

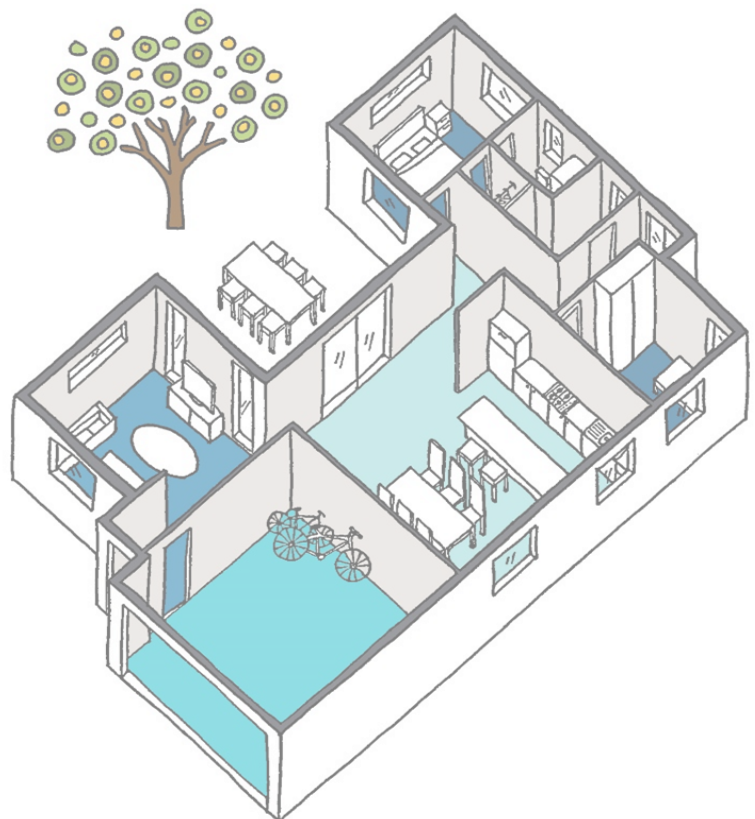


Government of **Western Australia**  
Department of **Housing and Works**

# Department of Housing and Works

## Design Brief Northwest Regional Social Housing

Effective 1 July 2025



Department of Housing and Works

## Document Control

Revision Date	Comments	Author
00.00.2019	Design Brief: Northwest Regional Social Housing (version 1) released for implementation	Jasmine Kille
01.07.2025	Updated branding to Department of Housing and Works	Urban Design

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## Introduction

### Background

In 2018 the Department of Housing and Works (the Department) procured an external consultant to assist with reviewing and reporting on design issues with the current housing stock across the Northwest region of Western Australia. Novelle Consortium was engaged by the Department and facilitated a workshop in Broome with stakeholder representatives from the Department of Housing and Works, Broome Shire, Kullari and HM Tracey. Following the workshop, Novelle Consortium produced a report titled *Housing Design Principles* summarising the key areas identified by participants where improvements should be made.

### Process

Following the stakeholder engagement process by Novelle Consortium, the Department of Housing and Works undertook a review of the *Housing Design Principles* report and expanded upon this research by engaging with project managers involved in housing projects in the northwest region, reviewing existing research undertaken by the Department including the Broome Urban Renewal project and Landcorp's *Kimberley* and *Pilbara Vernacular* document, conducting site analysis and speaking with housing tenants living in the town centre of Broome. Through this process, this Design Brief was created with the intention to be used as a standard and utilised by designers procured by the Department.

### Northwest Region Characteristics

Due to the unique characteristics of the northwest region of Western Australia, housing design and construction is significantly varied to that located within metropolitan regions. The following characteristics were considered in the development of this Design Brief.

**Climate** - The Kimberley and Pilbara regions experience high temperatures, and at times can experience monsoonal rainfall and cyclonic conditions. Housing in these regions must therefore utilise natural breezes and accommodate larger outdoor living areas. A home with high amenity and comfort levels ensures enhanced levels of occupant wellbeing and a healthy environment.

**Family Structures** - In the Kimberley and Pilbara regions it is not unusual for four generations to live together under one household. Aging in place refers to assisting a person to live in their residence safely and comfortably as they age, for as long as they are able. To facilitate this, particular attention is required in relation to building layout, access/egress, fittings and fixtures, amongst other factors.

**Lifestyles** - Housing density in the Kimberley and Pilbara regions is required to be lower than what is typically seen in metropolitan areas due to weather and lifestyle conditions. Internal and external spaces must be positioned to allow for natural breezes and incorporate larger outdoor living areas to suit the outdoor lifestyles of residents without negatively impacting on privacy and safety.

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## Overarching Principles

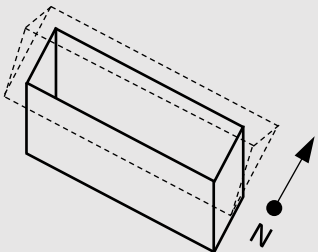
The following principles have been developed from the research discussed in the preceding introduction. These principles build upon the research conducted by Novelle Consortium and inform the preceding design and construction requirements in this Design Brief document.



## Design Requirements

### 1| Site

Housing requirements in the Kimberley and Pilbara regions are unique and require designs and management plans to reflect this. Contextuality in regard to housing refers to the principle of designing in response to the surrounding environment. This takes into consideration site factors such as microclimate, local resources and cultural and traditional factors which can impact housing design.

1.1 CLIMATE	
1.1.1	Prevailing winds, sun paths, landscapes, topography, noise, access/egress, sightlines and outward views are investigated to inform design decisions
1.1.2	Dwelling placement maximises access to breezes to enhance airflow and ensure natural temperature change in dwellings and throughout allotments
1.1.3	<p>Where possible, dwelling is orientated east-west with longer walls facing north and shorter walls facing east and west</p> 
1.1.4	Where possible, roof slopes are orientated towards prevailing breezes to facilitate air movement over the dwelling
1.1.5	Layout and design of dwellings encourages air circulation and visibility through the site
1.1.6	Setback widths between the dwelling and boundary fencing do not restrict air movement and are as large as possible without impacting on internal room sizes
1.1.7	Locate walls and plants where they can aid in speeding up breezes through the site. This can be achieved by reducing long, flat planes facing prevailing breezes and by incorporating planting which allow breezes to pass through

1.1.8	<p>Hard surfaces across the site, such as paving used for car parking and paths, are shaded to minimise heat absorption</p>  <p><i>External walls and paved areas are shaded by landscaping and roofing</i></p>
1.1.9	Roofing, external walls and paving across the site are light in colour
1.1.10	Residents can move freely without impacting on neighbouring dwellings
1.1.11	Vehicle access to individual dwellings on an allocated lot is private, where possible, to prevent common access, whether by vehicle or foot to individual dwellings
1.1.12	<p>Natural ventilation and shading is maximised to improve temperature control through site</p>  <p><i>Permeable fencing can be incorporated to increase air circulation through sites</i></p>
1.1.13	Setback widths between the dwelling and boundary fencing do not restrict air movement and are as large as possible without impacting on internal room sizes
1.1.14	Buffer zones are incorporated between fenced areas and alfresco or verandah living areas
1.1.15	Locate walls and plants where they can aid in speeding up breezes through the site. This can be achieved by reducing long, flat planes facing prevailing breezes and by incorporating planting which allow breezes to pass through

## 1.2 DENSITY & PRIVACY

1.2.1	Site yield is no greater than 2 dwellings per 1000m <sup>2</sup>
1.2.2	Residents can move freely without impacting on neighbouring dwellings
1.2.3	Vehicle access to individual dwellings on an allocated lot is private, where possible, to prevent common access, whether by vehicle or foot to individual dwellings

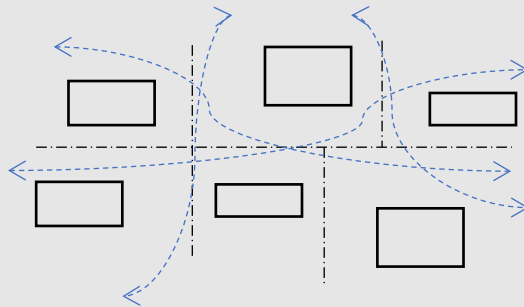
1.2.4

Density of housing and positioning considers the location of living areas, patios, verandas and 'free' yard space of each dwelling in reducing noise to and from each dwelling

### 1.3 FENCING

1.3.1

Subdivided sites incorporate permeable fencing between lots where possible to facilitate air flow between dwellings



1.3.2

Permeable and semi-permeable fencing is used where possible to promote air movement through the site (see examples below)



1.3.3

Sections of solid 1800mm high fencing visible to the public realm (including common driveways) are minimised

1.3.4

Fencing to the primary and secondary street fronts is a combination of permeable and solid elements correlating to privacy requirements of individual rooms/spaces and passive surveillance requirements to the public realm

1.3.5

Fencing along the primary street front (and within primary street front setbacks for corner lots) shall have a solid fencing portion no higher than 1200mm

1.3.6

Low perimeter fencing used along boundaries adjacent to public open spaces to increase permeability and surveillance



## 2 | Dwelling

2.1 FACADE	
2.1.1	Façade design takes into regard existing and future development context
2.1.2	Street elevations suit existing streetscape characteristics in relation to setbacks, materiality, design, landscaping, fencing and car parking arrangements
2.1.3	<p>Façade materiality and colours suit contemporary housing design and are light in colour to minimise negative impacts on the site's micro climate (see examples below)</p> 
2.1.4	Passive surveillance is achieved through more than one major opening per dwelling addressing primary and secondary streets, rear lanes and internal streets/driveways
2.1.5	<p>Dwelling façade addresses the street with a clearly defined entry sequence</p> <p><i>Façade addressing street:</i> </p> <p><i>Façade with poor street presence:</i> </p>
2.1.6	The path from the street to the front door of the dwelling is direct without dominating the front yard with hardscaping. Where letterboxes are installed, direct physical access to the letterbox from the front door or driveway is provided
2.1.7	Private property is clearly distinguished from public spaces and verges
2.1.8	Building services including air-conditioning hatches and electronic distribution boxes are located away from street view

2.2 COMFORT & AMENITY	
2.2.1	Rooms are zoned according to their use, with bedrooms in darker locations and living areas in locations which receive the greatest amount of natural daylight
2.2.2	Dwelling design considers activities of the occupants and incorporates natural daylight to ensure high amenity, functionality and healthy spaces for occupants
2.2.3	Dwelling layout prevents the requirement for long hallways which disrupt wind movement and increase resistance to air flow
2.2.4	Habitable rooms incorporate at least two windows on opposite walls to encourage cross ventilation (2x large windows will cool down spaces better than 1x large and 1x small window)
2.2.5	Recessed external walls with windows are incorporated where possible to direct air into internal spaces
2.2.6	<p>Internal lighting consists of a combination of daylighting structures and energy efficient task lighting systems</p>  <p><i>Natural daylighting assists with kitchen tasks reducing reliance on artificial lighting</i></p>
2.2.7	The main internal living area promotes flexibility of furniture arrangements through the location of openings, power outlets and room lighting
2.2.8	The main bathroom can be accessed directly from the main living area to avoid the need to enter sleeping zones of the house
2.2.9	Bedrooms and living areas are provided with balanced practical options between windows and sliding door options for safe, secure and easy access to breezes
2.2.10	A minimum clearance of 1200mm x 1200mm is provided in front the shower
2.2.11	<p>Bathrooms are well ventilated with openable windows to facilitate natural cross ventilation</p> 

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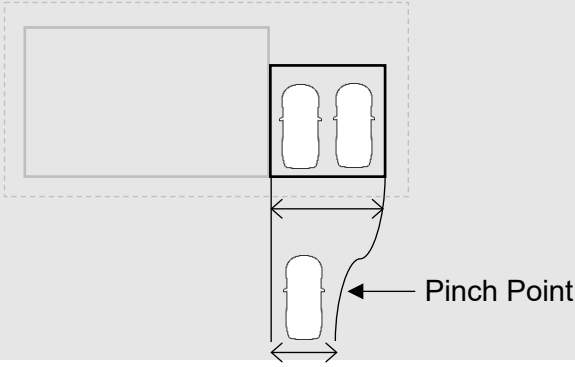
**2.2.12**

Dwelling complies (at a minimum) with Livable Housing Design Guidelines - Silver Standards [Refer to: [www.livablehousingaustralia.org.au](http://www.livablehousingaustralia.org.au)]

### 3 | Landscaping

In the Kimberley and Pilbara regions landscaping is a town planning requirement, however unsuitable planting can result in poor outcomes for the Department and for tenants. Providing water-wise and easily manageable landscaping reduces water requirements and the possibility of high water bills, unhealthy gardens and poor visual outlook.

3.1 LANDSCAPING	
3.1.1	Landscaping requires low maintenance, and plant, lawn and shade areas are easily manageable by residents of all abilities
3.1.2	Seasonal and local resilient native plant species (such as xeriscapes and drought resilient planting etc.) are selected to minimise the use of reticulation and other water options
3.1.3	<p>The ratio of plant, garden, paved and shaded components are balanced and easily manageable, with a preference towards soft over hard landscaping to avoid negatively impacting the site's microclimate</p> <div data-bbox="300 925 783 1254">  </div> <div data-bbox="831 925 1267 1254">  </div> <p><i>A combination of grassed areas, planting and permeable rockeries attribute to soft landscaping</i></p>
3.1.4	Tree species provide shade in summer to outdoor spaces and are strategically placed to provide shading to dwelling windows
3.1.5	Existing established trees are maintained where they do not impact on the construction of the dwelling and safety of tenants
3.1.6	Permeable ground covering is utilised across the site
3.1.7	<p>Paved areas and similar impermeable ground coverings are minimised where possible to minimise heat absorption across the site</p> <div data-bbox="300 1664 817 2004">  </div>

	<i>Driveway and pedestrian path are grouped together to facilitate larger areas for permeable ground covering</i>
3.1.8	<p>Where double (side by side) car parking is used, pinch points are incorporated into paving to reduce hardscaping</p> 
3.1.9	Materials incorporating high thermal mass properties are minimised across the site
3.1.10	Specific plant species which deter mosquitoes, flies and other insects are utilised throughout the site
3.1.11	Sites adjacent to bushland, parks and other public open spaces utilise similar plant species to allow site to blend into the landscape

## 4 | Specifications

Utilise these checklists early in the design stage to ensure that the design of the site and building demonstrates the required objectives and suitable fittings and fixtures are selected for the project.

4.1 INTERNAL ROOM REQUIREMENTS			Achieved
4.1.1	Bedrooms	Bedroom provided with air conditioning options for tenants through the provision of secure hatches	
4.1.2	Bedrooms	TV outlet socket provided in all bedrooms	
4.1.3	Living & Dining Areas	Living areas provided with air conditioning options for tenants through the provision of secure hatches	
4.1.4	Kitchen	Kitchen areas are designed for easy replacement, easy management of wet areas, appropriate drainage and tenant safety	
4.1.5	Kitchen	Cupboards constructed with metal frameworks, metal shelving and metal kickboards to support high level use	
4.1.6	Kitchen	Kitchen sink with mixer style tap (also applicable for wall mounted taps)	
4.1.7	Kitchen	Commercial grade Vinyl Plank flooring	
4.1.8	Bathrooms	Bathrooms are designed for easy replacement, easy management of wet areas, appropriate drainage and tenant safety	
4.1.9	Bathrooms	Cupboards constructed with metal frameworks, metal shelving and metal kickboards to support high level use	
4.1.10	Bathrooms	Hobless shower to main bathroom.	
4.1.11	Bathrooms	The toilet within the main bathroom is located beside at least one solid wall to facilitate the potential installation of grab rails	
4.1.12	Bathrooms	Where possible, main bathroom grab rails are installed to also function as towel rails	
4.1.13	Bathrooms	Baths to be enamel finished, pressed steel	
4.1.14	Utilities	Bathrooms are designed for easy replacement, easy management of wet areas, appropriate drainage and tenant safety	
4.1.15	Utilities	Cupboards constructed with metal frameworks, metal shelving and metal kickboards to support high level use	
4.1.16	Utilities	All internal wall mounted breaches to be stainless steel	

4.2 INTERNAL GENERAL REQUIREMENTS			Achieved
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4.2.1	Fixtures & Fittings	Dwelling's fixtures and fittings are designed and specified for heavy wear and tear	
4.2.2	Fixtures & Fittings	Dwelling fixtures, fittings and flooring are easily replaceable and, where possible, replaceable by generic maintenance teams	
4.2.3	Electrical/Mechanical	Dwelling is highly insulated and incorporates appropriate glazing systems to create a highly energy efficient building	
4.2.4	Electrical/Mechanical	Dwelling is designed to balance low power consumption lighting and natural lighting to reduce energy demand	
4.2.5	Electrical/Mechanical	Light fittings are selected to use easily replaceable, safe and low-cost lamps that can easily be purchased locally and replaced by tenants	
4.2.6	Wall Lining	Robust internal wall lining such as Versilux (9mm cement sheeting) or similar	
4.2.7	Doors	Solid core internal doors	
4.2.8	Roofing	Roof design incorporates roofing materials and roof plumbing suitable for high intensity (monsoonal) rainfall	
4.2.9	Materiality	Materials and construction methods are selected based on their durability and robustness in response to extreme weather conditions (for example, suitability for wind regions C and D) and high tenant traffic wear and tear	
4.2.10	Drainage	Housing drainage must include no use of gutter and drainage systems on fence line, appropriate distance should be given to localise the drainage options	
4.2.11	Landscaping	Weed netting installed under mulched areas	
4.2.12	Roof Vents	Ridge vents are used in lieu of whirly bird vents	

4.3	EXTERNAL REQUIREMENTS		Achieved
4.3.1	Walls	Colorbond wall cladding where used runs vertically and is light in colour where exposed to direct sunlight	
4.3.2	Roof	Roof material is light in colour to minimise solar heat absorption	
4.3.3	A/C	Air-conditioning hatches are incorporated into external walls of living areas and bedrooms to allow tenants to install air-conditioning units	
4.3.4	Drains	Drains are incorporated externally below air-conditioning hatches and water pooling is prevented	
4.3.5	Drains	Water pooling is prevented below external hose cocks through the design of permeable ground covers or drainage points	

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<b>4.3.6</b>	Electrical	External waterproof GPOs are strategically located to prevent damage caused to flyscreens from tenants extending extensions leads from inside the home for external activities	
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<b>4.4</b>	<b>GENERAL REQUIREMENTS</b>		<b>Achieved</b>
<b>4.4.1</b>	Labour	Site and dwelling design supports the surrounding local economy by utilising local materials and products and incorporating systems which can be serviced and maintained with local materials, parts and local labour	