WWW.SENICA.COM.AU
INFO@SENICA.COM.AU
(02) 8006 7784

Senica
consultancy group

ENERGY EFFICIENCY REPORT

Thermal Comfort Simulation Assessment

Site Address

14, 58-62 Bangalow Road, BYRON BAY

Lot and DP

1//525896

Client

Propel Invest

Local Government Area

Byron Shire

Proposed Development

Multi-Unit Building

Commissioned by

Propel Invest

Assessment Date

25/10/2023

Reference Number

231000092

Project Certification Summary

Building and Modelling Software Information

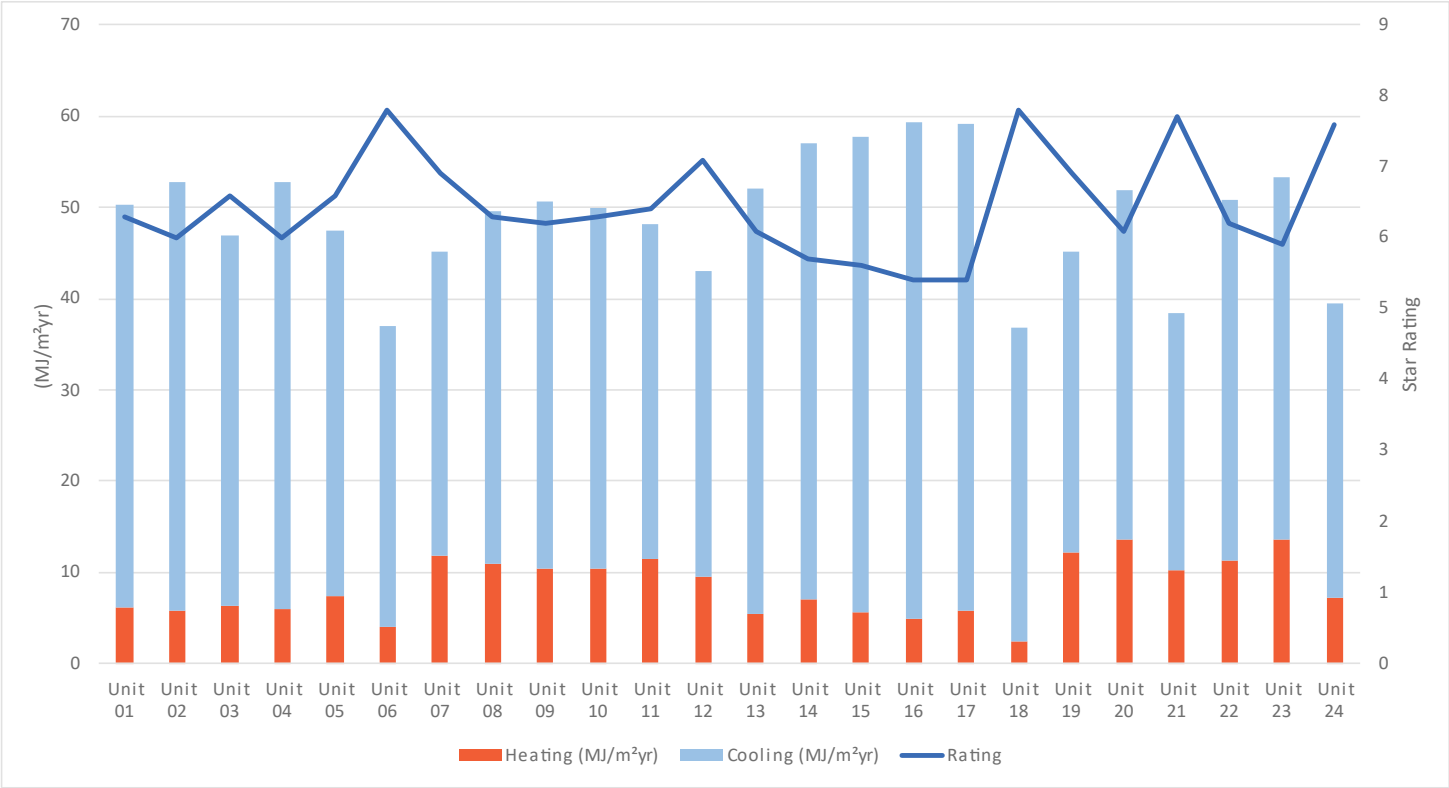
Software:	Hero V3.0.1.1
Chenath Engine:	V3.21
Site Exposure:	Surburban
Orientation:	92.8
Climate Zone:	10 – Brisbane AMO

	Building Areas (m^2)
Conditioned	1451.2
Unconditioned	150.2
Garage	320.5
TOTAL	1921.9

Thermal Comfort Modelling Averaged Results

Target	($MJ/m^2/yr$)
Heating	13.1
Cooling	55.2
TOTAL	68.3

Result	($MJ/m^2/yr$)
Heating	10.8
Cooling	36.8
TOTAL	47.6



Compliance

The above Thermal Performance Assessment information complies with the regulatory and legislative requirements within the State which it is intended.

Qualification Statement

Certificate IV in NatHERS Assessment
Residential Building Thermal Performance Course
Diploma in Building Surveying
Accredited Assessor with Design Matters National

NSW NCC Provisions

Building Fabric Thermal Insulation

NSW 3.12.1 Application of NSW Part 3.12.1

a) Compliance with NSW 3.12.1.1 satisfies NSW P2.6.1(a) for thermal insulation and thermal breaks.
b) NSW PART 3.12.1 only applies to thermal insulation in a Class 1 or 10 building where a development consent specifies that the insulation is to be provided as part of the development.
c) In (b), the term development consent has the meaning given by the Environmental Planning and Assessment Act 1979.
d) The Deemed-to-Satisfy Provisions of this Part for thermal breaks apply to all Class 1 buildings and Class 10a buildings with a conditioned space.

NSW 3.12.1.1 Compliance with BCA Provisions

a) Thermal insulation in a building must comply with the national BCA provisions of 3.12.1.1.
b) A thermal break must be provided between the external cladding and framing in accordance with national BCA provisions of—
    i. 3.12.1.2(c) for a metal framed roof; and
    ii. 3.12.1.4(b) for a metal framed wall.
c) Compensation for reduction in ceiling insulation must comply with the national BCA provisions of 3.12.1.2(e).
d) A floor with an in-slab or in-screed heating or cooling system must comply with the national BCA provisions of—
    i. 3.12.1.5(a)(ii), (iii) and (e) for a suspended floor; or
    ii. 3.12.1.5(c), (d) and (e) for a concrete slab-on-ground.

Building Sealing and Services

NSW 3.12.3 Application of NSW Part 3.12.3

a. Compliance with NSW 3.12.3.1 satisfies NSW P2.6.1(b) for building sealing.
b. NSW Part 3.12.3 is not applicable to—
    i. existing buildings being relocated; or
    ii. Class 10a buildings—
        A. without a conditioned space; or
        B. for the accommodation of vehicles; or
    iii. parts of buildings that cannot be fully enclosed; or
    iv. a permanent building opening, in a space where a gas appliance is located, that is necessary for the safe operation of a gas appliance; or
    v. a building in climate zones 2 and 5 where the only means of air-conditioning is by using an evaporative cooler.

NSW 3.12.3.1 Compliance with BCA Provisions

The sealing of a building must comply with the national BCA provisions 3.12.3.1 to 3.12.3.6.

NSW 3.12.5 Services: Application of NSW Part 3.12.5

a. Compliance with NSW 3.12.5.1 satisfies NSW P2.6.2 for services.
b. NSW Part 3.12.5 is not applicable to existing services associated with existing buildings being relocated.

NSW 3.12.5.1 Compliance with BCA Provisions

Services must comply with the national BCA provisions 3.12.5.0 to 3.12.5.3.

Limitations

This report was prepared for the purposes and exclusive use of the stated client to accompany an application to the relevant Council for the specified development application and is not to be used for any other purpose or by any other person or corporation.

The information contained in this report is based on plans and specifications provided to Senica Consultancy Group. To the best of our knowledge, it does not contain any false, misleading or incomplete information.

Should the plans or specifications be modified in any way, this report and any appurtenant articles are rendered null and void. Modification to the plans and specifications requires an amended report be prepared addressing the relevant changes.

Senica Consultancy Group gives no warranty or assurance and make no representation as to the accuracy of any information or advice contained, or that it is suitable for your intended use.

Senica Consultancy Group and its employees and agents shall have no liability (including but not limited to liability by reason of negligence) to any person using this report, for any loss, damage, cost or expense whether direct, indirect, consequential or special, incurred by, or arising by reason of, any person using or relying on the report and whether caused by reason of any error, omission or misrepresentation in the report or otherwise.

Senica Consultancy Group accepts no responsibility for any loss or damage suffered howsoever arising to any person or corporation who may rely on or use this report in contravention of the terms of this clause.

This report is not to be distributed, copied or modified in any way with the intention to disclose to any other party other than those involved in the project's specific approval process.

Nationwide House Energy Rating Scheme®
Class 1 Summary
NatHERS® Certificate No. #HR-2721J9-01

Generated on 22 Nov 2023 using Hero 3.1.0.6

Property

Address	Bangalow Road, BYRON BAY, NSW, 2481
Lot/DP	
NatHERS climate zone	10 - Brisbane AMO

Accredited assessor

Name	Duncan Hope
Business name	Senica Consultancy Group
Email	duncan@senica.com.au
Phone	+61 280067784
Accreditation No.	DMN/14/1658
Assessor Accrediting Organisation	DMN

Verification

To verify this certificate, scan the QR code or visit http://www.hero-software.com.au/pdf/HR-2721J9-01. When using either link, ensure you are visiting http://www.hero-software.com.au

National Construction Code (NCC) requirements

The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J3D3 and J3D15 of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at www.abcb.gov.au.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

Thermal performance Star rating

4.9
Minimum Rating

NATIONWIDE HOUSE ENERGY RATING SCHEME®

The rating above is the minimum of all dwellings in this summary.

For more information on your dwelling's rating see:
www.nathers.gov.au

NCC heating and cooling maximum loads MJ/m².yr

Limits taken from ABCB Standard 2022

	Heating	Cooling
Average load	7.9	44.2
Maximum load	14.6	55.2
Average limit	13.2	55.1
Maximum limit	12.6	55.3

Whole of Home performance rating

No Whole of Home performance rating generated for this certificate or not completed for all dwellings.

Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m².yr)	Cooling load (load limit) (MJ/m².yr)	Total load (MJ/m².yr)	Star Rating	Whole of Home Rating
HR-V6O8PH-01	Unit 01	6.2	44.1	50.3	6.3	n/a
HR-CJK6MT-01	Unit 02	5.9	46.9	52.9	6.0	n/a
HR-1VKLUU-01	Unit 03	6.4	40.5	46.9	6.6	n/a

* Refer to glossary

Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m².yr)	Cooling load (load limit) (MJ/m².yr)	Total load (MJ/m².yr)	Star Rating	Whole of Home Rating
HR-QRRY2K-01	Unit 04	6.0	46.7	52.7	6.0	n/a
HR-HKHGQW-01	Unit 05	7.4	40.1	47.5	6.6	n/a
HR-Q2NUVB-01	Unit 06	4.0	33.0	37.1	7.8	n/a
HR-7E9TCN-01	Unit 07	13.5	51.2	64.8	5.1	n/a
HR-2ZTTUP-01	Unit 08	13.8	40.2	54.0	5.9	n/a
HR-991OU7-01	Unit 09	12.9	43.9	56.7	5.7	n/a
HR-F46BSN-01	Unit 10	13.3	40.2	53.5	5.9	n/a
HR-VUQ9ZD-01	Unit 11	12.3	39.7	52.0	6.1	n/a
HR-DRVQUH-01	Unit 12	11.9	45.2	57.0	5.7	n/a
HR-NK7QDF-01	Unit 13	1.0	48.9	49.9	6.3	n/a
HR-YI9TV5-01	Unit 14	1.4	52.0	53.5	5.9	n/a
HR-SFTN22-01	Unit 15	0.8	52.9	53.7	5.9	n/a
HR-X6LEK0-01	Unit 16	1.1	43.8	44.9	6.9	n/a
HR-EIH9YL-01	Unit 17	0.9	55.2	56.0	5.7	n/a
HR-6SGLCY-01	Unit 18	0.1	34.6	34.7	8.0	n/a
HR-IHEA6I-01	Unit 19	13.9	41.1	55.0	5.8	n/a
HR-Q2AUAX-01	Unit 20	14.6	51.5	66.1	4.9	n/a
HR-FGGPD5-01	Unit 21	13.1	33.6	46.7	6.7	n/a
HR-6JV6GN-01	Unit 22	12.6	52.9	65.5	5.0	n/a
HR-4BZENR-01	Unit 23	14.2	48.9	63.1	5.2	n/a
HR-PF1R2H-01	Unit 24	2.4	34.3	36.8	7.8	n/a
Averages	24x (Total)	7.9	44.2	52.1	6.2	n/a
Maximum Loads and Minimum Ratings		14.6	55.2	66.1	4.9	n/a

* Refer to glossary

Explanatory notes

About the ratings

This is a summary of NCC Class 1 dwellings in a development. For more details of each dwelling refer to the individual dwelling's certificate using the certificate number in summary of all dwellings table.
NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the energy loads and societal cost. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy production and storage to estimate the homes societal cost.
For more details about an individual dwelling's assessment, refer to the individual dwelling's NatHERS Certificate (accessible via link).

Accredited Assessors

For high quality NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

Non-accredited assessors (Raters) have no ongoing training requirements and are not quality assured.

Licensed assessors in the Australian Capital Territory (ACT) can produce assessments for regulatory purposes only, using endorsed software, as listed on the ACT licensing register.

Any queries about this report should be directed to the assessor. If the assessor is unable to address questions or concerns, contact the AAO specified on the front of this certificate.

Disclaimer

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in certificates is entered by the assessor. It is the assessor's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce a NatHERS Certificate.

The predicted annual energy use, cost and greenhouse gas emissions in this NatHERS Certificate are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings 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, behaviour, appliance performance, indoor air temperature and local climate.

Not all assumptions 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.

Certificate No. #HR-2721J9-01
Scan QR code or follow website link for rating details.
Assessor name: Duncan Hope
Accreditation No.: DMN/14/1658
Property Address: Bangalow Road, BYRON BAY, NSW, 2481
http://www.hero-software.com.au/pdf/HR-2721J9-01

SIGHT TRIANGLE NOTE:
PEDESTRIAN SIGHT TRIANGLE TO BE KEPT CLEAR OF OBSTRUCTIONS TO VISIBILITY. LOW LEVEL LANDSCAPING PERMITTED TO A MAXIMUM HEIGHT OF 500mm ABOVE DRIVEWAY LEVEL.

RAUNIK design group ARCHITECTS

1:350@A3

LEVEL 1 GROUND

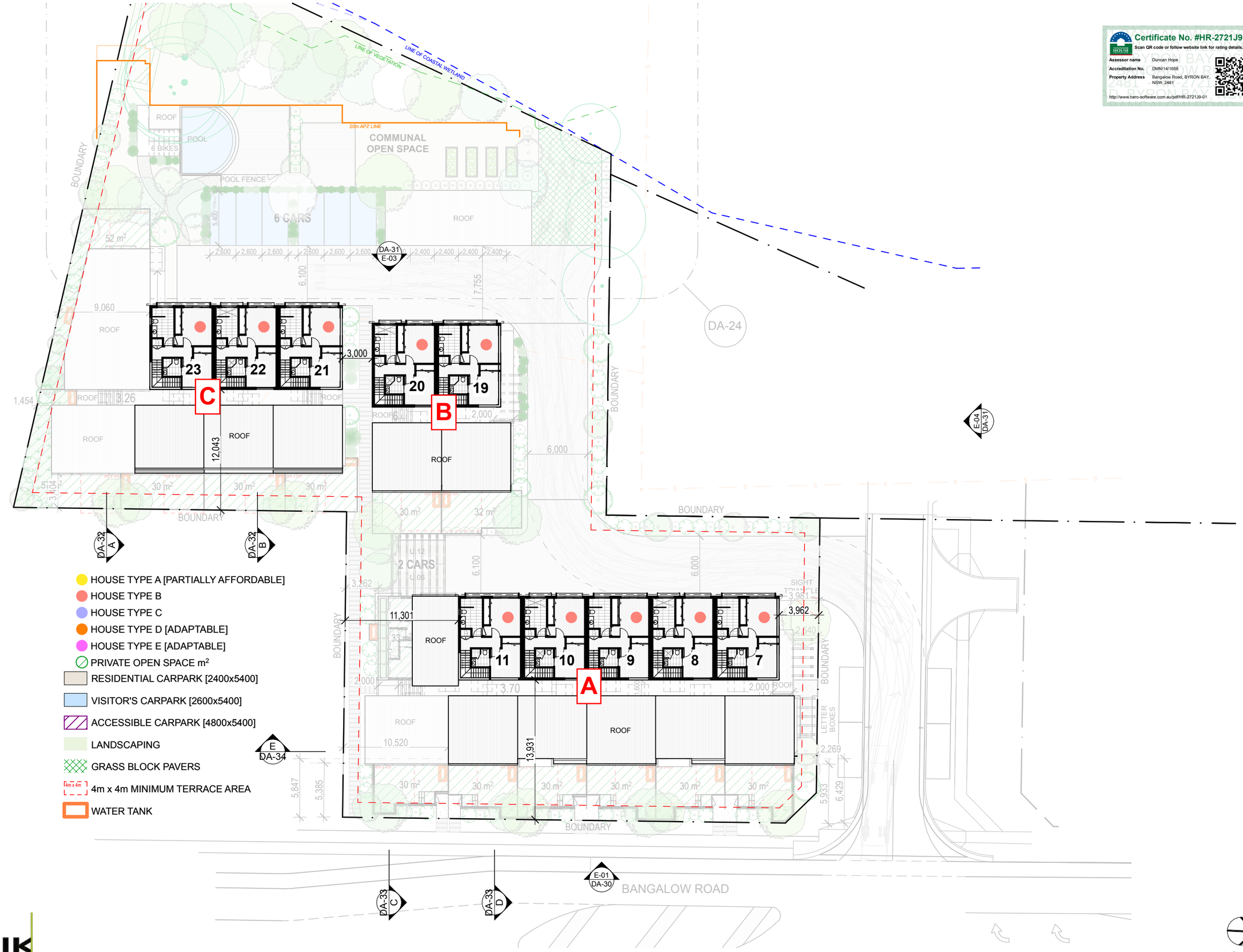
23923 | LOCALE | DEVELOPMENT APPLICATION | 17/10/2023 | DA-24 | REV DA2

RAUNIK design group ARCHITECTS

1:350@A3

LEVEL 2

23923 | LOCALE | DEVELOPMENT APPLICATION | 17/10/2023 | DA-25 | REV DA2



Certificate No. #HR-2721J9-01

Scan QR code or follow website link for rating details.

Assessor name	Duncan Hope
Accreditation No.	DMN/14/1658
Property Address	Bangalow Road, BYRON BAY, NSW, 2481

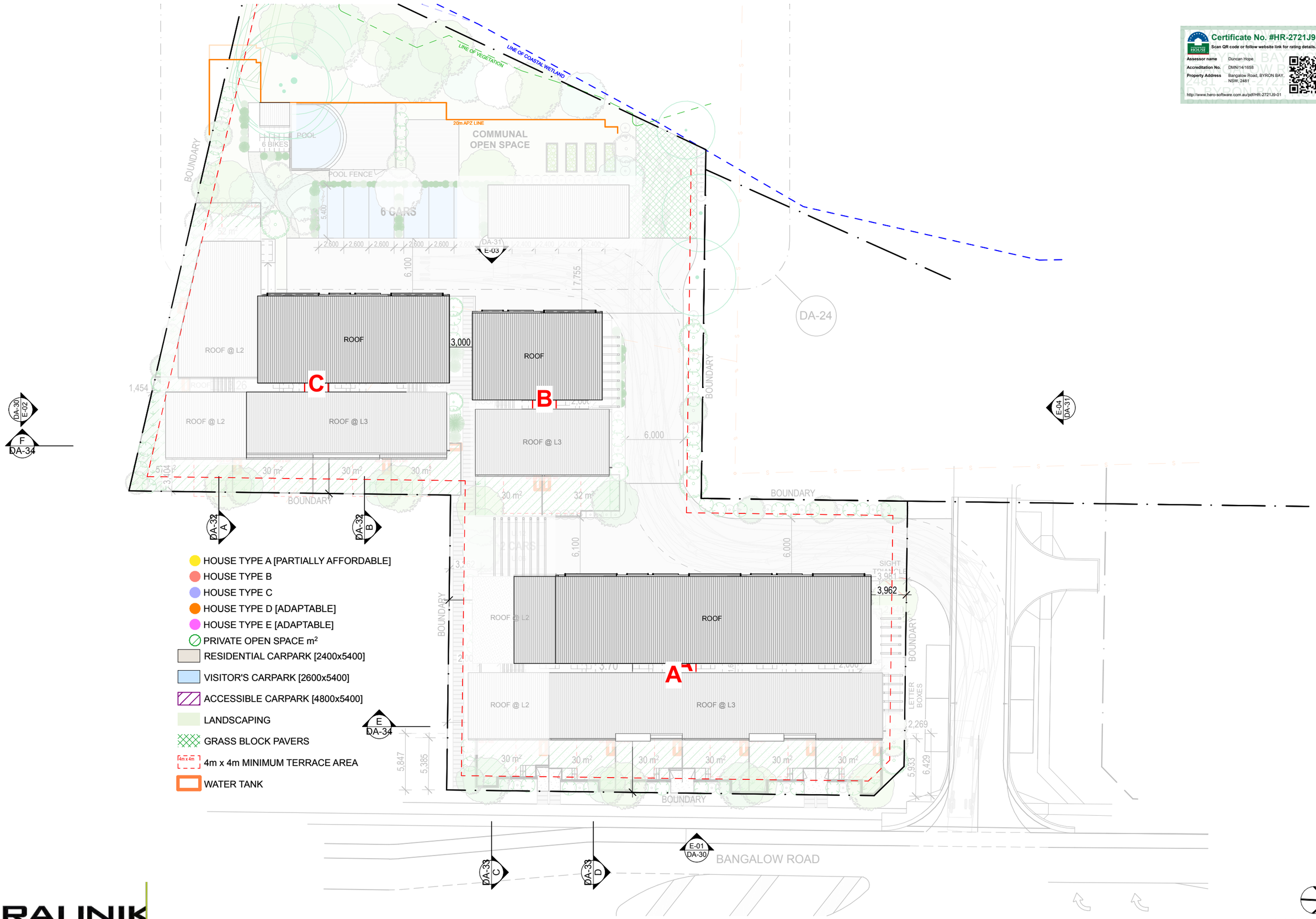
http://www.hero-software.com.au/pdf/HR-2721J9-01

RAUNIK design group ARCHITECTS

1:350@A3

LEVEL 3

23923 | LOCALE | DEVELOPMENT APPLICATION | 17/10/2023 | DA-26 | REV DA2



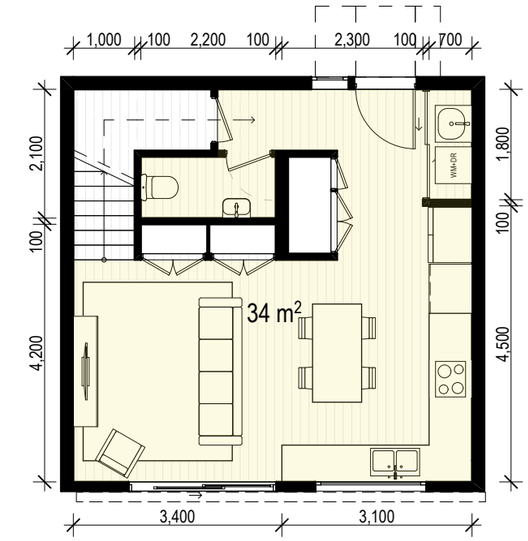
Certificate No. #HR-2721J9-01
Scan QR code or follow website link for rating details.
Assessor name: Duncan Hope
Accreditation No.: DMN/14/1658
Property Address: Bangalow Road, BYRON BAY, NSW, 2481
http://www.hero-software.com.au/pdf/HR-2721J9-01

RAUNIK design group ARCHITECTS

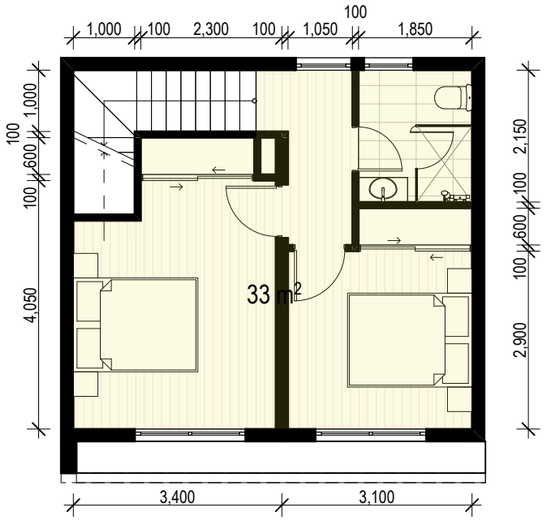
1:350@A3

OVERALL ROOF

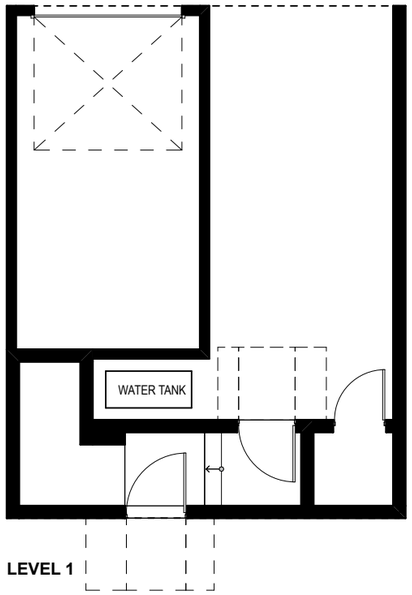
23923 | LOCALE | DEVELOPMENT APPLICATION | 17/10/2023 | DA-27 | REV DA2



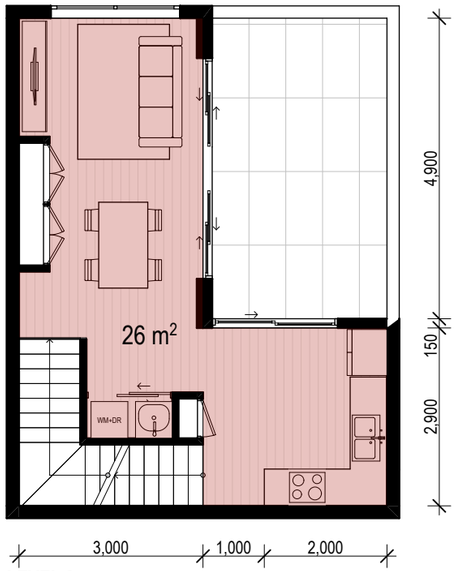
LEVEL 1



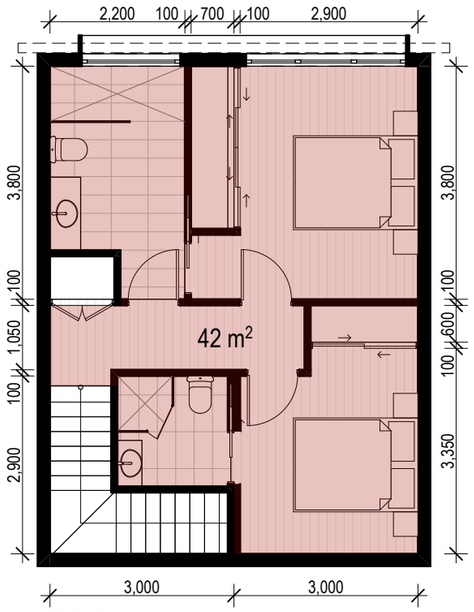
LEVEL 2



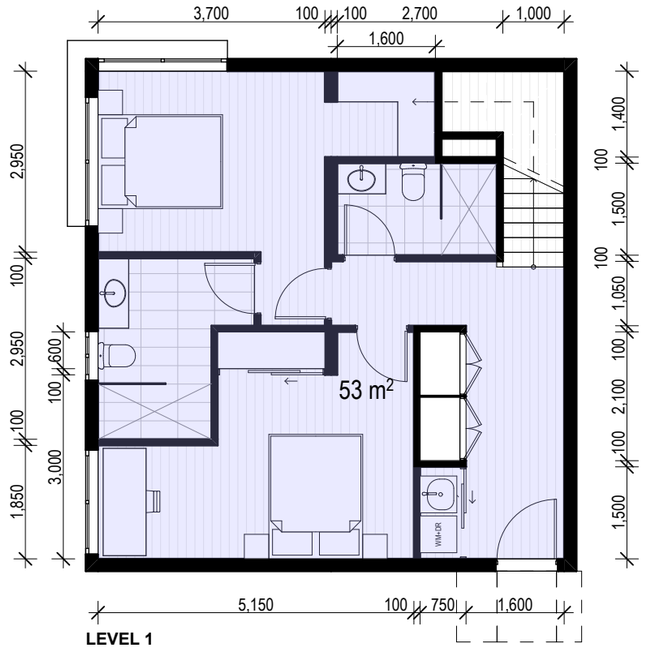
LEVEL 1



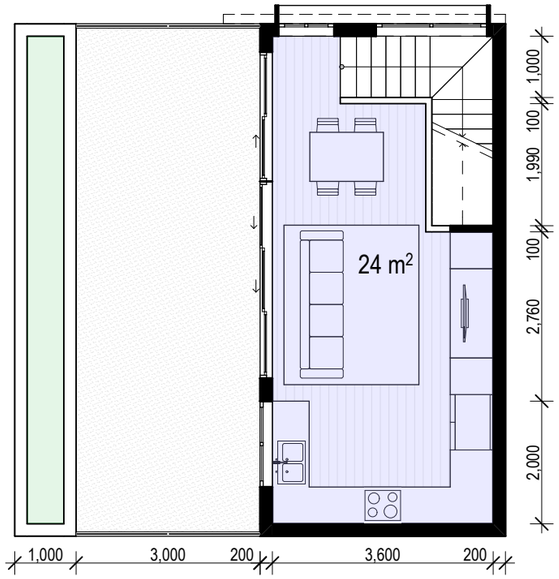
LEVEL 2



LEVEL 3



LEVEL 1



HOUSE TYPE A
GFA 67m²

HOUSE TYPE B
GFA 68m²

HOUSE TYPE C
GFA 77m²

RAUNIK design group ARCHITECTS

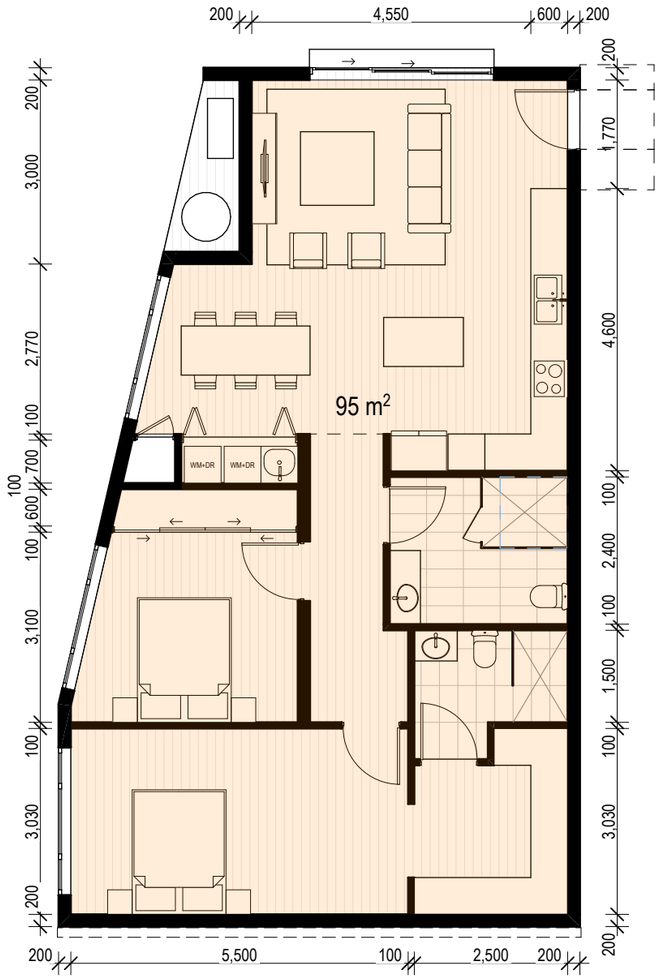
NOTE:
ALL AREAS ARE GFA NOT SALES OR CONTRACT AREAS.

1:100@A3

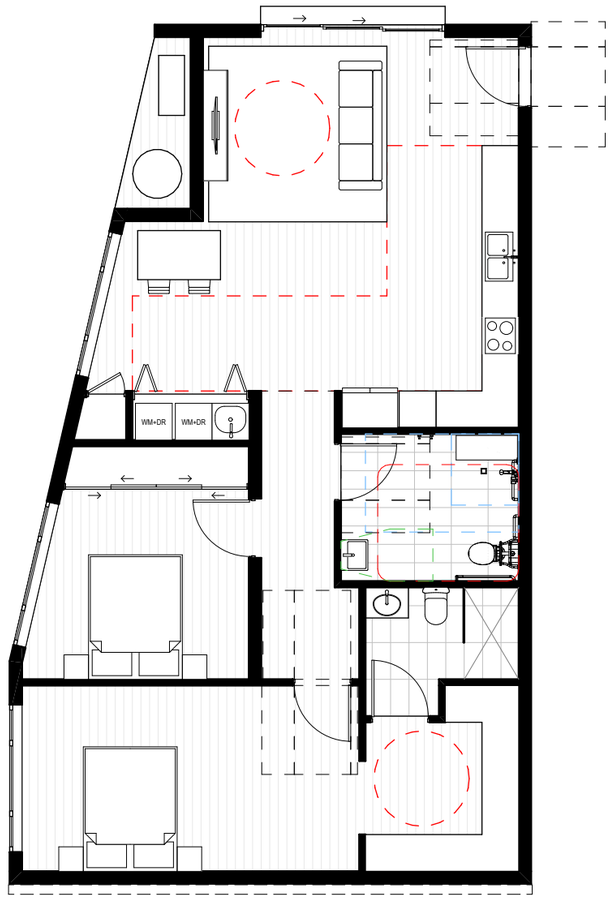
HOUSE TYPES A, B & C

23923 | LOCALE | DEVELOPMENT APPLICATION | 17/10/2023 | DA-28 | REV DA2

Certificate No. #HR-2721J9-01
Scan QR code or follow website link for rating details.
Assessor name Duncan Hope
Accreditation No. DMN/14/1658
Property Address Bangalow Road, BYRON BAY, NSW, 2481
http://www.hero-software.com.au/pdf/HR-2721J9-01



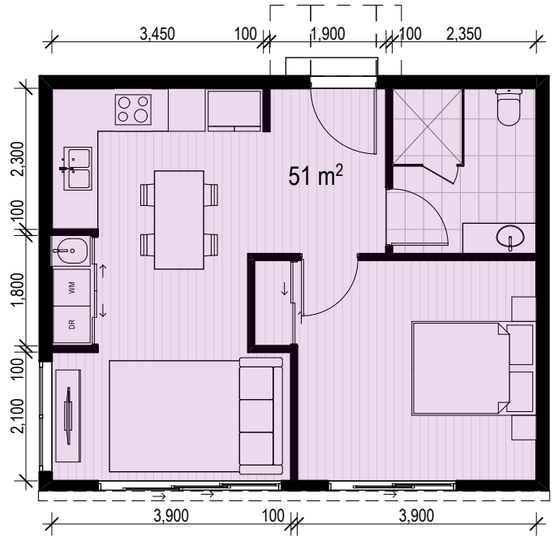
ORIGINAL



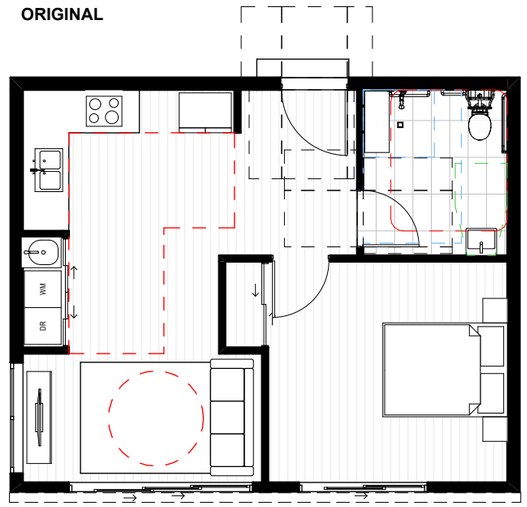
ADAPTED

HOUSE TYPE D [ADAPTABLE]

AREA
GFA 95m²



ORIGINAL



ADAPTED

HOUSE TYPE E [ADAPTABLE]

GFA 51m²

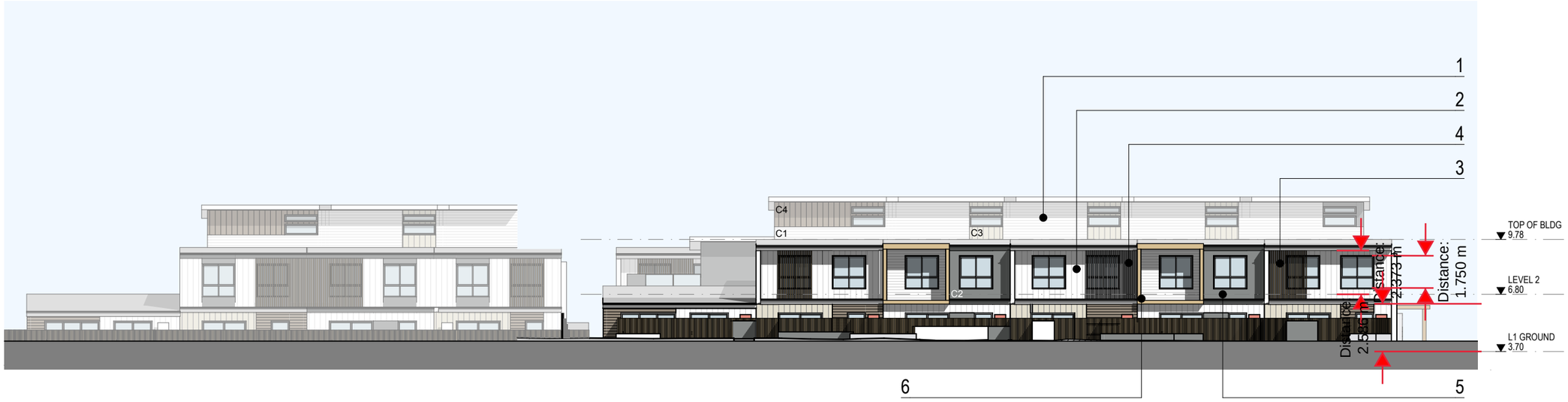
RAUNIK design group ARCHITECTS

NOTE:
ALL AREAS ARE GFA NOT SALES OR CONTRACT AREAS.

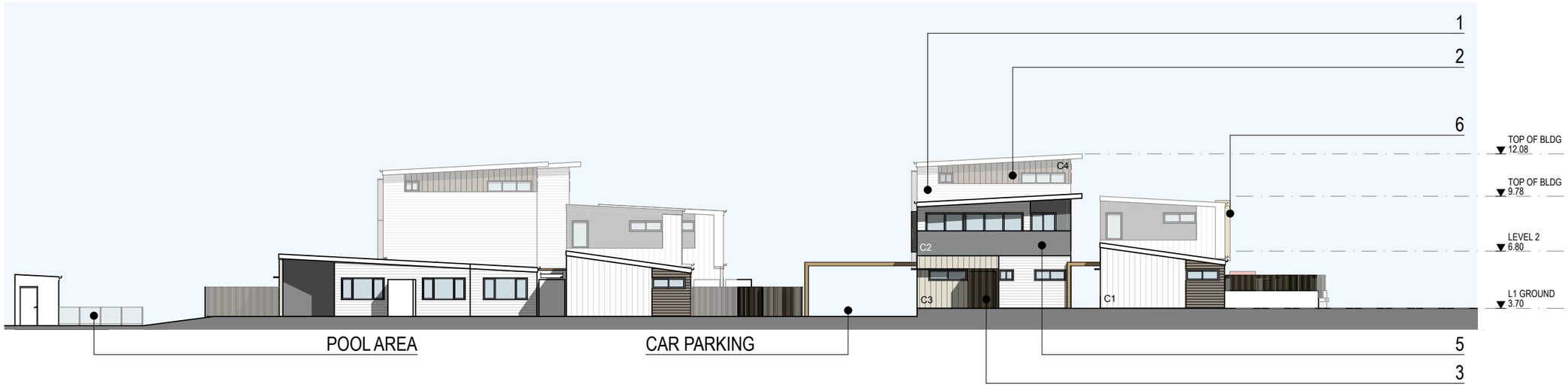
1:100@A3

HOUSE TYPES D, E & F

23923 | LOCALE | DEVELOPMENT APPLICATION | 17/10/2023 | DA-29 | REV DA2



EAST ELEVATION - BANGALOW RD 1:250



SOUTH ELEVATION 1:250

Certificate No. #HR-2721J9-01

Scan QR code or follow website link for rating details.

Assessor name	Duncan Hope
Accreditation No.	DMN/14/1658
Property Address	Bangalow Road, BYRON BAY, NSW, 2481

http://www.hero-software.com.au/pdf/HR-2721J9-01

1. HORIZONTAL FC CLADDING - SMALL PROFILE
2. VERTICAL FC CLADDING - WIDE PROFILE
3. ALUMINIUM BATTENS - TIMBER LOOK
   50mm x 50mm @ 50mm SPACINGS
4. ALUMINIUM BATTENS - WHITE
   50mm x 50mm @ 50mm SPACINGS
5. FC CLADDING SMOOTH - PAINT FINISH
6. FEATURE TIMBER LOOK ALUMINIUM CLADDING
7. LUSH LANDSCAPING THROUGHOUT

C1. COLOUR 1 - WHITE
C2. COLOUR 2 - LIGHT GREY
C3. COLOUR 3 - LIGHT TAN
C4. COLOUR 4 - DARK TAN

RAUNIK design group ARCHITECTS

1:250@A3

ELEVATIONS E + S

23923 | LOCALE | DEVELOPMENT APPLICATION | 17/10/2023 | DA-30 | REV DA2

WEST ELEVATION 1:250

NORTH ELEVATION 1:250

Certificate No. #HR-2721J9-01

Scan QR code or follow website link for rating details.

Assessor name	Duncan Hope
Accreditation No.	DMN/14/1658
Property Address	Bangalow Road, BYRON BAY, NSW, 2481

http://www.hero-software.com.au/pdf/HR-2721J9-01

1. HORIZONTAL FC CLADDING - SMALL PROFILE
2. VERTICAL FC CLADDING - WIDE PROFILE
3. ALUMINIUM BATTENS - TIMBER LOOK 50mm x 50mm @ 50mm SPACINGS
4. ALUMINIUM BATTENS - WHITE 50mm x 50mm @ 50mm SPACINGS
5. FC CLADDING SMOOTH - PAINT FINISH
6. FEATURE TIMBER LOOK ALUMINIUM CLADDING
7. LUSH LANDSCAPING THROUGHOUT

C1. COLOUR 1 - WHITE
C2. COLOUR 2 - LIGHT GREY
C3. COLOUR 3 - LIGHT TAN
C4. COLOUR 4 - DARK TAN

RAUNIK design group ARCHITECTS

1:250@A3

ELEVATIONS W + N

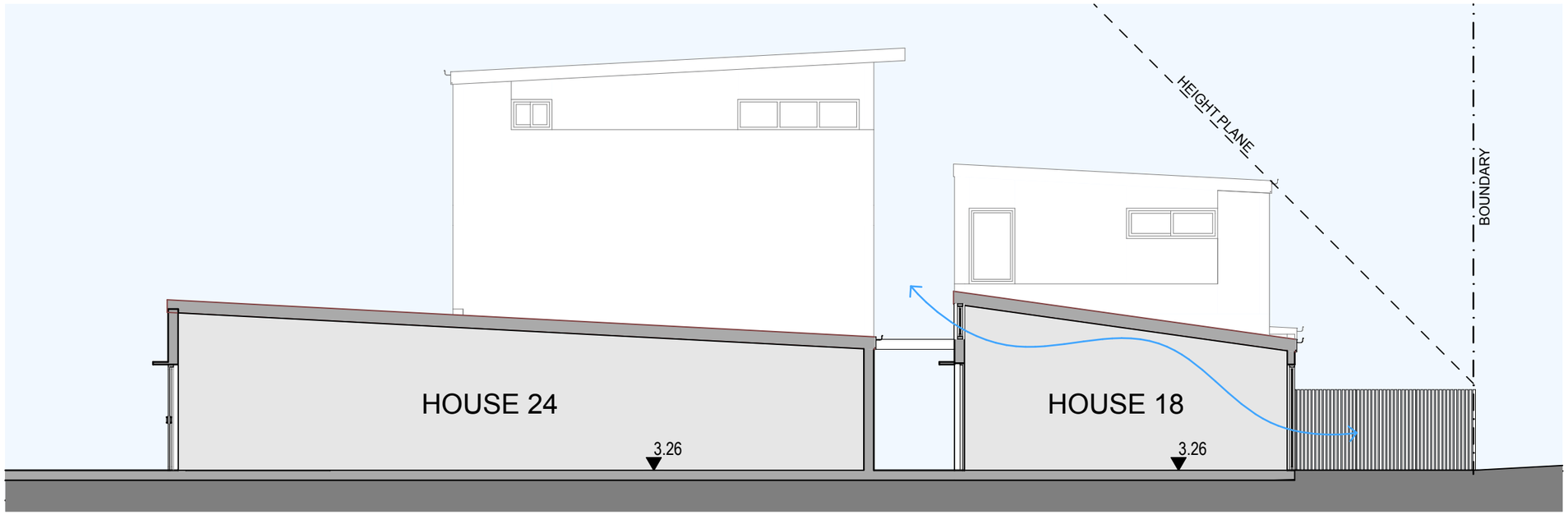
23923 | LOCALE | DEVELOPMENT APPLICATION | 17/10/2023 | DA-31 | REV DA2

Certificate No. #HR-2721J9-01

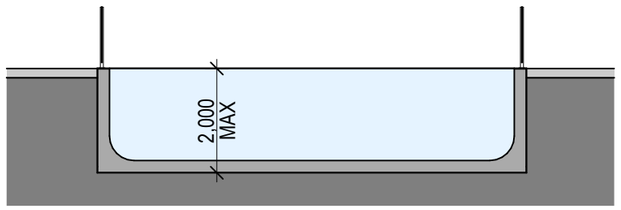
Scan QR code or follow website link for rating details.

Assessor name	Duncan Hope
Accreditation No.	DMN/14/1658
Property Address	Bangalow Road, BYRON BAY, NSW, 2481

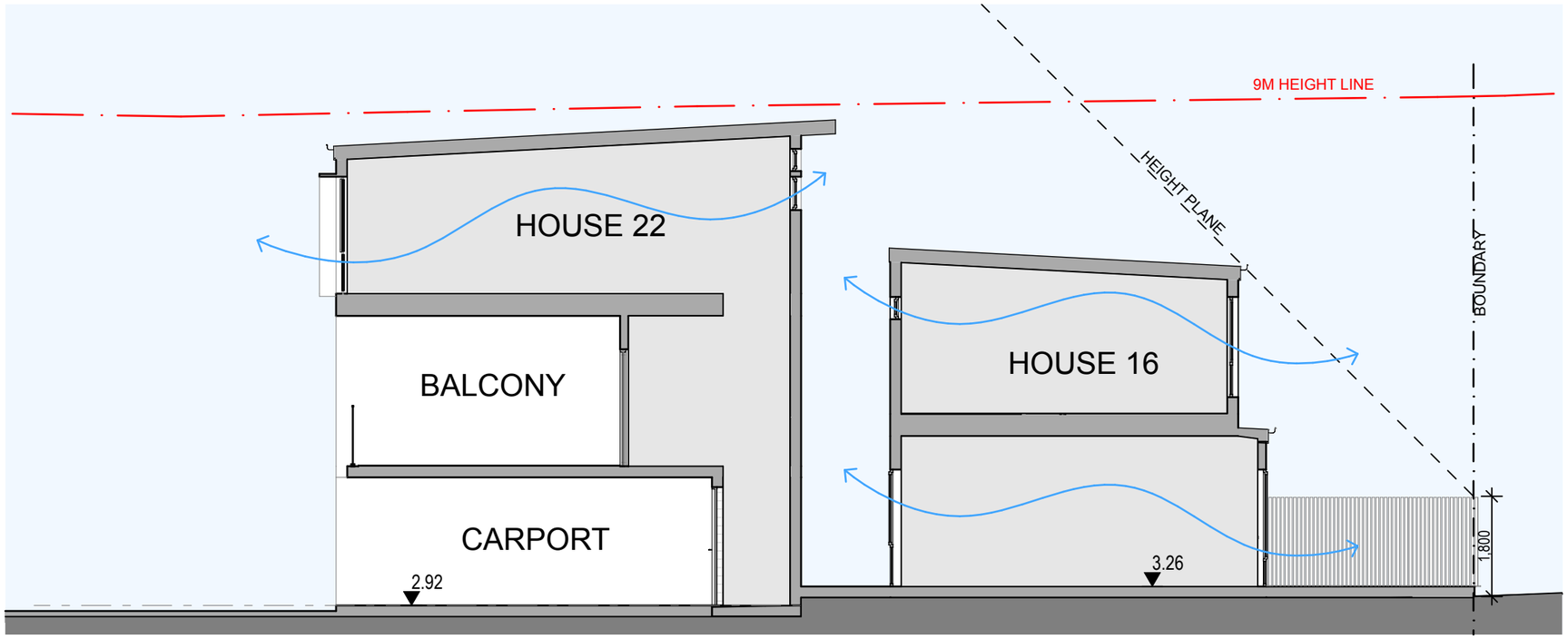
http://www.hero-software.com.au/pdf/HR-2721J9-01



A **SECTION A**
1:100



POOL SECTION
1:100



B **SECTION B**
1:100

RAUNIK design group ARCHITECTS

1:100@A3

SECTIONS A & B

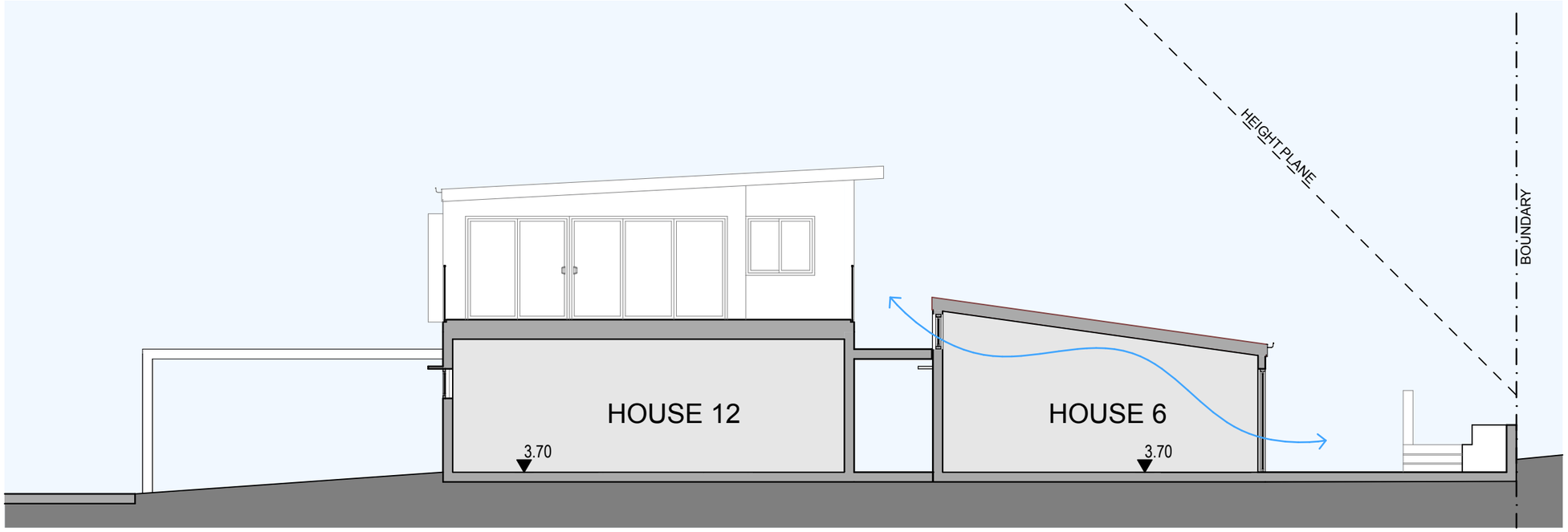
23923 | LOCALE | DEVELOPMENT APPLICATION | 17/10/2023 | DA-32 | REV DA2

Certificate No. #HR-2721J9-01

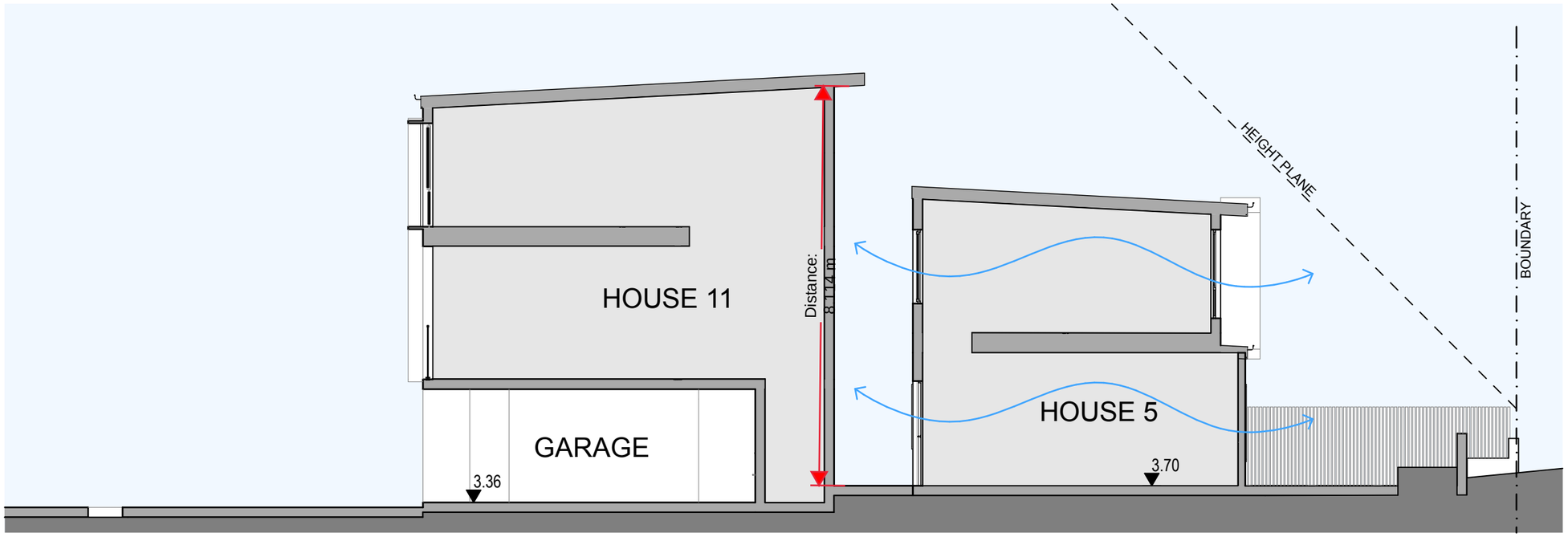
Scan QR code or follow website link for rating details.

Assessor name	Duncan Hope
Accreditation No.	DMN/14/1658
Property Address	Bangalow Road, BYRON BAY, NSW, 2481

http://www.hero-software.com.au/pdf/HR-2721J9-01



C **SECTION C**
1:100



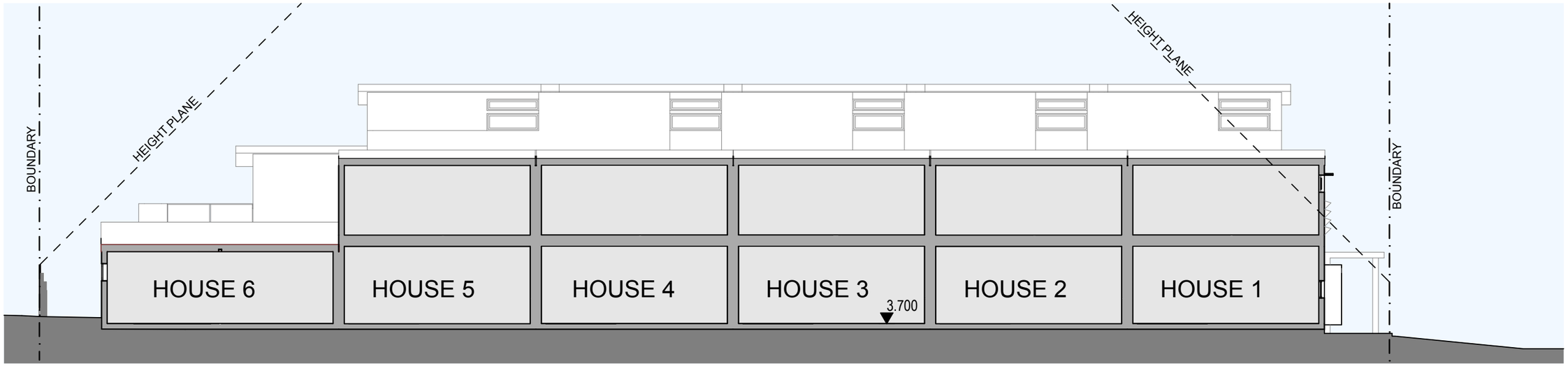
D **SECTION D**
1:100

RAUNIK design group ARCHITECTS

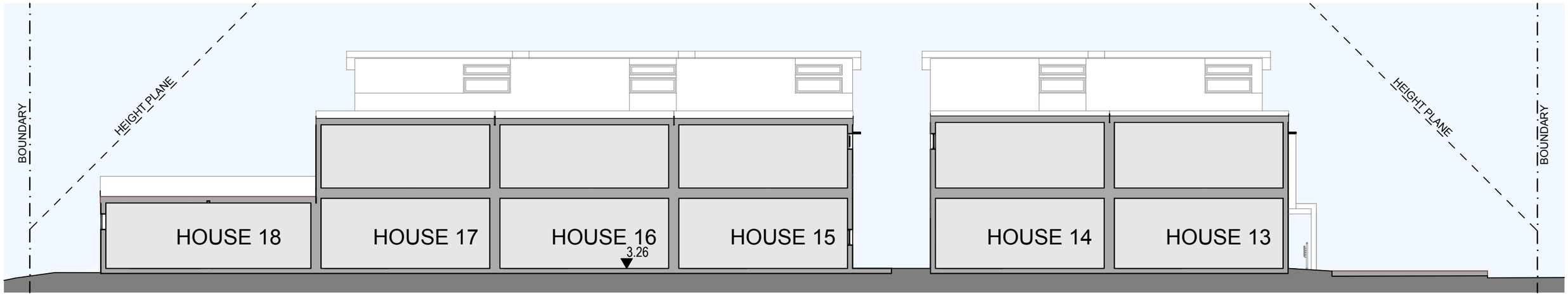
1:100@A3

SECTIONS C & D

23923 | LOCALE | DEVELOPMENT APPLICATION | 17/10/2023 | DA-33 | REV DA2



E **SECTION E**
1:150



F **SECTION F**
1:150

RAUNIK design group ARCHITECTS

1:150@A3
SECTIONS E & F
23923 | LOCALE | DEVELOPMENT APPLICATION | 17/10/2023 | DA-34 | REV DA2