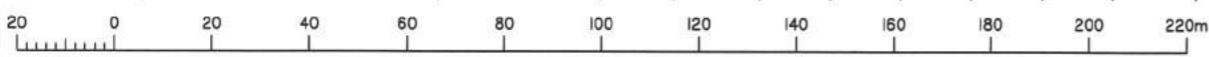
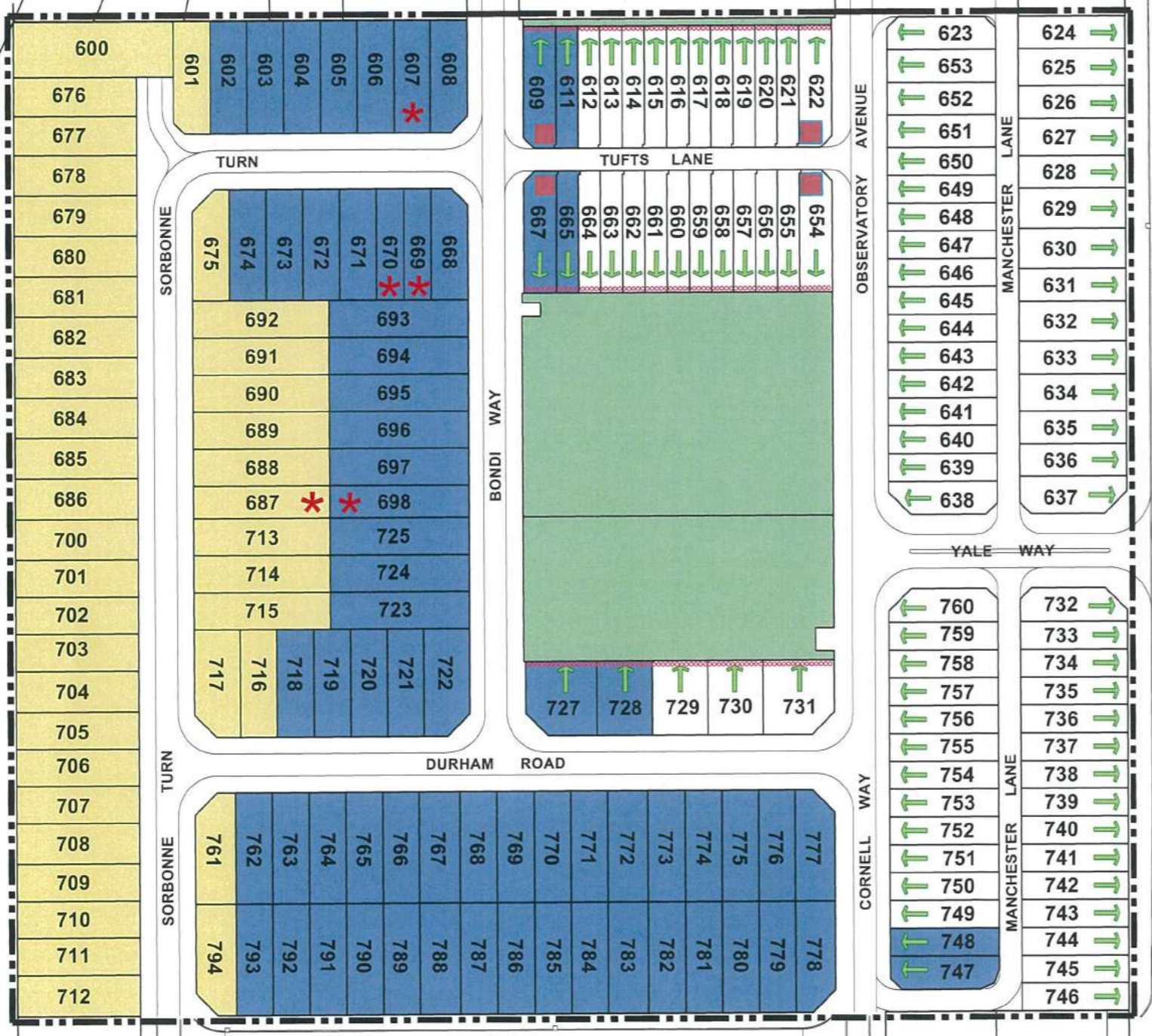




KWINANA FREEWAY



Legend

- LDP Boundary
- Open Space
- Visually permeable fencing abutting POS
- ← Dwelling orientation to address POS / Street
- Mandatory Garage / Carport Locations
- Indicative future development / roads
- Ground floor and above affected by noise management requirements as outlined in Clause 7 of the LDP
- First floor and above affected by noise management requirements as outlined in Clause 7 of the LDP
- * The frontage of this lot is less than 10 meters in width and as such it shall comply with Part 5.2.2 of the R-Codes

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Note:
All Lot Numbers and Areas are approximate only, and are subject to survey and WAPC approval. R-Code variations as noted in indicative building footprint.

Source Information:
Site boundaries: Patterson Tudor Owen and Parker Consulting Surveyors.
Adjoining information: Landgate

The Local Development Plan has been adopted by Council and signed by the Principal Planner.

P.P. [Signature] 5/9/16
Manager of Planning Services Date

LDP16/32
CoC Reference

PROJECT LOT 12 & 13 LYON ROAD AUBIN GROVE	
Job Ref. 116057	Date 30 AUGUST 2016
Comp By. BC/LF	DWG Name. 116057-3-003m.dwg
Locality AUBIN GROVE	Local Authority CITY OF COCKBURN

CLIENT SURELAND DEVELOPMENTS PTY LTD & THE LIN FAMILY TRUST
LOCAL DEVELOPMENT PLAN LOT 12 & 13 LYON ROAD AUBIN GROVE

	RPS Australia East Pty Ltd ACN 140 292 762 ABN 44 140 292 762	Subiaco Office 38 Station Street Subiaco WA 6008 T +61 8 9211 1111 F +61 8 9211 1122 W rpsgroup.com.au	
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Scale 1 : 1500	Sheet A3	Plan Ref 116057-3-003	Rev M

LOCAL DEVELOPMENT PLAN PROVISIONS

The provisions below apply to all lots within the LDP boundary.

1. General

(a) The residential density codings applicable to lots within this Local Development Plan (LDP) are noted as follows, as identified on the Local Structure Plan Map for Lots 12 and 13 Lyon Road, Aubin Grove.

R-Code	Lots
R30	600 - 608, 668 - 692, 700 - 715 & 761 - 794
R40	623 - 653, 693 - 698, 716 - 725 & 732 - 760
R60	609 - 622, 654 - 667 & 727 - 731

- (b) The requirements of the City of Cockburn Town Planning Scheme No.3 (TPS3) and the Residential Design Codes (R-Codes) apply to residential development on all lots unless varied by this LDP.
- (c) Where there is a conflict between the requirements of TPS3 and/or the R-Codes with this LDP, the provisions of this LDP prevail to the extent of any inconsistency.
- (d) Variations to the R-Codes provisions, as provided for by this LDP, do not require consultation with adjoining/other landowners where the design complies with this LDP.
- (e) Minor variations to the requirements of the R-Codes and this LDP may be approved by the City of Cockburn subject to planning approval being applied for.

2. Vehicle Access, Car Parking and Garage/Carport Locations

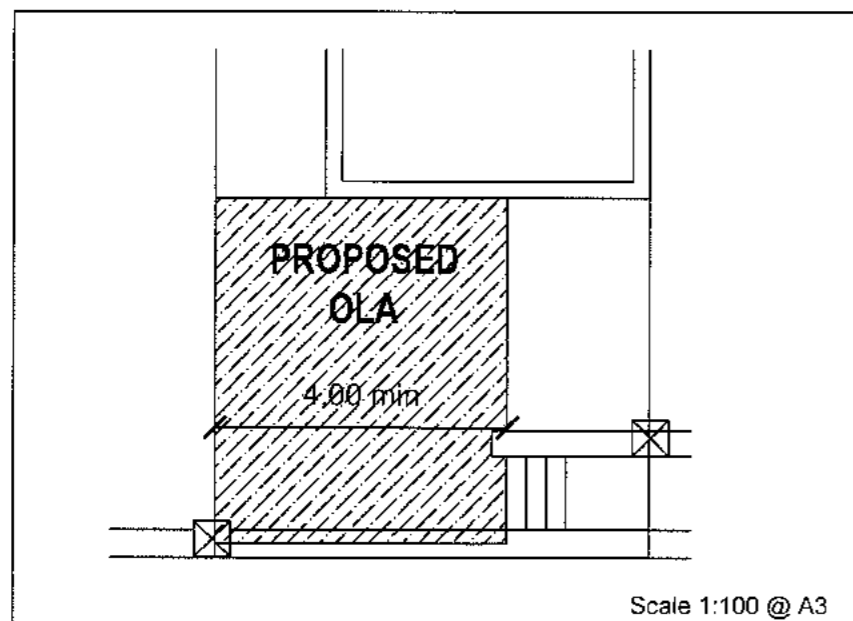
- (a) All lots served by a laneway shall obtain vehicular access from the laneway only, with no vehicle access permitted from the street.
- (b) Mandatory garage/carport locations apply to some lots as identified on the LDP, located away from street intersections to avoid traffic conflicts.
- (c) For all R60 coded lots, the number of on-site car parking bays may be reduced to one bay where the dwelling has 2 bedrooms or less.

3. Development Setbacks and Boundary Walls

- (a) Primary street setback requirements for all R40 coded lots shall be reduced to a minimum of 2m.
- (b) Setback requirements for all R60 coded lots along the public open space frontage shall be reduced to a minimum of 1.5m.
- (c) For all R40 coded lots, and Lots 687, 669 & 670, walls may be built up to both side boundaries (zero setback) behind the street setback for up to 75% of the boundary length and to maximum height of 3.5 metres.
- (d) For all R60 coded lots, walls may be built up to both side boundaries (zero setback) behind the street setback for up to 80% of the boundary length and to maximum height of 3.5 metres.
- (e) For all lots receiving vehicle access from a rear laneway/right-of-way, zero development setbacks to the laneway are permitted, with the exception of garages/carports which shall be set back a minimum of 0.5m from the laneway.

4. Open Space and Outdoor Living Areas

- (a) For all R40 and R60 coded lots, an outdoor living area (OLA) with an area of 20m², directly accessible from a habitable room of the dwelling shall be provided. The OLA has a minimum length or width dimension of 3m.
- (b) OLA with a minimum length and width dimension of 4.0m to provide at least 50% of the OLA to be uncovered and includes areas under eaves which adjoin uncovered areas.
- (c) OLA with a minimum length and width dimension of 3.0m to provide at least 30% of the OLA to be uncovered and includes area under eaves which adjoin uncovered areas.
- (d) For R60 Lots 658-655 the OLA minimum dimensions of 4.0 shall be taken from the outer most edge of the first step. Minor incursions from the estate fencing shall be permitted. Refer the following example diagram for clarification.



- (e) For Lots 727 - 731, the OLA shall be situated within the frontage of the lot that faces the POS.
- (f) To encourage high levels of passive surveillance and strong community interaction, outdoor living areas are encouraged within the front setback area of the lots served by a laneway.
- (g) No other R-Code site cover standards apply.

5. Dwelling Orientation

- (a) All lots served by a laneway shall have the dwelling orientation towards the opposite side of the laneway including the front door and major openings of the dwelling facing in the opposite direction of the laneway.

6. Fire Management

- (a) Dwellings Constructed on lots identified under the approved Fire Management Plan as being at risk of bushfire attack shall be constructed to the appropriate BAL rating in accordance with Australian Standard 3959 (AS 3959).
- (b) This LDP shall be read in conjunction with the approved Fire Management Plan.

7. Noise Management

For those lots potentially affected by noise emanating from the Kwinana Freeway, dwellings are to be constructed to comply with the relevant 'Deemed to Comply' Noise Insulation Package specified below. Noise Insulation Package requirements are set out under the Implementation Guidelines for State Planning Policy 5.4 (SPP5.4), and are provided in page 2 of these provisions.

(a) The following Noise Insulation Packages apply to the ground floor and above for any development:

Noise Insulation Package	Dwellings to be constructed to comply with Noise Insulation Package in accordance with SPP5.4
Package A	Lots 600 - 601, 675 - 692, 700 - 716, 761 and 794

(b) The following Noise Insulation Packages apply to the first floor and above for any development:

Noise Insulation Package	Dwellings to be constructed to comply with Noise Insulation Package in accordance with SPP5.4
Package A	Lots 602 - 611, 665, 667 - 675, 687 - 689, 693 - 698, 713 - 725, 727 - 728, 747 - 748 and 761 - 794
Package B	Lots 601 and 690 - 692
Package C	Lots 600, 676 - 686 and 700 - 712

- (c) For lots that require the implementation of Noise Insulation Packages, all plans and supporting documents accompanying the Building Permit Applications must clearly demonstrate compliance with the Deemed to Comply requirements, including the provision of mechanical ventilation or suitable ducted air conditioning with the fresh air intakes as part of the Building Permit Application.
- (d) Alternative construction methods to those detailed in these Deemed to Satisfy Quiet House Design Packages may be accepted by the City of Cockburn where the alternative design and construction methods are supported by a further site specific acoustic report prepared by a suitably qualified acoustic consultant as part of the Development Application.

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The packages and information provided on the following pages are taken from *Implementation Guidelines for State Planning Policy 5.4 Road and Rail Transport Noise and freight Considerations in Land Use Planning*; December 2014.

Where outdoor noise levels are above the *target* level, excluding the effect of any boundary fences, the Guidelines propose acceptable treatment packages that may be implemented without requiring detailed review. The packages are also intended for residential development only. At higher noise levels or for other building usages, specialist acoustic advice will be needed.

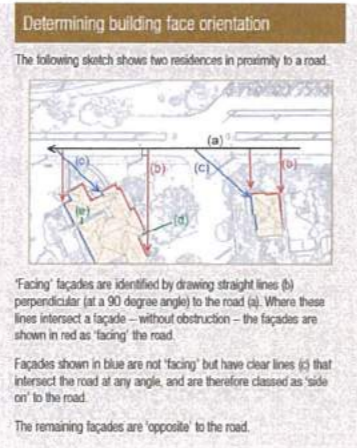
The acceptable treatment packages are intended to simplify compliance with the noise criteria, and the relevant package should be required as a condition of development in lieu of a detailed assessment.

Transition between each package should be made on the basis of the highest incident $L_{Aeq(Day)}$ or $L_{Aeq(Night)}$ value to the nearest whole number determined for the building development under assessment.

Any departures from the acceptable treatment specifications need to be supported by professional advice from a competent person that the proposal will achieve the requirements of the Policy.

With regards to the packages, the following definitions are provided:

- **Facing** the transport corridor: Any part of a building façade is 'facing' the transport corridor if any straight line drawn perpendicular to its nearest road lane or railway line intersects that part of the façade without obstruction (ignoring any fence).
- **Side-on** to transport corridor: Any part of a building façade that is not 'facing' is 'side-on' to the transport corridor if any straight line can be drawn from it to intersect the nearest road lane or railway line without obstruction (ignoring any fence).
- **Opposite** to transport corridor: Neither 'side on' nor 'facing', as defined above.



Package A

Area	Orientation to Road or Rail Corridor	Package A (up to 60 dB $L_{Aeq(Day)}$ and 55 dB $L_{Aeq(Night)}$)
Bedrooms	Facing	<ul style="list-style-type: none"> • Windows systems: Glazing up to 40% of floor area (minimum $R_w + C_v$, 28) – 6mm thick glass (monolithic, toughened or laminated) in fixed sash, awning or casement opening with seals to openings.
	Side	<ul style="list-style-type: none"> • Windows systems: As above.
	Opposite	No requirements
Other Habitable Rooms Including Kitchens	Facing	<ul style="list-style-type: none"> • Windows and external door systems: Glazing up to 60% of floor area (minimum $R_w + C_v$, 28) – 6mm thick glass (monolithic, toughened or laminated) in fixed sash, awning or casement opening with seals to openings. Doors to be either 35mm thick solid timber core door with full perimeter acoustic seals. Glazed inserts to match the above. Sliding glass doors to be same performance including brush seals.
	Side	<ul style="list-style-type: none"> • Windows and external door systems: As above.
	Opposite	No requirements
General	Any	<ul style="list-style-type: none"> • Walls (minimum $R_w + C_v$, 45) – Two leaves of 90mm thick brick with minimum 50mm cavity • Roof and ceiling (minimum $R_w + C_v$, 35) – Standard roof construction with 10mm plasterboard ceiling and minimum R2.5 insulation between ceiling joists. • Eaves to be closed using 4mm compressed fibre cement sheet. • Mechanical ventilation – Refer following pages.
Outdoor Living Area		<ul style="list-style-type: none"> • Boundary wall to be minimum 2m high; or • Locate on the side of the building that is opposite to the corridor; or • Locate within alcove area so that the house shields it from corridor.

Note: Any penetrations in a part of the building envelope must be acoustically treated so as to not downgrade the performance of the building elements affected. Most penetrations in external walls such as pipes, cables or ducts can be sealed through caulking gaps with non-hardening mastic or suitable mortar.

Lot 12 & 13 Lyon Road, Aubin Grove

Package B

Area	Orientation to Road or Rail Corridor	Package B (up to 63 dB $L_{Aeq(Day)}$ and 58 dB $L_{Aeq(Night)}$)
Bedrooms	Facing	<ul style="list-style-type: none"> • Windows systems: Glazing up to 40% of floor area (minimum $R_w + C_v$, 31) – 10mm thick glass (monolithic, toughened or laminated) in fixed sash, awning or casement opening with seals to openings.
	Side	<ul style="list-style-type: none"> • Windows systems: As above.
	Opposite	<ul style="list-style-type: none"> • Windows systems: Glazing up to 40% of floor area (minimum $R_w + C_v$, 25) – 4mm thick glass (monolithic, toughened or laminated) in fixed sash, awning or casement opening with seals to openings. Alternatively, 6mm thick glass (monolithic, toughened or laminated) in sliding frame.
Other Habitable Rooms Including Kitchens	Facing	<ul style="list-style-type: none"> • Windows and external door systems: Glazing up to 60% of floor area (minimum $R_w + C_v$, 31) – 10mm thick glass (monolithic, toughened or laminated) in fixed sash, awning or casement opening with seals to openings. Doors to be either 35mm thick solid timber core door with full perimeter acoustic seals. Glazed inserts to match the above. Sliding glass doors to have laboratory certificate confirming $R_w + C_v$, 31 performance. Alternative, change to hinged door with perimeter acoustic seals and 10mm thick glass.
	Side	<ul style="list-style-type: none"> • Windows and external door systems: Glazing up to 60% of floor area (minimum $R_w + C_v$, 28) – 6mm thick glass (monolithic, toughened or laminated) in fixed sash, awning or casement opening with seals to openings. Doors to be either 35mm thick solid timber core door with full perimeter acoustic seals. Glazed inserts to match the above. Sliding glass doors to be same performance including brush seals.
	Opposite	No requirements
General	Any	<ul style="list-style-type: none"> • Walls (minimum $R_w + C_v$, 50) – Two leaves of 90mm thick brick with minimum 50mm cavity. Cavity to include 50mm thick insulation and where wall ties are required, these are to be anti-vibration/resilient type. • Roof and ceiling (minimum $R_w + C_v$, 35) – Standard roof construction with 10mm plasterboard ceiling and minimum R2.5 insulation between ceiling joists. • Eaves to be closed using 4mm thick compressed fibre cement sheet. • Mechanical ventilation – Refer following pages.
Outdoor Living Area		<ul style="list-style-type: none"> • Boundary wall to be minimum 2.4m high; or • Locate on the side of the building that is opposite to the corridor; or • Locate within alcove area so that the house shields it from corridor.

Note: Any penetrations in a part of the building envelope must be acoustically treated so as to not downgrade the performance of the building elements affected. Most penetrations in external walls such as pipes, cables or ducts can be sealed through caulking gaps with non-hardening mastic or suitable mortar.

Notification

Notifications on certificates of title and advice to prospective purchasers warning of the potential for noise impacts from major transport corridors help with managing expectations.

The area of land for which notification is required should be identified in the noise management plan and contain a description of major noise sources nearby (e.g. 24-hour freight rail).

Notification should be provided to prospective purchasers, and required as a condition of subdivision (including strata subdivision) for the purposes of noise sensitive development or planning approval involving noise sensitive development, where external noise levels are forecast or estimated to exceed the 'target' criteria as defined by the Policy.

In the case of subdivision and development, conditions of approval should include a requirement for registration of a notice on title, which is provided for under Section 165 of the Planning and Development Act 2005 and Section 70A of the Transfer of Land Act 1893. An example of a suitable notice is:

Notice: This lot is situated in the vicinity of a transport corridor and is currently affected, or may in the future be affected, by transport noise. Transportation noise controls and Quiet House design strategies at potential cost to the owner may be required to achieve an acceptable level of noise reduction. Further information is available on request from the relevant local government offices.

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Package C

Area	Orientation to Road or Rail Corridor	Package C (up to 65 dB $L_{Aeq(Day)}$ and 60 dB $L_{Aeq(Night)}$)
Bedrooms	Facing	<ul style="list-style-type: none"> • Windows systems: Glazing up to 20% of floor area (minimum $R_w + C_v$, 31) – 10mm thick glass (monolithic, toughened or laminated) in fixed sash, awning or casement opening with seals to openings.
	Side	<ul style="list-style-type: none"> • Windows systems: Glazing up to 40% of floor area (minimum $R_w + C_v$, 31) – 10mm thick glass (monolithic, toughened or laminated) in fixed sash, awning or casement opening with seals to openings.
	Opposite	<ul style="list-style-type: none"> • Windows systems: Glazing up to 40% of floor area (minimum $R_w + C_v$, 28) – 6mm thick glass (monolithic, toughened or laminated) in fixed sash, awning or casement opening with seals to openings.
Other Habitable Rooms Including Kitchens	Facing	<ul style="list-style-type: none"> • Windows and external door systems: Glazing up to 40% of floor area (minimum $R_w + C_v$, 31) – 10mm thick glass (monolithic, toughened or laminated) in fixed sash, awning or casement opening with seals to openings. Doors to be either 35mm thick solid timber core door with full perimeter acoustic seals. Glazed inserts to match the above. Sliding glass doors to have laboratory certificate confirming $R_w + C_v$, 31 performance. Alternative, change to hinged door with perimeter acoustic seals and 10mm thick glass.
	Side	<ul style="list-style-type: none"> • Windows and external door systems: Glazing up to 60% of floor area (minimum $R_w + C_v$, 31) – 10mm thick glass (monolithic, toughened or laminated) in fixed sash, awning or casement opening with seals to openings. Doors to be either 35mm thick solid timber core door with full perimeter acoustic seals. Glazed inserts to match the above. Sliding glass doors to have laboratory certificate confirming $R_w + C_v$, 31 performance. Alternative, change to hinged door with perimeter acoustic seals and 10mm thick glass.
	Opposite	<ul style="list-style-type: none"> • Windows systems: Glazing up to 40% of floor area (minimum $R_w + C_v$, 28) – 6mm thick glass (monolithic, toughened or laminated) in fixed sash, awning or casement opening with seals to openings.
General	Any	<ul style="list-style-type: none"> • Walls (minimum $R_w + C_v$, 50) – Two leaves of 90mm thick brick with minimum 50mm cavity. Cavity to include 50mm thick insulation and where wall ties are required, these are to be anti-vibration/resilient type. • Roof and ceiling (minimum $R_w + C_v$, 40) – Standard roof construction with 2 x 10mm plasterboard ceiling and minimum R3.0 insulation between ceiling joists. • Eaves to be closed using 6mm thick compressed fibre cement sheet. • Mechanical ventilation – Refer following pages.
Outdoor Living Area		<ul style="list-style-type: none"> • Locate on the side of the building that is opposite to the corridor; or • Locate within alcove area so that the house shields it from corridor.

Note: Any penetrations in a part of the building envelope must be acoustically treated so as to not downgrade the performance of the building elements affected. Most penetrations in external walls such as pipes, cables or ducts can be sealed through caulking gaps with non-hardening mastic or suitable mortar.

Mechanical Ventilation requirements

It is noted that natural ventilation must be provided in accordance with F4.6 and F4.7 of Volume One and 3.8.5.2 of Volume Two of the National Construction Code. Where the noise *limit* is likely to be exceeded, a mechanical ventilation system is usually required. Mechanical ventilation systems will need to comply with AS 1668.2 – *The use of mechanical ventilation and air-conditioning in buildings*.

In implementing the acceptable treatment packages, the following must be observed:

- Evaporative air conditioning systems will meet the requirements for Packages A and B provided attenuated air vents are provided in the ceiling space and designed so that windows do not need to be opened.
- Refrigerant based air conditioning systems need to be designed to achieve fresh air ventilation requirements.
- External openings (e.g. air inlets, vents) need to be positioned facing away from the transport corridor where practicable.
- Ductwork needs to be provided with adequate silencing to prevent noise intrusion.

**Lyon Road, Aubin Grove
Detailed Area Plan
Page 2 - Noise Management Provisions**

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