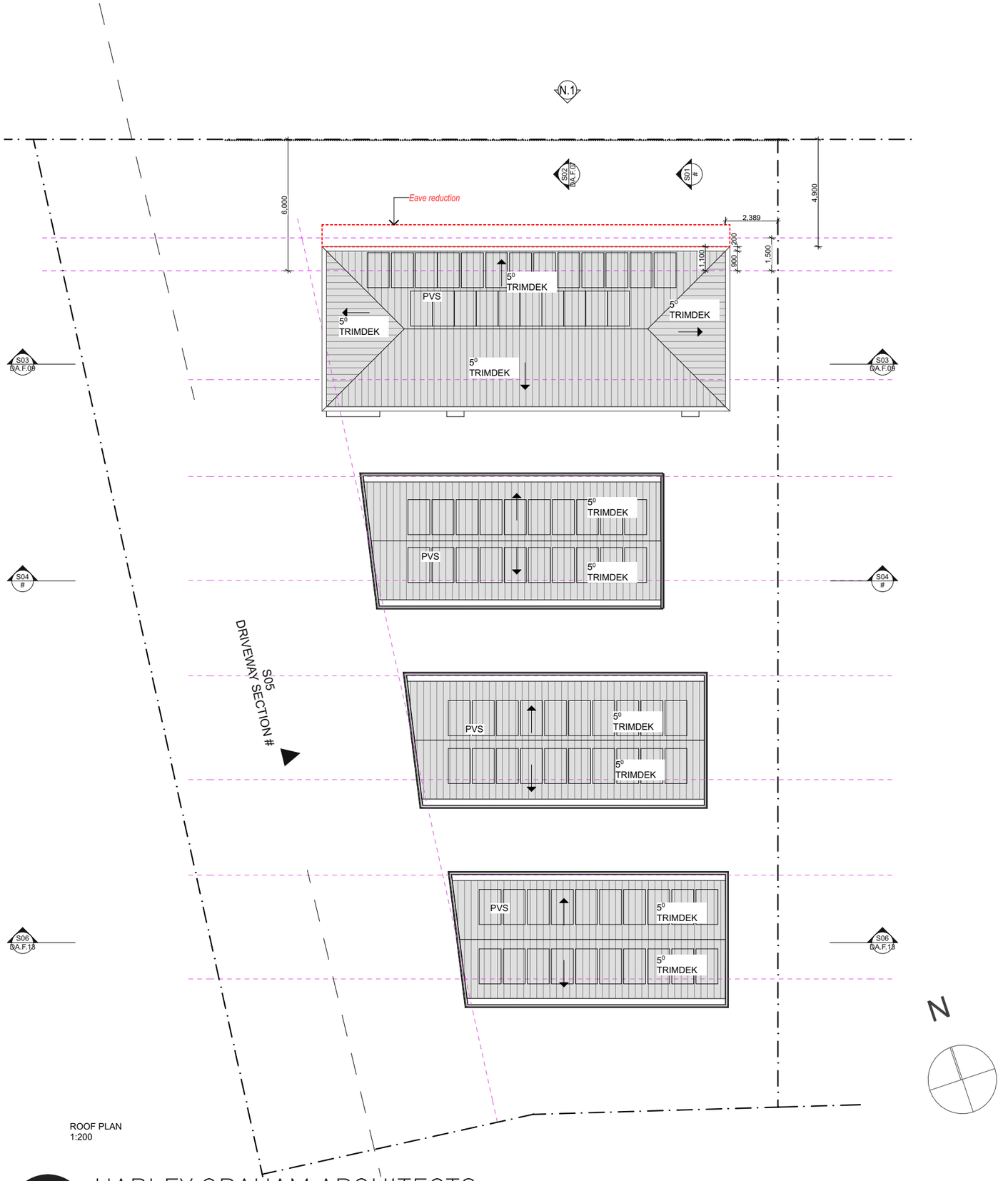
Job No.
HGA303

Date
15/7/24

Drawing No.
DA.F.05

Revision
DA-E

Scale
See dwg titles



ROOF PLAN
1:200

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PAN-169476

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Project
STONEYHURST

Client
#Client Full Name

Drawing Name
ROOF PLAN

Location
LOT 75 STONEYHURST DRIVE - LENNOX HEAD

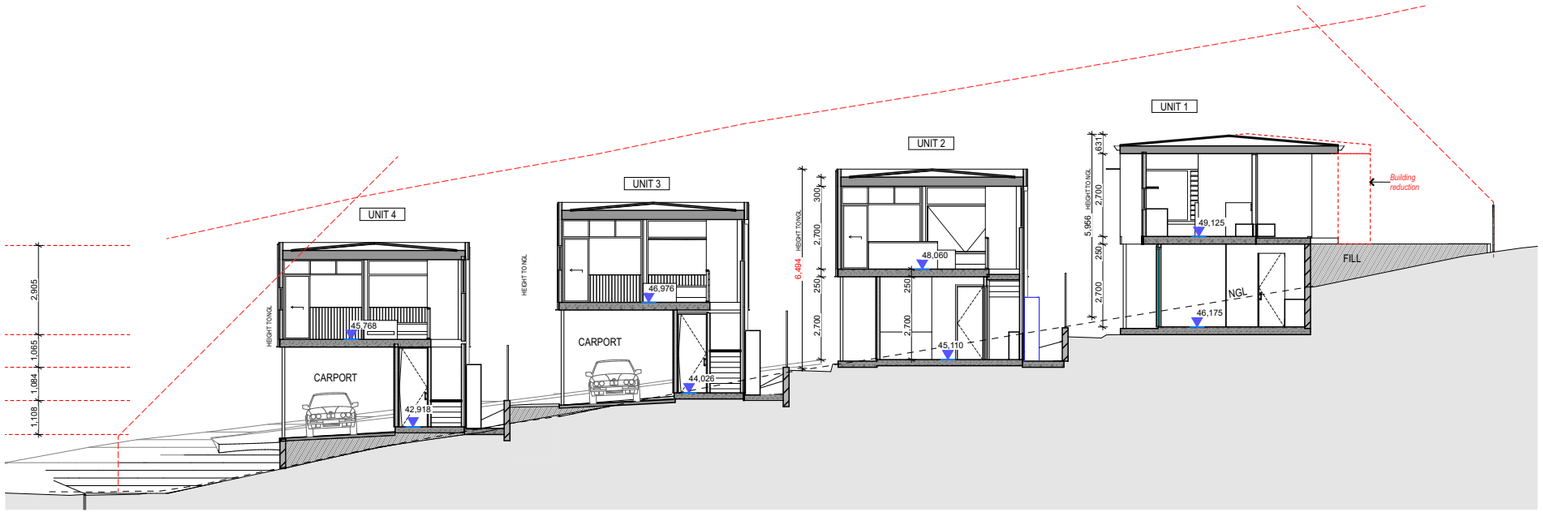
Job No.
HGA303

Date
15/7/24

Drawing No.
DA.F.06

Revision
DA-E

Scale
See dwg titles



SECTION 2
1:200

MATERIALS AND COLOUR KEY

- SCYON AXON FC CLADDING PAINTED MONUMENT
- RENDERED BLOCKWORK COLOUR MONUMENT
- ALUMINIUM PRIVACY SCREENING COLOUR NIGHT SKY (BLACK)
- ROOF SHEETING : TRIMDEK COLOUR : SHALE GREY

EAST ELEVATION
1:200

NORTH ELEVATION
1:200

WEST ELEVATION
1:200

SOUTH ELEVATION
1:200

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PAN-169476

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Project
STONEYHURST

Client
#Client Full Name

Drawing Name
SECTIONS-ELEVATIONS 1:200

Location
LOT 75 STONEYHURST DRIVE - LENNOX HEAD

Job No.
HGA303

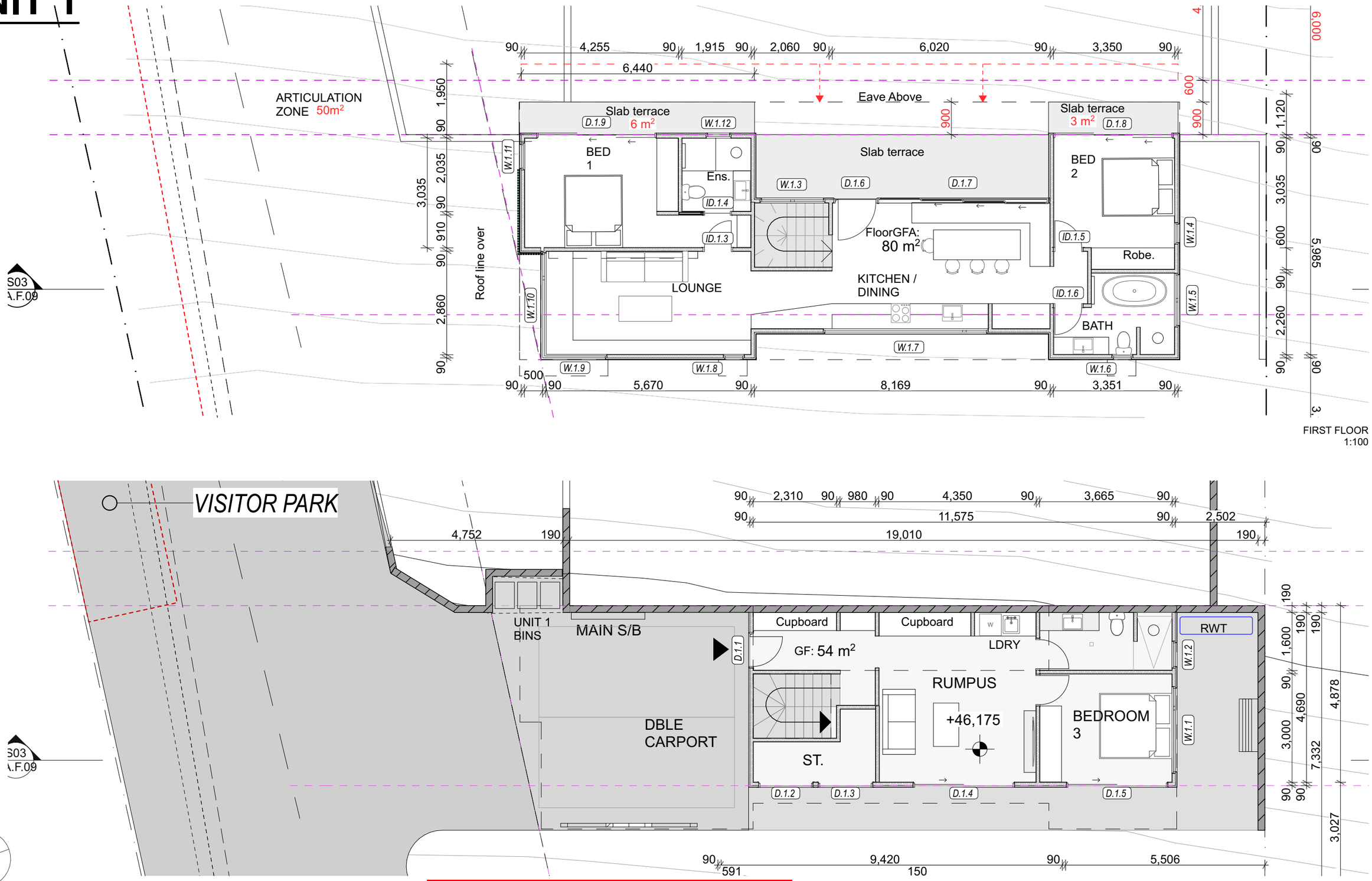
Date
15/7/24

Drawing No.
DA.F.07

Revision
DA-E

Scale
See dwg titles

UNIT 1



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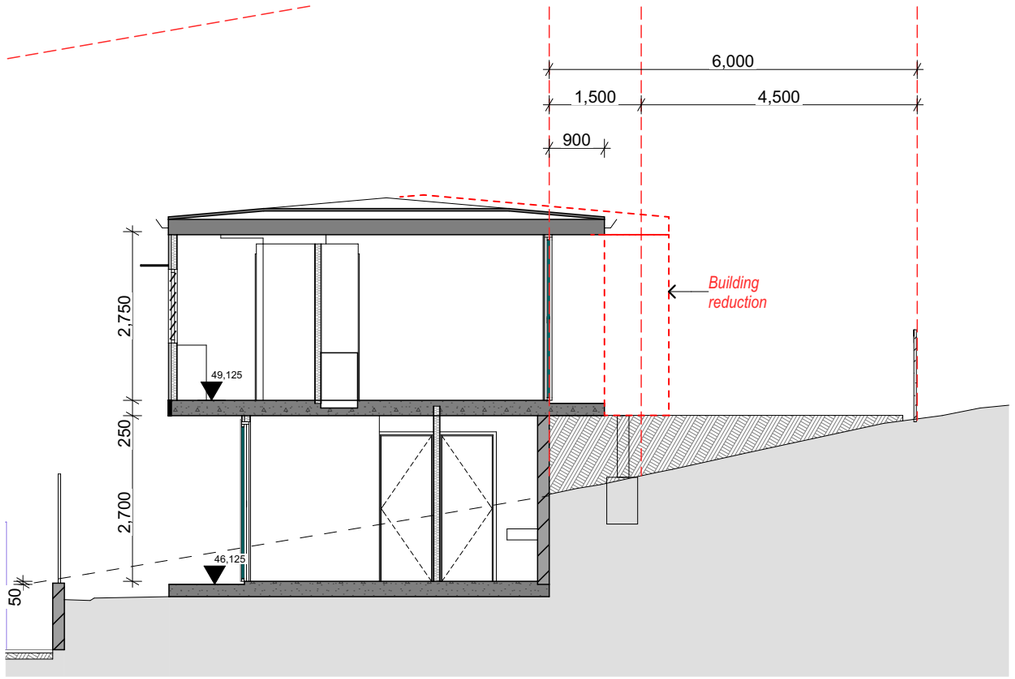
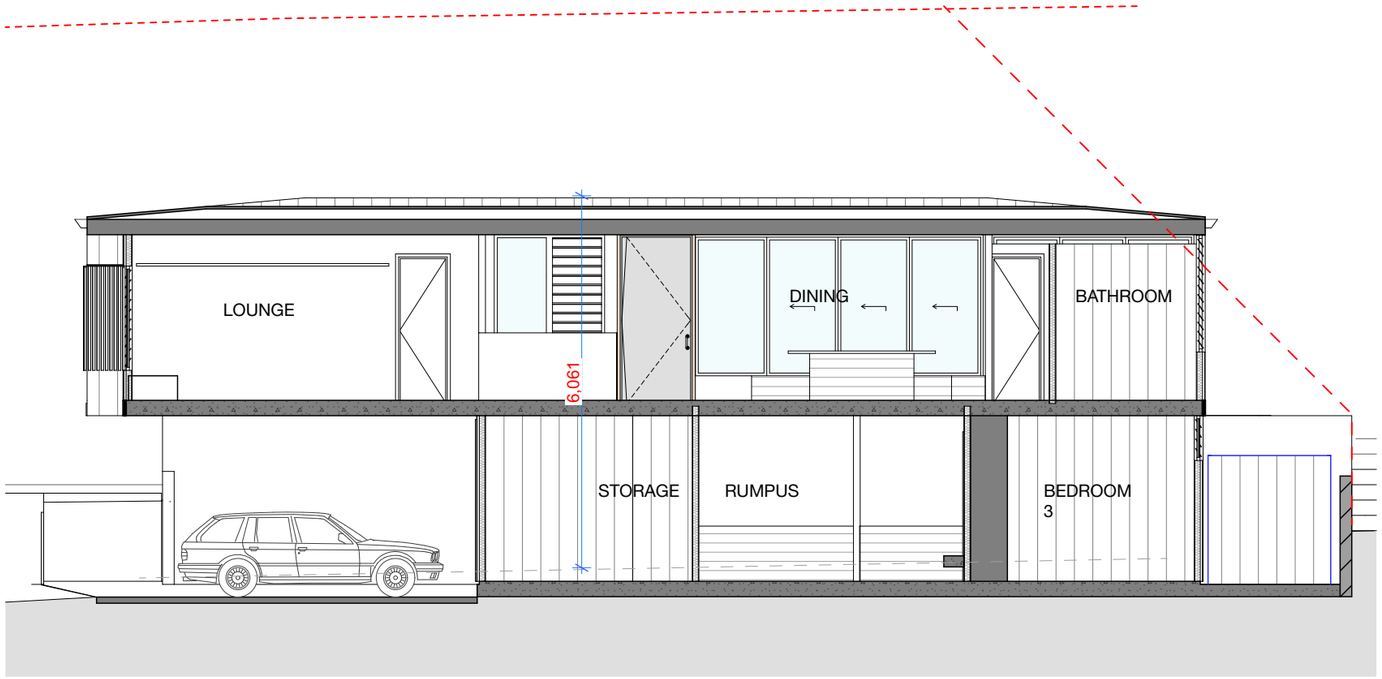
Project STONEYHURST	**Drawing Name** UNIT 1 PLANS 1:100	**Job No.** HGA303	**Drawing No.** DA.F.08	**Scale** See dwg titles
Client #Client Full Name	**Location** LOT 75 STONEYHURST DRIVE - LENNOX HEAD	**Date** 15/7/24	**Revision** DA-E	



SECTION 1
1:100



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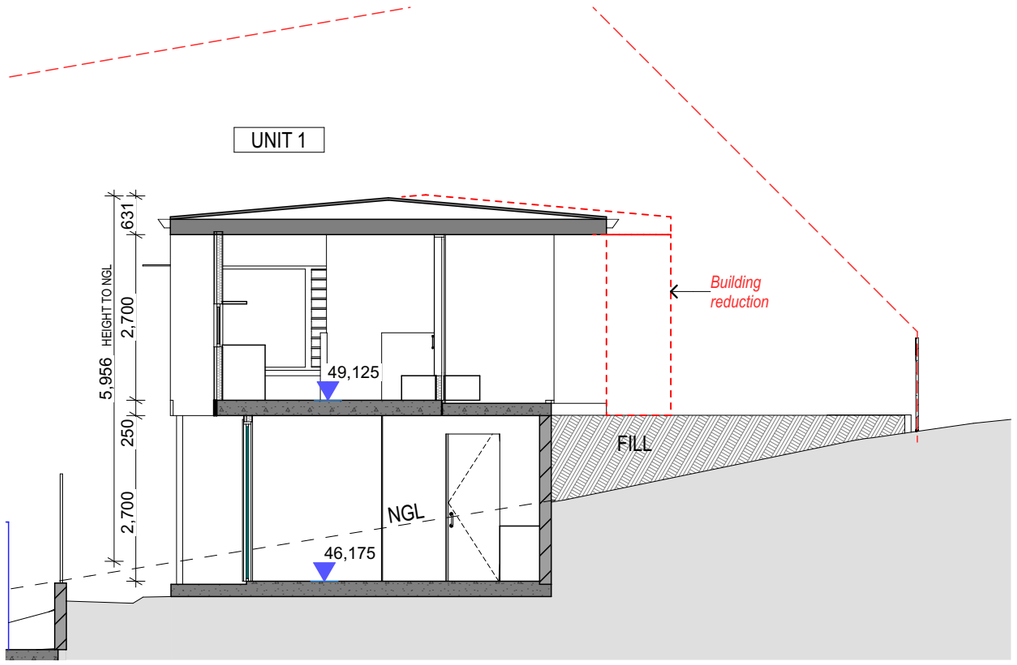
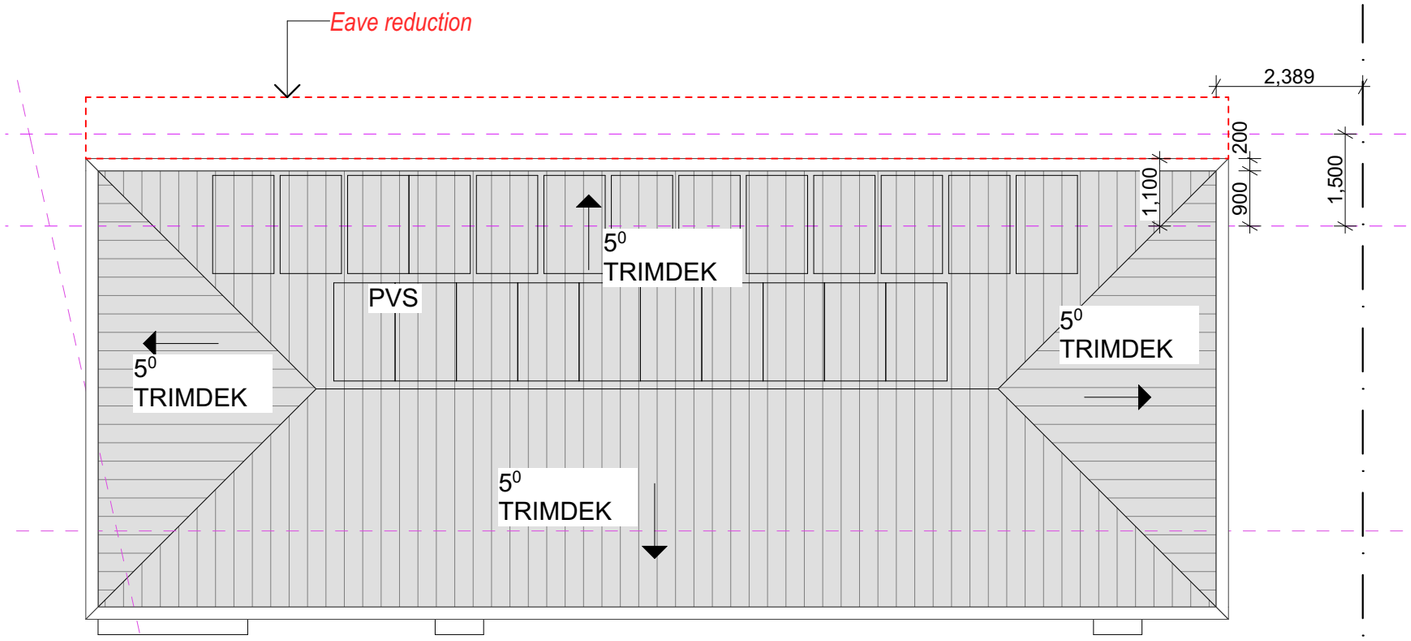


SECTION 2
1:100



ROOF PLAN
1:100

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PAN-169476

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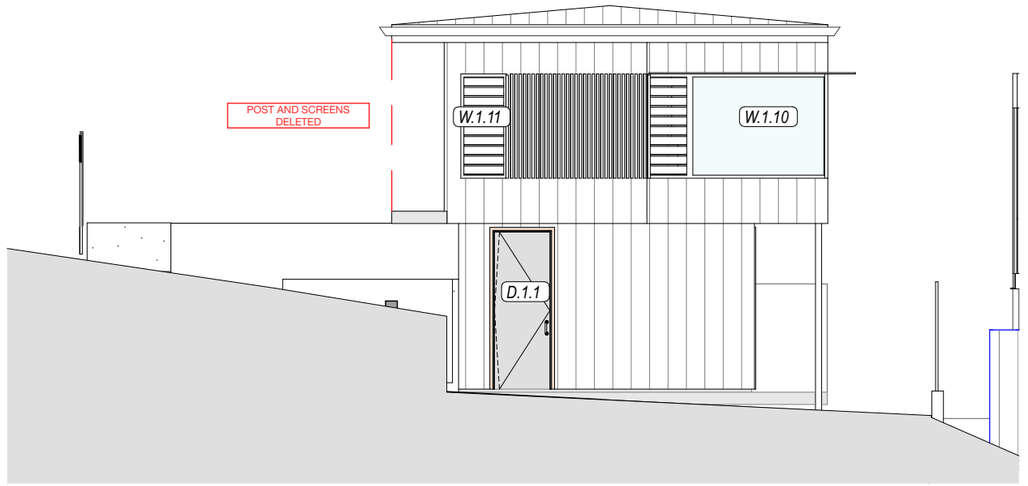
Project STONEYHURST	**Drawing Name** UNIT 1 - SECTIONS (1)	**Job No.** HGA303	**Drawing No.** **DA.F.09**	**Scale** See dwg titles
Client #Client Full Name	**Location** LOT 75 STONEYHURST DRIVE - LENNOX HEAD	**Date** **15/7/24**	**Revision** **DA-E**	

NORTH ELEVATION
1:100



WEST ELEVATION
1:100

MATERIALS AND COLOUR KEY

- SCYON AXON FC CLADDING PAINTED MONUMENT
- RENDERED BLOCKWORK COLOUR MONUMENT
- ALUMINIUM PRIVACY SCREENING COLOUR NIGHT SKY (BLACK)
- ROOF SHEETING : TRIMDEK COLOUR : SHALE GREY

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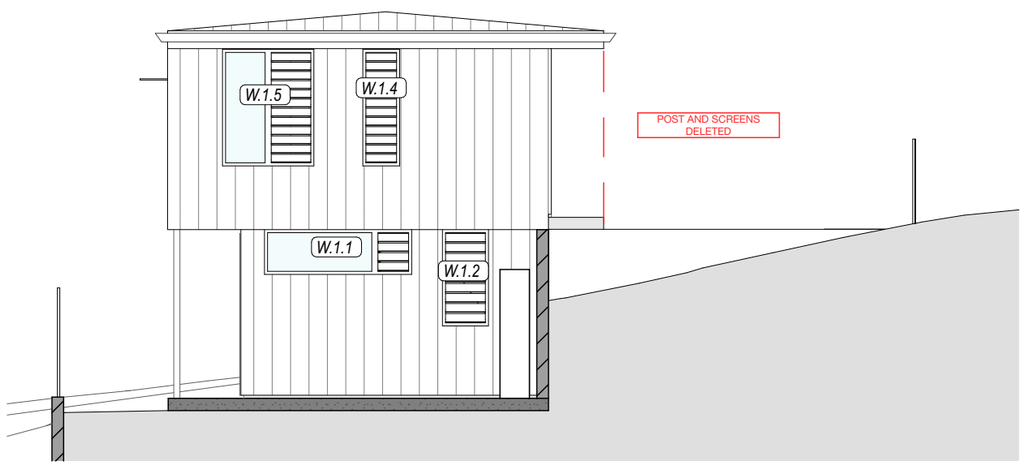
PAN-169476

SOUTH ELEVATION
1:100



EAST ELEVATION
1:100

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Project
STONEYHURST

Client
#Client Full Name

Drawing Name
UNIT 1 - ELEVATIONS

Location
LOT 75 STONEYHURST DRIVE - LENNOX HEAD

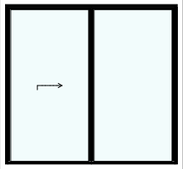
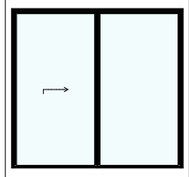
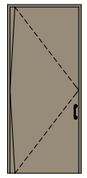
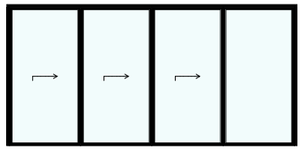
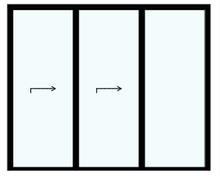
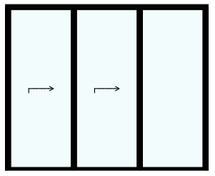
Job No.
HGA303

Date
15/7/24

Drawing No.
DA.F.10

Revision
DA-E

Scale
See dwg titles

ID	D.1.1	D.1.2	D.1.3	D.1.4	D.1.5	D.1.6	D.1.7	D.1.8	D.1.9
Nominal W x H Size	982×2,600	1,500×2,600	1,500×2,600	2,800×2,600	2,800×2,600	1,200×2,750	4,730×2,300	3,302×2,700	3,302×2,700
View from Opening Side									
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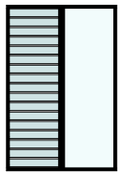
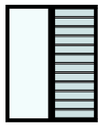
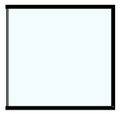
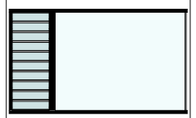
Frame Finish	HARDWOOD	PAINTED	PAINTED	Powdercoat - Night sky satin	Powdercoat - Night sky satin	HARDWOOD	Powdercoat - Night sky satin	Powdercoat - Night sky satin	Powdercoat - Night sky satin
LEAF/GLASS	Shiplap Hardwood	Solid core painted	Solid core painted	GLASS TO BASIX SPECS	GLASS TO BASIX SPECS	Shiplap Hardwood	GLASS TO BASIX SPECS	GLASS TO BASIX SPECS	GLASS TO BASIX SPECS

ID	W.1.1	W.1.2	W.1.3	W.1.4	W.1.5	W.1.6	W.1.7	W.1.8	W.1.9	W.1.10	W.1.11	W.1.12
Nominal W x H Size	2,400×730	750×1,570	1,800×2,700	600×1,900	1,490×1,900	582×1,200	4,560×700	582×1,700	1,725×1,700	2,851×1,700	750×1,700	699×2,700
View from Opening Side												
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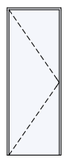
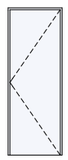
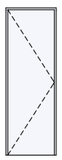
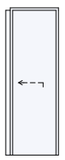
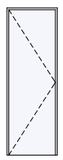
Frame Finish	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN
Glass Type	REF. BASIX SPECS	REF. BASIX SPECS	REF. BASIX SPECS	REF. BASIX SPECS	REF. BASIX SPECS	REF. BASIX SPECS	REF. BASIX SPECS	REF. BASIX SPECS	REF. BASIX SPECS	REF. BASIX SPECS	REF. BASIX SPECS	REF. BASIX SPECS

ID	ID.1.1	ID.1.2	ID.1.3	ID.1.4	ID.1.5	ID.1.6
Nominal W x H Size	880×2,400	880×2,400	820×2,400	786×2,400	820×2,400	820×2,400
View from Opening Side						
Frame Type						
Frame Finish						
Glass Type						

BALLINA SHIRE COUNCIL

Environmental Planning & Assessment Act 1979

Development Consent No: DA 2021/885

PAN-169476

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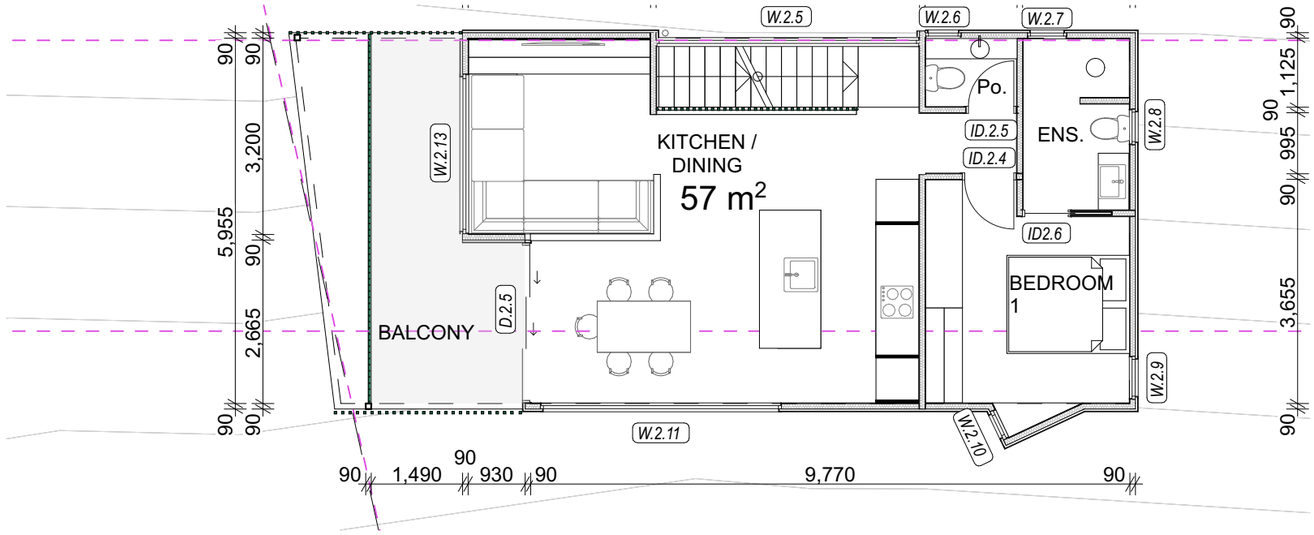
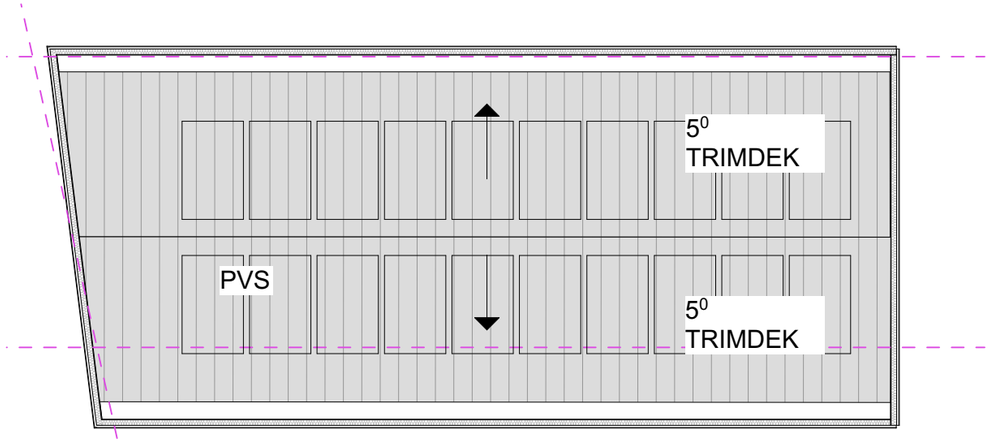
LVL 1/144 JOHNSON STREET BYRON BAY | PO BOX 1285 NSW 2481
T: 02 66809690 | E: office@harleygraham.com | ABN: 85158246003 | NSW 7892

Project STONEYHURST
Client #Client Full Name
Drawing Name UNIT 1 WINDOWS & DOORS
Location LOT 75 STONEYHURST DRIVE - LENNOX HEAD
Job No. HGA303
Date 15/7/24
Drawing No. DA.F.11
Revision DA-E
Scale See dwg titles

UNIT 2-3-4

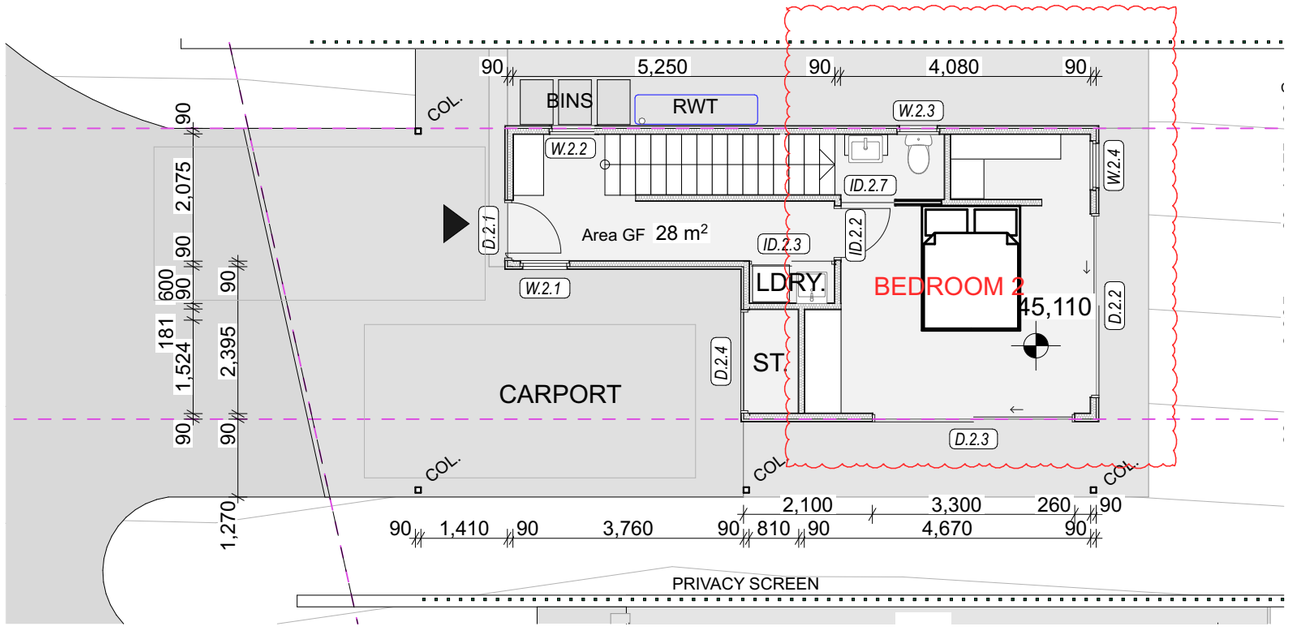


FIRST FLOOR
1:100



ROOF PLAN
1:100

N



GROUND FLOOR
1:100

BALLINA SHIRE COUNCIL

Environmental Planning & Assessment Act 1979

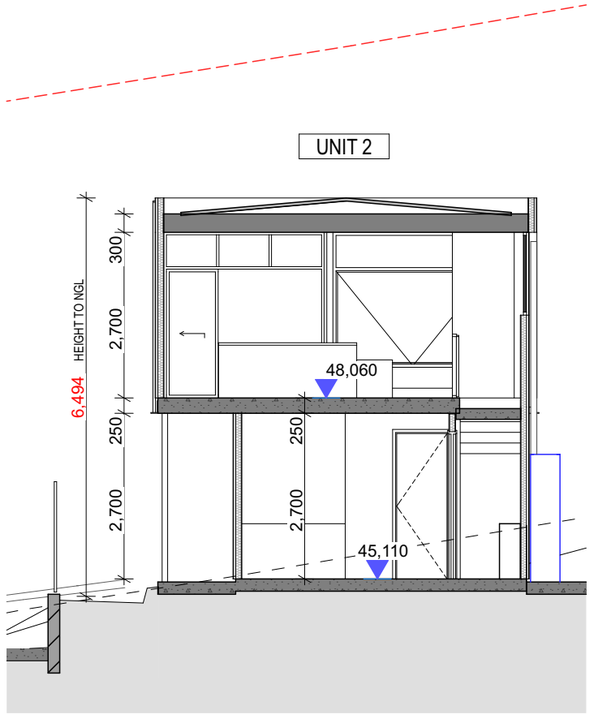
Development Consent No: DA 2021/885

PAN-169476

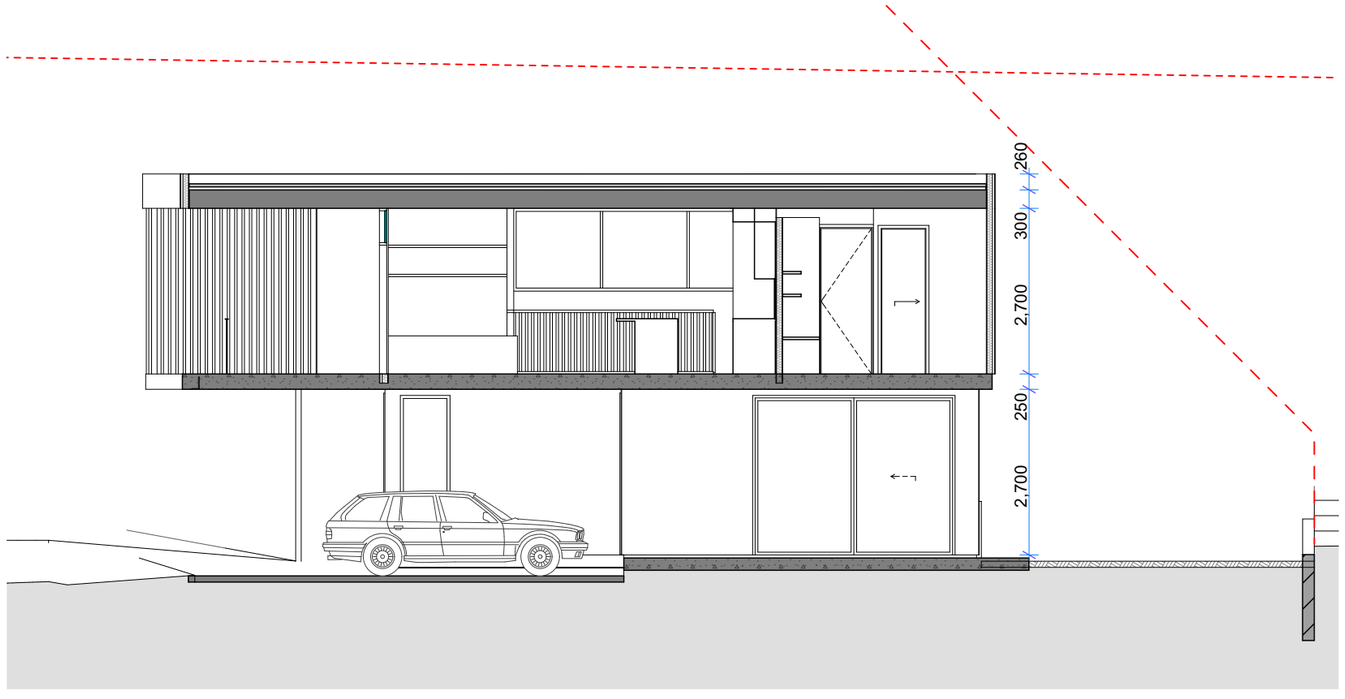
HARLEY GRAHAM ARCHITECTS
LVL 1/144 JOHNSON STREET BYRON BAY | PO BOX 1285 NSW 2481
T: 02 66809690 | E: office@harleygraham.com | ABN: 85158246003 | NSW 7892

Project STONEYHURST
Client #Client Full Name
Drawing Name UNIT 2-3-4 PLANS 1:100
Location LOT 75 STONEYHURST DRIVE - LENNOX HEAD
Job No. HGA303
Date 15/7/24
Drawing No. DA.F.12
Revision DA-E
Scale See dwg titles

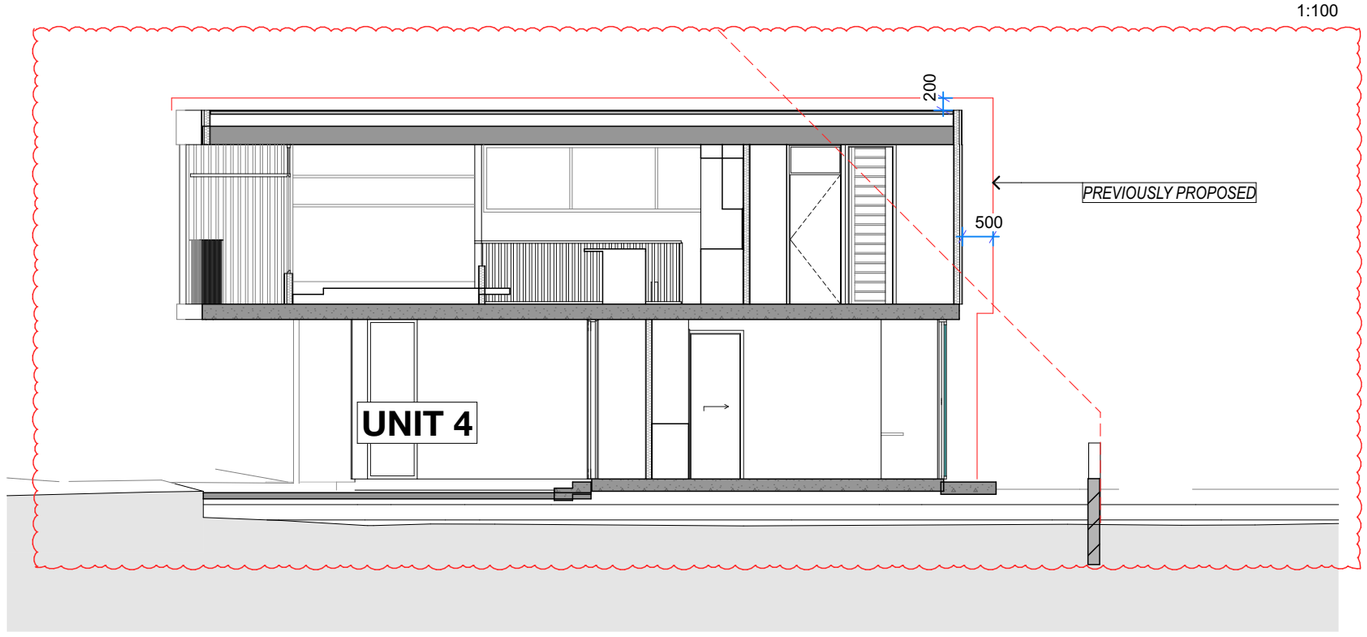
UNIT 2-3-4



SECTION 2
1:100



SECTION 4
1:100



SECTION 06
1:100

BALLINA SHIRE COUNCIL

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Development Consent No: DA 2021/885

PAN-169476

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LVL 1/144 JOHNSON STREET BYRON BAY | PO BOX 1285 NSW 2481
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Project
STONEYHURST

Client
#Client Full Name

Drawing Name
UNIT 2-3-4 SECTIONS

Location
LOT 75 STONEYHURST DRIVE - LENNOX HEAD

Job No.
HGA303

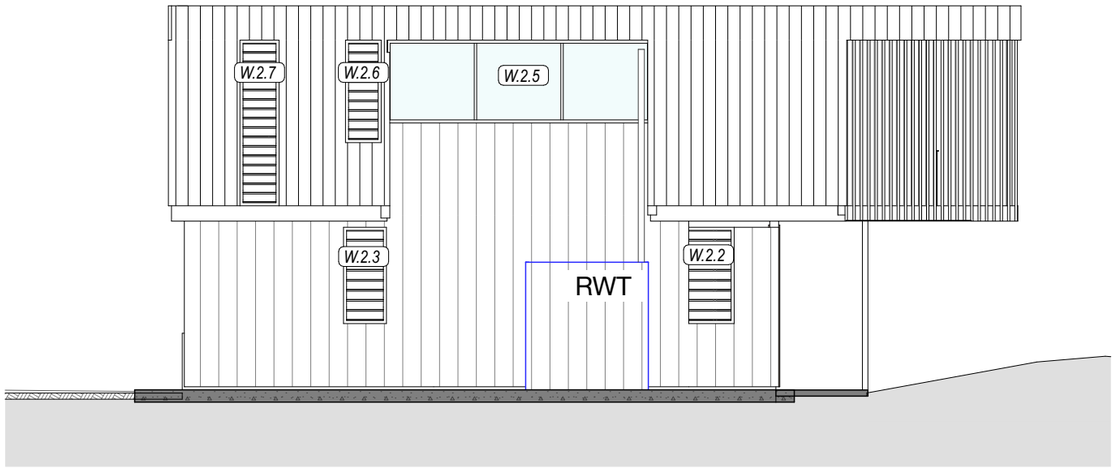
Date
15/7/24

Drawing No.
DA.F.13

Revision
DA-E

Scale
See dwg titles

UNIT 2-3-4



NORTH ELEVATION
1:100

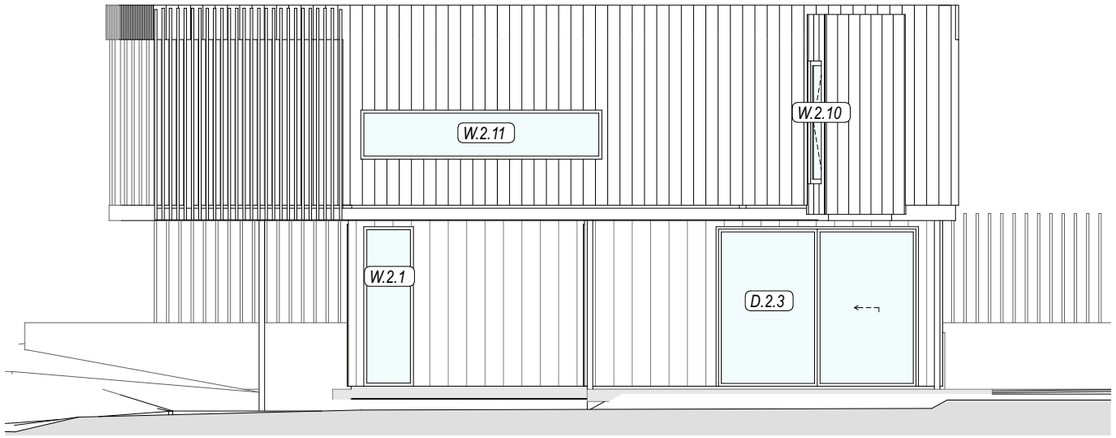
EAST ELEVATION
1:100

BALLINA SHIRE COUNCIL

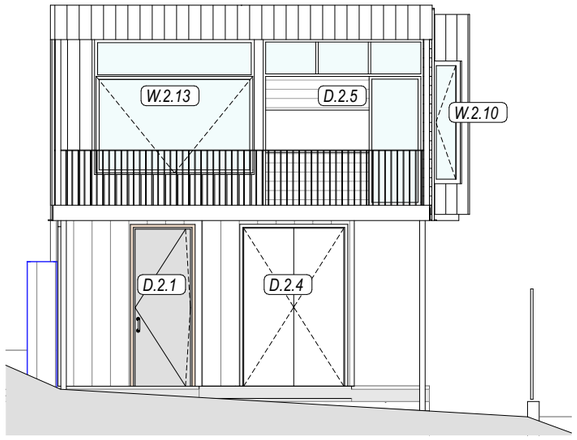
Environmental Planning & Assessment Act 1979

Development Consent No: DA 2021/885

PAN-169476



SOUTH ELEVATION
1:100



WEST ELEVATION
1:100

MATERIALS AND COLOUR KEY

- SCYON AXON FC CLADDING PAINTED MONUMENT
- RENDERED BLOCKWORK COLOUR MONUMENT
- ALUMINIUM PRIVACY SCREENING COLOUR NIGHT SKY (BLACK)
- ROOF SHEETING : TRIMDEK COLOUR : SHALE GREY

HARLEY GRAHAM ARCHITECTS
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Project
STONEYHURST

Client
#Client Full Name

Drawing Name
UNIT 2-3-4 ELEVATIONS

Location
LOT 75 STONEYHURST DRIVE - LENNOX HEAD

Job No.
HGA303

Date
15/7/24

Drawing No.
DA.F.14

Revision
DA-E

Scale
See dwg titles

ID	D.2.1	D.2.2	D.2.3	D.2.4	D.2.5
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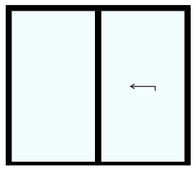
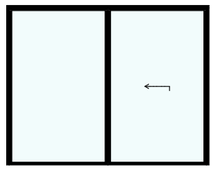
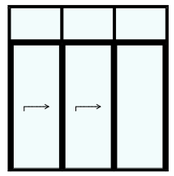
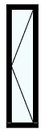
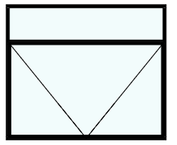
View from Opening Side					
Frame Type	HARDWOOD	AL	AL	METAL	AL
Frame Finish	HARDWOOD	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN	PAINTED	POWDERCOAT NIGHT SKY SATIN
LEAF/GLASS	HARDWOOD	See Basix	See Basix	SOLID CORE PAINTED	See Basix

ID	W.2.1	W.2.2	W.2.3	W.2.4	W.2.5	W.2.6	W.2.7	W.2.8	W.2.9	W.2.10	W.2.11	W.2.13
Nominal W x H Size	810×2,600	810×1,570	700×1,570	810×1,470	4,295×1,350	582×1,670	638×2,700	580×1,670	700×2,000	508×2,000	3,931×800	2,605×2,200
View from Opening Side												
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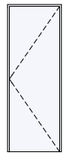
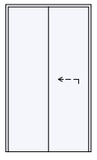
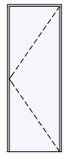
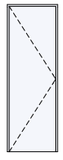
Frame Finish	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN	POWDERCOAT NIGHT SKY SATIN
Glass Type	REF. BASIX	REF. BASIX	REF. BASIX	REF. BASIX	REF. BASIX	REF. BASIX	REF. BASIX		REF. BASIX		REF. BASIX	REF. BASIX

ID	ID.2.2	ID.2.3	ID.2.4	ID.2.5	ID.2.7
Nominal W x H Size	880×2,400	1,390×2,400	880×2,400	820×2,400	876×2,400
View from Opening Side					
Frame Type					
Frame Finish					
Glass Type					

BALLINA SHIRE COUNCIL

Environmental Planning & Assessment Act 1979

Development Consent No: DA 2021/885

PAN-169476

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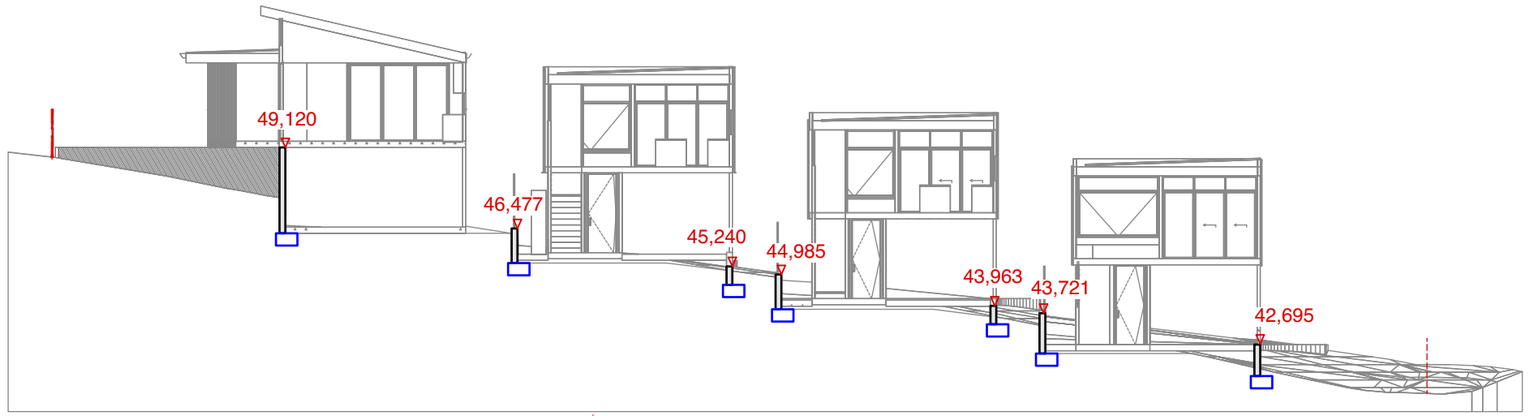
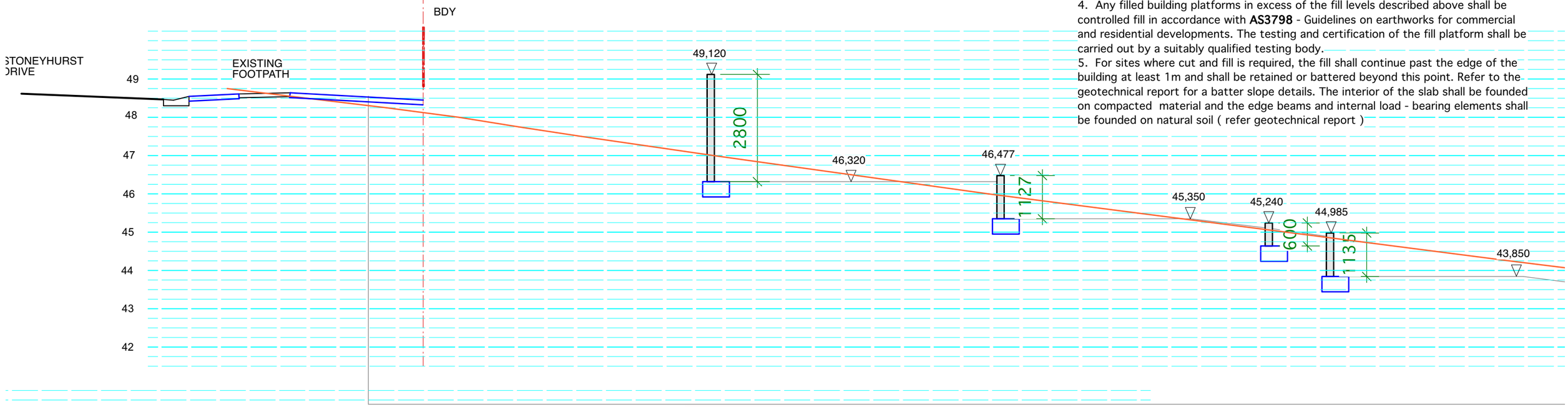
T: 02 66809690 | E: office@harleygraham.com | ABN: 85158246003 | NSW 7892

Project STONEYHURST
Client #Client Full Name
Drawing Name UNIT 2-3-4 WINDOWS & DOORS
Location LOT 75 STONEYHURST DRIVE - LENNOX HEAD
Job No. HGA303
Date 15/7/24
Drawing No. DA.F.15
Revision DA-E
Scale See dwg titles



RETAINING WALL SECTION 1:200

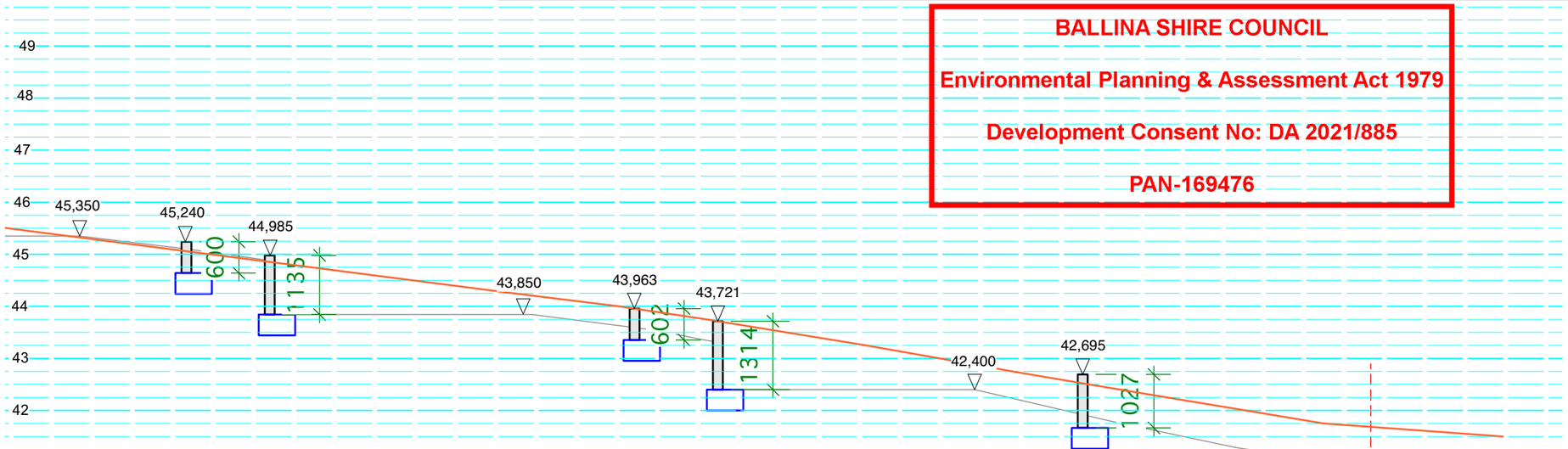


BALLINA SHIRE COUNCIL

Environmental Planning & Assessment Act 1979

Development Consent No: DA 2021/885

PAN-169476



RETAINING WALL SECTION CONTINUED 1:100

SITE PREPARATION - EARTHWORKS

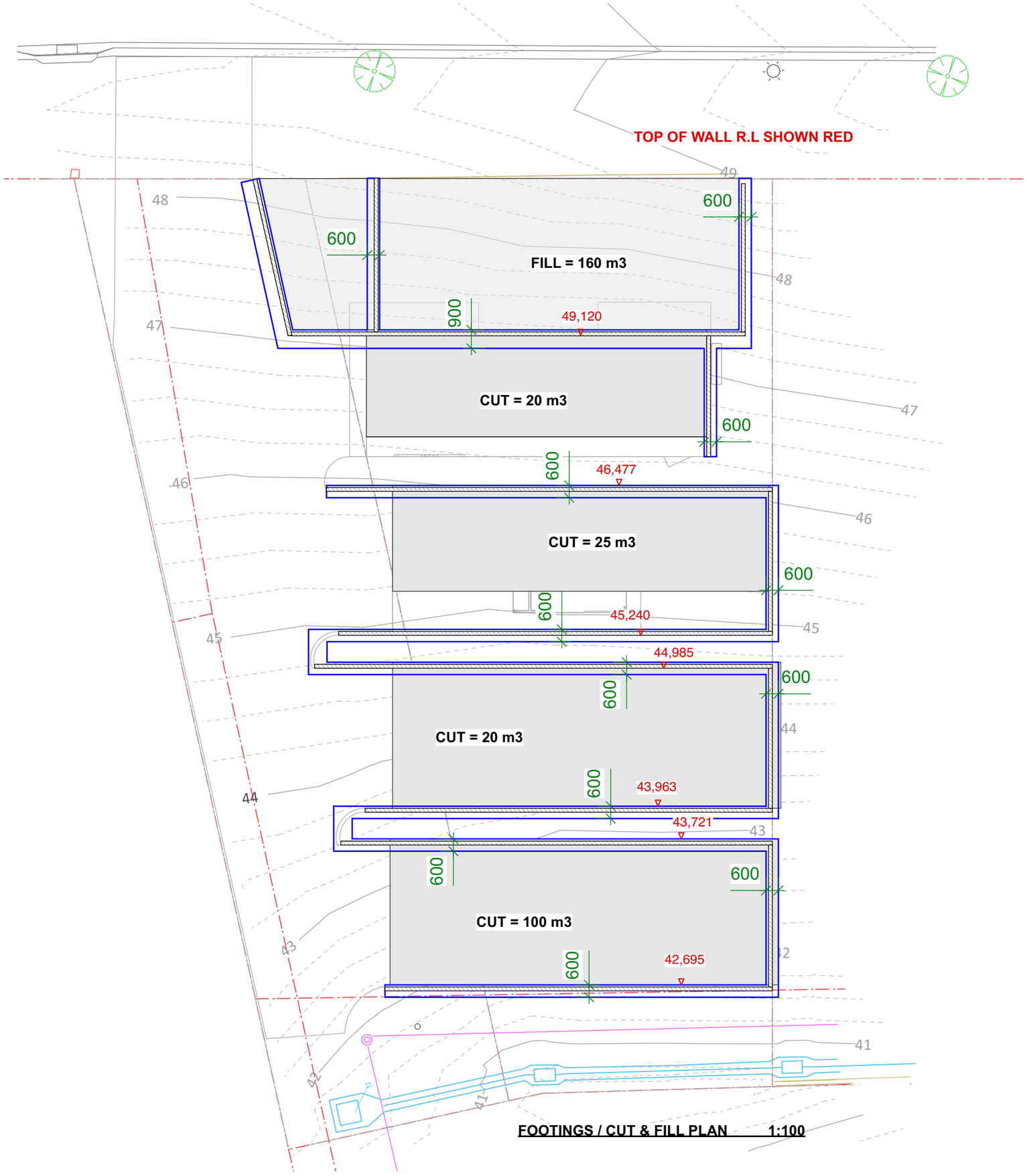
1. Site earthworks shall be carried out in accordance with **AS3798** - guidelines on earthworks for commercial and residential developments.
Refer to the geotechnical report for the soil profile across the site and site recommendations.
2. The site shall be stripped of all topsoil and vegetation and proof rolled to identify soft spots, which shall be excavated and replaced with suitable fill approved by the geotechnical engineer.
3. In accordance with **AS3798**, the compaction requirements for shallow fill are as follows:
(A) Sand up to 800mm deep is to be compacted in 200mm layers by a vibrating plate or vibration roller. The fill is to have an N value using a standard penetrometer test. Density index is to be not less than 75% in accordance with **AS1289**. Testing of density index shall be done in accordance with **AS1289**.
(B) Non - sand fill up to 400mm deep shall be compacted in not more than 150mm layers by a mechanical roller, clay fill shall be moist during compaction. Standard compaction is not to be less than 95% for a residential project and 98% for a commercial development or pavement in accordance with **AS1289**. Reactive clay should be avoided as fill but if used should be placed at a moisture content which approximates the fixed equilibrium moisture content.
4. Any filled building platforms in excess of the fill levels described above shall be controlled fill in accordance with **AS3798** - Guidelines on earthworks for commercial and residential developments. The testing and certification of the fill platform shall be carried out by a suitably qualified testing body.
5. For sites where cut and fill is required, the fill shall continue past the edge of the building at least 1m and shall be retained or battered beyond this point. Refer to the geotechnical report for a batter slope details. The interior of the slab shall be founded on compacted material and the edge beams and internal load - bearing elements shall be founded on natural soil (refer geotechnical report)

RETAINING WALL SECTION 1:100

DRAWING					SHEET No.
RETAINING WALL SECTION					C4
JOB NUMBER	PAPER SIZE	SCALE	DATE	ISSUE	ISSUED FOR
20-01	A3	AS SHOWN	01-22	B	DA

NEW DEVELOPMENT AT LOT 75, STONEYHURST DRIVE - LENNOX HEAD

PHILIP WALLACE Consulting Engineers
2 / 1 Keats St. Byron Bay 2481
email: pwallace1@optusnet.com.au
Ph. 6685 7228



FOOTINGS / CUT & FILL PLAN 1:100

FILL = 160 m3

CUT = 20 m3 + 25 m3 + 20 m3 + 100m3
= 165

ALL CUT WILL BE SUITABLE FOR BACKFILL ON THIS SITE SURPLUS OF APPROXIMATELY 5-10 CUBIC METRES OF FILL TO BE TAKEN OFF SITE

BALLINA SHIRE COUNCIL

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PAN-169476

DRAWING					SHEET No.
CUT FILL PLAN					C4A
JOB NUMBER	PAPER SIZE	SCALE	DATE	ISSUE	ISSUED FOR
20-01	A3	AS SHOWN	01-22	B	DA

NEW DEVELOPMENT AT LOT 75, STONEYHURST DRIVE - LENNOX HEAD

PHILIP WALLACE Consulting Engineers

2 / 1 Keats St. Byron Bay 2481

email: pwallace1@optusnet.com.au

Ph. 6685 7228

BASIX® Certificate

Building Sustainability Index www.basix.nsw.gov.au

Multi Dwelling

Certificate number: 1254775M_04

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 10/09/2020 published by the Department. This document is available at www.basix.nsw.gov.au

This certificate is a revision of certificate number 1254775M lodged with the consent authority or certifier on with application 2021/885.1.

It is the responsibility of the applicant to verify with the consent authority that the original, or any revised certificate, complies with the requirements of Schedule 1 Clause 2A, 4A or 6A of the Environment Planning and Assessment Regulation 2000

Secretary
Date of issue: Wednesday, 29 November 2023
To be valid, this certificate must be lodged within 3 months of the date of issue.

BALLINA SHIRE COUNCIL

Environmental Planning & Assessment Act 1979

Development Consent No: DA 2021/885

PAN-169476

Project summary	
Project name	35 Stoneyhurst Drive, Lennox Head_02_04
Street address	35 Stoneyhurst Drive Lennox Head 2478
Local Government Area	BALLINA
Plan type and plan number	Deposited Plan 1266221
Lot no.	75
Section no.	NA
No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	4
No. of single dwelling houses	0

Project score		
Water	✔ 56	Target 40
Thermal Comfort	✔ Pass	Target Pass
Energy	✔ 92	Target 50

Water score comprises

- Ballina Shire stages 1 & 2 (proposed) reticulated alternative water: 28
- Other water efficiency commitments: 28

Certificate Prepared by
Name / Company Name: BONNEFIN CONSULTING PTY LTD
ABN (if applicable): 95164564210

Description of project

Project address	
Project name	35 Stoneyhurst Drive, Lennox Head_02_04
Street address	35 Stoneyhurst Drive Lennox Head 2478
Local Government Area	BALLINA
Plan type and plan number	Deposited Plan 1266221
Lot no.	75
Section no.	NA

Project type	
No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	4
No. of single dwelling houses	0

Site details	
Site area (m²)	1310
Roof area (m²)	427.88
Non-residential floor area (m²)	-
Residential car spaces	5
Non-residential car spaces	-

BALLINA SHIRE COUNCIL

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Common area landscape	
Common area lawn (m²)	545.00
Common area garden (m²)	0.00
Area of indigenous or low water use species (m²)	-

Assessor details and thermal loads	
Assessor number	10056
Certificate number	0006779700
Climate zone	10
Ceiling fan in at least one bedroom	Yes
Ceiling fan in at least one living room orother conditioned area	Yes

Project score			
Water	✔	56	Target 40
Thermal Comfort	✔	Pass	Target Pass
Energy	✔	92	Target 50

Water score comprises

- Ballina Shire stages 1 & 2 (proposed) reticulated alternative water: 28
- Other water efficiency commitments: 28

Description of project

The tables below describe the dwellings and common areas within the project

Multi-dwelling houses

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
1	3	134.70	2.10	0.00	-

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
2	1	84.30	2.10	0.00	-

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
3	1	84.30	2.10	0.00	-

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
4	1	84.30	2.10	0.00	-

BALLINA SHIRE COUNCIL

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No common areas specified.

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PAN-169476

Schedule of BASIX commitments

1. Commitments for single dwelling houses

2. Commitments for multi-dwelling houses

(a) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Comfort

3. Commitments for common areas and central systems/facilities for the development (non-building specific)

(a) Common areas and central systems/facilities

(i) Water

(ii) Energy

BALLINA SHIRE COUNCIL

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Development Consent No: DA 2021/885

PAN-169476

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carriedout. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

2. Commitments for multi-dwelling houses

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✔	✔	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✔	✔
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✔	✔
(e) The applicant must install:			
(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		✔	✔
(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✔	✔
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✔	✔	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✔	
(g) The pool or spa must be located as specified in the table.	✔	✔	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✔	✔	✔

	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	4 star (> 6 but <= 7.5 L/min)	3 star	3 star	3 star	no	-	-	-	-	-	-	-	-	-

	Alternative water source						
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
All dwellings	Individual water tank (No. 1)	Tank size (min) 5000.00 liters	To collect run-off from at least: 50 square metres of roof area;	yes	no	no	no	no
All dwellings	Reticulated alternative water supply	-	-	no	yes	yes	no	no

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✔	✔	✔
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✔	✔
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✔	✔
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✔	✔

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✔	✔	✔
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must:			
(aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and		✔	
(bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✔	
(h) The applicant must install in the dwelling:			
(aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below;		✔	
(bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and		✔	✔
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✔	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✔	
(j) The applicant must install the photovoltaic system specified for the dwelling under the "Photovoltaic system" heading of the "Alternative energy" column of the table below, and connect the system to that dwelling's electrical system.	✔	✔	✔

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
All dwellings	electric storage	individual fan, not ducted	manual switch on/off	individual fan, not ducted	manual switch on/off	individual fan, not ducted	manual switch on/off

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	Cooling		Heating		Artificial lighting						Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or diningroom	Each kitchen	All bathrooms/ toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
1	no individual system	no individual system	no individual system	no individual system	3(dedicated)	3(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	3	no
All other dwellings	no individual system	no individual system	no individual system	no individual system	1(dedicated)	3(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	2	no

	Individual pool		Individual spa		Appliances & other efficiency measures							
Dwelling no.	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/ oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	electric cooktop & electric oven	-	no	-	-	-	no	yes

	Alternative energy
Dwelling no.	Photovoltaic system (min rated electrical output in peak kW)
All dwellings	3.00

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case	✔		
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		✔	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✔	✔
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✔	✔	✔
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✔	✔	✔
(i) The applicant must show on the plans accompanying the development application for the proposed development, the locations of ceiling fans set out in the Assessor Certificate.	✔		
(j) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), the locations of ceiling fans set out in the Assessor Certificate.		✔	

	Thermal loads	
Dwelling no.	Area adjusted heating load (in MJ/m²/yr)	Area adjusted cooling load (in MJ/m²/yr)
1	19.30	24.60
2	19.00	40.00
3	16.80	39.20
All other dwellings	17.20	38.90

	Construction of floors and walls				
Dwelling no.	Concrete slab on ground (m²)	Suspended floor with open subfloor (m²)	Suspended floor with enclosed subfloor (m²)	Suspended floor above garage (m²)	Primarily rammed earth or mudbrick walls
1	53.00	62.00	-	-	no
All other dwellings	34.00	25.00	-	-	no

3. Commitments for common areas and central systems/facilities for the development (non-building specific)

(a) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✔	✔
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✔	✔	✔
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✔	✔	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✔	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✔	✔
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✔	✔

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	no common facility	no common facility	no common laundry facility

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✔	✔
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✔	✔
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✔	✔	✔

Central energy systems	Type	Specification
Other	-	-

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Notes

1. In these commitments, "applicant" means the person carrying out the development.
2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate.
3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes.
4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building).
5. If a star or other rating is specified in a commitment, this is a minimum rating.
6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply.

Legend

1. Commitments identified with a "✔" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
2. Commitments identified with a "✔" in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
3. Commitments identified with a "✔" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfilment it is required to monitor in relation to the building or part, has been fulfilled).

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Nationwide House Energy Rating Scheme — Multiple Class1-dwelling summary NatHERS Certificate No. 0006779700

Generated on 19 Apr 2023 using BERS Pro v4.4.1.5d (3.21)

Property

Address 35 Stoneyhurst Drive , Lennox Head , NSW , 2478

Lot/DP 75/1266221

NatHERS climate zone 10

Accredited assessor

Jamie Bonnefin

Certified Energy

jobs@certifiedenergy.com.au

1300 443 674

Accreditation No. 10056

Assessor Accrediting Organisation HERA

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Verification

To verify this certificate, scan the QR code or visit hstar.com.au/QR/Generate?p=rnbLiyEEX . When using either link, ensure you are visiting hstar.com.au

Summary of all dwellings

Certificate number and link	Unit Number	Heating load (MJ/m^2/p.a.)	Cooling load (MJ/m^2/p.a.)	Total load (MJ/m^2/p.a.)	Star rating
0008558348-01	1	19.3	24.6	43.9	5.9
0008558611-01	2	19	40	59	4.7
0008559213-01	3	16.8	39.2	56	4.9
0008559783-01	4	17.2	38.9	56.1	4.9

National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated buildings 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.

Explanatory Notes

About this report

This is a summary of NCC Class 1 dwellings in a development. The individual dwellings' ratings are a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate the 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. For more details about an individual dwelling's assessment, refer to the individual dwelling's NatHERS Certificate (accessible via link).

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). 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.

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 NatHERS Administrator. However the content, input and creation of the NatHERS Certificate is by the assessor. 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.

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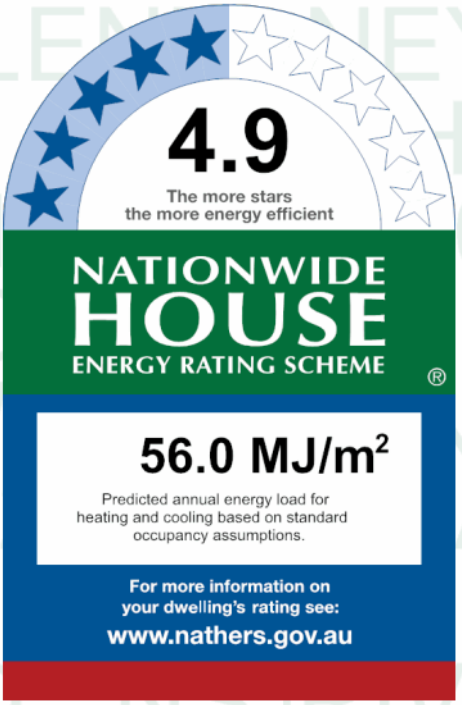
Nationwide House Energy Rating Scheme
NatHERS Certificate No. 0008559213-01

Generated on 16 Apr 2023 using BERS Pro v4.4.1.5d (3.21)



Property

Address	Unit 3, 35 Stoneyhurst Drive , Lennox Head , NSW , 2478
Lot/DP	75/1266221
NCC Class*	1A
Type	New Dwelling

Plans

Main Plan	Revision C Issued on 03/04/2023
Prepared by	Harley Graham Architects

Construction and environment

Assessed floor area (m^2)*		**Exposure Type**
Conditioned*	85.0	Suburban
Unconditioned*	3.0	**NatHERS climate zone**
Total	88.0	10
Garage	0.0	

Thermal performance

Heating	**Cooling**
16.8 MJ/m^2	**39.2** MJ/m^2

Accredited assessor

Name	Jamie Bonnefin
Business name	Certified Energy
Email	jobs@certifiedenergy.com.au
Phone	1300 443 674
Accreditation No.	10056
Assessor Accrediting Organisation	HERA
Declaration of interest	None

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.

Verification

To verify this certificate, scan the QR code or visit hstar.com.au/QR/Generate?p=jmExxukPZ. When using either link, ensure you are visiting hstar.com.au

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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

*The dwelling has been assessed without recessed light fittings as no lighting or electrical plan has been provided.
*Obscure glazing has been modelled as clear glass as it has similar thermal properties.
I have modeled the shading in accordance with NatHERS principles

Window and glazed door *type and performance*

Default* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
ALM-002-03 A	ALM-002-03 A Aluminium B SG High Solar Gain Low-E	5.4	0.58	0.55	0.61
ALM-001-03 A	ALM-001-03 A Aluminium A SG High Solar Gain Low-E	5.4	0.49	0.47	0.51

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				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*
Stairs_Ff	ALM-002-03 A	n/a	1200	4200	n/a	00	N	No
Stairs_Gf	ALM-002-03 A	n/a	1570	810	n/a	90	N	No
Entry	ALM-002-03 A	n/a	1570	810	n/a	90	N	No
Entry	ALM-002-03 A	n/a	2600	810	n/a	00	S	No
Living	ALM-002-03 A	n/a	2600	2500	n/a	45	E	No
Living	ALM-002-03 A	n/a	1470	810	n/a	90	E	No
Living	ALM-002-03 A	n/a	2600	2500	n/a	45	S	No
Kitchen/Living	ALM-002-03 A	n/a	800	3800	n/a	00	S	No
Kitchen/Living	ALM-002-03 A	n/a	2700	2700	n/a	60	W	No
Kitchen/Living	ALM-001-03 A	n/a	2200	2500	n/a	80	W	No
Bedroom 1	ALM-002-03 A	n/a	2000	700	n/a	90	E	No
Bedroom 1	ALM-001-03 A	n/a	2000	508	n/a	10	SW	No
Ens	ALM-002-03 A	n/a	2700	638	n/a	90	N	No
Ens	ALM-002-03 A	n/a	1670	580	n/a	90	E	No
Wc	ALM-002-03 A	n/a	1670	582	n/a	90	N	No

Roof window *type and performance*

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 %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
No Data Available								

Skylight *type and performance*

Skylight ID	Skylight description
No Data Available	

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* Refer to glossary.

Skylight *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m^2)	Orientation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
Entry	2600	982	90	W
Storage	2600	1500	90	W

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Fibro Cavity Panel Direct Fix	0.30	Light	Anti-glare foil with bulk no gap R2.7	No
EW-2	Fibro Cavity Panel Direct Fix	0.30	Light	Anti-glare foil with bulk no gap R2.7	No

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Stairs_Ff	EW-1	2700	4390	N	0	YES
Stairs_Gf	EW-1	2700	5490	N	0	NO
Entry	EW-1	2700	1495	N	0	NO
Entry	EW-1	2700	595	W	4800	YES
Entry	EW-1	2700	3800	S	0	YES
Entry	EW-1	2700	2200	W	1000	NO
Living	EW-1	2700	2395	N	0	NO
Living	EW-2	2700	4700	E	0	NO
Living	EW-1	2700	4695	S	0	NO
Kitchen/Living	EW-1	2700	2995	N	0	NO
Kitchen/Living	EW-2	2700	6395	S	0	NO
Kitchen/Living	EW-1	2700	2700	W	3150	YES
Kitchen/Living	EW-1	2700	1000	S	2700	YES
Kitchen/Living	EW-1	2700	3100	W	2525	NO
Bedroom 1	EW-1	2700	2995	E	0	NO
Bedroom 1	EW-1	2700	700	S	0	YES
Bedroom 1	EW-1	2700	1342	SE	0	YES
Bedroom 1	EW-1	2700	671	SW	0	YES
Bedroom 1	EW-1	2700	1095	S	0	YES
Ens	EW-1	2700	1795	N	0	NO

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Ens	EW-1	2700	2995	E	0	NO
Wc	EW-1	2700	1495	N	0	NO
Wc	EW-1	2700	200	W	0	YES
Storage	EW-1	2700	895	S	0	NO
Storage	EW-1	2700	1895	W	3800	NO

Internal wall *type*

Wall ID	Wall type	Area (m^2)	Bulk insulation
IW-1 - Cavity wall, direct fix plasterboard, single gap		18.00	Bulk Insulation, No Air Gap R2
IW-2 - Cavity wall, direct fix plasterboard, single gap		65.00	No insulation

Floor *type*

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Stairs_Ff/Stairs_Gf	Concrete Above Plasterboard 200mm	4.10		No Insulation	Bare
Stairs_Gf	Concrete Slab on Ground 200mm	5.20	None	No Insulation	Bare
Entry	Concrete Slab on Ground 200mm	8.40	None	No Insulation	Bare
Living	Concrete Slab on Ground 200mm	18.40	None	No Insulation	Bare
Kitchen/Living/Stairs_Gf	Concrete Above Plasterboard 200mm	0.50		No Insulation	Bare
Kitchen/Living/Entry	Concrete Above Plasterboard 200mm	8.60		No Insulation	Bare
Kitchen/Living/Living	Concrete Above Plasterboard 200mm	6.70		No Insulation	Bare
Kitchen/Living/Storage	Concrete Above Plasterboard 200mm	1.70		No Insulation	Bare
Kitchen/Living	Suspended Concrete Slab 200mm	19.30	Totally Open	Bulk Insulation in Contact with Floor R4.5	Bare
Bedroom 1/Living	Concrete Above Plasterboard 200mm	6.50		No Insulation	Bare
Bedroom 1	Suspended Concrete Slab 200mm	4.50	Totally Open	Bulk Insulation in Contact with Floor R4.5	Bare
Ens/Living	Concrete Above Plasterboard 200mm	4.00		No Insulation	Ceramic Tiles 8mm
Ens	Suspended Concrete Slab 200mm	1.20	Totally Open	Bulk Insulation in Contact with Floor R4.5	Ceramic Tiles 8mm
Wc/Stairs_Gf	Concrete Above Plasterboard 200mm	0.50		No Insulation	Ceramic Tiles 8mm
Wc/Living	Concrete Above Plasterboard 200mm	0.80		No Insulation	Ceramic Tiles 8mm
Storage	Concrete Slab on Ground 200mm	1.60	None	No Insulation	Bare

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Stairs_Ff	Plasterboard	Bulk Insulation R6	No

* Refer to glossary.

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Stairs_Gf	Concrete Above Plasterboard	No Insulation	No
Entry	Concrete Above Plasterboard	No Insulation	No
Living	Concrete Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R6	No
Bedroom 1	Plasterboard	Bulk Insulation R6	No
Ens	Plasterboard	Bulk Insulation R6	No
Wc	Plasterboard	Bulk Insulation R6	No
Storage	Concrete Above Plasterboard	No Insulation	No

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm^2)	Sealed/unsealed
Stairs_Ff	2	Downlights - LED	150	Sealed
Entry	3	Downlights - LED	150	Sealed
Living	2	Downlights - LED	150	Sealed
Kitchen/Living	6	Downlights - LED	150	Sealed
Bedroom 1	2	Downlights - LED	150	Sealed
Ens	1	Downlights - LED	150	Sealed
Wc	1	Downlights - LED	150	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
Living	1	1400
Kitchen/Living	2	1200
Bedroom 1	1	900

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.8	0.30	Light

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* Refer to glossary.

Explanatory notes

About this report

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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.
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Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
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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.
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Nationwide House Energy Rating Scheme
NatHERS Certificate No. 0008559783-01

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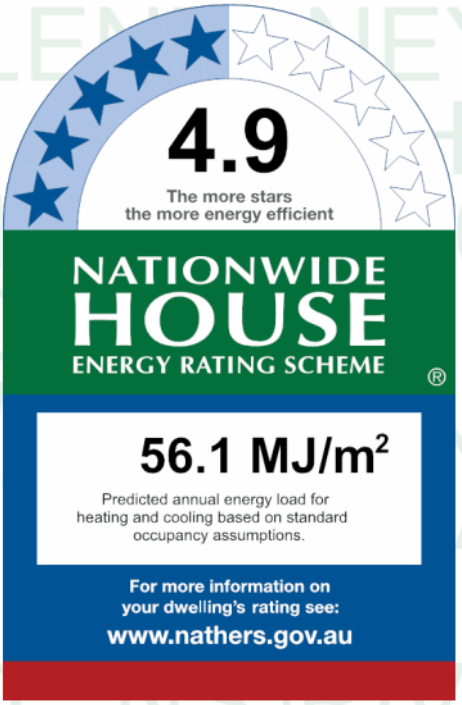

Property

Address	Unit 4, 35 Stoneyhurst Drive , Lennox Head , NSW , 2478
Lot/DP	75/1266221
NCC Class*	1A
Type	New Dwelling

Plans

Main Plan	Revision C Issued on 03/04/2023
Prepared by	Harley Graham Architects

Construction and environment

Assessed floor area (m^2)*		**Exposure Type**
Conditioned*	85.0	Suburban
Unconditioned*	3.0	**NatHERS climate zone**
Total	88.0	10
Garage	0.0	

Thermal performance

Heating	Cooling
17.2 MJ/m^2	38.9 MJ/m^2

Accredited assessor

Name	Jamie Bonnefin
Business name	Certified Energy
Email	jobs@certifiedenergy.com.au
Phone	1300 443 674
Accreditation No.	10056
Assessor Accrediting Organisation	HERA
Declaration of interest	None

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.

Verification

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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

*The dwelling has been assessed without recessed light fittings as no lighting or electrical plan has been provided.

*Obscure glazing has been modelled as clear glass as it has similar thermal properties

I have modeled the shading in accordance with NatHERS principles

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Window and glazed door *type and performance*

Default* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
ALM-002-03 A	ALM-002-03 A Aluminium B SG High Solar Gain Low-E	5.4	0.58	0.55	0.61
ALM-001-03 A	ALM-001-03 A Aluminium A SG High Solar Gain Low-E	5.4	0.49	0.47	0.51

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				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*
Stairs_Ff	ALM-002-03 A	n/a	1200	4200	n/a	00	N	No
Stairs_Gf	ALM-002-03 A	n/a	1570	810	n/a	90	N	No
Entry	ALM-002-03 A	n/a	1570	810	n/a	90	N	No
Entry	ALM-002-03 A	n/a	2600	810	n/a	00	S	No
Living	ALM-002-03 A	n/a	2600	2500	n/a	45	E	No
Living	ALM-002-03 A	n/a	1470	810	n/a	90	E	No
Living	ALM-002-03 A	n/a	2600	2500	n/a	45	S	No
Kitchen/Living	ALM-002-03 A	n/a	800	3800	n/a	00	S	No
Kitchen/Living	ALM-002-03 A	n/a	2700	2700	n/a	60	W	No
Kitchen/Living	ALM-001-03 A	n/a	2200	2500	n/a	80	W	No
Bedroom 1	ALM-002-03 A	n/a	2000	700	n/a	90	E	No
Bedroom 1	ALM-001-03 A	n/a	2000	508	n/a	10	SW	No
Ens	ALM-002-03 A	n/a	2700	638	n/a	90	N	No
Ens	ALM-002-03 A	n/a	1670	580	n/a	90	E	No
Wc	ALM-002-03 A	n/a	1670	582	n/a	90	N	No

Roof window *type and performance*

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 %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
No Data Available								

Skylight *type and performance*

Skylight ID	Skylight description
No Data Available	

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* Refer to glossary.

Skylight *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m^2)	Orientation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
Entry	2600	982	90	W
Storage	2600	1500	90	W

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Fibro Cavity Panel Direct Fix	0.30	Light	Anti-glare foil with bulk no gap R2.7	No
EW-2	Fibro Cavity Panel Direct Fix	0.30	Light	Anti-glare foil with bulk no gap R2.7	No

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Stairs_Ff	EW-1	2700	4390	N	0	YES
Stairs_Gf	EW-1	2700	5490	N	0	NO
Entry	EW-1	2700	1495	N	0	NO
Entry	EW-1	2700	595	W	4800	YES
Entry	EW-1	2700	3800	S	0	YES
Entry	EW-1	2700	2200	W	1000	NO
Living	EW-1	2700	2395	N	0	NO
Living	EW-1	2700	4700	E	0	NO
Living	EW-2	2700	4695	S	0	NO
Kitchen/Living	EW-1	2700	2995	N	0	NO
Kitchen/Living	EW-1	2700	6395	S	0	NO
Kitchen/Living	EW-1	2700	2700	W	3150	YES
Kitchen/Living	EW-1	2700	1000	S	2700	YES
Kitchen/Living	EW-1	2700	3100	W	2525	NO
Bedroom 1	EW-1	2700	2995	E	0	NO
Bedroom 1	EW-1	2700	700	S	0	YES
Bedroom 1	EW-1	2700	1342	SE	0	YES
Bedroom 1	EW-1	2700	671	SW	0	YES
Bedroom 1	EW-1	2700	1095	S	0	YES
Ens	EW-1	2700	1795	N	0	NO

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Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Ens	EW-1	2700	2995	E	0	NO
Wc	EW-1	2700	1495	N	0	NO
Wc	EW-1	2700	200	W	0	YES
Storage	EW-1	2700	895	S	0	NO
Storage	EW-1	2700	1895	W	3800	NO

Internal wall *type*

Wall ID	Wall type	Area (m^2)	Bulk insulation
IW-1 - Cavity wall, direct fix plasterboard, single gap		18.20	Bulk Insulation R2
IW-2 - Cavity wall, direct fix plasterboard, single gap		65.00	No insulation

Floor *type*

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Stairs_Ff/Stairs_Gf	Concrete Above Plasterboard 200mm	4.10		No Insulation	Bare
Stairs_Gf	Concrete Slab on Ground 200mm	5.20	None	No Insulation	Bare
Entry	Concrete Slab on Ground 200mm	8.40	None	No Insulation	Bare
Living	Concrete Slab on Ground 200mm	18.40	None	No Insulation	Bare
Kitchen/Living/Stairs_Gf	Concrete Above Plasterboard 200mm	0.50		No Insulation	Bare
Kitchen/Living/Entry	Concrete Above Plasterboard 200mm	8.60		No Insulation	Bare
Kitchen/Living/Living	Concrete Above Plasterboard 200mm	6.70		No Insulation	Bare
Kitchen/Living/Storage	Concrete Above Plasterboard 200mm	1.70		No Insulation	Bare
Kitchen/Living	Suspended Concrete Slab 200mm	19.30	Totally Open	Bulk Insulation in Contact with Floor R4.5	Bare
Bedroom 1/Living	Concrete Above Plasterboard 200mm	6.50		No Insulation	Bare
Bedroom 1	Suspended Concrete Slab 200mm	4.50	Totally Open	Bulk Insulation in Contact with Floor R4.5	Bare
Ens/Living	Concrete Above Plasterboard 200mm	4.00		No Insulation	Ceramic Tiles 8mm
Ens	Suspended Concrete Slab 200mm	1.20	Totally Open	Bulk Insulation in Contact with Floor R4.5	Ceramic Tiles 8mm
Wc/Stairs_Gf	Concrete Above Plasterboard 200mm	0.50		No Insulation	Ceramic Tiles 8mm
Wc/Living	Concrete Above Plasterboard 200mm	0.80		No Insulation	Ceramic Tiles 8mm
Storage	Concrete Slab on Ground 200mm	1.60	None	No Insulation	Bare

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Stairs_Ff	Plasterboard	Bulk Insulation R6	No

* Refer to glossary.

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Stairs_Gf	Concrete Above Plasterboard	No Insulation	No
Entry	Concrete Above Plasterboard	No Insulation	No
Living	Concrete Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R6	No
Bedroom 1	Plasterboard	Bulk Insulation R6	No
Ens	Plasterboard	Bulk Insulation R6	No
Wc	Plasterboard	Bulk Insulation R6	No
Storage	Concrete Above Plasterboard	No Insulation	No

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm^2)	Sealed/unsealed
Stairs_Ff	2	Downlights - LED	150	Sealed
Entry	3	Downlights - LED	150	Sealed
Living	2	Downlights - LED	150	Sealed
Kitchen/Living	6	Downlights - LED	150	Sealed
Bedroom 1	2	Downlights - LED	150	Sealed
Ens	1	Downlights - LED	150	Sealed
Wc	1	Downlights - LED	150	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
Living	1	1400
Kitchen/Living	2	1200
Bedroom 1	1	900

Roof *type*

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Nationwide House Energy Rating Scheme
NatHERS Certificate No. 0008558348-01

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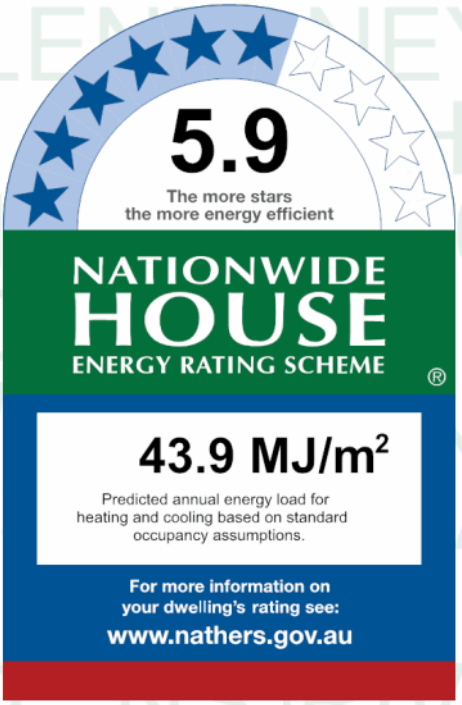

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Main Plan	Revision C Issued on 03/04/2023
Prepared by	Harley Graham Architects

Construction and environment

Assessed floor area (m^2)*		**Exposure Type**
Conditioned*	113.0	Suburban
Unconditioned*	17.0	**NatHERS climate zone**
Total	130.0	10
Garage	0.0	

Thermal performance

Heating	**Cooling**
19.3 MJ/m^2	**24.6** MJ/m^2

Accredited assessor

Name	Jamie Bonnefin
Business name	Certified Energy
Email	jobs@certifiedenergy.com.au
Phone	1300 443 674
Accreditation No.	10056
Assessor Accrediting Organisation	HERA
Declaration of interest	None

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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.

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.

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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

*The dwelling has been assessed without recessed light fittings as no lighting or electrical plan has been provided.

*Obscure glazing has been modelled as clear glass as it has similar thermal properties.

I have modeled the shading in accordance with NatHERS principles

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Window and glazed door *type and performance*

Default* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
ALM-002-03 A	ALM-002-03 A Aluminium B SG High Solar Gain Low-E	5.4	0.58	0.55	0.61

Custom* windows

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

* Refer to glossary.

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Bedroom 3	ALM-002-03 A	n/a	730	2400	n/a	30	E	No
Bedroom 3	ALM-002-03 A	n/a	2600	2800	n/a	45	S	No
Bath	ALM-002-03 A	n/a	1900	1490	n/a	45	E	No
Bath	ALM-002-03 A	n/a	1200	582	n/a	90	S	Yes
ENS 3	ALM-002-03 A	n/a	2700	699	n/a	90	N	No
Bath_Gf	ALM-002-03 A	n/a	1570	750	n/a	90	E	No
Bedroom 1	ALM-002-03 A	n/a	1700	750	n/a	90	W	No
Bedroom 1	ALM-002-03 A	n/a	2700	3302	n/a	60	N	No
Bedroom 2	ALM-002-03 A	n/a	2700	3300	n/a	60	N	No
Bedroom 2	ALM-002-03 A	n/a	1900	600	n/a	90	E	No
Stairs_Ff	ALM-002-03 A	n/a	2700	1800	n/a	45	N	No
Kitchen/Living	ALM-002-03 A	n/a	2300	4730	n/a	60	N	No
Kitchen/Living	ALM-002-03 A	n/a	700	4560	n/a	30	S	No
Lounge	ALM-002-03 A	n/a	1700	1725	n/a	00	S	Yes
Lounge	ALM-002-03 A	n/a	1700	582	n/a	90	S	Yes
Lounge	ALM-002-03 A	n/a	1700	2800	n/a	30	W	No
Rumpus	ALM-002-03 A	n/a	2600	2800	n/a	45	S	No

Roof window *type and performance*

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 %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
No Data Available								

Skylight *type and performance*

Skylight ID	Skylight description
No Data Available	

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* Refer to glossary.

Skylight *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m^2)	Orientation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
Store	2600	1500	90	S
Store	2600	1500	90	S
Kitchen/Living	2700	1200	90	N
Entry	2600	982	90	W

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Fibro Cavity Panel Direct Fix	0.30	Light	Anti-glare foil with bulk no gap R2.7	No
EW-2	Concrete block, lined	0.30	Light	Anti-glare foil with bulk no gap R2.7	No
EW-3	Concrete block, lined	0.30	Light	Anti-glare foil with bulk no gap R2.7	No

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Bedroom 3	EW-1	2700	2995	E	0	NO
Bedroom 3	EW-1	2700	3795	S	1200	NO
Stairs_Gf	EW-1	2700	1890	W	6200	NO
Store	EW-1	2700	3395	S	500	NO
Store	EW-1	2700	1095	W	5600	NO
Bath	EW-1	2700	2195	E	1300	NO
Bath	EW-1	2700	3300	S	100	NO
Bath	EW-1	2700	700	W	15500	YES
ENS 3	EW-1	2700	1700	E	13000	YES
ENS 3	EW-1	2700	1895	N	1900	NO
Bath_Gf	EW-2	2700	3795	N	0	NO
Bath_Gf	EW-1	2700	1695	E	0	NO
Bedroom 1	EW-1	2700	600	S	2900	YES
Bedroom 1	EW-1	2700	3100	W	900	NO
Bedroom 1	EW-1	2700	4295	N	1900	NO
Bedroom 2	EW-1	2700	1700	W	15500	YES
Bedroom 2	EW-1	2700	3300	N	1900	NO

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Bedroom 2	EW-1	2700	3705	E	1300	NO
Stairs_Ff	EW-1	2700	2290	N	3600	YES
Kitchen/Living	EW-1	2700	6090	N	3600	YES
Kitchen/Living	EW-1	2700	8390	S	800	YES
Lounge	EW-1	2700	5600	S	100	NO
Lounge	EW-1	2700	2795	W	1500	YES
Lounge	EW-1	2700	700	E	13000	YES
Rumpus	EW-1	2700	4490	S	500	NO
Rumpus	EW-1	2700	4490	N	0	NO
Entry	EW-1	2700	1695	W	6200	NO
Entry	EW-3	2700	3395	N	0	NO

Internal wall *type*

Wall ID	Wall type	Area (m^2)	Bulk insulation
IW-1 - Cavity wall, direct fix plasterboard, single gap		78.00	No insulation
IW-2 - Cavity wall, direct fix plasterboard, single gap		45.00	Bulk Insulation, No Air Gap R2

Floor *type*

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Bedroom 3	Concrete Slab on Ground 200mm	11.10	None	No Insulation	Bare
Stairs_Gf	Concrete Slab on Ground 200mm	4.10	None	No Insulation	Bare
Store	Concrete Slab on Ground 200mm	4.50	None	No Insulation	Bare
Bath/Bedroom 3	Concrete Above Plasterboard 200mm	2.30		No Insulation	Bare
Bath	Suspended Concrete Slab 200mm	3.80	Totally Open	Bulk Insulation in Contact with Floor R4.5	Ceramic Tiles 8mm
ENS 3	Suspended Concrete Slab 200mm	3.60	Totally Open	Bulk Insulation in Contact with Floor R4.5	Ceramic Tiles 8mm
Bath_Gf	Concrete Slab on Ground 200mm	6.20	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Suspended Concrete Slab 200mm	14.90	Totally Open	Bulk Insulation in Contact with Floor R4.5	Bare
Bedroom 2/Bedroom 3	Concrete Above Plasterboard 200mm	5.80		No Insulation	Bare
Bedroom 2/Bath_Gf	Concrete Above Plasterboard 200mm	5.50		No Insulation	Bare
Stairs_Ff/Stairs_Gf	Concrete Above Plasterboard 200mm	4.10		No Insulation	Bare
Kitchen/Living /Bedroom 3	Concrete Above Plasterboard 200mm	3.00		No Insulation	Bare
Kitchen/Living /Store	Concrete Above Plasterboard 200mm	4.70		No Insulation	Bare
Kitchen/Living /Rumpus	Concrete Above Plasterboard 200mm	13.20		No Insulation	Bare
Kitchen/Living /Entry	Concrete Above Plasterboard 200mm	1.00		No Insulation	Bare

* Refer to glossary.

Location	Construction	Area (m)	Sub-floor ventilation	Added insulation (R-value)	Covering
Kitchen/Living	Suspended Concrete Slab 200mm	4.10	Totally Open	Bulk Insulation in Contact with Floor R4.5	Bare
Lounge	Suspended Concrete Slab 200mm	15.30	Totally Open	Bulk Insulation in Contact with Floor R4.5	Bare
Rumpus	Concrete Slab on Ground 200mm	20.70	None	No Insulation	Bare
Entry	Concrete Slab on Ground 200mm	6.50	None	No Insulation	Bare

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Bedroom 3	Concrete Above Plasterboard	No Insulation	No
Stairs_Gf	Concrete Above Plasterboard	No Insulation	No
Store	Concrete Above Plasterboard	No Insulation	No
Bath	Plasterboard	Bulk Insulation R6	No
ENS 3	Plasterboard	Bulk Insulation R6	No
Bath_Gf	Concrete, Plasterboard	Bulk Insulation R4.5	No
Bath_Gf	Concrete Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R6	No
Bedroom 2	Plasterboard	Bulk Insulation R6	No
Stairs_Ff	Plasterboard	Bulk Insulation R6	No
Kitchen/Living	Plasterboard	Bulk Insulation R6	No
Lounge	Plasterboard	Bulk Insulation R6	No
Rumpus	Concrete, Plasterboard	Bulk Insulation R4.5	No
Rumpus	Concrete Above Plasterboard	No Insulation	No
Entry	Concrete, Plasterboard	Bulk Insulation R4.5	No
Entry	Concrete Above Plasterboard	No Insulation	No

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Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm^2)	Sealed/unsealed
Bedroom 3	2	Downlights - LED	150	Sealed
Stairs_Gf	1	Downlights - LED	150	Sealed
Store	1	Downlights - LED	150	Sealed
Bath	2	Downlights - LED	150	Sealed
ENS 3	1	Downlights - LED	150	Sealed
Bath_Gf	1	Downlights - LED	150	Sealed
Bedroom 1	2	Downlights - LED	150	Sealed
Bedroom 2	2	Downlights - LED	150	Sealed
Stairs_Ff	2	Downlights - LED	150	Sealed
Kitchen/Living	9	Downlights - LED	150	Sealed

* Refer to glossary.
Generated on 16 Apr 2023 using BERS Pro v4.4.1.5d (3.21) for Unit 1, 35 Stoneyhurst Drive , Lennox Head , NSW, 2478

Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
Lounge	4	Downlights - LED	150	Sealed
Entry	1	Downlights - LED	150	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
Bedroom 3	1	900
Bedroom 1	1	900
Bedroom 2	1	900
Kitchen/Living	1	1200
Lounge	1	1200
Rumpus	1	1200

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.8	0.30	Light
Waterproofing Membrane	No Insulation, Only an Air Gap	0.30	Light

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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 NatHERS Administrator. 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.

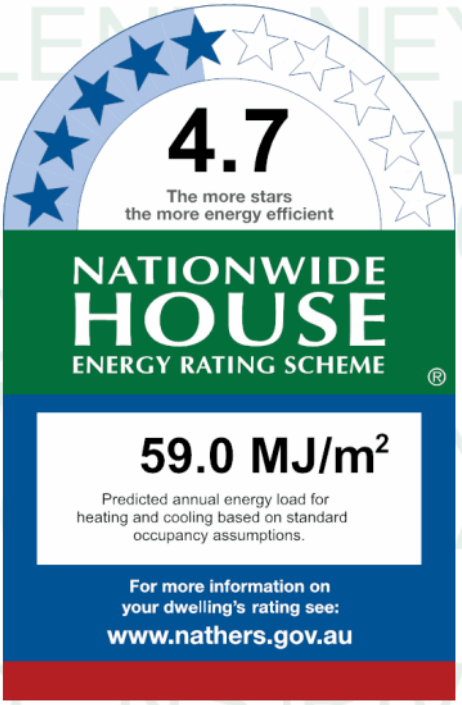
Glossary

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).

* Refer to glossary.

Nationwide House Energy Rating Scheme
NatHERS Certificate No. 0008558611-01

Generated on 16 Apr 2023 using BERS Pro v4.4.1.5d (3.21)



Property

Address	Unit 2, 35 Stoneyhurst Drive , Lennox Head , NSW , 2478
Lot/DP	75/1266221
NCC Class*	1A
Type	New Dwelling

Plans

Main Plan	Revision C Issued on 03/04/2023
Prepared by	Harley Graham Architects

Construction and environment

Assessed floor area (m^2)*		**Exposure Type**
Conditioned*	85.0	Suburban
Unconditioned*	3.0	**NatHERS climate zone**
Total	88.0	10
Garage	0.0	

Thermal performance

Heating	**Cooling**
19.0 MJ/m^2	**40.0** MJ/m^2

Accredited assessor

Name	Jamie Bonnefin
Business name	Certified Energy
Email	jobs@certifiedenergy.com.au
Phone	1300 443 674
Accreditation No.	10056
Assessor Accrediting Organisation	HERA
Declaration of interest	None

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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.

Verification

To verify this certificate, scan the QR code or visit hstar.com.au/QR/Generate?p=ctnbSaoCj.
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Window and glazed door *type and performance*

Default* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
ALM-002-03 A	ALM-002-03 A Aluminium B SG High Solar Gain Low-E	5.4	0.58	0.55	0.61
ALM-001-03 A	ALM-001-03 A Aluminium A SG High Solar Gain Low-E	5.4	0.49	0.47	0.51

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				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*
Stairs_Ff	ALM-002-03 A	n/a	1200	4200	n/a	00	N	No
Stairs_Gf	ALM-002-03 A	n/a	1570	810	n/a	90	N	No
Entry	ALM-002-03 A	n/a	1570	810	n/a	90	N	No
Entry	ALM-002-03 A	n/a	2600	810	n/a	00	S	No
Living	ALM-002-03 A	n/a	2600	2500	n/a	45	E	No
Living	ALM-002-03 A	n/a	1470	810	n/a	90	E	No
Living	ALM-002-03 A	n/a	2600	2500	n/a	45	S	No
Kitchen/Living	ALM-002-03 A	n/a	800	3800	n/a	00	S	No
Kitchen/Living	ALM-002-03 A	n/a	2700	2700	n/a	60	W	No
Kitchen/Living	ALM-002-03 A	n/a	2200	2500	n/a	80	W	No
Bedroom 1	ALM-002-03 A	n/a	2000	700	n/a	90	E	No
Bedroom 1	ALM-001-03 A	n/a	2000	508	n/a	10	SW	No
Ens	ALM-002-03 A	n/a	2700	638	n/a	90	N	No
Ens	ALM-002-03 A	n/a	1670	580	n/a	90	E	No
Wc	ALM-002-03 A	n/a	1670	582	n/a	90	N	No

Roof window *type and performance*

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 %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
No Data Available								

Skylight *type and performance*

Skylight ID	Skylight description
No Data Available	

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* Refer to glossary.

Skylight *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m^2)	Orientation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
Entry	2600	982	90	W
Storage	2600	1500	90	W

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Fibro Cavity Panel Direct Fix	0.30	Light	Anti-glare foil with bulk no gap R2.7	No
EW-2	Fibro Cavity Panel Direct Fix	0.30	Light	Anti-glare foil with bulk no gap R2.7	No

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Stairs_Ff	EW-1	2700	4390	N	0	YES
Stairs_Gf	EW-2	2700	5490	N	0	NO
Entry	EW-1	2700	1495	N	0	NO
Entry	EW-1	2700	595	W	4800	YES
Entry	EW-2	2700	3800	S	0	YES
Entry	EW-1	2700	2200	W	1000	NO
Living	EW-1	2700	2395	N	0	NO
Living	EW-1	2700	4700	E	0	NO
Living	EW-2	2700	4695	S	0	NO
Kitchen/Living	EW-1	2700	2995	N	0	NO
Kitchen/Living	EW-2	2700	6395	S	0	NO
Kitchen/Living	EW-1	2700	2700	W	3150	YES
Kitchen/Living	EW-1	2700	1000	S	2700	YES
Kitchen/Living	EW-1	2700	3100	W	2525	NO
Bedroom 1	EW-1	2700	2995	E	0	NO
Bedroom 1	EW-1	2700	700	S	0	YES
Bedroom 1	EW-1	2700	1342	SE	0	YES
Bedroom 1	EW-1	2700	671	SW	0	YES
Bedroom 1	EW-1	2700	1095	S	0	YES
Ens	EW-1	2700	1795	N	0	NO

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Ens	EW-1	2700	2995	E	0	NO
Wc	EW-1	2700	1495	N	0	NO
Wc	EW-1	2700	200	W	0	YES
Storage	EW-1	2700	895	S	0	NO
Storage	EW-1	2700	1895	W	3800	NO

Internal wall *type*

Wall ID	Wall type	Area (m²)	Bulk insulation
IW-1 - Cavity wall, direct fix plasterboard, single gap		18.00	Bulk Insulation, No Air Gap R2
IW-2 - Cavity wall, direct fix plasterboard, single gap		65.00	No insulation

Floor *type*

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Stairs_Ff/Stairs_Gf	Concrete Above Plasterboard 200mm	4.10		No Insulation	Bare
Stairs_Gf	Concrete Slab on Ground 200mm	5.20	None	No Insulation	Bare
Entry	Concrete Slab on Ground 200mm	8.40	None	No Insulation	Bare
Living	Concrete Slab on Ground 200mm	18.40	None	No Insulation	Bare
Kitchen/Living/Stairs_Gf	Concrete Above Plasterboard 200mm	0.50		No Insulation	Bare
Kitchen/Living/Entry	Concrete Above Plasterboard 200mm	8.60		No Insulation	Bare
Kitchen/Living/Living	Concrete Above Plasterboard 200mm	6.70		No Insulation	Bare
Kitchen/Living/Storage	Concrete Above Plasterboard 200mm	1.70		No Insulation	Bare
Kitchen/Living	Suspended Concrete Slab 200mm	19.30	Totally Open	Bulk Insulation in Contact with Floor R4.5	Bare
Bedroom 1/Living	Concrete Above Plasterboard 200mm	6.50		No Insulation	Bare
Bedroom 1	Suspended Concrete Slab 200mm	4.50	Totally Open	Bulk Insulation in Contact with Floor R4.5	Bare
Ens/Living	Concrete Above Plasterboard 200mm	4.00		No Insulation	Ceramic Tiles 8mm
Ens	Suspended Concrete Slab 200mm	1.20	Totally Open	Bulk Insulation in Contact with Floor R4.5	Ceramic Tiles 8mm
Wc/Stairs_Gf	Concrete Above Plasterboard 200mm	0.50		No Insulation	Ceramic Tiles 8mm
Wc/Living	Concrete Above Plasterboard 200mm	0.80		No Insulation	Ceramic Tiles 8mm
Storage	Concrete Slab on Ground 200mm	1.60	None	No Insulation	Bare

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Stairs_Ff	Plasterboard	Bulk Insulation R6	No

* Refer to glossary.

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Stairs_Gf	Concrete Above Plasterboard	No Insulation	No
Entry	Concrete Above Plasterboard	No Insulation	No
Living	Concrete Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R6	No
Bedroom 1	Plasterboard	Bulk Insulation R6	No
Ens	Plasterboard	Bulk Insulation R6	No
Wc	Plasterboard	Bulk Insulation R6	No
Storage	Concrete Above Plasterboard	No Insulation	No

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm^2)	Sealed/unsealed
Stairs_Ff	2	Downlights - LED	150	Sealed
Entry	3	Downlights - LED	150	Sealed
Living	2	Downlights - LED	150	Sealed
Kitchen/Living	6	Downlights - LED	150	Sealed
Bedroom 1	2	Downlights - LED	150	Sealed
Ens	1	Downlights - LED	150	Sealed
Wc	1	Downlights - LED	150	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
Living	1	1400
Kitchen/Living	2	1200
Bedroom 1	1	900

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.8	0.30	Light

BALLINA SHIRE COUNCIL

Environmental Planning & Assessment Act 1979

Development Consent No: DA 2021/885

PAN-169476

* 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 NatHERS Administrator. 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).

* Refer to glossary.