



CONTEMPORARY HOUSES

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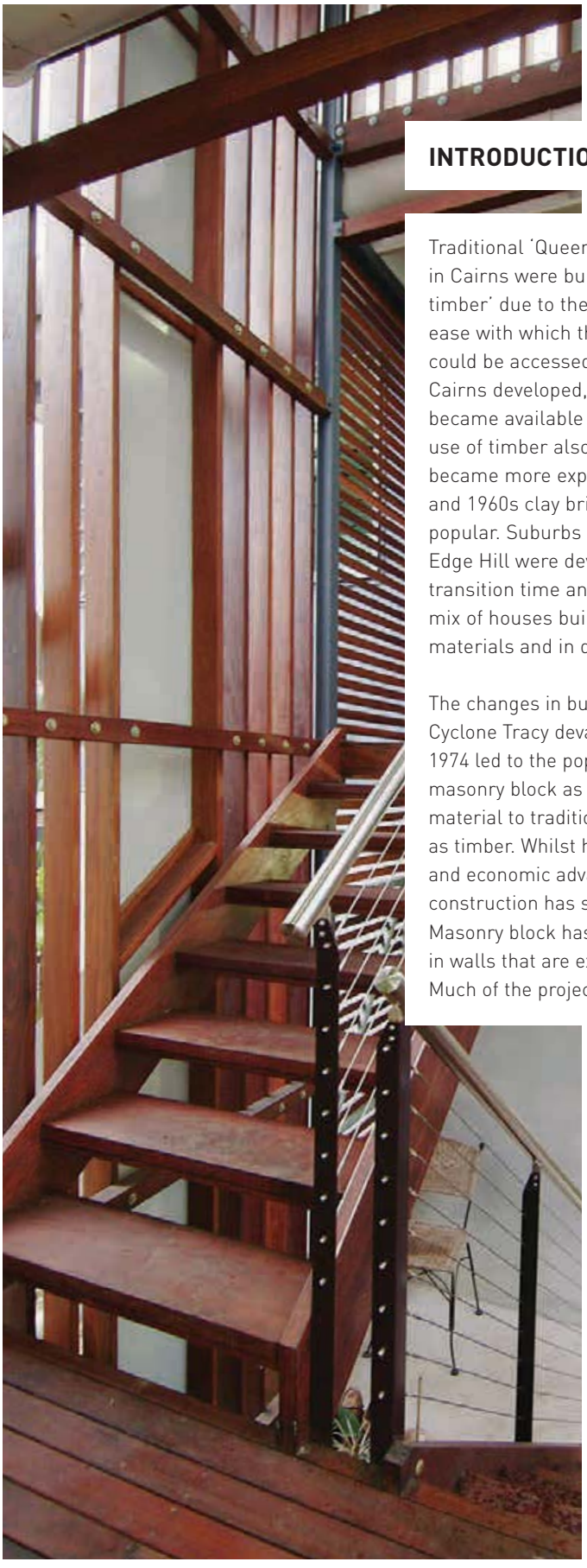
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INTRODUCTION

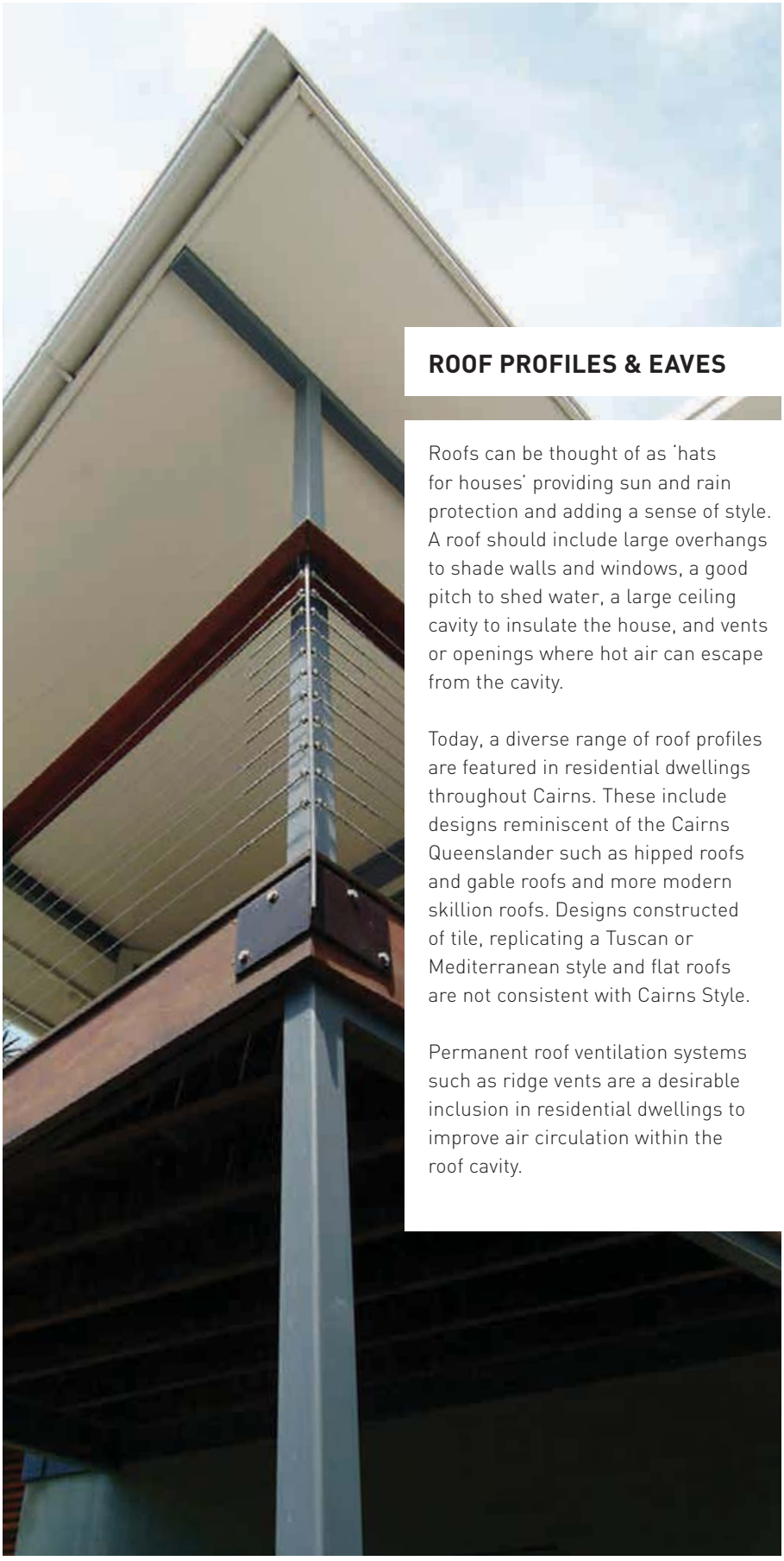
Traditional 'Queenslander' houses in Cairns were built from 'tin & timber' due to the cheap cost and ease with which these materials could be accessed. As the economy of Cairns developed, different materials became available and popular. The use of timber also decreased as it became more expensive. In the 1950s and 1960s clay brick became more popular. Suburbs such as Whitfield and Edge Hill were developed during this transition time and have an interesting mix of houses built out of different materials and in different styles.

The changes in building codes after Cyclone Tracy devastated Darwin in 1974 led to the popularity of concrete masonry block as a preferred building material to traditional materials such as timber. Whilst having practical and economic advantages, block construction has some disadvantages. Masonry block has high heat retention in walls that are exposed to the sun. Much of the project style housing developed throughout the 1980s and 1990s used masonry block, negatively impacting on the regional character and creating a dependance on mechanical cooling. Contemporary houses should not 'copy' or 'mimic' old houses. It is essential that contemporary houses interpret the key features and design elements found in the older buildings in contemporary ways.

Recently, building designers and architects have returned to traditional materials reminiscent of traditional Cairns architecture such as mini orb, timber cladding, louvres, batten screening and window hoods and this is desirable. Through the inclusion of these traditional materials, elements that contribute to a liveable dwelling and a recognisable Cairns Style can be continued and the region's style can be strengthened.



Roofs can be thought of as 'hats for houses' providing sun and rain protection and adding a sense of style.



ROOF PROFILES & EAVES

Roofs can be thought of as 'hats for houses' providing sun and rain protection and adding a sense of style. A roof should include large overhangs to shade walls and windows, a good pitch to shed water, a large ceiling cavity to insulate the house, and vents or openings where hot air can escape from the cavity.

Today, a diverse range of roof profiles are featured in residential dwellings throughout Cairns. These include designs reminiscent of the Cairns Queenslander such as hipped roofs and gable roofs and more modern skillion roofs. Designs constructed of tile, replicating a Tuscan or Mediterranean style and flat roofs are not consistent with Cairns Style.

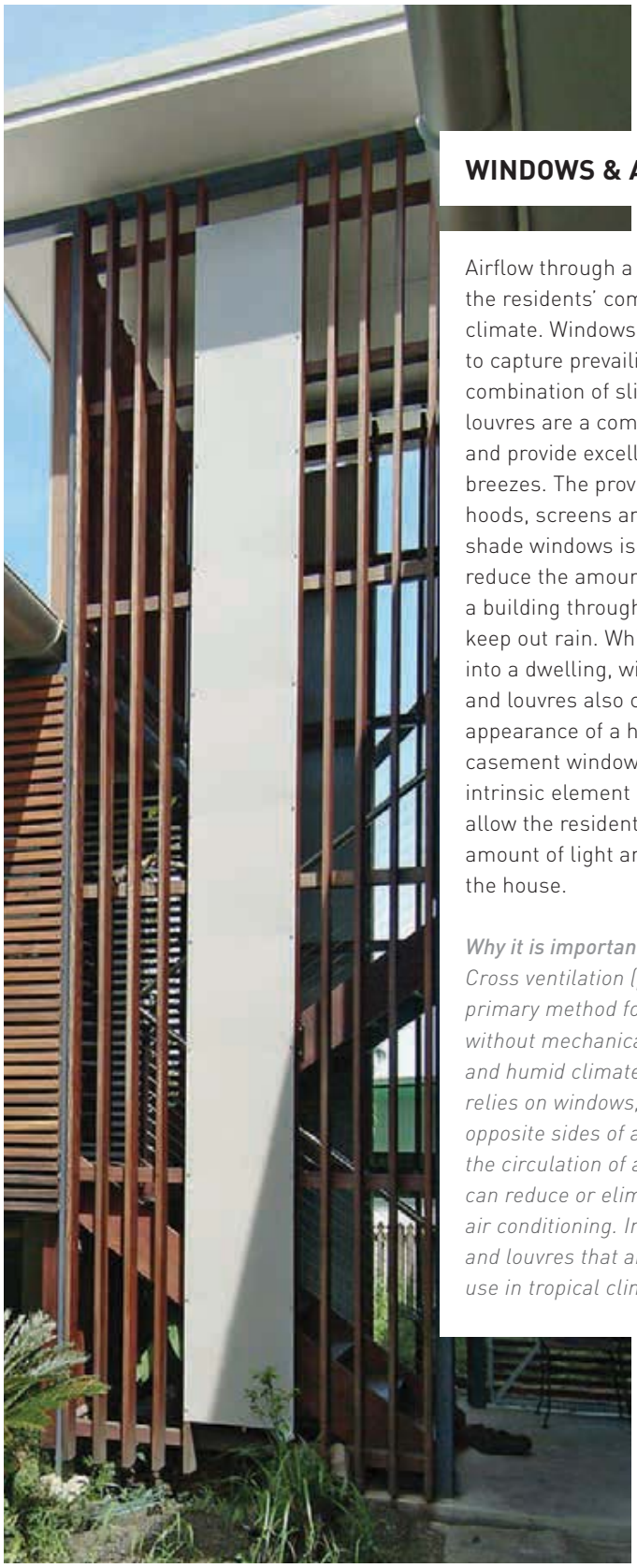
Permanent roof ventilation systems such as ridge vents are a desirable inclusion in residential dwellings to improve air circulation within the roof cavity.

Why is it important

Roof profiles contribute significantly to the character of dwellings and have a major bearing on the pattern of the streetscape. Gable and hipped roofs create large cavities of roof space, which provide insulation against heat transfer from the roof to the rooms below. It has been acknowledged in recent years that larger eaves contribute to improved liveability of dwellings as they assist in reducing internal heat loads by protecting walls from direct sun and provide protection to open windows from rain.

How to do it

- *Include roof ventilators at the highest point of the roof and vented gables to assist in cooling the roof cavity.*
- *Incorporate wide eaves (at least 800mm) to shade exterior walls and windows.*
- *Incorporate pitched roofs to maximise the size of the roof cavity.*



WINDOWS & AWNINGS

Airflow through a dwelling is key to the residents' comfort in our tropical climate. Windows that can be angled to capture prevailing breezes, or a combination of sliding windows and louvres are a common design response and provide excellent access to cooling breezes. The provision of window hoods, screens and wide eaves to shade windows is an effective way to reduce the amount of heat entering a building through windows, and to keep out rain. While allowing breezes into a dwelling, windows, awnings and louvres also contribute to the appearance of a house. Louvres and casement windows in particular are an intrinsic element of Cairns Style and allow the resident to vary the amount of light and breeze entering the house.

Why it is important

Cross ventilation (passive cooling) is the primary method for cooling buildings without mechanical assistance in hot and humid climates. Cross ventilation relies on windows, doors or vents on opposite sides of a building to facilitate the circulation of air. Passive cooling can reduce or eliminate the need for air conditioning. Incorporating windows and louvres that are designed for use in tropical climates and reflect traditional responses will not only assist in the passive cooling of a house but strengthen the region's style.

How to do it

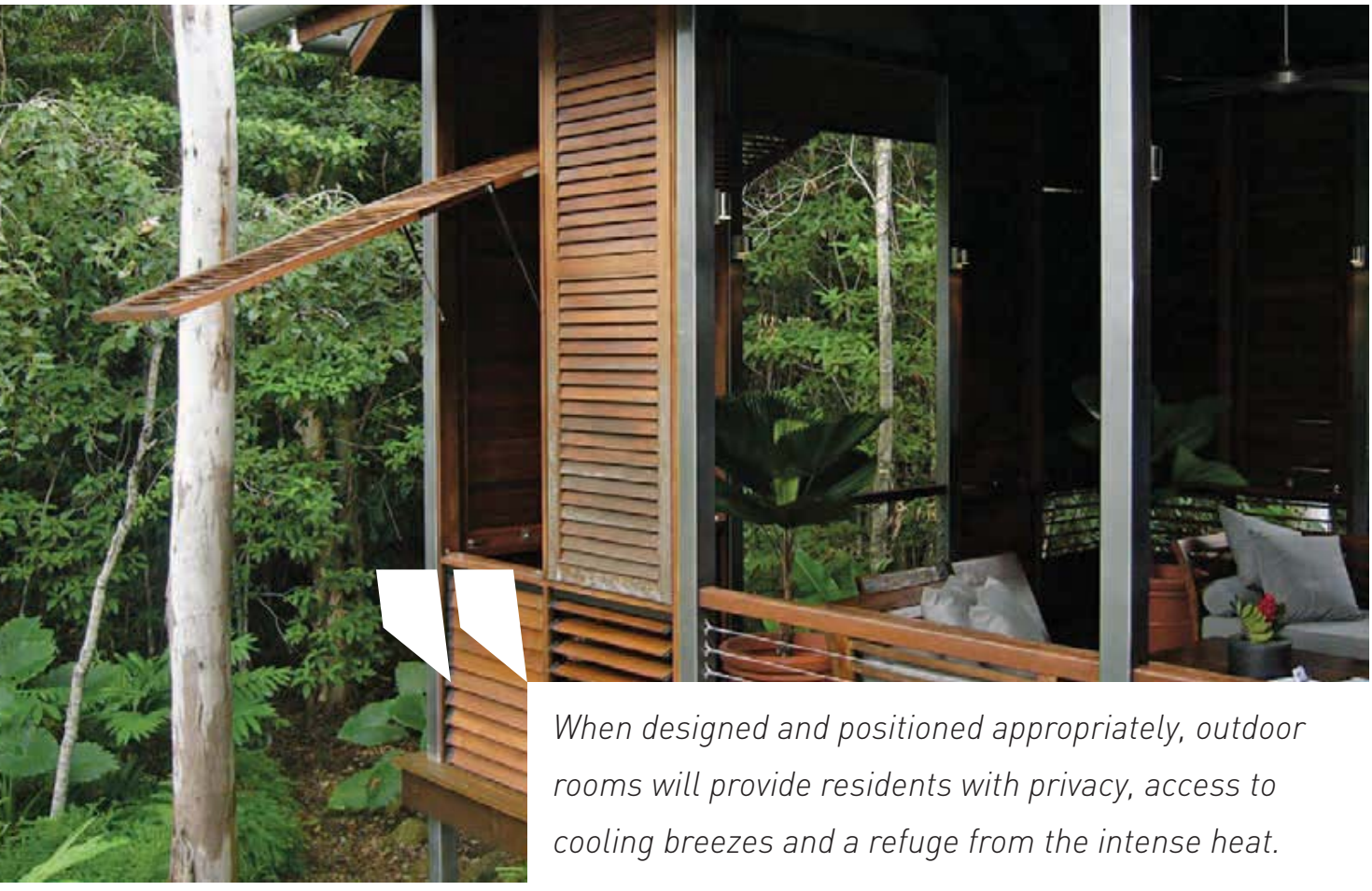
- *Incorporate windows such as louvres and casements that can be opened to catch and direct breeze.*
- *Provide window hoods or wide eaves to provide shade and protection from rain to all window openings.*
- *Design dwellings to incorporate openings in opposing walls to promote cross ventilation.*
- *Consider the orientation of the building and avoid positioning large areas of glass along the western aspect of buildings.*
- *Maximise the number of south-east and north-east orientated windows to capture the prevailing south-easterly and north-easterly breezes.*











When designed and positioned appropriately, outdoor rooms will provide residents with privacy, access to cooling breezes and a refuge from the intense heat.



OUTDOOR ROOMS

Verandahs are a significant architectural element of Cairns Queenslanders. This design element has been carried through to contemporary residential dwellings in the form of outdoor rooms that are often referred to as balconies, patios or outdoor entertainment areas. Traditionally, the verandah was located at the front and side of Queenslanders.

The contemporary response is to include these areas at the rear of the property to provide residents with privacy.

This is unfortunate because front verandahs contribute to a safer street and assist residents to make neighbourhoods more social and secure by providing opportunities for casual interaction and passive surveillance.

Why it is important

When designed and positioned appropriately, outdoor rooms will provide residents with privacy, access to cooling breezes and a refuge from the intense heat and wet season deluge associated with the tropical climate. Well designed outdoor rooms provide for year-round outdoor living.

How to do it

- *Include ceiling fans to make the area more attractive and functional in the summer months.*
- *Consider summer sun positions and access to cooling breezes when designing your dwelling.*
- *Ensure ceiling heights are comparable to internal living spaces to avoid a sense of enclosure.*

Tips

- *Insulate roofs to increase the functionality of the space throughout the year.*
- *Avoid locating air conditioning units on or adjacent to outdoor rooms as this greatly reduces the liveability of the area.*
- *Locating balconies at the front of dwellings increases opportunities for passive surveillance of the street, and increases social opportunity in the street.*
- *Ensure outdoor rooms have an area large enough to provide protection from the weather and to contain tables and chairs and other furnishings.*
- *A minimum dimension of four metres should be used as a guide to a minimum useable space to contain pot plans, planter boxes and furniture.*
- *Incorporate screening or dense vegetation to shade outdoor areas and provide privacy where necessary.*



Light and bright colours reflect the heat, contrast well with building shadows and green tropical foliage, and provide visual relief during extended overcast periods.



COLOURS

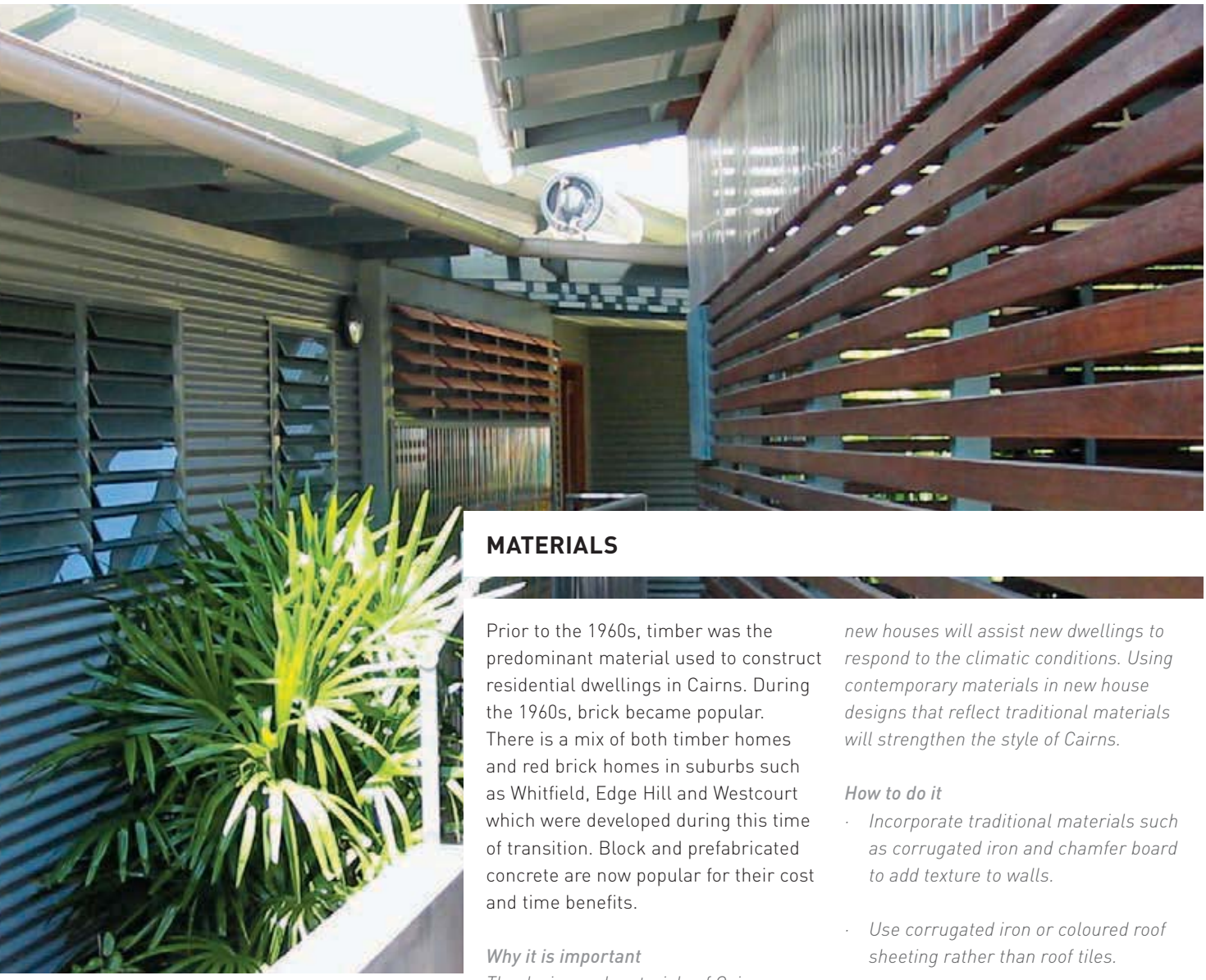
Traditional Cairns colours are simple, light and bright and are a popular choice for housing in Cairns and other tropical areas. Light and bright colours reflect the heat, contrast well with building shadows and green tropical foliage, and provide visual relief during extended overcast periods. In recent years in Cairns there has been a trend toward darker colours derived from contemporary design in colder climates. These darker colour schemes are not consistent with Cairns' history and detract from the tropical style of Cairns.

Why it is important

The tropical image of Cairns is strengthened by a vibrant and memorable palette of colours and materials taking cues from the surrounding natural environment. Variations of light and bright colours such as blues, purples and greens look attractive in the bright winter sunlight and can be uplifting in the wet season.

How to do it

- *Choose light colours to reflect heat.*
- *Use trim colours to create interest and emphasise architectural features.*
- *In hillslope areas light coloured external surfaces, especially roofs, can overpower the surrounding landscape, and are not supported under Council's Hillslopes Code.*
- *When in a hillslope area use non reflective colours that are finished in a low contrast that blends with the surrounding vegetation and landscape. This will ensure the visual amenity quality of the hillslope is retained.*



MATERIALS

Prior to the 1960s, timber was the predominant material used to construct residential dwellings in Cairns. During the 1960s, brick became popular. There is a mix of both timber homes and red brick homes in suburbs such as Whitfield, Edge Hill and Westcourt which were developed during this time of transition. Block and prefabricated concrete are now popular for their cost and time benefits.

Why it is important

The design and materials of Cairns Queenslanders evolved as a response to the local climate. Large numbers of contemporary dwellings in new subdivisions fail to incorporate traditional design solutions and materials, instead relying on mechanical cooling to provide comfort to residents throughout the summer months. Running air conditioners has financial costs to the resident and environmental costs through increased energy consumption and subsequent greenhouse gas emissions. Incorporating traditional design ideas in new houses will assist new dwellings to respond to the climatic conditions. Using contemporary materials in new house designs that reflect traditional materials will strengthen the style of Cairns.

How to do it

- *Incorporate traditional materials such as corrugated iron and chamfer board to add texture to walls.*
- *Use corrugated iron or coloured roof sheeting rather than roof tiles.*
- *When using new materials, consider products that complement the traditional appearance and form of traditional materials.*
- *Render block walls and paint in light and bright colours. Appropriate colours are discussed in the section on colours.*
- *Use timber batten screens to improve privacy and add texture and visual interest to your house.*

FENCES

Front fences can enhance or spoil a streetscape. Fences should be low and contribute to the aesthetics of a dwelling. They should allow the passer-by to see into the front yard and view the house. There are many examples throughout the region of 1.8 metre (6 foot) timber and masonry front fences erected to the detriment of the streetscape. These streetscapes or 'fencescapes' are unsightly, uninteresting and uninviting for users of the street. Often, contemporary residential dwellings do not feature front fences, instead delineating the line between private and public space with tropical landscaping. This is a desirable outcome as it creates visually striking, interesting and inviting streetscapes of lush street frontages consisting of colourful and attractive vegetation.

Why it is important

Fences that are low and provide a visual connection between the street and the front of the house encourage social interaction between residents working in their gardens, passers by and allow passive surveillance of the street by residents creating safer communities.

How to do it

- *Plant a front garden to provide privacy and delineate the front boundary.*
- *Construct a low, visually permeable front fence where required.*
- *1.8 metre (6 foot) fences should be avoided on the front boundary as this greatly reduces the view of the house and has negative impacts on the streetscape.*
- *Where a 1.8 metre (6 foot) fence is required, the fence should have high transparency to ensure it does not detract from the streetscape.*
- *Effective landscaping is also a way to maintain privacy and amenity on smaller fences whilst not detracting from the streetscape.*







'Streets can often appear as just a series of garages, as though the street is really home to cars rather than people...' **The National Office of Local Government**



GARAGES

Modern streetscapes are frequently dominated by garages which can consume as much as 50% of the width of the property. Streetscapes dominated by the flat, blank faces of garages are uninteresting and unfriendly. This is a stark contrast to the texture and variety of traditional streetscapes which present inviting front stairs, verandahs and bay windows.

How to do it

- *Set the garage back beyond the front face of the dwelling. The most prominent feature of the house front should be the entry to the house - not the garage.*
- *Locate the garage at the side or rear with a single access. This has added benefits of maintaining access to the rear of the property for boats, caravans and other vehicles.*
- *Locate the garage under the house in two storey houses and screen it from the street.*
- *Use lightweight screens and battens to create an open, lightweight appearance.*
- *Reduce the width of the driveway at the street to reduce the visual impact.*

