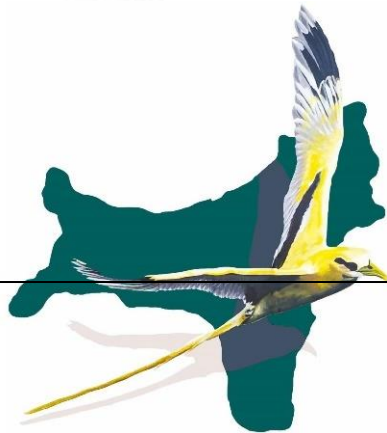
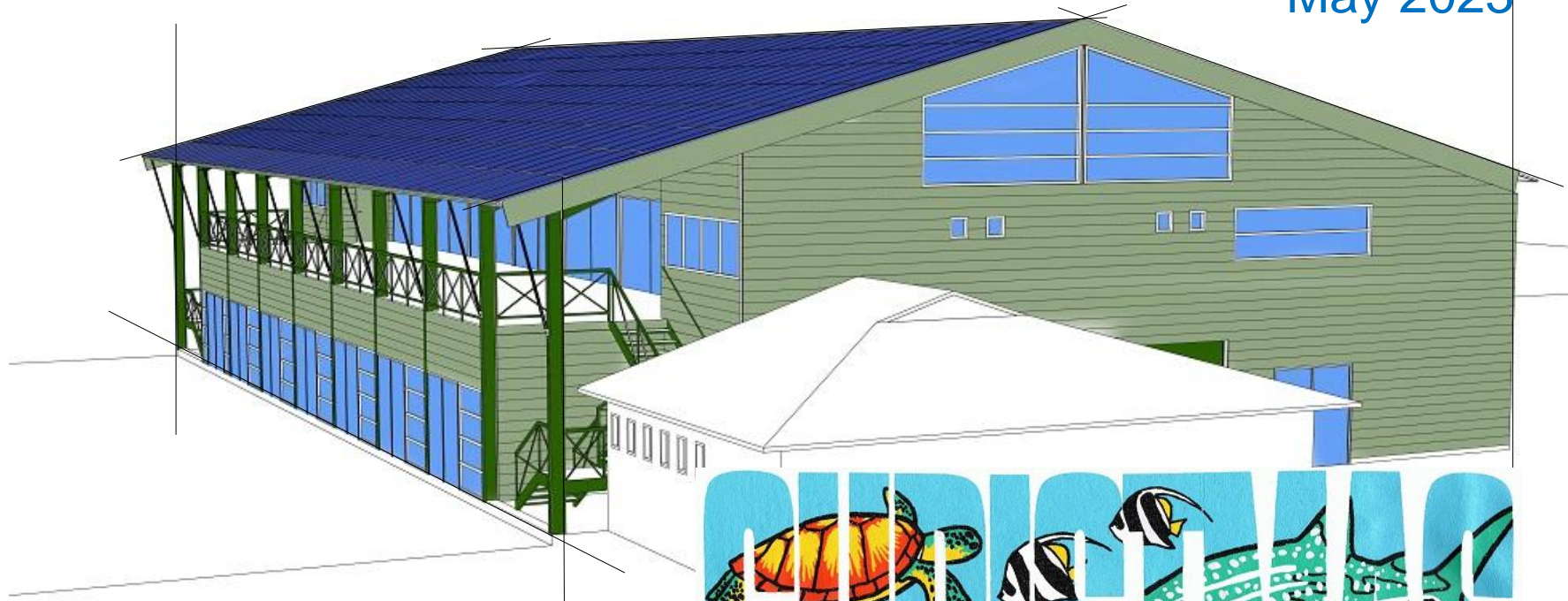
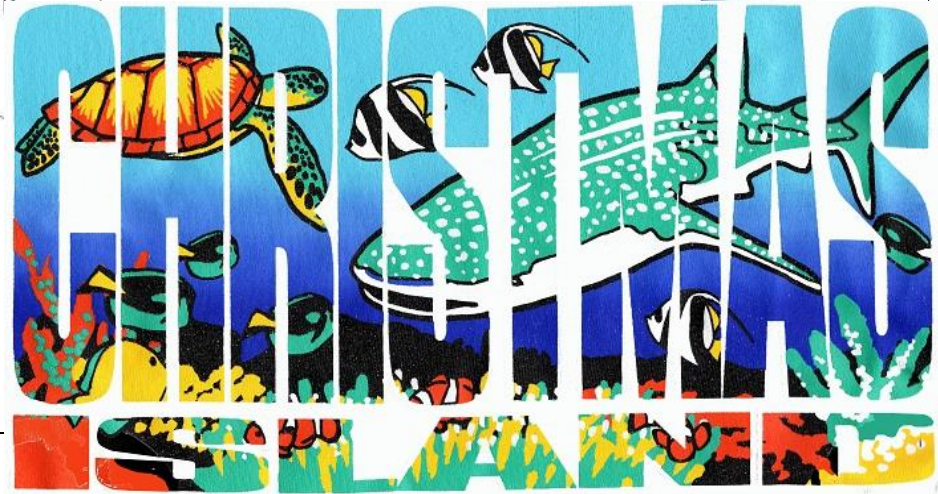


# Settlement Sports Hall Refurbishment Sustainability Hub - Design Concept

May 2023



SHIRE OF  
CHRISTMAS ISLAND



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## 1. Introduction

The Shire of Christmas Island (SoCI) commissioned Calmy Planning & Design in March 2017 to devise a Preliminary Design Concept for the refurbishment of the now disused Settlement Sports Hall (SSH) taking into account prospective land uses and planning opportunities illustrated in the then Department of Infrastructure & Regional Development (DIRD) sponsored and Shire endorsed ***Gaze Road Tourism & Commercial Precinct Report for Urban Design Master Plan Oct. 2011***.

The **2017 SSH Preliminary Design Concept** had the community's backing, and was endorsed by the SOCI with the support of the DIRD. The document is available at:

<https://www.shire.gov.cx/Shire Documentation/Shire Project Plans>

In early 2023 the SOCI resolved to review and repurpose the SSH Design Concept to a Sustainability Hub model subsequent to:

- three unsuccessful funding applications;
- the recent promulgation of the ***Christmas Island Applied Laws Amendment (Fish Resources Management) Ordinance 2022*** and
- the establishment in March 2022 of the ***Christmas Island Marine Park (CIMP)***.

This document takes into account SOCI's endorsed strategic directions pertinent to the economic future of the island, the community long held aspirations for the use of the building and town planning circumstances directly associated with the SSH building and immediate surrounding areas.

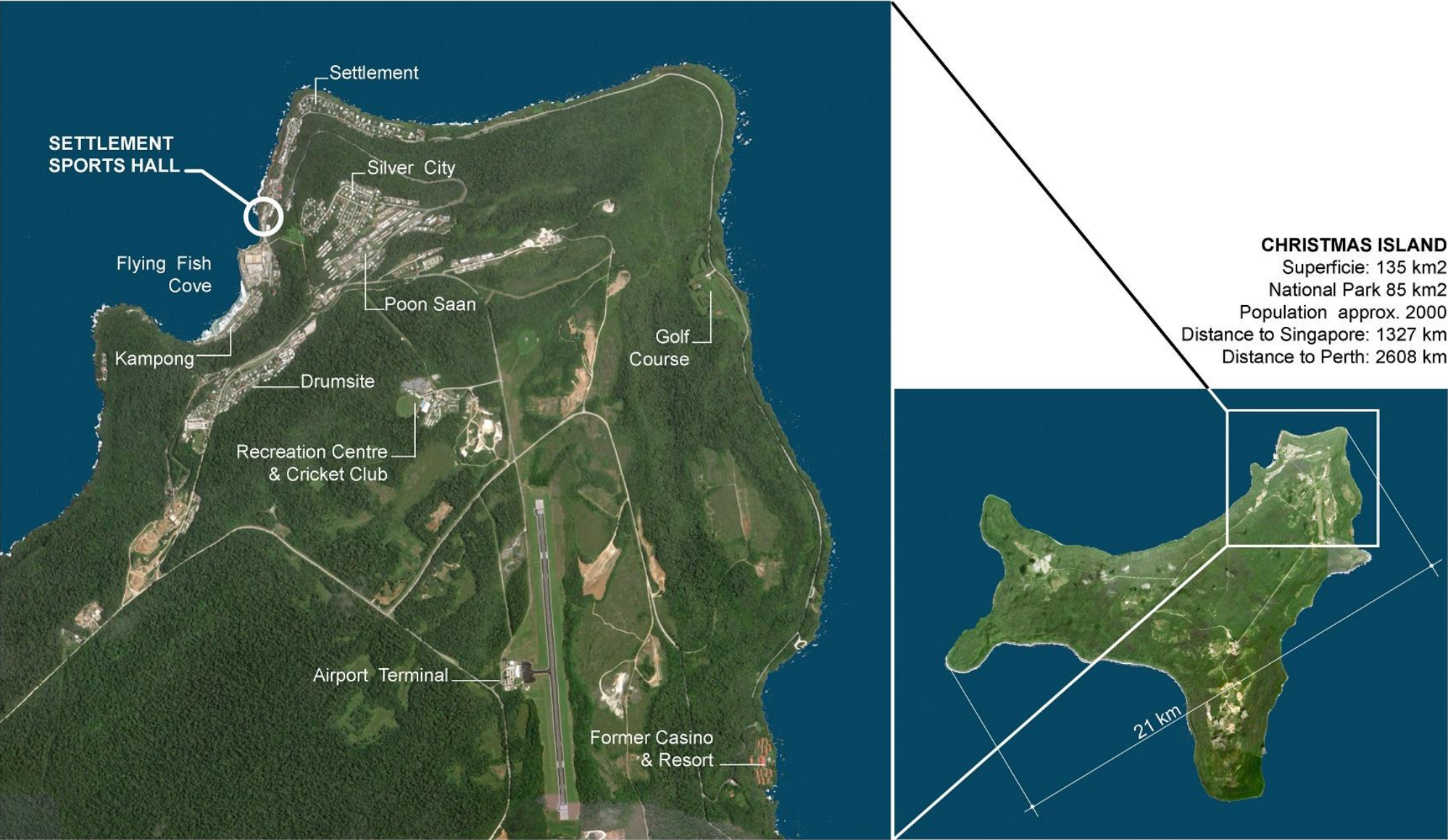
It also provides architectural illustrations and measured areas for desirable future uses and functions within the SSH such as but not limited to:

- The Christmas Island (CI) Tourism Association;
- The Visitors Centre with information/interpretive displays;
- Staff of the CI Marine Park;
- The CI Fisheries Ranger;
- A marine science & aquaculture research centre with direct ocean water outlet;
- Shared office and laboratory space directly connected to Perth and Singapore via fibre optic;
- A 44-seat auditorium shared between tourism, education; research and public events;
- A multipurpose space specifically dedicated to community activities and functions;
- A café-restaurant endowed with large balcony open towards flying fish cove;
- Revenue generating commercial tenancies to ensure the on-going building upkeep and
- A net zero emission energy infrastructure comprising a solar roof, batteries and vertical axis wind turbines.

The ultimate objective of this document is to facilitate a funding decision from the commonwealth to ensure that the highly re-usable building is retained and refurbished for the benefit of the community visitors and external educators/researchers without creating on-going financial burden to the Department of Infrastructure, Transport, Regional Development and Communications (DITRDC) as the property owner and the SoCI to whom the building is vested to under Management Order.

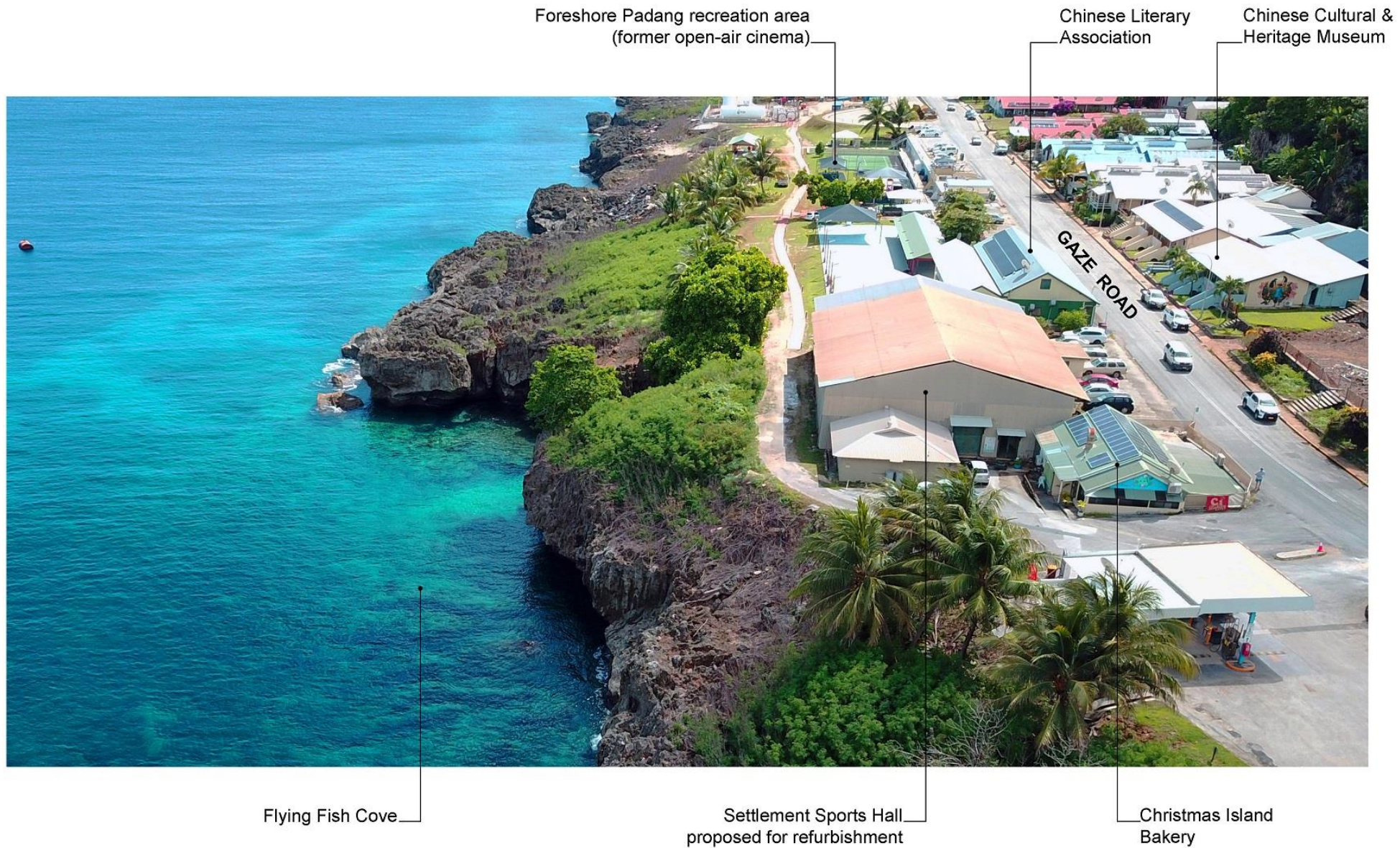


2. Island Context





### 3. Location Setting





## 4. Town Planning context

The SSH is situated within the Settlement coastal Public Open Space Reserve (POSR) shown in bright green in the SoCI Planning Scheme No.2. (TPS No.2) (see Fig 1)

Use and Development of the POSR requires obtaining planning approval under Part 3, Part 9 and clause 10.2 of the Scheme.

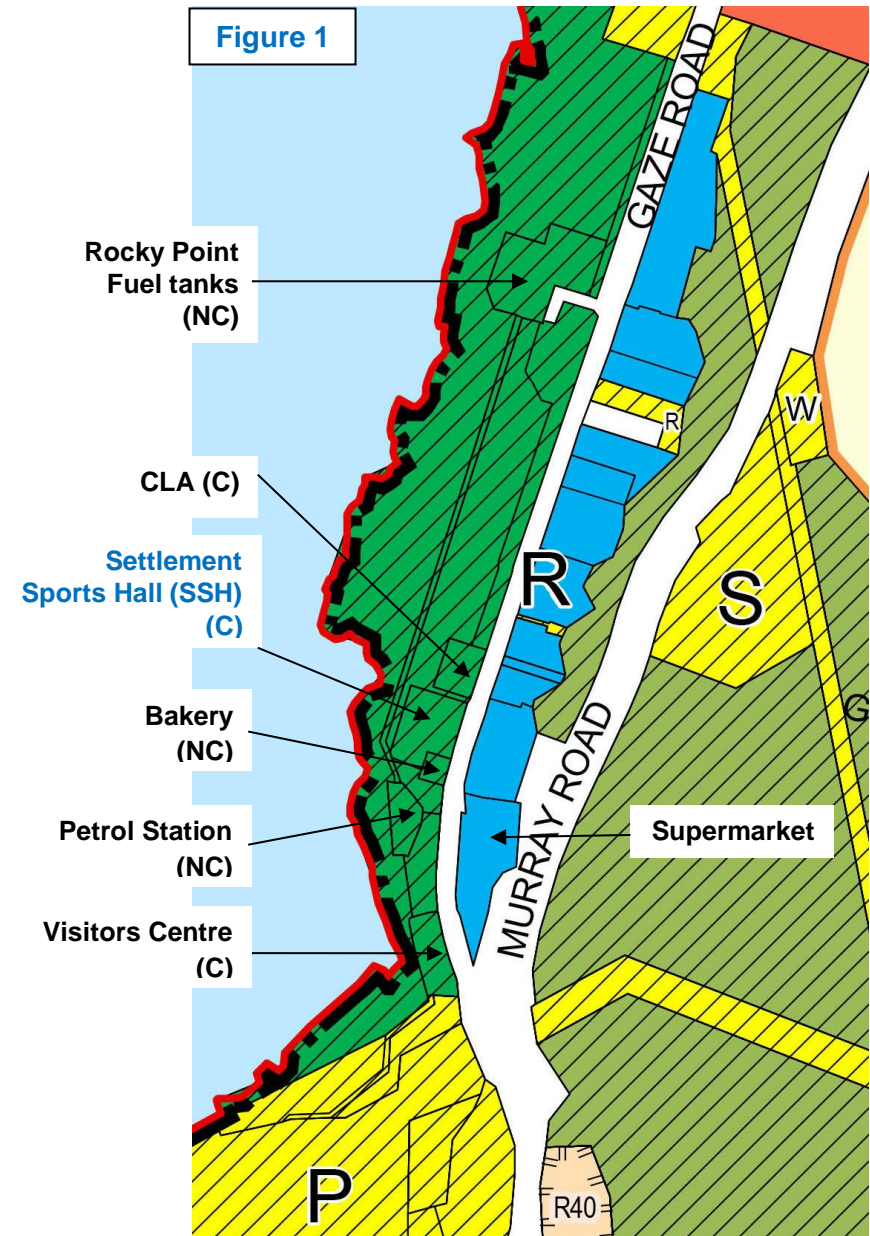
The intended purpose of the Settlement coastal POSR is to provide the community with active/passive recreation opportunities and also meet the needs of visitors & tourists coming to Christmas Island.

In such context, the Rocky Point fuel tanks, the Petrol Station and the Bakery are deemed Non-Conforming (**NC**) uses within the POSR whilst the Chinese Literary Association restaurant (CLA), the SSH and the Visitors Centre are deemed Conforming (**C**) uses.

Change of usage for the SSH building would be expected to be consistent with the intended purpose of the POSR.

Restaurant, Café, Visitor Centre, Interpretive/discovery displays, Marine Science Education & Research and Ancillary Shops are deemed Conforming uses within the POSR.

The SoCI intends to incorporate the SSH Sustainability Hup in its Draft Local Planning Strategy scheduled to be submitted to the Western Australian Planning Commission in the third quarter of 2023.



## 5. CI Local Planning Strategy

The objectives of the Shire of Christmas Island (SoCI) **2015 Local Planning Strategy** are to:

- set out the long-term planning directions for the local government;
- apply State and regional planning policies;
- provide the rationale for the zones and other provisions of the Town Planning Scheme;
- provide a strategic vision and land use plan to guide future development on Christmas Island; and
- balance the needs of the natural environment, economic development and community expectations.

The LPS identified specific issues relating to the settlement precinct and pertinent to planning around the SSH:

*“There are a number of tourism accommodation establishments within this precinct, with views over Flying Fish Cove, Smith Point and the Indian Ocean.”*

*“This area represents the main area of tourist accommodation on the Island, and is accompanied by a pub, a supermarket, the Christmas Island Visitors Centre and the only domestic petrol station on the Island.”*

*“There are two domestic fuel storage tanks near the petrol station, connected via underground pipes. There is a risk associated with the fuel tanks located in such close proximity to accommodation facilities and residential dwellings.”*

*“As such they are considered a safety hazard and should be relocated to a more suitable location. This area is the main tourism and commercial area on the Island and these fuel tanks also affect*

*the visual aesthetics and attraction of the precinct. Their relocation could also facilitate the relocation of the petrol station.” (see Fig.2)*

The relocation of the petrol/service station has the potential to considerably improve the streetscape around the supermarket, the Visitors Centre and the SSH.

This opportunity has been explored in detail in the **October 2011 Gaze Road Urban Design Master Plan**





## 6. Gaze Road Urban Design Master Plan

GHD have been engaged in 2011 by the SoCI to produce an Urban Design Master Plan (UDMP) for the Gaze Road Tourism and Commercial Precinct (see Fig. 3). The project was an initiative of the SoCI in conjunction with the Indian Ocean Territories Christmas Island Economic Development Consultative Group, supported and funded by the Department of Regional Australia, Regional Development and Local Government.

The SoCI adopted UDMP is a reference planning document to be considered when making planning decisions under clause 10.2.(f) of the TPS No.2. The objectives of the UDMP relevant to this proposal are:

*“The aim of the UDMP is to provide an urban design framework that will facilitate and guide the revitalisation of the precinct and to enhance its contribution to the social, cultural and economic life of the Island’s community”.*

*“As the main tourism area for visitors, the foreshore area should be a welcoming environment that showcases the natural scenic values of the Island as well as attract visitors to the various adjacent retail and commercial outlets within the precinct”.*

The relevant issues pertinent to the reuse of the SSH found in UDMP are:

Visual amenity, Foreshore and ocean threats, Fuel tanks, Tourism Centre and the Refurbishment of the SSH building.



Figure 3



## Visual Amenity

The UDMP acknowledged at the time that *“the Gaze Road precinct looked very tired, was in poor condition, was unattractive, barren and in need of enhancing and continued maintenance”*.

Since the release of the UDMP, and with the joint effort of DIRD and the SoCI, noticeable improvements were made with:

- The well-executed public-private refurbishment of the Cocos Padang building;
- New townscape features introduced around the CLA; and
- The enhancement of the Police Padang with additional artwork and new attractive public amenities.

## Foreshore

*“The foreshore is a key visual aspect of the precinct, and a strategic area of public open space on the Island, with views of Flying Fish Cove, North West Point as well as the ocean.*

*The westerly aspect of the foreshore provides spectacular views of the sunset. The area is a key attractor for the precinct and a prime gathering area for the community, as well as visitors”*.

Despite the recent and well received townscape improvements around the CLA and the Police Padang a significant proportion of the foreshore area requires regular upkeep whilst opportunities for local businesses to take advantage of visitors are not optimised

Furthermore the functionality and attractiveness of facilities and landscaping elements to provide a ‘flow’ of active and passive spaces for the area is yet to reach International yet alone National standards”.

## Ocean Spray & Undercutting Threats

*“Notwithstanding its remarkable charm, the foreshore is equally renowned for its dangers. The threat of ocean cliff collapse, the punitive effects of the waves in the swell season, the extreme dangers in attempting to interact with the marine environment from the shore and corrosive nature of the Environment are all factors relevant to the UDMP and guidance to development.”*

*“These factors will need to be considered to ensure that proposed development (and structures) along the foreshore, together with landscaping features can withstand effectively these harsh effects.”*

## Fuel Tanks

*“Opportunities to maximise the “greening” of the foreshore and promote additional uses will be considerably enhanced once the fuel tanks and petrol station are relocated”*.

The UDMP examined options for the re-use of the fuel tanks site as well as the petrol station site adjacent to the ORC.

*“The ultimate removal of the fuel tanks from the Gaze Road foreshore is widely considered critical to the enhancement and development of its immediate area and this notion has been consistently supported by the Shire and the Commonwealth”*.

The consolidation of fuel infrastructure on Christmas Island including the removal of the tanks from the foreshore is well documented in the March 2012 Statement of Evidence to the Parliamentary Standing Committee on Public Works: *Proposed Improvement to Fuel Storage and Supply* ([see section 5](#)).

### Urban Design Workshop

An 'Urban Design Workshop' was held at the Cricket Club with the community and other key stakeholders on-Island to facilitate direct participation and ownership of the design process.

A brief presentation was given outlining the project and some initial observations of the precinct by the project team. Participants were then given an opportunity to provide comments, ideas, concerns and visions for the precinct on separate tables. The key outcomes relevant to this document were:

- *"Remove the fuel tanks from the foreshore;*
- *The Visitors Centre should relocate to either the existing skate hall or at the existing Australian Federal Police station;*
- *Provision of public toilets at the existing skate hall, at the Police Padang and on the Cocos Padang and*
- *Include some reference to the 'coolies' at the SSH."*

### The Settlement Sports Hall

The UDMP has also provided some guidance to improve the supermarket area (see Fig.4 & Fig.5) and gave specific consideration to the re-use of the SSH building.

*"This structure could be transformed into a new purpose built visitors centre, on a mezzanine level, with entry at the Gaze Road level. The existing cladding could be replaced with large windows to take advantage of ocean views. The lower level could be utilised for additional car parking. A smaller scale skate park could be maintained in the foreshore area as part of enhanced facilities in this area."*

*"The entrance will also provide for bus parking. There are some existing public toilet facilities attached to the building that would need relocated to facilitate the redevelopment of the building. These could either be incorporated back into a revamped Visitors Centre or further north on the open foreshore area and the outdoor entertainment area."*

*"This building would provide a large increase in floor space for the visitor's centre and allow expansion of facilities and functions provided for tourists. The transformation of the SSH, and enhancements to the pedestrian environment around it will provide a focal point for the entry node of the precinct, and provide a centre of gravity for visitors before dispersing to explore the rest of the precinct, and Island."*



## LEGEND

- 18.** Chinese “Gates” across the street to emphasise the Chinese heritage of the precinct.
- 20.** Conversion of the SSH into a new Tourist Centre with undercroft carpark.
- 21.** Redevelopment of the old nurse’s quarters site with alfresco space opposite the new Tourist Centre.
- 22.** Reconfiguration of road, parking & pedestrian amenities adjacent to the supermarket. (subject to the relocation of the petrol station)
- 23.** Conversion of the Visitors Information Centre into Café-Restaurant.
- 24.** Public footpath & rehabilitated stairs for safe access to Isabel Beach.



Image from the 2011 Gaze Road Urban Design Master Plan

CLA Building

Redevelopment of the old nurse's quarters site with alfresco space opposite the new Tourist Centre.

Image from the 2011 Gaze Road Urban Design Master Plan

Figure 5



Refurbished SSH building with Ocean outlook on 1st floor and under croft parking beneath

Reconfigured road with parking directly connected to the supermarket & foreshore landscaped promenade

Conversion of the Visitors Information Centre into Café-Restaurant.

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## 7. Christmas Island – Singapore Strategy

The **Christmas Island - Singapore Strategy** (the Strategy) was adopted by the SOCI in December 2018.

The Strategy in its entirety can be viewed at:

[https://www.shire.gov.cx/Shire Documentation/Shire Business Documents](https://www.shire.gov.cx/Shire%20Documentation/Shire%20Business%20Documents)

The **Preamble Statement** of the Strategy is as follow:

*“The Christmas Island – Singapore Strategy (CISS) recognises the strong historic, cultural and social ties between Christmas Island (CI) and Singapore.*

*It focuses on the immediate and urgent effort to transition the CI economy from Mining & Immigration to Agriculture, Tourism, Education and Defence under the auspices of the November 2016 Australia-Singapore Comprehensive Strategic Partnership (ASCSP) seeking to bring the two economies closer together within a 10-year timeframe.*

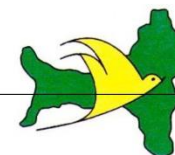
*The CISS’s foremost function is to foster new investment opportunities on CI, and possibly the Indian Ocean Territories (IOT) as a whole, from South-East Asia’s first financial hub and Australia’s closest strategic and longstanding Defence partner in the region.”*

The SOCI **2015 Local Planning Strategy** (LPS) is progressively being reviewed and adjusted as precursor to the mandatory and formal review of the **Town Planning Scheme No.2** pursuant to Part 6, Division 1 section 65 of the WA Planning & Development Regulations 2015. As part of this process the SoCI will incorporate the CISS into the LPS to strengthen the Island’s historic and special relationship with Singapore and bolster the Island’s economy.



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## CHRISTMAS ISLAND – SINGAPORE STRATEGY



**SHIRE OF  
CHRISTMAS ISLAND**

December 2018

*Calmy Planning & Design*



## Objectives of the CISS

The CISS provides a strategic agenda to support the growth of the CI economy with a specific Singapore focus. Many opportunities raised in the CISS could have economic synergies and or applications to the Cocos (Keeling) Islands (CKI).

For more than a century and to this day CI is the IOT's leading economy. With the cessation of immigration activities and the life expectancy of the mine set for 2034, such leadership position is declining rapidly. This predictable downturn is and will continue to affect the Christmas Islanders as well as the Commonwealth bottom line with less revenues. The CISS is mapping a range of short to long term initiatives that would be in the interest of CI, Australia and Singapore to ensure that such trend can be reversed.

The CISS outlines the economic prospects that the ASCSP could open up in terms of Cultural Relations; Education; Innovation & Science; People movements and Northern Australia Agribusiness Development Partnership thus potentially mitigating CI's foreseeable decline, foster new joint business opportunities and potentially secure CI's necessary economic renewal.

Finally, the CISS is designed as a wholistic enabling tool with specific targets to ensure that CI and the IOT are firmly considered within the Northern Australia framework and well represented in all future ASCSP high level deliberations between Australia and Singapore.

## Strategic Initiatives pertinent to the SSH Sustainability Hub

### **Food supply**

The supply of fresh food on CI is characterised by high costs and irregular arrivals. Singapore for its part has an existential focus on Food Security as it imports 90% of its food from 40 countries.

The local production & export of fresh food such as fruits, vegetables poultry and fish from potential Singapore agri-businesses based on CI could ensure that a proportion of these products are regularly made available to the local market at an affordable price. The SSH Sustainability Hub (the Hub) concept is designed to provide the necessary scientific research infrastructure capable of ultimately supporting new ocean fish farming endeavours and other agri-businesses benefiting CI and possibly Cocos (Keeling) Islands (CKI).

### **Tourism**

The commissioning of private Charter Flights is the most effective and economically competitive way of opening up CI to the substantial Singaporean tourism market. One of the Hub's key ambitions is to modernise/upgrade the Visitors Centre to contemporary standards and support the CI Tourism Association (CITA)

### **Construction material**

CI is relying heavily on imported construction materials. Cost effective pre-fabrication construction methods and industries in Singapore could minimise in-situ construction costs and construction time for the Hub and on CI generally.

### **Natural environment**

With its exceptional and unique natural features, the CI land and marine environments are ideally placed to support eco-tourism, higher education & research programs. The Hub is to facilitate understanding and access to the island's natural wonders.

### **Climate Change**

The **2016 Paris Agreement** builds upon the Climate Change Convention and for the first time brings all nations into a common cause to undertake ambitious efforts to combat climate change,



adapt to its effects and charts a new course in the global climate effort.

An opportunity exists to engage with Singapore architects, engineers and researchers with proven and successful experience and knowledge in designing innovative low carbon footprint buildings in our equatorial environment and apply such knowledge to CI existing and future building infrastructure.

The Hub is expected to generate and operate its own net zero carbon emission energy system.

### ***Higher education***

Higher education and research have been recognised as a desirable component of CI's economic future. This view has been reinforced by the encouraging results of the Mining to Plant Enterprise (MINTOPE) agricultural and biological research partnership sponsored by Murdoch University, the Commonwealth Government and Phosphate Resources Ltd. between 2012 and 2019. CI is also ideally labelled as a "Living Laboratory" due to the quality, diversity and uniqueness of the island's eco-systems.

Murdoch University has an established MOU with Temasek Polytechnic in Singapore to offer joint research and education programs on CI targeting Singaporean and Perth Students in the fields of Bio-security, Bio-prospecting, Intensive agriculture/urban farming, Brewing & distillation, Micro sustainable energy, Food security, Mining land rehabilitation, Sustainable mine closure, Small business development, Sociology and Eco-tourism.

The Australian Government Director of National Parks has entered in 2022 into a five years collaboration deed with Murdoch University's Harry Butler Institute for activities in support of whale shark research at CI.

## 8. Christmas Island Marine Park

In March 2022 the **Christmas Island Marine Park** (CIMP) was established by the Australian Government under the **Environment Protection and Biodiversity Conservation Act 1999**. Like all Australian Marine Parks, the CIMP will be managed by the Commonwealth Director of National Parks.

### Marine Park design & purpose

The CIMP, designed collaboratively with the local community, will heighten international marine conservation efforts and has the potential to play a valuable contribution towards social, cultural and economic endeavours such as:

- commercial, recreational and subsistence fishing in line with the Christmas Island Applied Laws Amendment (Fish Resources Management) Ordinance 2022;
- boating, diving, snorkelling and
- scientific studies and educational activities.

The CIMP has a dual purpose in providing for:

- the protection and conservation of biodiversity and other natural, cultural and heritage values and
- ecologically sustainable uses that supports positive social and economic outcomes.

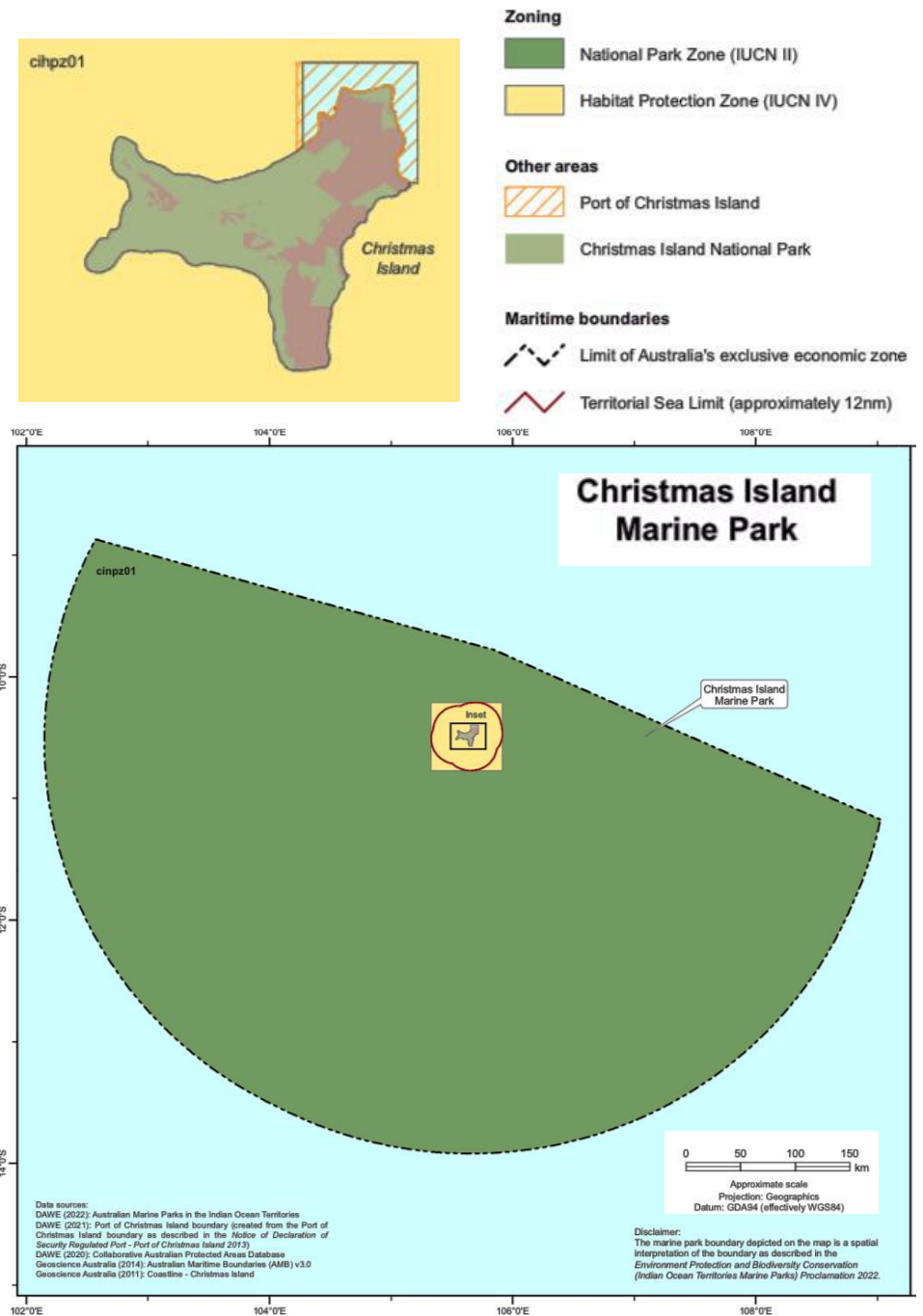
### Transitional management arrangements

Parks Australia will manage the CIMP in line with the arrangements reflected in the 2022 Proclamation Proposal for the establishment of marine parks in Australia's Indian Ocean Territories until the CIMP management plan is established.

### Long term Management

Priorities for managing the Christmas Island Marine Park include:

- working with the community, scientists, industry and other people to prepare a 10-year management plan.





- protecting, managing and monitoring the marine park's natural environment, including working with the community to do this.
- communicating and promoting greater understanding and appreciation of the marine park for the community and visitors
- supporting sustainable use of the marine park by the community and tourists, including through high quality and safe natural and cultural tourism experiences.
- improving scientific knowledge and understanding of the marine park's natural environment, in both inshore and offshore waters.

### **New activities subject to assessment**

New activities in the marine parks may require assessment by the Director of National Parks to decide if and how they can proceed to ensure that risks to the values of the marine parks are reduced as much as possible and that there is appropriate consultation with local communities and other stakeholders.

New activities requiring assessment could include, but are not necessarily limited to:

- the installation of structures;
- sea bed excavations or other works;
- aquaculture proposals and
- extractive scientific research.

### **A new province to support the island economy**

The establishment of the CIMP can be viewed as a new regulated and persuasive canvas capable of attracting a range of marine activities well aligned with the three identified drivers for the island future sustainable economy being:

- Tourism;

- International Education, Research & Development and
- Food and Agri-business.

Foremost to this is marine aquaculture as it could:

- Appeal to marine scientists and researchers;
- Become a tourist attractor;
- Provide a desirable source of protein rich food;
- Play a measurable role to reduce pressure on wild stock;
- Inform fish resource management;
- Create local employment and
- Open up export opportunities.

## 9. Fisheries Ordinance

On 17 March 2022, the Hon. David Hurley AC DSC (Retd), Governor-General of the Commonwealth of Australia promulgated the **Christmas Island Applied Laws Amendment (Fish Resources Management) Ordinance 2022** thus establishing the first fishing rules designed to meet the needs and interests of the CI community and its unique marine environment.

This ordinance includes the establishment of Advisory Committees to provide information and advice to the Minister with responsibility for the Territories (the Minister) on fisheries matters.

### Community focused legal framework

This contemporary fit-for-purpose fisheries management model reflects the shared priorities of the SOCI, community organisations, marine based businesses and individual fishing stakeholders, while supporting the sustainable management of the local fish populations to ensure their long-term sustainability for generations to come.

The new and historic legal regime also marks the first time that Islanders, with the assistance of independent fisheries specialists and through the CI People's Assembly, had influence and input into the laws applicable to the Island.

### Community participation in management

The management of the Christmas Island Fisheries will operate with Commonwealth funding and in accordance with section 42 of the Fish Resources Management Act 1994 (WA) for the first year with focus on planning the transition to community management followed by 3-5 yearly funding cycle in order to enable the local community to effectively participate in fisheries and marine management at Christmas Island.

### Role of the Fishery Advisory Committee

The Fishery Advisory Committee will provide information and advice to the Minister, including:

- identifying issues which affect fisheries management;
- on matters relating to the protection and development of IOT fisheries;
- emerging issues facing the commercial and recreational fishing sectors;
- initiatives to foster fisheries development and sustainability; and
- related strategic priorities, as required.

### Fisheries Management Services

The SOCI, assisted by the Fisheries Management Committee (FMC), will have the ultimate responsibility to deliver the day-to-day fisheries management services with funds provided by the DITRDCA.

This will include the employment of fisheries community rangers and the sourcing of expert advice and guidance from partner organisation(s) to support the FMC and assist with the co-ordination of management activities.

The fisheries management services will initially include:

- Compliance and enforcement;
- Fisheries monitoring and assessments;
- Marine science and research and
- Outreach/education and
- Administrative duties

In the future and subject to the DITRDCA approval, the management services may be extended to:

Issue of research permits, Issue of commercial fishing licences; Issue of aquaculture permits and Biosecurity/fish health.

### Synergies with the Marine Park



Beyond the fisheries ordinance's primary intention to ensure the sustainable management of the local fish populations "by the community for the community", there are identifiable similarity of purpose between the SOCI fisheries management services and the National Parks management of the marine park.

This could induce, between the two organisations, concerted activities such as but not be limited to:

- Outreach/education;
- exchange of data;
- sharing of resources when economy of scale can be achieved;
- collaborative research programs
- evaluation of aquaculture proposals
- coordinated monitoring activities.

## 10. Constraints & Opportunities

The refurbishment of the SHH is subject to physical and operational constraints & opportunities around and within the building as follow:

### Ownership & Management:

The Settlement Sports Hall (SSH) building and the land reserve it lies on are under the ownership of the Commonwealth. The reserve was placed under Management Order with the SoCI on the 16 April 1999 “to be utilised for the designated purpose of Recreation-Indoor Sports only”

### Background:

Subsequent to the construction of the Phosphate Hill Recreation Centre in 2004 the usage of the SSH as an indoor sports facility ceased. In following years, the building housed skating forms used by youth on an ad-hoc basis. The roof cover was damaged by the Cyclone Gillian in 2014, it was subsequently repaired but the building was never reopened to the public.

### Structure:

Subsequent to the passage of the cyclone, the SSH incurred relative minor damage with the loss of 1/9<sup>th</sup> of its roof sheet cover. No damage to the very robust primary steel structure was observed thus confirming its truistic strength. McMahon Engineers provided in November 2015 a quotation to “make safe” the roof and a cost-effective solution to remediate mild steel corrosion where necessary.

The replacement value of the building concrete slab, foundation and primary steel structure in its current state is estimated at between \$M

2,2 to \$M 2,8 (2023 market value). Refurbishing the building appears to be far more productive and cost effective than the demolition option, in particular in the context of on-going budget contraction in the IOT since 2015 and the forthcoming shut down of the detention centre.

### CI Bakery:

The Non-Conforming CI Bakery building sits on a freehold land holding contiguous to the SSH building on the southern boundary. Whilst orderly long-term planning would see the Bakery relocated, the decision belongs to two parties i.e., the Land Owner and to a lesser degree the Bakery operator, as the Lessor. This preliminary concept to refurbish the SSH must be operationally feasible on the basis of the Bakery remaining.

Separately, opportunity for land swap could be considered between the Crown and the Bakery Land Lord at some point in the future in order to achieve a higher quality planning outcome with improved pedestrian accessibility, increased parking capacity and a much-needed enhanced streetscape for the benefit of all stakeholders in the precinct as demonstrated in the Gaze Road UDMP.

### Petrol Station:

The removal of the petrol station is highly desirable as it will considerably enhance the image and esthetical appeal of the area. The refurbishment of the SSH with community, tourism, education and research function is better justified knowing that the petrol station prospect to remain in the medium to longer term is gradually reducing with the need to shift from petrol/diesel to electric vehicles.



### The Chinese Literary Association

The Chinese Literary Association (CLA) is the second most visited facility in the precinct after the supermarket. It is envisaged that a refurbished SSH would enhance the activities' critical mass of the area and as such will boost surrounding activities including patronage to the CLA.

The CLA may also explore new synergistic possibilities offered by a rejuvenated SSH that could benefit the two operations.

### SSH existing ablution block

The refurbishment of the SSH will be subject to the mandatory provision of adequate ablution for patrons. The existing ablution block would require some upgrade but could be reactivated at minimum expense. There is considerable cost benefit in refurbishing the block who offers sufficient capacity for the envisaged new uses. Accessible directly from outside the ablution block could remain open to the public after hours. Showers inherited from the sports function are likely to be well suited to tourists and visitors.

### Visitors Centre

The possible relocation of the Visitors Centre in a refurbished SSH has been discussed informally since the release of the *2011 Gaze Road Urban Design Master Plan*.

The current Visitors Centre has been refurbished several times over and has no capacity to grow and or accommodate patronage expectations in terms of space quality, amenities and professional services found in contemporary facilities on the main land or abroad.

A new Visitors Centre would be expected to provide but not be limited to:

- A comfortable reception area with space for visitors to sit down when interacting with staff;
- Storage and Internet access for visitors
- A shop front for branded items and specialised books;
- An interpretation space with discovery displays;
- Access to a lounge area and coffee shop;
- Dedicated office space for staff;
- A separate area for staff amenities and meetings and
- Amenities more suitable for the need of the Australian Navy crews who are increasing visitation to the Island.

The design of the new facility would be expected to project a vibrant professional image with a focus on sustainability (waste, renewable material, energy etc.) thus projecting and reinforcing the recognised nature base tourism attribute of the Island.

The refurbishment of the SSH would provide the opportunity for improvement of the Gaze Road façade and Streetscape with attractive welcoming features in terms of weather protection, hard and soft landscaping.

A fresh, contemporarily designed and larger Visitors Centre is also critical in supporting and preparing for the more vigorous policy by the SOCI to attract Singaporean tourists, businesses and tertiary education students and researchers.

### Sustainability Hub

The SSH Refurbishment Project is considered as a catalytic component of the immediate and urgent effort to transition the CI economy from Mining & Immigration to tourism, tertiary education & research and food productions.

The recent creation of the marine park and the introduction of the fisheries ordinance has brought a new set of opportunities for the re-use of the building with the possibility to better take advantage of its location immediately adjacent to the ocean without diminishing its function towards tourism and community activities

Accordingly, the SOCI has elevated the concept to a Sustainability Hub with the following proposed features:

At ground level:

- Marine science research;
- Marine aquaculture studies;
- Shared laboratory and office space;
- Aquaponic & hydroponic LED experiments;
- Aquarium display;
- Shared auditorium (tourism, education & research) and
- Community activities, event and functions.

The Gaze Road level would remain unchanged with:

- The relocated visitors centre;
- Internet hub;
- Shop premises;
- Café/restaurant & kitchen;
- Share balcony.

The mezzanine level could provide:

- Office space for the CITA;

- Office space for the Fisheries Ranger(s);
- Possible office space dedicated to the Marine Park and
- A shared boardroom.

The building would boast zero carbon emission with the solar roof, batteries and the possible addition of vertical axis wind turbines. Finally, the facility would offer fibre optic connection to all users.

### Universal access

The lower ground level with ocean outlook is directly accessible from the foreshore recently constructed pedestrian/cycle path and the refurbished CLA open air multi-function area.

The upper ground level is directly accessible from Gaze Road.

Both floors are wheelchair accessible from separate entry points.

A 1/12 ramp allows wheelchair access from the upper ground level to the mezzanine level thus providing universal access to all areas of the Hub.

### Renewable power generation

In August 2022 the federal government's Climate Change Bill 2022 passed the House of Representatives. The bill enshrined into law an emissions reduction target of 43% from 2005 levels by 2030 and net zero emissions by 2050.

The Hub will align with the SOCI's intention and expectation to see the operation of all new development demonstrating net zero carbon emissions.

To this end the Hub will be fitted with a solar roof, a series of micro vertical axis wind turbines and batteries.



## 11. Internal photos



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## 12. External photos



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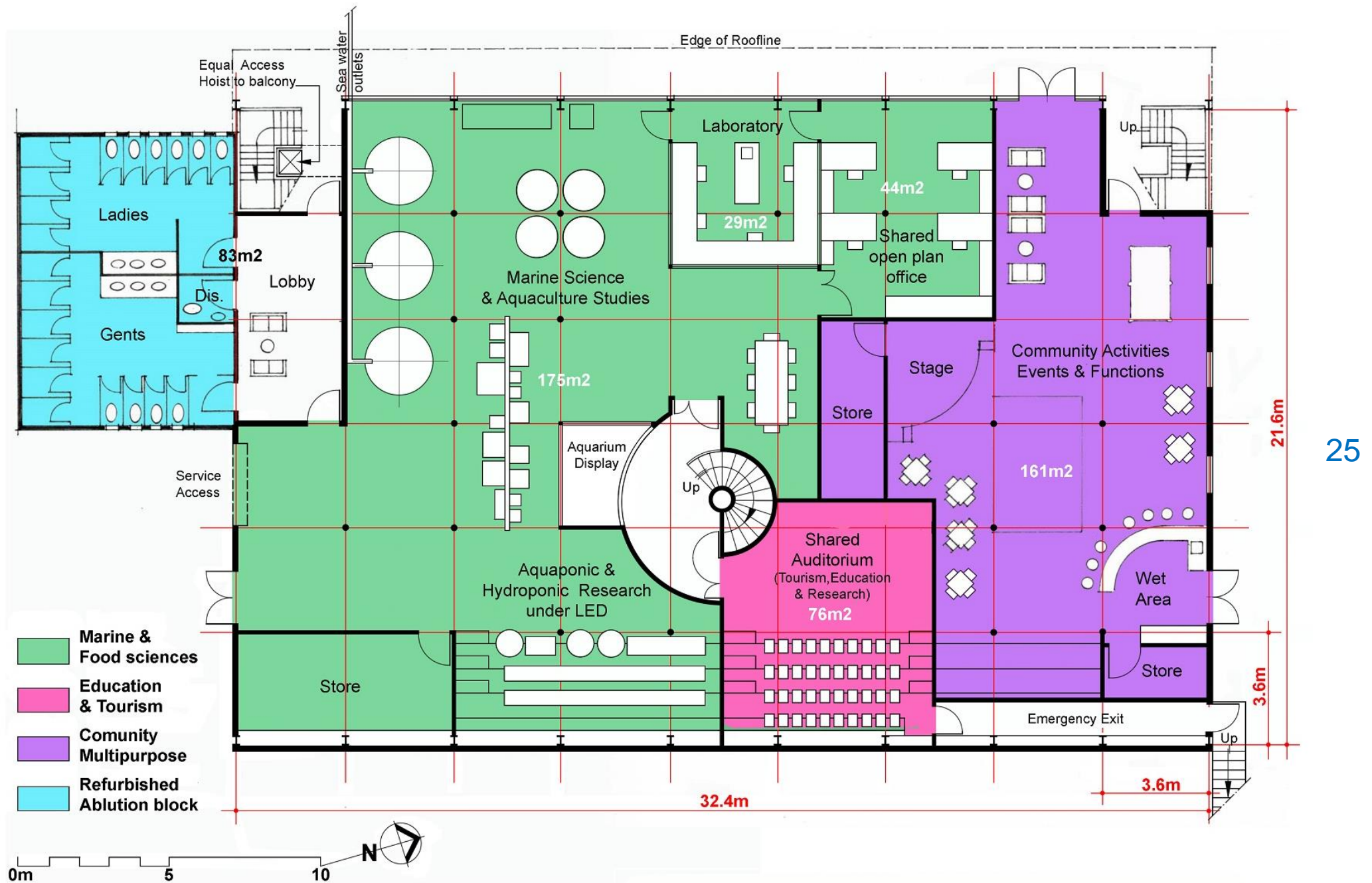
### 13. Architectural concept design



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Internal view looking towards the CLA





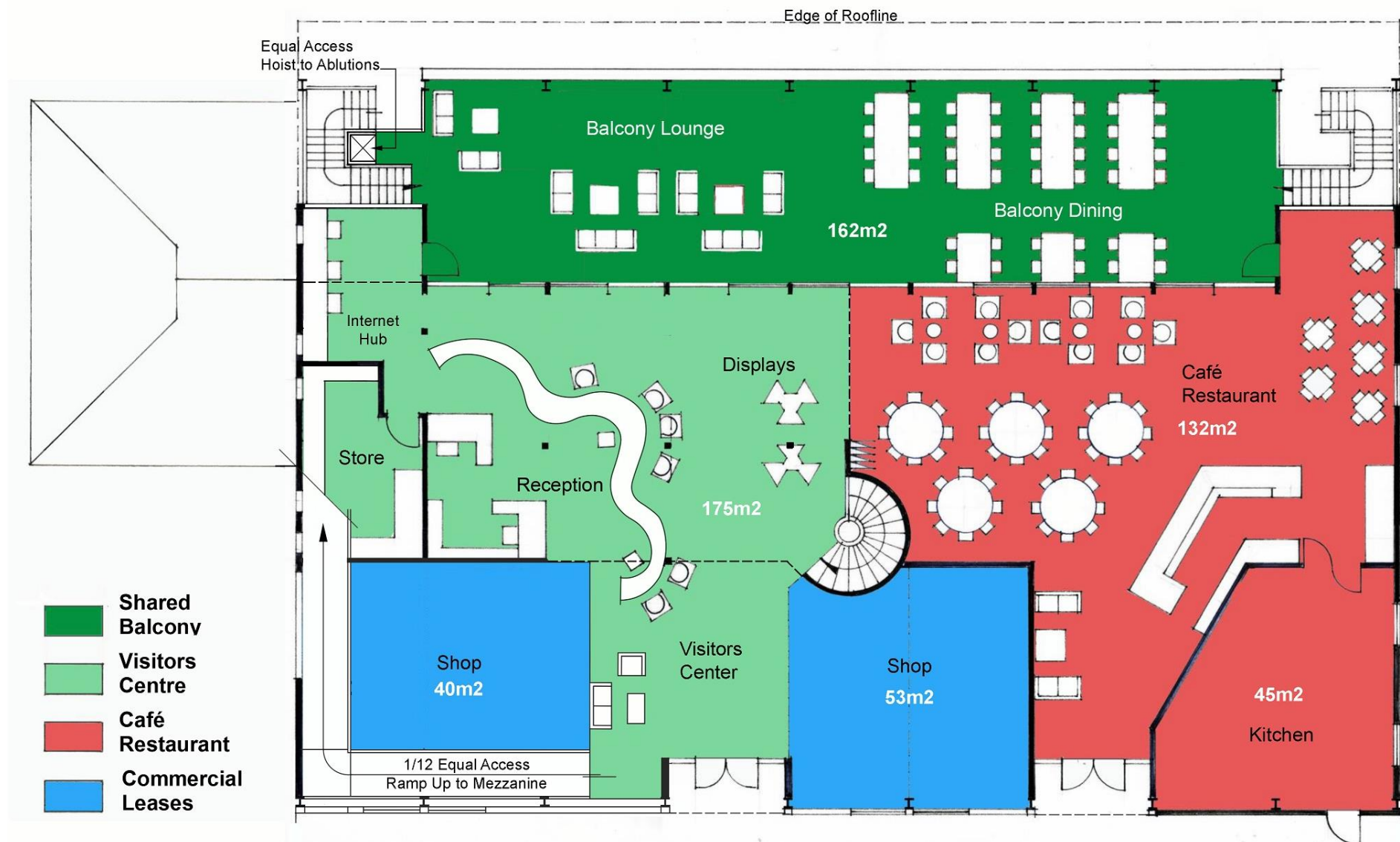
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Figure 7

## LOWER GROUND - FORESHORE FLOOR PLAN





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Figure 8

## UPPER GROUND - GAZE ROAD FLOOR PLAN

Calmy Planning & Design



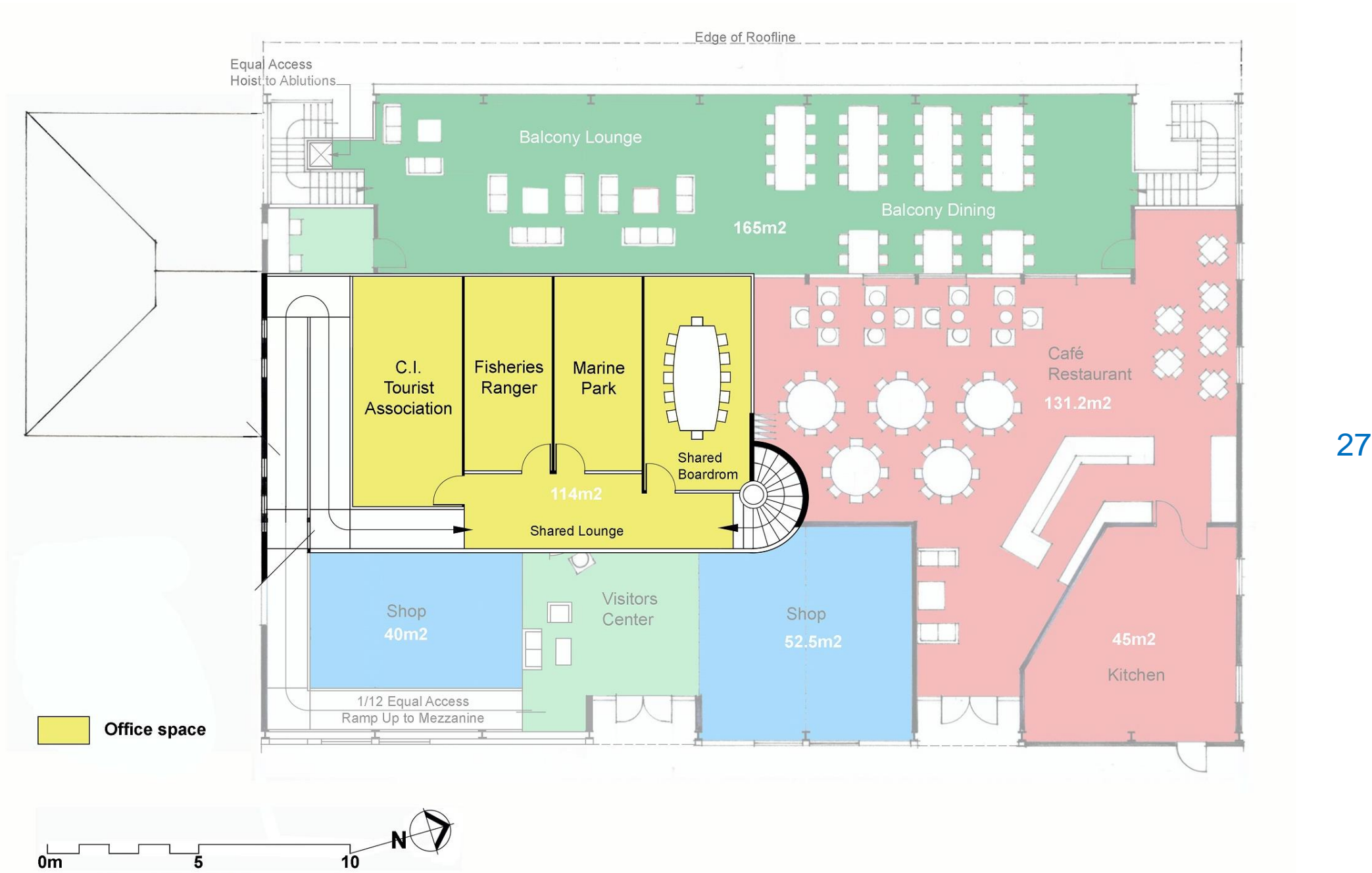
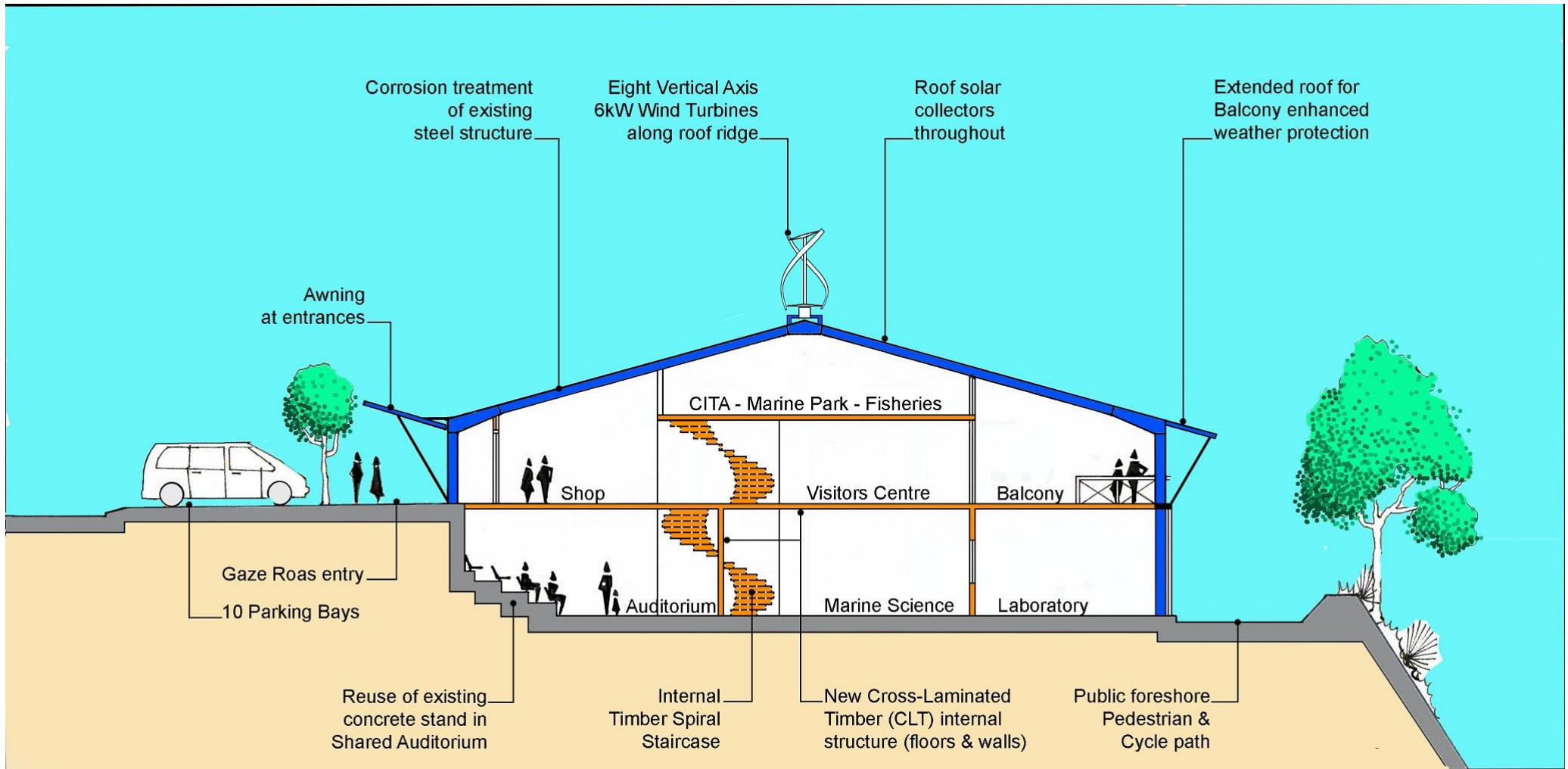


Figure 9 **MEZZANINE FLOOR PLAN**  
*Calmy Planning & Design*







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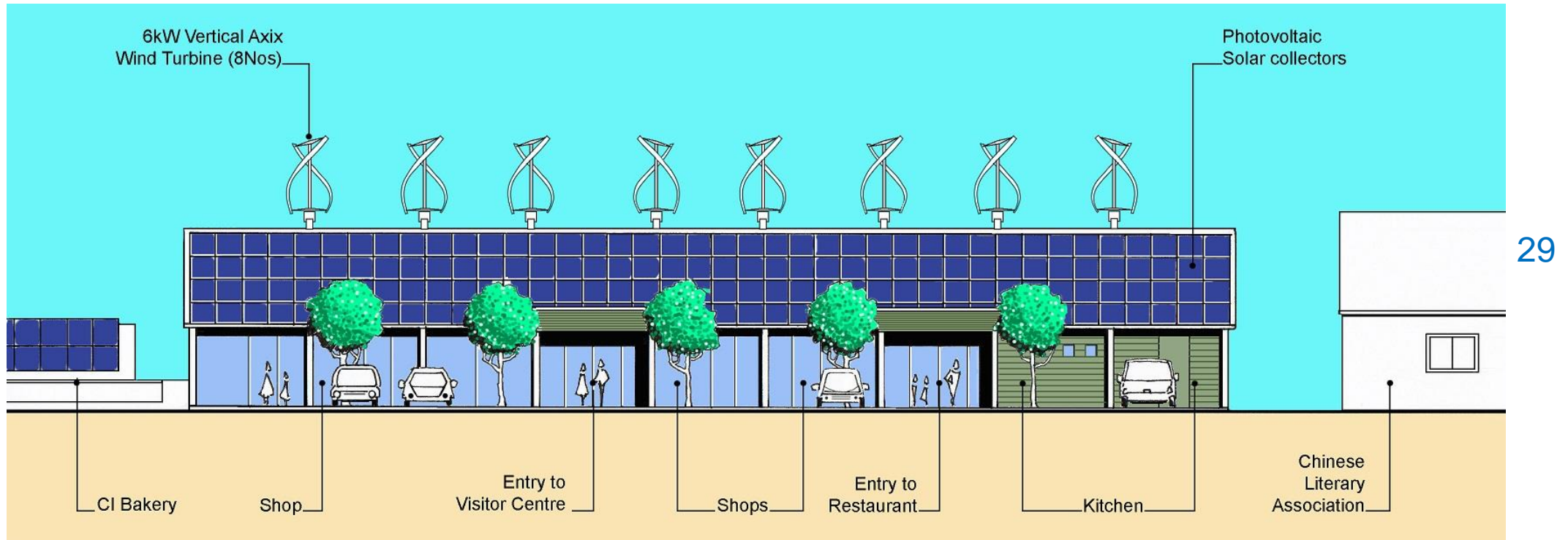
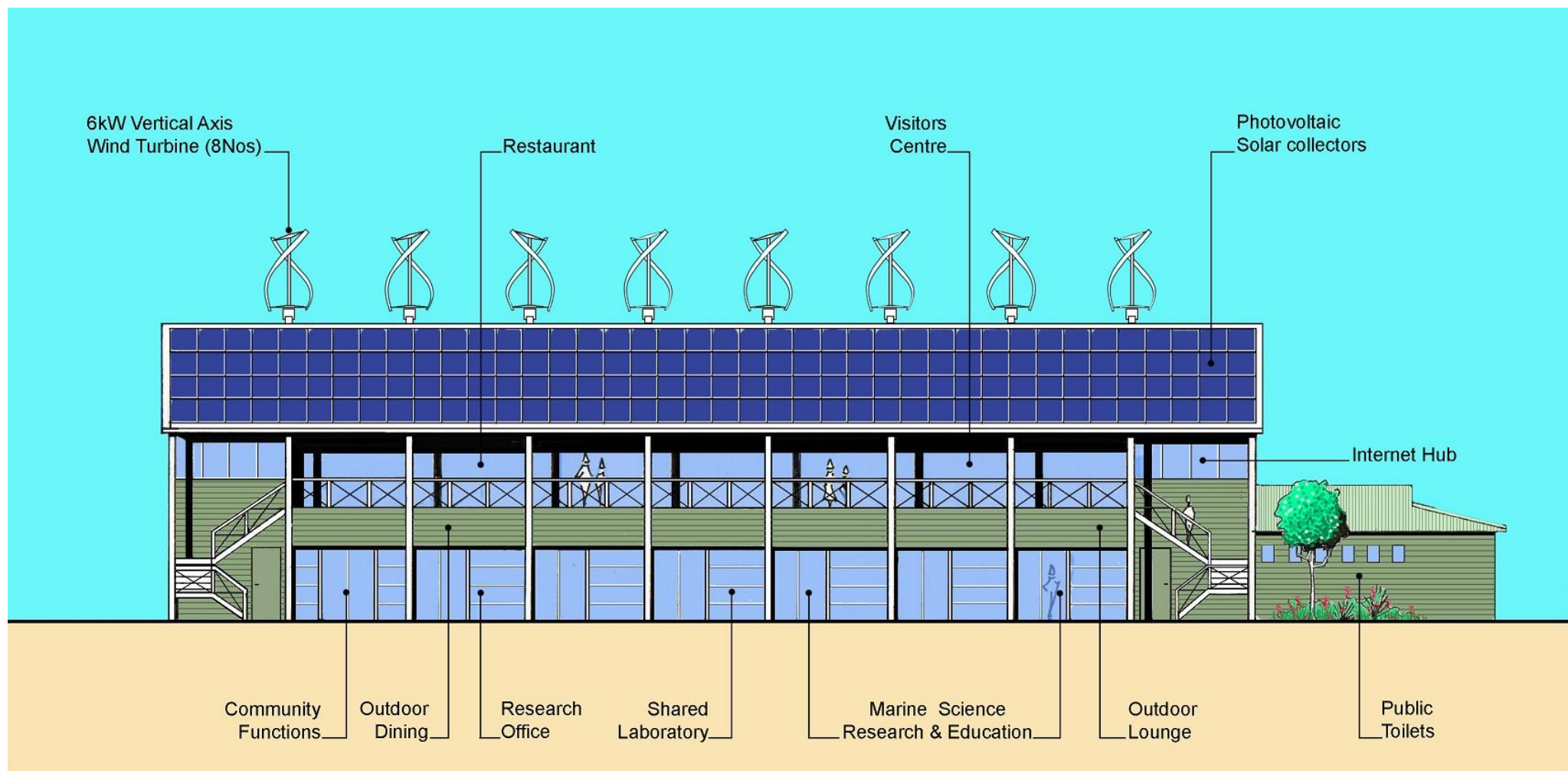


Figure 11

## EAST ELEVATION – GAZE ROAD – MAIN ENTRY



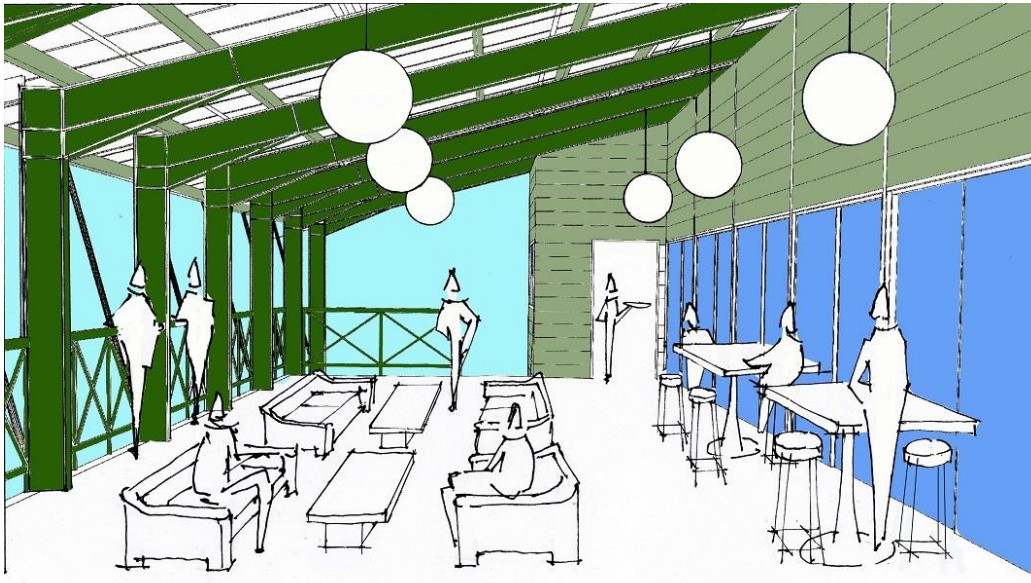
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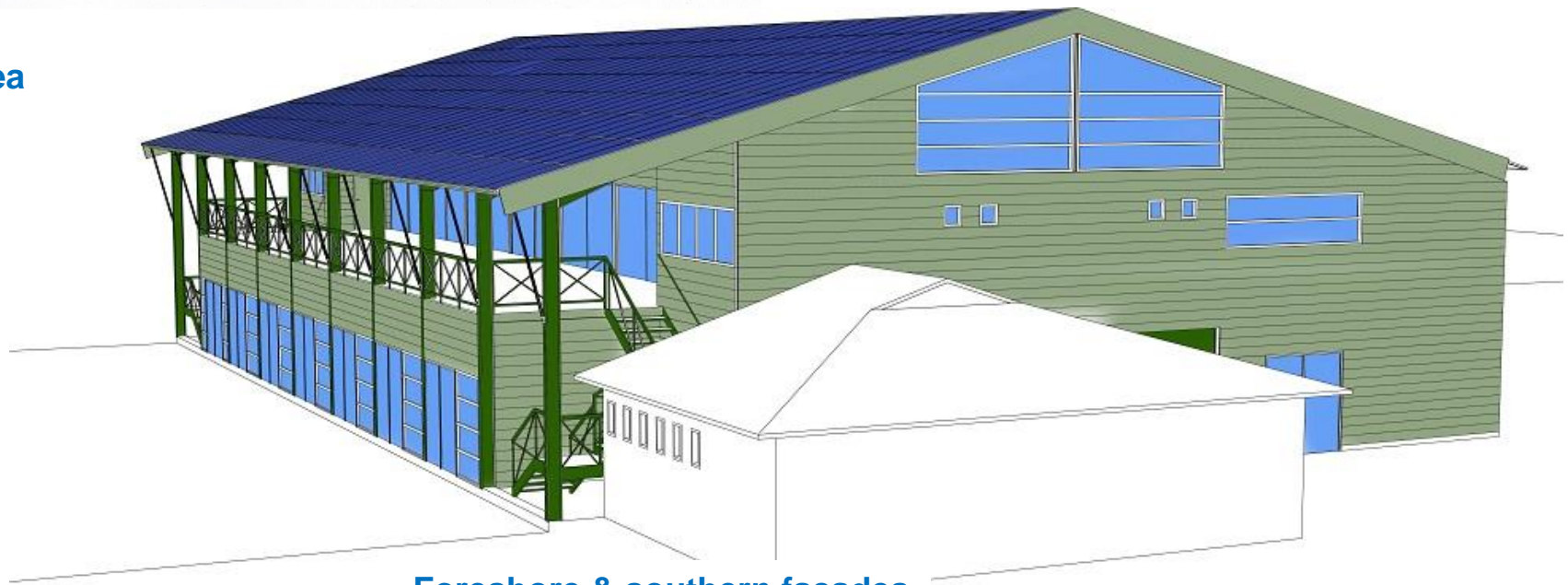


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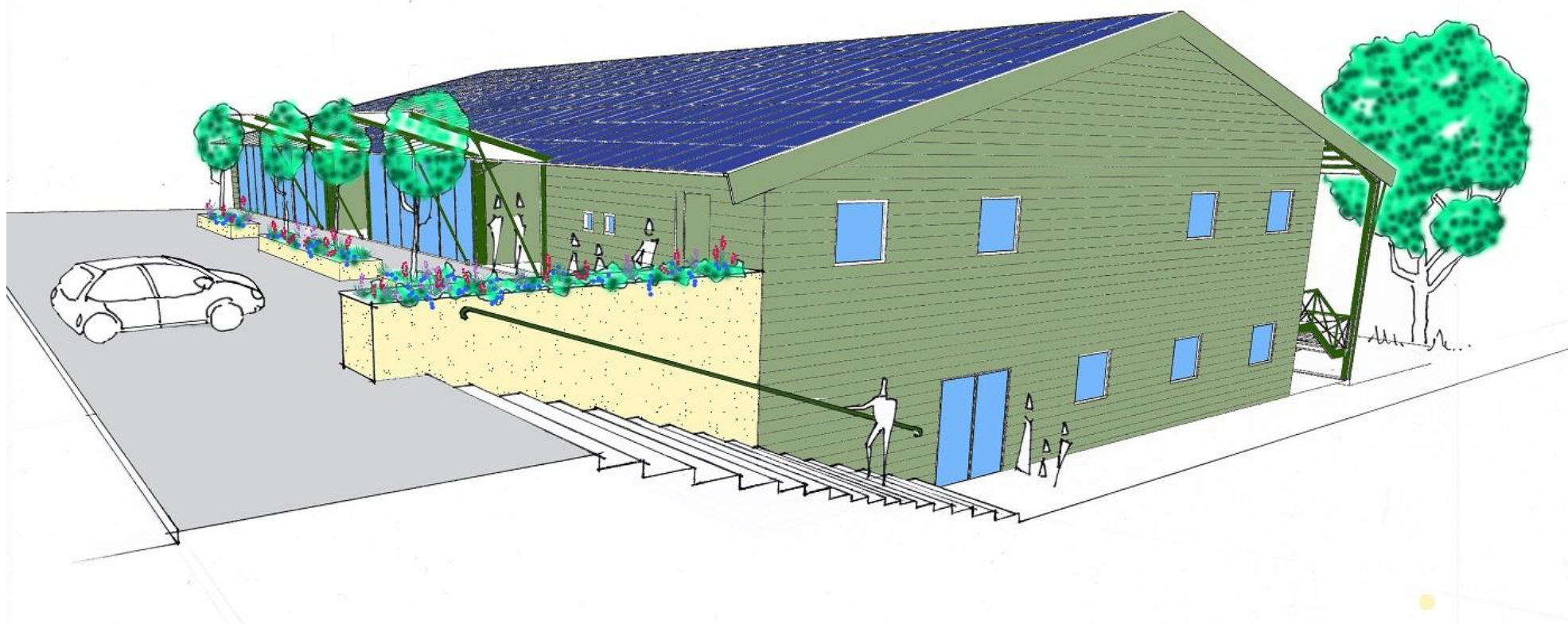




Balcony area



Foreshore & southern facades



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Figure 15

## PERSPECTIVE VIEW – GAZE RD. & NORTHERN FACADES





## 14. Structure & materials

### Existing primary structure

Preliminary assessment of the existing steel structure by McMahon Engineering in November 2015 has confirmed that with the exception of minor base column refurbishment in limited locations the steel primary structure is generally in sound condition and highly reusable. In providing quotations for steel refurbishment works and roof replacement with purlins a 1m centres, McMahon has illustrated that a cost-effective refurbishment of the building structure is technically and structurally feasible.

### Timber columns & flooring

It is proposed to use laminated timber columns and Cross Laminated Timber (CLT) as sub-structure for the floors. CLT is fabricated by bonding together timber boards with structural adhesives to produce a solid timber panel with each layer of the panel alternating between longitudinal and transverse lamellae.

This new and innovative building material provide excellent fire resistance as well as good noise and heat insulation. CLT elements are pre-cut at the factory from boards 160mm thick and up to 20m long permitting creation of smaller modules and allowing fast and efficient on site construction.

The SSH building set on a 3.6m x 3.6m grid is ideally suitable for CLT construction. Floor with hard wood floor finish could be shipped in 10.8m (3.6 m x 3) by 1.8 m (3.6 m / 2) modules.

Timber modules are easy to assemble and the main floor could be laid in less than a week by 3 to 4 workers only. They also offer quality interiors and enhanced sustainability rating.

### Concrete polished floor

The key benefit of the refurbishment solution is to minimise project cost by reusing existing features where possible. It is proposed to polish the existing concrete floor with the expectation that the coarse black aggregates will provide a unique and original pattern.

### Cladding

Given the harsh highly saline environment it is envisaged to use a cladding product made of synthetic/bamboo or hemp fibres to manage moisture in the building envelope.

This well tested material (available with many brands) does not crack, corrode nor rot. It is durable, fire and insect resistant and maintenance free. With 60% of organic content and most of the synthetic component originating from recycled plastic this cladding product has a high sustainability rating.

### Ocean glass wall

One of the key attribute of the SSH is the ocean outlook.

To counter potential ocean born pressures (high winds, oceanic surges) the glass wall at lower level is divided in smaller sections with structural reinforcement behind. The aim of this approach is to minimise glazing cost and provide a safe and highly resistant façade system designed to withstand expected oceanic threats.

## 15. Management order with power to lease

The 14 May 1999 Crown Land Title in the name of the Commonwealth over Christmas Location 444 on Land Administration Diagram 92290 (see Fig.16) is also referred as Reserve 44534 (Lot 641 on Deposited Plan 41816) in Crown Land Title Volume 3134 Folio 146.

The **care, control and management** of the above reserve was placed with the SoCI on the 16 April 1999 **“to be utilised for the designated purpose of Recreation-Indoor Sports only”**

The WA Department of Lands has advised that there would be no issue with modifying the purpose of Reserve 44534 to accommodate activities similar to those shown in this document.

*“Assuming the coffee shop/restaurant operates in conjunction with the key activities and the revenue is applied to the upkeep of the facilities, then the coffee shop/restaurant would be viewed as ancillary use.”*

*“Similarly, if the offices/shops are also associated with the key purposes and the rentals applied to the upkeep of the premises, then there are no issues. If the commercial tenancies were to operate separately from the nominated purposes and market rental applied, in Western Australia a lease would be the tenure of choice”.*

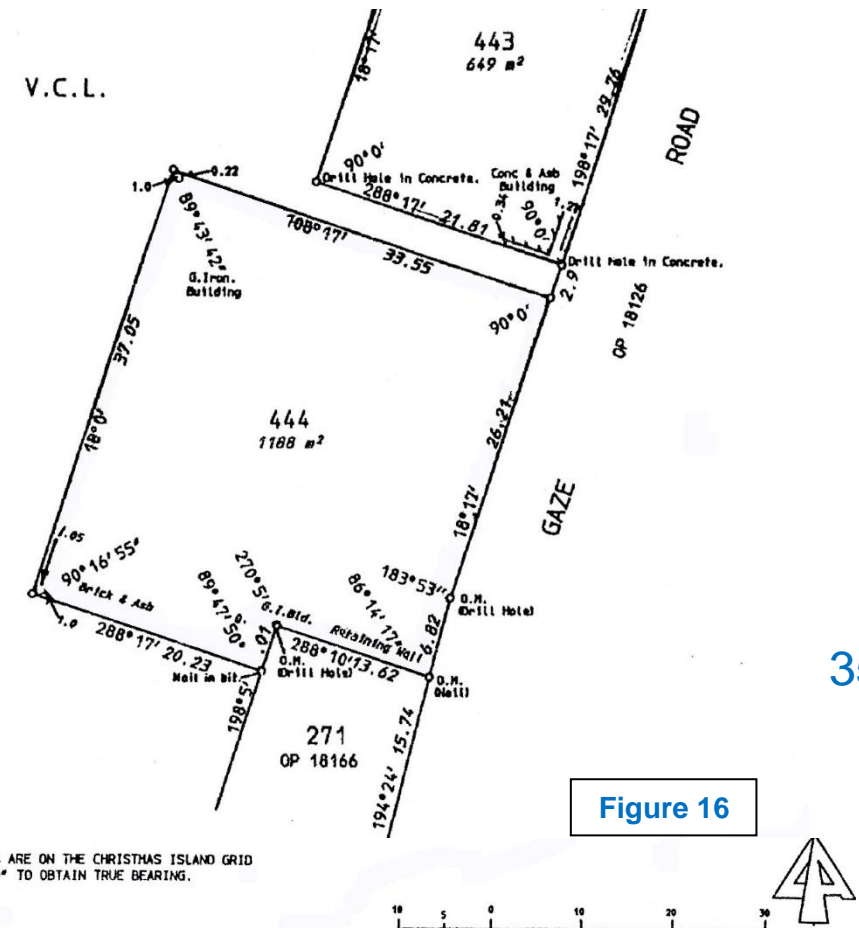


Figure 16

LAND DISTRICT CHRISTMAS		LOCATIONS 443 AND 444	
<b>SURVEYOR'S CERTIFICATE</b> I hereby certify that:- (a) this plan of survey is a correct and accurate representation of the survey carried out by me personally / under my personal supervision and is in accordance with the provisions of the Land Administration Act 1997; (b) the measurements are in strict accordance with the Licensed Surveyors' Ordinance of 1997; (c) this survey and this plan of survey are in strict accordance with the requirements of the Licensed Surveyors' Ordinance of 1997 and the relevant law in relation to which it is lodged.		SCALE 1:400 MEASUREMENTS IN METRES SURVEYOR G.V. SULLIVAN FIELD BOOK 69525 Page 9 & 10 Date of Marking 21.6.95	FILE 949/995 PUBLIC PLANS: 2X 94 02 7.08 RECORDED: F.H.S. Date: 22.4.98 SURVEY INDEX PLANS: 2X 94 02 7.08 RECORDED: F.H.S. Date: 22.4.98
Licensed Surveyor (to strike out which ever does not apply) Prepared by: AUSLIS Date: 16.10.95	In order for certification Date: 15.5.97 DIAGRAM CERTIFIED CORRECT Date: 15.5.97	AZIMUTH FROM OP 18166 LOCAL AUTHORITY: CHRISTMAS ISLAND LOCALITY: CHRISTMAS ISLAND LOGGED H.E. 11.5.96	DEPARTMENT OF LAND ADMINISTRATION DIAGRAM 92390

Assuming that each of the nominated uses are associated with the purposes of Tourist Bureau, Interpretative/Discovery Centre, Museum & Community Functions, revoking the existing Management Order and changing the purpose of Reserve 44534 with a fresh Management Order “**with power to lease**” for a set timeframe is feasible.

Prior to proceeding with any changes, **approval** from the Commonwealth and **agreement** from the SoCI) would be required by the WA Department of Lands.

Documents would be prepared to that effect and the WA Department of Lands would arrange execution of the documents under delegation for lodgement at Landgate.

If Lease(s) were contemplated as a result of the **approval/agreement**, there would be requirement for:

- A Deposited Plan from a Licenced Surveyor:
- Valuations for the rentals and easements and
- Liaison with prospective Lessee(s) regarding the terms and conditions for the Lease(s)/Easement(s).

Execution of the documents and lodging of all the documents would then follow.

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