

Assessor Certificate

Assessed and issued in accordance with the BASIX
Thermal Comfort Protocol for the Simulation Method

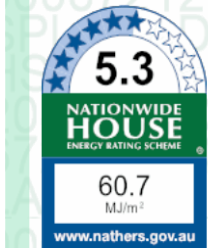


Date:	27 October 2021	BSA File ref:	17827
Assessor			
Name:	Gavin Chambers	Company:	Building Sustainability Assessments
Assessor #:	DMN/13/1491		
Address:	7 William Street, HAMILTON NSW 2303		
Phone:	(02) 4962 3439	Email:	enquiries@buildingsustainability.net.au
Declaration of interest in the project design:	None		
Project			
Address:	45 The Esplanade FRENCHS FORREST NSW 2086		
Assessment			
Software:	BERS Pro 4.4	BERS File Run Ref:	17827 - R_1
Documentation			
All details, upon which this assessment has been based, are included in the project documentation that has been stamped and signed by the Assessor issuing this certificate, as identified below:			
Drawings used for this assessment: (Title, Ref.#, Revision, Issue date, etc)			
Montgomery Homes Job No. 2908 26/10/2021 2			

Thermal Performance Specification (copy below) is
attached to the drawings and is on page:

A6 of 9

October 2021		BSA Reference: 17827	
Building Sustainability Assessments		Ph: 4962 3439	
enquiries@buildingsustainability.net.au		www.buildingsustainability.net.au	
Important Note			
The following specification was used to achieve the thermal performance values indicated on the Assessor Certificate and takes precedence over any other specification.			
If different construction elements are applied then the Assessor Certificate is no longer valid.			
Thermal Performance Specifications (does not apply to garage)			
External Wall Construction		Added Insulation	
Brick Veneer & Lightweight		R2.0	
Internal Wall Construction		Added Insulation	
Plasterboard on studs		R2.0 to walls adjacent to garage	
Ceiling Construction		Added Insulation	
Plasterboard		R3.5 to ceilings adjacent to roof space	
Roof Construction		Colour	
Metal		Any	
Floor Construction		Covering	
Concrete & Timber		As drawn	
Windows		Glass and frame type	
ALM-001-01 A Aluminium A SG Clear		U Value SHGC Range Area m2	
ALM-002-01 A Aluminium B SG Clear		6.7 0.51 - 0.63 As drawn	
		6.7 0.63 - 0.77 As drawn	
Type A windows are awning windows, bifolds, casements, tilt 'n' turn windows, entry doors, french doors			
Type B windows are double hung windows, sliding windows & doors, fixed windows, stacker doors,			
Skylights		Glass and frame type	
none		U Value SHGC Area m2	
U and SHGC values are according to AFRC. Alternate products may be used if the U value is lower and the SHGC is within the range specified.			
External Window Shading		(eaves, verandahs, pergolas, awnings etc)	
All shade elements modelled as drawn			
Ceiling Penetrations		(downlights, exhaust fans, flues etc)	
No adjustment has been made for losses to insulation arising from ceiling penetrations.			
Ceiling Fans used in the Modelling and to be installed in the follow areas			
Living area = None, Bedrooms = None			

BASIX Project Details		
(enter these details on the Site Details page)		
Conditioned Floor Area:	226	m ²
Unconditioned Floor Area:	13	m ²
BASIX Thermal Comfort Details		
(enter these details on the Assessor Details page)		
Assessor Number:	DMN/13/1491	
Certificate Number:	0006721203	
Climate Zone:	56	
Ceiling Fans Modelled to Living Areas:	No	Bedrooms: No
(enter these details on the Construction page)		
Concrete slab on ground:	99	m ²
Suspended floor open subfloor:	1	m ²
Suspended floor enclosed subfloor:	46	m ²
Suspended floor above garage:	-	
(enter these details on the Thermal Loads page)		
Heating:	37	(MJ/m ² /annum)
Cooling:	24	(MJ/m ² /annum)
Total:	61	(MJ/m ² /annum)
Stars:	5.3	(NatHERS)
 0006721203 27 Oct 2021 Assessor Gavin Chambers Accreditation No. DMN/13/1491 Address 45 The Esplanade, Frenchs Forrest, NSW, 2086 www.nathers.gov.au hstar.com.au		

BASIX[®]Certificate

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

Single Dwelling

Certificate number: 1253100S

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

Secretary

Date of issue: Wednesday, 27 October 2021

To be valid, this certificate must be lodged within 3 months of the date of issue.



Planning,
Industry &
Environment

Project summary

Project name	17827
Street address	45 The Esplanade Frenchs Forrest 2086
Local Government Area	Northern Beaches Council
Plan type and plan number	deposited 212961
Lot no.	8
Section no.	-
Project type	separate dwelling house
No. of bedrooms	4

Project score

Water	✓ 40	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Certificate Prepared by



(ABN: 27 131 950 064)

Ph: 02 4962 3439

Email: enquiries@buildingsustainability.net.au

Revision of Certificates not lodged within 3 months of the date of issue will incur further BASIX issuing fees.

Description of project

Project address

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Street address	45 The Esplanade Frenchs Forrest 2086
Local Government Area	Northern Beaches Council
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Lot no.	8
Section no.	-

Project type

Project type	separate dwelling house
No. of bedrooms	4

Site details

Site area (m ²)	699
Roof area (m ²)	250
Conditioned floor area (m2)	226.0
Unconditioned floor area (m2)	13.0
Total area of garden and lawn (m2)	400

Assessor details and thermal loads

Assessor number	DMN/13/1491
Certificate number	0006721203
Climate zone	56
Area adjusted cooling load (MJ/m ² .year)	24
Area adjusted heating load (MJ/m ² .year)	37
Ceiling fan in at least one bedroom	No
Ceiling fan in at least one living room or other conditioned area	No

Project score

Water	✓ 40	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

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
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 7.5 but <= 9 L/min) 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 3000 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 130 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: - all toilets in the development - the cold water tap that supplies each clothes washer in the development - 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.)		✓ ✓ ✓	✓ ✓ ✓

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	99.0 square metres
floor - suspended floor/open subfloor	1.0 square metres
floor - suspended floor/enclosed subfloor	46.0 square metres

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 6 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: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
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;		✓	✓

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
• at least 3 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways;		    	    
Natural lighting			
The applicant must install a window and/or skylight in 2 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.			

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.