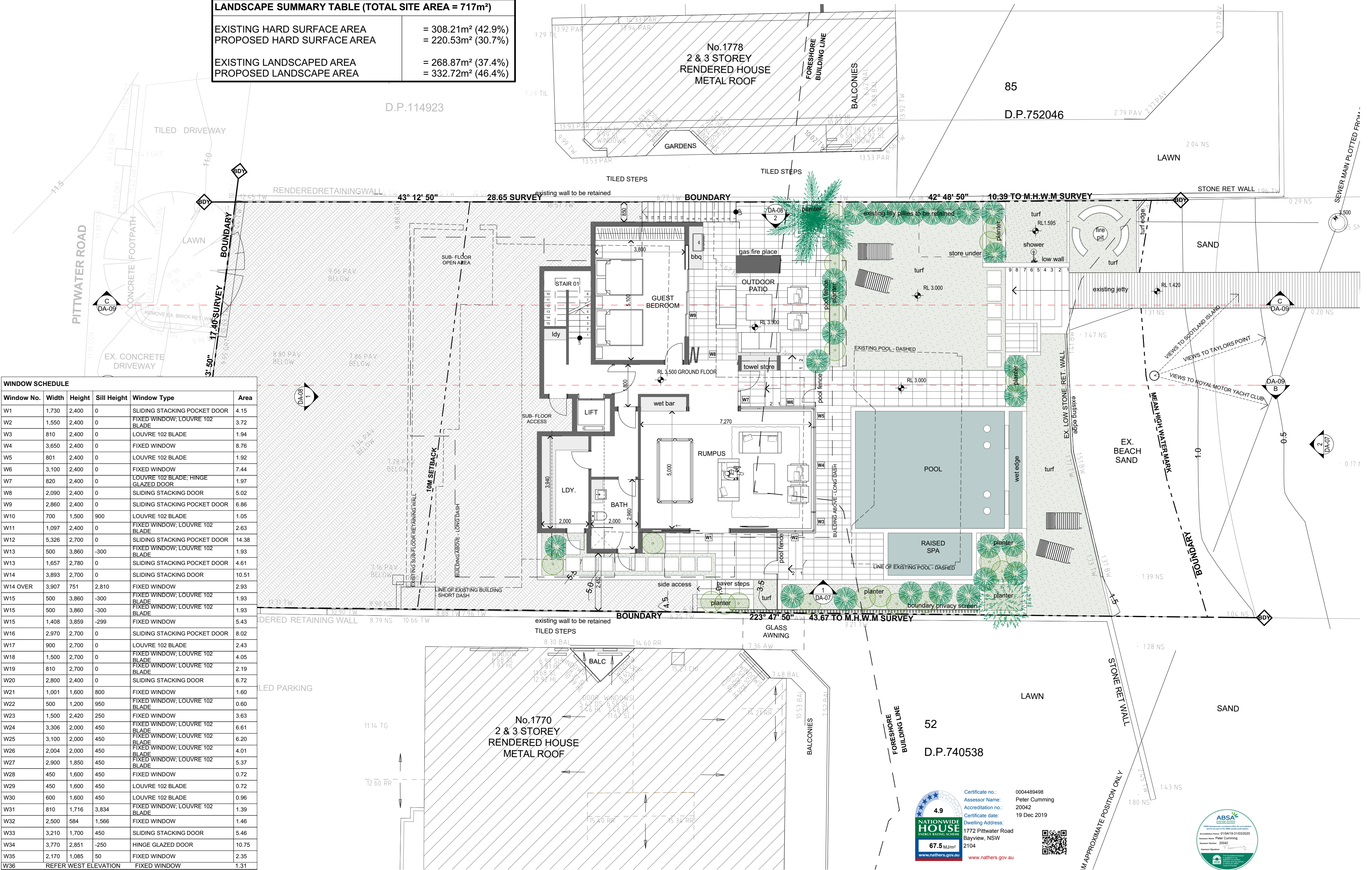
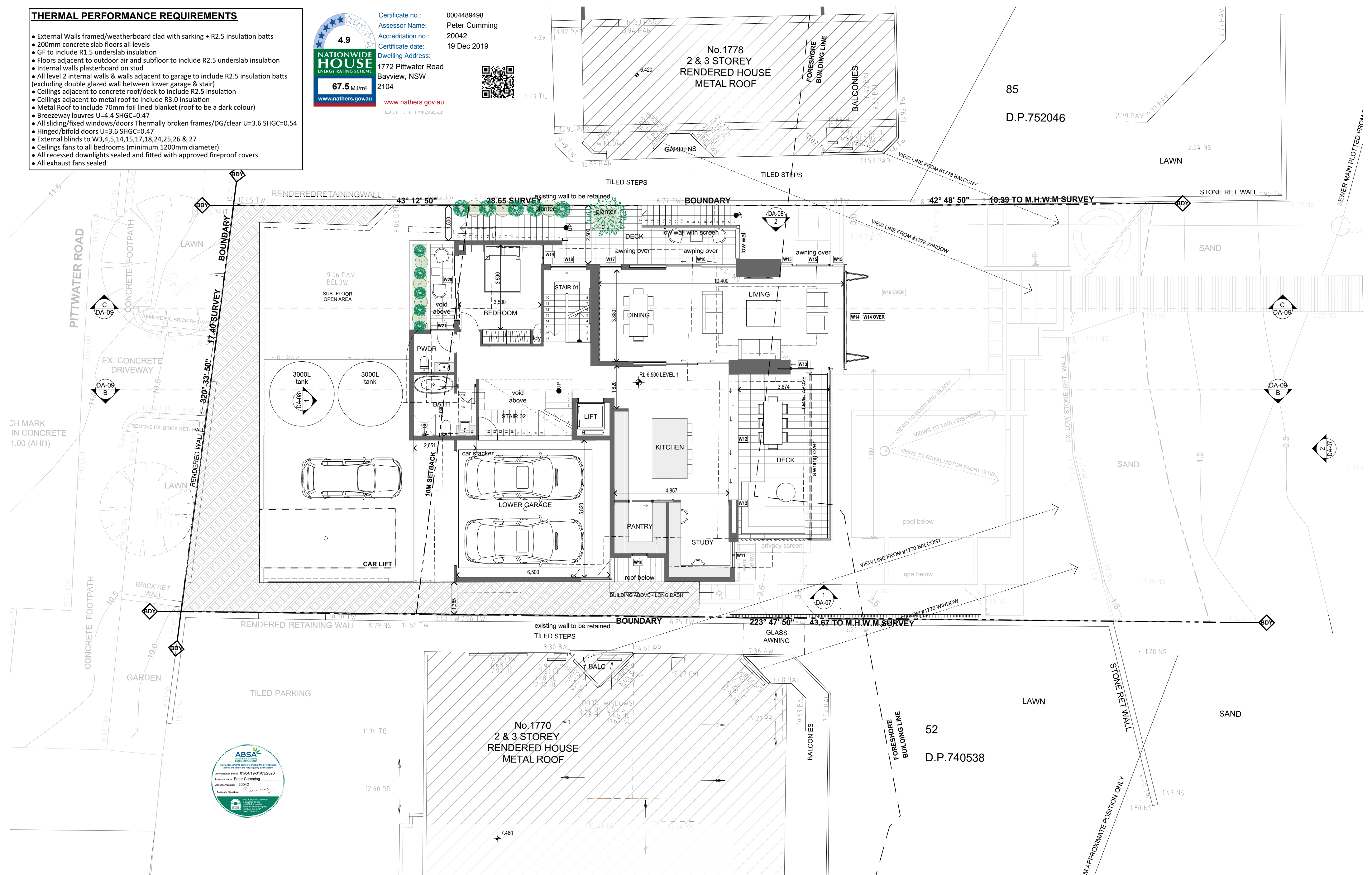


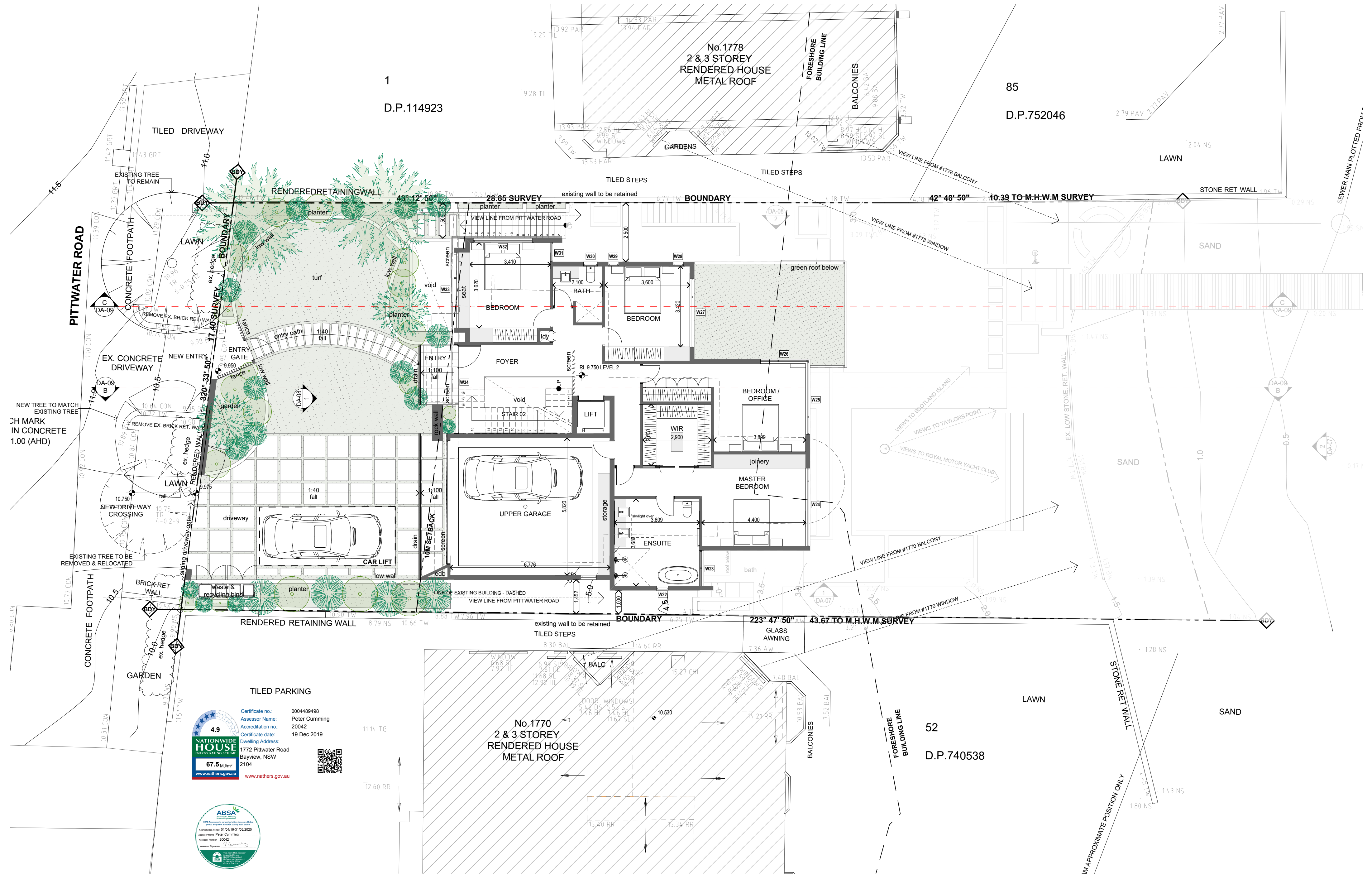
LANDSCAPE SUMMARY TABLE (TOTAL SITE AREA = 717m ²)			
EXISTING HARD SURFACE AREA	=	308.21m ²	(42.9%)
PROPOSED HARD SURFACE AREA	=	220.53m ²	(30.7%)
EXISTING LANDSCAPED AREA	=	268.87m ²	(37.4%)
PROPOSED LANDSCAPE AREA	=	332.72m ²	(46.4%)



THERMAL PERFORMANCE REQUIREMENTS

- External Walls framed/weatherboard clad with sarking + R2.5 insulation batts
- 200mm concrete slab floors all levels
- GF to include R1.5 underslab insulation
- Floors adjacent to outdoor air and subfloor to include R2.5 underslab insulation
- Internal walls plasterboard on stud
- All level 2 internal walls & walls adjacent to garage to include R2.5 insulation batts (excluding double glazed wall between lower garage & stair)
- Ceilings adjacent to concrete roof/deck to include R2.5 insulation
- Ceilings adjacent to metal roof to include R3.0 insulation
- Metal Roof to include 70mm foil lined blanket (roof to be a dark colour)
- Breezeway louvres U=4.4 SHGC=0.47
- All sliding/fixed windows/dors Thermally broken frames/DG/clear U=3.6 SHGC=0.54
- Hinged/bifold doors U=3.6 SHGC=0.47
- External blinds to W3,4,5,14,15,17,18,24,25,26 & 27
- Ceilings fans to all bedrooms (minimum 1200mm diameter)
- All recessed downlights sealed and fitted with approved fireproof covers
- All exhaust fans sealed



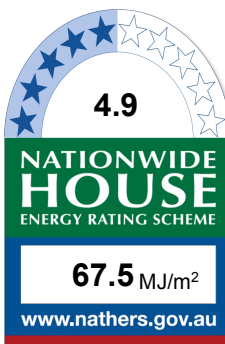


Issue Date	Rev	Description	Drawn	Checked

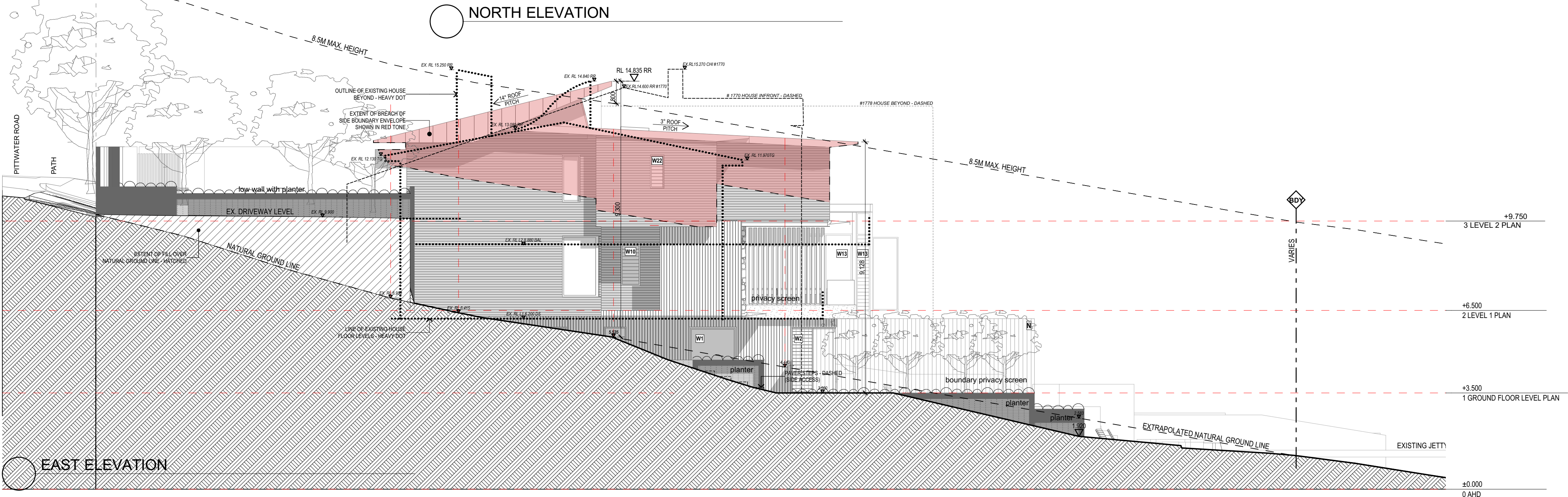
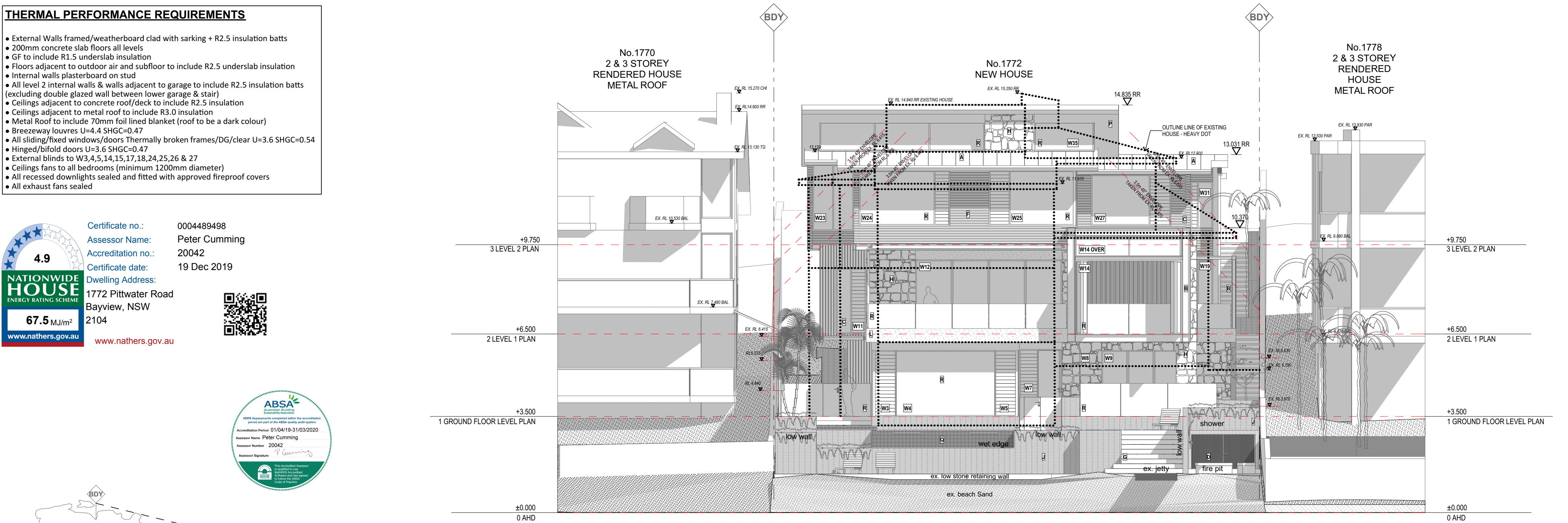
PROJECT NEW HOUSE 1772 PITTVATER ROAD BAYVIEW NSW	DRAWING TITLE LEVEL 2 FLOOR PLAN
SCALE 1:100 @ A2	DRAWN BY ###
PROJECT NO. 1925	PLOT DATE 19/12/2019
FOR ANDREW BURSILL & GEORGIE TORRENS	REVISION DA-06

THERMAL PERFORMANCE REQUIREMENTS

- External Walls framed/weatherboard clad with sarking + R2.5 insulation batts
- 200mm concrete slab floors all levels
- GF to include R1.5 underslab insulation
- Floors adjacent to outdoor air and subfloor to include R2.5 underslab insulation
- Internal walls plasterboard on stud
- All level 2 internal walls & walls adjacent to garage to include R2.5 insulation batts (excluding double glazed wall between lower garage & stair)
- Ceilings adjacent to concrete roof/deck to include R2.5 insulation
- Ceilings adjacent to metal roof to include R3.0 insulation
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- Ceilings fans to all bedrooms (minimum 1200mm diameter)
- All recessed downlights sealed and fitted with approved fireproof covers
- All exhaust fans sealed



Certificate no.: 0004489498
 Assessor Name: Peter Cumming
 Accreditation no.: 20042
 Certificate date: 19 Dec 2019
 Dwelling Address: 1772 Pittwater Road
 Bayview, NSW 2104
www.nathers.gov.au



Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004489498

Certificate Date: 19 Dec 2019

★ Star rating: 4.9



Assessor details

Accreditation number: **20042**
Name: **Peter Cumming**
Organisation: **NatHERS & BASIX Solutions**
Email: **basixsolutions@gmail.com**
Phone: **0299797674**
Declaration of interest: **No potential conflicts of interest to declare**
Software: **AccuRate Sustainability V2.3.3.13 SP4**
AAO: **ABSA**

Overview

Dwelling details

Street: **1772 Pittwater Road**
Suburb: **Bayview**
State: **NSW** Postcode: **2104**
Type: **New** NCC Class: **1a**
NatHERS climate zone: **56**
Lot/DP number: **Lot 51 DP 740538** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **Fibre-cement sheet/Plasterboard wall**
Metal roof/Plasterboard Slab
Insulation: **R2.5 wall insulation**
Ceiling (uninsulated)
R1.5 floor insulation
Glazing: **Al Thermally Broken B DG Air Fill**
Clear-Clear

Net floor area (m²)

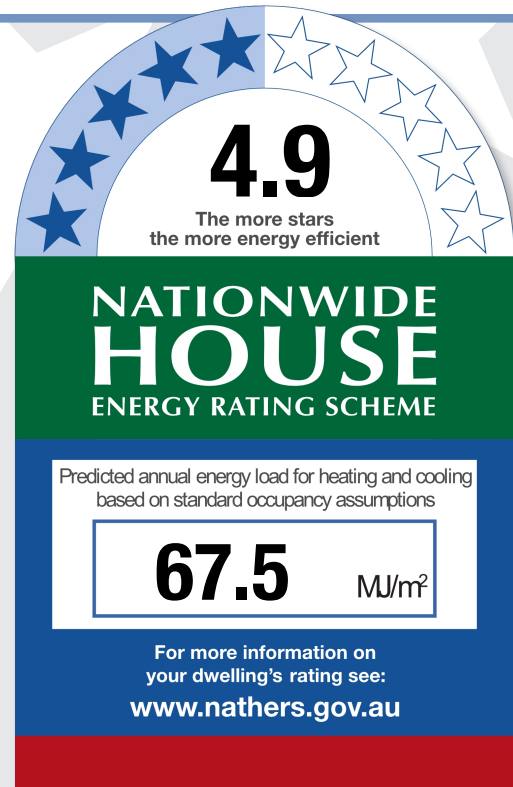
Conditioned: **307.5**
Unconditioned: **94.6**
Garage: **76.7**
TOTAL: **402.1**

Annual thermal performance loads (MJ/m²)

Heating: **42.8**
Cooling: **24.6**
TOTAL: **67.5**

Plan documents

Plan ref/date: **1925/9.12.19**
Prepared by: **Sean Gartner**



Ceiling penetrations

(see following pages for details)

Sealed: **0**
Unsealed: **0**
TOTAL:** **0**

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

Principle downlight type: **No Ceiling Penetration Downlights**

Window selection - default windows only

Note on allowable window values: With a 10% tolerance to the nominated SHGC window values shown on page 2, the following ratings are achieved:

-10% SHGC **4.9**
+10% SHGC **4.9**

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 the rating listed above falls below 6.0 stars or the required rating, then the window with this tolerance can NOT be selected.

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



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004489498**

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ATB-004-01 B	DEFAULTS: AI Thermally Broken B DG Air Fill Clear-Clear	3.6	0.54
ATB-003-01 B	DEFAULTS: AI Thermally Broken A DG Air Fill Clear-Clear	3.6	0.47
BRZ-006-08 A	Breezway: Easyscreen Altair Louvre SG 6LE	4.3	0.47

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Rumpus	ATB-004-01 B	W1	2400	1730	SE	None
Rumpus	BRZ-006-08 A	W2	2400	700	SE	None
Rumpus	ATB-004-01 B	W2 fixed	2400	850	SE	None
Rumpus	BRZ-006-08 A	W3	2400	673	NE	Outdoor venetians
Rumpus	BRZ-006-08 A	W5	2400	673	NE	Outdoor venetians
Rumpus	ATB-004-01 B	W4	2400	3653	NE	Outdoor venetians
Rumpus	BRZ-006-08 A	W6 louvre	2400	810	NW	None
Rumpus	ATB-004-01 B	W6 fixed	2400	2190	NW	None
Rumpus	BRZ-006-08 A	W7	2400	600	NE	None
Rumpus	ATB-003-01 B	W7 door	2400	820	NE	None
Rumpus	ATB-003-01 B	W8	2400	2090	NW	None
Guest Bedroom	ATB-004-01 B	W9	2400	2860	NE	None
Lower Garage	ATB-004-01 B	Lower garage	2100	800	NE	None
Lower Garage	ATB-004-01 B	lower garage	2100	1200	SE	None
Powder level 1	ATB-004-01 B	W21	1600	1001	NW	None
Stair/hall level 1	BRZ-006-08 A	W18 louvre	2700	500	NW	Outdoor venetians
Stair/hall level 1	ATB-004-01 B	W18 fixed	2700	1000	NW	Outdoor venetians
Bedroom level 1	ATB-004-01 B	W20	2400	2800	SW	None
Bedroom level 1	BRZ-006-08 A	W19	2700	810	NE	None
Living/dining	BRZ-006-08 A	W17	2700	900	NW	Outdoor venetians
Living/dining	ATB-004-01 B	W16 part of	2700	1190	NW	None
Living/dining	ATB-004-01 B	W16 part of	2700	1780	NW	None
Living/dining	BRZ-006-08 A	W15	3550	500	NW	Outdoor venetians
Living/dining	BRZ-006-08 A	W15	3550	500	NW	Outdoor venetians
Living/dining	ATB-004-01 B	W15 fixed	3550	1408	NW	Outdoor venetians
Living/dining	ATB-003-01 B	W14	2700	3880	NE	Outdoor venetians
Living/dining	ATB-004-01 B	W14 over	751	3880	NE	Outdoor venetians
Living/dining	ATB-004-01 B	W13	2780	1657	SE	None
Living/dining	BRZ-006-08 A	W13A	3550	500	SE	None
Kitchen	ATB-004-01 B	W12	2700	5200	NE	None
Study	BRZ-006-08 A	W11	2400	500	NE	None
Study	ATB-004-01 B	W11 fixed	2400	597	NE	None
Pantry	BRZ-006-08 A	W10	1500	700	SE	None

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Building features continued

Upper Garage	ATB-004-01 B	Upper garage E	1700	600	SE	None
Upper Garage	ATB-004-01 B	upper garage north	1085	5820	NE	None
Foyer/stair/hall	ATB-004-01 B	W34	2850	2750	SW	None
Foyer/stair/hall	ATB-003-01 B	W34 door	2850	900	SW	None
Foyer/stair/hall	ATB-004-01 B	W36	550	2400	NW	None
Foyer/stair/hall	ATB-004-01 B	W35	1085	2170	NE	None
Bedroom Level 2 South	ATB-004-01 B	W33	1700	3210	SW	None
Bedroom Level 2 South	ATB-004-01 B	W32	584	2500	NW	None
Bedroom Level 2 South	BRZ-006-08 A	W31	1716	810	NE	None
Bath Level 2	BRZ-006-08 A	W30	1600	600	NW	None
Bedroom level 2 north	ATB-004-01 B	W28	1600	450	NW	None
Bedroom level 2 north	BRZ-006-08 A	W29	1600	450	NW	None
Bedroom level 2 north	BRZ-006-08 A	W27	1850	700	NE	Outdoor venetians
Bedroom level 2 north	ATB-004-01 B	W27 fixed	1850	2200	NE	Outdoor venetians
Bedroom/office	BRZ-006-08 A	W26	2000	700	NW	Outdoor venetians
Bedroom/office	ATB-004-01 B	W26 fixed	2000	1304	NW	Outdoor venetians
Bedroom/office	BRZ-006-08 A	W25	2000	700	NE	Outdoor venetians
Bedroom/office	ATB-004-01 B	W25 fixed	2000	2400	NE	Outdoor venetians
Master Bedroom	BRZ-006-08 A	W24	2000	500	NE	Outdoor venetians
Master Bedroom	ATB-004-01 B	W24 fixed	2000	2806	NE	Outdoor venetians
Ensuite master bed	ATB-004-01 B	W23	2420	1500	NE	None
Ensuite master bed	BRZ-006-08 A	W22	1200	500	SE	None

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

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Building features continued

ID	Wall type	Insulation	Wall wrap or foil
EW-002	Fibre-cement sheet/Plasterboard	Polystyrene expanded: R2.5	Yes
EW-008	Retaining Concrete block		No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Rumpus	EW-002	7270	2700	SE	Yes	1900
Rumpus	EW-002	5000	2700	NE	Yes	700
Rumpus	EW-002	3000	2700	NW	Yes	6000
Rumpus	EW-002	1750	2700	NE	Yes	3900
Rumpus	EW-002	2100	2700	NW	Yes	3900
Bath GF	EW-002	650	2700	NE	Yes	4000
Bath GF	EW-002	2000	2700	SE	Yes	900
Bath GF	EW-002	650	2700	SW	Yes	4000
Laundry GF	EW-002	1900	2700	SE	Yes	2000
Stair/hall to rumpus	EW-008	2000	2700	NW	No	
Guest Bedroom	EW-002	1800	750	NW	No	
Guest Bedroom	EW-008	1800	1950	NW	No	
Guest Bedroom	EW-008	2000	2700	NW	No	
Guest Bedroom	EW-008	1700	2700	SW	No	
Guest Bedroom	EW-002	5600	2700	NE	Yes	2100
Lower Garage	EW-002	800	2900	NE	Yes	2100
Lower Garage	EW-002	6500	2900	SE	No	
Lower Garage	EW-002	5820	2900	SW	Yes	8000
Bath level 1	EW-002	1700	2400	SE	Yes	65000
Bath level 1	EW-002	2550	2400	SW	Yes	8000
Powder level 1	EW-002	1600	2400	SW	Yes	65000
Powder level 1	EW-002	1700	2400	NW	No	
Stair/hall level 1	EW-002	2000	2900	NW	Yes	810
Bedroom level 1	EW-002	3590	2900	SW	No	
Bedroom level 1	EW-002	3500	1000	NW	No	
Bedroom level 1	EW-008	3500	1900	NW	No	
Bedroom level 1	EW-002	810	2900	NE	Yes	400
Living/dining	EW-002	3900	2900	NW	Yes	
Living/dining	EW-002	6500	3550	NW	Yes	
Living/dining	EW-002	3880	3550	NE	No	
Living/dining	EW-002	4400	3550	SE	Yes	7500
Kitchen	EW-002	5200	2900	NE	Yes	4000
Study	EW-002	3200	2900	NE	Yes	4000
Study	EW-002	2600	2900	SE	Yes	500
Study	EW-002	800	2900	SW	Yes	2100
Pantry	EW-002	2100	2900	SE	Yes	1500
subfloor	EW-008	1100	1300	NE	No	
subfloor	EW-008	3800	1300	NW	No	
subfloor	EW-008	3500	2400	SE	No	
subfloor	EW-008	5800	1200	SW	No	
subfloor	EW-008	1800	2400	NE	No	
Upper Garage	EW-002	6776	3400	SE	Yes	600

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Building features continued

Upper Garage	EW-002	5820	2850	SW	Yes	1000
Upper Garage	EW-002	200	2850	NW	Yes	2100
Upper Garage	EW-002	5820	1085	NE	Yes	1000
Foyer/stair/hall	EW-002	3650	2850	SW	Yes	1500
Foyer/stair/hall	EW-002	300	2850	NW	Yes	1500
Foyer/stair/hall	EW-002	2500	550	NW	Yes	900
Foyer/stair/hall	EW-002	2170	1085	NE	Yes	1000
Bedroom Level 2 South	EW-002	400	2400	SW	Yes	1500
Bedroom Level 2 South	EW-002	300	2400	SE	Yes	1500
Bedroom Level 2 South	EW-002	3210	2400	SW	Yes	600
Bedroom Level 2 South	EW-002	400	2400	NW	Yes	1500
Bedroom Level 2 South	EW-002	200	2400	SW	Yes	900
Bedroom Level 2 South	EW-002	3410	2900	NW	No	
Bedroom Level 2 South	EW-002	810	2800	NE	Yes	900
Bath Level 2	EW-002	2100	2550	NW	Yes	700
Bedroom level 2 north	EW-002	3600	2550	NW	Yes	700
Bedroom level 2 north	EW-002	4020	2550	NE	Yes	1000
Bedroom/office	EW-002	4650	2800	NW	Yes	700
Bedroom/office	EW-002	3700	2700	NE	Yes	1000
Master Bedroom	EW-002	3800	2700	NE	Yes	1000
Master Bedroom	EW-002	4400	2800	SE	Yes	600
Ensuite master bed	EW-002	1500	2900	NE	Yes	1500
Ensuite master bed	EW-002	3609	3000	SE	No	
Ensuite master bed	EW-002	250	3100	SW	Yes	8000

Internal wall type

ID	Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-001	Plasterboard	163.1		No
IW-006	Fibre-cement sheet/Plasterboard	25.3	Polyester or polyester/wool blanket: R2.0	Yes
IW-007	Glass	11.3		No
IW-008	Plasterboard	176.2	Polystyrene extruded: R2.5	No

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Rumpus/Ground	Concrete Slab 200 mm: carpet/bare	45.9		R1.5	Carpet 10 + felt underlay 10

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Building features continued

Bath GF/Ground	Concrete Slab 200 mm: ceramic tiles/bare	5.9	R1.5	Ceramic tile
Laundry GF/Ground	Concrete Slab 200 mm: ceramic tiles/bare	7.9	R1.5	Ceramic tile
Lift GF/Ground	Concrete Slab 200 mm: ceramic tiles/bare	1.8	R1.5	Ceramic tile
Hall to bath/laundry/Ground	Concrete Slab 200 mm: carpet/bare	4.4	R1.5	Carpet 10 + felt underlay 10
Stair/hall to rumpus/Ground	Concrete Slab 200 mm: carpet/bare	11.4	R1.5	Carpet 10 + felt underlay 10
Guest Bedroom/Ground	Concrete Slab 200 mm: carpet/bare	5.1	R1.5	Carpet 10 + felt underlay 10
Lower Garage/subfloor	concrete slab to subfloor	20.4	R2.5	
Lower Garage/Laundry GF	Concrete slab/plasterboard	7.9		
Lower Garage/Bath GF	Concrete slab/plasterboard	3.0		
Lower Garage/Hall to bath/laundry	Concrete slab/plasterboard	1.7		
Lower Garage/Outdoor Air	concrete slab to subfloor	4.3	R2.5	
Bath level 1/subfloor	Concrete slab/tile to subfloor	6.1	R2.5	Ceramic tile
Powder level 1/subfloor	Concrete slab/tile to subfloor	2.7	R2.5	Ceramic tile
Stair/hall level 1/Stair/hall to rumpus	Concrete Slab 200 mm: carpet/plasterboard	11.4		Carpet 10 + felt underlay 10
Stair/hall level 1/subfloor	Concrete Slab 200 mm: carpet/plasterboard	16.9		Carpet 10 + felt underlay 10
Bedroom level 1/subfloor	Concrete/carpets to subfloor	14.1	R2.5	Carpet 10 + felt underlay 10
Lift level 1/Lift GF	Concrete Slab 200 mm: carpet/plasterboard	1.8		Carpet 10 + felt underlay 10
Living/dining/Guest Bedroom	Concrete Slab 200 mm: carpet/plasterboard	14.7		Carpet 10 + felt underlay 10
Living/dining/Outdoor Air	Concrete slab/carpets to outdoor air	25.7	R2.5	Carpet 10 + felt underlay 10
Kitchen/Hall to bath/laundry	Concrete Slab 200 mm: ceramic tiles/plasterboard	2.7		Ceramic tile
Kitchen/Bath GF	Concrete Slab 200 mm: ceramic tiles/plasterboard	0.8		Ceramic tile
Kitchen/Rumpus	Concrete Slab 200 mm: ceramic tiles/plasterboard	23.7		Ceramic tile
Study/Rumpus	Concrete Slab 200 mm: carpet/plasterboard	3.1		Carpet 10 + felt underlay 10
Study/Outdoor Air	Concrete slab/carpets to outdoor air	5.1	R2.5	Carpet 10 + felt underlay 10
Pantry/Bath GF	Concrete Slab 200 mm: ceramic tiles/plasterboard	2.2		Ceramic tile
Pantry/Rumpus	Concrete Slab 200 mm: ceramic tiles/plasterboard	1.2		Ceramic tile
Pantry/Outdoor Air	Concrete slab/tile to outdoor air	1.3	R2.5	Ceramic tile

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Building features continued

subfloor/Ground	Bare ground	58.8	Enclosed	
Upper Garage/Lower Garage	Concrete slab/plasterboard	37.8		
Upper Garage/Outdoor Air	Concrete slab/plasterboard	1.6		
Foyer/stair/hall/Kitchen	Concrete Slab 200 mm: carpet/plasterboard	4.2		Carpet 10 + felt underlay 10
Foyer/stair/hall/Bath level 1	Concrete Slab 200 mm: carpet/plasterboard	1.4		Carpet 10 + felt underlay 10
Foyer/stair/hall/Stair/hall level 1	Concrete Slab 200 mm: carpet/plasterboard	22.4		Carpet 10 + felt underlay 10
Bedroom Level 2 South/Bedroom level 1	Concrete Slab 200 mm: carpet/plasterboard	14.1		Carpet 10 + felt underlay 10
Bedroom Level 2 South/Stair/hall level 1	Concrete Slab 200 mm: carpet/plasterboard	1.5		Carpet 10 + felt underlay 10
Bath Level 2/Stair/hall level 1	Concrete Slab 200 mm: carpet/plasterboard	3.2		Carpet 10 + felt underlay 10
Bath Level 2/Living/dining	Concrete Slab 200 mm: ceramic tiles/plasterboard	1.0		Ceramic tile
Bedroom level 2 north/Living/dining	Concrete Slab 200 mm: carpet/plasterboard	14.5		Carpet 10 + felt underlay 10
Bedroom/office/Kitchen	Concrete Slab 200 mm: carpet/plasterboard	7.2		Carpet 10 + felt underlay 10
Bedroom/office/Outdoor Air	Concrete slab/carpet to outdoor air	11.5	R2.5	Carpet 10 + felt underlay 10
Master Bedroom/Kitchen	Concrete Slab 200 mm: carpet/plasterboard	6.1		Carpet 10 + felt underlay 10
Master Bedroom/Study	Concrete Slab 200 mm: carpet/plasterboard	2.2		Carpet 10 + felt underlay 10
Master Bedroom/Outdoor Air	Concrete slab/carpet to outdoor air	12.5	R2.5	Carpet 10 + felt underlay 10
WIR/Kitchen	Concrete Slab 200 mm: carpet/plasterboard	7.5		Carpet 10 + felt underlay 10
Ensuite master bed/Pantry	Concrete Slab 200 mm: ceramic tiles/plasterboard	4.6		Ceramic tile
Ensuite master bed/Study	Concrete Slab 200 mm: ceramic tiles/plasterboard	4.7		Ceramic tile
Ensuite master bed/Outdoor Air	Concrete slab/tile to outdoor air	4.0	R2.5	Ceramic tile
Lift level 2/Lift level	Concrete Slab 200 mm: ceramic tiles/plasterboard	1.8		Ceramic tile

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Rumpus	Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Study/Rumpus	Concrete Slab 200 mm: carpet/plasterboard		No
Pantry/Rumpus	Concrete Slab 200 mm: ceramic tiles/plasterboard		No

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Building features continued

Lower Garage/Bath GF	Concrete slab/plasterboard		No
Kitchen/Bath GF	Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Pantry/Bath GF	Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Lower Garage/Laundry GF	Concrete slab/plasterboard		No
Lift level 1/Lift GF	Concrete Slab 200 mm: carpet/plasterboard		No
Lower Garage/Hall to bath/laundry	Concrete slab/plasterboard		No
Kitchen/Hall to bath/laundry	Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Stair/hall level 1/Stair/hall to rumpus	Concrete Slab 200 mm: carpet/plasterboard		No
Living/dining/Guest Bedroom	Concrete Slab 200 mm: carpet/plasterboard		No
Upper Garage/Lower Garage	Concrete slab/plasterboard		No
Foyer/stair/hall/Bath level 1	Concrete Slab 200 mm: carpet/plasterboard		No
Foyer/stair/hall/Stair/hall level 1	Concrete Slab 200 mm: carpet/plasterboard		No
Bedroom Level 2 South/Stair/hall level 1	Concrete Slab 200 mm: carpet/plasterboard		No
Bath Level 2/Stair/hall level 1	Concrete Slab 200 mm: carpet/plasterboard		No
Bedroom Level 2 South/Bedroom level 1	Concrete Slab 200 mm: carpet/plasterboard		No
Lift level 2/Lift level	Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Bath Level 2/Living/dining	Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Bedroom level 2 north/Living/dining	Concrete Slab 200 mm: carpet/plasterboard		No
Foyer/stair/hall/Kitchen	Concrete Slab 200 mm: carpet/plasterboard		No
Bedroom/office/Kitchen	Concrete Slab 200 mm: carpet/plasterboard		No
Master Bedroom/Kitchen	Concrete Slab 200 mm: carpet/plasterboard		No
WIR/Kitchen	Concrete Slab 200 mm: carpet/plasterboard		No
Master Bedroom/Study	Concrete Slab 200 mm: carpet/plasterboard		No
Ensuite master bed/Study	Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Ensuite master bed/Pantry	Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Lower Garage/subfloor	concrete slab to subfloor	R2.5	No
Bath level 1/subfloor	Concrete slab/tile to subfloor	R2.5	No
Powder level 1/subfloor	Concrete slab/tile to subfloor	R2.5	No

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004489498**

Certificate Date:

19 Dec 2019

★ Star rating:

4.9

Building features continued

Stair/hall level 1/subfloor	Concrete Slab 200 mm: carpet/plasterboard		No
Bedroom level 1/subfloor	Concrete/carpet to subfloor	R2.5	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
Guest Bedroom	1	1200
Bedroom level 1	1	1200
Bedroom Level 2 South	1	1200
Bedroom level 2 north	1	1200
Bedroom/office	1	1200
Master Bedroom	1	1200

Roof type

Construction	Added insulation	Roof colour
Metal deck raked ceiling	R4.6	Dark
concrete/deck	R2.5	Medium
Concrete/garden	R2.5	Medium

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004489498

Certificate Date: 19 Dec 2019

★ Star rating: 4.9



Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

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

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

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

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

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

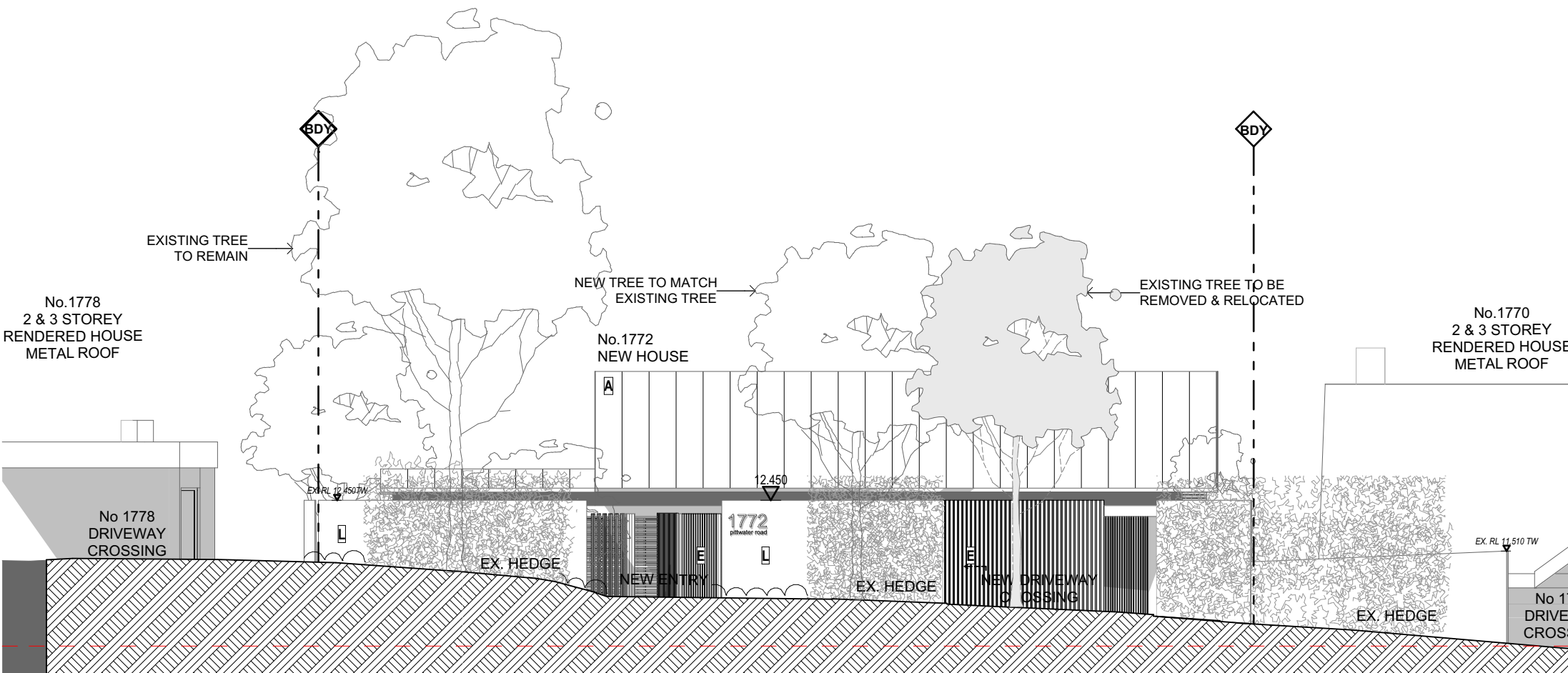
Disclaimer

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

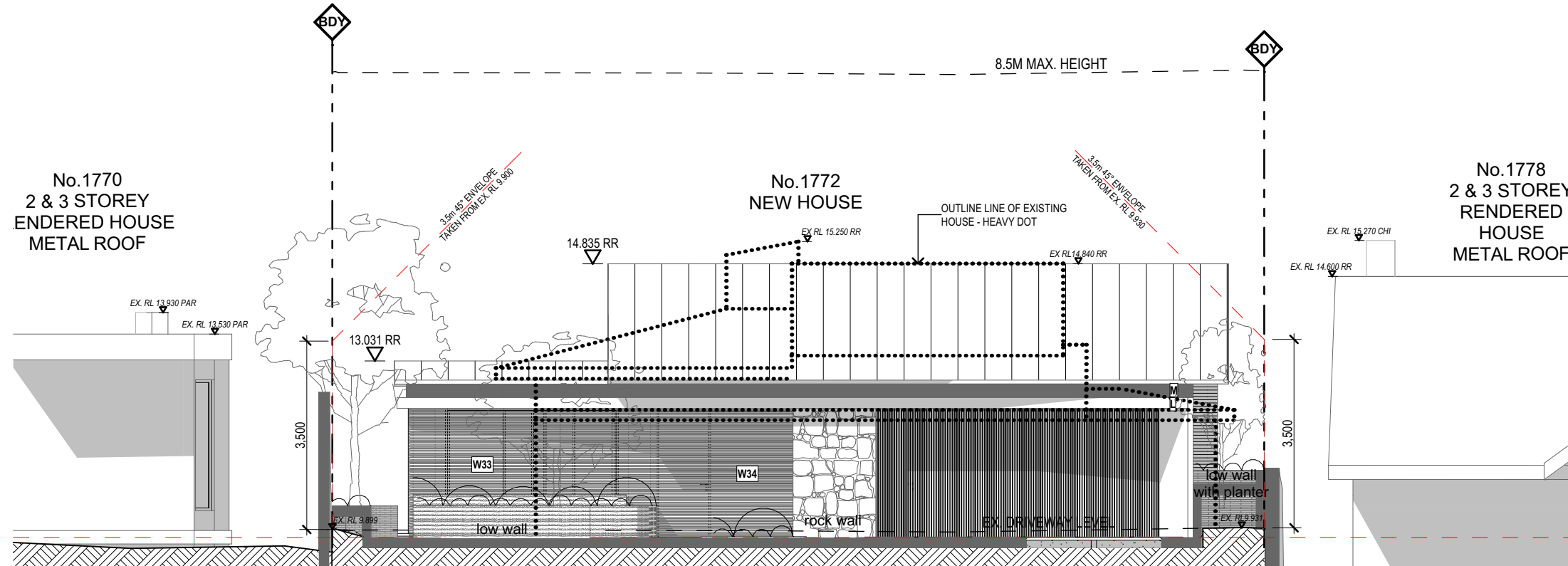
Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au



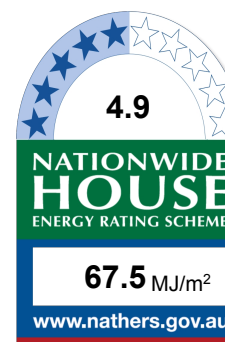
SOUTH ELEVATION (FROM PITTWATER ROAD)



SOUTH ELEVATION ENTRY

THERMAL PERFORMANCE REQUIREMENTS

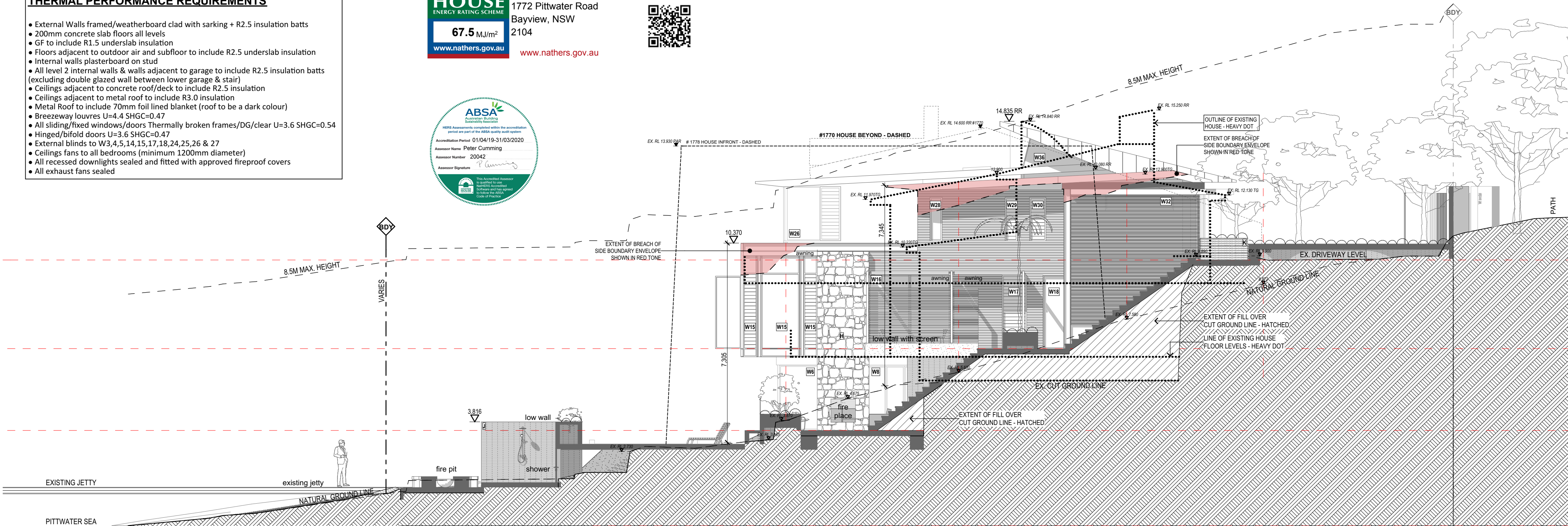
- External Walls framed/weatherboard clad with sarking + R2.5 insulation batts
- 200mm concrete slab floors all levels
- GF to include R1.5 underslab insulation
- Floors adjacent to outdoor air and subfloor to include R2.5 underslab insulation
- Internal walls plasterboard on stud
- All level 2 internal walls & walls adjacent to garage to include R2.5 insulation batts (excluding double glazed wall between lower garage & stair)
- Ceilings adjacent to concrete roof/deck to include R2.5 insulation
- Ceilings adjacent to metal roof to include R3.0 insulation
- Metal Roof to include 70mm foil lined blanket (roof to be a dark colour)
- Breezeway louvres U=4.4 SHGC=0.47
- All sliding/fix windows/doors Thermally broken frames/DG/clear U=3.6 SHGC=0.54
- Hinged/bifold doors U=3.6 SHGC=0.47
- External blinds to W3,4,5,14,15,17,18,24,25,26 & 27
- Ceilings fans to all bedrooms (minimum 1200mm diameter)
- All recessed downlights sealed and fitted with approved fireproof covers
- All exhaust fans sealed



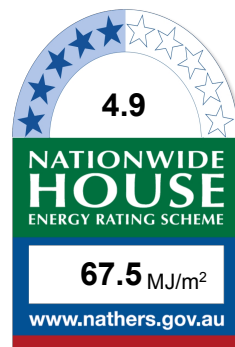
Certificate no.: 0004489498
Assessor Name: Peter Cumming
Accreditation no.: 20042
Certificate date: 19 Dec 2019
Dwelling Address: 1772 Pittwater Road
Bayview, NSW 2104



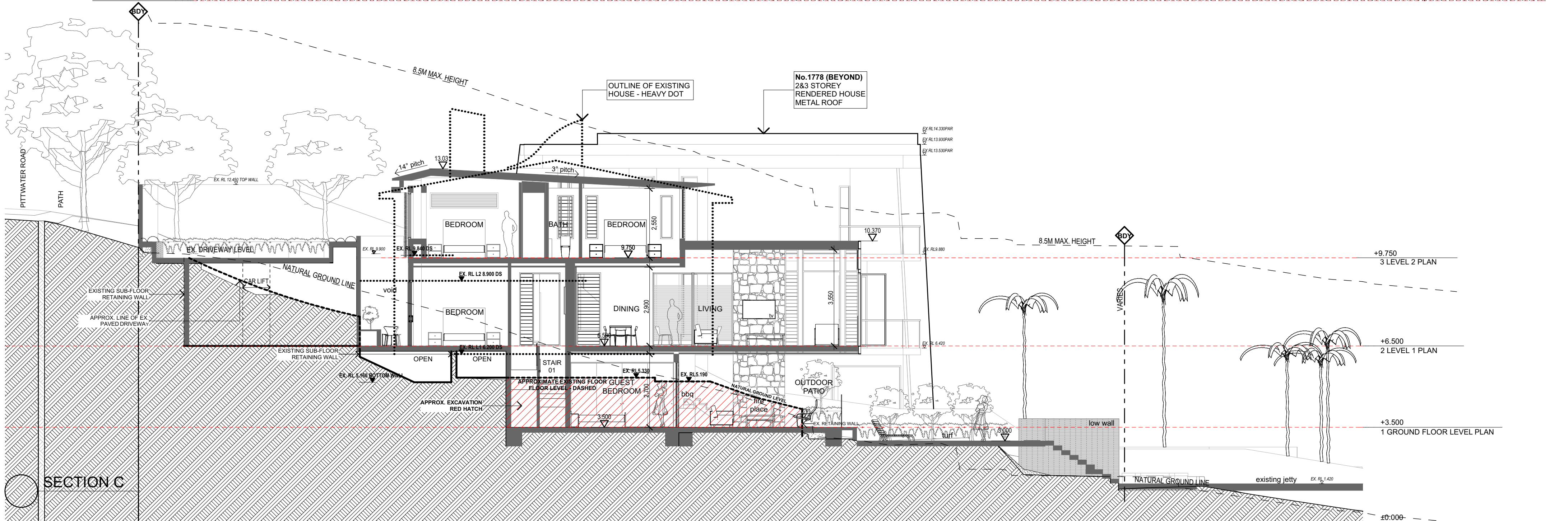
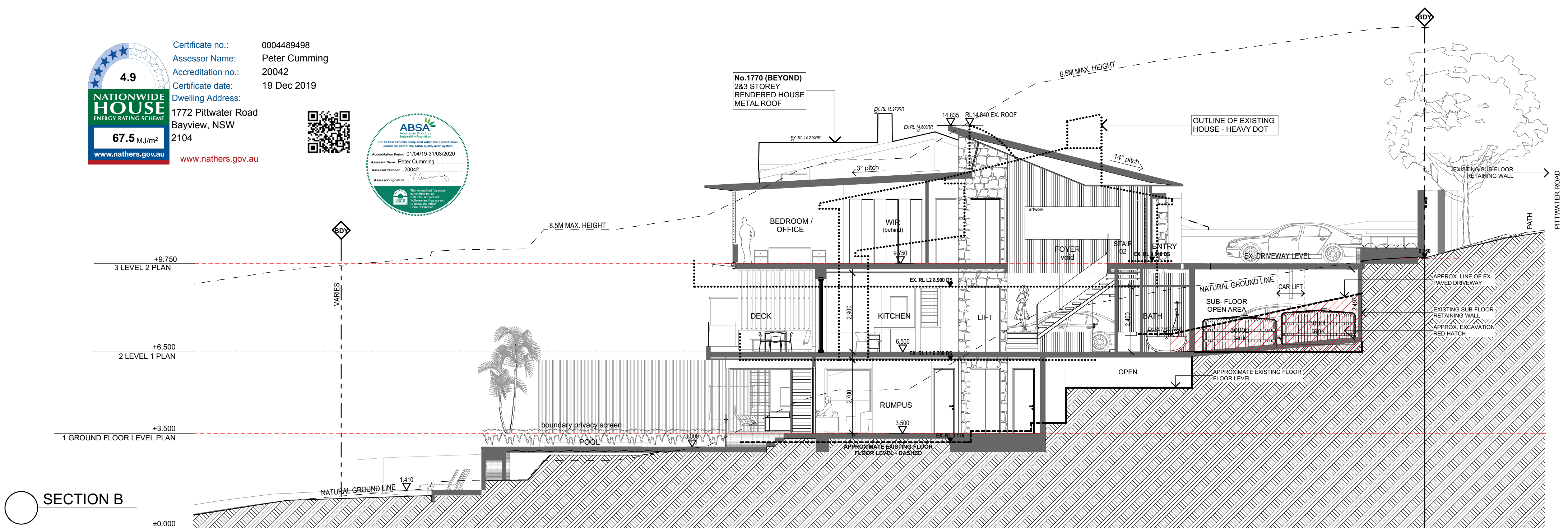
www.nathers.gov.au



WEST ELEVATION



Certificate no.: 0004489498
Assessor Name: Peter Cumming
Accreditation no.: 20042
Certificate date: 19 Dec 2019
Dwelling Address: 1772 Pittwater Road
Bayview, NSW
2104
www.nathers.gov.au



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ARCHITECTS

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E STA@G-T.COM.AU

Issue Date	Rev	Description	Drawn	Checked

PROJECT
NEW HOUSE
1772 PITTWATER ROAD
BAYVIEW NSW

FOR ANDREW BURSILL & GEORGIE TORRENS

DRAWING TITLE
SECTION A + B

SCALE
1:100 @ A2

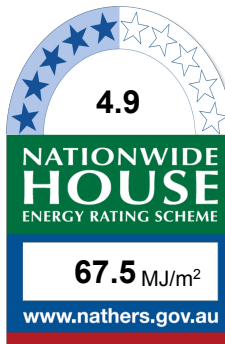
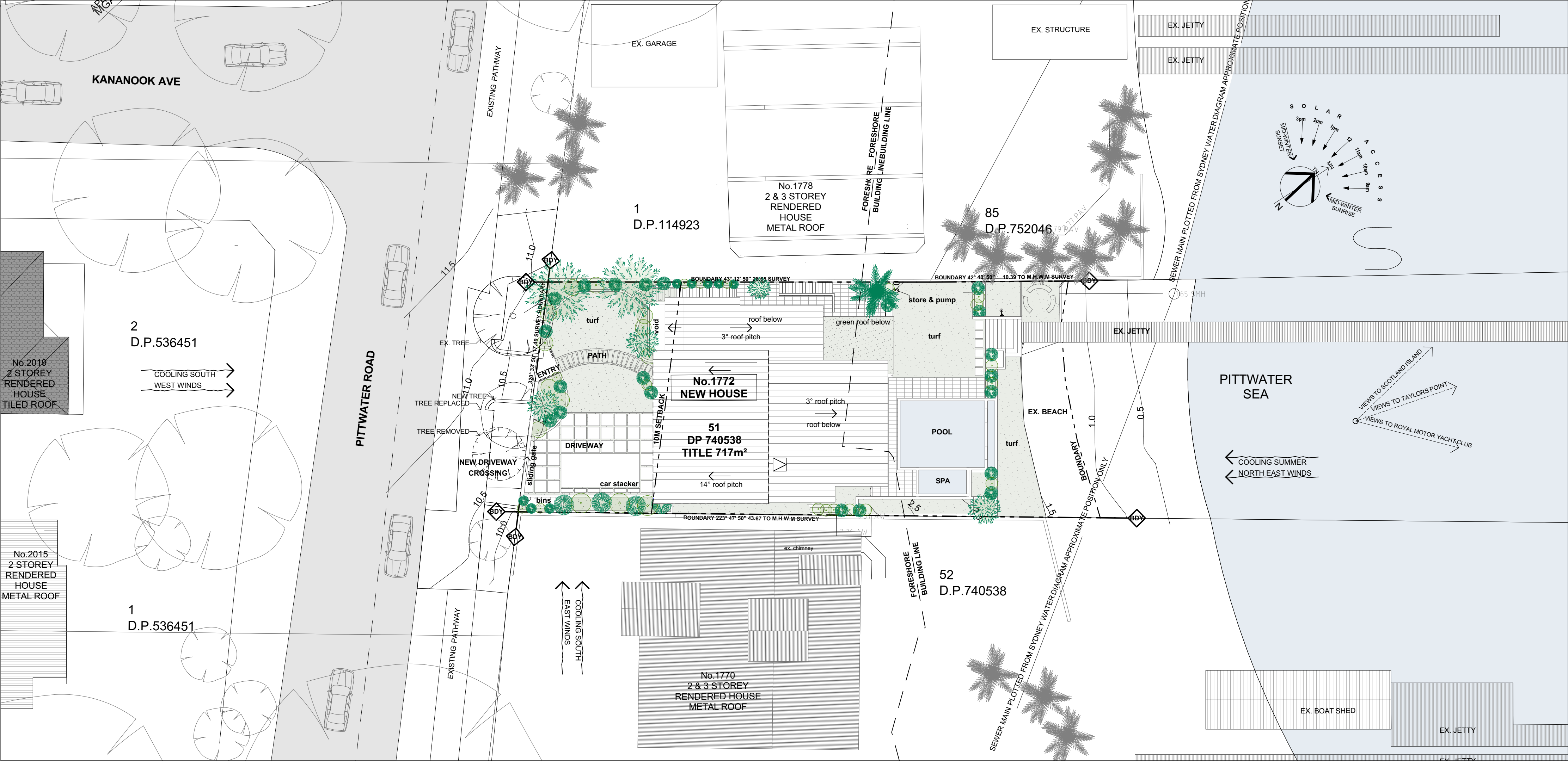
PROJECT NO.
1925

DRAWN BY
###

PLOT DATE
19/12/2019

REVISION

DA-09



Certificate no.: 0004489498
Assessor Name: Peter Cumming
Accreditation no.: 20042
Certificate date: 19 Dec 2019
Dwelling Address: 1772 Pittwater Road, Bayview, NSW 2104
www.nathers.gov.au



Issue Date	Rev	Description	Drawn	Checked

PROJECT
NEW HOUSE
1772 PITTWATER ROAD
BAYVIEW NSW
FOR ANDREW BURSILL & GEORGIE TORRENS

DRAWING TITLE			
SITE ANALYSIS + SITE PLAN			
SCALE	DRAWN BY	REVISION	PLOT DATE
1:200 @ A2	###		19/12/2019
PROJECT NO.	DRAWING NO.		
1925	DA-03		

BASIX[®]Certificate

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

Single Dwelling

Certificate number: 1064948S

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 20 December 2019

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



Planning,
Industry &
Environment

Project summary

Project name	1772 Pittwater
Street address	1772 Pittwater Road Bayview 2104
Local Government Area	Northern Beaches Council
Plan type and plan number	deposited 740538
Lot no.	51
Section no.	-
Project type	separate dwelling house
No. of bedrooms	6

Project score

Water	✓ 40	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 87	Target 50

Certificate Prepared by

Name / Company Name: Gartner Trovato Architects

ABN (if applicable): 51673668317

Description of project

Project address

Project name	1772 Pittwater
Street address	1772 Pittwater Road Bayview 2104
Local Government Area	Northern Beaches Council
Plan type and plan number	Deposited Plan 740538
Lot no.	51
Section no.	-

Project type

Project type	separate dwelling house
No. of bedrooms	6

Site details

Site area (m ²)	717
Roof area (m ²)	230
Conditioned floor area (m2)	307.5
Unconditioned floor area (m2)	94.6
Total area of garden and lawn (m2)	332

Assessor details and thermal loads

Assessor number	20042
Certificate number	0004489498
Climate zone	56
Area adjusted cooling load (MJ/m ² .year)	25
Area adjusted heating load (MJ/m ² .year)	43

Project score

Water	✓ 40	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 87	Target 50

Schedule of BASIX commitments

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

























Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Landscape			
The applicant must plant indigenous or low water use species of vegetation throughout 90 square metres of the site.	✓	✓	
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but ≤ 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 6 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 6 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 18000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 230 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) a tap that is located within 10 metres of the swimming pool in the development a tap that is located within 10 metres of the outdoor spa in the development 		✓ ✓ ✓	✓ ✓ ✓
Swimming pool			

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
The swimming pool must not have a volume greater than 40 kilolitres.	✓	✓	
The swimming pool must have a pool cover.		✓	
The swimming pool must be outdoors.	✓	✓	
Outdoor Spa			
The spa must not have a volume greater than 4 kilolitres.	✓	✓	
The spa must have a spa cover.		✓	

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓

Floor and wall construction	Area
floor - concrete slab on ground	85.0 square metres
floor - suspended floor/open subfloor	20.0 square metres
floor - suspended floor/enclosed subfloor	53.0 square metres

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: ceiling fans + 1-phase airconditioning; Energy rating: EER 2.5 - 3.0		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: ceiling fans + 1-phase airconditioning; Energy rating: EER 2.5 - 3.0		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 1-phase airconditioning; Energy rating: EER 2.5 - 3.0		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 1-phase airconditioning; Energy rating: EER 2.5 - 3.0		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
<ul style="list-style-type: none"> at least 6 of the bedrooms / study; dedicated 		✓	✓

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> at least 2 of the living / dining rooms; dedicated the kitchen; dedicated all bathrooms/toilets; dedicated the laundry; dedicated all hallways; dedicated 		    	    
Natural lighting			
The applicant must install a window and/or skylight in the kitchen of the dwelling for natural lighting.			
The applicant must install a window and/or skylight in 4 bathroom(s)/toilet(s) in the development for natural lighting.			
Swimming pool			
The development must not incorporate any heating system for the swimming pool.			
The applicant must install a timer for the swimming pool pump in the development.			
Outdoor spa			
The applicant must install the following heating system for the spa in the development (or alternatively must not install any heating system for the spa): gas			
The applicant must install a timer for the spa pump in the development.			
Alternative energy			
The applicant must install a photovoltaic system with the capacity to generate at least 5.94 peak kilowatts of electricity as part of the development. The applicant must connect this system to the development's electrical system.			
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			

Energy Commitments

Show on
DA plans

Show on CC/CDC
plans & specs


Certifier
check


The applicant must install a fixed outdoor clothes drying line as part of the development.




Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

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