

Attachment Four

Noise Attenuation Report

**PROPOSED ACCOMMODATION VILLAGE
94 – 96 ROBERTS STREET
NORSEMAN**

STATE PLANNING POLICY 5.4 ACOUSTIC ASSESSMENT

MARCH 2026

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ACOUSTIC ASSESSMENT
WORKERS ACCOMMODATION: ROBERTS STREET, NORSEMAN

Job No: 26104

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FOR

ROWE GROUP

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1. INTRODUCTION

Herring Storer Acoustics was commissioned to undertake an acoustic assessment for the proposed workers accommodation, located at 94 – 96 Roberts Street, Norseman with regards to Esperance-Kalgoorlie freight railway line. The acoustic assessment is to comply with the requirement of State Planning Policy 5.4 *“Road and Rail Transport Noise”* (SPP5.4).

As the development is within the trigger distance of Esperance-Kalgoorlie freight railway line, an acoustic assessment with regards to State Planning Policy 5.4 has been undertaken. As part of this assessment, the following was carried out:

- Determine by modelling, the noise that would be received at workers accommodation development site from freight trains travelling along the Esperance – Kalgoorlie railway line.
- Assess the predicted noise levels for compliance with the appropriate criteria.
- If exceedances are predicted, comment on possible noise amelioration options for compliance with the appropriate criteria.

For information, the relevant concept plans are attached in Appendix A.

2. SUMMARY

The proposed development is located approximately 80 metres from the Esperance – Kalgoorlie freight railway line, which is within the trigger distance, as outlined in SPP 5.4.

Based on a distance of 80 metres, from Table 2 of the Implementation Guidelines for SPP 5.4, the noise received at the development site would be 57 dB(A). At this noise level “Quiet House” design package A+ would be required.

We note that the boundary fences to the gazebo area should under the deemed to satisfy requirements be 2 metres high. This fence height should be for the locations as shown in Figure 5.1 in section 5 – Assessment.

The summary of the deemed to satisfy requirements for “Quiet House” Design Package A+ are attached in Appendix B. We note that alternative constructions would be acceptable, provided they are supported by an acoustic report prepared by a suitably qualified acoustic consultant.

3. CRITERIA

Road traffic noise received at a sensitive premise needs to comply with the requirements of State Planning Policy 5.4 *“Road and Rail Transport Noise”*.

3.1 ROAD AND RAIL TRAFFIC NOISE

The Western Australian Planning Commission (WAPC) released on 6th September 2019 State Planning Policy 5.4 *“Road and Rail Noise”*. The requirements of State Planning Policy 5.4 are outlined below.

POLICY APPLICATION (Section 4)

When and where it applies (Section 4.1)

SPP 5.4 applies to the preparation and assessment of planning instruments, including region and local planning schemes; planning strategies, structure plans; subdivision and development proposals in Western Australia, where there is proposed:

- a) noise-sensitive land-use within the policy's trigger distance of a transport corridor as specified in **Table 1**;
- b) New or major upgrades of roads as specified in **Table 1** and maps (**Schedule 1,2 and 3**); or
- c) New railways or major upgrades of railways as specified in maps (**Schedule 1, 2 and 3**); or any other works that increase capacity for rail vehicle storage or movement and will result in an increased level of noise.

Policy trigger distances (Section 4.1.2)

Table 1 identifies the State's transport corridors and the trigger distances to which the policy applies.

The designation of land within the trigger distances outlined in **Table 1** should not be interpreted to imply that land is affected by noise and/or that areas outside the trigger distances are un-affected by noise.

Where any part of the lot is within the specified trigger distance, an assessment against the policy is required to determine the likely level of transport noise and management/mitigation required. An initial screening assessment (**guidelines: Table 2: noise exposure forecast**) will determine if the lot is affected and to what extent."

TABLE 1: TRANSPORT CORRIDOR CLASSIFICATION AND TRIGGER DISTANCES

Transport corridor classification	Trigger distance	Distance measured from
Roads		
Strategic freight and major traffic routes Roads as defined by Perth and Peel Planning Frameworks and/or roads with either 500 or more Class 7 to 12 Austroads vehicles per day, and/or 50,000 per day traffic volume	300 metres	Road carriageway edge
Other significant freight/traffic routes These are generally any State administered road and/or local government road identified as being a future State administered road (red road) and other roads that meet the criteria of either >=23,000 daily traffic count (averaged equivalent to 25,000 vehicles passenger car units under region schemes)	200 metres	Road carriageway edge
Passenger railways		
	100 metres	Centreline of the closest track
Freight railways		
	200 metres	Centreline of the closest track

Proponents are advised to consult with the decision making authority as site specific conditions (significant differences in ground levels, extreme noise levels) may influence the noise mitigation measures required, that may extend beyond the trigger distance.

POLICY MEASURES (Section 6)

The policy applies a performance-based approach to the management and mitigation of transport noise. The policy measures and resultant noise mitigation will be influenced by the function of the transport corridor and the type and intensity of the land-use proposed. Where there is risk of future land-use conflict in close proximity to strategic freight routes, a precautionary approach should be applied. Planning should also consider other broader planning policies. This is to ensure a balanced approach takes into consideration reasonable and practical considerations.

Noise Targets (Section 6.1)

Table 2 sets out noise targets that are to be achieved by proposals under which the policy applies. Where exceeded, an assessment is required to determine the likely level of transport noise and management/mitigation required.

In the application of the noise targets the objective is to achieve:

- *indoor noise levels as specified in **Table 2** in noise sensitive areas (for example, bedrooms and living rooms of houses, and school classrooms); and*
- *a reasonable degree of acoustic amenity for outdoor living areas on each residential lot. For non-residential noise-sensitive developments, for example schools and child care centres the design of outdoor areas should take into consideration the noise target.*

It is recognised that in some instances, it may not be reasonable and/or practicable to meet the outdoor noise targets. Where transport noise is above the noise targets, measures are expected to be implemented that balance reasonable and practicable considerations with the need to achieve acceptable noise protection outcomes.

TABLE 2: NOISE TARGETS

Proposals	New/Upgrade	Noise Targets		
		Outdoor		Indoor
		Day ($L_{Aeq}(\text{Day})$ dB) (6 am-10 pm)	Night ($L_{Aeq}(\text{Night})$ dB) (10 pm-6 am)	(L_{Aeq} dB)
Noise-sensitive land-use and/or development	New noise sensitive land use and/or development within the trigger distance of an existing/proposed transport corridor	55	50	L_{Aeq} (Day) 40 (Living and work areas) L_{Aeq} (Night) 35 (bedrooms)
Roads	New	55	50	N/A
	Upgrade	60	55	N/A
Railways	New	55	50	N/A
	Upgrade	60	55	N/A

Notes:

- *The noise target is to be measured at one metre from the most exposed, habitable façade of the proposed building, which has the greatest exposure to the noise-source. A habitable room has the same meaning as defined in State Planning Policy 3.1 Residential Design Codes.*
- *For all noise-sensitive land-use and/or development, indoor noise targets for other room usages may be reasonably drawn from Table 1 of Australian Standard/New Zealand Standard AS/NZS 2107:2016 Acoustics – Recommended design sound levels and reverberation times for building interiors (as amended) for each relevant time period.*
- *The 5dB difference in the criteria between new and upgrade infrastructure proposals acknowledges the challenges in achieving noise level reduction where existing infrastructure is surrounded by existing noise-sensitive development.*
- *Outdoor targets are to be met at all outdoor areas as far as is reasonable and practical to do so using the various noise mitigation measures outlined in the guidelines. For example, it is likely unreasonable for a transport infrastructure provider to achieve the outdoor targets at more than 1 or 2 floors of an adjacent development with direct line of sight to the traffic.*

Noise Exposure Forecast (Section 6.2)

*When it is determined that SPP 5.4 applies to a planning proposal as outlined in Section 4, proponents and/or decision makers are required to undertake a preliminary assessment using **Table 2**: noise exposure forecast in the guidelines. This will provide an estimate of the potential noise impacts on noise-sensitive land-use and/ or development within the trigger distance of a specified transport corridor. The outcomes of the initial assessment will determine whether:*

- *no further measures is required;*
- *noise-sensitive land-use and/or development is acceptable subject to deemed-to-comply mitigation measures; or*
- *noise-sensitive land-use and/or development is not recommended. Any noise-sensitive land-use and/ or development is subject to mitigation measures outlined in a noise management plan.”*

4. ASSESSMENT

The proposed development is located at 94 – 96 Roberts Street, Norseman. As shown below in Figure 4.1, the Esperance – Kalgoorlie freight railway line is located to the east of the development.



FIGURE 4.1 – SITE LOCATION

From Google Earth, the eastern boundary of the development is approximately 80 metres from the railway line. Thus, based on Table 2 of the Implementation Guidelines (part table shown below), the noise received at 80 metres of the edge of the railway line would be 57 dB(A).

Railway Transport Corridor Classification		Forecast period average noise level and exposure category based on distance from nearest adjacent										
		10	20	30	40	50	60	70	80	90	100	
Passenger railways	Fremantle, Midland and Thornlie main lines only	68	64	62	60	59	58	56	56	55	54	
	All other metro passenger rail lines, and where multiple metro rail services share the same transport corridor	70	66	64	62	61	60	58	57	56	56	
Freight railways, up to 1 movement per hour		72	68	65	63*	62*	60*	59*	58*	57*	57*	

Under the WAPC State Planning Policy 5.4, for this development, the "Noise Target" as listed in Table 1 are the appropriate noise levels for to be achieved for this development. The policy states that the outdoor criteria apply to the ground floor level only, however, it also states that noise mitigation measures should be implemented with a view to achieving the "Noise Target" levels in least one outdoor living area. The Policy states the following acceptable internal noise levels:

Internal

Living and Work Areas	$L_{Aeq(Day)}$ of 40 dB(A)
Bedrooms	$L_{Aeq(Night)}$ of 35 dB(A)

Based on a distance of 80 metres, from Table 2 of the Implementation Guidelines for SPP 5.4, the noise received at the development site would be 57 dB(A). At this noise level "Quiet House" design package A+ would be required.

We note that the boundary fences to the gazebo area should under the deemed to satisfy requirements be 2 metres high. This fence height should be for the locations as shown in Figure 4.1.

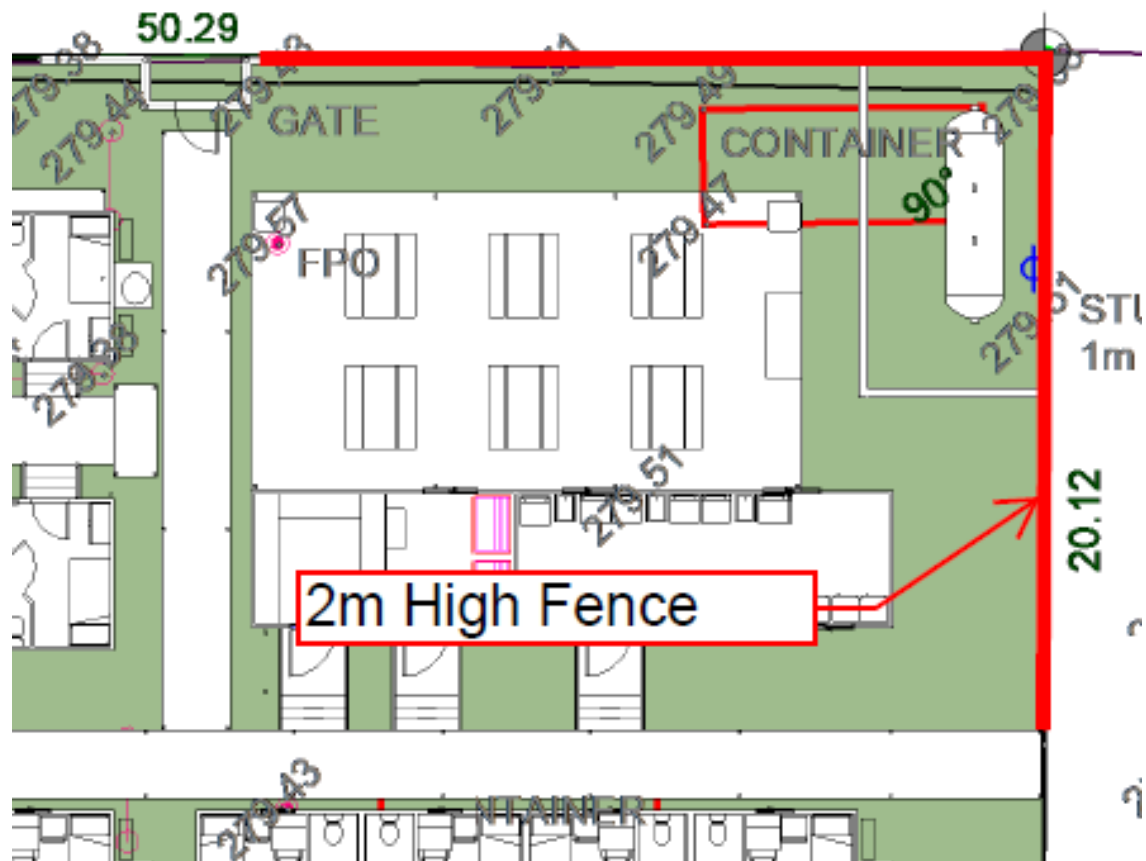


FIGURE 4.1 – BOUNDARY FENCE

The deemed to satisfy requirements for Package A+ are attached in Appendix B.

Notes:

- 1 The summary of the Quiet House Design Package A+ attached in Appendix B, are “Deemed to Satisfy” constructions. Alternative constructions would be acceptable, provided they are supported by an acoustic report prepared by a suitably qualified acoustic consultant.
- 2 The boundary fence to the outdoor gazebo to have a minimum surface density of 15kg/m^2 .
- 3 Additionally, a Notifications on the Title is required for this development.

APPENDIX A

PLANS

PROPOSED ACCOMMODATION VILLAGE

94-96.ROBERTS STREET NORSEMAN, WA, 6443



SHEET No.	SHEET NAME	REVISION	REVISION DATE
SK-00	TITLE PAGE	B	26/02/26
SK-01	SITE LOCATION PLAN	B	26/02/26
SK-02	SITE OVERALL PLAN	B	26/02/26
SK-03	EXISTING SITE PLAN	B	26/02/26
SK-04	SITE PLAN	B	26/02/26

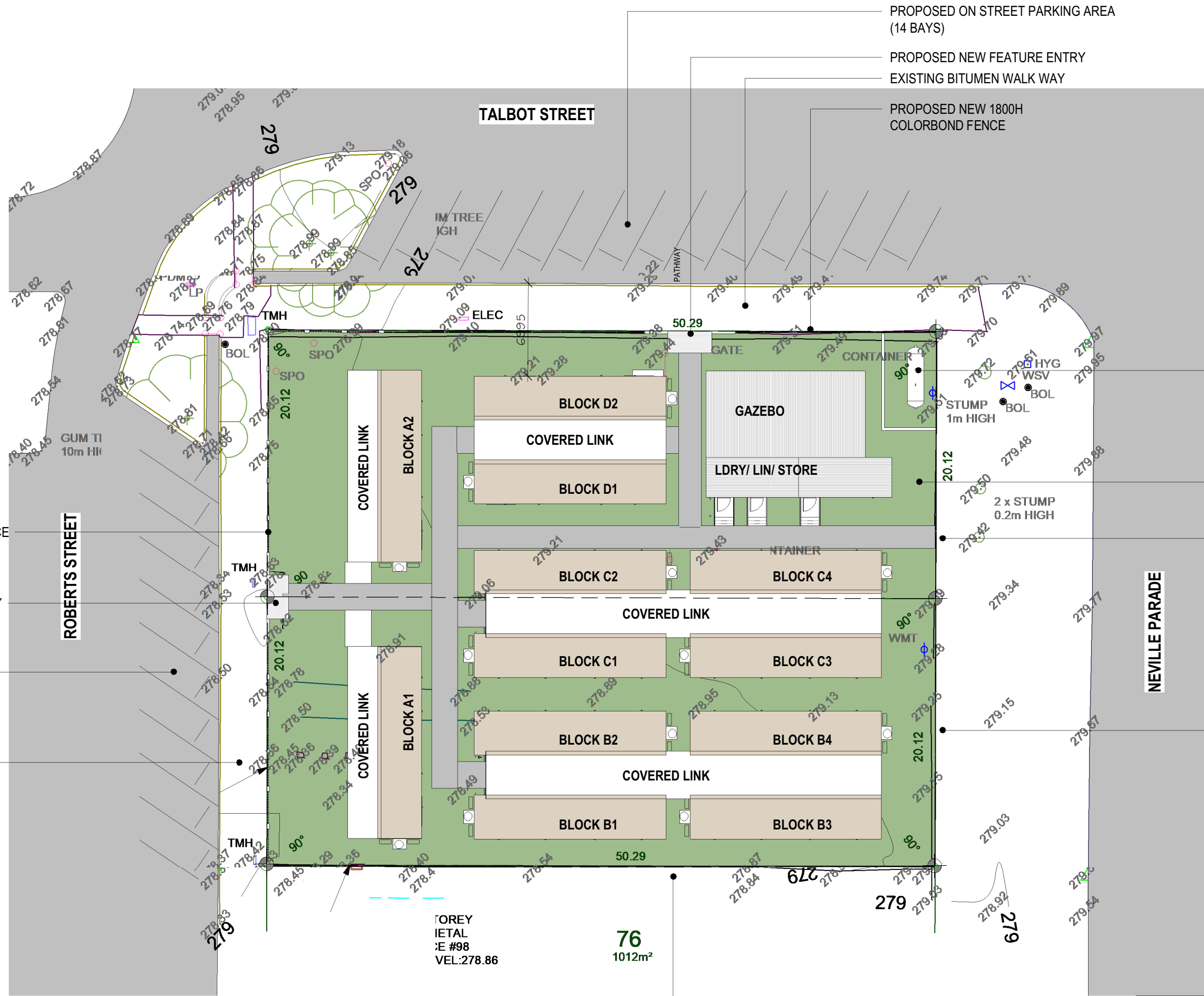
SHEET No.	SHEET NAME	REVISION	REVISION DATE
SK-05	GROUND FLOOR PLAN	B	26/02/26
SK-20	PERSPECTIVES	A	26/02/26
SK-21	PERSPECTIVES	A	26/02/26
SK-22	PERSPECTIVES	A	26/02/26
SK-23	PERSPECTIVES	A	26/02/26



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Sustainable Building Designer
Townsville - Brisbane - Goldcoast



CP - SITE PLAN
1 : 300@A3

PROJECT : PROPOSED ACCOMMODATION VILLAGE
CLIENT : Resource Accommodation Management Pty Ltd
LOCATION: 94-96.ROBERTS STREET NORSEMAN, WA, 6443

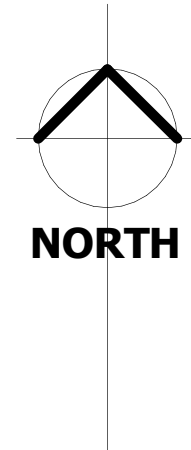


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No.	Description	Date	DESIGNED	AM	SITE PLAN
A	PRELIMINARY SITE CONCEPT	03/02/26	DRAWN	AM	
B	BA ISSUE	26/02/26	DATE	FEB 2025	25-116 - SK-04 - B
			SCALE	A3 1 : 300	
			ISSUED	26/02/26	

2/03/2026 7:56:26 AM



CP-SITE GROUDN FLOOR PLAN
1 : 300@A3

NOTE:
- VERIFY ALL DIMENSIONS ON SITE
- NOTED DIMENSIONS TAKE PRESIDENT OVER SCALED DIMENSIONS
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PROJECT : PROPOSED ACCOMMODATION VILLAGE
CLIENT : Resource Accommodation Management Pty Ltd
LOCATION: 94-96.ROBERTS STREET NORSEMAN, WA, 6443

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No.	Description	Date
A	PRELIMINARY SITE CONCEPT	03/02/26
B	BA ISSUE	26/02/26

DESIGNED	AM
DRAWN	AM
DATE	FEB 2025
SCALE	A3 1:300
ISSUED	26/02/26

GROUND FLOOR PLAN
25-116 - SK-05 - B

20/03/2026 7:56:27 AM







NOT FOR CONSTRUCTION

NOTE:
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- NOTED DIMENSIONS TAKE PRESEDENT OVER
- SCALED DIMENSIONS
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No.	Description	Date
A	BA ISSUE	26/02/26

DESIGNED	AM
DRAWN	AM
DATE	FEB 2025
SCALE	A3
ISSUED	26/02/26

PERSPECTIVES
25-116 - SK-22 - A



APPENDIX B

QUIET HOUSE DESIGN PACKAGE A+

Exposure Category	Orientation to corridor	Acoustic rating and example constructions				
		Walls	External doors	Windows	Roofs and ceilings of highest floors	Outdoor living areas
A Quiet House A	Facing	Bedroom and indoor living and work areas to Rw+Ctr 45dB - One row of 92mm studs at 600mm centres with: - Resilient steel channels fixed to the outside of the studs; and 9.5mm hardboard or 9mm fibre cement sheeting or 11mm fibre cement weatherboards or one layer of 19mm board cladding fixed to the outside of the channels; and 75mm glass wool (11kg/m3) or 75mm polyester (14kg/m3) insulation, positioned between the studs; and - Two layers of 16mm fire-protective grade plasterboard fixed to the inside face of the studs. - Single leaf of 150mm brick masonry with 13mm cement render on each face. - Double brick: two leaves of 90mm clay brick masonry with a 20mm cavity between leaves.	Bedrooms: - Fully glazed hinged door with certified Rw+Ctr 28dB rated door and frame including seals and 6mm glass Other external doors to Rw+Ctr 25dB, e.g. 35mm solid core timber hinged door and frame system certified to Rw 28dB including seals - Glazed sliding door with 10mm glass and weather seals	Bedrooms: - Total external door and window system area up to 40% of room floor area: Sliding or double hung with minimum 10mm single or 6mm-12mm-10mm double insulated glazing (Rw+Ctr 28 dB). Sealed awning or casement windows may use 6 mm glazing instead. - Up to 60% floor area: as per above but must be sealed awning or casement type windows (Rw+Ctr 31dB). Indoor living and work areas - Up to 40% floor area: Sliding, awning, casement or double hung with minimum 6mm single pane or 6mm-12mm-6mm double insulated glazing (Rw+Ctr 25dB). - Up to 60% floor area: As per Bedrooms at up to 40% area (Rw+Ctr 28 dB). - Up to 80% floor area: As per Bedrooms at up to 60% area (Rw+Ctr 31dB).	To Rw+Ctr 35dB Concrete or terracotta tile or metal sheet roof with sarking and at least 10mm plasterboard ceiling	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 2 metres height above ground level.
	Side on					
	Opposite		As per ‘Facing’ above, except Rw+Ctr values may be 3dB less, e.g. glazed sliding door with 10mm glass and weather seals for bedrooms.	As above, except Rw+Ctr values may be 3dB less, or max % area increased by 20%		
			No specific requirements			
A Quiet House A+	All	As per Quiet House A, except double leaf masonry / brick construction only.	As per Quiet House A.	As per Quiet House A, except that ‘Side-on’ requirements same as ‘Facing’. - All windows comprise minimum 6 mm thick laminated or toughened glass in sealed awning or casement frames. Polymer (e.g. uPVC) window framing should be used. Evaporative air conditioning systems are not recommended. - No external doors for bedrooms with entry ‘Facing’ transport corridor	No specific requirements	