

# Marina Village - Design Guidelines

## Omeo Edge Release

November 2022



*Live proud.*



PortCoogee

# Contents

## Introduction

About Port Coogee	1
Vision	2
About Design Guidelines	2
Relationship to Other Planning Instruments	3
Local Development Plan	4
Restrictive Covenants	4

## Approval Process

Design Assessment	5
Design Approval Coordinator – Design Committee	5
Application Fee	6
City of Cockburn	6

## The Place

Vision	7
--------	---

## General Guidelines

Architectural Character	8
Built Form, Heights and Setbacks	9
Elevations	9
Elevations – Corner Sites	10
Wall Materials	11
Roof Forms	12
Roof Materials	13
Roof Terraces	13
Doors and Windows	14
Open Space – Courtyards	14
Balustrades	15
Vehicular Access and Garages	15
Icon and Gateway Buildings	16
Activation of Laneways	17
Privacy	18
Noise – Sound Attenuation	18

## Planning Guidelines

Site Responsive	19
Passive Design Strategy	19
Wind	26

## Sustainability Guidelines

Energy Efficiency and Conservation	21
Water Efficiency and Conservation	24
Waste Management	26
Safe and Accessible Housing	27

## Services Guidelines

Retaining Walls	28
Recycling and General Waste Bins	28
Solar Collectors	28
TV/Radio Antennas	29
Air-Conditioning Units	29
External Lighting	29
Site Services	29
Verges, Driveways and Crossovers	30
Residential Fences	31

## Appendices

### Appendix A

Key Objectives/Mandatory Requirements Checklist	33
---	----

### Appendix B

Applicant Checklist	40
---------------------	----

### Appendix C

Residential Landscape Guidelines	41
WaterWise Guidelines	41
General Design of WaterWise Gardens	41
Improving Your Soil	42
Planting Designs	42
Lawn Selection Guide	43
Lawn Watering	43
Garden Bed Watering	43
Verge Reticulation	43

### Appendix D

Recommended Plant Species	44
---------------------------	----

# Introduction

## About Port Coogee

Port Coogee is an award-winning development unique across Australia in its scale, history, nature and location - a development that is significant for Frasers Property Australia nationally, with region-defining implications.

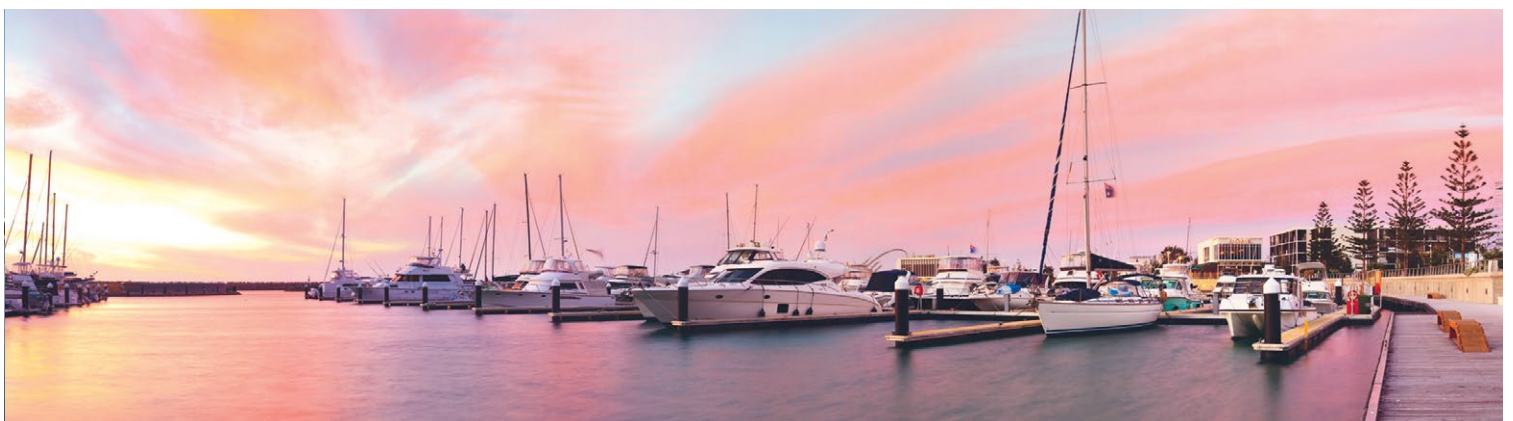
Located within the City of Cockburn on the coast of Cockburn Sound, approximately 23km south-west of the Perth CBD and 5km south of Fremantle, Port Coogee will become a home for more than 2,000 people and a thriving, modern community set within a coastal playground.

Port Coogee will be a high quality development with landscape and built-form architecture to match the best in Australia - from the streetscapes and landscaping - to the quality and design of the built form. All buildings will contribute positively to the character of Port Coogee.

Perth's temperate climate and Port Coogee's elevated lots, which enjoy fantastic views over the Marina and Indian Ocean, provide the key elements for a contemporary lifestyle of spacious, open-plan housing and outdoor living.

Port Coogee is a unique development opportunity that will create its own distinct identity, while becoming an iconic coastal node within the Perth Metropolitan Area.

Home designers are strongly encouraged to produce innovative, contemporary designs that will have minimal impact on neighbours and incorporate Environmentally Sustainable Design principles.



## Vision

Port Coogee presents a unique opportunity to create a new, vibrant, modern, water based coastal development that will be a place for the local community to live, work and play.

A contemporary coastal architectural character will be actively encouraged with modern sophisticated homes responding to a relaxed seaside lifestyle. The contemporary architecture will be strongly influenced by the special qualities of the site. These include the colours of the landscape, the topography of the development and the micro-climate, with the need for adjustable indoor/outdoor spaces to create a balance between privacy and transparency.

Frasers Property Australia will be creating a sustainable, new-built environment where each dwelling is to be designed and constructed in accordance with WaterWise and EnergySmart principles to ensure that water consumption and energy usage are minimised.

It is Frasers Property Australia's vision that the design advice outlined in these guidelines will create an integrated community that showcases contemporary housing with a distinctive 'coastal' character.

Not only will Port Coogee offer a lifestyle like no other, but also, a wise and profitable investment for the future.

## About Design Guidelines

These guidelines apply to the single house development lots in the Omeo Edge release of Port Coogee Marina Village. They are intended to provide a framework for design decisions by each new homeowner in order to create quality architectural outcomes that satisfy the Port Coogee vision. Prior to purchasing your land, it is important to familiarise yourself with these guidelines, the Port Coogee 'vision' and the implications on the type and cost of the home you build.

These guidelines have been prepared to ensure that your house and garden complement those of your neighbours, thereby producing a cohesive community with a distinct sense of place. As part of the Port Coogee community, it is essential that each dwelling contributes to the high standard of design expected throughout Port Coogee.

These design guidelines include some mandatory sustainable design provisions which must be addressed in the design and construction of each dwelling. Recommendations are also included for residents who wish to achieve an even higher level of environmental sustainability.



## Relationship to Other Planning Instruments

It is important for applicants to be aware that in addition to the requirements of these design guidelines, other development/design requirements apply. These design guidelines shall be read in conjunction with:

### City of Cockburn Town Planning Scheme No. 3 (TPS 3)

In the event of there being any inconsistency or conflict between any provision, requirement or standard of these design guidelines and TPS 3, TPS 3 shall prevail.

### Residential Design Codes

Residential density codes have not been allocated and will not apply within the Port Coogee Marina Village. Accordingly, land use and development will be guided by the provisions of the City of Cockburn TPS 3, the Marina Village Built Form Codes and these design guidelines, in all respects except where modified by an approved Local Development Plan. For clarification of definitions only, refer to the Residential Design Codes (SPP 7.3 Volume 1).

### Marina Village Built Form Codes (MVBFC)

The Marina Village Built Form Codes (MVBFC) have been adopted by the City of Cockburn under TPS 3. There are certain criteria of the MVBFC's that applies to single houses. This design criteria have been transferred into these Design Guidelines for completeness, however the applicant should familiarise themselves with 'The Place' component of the MVBFC regarding applicable context of the public realm, built form and design philosophy to be incorporated in their building design response.

In the event of there being any inconsistency or conflict between any provision, requirement or standard of these design guidelines and the MVBFCs, the MVBFCs shall prevail.

Applications for single house development are not required to be assessed by the Port Coogee Marina Village Design Review Panel (Design Review Panel), however the design assessment and approval process required of these design guidelines will apply to all applications for single houses.

*continued over page:*



## Local Development Plan (LDP)

A Local Development Plan (LDP) has been prepared for lots within the Port Coogee Marina Village Omeo Edge release to ensure appropriate development on these lots and to facilitate variations to the MVBFCs.

The City of Cockburn adopts LDP's under the provisions of TPS 3. The LDP will control such elements as specific design elements, building envelopes, parking and access, fencing, private open space and orientation of dwellings. In the event of there being any inconsistency or conflict between any provision, requirement or standard of these design guidelines and an approved LDP, the LDP shall prevail.

## National Construction Code (NCC)

All construction shall comply with the current National Construction Code (NCC) and all relevant Australian Standards.

## Restrictive Covenants

These guidelines include a number of mandatory requirements that will be incorporated into restrictive covenants conveyed with the Certificate of Title for each lot.



# Approval Process

## Design Assessment

The following information is to be submitted with your application. Any application that does not contain all the required information will not be assessed.


- a) **Siteplan**, 1:200 minimum showing dimensions, setbacks to all boundaries, original and proposed finished ground levels including retaining walls, lot boundaries, north point, location of all ancillary structures including bin stores, rainwater tank, AC units, drying courts, free standing storage enclosures, areas and open space calculations;
- b) **Floor plans**, 1:100 showing internal layouts including rooms, balconies, verandas, decks, windows and openings;
- c) **Elevations of all sides**, 1:100 indicating proposed building height from natural ground level and fencing details and the location of any solar panels and AC units;
- d) **Roof Plan**, 1:100 minimum; including roof detail, proposed external fixtures and minor projections. Plan shall demonstrate that no external fixtures will impede the viewline amenity from neighbours that overlook the roof of proposed development;
- e) **Section(s)**, 1:100 minimum where level change occurs across the site;
- f) **Landscape Plan**, 1:100 minimum;
- g) **Colour and Material Schedule**, including building materials and finishes proposed, external walls, roofing, pathways, driveways, crossover and fencing;
- h) **Contact Details** of nominated point of contact for the duration of the assessment;
- i) **Purchase date** of Port Coogee land;
- j) **Checklists 1 and 2**; mandatory criteria and recommended options.

It is strongly recommended that any prospective landowners liaise with the Design Approval Coordinator at the earliest opportunity of the development process to discuss the proposals and to facilitate compliance with the guidelines and approval of the house design.

## Design Approval Coordinator - Design Committee

In order to achieve the Port Coogee vision, a Design Approval Coordinator (DAC) has been appointed to assess and approve the house designs for compliance prior to submission to the City of Cockburn for Building Permit/Development Application.





The DAC may allow (but is not required to allow) variations to these guidelines on the basis of architectural and urban design merit at the discretion of the DAC. In the event of a variation approved by the DAC, the approved variations will not set a precedent nor imply that the approval will be repeated.

A Design Committee will be appointed by Frasers Property Australia to monitor the implementation of the Design Guidelines, hear appeals against the decision of the DAC and act as an arbitrator in the resolution of disputes.

## Application Fee

There is no assessment fee for the original application. Should the application not contain sufficient information or require alterations a \$550 fee (includes GST) will be required for each reassessment.

## City of Cockburn

Upon receiving approval from the DAC, a Development Application can be made to the City of Cockburn.

However, it should be noted that meeting the standards of these design guidelines and securing endorsement from the DAC does not constitute planning approval from the City of Cockburn and shall not prejudice its consideration of an application.







## The Place

The Marina Village is the centrepiece of the Port Coogee community.

Located on the waterfront, the Marina Village will provide a vibrant, diverse and sustainable focal point for its community. To realise this potential, the Marina Village requires a critical mass of activities including residential, retail, commercial, community and recreation. This mixed land use strategy will be contained within a high-quality built environment and is intended to encourage activation of the Village throughout the day and evening.

The vision for the Port Coogee Marina Village is to create a contemporary residential seaside village experience, where pedestrians have priority over vehicular traffic and are provided with a broad range of convenience and retail facilities in a marina environment, focusing on the waterfront and the public realm.

The character of the public realm will promote a diverse range of activities, creating a unique sense of place for the Marina Village's resident population. The people presence generated by a diverse mix of land uses, together with the utilisation of balconies and terraces will contribute to street activation, will engage residents with the Marina Village and contribute to the creation of a secure public realm.

The Marina Village will be a genuine coastal 'jewel' for Cockburn – a facility for local people and for visitors from beyond to relax, socialise, wine, dine, shop, browse and enjoy the marina and coastal environment in an engaging village setting.



# General Guidelines

## Architectural Character

### Design Intent:

The Port Coogee vision is of a vibrant and modern development that borrows from traditional Western Australian coastal outdoor living and the relaxed contemporary lifestyle to be associated with Port Coogee.

### Objectives:

The contemporary coastal architectural character of the residential development that will become characteristic of Port Coogee should:

- Have a strong sense of local identity related to the coastal edge through the appropriate use of materials, texture, colour and built form;
- Design, orientate and arrange the built form to take advantage of the outstanding views of the Indian Ocean, Woodman Point and the Port Coogee Marina;
- Be orientated towards public streets, laneways and open space to ensure casual surveillance over the public realm and perceived security for the community;
- Be designed to respond to the local coastal environment and incorporate the principles of environmentally sustainable design with strong emphasis placed on the correct orientation, location and zoning of private living and outdoor spaces;
- Be environmentally sustainable, with specific focus on energy and water efficiency.

### Must Haves:

Port Coogee provides a unique opportunity to establish a distinct architectural character and individual dwellings should reflect the character of coastal living with oversized balconies linked directly to internal living areas with large openings detailed with flexible screens, fixed shades or shutters to control the wind and sun. As such each dwelling shall strongly express the following key elements:

- Generous outdoor living areas, including appropriately sized courtyard, roof terraces and balcony spaces;
- Shade and Shelter elements for sun control and weather protection, including screens, shutters, blinds, louvres and pergolas.

Architectural styles, such as Federation, Georgian, Tuscan, Mediterranean and Santa Fe, are not considered appropriate for Port Coogee.



## Built Form, Heights and Setbacks

### Design Must haves:

Building heights and setbacks for residential dwellings are defined on the Local Development Plan.

Roof terraces and loft spaces are permissible where contained within the height limit.

Height shall be limited by the following:

- Minimum and/or maximum building heights must be in accordance with the Local Development Plan and Marina Village Built Form Codes (where no Local Development Plan applies);
- Overall height is measured from the finished design surface of the lot to the top of roof Structure;
- Additional fill permitted above the finished design surface of the lot is restricted to a maximum of 250mm.

## Elevations

### Design Intent:

Elevations are to be articulated with clearly defined architectural elements and should express the following characteristics:

- The design of a building must address all adjacent streets (primary and secondary) and laneway, through design articulation, fenestration, materials, colours, major opening(s) and balconies, with no blank walls permitted facing any street boundaries.

### Must Haves:

- All laneway building frontages shall incorporate the design and placement of large windows to actively used habitable spaces (at ground and/or upper level) to achieve surveillance of the laneway;
- All dwellings are required to present a minimum two storeys to the Primary and Secondary Streets, and rear Laneways (except where this requirement is varied through an approved Local Development Plan);
- Single storey development is only permitted to portions of the building that are not visible from any street frontage (except where this requirement is varied through an approved Local Development Plan);
- Roof design, materials, colour and finish are to be consistent to all elevations, including the laneway elevation;
- Clearly defined entrances, which are identifiable from the street through expressed elements;
- At least one indoor living area (not a bedroom) is to provide natural surveillance of the Primary Street (For corner lots, a second indoor living area (not a bedroom) shall be provided to the Secondary Street frontage).



## Elevations – Corner Sites *(Design Intent applies from previous page)*

### Objectives:

- The design of a building at the corners should be considered carefully to ensure there is continuity or harmony of materials and detailing to both elevations. The corner may be emphasised by height, form or feature elements.

### Must Haves:

- Dwellings on corner lots must reinforce the street edge by addressing both the Primary, and Secondary Street (and laneway where applicable), with the Secondary Street elevation to be articulated in a manner that is consistent with that of the primary elevation;
- The design of the dwelling should acknowledge the corner by way of design with elements such as balconies that wrap the building corner, windows, internal room layouts and roof design to respond to the corner location;
- Blank walls to corner frontages will not be permitted;
- Further design fundamentals for buildings on corner sites are to be in accordance with the LDP requirements.



## Wall Materials

### Design Intent:

The location of Port Coogee results in a high exposure to salt, wind and sun leading to degradation of materials. Extra care should be taken to ensure materials and finishes are selected that are resistant to these elements or are easily maintained to ensure longevity.

### Objectives:

Street appeal will be generated by the clever use and composition of exterior materials, colours and finishes with the following principles:

- A mix of materials is advisable, however depending on the design, the use of contrasting render colours is acceptable;
- Ground floor materials should give the appearance of strong, solid and heavier construction;
- The mass of buildings is to be minimised by variations in walls and roof lines.

### Must Haves:

- Any exposed parapet wall on a common boundary shall be suitably finished to match the external walls of the dwelling, unless otherwise approved by the City;
- Acceptable wall materials include, painted rendered masonry, stonework, rammed earth, painted or clear timber weather boards, eco-ply, corrugated metal cladding and painted fibre cement sheeting;
- Alternative wall materials may be permitted subject to their design merit;
- Dwellings that express 100% of a single walling material and colour composition will not be approved;
- A minimum of two wall materials shall be used to the dwelling with no one material constituting more than 80% of the front elevation (not including windows).



## Roof Forms

### Design Intent

In an urban environment the roof design can often be viewed from afar as part of a skyline. For this reason, the design of the roof should be considered as part of the overall building composition. Service elements should be screened by integrating them into the roof design.

The design of the roof should facilitate the use, or future use, of sustainable elements such as green roofs, wind generation, natural ventilation, photovoltaic applications, and other future innovative design solutions.

### Objectives:

Roofs must be of a scale, form and material construction that are representative of contemporary coastal living, including pitch, form and design innovation. Roof forms should express the following characteristics:

- Roof design shall be integrated with the overall building composition;
- Gutter and downpipe treatments are to compliment and be integrated into the dwelling design;
- Roof forms should be articulated to provide solutions to natural light, summer shade, winter sun, cooling and ventilation;
- Deep overhanging roofs are encouraged for weather protection and sun shading purposes to terraces, verandahs and other outdoor living spaces;
- Paved roof terraces are strongly encouraged and should incorporate pergolas/sunshading devices and planting (Subject to maximum building height limitations);
- Service elements shall be integrated into the roof design or be located discretely to be screened from view at ground level and from a distance.

### Must Haves:

- Pitched roofs shall be 25 degrees minimum and 42 degrees maximum in order to promote a consistency of development;
- Low pitched skillion roofs, flat roofs and curved roof forms may be allowed subject to design merit and providing no adverse impact on neighbouring properties;
- All eaves, except where nil lot boundaries, should have a minimum overhang of 450mm to protect walls from the summer sun. Exceptions may be permitted subject to their design merit.



## Roof Materials

### Design Intent:

Generally, Colorbond metal roof sheeting, however, can include clay tiles, copper or concrete (to flat roofs with protective paved, pebble, gravel or turf surfaces). It is encouraged that any roofing product used is suitable for the coastal location of Port Coogee, be light in colour and non-reflective to minimise any glare impact on surrounding properties.

### Objectives:

Gutter and downpipe placement should be integrated with the dwelling design. It is preferable that no downpipe be visible to the street elevations except where a rainwater head and downpipe are used as an architectural element.

## Roof Terraces

### Objectives:

Roof terraces are encouraged and can be used to maximise the interaction between indoor and outdoor upper-level living areas. They can improve the livability of small lots by maximizing expansive views to the ocean, marina and parklands.

### Must Haves:

- Roof terraces are permitted with the following conditions:
  - Privacy of adjoining lots shall not be impacted. This shall be achieved through appropriate setbacks or screening devices that do not create an overshadowing impact on the adjoining building(s) outdoor living areas;
  - Solar access of adjoining lots shall not be compromised during winter solstice period;
  - Roof terraces on the second or third level cannot exceed the building height limit of the approved LDP;
  - Roof terrace should be accessible from the indoor primary living area or active habitable room.



## Doors and Windows

### Objectives:

- Windows and doors should be arranged to maximise winter solar gain and cross ventilation, while minimising heat gain in summer;
- Large windows should be prioritised to the northern walls of living areas to maximise solar gain. Small windows should generally be located on the east and west facing walls (where achievable) to minimise solar gain;
- Where water views are achievable from the west and south orientations of the building, large windows may be located on these walls.

### Must Haves:

- Flyscreens are to match window frame colours and to have dark coloured mesh;
- Security doors where required are to be simple and unobtrusive;
- External roller security shutters are prohibited;
- Clear glazing is required to windows overlooking all streets and laneways;
- Careful placement of bathroom windows to avoid obscure and patterned windows facing the primary streets.

## Open Space - Courtyards

### Objectives:

- Each dwelling shall be provided with a useable and functional courtyard or open space that should be oriented to gain maximum exposure to northern winter sunlight, and accessed directly from a living room (a living area other than a bedroom).

### Must Haves:

- The open space requirements are to be in accordance with the LDP, these requirements replace the MVBFC details.





## Balustrades

### Objectives:

- Balustrade design is to be integrated into the overall architectural form of the dwelling;
- Balustrades are to reflect a coastal character and could include horizontal bars, stainless steel wires, timber battens, glass or a combination of these.

## Vehicular Access and Garages

### Objectives:

- The location and treatment of garages and garage doors shall contribute positively to the streetscape (including laneways);
- Parking for additional vehicles such as boats, caravans and additional cars should be considered during the design phase of the dwelling to ensure they are adequately housed on the lot, and not visible from the primary street.

### Must Haves:

- On-site car parking provisions are to be in accordance with the LDP and Marina Village Built Form Codes (where no Local Development Plan applies);
- Garages are to be designed as an integral component of the home and the materials used in the garage should match those of the house. Garage door material shall be solid, with no transparent materials permitted;
- Where Laneways are provided, vehicle access and parking shall be via the Laneway and located in accordance with the designated positions on the LDP;
- Garage driveway widths are restricted to a maximum of 6.0m and paving material shall correspond with the adjoining laneway material.



## Icon and Gateway Buildings

### Design Intent

Some sites may have been nominated on the LDP for icon and gateway building design. Gateway buildings are generally located to terminate a vista, frame a view, reinforce the public domain and/or define a hierarchy of places.

The merits of built form that warrant 'iconism' need not be size related nor an overt and extravagant design language, however there should be a uniqueness and authenticity that makes the building stand out to the point where it is different and benefits its location.

Design excellence is required – quality, articulation of the facade, proportion, scale and massing, material selection and detailing will be of heightened importance for Icon Buildings.

### Objectives:

- Nominated gateway buildings exhibit design excellence;
- The design of nominated gateway building defines and reinforces the public realm and hierarchy of spaces within the Marina Village.

### Must Haves:

- Gateway buildings shall be constructed with materials and detailing of high quality and with scale and proportion appropriate to the location;
- Gateway buildings shall be designed to be unique and memorable, representing a point of difference to other buildings in the Marina Village.



## Activation of Laneways

### Design Intent

Laneways in a mixed-use Marina Village environment function as shared spaces that achieve pedestrian and cyclist movement, vehicular access to public and private parking areas, service and loading areas.

To provide a safe environment, development abutting laneways should provide an opportunity for passive surveillance of the laneways through design. Development abutting laneways should be designed with windows and openings from habitable spaces providing direct overlooking of the laneway. The use of design to create a sense of neighbourliness and vitality (e.g., building articulation, landscaping, graphic/art walls and the like) is encouraged.

### Objectives:

- To provide for an interesting and engaging environment allowing for passive surveillance from adjacent development;
- Balconies, terraces or windows (major openings) can be utilised to provide passive surveillance.

### Must Haves:

- Development adjacent laneways shall incorporate an active habitable space above the garage to achieve passive surveillance and engagement with the laneway (except where this requirement is varied through an approved LDP). Further design fundamentals regarding upper level setbacks are detailed in the LDP Design Rationale;
- Landscaping shall be provided abutting the laneway to soften the appearance of the Laneway, and designed with plant species to minimise 'hiding places';
- In accordance with the LDP, the Developer will install a tree (type to be determined with the City of Cockburn) in each lots' landscape zone. The tree will be provided following the completion of construction of each home on an individual lot basis;
- Distinctive and clearly visible building entrances and/or side gates shall be provided from the laneway for residents and visitors where lot width permits.



## Privacy

### Design Intent:

Building designs should consider appropriate window and balcony placement to safeguard overlooking neighbour's internal and external living spaces. The use of screens, shutters and louvres are encouraged as elements to protect residents' privacy, especially to balconies and outdoor living areas.

### Must Haves:

- External roller security shutters are prohibited.

## Noise - Sound Attenuation

### Must Haves:

- Mechanical services equipment, including air-conditioning units, pool filtration equipment, motors, pumps, etc. should be suitably located in areas that minimise the impact on neighbours and comply with the provisions of the Environmental Protection (Noise) Regulations 1997 (*or current version if superceded in future*).



# Planning Guidelines

## Site Responsive

### Design Intent:

In order to ensure a high standard of design and amenity, it is important that each dwelling is site responsive and addresses the issues of climate and orientation, relationship to the public realm and neighbourly issues such as overlooking, privacy and noise attenuation.

The desirability of northern orientation for the courtyard and living rooms may need to be balanced against providing passive surveillance of the street and opportunity for ocean views.

### Objectives:

- Primary and secondary living spaces and/or flow-through living plans should maximise the opportunity for dual aspect.

## Passive Design Strategy

### Design Intent:

The Port Coogee vision is of an environmentally sustainable development that enshrines best practice in energy efficiency and water sensitive design, matched with an environmentally responsible use of materials.

The Sustainable Energy Development Office (SEDO) has established that the main features of energy efficiency housing relate to:

- Building Orientation;
- Internal Room layout;
- Window placement, sizing and shading;
- Use of Insulation;
- Ventilation;
- Draught proofing;
- Landscaping;
- Use of energy efficient appliances;
- Lighting.

*continued over page:*



Space heating and cooling accounts for nearly 40% of household energy use and, by adopting passive design principles to minimise the need for artificial summer cooling and winter warming, this can be significantly reduced or eliminated to create an energy efficient home.

#### Objectives:

- Dwellings should be designed to suit the local temperate climate and simple measures such as correct building orientation, appropriate shading, cross ventilation and building insulation are strongly encouraged to help reduce energy consumption and the production of greenhouse gases;
- The majority of these features, including orientation, room layout, window placement, ventilation and garden design make little difference to the initial building cost. Other features such as insulation, draught proofing and energy efficient appliances may add to the cost of the dwelling but will produce savings in reduced energy bills each year and should improve the resale value of the home;
- To find out more information about creating an energy efficient home, visit the Sustainable Energy Development Office's website: [www.sedo.energy.wa.gov.au](http://www.sedo.energy.wa.gov.au).

## Wind

### Design Intent

Wind levels along Napoleon Parade are relatively high – accordingly, wind requires careful consideration in the design and development of multi storey buildings and their potential influence on wind impact on abutting public realm and upon the lot.

Appropriately designed built form can be used to ameliorate ground level wind conditions, while inappropriate built form design can lead to acceleration of winds in pedestrian areas past acceptable levels.

#### Objectives:

- Provide sheltered areas conducive to alfresco entertaining;
- Do not create an unacceptable wind impact on adjoining public realm areas.

#### Must Haves:

- No wind assessment is required for buildings that accord with the building height and setback provisions of the LDP. Where buildings vary the provisions of this LDP, a wind assessment (prepared by a suitably qualified engineer) will be required in accordance with the PCMBVFC.



# Sustainability Guidelines

The Port Coogee vision is of an environmentally sustainable development that enshrines best practice in environmental design, energy efficiency and conservation, water efficiency and conservation, waste reduction and safe and accessible homes.

Building performance standards with regard to thermal performance, energy and water efficiency and accessibility have improved much over time and will continue in the coming years.

Building a high-performance home now will ensure it is future proofed for further regulatory changes and will therefore hold its value into the future.

The following design criteria, which are a requirement for all development at Port Coogee, will ensure you have a sustainable home that will be efficient in energy and water and cheaper to run.

## Energy Efficiency and Conservation

### Climate Responsive Design

#### Objectives:

- Dwellings are required to be designed to suit the local climate through smart design;
- The key design features such as orientation, internal design and room zoning, window placement, sizing and shading, cross ventilation, and building insulation will go a long way to ensure you have an energy efficient home that is also naturally comfortable all year round.

#### Must Haves:

The following criteria (as a minimum are MANDATED to be achieved:

North facing living:

- Minimum one main living area with a major opening to have a northern aspect (where orientation of lot permits).

Shading:

- West facing rooms to be protected from summer sun, e.g., through use of fixed shading devices such as deep balconies, awning, and/or performance rated glazing.

*continued over page:*



Cross-flow ventilation:

- Openings – windows and doors – to allow for breezes to flow through main habitable areas.

Room zoning;

- Ability to zone (close-off) separate use areas for more efficient cooling and heating.  
Main use areas include – living, individual bedrooms, service areas such laundry, lobby and passages.

## Renewable Energy

Objectives:

Renewable Energy takes advantage of natural systems, most commonly solar radiation and wind, for the production of electrical energy and water heating, thereby greatly reducing greenhouse gas emissions and household energy costs. A 1.5kW photovoltaic (PV) system produces approximately 6-8kWh/day over a 12-month cycle, which can reduce average household energy use by up to 50%. A solar hot water system will further reduce costs.

The following criteria (as a minimum are RECOMMENDED to be installed:

- Photovoltaic system (a min 1.5kW array is recommended);
- Solar water heater with in-line gas booster.

## Energy Efficient Fixtures and Appliances

Objectives:

Home energy use is a significant contributor to greenhouse gas emissions and with the increasing price of electricity, costs the homeowner money. Emissions can be reduced through more efficient energy use in the home and, while improving the environmental performance of your home, it can also significantly reduce your energy bills.

The following features are RECOMMENDED to be installed to ensure you have an even more energy efficient home:

Air-conditioners

- For optimal efficiency install a 5-star 'Energy Rating' (for heating and cooling)  
(Or min 2.9 energy efficiency ratio for cooling) with inverter and ability to zone by use areas.







### Ceiling fans

- Installed in main living areas and bedrooms.

### Lighting:

- Compact fluorescent globes (CFG) or LED lighting installed throughout;
- Install motion sensors to outdoor lights and low-use rooms such as toilets, garage, storage rooms, pantry, robes.

### Appliances:

- Installation of high 'Energy Rating' rated appliances including: fridge, dish-washer, washing machine, dryer, fridge, television.

### Cooking

- Install gas or electric ceramic, halogen or induction cook top.

## Peak Load Management

### Objectives:

Peak load refers to the increased demand for electricity mainly during peak summer hours between 3 – 8pm, which is when families are at home using multiple appliances, including air-conditioning and TVs.

This 'peak' demand adds significantly to greenhouse gas output and places a high demand on the electricity grid.

Strategies for peak load reduction in residential homes include implementing demand management through direct load control devices fitted to fixtures and appliances such as air conditioners and pool pumps.

The following are RECOMMENDED to be installed to reduce peak load demand:

- Direct Load Control Devices installed on air-conditioners;
- Electronic 'off-peak' pump timer on swimming pool and water features.



## Green Power

### Objectives:

Green Power refers to voluntary purchasing of electricity produced from renewable sources. Synergy currently offers a number of accredited Green Power renewable energy products. Through these programs, customers can specify that a certain percentage of their electricity consumption is supplied by Synergy from an accredited Green Power source.

The following is RECOMMENDED for anyone wanting to further reduce their greenhouse gas emissions

- Purchase Synergy Green Energy Solutions or Smart Power.

## Water Efficiency and Conservation

### Design Intent:

Perth is situated in a dry climate zone with limited rainfall and limited supplies of fresh water. Average annual rainfall in the south west of WA is decreasing while population is increasing. To address this, the government has imposed watering days to reduce garden water use.

There are also many other things you can do such as install rainwater tanks, establish waterwise gardens and install high efficiency fixtures and appliances such as showerheads and washing machines.

Port Coogee has a range of water efficiency and conservation measures that build on these existing initiatives to help reduce your water consumption in and outside the home.

### Water Re-use

Frasers Property Australia, on behalf of the City of Cockburn, have installed non-potable 'third pipe' water supply system to all lots at Port Coogee, which provides water for garden irrigation purposes. Connecting your garden irrigation to the third pipe supply can help to reduce your potable water use and reduce your annual water bills. A non-potable water agreement will be required to be entered into in order to receive the non-potable water supply, and is available from the City of Cockburn. Application form is available at the following website - <https://www.cockburn.wa.gov.au/Environment-and-Waste/Port-Coogee-Non-Potable-Water-Supply-Scheme>

The 'third-pipe' system includes a meter and connection point at the lot boundary.

All components – pipes and meters - are coloured lilac and identified as non-potable. In addition to the third-pipe irrigation system, rainwater harvesting can be used to achieve greater water efficiencies. The best use of rainwater is to have the tank plumbed directly to toilet flushing and for cold water to the washing machine. Rainwater can also be used to supplement water heating and shower water.



## Water Efficiency

### Must Haves:

The following criteria (as a minimum are MANDATED to be achieved)

Swimming Pools:

- Install a fixed retractable pool cover.

In addition to the irrigation connected to the third-pipe irrigation system, the following are RECOMMENDED to be installed to ensure you have an even more water efficient home:

Waterwise Fixtures and Appliances:

- 5-star (WELS Rated) toilets;
- 4-star (WELS Rated) shower roses;
- Efficient - high WELS Rated - appliances: washing machines and dishwashers.

## Waterwise Landscaping

### Objectives:

As part of Frasers Property Australia's contribution to reducing water use and responsible environmental design, all gardens in Port Coogee are required to be sustainably landscaped and conform to waterwise garden principles. Sustainable landscaping will require the planting of indigenous plants which are specifically native to the local area.

### Must Haves:

The following criteria (as a minimum are MANDATED to be achieved):

Waterwise landscaping:

- Waterwise native indigenous plants
  - 80% of residential landscaping is to utilise waterwise species; and
  - 60% of plants are to be indigenous species to the Perth Coastal Plain.

No use of artificial turf in landscaping fronting primary street elevation.



A schedule identifying suitable species for landscaping that may be implemented by individual homeowners is provided in the Appendix B. Alternatively, the City of Cockburn provides recommended plants for coastal locations. Refer [http://www.cockburn.wa.gov.au/Council\\_Services/Environment/Fertilise\\_Wise\\_-\\_Local\\_Plant\\_Guides/](http://www.cockburn.wa.gov.au/Council_Services/Environment/Fertilise_Wise_-_Local_Plant_Guides/)

### Objectives:

In addition, the following are RECOMMENDED:

Productive gardens:

- Drought tolerant fruiting trees;
- Vegetable gardens.

Reduction of ground level hard paving area:

- Soft landscape is RECOMMENDED. Soft landscaping includes native gardens, vegetable gardens and living lawn, it does not include pools or artificial turf;
- A minimum 10% soft landscaping is recommended of the total site area.

## Waste Management

### Objectives:

Household waste to landfill is a major environment concern impacting on the ground, water and air quality and native fauna.

The more waste you can divert from landfill and into recycling will be of benefit to the environment.

### Must Haves:

To support greater recycling and reduce landfill the following criteria (as a minimum) are MANDATED to be achieved:

Waste separation bins

- Install waste separation bins in kitchen for recyclables, compost and general waste;
- In addition, Compost bins and/or worm farm are recommended.



## Safe and Accessible Housing

### Objectives:

Australia has an aging population which means more people with mobility issues. Universal design refers to buildings that are designed and fitted-out to allow ease of access to all people of all mobility's and ages.

To support appropriate ease of access and use for people with physical disabilities, mobility issues, the aged and children, the following criteria are RECOMMENDED:

- A ground level bathroom and toilet with easy access and min 820mm door opening;
- Hobless (step-free) shower recess;
- Semi-recess basins;
- All door handles and light switches positioned in a consistent location between 900–1100mm above the floor; and
- Powerpoints installed not lower than 300mm above the floor.

### Must Haves:

In addition to the recommended criteria, the following (as a minimum) are MANDATED to be achieved:

Level entry:

- One level entry in the home from road way – may be front door or via garage or other.

Bicycle Storage:

- Inclusion of secure bicycle storage for min two bikes, such as hooks in garage or store.



# Services Guidelines

## Retaining Walls

### Objectives:

Due to the natural contour of the land, retaining walls are present throughout Port Coogee including the Marina Village. The constraints and opportunities presented by these elements should be carefully considered in the design of the dwelling.

### Must Haves:

- Any development proposed on, or adjacent to, an existing retaining wall is to be certified by a Structural Engineer to ensure that the retaining wall can support the additional loads of the development;
- Existing wall details are available from the City of Cockburn upon request.

## Recycling and General Waste Bins

### Must Haves:

- The Home Builder is to organise the provision of waste separation bins to the dwelling. A separate storage area of sufficient size to accommodate all bins, should be created at the site planning stage and must not be visible from the street. A hose cock should be located within, or close to, the bin storage area to enable bins to be easily washed down;
- Rubbish bins are only permitted to be located on the verge or adjacent laneway (whichever is applicable) on waste collection day.

## Solar Collectors

### Must Haves:

- Solar collector panels (photovoltaic and water heaters may be located on roof aligned with the roof slope and not on a separate frame;
- Solar collector panels are not permitted on roof portion fronting primary street elevation;
- Water heater storage tanks can be detached and concealed from view by locating them within the roof space/house or at ground level. Storage tanks located at ground level must be screened from public view.



## TV/Radio Antennas

### Objectives:

TV antennas, satellite dishes and similar roof mounted structures should be located at the rear of the dwelling where they are not easily seen from the primary and secondary streets.

## Air-Conditioning Units

### Objectives:

External air-conditioning units are to be located preferably on the ground level where they are not visible from the public realm and, where appropriate fitted with noise baffles.

### Must Haves:

- Roof, wall and window mounted air-conditioning units will not be permitted where they are visible from the street, laneways or public areas;
- Air-Conditioners are not permitted to be located on the roof unless they are fully concealed from the public view and/or the view from adjacent overlooking development.

## External Lighting

### Must Haves:

- All external lighting is to be provided at the lowest level to meet amenity and security requirements but minimise light spill and disturbance to neighbours at night time and protect the local ecology of Port Coogee marine life;
- External lights should not be directed beyond the lot boundary and the lighting of external surfaces should be used for the explicit purpose of illuminating that surface.

## Site Services

### Must Haves:

- All piped and wired services entering/within the site, are to be concealed from public view so as not to detract from the appearance of the dwelling;
- All meters should be considered during the dwelling design phase and shall be located discreetly.



## Verges, Driveways and Crossovers

### Must Haves:

- Homeowners are responsible for the maintenance of verges and Estate fencing;
- Driveway and crossover materials shall match Estate paving;
- A maximum driveway or crossover width of 6m is applicable to all lots;
- Where located at a laneway, driveway crossovers must be constructed from paving material that corresponds with the adjoining laneway material;
- Where footpaths occur, they must be retained as the priority movement and reinstated if damaged;
- Residents are required to water street trees. Maintenance and pruning of street trees are to be undertaken by the City of Cockburn;
- Where trees and landscaping are specified to the laneway by the LDP (in the form of a Landscape Area), these shall be reticulated and maintained by the resident of that lot;
- In accordance with the LDP, the Developer will install a tree (type to be determined with the City of Cockburn) in each lots' landscape zone. The tree will be provided following the completion of construction of each home on an individual lot basis.





## Residential Fences

### Objectives:

The front and side fences form an important part of the visual character of the Marina Village in Port Coogee. It is recognised that in some locations higher fences may be required for security and privacy.

### Must Haves:

To achieve a consistent visual effect the following is required:

- Where Estate fencing has been provided to a lot, no modifications are to occur, aside from maintenance and repair in materials that are substantially identical with those used in the original construction. This includes those lots with stair access;
- Any fencing proposed to lot boundaries where not provided by the developer, including fencing on top of a retaining wall, shall be in accordance with specifications detailed below:
  - A low masonry wall (0.5m high) can be used to define the front boundary, although the preference is for there to be no front wall or fence;
  - Where a low masonry wall is installed, it should return along the side boundary to the building setback. The letterbox and house number should be incorporated into the low wall;
  - Due to natural landform some lots require a retaining wall along the front boundary;
  - Lot boundaries adjoining a side street may have a 1.8m high semi permeable screen fence. The fence must be at least 70% permeable using timber or aluminium battens/louvers. Sections of solid fence should be used to screen service areas and bin store;
  - Lot boundaries adjoining a laneway may have a 1.8m high semi permeable screen fence. The fence must be at least 50% visually permeable using timber or aluminium battens/louvers;
  - Side boundaries (behind building line) and rear boundaries adjoining another lot must be 1.8 metres high of masonry with a rendered finish.



# Appendices



# Appendix A

## Key Objectives/Mandatory Requirements Checklist

CHECKLIST 1: GENERAL GUIDELINES AND EXTERNAL WORKS			
Core Guidelines	Objectives	Mandatory Requirements	Compliance Yes/No
Architectural Character	To achieve a high standard of architectural design that is of a modern aesthetic and responds to the environment in which it is built. Core Guidelines Objectives Mandatory Requirements Checked.	<ul style="list-style-type: none"> <li>The design reflects a contemporary coastal character by incorporating appropriate outdoor living areas and responding to the local setting by incorporating shade and shelter elements such as screens, shutters, blinds, louvers and pergolas.</li> <li>Generous outdoor living areas, including appropriately sized courtyard, roof terraces and balcony spaces.</li> <li>Architectural styles, such as Federation, Georgian, Tuscan, Mediterranean and Santa Fe shall not be permitted.</li> </ul>	
Elevations	To ensure all dwellings address, respond to and activate all adjacent streets to provide real and perceived levels of security.	<ul style="list-style-type: none"> <li>All dwellings must address the Primary and Secondary Streets and Laneways by way of articulation, fenestration and entrance.</li> <li>All dwellings are required to present two storeys to the Primary and Secondary Streets, and Laneways, except where this requirement is varied through an approved LDP.</li> <li>All dwellings shall provide at least one living area and major opening to provide natural surveillance of the Primary Street, Secondary Street and Laneways.</li> <li>Single storey development is only permitted to portions of the building that are not visible from any street frontage, except where this requirement is varied through an approved LDP.</li> </ul> <p>Corner Sites:</p> <ul style="list-style-type: none"> <li>Dwellings on corner lots must reinforce the street edge by addressing both the Primary, and Secondary Street (and laneway where applicable), with the Secondary Street elevation to be articulated in a manner that is consistent with that of the primary elevation.</li> <li>Blank walls to corner frontages will not be permitted.</li> <li>Further design fundamentals for buildings on corner sites are to be in accordance with the LDP requirements.</li> </ul>	



## CHECKLIST 1: GENERAL GUIDELINES AND EXTERNAL WORKS - continued

Core Guidelines	Objectives	Mandatory Requirements	Compliance Yes/No
Wall Materials	Street appeal will be generated by the clever use and composition of exterior materials, colours and finishes.	<ul style="list-style-type: none"> <li>• 2 Wall Materials or two contrasting colours to front elevation shall be used.</li> <li>• A single wall material or colour shall constitute a maximum 80% of the front elevation (Not including windows).</li> <li>• Any exposed parapet wall on a common boundary shall be suitably finished to match the external walls of the dwelling, unless otherwise approved by the City.</li> </ul>	
Roof Form & Materials	To provide roofs of a scale, form and material construction that are representative of contemporary coastal living and to provide protection of walls from summer sun.	<ul style="list-style-type: none"> <li>• Pitched roofs shall be 25' minimum and 42' maximum.</li> <li>• Low pitched skillion roofs, flat roofs and curved roof forms may be allowed subject to design merit and providing no adverse impact on neighbouring properties.</li> <li>• All eaves, except where nil lot boundaries, shall have a minimum 450mm overhang.</li> </ul>	
Roof Terraces	Encouraged to maximise the interaction between indoor and outdoor upper-level living areas.	<ul style="list-style-type: none"> <li>• Permitted where they do not impact the privacy and overshadowing of adjoining lots.</li> <li>• Must not exceed the building height of the LDP.</li> <li>• Should be accessible from the indoor primary living area.</li> </ul>	
Open Space	To encourage an outdoor lifestyle and all seasons living within Port Coogee.	<ul style="list-style-type: none"> <li>• All dwellings are to provide useable and functional open space requirements in accordance with the LDP requirements.</li> </ul>	
Gateway Buildings	Identified key sites that require design excellence through proportion, material selection and detailing to be unique and memorable.	<ul style="list-style-type: none"> <li>• Shall be constructed with materials and detailing of high quality and with scale and proportion appropriate to the location.</li> <li>• Shall represent a point of difference to other buildings in the Marina Village.</li> </ul>	
Activation of Laneways	Rear laneways shall be addressed in a manner similar to the Primary Street elevation to promote a sense of neighbourliness and vitality and provide passive surveillance over the laneway.	<ul style="list-style-type: none"> <li>• Development adjacent laneways shall incorporate an active habitable space above the garage to achieve passive surveillance and engagement with the laneway (except where this requirement is varied through an approved LDP). Further design fundamentals regarding upper level setbacks are detailed in the LDP Design Rationale.</li> <li>• Landscaping shall be provided abutting the laneway to soften the appearance of the Laneway, and designed with plant species to minimise 'hiding places'.</li> <li>• Distinctive and clearly visible building entrances and/or side gates shall be provided from the laneway for residents and visitors where lot width permits.</li> </ul> <p><i>Continued next page</i></p>	



## CHECKLIST 1: GENERAL GUIDELINES AND EXTERNAL WORKS - continued

Core Guidelines	Objectives	Mandatory Requirements	Compliance Yes/No
Activation of Laneways (Continued)	<i>Refer previous page.</i>	<ul style="list-style-type: none"> <li>Garages to rear laneways shall be designed using materials and details consistent with the main dwelling.</li> <li>In accordance with the LDP, the Developer will install a tree (type to be determined with the City of Cockburn) in each lots' landscape zone. The tree will be provided following the completion of construction of each home on an individual lot basis.</li> </ul>	
Privacy	Neighbourly issues such as overlooking and noise attenuation are addressed.	<ul style="list-style-type: none"> <li>Submission of plans that demonstrate appropriate window placement and screening to consider privacy of neighbours.</li> <li>Screening devices shall be used to prevent casual surveillance of the adjoining lot from balconies.</li> </ul>	
Retaining Walls	To protect the structural integrity of you and your neighbour's development.	<ul style="list-style-type: none"> <li>Any development proposed on, or adjacent to, an existing retaining wall is to be certified by a Structural Engineer to ensure that the retaining wall can support the additional loads of the development.</li> </ul>	
Air-conditioning Units and Site Services	To protect the amenity of the neighbourhood so as not to detract from the appearance of the dwelling.	<ul style="list-style-type: none"> <li>AC units must not be visible from the street and must not be located above the roof line unless they are fully concealed from the public view and/or the view from adjacent overlooking development.</li> <li>All piped and wired services are to be concealed from public view.</li> </ul>	
External Lighting	To protect the amenity of the neighbourhood by minimising light spill and disturbance to neighbours at night time.	<ul style="list-style-type: none"> <li>All external lighting shall be provided at the lowest level to provide amenity and security requirements.</li> <li>All external lighting to the front and rear entrances shall be on motion sensor and time delay.</li> </ul>	
Garages and On-site Parking	To ensure that garages are designed and detailed to enhance the quality of the neighbourhood by visually contributing to the character of the streetscape.	<ul style="list-style-type: none"> <li>Access to garages shall be provided from Laneways.</li> <li>Garages shall be designed as an integral component of the dwelling.</li> <li>Triple garages are only permitted in tandem format.</li> <li>Garage door material shall be solid with no transparent materials permitted.</li> </ul>	
Verge, Driveways, and Crossovers	To create a consistent streetscape aesthetic driveways and crossovers are to be finished in materials to match the Estate landscape design.	<ul style="list-style-type: none"> <li>A maximum driveway crossover width of 6m is applicable to all lots.</li> <li>Driveway crossovers must be constructed from paving material that corresponds with the adjoining laneway material.</li> </ul>	



CHECKLIST 1: GENERAL GUIDELINES AND EXTERNAL WORKS - continued

Core Guidelines	Objectives	Mandatory Requirements	Compliance Yes/No
Residential Fences	To provide consistent fencing to all boundaries within the Estate.	<p><b>ESTATE FENCING</b></p> <ul style="list-style-type: none"> <li>Where Estate fencing has been provided to a lot, no modifications are to occur, aside from maintenance and repair in materials that are substantially identical with those used in the original construction. This includes those lots with stair access.</li> </ul> <p><b>LANDOWNER FENCING</b></p> <p><b>PRIMARY STREET BOUNDARIES</b></p> <ul style="list-style-type: none"> <li>The preferred treatment for the front boundary is for there to be no wall or fence. However, a low masonry wall (0.5m high) can be used to define the front boundary. It should return along the side Boundary to the building setback. The letterbox and house number should be incorporated into the low wall.</li> <li>Due to natural landform some lots require a retaining wall along the front boundary. Where this occurs, 1.1m high open decorative metal balustrades should be used above retaining walls that are greater than 0.9m high.</li> </ul> <p><b>SECONDARY STREET BOUNDARIES</b></p> <ul style="list-style-type: none"> <li>Lot boundaries adjoining a side street may have a 1.8m high semi permeable screen fence. The fence must be at least 70% permeable using timber or aluminium battens/louvers. Sections of solid fence should be used to screen service areas and bin store.</li> </ul> <p><b>LANEWAY BOUNDARY</b></p> <ul style="list-style-type: none"> <li>Lot boundaries adjoining a laneway may have a 1.8m high semi permeable screen fence. The fence must be at least 50% permeable using timber or aluminium battens/louvers.</li> </ul> <p><b>SIDE AND REAR BOUNDARIES</b></p> <ul style="list-style-type: none"> <li>Side boundaries (behind building line) and rear boundaries adjoining another lot must be 1.8 metres high of masonry with rendered finish.</li> </ul>	



## CHECKLIST 2: SUSTAINABLE DESIGN CRITERIA

Initiative	Classification	Evidence Required	Compliance Yes/No
<b>ENERGY EFFICIENCY AND CONSERVATION</b>			
<b>Climate Responsive Design</b>			
North facing living: Minimum one main living area with a major opening to have northern aspect (where lot orientation permits)	Mandatory	House plans – site, floor, elevation and section through north facing living areas.	
Shading: West facing rooms to be protected from summer sun, e.g., through use of fixed shading devices such as deep balconies, awning, performance rated glazing	Mandatory	House plans and building specifications.	
Cross-flow ventilation: Openings – windows and doors – to allow for breezes to flow through main habitable areas	Mandatory	Breeze-way flow diagram to be included with house plans.	
Room zoning: Ability to zone (close-off) separate uses areas for more efficient cooling and heating. Main use areas include – living, individual bedrooms, service areas such as laundry, lobby and passages	Mandatory	Floor plans.	
<b>Renewable Energy</b>			
Photovoltaic system – e.g., 1.5kW array	Recommended	NA	
Solar water heater with in-line gas booster	Recommended		
<b>Energy Efficient Fixtures and Appliances</b>			
Air-conditioner: A high efficiency rating. (It is recommended a 5-star 'Energy Rating' rating (For heating and cooling) (or min 2.9 energy efficiency ratio for cooling) with inverter and ability to zone by use areas.)	Recommended	House roof and electrical plans and building specifications.	
Ceiling fans: • Installed in main living areas and bedrooms	Recommended		
Lighting: • Compact fluorescent globes (CFG) or LED lighting installed throughout • Install motion sensors to outdoor lights and low-use rooms such as toilets, garage, storage rooms, pantry, robes	Recommended	NA	



CHECKLIST 2: SUSTAINABLE DESIGN CRITERIA - continued

Initiative	Classification	Evidence Required	Compliance Yes/No
<b>ENERGY EFFICIENCY AND CONSERVATION</b>			
<b>Energy Efficient Fixtures and Appliances</b>			
Appliances: • Installation of high 'Energy Rating' rated appliances including: fridge, dish-washer, washing machine, dryer, fridge, television	Recommended	NA	
Cooking: • Install gas or electric ceramic, halogen or induction cook top	Recommended		
<b>Peak Load Management</b>			
Direct Load Control Devices installed on air-conditioners	Recommended	NA	
Electronic 'off-peak' pump timer on swimming pool and water features	Recommended		
<b>Green Power</b>			
Purchase Synergy Green Energy Solutions or Smart Power	Recommended	House roof and electrical plans and building specifications.	
<b>WATER EFFICIENCY AND CONSERVATION</b>			
<b>Water Reuse</b>			
Third Pipe Irrigation: Connect all garden irrigation to the third pipe water supply. • The system is supplied by Frasers Property Australia and requires a non-potable water agreement to be entered into	Optional and Recommended		
Rain tank plumbed to toilet and laundry	Recommended		
Grey-water system	Recommended		
<b>Water Efficient Fixtures and Appliances</b>			
Swimming Pools: Install a fixed retractable pool cover	Mandatory	House landscape plans.	
Waterwise Fixtures and Appliances: 5-star (WELS Rated) toilets 4-star (WELS Rated) shower roses Efficient (WELS Rated) appliances: washing machines and dishwashers	Recommended		





## CHECKLIST 2: SUSTAINABLE DESIGN CRITERIA - continued

Initiative	Classification	Evidence Required	Compliance Yes/No
<b>WATER EFFICIENCY AND CONSERVATION</b>			
<b>Waterwise Landscaping</b>			
Waterwise landscaping: Waterwise native indigenous plants • 80% of residential landscaping is to utilise waterwise species; and • 60% of plants are to be indigenous species to the Perth Coastal Plain Refer Appendix for plant species list	Mandatory	House landscape plans.	
Vegetable gardens and fruit trees	Mandatory	House plans and building specifications.	
Reduction of ground level hard paving area A soft landscape garden such as native gardens, vegetable gardens and living lawn. (It does not include pools or artificial turf)	Recommended		
<b>WASTE MANAGEMENT</b>			
Waste separation bins: • Installed in kitchen	Mandatory	House plan and building specifications.	
Compost bins and/or worm farm	Recommended		
<b>SAFE AND ACCESSIBLE HOUSING</b>			
One level entry in the home from road way – may be front door or via garage or other	Mandatory	House plans and building specifications.	
A ground level bathroom and toilet or en-suite with easy access and min 820mm door opening	Recommended		
Hobless (step-free) shower recess	Recommended		
Semi-recessed basins	Recommended		
All door handles and light switches positioned in a consistent location between 900–1100mm above the floor	Recommended		
Powerpoints should be installed not lower than 300mm above the floor.	Recommended		
Bicycle Storage: Inclusion of secure and accessible bicycle storage for min two bikes, as such hooks in garage or store	Mandatory	House plans and building specifications.	



# Appendix B

## Applicant Checklist

- a) **Siteplan** , 1:200 minimum showing dimensions, setbacks to all boundaries, original and proposed finished ground levels including retaining walls, lot boundaries, north point, location of all ancillary structures including bin stores, rainwater tank, AC units, drying courts, free standing storage enclosures, areas and open space calculations;
- b) **Floor plans**, 1:100 showing internal layouts including rooms, balconies, verandas, decks, windows and openings;
- c) **Elevations of all sides**, 1:100 indicating proposed building height from natural ground level and fencing details and the location of any solar panels and AC units;
- d) **Roof Plan**, 1:100 minimum; including roof detail, proposed external fixtures and minor projections. Plan shall demonstrate that no external fixtures will impede the viewline amenity from neighbours that overlook the roof of proposed development;
- e) **Section(s)**, 1:100 minimum where level change occurs across the site;
- f) **Landscape Plan**, 1:100 minimum;
- g) **Colour and Material Schedule**, including building materials and finishes proposed external walls, roofing, pathways, driveways, crossover and fencing;
- h) **Contact Details** of nominated point of contact for the duration of the assessment;
- i) **Checklists 1 and 2**; mandatory criteria and recommended option;
- j) **Key Objectives and Mandatory Criteria Checklist**;
- k) **Acoustic Report (if required)**.



# Appendix C

## Residential Landscape Guidelines

Frasers Property Australia is committed to responsible environmental design. As part of their contribution to sustainable development and reducing water use, gardens within the Port Coogee Development are required to conform to WaterWise Garden Guidelines. Landscape plans for residential gardens will need to be submitted to the Design Approval Coordinator (DAC) for approval.

The DAC has specified three mandatory provisions for residential landscapes:

- 80% of residential landscaping is to utilise drought tolerant species;
- 60% of plants are to be native species;
- All residential dwellings must be provided with composting bins.

The following document provides resources and information to assist homeowners in the compilation of a landscape plan that will conform to the DAC requirements. Included are some example garden designs that conform to guidelines that residents can choose to adopt or modify.

In accordance with the LDP, the Developer will install a tree (type to be determined with the City of Cockburn) in each lots' landscape zone. The tree will be provided following the completion of construction of each home on an individual lot basis.

## WaterWise Guidelines

The Water Corporation have developed an extensive set of guidelines regarding the design, construction and maintenance of water wise gardens. The full text of these guidelines can be accessed at [www.watercorporation.com.au](http://www.watercorporation.com.au) Below is a summary of appropriate water conservation measures based on the information on the Water Corporation website.


## General Design of WaterWise Gardens

Maximise the use of non-planting treatments such as paving and mulches, at the same time be aware of excessive use of unshaded paving which can be hot and glaring.

If lawn is to be used, choose a lawn type that is water efficient and best suited to our climate. Warm season grasses which include cultivars and hybrids of couch have a relatively low water demand and high drought tolerance. A guide to lawn selection is included below.

Lawn areas will command a major proportion of your total water use, thus lawn areas should be minimised, and should be located and designed to serve a practical function rather than as a 'fill in' material.





To maximise the efficiency of watering systems garden planting areas, need to be divided into watering zones i.e., groups of plants and trees with similar watering requirements. Specially labelled plant selections for each watering zone are available from most plant nurseries.

Consider the prevailing dry, hot summer winds and summer sun, and plan-in permeable windbreaks and shade plants accordingly. Addition of organic matter such as compost into the soil, or purchasing an appropriate soil blend dramatically improves both water and nutrient holding capacity. Use of mulches on the surface of garden beds reduce evaporative losses from the soil and discourage weeds, decreasing maintenance and water use.

## Improving Your Soil

The imported soil fill used for construction of the residential lots in the Port Coogee development will be ‘clean fill sand’. This sand is ideal for construction purposes, but as it comes from the sub-surface layers of the soil it has little or no organic material and thereby limited water holding and nutrient supply capacity.

The addition of compost to the soil will improve the chemical, physical and biological characteristics of the soil. It improves water retention in sandy soils and promotes soil structure. The breakdown of organic material releases nutrients into the soil reducing the reliance on chemical fertilisers. Further the soil become biologically active and can suppress root pathogens. Compost can be purchased or made at home. If purchasing, ensure the product complies with Australian Standards 4454 for compost. If composting at home, websites such as the following are useful sources of information:

<http://permaculture.org.au>

[http://www.epa.qld.gov.au/environmental\\_management/waste/waste\\_minimisation/composting](http://www.epa.qld.gov.au/environmental_management/waste/waste_minimisation/composting)

Mulches may be organic (such as bark or chipped tree waste), or inorganic (gravel, pebbles, glass or crushed brick). As long as they protect the soil surface and do not retain water within the mulch layer, they will be effective at reducing evaporative losses from the soil. However, some inorganic mulches may absorb and then radiate heat, increasing the heat stress on plant material. They may also present a maintenance problem in situations where plants drop leaves/flowers/fruit onto the mulch.

## Planting Designs

Following in appendix D is a list of native and exotic suitable for inclusion in residential gardens. Many of these plants will be utilised in the development landscaping and use of these species within residential gardens will help create a cohesive style for the development.

Planting designs may include some or none of these species but they will need to demonstrate compliance with the required levels of native and drought tolerant species. Drought tolerant and shade tolerant species are indicated on the left of the species list to help homeowners to group plants for different locations within the garden.

The plant list is divided into functional groups including trees, groundcovers, shrubs, hedging plants, climbers, strappy leaved/grassy plants and accent plants. This structure should assist residents choose plants that will achieve different functions within the garden.





## Lawn Selection Guide

(Reproduced from the Water Corporation website)

### Irrigation

Modern automated irrigation systems are both cheap and adaptable. When properly designed and operated, they provide effortless and efficient watering. Your planning should incorporate these elements:

#### Choice of equipment

- Use sprinklers that produce coarse sprays of large droplets. These are less prone to wind drift;
- Use good quality sprinklers which have matching precipitation rates. Cheap sprinklers will vary enormously in their output;
- Use a good quality controller which has the ability to run separate programs for lawn areas and garden;
- Gutter mounted rain sensors can be used to disable watering after summer rain storms.

### Lawn Watering

- Sprinklers should be placed so that the spray from one sprinkler touches the next sprinkler;
- Sprinklers should be staggered;
- Use good quality part circle sprinklers on the edges to prevent watering of hard surfaces;
- Do not mix different types of emitters on the same line;
- Water your lawn area separately from garden areas.

### Garden Bed Watering

- The most important principle for saving water when irrigation garden beds are to water directly onto the root zone rather than leaves and areas between plants;
- Choose the most appropriate sprinkler/dripper system for different plant types that will deliver the water onto the root zone.

### Verge Reticulation

The irrigation infrastructure supplying water to verges will be designed to enable straightforward disconnection from the communal irrigation water supply and connection to the reticulation system for individual residential lots at the appropriate time.



# Appendix D

DT Drought Tolerant  
ST Shade Tolerant

## Recommended Plant Species

### TREES

The choice of tree and its location within the garden is crucial to the aesthetics and functioning of the garden. Trees provide shade, wind protection, privacy as well as being dominant aesthetic elements in a garden.

		BOTANICAL NAME	COMMON NAME	DESCRIPTION
Evergreen	<b>Native Species</b>			
	DT	Agonis flexuosa	WA Peppermint	Mid-sized tree with pendulous open habit
		Agonis flexuosa 'After Dark'		Purple coloured foliage with pendulous open habit
	DT	Eucalyptus decipiens		
	DT	Eucalyptus platypus var. heterophylla	Coastal Moort	Bushy/dense crown; showy cream flowers; smooth pink bark
		Eucalyptus todtiana	Coastal Blackbutt	
		Eucalyptus torquata	Coral Gum	Small tree with spreading form, masses of large red flowers
	DT	Melaleuca lanceolata	Rottnest Is Tea Tree	Small tree with dark green foliage with a small cream flower
	<b>Exotic Species</b>			
	DT	Hibiscus tiliaceus rubra	Cottonwood	Large heart shaped mid-green leaves with white undersides
DT	Metrosideros excelsa	NZ Christmas Tree	Showy crimson flowers; umbrella canopy or use as hedge	
DT	Olea europaea	European Olive	Grey-leaved; fruit bearing (sterile varieties); picturesque habit	
Deciduous	<b>Exotic Species</b>			
		Plumeria obtusa	Frangipani	Small deciduous tree, scented white flowers with yellow centre
		Ficus carica	Common Fig	Small deciduous tree, distinctive 3-lobed leaf, edible fruit
	DT	Sapium sebiferum	Chinese Tallow	Small deciduous tree, leaves colour to shades of yellow-red
	Ulmus parvifolia	Chinese Elm	Upright habit; rounded crown; fine branches clothed in leaves	

### GROUNDCOVERS

Groundcovers mass planted provide a subtle groundplane texture that can be used as foreground to more larger more dramatic plants. They are an excellent alternative to lawn in circumstances where you want to achieve an 'open' space that does not need to be trafficable.

		BOTANICAL NAME	COMMON NAME	DESCRIPTION
<b>Native Species</b>				
DT		Carpobrotus virescens	Pig Face	Mat forming; pink and green succulent foliage; bright pink flowers
DT		Calothamnus 'Emerald Carpet'	One-Sided Bottle brush	Narrow, needle-like deep green leaves, flowers resemble a bottlebrush
DT		Grevillea crithmifolia	Prostrate Grevillea	Compact evergreen; perfumed white flowers
DT		Grevillea obtusifolia 'Gin Gin Gem'	Prostrate Grevillea	



DT Drought Tolerant  
ST Shade Tolerant

	BOTANICAL NAME	COMMON NAME	DESCRIPTION
DT	Eremophila 'Kalbarri Carpet'	Emu bush (prostrate form)	Prostrate form, grey-green leaves
DT	Myoporum parvifolium	Creeping Boobialla	Vigorous spreading; stary flowers; fine leafed form is the most attractive
DT ST	Scaevola 'White Carpet'	Fan Flower	Mat forming groundcover, white fan-like flower for an extended period
DT	Tetragonia decumbens	Coastal Spinach	Spreading shrub; dark green, glistening leaves; small, yellow flowers
DT	Westringia 'White Rambler'	Australian Rosemary	Prostrate native rosemary
ST	Viola hederacea	Native Violet	Small mauve and white flowers; can be used in containers
<b>Exotic Species</b>			
DT	Arctotis varieties	African Daisy	Grey-green or silvery leaves with showy flowers
DT	Dymondia margaretae 'Silver Carpet'	Dymondia	Narrow green foliage (silver underneath), yellow daisies, use between paving stones or as a lawn, takes light foot traffic
	Juniper conferta	Shore Juniper	Sculptural groundcover conifers, berry-like fruits
DT	Gazania varieties	Gazania	Green or grey leaved varieties grown for their showy flowers
	Osteospermum fruticosum alba	White Prostrate African Daisy	Irregularly toothed leaves and a profusion of large daisy-like flowers
	Trachelospermum asiaticum	Yellow Star Jasmine	Oval, glossy and dark green leaves, creamy scented flowers
	Trachelospermum jasminoides	Star Jasmine	Oval, glossy and dark green leaves, star shaped white flowers

## SHRUBS

These shrubs are small to medium sized suitable for small gardens and provide different leaf or flower features. While these are not showy 'accent' plants they will provide subtle features when planted in groups that can fill spaces between more dramatic planting.

	BOTANICAL NAME	COMMON NAME	DESCRIPTION
DT ST	Agonis flexuosa var. nana	Dwarf Willow Peppermint	Hardy, dense shrub with broadly lanceshaped copper foliage
DT	Calothamnus quadrifidus	One-Sided Bottlebrush	Red claw-like one-sided flowering spikes; ideal for screening/pruning; needle-like leaves
DT	Correa reflexa var. nummularifolia	Common Correa	Round leathery leaves; green-white bell shaped flowers
DT	Eremophila nivea 'Spring Mist'	Emu Bush	Soft silver grey foliage with mauve flowers
DT	Leucophyta brownii	Cushion Bush	Silver ball of twiggy stems; minute foliage
DT	Leucophyta 'Silver Nugget'	Cushion Bush	Dwarf form of cushion bush
DT	Melaleuca incana var. nana	Dwarf Grey Honey Myrtle	Soft, weeping, grey-blue to grey-green foliage
DT	Olearia 'Little Smokie'	Coastal Daisy Bush	Ornamental grey-white foliage
DT	Pimelea ferruginea	Pink Rice Flower	Complete flower coverage; good for low hedging/edging
DT	Templetonia retusa	Cookies Tongue	Grey to green, oval to oblong leaves; with red flowers



DT Drought Tolerant  
ST Shade Tolerant

	BOTANICAL NAME	COMMON NAME	DESCRIPTION
DT	Westringia fruticosa 'Smokie'	Australian Rosemary	Grey variegation
DT	Westringia 'Jervis Gem'	Australian Rosemary	Compact form
	<b>Exotic Species</b>		
	Abelia grandiflora	Abelia	Tall shrub with dark green leaves & arching reddish brown canes
DT	Rosmarinus officinalis	Rosemary	Narrow needle-like leaves that are dark green and aromatic
DT	Raphiolepis indica	Indian Hawthorn	White to pink flowers; use for hedging/clipping; glossy dark leathery leaves

## HEDGING PLANTS

These plants are suitable for clipping into hedges, providing formal/structural elements for the garden. Hedges can be also useful for defining spaces within a garden and providing screening.

	BOTANICAL NAME	COMMON NAME	DESCRIPTION
	<b>Native Species</b>		
DT ST	Agonis flexuosa var. nana	Dwarf Willow Peppermint	Hardy, dense shrub with broadly lanceshaped copper foliage
DT	Westringia fruticosa	Australian Rosemary	Rosemary like foliage, can be pruned in more compact form
	<b>Exotic Species</b>		
DT	Coprosma repens	New Zealand Mirror Bush	Neat round shiny green leaves; fast growing; can be clipped
	Ficus pumila	Creeping Fig	Has attractive small, bright green juvenile leaves that turn bronze
	Metrosideros collina 'Tahiti'	NZ Christmas Bush	Compact evergreen shrub, silver grey new growth
	Pittosporum tobira		
DT	Plumbago	Plumbago	Clusters of blue or white flowers; lax shape responds to pruning
DT	Rosmarinus officinalis	Rosemary	Narrow needle-like leaves that are dark green and aromatic
DT	Raphiolepis indica	Indian Hawthorn	White to pink flowers; use for hedging/clipping; glossy dark leathery leaves

## CLIMBERS

Climbers are excellent for providing vertical green elements in small walled gardens. They take up very little space but can soften hard and sometimes glarey walls. Generally, it is advisable to avoid planting climbers onto a south facing walls.

	BOTANICAL NAME	COMMON NAME	DESCRIPTION
	<b>Native Species</b>		
ST	Hardenbergia comptoniana	Coral Pea	Native climber, clusters of small purple or pink pea-flowers
	<b>Exotic Species</b>		
	Bougainvillea	Bougainvillea	Colourful bracts in shrubs or can be used as climber
ST	Trachelospermum asiaticum		Oval, glossy and dark green leaves, creamy scented flowers
ST	Trachelospermum jasminoides	Star Jasmine	Glossy and dark green leaves, hanging clusters of white flowers





DT Drought Tolerant  
ST Shade Tolerant

## STRAPPY LEAVED & GRASS

Strappy leaved and grassy plants offer a point of interest through their texture and sometime colour contrast with other foliage types. Unlike plants with feature flowers, grass like plants offer interest and accent in the garden all year round.

	BOTANICAL NAME	COMMON NAME	DESCRIPTION
	<b>Native Species</b>		
DT	Anigozanthos various hybrids	Kangaroo Paws	Strap like leaves; flowering stems; flowers on mass
DT ST	Conostylis candicans	Grey Cottonhead	Narrow clumps of greyish foliage; yellow flowers in clusters on stems
DT ST	Dianella revoluta 'Little Rev'	Black Anther Flax-lily	Starry blue flowers; blue berries; colonies of flax-like foliage
	Ficinia nodosa	Knotted Club Rush	Wiry rush with knob of brown flower spikes on the stem
	Juncus kraussii	Sea Rush	Tough, round, spine-tipped leaves; purplish brown flowers are topped by spine-tipped bracts
	Lepidosperma gladiatum	Coastal Sword-sedge	Sharp sword-like leaves; hard shiny nuts; pale brown flowers
ST	Lomandra 'Tanika'	Spiny-headed Mat-rush	Fine leaf form, bright green foliage
DT ST	Lomandra longifolia 'Cassica'	Spiny-headed Mat-rush	Arching, clumping, strappy perennial with grey/green foliage
DT	Orthrosanthus multiflorus	Morning Flag	Numerous spikes of blue flowers; clump of strappy leaves
	<b>Exotic Species</b>		
ST	Liriope spicata	Lilyturf	Dark green clumping strappy plant, flowers white to pale purple
ST	Ophiopogon japonicus	Mondo Grass	Fine dark green leaves, spreading to form dense soft mats.
ST	Phormium tenax	New Zealand Flax	Giant sword-like leaves and towering flower stalks
ST	Zephyranthes candida	Rain Lily	Small reedy evergreen; white flowers; clumpforming and bulbous; best when crowded

## ACCENT PLANTS

The list of accent plants includes some of the strappy leaved varieties along with some dramatic looking succulents. This type of plants should be used in relatively small groupings.

	BOTANICAL NAME	COMMON NAME	DESCRIPTION
	<b>Native Species</b>		
ST	Anigozanthos various hybrids	Kangaroo Paws	Strap like leaves; flowering stems; flowers on mass
	Ficinia nodosa	Knotted Club Rush	Wiry rush with knob of brown flower spikes on the stem
	Juncus kraussii	Sea Rush	Tough, round, spine-tipped leaves; purplish brown flowers are topped by spine-tipped bracts
ST	<b>Exotic Species</b>		
ST	Agave attenuata	Agave	Large 'strappy' succulent
	Aeonium aboreum	Aeonium	Succulent with green/purple leaves depending on season
	Phormium tenax (purple and red leaved)		New Zealand Flax Red/purple leaved varieties of large strappy plant
	Strelitzia reginae	Bird of Paradise	Grey foliage; purple & orange flowers; striking accent plant

## PROHIBITED PLANTS

Palm Trees



# Creating proud communities since 1924.

Backed by one of the world’s leading real-estate businesses—with residential, retail, commercial and industrial developments across five continents—Fraser’s Property Australia is global in scale, yet local at heart. After almost a century creating homes and places for hundreds of thousands of Australians, experience tells us that what matters the most is the simple joy of living in a place you’re proud to call home.



**Longevity**  
More than 90 years of history in Australia



**Prosperity**  
Personalised customer care and rewards



**Reliability**  
Property services and utilities you can rely on



**Community**  
Built on a foundation of connectivity, health and well-being



**Quality**  
Award winning sustainable home design for a lifetime of living

*Live proud.*



**The Waterfront,  
Shell Cove NSW**



**Burwood Brickworks,  
Melbourne VIC**



**Central Park,  
Sydney NSW**

Call 13 38 38 | [portcoogee.com.au](http://portcoogee.com.au)