

## LEGEND

- DAP Boundary
- Noise Barrier
- / / Area subject to Quiet House Design Requirements as specified below
- Primary Dwelling Orientation
- Secondary Dwelling Orientation
- Direct Frontage Dwellings to POS with Uniform Fencing
- GH Proposed Group Housing

## PROVISIONS

The provisions addressed below relate to Detailed Area Plan No. 8 Atelier Village.

The City of Wanneroo District Planning Scheme No. 2 and Residential Design Codes apply unless otherwise provided for below.

The following standards are deemed to meet the relevant Design Principles of the R Codes and do not require consultation with the adjoining landowners.

Building Setbacks	Minimum
Lots fronting POS	3.0m from POS Refer provision below (2)
Lots fronting local roads	2.5m primary street 1.0m secondary street
Side Setbacks	Refer to provision below (3)

### 1. OPEN SPACE

Minimum Open Space 30%

The minimum open space is allowed where the outdoor living area is located on the northernmost or easternmost boundary where practicable.

### 2. LOTS DIRECTLY FRONTING POS

Dwellings adjacent to the POS must include one major opening from a habitable room for surveillance purposes.

### 3. BOUNDARY WALL

Boundary walls are permitted to both side boundaries (excluding secondary street boundaries) providing the boundary wall is behind the setback line and a maximum height of 3.5m.

### 4. BUILDING FORM & ORIENTATION

Design of dwellings shall include a side elevation which has at least one major opening facing the direction of 'Secondary Dwelling Orientation' arrow shown on the DAP. The part of the dwelling which includes the required opening shall be well articulated and its views not obstructed by visually permeable fencing.

### 5. QUIET HOUSE DESIGN REQUIREMENTS

Based upon the supplementary report dated 21 June 2015 to the Acoustic Report dated 5 August 2013 prepared by Lloyd George Acoustics, façade protection (Quiet House design measures) are required for dwellings adjacent to the noise barrier.

Package 'A' is required at the ground floor level of the first row of dwellings (within approx. 12.5m) of the noise barrier. At the upper floor level, Package 'B' is required for the first row of dwellings and Package 'A' is required for the second row of dwellings (within approx. 25m) of the noise barrier.

Details of the Quiet House Design requirements are included in Attachment 1.

## ENDORSEMENT

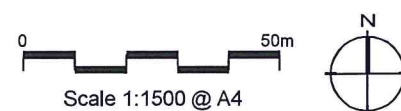
This Detailed Area Plan has been endorsed by Council under Clause 9.14.3(d) of District Planning Scheme No. 2

*[Signature]*

Manager Planning Implementation - City of Wanneroo

27/7/15

Date



NOTE:  
Pavements and footpaths shown diagrammatically only

## LOCATION PLAN



ATELIER VILLAGE  
DETAILED AREA PLAN No. 8  
LOT 1429 MISSINGHAM AVENUE &  
LOT 1430 BENSON LOOP, ALKIMOS  
**TRINITY ESTATE**

**LWP**  
bringing communities to life

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ATTACHMENT 1 - BUILDING FACADE TREATMENTS (QUIET HOUSE DESIGN REQUIREMENTS)

Provisions as per Lloyd George Transportation Noise Assessment			
Package A: House Facade In Areas Where Noise Levels Exceed The Noise 'Target' But Are Within The 'Margin'			
Area Type	Orientation	Noise Control Measures	
Indoors			
Bedrooms	Facing road / rail corridor	6mm (minimum) laminated glazing Fixed, casement or awning windows with seals No external doors Closed eaves No vents to outside walls / eaves Mechanical ventilation / air-conditioning <sup>1</sup>	
	Side-on to corridor	6mm (minimum) laminated glazing Closed eaves Mechanical ventilation / air-conditioning <sup>1</sup>	
	Away from corridor	No requirements	
Living and work areas <sup>2</sup>	Facing corridor	6mm (minimum) laminated glazing Fixed, casement or awning windows with seals 35mm (minimum) solid core external doors with acoustic seals <sup>3</sup> Sliding doors must be filled with acoustic seals Closed eaves No vents to outside walls / eaves Mechanical ventilation / air-conditioning <sup>1</sup>	
	Side-on to corridor	6mm (minimum) laminated glazing Closed eaves Mechanical ventilation / air-conditioning <sup>1</sup>	
	Away from corridor	No requirements	
Other indoor areas	Any	No requirements	
Outdoors			
Outdoor living area		See Note 4 below	
Package B: Noise within 3dB above the 'limit'			
The following noise insulation package is designed to meet the indoor noise standards for residential developments in areas where transport noise levels exceed the noise 'limit' but by no more than 3dB (See Table 1 in the Policy)			
Area Type	Orientation	Noise Control Measures	
Indoors			
Bedrooms	Facing road / rail corridor	10mm (minimum) laminated glazing Fixed, casement or awning windows with seals <sup>3</sup> No external doors Closed eaves No vents to outside walls / eaves Mechanical ventilation / air-conditioning <sup>1</sup>	
	Side-on to corridor	10mm (minimum) laminated glazing Closed eaves Mechanical ventilation / air-conditioning <sup>1</sup>	
	Away from corridor	No requirements	
Living and work areas <sup>2</sup>	Facing corridor	10mm (minimum) laminated glazing Fixed, casement or awning windows with seals 40mm solid core external doors with acoustic seals <sup>3</sup> Sliding doors must be filled with acoustic seals Closed eaves No vents to outside walls / eaves Mechanical ventilation / air-conditioning <sup>1</sup>	
	Side-on to corridor	6mm (minimum) laminated glazing Closed eaves Mechanical ventilation / air-conditioning <sup>1</sup>	
	Away from corridor	No requirements	
Other indoor areas	Any	No requirements	
Outdoors			
Outdoor living area		See Note 4 below	
Package C: Noise levels more than 3dB above the 'limit'			
The following noise insulation package is designed to meet the indoor noise standards for residential developments in areas where noise levels exceed the noise limit but by no more than 3dB. Package C has the same requirements as Package B except glazing is to be 10.5mm Vlam Hush glazing.			

1. See section on Mechanical ventilation / air-conditioning below for further details and requirements.

2. These deemed-to-comply guidelines adopt the definitions of indoor spaces used in AS 2107-2000. A comparable description for bedrooms, living and work areas is that defined by the Building Guide of Australia as a 'habitable room'. The Building Guide of Australia may be referenced if greater clarity is needed. A living or work area can be taken to mean any 'habitable room' other than a bedroom. Note that there are no noise insulation requirements for utility areas such as bathrooms. The Building Guide of Australia describes these utility spaces as 'non-habitable rooms'.

3. Glazing panels are acceptable in external doors facing the transport corridor. However these must meet the minimum glazing requirements.

4. The policy requires that at least one outdoor living are be reasonably protected from transport noise. The protected are should meet the minimum space requirements for outdoor living areas, as defined in the Residential Design Codes of Western Australia or as amended in the DAP.

**Mechanical ventilation / air conditioning**  
Where outdoor noise levels are above the 'target', both packages A and B require mechanical ventilation or air-conditioning to ensure that windows can remain closed in order to achieve the indoor noise standards. In implementing Packages A and B, the following need to be observed:

- Evaporative air-conditioning systems will not meet the requirements for Packages A and B because windows need to remain open;
- Refrigerative air-conditioning systems need to be designed to achieve fresh air ventilation requirements;
- Air inlets need to be positioned facing away from the transport corridor where practicable;
- Ductwork needs to be provided with adequate silencing to prevent noise intrusion.