

DEVELOPMENT APPLICATION

Discovery Rottneest – Parker Point Road Staff Housing

Project No. 21976
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Overview

This development application pertains to a proposal to construct new staff housing on Parker Point Road to provide quality staff accommodation to support the Discovery Rottnest/Pinky's Beach Club operations and maximise the visitor experience.

The proposed lease area on Parker Point Road has been identified as a suitable location as it is relatively central to the island's amenities at Thomson Bay and utilises previously cleared ground. The typology of individual accommodation units also lends itself to necessity of working around the HV underground power service easements that run through the area, and the uneven topology.

The following report addresses the RIA's newly gazetted Staff Housing Design Guidelines, as well as the RIA's Development Planning Guidelines

Staff Housing Design Guidelines

Staff Housing Typologies

To complement the communal accommodation facilities previously developed at Kelly Street, the Parker Point Road staff housing is proposed to be made up of 7 detached studio villas, 2 detached one bedroom villas, and 3 detached three bedroom houses.

Design for Sustainability

Expanded upon in Development Guideline 03 – Sustainable Development

Design Palettes

Expanded upon in Design Guideline 07 – Colours and Materials

Amenity

Refer Annexure 1 - Amenity Matrix

Siting

Placement and Context

The villas and 3 bedroom single houses have been sited to work with the existing topography of a most cleared area along Parker Point Road which rises from the road up approximately 3.5m-4m up to the ridge to the south. Some units will be accessed directly from Parker Point Road to the units will be from Parker Point Road and an existing sealed access road which runs to an existing house at the top of the hill to the east of the designated site area.

The proposed siting also respects the easements over the site for HV underground power assets running across the site to the electrical compound at the north east corner of the site area.

Mature trees along the Parker Point Road streetscape are planned to be retained to maintain the character of the streetscape and to provide a visual and personal buffer between the roadway and the units.

Accessibility

The staff accommodation units have not been designed to be universal accessible in current form however the units are highly adaptive through interior and exterior upgrades and amendments. Corridors have been minimised allowing for greater accessibility upgrade options. The units have been designed to be raised off the ground in keeping with the prevailing vernacular of residential buildings on the island however external ramps and railings to provide universal access could be incorporated.

Built Form and Open Space

Proposed site coverage (excluding verandahs and awnings) is 18.5% of the proposed lease area. Hard landscaping in the form of stabilised granite fines pathways will provide durable surfaces for access to the units and amenities.

Areas surrounding the units will feature soft landscaping and plantings to provide a visual buffer between the units and public roadways and between each unit.

Where the site rises steeply between accommodation units along the sealed roadway and the three bedroom houses along the ridgeline dune stabilisation landscaping will be utilised along with some stone pitching for the steepest areas.

The entire lease area will be fenced with quokka proof timber post and rail fencing with chainlink mesh infill, a typical style employed throughout the island.

Services and Waste Collection

Amenity hubs have been located to serve clusters of units. Each hub contains a clothesline, rubbish bins and storage area for bicycles. The hubs have mostly been located to the rear of units so they are not visible from the public roadway and each hub will have screen walls to reduce the visual impact on the public realm.

Built Form

Form

The various staff accommodation units are all detached, feature pitched roofs, covered private outdoor living spaces and the raised floors have concealed supports as recommended by the staff housing design guidelines.

Arrangement

The studio and one bedroom accommodation units have been arranged to all have individual path access from Parker Point Road or the sealed access road.

The three bedroom accommodation units have been arranged to have access from a shared pathway leading off the sealed access road and running along the ridgeline of hill.

Scale

All proposed staff accommodation units meet the recommendations of the staff housing design guidelines. All units are single storey and are consistent with the internal floor area guideline.

Studio Accommodation – 30m² floor area
One Bedroom Accommodation – 40m² floor area
Three Bedroom Accommodation Units – 100m² area

Design for Sustainability

The accommodation units have been designed to be energy efficient and comfortable for occupants. Window orientation has been designed to provide solar and light access to habitable spaces and assist in natural ventilation of all spaces.

Outdoor living areas are covered to provide protection from winter and summer elements, to provide a covered access point into the accommodation units and provide protection to most major openings to habitable spaces.

Where windows are not protected by the roof overhangs shading hoods have been employed to provide protection.

The floors, walls and roofs of the staff accommodation units will be insulated to reduce heating and cooling requirements. Living rooms and bedrooms will have ceiling fans to promote cooling by air circulation at a low energy input.

Public Realm

Street Interface

Appropriate setbacks have been maintained to accommodate for existing and proposed landscaping and services. Timber post and beam fencing with chainlink mesh infill is proposed between the accommodation units and the public realm for both its positive aesthetic but to also provide general security and a barrier to native wildlife with minimal impact.

Connectivity

All accommodation units are proposed to be linked to existing movement networks, notably Parker Point Road.

Security & Fencing

The proposed fencing which consists of timber posts and rails with chainlink mech infill provides for an aesthetic solution to facilitating a safe environment whilst supporting passive surveillance of footpaths and other public areas.

The lease area is proposed to be fenced to keep quokkas from entering the accommodation grounds, raised outdoor living areas will feature visually permeable balustrades, and secure bicycle storage will be provided.

Signage

Independent and integrated signage will be employed to differentiate dwellings and enhance wayfinding for occupants of the staff accommodation units.

Outdoor & Landscape

Landscaping

Existing trees along the Parker Point Road are proposed to be retained. Landscaped zones will be created between the accommodation units and the public realm, along pathways and in between the accommodation units. The landscaping buffers will feature native vegetations species approved by the RIA, designed to minimise maintenance and water use, consider bushfire risk and management.

Private Open Space: Covered

All staff accommodation unit types feature raised verandahs which are covered, form the front entry to each dwelling and provide a covered open space for seating and a bbq.

Private Open Space: Uncovered

The proposal does not intend that uncovered open spaces around the accommodation units be used for formal outdoor amenity areas (ie seating and tables). These areas beyond hardscaped pathways for access with feature soft landscaping.

Storage

Secure storage areas integrated into the amenity hubs are provided for occupants to store bicycles.

Environment

Flora

Expanded upon in Development Guideline 08 – Environmental Management of Flora, Fauna and Marine

Fauna

Expanded upon in Development Guideline 08 – Environmental Management of Flora, Fauna and Marine

Energy & Resources

Expanded upon in Development Guideline 03 – Sustainable Development

Maintenance

Management of maintenance of the improvements on the lease area, including building fabric, indoor and outdoor amenities, services and resources, and planting and landscape elements will ultimately be formed by the terms agreed on between the lessor and lessee.

Development Guideline 02 – Development Plans

Refer;

Annexure 2 – Lyons Architects Drawings: Parker Point Staff Accommodation, Sheets 1-6

Development Guideline 03 – Sustainable Development

3.1 Energy

a) The process of undergoing an initial desktop assessment and subsequent built outcome audit for each of the twelve freestanding staff accommodation buildings for accreditation by the Green Building Council of Australia would be prohibitive to the project. The approach of designing environmentally sensitive and efficient built outcomes, utilising materials with low embodied energy, and specifying materials/finishes with low VOCs and environmental impacts is nevertheless a driving outcome in this staff accommodation proposal.

b) The accommodation units and landscape lighting will be powered by the island's renewable energy sources of solar and wind generation. There may be opportunity to incorporate solar panels on the roofs of the proposed accommodation units to supplement energy supply and reduce the dependence on the island's grid system.

c) The building fabric (walls, floor and roof) will be highly insulated to minimise the consumption of energy dedicated to maintaining occupant comfort. Glazed door and window systems will also be selected to maintain a high performing insulated building envelope.

d) Working with the existing undulating terrain had to be taken into consideration with respect to orientation of the accommodation units, however they have been sited in such a way that openings to bedrooms and living areas are able to capture natural light and take advantage of cross ventilation capturing the predominately Southerly afternoon breezes on Summer afternoons.

e) Passive solar design has been incorporated by minimising east and west facing openings. Where openings do face east or west shading devices have been employed either by those openings being placed under the covered verandahs or by addition of shading hoods over the openings.

f) Deep covered verandahs have been designed to provide shading and solar protection to the major openings of the habitable spaces of the accommodation units.

g) The accommodation units do not feature overhanging eaves but instead had deep covered verandahs along their long axis. Where openings are located in walls that are not under these verandahs shading hoods have been included to provide solar protection.

h) The accommodation units have been designed such that living areas and bedrooms can take advantage of cross ventilation capturing the predominately Southerly afternoon breezes on Summer afternoons.

i) Lighting will be designed to take advantage of natural light as much as is practical. High efficiency LED lighting will be utilised for all interior and exterior lighting. Exterior landscape/security lighting will be on timeclocks to ensure they are active only when necessary.

j) Electric heatpump and/or solar with electric heatpump booster will be utilised for water heating.

k) Appliances have been chosen to be as efficient as possible whilst being fit for purpose. The following schedule is a guide for what appliances would be utilised for each accommodation unit.

STUDIO		
Appliance	Qty.	Energy Consumpton
Refrigerator/Freezer - 300L	1	328kWh
Oven - 600mm	1	2300W
Hotplate - 600mm	1	40.6MJ/h max.
Microwave - 30L	1	1000W
Kettle	1	2400W
Toaster	1	900W
Washing machine - 8kg	1	300kWh
Clothes dryer - 8kg	1	353kWh
Vacuum cleaner	1	2000W
Iron	1	2400W
Hot water system - 220L storage	1	550W + 1700W booster option

ONE BEDROOM VILLA		
Appliance	Qty.	Energy Consumpton
Refrigerator/Freezer - 300L	1	328kWh
Oven - 600mm	1	2300W
Hotplate - 600mm	1	40.6MJ/h max.
Microwave - 30L	1	1000W
Kettle	1	2400W
Toaster	1	900W
Washing machine - 8kg	1	300kWh
Clothes dryer - 8kg	1	353kWh
Vacuum cleaner	1	2000W
Iron	1	2400W
Hot water system - 220L storage	1	550W + 1700W booster option

THREE BEDROOM HOUSE		
Appliance	Qty.	Energy Consumpton
Refrigerator/Freezer - 500L	1	366kWh
Oven - 600mm	1	2300W
Hotplate - 600mm	1	40.6MJ/h max.
Microwave - 30L	1	1000W
Kettle	1	2400W
Toaster	1	900W

Washing machine - 9kg	1	320kWh
Clothes dryer - 8kg	1	353kWh
Vacuum cleaner	1	2000W
Iron	1	2400W
Hot water system - 302L storage	1	550W + 1700W booster option

3.2 Water

- a) If deemed required by the RIA a Water Management Plan can be created and submitted at Building Permit stage.
- b) Rainwater from the roofs of the accommodation units can be harvested and stored for flushing of toilets with surplus rainwater stores being able to be directed to landscaping to minimise the use of treated water for these.
- c) As with harvested rainwater, grey water can be diverted to landscaping in the form of subsurface irrigation to minimise the use of treated potable water for this task and to minimise the volume of water being sent to the waste water treatment plant on the island.
- d) Fixtures, fittings and appliances in the accommodation units will be selected for a best-practice standards and ratings for water efficiency.

There are a number of existing groundwater monitors bores on the site. It is planned that these remain in situ and accessible to allow for ongoing water monitoring.

3.3 Landscaping

Finishes and materials and details, will be complimentary to existing character of the island to provide visual consistency throughout the development and the Parker Point Road context.

Soft landscaping will include existing trees, new trees, new planting works including mulch. The intent is provide new planting works to provide an improved aesthetic landscape, stabilise the site and minimise ongoing maintenance requirements, particularly in terms of water use.

New groundcover planting proposed in proximity to structures is to include plant species less than 500mm in height at maturity. Selective revegetation to dune area is to include plant species of a maximum 700mm height at maturity. Any revegetation is to comply with Asset Protection Zone Standards. Soil ameliorants may be required to improve water and nutrient retention in some garden beds. This will be based on species being used and soil types on site.

Hard landscaping works include paving and pathways connecting the accommodation units to the roadway and amenity hubs. Pathways are proposed to be constructed using stabilised granite fines on a crushed compacted limestone base to form a durable surface with a low embodied energy.

3.4 Waste

- a) A General Waste Management Plan can be written and submitted at the Building Permit stage.
- b) A Construction Waste Management Plan can be written and submitted at the Building Permit stage once construction methodology has been workshopped with prospective tenderers.

3.5 Materials

The main materials used in the proposed accommodation units are light guage steel framed walls, floor and roof with Weathertex cladding to walls, metal roof sheeting to the roof. Internally, plasterboard with low VOC paint finish is proposed for general areas with plywood with natural oil finish for cabinetry works, and vinyl floor covering. Wet areas will have porcelain wall and floor tiles.

Composite decking is proposed for outdoor verandahs with priority given to high recycled material content and Australian manufacturing in selection criterion.

Local manufacturers will be given first priority in specification and selection of all materials.

4.1 Cultural Environment

The site is located within an A-class reserve administered by the Rottnest Island Authority. There are no Aboriginal or non-Aboriginal heritage listed items within the proposed lease area, however it is noted that the whole of Rottnest Island (Wadjemup) has been proposed for listing on the State Heritage Register.

There is no current evidence to suggest that the proposed lease area has been developed other than for infrastructure works being run through for servicing adjacent developments.

4.2 Amenity and Culture

- a) Visitor Amenity – the proposal seeks to improve the amenity of existing staff accommodation to in a way that provided high quality staff accommodation in a format that does not detract from the character and lifestyle of the island.
- b) Safety and Security – no negative impact on safety and security of the island. Staff residing in the accommodation units will be required to adhere to 'house rules' with antisocial and disruptive behaviour not tolerated.
- c) Residents – not applicable.
- d) Education and Interpretation – not applicable.
- e) Accessibility – no negative impact on accessibility.

4.3 Community Comment

We will provide any supporting material required for community consultation should the RIA decide such consultation is required.

4.4 Heritage

There are no Aboriginal or non-Aboriginal heritage listed items within the proposed lease area, however it is noted that the whole of Rottnest Island (Wadjemup) has been proposed for listing on the State Heritage Register.

The tender process for seeking prospective Contractors will identify the procedures the Contractor must undertake should remains or artifacts bearing cultural or historical significance be uncovered during the course of constructing the works.

5.1 Cost Minimisation

The intention of the proposed staff accommodation development is to ease some pressure off the existing staff housing options on the island and provide a high quality offering to encourage longer term commitment and satisfaction of staff who relocate to the island to staff Discovery Rottnest. The proposed staff housing aims to enhance the guest experience through increased staffing and high retention of staff.

Development Guideline 04 – Cultural Heritage Places and Heritage Precincts

The proposed lease area does not fall within a Heritage Place or Heritage Precinct. It is however proposed that the staff housing will be respectful to the general character of the social and built fabric of the island.

Development Guideline 05 – Signage

Independent and integrated signage is proposed to be employed in the development to differentiate dwellings and enhance wayfinding for occupants of the staff accommodation units and visitors. No point of sale, sale promotion, or other such commercial service/retail signage is proposed. No animated or self-illuminated signage is proposed.

A detailed signage plan will be submitted at the Building Permit stage.

Development Guideline 06 – Settlement Design

The existing character of the island and study of the building typology through various time periods has informed the design of the staff accommodation units and their composition across the proposed lease area.

Setbacks

Accommodation units sited facing Parker Point Road have been set back behind the line of existing trees to provide a landscaped buffer between the accommodation units and the public realm. Accommodation units sited facing the existing sealed access track are sited closer to the road as this is not considered to be in the general public realm.

The separation distance between units has been set at a minimum of 1.8m which provides adequate open space around the buildings, as well as adequate fire safety separation.

Building Heights

All accommodation units proposed are single storey with moderately pitched roofs and are of a normal Australian residential bulk and scale. Existing residences along Parker Point Road feature pitched roofs and single storey scale.

Street Activation

The design and siting of the staff accommodation units has been considered in a way to provide visual interest on the streetscape as well as passive surveillance with the units featuring main openings and outdoor living areas (verandahs), controlled by carefully designed setback distances, and landscaping of the zone between public and private.

Balconies and Private Open Space

Outdoor living areas on raised verandahs provide visual interest to the accommodation units and resultant streetscape. These verandahs connect the accommodation units to the public realm in a controlled and passive way.

Corners of Buildings

The proposed staff accommodation units have been designed to sit within the landscape. Strong architectural express of the corners of building has not been a driver for creating a field

Corner Buildings

Not applicable.

Building Scale and Bulk

The design of the staff accommodation units and their siting across the proposed lease area has been executed in response to studying the existing character of the island's built environment. The units are single storey in height and have been designed to sit within the residential scale and density of the Parker Point Road area.

Roof Treatment

Combination of gable and skillion roof forms has been employed to deliver a strong Australian residential aesthetic. An external material colour palette which is sympathetic to the tone of the weathered natural landscape have been proposed.

Fencing and Boundary Walls

The proposed lease area will be fully fenced to minimise the ingress of Quokkas and other natural wildlife into the outdoor private areas. Fencing will be in the form of approx.. 1m tall timber post and rail with chainlink mesh infill. A style typical and synonymous with Rottnest Island.

Development Guideline 07 – Colours and Materials

2.1 Colours - General Buildings and Structures

The proposed materials of the new accommodation units have been selected to be sympathetic to the colour and texture palette of the weathered natural landscape of Rottnest Island, and reflect the relaxed coastal lifestyle.

Refer to Colours and Materials Schedule in the annexures.

2.2 Colours - Heritage Places

Not applicable.

3.1 Paint Systems – General

No restoration or refurbishment work is proposed in the scope of this application. All wastes from the painting of new buildings and structures will be contained for removal from the island for disposal on the mainland.

A record of all paint systems will be compiled in the documentation process for future reference and maintenance requirements.

3.2 Paint Systems – Heritage Places

Not applicable.

4 Colour Chart

Not applicable.

5.1 Existing Buildings

Not applicable.

5.2 New Buildings

Proposed works generally utilise light weight framing with timber cladding rather than masonry and limestone. The proposed works are outside of the Thomson Bay settlement heritage area where light weight structures are more prevalent. Light weight structures pose more suitable working with the uneven topography of the proposed site by requiring much less ground level manipulation and clearing.

Development Guideline 08 – Environmental Management of Flora, Fauna and Marine

Environmental Impact Assessment, Environmental Management Plan, Landscape Management Plan, Wildlife Management Plan can be carried out and submitted to the RIA at Building Permit stage as the RIA determines necessary for the proposed lease area.

Development Guideline 09 – Transport and Movement

A Traffic Management Plan can be compiled once a prospective tenderer has been engaged. This will be submitted to the RIA for endorsement at Building Permit stage.

Development Guideline 10 – Construction Management

A Construction Management Plan can be compiled once a prospective tenderer has been engaged. This will be submitted to the RIA for endorsement at Building Permit stage.

Development Guideline 11 – Stakeholder and Community Comment Process

It is not anticipated that the staff housing proposal would constitute a Substantial Development that has potential to significantly impact on the island's environmental, heritage, social values or visitor amenity so would not anticipate that a stakeholder and community comment process would be required. If the RIA considers this necessary then we will produce any relevant materials for engaging with stakeholders and the community.

Development Guideline 12 – Transportable Buildings

Not applicable.

Development Guideline 13 – Telecommunications Infrastructure

Not applicable.

Development Guideline 14 – Ancillary Development (Exemptions)

Not applicable.

		SINGLE HOUSE		STUDIO & VILLA	
INTERNAL	Bedroom	· Family Units: 3-4 rooms · Shared Singles: 2-3 rooms	<input checked="" type="checkbox"/>	· Single or Shared: 1-2 rooms	<input checked="" type="checkbox"/>
	Bathroom	· 1-2 depending on occupant number · 1 bathroom per 2 occupants	<input checked="" type="checkbox"/>	· Minimum of 1 bathroom per studio	<input checked="" type="checkbox"/>
	Kitchen	· 1 per dwelling - furnished	<input checked="" type="checkbox"/>	· 1 per dwelling - furnished	<input checked="" type="checkbox"/>
	Dining	· Shared dining table to sea 3-4	<input checked="" type="checkbox"/>	· Shared dining table to sea 2-3	<input checked="" type="checkbox"/>
	Living & Recreation	· Separated furnished living space	<input checked="" type="checkbox"/>	· Studio: Combined furnished living, kitchen and bedroom · Villa: separated furnished living space	<input checked="" type="checkbox"/>
	Laundry & Drying Area	· Individual laundry facility per house · Individual drying area screened from public view	<input checked="" type="checkbox"/>	· Individual or shared laundry facility per house · Individual or shared drying area per group of studios or villas, screened from public view	<input checked="" type="checkbox"/>
	Cooling & Heating	· Appropriate cooling & heating · Ceiling fans	<input checked="" type="checkbox"/>	· Appropriate cooling & heating · Ceiling fans	<input checked="" type="checkbox"/>
	Storage	· Internal storage for bedrooms, living rooms and kitchens for supplies and personal items	<input checked="" type="checkbox"/>	· Internal storage for bedrooms, living rooms and kitchens for supplies and personal items	<input checked="" type="checkbox"/>
EXTERNAL	Seating & Recreation	· Shaded verandah · Furniture	<input checked="" type="checkbox"/>	· Shaded verandah · Furniture	<input checked="" type="checkbox"/>
	Storage	· Secure or covered storage for bicycles and personal items · Bin storage area	<input checked="" type="checkbox"/>	· Secure or covered storage for bicycles and personal items · Bin storage area	<input checked="" type="checkbox"/>
OPTIONAL	Outdoor Kitchen	· Barbecue	<input checked="" type="checkbox"/>	· Barbecue	<input checked="" type="checkbox"/>
	Outdoor Shower	· Shower · Tap	<input checked="" type="checkbox"/>	· Shower · Tap	<input checked="" type="checkbox"/>