the village at Wellard

Residential Design Guidelines

PEET

Contents

1 Introduction

The Village at Wellard has been designed to create a compact transit orientated neighbourhood centred on the Wellard transit station. The residential subdivision features a mix of lot sizes and configurations aimed at optimising the range of residential development opportunities.

These guidelines have been prepared to assist purchasers in developing their properties to a standard which will maximise the value of their investment whilst enhancing the quality of the estate as a whole.

In assessing design submissions for compliance with the applicable covenants, adherence to the principles of these guidelines will also be taken into consideration. Residential lots have been categorised in accordance with lot sizes and the natural amenity they are afforded as follows:

PARKLAND LOTS

Lots fronting onto Public Open Space.

Approx area 330–440m²
Approx frontage 12–15m

COTTAGE LOTS

Lots served by a rear laneway for vehicular access and garaging, resulting in a pedestrian friendly front street.

Approx area 286–440m²
Approx frontage 10–14m.

TRADITIONAL LOTS

Lots generally with a single street frontage and vehicular access via the front.

Approx area 450–800m²
Approx frontage 15–20m.

TOWNHOUSE LOTS

Lots close to the village centre served by rear lane way for vehicle access and garaging.

Approx area 220–330m²
Approx frontage 8–11m.

HOMESTEAD LOTS

Large lifestyle lots adjacent to existing Special Residential development.

Approx area 1500–2100m²
Approx frontage 27–33m.

2 Architectural Character

The architectural character is to be of a contemporary nature with street elevations articulated to feature clearly defined elements. External wall finishes should feature:

- a primary material such as painted render, face brickwork, stonework or rammed earth complemented by minor elements including painted or clear finished weatherboards, corrugated metal cladding, painted fibre cement panel cladding, accent colours, etc.

The aim is to encourage residential development which reflects a contemporary Australian urbanism rather than historical or vernacular styles such as “Federation”, “Tuscan,” etc.

INDICATIVE OF ARCHITECTURAL CHARACTER




3 Restrictive Covenants & Detailed Area Plans

3.1 RESTRICTIVE COVENANTS

The lots are encumbered by restrictive covenants which are intended to benefit all property owners by ensuring minimum standards of development are met and the amenity of all properties is optimised.

3.2 DETAILED AREA PLANS

Detailed Area Plans are prepared for the lots to illustrate such elements as building envelopes, recommended outdoor living or courtyard locations, garage locations, R-Code variations, landmark building element locations, duplex and group dwelling site locations, etc.

3.3 OTHER RELEVANT DOCUMENTS

The design guidelines are to be read in conjunction with the applicable Detailed Area Plans together with any other relevant and current statutory or contractual documents including:

- Building Code of Australia (BCA)
- Residential Design Codes of WA (R-Codes)
- Town of Kwinana Town Planning Scheme No 2 (TPS)
- Sales contract and appendices

4 Sustainable Development

The Wellard joint venture partners are committed to the promotion of a sustainable development. The Village at Wellard is a transit oriented subdivision featuring a variety of housing lot typologies including a mixed use village centre within a walkable neighbourhood which makes better use of infrastructure services and contributes to energy efficient design.

Sustainability initiatives aim to respond to the needs of today's and future generations by addressing a range of environmental, social and economic issues. In order to contribute to this policy, homes constructed within the estate should satisfy a range of socially responsible sustainability criteria.

In the areas of energy and water efficiency, waste minimisation and recycling, buyers are recommended to refer to the GreenSmart website www.greensmart.com.au

The Sustainable Home

A sustainable home is one which contributes to the natural, social and economic environments by achieving certain performance levels in these areas whilst mitigating some of the negative impacts brought about by the development process. Minimum built form statutory performance criteria are being introduced and refined on an ongoing basis by the Commonwealth and State Governments in an effort to achieve this goal.

KEY SUSTAINABILITY AIMS INCLUDE:

- The reduction of energy use from non renewable resources.
- Reduced demand for scheme water;
- Reduced waste from the building process resulting in economic efficiency and less waste going to landfill;
- Reduced demand for non renewable natural resources, such as native hardwoods or rainforest timber;
- The creation of a healthy and safe living environment which can cater for the changing requirements of an aging population.
- Contributing to community values by fostering easy social interaction and passive surveillance opportunities;
- The creation of interesting built form streetscapes reflecting the rich mix of social diversity contained within;
- The creation of a safe and secure urban environment through the application of design techniques such as the maximisation of passive surveillance opportunities to limit opportunities for antisocial behaviour.

Guiding text aimed at contributing to sustainable building practice is as follows:

4.1 PASSIVE ENVIRONMENTAL HOME DESIGN

4.1.1 THE HOME IS ORIENTATED TO FACILITATE NORTHERLY SOLAR ACCESS TO LIVING AREAS.

Good orientation facilitates energy efficiency by reducing the requirement to heat and cool the home. For parkland/cottage/townhouse lots nominated zero side setbacks are permitted in order to better facilitate the provision of a solar accessible courtyard along the opposite side boundary.

Guiding Text:

- Daytime living areas should be located such that major openings face north to allow greater winter solar penetration when the sun angle is lower. In summer when the sun travels overhead, openings should be shaded by eaves overhangs or awnings. The ideal orientation for living areas is within 15°W to 20°E of true north.
- North facing walls and windows requiring winter solar access should be set well back from large obstructions. Where overshadowing from neighbouring homes to the north is anticipated, areas requiring solar access should be set back from the neighbour sufficiently to allow winter solar penetration.
- Outdoor living or courtyard areas should be located to the north to maximise solar access and to also facilitate unobstructed solar penetration to indoor living areas.
- When selecting or designing a home, consider a plan which will have living areas facing north or a design that can be adjusted to incorporate passive solar design principles.
- Each home should have a minimum of one (1) internal living area with a major opening located to facilitate northerly solar access.
- The scale, bulk and placement of the home on the site shall minimise the overshadowing effect on adjacent properties to within limits permitted in the R Codes, thus allowing neighbours a suitable level of solar access.
- When planting trees to solar accessible spaces, it is wise to strategically locate deciduous species to provide summer shade whilst permitting winter solar penetration.
- The extent of glazing to the east and west sides of homes should be minimised. Where openings are provided to take advantage of westerly or easterly views, these should have protection such as solar shutters, blinds or screening devices.

4.1.2 THE DESIGN PERMITS GOOD CROSS VENTILATION

Good cross ventilation can reduce the need to use air conditioning in summer and contribute to a healthy home.

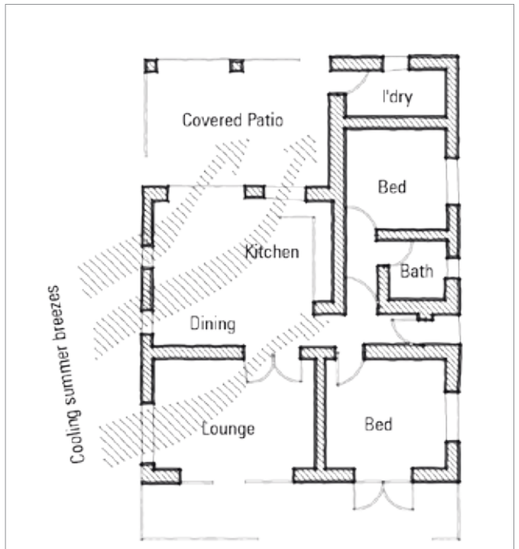
Guiding Text:

- Habitable rooms shall have external openings located to facilitate through ventilation as required by the BCA. The south westerly sea breezes and night time easterlies can help cool the home in summer if windows are appropriately placed to permit cross ventilation.
- Ceiling mounted sweep fans can be used to assist with airflow in the room.
- Building products, furniture, paint, cleaning products and consumer goods can emit Volatile Organic Compounds (VOCs). The level of these chemicals which evaporate into the atmosphere at room temperature, together with pollens and dust can be significantly reduced in homes with good ventilation characteristics.

PASSIVE ENVIRONMENTAL HOME DESIGN

Parkland Lot | Cottage Lot | Traditional Lot

CROSS VENTILATION



Layout needs to allow for ease of cross ventilation

4.1.3 THE HOME IS ZONED TO MAXIMISE THE EFFICIENCY OF HEATING AND COOLING.

Large unzoned open plan homes will be more expensive to heat and cool, while air leakage through unsealed openings can also add considerably to heating and cooling costs.

Guiding Text:

- The home should be split into compartments to maximise the efficiency of heating and cooling. Ground and upper floors and different living areas should be capable of being closed off from one another to create easily heated or cooled zones.
- Chimneys should be fitted with dampers to prevent warm air escaping from the house when the fireplace is not in use.
- Doors and windows should be well sealed to prevent warmth escaping or draughts affecting heated rooms.

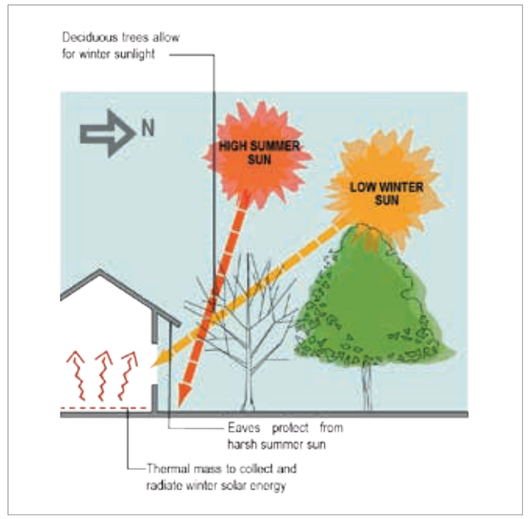
4.1.4 THERMAL MASS HAS BEEN INCORPORATED INTO THE HOME

Thermal mass describes the home's ability to absorb, store and re-radiate heat. When effectively incorporated into the home this can help reduce fluctuations in the internal air temperature making for a more comfortable environment which is less expensive to heat.

Guiding Text:

- Concrete floors and masonry walls create mass which can absorb and store heat from the sun in winter and re-radiate it into the living area.
- Thermal mass is best located in living areas which are north facing.
- Hard surfaces such as tiles allow the sun to heat the slab more readily than barrier materials like timber/carpet or cork.
- Darker coloured tiles will absorb heat more efficiently than light tiles.
- In summer the thermal mass should be shaded from direct sunlight by the use of eaves, solar pergolas, awnings, blinds, etc.

THERMAL MASS



4.1.5 THE HOME HAS BEEN PROPERLY INSULATED

Roof and ceiling insulation can contribute to considerable savings on heating and cooling costs with additional savings possible by the addition of wall insulation.

Guiding Text:

- Insulating the roof will greatly reduce the amount of heat entering the home.
- Insulating the ceiling will ensure heating and cooling effects are maximised within living areas by reducing the extent of energy lost into the ceiling space.
- Insulation is a requirement of the BCA. The R Value of insulation relates to its capacity to resist heat transfer. The higher the R Value the greater the insulating effect a material will have.
- 'Reverse Brick Veneer' refers to the construction of external walls where the internal leaf of brickwork is complemented by an external stud framed wall rather than traditional 'double brick' construction. For areas with a direct solar load this form of construction can contribute to energy efficiency. Insulated wall framing clad in a reflective material can provide more satisfactory insulating characteristics than double brick walls which tend to store heat during hot days and radiate it into the home at night. Reverse brick veneer can also have the added advantage of introducing an element of variety to the elevations through the use of an additional wall material.
- The insulating characteristics of double brick external walls can be greatly improved by the use of foam insulation within the cavity space.

4.1.6 OPEN SPACE AND OUTDOOR LIVING AREAS

Usable open space is an important consideration in the design of any home. Perth's temperate climate enables outdoor living areas to be utilised for much of the year and accordingly an extent of open space is required to be provided as part of the amenity of a dwelling. In particular a minimum outdoor living area is required.

A feature of the local microclimate is the potential for brisk morning easterly and afternoon sea breezes. As well as embracing Perth's temperate climate, building design should provide wind protected areas which enable the enjoyment of outdoor living normally associated with this climate.

Guiding text:

- An outdoor living area is not intended to be fully walled and roofed but may be partially covered to the extent permitted by the R Codes.
- An outdoor living area is to be directly accessible from an internal living area and should be located to best facilitate winter solar penetration.
- An outdoor living area should be planned such that wind protection is provided by the mass of the home or neighbouring home in conjunction with the use of screen walls or buffer planting at the side of the home.

INDICATIVE OUTDOOR LIVING AREAS

4.2 ENERGY USE

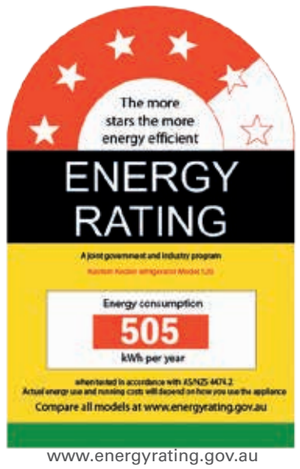
4.2.1 A HOT WATER SYSTEM WHICH COMPLIES WITH THE REQUIREMENTS OF '5 STAR PLUS' SHALL BE INSTALLED.

Water heating can account for up to a third of the energy used in the home. Compliance with the state government's '5 STAR PLUS' standards which are designed to meet the minimum 5 star energy efficiency standards of the BCA is a mandatory requirement. This can be achieved through the use of a solar or 5 star rated gas hot water system or a high energy efficient electric heat pump.

Guiding Text:

- The hot water system should be sized according to the number of people in the home.
- A solar system has a gas booster to ensure hot water delivery in cloudy and winter conditions. Boosting is rarely required in summer.
- The hot water unit should be located as closely as possible to the area of most use – i.e. Kitchen or Bathroom.

ENERGY RATING



www.energyrating.gov.au

4.2.2 MECHANICAL HEATING AND COOLING HAS BEEN MINIMISED

- Ceiling fans should be installed in the bedrooms.
- Where an air conditioner or evaporative cooling system is installed it should have a minimum energy rating of 4 stars.
- The air conditioning system should permit separate control of the living and sleeping areas.
- Heating and cooling can equate to as much as a quarter of household energy costs and by incorporating good passive solar design, the need to heat and cool the home can be greatly reduced.

Guiding Text:

- When considering the installation of air conditioning, compare the effectiveness of a split system to that of a ducted refrigerated system. A split system can be significantly cheaper to run.
- Ensure the thermostat is programmable to ensure an effective response to seasonal climate conditions.
- When deciding on what system to install consider the noise implications for neighbours as described in clause 4.6.3.

4.2.3 THE REFRIGERATOR LOCATION IS COOL AND WELL VENTILATED

The refrigerator is a major user of household energy.

Guiding Text:

- To ensure maximum energy efficiency the refrigerator should not be located next to an oven or in direct sunlight.
- Ensure adequate ventilation at the rear, top and sides of the refrigerator.
- Select a refrigerator with a high energy efficiency rating (above 3.5 stars.)

4.2.4 ENERGY EFFICIENT LIGHTING HAS BEEN INSTALLED THROUGHOUT THE HOME

Guiding Text:

- Installing compact fluorescent light fittings in lieu of incandescent and halogen downlights can equate to annual savings in the hundreds of dollars.
- Halogen lamps generate a large amount of heat and generally don't have a long lifespan like fluorescent lamps.
- Low voltage transformers for down lights are not necessarily energy efficient.

4.3 WATER USE

In keeping with the principles of sustainable development, dwellings should be designed to minimise water consumption. All plumbing fittings shall be water efficient and comply with the requirements of the Water Efficiency Labelling Scheme (WELS) star rating system.

4.3.1 FITTINGS AND FIXTURES

- Each toilet shall have a 4.5/3 litre (minimum 4 star rated) dual flush cistern.
- All shower heads shall be a minimum 3 star rated.
- All tapware is to be minimum 4 star rated.

4.3.2 GREYWATER RECYCLING SYSTEM

- Consider the use of grey water recycling for use on garden areas as a way to reduce the demand on scheme water.

4.3.3 WATER TANKS

- Consider the use of rain water tanks to collect and store water for such uses as garden watering or toilet flushing.

4.4 GARDEN DESIGN

4.4.1 A MINIMAL WATER USE GARDEN HAS BEEN INSTALLED.

Gardens installed by the buyer should be designed to minimise water use as well as contributing to the passive environmental aspects of the home.

INDICATIVE LANDSCAPING

Guiding Text:

- The majority of plants are natives or drought resistant.
- The extent of lawn has been minimised.
- The lawn species is low water tolerant.
- electronically controlled irrigation system with a rain sensor and efficient water delivery through pop up sprays for lawns and drippers and coarse drop sprays for gardens has been installed. Subterranean water delivery should be considered for garden areas utilising scheme water.
- 75mm of mulch has been applied over non lawn garden areas.
- Paved areas are planned to direct rainwater run off onto garden areas.
- A soil conditioner is used to improve the soil in garden areas.
- The strategic placing of trees and shrubs around the home can ameliorate the effects of intense summer sun and provide a buffer to strong breezes.
- Trees and shrubs can be used to assist in shading on the east and west sides of the home
- On the north side deciduous trees and climbers on pergolas can reduce the impact of summer sun whilst allowing winter sunlight to penetrate the home.
- Shade paved areas around the home to minimise the extent of summer heat build up.
- Installing lawn or planting rather than paving in front of unprotected north facing openings will reduce heat load on the home.

Information on Waterwise garden design including the selection of plant species for a variety of garden styles is available on the Water Corporation website, **www.watercorporation.com.au.**

4.5 WASTE AND RECYCLING

4.5.1 CONSTRUCTION WASTE

Builders are encouraged to take steps to minimise the production of non-recyclable waste and the impact of their construction activities on neighbouring properties.
A construction management plan should be developed to minimise the amount of waste and to facilitate recycling.

Guiding Text:

A strategy should be developed to minimise the amount of waste required to be disposed of through landfill.

Initiatives to be considered include the following:

- Set in place designated waste storage areas to enable an extent of on-site sorting. i.e. separate bins/areas for metal, timber, plasterboard, masonry, glass/ceramics etc, as opposed to a single general waste pile;
- Educate subcontractors to dispose of waste accordingly, thus facilitating opportunities for sorting and recycling;
- Utilise waste collection agencies who carry out further sorting/recycling off-site;
- Regularly remove waste from the site to minimise unsightly mess and the potential for spillage into neighbouring properties. An orderly building operation should be promoted thus reinforcing for subcontractors the message that they should take some responsibility for the minimisation of waste;
- Maximise the use of pre-fabricated components in order to achieve reductions in the extent of waste, i.e. the use of steel or timber roof trusses;
- Accurately order amounts and lengths of materials thus avoiding excessive waste;
- Store and recycle useable brick cut-offs into rendered walls rather then sending to landfill;
- Store timber off-cuts on site for mulching and use for garden areas;
- Maximise the use of non-hazardous materials, i.e. low emission water based sealers and paints rather than epoxy/oil based;

MAINTAINING VISIBILITY




Balcony and door openings to provide outlook over laneway

- Use certified plantation timber only. i.e. plantation pine trusses and laminated veneer timber beams rather than hardwood rafters and structural beams;
- Provide secure storage areas, fencing and the use of security agents in the final stages of construction in order to minimise opportunities for break in and theft; a major source of additional cost for the residential construction industry.

4.5.2 SITE MANAGEMENT

Guiding Text:

- The potential for intrusion by dust or rubbish from the site into neighbouring properties should be minimised by watering down or the use of screening such as hessian or shade cloth clad fencing.
- Stormwater is to be retained on site in order to reduce the extent of water born contaminants being deposited into waterways.

4.5.3 HOUSEHOLD WASTE

Waste minimisation within the household is encouraged particularly the source separation and storage of recyclable materials.

Community amenity and health should be enhanced by the appropriate collection, storage and treatment of household waste.

Guiding Text:

- Bin storage and external garden waste storage areas should be sited to reduce their visual impact and designed to compliment the architecture and environs.
- Appropriate space should be provided within the dwelling to facilitate the separation of recyclable waste from non recyclable. This can be achieved through the provision in the kitchen area of 1 bin for recyclable waste and 1 bin for non recyclable waste.

4.6 COMMUNITY & SOCIAL CONSIDERATIONS

4.6.1 IMPACT ON NEIGHBOURS

Construction shall comply with the Town of Kwinana hours of work and also have due respect for neighbours by not playing loud radios and refraining from the use of loud or objectionable language on the site.

4.6.2 PUBLIC SAFETY AND AMENITY

The design of homes should assist in the creation of a safe and enjoyable residential environment.

Guiding Text:

- Maintain visibility over streets, laneways and public open spaces from surrounding buildings by providing ample windows from habitable rooms facing or overlooking the public domain. A minimum of one major opening to a habitable room shall overlook any primary or secondary street. For 2 storey homes on cottage lots where a habitable room is constructed above the garage, window openings or balconies should provide passive surveillance opportunities over the rear laneway.
- Design front and dividing fences forward of the building line to be low in height in order to promote visibility;
- Design and maintain landscaping to minimise visual obstruction. i.e. utilising planting such as low hedges and tree species with a high canopy;
- Utilise the minimum front setbacks to provide windows facing onto the street and thus maintain an easily surveyed front garden;
- Front gardens and rear outdoor areas at laneways should be well lit; possibly incorporating motion activated light fittings;
- Provide secure connections to rear laneways through the installation of lockable garage doors and gateways;
- Upgrade sliding door and window security through the application of deadlocks and consider stainless steel security mesh insect screens.

4.6.3 ATTENUATION OF NOISE

Due to the smaller lot sizes common in present day subdivisions, air conditioning equipment locations should be carefully considered in order to safeguard occupants and neighbours against loss of amenity caused by undue sound being transmitted between dwellings.

Non compliance with noise regulations can result in significant penalties for both the homeowner and the installer of noise producing equipment.

Guiding Text:

- Noise generating features such as air conditioning or evaporative cooling plant are to be appropriately located or otherwise acoustically screened to within the limits set out in the Environmental Protection (Noise) Regulations 1997.
- Acoustic planning considerations include:
  - Select a quiet model rather than the cheapest available;
  - Ask the supplier/installer to guarantee the suitability of the model selected;
  - Locate the equipment at ground level with a solid barrier such as a wall or fence to moderate the impact on neighbours;
  - Avoid reflected noise issues by locating equipment away from walls facing a neighbouring property;
  - Install equipment away from an existing neighbour's outdoor living area or door/window openings;
  - Install equipment in a service area toward the rear of the property or on a rear wall well clear of side boundaries;
  - Install equipment on the rear of a roof so that it is not visible from any public area and the main noise impact is toward the rear of the property.
- Compliance with noise regulations is a statutory requirement which is administered by the Town of Kwinana.

4.6.4 ROBUST DESIGN

Robust design principles embrace an approach to building design and construction which is safe; meets the needs of people across a range of abilities and ages; and is adaptable to the changing needs of users.

Guiding text:

Universal Accessibility

Universal Accessibility refers to the concept that housing design should cater for all users irrespective of age or mobility. i.e. catering for an aging population. This is best done at the design stage with elements to be considered including the following:

- Parking designed with suitable paving gradients and additional clear space;
- Accessible paths and ramps;
- Reduced threshold heights at doorways;
- Increased widths at doorways, passages and stairs;
- The type of door handle used;
- Slip resistant floor finishes;
- Lower window sill heights to enable viewing from the seated position;
- Power point, light switch and telephone point locations and heights;
- Adequate lighting levels;
- Kitchen and bathroom cabinet design; including reduced bench heights and open spaces under sinks and basins for wheelchair access;
- Toilet and bathroom accessibility and the potential to add grab rails;
- For 2 storey homes consider a straight stair which will enable the possible future installation of a chair lift.

Adaptable Housing

This refers to a flexibility of home design which will accommodate the varied and changing needs of the user with a minimum of disruption and cost.

Elements to be considered include:

- Home Based Business: Consider the provision of a flexible space which can be used as a home office if required. i.e. At ground floor level; or in a roof space; or over a garage. Make provision for access to technology through sufficient internal cabling to appropriate locations suitable for a home office.
- Consider the design's ability to accommodate universal access elements at a later stage (if not provided initially.)
- Liveability: the home design should be sufficiently flexible to allow for a variety of furniture layouts and occupancy types such as family or rental.

Additional information on accessibility and adaptability may be obtained from Australian Standard 4299 -1995 'Adaptable Housing', Australian Standard 1428 -1998 'Design for Access and Mobility' and The Master Builders Association publication 'Housing for Life'.

The Healthy Home

When designing and building a home, consideration should be given to making it as safe and healthy for users as possible. The impact of pollutants or other dangers can be minimised by:

- Using materials that are non-toxic and do not reduce indoor air quality i.e. Treat timbers with organic oil or mild water based finishes rather than preservatives and coatings containing materials such as formaldehyde and heavy metals or which result in VOCs;
- Select materials that are easily cleaned, durable and require minimal maintenance.
- Avoid the use of wood or kerosene heaters and where gas is used, ensure the level of ventilation is sufficient;
- Use less toxic and more environmentally friendly disposable products (such as cleaning products) within the home;
- Design cabinets with child proof latches;
- Utilise slip resistant floor finishes.

4.7 "QUIET HOUSE" DESIGN

Buyers are advised that depending on location the noise levels emanating from the railway may be noticeable. While strict noise and vibration criteria are set by the Department of Environment it is recommended that the application of "Quiet House" design principles be considered for homes close to the railway. These include:

- Locating bedrooms away from the potential noise source;
- Locating non-noise sensitive rooms closest to the potential noise source;
- Upgrade external doors to solid core with door seals;
- Sealing of eaves;
- The provision of roof and ceiling insulation;
- External walls featuring double brick construction;
- For glazing facing the potential noise source; the use of thicker than normal or laminated glass with opening windows recommended to feature casement sashes in timber or commercial steel and with compressible acoustic seals.

5 Common Conditions

INDICATIVE BUILDING FORM




INDICATIVE OF ARTICULATED ELEVATIONS




5.1 BUILDING FORM

5.1.1 BUILDING HEIGHT

The maximum allowable height is 2 storeys, with a third habitable level permitted within the roof space and additional vertical emphasis permitted at nominated landmark locations.

5.1.2 ROOF FORM

In order to promote a consistency of residential development, roof pitches shall be at 24.3° minimum and 42° maximum.

Areas of flat roof are to be hidden behind parapets except where expressed as awnings.

Low mono-pitched skillion roofs will be acceptable only when the design is considered to be of sufficient merit and otherwise in the spirit of the guidelines.

5.1.3 MINIMUM EAVES OVERHANG

In line with sustainability principles, the impact if direct sunlight on walls and openings shall be mitigated by a minimum eaves overhang of 450mm. This shall apply to all eaves, except where limited by side setback requirements, or at areas of extended roof cover, such as verandahs, entry portico's and awnings, or at non-habitable areas such as garages, stores, robes and fireplaces.

5.1.4 SECONDARY STREET ELEVATIONS

To promote security and provide visual interest, developments on corner lots are required to address both the primary and secondary streets. The secondary street elevation is to be articulated and feature a suitable level of detail including windows which are consistent with that of the primary street elevation.

In line with the requirement for corner residences to address both streets, any fencing along a corner truncation and at least the first 1/3rd of the secondary street boundary shall be a continuation of low or visually permeable fencing as required for front fencing.

The balance of secondary street fencing may be up to 1.8m high to suit particular privacy requirements, with any services such as hot water units to be located behind this and screened from public areas.

5.1.5 ARTICULATION OF FACADES

Elevations to streets and Public Open Spaces are to be articulated to feature clearly defined architectural elements, including:

- Defined entries with expressed roof forms, portico's, glazing, etc;
- The avoidance of blank façades through the provision of projections and indentations in the floor plan with resultant shadow effects and corresponding roof elements;
- The application of awnings and other shading devices;
- Façades broken by balcony projections on 2 storey development; and
- Accent materials and colours applied to specific elements of the built form.

5.1.6 LANDMARK LOCATIONS

Key locations with a high visibility such as corner lots, lots at the end of a street vista, or adjacent to a public open space are identified on the Detailed Area Plans as "landmark" sites.

In order to facilitate mental recognition of locations within a neighbourhood it is recommended that landmark locations be treated with additional architectural emphasis such as additional building height, distinctive roof forms, articulation of wall elements, or the bold use of materials, colour, detailing, etc. Residences constructed on landmark sites should draw attention to the location whilst reinforcing the sense of architecture identity.

5.1.7 SITE LEVELS AND RETAINING WALLS

In order to accommodate a residence additional siteworks and retaining walls may be required.

Additional retaining on existing retained boundaries is not permitted. Existing site levels may not be raised by more than 200mm without the specific approval of the Town of Kwinana.

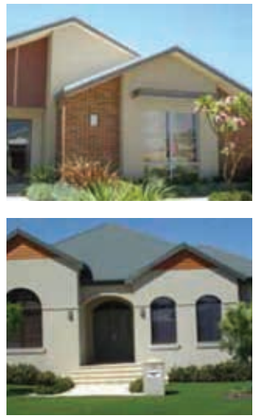
For buildings proposed to be constructed adjacent to or on top of existing lot retaining walls, reference should firstly be made to the applicable technical note available from the Seller.

INDICATIVE OF LANDMARK ELEMENTS

METAL ROOFING

TILE ROOFING

WALL MATERIALS



5.1.8 GEOTECHNICAL CONDITIONS

It is the responsibility of the property purchaser to ensure that the structural design of buildings and associated structures including boundary and garden walls is suitable for the site conditions applicable to the lot.

5.1.9 ROLLER SHUTTERS

Roller shutters shall not be installed to any window or doorway visible from a public space, apart from garage door openings.

5.1.10 GARAGE MATERIALS

At minimum, a garage for two cars shall be provided and be integrated with the dwelling and match the style, material and colours.

5.2 BUILDING MATERIALS

5.2.1 ROOF MATERIALS

Recommended roofing materials are as follows:

- Corrugated sheet metal in Colorbond or zincalume finish. Colours are preferred to be of neutral or low visual impact. Bright or dark, heat absorbing colours such as Colorbond "Cottage Green", "Headland", "Blue Ridge", "Manor Red", "Deep Ocean" or "Night Sky" are not recommended;
- Slate or slate-style roofing tiles; and
- Clay or concrete roofing tiles. Overly bright colours such as reds, greens or blues are not recommended.

5.2.2 WALL MATERIALS

Walls shall feature a composite of construction materials. A dominant masonry material is to be complemented by minor elements of alternative finishes or materials with selections from the following:

- Face and rendered/painted brickwork;
- Stone cladding;
- Clear glazing;
- Weatherboards, painted or natural finish;
- Corrugated sheet metal cladding in custom or mini orb profile in Colorbond or zincalume finish; and
- Compressed fibre cement cladding.

Tilt-up or pre-cast concrete will be only approved for internal walls or where the design exhibits sufficient components of detail and glazing to satisfy the spirit of the guidelines.

5.3 STREET PRESENTATION

- The house shall be designed so as to maximise its presentation to the street. Rooms shall run across the lot with side setbacks to be as small as possible. Designs which feature narrow building frontages with large side setbacks are not permitted.

5.4 SERVICES

- Parkland and cottage lots may be provided with service easements for the connection of water, gas and electrical services. All meters are to be contained within the easement with screening or other architectural treatments to be integrated into the landscape or building design.
- Waste and vent pipes, cable ducts, air-conditioning and evaporative cooling plant, television antennae, satellite dishes, hot water storage tanks and clothes drying areas are to be concealed from street or public view. Solar panels may be visible where they are in the same plane as the roof and there is no alternative location, which affords a suitable level of solar efficiency.
- Where air-conditioning or evaporative cooling plant is roof mounted it is to be finished in a colour to match that of the roofing material.
- All air-conditioning and evaporative cooling plant shall be located and acoustically screened so as to minimise the level of noise intrusion into neighbouring properties to within limits set out by the Environment Protection Act 1986: Environmental Protection (Noise Regulations 1997).
- Provision is to be made for the storage of rubbish bins in such a way as they are screened from public view and can be easily accessed for collection.

5.5 FENCING GENERALLY

- See sections 6.0 – 10.0 for fencing requirements relating to specific housing typologies

Return Fences

Infill return fences from a side or secondary street boundary to the building shall be in a material which matches the building or the side fencing.

Where a building such as a garage or carport is located less than 0.8m from the side boundary, the return fence must be in a material that matches that of the building.

5.5.1 FRONT FENCES PROVIDED BY THE DEVELOPER

Where front walls or fences are provided by the developer, these shall not be added to through the installation of additional solid or open fencing material.

5.5.2 RETURN FENCING AT REAR LANEWAYS

Where a home is not constructed hard up to a nominated zero lot line, resulting in a gap between the building and the side boundary fence, this shall be closed off by return fencing which matches the side fence in material and colour.

5.5.3 RETAINING WALLS CONSTRUCTED BY THE BUYER

All retaining walls constructed by the buyer which are visible from any public place shall match, in material and finish, retaining walls provided throughout the estate by the developer.

5.5.4 LANEWAY RETAINING

All laneway lots shall be finished at the laneway with appropriate limestone or masonry retaining which protects the edge integrity of the lane-roadway, and provides a barrier between the laneway and any rear fencing.

5.5.5 FRONT FENCES GENERALLY

In order to enhance the sense of community fostered by the Village at Wellard, any fencing installed by buyers to front boundaries is required to be low and open.

To maintain an open streetscape that facilitates visibility and cross surveillance, this shall be in the form of rendered masonry or limestone piers to a maximum height of 1.2m and infilled with rendered masonry, brick, limestone or visually permeable panels to a maximum height of 1.0m.

5.5.6 DIVIDING FENCES

The minimum permissible standard for fences dividing adjoining properties is 1.8m high proprietary brand capped Colorbond metal fencing which is not to project past the adjacent building line.

A dividing fence in front of the building line is to be in material as required for a front fence.

5.5.7 DIVIDING FENCES FORWARD OF THE BUILDING LINE

Dividing fences forward of the building line shall be as for the front fence with piers to a maximum height of 1.2m and infill panels to a maximum of 1.0m.

Materials shall be as for those of a front fence.

5.5.8 UNIFORM FENCING BY DEVELOPER

At the developer's discretion, uniform fencing may be provided to boundaries of lots abutting selected roads and Public Open Space, which may differ from the fencing requirements in these guidelines.

Where uniform fencing is provided by the developer, it may not be removed, altered, marked, damaged or allowed to fall into a state of disrepair by the lot owner.

5.5.9 CORNER LOTS

On the secondary street frontage, the fencing is to be a minimum permissible standard of a proprietary brand capped metal fence to a maximum height of 1.8m, with the top 0.3m recommended to be a component of visually permeable panels.

This fence is not permitted to extend forward of a point 4m back from the front building line unless it is low or visually permeable as is required for a front fence.

5.6 EXISTING MATURE TREES

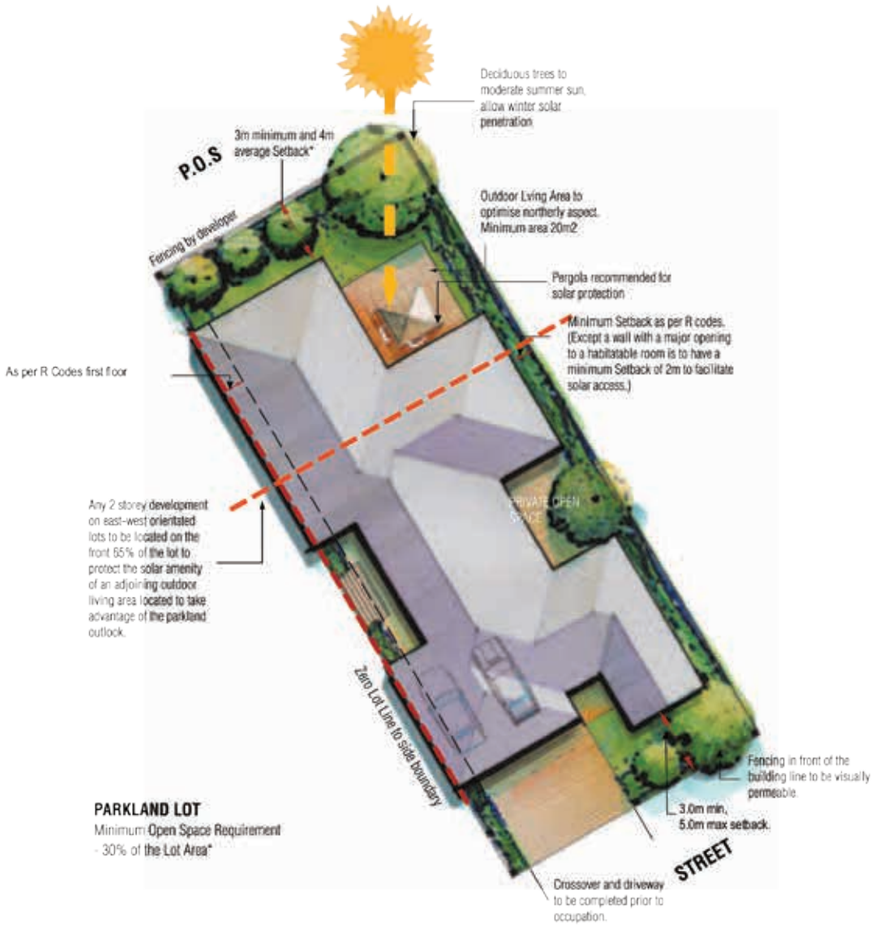
In designing the Village at Wellard considerable effort has been devoted to retaining as many existing mature trees as possible.

Where an existing mature tree occurs within a street verge or lot, it is not permitted to be removed without permission from the Town of Kwinana. A residence proposed for an affected lot is to be designed so that the driveway crossover is located clear of any existing tree.

6 Parkland Lots

6.1 MINIMUM SETBACKS			
		Min	Max
Front	Garage Dwelling	As per R Codes 2m	n/a 4m
*Side (zero lot line)	Ground Floor First Floor	nil As per R Codes	n/a n/a
**Side		As per R Codes	n/a
Rear (POS)		As per R Codes	
Secondary Street		As per R Codes	n/a

* Refer to clause 5.1.7 for building adjacent to or on top of existing retaining walls.
** At a side boundary opposite a zero lot line boundary, the minimum setback for a habitable room with a major opening facing the boundary is 2m in order to maximise solar access.



6.2 OPEN SPACE

A minimum of 30% of the lot area is required to be provided as open space.

6.3 OUTDOOR LIVING AREA

An outdoor living area with a minimum area of 30sqm, and a minimum dimension of 4m, which is directly accessed from a living area, is to be provided in a location to best facilitate winter solar penetration.

For lots which have predominantly east-west orientation, any two-storey development is to be located to the front 65% of the lot to minimise any potential overshadowing to neighbouring outdoor living areas.

6.4 STREET OUTLOOK

Dwellings designed for Parkland Lots will potentially feature living areas located toward the rear of the property taking advantage of the park outlook and resulting in a reduced emphasis on streetfront security.

To minimise this, a habitable room with windows affording the opportunity of passive street front surveillance should be provided at the front of the dwelling. For two-storey dwellings it is recommended that a balcony be provided to afford greater surveillance opportunities as well as enhancing the street elevation.

6.5 STORES & OUTBUILDINGS

A store with a minimum area of 4sqm is to be provided under the main roof of the residence and may be accessed either from the exterior or within the garage area.

Any outbuilding not constructed of the same materials as the main residence is not permitted to be visible from a street, park or other public space.

All outbuildings with a floor area in excess of 10sqm or a height of 2m or more must be constructed of the same roof and wall materials as the main residence.

6.6 FENCES

See clause 5.5 for general fencing requirements.

At the abutment with developer provided rear (POS) boundary fencing, 1.8m high dividing fencing is to be raked down to a maximum height of 1m over a minimum horizontal distance of 1m.

6.7 DUPLEX LOTS

Lots designated as suitable for duplex development are indicated on the Detailed Area Plan.

6.7.1 FORM OF BUILDING

In order to create an appropriate vertical emphasis, each dwelling contained in a duplex development is recommended to be two storeys high.

Each dwelling is to have a minimum open space of 30% of the apportioned lot area and a minimum outdoor living area of 20sqm with a minimum dimension of 4m.

6.7.2 PARKING

Garages may be located off the primary and secondary streets.

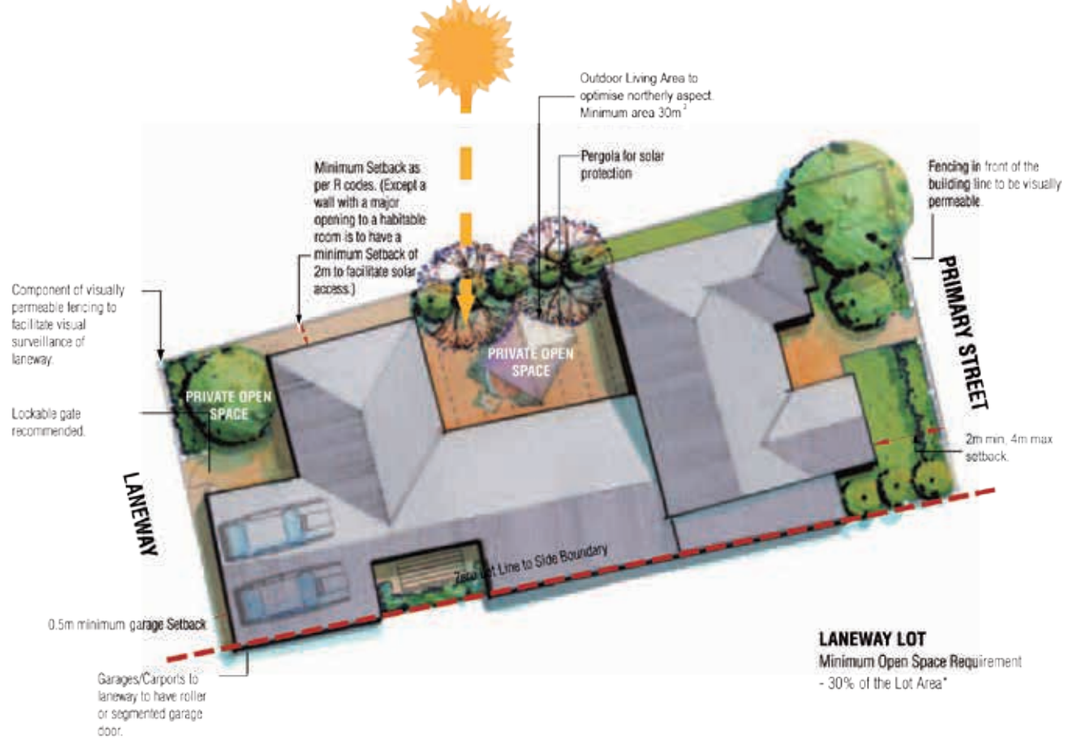
INDICATIVE OF FENCING



7 Cottage Lots

7.1 MINIMUM SETBACKS			
		Min	Max
Front		2m	4m
*Side (zero lot line)	Ground Floor First Floor	nil As per R Codes	n/a n/a
**Side		As per R Codes	n/a
Rear (Laneway)	Garage Ground Floor First Floor	0.5m Residence 1.5m Nil	n/a n/a n/a
Secondary Street		As per R Codes	n/a

* Refer to clause 5.1.7 for building adjacent to or on top of existing retaining walls
** At a side boundary opposite a zero lot line boundary the minimum setback for a habitable room with a major opening facing the boundary is 2m in order to maximise solar access.



7.2 OPEN SPACE

A minimum of 30% of the lot area is required to be provided as open space.

7.3 OUTDOOR LIVING AREA

An outdoor living area with a minimum area of 30sqm, a minimum width of 4m and directly accessed from a living area, is to be provided in a position to best facilitate winter solar penetration.

7.4 PARKING

Garages are required to be located off the rear laneway and are to be complete with a segmented panel lift or roller door. Vehicular access is not permitted off the primary street frontage.

7.5 STORES & OUTBUILDINGS

A store with a minimum area of 4sqm is to be provided under the main roof of the residence and may be accessed either from the exterior or within the garage area.

Any outbuilding not constructed of the same materials as the main residence is not permitted to be visible from a street or other public area.

All outbuildings with a floor area in excess of 10sqm or a height of 2m or more must be constructed of the same roof and wall materials as the main residence.

7.6 FENCES

See clause 5.5 for general fencing requirements.

Laneway Fences

Fencing to a laneway shall be either solid rendered masonry or proprietary brand, capped, colorbond metal fencing including a component of visually permeable panels as per the applicable covenants. Solid fencing shall be limited to storage/service areas.

INDICATIVE OF FENCING

7.7 LETTERBOX LOCATION

Where a cottage lot has a front retaining wall provided by the developer, the letterbox shall be of a standard design and is to be located on the primary street in a standard position on the wall, to be advised by the developer.

7.8 DUPLEX LOTS

Lots designated as suitable for duplex development are indicated on the Detailed Area Plan.

7.8.1 FORM OF BUILDING

In order to create an appropriate vertical emphasis each dwelling contained in a duplex development is recommended to be two storeys high.

Each dwelling is to have a minimum open space of 30% of the apportioned lot area and a minimum outdoor living area of 20sqm with a minimum dimension of 4m.

7.8.2 PARKING

Garages are required to be located off the rear laneway and are to be complete with a segmented panel lift or roller door. Vehicular access is not permitted off the primary street frontage.

8 Traditional Lots

8.1 MINIMUM SETBACKS			
		Min	Max
Front	*Garage Dwelling	As per R Codes 3m	n/a 5m
Side		As per R Codes	
Rear		As per R Codes	
Secondary Street		As per R Codes	n/a

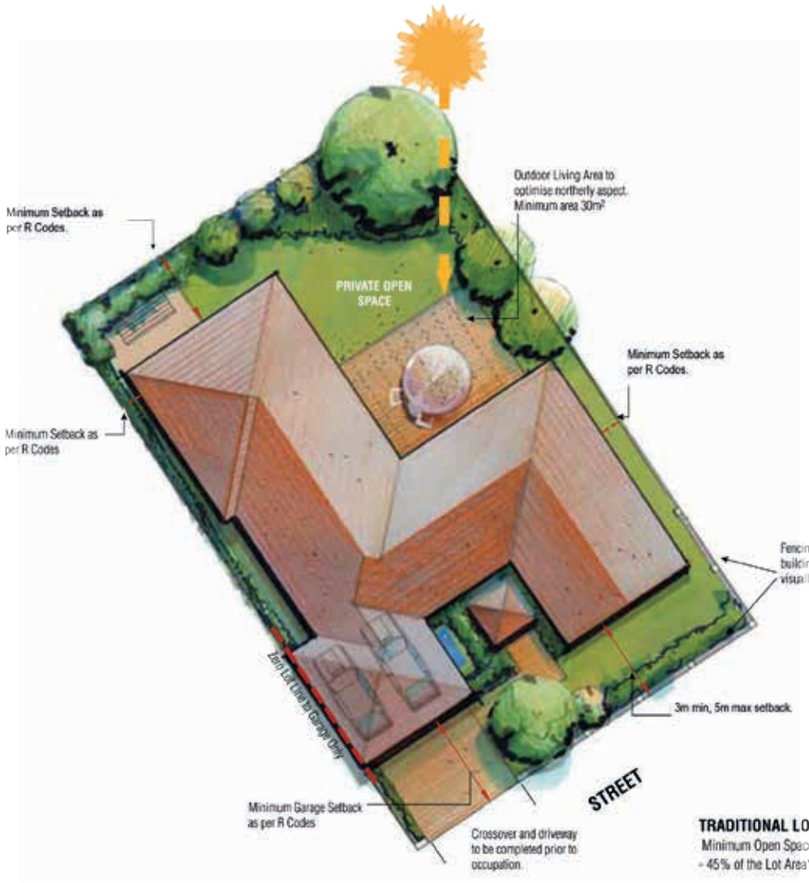
* Note Where the garage is configured so that vehicles are parked parallel to the street alignment the applicable front setback may be reduced to 2m.

8.2 OPEN SPACE

A minimum of 45% of the lot area is required to be provided as open space.

8.3 OUTDOOR LIVING AREA

An outdoor living area with a minimum area of 30sqm, a minimum dimension of 4m and directly accessed from a living area is to be provided in a location to best facilitate winter solar penetration.



8.4 STORES & OUTBUILDINGS

Any outbuilding with a floor area in excess of 10sqm or 2m or more in height must be constructed of the same roof and wall materials as the main residence.

Any outbuilding not constructed of the same materials as the main residence is not permitted to be visible from a street or other public area.

8.5 FENCES

See clause 5.5 for general fencing requirements.

8.6 BUSHFIRE DESIGN CONSIDERATIONS

Due to the proximity of some lots to the Bush Forever Reserve or the Leda Nature Reserve, affected buyers should refer to the Fire and Emergency Services Authority of Western Australia, Homeowners Bush Fire Survival Manual current at the time when planning their homes.

Relevant design considerations include but are not limited to:

Roofing Materials:
Metal roofing is generally preferable to tiles as it is less likely to permit sparks to enter through the roof, tiled roofs should include fireproof sarking between the roofing and timber roof framing.

Skylights:
Should use flat wire meshed glass and have a removable external cover for fire protection.

Roof Mounted Air Conditioners:
Should have a suitable metal screen to prevent the entry of sparks.

Floors:
Concrete slab or ground is recommended however where a raised floor on stilts is employed this should be located as close as possible to ground level and the under floor space should be enclosed.

Wall Materials:
Masonry walls are recommended however fibre cement and weatherboards are acceptable although vinyl weatherboards and rough timber can cause problems in a fire through warping and catching sparks.

Decks:
If considering an elevated deck area be aware that rough sawn timber catches dust which is highly flammable. Exposed timber joists should be a dense hardwood like jarrah and be given a smooth or painted finish. Flammable coatings such as resinous compounds should not be used.

Gardens:
Fuel such as tree branches, long dry grass, dead leaves and twigs and flammable shrubs should be kept well back from the house.

9 Townhouse Lots

9.1 BUILDING FORM

Development is to take into account the location of the lots near the village centre commercial precinct and in order to provide an appropriate vertical urban edge shall take the form of two storey townhouses fronting onto Lambeth Circle. A third habitable level is permitted within the roof space.

Development is preferred to be built hard up to both side boundaries (nil setback) over two storeys resulting in attached townhouses.

9.2 MINIMUM SETBACKS

		Min	Max
Front		2m	4m
*Side		nil	n/a
**Side		As per R Codes	n/a
Rear (Laneway)	Garage Ground Floor First Floor	0.5m Residence 1.5m Nil	
Secondary Street		As per R Codes	

9.3 SITE LEVELS AND RETAINING WALLS

Additional retaining on existing retained boundaries is not permitted. Existing site levels may not be raised by more than 200mm without specific approval from the Town of Kwinana.

For buildings proposed to be constructed adjacent to or on top of existing lot retaining walls, reference should firstly be made to the applicable technical note available from the Seller.

9.4 OPEN SPACE

A minimum of 30% of the lot area is required to be provided as open space.

9.5 OUTDOOR LIVING AREA

An outdoor living area with a minimum area of 20sqm, a minimum width of 4m and directly accessed from a living area, is to be provided in a position to best facilitate winter solar penetration.

9.6 PARKING

Garages are required to be located off the rear laneway and are to be complete with a segmented panel lift or roller door. Vehicular access is not permitted off the primary street frontage.

9.7 STORES & OUTBUILDINGS

A store with a minimum area of 4sqm is to be provided under the main roof of the residence or garage and may be accessed either from the exterior or within the garage area.

Any outbuilding with a floor area in excess of 10sqm or 2m or more in height must be constructed of the same roof and wall materials as the main residence.

Any outbuilding not constructed of the same materials as the main residence is not permitted to be visible from a street or other public area.

9.8 FENCES

See clause 5.5 for general fencing requirements.

Where uniform fencing is provided by the developer, it may not be removed, altered, marked, damaged or allowed to fall into a state of disrepair by the lot owner.

Laneway Fences

See clause 5.5 for general fencing requirements.

Fencing to a laneway shall be either solid rendered masonry or proprietary brand, capped, colorbond metal fencing including a component of visually permeable panels as per the applicable covenants. Solid fencing shall be limited to storage/service areas.

9.9 LETTERBOX LOCATION

Where a townhouse lot has a front retaining wall provided by the developer, the letterbox shall be of a standard design and is to be located on the primary street in a standard position on the wall, to be advised by the developer.

9.10 DUPLEX LOTS

Lots which are designated as suitable for duplex development, are indicated on the Detailed Area Plans.

9.10.1 FORM OF BUILDING

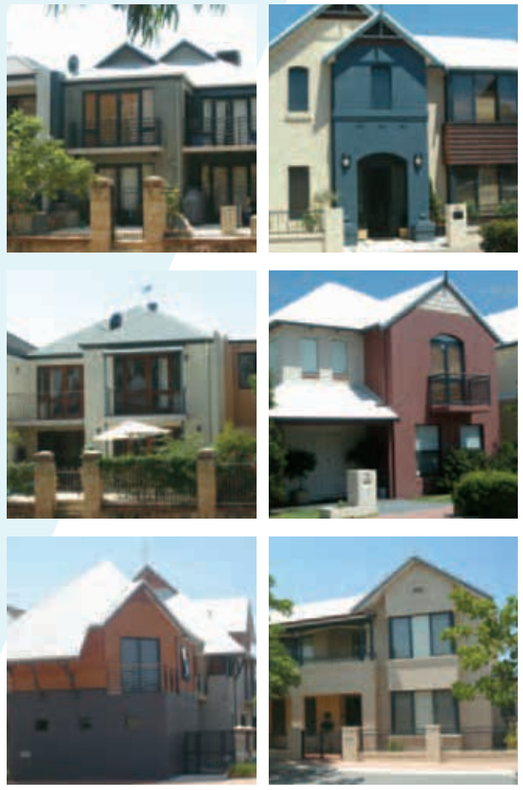
In order to create an appropriate vertical emphasis each dwelling contained in a duplex development is required to be 2 storeys high.

Each dwelling is to have a minimum open space of 30% of the apportioned lot area and a minimum outdoor living area of 20sqm with a minimum dimension of 4m.

9.10.2 PARKING

Garages are required to be located off the rear laneway and are to be complete with a segmented panel lift or roller door. Vehicular access is not permitted off a primary street frontage.

INDICATIVE OF FENCING



10 Homestead Lots

10.1 MINIMUM SETBACK

Due to the larger size of Homestead Lots, a building envelope is defined in order to create a buffer between homes and to facilitate a tree preservation area. Generally the building envelope will be between 600sqm to 750sqm in area and will be set back a minimum of 5m from a front boundary and 4m from a side boundary.

The allowable building envelope is defined on the applicable DAP and all buildings are required to be contained within this area.

10.2 TREE PRESERVATION AREA

The area outside the building envelope and behind the 5m front setback is designated as the tree preservation area. No development including driveways, sheds, buildings or the storage of materials is permitted within the tree preservation area. The buyer should refer to Town Planning Scheme Policy for restrictions on the removal of Indigenous vegetation.

10.3 CONSTRUCTION MATERIALS

- No roofs of homes or carport/garages or outbuildings shall be constructed of highly reflective materials such as unpainted zincalume.
- All dwellings and carport/garages shall be constructed of stone or masonry unless otherwise approved by the Town of Kwinana.
- Outbuildings may be constructed of metal or other materials approved by the Town, provided the external colour is of a neutral and non-glaring finish.

10.4 FENCES

See clause 5.5 for general fencing requirements.

Front Fences

Fencing in front of the building envelope shall be as per Clause 5.5, and in any event shall comply with the requirements of the R Codes.

Other Boundary Fences

All other boundary fencing shall be of a rural and open nature with materials such as fibre cement, pickets, sheet iron etc. prohibited by the Town of Kwinana.

Fences at or within the Building Envelope

Fences at or within the building envelope may, at the discretion of the Town of Kwinana, be of a closed or screening nature provided the scale or colour of the fence does not detract from the amenity of the area.

10.5 BUSHFIRE DESIGN CONSIDERATIONS

Due to the proximity of the lots to existing Special Residential Development featuring an extent of retained bush, buyers should refer to the Fire and Emergency Services Authority of Western Australia, Homeowners Bush Fire Survival Manual current at the time when planning their homes.

Relevant design considerations include but are not limited to:

Roofing Materials:
Metal roofing is generally preferable to tiles as it is less likely to permit sparks to enter through the roof, tiled roofs should include fireproof sarking between the roofing and timber roof framing.

Skylights:
Should use flat wire meshed glass and have a removable external cover for fire protection.

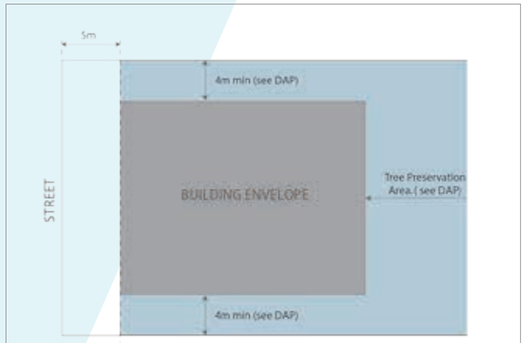
Roof Mounted Air Conditioners:
Should have a suitable metal screen to prevent the entry of sparks.

Floors:
Concrete slab or ground is recommended however where a raised floor on stilts is employed this should be located as close as possible to ground level and the underfloor space should be enclosed.

Wall Materials:
Masonry walls are recommended however fibre cement and weatherboards are acceptable although vinyl weatherboards and rough timber can cause problems in a fire through warping and catching sparks.

Decks:
If considering an elevated deck area be aware that rough sawn timber catches dust which is highly flammable. Exposed timber joists should be a dense hardwood like jarrah and be given a smooth or painted finish. Flammable coatings such as resinous compounds should not be used.

Gardens:
Fuel such as tree branches, long dry grass, dead leaves and twigs and flammable shrubs should be kept well back from the house.



Indicative of Homestead Homes

Sales and Information Centre
13 Chiswick Parade, Wellard
(opposite the Wellard Train Station)

Sales Centre Opening Hours
Saturday–Wednesday 1–5pm

Phone: 9419 6222

thevillageatwellard.com.au

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