

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

## Single Dwelling

Certificate number: 1034036S 03

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, 09 August 2019

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



Project summary			
Project name	Lot 3302 Wianamatta Parkway_03		
Street address	Wianamatta Parkway Jordan Springs 2747		
Local Government Area	Penrith City Council		
Plan type and plan number	deposited Unreg		
Lot no.	3302		
Section no.	-		
Project type	attached dwelling house		
No. of bedrooms	4		
Project score			
Water	✓ 41 Target 40		
Thermal Comfort	✓ Pass Target Pass		
Energy	✓ 51 Target 50		

#### **Certificate Prepared by**

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

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# **Description of project**

Project address	
Project name	Lot 3302 Wianamatta Parkway_03
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3302
Section no.	-
Project type	
Project type	attached dwelling house
No. of bedrooms	4
Site details	
Site area (m²)	193
Roof area (m²)	97
Conditioned floor area (m2)	128.0
Unconditioned floor area (m2)	3.0
Total area of garden and lawn (m2)	80

Assessor details and thermal loads			
Assessor number	BDAV/12/1441		
Certificate number	0004072781		
Climate zone	28		
Area adjusted cooling load (MJ/m².year)	35		
Area adjusted heating load (MJ/m².year)	52		
Project score			
Water	<b>✓</b> 41	Target 40	
Thermal Comfort	✓ Pass	Target Pass	
Energy	<b>✓</b> 51	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
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 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 5 star in each bathroom in the development.		~	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 48.93 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		<b>✓</b>	•
the cold water tap that supplies each clothes washer in the development		~	•
<ul> <li>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.)</li> </ul>		~	•

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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.	~	<b>✓</b>	~

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

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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		<b>~</b>	~
The cooling system must provide for day/night zoning between living areas and bedrooms.		<b>~</b>	•
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.		<b>✓</b>	•
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		<b>✓</b>	•
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		<b>✓</b>	-
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	•
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 4 of the bedrooms / study; dedicated		<b>J</b>	

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 2 of the living / dining rooms; dedicated		~	~
the kitchen; dedicated		<b>✓</b>	•
all bathrooms/toilets; dedicated		<b>✓</b>	•
the laundry; dedicated		<b>✓</b>	•
all hallways; dedicated		<b>✓</b>	•
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		~	
The applicant must install a fixed outdoor clothes drying line as part of the development.			

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#### 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.

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## Multi Dwelling

Certificate number: 1034129M 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 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

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



Project summary			
Project name	Lot 3303 Wianamatta Parkway _04		
Street address	Wianamatta Parkway Jordan Springs 2747		
Local Government Area	Penrith City Council		
Plan type and plan number	deposited Unreg		
Lot no.	3303		
Section no.	-		
No. of residential flat buildings	0		
No. of units in residential flat buildings	0		
No. of multi-dwelling houses	0		
No. of single dwelling houses	2		
Project score			
Water	√ 43 Target 40		
Thermal Comfort	✓ Pass Target Pass		
Energy	✓ 50 Target 50		

Certificate Prepared by
Name / Company Name: Frys Energywise
ABN (if applicable): 631418543

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# **Description of project**

Project address	
Project name	Lot 3303 Wianamatta Parkway _04
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3303
Section no.	-
Project type	
No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	0
No. of single dwelling houses	2
Site details	
Site area (m²)	169
Roof area (m²)	138
Non-residential floor area (m²)	0.0
Residential car spaces	2
Non-residential car spaces	0

Common area landscape			
Common area lawn (m²)	0.0		
Common area garden (m²)	0.0		
Area of indigenous or low water use species (m²)	0.0		
Assessor details			
Assessor number	BDAV/12/1441		
Certificate number	0004072860		
Climate zone	28		
Project score			
Water	<b>✓</b> 43	Target 40	
Thermal Comfort	<b>✓</b> Pass	Target Pass	
Energy	<b>✓</b> 50	Target 50	

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### **Description of project**

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

### Single 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)
S	1	39.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)
МН	3	121.0	3.0	50.0	0.0

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## **Schedule of BASIX commitments**

- 1. Commitments for multi-dwelling houses
- 2. Commitments for single 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)
  - (i) Water
  - (ii) Energy

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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.

### 2. Commitments for single 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.		<b>✓</b>	-
(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.		<b>✓</b>	~
(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		<b>✓</b>	•
(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.		<b>✓</b>	~
(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.	•	<b>✓</b>	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		<b>✓</b>	
(g) The pool or spa must be located as specified in the table.	•	<b>✓</b>	
(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.	~	~	~

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	Fixtures				Appliances II			Indi	vidual 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	3 star (> 4.5 but <= 6 L/min)	4 star	4 star	5 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		
МН	individual water tank (no. 1)	Tank size (min) 2000.0 litres	To collect run-off from at least: 40.0 square metres of roof area;	yes	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.		~	~

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(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		<b>✓</b>		
(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.		<b>✓</b>		
(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;		<b>✓</b>		
(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		<b>✓</b>	-	
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		<b>✓</b>		
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		<b>✓</b>		
(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.	-	<b>✓</b>	~	

	Hot water	Bathroom ven	tilation system	Kitchen venti	ilation system	Laundry ventilation system		
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control	
S	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	
All other dwellings	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	no mechanical ventilation (ie. natural)	-	natural ventilation only, or no laundry	-	

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	Coo	ling	Heating			Artificial lighting						Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/ toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitcher	
S	1-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no	
All other dwellings	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3 (dedicated)	3 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no	

	Individual p	ool	Individual s	ра	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	
S	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	no	yes	
All other dwellings	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	yes	yes	

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

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(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.			
(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:	•	<b>✓</b>	~
(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.	~	<b>✓</b>	~

	Thermal loads		
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)	
S	52.0	53.3	
All other dwellings	41.1	30.7	

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	Construction of floors and walls				
Dwelling no.	Concrete slab on ground(m²)	Suspended floor with open subfloor (m²)	Suspended floor with endclosed subfloor (m²)	Suspended floor above garage (m²)	Primarily rammed earth or mudbrick walls
S	-	-	-	39	No
All other dwellings	121	-	-	-	No

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

#### (b) 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>✓</b>	~
(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.	•	<b>✓</b>	
(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.		<b>✓</b>	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		<b>✓</b>	~
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		<b>✓</b>	-

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.	~	<b>✓</b>	-

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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 fulfillment it is required to monitor in relation to the building or part, has been fulfilled).

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

## Single Dwelling

Certificate number: 1034072S 02

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, 09 August 2019

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



Project summary			
Project name	Lot 3304 Wianamatta Parkway_02		
Street address	Wianamatta Parkway Jordan Springs 2747		
Local Government Area	Penrith City Council		
Plan type and plan number	deposited Unreg		
Lot no.	3304		
Section no.	-		
Project type	attached dwelling house		
No. of bedrooms	3		
Project score			
Water	✓ 41 Target 40		
Thermal Comfort	✓ Pass Target Pass		
Energy	✓ 51 Target 50		

#### **Certificate Prepared by**

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034072S\_02 Friday, 09 August 2019 page 1/7

# **Description of project**

Project address	
Project name	Lot 3304 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3304
Section no.	-
Project type	
Project type	attached dwelling house
No. of bedrooms	3
Site details	
Site area (m²)	138
Roof area (m²)	73
Conditioned floor area (m2)	91.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	50

Assessor details and thermal loads			
Assessor number	BDAV/12/1441		
Certificate number	0004072872		
Climate zone	28		
Area adjusted cooling load (MJ/m².year)	31		
Area adjusted heating load (MJ/m².year)	38		
Project score			
Water	✓ 41 Target 4	0	
Thermal Comfort	✓ Pass Target F	ass	
Energy	✓ 51 Target 5	0	

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034072S\_02 Friday, 09 August 2019 page 2/7

#### **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 (> 6 but <= 7.5 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 5 star in each bathroom in the development.		~	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 33 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		<b>✓</b>	•
the cold water tap that supplies each clothes washer in the development		<b>✓</b>	•
<ul> <li>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.)</li> </ul>		<b>✓</b>	-

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034072S\_02 Friday, 09 August 2019 page 3/7

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.	~	<b>✓</b>	~

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

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034072S\_02 Friday, 09 August 2019 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 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.		<b>~</b>	•
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.		<b>~</b>	•
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: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	~
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 3 of the bedrooms / study;			

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 2 of the living / dining rooms;		<b>✓</b>	~
• the kitchen;		•	•
all bathrooms/toilets;		<b>✓</b>	•
• the laundry;		<b>✓</b>	•
• all hallways;		•	•
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		<b>✓</b>	
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.		<u> </u>	

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#### 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.

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Version: 1, Version Date: 06/09/2019



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

### Single Dwelling

Certificate number: 1034078S 02

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, 09 August 2019

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



Project summary			
Project name	Lot 3305 Wianamatta Parkway_02		
Street address	Wianamatta Parkway Jordan Springs 2747		
Local Government Area	Penrith City Council		
Plan type and plan number	deposited Unreg		
Lot no.	3305		
Section no.	-		
Project type	attached dwelling house		
No. of bedrooms	3		
Project score			
Water	✓ 41 Target 40		
Thermal Comfort	✓ Pass Target Pass		
Energy	✓ 51 Target 50		

#### **Certificate Prepared by**

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034078S\_02 Friday, 09 August 2019 page 1/7

# **Description of project**

Project address	
Project name	Lot 3305 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3305
Section no.	-
Project type	
Project type	attached dwelling house
No. of bedrooms	3
Site details	
Site area (m²)	138
Roof area (m²)	73
Conditioned floor area (m2)	91.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	50

Assessor details and thermal loads			
Assessor number	BDAV/12/1441		
Certificate number	0004072880		
Climate zone	28		
Area adjusted cooling load (MJ/m².year)	30		
Area adjusted heating load (MJ/m².year)	39		
Project score			
Water	<b>✓</b> 41	Target 40	
Thermal Comfort	✓ Pass	Target Pass	
Energy	<b>✓</b> 51	Target 50	

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034078S\_02 Friday, 09 August 2019 page 2/7

#### **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 (> 6 but <= 7.5 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 5 star in each bathroom in the development.		~	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 33 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		<b>✓</b>	•
the cold water tap that supplies each clothes washer in the development		•	•
<ul> <li>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.)</li> </ul>		•	-

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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.	~	<b>✓</b>	~

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

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034078S\_02 Friday, 09 August 2019 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 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.		<b>~</b>	•
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		<b>✓</b>	-
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	•
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 3 of the bedrooms / study;		<b>.</b>	

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 2 of the living / dining rooms;		•	<b>~</b>
• the kitchen;		•	•
all bathrooms/toilets;		•	•
• the laundry;		•	•
• all hallways;		•	•
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		<b>~</b>	
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.		<u> </u>	

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#### 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.

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

### Single Dwelling

Certificate number: 1034039S 02

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, 09 August 2019

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



Project summary				
Project name	Lot 3306 Wianamatta Parkway_02	Lot 3306 Wianamatta Parkway_02		
Street address	Wianamatta Parkway Jordan Springs 2747	Wianamatta Parkway Jordan Springs 2747		
Local Government Area	Penrith City Council			
Plan type and plan number	deposited Unreg			
Lot no.	3306			
Section no.	-			
Project type	attached dwelling house	attached dwelling house		
No. of bedrooms	4	4		
Project score				
Water	✓ 41 Target 40			
Thermal Comfort	✓ Pass Target Pass			
Energy	✓ 51 Target 50			

#### **Certificate Prepared by**

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034039S\_02 Friday, 09 August 2019 page 1/7

# **Description of project**

Project address	
Project name	Lot 3306 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3306
Section no.	-
Project type	
Project type	attached dwelling house
No. of bedrooms	4
Site details	
Site area (m²)	193
Roof area (m²)	97
Conditioned floor area (m2)	128.0
Unconditioned floor area (m2)	3.0
Total area of garden and lawn (m2)	80

Assessor details and thermal loads			
Assessor number	BDAV/12/1441		
Certificate number	0004072898		
Climate zone	28		
Area adjusted cooling load (MJ/m².year)	34		
Area adjusted heating load (MJ/m².year)	47		
Project score			
Water	<b>✓</b> 41	Target 40	
Thermal Comfort	✓ Pass	Target Pass	
Energy	<b>✓</b> 51	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
Fixtures		'	
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 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 5 star in each bathroom in the development.		<b>✓</b>	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 48 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		<b>✓</b>	•
the cold water tap that supplies each clothes washer in the development		<b>✓</b>	•
<ul> <li>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.)</li> </ul>		<b>✓</b>	-

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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.	~	<b>✓</b>	~

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

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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.		<b>~</b>	•
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.		<b>~</b>	•
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: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	~
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 4 of the bedrooms / study;			

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 2 of the living / dining rooms;		•	-
• the kitchen;		J	
all bathrooms/toilets;		J	
• the laundry;		J	
• all hallways;			
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		<b>✓</b>	
The applicant must install a fixed outdoor clothes drying line as part of the development.			

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## 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.

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

# Single Dwelling

Certificate number: 1034040S 02

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, 09 August 2019

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



Project summary				
Project name	Lot 3307 Wianamat	Lot 3307 Wianamatta Parkway_02		
Street address	Wianamatta Parkwa	ay Jordan Springs 2747		
Local Government Area	Penrith City Council			
Plan type and plan number	deposited Unreg			
Lot no.	3307			
Section no.	-			
Project type	attached dwelling ho	ouse		
No. of bedrooms	4			
Project score				
Water	<b>✓</b> 41	Target 40		
Thermal Comfort	✓ Pass	Target Pass		
Energy	<b>✓</b> 51	Target 50		

## **Certificate Prepared by**

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

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# **Description of project**

Project address	
Project name	Lot 3307 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3307
Section no.	-
Project type	
Project type	attached dwelling house
No. of bedrooms	4
Site details	
Site area (m²)	194
Roof area (m²)	97
Conditioned floor area (m2)	128.0
Unconditioned floor area (m2)	3.0
Total area of garden and lawn (m2)	80

Assessor details and thermal lo	ads	
Assessor number	BDAV/12/1441	
Certificate number	0004072906	
Climate zone	28	
Area adjusted cooling load (MJ/m².year)	33	
Area adjusted heating load (MJ/m².year)	49	
Project score		
Water	<b>✓</b> 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	<b>✓</b> 51	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
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 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 5 star in each bathroom in the development.		~	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 48 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		<b>~</b>	~
The applicant must connect the rainwater tank to:			
all toilets in the development		<b>✓</b>	•
the cold water tap that supplies each clothes washer in the development		•	•
<ul> <li>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.)</li> </ul>		•	•

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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.	~	<b>✓</b>	~

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

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034040S\_02 Friday, 09 August 2019 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 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		<b>✓</b>	•
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	•
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 4 of the bedrooms / study;		<b>.</b>	

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 2 of the living / dining rooms;		•	-
• the kitchen;		J	
all bathrooms/toilets;		J	
• the laundry;		J	
• all hallways;			
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		<b>✓</b>	
The applicant must install a fixed outdoor clothes drying line as part of the development.			

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## 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.

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

# Multi Dwelling

Certificate number: 1034103M 02

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, 09 August 2019

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



Project summary	
Project name	Lot 3308 Wianamatta Parkway _02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3308
Section no.	-
No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	0
No. of single dwelling houses	2
Project score	
Water	✓ 44 Target 40
Thermal Comfort	✓ Pass Target Pass
Energy	✓ 50 Target 50

Certificate Prepared by
Name / Company Name: Frys Energywise
ABN (if applicable): 631418543

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034103M\_02 Friday, 09 August 2019 page 1/13

# **Description of project**

Project address	
Project name	Lot 3308 Wianamatta Parkway _02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3308
Section no.	-
Project type	
No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	0
No. of single dwelling houses	2
Site details	
Site area (m²)	167
Roof area (m²)	138
Non-residential floor area (m²)	0.0
Residential car spaces	2
Non-residential car spaces	0

Common area landscape	
Common area lawn (m²)	0.0
Common area garden (m²)	0.0
Area of indigenous or low water use species (m²)	0.0
Assessor details	
Assessor number	BDAV/12/1441
Certificate number	0004074020
Climate zone	28
Project score	
Water	✓ 44 Target 40
Thermal Comfort	✓ Pass Target Pass
Energy	✓ 50 Target 50

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# **Description of project**

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

## Single 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)
S	1	39.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)
МН	3	121.0	3.0	50.0	0.0

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# **Schedule of BASIX commitments**

- 1. Commitments for multi-dwelling houses
- 2. Commitments for single 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)
  - (i) Water
  - (ii) Energy

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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.

## 2. Commitments for single dwelling houses

#### (a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifie 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.		<b>✓</b>	•
(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.		<b>✓</b>	-
(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		<b>✓</b>	•
(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.		<b>✓</b>	•
(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.	~	<b>✓</b>	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		<b>✓</b>	
(g) The pool or spa must be located as specified in the table.	•	<b>✓</b>	
(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.	~	~	~

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	Fixtures			Appli	ances	Individual pool Indi			dividual 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	3 star (> 4.5 but <= 6 L/min)	4 star	4 star	5 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
МН	individual water tank (no. 1)	Tank size (min) 2000.0 litres	To collect run-off from at least: 50.0 square metres of roof area;	yes	yes	yes	no	no

ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifie 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.		<b>✓</b>	-
(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.		•	~

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(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		<b>✓</b>	
(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.		<b>✓</b>	
(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;		<b>✓</b>	
(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		<b>✓</b>	-
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		<b>✓</b>	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		<b>✓</b>	
(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.	-	<b>✓</b>	~

	Hot water	Bathroom ventilation system		Kitchen venti	ilation system	Laundry ventilation system		
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control	
S	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	
All other dwellings	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	no mechanical ventilation (ie. natural)	-	natural ventilation only, or no laundry	-	

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	Coo	ling	Hea	ting			Artificial	lighting			Natural lig	ghting
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/ toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitcher
S	1-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
All other dwellings	3-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3 (dedicated)	3 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

	Individual p	ool	Individual s	ра			Appliance	es & other effic	iency meas	ures		
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
S	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	no	yes
All other dwellings	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	yes	yes

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

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(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.			
(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:	•	<b>✓</b>	~
(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.	~	<b>✓</b>	~

	Thermal loads		
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)	
S	52.0	53.3	
All other dwellings	41.1	30.7	

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	Construction of floors and walls				
Dwelling no.	Concrete slab on ground(m²)	Suspended floor with open subfloor (m²)	Suspended floor with endclosed subfloor (m²)	Suspended floor above garage (m²)	Primarily rammed earth or mudbrick walls
S	-	-	-	39	No
All other dwellings	121	-	-	-	No

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

### (b) 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>✓</b>	~
(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.	~	<b>✓</b>	
(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.		<b>✓</b>	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		<b>✓</b>	V
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		<b>✓</b>	~

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.	~	<b>✓</b>	-

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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 fulfillment it is required to monitor in relation to the building or part, has been fulfilled).

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

# Single Dwelling

Certificate number: 1034075S 02

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, 09 August 2019

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



Project summary				
Project name	Lot 3309 Wianamatta Parkway _02			
Street address	Wianamatta Parkway Jordan Springs 2747			
Local Government Area	Penrith City Council			
Plan type and plan number	deposited Unreg			
Lot no.	3309			
Section no.	-			
Project type	attached dwelling house			
No. of bedrooms	3			
Project score				
Water	✓ 41 Target 40			
Thermal Comfort	✓ Pass Target Pass			
Energy	✓ 51 Target 50			

## **Certificate Prepared by**

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034075S\_02 Friday, 09 August 2019 page 1/7

# **Description of project**

Project address	
Project name	Lot 3309 Wianamatta Parkway _02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3309
Section no.	-
Project type	
Project type	attached dwelling house
No. of bedrooms	3
Site details	
Site area (m²)	141
Roof area (m²)	73
Conditioned floor area (m2)	91.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	50

Assessor details and thermal loads			
Assessor number	BDAV/12/1441		
Certificate number	0004073029		
Climate zone	28		
Area adjusted cooling load (MJ/m².year)	31		
Area adjusted heating load (MJ/m².year)	38		
Project score			
Water	✓ 41 Target 40		
Thermal Comfort	✓ Pass Target Pass		
Energy	✓ 51 Target 50		

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034075S\_02 Friday, 09 August 2019 page 2/7

#### **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 (> 6 but <= 7.5 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 5 star in each bathroom in the development.		~	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 33 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		<b>✓</b>	•
the cold water tap that supplies each clothes washer in the development		<b>✓</b>	~
<ul> <li>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.)</li> </ul>		<b>✓</b>	~

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034075S\_02 Friday, 09 August 2019 page 3/7

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.	•	<b>✓</b>	_

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

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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.		<b>~</b>	•
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.		<b>✓</b>	•
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: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	~
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 3 of the bedrooms / study;			

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 2 of the living / dining rooms;		•	<b>~</b>
• the kitchen;		•	•
all bathrooms/toilets;		•	•
• the laundry;		•	•
• all hallways;		•	•
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		<b>~</b>	
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.		<u> </u>	

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#### 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.

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Version: 1, Version Date: 06/09/2019



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

# Single Dwelling

Certificate number: 1034079S 02

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, 09 August 2019

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



Project summary				
Project name	Lot 3310 Wianamatta	Lot 3310 Wianamatta Parkway _02		
Street address	Wianamatta Parkway	Jordan Springs 2747		
Local Government Area	Penrith City Council			
Plan type and plan number	deposited Unreg			
Lot no.	3310	3310		
Section no.	-	-		
Project type	attached dwelling ho	attached dwelling house		
No. of bedrooms	3	3		
Project score				
Water	<b>✓</b> 41	Target 40		
Thermal Comfort	<b>✓</b> Pass	Target Pass		
Energy	<b>✓</b> 51	Target 50		

## **Certificate Prepared by**

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034079S\_02 Friday, 09 August 2019 page 1/7

# **Description of project**

Project address	
Project name	Lot 3310 Wianamatta Parkway _02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3310
Section no.	-
Project type	
Project type	attached dwelling house
No. of bedrooms	3
Site details	
Site area (m²)	141
Roof area (m²)	73
Conditioned floor area (m2)	91.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	50

Assessor details and thermal loads			
Assessor number	BDAV/12/1441		
Certificate number	0004073045		
Climate zone	28		
Area adjusted cooling load (MJ/m².year)	30		
Area adjusted heating load (MJ/m².year)	38		
Project score			
Water	<b>✓</b> 41	Target 40	
Thermal Comfort	✓ Pass	Target Pass	
Energy	<b>✓</b> 51	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
Fixtures		'	
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 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 5 star in each bathroom in the development.		~	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 33 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		<b>✓</b>	•
the cold water tap that supplies each clothes washer in the development		<b>✓</b>	~
<ul> <li>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.)</li> </ul>		<b>✓</b>	~

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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.	~	<b>✓</b>	~

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

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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.		<b>~</b>	•
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.		<b>~</b>	•
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: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	~
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 3 of the bedrooms / study;			

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 2 of the living / dining rooms;		•	<b>~</b>
• the kitchen;		•	•
all bathrooms/toilets;		•	•
• the laundry;		•	•
• all hallways;		•	•
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		<b>✓</b>	
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.		<u> </u>	

Planning & Environment BASIX www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034079S\_02 Friday, 09 August 2019

#### 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.

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

## Multi Dwelling

Certificate number: 1034104M 02

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, 09 August 2019

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



Project summary						
Project name	Lot 3311 Wianamatta Parkway _02					
Street address	Wianamatta Parkway Jordan Springs 2747					
Local Government Area	Penrith City Council					
Plan type and plan number	deposited Unreg					
Lot no.	3311					
Section no.	-					
No. of residential flat buildings	0					
No. of units in residential flat buildings	0					
No. of multi-dwelling houses	0					
No. of single dwelling houses	2					
Project score						
Water	✓ 43 Target 40					
Thermal Comfort	✓ Pass Target Pass					
Energy	✓ 50 Target 50					

Certificate Prepared by
Name / Company Name: Frys Energywise
ABN (if applicable): 631418543

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034104M\_02 Friday, 09 August 2019 page 1/13

# **Description of project**

Project address	
Project name	Lot 3311 Wianamatta Parkway _02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3311
Section no.	-
Project type	
No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	0
No. of single dwelling houses	2
Site details	
Site area (m²)	169
Roof area (m²)	138
Non-residential floor area (m²)	0.0
Residential car spaces	2
Non-residential car spaces	0

Common area landscape		
Common area lawn (m²)	0.0	
Common area garden (m²)	0.0	
Area of indigenous or low water use species (m²)	0.0	
Assessor details		
Assessor number	BDAV/12/1441	
Certificate number	0004073100	
Climate zone	28	
Project score		
Water	<b>✓</b> 43	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	<b>✓</b> 50	Target 50

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## **Description of project**

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

### Single 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)
S	1	39.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)
МН	3	121.0	3.0	50.0	0.0

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## **Schedule of BASIX commitments**

- 1. Commitments for multi-dwelling houses
- 2. Commitments for single 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)
  - (i) Water
  - (ii) Energy

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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.

#### 2. Commitments for single dwelling houses

#### (a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifie 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.		<b>✓</b>	•
(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.		<b>✓</b>	-
(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		<b>✓</b>	•
(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.		<b>✓</b>	•
(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.	~	<b>✓</b>	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		<b>✓</b>	
(g) The pool or spa must be located as specified in the table.	•	<b>✓</b>	
(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.	~	~	~

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	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	3 star (> 4.5 but <= 6 L/min)	4 star	4 star	5 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	
МН	individual water tank (no. 1)	Tank size (min) 2000.0 litres	To collect run-off from at least: 40.0 square metres of roof area;	yes	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.		<b>✓</b>	~
(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.		~	~

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(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		<b>✓</b>	
(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.		<b>✓</b>	
(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;		<b>✓</b>	
(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		<b>✓</b>	-
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		<b>✓</b>	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		<b>✓</b>	
(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.	-	<b>✓</b>	~

	Hot water	Bathroom ventilation system		Kitchen venti	lation system	Laundry ventilation system		
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control	
S	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	
All other dwellings	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	no mechanical ventilation (ie. natural)	-	natural ventilation only, or no laundry	-	

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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 dining rooms	Each kitchen	All bathrooms/ toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
S	1-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
All other dwellings	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3 (dedicated)	3 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

	Individual po	ool	Individual s	ра	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
S	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	no	yes
All other dwellings	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	yes	yes

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

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(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.			
(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:	•	<b>✓</b>	-
(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.	•	<b>✓</b>	~

	Thermal loads				
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)			
S	53.5	52.8			
All other dwellings	42.7	30.9			

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	Construction of floors and walls						
Dwelling no.	Concrete slab on ground(m²)	Suspended floor with open subfloor (m²)	Suspended floor with endclosed subfloor (m²)	Suspended floor above garage (m²)	Primarily rammed earth or mudbrick walls		
S	-	-	-	39	No		
All other dwellings	121	-	-	-	No		

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

#### (b) 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>✓</b>	~
(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.	~	<b>✓</b>	
(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.		<b>✓</b>	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		<b>✓</b>	~
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		<b>✓</b>	~

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.	~	<b>✓</b>	-

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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 fulfillment it is required to monitor in relation to the building or part, has been fulfilled).

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

## Single Dwelling

Certificate number: 1034041S 02

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, 09 August 2019

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



Project summary					
Project name	Lot 3312 Wianamat	ta Parkway_02			
Street address	Wianamatta Parkwa	y Jordan Springs 2747			
Local Government Area	Penrith City Council				
Plan type and plan number	deposited Unreg				
Lot no.	3312				
Section no.	-				
Project type	attached dwelling ho	attached dwelling house			
No. of bedrooms	4				
Project score					
Water	<b>✓</b> 41	Target 40			
Thermal Comfort	✓ Pass	Target Pass			
Energy	<b>✓</b> 51	Target 50			

#### **Certificate Prepared by**

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

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# **Description of project**

Project address	
Project name	Lot 3312 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3312
Section no.	-
Project type	
Project type	attached dwelling house
No. of bedrooms	4
Site details	
Site area (m²)	198
Roof area (m²)	97
Conditioned floor area (m2)	128.0
Unconditioned floor area (m2)	3.0
Total area of garden and lawn (m2)	80

Assessor details and thermal loads			
Assessor number	BDAV/12/1441		
Certificate number	0004073110		
Climate zone	28		
Area adjusted cooling load (MJ/m².year)	40		
Area adjusted heating load (MJ/m².year)	46		
Project score			
Water	<b>✓</b> 41	Target 40	
Thermal Comfort	✓ Pass	Target Pass	
Energy	<b>✓</b> 51	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
Fixtures		'	
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 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 5 star in each bathroom in the development.		<b>✓</b>	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 48 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		<b>✓</b>	•
the cold water tap that supplies each clothes washer in the development		<b>✓</b>	•
<ul> <li>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.)</li> </ul>		<b>✓</b>	-

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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.	•	<b>✓</b>	_

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

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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.		<b>~</b>	•
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.		<b>~</b>	•
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: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	~
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 4 of the bedrooms / study;			

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 2 of the living / dining rooms;		•	-
• the kitchen;			
all bathrooms/toilets;		J	
• the laundry;		J	
• all hallways;			
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		<b>✓</b>	
The applicant must install a fixed outdoor clothes drying line as part of the development.			

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#### 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.

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Version: 1, Version Date: 06/09/2019



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

## Single Dwelling

Certificate number: 1034042S\_02

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, 09 August 2019

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



Project summary	
Project name	Lot 3313 Wianamatta Parkway_02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3313
Section no.	-
Project type	attached dwelling house
No. of bedrooms	4
Project score	
Water	✓ 41 Target 40
Thermal Comfort	✓ Pass Target Pass
Energy	✓ 51 Target 50

Certificate	<b>Prepared</b>	by
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Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

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# **Description of project**

Project address	
Project name	Lot 3313 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3313
Section no.	-
Project type	
Project type	attached dwelling house
No. of bedrooms	4
Site details	
Site area (m²)	197
Roof area (m²)	97
Conditioned floor area (m2)	128.0
Unconditioned floor area (m2)	3.0
Total area of garden and lawn (m2)	80

Assessor details and thermal loads			
Assessor number	BDAV/12/1441		
Certificate number	0004073136		
Climate zone	28		
Area adjusted cooling load (MJ/m².year)	36		
Area adjusted heating load (MJ/m².year)	50		
Project score			
Water	<b>✓</b> 41	Target 40	
Thermal Comfort	✓ Pass	Target Pass	
Energy	<b>✓</b> 51	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
Fixtures		'	
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 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 5 star in each bathroom in the development.		~	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 48 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		<b>✓</b>	•
the cold water tap that supplies each clothes washer in the development		<b>✓</b>	•
<ul> <li>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.)</li> </ul>		<b>✓</b>	-

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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.	~	<b>✓</b>	~

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

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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.		<b>~</b>	•
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.		<b>✓</b>	•
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: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	~
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 4 of the bedrooms / study;		. 4	

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 2 of the living / dining rooms;		•	-
• the kitchen;			
all bathrooms/toilets;		J	
• the laundry;		J	
• all hallways;			
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		<b>✓</b>	
The applicant must install a fixed outdoor clothes drying line as part of the development.			

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#### 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.

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

## Multi Dwelling

Certificate number: 1034141M\_02

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, 09 August 2019

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



Project summary	
Project name	Lot 3314 Wianamatta Parkway_02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3314
Section no.	-
No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	0
No. of single dwelling houses	2
Project score	
Water	✓ 43 Target 40
Thermal Comfort	✓ Pass Target Pass
Energy	✓ 50 Target 50

Certificate Prepared by
Name / Company Name: Frys Energywise
ABN (if applicable): 631418543

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# **Description of project**

Project address	
Project name	Lot 3314 Wianamatta Parkway_02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3314
Section no.	-
Project type	
No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	0
No. of single dwelling houses	2
Site details	
Site area (m²)	169
Roof area (m²)	138
Non-residential floor area (m²)	0.0
Residential car spaces	2
Non-residential car spaces	0

Common area landscape		
Common area lawn (m²)	0.0	
Common area garden (m²)	0.0	
Area of indigenous or low water use species (m²)	0.0	
Assessor details		
Assessor number	BDAV/12/1441	
Certificate number	0004073210	
Climate zone	28	
Project score		
Water	<b>✓</b> 43	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	<b>✓</b> 50	Target 50

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## **Description of project**

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

### Single 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)
S	1	39.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)
МН	3	121.0	3.0	50.0	0.0

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## **Schedule of BASIX commitments**

- 1. Commitments for multi-dwelling houses
- 2. Commitments for single 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)
  - (i) Water
  - (ii) Energy

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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.

#### 2. Commitments for single dwelling houses

#### (a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifie 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.		<b>✓</b>	•
(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.		<b>✓</b>	-
(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		<b>✓</b>	•
(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.		<b>✓</b>	•
(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.	•	<b>✓</b>	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		<b>✓</b>	
(g) The pool or spa must be located as specified in the table.	•	<b>✓</b>	
(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.	~	~	~

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	Fixtures			Appliances Individual			vidual pool	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	3 star (> 4.5 but <= 6 L/min)	4 star	4 star	5 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	
МН	individual water tank (no. 1)	Tank size (min) 2000.0 litres	To collect run-off from at least: 40.0 square metres of roof area;	yes	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.		<b>✓</b>	~
(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.		~	~

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(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		<b>✓</b>	
(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.		<b>✓</b>	
(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;		<b>✓</b>	
(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		<b>✓</b>	•
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		<b>✓</b>	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		<b>✓</b>	
(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.	~	<b>✓</b>	~

	Hot water	Hot water Bathroom ventilation system		Kitchen vent	ilation system	Laundry ventilation system		
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control	
S	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	
All other dwellings	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	no mechanical ventilation (ie. natural)	-	natural ventilation only, or no laundry	-	

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	Coo	ling	Hea	ating Artificial lighting						Natural lighting			
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/ toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitcher	
S	1-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no	
All other dwellings	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3 (dedicated)	3 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no	

	Individual p	ool	Individual s	ра		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	
S	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	no	yes	
All other dwellings	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	yes	yes	

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

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(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.			
(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:	•	<b>✓</b>	~
(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.	~	<b>✓</b>	~

	Thermal loads				
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)			
S	52.0	52.3			
All other dwellings	40.5	30.0			

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		Construction of floors and walls								
Dwelling no.	Concrete slab on ground(m²)	Suspended floor with open subfloor (m²)	Suspended floor with endclosed subfloor (m²)	Suspended floor above garage (m²)	Primarily rammed earth or mudbrick walls					
S	-	-	-	39	No					
All other dwellings	121	-	-	-	No					

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

### (b) 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.	hes washer into a common area, then that			
(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.	•	<b>✓</b>		
(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.		<b>✓</b>		
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		<b>✓</b>	~	
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		<b>✓</b>	-	

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.	~	<b>✓</b>	~

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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 "w" 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 " I 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 " w 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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Building Sustainability Index www.basix.nsw.gov.au

## Single Dwelling

Certificate number: 1034080S 02

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, 09 August 2019

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



Project summary			
Project name	Lot 3315 Wianamatta Parkway_02		
Street address	Wianamatta Parkway Jordan Springs 2747		
Local Government Area	Penrith City Council		
Plan type and plan number	deposited Unreg		
Lot no.	3315		
Section no.	-		
Project type	attached dwelling house		
No. of bedrooms	3		
Project score			
Water	✓ 41 Target 40		
Thermal Comfort	✓ Pass Target Pass		
Energy	✓ 51 Target 50		

### **Certificate Prepared by**

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034080S\_02 Friday, 09 August 2019 page 1/7

# **Description of project**

Project address				
Project name	Lot 3315 Wianamatta Parkway_02			
Street address	n/a Wianamatta Parkway Jordan Springs 2747			
Local Government Area	Penrith City Council			
Plan type and plan number	Deposited Plan Unreg			
Lot no.	3315			
Section no.	-			
Project type				
Project type	attached dwelling house			
No. of bedrooms	3			
Site details				
Site area (m²)	141			
Roof area (m²)	73			
Conditioned floor area (m2)	91.0			
Unconditioned floor area (m2)	2.0			
Total area of garden and lawn (m2)	50			

Assessor details and thermal loads				
Assessor number	BDAV/12/1441			
Certificate number	0004073235			
Climate zone	28			
Area adjusted cooling load (MJ/m².year)	30			
Area adjusted heating load (MJ/m².year)	38			
Project score				
Water	<b>✓</b> 41	Target 40		
Thermal Comfort	✓ Pass	Target Pass		
Energy	<b>✓</b> 51	Target 50		

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034080S\_02 Friday, 09 August 2019 page 2/7

### **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 (> 6 but <= 7.5 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 5 star in each bathroom in the development.		~	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 33 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		<b>✓</b>	•
the cold water tap that supplies each clothes washer in the development		<b>✓</b>	•
<ul> <li>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.)</li> </ul>		<b>✓</b>	-

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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.	~	<b>✓</b>	~

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	

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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.		<b>~</b>	•
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.		<b>✓</b>	•
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: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	~
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 3 of the bedrooms / study;			

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 2 of the living / dining rooms;		•	<b>~</b>
• the kitchen;		•	•
all bathrooms/toilets;		•	•
• the laundry;		•	•
• all hallways;		•	•
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		<b>✓</b>	
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.		<u> </u>	

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### 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.

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

## Single Dwelling

Certificate number: 1034081S 02

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, 09 August 2019

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



Project summary		
Project name	Lot 3316 Wianamatta Parkway _02	
Street address Wianamatta Parkway Jordan Springs		
Local Government Area	Penrith City Council	
Plan type and plan number	deposited Unreg	
Lot no.	3316	
Section no.	-	
Project type	attached dwelling house	
No. of bedrooms	3	
Project score		
Water	✓ 41 Target 40	
Thermal Comfort	✓ Pass Target Pass	
Energy	✓ 51 Target 50	

### **Certificate Prepared by**

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

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# **Description of project**

Project address				
Project name	Lot 3316 Wianamatta Parkway _02			
Street address	n/a Wianamatta Parkway Jordan Springs 2747			
Local Government Area	Penrith City Council			
Plan type and plan number	Deposited Plan Unreg			
Lot no.	3316			
Section no.	-			
Project type				
Project type	attached dwelling house			
No. of bedrooms	3			
Site details				
Site area (m²)	141			
Roof area (m²)	73			
Conditioned floor area (m2)	91.0			
Unconditioned floor area (m2)	2.0			
Total area of garden and lawn (m2)	50			

Assessor details and thermal loads					
Assessor number	BDAV/12/1441				
Certificate number	0004073227				
Climate zone	28				
Area adjusted cooling load (MJ/m².year)	30				
Area adjusted heating load (MJ/m².year)	37				
Project score					
Water	<b>✓</b> 41	Target 40			
Thermal Comfort	✓ Pass	Target Pass			
Energy	<b>✓</b> 51	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 CC/CDC plans & specs	Certifier check
Fixtures		'	
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 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 5 star in each bathroom in the development.		~	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 33 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		<b>✓</b>	•
the cold water tap that supplies each clothes washer in the development		<b>✓</b>	•
<ul> <li>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.)</li> </ul>		<b>✓</b>	-

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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.	~	<b>✓</b>	~

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

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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.		<b>~</b>	•
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.		<b>✓</b>	•
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: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	~
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 3 of the bedrooms / study;			

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 2 of the living / dining rooms;		•	<b>~</b>
• the kitchen;		•	•
all bathrooms/toilets;		•	•
• the laundry;		•	•
• all hallways;		•	•
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		<b>✓</b>	
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.		<u> </u>	

Planning & Environment BASIX www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0

### 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.

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## Multi Dwelling

Certificate number: 1034137M 02

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, 09 August 2019

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



Project summary				
Project name	Lot 3317 Wianamatta Parkway_02			
Street address	Wianamatta Parkway Jordan Springs 2747			
Local Government Area	Penrith City Council			
Plan type and plan number	deposited Unreg			
Lot no.	3317			
Section no.	-			
No. of residential flat buildings	0			
No. of units in residential flat buildings	0			
No. of multi-dwelling houses	0			
No. of single dwelling houses	2			
Project score				
Water	✓ 43 Target 40			
Thermal Comfort	✓ Pass Target Pass			
Energy	✓ 50 Target 50			

Certificate Prepared by
Name / Company Name: Frys Energywise
ABN (if applicable): 631418543

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# **Description of project**

Project address	
Project name	Lot 3317 Wianamatta Parkway_02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3317
Section no.	-
Project type	
No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	0
No. of single dwelling houses	2
Site details	
Site area (m²)	169
Roof area (m²)	138
Non-residential floor area (m²)	0.0
Residential car spaces	2
Non-residential car spaces	0

Common area landscape				
Common area lawn (m²)	0.0			
Common area garden (m²)	0.0			
Area of indigenous or low water use species (m²)	0.0			
Assessor details				
Assessor number	BDAV/12/1441			
Certificate number	0004073300			
Climate zone	28			
Project score				
Water	<b>✓</b> 43	Target 40		
Thermal Comfort	✓ Pass Target Pass			
Energy	<b>✓</b> 50	Target 50		

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## **Description of project**

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

### Single 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)
S	1	39.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)
МН	3	121.0	3.0	50.0	0.0

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## **Schedule of BASIX commitments**

- 1. Commitments for multi-dwelling houses
- 2. Commitments for single 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)
  - (i) Water
  - (ii) Energy

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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.

### 2. Commitments for single dwelling houses

#### (a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifie 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.		<b>✓</b>	-
(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.		<b>✓</b>	-
(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		<b>✓</b>	•
(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.		<b>✓</b>	•
(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.	~	<b>✓</b>	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		<b>✓</b>	
(g) The pool or spa must be located as specified in the table.	•	<b>✓</b>	
(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.	~	~	~

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	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	3 star (> 4.5 but <= 6 L/min)	4 star	4 star	5 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	
МН	individual water tank (no. 1)	Tank size (min) 2000.0 litres	To collect run-off from at least: 40.0 square metres of roof area;	yes	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.		~	~

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(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		<b>✓</b>		
(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.		<b>✓</b>		
(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;		<b>✓</b>		
(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		<b>✓</b>	-	
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		<b>✓</b>		
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		<b>✓</b>		
(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.	-	<b>✓</b>	~	

	Hot water	Bathroom ven	tilation system	Kitchen ventilation system		Laundry vent	ilation system
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
S	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off
All other dwellings	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	no mechanical ventilation (ie. natural)	-	natural ventilation only, or no laundry	-

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	Coo	ling	Hea	Heating		Artificial lighting				Natural lig	hting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/ toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitcher
S	1-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
All other dwellings	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3 (dedicated)	3 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

	Individual p	ool	Individual s	ра	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
S	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	no	yes
All other dwellings	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	yes	yes

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

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(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.			
(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:	•	<b>✓</b>	-
(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.	•	<b>✓</b>	~

	Thermal loads					
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)				
S	53.3	52.5				
All other dwellings	42.0	30.0				

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		Construction of floors and walls								
Dwelling no.	Concrete slab on ground(m²)	Suspended floor with open subfloor (m²)	Suspended floor with endclosed subfloor (m²)	Suspended floor above garage (m²)	Primarily rammed earth or mudbrick walls					
S	-	-	-	39	No					
All other dwellings	121	-	-	-	No					

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

### (b) 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>✓</b>	~
(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.	•	<b>✓</b>	
(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.		<b>✓</b>	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		<b>✓</b>	~
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		<b>✓</b>	V

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.	~	<b>✓</b>	-

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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 fulfillment it is required to monitor in relation to the building or part, has been fulfilled).

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

## Single Dwelling

Certificate number: 1034043S 02

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, 09 August 2019

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



Project summary				
Project name	Lot 3318 Wianamatt	Lot 3318 Wianamatta Parkway_02		
Street address	Wianamatta Parkwa	Wianamatta Parkway Jordan Springs 2747		
Local Government Area	Penrith City Council	Penrith City Council		
Plan type and plan number	deposited Unreg	deposited Unreg		
Lot no.	3318	3318		
Section no.	-	-		
Project type	attached dwelling ho	attached dwelling house		
No. of bedrooms	4	4		
Project score				
Water	<b>✓</b> 41	Target 40		
Thermal Comfort	✓ Pass	Target Pass		
Energy	<b>✓</b> 51	Target 50		

### **Certificate Prepared by**

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034043S\_02 Friday, 09 August 2019 page 1/7

# **Description of project**

Project address	
Project name	Lot 3318 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3318
Section no.	-
Project type	
Project type	attached dwelling house
No. of bedrooms	4
Site details	
Site area (m²)	197
Roof area (m²)	97
Conditioned floor area (m2)	128.0
Unconditioned floor area (m2)	3.0
Total area of garden and lawn (m2)	80

Assessor details and thermal loads			
Assessor number	BDAV/12/1441		
Certificate number	0004073326		
Climate zone	28		
Area adjusted cooling load (MJ/m².year)	33		
Area adjusted heating load (MJ/m².year)	47		
Project score			
Water	<b>✓</b> 41	Target 40	
Thermal Comfort	✓ Pass	Target Pass	
Energy	<b>✓</b> 51	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
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 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 5 star in each bathroom in the development.		~	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 48 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		<b>~</b>	-
The applicant must connect the rainwater tank to:			
all toilets in the development		<b>✓</b>	•
the cold water tap that supplies each clothes washer in the development		•	-
<ul> <li>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.)</li> </ul>		•	•

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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.	•	<b>✓</b>	_

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

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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.		<b>~</b>	•
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.		<b>~</b>	•
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: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	~
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 4 of the bedrooms / study;			

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 2 of the living / dining rooms;		•	-
• the kitchen;			
all bathrooms/toilets;		J	
• the laundry;		J	
• all hallways;			
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		<b>✓</b>	
The applicant must install a fixed outdoor clothes drying line as part of the development.			

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#### 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.

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

### Single Dwelling

Certificate number: 1034038S 02

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, 09 August 2019

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



Project summary				
Project name	Lot 3319 Wianamat	Lot 3319 Wianamatta Parkway _02		
Street address	Wianamatta Parkwa	y Jordan Springs 2747		
Local Government Area	Penrith City Council			
Plan type and plan number	deposited Unreg			
Lot no.	3319			
Section no.	-			
Project type	attached dwelling ho	attached dwelling house		
No. of bedrooms	4	4		
Project score				
Water	<b>✓</b> 41	Target 40		
Thermal Comfort	<b>✓</b> Pass	Target Pass		
Energy	<b>✓</b> 51	Target 50		

#### **Certificate Prepared by**

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

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# **Description of project**

Project address	
Project name	Lot 3319 Wianamatta Parkway _02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3319
Section no.	-
Project type	
Project type	attached dwelling house
No. of bedrooms	4
Site details	
Site area (m²)	197
Roof area (m²)	97
Conditioned floor area (m2)	128.0
Unconditioned floor area (m2)	3.0
Total area of garden and lawn (m2)	80

Assessor details and thermal lo	ads	
Assessor number	BDAV/12/1441	
Certificate number	0004073318	
Climate zone	28	
Area adjusted cooling load (MJ/m².year)	32	
Area adjusted heating load (MJ/m².year)	49	
Project score		
Water	<b>✓</b> 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	<b>✓</b> 51	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
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 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 5 star in each bathroom in the development.		~	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 48 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		<b>~</b>	-
The applicant must connect the rainwater tank to:			
all toilets in the development		<b>✓</b>	•
the cold water tap that supplies each clothes washer in the development		•	-
<ul> <li>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.)</li> </ul>		•	•

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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.	~	<b>✓</b>	~

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

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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.		<b>~</b>	•
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.		<b>~</b>	•
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: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	~
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 4 of the bedrooms / study;			

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 2 of the living / dining rooms;		•	-
• the kitchen;			
all bathrooms/toilets;		J	
• the laundry;		J	
• all hallways;			
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		<b>✓</b>	
The applicant must install a fixed outdoor clothes drying line as part of the development.			

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#### 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.

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

## Multi Dwelling

Certificate number: 1034140M 02

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, 09 August 2019

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



Project summary						
Project name	Lot 3320 Wianamatta Parkway_02					
Street address	Wianamatta Parkway Jordan Springs 2747					
Local Government Area	Penrith City Council					
Plan type and plan number	deposited Unreg					
Lot no.	3320					
Section no.	-					
No. of residential flat buildings	0					
No. of units in residential flat buildings	0					
No. of multi-dwelling houses	0					
No. of single dwelling houses	2					
Project score						
Water	✓ 43 Target 40					
Thermal Comfort	✓ Pass Target Pass					
Energy	✓ 50 Target 50					

Certificate Prepared by
Name / Company Name: Frys Energywise
ABN (if applicable): 631418543

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# **Description of project**

Project address	
Project name	Lot 3320 Wianamatta Parkway_02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3320
Section no.	-
Project type	
No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	0
No. of single dwelling houses	2
Site details	
Site area (m²)	169
Roof area (m²)	138
Non-residential floor area (m²)	0.0
Residential car spaces	2
Non-residential car spaces	0

Common area landscape		
Common area lawn (m²)	0.0	
Common area garden (m²)	0.0	
Area of indigenous or low water use species (m²)	0.0	
Assessor details		
Assessor number	BDAV/12/1441	
Certificate number	0004073360	
Climate zone	28	
Project score		
Water	<b>✓</b> 43	Target 40
Thermal Comfort	<b>✓</b> Pass	Target Pass
Energy	<b>✓</b> 50	Target 50

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### **Description of project**

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

### Single 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)
S	1	39.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)
МН	3	121.0	3.0	50.0	0.0

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## **Schedule of BASIX commitments**

- 1. Commitments for multi-dwelling houses
- 2. Commitments for single 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)
  - (i) Water
  - (ii) Energy

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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.

#### 2. Commitments for single dwelling houses

#### (a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifie 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.		<b>✓</b>	-
(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.		<b>✓</b>	-
(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		<b>✓</b>	•
(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.		<b>✓</b>	•
(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.	~	<b>✓</b>	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		<b>✓</b>	
(g) The pool or spa must be located as specified in the table.	•	<b>✓</b>	
(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.	~	~	~

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	Fixtures			Appli	ances		Indi	vidual 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	3 star (> 4.5 but <= 6 L/min)	4 star	4 star	5 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
MH	individual water tank (no. 1)	Tank size (min) 2000.0 litres	To collect run-off from at least: 40.0 square metres of roof area;	yes	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.		<b>✓</b>	~
(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.		•	~

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(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		<b>✓</b>	
(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.		<b>✓</b>	
(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;		<b>✓</b>	
(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		<b>✓</b>	-
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		<b>✓</b>	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		<b>✓</b>	
(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.	-	<b>✓</b>	~

	Hot water	Bathroom ventilation system		Kitchen venti	lation system	Laundry ventilation system		
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control	
S	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	
All other dwellings	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	no mechanical ventilation (ie. natural)	-	natural ventilation only, or no laundry	-	

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	Coo	ling	Hea	ting			Artificial	lighting			Natural lig	hting
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/ toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
S	1-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
All other dwellings	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3 (dedicated)	3 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

	Individual p	ool	Individual s	ра			Appliance	es & other effic	iency meas	ures		
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
S	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	no	yes
All other dwellings	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	yes	yes

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

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(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.			
(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:	•	<b>✓</b>	-
(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.	•	<b>✓</b>	~

	Thermal loads		
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)	
S	52.0	52.3	
All other dwellings	40.5	30.0	

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	Construction of floors and walls					
Dwelling no.	Concrete slab on ground(m²)	Suspended floor with open subfloor (m²)	Suspended floor with endclosed subfloor (m²)	Suspended floor above garage (m²)	Primarily rammed earth or mudbrick walls	
S	-	-	-	39	No	
All other dwellings	121	-	-	-	No	

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

#### (b) 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>✓</b>	~
(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.	•	<b>✓</b>	
(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.		<b>✓</b>	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		<b>✓</b>	~
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		<b>✓</b>	-

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.	~	<b>✓</b>	~

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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 fulfillment it is required to monitor in relation to the building or part, has been fulfilled).

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## Single Dwelling

Certificate number: 1034076S 02

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, 09 August 2019

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



Project summary					
Project name	Lot 3321 Wianamatta Parkway _02				
Street address	Wianamatta Parkway Jordan Springs 2747				
Local Government Area	Penrith City Council				
Plan type and plan number	deposited Unreg				
Lot no.	3321				
Section no.	-				
Project type	attached dwelling house				
No. of bedrooms	3				
Project score					
Water	✓ 41 Target 40				
Thermal Comfort	✓ Pass Target Pass				
Energy	✓ 51 Target 50				

#### **Certificate Prepared by**

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

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# **Description of project**

Project address	
Project name	Lot 3321 Wianamatta Parkway _02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3321
Section no.	-
Project type	
Project type	attached dwelling house
No. of bedrooms	3
Site details	
Site area (m²)	141
Roof area (m²)	73
Conditioned floor area (m2)	91.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	50

Assessor details and thermal loads			
Assessor number	BDAV/12/1441		
Certificate number	0004073375		
Climate zone	28		
Area adjusted cooling load (MJ/m².year)	30		
Area adjusted heating load (MJ/m².year)	38		
Project score			
Water	<b>✓</b> 41	Target 40	
Thermal Comfort	✓ Pass	Target Pass	

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034076S\_02 Friday, 09 August 2019 page 2/7

#### **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 (> 6 but <= 7.5 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 5 star in each bathroom in the development.		~	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 33 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		<b>✓</b>	•
the cold water tap that supplies each clothes washer in the development		<b>✓</b>	•
<ul> <li>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.)</li> </ul>		<b>✓</b>	-

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034076S\_02 Friday, 09 August 2019 page 3/7

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.	~	<b>✓</b>	~

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

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034076S\_02 Friday, 09 August 2019 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 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.		<b>~</b>	•
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.		<b>✓</b>	•
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: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	~
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 3 of the bedrooms / study;			

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034076S\_02 Friday, 09 August 2019 page 5/7

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 2 of the living / dining rooms;		•	<b>~</b>
• the kitchen;		•	•
all bathrooms/toilets;		•	•
• the laundry;		•	•
• all hallways;		•	•
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		<b>~</b>	
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.		<u> </u>	

Planning & Environment BASIX www.basix.nsw.gov.au

#### 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.

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

### Single Dwelling

Certificate number: 1034082S 02

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, 09 August 2019

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



Project summary				
Project name	Lot 3322 Wianamatt	Lot 3322 Wianamatta Parkway _02		
Street address	Wianamatta Parkwa	y Jordan Springs 2747		
Local Government Area	Penrith City Council			
Plan type and plan number	deposited Unreg			
Lot no.	3322	3322		
Section no.	-	-		
Project type	attached dwelling ho	attached dwelling house		
No. of bedrooms	3	3		
Project score				
Water	<b>✓</b> 41	Target 40		
Thermal Comfort	✓ Pass	Target Pass		
Energy	<b>✓</b> 51	Target 50		

#### **Certificate Prepared by**

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034082S\_02 Friday, 09 August 2019 page 1/7

# **Description of project**

Project address	
Project name	Lot 3322 Wianamatta Parkway _02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3322
Section no.	-
Project type	
Project type	attached dwelling house
No. of bedrooms	3
Site details	
Site area (m²)	141
Roof area (m²)	73
Conditioned floor area (m2)	91.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	50

Assessor details and thermal loads			
Assessor number	BDAV/12/1441		
Certificate number	0004073391		
Climate zone	28		
Area adjusted cooling load (MJ/m².year)	30		
Area adjusted heating load (MJ/m².year)	38		
Project score			
Water	✓ 41 Target 40		
Thermal Comfort	✓ Pass Target Pass		
Energy	✓ 51 Target 50		

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034082S\_02 Friday, 09 August 2019 page 2/7

#### **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 (> 6 but <= 7.5 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 5 star in each bathroom in the development.		~	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 33 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		<b>✓</b>	•
the cold water tap that supplies each clothes washer in the development		•	•
<ul> <li>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.)</li> </ul>		•	-

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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.	•	<b>✓</b>	_

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

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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.		<b>~</b>	•
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		<b>✓</b>	-
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	•
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 3 of the bedrooms / study;		<b>.</b>	

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 2 of the living / dining rooms;		•	<b>~</b>
• the kitchen;		•	•
all bathrooms/toilets;		•	•
• the laundry;		•	•
• all hallways;		•	•
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		<b>~</b>	
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.		<u> </u>	

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## 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.

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

# Single Dwelling

Certificate number: 1034102S 02

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, 09 August 2019

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



Project summary				
Project name	Lot 3323 Wianamat	Lot 3323 Wianamatta Parkway_02		
Street address	Wianamatta Parkwa	y Jordan Springs 2747		
Local Government Area	Penrith City Council			
Plan type and plan number	deposited Unreg	deposited Unreg		
Lot no.	3323	3323		
Section no.	-	-		
Project type	attached dwelling ho	attached dwelling house		
No. of bedrooms	4	4		
Project score				
Water	<b>✓</b> 41	Target 40		
Thermal Comfort	<b>✓</b> Pass	Target Pass		
Energy	<b>✓</b> 51	Target 50		

## **Certificate Prepared by**

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034102S\_02 Friday, 09 August 2019 page 1/7

# **Description of project**

Project address	
Project name	Lot 3323 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3323
Section no.	-
Project type	
Project type	attached dwelling house
No. of bedrooms	4
Site details	
Site area (m²)	198
Roof area (m²)	97
Conditioned floor area (m2)	128.0
Unconditioned floor area (m2)	3.0
Total area of garden and lawn (m2)	80

Assessor details and thermal lo	ads	
Assessor number	BDAV/12/1441	
Certificate number	0004073383	
Climate zone	28	
Area adjusted cooling load (MJ/m².year)	39	
Area adjusted heating load (MJ/m².year)	45	
Project score		
Water	<b>✓</b> 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	<b>✓</b> 51	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
Fixtures		'	
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 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 5 star in each bathroom in the development.		<b>✓</b>	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 48 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		<b>✓</b>	•
the cold water tap that supplies each clothes washer in the development		<b>✓</b>	•
<ul> <li>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.)</li> </ul>		<b>✓</b>	~

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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.	~	<b>✓</b>	~

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

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034102S\_02 Friday, 09 August 2019 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 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.		<b>~</b>	•
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.		<b>~</b>	•
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: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	~
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 4 of the bedrooms / study;			

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 2 of the living / dining rooms;		•	-
• the kitchen;			
all bathrooms/toilets;		J	
• the laundry;		J	
• all hallways;			
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		<b>✓</b>	
The applicant must install a fixed outdoor clothes drying line as part of the development.			

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034102S\_02 Friday, 09 August 2019 page 6/7

## 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.

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034102S\_02 Friday, 09 August 2019 page 7/7



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

# Single Dwelling

Certificate number: 1034101S\_02

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, 09 August 2019

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



Project summary				
Project name	Lot 3325 Wianamatta	Lot 3325 Wianamatta Parkway_02		
Street address	Wianamatta Parkway	Jordan Springs 2747		
Local Government Area	Penrith City Council			
Plan type and plan number	deposited Unreg	deposited Unreg		
Lot no.	3325	3325		
Section no.	-	-		
Project type	attached dwelling hou	attached dwelling house		
No. of bedrooms	3			
Project score				
Water	<b>✓</b> 41	Target 40		
Thermal Comfort	<b>∨</b> Pass	Target Pass		
Energy	<b>✓</b> 61	Target 50		

## **Certificate Prepared by**

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034101S\_02 Friday, 09 August 2019 page 1/7

# **Description of project**

Project address	
Project name	Lot 3325 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3325
Section no.	-
Project type	
Project type	attached dwelling house
No. of bedrooms	3
Site details	
Site area (m²)	225
Roof area (m²)	93
Conditioned floor area (m2)	146.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	100

Assessor details and thermal loads						
Assessor number	BDAV/12/1441					
Certificate number	0004073482					
Climate zone	28					
Area adjusted cooling load (MJ/m².year)	56					
Area adjusted heating load (MJ/m².year)	51					
Project score						
Water	✓ 41 Target 40					
Thermal Comfort	✓ Pass Target Pass					
Energy	✓ 61 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
Fixtures		'	
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 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 5 star in each bathroom in the development.		~	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 90 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		<b>✓</b>	•
the cold water tap that supplies each clothes washer in the development		<b>✓</b>	•
<ul> <li>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.)</li> </ul>		<b>✓</b>	-

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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.	~	<b>✓</b>	~

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

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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.		<b>~</b>	•
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.		<b>~</b>	•
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: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	~
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 3 of the bedrooms / study;			

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 1 of the living / dining rooms;		<b>~</b>	_
• 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.	~	<b>✓</b>	~
Alternative energy			
The applicant must install a photovoltaic system with the capacity to generate at least 1 peak kilowatts of electricity as part of the development. The applicant must connect this system to the development's electrical system.	~	<b>~</b>	~
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.		<b>✓</b>	
The applicant must install a fixed outdoor clothes drying line as part of the development.			

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## 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.

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

# Multi Dwelling

Certificate number: 1034138M 02

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, 09 August 2019

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



Project summary				
Project name	Lot 3326 Wianamatta Parkway_02			
Street address	Wianamatta Parkway Jordan Springs 2747			
Local Government Area	Penrith City Council			
Plan type and plan number	deposited Unreg			
Lot no.	3326			
Section no.	-			
No. of residential flat buildings	0			
No. of units in residential flat buildings	0			
No. of multi-dwelling houses	0			
No. of single dwelling houses	2			
Project score				
Water	✓ 43 Target 40			
Thermal Comfort	✓ Pass Target Pass			
Energy	✓ 50 Target 50			

Certificate Prepared by	
Name / Company Name: Frys Energywise	
ABN (if applicable): 631418543	

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# **Description of project**

Project address	
Project name	Lot 3326 Wianamatta Parkway_02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3326
Section no.	-
Project type	
No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	0
No. of single dwelling houses	2
Site details	
Site area (m²)	169
Roof area (m²)	138
Non-residential floor area (m²)	0.0
Residential car spaces	2
Non-residential car spaces	0

Common area landscape				
Common area lawn (m²)	0.0			
Common area garden (m²)	0.0			
Area of indigenous or low water use species (m²)	0.0			
Assessor details				
Assessor number	BDAV/12/1441			
Certificate number	0004073730			
Climate zone	28			
Project score				
Water	<b>✓</b> 43	Target 40		
Thermal Comfort	✓ Pass Target Pass			
Energy	<b>✓</b> 50	Target 50		

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## **Description of project**

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

## Single 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)
S	1	39.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)
МН	3	121.0	3.0	50.0	0.0

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# **Schedule of BASIX commitments**

- 1. Commitments for multi-dwelling houses
- 2. Commitments for single 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)
  - (i) Water
  - (ii) Energy

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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.

## 2. Commitments for single dwelling houses

### (a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifie 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.		<b>✓</b>	•
(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.		<b>✓</b>	-
(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		<b>✓</b>	•
(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.		<b>✓</b>	•
(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.	~	<b>✓</b>	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		<b>✓</b>	
(g) The pool or spa must be located as specified in the table.	•	<b>✓</b>	
(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.	~	~	~

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	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	3 star (> 4.5 but <= 6 L/min)	4 star	4 star	5 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	
МН	individual water tank (no. 1)	Tank size (min) 2000.0 litres	To collect run-off from at least: 40.0 square metres of roof area;	yes	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.		<b>✓</b>	~	
(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.		•	~	

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(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		<b>✓</b>	
(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.		<b>✓</b>	
(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;		<b>✓</b>	
(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		<b>✓</b>	•
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		<b>✓</b>	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		<b>✓</b>	
(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.	~	<b>✓</b>	-

	Hot water	Bathroom ven	tilation system	Kitchen ventilation system		Laundry vent	ilation system
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
S	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off
All other dwellings	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	no mechanical ventilation (ie. natural)	-	natural ventilation only, or no laundry	-

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	Coo	ling	Hea	ting			Artificial	lighting			Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/ toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
S	1-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
All other dwellings	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3 (dedicated)	3 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

	Individual pool		Individual s	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
S	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	no	yes
All other dwellings	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	yes	yes

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

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(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.			
(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:	•	<b>✓</b>	~
(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.	~	<b>✓</b>	~

	Thermal loads					
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)				
S	42.2	55.2				
All other dwellings	39.6	33.1				

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		Construction of floors and walls									
Dwelling no.	Concrete slab on ground(m²)	Suspended floor with open subfloor (m²)	Suspended floor with endclosed subfloor (m²)	Suspended floor above garage (m²)	Primarily rammed earth or mudbrick walls						
S	-	-	-	39	No						
All other dwellings	121	-	-	-	No						

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

## (b) 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>✓</b>	~
(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.	~	<b>✓</b>	
(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.		<b>✓</b>	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		<b>✓</b>	~
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		<b>✓</b>	~

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.	~	<b>✓</b>	-

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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 "w" 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 " I 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 " w 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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Building Sustainability Index www.basix.nsw.gov.au

## Single Dwelling

Certificate number: 1034084S\_02

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, 09 August 2019

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



Project summary				
Project name	Lot 3327 Wianamatta	Lot 3327 Wianamatta Parkway _02		
Street address	Wianamatta Parkway	Jordan Springs 2747		
Local Government Area	Penrith City Council			
Plan type and plan number	deposited Unreg			
Lot no.	3327			
Section no.	-			
Project type	attached dwelling ho	use		
No. of bedrooms	3			
Project score				
Water	<b>✓</b> 41	Target 40		
Thermal Comfort	<b>✓</b> Pass	Target Pass		
Energy	<b>✓</b> 51	Target 50		

## **Certificate Prepared by**

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034084S\_02 Friday, 09 August 2019 page 1/7

# **Description of project**

Project address	
Project name	Lot 3327 Wianamatta Parkway _02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3327
Section no.	-
Project type	
Project type	attached dwelling house
No. of bedrooms	3
Site details	
Site area (m²)	142
Roof area (m²)	73
Conditioned floor area (m2)	91.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	50

Assessor details and thermal lo	pads
Assessor number	BDAV/12/1441
Certificate number	0004073755
Climate zone	28
Area adjusted cooling load (MJ/m².year)	33
Area adjusted heating load (MJ/m².year)	37
Project score	
Water	✓ 41 Target 40
Thermal Comfort	✓ Pass Target Pass
Energy	✓ 51 Target 50

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034084S\_02 Friday, 09 August 2019 page 2/7

## **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 (> 6 but <= 7.5 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 5 star in each bathroom in the development.		~	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 33 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		<b>✓</b>	•
the cold water tap that supplies each clothes washer in the development		<b>✓</b>	•
<ul> <li>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.)</li> </ul>		<b>✓</b>	-

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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.	~	<b>✓</b>	~

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

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034084S\_02 Friday, 09 August 2019 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 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.		<b>~</b>	•
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		<b>✓</b>	-
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	•
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 3 of the bedrooms / study;		<b>.</b>	

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 2 of the living / dining rooms;		<b>✓</b>	•
• the kitchen;		•	•
all bathrooms/toilets;		•	•
• the laundry;		•	•
• all hallways;		•	•
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		<b>✓</b>	
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.		<u> </u>	

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#### 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.

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

## Single Dwelling

Certificate number: 1034085S 02

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, 09 August 2019

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



Project summary	
Project name	Lot 3328 Wianamatta Parkway _02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3328
Section no.	-
Project type	attached dwelling house
No. of bedrooms	3
Project score	
Water	✓ 41 Target 40
Thermal Comfort	✓ Pass Target Pass
Energy	✓ 51 Target 50

### **Certificate Prepared by**

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034085S\_02 Friday, 09 August 2019 page 1/7

# **Description of project**

Project address	
Project name	Lot 3328 Wianamatta Parkway _02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3328
Section no.	-
Project type	
Project type	attached dwelling house
No. of bedrooms	3
Site details	
Site area (m²)	142
Roof area (m²)	73
Conditioned floor area (m2)	91.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	50

Assessor details and thermal lo	ads
Assessor number	BDAV/12/1441
Certificate number	0004073748
Climate zone	28
Area adjusted cooling load (MJ/m².year)	32
Area adjusted heating load (MJ/m².year)	37
Project score	
Water	✓ 41 Target 40
Thermal Comfort	✓ Pass Target Pass
Energy	✓ 51 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
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 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 5 star in each bathroom in the development.		~	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 33 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		<b>✓</b>	•
the cold water tap that supplies each clothes washer in the development		<b>✓</b>	•
<ul> <li>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.)</li> </ul>		•	-

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034085S\_02 Friday, 09 August 2019 page 3/7

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.	~	<b>✓</b>	~

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

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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.		<b>~</b>	•
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.		<b>~</b>	•
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: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	~
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 3 of the bedrooms / study;			

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 2 of the living / dining rooms;		•	<b>~</b>
• the kitchen;		•	•
all bathrooms/toilets;		•	•
• the laundry;		•	•
• all hallways;		•	•
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		<b>✓</b>	
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.		<u> </u>	

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#### 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.

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

# Single Dwelling

Certificate number: 1034077S 02

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, 09 August 2019

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



Project summary		
Project name	Lot 3329 Wianamat	ta Parkway_02
Street address	Wianamatta Parkwa	y Jordan Springs 2747
Local Government Area	Penrith City Council	
Plan type and plan number	deposited Unreg	
Lot no.	3329	
Section no.	-	
Project type	attached dwelling ho	ouse
No. of bedrooms	3	
Project score		
Water	<b>✓</b> 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	<b>✓</b> 51	Target 50

### **Certificate Prepared by**

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034077S\_02 Friday, 09 August 2019 page 1/7

# **Description of project**

Project address	
Project name	Lot 3329 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3329
Section no.	-
Project type	
Project type	attached dwelling house
No. of bedrooms	3
Site details	
Site area (m²)	141
Roof area (m²)	73
Conditioned floor area (m2)	91.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	50

Assessor details and thermal lo	pads	
Assessor number	BDAV/12/1441	
Certificate number	0004073771	
Climate zone	28	
Area adjusted cooling load (MJ/m².year)	32	
Area adjusted heating load (MJ/m².year)	37	
Project score		
Water	✓ 41 Target 40	
Thermal Comfort	✓ Pass Target Pass	
Energy	✓ 51 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
Fixtures		'	
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 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 5 star in each bathroom in the development.		~	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 33 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		<b>✓</b>	•
the cold water tap that supplies each clothes washer in the development		<b>✓</b>	•
<ul> <li>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.)</li> </ul>		<b>✓</b>	-

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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.	•	<b>✓</b>	_

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

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034077S\_02 Friday, 09 August 2019 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 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.		<b>~</b>	•
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.		<b>~</b>	•
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: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	~
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 3 of the bedrooms / study;			

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 2 of the living / dining rooms;		•	<b>~</b>
• the kitchen;		•	•
all bathrooms/toilets;		•	•
• the laundry;		•	•
• all hallways;		•	•
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		<b>✓</b>	
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.		<u> </u>	

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#### 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.

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

# Multi Dwelling

Certificate number: 1034134M 02

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, 09 August 2019

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



Project summary							
Project name	Lot 3330 Wianamatta Parkway02						
Street address	Wianamatta Parkway Jordan Springs 2747						
Local Government Area	Penrith City Council						
Plan type and plan number	deposited Unreg						
Lot no.	3330						
Section no.	-						
No. of residential flat buildings	0						
No. of units in residential flat buildings	0						
No. of multi-dwelling houses	0						
No. of single dwelling houses	2						
Project score							
Water	✓ 43 Target 40						
Thermal Comfort	✓ Pass Target Pass						
Energy	✓ 50 Target 50						

Certificate Prepared by
Name / Company Name: Frys Energywise
ABN (if applicable): 631418543

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# **Description of project**

Project address	
Project name	Lot 3330 Wianamatta Parkway02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3330
Section no.	-
Project type	
No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	0
No. of single dwelling houses	2
Site details	
Site area (m²)	169
Roof area (m²)	138
Non-residential floor area (m²)	0.0
Residential car spaces	2
Non-residential car spaces	0

Common area landscape	
Common area lawn (m²)	0.0
Common area garden (m²)	0.0
Area of indigenous or low water use species (m²)	0.0
Assessor details	
Assessor number	BDAV/12/1441
Certificate number	0004074050
Climate zone	28
Project score	
Water	✓ 43 Target 40
Thermal Comfort	✓ Pass Target Pass
Energy	✓ 50 Target 50

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## **Description of project**

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

## Single 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)
S	1	39.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)
МН	3	121.0	3.0	50.0	0.0

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# **Schedule of BASIX commitments**

- 1. Commitments for multi-dwelling houses
- 2. Commitments for single 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)
  - (i) Water
  - (ii) Energy

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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.

## 2. Commitments for single dwelling houses

#### (a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifie 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.		<b>✓</b>	•
(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.		<b>✓</b>	-
(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		<b>✓</b>	•
(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.		<b>✓</b>	•
(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.	~	<b>✓</b>	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		<b>✓</b>	
(g) The pool or spa must be located as specified in the table.	•	<b>✓</b>	
(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.	~	~	~

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Fixtures					Appliances Individual pool			Individual spa						
Dwelling no.	All shower- heads	All toilet flushing systems		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	3 star (> 4.5 but <= 6 L/min)	4 star	4 star	5 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	
МН	individual water tank (no. 1)	Tank size (min) 2000.0 litres	To collect run-off from at least: 40.0 square metres of roof area;	yes	yes	yes	no	no	

ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifie 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.		<b>✓</b>	-
(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.		•	~

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(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		<b>✓</b>	
(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.		<b>✓</b>	
(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;		<b>✓</b>	
(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		<b>✓</b>	-
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		<b>✓</b>	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		<b>✓</b>	
(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.	-	<b>✓</b>	~

	Hot water	Bathroom ventilation system		Kitchen ventilation system		ystem Kitchen ventilation s		Laundry vent	ilation system
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control		
S	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off		
All other dwellings	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	no mechanical ventilation (ie. natural)	-	natural ventilation only, or no laundry	-		

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	Cooling		Hea	ting		Artificial lighting			Natural lig	hting		
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/ toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitcher
S	1-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
All other dwellings	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3 (dedicated)	3 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

	Individual p	ool	Individual s	ра	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
S	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	no	yes
All other dwellings	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	yes	yes

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

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(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.			
(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:	•	<b>✓</b>	-
(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.	•	<b>✓</b>	~

	Thermal loads						
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)					
S	42.9	54.2					
All other dwellings	43.7	33.2					

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	Construction of floors and walls									
Dwelling no.	Concrete slab on ground(m²)	Suspended floor with open subfloor (m²)	Suspended floor with endclosed subfloor (m²)	Suspended floor above garage (m²)	Primarily rammed earth or mudbrick walls					
S	-	-	-	39	No					
All other dwellings	121	-	-	-	No					

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

#### (b) 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>✓</b>	~
(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.	•	<b>✓</b>	
(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.		<b>✓</b>	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		<b>✓</b>	~
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		<b>✓</b>	-

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.	~	<b>✓</b>	~

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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 fulfillment it is required to monitor in relation to the building or part, has been fulfilled).

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

# Single Dwelling

Certificate number: 1034096S 02

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, 09 August 2019

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



Project summary				
Project name	Lot 3331 Wianamat	Lot 3331 Wianamatta Parkway_02		
Street address	Wianamatta Parkwa	y Jordan Springs 2747		
Local Government Area	Penrith City Council			
Plan type and plan number	deposited Unreg			
Lot no.	3331			
Section no.	-			
Project type	attached dwelling ho	ouse		
No. of bedrooms	3			
Project score				
Water	<b>✓</b> 41	Target 40		
Thermal Comfort	✓ Pass	Target Pass		
Energy	<b>✓</b> 61	Target 50		

### **Certificate Prepared by**

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

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# **Description of project**

Project address	
Project name	Lot 3331 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3331
Section no.	-
Project type	
Project type	attached dwelling house
No. of bedrooms	3
Site details	
Site area (m²)	233
Roof area (m²)	93
Conditioned floor area (m2)	143.0
Unconditioned floor area (m2)	5.0
Total area of garden and lawn (m2)	100

Assessor details and thermal lo	ads	
Assessor number	BDAV/12/1441	
Certificate number	0004073995	
Climate zone	28	
Area adjusted cooling load (MJ/m².year)	52	
Area adjusted heating load (MJ/m².year)	55	
Project score		
Water	<b>✓</b> 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	<b>✓</b> 61	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
Fixtures		'	
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 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 5 star in each bathroom in the development.		~	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 90 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		<b>✓</b>	•
the cold water tap that supplies each clothes washer in the development		<b>✓</b>	•
<ul> <li>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.)</li> </ul>		<b>✓</b>	-

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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.	~	<b>✓</b>	~

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

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034096S\_02 Friday, 09 August 2019 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 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.		<b>~</b>	•
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		<b>✓</b>	-
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	•
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 3 of the bedrooms / study;		<b>.</b>	

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034096S\_02 Friday, 09 August 2019 page 5/7

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 1 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.	~	~	~
Alternative energy			
The applicant must install a photovoltaic system with the capacity to generate at least 1 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 & 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.		<u> </u>	

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034096S\_02 Friday, 09 August 2019 page 6/7

#### 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.

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA\_3\_10\_0 Certificate No.: 1034096S\_02 Friday, 09 August 2019 page 7/7

## Nationwide House Energy Rating Scheme\* Certificate

Certificate number: 0004072781 Certificate Date: 01 Aug 2019 ★ Star rating: 5.9

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan

then this certificate is not valid

#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

#### Overview

Lot/DP

#### **Dwelling details**

Street: **Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28

number: 3302/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

> R3.5 ceiling insulation No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 128.0 Unconditioned: 3.0 Garage: 0.0 TOTAL: 131.0

#### **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 51.7 Cooling: 35.3 TOTAL: 87.0

#### Plan documents

Plan ref/date: **Wianamatta Parkway** 

Prepared by:

the more energy efficient NATIONWIDE Predicted annual energy load for heating and cooling based on standard occupancy assumptions MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed:

Unsealed: 0

TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

#### Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8841667

Certificate number: 0004072781 Certificate Date: 01 Aug 2019 ★ Star rating:



## **Building features**

window type and performance value				
Window ID	Window type	U-value	SHGC	
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67	
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74	
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78	

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Laundry	BRD-033-01 A	n/a	2100	1470	SW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	NE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1570	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	SW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	SW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading

ID Nove Brown	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

External wall type						
ID	Wall type		Insulation		W	all wrap or fo
EW-1	AAC cavity pa	nel on battens	Anti-glare foil	with bulk no gap	R2 Yo	es
EW-2	Fibro Cavity F	Panel Direct Fix	Anti-glare foil	with bulk no gap	R2 Y	es
External wa	III schedule	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	1995	2595	NW	No	1200
Lounge	EW-1	4095	2595	SW	No	100
Laundry	EW-1	1890	2595	SW	No	100

2595

NW

2295

1200

Lounge

EW-1

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004072781 Certificate Date: 01 Aug 2019 ★ Star rating: 5.9



#### **Building features continued** EW-1 900 2595 NE No 1300 Lounge Lounge EW-1 1300 2595 NW No 1000 Kitchen/Living EW-1 3300 2595 2900 SE No Kitchen/Living EW-1 2800 NE No 3300 2595 Kitchen/Living EW-1 3300 2595 SE No 100 Kitchen/Living EW-1 7100 SW No 100 2595 EW-1 NW 100 Kitchen/Living 1000 2595 No Bedroom 1 EW-1 2795 1770 NW No 0 Bedroom 1 EW-2 2795 680 NW No 1700 Bedroom 1 EW-1 4095 1770 SW No 0 Bedroom 1 EW-2 4095 680 SW No 100 WIR 1 EW-1 1495 1770 NW No 0 WIR 1 EW-2 1495 680 NW No 1700 WIR 1 EW-1 900 1770 NE No 0 WIR 1 EW-2 900 680 No 1300 NE Ensuite 1 1770 SW No 0 EW-1 1690 1690 680 SW No 100 Ensuite 1 EW-2 Bedroom 2 1770 SW No 0 EW-1 3690 Bedroom 2 EW-2 3690 680 SW No 100 SE 0 Bedroom 3 EW-1 2795 1770 No Bedroom 3 680 SE No 600 EW-2 2795 Bedroom 3 EW-1 3595 1770 SW No 0 Bedroom 3 EW-2 3595 680 SW No 100 Bedroom 4 1770 SE No 0 EW-1 2795 Bedroom 4 SE EW-2 2795 680 No 600 **Upper Hall EW-1** 1295 1770 NW No 0 **Upper Hall** EW-2 1295 680 NW No 1600

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Cavity wall, direct fix plasterboard, single gap	140.0	No insulation	No		
IW-2 - AAC, plaster on studs	54.0	Bulk Insulation both sides of shaft liner R2	No		

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	37.4	None	Waffle Pod 300mm	Ceramic Tiles 8mm

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004072781 Certificate Date: 01 Aug 2019 ★ Star rating:



## **Building features continued**

per Above Plasterboard	40.0		A COLUMN TO A COLU	
m	10.6		No Insulation	Carpet+Rubber Underlay 18mm
per Above Plasterboard m	2.0		No Insulation	Carpet+Rubber Underlay 18mm
per Above Plasterboard m	4.0		No Insulation	Carpet+Rubber Underlay 18mm
per Above Plasterboard m	2.7		No Insulation	Ceramic Tiles 8mm
per Above Plasterboard m	1.7		No Insulation	Ceramic Tiles 8mm
per Above Plasterboard m	8.9		No Insulation	Carpet+Rubber Underlay 18mm
per Above Plasterboard m	8.4		No Insulation	Carpet+Rubber Underlay 18mm
pended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
per Above Plasterboard m	0.5		No Insulation	Carpet+Rubber Underlay 18mm
pended Timber Floor 19mm	7.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
per Above Plasterboard m	1.6		No Insulation	Ceramic Tiles 8mm
per Above Plasterboard m	5.1		No Insulation	Ceramic Tiles 8mm
per Above Plasterboard m	0.9		No Insulation	Carpet+Rubber Underlay 18mm
per Above Plasterboard m	8.0		No Insulation	Carpet+Rubber Underlay 18mm
per Above Plasterboard m	4.5		No Insulation	Carpet+Rubber Underlay 18mm
	per Above Plasterboard m per Above Plasterboard	per Above Plasterboard 4.0 mer Above Plasterboard 4.0 mer Above Plasterboard 2.7 mer Above Plasterboard 1.7 mer Above Plasterboard 8.9 mer Above Plasterboard 8.4 mer Above Plasterboard 8.4 mer Above Plasterboard 0.5 mer Above Plasterboard 0.5 mer Above Plasterboard 1.6 mer Above Plasterboard 1.6 mer Above Plasterboard 1.6 mer Above Plasterboard 0.9 mer Above Plasterboard 0.9 mer Above Plasterboard 8.0 mer Above Plasterboard 8.0 mer Above Plasterboard 8.0 mer Above Plasterboard 4.5	ber Above Plasterboard 4.0 mer Above Plasterboard 4.0 mer Above Plasterboard 2.7 mer Above Plasterboard 1.7 mer Above Plasterboard 8.9 mer Above Plasterboard 8.4 mer Above Plasterboard 8.4 mer Above Plasterboard 0.5 mer Above Plasterboard 0.5 mer Above Plasterboard 1.6 mer Above Plasterboard 1.6 mer Above Plasterboard 1.6 mer Above Plasterboard 0.9 mer Above Plasterboard 0.9 mer Above Plasterboard 8.0 mer Above Plasterboard 4.5	No Insulation mer Above Plasterboard 4.0  Deer Above Plasterboard 4.0  Deer Above Plasterboard 2.7  Deer Above Plasterboard 1.7  Deer Above Plasterboard 8.9  Deer Above Plasterboard 8.4  Deer Above Plasterboard 8.4  Deer Above Plasterboard 8.4  Deer Above Plasterboard 9.5  Deer Above Plasterboard 9.6  Deer Above Plasterboard 9.7  Dee

Ceiling type	•
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Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation	Yes

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004072781 Certificate Date:

01 Aug 2019

★ Star rating:



## **Building features continued**

		R3.5
WC	Plasterboard	Bulk Insulation Yes R3.5
Bath	Plasterboard	Bulk Insulation Yes R3.5
Upper Hall	Plasterboard	Bulk Insulation Yes R3.5

Ceiling pen	Number	Туре	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
	l .			
Ensuite 1	1	Exhaust Fans	300	Sealed
WC	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed

## **Ceiling fans**

Location	Number	Diameter (mm)	
None Present			

Construction	Added Roof colou insulation
Corrugated Iron	Bulk, Reflective Dark Side Down, No Air Gap Above R1.3

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au



Additional information			

## **Explanatory notes**

#### **About this report**

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

#### **General Information**

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

#### **Accredited Assessors**

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, 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. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under 'assessor details'. You can also find a range of information about accredited assessors on the AAO websites.

#### **Disclaimer**

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

#### **Contact**

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

Certificate number: 0004072807 Certificate Date: 01 Aug 2019 ★ Star rating: 6.8

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid

#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

## Overview

Lot/DP

#### **Dwelling details**

Street: **Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28

number: 3303/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

> R3.5 ceiling insulation No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 121.0 Unconditioned: 3.0 Garage: 0.0 TOTAL: 124.0

## **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 41.1 Cooling: 30.7 TOTAL: 71.7

#### Plan documents

Plan ref/date: **Wianamatta Parkway** 

Prepared by:

# the more energy efficient NATIONWIDE Predicted annual energy load for heating and cooling based on standard occupancy assumptions MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed: 3 0

Unsealed: TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

3

## Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8841667

Certificate number: 0004072807 Certificate Date: 01 Aug 2019 ★ Star rating: 6.



## **Building features**

Window type and performance value						
Window ID	Window type	U-value	SHGC			
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67			
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78			
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74			

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	NE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1210	SE	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading

ID	Window ty	/pe			U-value	SHGC
None Present						
Roof window	w and skylight	schedule				

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	1995	2595	NW	No	1200
Lounge	EW-1	900	2595	SW	No	0
Lounge	EW-1	2295	2595	NW	No	1200
Lounge	EW-1	900	2595	NE	No	1300
Lounge	EW-1	1300	2595	NW	No	1000
Kitchen/Living	EW-1	3300	2595	SE	No	2900
Kitchen/Living	EW-1	2800	2595	NE	No	3300

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004072807 Certificate Date: 01 Aug 2019 ★ Star rating:



6.8

Kitchen/Living	EW-1	2300	2595	SE	No	100
Kitchen/Living	EW-1	2800	2595	SW	No	0
WIR 1	EW-1	1495	1770	NW	No	0
WIR 1	EW-2	1495	680	NW	No	1700
WIR 1	EW-1	900	1770	NE	No	0
WIR 1	EW-2	900	680	NE	No	1300
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	600
Bedroom 3	EW-2	3895	680	SW	No	0
Bedroom 4	EW-1	2795	1770	SE	No	0
Bedroom 4	EW-2	2795	680	SE	No	600
Upper Hall	EW-1	1295	1770	NW	No	0
Upper Hall	EW-2	1295	680	NW	No	1600
Bedroom 1	EW-1	900	2450	SW	No	0
Bedroom 1	EW-1	2795	1770	NW	No	0
Bedroom 1	EW-2	2795	680	NW	No	1700

Internal wall type				
Area (m²)	Insulation	Wall wrap or foil		
129.0	No insulation	No		
106.0	Bulk Insulation both sides of shaft liner R2	No		
	129.0	129.0 No insulation		

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	30.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	5.2		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	9.3		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	3.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.6	Open	No Insulation	Carpet+Rubber Underlay 18mm

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004072807 Certificate Date: 01 Aug 2019 ★ Star rating: 6.8



#### **Building features continued** Upper Hall/PDR Timber Above Plasterboard 0.7 No Insulation Carpet+Rubber Underlay 18mm Timber Above Plasterboard Carpet+Rubber Upper Hall/Lounge 8.3 No Insulation 19mm Underlay 18mm Timber Above Plasterboard Carpet+Rubber Upper 6.6 No Insulation Hall/Kitchen/Living 19mm Underlay 18mm Timber Above Plasterboard Carpet+Rubber WIL/Kitchen/Living 2.8 No Insulation Underlay 18mm 19mm Bath/Kitchen/Living Timber Above Plasterboard 7.0 No Insulation **Ceramic Tiles** 19mm 8mm **Timber Above Plasterboard** 3.0 No Insulation **Ceramic Tiles** Ensuite 1/Laundry 8mm 19mm Ensuite 1/PDR Timber Above Plasterboard 0.9 No Insulation Ceramic Tiles 19mm 8mm **Ensuite** Timber Above Plasterboard 0.5 No Insulation Ceramic Tiles 1/Kitchen/Living 19mm 8mm Bedroom 1/Lounge Timber Above Plasterboard No Insulation 10.4 Carpet+Rubber 19mm Underlay 18mm Timber Above Plasterboard Bedroom 1/PDR 1.1 No Insulation Carpet+Rubber Underlay 18mm 19mm Bedroom 1/Lounge Timber Above Plasterboard Carpet+Rubber 0.7 No Insulation Underlay 18mm 19mm

Ceiling type			
Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes
Upper Hall	Plasterboard	Bulk Insulation R3.5	Yes
WIL	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling pene	etrations		
Location	Number	Туре	Diameter (mm) Sealed/unsealed

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004072807** Certificate Date: **01 Aug 2019** 

★ Star rating:



6.8

<b>Building fea</b>	itures cont	inued			
PDR	1	Exhaust Fans	300	Sealed	
Bath	1	Exhaust Fans	300	Sealed	
Ensuite 1	1	Exhaust Fans	300	Sealed	

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type	
Construction	Added Roof colour insulation
Corrugated Iron	Bulk, Reflective Dark Side Down, No Air Gap Above R1.3

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au



Additional information	

## **Explanatory notes**

#### **About this report**

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

#### **General Information**

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

#### **Accredited Assessors**

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, 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. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under 'assessor details'. You can also find a range of information about accredited assessors on the AAO websites.

#### **Disclaimer**

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

#### **Contact**

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

## Nationwide House Energy Rating Scheme\* — Multiple-dwelling summary

Certificate number: **0004072860** Certificate Date: **01 Aug 2019** ★ Average Star rating: **6.1** 



#### **Assessor details**

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant
Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

## **Dwelling details**

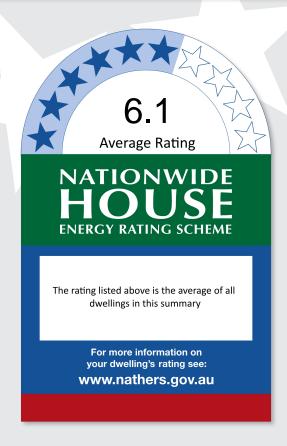
Street: Wianamatta Parkway

Suburb: Jordan Springs

State: **NSW** Postcode: **2747** 

Scan to access this certificate online and confirm this is valid.





## **Summary of all dwellings**

0 4161 4 1	Dwelling/Unit			<b>T</b> ( )	Star
Certificate number	number	Heating load	Cooling load	l otal load	Rating
0004072807		41.1	30.7	71.7	6.8
0004072823	Studio	52.0	53.3	105.3	5.3

Document Set ID: 8841667 Version: 1, Version Date: 06/09/2019

Certificate number: 0004072823 Certificate Date: 01 Aug 2019 ★ Star rating: 5.3

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan

then this certificate is not valid.

#### Assessor details

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

## Overview

#### **Dwelling details**

Street: Unit Studio, Wianamatta Parkway

Suburb: Jordan Springs

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 1A

NatHERS

Lot/DP climate zone: 28

number: **3303/0** Exposure: **Suburban** 

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

Corrugated Iron

Suspended Timber Floor

Insulation: R2.0 wall insulation

R3.5 ceiling insulation No floor insulation

Glazing: BRD-112-01 A ESS Awning 52 SG

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 39.0 Unconditioned: 31.0 Garage: 31.0

TOTAL: **70.0** 

# Annual thermal performance loads (MJ/m²)

Heating: **52.0**Cooling: **53.3**TOTAL: **105.3** 

#### Plan documents

Plan ref/date: Wianamatta Parkway

Prepared by: **0** 

The more stars the more energy efficient

NATIONWIDE HOUSE ENERGY RATING SCHEME

Predicted annual energy load for heating and cooling based on standard occupancy assumptions

105.3 MJ/m²

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

#### Ceiling penetrations

(see following pages for details)

Sealed: 1

TOTAL:\*\*

Unsealed:

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

0

## Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



Certificate number: 0004072823 Certificate Date: 01 Aug 2019 ★ Star rating:



5.3

## **Building features**

Window type	Window type and performance value				
Window ID	Window type	U-value	SHGC		
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67		
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78		

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Stairs	BRD-063-01 A	n/a	600	1800	NW	No Shading

ID	Window	type			U-value	SHGC
None Presen	ıt					
Roof windo	w and skyligl	nt schedule				
Location	ID	Roof	A 400 (m2)	Orientation	Outdoor shade	Indoor

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	No insulation	No
EW-2	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-3	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage	EW-1	5600	2595	SE	No	100
Garage	EW-1	5495	2595	NE	No	100
Entry/Stairs	EW-2	5600	2595	NW	No	100
Entry/Stairs	EW-2	1095	2595	NE	No	100
Bedroom 1	EW-2	2895	1770	SE	No	0
Bedroom 1	EW-3	2895	680	SE	No	600
Bedroom 1	EW-2	3595	2450	NE	No	100
PDR	EW-2	995	1770	NW	No	0
PDR	EW-3	995	680	NW	No	600
PDR	EW-2	2995	2450	NE	No	100
Kitchen/Living	EW-2	2695	1770	SE	No	0
Kitchen/Living	EW-3	2695	680	SE	No	600
Kitchen/Living	EW-2	5495	2450	SW	No	100
Stairs	EW-2	1095	2450	SW	No	100
Stairs	EW-2	4595	1770	NW	No	0
Stairs	EW-3	4595	680	NW	No	600

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004072823 Certificate Date: 01 Aug 2019 ★ Star rating:



5.3

## **Building features continued**

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	17.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	15.0	Bulk Insulation, No Air Gap R2	No
IW-3 - Cavity wall, direct fix plasterboard, single gap	35.0	No insulation	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Garage	Waffle pod slab 225 mm 100mm	30.5	None	Waffle Pod 225mm	Bare
Entry/Stairs	Waffle pod slab 300 mm 100mm	5.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Garage	Timber Above Plasterboard 19mm	9.5		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
PDR/Garage	Timber Above Plasterboard 19mm	3.2		Bulk Insulation R2	Ceramic Tiles 8mm
PDR/Entry/Stairs	Timber Above Plasterboard 19mm	1.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Gar age	Timber Above Plasterboard 19mm	17.1		Bulk Insulation R2	Ceramic Tiles 8mm
Stairs/Entry/Stairs	Timber Above Plasterboard 19mm	4.8		No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Garage	Timber Above Plasterboard	Bulk Insulation R2	No
Entry/Stairs	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
PDR	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Stairs	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations						
Number	Туре	Diameter (mm)	Sealed/unsealed			
1	Exhaust Fans	300	Sealed			
		Number Type	Number Type Diameter (mm)			

## **Ceiling fans**

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004072823** Certificate Date:

01 Aug 2019

★ Star rating:

NATIONWID HOUSE

## **Building features continued**

Location	Number	Diameter (mm)
None Present		

Roof type	
Construction	Added Roof colour insulation
Corrugated Iron	Bulk, Reflective Dark Side Down, No Air Gap Above R1.3



Additional information	

## **Explanatory notes**

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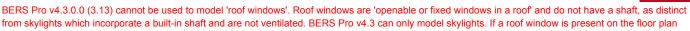
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#### **Contact**

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Certificate number: 0004072872 Certificate Date: 01 Aug 2019 ★ Star rating: 6.9



then this certificate is not valid.

#### Assessor details

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

## Overview

Lot/DP

#### **Dwelling details**

Street: Wianamatta Parkway

Suburb: Jordan Springs

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 1A

NatHERS

climate zone: 28

number: 3304/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

Corrugated Iron

**Suspended Timber Floor** 

Insulation: R2.0 wall insulation

R3.5 ceiling insulation
No floor insulation

Glazing: BRD-112-01 A ESS Awning 52 SG

4mmClr

#### Net floor area (m<sup>2</sup>)

 Conditioned:
 91.0

 Unconditioned:
 2.0

 Garage:
 0.0

 TOTAL:
 93.0

# Annual thermal performance loads (MJ/m²)

Heating: **38.3**Cooling: **31.4**TOTAL: **69.6** 

#### Plan documents

Plan ref/date: Wianamatta Parkway

Prepared by: **0** 

The more stars the more energy efficient

NATIONWIDE HOUSE ENERGY RATING SCHEME

Predicted annual energy load for heating and cooling based on standard occupancy assumptions

69.6 MJ/m²

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

#### Ceiling penetrations

(see following pages for details)

Sealed: 4

Unsealed: 0

TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

## Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



Page 1 of 5

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8841667

Certificate number: 0004072872 Certificate Date: 01 Aug 2019 ★ Star rating:



## **Building features**

Window ID	Window type	U-value	SHGC
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-063-01 A	n/a	1500	600	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	SE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading

ID	Window type	e		U-value	SHGC
None Present					
Poof windo	w and skylight so	shodulo			
KOOI WIIIUO	w and skyngin so	Chedule			

Exte	ernal	wal	I type	
------	-------	-----	--------	--

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

## **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	1300	2595	NW	No	1000
Living/Entry	EW-1	900	2595	SW	No	1300
Living/Entry	EW-1	3300	2595	NW	No	1200
Kitchen/Dining	EW-1	4600	2595	SE	No	3000
Bedroom 1	EW-1	900	1770	SW	No	0
Bedroom 1	EW-2	900	680	SW	No	1300
Bedroom 1	EW-1	3300	1770	NW	No	0
Bedroom 1	EW-2	3300	680	NW	No	1700
Bedroom 2	EW-1	1000	1770	SE	No	0
Bedroom 2	EW-2	1000	680	SE	No	100

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004072872 Certificate Date: 01 Aug 2019 ★ Star rating: 6.9



Building featu	ures continue	ed				
Hall	EW-1	1295	1770	NW	No	0
Hall	EW-2	1295	680	NW	No	1500
Bedroom 3	EW-1	2795	1770	NE	No	0
Bedroom 3	EW-2	2795	680	NE	No	100
Bedroom 3	EW-1	3600	1770	SE	No	0
Bedroom 3	EW-2	3600	680	SE	No	600

Internal wall type			
Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	88.0	No insulation	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	12.8		No Insulation	Carpet+Rubber Underlay 18mn
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	2.9		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.4		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	0.8		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	9.7		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.4		No Insulation	Carpet+Rubber Underlay 18mn
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	6.0		No Insulation	Carpet+Rubber Underlay 18mn
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubbe Underlay 18mn

Ceiling type			
Location	Construction	Added insulation	Roof space above
Living/Entry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au



01 Aug 2019

★ Star rating:



## **Building features continued**

Laundry	Timber Above Plasterboard	No Insulation	No
Kitchen/Dining	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Shower	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
Shower	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

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Additional information	

## **Explanatory notes**

#### **About this report**

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#### **General Information**

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

#### **Accredited Assessors**

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#### **Disclaimer**

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

#### **Contact**

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

Certificate number: 0004072880 Certificate Date: 01 Aug 2019 ★ Star rating: 6.9

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid



#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

## Overview

Lot/DP

#### **Dwelling details**

Street: **Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28

number: 3305/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

> R3.5 ceiling insulation No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 91.0 Unconditioned: 2.0 Garage: 0.0 TOTAL: 93.0

## **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 38.7 Cooling: 30.3 TOTAL: 69.0

#### Plan documents

Plan ref/date: **Wianamatta Parkway** 

Prepared by:

## Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Ceiling penetrations

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

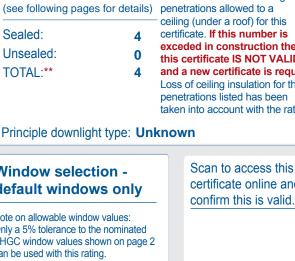
If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

\*\*NOTE: This total is the maximum number of ceiling exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the taken into account with the rating.

MJ/m²

Scan to access this certificate online and





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NATIONWIDE

Predicted annual energy load for heating and cooling

based on standard occupancy assumptions

For more information on your dwelling's rating see:

www.nathers.gov.au

Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8841667

Certificate number: 0004072880 Certificate Date: 01 Aug 2019 ★ Star rating: 6.9



## **Building features**

Window type and performance value						
Window ID	Window type	U-value	SHGC			
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67			
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78			
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74			
Window school	Aula					

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	SE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading

Roof windo	w and skylig	ht type and performanc	e value				
ID None Presen	Windov	v type			U-value	SHGC	
	Roof window and skylight schedule						
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser	
None Presen	t						

External v	vali type	
	Mall Arma	

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

## **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	3300	2595	NW	No	1200
Living/Entry	EW-1	900	2595	NE	No	1300
Living/Entry	EW-1	1300	2595	NW	No	1000
Kitchen/Dining	EW-1	4600	2595	SE	No	3000
Bedroom 1	EW-1	3300	1770	NW	No	0
Bedroom 1	EW-2	3300	680	NW	No	1700
Bedroom 1	EW-1	900	1770	NE	No	0
Bedroom 1	EW-2	900	680	NE	No	1300
Bedroom 2	EW-1	1000	1770	SE	No	0
Bedroom 2	EW-2	1000	680	SE	No	100

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Certificate number: 0004072880 Certificate Date: 01 Aug 2019 ★ Star rating: 6.9



Hall	EW-1	1295	1770	NW	No	0
Hall	EW-2	1295	680	NW	No	1500
Bedroom 3	EW-1	3600	1770	SE	No	0
Bedroom 3	EW-2	3600	680	SE	No	600
Bedroom 3	EW-1	2795	1770	SW	No	0
Bedroom 3	EW-2	2795	680	SW	No	100

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	87.0	No insulation	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	11.4		No Insulation	Carpet+Rubber Underlay 18mn
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	3.4		No Insulation	Ceramic Tiles 8mm
Shower/Living/Entry	Timber Above Plasterboard 19mm	0.5		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	2.3		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mn
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.6		No Insulation	Carpet+Rubber Underlay 18mn
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	7.6		No Insulation	Carpet+Rubber Underlay 18mn
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubbe Underlay 18mr

Ceiling type			
Location	Construction	Added insulation	Roof space above
Living/Entry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No

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**Building features continued** 

Laundry	Timber Above Plasterboard	No Insulation	No
Kitchen/Dining	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Shower	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
Shower	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

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Additional information	

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Certificate number: 0004072898 Certificate Date: 01 Aug 2019 ★ Star rating: 6.3

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#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

## Overview

Lot/DP

#### **Dwelling details**

Street: **Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28

number: 3306/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

> R3.5 ceiling insulation No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 128.0 Unconditioned: 3.0 Garage: 0.0 TOTAL: 131.0

## **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 46.8 Cooling: 34.3 TOTAL: 81.1

#### Plan documents

Plan ref/date: **Wianamatta Parkway** 

Prepared by:

## this certificate IS NOT VALID TOTAL:\*\* and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating. Principle downlight type: Unknown

0

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NATIONWIDE

Predicted annual energy load for heating and cooling

based on standard occupancy assumptions

For more information on your dwelling's rating see:

www.nathers.gov.au

MJ/m²

\*\*NOTE: This total is the

penetrations allowed to a ceiling (under a roof) for this

maximum number of ceiling

certificate. If this number is exceded in construction then

## Window selection default windows only

Ceiling penetrations

Sealed:

Unsealed:

(see following pages for details)

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

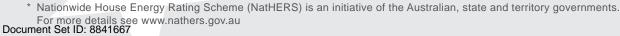
Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.





Version: 1, Version Date: 06/09/2019

Certificate number: 0004072898 Certificate Date: 01 Aug 2019 ★ Star rating: 6.3



## **Building features**

Window type and performance value					
Window ID	Window type	U-value	SHGC		
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67		
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74		
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78		

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Laundry	BRD-033-01 A	n/a	2100	1470	NE	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1570	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	SW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading

ID	Window ty	/pe			U-value	SHGC
None Present						
Roof window	w and skylight	schedule				
Location	ID	Roof	Area (m²)	Orientation	<b>Outdoor shade</b>	Indoor

External wa	ıll type					
ID	Wall type		Insulation		1	Wall wrap or foi
EW-1	AAC cavity pa	anel on battens	Anti-glare foil	with bulk no gap	R2	Yes
EW-2	Fibro Cavity F	Panel Direct Fix	Anti-glare foil	with bulk no gap	R2	Yes
External wa	III schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	e Eaves (mm)
Lounge	EW-1	4095	2595	NE	No	100
Lounge	EW-1	1995	2595	NW	No	1200

2595

2595

NE

NW

No

No

1890

1300

100 1000

EW-1

EW-1

Laundry

Lounge

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004072898** Certificate Date: **01 Aug 2019** ★ Star rating:



6.3

#### **Building features continued** EW-1 900 2595 SW No 1300 Lounge Lounge EW-1 2295 2595 NW No 1200 Kitchen/Living EW-1 1000 2595 NW 100 No Kitchen/Living EW-1 3300 SE No 100 2595 Kitchen/Living EW-1 2800 2595 SW No 3300 Kitchen/Living EW-1 3300 SE No 2900 2595 Bedroom 1 EW-1 4095 1770 NE No 0 Bedroom 1 EW-2 4095 680 NE No 100 Bedroom 1 EW-1 2795 1770 NW No 0 Bedroom 1 EW-2 2795 680 NW No 1700 WIR 1 EW-1 900 1770 SW No 0 WIR 1 EW-2 900 680 SW No 1300 WIR 1 EW-1 1495 1770 NW No 0 EW-2 WIR 1 1495 680 NW No 1700 Ensuite 1 EW-1 1690 1770 No 0 NE Ensuite 1 NE No 100 EW-2 1690 680 3690 1770 NE No 0 Bedroom 2 EW-1 Bedroom 2 680 NE No 100 EW-2 3690 0 Bedroom 3 EW-1 3595 1770 NE No Bedroom 3 EW-2 680 NE No 100 3595 Bedroom 3 SE No 0 EW-1 2795 1770 Bedroom 3 EW-2 2795 680 SE No 600 Bedroom 4 EW-1 2795 1770 SE No 0 Bedroom 4 680 SE No 600 EW-2 2795 **Upper Hall** NW EW-1 1295 1770 No 0 **Upper Hall** EW-2 1295 680 NW No 1600

Internal wall type			
Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	140.0	No insulation	No
IW-2 - AAC, plaster on studs	73.0	Bulk Insulation both sides of shaft liner R2	No

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramio
Kitchen/Living	Waffle pod slab 300 mm 100mm	37.4	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Loun	ge	10.6		No Insulation	

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Certificate number: 0004072898 Certificate Date: 01 Aug 2019 ★ Star rating:



## **Building features continued**

	Timber Above Plasterboard 19mm				Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	1.9		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	4.0		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	2.7		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.7		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Living	Timber Above Plasterboard 19mm	8.9		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	8.4		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
WC/Kitchen/Living	Timber Above Plasterboard 19mm	1.6		No Insulation	Ceramic Tiles 8mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	5.1		No Insulation	Ceramic Tiles 8mm
Upper Hall/PDR	Timber Above Plasterboard 19mm	0.9		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	4.5		No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type			
Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au







6.3

Building	features	continued
1440		DI ( I

WC	Plasterboard	Bulk Insulation Yes R3.5
Bath	Plasterboard	Bulk Insulation Yes R3.5
Upper Hall	Plasterboard	Bulk Insulation Yes R3.5

## **Ceiling penetrations**

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
WC	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed

## **Ceiling fans**

Number	Diameter (mm)
	Number

Roof type				
Construction	Added insulation	Roof colour		
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark		

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Additional information	

## **Explanatory notes**

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While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

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All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

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#### **Disclaimer**

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

#### **Contact**

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

Certificate number: 0004072906 Certificate Date: 01 Aug 2019 ★ Star rating: 6.3

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid.

NATIONWIDE HOUSE

#### Assessor details

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

## Overview

#### **Dwelling details**

Street: Wianamatta Parkway

Suburb: Jordan Springs

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 1A

NatHERS

Lot/DP climate zone: 28

number: **3307/0** Exposure: **Suburban** 

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

Corrugated Iron

**Suspended Timber Floor** 

Insulation: R2.0 wall insulation

R3.5 ceiling insulation
No floor insulation

Glazing: BRD-112-01 A ESS Awning 52 SG

4mmClr

#### Net floor area (m<sup>2</sup>)

 Conditioned:
 128.0

 Unconditioned:
 3.0

 Garage:
 0.0

 TOTAL:
 131.0

# Annual thermal performance loads (MJ/m²)

Heating: 49.2 Cooling: 32.8 TOTAL: 82.0

#### Plan documents

Plan ref/date: Wianamatta Parkway

Prepared by: **0** 

The more stars the more energy efficient

NATIONWIDE HOUSE ENERGY RATING SCHEME

Predicted annual energy load for heating and cooling based on standard occupancy assumptions

82.0 MJ/m²

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

#### Ceiling penetrations

(see following pages for details)

Sealed: 4

Unsealed: 0
TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

## Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8841667

Certificate number: 0004072906 Certificate Date: 01 Aug 2019 ★ Star rating: 6.3



## **Building features**

Window type and performance value							
Window ID	Window type	U-value	SHGC				
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67				
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74				
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78				

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Laundry	BRD-033-01 A	n/a	2100	1470	SW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	NE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1570	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	SW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	SW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading

Roof windo	w and skylig	ht type and performanc	e value			
ID	Window	type			U-value	SHGC
None Presen	-					
Roof windo	w and skylig	ht schedule				
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Presen	t					

External wa	all type					
ID	Wall type		Insulation		W	all wrap or fo
EW-1	AAC cavity pa	anel on battens	Anti-glare foil	with bulk no gap	R2 Y	es
EW-2	Fibro Cavity F	Panel Direct Fix	Anti-glare foil	with bulk no gap	R2 Y	es
External wa	all schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	1995	2595	NW	No	1200
Lounge	EW-1	4095	2595	SW	No	100
Laundry	EW-1	1890	2595	SW	No	100

2595

NW

No

2295

1200

EW-1

Lounge

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Certificate number: 0004072906 Certificate Date: 01 Aug 2019 ★ Star rating:



Building featu	res continue	ed				
Lounge	EW-1	900	2595	NE	No	1300
Lounge	EW-1	1300	2595	NW	No	1000
Kitchen/Living	EW-1	3300	2595	SE	No	2900
Kitchen/Living	EW-1	2800	2595	NE	No	3300
Kitchen/Living	EW-1	3300	2595	SE	No	100
Kitchen/Living	EW-1	1000	2595	NW	No	100
Bedroom 1	EW-1	2795	1770	NW	No	0
Bedroom 1	EW-2	2795	680	NW	No	1700
Bedroom 1	EW-1	4095	1770	SW	No	0
Bedroom 1	EW-2	4095	680	SW	No	100
WIR 1	EW-1	1495	1770	NW	No	0
WIR 1	EW-2	1495	680	NW	No	1700
WIR 1	EW-1	900	1770	NE	No	0
WIR 1	EW-2	900	680	NE	No	1300
Ensuite 1	EW-1	1690	1770	SW	No	0
Ensuite 1	EW-2	1690	680	SW	No	100
Bedroom 2	EW-1	3690	1770	SW	No	0
Bedroom 2	EW-2	3690	680	SW	No	100
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	600
Bedroom 3	EW-1	3595	1770	SW	No	0
Bedroom 3	EW-2	3595	680	SW	No	100
Bedroom 4	EW-1	2795	1770	SE	No	0
Bedroom 4	EW-2	2795	680	SE	No	600
Upper Hall	EW-1	1295	1770	NW	No	0
Upper Hall	EW-2	1295	680	NW	No	1600

Internal wall type			
Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	140.0	No insulation	No
IW-2 - AAC, plaster on studs	73.0	Bulk Insulation both sides of shaft liner R2	No

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	37.4	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Loun	ge	10.6		No Insulation	

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Certificate number: 0004072906 Certificate Date: 01 Aug 2019 ★ Star rating:



# **Building features continued**

	Timber Above Plasterboard 19mm				Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	2.0		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	4.0		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	2.7		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.7		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Living	Timber Above Plasterboard 19mm	8.9		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	8.4		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
WC/Kitchen/Living	Timber Above Plasterboard 19mm	1.6		No Insulation	Ceramic Tiles 8mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	5.1		No Insulation	Ceramic Tiles 8mm
Upper Hall/PDR	Timber Above Plasterboard 19mm	0.9		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	4.5		No Insulation	Carpet+Rubber Underlay 18mm

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes

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# **Building features continued**

WC	Plasterboard	Bulk Insulation Yes R3.5
Bath	Plasterboard	Bulk Insulation Yes R3.5
Upper Hall	Plasterboard	Bulk Insulation Yes R3.5

# **Ceiling penetrations**

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
WC	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed

## **Ceiling fans**

Location	Number	Diameter (mm)	
None Present			

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

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Additional information	

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Certificate number: 0004072971 Certificate Date: 01 Aug 2019 ★ Star rating: 6.8

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid



#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

#### Overview

#### **Dwelling details**

Street: **Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28

Lot/DP

number: 3308/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

> R3.5 ceiling insulation No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 121.0 Unconditioned: 3.0 Garage: 0.0 TOTAL: 124.0

# **Annual thermal** performance loads

Heating: 41.1 Cooling: 30.7

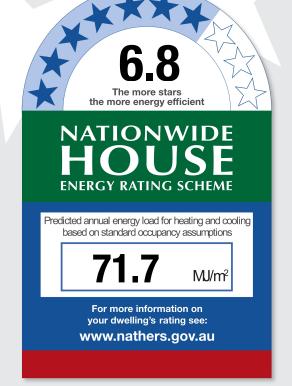
#### Plan documents

Plan ref/date: **Wianamatta Parkway** 

Prepared by:

# (MJ/m<sup>2</sup>)

TOTAL: 71.7



#### Ceiling penetrations

(see following pages for details)

Sealed:

Unsealed: 0 TOTAL:\*\* 3

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

## Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



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Certificate number: 0004072971 Certificate Date: 01 Aug 2019 ★ Star rating:



# **Building features**

Window type and performance value					
Window ID	Window type	U-value	SHGC		
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67		
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78		
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74		

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	NE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1210	SE	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading

ID	Window t	уре			U-value	SHGC
None Present						
Roof window	w and skylight	schedule				
Location	ID	Roof	Area (m²)	Orientation	<b>Outdoor shade</b>	Indoor

External wall type					
ID	Wall type	Insulation	Wall wrap or foil		
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes		
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes		

#### **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	1995	2595	NW	No	1200
Lounge	EW-1	900	2595	SW	No	0
Lounge	EW-1	2295	2595	NW	No	1200
Lounge	EW-1	900	2595	NE	No	1300
Lounge	EW-1	1300	2595	NW	No	1000
Kitchen/Living	EW-1	3300	2595	SE	No	2900
Kitchen/Living	EW-1	2800	2595	NE	No	3300

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004072971 Certificate Date: 01 Aug 2019 ★ Star rating:



6.8

Kitchen/Living	EW-1	2300	2595	SE	No	100
Kitchen/Living	EW-1	2800	2595	SW	No	0
WIR 1	EW-1	1495	1770	NW	No	0
WIR 1	EW-2	1495	680	NW	No	1700
WIR 1	EW-1	900	1770	NE	No	0
WIR 1	EW-2	900	680	NE	No	1300
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	600
Bedroom 3	EW-2	3895	680	SW	No	0
Bedroom 4	EW-1	2795	1770	SE	No	0
Bedroom 4	EW-2	2795	680	SE	No	600
Upper Hall	EW-1	1295	1770	NW	No	0
Upper Hall	EW-2	1295	680	NW	No	1600
Bedroom 1	EW-1	900	2450	SW	No	0
Bedroom 1	EW-1	2795	1770	NW	No	0
Bedroom 1	EW-2	2795	680	NW	No	1700

Internal wall type						
Area (m²)	Insulation	Wall wrap or foil				
129.0	No insulation	No				
106.0	Bulk Insulation both sides of shaft liner R2	No				
	129.0	129.0 No insulation				

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	30.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	5.2		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	9.3		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	3.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.6	Open	No Insulation	Carpet+Rubber Underlay 18mm

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004072971 Certificate Date: 01 Aug 2019 ★ Star rating: 6.8



#### **Building features continued** Upper Hall/PDR Timber Above Plasterboard 0.7 No Insulation Carpet+Rubber Underlay 18mm Timber Above Plasterboard Carpet+Rubber Upper Hall/Lounge 8.3 No Insulation 19mm Underlay 18mm Timber Above Plasterboard Carpet+Rubber Upper 6.6 No Insulation Hall/Kitchen/Living 19mm Underlay 18mm Timber Above Plasterboard Carpet+Rubber WIL/Kitchen/Living 2.8 No Insulation Underlay 18mm 19mm Bath/Kitchen/Living Timber Above Plasterboard 7.0 No Insulation **Ceramic Tiles** 19mm 8mm **Timber Above Plasterboard** 3.0 No Insulation **Ceramic Tiles** Ensuite 1/Laundry 8mm 19mm Ensuite 1/PDR Timber Above Plasterboard 0.9 No Insulation Ceramic Tiles 19mm 8mm **Ensuite** Timber Above Plasterboard 0.5 No Insulation Ceramic Tiles 1/Kitchen/Living 19mm 8mm Bedroom 1/Lounge Timber Above Plasterboard No Insulation 10.4 Carpet+Rubber 19mm Underlay 18mm Timber Above Plasterboard Bedroom 1/PDR 1.1 No Insulation Carpet+Rubber Underlay 18mm 19mm Bedroom 1/Lounge Timber Above Plasterboard Carpet+Rubber 0.7 No Insulation Underlay 18mm 19mm

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes
Upper Hall	Plasterboard	Bulk Insulation R3.5	Yes
WIL	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations				
Location	Number	Туре	Diameter (mm) Sealed/unsealed	

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004072971 Certificate Date:

01 Aug 2019

★ Star rating:



Building features continued						
PDR	1	Exhaust Fans	300	Sealed		
Bath	1	Exhaust Fans	300	Sealed		
Ensuite 1	1	Exhaust Fans	300	Sealed		

Ceiling fans		
Location	Number	Diameter (mm)
None Present		

Roof type	
Construction	Added Roof colour insulation
Corrugated Iron	Bulk, Reflective Dark Side Down, No Air Gap Above R1.3

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au



Additional information	

# **Explanatory notes**

#### **About this report**

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

#### **General Information**

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

#### **Accredited Assessors**

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, 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. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

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#### **Disclaimer**

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

#### **Contact**

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

## Nationwide House Energy Rating Scheme\* — Multiple-dwelling summary

Certificate number: **0004074020** Certificate Date: **01 Aug 2019** ★ Average Star rating: **6.1** 



#### **Assessor details**

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant
Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

## **Dwelling details**

Street: Wianamatta Parkway

Suburb: Jordan Springs

State: **NSW** Postcode: **2747** 

Scan to access this certificate online and confirm this is valid.





# **Summary of all dwellings**

#### **Certificate Details Dwelling/Unit** Star **Certificate number Heating load** Cooling load Total load number Rating 0004072963-01 30.7 71.7 41.1 6.8 0004073961 52.0 53.3 Studio 105.3 5.3

Certificate number: 0004073961 Certificate Date: 01 Aug 2019 ★ Star rating: 5.3

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan

then this certificate is not valid.

#### Assessor details

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

#### Overview

#### **Dwelling details**

Street: Unit Studio, Wianamatta Parkway

Suburb: Jordan Springs

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 1A

NatHERS

Lot/DP climate zone: 28

number: **3308/0** Exposure: **Suburban** 

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

Corrugated Iron

Suspended Timber Floor

Insulation: R2.0 wall insulation

R3.5 ceiling insulation
No floor insulation

Glazing: BRD-112-01 A ESS Awning 52 SG

4mmClr

#### Net floor area (m<sup>2</sup>)

 Conditioned:
 39.0

 Unconditioned:
 31.0

 Garage:
 31.0

 TOTAL:
 70.0

# Annual thermal performance loads (MJ/m²)

Heating: 52.0 Cooling: 53.3 TOTAL: 105.3

#### Plan documents

Plan ref/date: Wianamatta Parkway

Prepared by: **0** 

The more stars the more energy efficient

NATIONWIDE HOUSE ENERGY RATING SCHEME

Predicted annual energy load for heating and cooling based on standard occupancy assumptions

105.3 MJ/m²

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

#### Ceiling penetrations

(see following pages for details)

Sealed: 1

TOTAL:\*\*

Unsealed:

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been

taken into account with the rating.

Principle downlight type: Unknown

0

# Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



Certificate number: 0004073961 Certificate Date: 01 Aug 2019 ★ Star rating: 5.3



# **Building features**

Window type and performance value					
Window ID	Window type	U-value	SHGC		
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67		
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78		

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Stairs	BRD-063-01 A	n/a	600	1800	NW	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	No insulation	No
EW-2	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-3	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage	EW-1	5600	2595	SE	No	100
Garage	EW-1	5495	2595	NE	No	100
Entry/Stairs	EW-2	5600	2595	NW	No	100
Entry/Stairs	EW-2	1095	2595	NE	No	100
Bedroom 1	EW-2	2895	1770	SE	No	0
Bedroom 1	EW-3	2895	680	SE	No	600
Bedroom 1	EW-2	3595	2450	NE	No	100
PDR	EW-2	995	1770	NW	No	0
PDR	EW-3	995	680	NW	No	600
PDR	EW-2	2995	2450	NE	No	100
Kitchen/Living	EW-2	2695	1770	SE	No	0
Kitchen/Living	EW-3	2695	680	SE	No	600
Kitchen/Living	EW-2	5495	2450	SW	No	100
Stairs	EW-2	1095	2450	SW	No	100
Stairs	EW-2	4595	1770	NW	No	0
Stairs	EW-3	4595	680	NW	No	600

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004073961 Certificate Date: 01 Aug 2019 ★ Star rating:



# **Building features continued**

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	17.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	15.0	Bulk Insulation, No Air Gap R2	No
IW-3 - Cavity wall, direct fix plasterboard, single gap	35.0	No insulation	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Garage	Waffle pod slab 225 mm 100mm	30.5	None	Waffle Pod 225mm	Bare
Entry/Stairs	Waffle pod slab 300 mm 100mm	5.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Garage	Timber Above Plasterboard 19mm	9.5		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
PDR/Garage	Timber Above Plasterboard 19mm	3.2		Bulk Insulation R2	Ceramic Tiles 8mm
PDR/Entry/Stairs	Timber Above Plasterboard 19mm	1.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Gar age	Timber Above Plasterboard 19mm	17.1		Bulk Insulation R2	Ceramic Tiles 8mm
Stairs/Entry/Stairs	Timber Above Plasterboard 19mm	4.8		No Insulation	Ceramic Tiles 8mm

Ceiling type				
Location	Construction	Added insulation	Roof space above	
Garage	Timber Above Plasterboard	Bulk Insulation R2	No	
Entry/Stairs	Timber Above Plasterboard	No Insulation	No	
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes	
PDR	Plasterboard	Bulk Insulation R3.5	Yes	
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes	
Stairs	Plasterboard	Bulk Insulation R3.5	Yes	

Ceiling penetrations						
Location	Number	Туре	Diameter (mm)	Sealed/unsealed		
PDR	1	Exhaust Fans	300	Sealed		
	•					

## **Ceiling fans**

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004073961** Certificate Date:

01 Aug 2019

★ Star rating:

NATIONWIDE HOUSE ENERGY RATING SCHEME

# **Building features continued**

Location	Number	Diameter (mm)	
None Present			

Roof type			
Construction	Added Roof colour insulation		
Corrugated Iron	Bulk, Reflective Dark Side Down, No Air Gap Above R1.3		



Additional information	

# **Explanatory notes**

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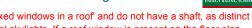
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#### **Contact**

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Certificate number: **0004073029-01** Certificate Date: 01 Aug 2019 ★ Star rating: 6.9



BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid

#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

#### Overview

#### **Dwelling details**

Street: **Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **1A** Type:

**New Dwelling** 

**NatHERS** 

climate zone: 28 Lot/DP

number: 3309/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

> R3.5 ceiling insulation No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 91.0 Unconditioned: 2.0 Garage: 0.0 TOTAL: 93.0

#### **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 38.3 Cooling: 31.4 TOTAL: 69.6

#### Plan documents

Plan ref/date: **Wianamatta Parkway** 

Prepared by:

# Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

the more energy efficient NATIONWIDE Predicted annual energy load for heating and cooling based on standard occupancy assumptions MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

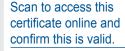
#### Ceiling penetrations

Sealed:

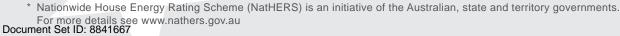
Unsealed: 0 TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling (see following pages for details) penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown







Certificate number: 0004073029-01 Certificate Date: 01 Aug 2

**01 Aug 2019** ★ Star rating:



# **Building features**

Window type and performance value						
Window ID	Window type	U-value	SHGC			
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78			
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67			
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74			

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-063-01 A	n/a	1500	600	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	SE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading

NOO! WIIIGO	w and Skyligh	t type and performanc	e value			
ID	Window	type			U-value	SHGC
None Presen	it					
Roof windo	w and skyligh	t schedule				
		D (	A 400 (m2)	Orientation	Outdoon abada	The state of
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	shade/diffuser

External wall type					
ID	Wall type	Insulation	Wall wrap or foil		
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes		
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes		

#### **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	1300	2595	NW	No	1000
Living/Entry	EW-1	900	2595	SW	No	1300
Living/Entry	EW-1	3300	2595	NW	No	1200
Kitchen/Dining	EW-1	4600	2595	SE	No	3000
Bedroom 1	EW-1	900	1770	SW	No	0
Bedroom 1	EW-2	900	680	SW	No	1300
Bedroom 1	EW-1	3300	1770	NW	No	0
Bedroom 1	EW-2	3300	680	NW	No	1700
Bedroom 2	EW-1	1000	1770	SE	No	0
Bedroom 2	EW-2	1000	680	SE	No	100

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004073029-01** Certificate Date: **01 Aug 2019** 

★ Star rating:



Building featu	ures continue	ed .				
Hall	EW-1	1295	1770	NW	No	0
Hall	EW-2	1295	680	NW	No	1500
Bedroom 3	EW-1	2795	1770	NE	No	0
Bedroom 3	EW-2	2795	680	NE	No	100
Bedroom 3	EW-1	3600	1770	SE	No	0
Bedroom 3	EW-2	3600	680	SE	No	600

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	88.0	No insulation	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	12.8		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	2.9		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.4		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	0.8		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	9.7		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.4		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	6.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type			
Location	Construction	Added insulation	Roof space above
Living/Entry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004073029-01** Certificate Date:

01 Aug 2019





# **Building features continued**

Laundry	Timber Above Plasterboard	No Insulation	No
Kitchen/Dining	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Shower	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations					
Number	Туре	Diameter (mm)	Sealed/unsealed		
1	Exhaust Fans	300	Sealed		
1	Exhaust Fans	300	Sealed		
1	Exhaust Fans	300	Sealed		
1	Exhaust Fans	300	Sealed		
		NumberType1Exhaust Fans1Exhaust Fans1Exhaust Fans	Number         Type         Diameter (mm)           1         Exhaust Fans         300           1         Exhaust Fans         300           1         Exhaust Fans         300		

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au



Additional information	

# **Explanatory notes**

#### **About this report**

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

#### **General Information**

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

#### **Accredited Assessors**

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, 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. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under 'assessor details'. You can also find a range of information about accredited assessors on the AAO websites.

#### **Disclaimer**

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

#### **Contact**

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

Certificate number: 0004073045 Certificate Date: 01 Aug 2019 ★ Star rating: 6.9

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan

then this certificate is not valid

#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

#### Overview

#### **Dwelling details**

Street: **Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28 Lot/DP

number: 3310/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

> R3.5 ceiling insulation No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 91.0 Unconditioned: 2.0 Garage: 0.0 TOTAL: 93.0

#### **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 38.7 Cooling: 30.3 TOTAL: 69.0

#### Plan documents

Plan ref/date: **Wianamatta Parkway** 

Prepared by:

# the more energy efficient NATIONWIDE Predicted annual energy load for heating and cooling based on standard occupancy assumptions MJ/m<sup>2</sup> For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed:

Unsealed: 0 TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

## Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8841667

Certificate number: **0004073045** Certificate Date: **01 Aug 2019** ★ Star rating:



# **Building features**

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	SE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading

Roof windo	w and skyligl	nt type and performanc	e value			
None Presen	Window	type			U-value	SHGC
	· w and skyligl	nt schedule				
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Presen	t					

External wall type					
ID	Wall type	Insulation	Wall wrap or foil		
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes		
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes		

#### **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	3300	2595	NW	No	1200
Living/Entry	EW-1	900	2595	NE	No	1300
Living/Entry	EW-1	1300	2595	NW	No	1000
Kitchen/Dining	EW-1	4600	2595	SE	No	3000
Bedroom 1	EW-1	3300	1770	NW	No	0
Bedroom 1	EW-2	3300	680	NW	No	1700
Bedroom 1	EW-1	900	1770	NE	No	0
Bedroom 1	EW-2	900	680	NE	No	1300
Bedroom 2	EW-1	1000	1770	SE	No	0
Bedroom 2	EW-2	1000	680	SE	No	100

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Certificate number: 0004073045 Certificate Date: 01 Aug 2019 ★ Star rating: 6.9



	ures continue		4770	NIVAZ	Ne	0
Hall	EW-1	1295	1770	NW	No	U
Hall	EW-2	1295	680	NW	No	1500
Bedroom 3	EW-1	3600	1770	SE	No	0
Bedroom 3	EW-2	3600	680	SE	No	600
Bedroom 3	EW-1	2795	1770	SW	No	0
Bedroom 3	EW-2	2795	680	SW	No	100

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No		
IW-2 - Cavity wall, direct fix plasterboard, single gap	87.0	No insulation	No		

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	11.4		No Insulation	Carpet+Rubbe Underlay 18mr
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	3.4		No Insulation	Ceramic Tiles 8mm
Shower/Living/Entry	Timber Above Plasterboard 19mm	0.5		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	2.3		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubbe Underlay 18mn
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.6		No Insulation	Carpet+Rubbe Underlay 18mr
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	7.6		No Insulation	Carpet+Rubbe Underlay 18mr
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubbe Underlay 18mr

Ceiling type						
Location	Construction	Added insulation	Roof space above			
Living/Entry	Timber Above Plasterboard	No Insulation	No			
PDR	Timber Above Plasterboard	No Insulation	No			

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au



01 Aug 2019





# **Building features continued**

Laundry	Timber Above Plasterboard	No Insulation	Vo
Kitchen/Dining	Timber Above Plasterboard	No Insulation	Vo
Bedroom 1	Plasterboard	Bulk Insulation `R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation `R3.5	Yes
Shower	Plasterboard	Bulk Insulation `R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation `R3.5	Yes
Hall	Plasterboard	Bulk Insulation `R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation \\R3.5	Yes

Ceiling penetrations					
Location	Number	Туре	Diameter (mm)	Sealed/unsealed	
PDR	1	Exhaust Fans	300	Sealed	
Laundry	1	Exhaust Fans	300	Sealed	
Ensuite 1	1	Exhaust Fans	300	Sealed	
Shower	1	Exhaust Fans	300	Sealed	

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

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Additional information	

# **Explanatory notes**

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#### **Contact**

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Certificate number: 0004073052 Certificate Date: 01 Aug 2019 ★ Star rating: 6.7

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid.



#### Assessor details

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

#### Overview

Lot/DP

#### **Dwelling details**

Street: Wianamatta Parkway

Suburb: Jordan Springs

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 1A

NatHERS

climate zone: 28

number: **3311/0** Exposure: **Suburban** 

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

Corrugated Iron

Suspended Timber Floor

Insulation: R2.0 wall insulation

R3.5 ceiling insulation No floor insulation

Glazing: BRD-112-01 A ESS Awning 52 SG

4mmClr

#### Net floor area (m<sup>2</sup>)

 Conditioned:
 121.0

 Unconditioned:
 3.0

 Garage:
 0.0

 TOTAL:
 124.0

# Annual thermal performance loads (MJ/m²)

Heating: **42.7**Cooling: **30.9**TOTAL: **73.6** 

#### Plan documents

Plan ref/date: Wianamatta Parkway

Prepared by: **0** 

The more stars the more energy efficient

NATIONWIDE HOUSE ENERGY RATING SCHEME

Predicted annual energy load for heating and cooling based on standard occupancy assumptions

73.6 MJ/m²

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

#### Ceiling penetrations

(see following pages for details)

Sealed: 3 Unsealed: 0

Unsealed: 0
TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

# Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8841667

Certificate number: 0004073052 Certificate Date: 01 Aug 2019 ★ Star rating: 6.



# **Building features**

Window type and performance value					
Window type	U-value	SHGC			
BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67			
BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78			
BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74			
	BRD-112-01 A ESS Awning 52 SG 4mmClr BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	BRD-112-01 A ESS Awning 52 SG 4mmClr         6.5           BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr         6.0			

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1210	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	SW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading

ID	Window t	уре			U-value	SHGC
None Present						
Roof window	w and skylight	schedule				
Location	ID	Roof	Area (m²)	Orientation	<b>Outdoor shade</b>	Indoor

vall type		
Wall type	Insulation	Wall wrap or foil
AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes
	Wall type  AAC cavity panel on battens	Wall type Insulation  AAC cavity panel on battens Anti-glare foil with bulk no gap R2

# **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	900	2595	NE	No	0
Lounge	EW-1	1995	2595	NW	No	1200
Lounge	EW-1	1300	2595	NW	No	1000
Lounge	EW-1	900	2595	SW	No	1300
Lounge	EW-1	2295	2595	NW	No	1200
Kitchen/Living	EW-1	2800	2595	NE	No	0
Kitchen/Living	EW-1	2300	2595	SE	No	100

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004073052 Certificate Date: 01 Aug 2019 ★ Star rating:



Kitchen/Living	EW-1	2800	2595	SW	No	3300
Kitchen/Living	EW-1	3300	2595	SE	No	2900
WIR 1	EW-1	900	1770	SW	No	0
WIR 1	EW-2	900	680	SW	No	1300
WIR 1	EW-1	1495	1770	NW	No	0
WIR 1	EW-2	1495	680	NW	No	1700
Bedroom 3	EW-2	3895	680	NE	No	0
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	600
Bedroom 4	EW-1	2795	1770	SE	No	0
Bedroom 4	EW-2	2795	680	SE	No	600
Upper Hall	EW-1	1295	1770	NW	No	0
Upper Hall	EW-2	1295	680	NW	No	1600
Bedroom 1	EW-1	2795	1770	NW	No	0
Bedroom 1	EW-2	2795	680	NW	No	1700
Bedroom 1	EW-1	900	2450	NE	No	0

Internal wall type				
Wall type	Area (m²)	Insulation	Wall wrap or foil	
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No	
IW-2 - Cavity wall, direct fix plasterboard, single gap	129.0	No insulation	No	

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	30.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	5.2		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	9.3		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	3.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.6	Open	No Insulation	Carpet+Rubber Underlay 18mm

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004073052 Certificate Date: 01 Aug 2019 ★ Star rating:



Building features	s continued			
Upper Hall/PDR	Timber Above Plasterboard 19mm	0.7	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.3	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	6.6	No Insulation	Carpet+Rubber Underlay 18mm
WIL/Kitchen/Living	Timber Above Plasterboard 19mm	2.8	No Insulation	Carpet+Rubber Underlay 18mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	7.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	3.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	0.9	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Kitchen/Living	Timber Above Plasterboard 19mm	0.5	No Insulation	Ceramic Tiles 8mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	10.5	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/PDR	Timber Above Plasterboard 19mm	1.1	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	0.6	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type			
Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes
Upper Hall	Plasterboard	Bulk Insulation R3.5	Yes
WIL	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling pene	etrations		
Location	Number	Туре	Diameter (mm) Sealed/unsealed

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au







# **Building features continued**

Bath1Exhaust Fans300SealedEnsuite 11Exhaust Fans300Sealed	PDR	1	Exhaust Fans	300	Sealed	
Ensuite 1 1 Exhaust Fans 300 Sealed	Bath	1	Exhaust Fans	300	Sealed	
	Ensuite 1	1	Exhaust Fans	300	Sealed	

# **Ceiling fans**

Location	Number	Diameter (mm)	
None Present			

Construction	Added Roof co insulation
Corrugated Iron	Bulk, Reflective Dark Side Down, No Air Gap Above R1.3



Additional information	

# **Explanatory notes**

#### **About this report**

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#### **General Information**

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

#### **Accredited Assessors**

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#### **Disclaimer**

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#### **Contact**

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

## Nationwide House Energy Rating Scheme\* — Multiple-dwelling summary

Certificate number: **0004073100** Certificate Date: **01 Aug 2019** ★ Average Star rating: **6.0** 



#### **Assessor details**

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant
Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

## **Dwelling details**

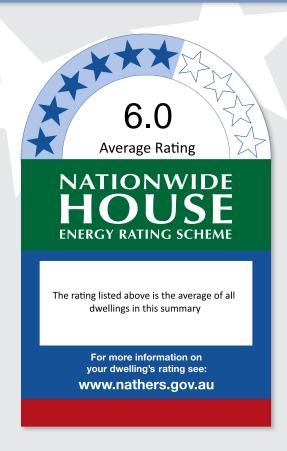
Street: Wianamatta Parkway

Suburb: Jordan Springs

State: **NSW** Postcode: **2747** 

Scan to access this certificate online and confirm this is valid.





# **Summary of all dwellings**

Certificate Details					
Certificate number	Dwelling/Unit number	Heating load	Cooling load	Total load	Star Rating
0004073052		42.7	30.9	73.6	6.7
0004073060	Studio	53.5	52.8	106.3	5.3

Certificate number: 0004073060 Certificate Date: 01 Aug 2019 ★ Star rating: 5.3

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid.



#### Assessor details

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

#### Overview

#### **Dwelling details**

Street: Unit Studio, Wianamatta Parkway

Suburb: Jordan Springs

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 1A

NatHERS

Lot/DP climate zone: 28

number: **3310/0** Exposure: **Suburban** 

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

Corrugated Iron

Suspended Timber Floor

Insulation: R2.0 wall insulation

R3.5 ceiling insulation

No floor insulation

Glazing: BRD-112-01 A ESS Awning 52 SG

4mmClr

#### Net floor area (m<sup>2</sup>)

 Conditioned:
 39.0

 Unconditioned:
 31.0

 Garage:
 31.0

 TOTAL:
 70.0

# Annual thermal performance loads (MJ/m²)

Heating: **53.5**Cooling: **52.8**TOTAL: **106.3** 

#### Plan documents

Plan ref/date: Wianamatta Parkway

Prepared by: **0** 

# The more stars the more energy efficient NATIONWIDE HOUSE ENERGY RATING SCHEME Predicted annual energy load for heating and cooling based on standard occupancy assumptions 106.3 MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed: 1

Unsealed: TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been

taken into account with the rating.

Principle downlight type: Unknown

0

# Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8841667

Certificate number: 0004073060 Certificate Date: 01 Aug 2019 ★ Star rating:



5.3

# **Building features**

window type and performance value			
Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Stairs	BRD-063-01 A	n/a	600	1800	NW	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	No insulation	No
EW-2	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-3	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage	EW-1	5600	2595	SE	No	100
Garage	EW-1	5495	2595	SW	No	100
Entry/Stairs	EW-2	1095	2595	SW	No	100
Entry/Stairs	EW-2	5600	2595	NW	No	100
Bedroom 1	EW-2	2895	1770	SE	No	0
Bedroom 1	EW-3	2895	680	SE	No	600
Bedroom 1	EW-2	3595	2450	NE	No	100
PDR	EW-2	995	1770	NW	No	0
PDR	EW-3	995	680	NW	No	600
PDR	EW-2	2995	2450	NE	No	100
Kitchen/Living	EW-2	2695	1770	SE	No	0
Kitchen/Living	EW-3	2695	680	SE	No	600
Kitchen/Living	EW-2	5495	2450	SW	No	100
Stairs	EW-2	1095	2450	SW	No	100
Stairs	EW-2	4595	1770	NW	No	0
Stairs	EW-3	4595	680	NW	No	600

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Certificate number: 0004073060 Certificate Date: 01 Aug 2019 ★ Star rating:



# **Building features continued**

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	15.0	Bulk Insulation, No Air Gap R2	No
IW-2 - AAC, plaster on studs	17.0	Bulk Insulation both sides of shaft liner R2	No
IW-3 - Cavity wall, direct fix plasterboard, single gap	35.0	No insulation	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Garage	Waffle pod slab 225 mm 100mm	30.5	None	Waffle Pod 225mm	Bare
Entry/Stairs	Waffle pod slab 300 mm 100mm	5.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Garage	Timber Above Plasterboard 19mm	9.5		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
PDR/Garage	Timber Above Plasterboard 19mm	3.2		Bulk Insulation R2	Ceramic Tiles 8mm
PDR/Entry/Stairs	Timber Above Plasterboard 19mm	1.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Gar age	Timber Above Plasterboard 19mm	17.1		Bulk Insulation R2	Ceramic Tiles 8mm
Stairs/Entry/Stairs	Timber Above Plasterboard 19mm	4.8		No Insulation	Ceramic Tiles 8mm

Location	Construction	Added	Roof space
0	Tirebox Above Diseases and	insulation	above
Garage	Timber Above Plasterboard	Bulk Insulation R2	No
Entry/Stairs	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
PDR	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Stairs	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations				
Location	Number	Туре	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed

## **Ceiling fans**

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004073060** 

Certificate Date:

01 Aug 2019

★ Star rating:

5.3 \*

# **Building features continued**

Location	Number	Diameter (mm)
None Present		

Roof type			
Construction	Added Roof colour insulation		
Corrugated Iron	Bulk, Reflective Dark Side Down, No Air Gap Above R1.3		



Additional information	

# **Explanatory notes**

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# **Contact**

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Certificate number: 0004073110 Certificate Date: 01 Aug 2019 ★ Star rating: 6.1

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid.

NATIONWIDE HOUSE ENERGY RATING SCHEME

#### Assessor details

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

# Overview

# **Dwelling details**

Street: Wianamatta Parkway

Suburb: Jordan Springs

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 1A

NatHERS

Lot/DP climate zone: 28

number: **3312/0** Exposure: **Suburban** 

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

Corrugated Iron

Suspended Timber Floor

Insulation: R2.0 wall insulation

R3.5 ceiling insulation
No floor insulation

Glazing: BRD-112-01 A ESS Awning 52 SG

4mmClr

#### Net floor area (m<sup>2</sup>)

 Conditioned:
 128.0

 Unconditioned:
 3.0

 Garage:
 0.0

 TOTAL:
 131.0

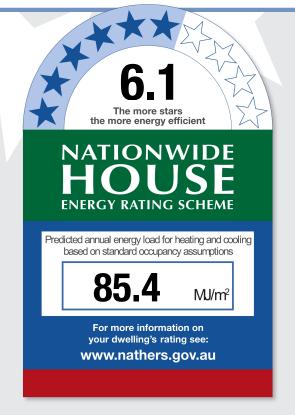
# Annual thermal performance loads (MJ/m²)

Heating: 45.7 Cooling: 39.7 TOTAL: 85.4

#### Plan documents

Plan ref/date: Wianamatta Parkway

Prepared by: **0** 



#### Ceiling penetrations

(see following pages for details)

Sealed: 4

Unsealed: 0

TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

# Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

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Certificate number: **0004073110** Certificate Date: **01 Aug 2019** ★ Star rating:



# **Building features**

Window type and performance value				
Window ID	Window type	U-value	SHGC	
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67	
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74	
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78	

## Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Laundry	BRD-033-01 A	n/a	2100	1470	NE	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1570	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	SW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading

Roof windo	w and skylig	ht type and performanc	e value			
ID None Presen	Window	/ type			U-value	SHGC
	w and skylig	ht schedule				
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Presen	t		•			

External wa	ll type					
ID	Wall type		Insulation		W	all wrap or fo
EW-1	AAC cavity pa	anel on battens	Anti-glare foil	with bulk no gap	R2 Y	es
EW-2	Fibro Cavity F	Panel Direct Fix	Anti-glare foil	with bulk no gap	R2 Y	es
External wa	II schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	4095	2595	NE	No	100
Lounge	EW-1	1995	2595	NW	No	1200
Laundry	EW-1	1890	2595	NE	No	100
Lounge	EW-1	1300	2595	NW	No	1000

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004073110 Certificate Date: 01 Aug 2019 ★ Star rating: 6.1



#### **Building features continued** EW-1 900 2595 SW No 1300 Lounge Lounge EW-1 2295 2595 NW No 1200 Kitchen/Living EW-1 1000 2595 NW 100 No Kitchen/Living EW-1 7100 NE No 100 2595 Kitchen/Living EW-1 3300 2595 SE No 100 EW-1 2800 SW No 3300 Kitchen/Living 2595 EW-1 2900 Kitchen/Living 3300 2595 SE No Bedroom 1 EW-1 4095 1770 NE No 0 Bedroom 1 EW-2 4095 680 NE No 100 Bedroom 1 EW-1 2795 1770 NW No 0 1700 Bedroom 1 EW-2 2795 680 NW No WIR 1 EW-1 900 1770 SW No 0 WIR 1 EW-2 900 680 SW No 1300 WIR 1 EW-1 1495 1770 NW No 0 WIR 1 EW-2 1495 680 NW No 1700 Ensuite 1 EW-1 1770 No 0 1690 NE Ensuite 1 1690 680 NE No 100 EW-2 Bedroom 2 1770 No 0 EW-1 3690 NE Bedroom 2 EW-2 3690 680 NE No 100 Bedroom 3 0 EW-1 1770 NE No 3595 Bedroom 3 NE No 100 EW-2 3595 680 Bedroom 3 EW-1 2795 1770 SE No 0 Bedroom 3 EW-2 2795 680 SE No 600 Bedroom 4 1770 SE No 0 EW-1 2795 Bedroom 4 SE EW-2 2795 680 No 600 **Upper Hall** EW-1 1770 NW No 0 1295 **Upper Hall** EW-2 1295 680 NW No 1600

Internal wall type				
Wall type	Area (m²)	Insulation	Wall wrap or foil	
IW-1 - Cavity wall, direct fix plasterboard, single gap	140.0	No insulation	No	
IW-2 - AAC, plaster on studs	54.0	Bulk Insulation both sides of shaft liner R2	No	

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	37.4	None	Waffle Pod 300mm	Ceramic Tiles 8mm

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004073110** Certificate Date: **01 Aug 2019** ★ Star rating:



# **Building features continued**

Dedrees 4/Leures	Timehou Ahous Dlootouhooud	40.0		No Inquilation	Cornet Dubber
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	10.6		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	1.9		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	4.0		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	2.7		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.7		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Living	Timber Above Plasterboard 19mm	8.9		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	8.4		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
WC/Kitchen/Living	Timber Above Plasterboard 19mm	1.6		No Insulation	Ceramic Tiles 8mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	5.1		No Insulation	Ceramic Tiles 8mm
Upper Hall/PDR	Timber Above Plasterboard 19mm	0.9		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	4.5		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Kitchen/Living	1911111				Underlay rollilli

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

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Yes

**Bulk Insulation** 

Plasterboard

Bedroom 4

Certificate number: 0004073110 Certificate Date:

01 Aug 2019

★ Star rating:



# **Building features continued**

		R3.5
WC	Plasterboard	Bulk Insulation Yes R3.5
Bath	Plasterboard	Bulk Insulation Yes R3.5
Upper Hall	Plasterboard	Bulk Insulation Yes R3.5

Ceiling penetrations				
Location	Number	Туре	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
WC	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed

# **Ceiling fans**

Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

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Additional information	

# **Explanatory notes**

#### **About this report**

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

#### **General Information**

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

#### **Accredited Assessors**

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#### **Disclaimer**

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

# **Contact**

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

Certificate number: 0004073136 Certificate Date: 01 Aug 2019 ★ Star rating: 6.1

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan

then this certificate is not valid

#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

# Overview

## **Dwelling details**

Street: **Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28 Lot/DP

number: 3313/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

> R3.5 ceiling insulation No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 128.0 Unconditioned: 3.0 Garage: 0.0 TOTAL: 131.0

# **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 50.1 Cooling: 35.9 TOTAL: 86.0

#### Plan documents

Plan ref/date: **Wianamatta Parkway** 

Prepared by:

the more energy efficient NATIONWIDE Predicted annual energy load for heating and cooling based on standard occupancy assumptions MJ/m<sup>2</sup> For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed:

Unsealed: 0 TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

# Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8841667

Certificate number: 0004073136 Certificate Date: 01 Aug 2019 ★ Star rating:



# **Building features**

Window type and performance value				
Window ID	Window type	U-value	SHGC	
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67	
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74	
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78	

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Laundry	BRD-033-01 A	n/a	2100	1470	SW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	NE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1570	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	SW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	SW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading

Roof windo	w and skylig	ht type and performanc	e value			
ID	Window	type			U-value	SHGC
None Presen	-					
Roof windo	w and skylig	ht schedule				
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Presen	t					

External wa	III type					
ID	Wall type		Insulation		V	Vall wrap or foil
EW-1	AAC cavity pa	nel on battens	Anti-glare foil	with bulk no gap	R2 `	Yes
EW-2	Fibro Cavity F	anel Direct Fix	Anti-glare foil	with bulk no gap	R2 \	Yes
External wa	III schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	1995	2595	NW	No	1200
Lounge	EW-1	4095	2595	SW	No	100

2595

2595

SW

NW

No

No

1890

2295

100 1200

EW-1

EW-1

Laundry

Lounge

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004073136 Certificate Date: 01 Aug 2019 ★ Star rating:



Building featur	res continue	ed				
Lounge	EW-1	900	2595	NE	No	1300
Lounge	EW-1	1300	2595	NW	No	1000
Kitchen/Living	EW-1	3300	2595	SE	No	2900
Kitchen/Living	EW-1	2800	2595	NE	No	3300
Kitchen/Living	EW-1	3300	2595	SE	No	100
Kitchen/Living	EW-1	7100	2595	SW	No	100
Kitchen/Living	EW-1	1000	2595	NW	No	100
Bedroom 1	EW-1	2795	1770	NW	No	0
Bedroom 1	EW-2	2795	680	NW	No	1700
Bedroom 1	EW-1	4095	1770	SW	No	0
Bedroom 1	EW-2	4095	680	SW	No	100
WIR 1	EW-1	1495	1770	NW	No	0
WIR 1	EW-2	1495	680	NW	No	1700
WIR 1	EW-1	900	1770	NE	No	0
WIR 1	EW-2	900	680	NE	No	1300
Ensuite 1	EW-1	1690	1770	SW	No	0
Ensuite 1	EW-2	1690	680	SW	No	100
Bedroom 2	EW-1	3690	1770	SW	No	0
Bedroom 2	EW-2	3690	680	SW	No	100
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	600
Bedroom 3	EW-1	3595	1770	SW	No	0
Bedroom 3	EW-2	3595	680	SW	No	100
Bedroom 4	EW-1	2795	1770	SE	No	0
Bedroom 4	EW-2	2795	680	SE	No	600
Upper Hall	EW-1	1295	1770	NW	No	0
Upper Hall	EW-2	1295	680	NW	No	1600

Internal wall type						
Wall type	Area (m²)	Insulation	Wall wrap or foil			
IW-1 - Cavity wall, direct fix plasterboard, single gap	140.0	No insulation	No			
IW-2 - AAC, plaster on studs	54.0	Bulk Insulation both sides of shaft liner R2	No			

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	37.4	None	Waffle Pod 300mm	Ceramic Tiles 8mm

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Certificate number: 0004073136 Certificate Date: 01 Aug 2019 ★ Star rating:



# **Building features continued**

D - 1 4 /1	The base Albania Disates beauti	40.0		Nie Lee Jeden	O
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	10.6		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	2.0		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	4.0		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	2.7		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.7		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Living	Timber Above Plasterboard 19mm	8.9		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	8.4		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
WC/Kitchen/Living	Timber Above Plasterboard 19mm	1.6		No Insulation	Ceramic Tiles 8mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	5.1		No Insulation	Ceramic Tiles 8mm
Upper Hall/PDR	Timber Above Plasterboard 19mm	0.9		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	4.5		No Insulation	Carpet+Rubber Underlay 18mm
3/Kitchen/Living Bedroom 3  Bedroom 4/Kitchen/Living Bedroom 4  WC/Kitchen/Living  Bath/Kitchen/Living  Upper Hall/PDR  Upper Hall/Lounge	19mm Suspended Timber Floor 19mm Timber Above Plasterboard 19mm Suspended Timber Floor 19mm Timber Above Plasterboard	1.4 0.5 7.4 1.6 5.1 0.9 8.0		No Insulation	Underlay 18mm Carpet+Rubbe Underlay 18mm Carpet+Rubbe Underlay 18mm Carpet+Rubbe Underlay 18mm Ceramic Tiles 8mm Ceramic Tiles 8mm Carpet+Rubbe Underlay 18mm Carpet+Rubbe Underlay 18mm Carpet+Rubbe Underlay 18mm Carpet+Rubbe

Ceiling	type
Location	•

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation	Yes

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Certificate number: 0004073136 Certificate Date:

01 Aug 2019

★ Star rating:



# **Building features continued**

		R3.5
WC	Plasterboard	Bulk Insulation Yes R3.5
Bath	Plasterboard	Bulk Insulation Yes R3.5
Upper Hall	Plasterboard	Bulk Insulation Yes R3.5

Ceiling penetrations  Location Number Type Diameter (mm) Sealed/unsealed						
PDR	1	Exhaust Fans	300	Sealed		
	l .					
Ensuite 1	1	Exhaust Fans	300	Sealed		
WC	1	Exhaust Fans	300	Sealed		
Bath	1	Exhaust Fans	300	Sealed		

# **Ceiling fans**

Location	Number	Diameter (mm)	
None Present			

Roof type	
Construction	Added Roof color insulation
Corrugated Iron	Bulk, Reflective Dark Side Down, No Air Gap Above R1.3

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Additional information	

# **Explanatory notes**

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# **Contact**

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Certificate number: 0004073177 Certificate Date: 01 Aug 2019 ★ Star rating: 6.8



then this certificate is not valid.

#### Assessor details

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

# Overview

## **Dwelling details**

Street: Wianamatta Parkway

Suburb: Jordan Springs

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 1A

NatHERS

Lot/DP climate zone: 28

number: **3314/0** Exposure: **Suburban** 

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

Corrugated Iron

**Suspended Timber Floor** 

Insulation: R2.0 wall insulation

R3.5 ceiling insulation No floor insulation

Glazing: BRD-112-01 A ESS Awning 52 SG

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 121.0
Unconditioned: 3.0
Garage: 0.0
TOTAL: 124.0

# Annual thermal performance loads (MJ/m²)

Heating: 40.5 Cooling: 30.0 TOTAL: 70.5

#### Plan documents

Plan ref/date: Wianamatta Parkway

Prepared by: **0** 

The more stars the more energy efficient

NATIONWIDE HOUSE ENERGY RATING SCHEME

Predicted annual energy load for heating and cooling based on standard occupancy assumptions

70.5 MJ/m²

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

#### Ceiling penetrations

(see following pages for details)

Sealed: 3

Unsealed: 0
TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

# Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



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Certificate number: 0004073177 Certificate Date: 01 Aug 2019 ★ Star rating: 6.8



# **Building features**

Window type and performance value						
Window ID	Window type	U-value	SHGC			
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67			
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78			
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74			

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	NE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1210	SE	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading

Roof windo	w and skyligl	nt type and performanc	e value			
ID None Presen	Window	type			U-value	SHGC
	່ w and skyligl	nt schedule				
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Presen	t					

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	1995	2595	NW	No	1200
Lounge	EW-1	900	2595	SW	No	0
Lounge	EW-1	2295	2595	NW	No	1200
Lounge	EW-1	900	2595	NE	No	1300
Lounge	EW-1	1300	2595	NW	No	1000
Kitchen/Living	EW-1	3300	2595	SE	No	2900
Kitchen/Living	EW-1	2800	2595	NE	No	3300

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004073177 Certificate Date: 01 Aug 2019 ★ Star rating:



Kitchen/Living	EW-1	2300	2595	SE	No	100
Kitchen/Living	EW-1	2800	2595	SW	No	0
WIR 1	EW-1	1495	1770	NW	No	0
WIR 1	EW-2	1495	680	NW	No	1700
WIR 1	EW-1	900	1770	NE	No	0
WIR 1	EW-2	900	680	NE	No	1300
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	600
Bedroom 3	EW-2	3895	680	SW	No	0
Bedroom 4	EW-1	2795	1770	SE	No	0
Bedroom 4	EW-2	2795	680	SE	No	600
Upper Hall	EW-1	1295	1770	NW	No	0
Upper Hall	EW-2	1295	680	NW	No	1600
Bedroom 1	EW-1	900	2450	SW	No	0
Bedroom 1	EW-1	2795	1770	NW	No	0
Bedroom 1	EW-2	2795	680	NW	No	1700

Internal wall type						
Wall type	Area (m²)	Insulation	Wall wrap or foil			
IW-1 - Cavity wall, direct fix plasterboard, single gap	129.0	No insulation	No			
IW-2 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No			

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	30.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	5.2		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	9.3		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	3.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.6	Open	No Insulation	Carpet+Rubber Underlay 18mm

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004073177 Certificate Date: 01 Aug 2019 ★ Star rating: 6.8



Building features	s continued			
Upper Hall/PDR	Timber Above Plasterboard 19mm	0.7	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.3	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	6.6	No Insulation	Carpet+Rubber Underlay 18mm
WIL/Kitchen/Living	Timber Above Plasterboard 19mm	2.8	No Insulation	Carpet+Rubber Underlay 18mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	7.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	3.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	0.9	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Kitchen/Living	Timber Above Plasterboard 19mm	0.5	No Insulation	Ceramic Tiles 8mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	10.4	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/PDR	Timber Above Plasterboard 19mm	1.1	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	0.7	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type			
Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes
Upper Hall	Plasterboard	Bulk Insulation R3.5	Yes
WIL	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling pene	etrations		
Location	Number	Туре	Diameter (mm) Sealed/unsealed

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Certificate number: 0004073177 Certificate Date:

01 Aug 2019





<b>Building feat</b>	ures cont	inued			
PDR	1	Exhaust Fans	300	Sealed	
Bath	1	Exhaust Fans	300	Sealed	
Ensuite 1	1	Exhaust Fans	300	Sealed	

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type	
Construction	Added Roof colour insulation
Corrugated Iron	Bulk, Reflective Dark Side Down, No Air Gap Above R1.3



Additional information	

# **Explanatory notes**

#### **About this report**

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

#### **General Information**

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

#### **Accredited Assessors**

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## **Disclaimer**

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

# **Contact**

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

# Nationwide House Energy Rating Scheme\* — Multiple-dwelling summary

Certificate number: **0004073210** Certificate Date: **01 Aug 2019** ★ Average Star rating: **6.1** 



#### **Assessor details**

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant
Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

# **Dwelling details**

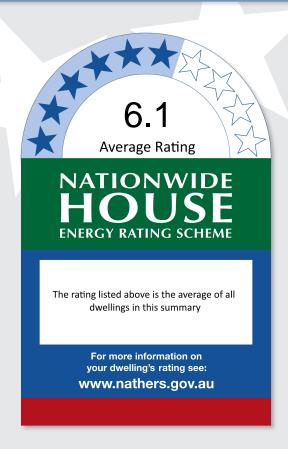
Street: Wianamatta Parkway

Suburb: Jordan Springs

State: **NSW** Postcode: **2747** 

Scan to access this certificate online and confirm this is valid.





# **Summary of all dwellings**

<b>Certificate Details</b>					
Certificate number	Dwelling/Unit number	Heating load	Cooling load	Total load	Star Rating
0004073177		40.5	30.0	70.5	6.8
0004073185	Studio	52.0	52.3	104.2	5.3

Document Set ID: 8841667 Version: 1, Version Date: 06/09/2019

Certificate number: 0004073185 Certificate Date: 01 Aug 2019 ★ Star rating: **5.3** 

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid



#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

# Overview

## **Dwelling details**

Street: **Unit Studio, Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28 Lot/DP

number: 3314/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

> R3.5 ceiling insulation No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 39.0 Unconditioned: 31.0 Garage: 31.0 TOTAL: 70.0

# **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 52.0 Cooling: 52.3 TOTAL: 104.2

#### Plan documents

Plan ref/date: **Wianamatta Parkway** 

Prepared by:

the more energy efficient NATIONWIDE Predicted annual energy load for heating and cooling based on standard occupancy assumptions MJ/m<sup>2</sup> For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed:

TOTAL:\*\*

Unsealed:

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

0

# Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8841667

Certificate number: **0004073185** Certificate Date: **01 Aug 2019** ★ Star rating:



5.3

# **Building features**

window type	and performance value		
Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Stairs	BRD-063-01 A	n/a	600	1800	NW	No Shading

ID	Window ty	pe			U-value	SHGC
None Present						
Roof window	w and skylight	schedule				
Location	ID	Roof	Area (m²)	Orientation	<b>Outdoor shade</b>	Indoor

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	No insulation	No
EW-2	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-3	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

## **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage	EW-1	5600	2595	SE	No	100
Garage	EW-1	5495	2595	NE	No	100
Entry/Stairs	EW-2	5600	2595	NW	No	100
Entry/Stairs	EW-2	1095	2595	NE	No	100
Bedroom 1	EW-2	2895	1770	SE	No	0
Bedroom 1	EW-3	2895	680	SE	No	600
Bedroom 1	EW-2	3595	2450	NE	No	100
PDR	EW-2	995	1770	NW	No	0
PDR	EW-3	995	680	NW	No	600
PDR	EW-2	2995	2450	NE	No	100
Kitchen/Living	EW-2	2695	1770	SE	No	0
Kitchen/Living	EW-3	2695	680	SE	No	600
Kitchen/Living	EW-2	5495	2450	SW	No	100
Stairs	EW-2	1095	2450	SW	No	100
Stairs	EW-2	4595	1770	NW	No	0
Stairs	EW-3	4595	680	NW	No	600

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Certificate number: **0004073185** Certificate Date: **01 Aug 2019** ★ Star rating:



# **Building features continued**

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	17.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	15.0	Bulk Insulation, No Air Gap R2	No
IW-3 - Cavity wall, direct fix plasterboard, single gap	35.0	No insulation	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Garage	Waffle pod slab 225 mm 100mm	30.5	None	Waffle Pod 225mm	Bare
Entry/Stairs	Waffle pod slab 300 mm 100mm	5.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Garage	Timber Above Plasterboard 19mm	9.5		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
PDR/Garage	Timber Above Plasterboard 19mm	3.2		Bulk Insulation R2	Ceramic Tiles 8mm
PDR/Entry/Stairs	Timber Above Plasterboard 19mm	1.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Gar age	Timber Above Plasterboard 19mm	17.1		Bulk Insulation R2	Ceramic Tiles 8mm
Stairs/Entry/Stairs	Timber Above Plasterboard 19mm	4.8		No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Garage	Timber Above Plasterboard	Bulk Insulation R2	No
Entry/Stairs	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
PDR	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Stairs	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations						
Location	Number	Туре	Diameter (mm)	Sealed/unsealed		
PDR	1	Exhaust Fans	300	Sealed		

# **Ceiling fans**

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004073185** Certificate Date:

01 Aug 2019

★ Star rating:



# **Building features continued**

Location	Number	Diameter (mm)
None Present		

Roof type				
Construction	Added Roof colour insulation			
Corrugated Iron	Bulk, Reflective Dark Side Down, No Air Gap Above R1.3			



Additional information	

# **Explanatory notes**

# **About this report**

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# **Contact**

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Certificate number: 0004073235 Certificate Date: 01 Aug 2019 ★ Star rating: 6.9

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid.



#### Assessor details

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

# Overview

# **Dwelling details**

Street: Wianamatta Parkway

Suburb: Jordan Springs

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 1A

NatHERS

Lot/DP climate zone: 28

number: **3315/0** Exposure: **Suburban** 

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

Corrugated Iron

**Suspended Timber Floor** 

Insulation: R2.0 wall insulation

R3.5 ceiling insulation
No floor insulation

Glazing: BRD-112-01 A ESS Awning 52 SG

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 91.0
Unconditioned: 2.0
Garage: 0.0
TOTAL: 93.0

# Annual thermal performance loads (MJ/m²)

Heating: **38.3**Cooling: **30.2**TOTAL: **68.5** 

#### Plan documents

Plan ref/date: Wianamatta Parkway

Prepared by: **0** 

Predicted annual energy load for heating and cooling based on standard occupancy assumptions

68.5 MJ/m²

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

the more energy efficient

#### Ceiling penetrations

(see following pages for details)

Sealed: 4

Unsealed: 0
TOTAL:\*\* 4

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

# Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

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<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8841667

Certificate number: 0004073235 Certificate Date: 01 Aug 2019 ★ Star rating:



# **Building features**

Window ID	Window type	U-value	SHGC
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-063-01 A	n/a	1500	600	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	SE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading

Roof windo	w and skylig	ht type and performanc	e value			
ID None Presen	Windov	v type			U-value	SHGC
	ູ w and skylig	ht schedule				
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Presen	t					

Externa	l wall	type
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ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

# **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	1300	2595	NW	No	1000
Living/Entry	EW-1	900	2595	SW	No	1300
Living/Entry	EW-1	3300	2595	NW	No	1200
Kitchen/Dining	EW-1	4600	2595	SE	No	3000
Bedroom 1	EW-1	900	2450	SW	No	1300
Bedroom 1	EW-1	3300	1770	NW	No	0
Bedroom 1	EW-2	3300	680	NW	No	1700
Bedroom 2	EW-1	1000	1770	SE	No	0
Bedroom 2	EW-2	1000	680	SE	No	100
Hall	EW-1	1295	1770	NW	No	0

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004073235 Certificate Date: 01 Aug 2019 ★ Star rating:



Hall	EW-2	1295	680	NW	No	1500
Bedroom 3	EW-1	2795	1770	NE	No	0
Bedroom 3	EW-2	2795	680	NE	No	100
Bedroom 3	EW-1	3600	1770	SE	No	0
Bedroom 3	EW-2	3600	680	SE	No	600

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	87.0	No insulation	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	11.4		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	3.4		No Insulation	Ceramic Tiles 8mm
Shower/Living/Entry	Timber Above Plasterboard 19mm	0.5		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	2.3		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.6		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	7.6		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubber Underlay 18mn

Ceiling type			
Location	Construction	Added insulation	Roof space above
Living/Entry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No

Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004073235** Certificate Date: **01 Aug 2019** ★ Star rating:



# **Building features continued**

Kitchen/Dining	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Shower	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
Shower	1	Exhaust Fans	300	Sealed

Ceiling fans		
Location	Number	Diameter (mm)
None Present		

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark



Additional information				

# **Explanatory notes**

#### **About this report**

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

#### **General Information**

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

#### **Accredited Assessors**

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, 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. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under 'assessor details'. You can also find a range of information about accredited assessors on the AAO websites.

## **Disclaimer**

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

# **Contact**

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

Certificate number: 0004073227 Certificate Date: 01 Aug 2019 ★ Star rating: 6.9



then this certificate is not valid

#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

# Overview

## **Dwelling details**

Street: **Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28 Lot/DP

number: 3316/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

> R3.5 ceiling insulation No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 91.0 Unconditioned: 2.0 Garage: 0.0 TOTAL: 93.0

# **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 37.4 Cooling: 29.6 TOTAL: 67.1

#### Plan documents

Plan ref/date: **Wianamatta Parkway** 

Prepared by:

the more energy efficient NATIONWIDE Predicted annual energy load for heating and cooling based on standard occupancy assumptions MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed:

Unsealed: 0 TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

# Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8841667

Certificate number: 0004073227 Certificate Date: 01 Aug 2019 ★ Star rating:



# **Building features**

Window type and performance value				
Window ID	Window type	U-value	SHGC	
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67	
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78	
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74	
VAV! or all a very an alle a s	lula			

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	SE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading

ID	Window type	e		U-value	SHGC
None Present					
Poof windo	w and skylight so	shodulo			
KOOI WIIIUO	w and skyngin so	Chedule			

Externa	ı wall	l type
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ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

# **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	3300	2595	NW	No	1200
Living/Entry	EW-1	900	2595	NE	No	1300
Living/Entry	EW-1	1300	2595	NW	No	1000
Kitchen/Dining	EW-1	4600	2595	SE	No	3000
Bedroom 1	EW-1	3300	1770	NW	No	0
Bedroom 1	EW-2	3300	680	NW	No	1700
Bedroom 1	EW-1	900	1770	NE	No	0
Bedroom 1	EW-2	900	680	NE	No	1300
Bedroom 2	EW-1	1000	1770	SE	No	0
Bedroom 2	EW-2	1000	680	SE	No	100

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004073227 Certificate Date: 01 Aug 2019 ★ Star rating:



Building features continued							
Hall	EW-1	1295	1770	NW	No	0	
Hall	EW-2	1295	680	NW	No	1500	
Bedroom 3	EW-1	3600	1770	SE	No	0	
Bedroom 3	EW-2	3600	680	SE	No	600	
Bedroom 3	EW-1	2795	1770	SW	No	0	
Bedroom 3	EW-2	2795	680	SW	No	100	

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No		
IW-2 - Cavity wall, direct fix plasterboard, single gap	88.0	No insulation	No		

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	12.8		No Insulation	Carpet+Rubbe Underlay 18mr
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	2.9		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.4		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	0.8		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	9.7		No Insulation	Carpet+Rubbe Underlay 18mr
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.4		No Insulation	Carpet+Rubbe Underlay 18mr
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	6.0		No Insulation	Carpet+Rubbe Underlay 18mr
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubbe Underlay 18mr

Ceiling type					
Location	Construction	Added insulation	Roof space above		
Living/Entry	Timber Above Plasterboard	No Insulation	No		
PDR	Timber Above Plasterboard	No Insulation	No		

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Certificate number: **0004073227** Certificate Date:

01 Aug 2019

★ Star rating:



# **Building features continued**

Laundry	Timber Above Plasterboard	No Insulation	No
Kitchen/Dining	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Shower	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations					
Number	Туре	Diameter (mm)	Sealed/unsealed		
1	Exhaust Fans	300	Sealed		
1	Exhaust Fans	300	Sealed		
1	Exhaust Fans	300	Sealed		
1	Exhaust Fans	300	Sealed		
		NumberType1Exhaust Fans1Exhaust Fans1Exhaust Fans	Number         Type         Diameter (mm)           1         Exhaust Fans         300           1         Exhaust Fans         300           1         Exhaust Fans         300		

Ceiling fans					
Location	Number	Diameter (mm)			
None Present					

Construction	Added Finsulation	Roof colour
Corrugated Iron	Bulk, Reflective [ Side Down, No Air Gap Above R1.3	Dark

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au



Additional information					

# **Explanatory notes**

# **About this report**

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Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

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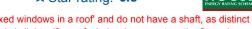
## **Disclaimer**

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# **Contact**

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Certificate number: **0004073250-02** Certificate Date: 01 Aug 2019 ★ Star rating: 6.8



BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid

#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

# Overview

## **Dwelling details**

Street: **Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28 Lot/DP

number: 3317/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

> R3.5 ceiling insulation No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 121.0 Unconditioned: 3.0 Garage: 0.0 TOTAL: 124.0

# **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 42.0 Cooling: 30.0 TOTAL: 72.0

#### Plan documents

Plan ref/date: **Wianamatta Parkway** 

Prepared by:

outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

the more energy efficient NATIONWIDE Predicted annual energy load for heating and cooling based on standard occupancy assumptions MJ/m<sup>2</sup> For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed: Unsealed: 0

TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Scan to access this

confirm this is valid.

certificate online and

Principle downlight type: Unknown

3

# Window selection default windows only

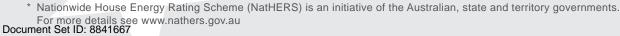
Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are





Certificate number: **0004073250-02** Certificate Date: **01 Aug 2019** 

★ Star rating:



# **Building features**

window type a	and performance value		
Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1210	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	SW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading

ID	Window t	уре			U-value	SHGC
None Present						
Roof window	w and skylight	schedule				
Location	ID	Roof	Area (m²)	Orientation	<b>Outdoor shade</b>	Indoor

External wall type				
Wall type	Insulation	Wall wrap or foil		
AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes		
Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes		
	Wall type  AAC cavity panel on battens	Wall type Insulation  AAC cavity panel on battens Anti-glare foil with bulk no gap R2		

External wall schedule						
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	900	2595	NE	No	0
Lounge	EW-1	1995	2595	NW	No	1200
Lounge	EW-1	1300	2595	NW	No	1000
Lounge	EW-1	900	2595	SW	No	1300
Lounge	EW-1	2295	2595	NW	No	1200
Kitchen/Living	EW-1	2800	2595	NE	No	0
Kitchen/Living	EW-1	2300	2595	SE	No	100

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004073250-02 Certificate Date: 01 Aug 2019

★ Star rating:



6.8

#### **Building features continued** EW-1 SW Kitchen/Living 2800 2595 No 3300 Kitchen/Living EW-1 3300 2595 SE No 2900 WIR 1 EW-1 900 1770 SW No 0 WIR 1 EW-2 900 680 SW No 1300 WIR 1 EW-1 1495 1770 NW No 0 WIR 1 EW-2 1495 680 NW No 1700 Bedroom 3 EW-2 3895 No 0 680 NE Bedroom 3 EW-1 1770 0 2795 SE No Bedroom 3 EW-2 2795 680 SE No 600 Bedroom 4 1770 EW-1 2795 SE No 0 Bedroom 4 600 EW-2 2795 680 SE No **Upper Hall** EW-1 1295 1770 NWNo 0 **Upper Hall** EW-2 1295 680 NW No 1600 Bedroom 1 EW-1 2795 1770 NW No 0 Bedroom 1 EW-2 2795 680 NW No 1700 Bedroom 1 EW-1 900 2450 NE No 0

Internal wall type			
Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	129.0	No insulation	No

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	30.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	5.2		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	9.3		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	3.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.6	Open	No Insulation	Carpet+Rubber Underlay 18mm

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004073250-02 Certificate Date: 01 Aug 2019



6.8

★ Star rating:

**Building features continued** Upper Hall/PDR Timber Above Plasterboard 0.7 No Insulation Carpet+Rubber Underlay 18mm Timber Above Plasterboard Carpet+Rubber Upper Hall/Lounge 8.3 No Insulation 19mm Underlay 18mm Timber Above Plasterboard Carpet+Rubber Upper 6.6 No Insulation Hall/Kitchen/Living 19mm Underlay 18mm Timber Above Plasterboard Carpet+Rubber WIL/Kitchen/Living 2.8 No Insulation Underlay 18mm 19mm Bath/Kitchen/Living Timber Above Plasterboard 7.0 No Insulation **Ceramic Tiles** 19mm 8mm **Timber Above Plasterboard** 3.0 No Insulation **Ceramic Tiles** Ensuite 1/Laundry 8mm 19mm Ensuite 1/PDR Timber Above Plasterboard 0.9 No Insulation Ceramic Tiles 19mm 8mm **Ensuite** Timber Above Plasterboard 0.5 No Insulation Ceramic Tiles 1/Kitchen/Living 19mm 8mm Bedroom 1/Lounge Timber Above Plasterboard No Insulation 10.5 Carpet+Rubber 19mm Underlay 18mm Timber Above Plasterboard Bedroom 1/PDR 1.1 No Insulation Carpet+Rubber Underlay 18mm 19mm Bedroom 1/Lounge Timber Above Plasterboard Carpet+Rubber 0.6 No Insulation Underlay 18mm 19mm

Ceiling type				
Location	Construction	Added insulation	Roof space above	
Lounge	Timber Above Plasterboard	No Insulation	No	
Laundry	Timber Above Plasterboard	No Insulation	No	
PDR	Timber Above Plasterboard	No Insulation	No	
Lounge	Timber Above Plasterboard	No Insulation	No	
Kitchen/Living	Timber Above Plasterboard	No Insulation	No	
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes	
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes	
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes	
Upper Hall	Plasterboard	Bulk Insulation R3.5	Yes	
WIL	Plasterboard	Bulk Insulation R3.5	Yes	
Bath	Plasterboard	Bulk Insulation R3.5	Yes	
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes	
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes	

Ceiling pene	etrations		
Location	Number	Туре	Diameter (mm) Sealed/unsealed

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au







<b>Building fea</b>	itures cont	inued			
PDR	1	Exhaust Fans	300	Sealed	
Bath	1	Exhaust Fans	300	Sealed	
Ensuite 1	1	Exhaust Fans	300	Sealed	

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added Roof colour insulation	
Corrugated Iron	Bulk, Reflective Dark Side Down, No Air Gap Above R1.3	

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au



Additional information		

# **Explanatory notes**

#### **About this report**

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

#### **General Information**

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

#### **Accredited Assessors**

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, 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. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under 'assessor details'. You can also find a range of information about accredited assessors on the AAO websites.

### **Disclaimer**

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

# **Contact**

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

# Nationwide House Energy Rating Scheme\* — Multiple-dwelling summary

Certificate number: **0004073300** Certificate Date: **01 Aug 2019** ★ Average Star rating: **6.1** 



#### **Assessor details**

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant
Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

# **Dwelling details**

Street: Wianamatta Parkway

Suburb: Jordan Springs

State: **NSW** Postcode: **2747** 

Scan to access this certificate online and confirm this is valid.





# **Summary of all dwellings**

Certificate Details					
Certificate number	Dwelling/Unit number	Heating load	Cooling load	Total load	Star Rating
0004073250-02		42.0	30.0	72.0	6.8
0004073284	Studio	53.3	52.5	105.8	5.3

Document Set ID: 8841667 Version: 1, Version Date: 06/09/2019

Certificate number: 0004073284 Certificate Date: 01 Aug 2019 ★ Star rating: 5.3

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan

then this certificate is not valid.

#### Assessor details

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

# Overview

Lot/DP

### **Dwelling details**

Street: Unit Studio, Wianamatta Parkway

Suburb: Jordan Springs

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 1A

NatHERS

climate zone: 28

number: **3317/0** Exposure: **Suburban** 

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

Corrugated Iron

Suspended Timber Floor

Insulation: R2.0 wall insulation

R3.5 ceiling insulation
No floor insulation

Glazing: BRD-112-01 A ESS Awning 52 SG

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 39.0 Unconditioned: 31.0 Garage: 31.0

Annual thermal performance loads (MJ/m²)

Heating: 53.3 Cooling: 52.5 TOTAL: 105.8

#### Plan documents

TOTAL:

Plan ref/date: Wianamatta Parkway

70.0

Prepared by: **0** 

Predicted annual energy load for heating and cooling based on standard occupancy assumptions

105.8 MJ/m²

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

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#### Ceiling penetrations

(see following pages for details)

Sealed: 1

Unsealed: TOTAL:\*\* \*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been

taken into account with the rating.

Principle downlight type: Unknown

0

# Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8841667

Certificate number: **0004073284** Certificate Date:

01 Aug 2019

★ Star rating:



5.3

# **Building features**

Window type and performance value				
Window ID	Window type	U-value	SHGC	
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67	
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4CIr	6.0	0.78	

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Stairs	BRD-063-01 A	n/a	600	1800	NW	No Shading

ID	Window	type		U-value	SHGC
None Present	t				
Roof windo	w and skyligh	nt schedule			

Mall on fail
Wall wrap or foil
No
with bulk no gap R2 Yes
with bulk no gap R2 Yes

# **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage	EW-1	5600	2595	SE	No	100
Garage	EW-1	5495	2595	SW	No	100
Entry/Stairs	EW-2	1095	2595	SW	No	100
Entry/Stairs	EW-2	5600	2595	NW	No	100
Bedroom 1	EW-2	2895	1770	SE	No	0
Bedroom 1	EW-3	2895	680	SE	No	600
Bedroom 1	EW-2	3595	2450	NE	No	100
PDR	EW-2	995	1770	NW	No	0
PDR	EW-3	995	680	NW	No	600
PDR	EW-2	2995	2450	NE	No	100
Kitchen/Living	EW-2	2695	1770	SE	No	0
Kitchen/Living	EW-3	2695	680	SE	No	600
Kitchen/Living	EW-2	5495	2450	SW	No	100
Stairs	EW-2	1095	2450	SW	No	100
Stairs	EW-2	4595	1770	NW	No	0
Stairs	EW-3	4595	680	NW	No	600

Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004073284** Certificate Date:

01 Aug 2019





5.3

# **Building features continued**

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	15.0	Bulk Insulation, No Air Gap R2	No
IW-2 - AAC, plaster on studs	17.0	Bulk Insulation both sides of shaft liner R2	No
IW-3 - Cavity wall, direct fix plasterboard, single gap	35.0	No insulation	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Garage	Waffle pod slab 225 mm 100mm	30.5	None	Waffle Pod 225mm	Bare
Entry/Stairs	Waffle pod slab 300 mm 100mm	5.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Garage	Timber Above Plasterboard 19mm	9.5		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
PDR/Garage	Timber Above Plasterboard 19mm	3.2		Bulk Insulation R2	Ceramic Tiles 8mm
PDR/Entry/Stairs	Timber Above Plasterboard 19mm	1.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Gar age	Timber Above Plasterboard 19mm	17.1		Bulk Insulation R2	Ceramic Tiles 8mm
Stairs/Entry/Stairs	Timber Above Plasterboard 19mm	4.8		No Insulation	Ceramic Tiles 8mm

Ceiling type				
Construction	Added insulation	Roof space above		
Timber Above Plasterboard	Bulk Insulation R2	No		
Timber Above Plasterboard	No Insulation	No		
Plasterboard	Bulk Insulation R3.5	Yes		
Plasterboard	Bulk Insulation R3.5	Yes		
Plasterboard	Bulk Insulation R3.5	Yes		
Plasterboard	Bulk Insulation R3.5	Yes		
	Timber Above Plasterboard  Timber Above Plasterboard  Plasterboard  Plasterboard  Plasterboard	Timber Above Plasterboard  Timber Above Plasterboard  Timber Above Plasterboard  Timber Above Plasterboard  Plasterboard  Plasterboard  Plasterboard  Plasterboard  Plasterboard  Plasterboard  Plasterboard  Bulk Insulation R3.5  Plasterboard  Bulk Insulation R3.5  Plasterboard  Bulk Insulation R3.5  Plasterboard  Bulk Insulation R3.5		

Ceiling penetrations					
Location	Number	Туре	Diameter (mm)	Sealed/unsealed	
PDR	1	Exhaust Fans	300	Sealed	

# **Ceiling fans**

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004073284** Certificate Date:

01 Aug 2019

★ Star rating:

NATIONWIDE HOUSE ENERGY RATING SCHEME

# **Building features continued**

Location	Number	Diameter (mm)	
None Present			

Roof type	
Construction	Added Roof colour insulation
Corrugated Iron	Bulk, Reflective Dark Side Down, No Air Gap Above R1.3



Additional information	

# **Explanatory notes**

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# **Contact**

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Certificate number: 0004073326 Certificate Date: 01 Aug 2019 ★ Star rating: 6.4

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid.



#### Assessor details

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

# Overview

### **Dwelling details**

Street: Wianamatta Parkway

Suburb: Jordan Springs

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 1A

NatHERS

Lot/DP climate zone: 28

number: **3318/0** Exposure: **Suburban** 

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

Corrugated Iron

Suspended Timber Floor

Insulation: R2.0 wall insulation

R3.5 ceiling insulation
No floor insulation

Glazing: BRD-112-01 A ESS Awning 52 SG

4mmClr

#### Net floor area (m<sup>2</sup>)

 Conditioned:
 128.0

 Unconditioned:
 3.0

 Garage:
 0.0

 TOTAL:
 131.0

# Annual thermal performance loads (MJ/m²)

Heating: 46.5
Cooling: 33.4
TOTAL: 79.8

#### Plan documents

Plan ref/date: Wianamatta Parkway

Prepared by: **0** 

Predicted annual energy load for heating and cooling based on standard occupancy assumptions

79.8 MJ/m²

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

the more energy efficient

#### **Ceiling penetrations**

(see following pages for details)

Sealed: 4

Unsealed: 0
TOTAL:\*\* 4

maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the

\*\*NOTE: This total is the

Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

# Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



Page 1 of 6

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8841667

Certificate number: 0004073326 Certificate Date: 01 Aug 2019 ★ Star rating: 6.4



# **Building features**

Window type and performance value					
Window ID	Window type	U-value	SHGC		
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67		
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74		
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78		

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Laundry	BRD-033-01 A	n/a	2100	1470	NE	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1570	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	SW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading

ID Nove Brown	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

External wa	ıll type					
ID	Wall type		Insulation		W	all wrap or fo
EW-1	AAC cavity pa	nel on battens	Anti-glare foil	with bulk no gap	R2 Y	es
EW-2	Fibro Cavity F	Panel Direct Fix	Anti-glare foil	with bulk no gap	R2 Y	es
External wa	III schedule	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	4095	2595	NE	No	100
Lounge	EW-1	1995	2595	NW	No	1200
Laundry	EW-1	1890	2595	NE	No	100

2595

NW

1300

1000

Lounge

EW-1

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004073326 Certificate Date: 01 Aug 2019 ★ Star rating: 6.4



#### **Building features continued** EW-1 900 2595 SW No 1300 Lounge Lounge EW-1 2295 2595 NW No 1200 Kitchen/Living EW-1 1000 2595 NW 100 No Kitchen/Living EW-1 3300 SE No 100 2595 Kitchen/Living EW-1 2800 2595 SW No 3300 Kitchen/Living EW-1 3300 SE No 2900 2595 Bedroom 1 EW-1 4095 1770 NE No 0 Bedroom 1 EW-2 4095 680 NE No 100 Bedroom 1 EW-1 2795 1770 NW No 0 Bedroom 1 EW-2 2795 680 NW No 1700 WIR 1 EW-1 900 1770 SW No 0 WIR 1 EW-2 900 680 SW No 1300 WIR 1 EW-1 1495 1770 NW No 0 EW-2 WIR 1 1495 680 NW No 1700 Ensuite 1 EW-1 1690 1770 No 0 NE Ensuite 1 NE No 100 EW-2 1690 680 Bedroom 2 3690 1770 NE No 0 EW-1 Bedroom 2 680 NE No 100 EW-2 3690 0 Bedroom 3 EW-1 3595 1770 NE No 100 Bedroom 3 EW-2 680 NE No 3595 Bedroom 3 1770 SE No 0 EW-1 2795 Bedroom 3 EW-2 2795 680 SE No 600 Bedroom 4 EW-1 2795 1770 SE No 0 Bedroom 4 680 SE No 600 EW-2 2795 **Upper Hall** NW EW-1 1295 1770 No 0 **Upper Hall** EW-2 1295 680 NW No 1600

Internal wall type			
Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	140.0	No insulation	No
IW-2 - AAC, plaster on studs	73.0	Bulk Insulation both sides of shaft liner R2	No

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	37.4	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Loun	ge	10.6		No Insulation	

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004073326** Certificate Date: **01 Aug 2019** ★ Star rating:



# **Building features continued**

	Timber Above Plasterboard 19mm				Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	1.9		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	4.0		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	2.7		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.7		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Living	Timber Above Plasterboard 19mm	8.9		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	8.4		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
WC/Kitchen/Living	Timber Above Plasterboard 19mm	1.6		No Insulation	Ceramic Tiles 8mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	5.1		No Insulation	Ceramic Tiles 8mm
Upper Hall/PDR	Timber Above Plasterboard 19mm	0.9		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	4.5		No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type			
Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au







**Building features continued** WC Plasterboard **Bulk Insulation** Yes R3.5 Bath Plasterboard **Bulk Insulation** Yes R3.5 **Upper Hall Plasterboard Bulk Insulation** Yes R3.5

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
WC	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Construction	Added Roof colour insulation
Corrugated Iron	Bulk, Reflective Dark Side Down, No Air Gap Above R1.3

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au



Additional information	

# **Explanatory notes**

# **About this report**

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

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The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

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### **Disclaimer**

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

# **Contact**

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

Certificate number: 0004073318 Certificate Date: 01 Aug 2019 ★ Star rating: 6.4

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan

then this certificate is not valid

#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

# Overview

Lot/DP

### **Dwelling details**

Street: **Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28

number: 3119/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

> R3.5 ceiling insulation No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 128.0 Unconditioned: 3.0 Garage: 0.0 TOTAL: 131.0

# **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 48.5 Cooling: 32.1 TOTAL: 80.6

#### Plan documents

Plan ref/date: **Wianamatta Parkway** 

Prepared by:

certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

the more energy efficient NATIONWIDE Predicted annual energy load for heating and cooling based on standard occupancy assumptions MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed:

Unsealed: 0 TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

# Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this Scan to access this certificate online and confirm this is valid.



Certificate number: 0004073318 Certificate Date: 01 Aug 2019 ★ Star rating:



# **Building features**

Window type a	Vindow type and performance value				
Window ID	Window type	U-value	SHGC		
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67		
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74		
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78		

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Laundry	BRD-033-01 A	n/a	2100	1470	SW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	NE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1570	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	SW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	SW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading

ID Nove Brown	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

External wa	III type					
ID	Wall type		Insulation		W	all wrap or fo
EW-1	AAC cavity pa	anel on battens	Anti-glare foil	with bulk no gap	R2 Y	es
EW-2	Fibro Cavity P	Panel Direct Fix	Anti-glare foil	with bulk no gap	R2 Y	es
External wa	II schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	1995	2595	NW	No	1200
Lounge	EW-1	4095	2595	SW	No	100
Laundry	EW-1	1890	2595	SW	No	100

2595

NW

No

2295

1200

Lounge

**EW-1** 

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004073318 Certificate Date: 01 Aug 2019 ★ Star rating: 6.4



#### **Building features continued** EW-1 900 2595 NE No 1300 Lounge Lounge EW-1 1300 2595 NW No 1000 Kitchen/Living EW-1 3300 2595 2900 SE No Kitchen/Living EW-1 2800 NE No 3300 2595 Kitchen/Living EW-1 3300 2595 SE No 100 Kitchen/Living EW-1 1000 NW No 100 2595 EW-1 Bedroom 1 2795 1770 NW No 0 Bedroom 1 EW-2 2795 680 NW No 1700 Bedroom 1 EW-1 4095 1770 SW No 0 Bedroom 1 EW-2 4095 680 SW No 100 WIR 1 EW-1 1495 1770 NW No 0 WIR 1 EW-2 1495 680 NW No 1700 WIR 1 EW-1 900 1770 NE No 0 EW-2 WIR 1 900 680 NE No 1300 Ensuite 1 EW-1 1690 1770 SW No 0 Ensuite 1 SW No 100 EW-2 1690 680 1770 SW No 0 Bedroom 2 EW-1 3690 Bedroom 2 680 SW No 100 EW-2 3690 0 Bedroom 3 EW-1 2795 1770 SE No SE 600 Bedroom 3 EW-2 2795 680 No Bedroom 3 1770 SW No 0 EW-1 3595 Bedroom 3 EW-2 3595 680 SW No 100 Bedroom 4 EW-1 2795 1770 SE No 0 Bedroom 4 680 SE No 600 EW-2 2795 **Upper Hall** NW EW-1 1295 1770 No 0 **Upper Hall** EW-2 1295 680 NW No 1600

Internal wall type			
Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	140.0	No insulation	No
IW-2 - AAC, plaster on studs	73.0	Bulk Insulation both sides of shaft liner R2	No

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	37.4	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Loun	ge	10.6		No Insulation	

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Certificate number: 0004073318 Certificate Date: 01 Aug 2019 ★ Star rating:



# **Building features continued**

	Timber Above Plasterboard 19mm				Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	2.0		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	4.0		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	2.7		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.7		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Living	Timber Above Plasterboard 19mm	8.9		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	8.4		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
WC/Kitchen/Living	Timber Above Plasterboard 19mm	1.6		No Insulation	Ceramic Tiles 8mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	5.1		No Insulation	Ceramic Tiles 8mm
Upper Hall/PDR	Timber Above Plasterboard 19mm	0.9		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	4.5		No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type				
Location	Construction	Added insulation	Roof space above	
Lounge	Timber Above Plasterboard	No Insulation	No	
Laundry	Timber Above Plasterboard	No Insulation	No	
PDR	Timber Above Plasterboard	No Insulation	No	
Lounge	Timber Above Plasterboard	No Insulation	No	
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes	
Kitchen/Living	Timber Above Plasterboard	No Insulation	No	
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes	
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes	
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes	
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes	
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes	
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes	

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Certificate number: 0004073318 Certificate Date:

01 Aug 2019

★ Star rating:



# **Building features continued**

WC	Plasterboard	Bulk Insulation Yes R3.5
Bath	Plasterboard	Bulk Insulation Yes R3.5
Upper Hall	Plasterboard	Bulk Insulation Yes R3.5

# **Ceiling penetrations**

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
WC	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed

# **Ceiling fans**

Location	Number	Diameter (mm)	
None Present			

# Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

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Additional information	

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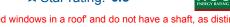
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# **Contact**

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Certificate number: **0004073334-01** Certificate Date: 01 Aug 2019 ★ Star rating: 6.8



BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid

#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

# Overview

### **Dwelling details**

Street: **Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28 Lot/DP

number: 3320/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

> R3.5 ceiling insulation No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 121.0 Unconditioned: 3.0 Garage: 0.0

# **Annual thermal** performance loads

40.5 Cooling: 30.0 TOTAL:

#### Plan documents

TOTAL:

Plan ref/date: **Wianamatta Parkway** 

124.0

Prepared by:

(MJ/m<sup>2</sup>)

Heating: 70.5

# Predicted annual energy load for heating and cooling based on standard occupancy assumptions MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

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#### Ceiling penetrations

(see following pages for details)

Sealed:

Unsealed: 0 TOTAL:\*\* 3

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

# Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8841667

Certificate number: **0004073334-01** Certificate Date: **01 Aug 2019** 

★ Star rating:



# **Building features**

window type and performance value					
Window ID	Window type	U-value	SHGC		
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67		
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78		
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74		

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	NE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1210	SE	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading

ID	Window t	уре			U-value	SHGC
None Present						
Roof window	w and skylight	schedule				
Location	ID	Roof	Area (m²)	Orientation	<b>Outdoor shade</b>	Indoor

External wall type					
Wall type	Insulation	Wall wrap or foil			
AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes			
Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes			
	Wall type  AAC cavity panel on battens	Wall type Insulation  AAC cavity panel on battens Anti-glare foil with bulk no gap R2			

# **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	1995	2595	NW	No	1200
Lounge	EW-1	900	2595	SW	No	0
Lounge	EW-1	2295	2595	NW	No	1200
Lounge	EW-1	900	2595	NE	No	1300
Lounge	EW-1	1300	2595	NW	No	1000
Kitchen/Living	EW-1	3300	2595	SE	No	2900
Kitchen/Living	EW-1	2800	2595	NE	No	3300

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004073334-01 Certificate Date: 01 Aug 2019 ★ Star rating:



6.8

**Building features continued** EW-1 SE Kitchen/Living 2300 2595 No 100 Kitchen/Living EW-1 2800 2595 SW No 0 WIR 1 EW-1 1495 1770 NW No 0 WIR 1 EW-2 1495 680 NW No 1700 WIR 1 EW-1 900 1770 NE No 0 WIR 1 EW-2 900 680 NE No 1300 Bedroom 3 EW-1 2795 1770 SE No 0 Bedroom 3 EW-2 2795 680 SE No 600 Bedroom 3 EW-2 3895 680 SW No 0 Bedroom 4 0 EW-1 2795 1770 SE No Bedroom 4 600 EW-2 2795 680 SE No **Upper Hall** EW-1 1295 1770 NWNo 0 **Upper Hall** EW-2 1295 680 NW No 1600 Bedroom 1 EW-1 900 2450 SW No 0 Bedroom 1 EW-1 2795 1770 NW No 0 Bedroom 1 EW-2 2795 680 NW No 1700

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Cavity wall, direct fix plasterboard, single gap	129.0	No insulation	No		
IW-2 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No		

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	30.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	5.2		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	9.3		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	3.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.6	Open	No Insulation	Carpet+Rubber Underlay 18mm

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

19mm

19mm
Bedroom 1/Lounge Timber Above Plasterboard

19mm

Bedroom 1/PDR

Timber Above Plasterboard

Certificate number: 0004073334-01 Certificate Date: 01 Aug 2019 ★ Star rating:



6.8

Underlay 18mm

Carpet+Rubber Underlay 18mm

Carpet+Rubber

Underlay 18mm

No Insulation

No Insulation

**Building features continued** Upper Hall/PDR Timber Above Plasterboard 0.7 No Insulation Carpet+Rubber Underlay 18mm Timber Above Plasterboard Carpet+Rubber Upper Hall/Lounge 8.3 No Insulation 19mm Underlay 18mm Timber Above Plasterboard Carpet+Rubber Upper 6.6 No Insulation Hall/Kitchen/Living 19mm Underlay 18mm Timber Above Plasterboard Carpet+Rubber WIL/Kitchen/Living 2.8 No Insulation Underlay 18mm 19mm Bath/Kitchen/Living Timber Above Plasterboard 7.0 No Insulation **Ceramic Tiles** 19mm 8mm **Timber Above Plasterboard** 3.0 No Insulation **Ceramic Tiles** Ensuite 1/Laundry 8mm 19mm Ensuite 1/PDR Timber Above Plasterboard 0.9 No Insulation Ceramic Tiles 19mm 8mm **Ensuite** Timber Above Plasterboard 0.5 No Insulation Ceramic Tiles 1/Kitchen/Living 19mm 8mm Bedroom 1/Lounge Timber Above Plasterboard No Insulation 10.4 Carpet+Rubber

1.1

0.7

Ceiling type				
Location	Construction	Added insulation	Roof space above	
Lounge	Timber Above Plasterboard	No Insulation	No	
Laundry	Timber Above Plasterboard	No Insulation	No	
PDR	Timber Above Plasterboard	No Insulation	No	
Lounge	Timber Above Plasterboard	No Insulation	No	
Kitchen/Living	Timber Above Plasterboard	No Insulation	No	
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes	
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes	
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes	
Upper Hall	Plasterboard	Bulk Insulation R3.5	Yes	
WIL	Plasterboard	Bulk Insulation R3.5	Yes	
Bath	Plasterboard	Bulk Insulation R3.5	Yes	
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes	
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes	

Ceiling pen	etrations		
Location	Number	Туре	Diameter (mm) Sealed/unsealed

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au







Building fea	itures cont	tinued			
PDR	1	Exhaust Fans	300	Sealed	
Bath	1	Exhaust Fans	300	Sealed	
Ensuite 1	1	Exhaust Fans	300	Sealed	

Ceiling fans		
Location	Number	Diameter (mm)
None Present		

Roof type				
Construction	Added Roof colour insulation			
Corrugated Iron	Bulk, Reflective Dark Side Down, No Air Gap Above R1.3			



Additional information		

# **Explanatory notes**

#### **About this report**

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

#### **General Information**

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

#### **Accredited Assessors**

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, 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. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under 'assessor details'. You can also find a range of information about accredited assessors on the AAO websites.

### **Disclaimer**

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# **Contact**

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

# Nationwide House Energy Rating Scheme\* — Multiple-dwelling summary

Certificate number: **0004073360** Certificate Date: **01 Aug 2019** ★ Average Star rating: **6.1** 



#### **Assessor details**

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant
Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

# **Dwelling details**

Street: Wianamatta Parkway

Suburb: Jordan Springs

State: **NSW** Postcode: **2747** 

Scan to access this certificate online and confirm this is valid.





# **Summary of all dwellings**

Certificate Details					
Certificate number	Dwelling/Unit number	Heating load	Cooling load	Total load	Star Rating
0004073334-01		40.5	30.0	70.5	6.8
0004073359	Studio	52.0	52.3	104.2	5.3

Version: 1, Version Date: 06/09/2019

Certificate number: 0004073359 Certificate Date: 01 Aug 2019 ★ Star rating: **5.3** 





#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

# Overview

### **Dwelling details**

Street: **Unit Studio, Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28 Lot/DP

number: 3320/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

> R3.5 ceiling insulation No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 39.0 Unconditioned: 31.0 Garage: 31.0 TOTAL: 70.0

# **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 52.0 Cooling: 52.3 TOTAL: 104.2

#### Plan documents

Plan ref/date: **Wianamatta Parkway** 

Prepared by:

Predicted annual energy load for heating and cooling based on standard occupancy assumptions MJ/m<sup>2</sup> For more information on your dwelling's rating see: www.nathers.gov.au

the more energy efficient

NATIONWIDE

#### Ceiling penetrations

(see following pages for details)

Sealed:

Unsealed: TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

0

# Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8841667

Certificate number: 0004073359 Certificate Date: 01 Aug 2019 ★ Star rating:



# **Building features**

Window type	and	performance va	lue

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Stairs	BRD-063-01 A	n/a	600	1800	NW	No Shading

Roof windov	w and skyligh	t type and performanc	e value			
ID None Present	Window	уре			U-value	SHGC
		t oobodulo				
Kooi wiiidoi	w and skyligh	t schedule				
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present		•				

External wall type				
ID	Wall type	Insulation	Wall wrap or foil	
EW-1	AAC cavity panel on battens	No insulation	No	
EW-2	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes	
EW-3	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes	

### **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage	EW-1	5600	2595	SE	No	100
Garage	EW-1	5495	2595	NE	No	100
Entry/Stairs	EW-2	5600	2595	NW	No	100
Entry/Stairs	EW-2	1095	2595	NE	No	100
Bedroom 1	EW-2	2895	1770	SE	No	0
Bedroom 1	EW-3	2895	680	SE	No	600
Bedroom 1	EW-2	3595	2450	NE	No	100
PDR	EW-2	995	1770	NW	No	0
PDR	EW-3	995	680	NW	No	600
PDR	EW-2	2995	2450	NE	No	100
Kitchen/Living	EW-2	2695	1770	SE	No	0
Kitchen/Living	EW-3	2695	680	SE	No	600
Kitchen/Living	EW-2	5495	2450	SW	No	100
Stairs	EW-2	1095	2450	SW	No	100
Stairs	EW-2	4595	1770	NW	No	0
Stairs	EW-3	4595	680	NW	No	600

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004073359** Certificate Date: **01** A

01 Aug 2019





# **Building features continued**

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	17.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	15.0	Bulk Insulation, No Air Gap R2	No
IW-3 - Cavity wall, direct fix plasterboard, single gap	35.0	No insulation	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Garage	Waffle pod slab 225 mm 100mm	30.5	None	Waffle Pod 225mm	Bare
Entry/Stairs	Waffle pod slab 300 mm 100mm	5.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Garage	Timber Above Plasterboard 19mm	9.5		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
PDR/Garage	Timber Above Plasterboard 19mm	3.2		Bulk Insulation R2	Ceramic Tiles 8mm
PDR/Entry/Stairs	Timber Above Plasterboard 19mm	1.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Gar age	Timber Above Plasterboard 19mm	17.1		Bulk Insulation R2	Ceramic Tiles 8mm
Stairs/Entry/Stairs	Timber Above Plasterboard 19mm	4.8		No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Garage	Timber Above Plasterboard	Bulk Insulation R2	No
Entry/Stairs	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
PDR	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Stairs	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations					
Location	Number	Туре	Diameter (mm)	Sealed/unsealed	
PDR	1	Exhaust Fans	300	Sealed	
	·				

# **Ceiling fans**

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004073359** Certificate Date:

01 Aug 2019

★ Star rating:



# **Building features continued**

Location	Number	Diameter (mm)
None Present		

Roof type			
Construction	Added Roof colour insulation		
Corrugated Iron	Bulk, Reflective Dark Side Down, No Air Gap Above R1.3		



Additional information			

# **Explanatory notes**

#### **About this report**

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# **Contact**

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Certificate number: 0004073375 Certificate Date: 01 Aug 2019 ★ Star rating: 6.9

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid

#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

# Overview

### **Dwelling details**

Street: **Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28 Lot/DP

number: 3321/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

> R3.5 ceiling insulation No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 91.0 Unconditioned: 2.0 Garage: 0.0 TOTAL: 93.0

# **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 37.9 Cooling: 30.0 TOTAL: 67.9

#### Plan documents

Plan ref/date: **Wianamatta Parkway** 

Prepared by:

the more energy efficient NATIONWIDE Predicted annual energy load for heating and cooling based on standard occupancy assumptions MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed:

Unsealed: 0

TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

# Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

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Scan to access this certificate online and confirm this is valid.



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Certificate number: **0004073375** Certificate Date: **01 Aug 2019** ★ Star rating:



## **Building features**

Window type a	and performance value		
Window ID	Window type	U-value	SHGC
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-063-01 A	n/a	1500	600	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	SE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading

Roof windo	w and skyligh	nt type and performanc	e value			
ID	Window	type			U-value	SHGC
None Presen	t					-
Roof windo	w and skyligh	nt schedule				
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present	t					

Externa	l wall	type
---------	--------	------

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

## **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	1300	2595	NW	No	1000
Living/Entry	EW-1	900	2595	SW	No	1300
Living/Entry	EW-1	3300	2595	NW	No	1200
Kitchen/Dining	EW-1	4600	2595	SE	No	3000
Bedroom 1	EW-1	900	1770	SW	No	0
Bedroom 1	EW-2	900	680	SW	No	1300
Bedroom 1	EW-1	3300	1770	NW	No	0
Bedroom 1	EW-2	3300	680	NW	No	1700
Bedroom 2	EW-1	1000	1770	SE	No	0
Bedroom 2	EW-2	1000	680	SE	No	100

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004073375 Certificate Date: 01 Aug 2019 ★ Star rating:



Hall	EW-1	1295	1770	NW	No	0
Hall	EW-2	1295	680	NW	No	1500
Bedroom 3	EW-1	2795	1770	NE	No	0
Bedroom 3	EW-2	2795	680	NE	No	100
Bedroom 3	EW-1	3600	1770	SE	No	0
Bedroom 3	EW-2	3600	680	SE	No	600

Internal wall type				
Wall type	Area (m²)	Insulation	Wall wrap or foil	
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No	
IW-2 - Cavity wall, direct fix plasterboard, single gap	88.0	No insulation	No	

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	12.8		No Insulation	Carpet+Rubber Underlay 18mn
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	2.9		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.4		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	0.8		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	9.7		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.4		No Insulation	Carpet+Rubber Underlay 18mn
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	6.0		No Insulation	Carpet+Rubber Underlay 18mn
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubbe Underlay 18mn

Ceiling type			
Location	Construction	Added insulation	Roof space above
Living/Entry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au



01 Aug 2019





Laundry	Timber Above Plasterboard	No Insulation	No
Kitchen/Dining	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Shower	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

ameter (mm) Seale	ed/unsealed
0 Seale	ed
	0 Seale

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au



Additional information	

## **Explanatory notes**

#### **About this report**

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

#### **General Information**

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

#### **Accredited Assessors**

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, 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. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under 'assessor details'. You can also find a range of information about accredited assessors on the AAO websites.

#### **Disclaimer**

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

### **Contact**

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

Certificate number: 0004073391 Certificate Date: 01 Aug 2019 ★ Star rating: 6.9

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan

then this certificate is not valid.

#### Assessor details

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

## Overview

Lot/DP

#### **Dwelling details**

Street: Wianamatta Parkway

Suburb: Jordan Springs

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 1A

NatHERS

climate zone: 28

number: **3322/0** Exposure: **Suburban** 

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

Corrugated Iron

**Suspended Timber Floor** 

Insulation: R2.0 wall insulation

R3.5 ceiling insulation
No floor insulation

Glazing: BRD-112-01 A ESS Awning 52 SG

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 91.0
Unconditioned: 2.0
Garage: 0.0
TOTAL: 93.0

# Annual thermal performance loads (MJ/m²)

Heating: **37.9** Cooling: **29.5** TOTAL: **67.4** 

#### Plan documents

Plan ref/date: Wianamatta Parkway

Prepared by: **0** 

The more stars the more energy efficient

NATIONWIDE HOUSE ENERGY RATING SCHEME

Predicted annual energy load for heating and cooling based on standard occupancy assumptions

67.4 MJ/m²

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

#### Ceiling penetrations

(see following pages for details)

Sealed: 4

Unsealed: 0

TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

## Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



Certificate number: 0004073391 Certificate Date: 01 Aug 2019 ★ Star rating:



## **Building features**

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	SE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading

Roof windo	w and skylig	ht type and performanc	e value			
ID None Presen	Window	type			U-value	SHGC
	່ w and skylig	ht schedule				
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Presen	t					

External v	vall type		
ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes

Anti-glare foil with bulk no gap R2

#### **External wall schedule**

Fibro Cavity Panel Direct Fix

EW-2

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	3300	2595	NW	No	1200
Living/Entry	EW-1	900	2595	NE	No	1300
Living/Entry	EW-1	1300	2595	NW	No	1000
Kitchen/Dining	EW-1	4600	2595	SE	No	3000
Bedroom 1	EW-1	3300	1770	NW	No	0
Bedroom 1	EW-2	3300	680	NW	No	1700
Bedroom 1	EW-1	900	1770	NE	No	0
Bedroom 1	EW-2	900	680	NE	No	1300
Bedroom 2	EW-1	1000	1770	SE	No	0
Bedroom 2	EW-2	1000	680	SE	No	100

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Yes

Certificate number: 0004073391 Certificate Date: 01 Aug 2019 ★ Star rating: 6.9



Hall	EW-1	1295	1770	NW	No	0
Hall	EW-2	1295	680	NW	No	1500
Bedroom 3	EW-1	3600	1770	SE	No	0
Bedroom 3	EW-2	3600	680	SE	No	600
Bedroom 3	EW-1	2795	1770	SW	No	0
Bedroom 3	EW-2	2795	680	SW	No	100

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No		
IW-2 - Cavity wall, direct fix plasterboard, single gap	87.0	No insulation	No		

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	11.4		No Insulation	Carpet+Rubbe Underlay 18mr
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	3.4		No Insulation	Ceramic Tiles 8mm
Shower/Living/Entry	Timber Above Plasterboard 19mm	0.5		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	2.3		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mn
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.6		No Insulation	Carpet+Rubbe Underlay 18mm
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	7.6		No Insulation	Carpet+Rubbe Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubbe Underlay 18mr

Ceiling type			
Location	Construction	Added insulation	Roof space above
Living/Entry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No

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01 Aug 2019





Laundry	Timber Above Plasterboard	No Insulation	No
Kitchen/Dining	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Shower	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations					
Location	Number	Туре	Diameter (mm)	Sealed/unsealed	
PDR	1	Exhaust Fans	300	Sealed	
Laundry	1	Exhaust Fans	300	Sealed	
Ensuite 1	1	Exhaust Fans	300	Sealed	
Shower	1	Exhaust Fans	300	Sealed	

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

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Additional information		

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Certificate number: 0004073383 Certificate Date: 01 Aug 2019 ★ Star rating: 6.2

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#### Assessor details

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

## Overview

Lot/DP

#### **Dwelling details**

Street: Wianamatta Parkway

Suburb: Jordan Springs

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 1A

NatHERS

climate zone: 28

number: 3323/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

Corrugated Iron

**Suspended Timber Floor** 

Insulation: R2.0 wall insulation

R3.5 ceiling insulation
No floor insulation

Glazing: BRD-112-01 A ESS Awning 52 SG

4mmClr

#### Net floor area (m<sup>2</sup>)

 Conditioned:
 128.0

 Unconditioned:
 3.0

 Garage:
 0.0

 TOTAL:
 131.0

# Annual thermal performance loads (MJ/m²)

Heating: 44.7
Cooling: 39.2
TOTAL: 83.9

#### Plan documents

Plan ref/date: Wianamatta Parkway

Prepared by: **0** 

The more stars the more energy efficient

NATIONWIDE HOUSE ENERGY RATING SCHEME

Predicted annual energy load for heating and cooling based on standard occupancy assumptions

83.9 MJ/m²

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

#### Ceiling penetrations

(see following pages for details)

Sealed: 4

Unsealed:
TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been

taken into account with the rating.

Principle downlight type: Unknown

0

## Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8841667

Certificate number: 0004073383 Certificate Date: 01 Aug 2019 ★ Star rating: 6.2



## **Building features**

Window type and performance value						
Window ID	Window type	U-value	SHGC			
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67			
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74			
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78			

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Laundry	BRD-033-01 A	n/a	2100	1470	NE	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1570	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	SW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading

ID Nove Brown	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

External wa	ll type					
ID	Wall type		Insulation		V	all wrap or foi
EW-1	AAC cavity pa	anel on battens	Anti-glare foil	with bulk no gap	R2 Y	'es
EW-2	Fibro Cavity F	Panel Direct Fix	Anti-glare foil	with bulk no gap	R2 Y	'es
External wa	II schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	4095	2595	NE	No	100
Lounge	EW-1	1995	2595	NW	No	1200
Laundry	EW-1	1890	2595	NE	No	100
Lounge	EW-1	1300	2595	NW	No	1000

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Certificate number: 0004073383 Certificate Date: 01 Aug 2019 ★ Star rating: 6.2



#### **Building features continued** EW-1 900 2595 SW No 1300 Lounge Lounge EW-1 2295 2595 NW No 1200 Kitchen/Living EW-1 1000 2595 NW 100 No Kitchen/Living EW-1 7100 NE No 100 2595 Kitchen/Living EW-1 3300 2595 SE No 100 EW-1 2800 SW No 3300 Kitchen/Living 2595 EW-1 2900 Kitchen/Living 3300 2595 SE No Bedroom 1 EW-1 4095 1770 NE No 0 Bedroom 1 EW-2 4095 680 NE No 100 Bedroom 1 EW-1 2795 1770 NW No 0 1700 Bedroom 1 EW-2 2795 680 NW No WIR 1 EW-1 900 1770 SW No 0 WIR 1 EW-2 900 680 SW No 1300 WIR 1 EW-1 1495 1770 NW No 0 WIR 1 EW-2 1495 680 NW No 1700 Ensuite 1 1770 No 0 EW-1 1690 NE 1690 680 NE No 100 **Ensuite 1** EW-2 Bedroom 2 1770 NE No 0 EW-1 3690 Bedroom 2 EW-2 3690 680 NE No 100 0 Bedroom 3 EW-1 1770 NE No 3595 Bedroom 3 NE No 100 EW-2 3595 680 Bedroom 3 EW-1 2795 1770 SE No 0 Bedroom 3 EW-2 2795 680 SE No 600 Bedroom 4 1770 SE No 0 EW-1 2795 Bedroom 4 SE EW-2 2795 680 No 600 **Upper Hall EW-1** 1770 NW No 0 1295 **Upper Hall** EW-2 1295 680 NW No 1600

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Cavity wall, direct fix plasterboard, single gap	140.0	No insulation	No		
IW-2 - AAC, plaster on studs	54.0	Bulk Insulation both sides of shaft liner R2	No		

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	37.4	None	Waffle Pod 300mm	Ceramic Tiles 8mm

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Certificate number: **0004073383** Certificate Date: **01 Aug 2019** ★ Star rating:



Bedroom 1/Lounge	Timber Above Plasterboard 19mm	10.6		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	1.9		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	4.0		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	2.7		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.7		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Living	Timber Above Plasterboard 19mm	8.9		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	8.4		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
WC/Kitchen/Living	Timber Above Plasterboard 19mm	1.6		No Insulation	Ceramic Tiles 8mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	5.1		No Insulation	Ceramic Tiles 8mm
Upper Hall/PDR	Timber Above Plasterboard 19mm	0.9		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	4.5		No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type
--------------

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation	Yes

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004073383** Certificate Date: **01 Aug 2019** ★ Star rating:



		R3.5
WC	Plasterboard	Bulk Insulation Yes R3.5
Bath	Plasterboard	Bulk Insulation Yes R3.5
Upper Hall	Plasterboard	Bulk Insulation Yes R3.5

Ceiling penetrations  Location Number Type Diameter (mm) Sealed/unsealed					
PDR	1	Exhaust Fans	300	Sealed	
	l .				
Ensuite 1	1	Exhaust Fans	300	Sealed	
WC	1	Exhaust Fans	300	Sealed	
Bath	1	Exhaust Fans	300	Sealed	

Ceiling fans		
Location	Number	Diameter (mm)
None Present		

Construction	Added Roof colo insulation
Corrugated Iron	Bulk, Reflective Dark Side Down, No Air Gap Above R1.3

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Additional information	

## **Explanatory notes**

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### **Contact**

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Certificate number: 0004073482 Certificate Date: 01 Aug 2019 ★ Star rating: 5.3

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid



#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

## Overview

## **Dwelling details**

Street: **Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28 Lot/DP

number: 3325/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: Fibro Cavity Panel Direct Fix

**Corrugated Iron** 

**Suspended Timber Floor** 

Insulation: **R2.0** wall insulation

> R3.5 ceiling insulation No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 146.0 Unconditioned: 2.0 Garage: 0.0 TOTAL: 148.0

## performance loads

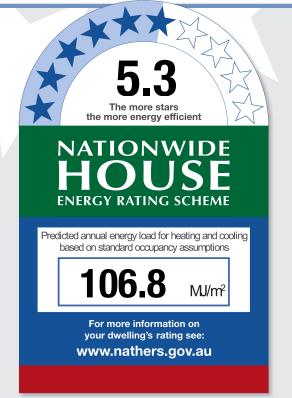
Heating: 50.7 Cooling: 56.1 TOTAL: 106.8

#### Plan documents

Plan ref/date: **Wianamatta Parkway** 

Prepared by:

## **Annual thermal** (MJ/m<sup>2</sup>)



#### Ceiling penetrations

(see following pages for details)

Sealed:

Unsealed: 0

TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

## Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8841667

Certificate number: 0004073482 Certificate Date: 01 Aug 2019 ★ Star rating:



5.3

## **Building features**

Window ID	Window type	U-value	SHGC
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-026-18 A	BRD-026-18 A ESS Awning Window (52mm) SG 638CP	5.0	0.40
BRD-001-01 A	BRD-001-01 A ESS Sliding Window (52mm) SG 3Clr	6.4	0.76
BRD-033-10 A	BRD-033-10 A ESS Sliding Door (80mm) SG 6.38CPClr	4.3	0.60

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Home Office	BRD-063-01 A	n/a	1500	600	SW	No Shading
Home Office	BRD-112-01 A	n/a	2080	610	SW	No Shading
Home Office	BRD-112-01 A	n/a	2080	610	SW	No Shading
Home Office	BRD-112-01 A	n/a	2080	610	NW	No Shading
Home Office	BRD-112-01 A	n/a	2080	610	NW	No Shading
Home Office	BRD-112-01 A	n/a	2080	610	NW	No Shading
Entry	BRD-026-18 A	n/a	2080	610	NW	No Shading
Entry	BRD-026-18 A	n/a	2080	610	NW	No Shading
PWD	BRD-112-01 A	n/a	600	600	NE	No Shading
Bedroom 3	BRD-001-01 A	n/a	900	2200	NW	No Shading
Laundry	BRD-112-01 A	n/a	600	600	NE	No Shading
Kitchen/Living	BRD-026-18 A	n/a	1500	600	SW	No Shading
Kitchen/Living	BRD-026-18 A	n/a	2080	610	SW	No Shading
Kitchen/Living	BRD-033-10 A	n/a	2100	1800	SW	No Shading
Kitchen/Living	BRD-026-18 A	n/a	1200	600	NW	No Shading
Kitchen/Living	BRD-026-18 A	n/a	1200	600	NW	No Shading
Dining/Stairs	BRD-026-18 A	n/a	1200	1800	NW	No Shading
Dining/Stairs	BRD-033-10 A	n/a	2100	3100	NE	No Shading
Bedroom 2	BRD-112-01 A	n/a	1200	600	NE	No Shading
Bedroom 2	BRD-112-01 A	n/a	1200	600	NE	No Shading
Ensuite 2	BRD-112-01 A	n/a	1200	600	NE	No Shading
Ensuite 1	BRD-112-01 A	n/a	1200	600	SW	No Shading
Bedroom 1	BRD-112-01 A	n/a	1200	600	SW	No Shading
Bedroom 1	BRD-112-01 A	n/a	1200	600	SW	No Shading

ID	Window	type			U-value	SHGC
None Present	t					
Roof windo	w and skyligh	nt schedule				
Location	ID	Roof	Aroa (m²)	Orientation	Outdoor shade	Indoor

## **External wall type**

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004073482** Certificate Date: **01 Aug 2019** ★ Star rating:



## **Building features continued**

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

## **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Home Office	EW-1	1700	2595	SW	No	1000
Home Office	EW-1	900	2595	SE	No	1700
Home Office	EW-1	3900	2595	SW	No	1200
Home Office	EW-1	5395	2595	NW	No	100
Entry	EW-1	2990	2595	NW	No	100
PWD	EW-1	1895	2595	NW	No	100
PWD	EW-1	1595	2595	NE	No	2800
Hall/Stairs	EW-1	1290	2595	NE	No	2800
Bedroom 3	EW-1	2700	2595	NW	No	3000
Bedroom 3	EW-1	2700	2595	NE	No	100
Bedroom 3	EW-1	2700	2595	SE	No	0
Laundry	EW-1	1095	1770	NE	No	0
Laundry	EW-2	1095	680	NE	No	3400
Kitchen/Living	EW-1	1700	1770	SW	No	0
Kitchen/Living	EW-2	1700	680	SW	No	1500
Kitchen/Living	EW-1	900	1770	SE	No	0
Kitchen/Living	EW-2	900	680	SE	No	1700
Kitchen/Living	EW-1	3900	1770	SW	No	0
Kitchen/Living	EW-2	3900	680	SW	No	1400
Kitchen/Living	EW-1	5395	1770	NW	No	0
Kitchen/Living	EW-2	5395	680	NW	No	600
Dining/Stairs	EW-1	4895	1770	NW	No	0
Dining/Stairs	EW-2	4895	680	NW	No	600
Dining/Stairs	EW-1	4495	1770	NE	No	0
Dining/Stairs	EW-2	4495	680	NE	No	3400
Bedroom 2	EW-2	3695	2450	SE	No	700
Bedroom 2	EW-2	2895	2450	NE	No	100
Ensuite 2	EW-2	2695	2450	NW	No	700
Ensuite 2	EW-2	1395	2450	NE	No	100
WIR 2	EW-2	2390	2450	NW	No	700
WIR 1	EW-2	1690	2450	NW	No	700
Ensuite 1	EW-2	1595	2450	SW	No	100
Ensuite 1	EW-2	2595	2450	NW	No	700
Bedroom 1	EW-2	3595	2450	SE	No	700
Bedroom 1	EW-2	2695	2450	SW	No	100
Stairs	EW-2	700	2450	NE	No	3800
Stairs	EW-2	2100	2450	SE	No	0
Stairs	EW-2	700	2450	SW	No	3700

## Internal wall type

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Certificate number: 0004073482 Certificate Date: 01 Aug 2019





5.3

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	121.0	No insulation	No
IW-2 - AAC, plaster on studs	47.0	Bulk Insulation both sides of shaft liner R2	No

Location	Construction	Area (m²)	Sub floor	Added	Covering
Location	Construction	Alea (III-)	ventilation	insulation	Covering
Home Office	Waffle pod slab 300 mm 100mm	28.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Entry	Waffle pod slab 300 mm 100mm	4.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PWD	Waffle pod slab 300 mm 100mm	2.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Hall/Stairs	Waffle pod slab 300 mm 100mm	11.7	None	Waffle Pod 300mm	40/60 Carpet 10mm/Ceramic
Bath	Waffle pod slab 300 mm 100mm	4.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 3	Waffle pod slab 300 mm 100mm	9.8	None	Waffle Pod 300mm	Carpet+Rubber Underlay 18mm
Laundry/Bath	Timber Above Plasterboard 19mm	0.7		No Insulation	Ceramic Tiles 8mm
Laundry/Bedroom 3	Timber Above Plasterboard 19mm	1.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Ho me Office	Timber Above Plasterboard 19mm	28.5		No Insulation	Ceramic Tiles 8mm
Dining/Stairs/Entry	Timber Above Plasterboard 19mm	4.7		No Insulation	20/80 Carpet 10mm/Ceramic
Dining/Stairs/PWD	Timber Above Plasterboard 19mm	3.0		No Insulation	20/80 Carpet 10mm/Ceramic
Dining/Stairs/Hall/ Stairs	Timber Above Plasterboard 19mm	12.1		No Insulation	20/80 Carpet 10mm/Ceramic
Dining/Stairs/Bath	Timber Above Plasterboard 19mm	3.8		No Insulation	20/80 Carpet 10mm/Ceramic
Dining/Stairs/Bedr oom 3	Timber Above Plasterboard 19mm	1.6		No Insulation	20/80 Carpet 10mm/Ceramic
Bedroom 2/Laundry	Timber Above Plasterboard 19mm	0.7		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2/Dining/Stairs	Timber Above Plasterboard 19mm	9.8		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 2/Dining/Stairs	Timber Above Plasterboard 19mm	3.6		No Insulation	Ceramic Tiles 8mm
WIR 2/Dining/Stairs	Timber Above Plasterboard 19mm	2.9		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Kitchen/Living	Timber Above Plasterboard 19mm	2.2		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Kitchen/Living	Timber Above Plasterboard 19mm	4.0		No Insulation	Ceramic Tiles 8mm
Bedroom 1/Kitchen/Living	Timber Above Plasterboard 19mm	9.6		No Insulation	Carpet+Rubber Underlay 18mm
Stairs/Kitchen/Livin	Timber Above Plasterboard 19mm	3.1		No Insulation	Carpet+Rubber Underlay 18mm
	Timber Above Plasterboard	4.1		No Insulation	Carpet+Rubber

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Certificate number: **0004073482** Certificate Date:

01 Aug 2019

★ Star rating:



5.3

## **Building features continued**

19mm Underlay 18mm

Location	Construction	Added insulation	Roof space above
Home Office	Timber Above Plasterboard	No Insulation	No
Entry	Timber Above Plasterboard	No Insulation	No
PWD	Timber Above Plasterboard	No Insulation	No
Hall/Stairs	Timber Above Plasterboard	No Insulation	No
Bath	Timber Above Plasterboard	No Insulation	No
Bedroom 3	Plasterboard	Bulk Insulation R3.5	No
Bedroom 3	Timber Above Plasterboard	No Insulation	No
Laundry	Plasterboard	Bulk Insulation R3.5	Yes
Laundry	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Dining/Stairs	Plasterboard	Bulk Insulation R3.5	Yes
Dining/Stairs	Timber Above Plasterboard	No Insulation	No
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 2	Plasterboard	Bulk Insulation R3.5	Yes
WIR 2	Plasterboard	Bulk Insulation R3.5	Yes
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Stairs	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling pene	etrations			
Location	Number	Туре	Diameter (mm)	Sealed/unsealed
PWD	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed
Ensuite 2	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed

Ceiling fans		
Location	Number	Diameter (mm)
None Present		

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Certificate number: 0004073482 Certificate Date: 01 Aug 2019 ★ Star rating:



Construction	Added	Roof colour
	insulation	
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1	Dark

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Additional information	

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#### **Disclaimer**

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

### **Contact**

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Certificate number: **0004073714-01** Certificate Date: 01 Aug 2019



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#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

## Overview

#### **Dwelling details**

Street: **Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28 Lot/DP

number: 3326/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

R3.5 ceiling insulation

No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 121.0 Unconditioned: 3.0 Garage: 0.0 TOTAL:

## **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 39.6 Cooling: 33.1 TOTAL: 72.7

#### Plan documents

Plan ref/date: **Wianamatta Parkway** 

124.0

Prepared by:

the more energy efficient NATIONWIDE Predicted annual energy load for heating and cooling based on standard occupancy assumptions MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed:

Unsealed: 0 TOTAL:\*\* 3

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

## Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

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Certificate number: **0004073714-01** Certificate Date: **01 Aug 2019** 

★ Star rating:



## **Building features**

Window type and performance value							
Window type	U-value	SHGC					
BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67					
BRD-063-01 A SIG Fixed Lite (67mm) SG 4CIr	6.0	0.78					
BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74					
	Window type BRD-112-01 A ESS Awning 52 SG 4mmClr BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	Window type         U-value           BRD-112-01 A ESS Awning 52 SG 4mmClr         6.5           BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr         6.0					

#### Window schedule

Location	Window ID	Window no.	Hoight (mm)	Width (mm)	Orientation	Outdoor chado
	Window ID		Height (mm)	Width (mm)		Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	785	SW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	SW	No Shading
Lounge	BRD-112-01 A	n/a	2080	785	SW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	SW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	NE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	NW	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1210	NE	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	SW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	NE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	NE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	SW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	SW	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	SW	No Shading

ID	Window ty	/pe		U-value	SHGC
None Present	t				
Roof window	w and skylight	schedule			

External w	vall type		
ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

## **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	1995	2595	SW	No	1200
Lounge	EW-1	900	2595	SE	No	0
Lounge	EW-1	2295	2595	SW	No	1200
Lounge	EW-1	900	2595	NW	No	1300
Lounge	EW-1	1300	2595	SW	No	1000
Kitchen/Living	EW-1	3300	2595	NE	No	2900
Kitchen/Living	EW-1	2800	2595	NW	No	3300

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004073714-01 Certificate Date: 01 Aug 2019 ★ Star rating:



Kitchen/Living	EW-1	2300	2595	NE	No	100
Kitchen/Living	EW-1	2800	2595	SE	No	0
WIR 1	EW-1	1495	1770	SW	No	0
WIR 1	EW-2	1495	680	SW	No	1700
WIR 1	EW-1	900	1770	NW	No	0
WIR 1	EW-2	900	680	NW	No	1300
Bedroom 3	EW-1	2795	1770	NE	No	0
Bedroom 3	EW-2	2795	680	NE	No	600
Bedroom 3	EW-2	3895	680	SE	No	0
Bedroom 4	EW-1	2795	1770	NE	No	0
Bedroom 4	EW-2	2795	680	NE	No	600
Upper Hall	EW-1	1295	1770	SW	No	0
Upper Hall	EW-2	1295	680	SW	No	1600
Bedroom 1	EW-1	900	2450	SE	No	0
Bedroom 1	EW-1	2795	1770	SW	No	0
Bedroom 1	EW-2	2795	680	SW	No	1700

Internal wall type			
Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	129.0	No insulation	No
IW-2 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	30.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	5.2		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	9.3		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	3.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.6	Open	No Insulation	Carpet+Rubber Underlay 18mm

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004073714-01 Certificate Date: 01 Aug 2019 ★ Star rating:



Building features	s continued			
Upper Hall/PDR	Timber Above Plasterboard 19mm	0.7	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.3	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	6.6	No Insulation	Carpet+Rubber Underlay 18mm
WIL/Kitchen/Living	Timber Above Plasterboard 19mm	2.8	No Insulation	Carpet+Rubber Underlay 18mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	7.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	3.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	0.9	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Kitchen/Living	Timber Above Plasterboard 19mm	0.5	No Insulation	Ceramic Tiles 8mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	10.4	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/PDR	Timber Above Plasterboard 19mm	1.1	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	0.7	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type			
Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes
Upper Hall	Plasterboard	Bulk Insulation R3.5	Yes
WIL	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling pene	etrations		
Location	Number	Туре	Diameter (mm) Sealed/unsealed

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au







Building fea	itures conf	tinued			
PDR	1	Exhaust Fans	300	Sealed	
Bath	1	Exhaust Fans	300	Sealed	
Ensuite 1	1	Exhaust Fans	300	Sealed	

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type	
Construction	Added Roof colour insulation
Corrugated Iron	Bulk, Reflective Dark Side Down, No Air Gap Above R1.3

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au



Additional information	

## **Explanatory notes**

#### **About this report**

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

#### **General Information**

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

#### **Accredited Assessors**

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, 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. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under 'assessor details'. You can also find a range of information about accredited assessors on the AAO websites.

#### **Disclaimer**

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

### **Contact**

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

## Nationwide House Energy Rating Scheme\* — Multiple-dwelling summary

Certificate number: **0004073730** Certificate Date: **01 Aug 2019** ★ Average Star rating: **6.2** 



#### **Assessor details**

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant
Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

## **Dwelling details**

Street: Wianamatta Parkway

Suburb: Jordan Springs

State: **NSW** Postcode: **2747** 

Scan to access this certificate online and confirm this is valid.





## **Summary of all dwellings**

Certificate number	Dwelling/Unit number	Heating load	Cooling load	Total load	Star Rating
0004073714-01		39.6	33.1	72.7	6.7
0004073722	Studio	42.2	55.2	97.4	5.6

Certificate number: 0004073722 Certificate Date: 01 Aug 2019 ★ Star rating: 5.6

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan

then this certificate is not valid

#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

## Overview

## **Dwelling details**

Street: **Unit Studio, Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28 Lot/DP

number: 3326/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

> R3.5 ceiling insulation No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 39.0 Unconditioned: 31.0 Garage: 31.0 TOTAL: 70.0

## **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 42.2 Cooling: 55.2 TOTAL: 97.4

#### Plan documents

Plan ref/date: **Wianamatta Parkway** 

Prepared by:

## the more energy efficient NATIONWIDE Predicted annual energy load for heating and cooling based on standard occupancy assumptions MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed:

TOTAL:\*\*

Unsealed:

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

0

## Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



Certificate number: 0004073722 Certificate Date: 01 Aug 2019 ★ Star rating: 5



## **Building features**

window type and performance value					
Window ID	Window type	U-value	SHGC		
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67		
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78		

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	BRD-112-01 A	n/a	1000	1600	NE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	NE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	NE	No Shading
Stairs	BRD-063-01 A	n/a	600	1800	SW	No Shading

ID	Window	type			U-value	SHGC
None Presen	it					
Roof windo	w and skyligl	nt schedule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	No insulation	No
EW-2	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-3	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall s						
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage	EW-1	5600	2595	NE	No	100
Garage	EW-1	5495	2595	SE	No	100
Garage	EW-1	5495	2595	NW	No	100
Entry/Stairs	EW-2	1095	2595	SE	No	100
Entry/Stairs	EW-2	5600	2595	SW	No	100
Entry/Stairs	EW-2	1095	2595	NW	No	100
Bedroom 1	EW-2	2895	1770	NE	No	0
Bedroom 1	EW-3	2895	680	NE	No	600
Bedroom 1	EW-2	3595	2450	NW	No	100
PDR	EW-2	995	1770	SW	No	0
PDR	EW-3	995	680	SW	No	600
PDR	EW-2	2995	2450	NW	No	100
Kitchen/Living	EW-2	2695	1770	NE	No	0
Kitchen/Living	EW-3	2695	680	NE	No	600
Kitchen/Living	EW-2	5495	2450	SE	No	100

2450

SE

No

1095

100

EW-2

**Stairs** 

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004073722 Certificate Date: 01 Aug 2019 ★ Star rating: 5.6



Stairs	EW-2	4595	1770	SW	No	0
Stairs	EW-3	4595	680	SW	No	600

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Cavity wall, direct fix plasterboard, single gap	15.0	Bulk Insulation, No Air Gap R2	No		
IW-2 - Cavity wall, direct fix plasterboard, single gap	35.0	No insulation	No		

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Garage	Waffle pod slab 225 mm 100mm	30.5	None	Waffle Pod 225mm	Bare
Entry/Stairs	Waffle pod slab 300 mm 100mm	5.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Garage	Timber Above Plasterboard 19mm	9.5		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
PDR/Garage	Timber Above Plasterboard 19mm	3.2		Bulk Insulation R2	Ceramic Tiles 8mm
PDR/Entry/Stairs	Timber Above Plasterboard 19mm	1.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Gar age	Timber Above Plasterboard 19mm	17.1		Bulk Insulation R2	Ceramic Tiles 8mm
Stairs/Entry/Stairs	Timber Above Plasterboard 19mm	4.8		No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Garage	Timber Above Plasterboard	Bulk Insulation R2	No
Entry/Stairs	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
PDR	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Stairs	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling pen	etrations			
Location	Number	Туре	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004073722** Certificate Date:

01 Aug 2019

★ Star rating:



Location Number Diameter (mm)	
None Present	

Roof type	
Construction	Added Roof cold insulation
Corrugated Iron	Bulk, Reflective Dark Side Down, No Air Gap Above R1.3



Additional information	

## **Explanatory notes**

## **About this report**

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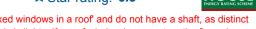
#### **Disclaimer**

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

### **Contact**

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Certificate number: **0004073755-01** Certificate Date: 01 Aug 2019 ★ Star rating: 6.9



BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid

#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

## Overview

Lot/DP

#### **Dwelling details**

Street: **Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28

number: 3327/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

R3.5 ceiling insulation

No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 91.0 Unconditioned: 2.0 Garage: 0.0 TOTAL: 93.0

## **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 36.6 Cooling: 32.5 TOTAL: 69.1

#### Plan documents

Plan ref/date: **Wianamatta Parkway** 

Prepared by:

certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

the more energy efficient NATIONWIDE Predicted annual energy load for heating and cooling based on standard occupancy assumptions MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed: Unsealed:

TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

0

## Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this Scan to access this certificate online and confirm this is valid.



Certificate number: **0004073755-01** Certificate Date: **01 Aug 2019** 

ug 2019 ★ Star rating:



## **Building features**

		Window type and performance value					
ow type	U-value	SHGC					
112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67					
063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78					
033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74					
(	112-01 A ESS Awning 52 SG 4mmClr 063-01 A SIG Fixed Lite (67mm) SG 4Clr	112-01 A ESS Awning 52 SG 4mmClr 6.5 063-01 A SIG Fixed Lite (67mm) SG 4Clr 6.0					

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-112-01 A	n/a	2080	610	SW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	SW	No Shading
Living/Entry	BRD-063-01 A	n/a	1500	600	SW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	NE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	SW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	SW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	NE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	SW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	NE	No Shading

Roof windo	w and skyligl	nt type and performanc	e value				
None Presen	Window	type			U-value	SHGC	
Roof window and skylight schedule							
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser	
None Presen	t						

Extern	al wa	II type
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ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

## **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	3300	2595	SW	No	1200
Living/Entry	EW-1	900	2595	NW	No	1300
Living/Entry	EW-1	1300	2595	SW	No	1000
Kitchen/Dining	EW-1	4600	2595	NE	No	3000
Bedroom 1	EW-1	3300	1770	SW	No	0
Bedroom 1	EW-2	3300	680	SW	No	1700
Bedroom 1	EW-1	900	1770	NW	No	0
Bedroom 1	EW-2	900	680	NW	No	1300
Bedroom 2	EW-1	1000	1770	NE	No	0
Bedroom 2	EW-2	1000	680	NE	No	100

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004073755-01** Certificate Date: **01 Aug 2019** 





Building featu	ures continue	ed				
Hall	EW-1	1295	1770	SW	No	0
Hall	EW-2	1295	680	SW	No	1500
Bedroom 3	EW-1	3600	1770	NE	No	0
Bedroom 3	EW-2	3600	680	NE	No	600
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	100

Internal wall type						
Wall type	Area (m²)	Insulation	Wall wrap or foil			
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No			
IW-2 - Cavity wall, direct fix plasterboard, single gap	88.0	No insulation	No			

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	12.8		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	2.9		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.4		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	0.8		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	9.7		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.4		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	6.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type			
Location	Construction	Added insulation	Roof space above
Living/Entry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No

Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004073755-01** Certificate Date:

**01 Aug 2019** ★ Star rating:



Laundry	Timber Above Plasterboard	No Insulation	No
Kitchen/Dining	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Shower	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations						
Number	Туре	Diameter (mm)	Sealed/unsealed			
1	Exhaust Fans	300	Sealed			
1	Exhaust Fans	300	Sealed			
1	Exhaust Fans	300	Sealed			
1	Exhaust Fans	300	Sealed			
		NumberType1Exhaust Fans1Exhaust Fans1Exhaust Fans	Number         Type         Diameter (mm)           1         Exhaust Fans         300           1         Exhaust Fans         300           1         Exhaust Fans         300			

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au



Additional information	

## **Explanatory notes**

#### **About this report**

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

#### **General Information**

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

#### **Accredited Assessors**

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, 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. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under 'assessor details'. You can also find a range of information about accredited assessors on the AAO websites.

#### **Disclaimer**

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

#### **Contact**

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

Certificate number: **0004073748-01** Certificate Date: 01 Aug 2019 ★ Star rating: 6.9



BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid

#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

#### Overview

Lot/DP

#### **Dwelling details**

Street: **Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28

number: 3328/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

> R3.5 ceiling insulation No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 91.0 Unconditioned: 2.0 Garage: 0.0 TOTAL: 93.0

### **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 37.3 Cooling: 31.5 TOTAL: 68.8

#### Plan documents

Plan ref/date: **Wianamatta Parkway** 

Prepared by:

the more energy efficient NATIONWIDE Predicted annual energy load for heating and cooling based on standard occupancy assumptions MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed:

Unsealed: 0

TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

## Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



Certificate number: 0004073748-01 Certificate Date: 01 Aug 20

**01 Aug 2019** ★ Star rating:



## **Building features**

Window type and performance value						
Window ID	Window type	U-value	SHGC			
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78			
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67			
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74			

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-063-01 A	n/a	1500	600	SW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	SW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	SW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	NE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	SW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	SW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	NE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	SW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	NE	No Shading

Roof window	and skylight ty	ype and performanc	e value			
ID None Present	Window typ	oe			U-value	SHGC
	v and skylight s	chedule				
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

Externa	ı wall	type
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ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

## **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	1300	2595	SW	No	1000
Living/Entry	EW-1	900	2595	SE	No	1300
Living/Entry	EW-1	3300	2595	SW	No	1200
Kitchen/Dining	EW-1	4600	2595	NE	No	3000
Bedroom 1	EW-1	900	2450	SE	No	1300
Bedroom 1	EW-1	3300	1770	SW	No	0
Bedroom 1	EW-2	3300	680	SW	No	1700
Bedroom 2	EW-1	1000	1770	NE	No	0
Bedroom 2	EW-2	1000	680	NE	No	100
Hall	EW-1	1295	1770	SW	No	0

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004073748-01** Certificate Date: **01 Aug 2019** ★ Star rating:



6.9

**Building features continued** Hall EW-2 1295 680 SW 1500 No Bedroom 3 EW-1 2795 1770 NWNo 0 Bedroom 3 EW-2 2795 680 NW No 100 Bedroom 3 EW-1 3600 1770 NE No 0 Bedroom 3 EW-2 3600 680 NE No 600

Internal wall type	nal wall type		
Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	87.0	No insulation	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	11.4		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	3.4		No Insulation	Ceramic Tiles 8mm
Shower/Living/Entry	Timber Above Plasterboard 19mm	0.5		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	2.3		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.6		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	7.6		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type				
Location	Construction	Added insulation	Roof space above	
Living/Entry	Timber Above Plasterboard	No Insulation	No	
PDR	Timber Above Plasterboard	No Insulation	No	
Laundry	Timber Above Plasterboard	No Insulation	No	

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Certificate number: **0004073748-01** Certificate Date: **01 Aug** 

**01 Aug 2019** ★ Star rating:



Kitchen/Dining	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Shower	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
Shower	1	Exhaust Fans	300	Sealed

Ceiling fans		
Location	Number	Diameter (mm)
None Present		

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark



Additional information	

## **Explanatory notes**

#### **About this report**

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#### **Contact**

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Certificate number: **0004073771-01** Certificate Date: 01 Aug 2019 ★ Star rating: 6.9

the more energy efficient

NATIONWIDE

Predicted annual energy load for heating and cooling

based on standard occupancy assumptions

For more information on your dwelling's rating see:

MJ/m²



BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid

#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

#### Overview

#### **Dwelling details**

Street: **Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28 Lot/DP

number: 3329/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

> R3.5 ceiling insulation No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 91.0 Unconditioned: 2.0 Garage: 0.0 TOTAL: 93.0

### **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 36.7 Cooling: 32.4 TOTAL: 69.1

#### Plan documents

Plan ref/date: **Wianamatta Parkway** 

Prepared by:

www.nathers.gov.au \*\*NOTE: This total is the Ceiling penetrations maximum number of ceiling (see following pages for details) penetrations allowed to a ceiling (under a roof) for this Sealed: certificate. If this number is exceded in construction then Unsealed: 0 this certificate IS NOT VALID TOTAL:\*\* and a new certificate is required. Loss of ceiling insulation for the

Principle downlight type: Unknown

## Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

penetrations listed has been taken into account with the rating.



Version: 1, Version Date: 06/09/2019

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Certificate number: 0004073771-01 Certificate Date: 01 Aug 2019

★ Star rating:



## **Building features**

Window type and performance value				
Window ID	Window type	U-value	SHGC	
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67	
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78	
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74	

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-112-01 A	n/a	2080	610	SW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	SW	No Shading
Living/Entry	BRD-063-01 A	n/a	1500	600	SW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	NE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	SW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	SW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	NE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	SW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	NE	No Shading

Roof windo	w and skyligh	nt type and performanc	e value			
ID	Window	type			U-value	SHGC
None Presen	t					-
Roof windo	w and skyligh	nt schedule				
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Presen	t					

Externa	ı wall	l type
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ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

## **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	3300	2595	SW	No	1200
Living/Entry	EW-1	900	2595	NW	No	1300
Living/Entry	EW-1	1300	2595	SW	No	1000
Kitchen/Dining	EW-1	4600	2595	NE	No	3000
Bedroom 1	EW-1	3300	1770	SW	No	0
Bedroom 1	EW-2	3300	680	SW	No	1700
Bedroom 1	EW-1	900	1770	NW	No	0
Bedroom 1	EW-2	900	680	NW	No	1300
Bedroom 2	EW-1	1000	1770	NE	No	0
Bedroom 2	EW-2	1000	680	NE	No	100

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004073771-01 Certificate Date: 01 Aug 2019

★ Star rating:



Building features continued						
Hall	EW-1	1295	1770	SW	No	0
Hall	EW-2	1295	680	SW	No	1500
Bedroom 3	EW-1	3600	1770	NE	No	0
Bedroom 3	EW-2	3600	680	NE	No	600
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	100

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	88.0	No insulation	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	12.8		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	2.9		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.4		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	0.8		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	9.7		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.4		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	6.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type			
Location	Construction	Added insulation	Roof space above
Living/Entry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No

Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0004073771-01** Certificate Date:

01 Aug 2019





Laundry	Timber Above Plasterboard	No Insulation	No
Kitchen/Dining	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Shower	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations					
Location	Number	Туре	Diameter (mm)	Sealed/unsealed	
PDR	1	Exhaust Fans	300	Sealed	
Laundry	1	Exhaust Fans	300	Sealed	
Ensuite 1	1	Exhaust Fans	300	Sealed	
Shower	1	Exhaust Fans	300	Sealed	

Location Number Diameter (mm)  None Present	Ceiling fans			
None Present	Location	Number	Diameter (mm)	
	None Present			

Construction	Added Ro insulation	oof colour
Corrugated Iron	Bulk, Reflective Da Side Down, No Air Gap Above R1.3	ark

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au



Additional information	

## **Explanatory notes**

#### **About this report**

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

#### **General Information**

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

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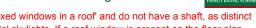
#### **Disclaimer**

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

#### **Contact**

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

Certificate number: **0004073979-01** Certificate Date: 01 Aug 2019 ★ Star rating: 6.5



BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid

#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

#### Overview

#### **Dwelling details**

Street: **Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28 Lot/DP

number: 3330/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

R3.5 ceiling insulation

No floor insulation

BRD-112-01 A ESS Awning 52 SG Glazing:

4mmClr

#### Net floor area (m<sup>2</sup>)

Conditioned: 121.0 Unconditioned: 3.0 Garage: 0.0 TOTAL: 124.0

### **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: Cooling: 33.2 TOTAL: 76.9

#### Plan documents

Plan ref/date: **Wianamatta Parkway** 

Prepared by:

Note: Only a +/- 5% SHGC tolerance is allowed with this rating. 43.7

> NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

the more energy efficient NATIONWIDE Predicted annual energy load for heating and cooling based on standard occupancy assumptions MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

Sealed: Unsealed: 0

TOTAL:\*\* 3

\*\*NOTE: This total is the maximum number of ceiling (see following pages for details) penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Scan to access this

confirm this is valid.

certificate online and

Principle downlight type: Unknown

## Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

values stated on page 2.

Certificate number: **0004073979-01** Certificate Date: **01 Aug 2019** 

★ Star rating:



## **Building features**

Window type and performance value					
Window ID	Window type	U-value	SHGC		
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67		
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78		
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74		

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	785	SW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	SW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	SW	No Shading
Lounge	BRD-112-01 A	n/a	2080	785	SW	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1210	NE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	NE	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	SW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	NE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	NE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	SW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	SW	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	SW	No Shading

ID	Window ty	pe		U-value	SHGC
None Present	t				
Poof windo	w and skylight	schodulo			
Kooi wiiido	w and skyngin	Scriedule			

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	900	2595	NW	No	0
Lounge	EW-1	1995	2595	SW	No	1200
Lounge	EW-1	2900	2595	SE	No	0
Lounge	EW-1	1300	2595	SW	No	1000
Lounge	EW-1	900	2595	SE	No	1300
Lounge	EW-1	2295	2595	SW	No	1200
Kitchen/Living	EW-1	2800	2595	NW	No	0

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004073979-01 Certificate Date: 01 Aug 2019 ★ Star rating:



6.5

**Building features continued** EW-1 Kitchen/Living 2300 2595 NE No 100 Kitchen/Living EW-1 2800 2595 SE No 3300 Kitchen/Living EW-1 3300 2595 NE No 2900 WIR 1 EW-1 900 1770 SE No 0 WIR 1 EW-2 900 680 SE No 1300 WIR 1 EW-1 1495 1770 SW No 0 WIR 1 EW-2 1495 680 SW No 1700 Bedroom 3 3895 NW EW-2 680 No 0 Bedroom 3 EW-1 2795 1770 NE No 0 Bedroom 3 EW-2 2795 680 NE No 600 Bedroom 4 EW-1 1770 2795 NE No 0 Bedroom 4 EW-2 2795 680 NE No 600 **Upper Hall** EW-1 1295 1770 SW No 0 **Upper Hall** EW-2 1295 680 SW No 1600 Bedroom 1 EW-1 2795 1770 SW No 0 Bedroom 1 EW-2 2795 680 SW No 1700 Bedroom 1 EW-1 900 2450 NW No 0

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - AAC, plaster on studs	98.0	Bulk Insulation both sides of shaft liner R2	No		
IW-2 - Cavity wall, direct fix plasterboard, single gap	129.0	No insulation	No		

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	30.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	5.2		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	9.3		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	3.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.6	Open	No Insulation	Carpet+Rubber

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Certificate number: 0004073979-01 Certificate Date: 01 Aug 2019

★ Star rating:



## **Building features continued**

				Underlay 18mm
Upper Hall/PDR	Timber Above Plasterboard 19mm	0.7	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.3	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	6.6	No Insulation	Carpet+Rubber Underlay 18mm
WIL/Kitchen/Living	Timber Above Plasterboard 19mm	2.8	No Insulation	Carpet+Rubber Underlay 18mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	7.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	3.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	0.9	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Kitchen/Living	Timber Above Plasterboard 19mm	0.5	No Insulation	Ceramic Tiles 8mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	10.5	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/PDR	Timber Above Plasterboard 19mm	1.1	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	0.6	No Insulation	Carpet+Rubber Underlay 18mm

<b>Ceiling type</b>
Location

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes
Upper Hall	Plasterboard	Bulk Insulation R3.5	Yes
WIL	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
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## **Ceiling penetrations**

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Certificate number: **0004073979-01** Certificate Date: **01 Aug 2019** 

★ Star rating:



Location	Number	Туре	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type			
Construction	Added Roof colour insulation		
Corrugated Iron	Bulk, Reflective Dark Side Down, No Air Gap Above R1.3		



Additional information	

## **Explanatory notes**

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#### **Contact**

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## Nationwide House Energy Rating Scheme\* — Multiple-dwelling summary

Certificate number: **0004074050** Certificate Date: **01 Aug 2019** ★ Average Star rating: **6.1** 



#### **Assessor details**

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant
Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

## **Dwelling details**

Street: Wianamatta Parkway

Suburb: Jordan Springs

State: **NSW** Postcode: **2747** 

Scan to access this certificate online and confirm this is valid.





## Summary of all dwellings

Certificate Details						
Certificate number	Dwelling/Unit number	Heating load	Cooling load	Total load	Star Rating	
0004073979-01		43.7	33.2	76.9	6.5	
0004074035	Studio	42.9	54.2	97.1	5.6	

Certificate number: 0004074035 Certificate Date: 01 Aug 2019 ★ Star rating: 5.6

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid



#### Assessor details

Accreditation

VIC/BDAV/12/1441 number:

Name: Ian Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: 02 9899 2825

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2d (3.13) Software:

**BDAV** AAO:

#### Overview

#### **Dwelling details**

Street: **Unit Studio, Wianamatta Parkway** 

Suburb: Jordan Springs

State: Postcode: 2747 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 28 Lot/DP

number: 3330/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

**Corrugated Iron** 

Suspended Timber Floor

Insulation: **R2.0** wall insulation

> R3.5 ceiling insulation No floor insulation

**BRD-026-18 A ESS Awning Window** Glazing:

(52mm) SG 638CP

70.0

#### Net floor area (m<sup>2</sup>)

Conditioned: 39.0 Unconditioned: 31.0 Garage: 31.0

### **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 42.9 Cooling: 54.2 TOTAL: 97.1

#### Plan documents

TOTAL:

Plan ref/date: **Wianamatta Parkway** 

Prepared by:

Predicted annual energy load for heating and cooling based on standard occupancy assumptions MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

the more energy efficient

NATIONWIDE

#### Ceiling penetrations

(see following pages for details)

Sealed:

Unsealed: TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

0

### Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8841667

Certificate number: 0004074035 Certificate Date: 01 Aug 2019 ★ Star rating:



## **Building features**

window type a	vindow type and performance value				
Window ID	Window type	U-value	SHGC		
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67		
BRD-026-18 A	BRD-026-18 A ESS Awning Window (52mm) SG 638CP	5.0	0.40		
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78		

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	BRD-112-01 A	n/a	1000	1600	NE	No Shading
Kitchen/Living	BRD-026-18 A	n/a	1400	600	NE	No Shading
Kitchen/Living	BRD-026-18 A	n/a	1400	600	NE	No Shading
Stairs	BRD-063-01 A	n/a	600	1800	SW	No Shading

ID	Window t	type			U-value	SHGC
None Presen	t					
Roof windo	w and skyligh	t schedule				
Location	ID	Roof	Area (m²)	Orientation	Outdoor shade	Indoor

External v	vall type		
ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	No insulation	No
FW-2	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes

EW-1	AAC cavity panel on battens	No insulation	No
EW-2	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-3	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

<b>External</b>	wal	l sc	hedu	le
LACCITIC	WW		IICAG	

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage	EW-1	5600	2595	NE	No	100
Garage	EW-1	5495	2595	SE	No	100
Entry/Stairs	EW-2	1095	2595	SE	No	100
Entry/Stairs	EW-2	5600	2595	SW	No	100
Bedroom 1	EW-2	2895	1770	NE	No	0
Bedroom 1	EW-3	2895	680	NE	No	600
Bedroom 1	EW-2	3595	2450	NW	No	100
PDR	EW-2	995	1770	SW	No	0
PDR	EW-3	995	680	SW	No	600
PDR	EW-2	2995	2450	NW	No	100
Kitchen/Living	EW-2	2695	1770	NE	No	0
Kitchen/Living	EW-3	2695	680	NE	No	600
Kitchen/Living	EW-2	5495	2450	SE	No	100
Stairs	EW-2	1095	2450	SE	No	100
Stairs	EW-2	4595	1770	SW	No	0

Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0004074035 Certificate Date: 01 Aug 2019 ★ Star rating: 5



		Stairs	EW-3	4595	680	SW	No	600
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Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	15.0	Bulk Insulation, No Air Gap R2	No
IW-2 - AAC, plaster on studs	17.0	Bulk Insulation both sides of shaft liner R2	No
IW-3 - Cavity wall, direct fix plasterboard, single gap	35.0	No insulation	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Garage	Waffle pod slab 225 mm 100mm	30.5	None	Waffle Pod 225mm	Bare
Entry/Stairs	Waffle pod slab 300 mm 100mm	5.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Garage	Timber Above Plasterboard 19mm	9.5		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
PDR/Garage	Timber Above Plasterboard 19mm	3.2		Bulk Insulation R2	Ceramic Tiles 8mm
PDR/Entry/Stairs	Timber Above Plasterboard 19mm	1.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Gar age	Timber Above Plasterboard 19mm	17.1		Bulk Insulation R2	Ceramic Tiles 8mm
Stairs/Entry/Stairs	Timber Above Plasterboard 19mm	4.8		No Insulation	Ceramic Tiles 8mm

Ceiling type					
Location	Construction	Added insulation	Roof space above		
Garage	Timber Above Plasterboard	Bulk Insulation R2	No		
Entry/Stairs	Timber Above Plasterboard	No Insulation	No		
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes		
PDR	Plasterboard	Bulk Insulation R3.5	Yes		
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes		
Stairs	Plasterboard	Bulk Insulation R3.5	Yes		

Ceiling penetrations							
Location	Number	Туре	Diameter (mm)	Sealed/unsealed			
PDR	1	Exhaust Fans	300	Sealed			

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Certificate number: **0004074035** Certificate Date: **01 Aug 2019** ★ Star rating:



Ceiling fans						
Location	Number	Diameter (mm)				
None Present						

Roof type	
Construction	Added Roof cold insulation
Corrugated Iron	Bulk, Reflective Dark Side Down, No Air Gap Above R1.3



Additional information					

## **Explanatory notes**

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Certificate number: 0004073995 Certificate Date: 01 Aug 2019 ★ Star rating: 5.2

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid.



#### Assessor details

Accreditation

number: VIC/BDAV/12/1441

Name: lan Fry

Organisation: Frys Energywise

Email: comply@frysenergywise.com.au

Phone: **02 9899 2825** 

Declaration The Assessor has provided design

of interest: advice to the Applicant Software: BERS Pro v4.3.0.2d (3.13)

AAO: BDAV

#### Overview

Lot/DP

#### **Dwelling details**

Street: Wianamatta Parkway

Suburb: Jordan Springs

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 1A

NatHERS

climate zone: 28

number: 3331/0 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC cavity panel on battens

Corrugated Iron

Suspended Timber Floor

Insulation: R2.5 wall insulation

R3.5 ceiling insulation
No floor insulation

Glazing: BRD-026-24 A ESS Awning Window

(52mm) SG 4SP10

#### Net floor area (m<sup>2</sup>)

Conditioned: 143.0 Unconditioned: 5.0 Garage: 0.0 TOTAL: 148.0

# Annual thermal performance loads (MJ/m²)

Heating: **55.4**Cooling: **51.8**TOTAL: **107.3** 

#### Plan documents

Plan ref/date: Wianamatta Parkway

Prepared by: **0** 

The more stars the more energy efficient

NATIONWIDE HOUSE ENERGY RATING SCHEME

Predicted annual energy load for heating and cooling based on standard occupancy assumptions

107.3 MJ/m²

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

#### Ceiling penetrations

(see following pages for details)

Sealed: 4

Unsealed: 0

TOTAL:\*\*

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

## Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



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Certificate number: 0004073995 Certificate Date: 01 Aug 2019 ★ Star rating: 5.2



## **Building features**

Window ID	Window type	U-value	SHGC
BRD-026-24 A	BRD-026-24 A ESS Awning Window (52mm) SG 4SP10	5.0	0.54
BRD-063-16 A	BRD-063-16 A SIG Fixed Lite (67mm) SG 4SP10	4.1	0.66
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-001-01 A	BRD-001-01 A ESS Sliding Window (52mm) SG 3Clr	6.4	0.76
BRD-033-13 A	BRD-033-13 A ESS Sliding Door (80mm) SG 4SP10	4.3	0.63

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Home Office	BRD-026-24 A	n/a	2080	610	SE	No Shading
Home Office	BRD-026-24 A	n/a	2080	610	SE	No Shading
Home Office	BRD-026-24 A	n/a	2080	610	SE	No Shading
Home Office	BRD-026-24 A	n/a	2080	610	SW	No Shading
Home Office	BRD-026-24 A	n/a	2080	610	SW	No Shading
Home Office	BRD-063-16 A	n/a	1500	600	SW	No Shading
Entry	BRD-026-24 A	n/a	2080	610	SE	No Shading
Entry	BRD-026-24 A	n/a	2080	610	SE	No Shading
PWD	BRD-112-01 A	n/a	600	600	NE	No Shading
Bedroom 3	BRD-001-01 A	n/a	900	2200	SE	No Shading
Laundry	BRD-112-01 A	n/a	600	600	NE	No Shading
Kitchen/Living	BRD-026-24 A	n/a	1200	600	SE	No Shading
Kitchen/Living	BRD-026-24 A	n/a	1200	600	SE	No Shading
Kitchen/Living	BRD-026-24 A	n/a	2080	610	SW	No Shading
Kitchen/Living	BRD-033-13 A	n/a	2100	1800	SW	No Shading
Kitchen/Living	BRD-026-24 A	n/a	1500	600	SW	No Shading
Dining/Stairs	BRD-033-13 A	n/a	2100	3100	NE	No Shading
Dining/Stairs	BRD-026-24 A	n/a	1200	1800	SE	No Shading
Bedroom 2	BRD-112-01 A	n/a	1200	600	NE	No Shading
Bedroom 2	BRD-112-01 A	n/a	1200	600	NE	No Shading
Ensuite 2	BRD-112-01 A	n/a	1200	600	NE	No Shading
Ensuite 1	BRD-112-01 A	n/a	1200	600	SW	No Shading
Bedroom 1	BRD-112-01 A	n/a	1200	600	SW	No Shading
Bedroom 1	BRD-112-01 A	n/a	1200	600	SW	No Shading

Roof windo	w and skylig	nt type and performanc	e value				
None Presen	Window	type			U-value	SHGC	
None Present  Roof window and skylight schedule							
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser	
None Presen	t						

## **External wall type**

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Certificate number: 0004073995 Certificate Date: 01 Aug 2019 ★ Star rating: 5.2



## **Building features continued**

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2.5	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2.5	Yes

#### **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Home Office	EW-1	5395	2595	SE	No	0
Home Office	EW-1	3900	2595	SW	No	1200
Home Office	EW-1	900	2595	NW	No	1700
Home Office	EW-1	1700	2595	SW	No	1000
Entry	EW-1	2990	2595	SE	No	0
PWD	EW-1	1595	2595	NE	No	2800
PWD	EW-1	1895	2595	SE	No	0
Hall/Stairs	EW-1	1290	2595	NE	No	2800
Bath	EW-1	1690	2595	NW	No	0
Bedroom 3	EW-1	3695	2595	NW	No	0
Bedroom 3	EW-1	2700	2595	NE	No	100
Bedroom 3	EW-1	2700	2595	SE	No	2900
Laundry	EW-1	1095	1770	NE	No	0
Laundry	EW-2	1095	680	NE	No	3400
Kitchen/Living	EW-1	5395	1770	SE	No	0
Kitchen/Living	EW-2	5395	680	SE	No	500
Kitchen/Living	EW-1	3900	1770	SW	No	0
Kitchen/Living	EW-2	3900	680	SW	No	1400
Kitchen/Living	EW-1	900	1770	NW	No	0
Kitchen/Living	EW-2	900	680	NW	No	1700
Kitchen/Living	EW-1	1700	1770	SW	No	0
Kitchen/Living	EW-2	1700	680	SW	No	1500
Dining/Stairs	EW-1	4495	1770	NE	No	0
Dining/Stairs	EW-2	4495	680	NE	No	3400
Dining/Stairs	EW-1	4895	1770	SE	No	0
Dining/Stairs	EW-2	4895	680	SE	No	500
Bedroom 2	EW-2	2895	2450	NE	No	100
Bedroom 2	EW-2	3695	2450	NW	No	700
Ensuite 2	EW-2	1395	2450	NE	No	100
Ensuite 2	EW-2	2695	2450	SE	No	700
WIR 2	EW-2	2390	2450	SE	No	700
WIR 1	EW-2	1690	2450	SE	No	700
Ensuite 1	EW-2	2595	2450	SE	No	700
Ensuite 1	EW-2	1595	2450	SW	No	100
Bedroom 1	EW-2	2695	2450	SW	No	100
Bedroom 1	EW-2	3595	2450	NW	No	700
Stairs	EW-2	700	2450	SW	No	3700
Stairs	EW-2	2100	2450	NW	No	0
Stairs	EW-2	700	2450	NE	No	3800

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Certificate number: 0004073995 Certificate Date: 01 Aug 2019 ★ Star rating:



## **Building features continued**

## Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	40.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	121.0	No insulation	No

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Home Office	Waffle pod slab 300 mm 100mm	28.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Entry	Waffle pod slab 300 mm 100mm	4.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PWD	Waffle pod slab 300 mm 100mm	2.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Hall/Stairs	Waffle pod slab 300 mm 100mm	11.7	None	Waffle Pod 300mm	40/60 Carpet 10mm/Ceramic
Bath	Waffle pod slab 300 mm 100mm	4.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 3	Waffle pod slab 300 mm 100mm	9.8	None	Waffle Pod 300mm	Carpet+Rubber Underlay 18mm
Laundry/Bath	Timber Above Plasterboard 19mm	0.7		No Insulation	Ceramic Tiles 8mm
Laundry/Bedroom 3	Timber Above Plasterboard 19mm	1.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Ho me Office	Timber Above Plasterboard 19mm	28.5		No Insulation	Ceramic Tiles 8mm
Dining/Stairs/Entry	Timber Above Plasterboard 19mm	4.7		No Insulation	20/80 Carpet 10mm/Ceramic
Dining/Stairs/PWD	Timber Above Plasterboard 19mm	3.0		No Insulation	20/80 Carpet 10mm/Ceramic
Dining/Stairs/Hall/ Stairs	Timber Above Plasterboard 19mm	12.1		No Insulation	20/80 Carpet 10mm/Ceramic
Dining/Stairs/Bath	Timber Above Plasterboard 19mm	3.8		No Insulation	20/80 Carpet 10mm/Ceramic
Dining/Stairs/Bedr oom 3	Timber Above Plasterboard 19mm	1.6		No Insulation	20/80 Carpet 10mm/Ceramic
Bedroom 2/Laundry	Timber Above Plasterboard 19mm	0.7		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2/Dining/Stairs	Timber Above Plasterboard 19mm	9.8		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 2/Dining/Stairs	Timber Above Plasterboard 19mm	3.6		No Insulation	Ceramic Tiles 8mm
WIR 2/Dining/Stairs	Timber Above Plasterboard 19mm	2.9		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Kitchen/Living	Timber Above Plasterboard 19mm	2.2		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Kitchen/Living	Timber Above Plasterboard 19mm	4.0		No Insulation	Ceramic Tiles 8mm
Bedroom 1/Kitchen/Living	Timber Above Plasterboard 19mm	9.6		No Insulation	Carpet+Rubber Underlay 18mm
Stairs/Kitchen/Livin	Timber Above Plasterboard 19mm	3.1		No Insulation	Carpet+Rubber Underlay 18mm

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Certificate number: **0004073995** Certificate Date: **01 Aug 2019** 

**Aug 2019** ★ Star rating:



5.2

## **Building features continued**

Stairs/Dining/Stairs Timber Above Plasterboard 4.1 No Insulation Carpet+Rubber Underlay 18mm

Location	Construction	Added insulation	Roof space above	
Home Office	Timber Above Plasterboard	No Insulation	No	
Entry	Timber Above Plasterboard	No Insulation	No	
PWD	Timber Above Plasterboard	No Insulation	No	
Hall/Stairs	Timber Above Plasterboard	No Insulation	No	
Bath	Timber Above Plasterboard	No Insulation	No	
Bedroom 3	Plasterboard	Bulk Insulation R3.5	No	
Bedroom 3	Timber Above Plasterboard	No Insulation	No	
Laundry	Plasterboard	Bulk Insulation R3.5	Yes	
Laundry	Timber Above Plasterboard	No Insulation	No	
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes	
Kitchen/Living	Timber Above Plasterboard	No Insulation	No	
Dining/Stairs	Plasterboard	Bulk Insulation R3.5	Yes	
Dining/Stairs	Timber Above Plasterboard	No Insulation	No	
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes	
Ensuite 2	Plasterboard	Bulk Insulation R3.5	Yes	
WIR 2	Plasterboard	Bulk Insulation R3.5	Yes	
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes	
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes	
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes	
Stairs	Plasterboard	Bulk Insulation R3.5	Yes	

## **Ceiling penetrations**

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
PWD	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed
Ensuite 2	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed

## **Ceiling fans**

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Certificate number: **0004073995** Certificate Date:

01 Aug 2019





Location	Number	Diameter (mm)
None Present		

Construction	Added	Roof colour
Construction	insulation	Roof Colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1	Dark



Additional information				

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