

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 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary
Date of issue: Friday, 03 July 2020
To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary		
Project name	Clues-Primary_02	
Street address	86 Quirk Street Dee Why 2099	
Local Government Area	Northern Beaches Council	
Plan type and plan number	deposited 10683	
Lot no.	3	
Section no.	-	
Project type	separate dwelling house	
No. of bedrooms	5	
Project score		
Water	✔ 40	Target 40
Thermal Comfort	✔ Pass	Target Pass
Energy	✔ 86	Target 50

Certificate Prepared by	
Name / Company Name:	Rapid Plans
ABN (if applicable):	43150064592

Project address	
Project name	Clues-Primary_02
Street address	86 Quirk Street Dee Why 2099
Local Government Area	Northern Beaches Council
Plan type and plan number	Deposited Plan 10683
Lot no.	3
Section no.	-
Project type	
Project type	separate dwelling house
No. of bedrooms	5
Site details	
Site area (m²)	720
Roof area (m²)	271
Conditioned floor area (m2)	327.0
Unconditioned floor area (m2)	19.0
Total area of garden and lawn (m2)	430

Assessor details and thermal loads		
Assessor number	10056	
Certificate number	0004978060	
Climate zone	56	
Area adjusted cooling load (MJ/m²·year)	25	
Area adjusted heating load (MJ/m²·year)	40	
Project score		
Water	✔ 40	Target 40
Thermal Comfort	✔ Pass	Target Pass
Energy	✔ 86	Target 50

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

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Landscape			
The applicant must plant indigenous or low water use species of vegetation throughout 430 square metres of the site.	✓	✓	
Fixtures			
The applicant must install showerheads with a minimum rating of 4 star (> 4.5 but <= 6 L/min plus spray force and/or coverage tests) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 6 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 6 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 6 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 3500 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 271.47 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to:			
• at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.)		✓	✓
• a tap that is located within 10 metres of the swimming pool in the development		✓	✓
Swimming pool			
The swimming pool must not have a volume greater than 51 kilolitres.	✓	✓	

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
The swimming pool must be outdoors.	✓	✓	

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
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 an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate 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. 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.	✓	✓	✓
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.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓

Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 5 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 1-phase airconditioning; Energy rating: 5 star (average zone)		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 1-phase airconditioning; Energy rating: 5 star (average zone)		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: gas fired flued heater; Energy rating: 3 Star		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 1-phase airconditioning; Energy rating: 5 star (average zone)		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: no mechanical ventilation (ie. natural); Operation control: n/a			
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: natural ventilation only, or no laundry; Operation control: n/a		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 5 of the bedrooms / study; dedicated		✓	✓
• at least 2 of the living / dining rooms; dedicated		✓	✓
• the kitchen; dedicated		✓	✓

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
• all bathrooms/toilets; dedicated		✓	✓
• the laundry; dedicated		✓	✓
• all hallways; dedicated		✓	✓
Natural lighting			
The applicant must install a window and/or skylight in the kitchen of the dwelling for natural lighting.	✓	✓	✓
The applicant must install a window and/or skylight in 4 bathroom(s)/toilet(s) in the development for natural lighting.	✓	✓	✓
Swimming pool			
The development must not incorporate any heating system for the swimming pool.		✓	
The applicant must install a timer for the swimming pool pump in the development.		✓	
Alternative energy			
The applicant must install a photovoltaic system with the capacity to generate at least 5 peak kilowatts of electricity as part of the development. The applicant must connect this system to the development's electrical system.	✓	✓	✓
Other			
The applicant must install a gas cooktop & gas oven in the kitchen of the dwelling.		✓	
The applicant must construct each refrigerator space in the development so that it is "well ventilated", as defined in the BASIX definitions.		✓	
The applicant must install a fixed outdoor clothes drying line as part of the development.		✓	

Legend
In these commitments, "applicant" means the person carrying out the development.
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).
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.
Commitments identified with a ✓ in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

Nationwide House Energy Rating Scheme NatHERS Certificate No. 0004978060

Generated on 03 Jul 2020 using BERS Pro v4.4.0.1 (3.21)

Property

Address	Unit Main, 86 Quirk Street, Dee Why, NSW, 2099
Lot/DP	3/10683
NCC Class*	1A
Type	New Dwelling
Main Plan	Rev A Issued on 30/06/2020
Prepared by	Rapid Plans Building Design

Construction and environment

Assessed floor area (m ²)*	Exposure Type
Conditioned*	327.0 Suburban
Unconditioned*	141.0
Total	468.0
Garage	114.0

Accredited assessor

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

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 4.0.2 and 4.5 to 4.8 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.



Thermal performance

Heating	Cooling
39.9 MJ/m ²	25.2 MJ/m ²

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?pbFgWOBzh. When using either link, ensure you are visiting hstar.com.au

DA APPLICATION ONLY
NOT FOR CONSTRUCTION



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Builder to Check and Confirm all Measurements Prior to Commencement of any works. Immediately Report any Discrepancies to Rapid Plans

Project North



Checked
Plot Date:
Project NO.
Project Status

Client
Site:

Sheet Size: A3

GBJ
30/07/2020
RP0520CLU
DA
Mick & Patrice Clues
86 Quirk Street Dee Why

DRAWING TITLE :

SHADOW PLANS
Basix Primary Dwelling

PROJECT NAME :

New Primary & Secondary Dwellings

REVISION NO.

-
DATE:
16-7-2020
DRAWING NO.
DA5003

Single Dwelling

Certificate number: 1115628S

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 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary
Date of issue: Friday, 03 July 2020
To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary		
Project name	Clues-Secondary	
Street address	86 Quirk Street Dee Why 2099	
Local Government Area	Northern Beaches Council	
Plan type and plan number	deposited 10683	
Lot no.	3	
Section no.	-	
Project type	separate dwelling house	
No. of bedrooms	2	
Project score		
Water	✓ 40	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 53	Target 50

Certificate Prepared by

Name / Company Name: Rapid Plans

ABN (if applicable): 43150064592

BASIX Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA 3 11 6 Certificate No.: 1115628S Friday, 03 July 2020 page 1/7

Description of project

Project address	
Project name	Clues-Secondary
Street address	86 Quirk Street Dee Why 2099
Local Government Area	Northern Beaches Council
Plan type and plan number	Deposited Plan 10683
Lot no.	3
Section no.	-
Project type	
Project type	separate dwelling house
No. of bedrooms	2
Site details	
Site area (m ²)	193
Roof area (m ²)	43
Conditioned floor area (m2)	45.7
Unconditioned floor area (m2)	5.7
Total area of garden and lawn (m2)	55

Assessor details and thermal loads			
Assessor number	10056		
Certificate number	0004978078		
Climate zone	56		
Area adjusted cooling load (MJ/m²·year)	10		
Area adjusted heating load (MJ/m²·year)	40		
Project score			
Water	✓ 40	Target 40	
Thermal Comfort	✓ Pass	Target Pass	
Energy	✓ 53	Target 50	

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Schedule of BASIX commitments

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

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Landscape			
The applicant must plant indigenous or low water use species of vegetation throughout 55 square metres of the site.	✓	✓	
Fixtures			
The applicant must install showerheads with a minimum rating of 4 star (> 4.5 but <= 6 L/min plus spray force and/or coverage tests) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 4 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 1000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 45 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none">at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.)		✓	✓

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Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
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 an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate 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. 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.	✓	✓	✓
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.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓

Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres

BASIX Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA 3 11 6 Certificate No.: 1115628S Friday, 03 July 2020 page 4/7

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 5 stars.	✓	✓	✓
Cooling system			
The living areas must not incorporate any cooling system, or any ducting which is designed to accommodate a cooling system.		✓	✓
The bedrooms must not incorporate any cooling system, or any ducting which is designed to accommodate a cooling system.		✓	✓
Heating system			
The living areas must not incorporate any heating system, or any ducting which is designed to accommodate a heating system.		✓	✓
The bedrooms must not incorporate any heating system, or any ducting which is designed to accommodate a heating system.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development: At least 1 Bathroom: no mechanical ventilation (ie. natural); Operation control: n/a		✓	✓
Kitchen: no mechanical ventilation (ie. natural); Operation control: n/a		✓	✓
Laundry: natural ventilation only, or no laundry; Operation control: n/a		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps: <ul style="list-style-type: none">at least 2 of the bedrooms / study; dedicatedat least 1 of the living / dining rooms; dedicatedthe kitchen; dedicated		✓	✓

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
all bathrooms/toilets; dedicated		✓	✓
the laundry; dedicated		✓	✓
all hallways; dedicated		✓	✓
Natural lighting			
The applicant must install a window and/or skylight in the kitchen of the dwelling for natural lighting.	✓	✓	✓
The applicant must install a window and/or skylight in 1 bathroom(s)/toilet(s) in the development for natural lighting.	✓	✓	✓
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		✓	
The applicant must construct each refrigerator space in the development so that it is "well ventilated", as defined in the BASIX definitions.		✓	
The applicant must install a fixed outdoor clothes drying line as part of the development.		✓	

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Legend
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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).
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.
Commitments identified with a ✓ in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate(either interim or final) for the development may be issued.

BASIX Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA 3 11 6 Certificate No.: 1115628S Friday, 03 July 2020 page 7/7

Nationwide House Energy Rating Scheme
NatHERS Certificate No. 0004978078

Generated on 03 Jul 2020 using BERS Pro v4.4.0.1 (3.21)

Property

Address Unit Sec, 86 Quirk Street , Dee Why , NSW , 2099

Lot/DP 3/10683

NCC Class* 1A

Type New Dwelling

Plans

Main Plan Rev A issued on 30/06/2020

Prepared by Rapid Plans Building Design

Construction and environment

Assessed floor area (m²)*

Conditioned* 46.0

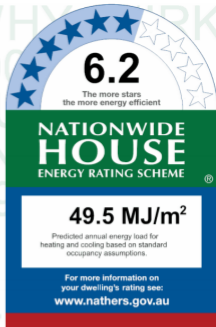
Unconditioned* 5.0

Total 51.0

Garage 0.0

Exposure Type Suburban

NatHERS climate zone 56



Thermal performance

Heating 39.8 MJ/m²

Cooling 9.7 MJ/m²

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?pr=20200004978078

When using either link, ensure you are visiting hstar.com.au

National Construction Code (NCC) requirements

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

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

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

**DA APPLICATION
ONLY
NOT FOR CONSTRUCTION**



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Builder to Check and Confirm
all Measurements Prior to
Commencement of any works.
Immediately Report any
Discrepancies to Rapid Plans



Checked
Plot Date: 30/07/2020
Project NO: RP0520CLU
Project Status DA

Client
Site: Mick & Patrice Clues
86 Quirk Street Dee Why

Sheet Size: A3

DRAWING TITLE :
SHADOW PLANS
Basix Secondary Dwelling

PROJECT NAME :
New Primary & Secondary Dwellings

REVISION NO.
-
DATE: 16-7-2020
DRAWING NO.
DA5004