

**LOCAL DEVELOPMENT PLAN PROVISIONS**

The provisions addressed below and accompanying plan relate to the Western Australian Planning Commission approved subdivision development WAPC Ref: 160579 and 162917.

All requirements, other than those as detailed within this Local Development Plan (LDP), of the City of Wanneroo District Planning Scheme No.2, State Planning Policy 3.1 – Residential Design Codes (R-Codes) and Local Planning Policy 4.19: Medium-Density Housing Standards (R-MD Codes) are to be satisfied.

**1. NOISE MANAGEMENT**

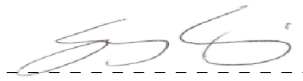
- a) As defined in the *Amberton Stages 8-12 Review of SPP 5.4 Acoustic Requirements* (10 September 2021) prepared by Herring Storer Acoustics, the following Quiet House Design packages apply:
  - i) Package C to both floors of LDP Lots 2630, 2668, 2669, 2703, 2704, 2737, 2738, 2807, 2808, 3261.
  - ii) Package A to Ground Floor and Package B to First Floor for LDP Lots 3257 and 3258.
  - iii) Package A to both floors of LDP lots 2806, 2809, 2736, 2739, 2705, 2702, 2670, 2667, 2631

**LEGEND**

- LDP BOUNDARY
- R30 CODING
- R40 CODING
- ★ LOTS AFFECTED BY ROAD TRAFFIC NOISE AND SUBJECT TO 'QUIET HOUSE DESIGN' PACKAGE A TO GROUND AND FIRST FLOOR
- ★ LOTS AFFECTED BY ROAD TRAFFIC NOISE AND SUBJECT TO 'QUIET HOUSE DESIGN' PACKAGE C TO GROUND AND FIRST FLOOR
- ★ LOTS AFFECTED BY ROAD TRAFFIC NOISE AND SUBJECT TO 'QUIET HOUSE DESIGN' PACKAGE A GROUND FLOOR AND PACKAGE B FIRST FLOOR.

**ENDORSEMENT TABLE**

This Local Development Plan has been approved by Council under clause 52(1)(a) of the deemed provisions of District Planning Scheme No.2

Manager Approval Services:   
 City of Wanneroo  
 Date: 23 October 2023



**LOCAL DEVELOPMENT PLAN No.19  
EGLINTON**

NORTH  
 Scale: 1:1500 @ A3  
 0 15 30 45m  
 PLAN: OSAEG-4-071 REVISION: A  
 DATE: 28/08/2023 DRAWN: JP  
 PROJECTION: PCG 94 PLANNER: CH  
 DATUM: AHD CHECK: KB

**Road Traffic and Passenger Rail  
Quiet House Requirements  
(Based on Table 3 of State Planning Policy 5.4 2019)**

Exposure Category	Orientation to corridor	Acoustic rating and example constructions					Mechanical ventilation/air conditioning considerations
		Walls	External doors	Windows	Roofs and ceilings of highest floors	Outdoor Living areas	
<b>A</b> Quiet House A	<b>Facing</b>	<p><b>Bedroom and Indoor Living and work areas to <math>R_w + C_{tr}</math> 45dB</b></p> <p><b>Stud Frame Walls</b></p> <ul style="list-style-type: none"> <li>➤ One row of 92mm studs at 60mm centres with:</li> <li>➤ Resilient steel channels fixed to the outside of the studs; and</li> <li>➤ 9.5mm hardboard or 9mm fibre cement weatherboards or one layer of 19mm board cladding fixed to the outside of the channels; and</li> <li>➤ 75mm glass wool (11kg/m<sup>3</sup>) or 75mm polyester (14kg/m<sup>3</sup>) insulation, positioned between the studs; and</li> <li>➤ -Two layers of 16mm fire-protective grade plasterboard fixed to the inside face of the studs.</li> </ul> <p><b>Brick Walls</b></p>	<p><b>Bedrooms:</b></p> <ul style="list-style-type: none"> <li>➤ Fully glazed hinged door with certified <math>R_w+C_{tr}</math> <b>28dB</b> rated door and frame including seals and 6mm glass</li> </ul> <p><b>Indoor Living and work areas:</b></p> <ul style="list-style-type: none"> <li>➤ 35mm solid core timber hinged door and frame system certified to <math>R_w</math> <b>28dB</b> including seals: <b>OR</b></li> <li>➤ Glazed sliding door with 10 mm glass and weather seals</li> </ul>	<p><b>Bedrooms:</b></p> <ul style="list-style-type: none"> <li>➤ Total external door and window system area up to 40% of room floor area: Sliding or double hung with minimum 10 mm single or 6mm-12mm-10mm double insulated glazing (<math>R_w+C_{tr}</math> <b>28 dB</b>). Sealed awning or casement windows may use 6 mm glazing instead: <b>OR</b></li> <li>➤ Up to 60% floor area: as per above but must be sealed awning or casement type windows (<math>R_w+C_{tr}</math> <b>31dB</b>).</li> </ul> <p><b>Indoor Living and work areas</b></p> <ul style="list-style-type: none"> <li>➤ Up to 40% floor area: Sliding, awning, casement or double hung with minimum 6mm single pane or 6mm-12mm-6mm double insulated glazing (<math>R_w+C_{tr}</math> <b>25dB</b>): <b>OR</b></li> <li>➤ Up to 60% floor area: As per Bedrooms at up to 40% area (<math>R_w+C_{tr}</math> <b>28 dB</b> : <b>OR</b></li> <li>➤ Up to 80% floor area: As per Bedrooms at up to 60% area (<math>R_w+C_{tr}</math> <b>31 dB</b>).</li> </ul>	<p><b>To <math>R_w+C_{tr}</math> 35dB</b></p> <ul style="list-style-type: none"> <li>➤ Concrete or terracotta tile or metal sheet roof with sarking and at least 10mm plasterboard ceiling</li> </ul>	<ul style="list-style-type: none"> <li>➤ At least one outdoor living area located on the opposite side of the building from the transport corridor and/or at least one ground level outdoor living area screened using a solid continuous fence or other structure of minimum <b>2 metres</b> height above ground level</li> </ul>	<ul style="list-style-type: none"> <li>➤ Acoustically rated openings and ductwork to provide a minimum sound reduction performance of <b>Rw 40dB</b> into sensitive spaces</li> <li>➤ Evaporative systems require attenuated ceiling air vents to allow closed windows</li> <li>➤ Refrigerant-based systems need to be designed to achieve National Construction Code fresh air ventilation requirements</li> <li>➤ Openings such as eaves, vents and air inlets must be acoustically treated, closed or relocated to building sides facing away from the corridor where practicable</li> </ul>
	<b>Side On</b>	<ul style="list-style-type: none"> <li>➤ Single leaf of 150mm brick masonry with 13mm cement render on each face: <b>OR</b></li> <li>➤ Double brick: two leaves of 90 mm clay brick masonry with a 20mm cavity between leaves.</li> </ul>	<p>As per "Facing" above, except <math>R_w+C_{tr}</math> values may be 3dB less, e.g. glazed sliding door with 10 mm glass and weather seals for bedrooms</p>	<p>As above, except <math>R_w+C_{tr}</math> values may be 3dB less, or max % area increased by 20%</p>			
	<b>Opposite</b>		No specific requirements	No specific requirements			

**Road Traffic and Passenger Rail  
Quiet House Requirements  
(Based on Table 3 of State Planning Policy 5.4 2019)**

Exposure Category	Orientation to corridor	Acoustic rating and example constructions					Mechanical ventilation/air conditioning considerations
		Walls	External doors	Windows	Roofs and ceilings of highest floors	Outdoor Living areas	
<b>B</b> Quiet House B	Facing	<p><b>Bedroom and indoor living and work areas to <math>R_w+C_{tr}</math> 50dB</b></p> <p><b>Single leaf of 90 mm clay brick masonry with:</b></p> <ul style="list-style-type: none"> <li>➤ A row of 70 mm x 35 mm timber studs or 64 mm steel studs at 600 mm centres;</li> <li>➤ A cavity of 25 mm between leaves;</li> <li>➤ 50 mm glass wool or polyester cavity insulation (R2.0+) insulation between studs; and</li> <li>➤ One layer of 10mm plasterboard fixed to the inside face</li> <li>➤ Single leaf of 220mm brick masonry with 13mm cement render on each face</li> <li>➤ 150mm thick unlined concrete panel or 200mm thick concrete panel with one layer of 13mm plasterboard or 13mm cement render on each face</li> </ul>	<p><b>Bedrooms</b></p> <ul style="list-style-type: none"> <li>➤ Fully glazed hinged door with certified <math>R_w+C_{tr}</math> 31dB rated door and frame including seals and 10mm glass</li> </ul> <p><b>Indoor Living and work areas</b></p> <ul style="list-style-type: none"> <li>➤ 35mm solid core timber hinged door and frame system certified to <math>R_w</math> 28dB including seals: <b>OR</b></li> <li>➤ Glazed sliding door with 10 mm glass and weather seals</li> </ul>	<p><b>Bedrooms:</b></p> <ul style="list-style-type: none"> <li>➤ Total external door and window system area up to 40% of room floor areas: Fixed sash, awning or casement with minimum 6mm single or 6mm-12mm-6mm double insulated glazing (<math>R_w+C_{tr}</math> 31dB).</li> <li>➤ Up to 60% floor area: as per above but must be minimum 10mm single or 6mm-12mm-10mm double insulated glazing (<math>R_w+C_{tr}</math> 34dB)</li> </ul> <p><b>Indoor Living and work areas</b></p> <ul style="list-style-type: none"> <li>➤ Up to 40% floor area; Sliding or double hung with minimum 6mm single pane or 6mm-12mm-6mm double insulated glazing (<math>R_w+C_{tr}</math> 28dB). Sealed awning or casement windows may use 6mm glazing instead. : <b>OR</b></li> <li>➤ Up to 60% floor area: As per Bedrooms at up to 40% area (<math>R_w+C_{tr}</math> 31dB). : <b>OR</b></li> <li>➤ Up to 80% floor area: As per Bedrooms at up to 60% area (<math>R_w+C_{tr}</math> 34dB).</li> </ul>	<p><b>To <math>R_w+C_{tr}</math> 35dB</b></p> <ul style="list-style-type: none"> <li>➤ Concrete or terracotta tile sarking and at least 10mm plasterboard ceiling, R3.0+ insulation</li> <li><b>OR</b></li> <li>➤ Metal sheet roof, sarking and at least 10mm plasterboard ceiling, R3.0+ insulation</li> </ul>	<ul style="list-style-type: none"> <li>➤ At least one outdoor living area located on the opposite side of the building from the corridor and/or at least one ground level outdoor living area screened using a solid continuous fence or other structure of minimum <b>2.4 metres</b> height above ground level</li> </ul>	<ul style="list-style-type: none"> <li>➤ Acoustically rated openings and ductwork to provide a minimum sound reduction performance of <math>R_w</math> 40dB into sensitive spaces</li> <li>➤ Evaporative systems require attenuated ceiling air vents to allow closed windows</li> <li>➤ Refrigerant-based systems need to be designed to achieve National Construction Code fresh air ventilation requirements</li> <li>➤ Openings such as eaves, vents and air inlets must be acoustically treated, closed or relocated to building sides facing away from the corridor where practicable</li> </ul>
	Side-On	<p><b>Double brick: two leaves of 90mm clay brick masonry with:</b></p> <ul style="list-style-type: none"> <li>➤ A 50mm cavity between leaves</li> <li>➤ 50mm glass wool or polyester cavity insulation (R2.0+)</li> <li>➤ Resilient ties where required to connect leaves</li> </ul> <p><b>Double brick: two leaves of 110mm clay brick masonry with</b></p> <ul style="list-style-type: none"> <li>➤ 50mm cavity between leaves and R2.0+ cavity insulation</li> </ul>	<p><b>Bedrooms:</b></p> <ul style="list-style-type: none"> <li>➤ Fully glazed hinged door with certified <math>R_w+C_{tr}</math> 28dB rated door and frame including seals and 6mm glass</li> </ul> <p><b>Indoor Living and work areas:</b></p> <ul style="list-style-type: none"> <li>➤ 35mm solid core timber hinged door and frame system certified to <math>R_w</math> 28dB including seals: <b>OR</b></li> <li>➤ Glazed sliding door with 10 mm glass and weather seals</li> </ul>	<p><b>Bedrooms:</b></p> <ul style="list-style-type: none"> <li>➤ Total external door and window system area up to 40% of room floor area: Sliding or double hung with minimum 10 mm single or 6mm-12mm-10mm double insulated glazing (<math>R_w+C_{tr}</math> 28 dB). Sealed awning or casement windows may use 6 mm glazing instead. : <b>OR</b></li> <li>➤ Up to 60% floor area: as per above but must be sealed awning or casement type windows (<math>R_w+C_{tr}</math> 31dB).</li> </ul> <p><b>Indoor Living and work areas</b></p> <ul style="list-style-type: none"> <li>➤ Up to 40% floor area: Sliding, awning, casement or double hung with minimum 6mm single pane or 6mm-12mm-6mm double insulated glazing (<math>R_w+C_{tr}</math> 25dB). : <b>OR</b></li> <li>➤ Up to 60% floor area: As per Bedrooms at up to 40% area (<math>R_w+C_{tr}</math> 28 dB) : <b>OR</b></li> <li>➤ Up to 80% floor area: As per Bedrooms at up to 60% area (<math>R_w+C_{tr}</math> 31 dB).</li> </ul>			
	Opposite	As above, except $R_w+C_{tr}$ values may be 3dB less, or max % area increased by 20%	As above, except $R_w+C_{tr}$ values may be 3dB less, or max % area increased by 20%				

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<b>C</b> Quiet House C	Facing	<p><b>Bedroom and indoor living and work areas to <math>R_w+C_{tr}</math> 50dB</b></p> <p><b>Single leaf of 90 mm clay brick masonry with:</b></p> <ul style="list-style-type: none"> <li>➤ A row of 70 mm x 35 mm timber studs or 64 mm steel studs at 600 mm centres;</li> <li>➤ A cavity of 25 mm between leaves;</li> <li>➤ 50 mm glass wool or polyester cavity insulation (R2.0+) insulation between studs; and</li> </ul>	<p><b>Bedrooms</b></p> <ul style="list-style-type: none"> <li>➤ External doors to bedrooms facing the corridor are not recommended.</li> </ul> <p><b>Indoor Living and work areas</b></p> <ul style="list-style-type: none"> <li>➤ Fully glazed hinged door with certified <b><math>R_w+C_{tr}</math> 31dB</b> rated door and frame including seals and 10mm glass: <b>OR</b></li> </ul> <p>40mm solid core timber frame and door (without glass or with glass inserts not less than 6mm), side hinged with certified <b><math>R_w</math> 32dB</b> acoustically rated door and frame system including seals</p>	<p><b>Bedrooms:</b></p> <ul style="list-style-type: none"> <li>➤ Total external door and window system area up to 20% of room floor area: Fixed sash, awning or casement with minimum 6mm single or 6mm-12mm-6mm double insulated glazing (<b><math>R_w+C_{tr}</math> 31dB</b>): <b>OR</b></li> <li>➤ Up to 40% floor area; as per above but must be minimum 10mm single or 6mm-12mm-10mm double insulated glazing (<b><math>R_w+C_{tr}</math> 34dB</b>).</li> </ul> <p><b>Indoor Living and work areas</b></p> <ul style="list-style-type: none"> <li>➤ Up to 40% floor area: Sliding or double hung with minimum 6mm single pane or 6mm-12mm-6mm double insulated glazing (<b><math>R_w+C_{tr}</math> 31dB</b>). Sealed awning or casement windows may use 6mm glazing instead: <b>OR</b></li> <li>➤ Up to 60% floor area: As per Bedrooms at up to 40% area (<b><math>R_w+C_{tr}</math> 34dB</b>)</li> </ul>	<p><b>To <math>R_w+C_{tr}</math> 40dB</b></p> <ul style="list-style-type: none"> <li>➤ To all bedrooms, 2 layers of 10mm plasterboard, or one layer 13mm high density sealed plasterboard (minimum surface density of 12.5 kg/m<sup>2</sup>), affixed using steel furring channels beneath ceiling rafters/supports: <b>and</b></li> <li>➤ R3.0+ insulation batts laid in cavity : <b>and</b></li> <li>➤ Concrete or terracotta tile roof with sarking, or metal sheet roof with foil backed R2.0+ fibre insulation between steel sheeting and roof battens</li> </ul>	<ul style="list-style-type: none"> <li>➤ At least one outdoor living area located on the opposite side of the building from the corridor and/or at least one ground level outdoor living area screened using a solid continuous fence or other structure of minimum <b>2.4 metres</b> height above ground level</li> </ul>	<ul style="list-style-type: none"> <li>➤ Acoustically rated openings and ductwork to provide a minimum sound reduction performance of <b><math>R_w</math> 40dB</b> into sensitive spaces.</li> <li>➤ Evaporative systems require attenuated ceiling air cents to allow closed windows.</li> <li>➤ Refrigerant-based systems need to be designed to achieve National Construction Code fresh air ventilation requirements</li> </ul>
	Side-on	<ul style="list-style-type: none"> <li>➤ One layer of 10mm plasterboard fixed to the inside face</li> <li>➤ Single leaf of 220mm brick masonry with 13mm cement render on each face</li> <li>➤ 150mm thick unlined concrete panel or 200mm thick concrete panel with one layer of 13mm plasterboard or 13mm cement render on each face</li> </ul> <p><b>Double brick: two leaves of 90mm clay brick masonry with:</b></p>	<p><b>Bedrooms</b></p> <ul style="list-style-type: none"> <li>➤ Fully glazed hinged door with certified <b><math>R_w+C_{tr}</math> 31dB</b> rated door and frame including seals and 10mm glass</li> </ul> <p><b>Indoor Living and work areas</b></p> <ul style="list-style-type: none"> <li>➤ 35mm solid core timber hinged door and frame system certified to <b><math>R_w</math> 28dB</b> including seals: <b>OR</b></li> <li>➤ Glazed sliding door with 10 mm glass and weather seals</li> </ul>	<p><b>Bedrooms:</b></p> <ul style="list-style-type: none"> <li>➤ Total external door and window system area up to 40% of room floor area: Sliding or double hung with minimum 10 mm single or 6mm-12mm-10mm double insulated glazing (<b><math>R_w+C_{tr}</math> 28 dB</b>). Sealed awning or casement windows may use 6 mm glazing instead: <b>OR</b></li> <li>➤ Up to 60% floor area: as per above but must be sealed awning or casement type windows (<b><math>R_w+C_{tr}</math> 31dB</b>).</li> </ul> <p><b>Indoor Living and work areas</b></p> <ul style="list-style-type: none"> <li>➤ Up to 40% floor area: Sliding, awning, casement or double hung with minimum 6mm single pane or 6mm-12mm-6mm double insulated glazing (<b><math>R_w+C_{tr}</math> 25dB</b>): <b>OR</b></li> <li>➤ Up to 60% floor area: As per Bedrooms at up to 40% area (<b><math>R_w+C_{tr}</math> 28 dB</b> : <b>OR</b></li> <li>➤ Up to 80% floor area: As per Bedrooms at up to 60% area (<b><math>R_w+C_{tr}</math> 31 dB</b>).</li> </ul>			
	Opposite	<ul style="list-style-type: none"> <li>➤ A 50mm cavity between leaves</li> <li>➤ 50mm glass wool or polyester cavity insulation (R2.0+)</li> <li>➤ Resilient ties where required to connect leaves</li> </ul> <p><b>Double brick: two leaves of 110mm clay brick masonry with</b></p> <ul style="list-style-type: none"> <li>➤ 50mm cavity between leaves and R2.0+ cavity insulation</li> </ul>	<p><b>Bedrooms:</b></p> <ul style="list-style-type: none"> <li>➤ Fully glazed hinged door with certified <b><math>R_w+C_{tr}</math> 28dB</b> rated door and frame including seals and 6mm glass</li> </ul> <p><b>Indoor Living and work areas:</b></p> <ul style="list-style-type: none"> <li>➤ 35mm solid core timber hinged door and frame system certified to <b><math>R_w</math> 28dB</b> including seals: <b>OR</b></li> <li>➤ Glazed sliding door with 10 mm glass and weather seals</li> </ul>				<ul style="list-style-type: none"> <li>➤ Openings such as eaves, vents and air inlets must be acoustically treated, close or relocated to building sides facing away from the corridor where practicable.</li> </ul>

Note: The above treatments are a deemed to satisfy construction. Alternative designs are acceptable, provided they are certified by a suitable qualified acoustic consultant.