



PLANNING DEVELOPMENT PROPERTY

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Ecologically Sustainable Development (ESD) Statement – 35 Honeysuckle Drive, Newcastle

OUR REF: 17240

This report identifies that the proposed design responds to sustainable building principals and best practise through Doma Group's commitment to energy efficient design, technology and renewable energy. To ensure that Doma Group's commitment is met for the subject site the development will achieve the following ESD outcomes.

Climatic Conditions

Newcastle's temperate climate is characterised by warm summers with maximum temperatures typically over 30°C, and mild winters with cool overnight temperatures. Hot days above 35°C occur around 10 days per year, generally in December, January, and February. Diurnal ranges are typically between 15°C and 20°C, indicating that passive solutions using thermal mass to store heat would be effective. In addition to incorporating thermal mass into the building structure, the building has utilised cross ventilation drawing cooler air from the water front through the building. This approach takes advantage of the evaporative cooling available from the water and allows the project to exploit the evaporative cooling provided by the adjacent harbour and predominantly onshore winds.

National Code of Construction (NCC) – Section J

Doma Group will use a bespoke JV3 compliance model for the final design of the building. This will exceed the energy efficiency requirements of the NCC and deliver a thermally comfortable and energy efficient space for occupants. Detailed compliance with these requirements is identified within the BASIX and NATHERS report.

Building Sustainability Index (BASIX) and Nationwide House Energy Rating Scheme (NATHERS)

As part of the high-performance building envelope strategy, bulk insulation will be installed to the walls, roofs, and floors.

As a part of the requirements to achieve the BASIX ratings Doma Group have achieved a NATHERS 6.5 star band rating (out of ten) which for Newcastle equates to 50MJ/m² per annum. This means the development will be creating comfortable spaces that minimise the need for residents to use air-conditioning systems.

The City of Newcastle Development Control Plan 2012

Doma Group has met the energy targets and Water Sensitive Urban Design (WSUD) requirements of Newcastle City Council (NCC). This is identified within the BASIX and NATHERS reports.

State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development (SEPP 65) & Apartment Design Guide (ADG).

Highlighted by the Chrofi guidelines, SJB and Doma Group has followed the SEPP 65 and ADG principles in the design. A key strategy of the design of the building was focusing on passive design that maximises natural ventilation and access to natural daylight.

Water Usage

The strategy for the water systems is to improve efficiency and reduce demand, identify and use alternatives to the potable drinking water supply, ensure landscaping design is sensitive to the environment and prepared for drought, and ensure water outflows have reduced or eliminated pollutants.

Embedded Energy Networks & Smart Metering

Embedded energy network infrastructure will be provided as a service for residents and tenants. As part of the embedded network, smart metering strategies will enable occupants to have access to information to track and manage their energy consumption. Coupled with solar panels this allows residents to benefit from power generated off the roof that exceeds the demand for common areas before it is exported to the grid.

Liveable Housing Australia (LHA)

The development will achieve more than 30% of apartments achieving a silver Liveable Housing rating. This rating system was developed by industry and the community to provide assurance that a home is easier to access, navigate and live in - as well as more cost effective to adapt - when life circumstances change. Attaining this standard of accessibility amenity will appeal to ageing baby boomers who are conscious of how their physical abilities are changing with age.

Objective Number	Objective	Comment	Compliance
4U	Energy Efficiency		
4U-1	Objective: Development incorporates passive environmental design		
	Adequate natural light is provided to habitable rooms (see 4A Solar and Daylight access)		Yes
	Well located, screened outdoor areas should be provided for clothes drying		Yes
4U-2	Objective: Passive solar design is incorporated to optimize heat storage in winter and reduce heat transfer in summer.		
	A number of the following design solutions are used: - The use of smart glass or other on north & west elevations. - Thermal mass in the floors and walls of north facing rooms is maximised - Polished concrete floor, tiles, or timber rather than carpet - Insulated roofs, walls and floors and seals on window and door openings - Overhangs and shading devices such as awnings, blinds and screens.	Screens are used particularly on western windows. Deep balconies maximise shading to sliding doors. Wall thickness allows for concrete internal walls and a skin of brick veneer externally providing for extra insulating cavities.	Yes
	Provision of consolidated heating and cooling infrastructure should be located in a centralised location (e.g. the basement).		Yes
4U-3	Objective: Adequate Natural ventilation minimises the need for mechanical ventilation		
	A number of the following design solutions are used:		Yes

	• Rooms with similar usage are grouped together • Natural cross ventilation for apartments is optimised • Natural ventilation is provided to all inhabitable rooms and as many non inhabitable rooms, common areas and circulation spaces as possible.		
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Extract from SEPP65 & ADG checklist prepared by SJB

4V	Water Management and Conservation		
4V-1	Objective: Potable water use is minimised		
	Water efficient fittings, appliances and wastewater reuse should be incorporated	Will be included as part of BASIX commitments	Yes
	Apartments should be individually metered		Yes
	Rainwater should be collected, stored and reused on site	Refer to BASIX Certificate	Yes
	Drought tolerant, low water use plants should be used within landscaped areas	Refer to landscape design	Yes
4V-2	Objective: Urban stormwater is treated on site before being discharged to receiving waters		
	Water sensitive urban design systems are designed by a suitably qualified professional		Yes
	A number of the following design solutions are used: • Runoff is collected from roofs and balconies in water tanks and plumbed into toilets, laundry and irrigation • Porous and open paving materials is maximised • On site stormwater and infiltration, including bio-retention systems such as rain gardens or street tree pits		Yes
4V-3	Objective: Flood management systems are integrated into site design		
	Detention tanks should be located under paved areas, driveways or in basement car parks		Yes
	On large sites parks or open spaces are designed to provide temporary on site detention basins		Yes

Extract from SEPP65 & ADG checklist prepared by SJB

Compliance with BASIX and NATHERS is extracted from documents prepared by David Gradwell