

# memo

JRPP REFERENCE: 2017NTH023

**TO:** Northern Joint Regional Planning Panel

**DATE:** 15/05/2018

**SUBJECT:** Regarding BASIX Certificate for 57 self contained dwellings relating to seniors living proposal at 372 Moore Creek Road (DA2018-0142)

Please find attached to this memo a copy of the BASIX Certificate (Attachment F from the SEE) and accompanying ABSA and NatHERS documentation submitted as part of the DA lodgement for a Seniors Living Development at 372 Moore Creek Road, North Tamworth. This BASIX Certificate relates to the multi unit development component of the seniors living proposal which includes 57 self contained dwellings.

A Basix Certificate was lodged with the Application and an assessment was carried out against the **State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004**,

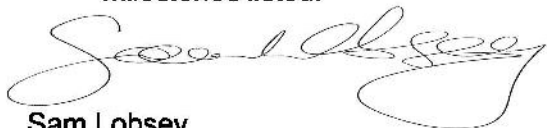
The purpose of SEPP BASIX is to implement the sustainability targets relating to water efficiency, thermal comfort, and energy sustainability introduced as part of the NSW Department of Planning's BASIX scheme.

The applicant submitted a BASIX Certificate as part of the Development Application documentation, which provides a series of commitments that would enable the dwelling to meet the relevant sustainability targets. Council is satisfied that the BASIX Certificate identifies all 57 proposed self contained dwellings.

As detail regarding the BASIX Certificate was unintentionally omitted from Council's Assessment Report, Council would like the Northern Joint Regional Planning Panel to accept this memo to form part of Council Report and requests the following condition to be added to the draft conditions of consent in the General section after Condition No. 28.

## General

- Pursuant to Section 97A(2) of the Environmental Planning & Assessment Regulation 2000, all the commitments listed in the relevant BASIX Certificate for the development shall be fulfilled at the milestones listed.



Sam Lobsey

**Acting Manager, Development and Approvals**

15/05/2018

# BASIX<sup>®</sup>Certificate

Building Sustainability Index [www.basix.nsw.gov.au](http://www.basix.nsw.gov.au)

## Multi Dwelling

Certificate number: 850150M




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 29/06/2009 published by the Department. This document is available at [www.basix.nsw.gov.au](http://www.basix.nsw.gov.au)

Secretary

Date of issue: Thursday, 14 September 2017

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



Project summary		
Project name	372 Moore Creek Rd, North Tamworth	
Street address	372 Moore Creek Road North Tamworth 2340	
Local Government Area	Tamworth Regional Council	
Plan type and plan number	deposited 868365	
Lot no.	1	
Section no.	-	
No. of residential flat buildings	0	
No. of units in residential flat buildings	0	
No. of multi-dwelling houses	57	
No. of single dwelling houses	0	
Project score		
Water	 44	Target 30
Thermal Comfort	 Pass	Target Pass
Energy	 47	Target 45

Certificate Prepared by
Name / Company Name: Northrop Consulting Engineers Pty Ltd
ABN (if applicable): 81094433100

# Description of project

## Project address

Project name	372 Moore Creek Rd, North Tamworth
Street address	372 Moore Creek Road North Tamworth 2340
Local Government Area	Tamworth Regional Council
Plan type and plan number	deposited 868365
Lot no.	1
Section no.	-

## Project type

No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	57
No. of single dwelling houses	0

## Site details

Site area (m²)	40800
Roof area (m²)	10621.5
Non-residential floor area (m²)	2269.0
Residential car spaces	57
Non-residential car spaces	19

## Common area landscape

Common area lawn (m²)	10000.0
Common area garden (m²)	2820.0
Area of indigenous or low water use species (m²)	2000.0

## Assessor details

Assessor number	20579
Certificate number	1011413646
Climate zone	14

## Project score

Water	✓ 44	Target 30
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 47	Target 45

## Description of project

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

### Multi-dwelling houses

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
1	2	97.2	30.8	10.0	0.0
5	2	96.0	27.0	10.0	0.0
9	2	97.2	30.8	10.0	0.0
13	2	97.2	30.8	10.0	0.0
17	2	97.2	30.8	10.0	0.0
21	2	97.2	30.8	10.0	0.0
25	2	96.0	27.0	10.0	0.0
29	2	97.2	30.8	10.0	0.0
33	2	97.2	30.8	10.0	0.0
37	2	97.2	30.8	10.0	0.0
41	2	97.2	30.8	10.0	0.0
45	2	103.9	28.1	10.0	0.0
49	2	94.9	30.8	10.0	0.0
53	2	103.9	28.1	10.0	0.0
57	2	97.2	30.8	10.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
2	2	97.2	30.8	10.0	0.0
6	2	100.9	27.1	10.0	0.0
10	2	97.2	30.8	10.0	0.0
14	2	97.2	30.8	10.0	0.0
18	2	97.2	30.8	10.0	0.0
22	2	97.2	30.8	10.0	0.0
26	2	97.2	30.8	10.0	0.0
30	2	100.9	27.1	10.0	0.0
34	2	100.9	27.1	10.0	0.0
38	2	96.7	30.2	10.0	0.0
42	2	96.0	27.0	10.0	0.0
46	2	96.0	27.0	10.0	0.0
50	2	94.9	30.8	10.0	0.0
54	2	97.2	30.8	10.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
3	2	97.2	30.8	10.0	0.0
7	2	97.2	30.8	10.0	0.0
11	2	97.2	30.8	10.0	0.0
15	2	97.2	30.8	10.0	0.0
19	2	97.2	30.8	10.0	0.0
23	2	97.2	30.8	10.0	0.0
27	2	97.2	30.8	10.0	0.0
31	2	97.2	30.8	10.0	0.0
35	2	97.2	30.8	10.0	0.0
39	2	95.8	31.0	10.0	0.0
43	2	100.9	27.1	10.0	0.0
47	2	97.2	30.8	10.0	0.0
51	2	100.9	27.1	10.0	0.0
55	2	96.0	27.0	10.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
4	2	103.9	28.1	10.0	0.0
8	2	97.2	30.8	10.0	0.0
12	2	97.2	30.8	10.0	0.0
16	2	97.2	30.8	10.0	0.0
20	2	97.2	30.8	10.0	0.0
24	2	97.2	30.8	10.0	0.0
28	2	103.9	28.1	10.0	0.0
32	2	96.0	27.0	10.0	0.0
36	2	103.9	28.1	10.0	0.0
40	2	97.2	30.8	10.0	0.0
44	2	97.2	30.8	10.0	0.0
48	2	97.2	30.8	10.0	0.0
52	2	97.2	30.8	10.0	0.0
56	2	97.2	30.8	10.0	0.0

**No common areas specified.**

# Schedule of BASIX commitments

## 1. Commitments for multi-dwelling houses

### (a) Dwellings

- (i) Water
- (ii) Energy
- (iii) Thermal Comfort

## 2. Commitments for single dwelling houses

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

- (i) Water
- (ii) Energy

## 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.

### 1. Commitments for multi-dwelling houses

#### (a) Dwellings

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

	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	4 star (> 4.5 but <= 6 L/min)	4 star	6 star	6 star	no	-	-	-	-	-	-	-	-	-

	Alternative water source							
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
All dwellings	individual water tank (no. 1)	Tank size (min) 2000.0 litres	To collect run-off from at least: 180.0 square metres of roof area; 0.0 square metres of impervious area; 0.0 square metres of garden and lawn area; and 0.0 square metres of planter box area.	yes	yes	no	no	no
None	-	-	-	-	-	-	-	-

(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.		✓	✓



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

	<b>Hot water</b>	<b>Bathroom ventilation system</b>		<b>Kitchen ventilation system</b>		<b>Laundry ventilation system</b>	
<b>Dwelling no.</b>	<b>Hot water system</b>	<b>Each bathroom</b>	<b>Operation control</b>	<b>Each kitchen</b>	<b>Operation control</b>	<b>Each laundry</b>	<b>Operation control</b>
All dwellings	gas instantaneous 6 star	individual fan, ducted to façade or roof	interlocked to light	individual fan, ducted to façade or roof	interlocked to light	individual fan, ducted to façade or roof	interlocked to light

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	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
All dwellings	1-phase airconditioning EER 2.5 - 3.0	1-phase airconditioning EER 2.5 - 3.0	1-phase airconditioning EER 2.5 - 3.0	1-phase airconditioning EER 2.5 - 3.0	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	1	no

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

Alternative energy	
Dwelling no.	Photovoltaic system (min rated electrical output in peak kW)
All dwellings	1.0

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

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

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m <sup>2</sup> /yr)	Area adjusted cooling load (in mJ/m <sup>2</sup> /yr)
1	120.1	5.2
2	88.1	4.0
3	105.9	7.8
5	133.6	5.6
7	97.1	7.1
8	120.5	7.5
9	128.8	5.6
10	117.4	14.4
12	127.9	10.5
14	126.5	11.2
15	123.2	12.4

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
16	96.2	6.0
19	101.5	5.8
20	104.5	5.3
21	103.0	6.1
22	81.4	4.4
23	112.9	5.5
24	101.1	8.9
25	114.5	9.5
26	99.2	7.9
27	133.7	12.2
28	130.2	7.6
29	123.8	16.4
30	104.5	4.3
31	110.3	5.3
32	130.1	2.5
33	113.1	5.0
34	139.0	3.2
35	105.0	4.3
36	127.8	3.1
37	93.2	6.7
38	114.9	7.9
39	77.3	4.7
40	114.9	5.2
41	85.4	3.9
42	131.9	2.1
44	97.4	5.9
45	110.8	13.2

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m <sup>2</sup> /yr)	Area adjusted cooling load (in mJ/m <sup>2</sup> /yr)
46	135.2	7.3
47	138.6	11.2
48	136.1	11.1
49	96.0	8.9
50	86.2	5.6
51	100.3	7.7
52	109.4	7.1
54	130.7	6.0
55	122.6	6.0
56	97.2	4.7
57	93.0	12.5
4, 53	117.8	7.1
6, 43	128.4	7.2
11, 13	129.3	9.9
All other dwellings	106.5	5.2

	Construction of floors and walls				
Dwelling no.	Concrete slab on ground(m <sup>2</sup> )	Suspended floor with open subfloor (m <sup>2</sup> )	Suspended floor with enclosed subfloor (m <sup>2</sup> )	Suspended floor above garage (m <sup>2</sup> )	Primarily rammed earth or mudbrick walls
All dwellings	97	-	-	-	No

### 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) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✓	✓	✓
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✓	✓	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✓	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✓	✓
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✓	✓

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

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

## Notes

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

## Legend

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

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

Certificate number: **0001908980**

Certificate Date: **14 Sep 2017**

★ Average Star rating: **6.3**



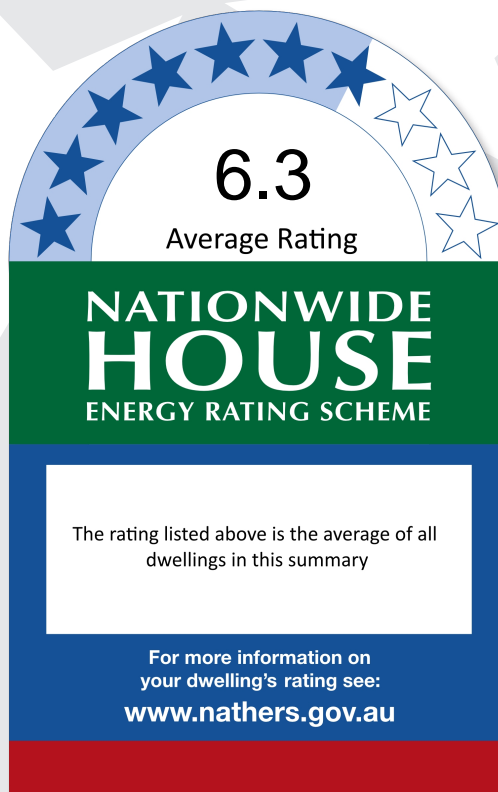
### Assessor details

Accreditation number: **20579**  
Name: **Amir Girgis**  
Organisation: **Northrop Consulting Engineers**  
Email: **amir.girgis@sydney.northrop.com.au**  
Phone: **(02)92414188**  
Declaration of interest: **The Assessor has been engaged in the project design or development**  
Software: **BERS Pro v4.3.0.2a (3.13)**  
  
AAO: **ABSA**

### Dwelling details

Street: **Moore Creek Road**  
Suburb: **North Tamworth**  
State: **NSW**  
Postcode: **2340**

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
0001908276	1	120.0	5.0	125.0	6.1
0001908300	2	88.0	4.0	92.0	7.1
0001908334	3	106.0	8.0	114.0	6.4
0001908359	4	118.0	7.0	125.0	6.1
0001908391	5	134.0	6.0	139.0	5.8
0001908425	6	128.0	7.0	136.0	5.8
0001908441	7	97.0	7.0	104.0	6.7
0001908482	8	121.0	7.0	128.0	6
0001908516	9	129.0	6.0	134.0	5.9
0001908540	10	117.0	14.0	132.0	5.9
0001908565	11	129.0	10.0	139.0	5.8
0001908599	12	128.0	11.0	138.0	5.8
0001908631	13	129.0	10.0	139.0	5.8
0001908664	14	126.0	11.0	138.0	5.8
0001908680	15	123.0	12.0	136.0	5.8



# Nationwide House Energy Rating Scheme\* - Multiple Dwelling Summary

Certificate number: **0001908980**

Certificate Date:

**14 Sep 2017**

★ Average Star rating: **6.3**



## Summary of all dwellings continued

### Certificate Details

Certificate number	Dwelling/Unit number	Heating load	Cooling load	Total load	Star Rating
0001908714	16	96.0	6.0	102.0	6.8
0001908763	17	107.0	5.0	112.0	6.4
0001908789	18	107.0	5.0	112.0	6.4
0001908813	19	101.0	6.0	107.0	6.6
0001908250	20	105.0	5.0	110.0	6.5
0001908292	21	103.0	6.0	109.0	6.6
0001908326	22	81.0	4.0	86.0	7.3
0001908367	23	113.0	6.0	118.0	6.3
0001908383	24	101.0	9.0	110.0	6.5
0001908409	25	115.0	10.0	124.0	6.2
0001908433	26	99.0	8.0	107.0	6.6
0001908466	27	134.0	12.0	146.0	5.6
0001908490	28	130.0	8.0	138.0	5.8
0001908524	29	124.0	16.0	140.0	5.7
0001908557	30	104.0	4.0	109.0	6.6
0001908581	31	110.0	5.0	116.0	6.4
0001908615	32	130.0	2.0	133.0	5.9
0001908649	33	113.0	5.0	118.0	6.3
0001908672	34	139.0	3.0	142.0	5.7
0001908706	35	105.0	4.0	109.0	6.5
0001908730	36	128.0	3.0	131.0	5.9
0001908748	37	93.0	7.0	100.0	6.8
0001908797	38	115.0	7.0	122.0	6.2
0001908268	39	77.0	5.0	82.0	7.4
0001908284	40	115.0	5.0	120.0	6.3
0001908318	41	85.0	4.0	89.0	7.2
0001908342	42	132.0	2.0	134.0	5.9
0001908375	43	128.0	7.0	136.0	5.8
0001908417	44	97.0	6.0	103.0	6.7
0001908458	45	111.0	13.0	124.0	6.2
0001908474	46	135.0	7.0	143.0	5.7
0001908508	47	139.0	11.0	150.0	5.4
0001908532	48	136.0	11.0	147.0	5.4
0001908573	49	100.0	9.0	109.0	6.6
0001908607	50	86.0	6.0	92.0	7.1
0001908623	51	100.0	8.0	108.0	6.6
0001908656	52	109.0	7.0	116.0	6.4
0001908698	53	118.0	7.0	125.0	6.1
0001908722	54	131.0	6.0	137.0	5.8
0001908755	55	123.0	6.0	129.0	5.9
0001908771	56	97.0	5.0	102.0	6.8
0001908805	57	93.0	12.0	105.0	6.7



**NatHERS Rated  
6.1/10 STARS\***

\*www.nathers.gov.au



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 1 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413653

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

120.1 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

5.2 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

125.3 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.



**NatHERS Rated**  
**5.9/10 STARS\***

\*www.nathers.gov.au



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 10 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413745

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

117.4 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

14.4 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

131.8 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

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house energy ratings.





**NatHERS Rated  
5.8/10 STARS\***

\*www.nathers.gov.au



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 11 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413752

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

129.3 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

9.9 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

139.2 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.

# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 12 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413760

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

127.9 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

10.5 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

138.4 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

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Sustainability Association to provide NatHERS  
house energy ratings.



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 13 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413778

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

129.3 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

9.9 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

139.2 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

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ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.





# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 14 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413786

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

126.5 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

11.2 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

137.7 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY



ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.

# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 15 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413794

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

123.2 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

12.4 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

135.6 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.







**NatHERS Rated  
6.8/10 STARS\***

\*www.nathers.gov.au



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 16 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413802

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

96.2 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

6.0 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

102.2 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.



**NatHERS Rated  
6.4/10 STARS\***

\*www.nathers.gov.au



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 17 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413810

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

106.5 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

5.2 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

111.7 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.



**NatHERS Rated  
6.4/10 STARS\***

\*www.nathers.gov.au



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 18 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413828

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

106.5 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

5.2 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

111.7 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
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Sustainability Association to provide NatHERS  
house energy ratings.



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 19 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413836

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

101.5 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

5.8 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

107.3 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 2 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413661

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

88.1 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

4.0 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

92.1 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 20 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413844

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

104.5 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

5.3 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

109.8 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.





# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 21 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413851

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

103.0 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

6.1 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

109.1 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 22 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413869

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

81.4 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

4.4 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

85.8 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.





# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 23 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413877

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

112.9 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

5.5 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

118.4 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY



ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.

# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 24 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413885

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

101.1 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

8.9 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

110.0 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 25 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413893

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

114.5 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

9.5 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

124.0 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

96.0 m<sup>2</sup>

FLOOR AREA - CONDITIONED

27.0 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

123.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.





# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 26 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413901

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

99.2 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

7.9 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

107.1 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.





**NatHERS Rated**  
**5.6/10 STARS\***

\*www.nathers.gov.au



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 27 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413919

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

133.7 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

12.2 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

145.9 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.



NatHERS Rated  
5.8/10 STARS\*

\*www.nathers.gov.au



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 28 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413927

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

130.2 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

7.6 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

137.8 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

103.9 m<sup>2</sup>

FLOOR AREA - CONDITIONED

28.1 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

132.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.





**NatHERS Rated  
5.7/10 STARS\***

\*www.nathers.gov.au



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 29 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413935

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

123.8 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

16.4 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

140.2 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.

# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 3 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413679

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

105.9 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

7.8 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

113.7 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY



ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 30 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413943

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

104.5 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

4.3 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

108.8 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

100.9 m<sup>2</sup>

FLOOR AREA - CONDITIONED

27.1 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 31 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413950

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

110.3 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

5.3 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

115.6 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY



ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.

# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 32 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413968

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

130.1 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

2.5 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

132.6 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

96.0 m<sup>2</sup>

FLOOR AREA - CONDITIONED

27.0 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

123.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.





# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 33 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413976

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

113.1 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

5.0 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

118.1 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY



ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.

# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 34 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413984

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

139.0 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

3.2 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

142.2 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

100.9 m<sup>2</sup>

FLOOR AREA - CONDITIONED

27.1 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 35 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413992

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

105.0 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

4.3 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

109.3 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY



ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 36 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414008

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

127.8 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

3.1 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

130.9 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

103.9 m<sup>2</sup>

FLOOR AREA - CONDITIONED

28.1 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

132.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY



ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.

# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 37 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414016

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

93.2 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

6.7 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

99.9 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.





# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 38 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414024

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

114.9 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

7.9 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

122.8 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

96.7 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.2 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

126.9 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 39 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414032

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

77.3 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

4.7 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

82.0 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

95.8 m<sup>2</sup>

FLOOR AREA - CONDITIONED

31.0 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

126.8 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 4 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413687

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

117.8 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

7.1 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

124.9 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

103.9 m<sup>2</sup>

FLOOR AREA - CONDITIONED

28.1 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

132.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

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ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.





# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 40 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414040

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

114.9 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

5.2 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

120.1 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 41 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414057

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

85.4 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

3.9 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

89.3 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.





# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 42 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414065

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

131.9 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

2.1 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

134.0 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

96.0 m<sup>2</sup>

FLOOR AREA - CONDITIONED

27.0 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

123.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.





**NatHERS Rated  
5.8/10 STARS\***

\*www.nathers.gov.au



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 43 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414073

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

128.4 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

7.2 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

135.6 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

100.9 m<sup>2</sup>

FLOOR AREA - CONDITIONED

27.1 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.



**NatHERS Rated  
6.7/10 STARS\***

\*www.nathers.gov.au



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 44 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414081

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

97.4 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

5.9 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

103.3 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.





**NatHERS Rated  
6.2/10 STARS\***

\*www.nathers.gov.au



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 45 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414099

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

110.8 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

13.2 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

124.0 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

103.9 m<sup>2</sup>

FLOOR AREA - CONDITIONED

28.1 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

132.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.





**NatHERS Rated  
5.7/10 STARS\***

\*www.nathers.gov.au



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 46 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414107

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

135.2 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

7.3 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

142.5 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

96.0 m<sup>2</sup>

FLOOR AREA - CONDITIONED

27.0 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

123.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

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ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
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**NatHERS Rated  
5.4/10 STARS\***

\*www.nathers.gov.au



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 47 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414115

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

138.6 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

11.2 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

149.8 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

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Sustainability Association to provide NatHERS  
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# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 48 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414123

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

136.1 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

11.1 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

147.2 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY



ASSESSOR SIGNATURE

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Sustainability Association to provide NatHERS  
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# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 49 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414131

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

96.0 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

8.9 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

104.9 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

94.9 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

125.7 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

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ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.





# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 5 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413695

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

133.6 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

5.6 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

139.2 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

96.0 m<sup>2</sup>

FLOOR AREA - CONDITIONED

27.0 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

123.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY



ASSESSOR SIGNATURE

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ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
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# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 50 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414149

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

86.2 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

5.6 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

91.8 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

94.9 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

125.7 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY



ASSESSOR SIGNATURE

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Sustainability Association to provide NatHERS  
house energy ratings.



NatHERS Rated  
6.6/10 STARS\*

\*www.nathers.gov.au



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 51 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414156

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

100.3 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

7.7 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

108.0 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

100.9 m<sup>2</sup>

FLOOR AREA - CONDITIONED

27.1 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
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**NatHERS Rated  
6.4/10 STARS\***

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# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 52 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414164

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

109.4 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

7.1 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

116.5 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 53 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414172

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

117.8 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

7.1 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

124.9 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

103.9 m<sup>2</sup>

FLOOR AREA - CONDITIONED

28.1 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

132.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

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# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 54 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414180

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

130.7 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

6.0 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

136.7 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

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Sustainability Association to provide NatHERS  
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**5.9/10 STARS\***

\*www.nathers.gov.au



# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 55 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414198

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

122.6 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

6.0 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

128.6 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

96.0 m<sup>2</sup>

FLOOR AREA - CONDITIONED

27.0 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

123.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

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ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
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# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 56 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414206

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

97.2 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

4.7 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

101.9 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.





# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 57 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011414214

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

93.0 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

12.5 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

105.5 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
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5.8/10 STARS\***

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# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 6 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413703

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPPro)

SOFTWARE

128.4 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

7.2 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

135.6 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

100.9 m<sup>2</sup>

FLOOR AREA - CONDITIONED

27.1 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
house energy ratings.

# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 7 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413711

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

97.1 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

7.1 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

104.2 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY



ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
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# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 8 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413729

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

120.5 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

7.5 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

128.0 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY



ASSESSOR SIGNATURE

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Sustainability Association to provide NatHERS  
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**5.9/10 STARS\***

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# BUILDING ENERGY EFFICIENCY CERTIFICATE

TSA Management Pty Ltd

ISSUED TO

Unit 9 372 Moore Creek Rd

ADDRESS

Site Lot 1

North Tamworth

NSW

2340

1011413737

CERTIFICATION NUMBER

14/09/2017

DATE

14

CLIMATE ZONE

BERSPPro - v4.3.0.1 (BERSPro)

SOFTWARE

128.8 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION - HEATING

5.6 MJ/m<sup>2</sup> pa

SIMULATED ENERGY CONSUMPTION -  
COOLING

134.4 MJ/m<sup>2</sup> pa

TOTAL SIMULATED ENERGY CONSUMPTION

97.2 m<sup>2</sup>

FLOOR AREA - CONDITIONED

30.8 m<sup>2</sup>

FLOOR AREA - UNCONDITIONED

128.0 m<sup>2</sup>

FLOOR AREA - TOTAL

Amir Girgis

ASSESSOR NAME

20579

ASSESSOR NUMBER

Northrop Consulting Engineers

COMPANY

ASSESSOR SIGNATURE

Issued by a BUILDING THERMAL PERFORMANCE  
ASSESSOR accredited by the Australian Building  
Sustainability Association to provide NatHERS  
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