

# BLUE HAZE

## LIGHT INDUSTRIAL AREA

### DESIGN GUIDELINES



BLUE  
HAZE

November 2011

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# 1. INTRODUCTION

## The **Blue Haze light industrial area** at **Broome North**.

These development guidelines provide “easy to apply” planning criteria ensuring that a consistently high standard of development is maintained from the earliest buildings through to the final stages of development.

The blend of well designed buildings and quality landscaping will contribute to the Blue Haze light industrial area being a pleasant and productive working environment which should assist developers and owner occupiers in maximising rents and property values.

### PURPOSE AND STRUCTURE OF DESIGN GUIDELINES

#### KEY OBJECTIVES

The key objectives of the development guidelines are:

- To ensure that all development meets the Broome North Project objectives.
- To avoid unsightly and poorly planned industrial buildings in order to protect the investment of all developers and owners.
- To achieve greater sustainability within the development through climate responsive siting, energy and water efficient design and fitout.

#### STRUCTURE

- The Design Guidelines are structured in a two-tier format - ‘Mandatory Criteria’ and ‘Design Recommendations’. All Mandatory Criteria (M) must be complied with, as per the conditions of your contract of sale, while the Design Recommendations (R) are non-mandatory but are encouraged as, when implemented, they will improve the overall thermal performance and comfort of your building whilst reducing energy use costs. It is anticipated they will also make your property more marketable in the future.
- Development in accordance with these guidelines is deemed to comply. However, alternative designs may be considered subject to demonstration that any proposed development is in keeping with the objectives and intent of the Design Guidelines and subject to Council approval.

### RELATIONSHIP TO GOVERNMENT

- These Design Guidelines apply to all light industrial area lots within Blue Haze and are designed to facilitate a high standard of sustainable development and high quality aesthetics within the estate.
- The Guidelines (including any Detailed Site Plans) should be read in conjunction with the Broome North Local Development Plan, the Shire of Broome Town Planning Scheme No. 4 and Local Laws and Policies, the Building Code of Australia (BCA) and other statutory requirements.
- In any case where there is conflict in detail between these Design Guidelines and the local laws and policies, the provisions of the latter documents shall prevail and to the satisfaction of the Shire of Broome. As always, buyers should make themselves familiar with the Scheme requirements.

### OUR ENVIRONMENT

Broome enjoys a tropical climate with hot and humid summers and warm winters. There are two distinct seasons: the ‘wet’, usually from December to March, and the ‘dry’ for the remainder of the year.

Reliable afternoon sea-breezes arrive from the north-west to south-west during the warmer months. The Broome region is characterised by high temperatures and a moderate diurnal (day/night) range.

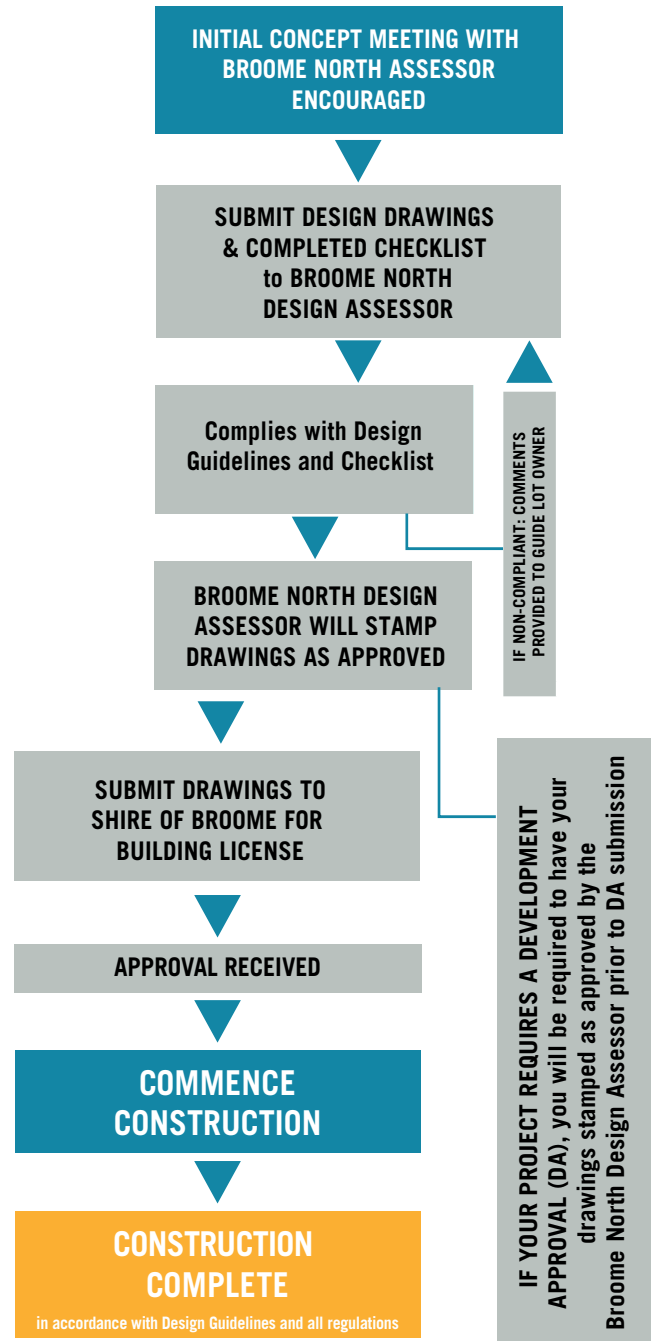
These unique environmental conditions have influenced the Design Guidelines for the Blue Haze light industrial area.

**APPROVAL PROCESS**

- To assist in helping your project to comply with these guidelines, it is a requirement of your contract of sale that you submit your preliminary concept design to the Broome North Design Assessor prior to lodging Application for Building Licence.
- To ensure this occurs the developer will lodge a caveat on your title pertaining to the conditions of the contract of sale which requires the property to be built in accordance with these guidelines and within the time period specified in the contract (if applicable). The caveat can be removed once these conditions are satisfied.
- An owner or their architect or builder, must submit:

  - An Application for Design Guidelines Approval; including completed checklist to the Broome North Design Assessor; and
  - Two (2) full hard copy sets of all appropriate drawings and attached Checklist (Appendix A).
- Should the Broome North Design Assessor consider that the plans do NOT substantially achieve any one of the design Criteria, they will be returned with a request to amend the plans or provide additional justification for the variation.
- Should the Broome North Design Assessor deem the plans to substantially achieve ALL the Design Criteria or be satisfied with any justified variation, the plans will then be endorsed and one full signed set with the checklist returned so that the endorsed plans and checklist can then be lodged with Council as part of the planning and/or building application.
- If a re-assessment is needed once the plans have been stamped as approved by the Broome North Design Assessor, a \$500 fee will apply to have the drawings re-assessed.
- The Shire of Broome will not process any plans unless they are stamped approved and are accompanied with a stamped checklist. Landowners and/or builders are encouraged to take advantage of a free one-hour Design Guideline Compliance advice session from the appointed design assessor. (Refer to step one in adjacent flow diagram).
- The completed Design Guidelines Checklist and associated plans and accompanying information are then to be submitted to the Shire of Broome for Building Licence.

**APPROVAL PROCESS**



# 2. DEVELOPMENT GUIDELINES

By adhering to these guidelines the **Blue Haze light industrial area** will be **recognisable for its climate appropriate** and **site sensitive built form outcomes**.

## 2.1 BUILDING FRONTAGE AND ENTRY

Building entrances provide a public presence and interface between the public street and the internal domain, thereby supporting the identity of buildings as well as providing access.

### Mandatory Requirements

- The front elevation must be designed to address the street.
- The main entrance is to be on the front elevation or close to the front of the building, clearly visible from the street.
- Entrance points to buildings must provide weather protection for pedestrians by means of a substantial integrated building element such as a veranda, canopy or colonnade.

## 2.2 SITE COVERAGE

### Mandatory Requirement

- Minimum enclosed built area of 200m<sup>2</sup>.

## 2.3 BUILDING SETBACKS & LOCATION

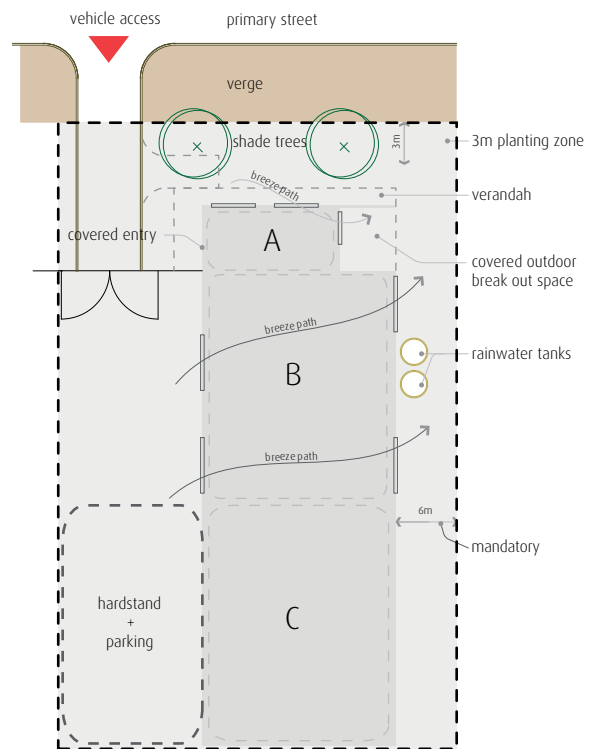
Setbacks should be established giving consideration to:

The general streetscape, adjoining properties and buildings, solar aspect and prevailing breezes; and the bulk of the development.

### Mandatory Requirements

- Setbacks to conform to TPS & relevant BCA provisions.
- One side set back of 6m. For East West orientated lots this should be on the southern side. Setback for other lots is at the proponent's discretion.
- Landscaping requirement within 3m of boundary.
- Development shall occur at the front of the lot as indicated in the diagram adjacent, with "ZONE A and B" being built before any works can occur to the rear of the lot.
- A minimum setback of 3m to the side setback of any structure within 30m of the front boundary line, to allow for cross ventilation and side glazing. Cross ventilation will remove heat buildup and side glazing can reduce heat gain by minimizing the need for overhead sky lights.

Fig. 1: SITE and STAGING DIAGRAM (Best Practice)



- A - Entry/Administration/Showroom/Staff facilities
- B - Workshop/Warehouse/Hardstand
- C - Store/Open yard (Careful screening required)

# 3. SUSTAINABILITY GUIDELINES

**Blue Haze light industrial area** aims to **minimise adverse environmental effects** from the **development** and **industrial activity**.

## 3.1 LIGHTING

### Mandatory Requirement

- Outdoor lights to have motion detectors.

## 3.2 LIGHT POLLUTION

Minimise light spill to adjoining properties by avoiding unnecessary scattered uplight from poorly designed artificial light fixtures.

### Mandatory Requirement

- All outdoor, carpark or security lighting is to be directed downwards with no light spill above the horizontal plane.



## 3.3 WATER HEATING

### Mandatory Requirement

- Systems must be high efficiency solar, heat pump or gas if development contains shower facilities or contains a provision requiring similar levels of hot water usage. Installation of instant electric hot water system limited to kitchenette and vanity use only.

## 3.4 WATER MANAGEMENT

### Design Recommendations

The supply of potable water in WA is a critical issue. To reduce demand;

- All sanitary flushing systems must be a minimum 4 stars WELS rated dual flush.

Landscape Areas (water reticulation)

- Low flow trickle dripper systems, or coarse sprays are required on programmable controller or timer system.

## 3.5 RAIN WATER TANKS

### Design recommendations

- Capacity for storage of at least 10,000L of rainwater to be installed to collect runoff from roof surfaces. Collected water to be used for irrigation or plumbed for toilet flushing.
- Due to the large capture area offered by factory/shed roofs, owners are encouraged to install extra tanks to harvest rainwater for irrigation and industrial purposes to reduce reliance on scheme water.

### 3.6 CROSS VENTILATION

Optimising cross ventilation by minimising barriers to air circulation through the interior of the inhabited office interiors, and well-placed window openings, help to cool the space and may reduce the need for air conditioning during the winter months.

These guidelines work on the basis of the most beneficial cooling breezes being, in order of priority: west, north-west and south-west.

#### Mandatory Requirements

- ✎ Offices must have windows with 50% openable area on all external walls to allow breeze paths to remove heat buildup overnight.
- ✎ Shading is required to all glazing with a MINIMUM projection of 900mm from glazing line.

#### Design Recommendations

- ✎ Use natural ventilation instead of Air Conditioning whenever possible.
- ✎ Locate smaller openings to the windward side of the building, with larger openings on the downwind side. This will ensure the optimal breeze intake into your building.
- ✎ Provide multiple breeze openings to office and workshop spaces.
- ✎ Select appropriate window types to maximise breezes - louvres are better than awning type windows.
- ✎ Provide night-time ventilation/flushing (night purging of hot air) - either manual or automated (eg. install security screens in conjunction with 'hold-open' devices).
- ✎ All office spaces to have one ceiling fan per 20m<sup>2</sup>, with a minimum of one per office.

### 3.7 ROOFING & CLADDING MATERIAL

#### Mandatory Requirement

- ✎ Roof sheeting colours must have a solar absorptency rating of less than 0.55.

#### Design Recommendations

Paler colours reduce heat gain on the interior of buildings, minimising loads on mechanical cooling devices and saving on energy costs.

- ✎ Very light coloured roofing materials with a solar absorptency of less than 0.35, as classified in the BCA, is encouraged (ie. Classic Cream, Surfmist, Paperbark, Evening Haze, Shale Grey, Sandbank, Dune).
- ✎ Zinalume is allowed on the roof only, but designers should take note of glare and reflectivity concerns for adjoining neighbours, and vehicle/pedestrians.

### 3.8 AIR CONDITIONING

#### Design Recommendations

- ✎ If installing an air-conditioning system, inverter split systems are encouraged.
- ✎ All air conditioning systems shall have a minimum energy rating of 5 stars and be sized to match the conditioned space.
- ✎ Consideration should be made to zoning so that parts of the office that aren't being used can be closed off and only air-conditioned when in use. eg lunch room, meeting room.

# 4. BUILT FORM CONTROLS

## FORM

Offices should keep the building and roof form as simple as possible. The Broome building typology is a simple direct response to the climate - large roof forms, deep shading via verandahs or eaves and easy access to breezes through the interior.

### Design Recommendations

- Detailed shading devices such as lattice screens, adjustable awnings, timber battens and steel mesh.
- Simple roof forms – multiple small roofs, feature gables etc are to be avoided.
- Building roofs should be vented via products such as e-vents, or gable venting. Ensure that the gable end is facing the correct orientation, and that deep roof overhangs ensure no rain penetration into roof space during the wet season.
- Deep verandahs are encouraged for the street frontage of office buildings.
- A well ventilated and shaded outdoor staff break out space to be provided adjacent to the building.

## 4.1 CAR PARKING

### Mandatory Requirements

- Parking to be on the side or rear of the lot. A limit of 2 parking bays may be provided within the building setback area.

The number of car parking bays required will be in accordance with the Local Authority Scheme Text.

### Design Recommendations

Roadways and parking within a development must be planned to achieve the following:

- Separation of service/haulage vehicles from visitor and staff parking areas.
- Provide clear paths for pedestrian movement separate from areas of frequent vehicular movement.

## 4.2 EXTERNAL SERVICE & STORAGE AREAS

### Mandatory Requirements

- Service, storage and bin areas must be screened from the street.

## 4.3 FENCING

### Mandatory Requirements

- Security fencing is permitted along side and rear

boundaries. Black PVC coated galvanised link mesh fencing with black support members is encouraged.

- Where street front security fencing is required, it must be limited to a minimum.

### Design Recommendations

- The building should be designed to become part of the security fencing solution.

## 4.4 LANDSCAPING

### Mandatory Requirement

The following mandatory requirements must be addressed by purchasers:

- A landscaping plan is required to be submitted with plans for development approval detailing plant types, number, irrigation and mulch type.
- Plant species selected must comprise of 50% or more local native species.

### Design Recommendations

- A minimum 3m landscaping strip should be provided to any primary frontage.
- A minimum of two shade trees should be included in the primary frontage landscaping.
- Landowners and developers should use, where available, topsoil and mulch from stockpiles on the estate.
- Landscaping installed by owners/occupiers should continue the landscaping theme and character of the area.
- To retain the benefits of good quality landscaping, it is essential that maintenance is carried out regularly by a qualified landscape professional to both verge and lot areas.

## 4.5 SIGNAGE

### Design Recommendations

- Signs attached to the buildings shall be designed to be an integrated part of the building, eg recessed into the facade, fascia or awning.
- One free standing or composite sign only per lot.
- Where multiple occupancy is proposed, the composite sign may have one panel per occupancy.
- Signage location to be clearly noted on all elevation drawings and detailed.



# 5. APPENDIX A - CHECKLIST

**ALL PLANNING/ EVALUATION ISSUES INCLUDED IN THIS CHECKLIST ARE MANDATORY REQUIREMENTS (NOVEMBER 2011)**

| APPLICANT:   |                          | LOT NO:              |          |
|--|--------------------------|----------------------|----------|
| planning/evaluation issue                            | applicant compliance Y/N | Shire compliance Y/N | comments |
| <b>BUILT FORM CHARACTER &amp; DETAIL</b>             |                          |                      |          |
| Front elevation addresses the street                 |                          |                      |          |
| Main entrance to front of building, covered entry    |                          |                      |          |
| <b>SITE COVERAGE/PLOT COVERAGE</b>                   |                          |                      |          |
| Complies with TPS 4                                  |                          |                      |          |
| <b>BUILDING SETBACKS &amp; LOCATION</b>              |                          |                      |          |
| Complies with TPS 4                                  |                          |                      |          |
| <b>LANDSCAPING</b>                                   |                          |                      |          |
| Landscaping plan (min 50% local native plants)       |                          |                      |          |
| Programmable efficient irrigation system             |                          |                      |          |
| <b>ROOFING AND CLADDING MATERIALS</b>                |                          |                      |          |
| Less than 0.55 solar absorbency                      |                          |                      |          |
| <b>LIGHT POLLUTION</b>                               |                          |                      |          |
| No light spill above the horizontal plane            |                          |                      |          |
| <b>AIR CONDITIONING</b>                              |                          |                      |          |
| Inverter Split System, 5 star energy rating          |                          |                      |          |
| <b>CAR PARKING</b>                                   |                          |                      |          |
| Separate service & visitor/staff parking             |                          |                      |          |
| Separate pedestrian paths                            |                          |                      |          |
| <b>EXTERNAL SERVICE &amp; STORAGE AREA</b>           |                          |                      |          |
| Screened bin store & service areas                   |                          |                      |          |
| <b>FENCING</b>                                       |                          |                      |          |
| Use permeable fencing eg. black PVC coated link mesh |                          |                      |          |
| <b>PLANT &amp; EQUIPMENT</b>                         |                          |                      |          |
| Screened or out of view                              |                          |                      |          |

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