# **ENERGY EFFICIENCY REPORT**

\*BASIX<sup>®</sup> Thermal Comfort Protocol Assessment (Simulation)

# SITE ADDRESS Lot 24 Saltwater Crescent KELLYVILLE 2155

LOCAL GOVERNMENT AUTHORITY
The Hills Shire

COMMSIONED BY mcdonald jones

CLIENT Mr. Adam McKern & Mrs. Ping McKern

JOB NUMBER 603164\_v2.0

PROJECT TYPE
Single Separate Dwelling

DESCRIPTION Double Storey

DEPOSITED PLAN NUMBER 1211773

CERTIFICATION DATE **12/01/2017** 

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#### Job Number: 603164\_v2.0

## PROJECT CERTIFICATION SUMMARY

### DESIGN AND APPROVED SOFTWARE INFORMATION

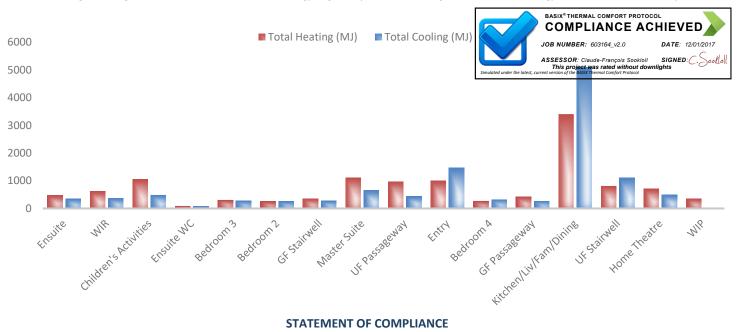
PROJECT SOFTWARE:	FirstRate5 (Chenath Engine 3.13)		m²
EXPOSURE	Suburban	Net Conditioned Floor Area (NCFA):	167.10
ORIENTATION:	44	Unconditioned Room Area:	14.30
NatHERS CLIMATE ZONE:	28	Garage Area:	31.5
BCA (NCC) CLIMATE ZONE:	6	Total:	212.90

#### ASSESSMENT CALCULATIONS & BASIX® THERMAL COMFORT SCORE

BASIX TARGET	(MJ/m².pa)	PROPOSED:	(MJ/m².pa)	PROPOSED BUILD EFFICIENCY BENCHMARK
Heating:	74.0	Heating:	70.0	<b>PASS:</b> 5.6%
Cooling:	70.0	Cooling:	68.8	<b>PASS:</b> 1.7%
Total:	144.0	Total:	138.8	

#### ZONED ENERGY LOAD DISTRIBUTION TOTALS (MJ)

The heating and cooling loads indicated are the simulated annual energy usages (MJ) for this home. The higher the load, the more energy needed to achieve thermal comfort.



I / We certify that we are specialists in the relevant discipline and the following design documents comply with the relevant requirements of the National Construction Code (NCC Volume One/Two as applicable) in relation to thermal performance and the relevant Australian Standards specified in this report.

ASSESSOR NAME: SIGNATURE:

Sookloll Soollol

#### **RELEVANT QUALIFICATION STATEMENT**

Certifiicate IV in NatHERS Assessment (Credential Number: TRF0002560) Residential Building Thermal Performance Assessment (91318NSW) Course Assessor Accrediting Organisation (AAO) Accreditation Number: VIC/BDAV/14/1662 This has been assessed using software accredited under the Nationwide House Energy Rating Scheme (www.nathers.gov.au)

### ASSESSMENT MODELLING DECLARATION

I / We certify that the following statements are true and correct in regards to this assessment and comply with the requirements of the NCC Volume Two Energy Efficiency Provisions 2015 V2.6.2.2(b):

This project is deemed compliant according to the results in the Thermal Comfort Universal Certificate & BASIX<sup>®</sup> Certificate This assessment was completed using house energy rating software accredited under the BASIX<sup>®</sup> Thermal Comfort Protocol 3.6 Table 1b



Lot 24 Saltwater Crescent KELLYVILLE 2155

Assessment Date: 12/01/2017

Job Number: 603164\_v2.0

## **BUILDING SPECIFICATION SUMMARY**

		E	XTERNAL WALL	S	
	CONSTRUCTIO	ON TYPE	INSULA	ATION	NOTES
EXTERNAL WALLS	Other (see I	Notes)	No	ne	Hebel Panel - No insulation to Garage walls
	Other (see I	Notes)	R2.0 E	3atts	Hebel Panel with Wall Wrap
ADDITIONAL NOTES	Location of Construc	tion Material as	per Drawings   No	insulation to e	xternal Garage walls
		I		S	
	CONSTRUCTIO	ON TYPE	INSULA	TION	NOTES
INTERNAL WALLS	Frame	d	Other (se	e Notes)	R1.7 Soundscreen Insulation **
	Frame	d	Noi	ne	No insulation to remainder of the internal wa
ADDITIONAL NOTES	*Soundscreen Insul.		, Bedrooms 2 & 4 O DOF AND CEILIN		ation to the remainder of internal walls
	CONSTRUCTIO	ON TYPE	INSULA	<b>ATION</b>	NOTES
ROOF	Tiled (venti	lated)	Sark	ing	Approx. 22"5' Roof Pitch
	Colorbond (un-v		Sark		Approx. 3"0' Roof Pitch
CEILING	Plasterbo	ard	R3.0 E	Batte	To House area
CEIEING	Plasterbo		Noi		To Garage area
ADDITIONAL NOTES	Sarking to the unders Solar Absorptance Fa		oproximate location	of Wind-Drive	n Ventilator (whirly-bird) as per Elevation Plans   BA
			FLOOR		
	CONSTRUCTIO	ON TYPE	INSULA	ATION	NOTES
FLOOR	225mm Waffle	85mm Slab	No	ne	Ground Slab
	Timber Susp	ended	Nor	ne	UF Floor/GF Ceiling
ADDITIONAL NOTES	Floor Coverings mod	elled per Drawi	ngs and NatHERS Pr	rotocols	BASIX® THERMAL COMFORT PROTOCOL COMPLIANCE ACHIEVE
		EXTERNAL GLAZING		JOB NUMBER: 603164_v2.0 DATE: 12/L ASSESSOR: Claude-François Sockloit Store This project was rated without downlights Simulated under the latei, current version of the BASK Themal Comfort Protocol	
GLASS TYPE	COLOUR	FRAME	U <sub>w</sub> VALUE	SHGC	Simulated under the latest, current version of the BASIX Thermal Comfort Protocol NOTES
GLASS TYPE			6.43	0.76	Sliding Windows
Standard	Clear	Aluminium	0.45	0.76	Shung windows
	Clear Clear	Aluminium Aluminium	6.34	0.75	Glazed Doors

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 in the report. If any of the 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.

#### **ROOF LIGHTS AND SKYLIGHTS**

GLASS TYPE	COLOUR	FRAME	$U_{\rm w}$ VALUE	SHGC	NOTES
N/A	-	-	-	-	-



**AREA WITHIN THE CLASS 1 BUILDING** 

Assessment Date: 12/01/2017

# ARTIFICIAL LIGHTING CALCULATIONS



# MOUNTINGFITTINGWATTAGEQUANTITYTOTALCeilingCompact Fluoro42261092

m²

221.12

			TOTAL	WATTAGE/m <sup>2</sup> )
PASS		Project:	1092	4.94
		Allowance:	1106	5.00
REA WITHIN OUTDOOR ARE	AS 38.06	m²		
MOUNTING	FITTING	WATTAGE	QUANTITY	TOTAL
Ceiling	Compact Fluoro	42	3	126

			TOTAL	WATTAGE/m²)
PASS		Project:	126	3.31
		Allowance:	1106	5.00
AREA WITHIN CLASS 10 E	BUILDING 34	l.52 m²		
MOUNTING	FITTING	WATTAGE	QUANTITY	TOTAL
Ceiling	Compact Fluoro	42	2	84
			ΤΟΤΑΙ	$\lambda (\Delta TT \Delta CE / m^2)$

		TOTAL	WATTAGE/m <sup>2</sup> )
PASS	Project:	84	2.43
	Allowance:	1106	5.00

## CEILING INSULATION PENETRATION CALCULATIONS

ROUND	DIAMETER (mm)	TOTAL
Exhaust Fan	250	1
SQUARE/RECTANGULAR	LENGTH (mm) WIDTH (mm)	TOTAL
Ventilation for Rangehood	185 185	1
Ventilation for Gas Point	250 250	1
RECESSED LIGHT FITTINGS	DIAMETER (mm)	TOTAL

TOTAL AREA OF INSULATION PENETRATIONS	0.15	m²	0.10%	COMPLIANT -DOES NOT EXCEED
TOTAL INSULATION AREA	153.1	m²	0.10%	MAXIMUM NOMINATED



#### Job Number: 603164 v2.0

## NSW ADDITIONS: BUILDING FABRIC THERMAL INSULATION

#### NSW 3.12.1 APPLICATION OF NSW PART 3.12.1

(a) Compliance with NSW 3.12.1.1 satisfies NSW P2.6.1(a) for thermal insulation and thermal breaks.

(b) NSW PART 3.12.1 only applies to thermal insulation in a Class 1 or 10 building where a development consent specifies that the insulation is to be provided as part of the development.

(c) In (b), the term development consent has the meaning given by the Environmental Planning and Assessment Act 1979.

(d) The Deemed-to-Satisfy Provisions of this Part for thermal breaks apply to all Class 1 buildings and Class 10a buildings with a conditioned space.

#### NSW 3.12.1.1 COMPLIANCE WITH BCA PROVISIONS

(a) Thermal insulation in a building must comply with the national BCA provisions of 3.12.1.1.

(b) A thermal break must be provided between the external cladding and framing in accordance with national BCA pr

(i) 3.12.1.2(c) for a metal framed roof; and

(ii) 3.12.1.4(b) for a metal framed wall.

(c) Compensation for reduction in ceiling insulation must comply with the national BCA provisions of 3.12.1.2(e).

(d) A floor with an in-slab or in-screed heating or cooling system must comply with the national BCA provisions of-

(i) 3.12.1.5(a)(ii), (iii) and (e) for a suspended floor; or

(ii) 3.12.1.5(c), (d) and (e) for a concrete slab-on-ground.

## **BUILDING SEALING & SERVICES**

#### NSW 3.12.3 APPLICATION OF NSW PART 3.12.3

(a) Compliance with NSW 3.12.3.1 satisfies NSW P2.6.1(b) for building sealing.

(b) NSW Part 3.12.3 is not applicable to-

(i) existing buildings being relocated; or

(ii) Class 10a buildings-

(A) without a conditioned space; or

(B) for the accommodation of vehicles; or

(iii) parts of buildings that cannot be fully enclosed; or

(iv) a permanent building opening, in a space where a gas appliance is located, that is necessary for the safe operation of a gas appliance; or

(v) a building in climate zones 2 and 5 where the only means of air-conditioning is by using an evaporative cooler.

#### **NSW 3.12.3.1 COMPLIANCE WITH BCA PROVISIONS**

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

#### NSW 3.12.5 SERVICES: APPLICATION OF NSW PART 3.12.5

(a) Compliance with NSW 3.12.5.1 satisfies NSW P2.6.2 for services.

(b) NSW Part 3.12.5 is not applicable to existing services associated with existing buildings being relocated.

#### **NSW 3.12.5.1 COMPLIANCE WITH BCA PROVISIONS**

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





Certificate Number: 5KXJCS03WF

Date of Certificate: 12 Jan 2017

★ Star rating: 4.2



### Assessor details

Accreditation number:	VIC/BDAV/14/1662
Name:	Claude-Francois Sookloll
Organisation:	Energy Advance
Email:	energy@energyadvance.com.au
Phone:	1300 850 228
Declaration of interest:	No potential conflicts of interest to declare
Software:	FirstRate5: 5.2.4a (3.13)
AAO:	BDAV

# **Overview**

### **Dwelling details**

Address: Suburb:	Lot 24 Saltwate The Hills Shire	r Crescent KE	LLYVILLE
State:	NSW	Postcode:	2155
Type: Lot/DP	New Home	NCC Class: NatHERS	Class 1a
number: Exposure:	24/1211773 suburban	climate zone:	28

# **138.8** MJ/m<sup>2</sup> For more information on your dwelling's rating see: www.nathers.gov.au

NATIONWI

ENERGY RATING SCHEME

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

# Key construction and insulation materials

(see following pages for c	letai	ls)
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**Net floor area** (m<sup>2</sup>)

Conditioned:

Garage:

TOTAL:

Unconditioned:

**Plan documents** 

Plan ref/date:

Prepared by:

Construction:	Wall:	Hebel Panel
	Roof:	Tiled (sarked)
	Floor:	Waffle Pod (225/85)
Insulation:	Wall:	R2.0 Batts (excl. Garage)
	Roof:	R3.0 Batts (excl. Garage)
	Floor:	Waffle Pod (225/85)
Glazing:	Alumi Single	nium e Glazed

167.1

14.3

31.5

212.9

#### **Ceiling penetrations** (see following pages for details)

Sealed:	2
Unsealed:	1
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.

Principal downlight type:

No downlights modelled

#### 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 the 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.



https://www.fr5.com.au/QRCodeLand ing?PublicId=5KXJCS03WF

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

**Annual thermal** 

 $(MJ/m^2)$ 

Heating:

Cooling:

TOTAL:

603164\_v2.0 | 12/01/2017

mcdonald jones

performance loads

70

68.8

138.8

Certificate Number: 5KXJCS03WF

Date of Certificate: 12 Jan 2017

★ Star rating: **4.2** 



# **Building Features**

#### Windows type and performance value Window ID Window type U-value SHGC BRD-001-01 A ESS Sliding Window (52mm) SG 3Clr 6.43 0.76 BRD-020-01 A Al Sliding Door SG 4Clr 6.34 0.75 BRD-081-16 A Signature Awning Window 100 SG 4Clr 6.85 0.64

### Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
BRD-001-01 A	W06	600	3010	SE	Home Theatre	No
BRD-020-01 A	D01	2106	1200	NE	Entry	No
BRD-001-01 A	W01	2080	1810	NW	Entry	No
BRD-020-01 A	D02	2106	820	NW	Laundry	Νο
BRD-081-16 A	W02	1030	610	NW	Powder	No
BRD-020-01 A	D03	2100	2328	SW	Kitchen/Liv/Fam/Dining	Νο
BRD-020-01 A	D04	2100	3228	NW	Kitchen/Liv/Fam/Dining	Νο
BRD-081-16 A	W04	2080	850	SW	Kitchen/Liv/Fam/Dining	Νο
BRD-081-16 A	W05	2080	850	SW	Kitchen/Liv/Fam/Dining	Νο
BRD-001-01 A	W03	1800	2410	NW	Kitchen/Liv/Fam/Dining	Νο
BRD-020-01 A	W20	2080	1810	NE	Garage	No
BRD-001-01 A	W19	600	3010	SE	Master Suite	No
BRD-020-01 A	D05	2100	3288	NE	Master Suite	No
BRD-081-16 A	W17	1200	1570	SE	Bedroom 2	No
BRD-081-16 A	W16	1200	1570	SE	Bedroom 3	Νο
BRD-081-16 A	W14	1200	610	NW	Bedroom 4	No
BRD-081-16 A	W15	1200	610	NW	Bedroom 4	No
BRD-001-01 A	W18	860	2650	SE	Children's Activities	No
BRD-081-16 A	W11	2080	1810	NW	UF Stairwell	No
BRD-081-16 A	W07	1560	1570	NE	WIR	No
BRD-081-16 A	W08	2080	610	NW	Ensuite	No
BRD-081-16 A	W09	2080	610	NW	Ensuite	No
BRD-081-16 A	W10	1030	610	NW	Ensuite WC	No
BRD-081-16 A	W12	1460	1570	NW	Bath	No
BRD-081-16 A	W13	1030	610	NW	WC	No

### Roof windows and skylight type and performance value

Certificate Number: 5KXJCS03WF

Date of Certificate: 12 Jan 2017

★ Star rating: **4.2** 



# **Building Features**

ID	Window type				U-value	SHGC
Roof window and	skylight schedule					
ID	Roof window/ skylight no.	Area (m <sup>2</sup> )	Orientation	Zone name		Indoor shade/ diffuser

# External wall type Insulation Wall wrap Type Insulation Wall wrap 1 : MJH - Hebel Panel Construction (Rendered) -R2.0 Batts +MD Wrap Glass fibre batt: R2.0 (R2.0) Yes 2 : MJH - Hebel Panel Construction (Rendered) -Uninsulated No

### **External wall schedule**

Wall type	Area (m <sup>2</sup> )	Orientation	Zone name	Fixed shade	Eaves
1 : MJH - Hebel Panel Construction (Rendered) -R2.0 Batts +MD Wrap	9.8	SE	Home Theatre	Yes	No
1 : MJH - Hebel Panel Construction (Rendered) -R2.0 Batts +MD Wrap	5.5	NE	Entry	Yes	Yes
1 : MJH - Hebel Panel Construction (Rendered) -R2.0 Batts +MD Wrap	8.7	NW	Entry	No	No
1 : MJH - Hebel Panel Construction (Rendered) -R2.0 Batts +MD Wrap	7.4	NW	GF Stairwell	No	No
1 : MJH - Hebel Panel Construction (Rendered) -R2.0 Batts +MD Wrap	3.9	NW	Laundry	No	No
1 : MJH - Hebel Panel Construction (Rendered) -R2.0 Batts +MD Wrap	3.4	NW	Powder	No	No
1 : MJH - Hebel Panel Construction (Rendered) -R2.0 Batts +MD Wrap	5	SE	WIP	Yes	No
1 : MJH - Hebel Panel Construction (Rendered) -R2.0 Batts +MD Wrap	6.5	SW	Kitchen/Liv/Fam/Dining	Yes	Yes
1 : MJH - Hebel Panel Construction (Rendered) -R2.0 Batts +MD Wrap	10.1	NW	Kitchen/Liv/Fam/Dining	Yes	Yes
1 : MJH - Hebel Panel Construction (Rendered) -R2.0 Batts +MD Wrap	2.8	SW	Kitchen/Liv/Fam/Dining	No	No
1 : MJH - Hebel Panel Construction (Rendered) -R2.0 Batts +MD Wrap	6.9	SW	Kitchen/Liv/Fam/Dining	No	Yes
1 : MJH - Hebel Panel Construction (Rendered) -R2.0 Batts +MD Wrap	9.5	SE	Kitchen/Liv/Fam/Dining	Yes	Yes
1 : MJH - Hebel Panel Construction (Rendered) -R2.0 Batts +MD Wrap	10.3	SE	Kitchen/Liv/Fam/Dining	Yes	No

Certificate Number: 5KXJCS03WF

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★ Star rating: **4.2** 



# **Building Features**

I : MJH - Hebel Panel Construction Rendered) -R2.0 Batts +MD Wrap	9.7	NW	Kitchen/Liv/Fam/Dining	No	No
2 : MJH - Hebel Panel Construction Rendered) -Uninsulated	4.7	NW	Garage	Yes	Yes
2 : MJH - Hebel Panel Construction Rendered) -Uninsulated	0.6	NE	Garage	Yes	No
2 : MJH - Hebel Panel Construction Rendered) -Uninsulated	3.5	SW	Garage	Yes	No
2 : MJH - Hebel Panel Construction Rendered) -Uninsulated	13.7	SE	Garage	No	No
: MJH - Hebel Panel Construction Rendered) -Uninsulated	13.4	NE	Garage	Yes	Yes
: MJH - Hebel Panel Construction Rendered) -R2.0 Batts +MD Wrap	9.4	SE	Master Suite	No	Yes
: MJH - Hebel Panel Construction Rendered) -R2.0 Batts +MD Wrap	9.6	NE	Master Suite	Yes	Yes
: MJH - Hebel Panel Construction Rendered) -R2.0 Batts +MD Wrap	9.1	SE	Bedroom 2	No	Yes
: MJH - Hebel Panel Construction Rendered) -R2.0 Batts +MD Wrap	7.3	SW	Bedroom 3	No	Yes
: MJH - Hebel Panel Construction Rendered) -R2.0 Batts +MD Wrap	9.8	SE	Bedroom 3	No	Yes
: MJH - Hebel Panel Construction Rendered) -R2.0 Batts +MD Wrap	8.8	SW	Bedroom 4	No	Yes
: MJH - Hebel Panel Construction Rendered) -R2.0 Batts +MD Wrap	8.2	NW	Bedroom 4	No	Yes
: MJH - Hebel Panel Construction Rendered) -R2.0 Batts +MD Wrap	9.7	SE	Children's Activities	No	Yes
: MJH - Hebel Panel Construction Rendered) -R2.0 Batts +MD Wrap	7.4	NW	UF Stairwell	No	Yes
: MJH - Hebel Panel Construction Rendered) -R2.0 Batts +MD Wrap	4.8	NW	WIR	No	Yes
: MJH - Hebel Panel Construction Rendered) -R2.0 Batts +MD Wrap	2.8	SE	WIR	Yes	No
: MJH - Hebel Panel Construction Rendered) -R2.0 Batts +MD Wrap	1.4	NE	WIR	No	Yes
: MJH - Hebel Panel Construction Rendered) -R2.0 Batts +MD Wrap	5	NE	WIR	No	Yes
: MJH - Hebel Panel Construction Rendered) -R2.0 Batts +MD Wrap	8.5	NW	Ensuite	No	Yes
: MJH - Hebel Panel Construction Rendered) -R2.0 Batts +MD Wrap	2.1	NW	Ensuite WC	No	Yes
: MJH - Hebel Panel Construction	6.6	NW	Bath	No	Yes

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★ Star rating: 4.2



# **Building Features**

(Rendered) -R2.0 Batts +MD Wrap					
1 : MJH - Hebel Panel Construction					
(Rendered) -R2.0 Batts +MD Wrap	2.2	NW	WC	No	Yes

### Internal wall type

Туре	Area (m²)	Insulation
1 : MJH - Internal Stud Walls	306.4	
2 : MJH - Internal Stud Walls -R1.7 Soundscreen	120.4	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R1.7)

### **Floors**

Location	Construction	Area (m <sup>2</sup> )	Sub floor ventilation	Added insulation	Covering
Home Theatre	Waffle Pod : 225-85: 225mm waffle pod, 85mm concrete (R0.7)	12.7	Enclosed	0.0	Carpet
Entry	Waffle Pod : 225-85: 225mm waffle pod, 85mm concrete (R0.7)	8.1	Enclosed	0.0	Carpet
GF Passageway	Waffle Pod : 225-85: 225mm waffle pod, 85mm concrete (R0.7)	9.7	Enclosed	0.0	Carpet
GF Stairwell	Waffle Pod : 225-85: 225mm waffle pod, 85mm concrete (R0.7)	4.1	Enclosed	0.0	Carpet
Laundry	Waffle Pod : 225-85: 225mm waffle pod, 85mm concrete (R0.7)	3.5	Enclosed	0.0	Tiles
Powder	Waffle Pod : 225-85: 225mm waffle pod, 85mm concrete (R0.7)	3	Enclosed	0.0	Tiles
WIP	Waffle Pod : 225-85: 225mm waffle pod, 85mm concrete (R0.7)	4.7	Enclosed	0.0	Tiles
Kitchen/Liv/Fam/Dining	Waffle Pod : 225-85: 225mm waffle pod, 85mm concrete (R0.7)	27.9	Enclosed	0.0	Tiles
Kitchen/Liv/Fam/Dining	Waffle Pod : 225-85: 225mm waffle pod, 85mm concrete (R0.7)	15.2	Elevated	0.0	Tiles
Garage	Waffle Pod : 225-85: 225mm waffle pod, 85mm concrete (R0.7)	24.4	Enclosed	0.0	none
Garage	Waffle Pod : 225-85: 225mm waffle pod, 85mm concrete (R0.7)	6.9	Enclosed	0.0	none
Master Suite	Timber	15.1	Enclosed	0.0	Carpet
Bedroom 2	Timber	11.2	Enclosed	0.0	Carpet
Bedroom 3	Timber	11.3	Enclosed	0.0	Carpet
Bedroom 4	Timber	11.7	Enclosed	0.0	Carpet
Children's Activities	Timber	11.6	Enclosed	0.0	Carpet
UF Passageway	Timber	11.9	Enclosed	0.0	Carpet

Certificate Number: 5KXJCS03WF

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★ Star rating: **4.2** 



# **Building Features**

UF Stairwell	Timber	6.8	Enclosed	0.0	Carpet
WIR	Timber	5.1	Elevated	0.0	Carpet
Ensuite	Timber	8.5	Enclosed	0.0	Tiles
Ensuite WC	Timber	1.4	Enclosed	0.0	Tiles
Bath	Timber	6.2	Enclosed	0.0	Tiles
WC	Timber	1.6	Enclosed	0.0	Tiles

### **Ceiling type**

Location	Material	Added insulation	Roof space above
Home Theatre	Plasterboard	0.0	No
Home Theatre	Plasterboard	0.0	No
Home Theatre	Plasterboard	0.0	No
Entry	Plasterboard	0.0	No
Entry	Plasterboard	0.0	No
Entry	Plasterboard	0.0	No
GF Passageway	Plasterboard	0.0	No
GF Passageway	Plasterboard	0.0	No
GF Passageway	Plasterboard	0.0	No
GF Stairwell	Plasterboard	0.0	No
Laundry	Plasterboard	0.0	No
Powder	Plasterboard	0.0	No
Powder	Plasterboard	0.0	No
Powder	Plasterboard	0.0	No
WIP	Plasterboard	0.0	No
Kitchen/Liv/Fam/Dining	Plasterboard	0.0	No
Kitchen/Liv/Fam/Dining	Plasterboard	0.0	No
Kitchen/Liv/Fam/Dining	Plasterboard	0.0	No
Kitchen/Liv/Fam/Dining	Plasterboard	0.0	No
Kitchen/Liv/Fam/Dining	Plasterboard	0.0	No
Kitchen/Liv/Fam/Dining	Plasterboard	3.0	Yes
Garage	Plasterboard	0.0	No
Garage	Plasterboard	0.0	No
Garage	Plasterboard	0.0	No
Garage	Plasterboard	0.0	No
Garage	Plasterboard	0.0	No

Certificate Number: 5KXJCS03WF

Date of Certificate: 12 Jan 2017

★ Star rating: **4.2** 



# **Building Features**

Garage	Plasterboard	0.0	Yes
Master Suite	Plasterboard	3.0	Yes
Bedroom 2	Plasterboard	3.0	Yes
Bedroom 3	Plasterboard	3.0	Yes
Bedroom 4	Plasterboard	3.0	Yes
Children's Activities	Plasterboard	3.0	Yes
UF Passageway	Plasterboard	3.0	Yes
UF Stairwell	Plasterboard	3.0	Yes
WIR	Plasterboard	3.0	Yes
Ensuite	Plasterboard	3.0	Yes
Ensuite WC	Plasterboard	3.0	Yes
Bath	Plasterboard	3.0	Yes
WC	Plasterboard	3.0	Yes

### **Ceiling penetrations**

Location	Number	Туре	Width (mm)	Length (mm)	Seal/ unsealed
Powder	1	Exhaust Fans	250	250	Sealed
Kitchen/Liv/Fam/Dining	1	Exhaust Fans	185	185	Sealed
Kitchen/Liv/Fam/Dining	1	Unflued Gas Heaters	250	250	Unsealed

### **Ceiling fans**

Location

Number Diameter (mm)

Roof type		
Material	Added insulation	Roof colour
Vent:Attic-Vented	0.0	medium
Cont:Attic-Continuous	0.0	medium

Certificate Number: 5KXJCS03WF

Date of Certificate: 12 Jan 2017

★ Star rating: 4.2



### **Additional information**

BCA Climate Zone: 6

# **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 this 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 an 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.

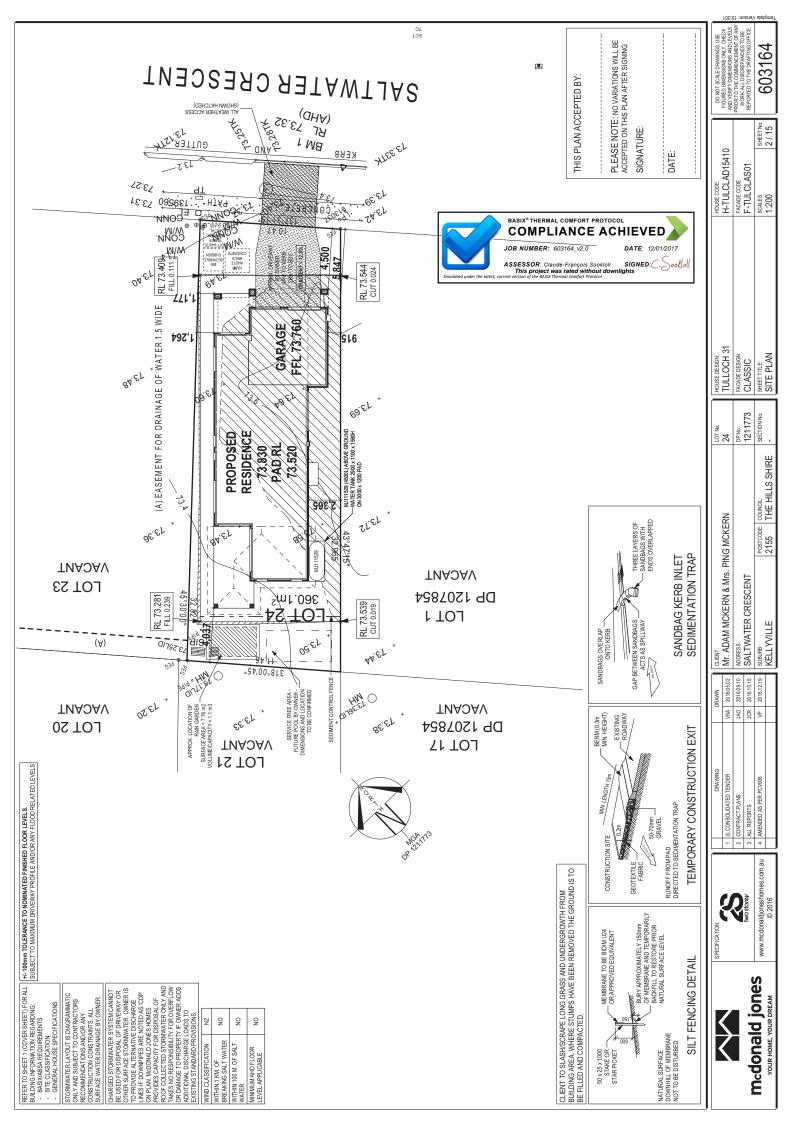
### Disclaimer

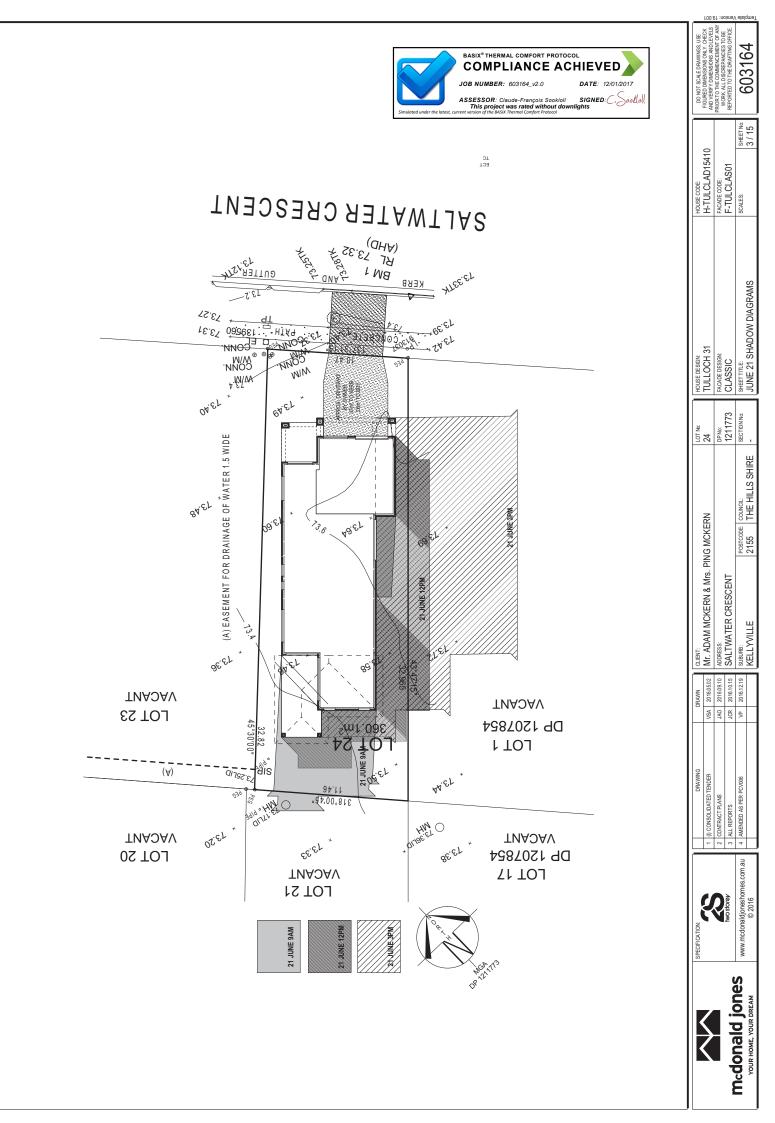
The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate.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

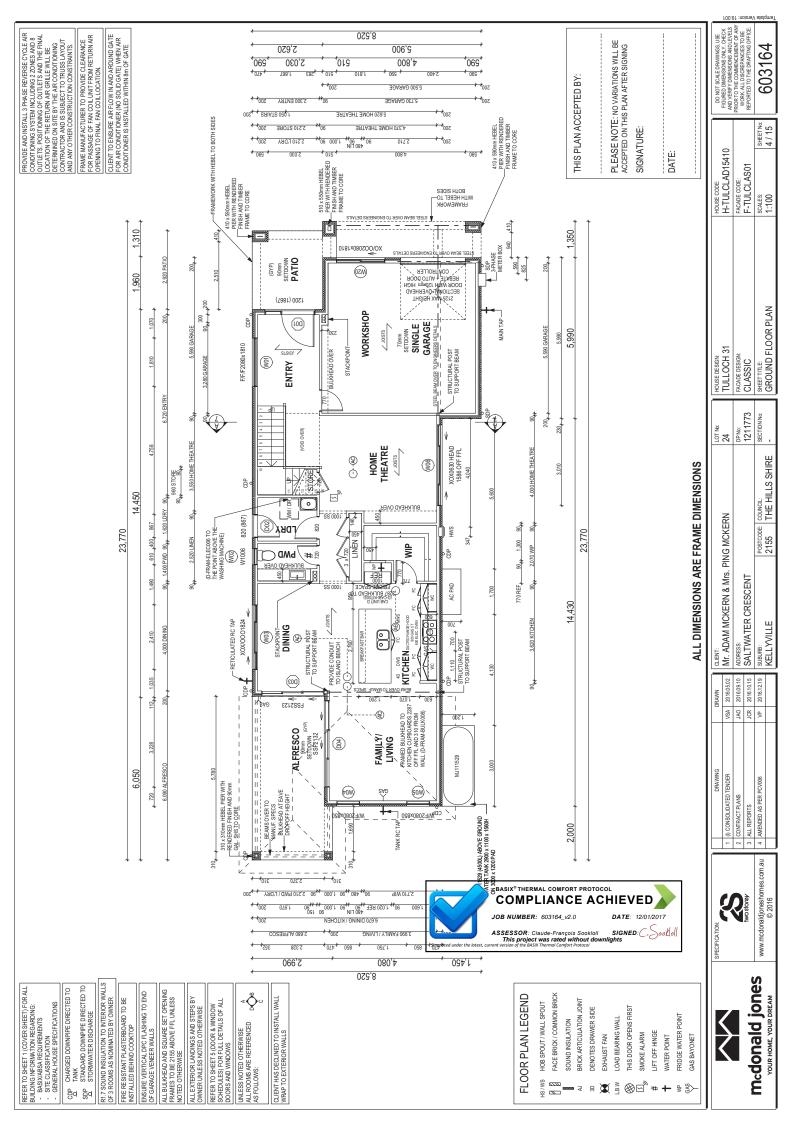
### Contact

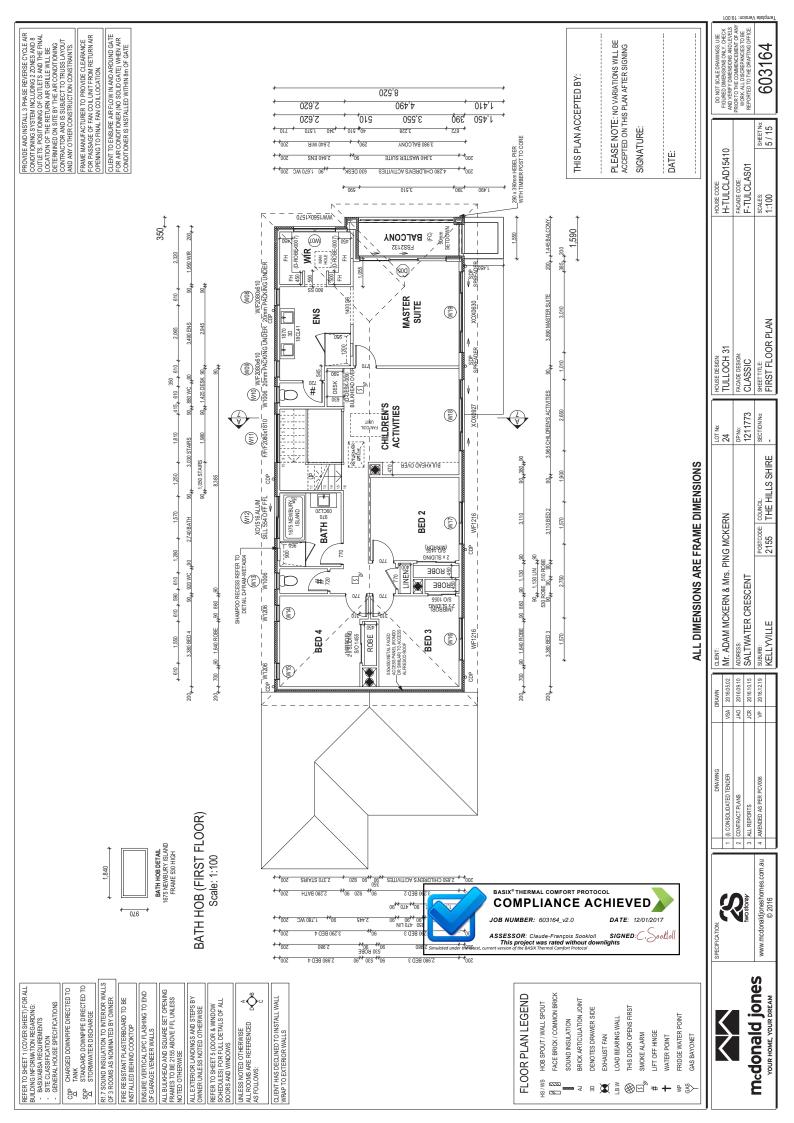
For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

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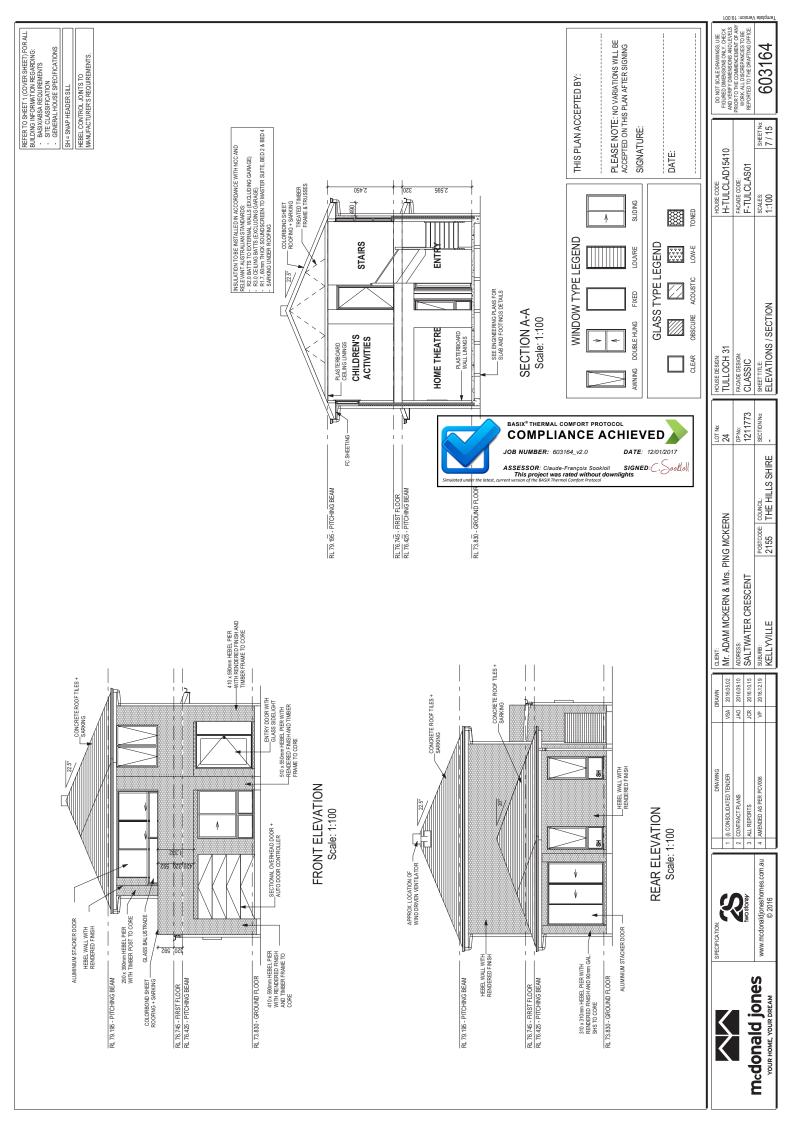


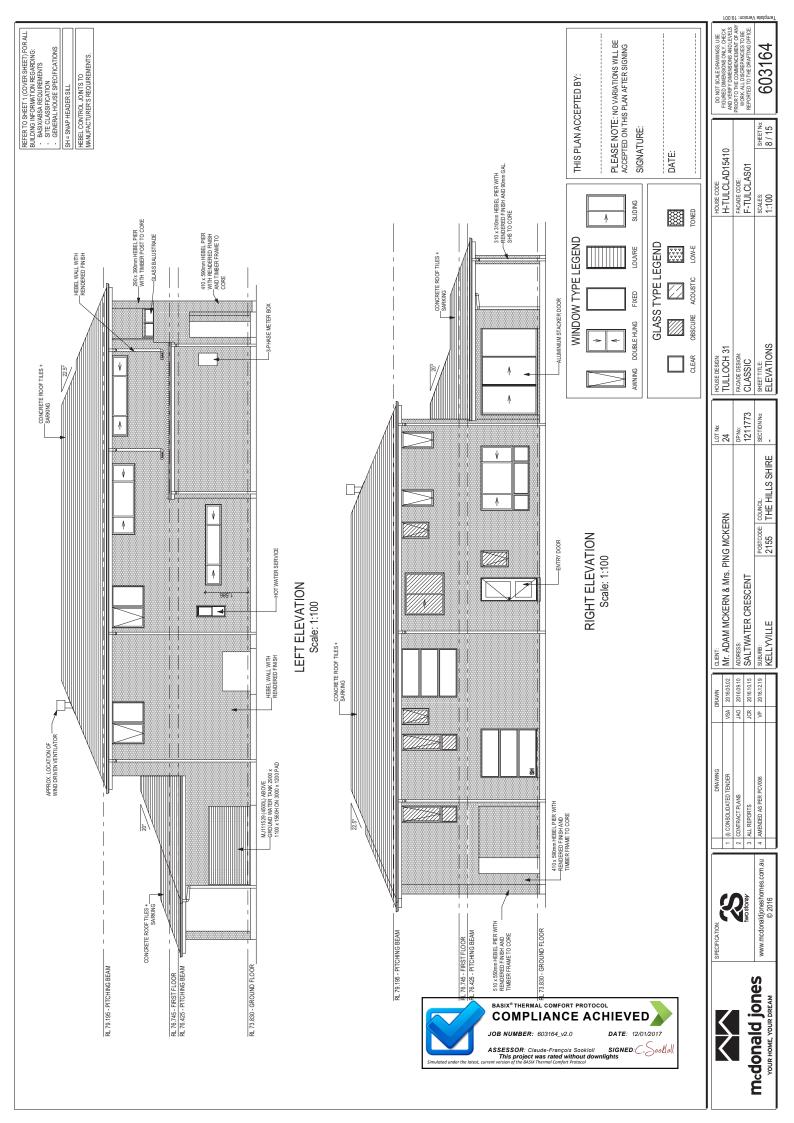


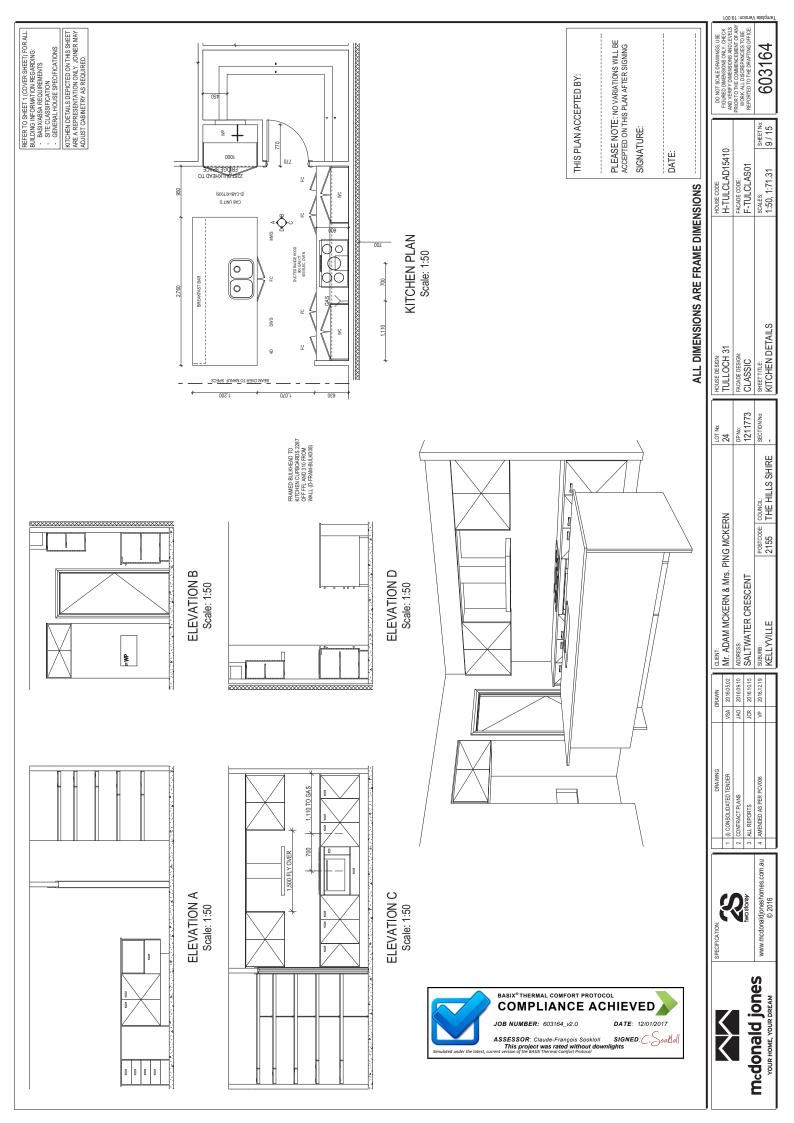


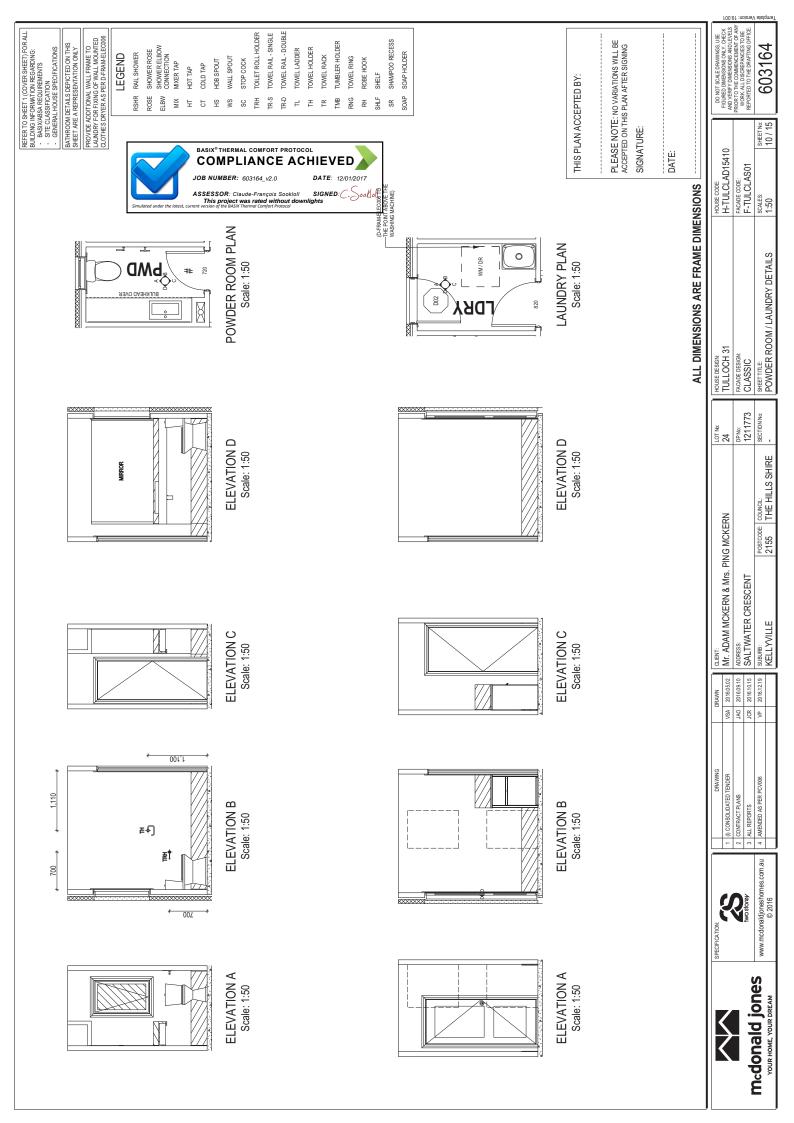


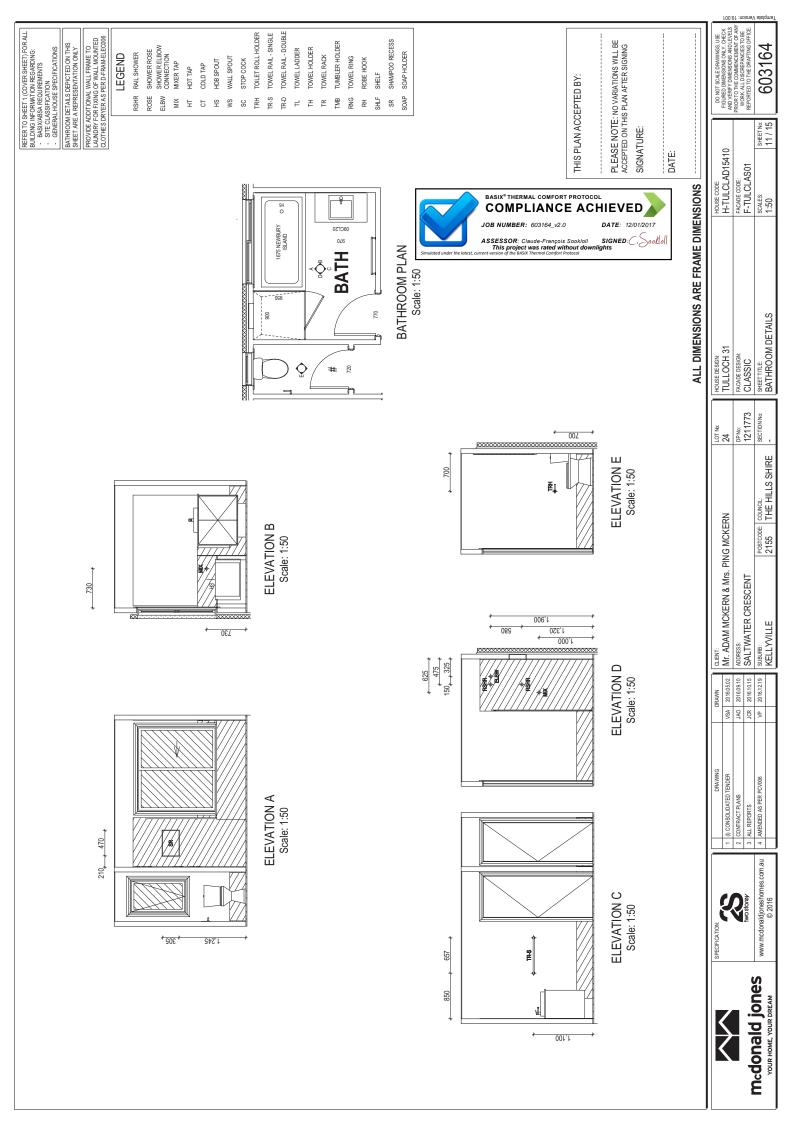
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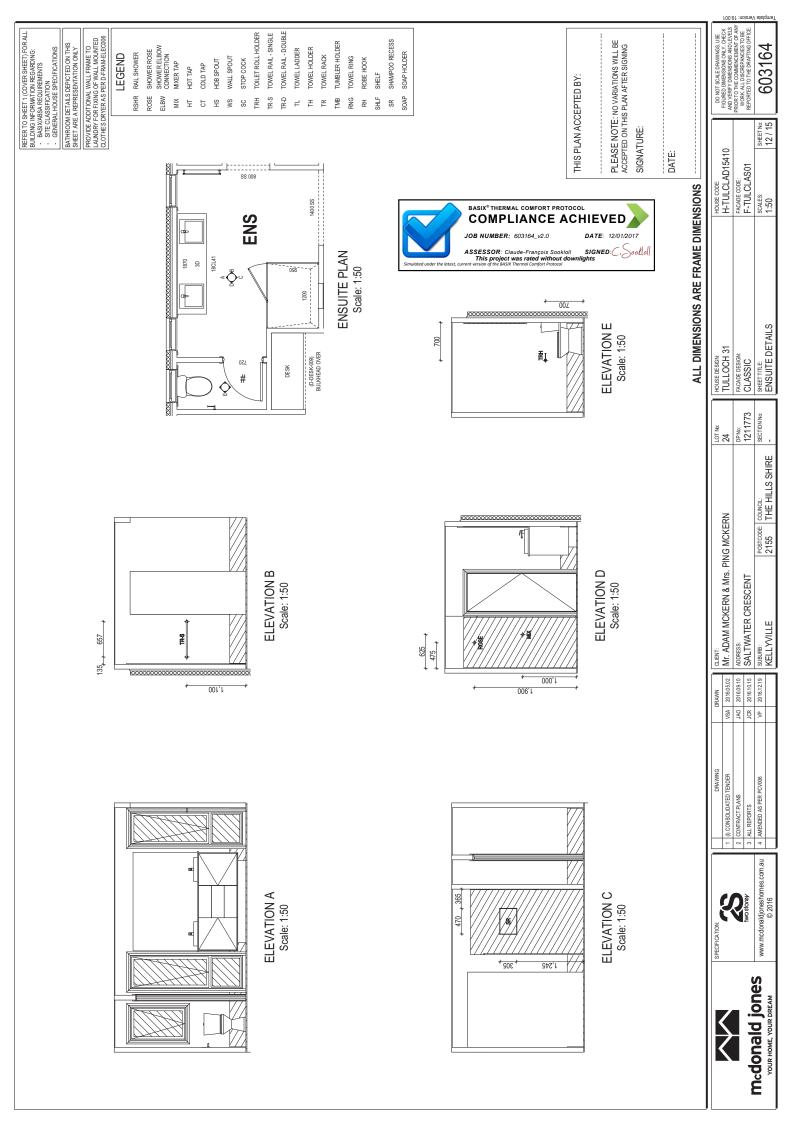


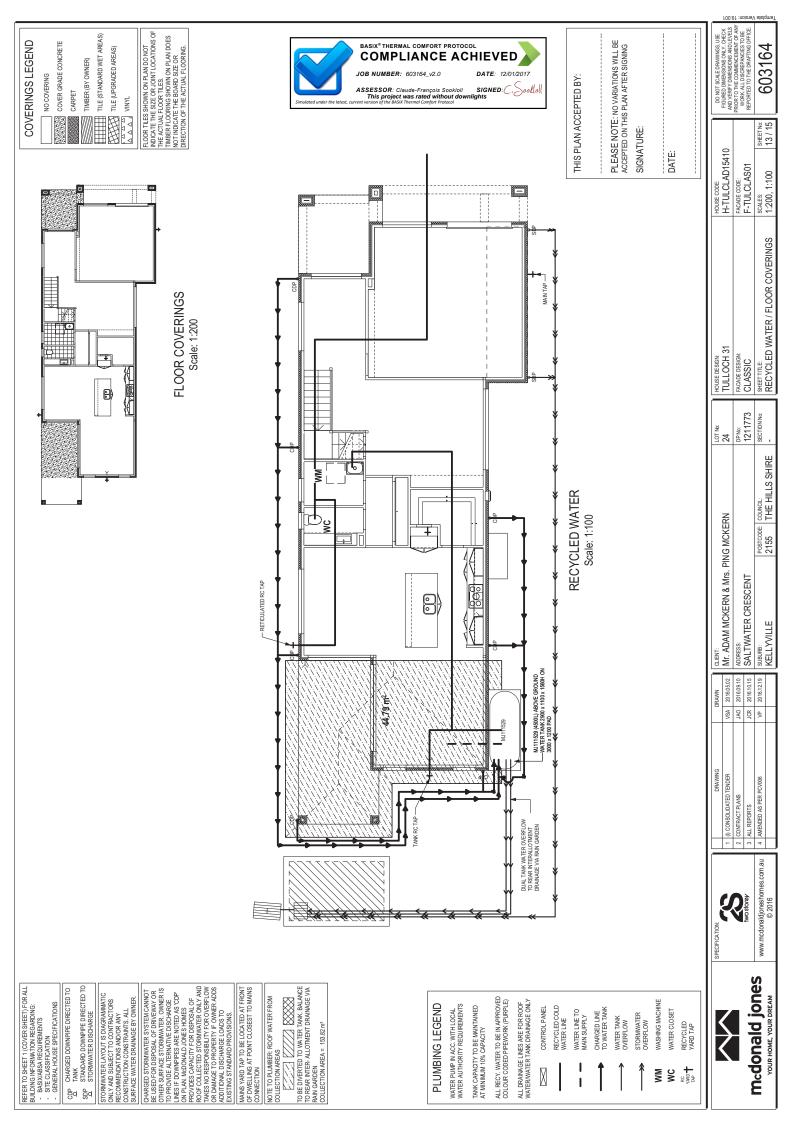












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			SPECFICATION: working www.mcdonalgioneshomes.com.au
Refer To SHEET 1 (COVER SHEET) FOR ALL BULDING INFORMITON REGARDING.           • BULDING INFORMITON REGARDING.           • SISXISUSS ACTION • STRUCKASSIFICATION           • SIST CASSIFICATION           • SITE CASSIFICATION           • STRE CASSIFICATION           • STRE CASSIFICATION           • STRE CASSIFICATION           • STRE CASSIFICATION           • CERRERAL HOUSE SPECIFICATIONS           • DARK	PLUMBING LEGEND WATER PUMP IN ACC. WITH LOCAL WATER AUTHORIT'R REQUIREMENTS TANK CAPACITY TO BE MAINTAINED AT MINIMM 105, CAPACITY ALL RECY WATER TO BE MAINTAINED ALL DRAINGE LINES ARE FOR ROOF OLOUR CODED FIPEWORK (PURPLE) ALL DRAINGE LINES ARE FOR ROOF WATEROWITER TANK DRAINGE ONLY COLOUR CODED PREVINGE (PURPLE)	A MATER LINE     MATER LINE     MATER LINE     MAIN SUPPLY     MAINSUPPLY     DARGED LINE     TO WATER TANK     MAINSTRIPTANK     MAINSTRIPANK     MAINSTRIPANK     MAINSTRIPANK     MAINSTRIPTANK     MAINS	medonald jones

