



Orosi Proposed Residential Development

To be built at 3 & 4 Llanfoyst Street, Randwick NSW 2031

Issue	File Ref	Description	Author	Checked	Date
A	23-4610R	NSW SubSection J(A) Report	LP	MF	14/07/2023



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Efficient Living has been engaged by Orosi to determine the compliance with NSW Subsection J(A) of NCC 2019 Amendment 1 for the building located at 3 & 4 Llanfoyst Street, Randwick NSW 2031.

The review has been based upon the documentation specified below and information provided by clients. Should these documents be changed then this report will require updating to reflect changes and may result in a non-compliance with the NCC NSW Subsection J(A).

Information used for Assessment

This report is based on the following plans prepared by Orosi.

Plans DA 1004 – DA 1105

Elevations DA 2001 – DA 2004

Sections DA3001 – DA 3002

Area	Compliance
Class 2 – Sole occupancy units (SOU)	NatHERS, BASIX and NSW Subsection J(A) provisions apply.
Class 2 – Air-conditioned common areas & residential managers office & pool & gym (if less than 10% of the floor plate) non- conditioned common areas & car park.	BASIX and NSW Subsection J(A) provisions apply.

Compliance with Deemed-to-Satisfy Provisions is achieved by compliance with following clauses.

Part	Clause	Compliance
Part J(A)1 – Building Fabric	J(A)1.0 to J(A)1.2	Yes if requirements listed in this report are met.
Part J(A)2 – Building Sealing	J(A)2.0 to J(A)2.2	Yes if requirements listed in this report are met.
Part J(A)3 – Air Conditioning & Ventilation Systems	J(A)3.0 to J(A)3.2	No – Mechanical engineer responsible to ensure compliance.
Part J(A)4 – Heated Water Supply	J(A)4.0 to J(A)4.2	No – Review provisions in the plumbing code in addition to this report.
Part J(A)5 Facilities for Energy Monitoring	J(A)5.0 to J(A)5.3	Yes if requirements listed in this report are met.

NSW J(A)1 - Building Fabric

NSW J(A)1.1 Application of Part

These requirements apply to the thermal insulation in Class 2 Sole Occupancy units where the NatHERS Certificate specifies that insulation is to be provided.

Note: Compliance is not required with the national BCA provisions of J0.2(a) as those matters are regulated under BASIX and the national BCA provisions of J0.2(e) are covered by NSWJ(A)2.2.

NSW J(A)1.2 Compliance with NCC provisions

Insulation must be installed in compliance with AS/NZS 4859.1:

- insulation must abut/overlap studs, joists, noggins, furring channels, etc.
- it must form a continuous thermal barrier with ceilings, walls, bulkheads, floors, skylight shafts & must not interfere with services or fittings.

Reflective insulation must be installed with:

- the necessary airspace to achieve the required R-Value between the reflective side of the insulation and the building lining or cladding;
- the reflective insulation closely fitted against any penetration, door or window opening;
- the reflective insulation adequately supported by framing members;
- each adjoining sheet must either overlap not less than 50mm or be taped together.

Bulk insulation must be installed so that:

- it maintains its position and thickness, other than where it is compressed between cladding and supporting members, water pipes, electrical cabling or the like.
- in a ceiling, where there is no bulk insulation or reflective insulation in the wall beneath, it overlaps the wall by not less than 50mm.

See below for additional requirements J0.4, J0.5, J1.6(b) & J1.6(c)

J0.4 Thermal Breaks – Roofs

As per plans referenced above the proposed roof is concrete therefore J0.4 is not applicable.

J0.5 Thermal Breaks – Walls

External walls that have lightweight cladding fixed to a metal frame and have a wall lining fixed directly to the same metal frame must have a thermal break of at least R0.2 installed between the external cladding and supporting construction.

For external walls constructed of concrete, J0.5 is not applicable.

NCC J1.6 (b) & J1.6(c) - Insulation of slabs with in-slab heating or cooling

J1.6(b) is only applicable to concrete slab(s) on ground with an in-slab or in-screed heating or cooling system; or in climate zone 8. Given that there are no units with in-slab heating/cooling and the proposal is located in climate zone 5 J1.6(b) and J1.6(c) are not applicable.

In-screed systems to bathroom or wet areas only are also exempt from the requirements of J1.6(b) and J1.6(c).

NSW J(A)2 - Building Sealing

NSW J(A)2.1 Application of Part

The requirements that follow in this report must be implemented in design. Applicable to Class 2 parts of the development only, the following requirements are not required where;

A building ventilation opening is necessary for the safe operation of a gas appliance; and parts of the building that cannot be fully enclosed.

NSW J(A)2.2 Application of Part Compliance with BCA provisions

Part	Compliance
(a) J3.2 Chimneys and flues	N/A – There are no solid wood burning appliances
(b) J3.3 Roof lights	N/A – There are no roof lights proposed
(c) J3.4(a) to (d) External doors and windows	See below
(d) J3.5 Exhaust fans	See below
(e) J3.6 Construction of roofs, walls and floors	See below
(f) J3.7 Evaporative coolers	N/A – There are no evaporative coolers proposed

NCC J3.4 External doors and windows

Confirm:

Evidence that windows comply with either AS 2047 or with NCC J3.4.

Ensure:

All building entrance doors are fitted with a self-closing mechanism and these doors are sealed as per J3.4 (c).

Any other doors that form part of the external fabric of the development must also be sealed as per J3.4 (c).

Required door seals – from J3.4(c)

- (i) for the bottom edge of an external swing door, must be a draft protection device; and
- (ii) for the other edges of an external door or the edges of an openable window or other such opening, may be a foam or rubber compression strip, fibrous seal or the like.

NCC J3.5 Exhaust fans

Ensure:

All externally ducted exhaust fans within units are fitted with a sealing device such as a self-closing damper or the like.

NCC J3.6 Construction of roofs, walls & floors

Ensure:

All new construction forming elements are installed in accordance with J3.6(b)

J3.6(b) summarised:

Construction forming elements of the external fabric must be enclosed by internal lining systems that are close fitting at ceiling, wall and floor junctions or sealed by caulking, skirting, architraves, cornices or the like.

These requirements do not apply to smoke hazard management openings.

JV4 Optional Verification

Compliance with building sealing and thermal insulation can be confirmed if an air permeability rate, tested in accordance with Method 1 of AS/NZS ISO 9972 is not more than 10 m³/hr.m² at 50 Pa reference pressure.

NSW Part J(A)3 – Air Conditioning & Ventilation Systems

NSW J(A)3.1- Application of Part

NSW J(A)3.2 - Compliance with BCA provisions - The project mechanical engineer shall be responsible for ensuring compliance with NSW J(A)3.2.

Ensure:

The following national provisions are complied with if applicable:

- (a) J5.2 Air conditioning system control; and
- (b) J5.3 Mechanical ventilation system control; and
- (c) J5.4 Fan systems; and
- (d) J5.5 Ductwork insulation; and
- (e) J5.6 Ductwork sealing; and
- (f) J5.7 Pump systems; and
- (g) J5.8 Pipework insulation; and
- (h) J5.10 Refrigerant chillers; and
- (i) J5.11 Unitary air handling equipment; and
- (j) J5.12 Heat rejection equipment.

Compliance: (a)-(j) to be addressed as part of Mechanical Design Certificate, read in conjunction with BASIX specifications.

Note: Compliance is not required with the national BCA provisions of J5.9 as those matters are regulated under BASIX.

NSW Part J(A) 4 Heated Water Supply

NSW J(A)4.1- Application of Part

NSW J(A)4.2- Compliance with BCA Provisions

Ensure:

All new hot water systems comply with J7.2.

J7.2 Heated Water Supply

Any new heated water supply system for food preparation must be designed and installed in accordance with Part B2 of NCC Volume Three – Plumbing Code of Australia.

Part B2 of NCC Volume Three – Plumbing Code of Australia explains the requirements for a variety of hot water systems including solar heater, heat pump heater, gas water heater, electric resistance water heater and wood fired thermosiphon water heater. Electric resistance water heater are heavily restricted and should be avoided. For all the relevant requirements refer to Part B2 of NCC Volume Three. Further information can be provided if required.

Note: Compliance is not required with the national BCA provisions of J7.3 and J7.4 (Pool / Spa heating, pumps, timers and pool covers) as those matters are regulated under BASIX.

NSW Part J(A) 5 Facilities for energy monitoring

NSW J(A)5.1- Application of Part The following is applicable; however it does not apply to items within the sole occupancy units.

NSW J(A)5.2- Compliance with BCA Provisions

*** Blank Clause ***

NSW J(A)5.3- The development floor area is over 500m², therefore must have an energy meter configured to record the time-of-use consumption of gas and electricity.
