RESHAPING OUR REGION’S PLANNING

YOUR
CLIMATE SMART
LIVING GUIDELINE

Moreton Bay
Regional Council
The rise of the ‘pre-designed home’ is resulting in houses that can be cheaper to build, but more expensive to live in over a longer period. These houses can also be less private and have little to no yard space for children to play or for outdoor entertaining.

Whilst ‘pre-designed homes’ can exhibit good internal layouts and design features, not all ‘pre-designed homes’ are suited to every block’s direction, size, shape, slope, breezes, and consider your neighbour’s house from a privacy perspective. However, with some small, simple tweaks a standard ‘pre-designed home’ can become ‘your home’.

You don’t always need a customised home, and for many this can be an unaffordable option, but with the help of this guideline you can build a better home.

A HOME THAT’S BETTER FOR YOU AND BETTER FOR THE MORETON BAY REGION.

If you are asking yourself the following, then the Reshaping our Region’s Planning guidelines are for you:
- Is my house designed with my privacy in mind?
- Will my air conditioning and heating costs be very high, or will my windows let in cooling breezes and warming natural light?
- Is there space so I can plant a tree or grow some vegetables?
- Is there enough space for me to have my friends over for a BBQ and where will they park their cars?
- Will my home be close to shops, cafes, parks, schools and my workplace or will it become expensive to drive my car all the time?

These are great questions to ask your builder or house designer.

We respectfully acknowledge the Traditional Country across our region. We also acknowledge and pay our respects to the Kabi Kabi, Jinibara and Turrbal Traditional Custodians, and their elders past, present and emerging.

Disclaimer:
1. This guideline is not a statutory document. It has been prepared as a tool to assist homeowners, designers and developers to improve the design and quality of Next Generation housing in Moreton Bay.
2. Images, graphics and other illustrations depicted in this guideline are for demonstration purposes only and are not intended to represent a specific design or existing house.
3. The specific circumstances of your chosen home design, lot and personal needs should be considered alongside design principles described in this document.
4. Submission of a development application, copying or recreating any design from the examples or illustrations in this guideline does not guarantee approval. Each development application should consider site specific elements and constraints along with street and neighbourhood context. Each application is assessed on individual merit against statutory planning and building assessment provisions.

Reshaping Our Region’s Planning
Your Climate Smart Living Guideline
Revision 1.0
Commenced November 2021
The Moreton Bay Region is located in the "humid subtropical zone". Our subtropical climate allows us to experience hot and humid summers, mild winters, and plenty of sun all year round. Our climate allows us to spend a lot of time outdoors comfortably, which means we can have more access to nature, water and green plant life.

You can design your house to make the most of the natural daylight, cooling breezes and the dappled shade of tall trees, allowing you to make the most of the beautiful region we live in.

A Climate Smart home means that you can enjoy cooling breezes and warming natural light. You can design your home for maximum comfort inside and outside, while saving money on construction and bills. This guide will give you tips to improve your current home, to help you select the best home to buy, building a new home, or adjusting a "pre-designed home" standard design.

For extra environmental tips, refer to Reshaping Our Region's Planning: Your Next Generation Home Guideline.

WHAT DOES IT MEAN TO LIVE CLIMATE SMART?

WORK WITH THE LOCATION OF YOUR HOUSE TO MAKE IT MORE COMFORTABLE.

Starting in the "right direction" is the most important step in creating a climate smart home; it’s about orienting your house on your block so that it can improve your comfort and reduce your energy consumption by letting in light, controlling heat and capturing breezes.

The orientation of your home is important on any sized block. The effects of poor orientation are particularly experienced on blocks under 600 square meters; for more tips for these blocks read Reshaping Our Region’s Planning: Your Next Generation Home Guideline.

Create a home appropriate for our "subtropical" living.
YOUR HOUSE ON YOUR BLOCK
Locate where north, east, south and west are on your block. You can use a compass app on a phone or check your block’s survey plan to help you. This will help you decide the best location for the rooms in your house based on the sun and breezes.

YOUR LIVING AREAS
Your living areas are best placed on the north and east side of your house. The sun rises in the east and is cooler in the morning, so it will keep your house cooler.

HOT AFTERNOON SUN
The afternoon sun comes from the west and can be very hot. You should place rooms on this side of your house that don’t need large windows such as bathrooms, laundries and the sides of garages. Make sure that you extend your roof over the western side (this is called an eave) for extra shade.

LET THE BREEZES FLOW
If possible, separate your house from your neighbours to encourage breezes to flow between and into your house. On narrow blocks build your house as narrow as possible to separate your house (known as a ‘side setback’). This will also give you more privacy in your home.

NO MATTER HOW YOUR LOT IS ORIENTED, YOU CAN DESIGN YOUR HOUSE SO THAT IT IS COMFORTABLE FOR THE MORETON BAY CLIMATE

YOUR LIVING AREAS
Position your living areas facing north with large windows and doors. Reduce your windows and increase the size of your eaves on the west.

The morning sun warms the east face of your home. Consider bedrooms, dining and kitchen areas to the east.

In the afternoon the eastern face is shaded, cooling your home.

Always add appropriate shade to your living areas on the west that face the street.

Legend
- Living areas, indoor and outdoor
- Wet areas, storage areas
- Bedrooms, dining area, kitchen
- Bedrooms, storage, utility, wet areas
**TIPS FOR RENOVATING YOUR HOME**

1. **SMART WINDOW LOCATIONS**
   Maximise your windows on your east facing walls, where you can capture breezes and the cooler morning sun. If you have large windows on any west facing walls, these can be shaded by trees or window shades, reduced in size or placed higher up where they can be better shaded by your eaves.

2. **SWAP IT FOR COMFORT**
   If needed, swap rooms to ensure you can be comfortable all year in your bedrooms and living areas.

3. **CAPTURE THAT BREEZE**
   Consider the direction of cooling breezes and capture these with new windows, louvres, doors and balconies.

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**SWAP IT FOR COMFORT**

Before (left); After (right): By swapping the laundry and the courtyard, your house maintains the same floor area, while improving the ability to reduce the sun’s impact.

Before renovation: Rooms on the north-west experience the most heat from the sun, all year long. Your house would be very uncomfortable and hot.

After renovation: Extending your eaves to the north and the west cools your rooms by reducing the impact of the sun at midday and in the afternoon which is the hottest part of the day.

After renovation: Morning sun is partially shaded on your patio.

After renovation: Afternoon sun is shaded on your patio to help cool your home.
MAXIMISE THE ADVANTAGES OF SHADING YOUR HOME.

Reduce direct sun by using trees, eaves, window shades and constructed shelters to shade your house. Cooling is innately more difficult than heating, and it requires significantly more energy to actively cool (such as air conditioning) your house than to actively heat.

ENTERTAIN IN THE SHADE
Extend your roof over your patio, deck and other outdoor entertainment spaces so that they can be shaded, and useable all year round, in any weather.

KEEP IT GREEN
Keep as many trees as possible on your block to naturally shade your house. It’s easier to use an existing tree rather than waiting for a new tree to grow.

SHADE FOR YOUR CAR
Open up your garage with windows and open sides. This will reduce heat in your ceiling cavity, which is transferred from your car into your house.
THERE ARE MANY WAYS YOU CAN SHADE YOUR HOME, TO ENSURE MAXIMUM COMFORT INSIDE AND OUTSIDE.

SHADE FOR YOUR CAR
Opening up a conventional garage keeps the car’s heat out of the house, which is often transferred through the roof space.

Not desirable:
Consider something different to a conventional garage.

More desirable:
Create a separate roof for your garage, this can be located where a conventional garage would normally sit.

ENTERTAIN IN THE SHADE
A verandah provides many benefits by cooling your house and providing a comfortable outdoor living space.
We can take our daily activities outside more frequently and more easily due to the sunny and pleasant climate in our region.

By blurring the boundary between the indoors and outdoors with integrated living areas, we extend the flexibility and comfort of our homes. Combine the inside and outside spaces of your home to savour the lifestyle that is healthy for you and the environment.

**TIPS FOR RENOVATING YOUR HOME**

1. **SOFT SURROUNDINGS**
   Narrow your concrete driveways and build shelters over patios to avoid the heat of these hard surfaces reflecting into your house.

2. **YOUR OWN SHADE**
   Add external window awnings and plant shade trees to shade windows, particularly on the north and west facades.

**CREATE SHADE**
Multiple shading devices can be used throughout your home, suitable for the orientation and the use of the area being shaded.
TIPS FOR DESIGNING YOUR NEW HOME

1. YOUR OUTDOOR LIVING
   Design where your rooms go so that you can easily move between the outdoor and indoor spaces to take advantage of the Moreton Bay climate. For example, place the kitchen near a balcony so you can cater in an outdoor entertainment space.

2. OPEN UP TO THE OUTDOORS
   Build larger windows and doors that open up into outdoor entertainment spaces so that you can capture breezes and embrace the ‘subtropical’ lifestyle.

3. SPACE TO ENTERTAIN OUTSIDE
   Consider the size of your outdoor entertainment areas, so that they are useable. Create enough space for a table with chairs either side, and enough room for both adults to entertain and children to play.

EASY MOVING
Consider the movement between inside and outside to make it easier moving around for day-to-day activities such as hanging laundry and bringing in the groceries.

– Ensure the main entry is visible from the street so your visitors feel comfortable arriving;
– Plan the path of travel from the driveway/garage so that you can easily enter your home or bring groceries in from your car; and
– Consider the placement of your laundry and how you can get to the outdoor drying area.

LET THE SUNSHINE IN
Make your outdoor spaces - living spaces with entertainment areas, sheltered dining, recreation space, trees and plants.
TIPS FOR RENOVATING YOUR HOME

1. LET THE SUNSHINE IN
Create or add large windows and doors between indoor and outdoor living areas to create a flow for breezes and light between these spaces.

2. GREEN RELIEF
Plant flowering plants or edible plants and make the most of your outdoor space.

OUTDOOR LIVING
You can make simple changes to improve your indoor/outdoor lifestyle, such as: larger windows and doors, swap windows with doors, larger external living space and relocate windows to improve privacy.

Before renovation

After renovation
THE COMFORTS AND BENEFITS OF CLIMATE-FRIENDLY LIVING

Make the most of natural cooling breezes and daylight to all rooms in your house.

HIGHER CEILINGS FOR FRESH AIR
Consider building a tall angular roof (also known as a skillion roof) on your house. Your indoor spaces can take advantage of the higher ceilings to take in breezes through high windows, air vents and louvres.

NATURAL LIGHT UP TOP
Build some windows above the standard window height just below your house’s eaves; these are known as Clerestory windows and they allow additional light to enter your house.

OPEN UP
Keep your house plan as “open” as possible by avoiding walls where they aren’t needed to encourage breezes to flow through your house.
NATURAL LIGHT
Clerestory windows are windows located above your standard ceiling height, allowing for additional light to enter your house, while being sheltered by your eaves.

LARGE WINDOWS FOR NATURAL LIGHT
Placement of large windows and doors increases the natural light inside.

Clerestory windows allow for additional light to enter while being sheltered by eaves.

Placement of large windows and doors increases the natural light inside.

TOOWONG RESIDENCE. ARCHITECT: KIN ARCHITECTS. PHOTOGRAPHER: CHRISTOPHER FREDERICK JONES

ASHGROVE HOUSE. ARCHITECT: BLISH GRAHAM ARCHITECTS. PHOTOGRAPHER: SCOTT BURROWS.

EMBRACE THE CLIMATE
TIPS FOR RENOVATING YOUR HOME

1. OPEN YOUR GARAGE
Remove walls to your garage, and add windows on one or more sides to naturally ventilate the area.

2. I’M A FAN OF COMFORT
Place ceiling fans to improve air circulation, inside and outside of your home. Additional air circulation can make a space more comfortable, particularly where there is less access to natural breezes.

3. TAKE A SPIN
Add mechanical roof ventilation such as ‘whirlybirds’ to reduce hot air in the ceiling cavity, helping to cool the home throughout the day.

Fans, louvres and roof ventilation allow hot air to escape your house.

ENHANCE THE APPEARANCE AND PERFORMANCE OF YOUR HOME

The structure of your home can incorporate physical and visual elements that can be beneficial to year-round comfort. Using building and landscaping materials that suit the subtropical climate improves the quality and lifestyle you experience in your house.
**TIPS FOR DESIGNING YOUR NEW HOME**

1. **LIGHT AND BRIGHT**
   Choose a light colour scheme for your roof, exterior walls, driveway and any concrete in your outdoor spaces. Lighter colours reflect the heat from the sun, darker coloured finishes contribute to higher temperatures inside your house.

2. **COOL MATERIALS**
   Choose lightweight building materials such as timber and fibre cement rather than brick and tile for your external finishes. Use lightweight material for decking, balustrades and fencing such as natural and composite timbers, fibre cement and metal alloys. Lightweight materials don’t get as hot, making your house cooler and more comfortable.

**TIPS FOR RENOVATING YOUR HOME**

1. **IN WITH THE NEW**
   Many homes can have older insulation products that are less effective at providing a thermal barrier between the inside and outside. Replacing old insulation with newer products will improve the thermal comfort of your home.

2. **SAVE WITH SOLAR**
   Add photovoltaic solar panels for electricity or solar heated hot water to your home. Solar panels provide benefits for the home, budget and for the environment.

3. **ABSORB WATER**
   Choose outdoor paving that ‘absorbs’ water (known as ‘permeable paving’ and ‘porous surfaces’) rather than concrete or tiles. This sort of paving can reduce surface temperatures and is better for the environment.

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**COOL MATERIALS**

Bricks absorb the sun’s heat and take longer to release it at night

Light coloured roofing reflects the sun’s heat

Timber cladding does not trap as much heat

More desirable: You can raise your house and use timber and steel materials instead.

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**NOT DESIRABLE**

Bricks absorb the sun’s heat and take longer to release it at night

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**TIPS FOR DESIGNING YOUR NEW HOME**

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