



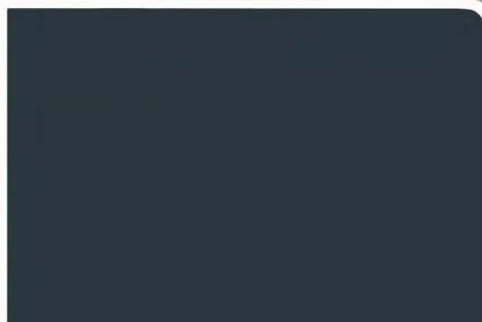
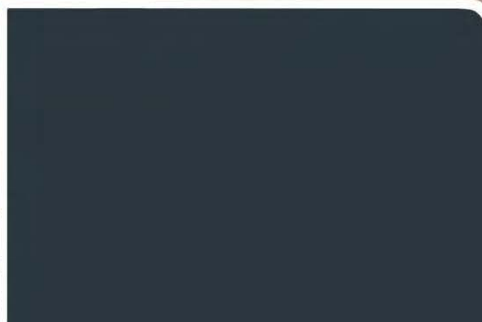
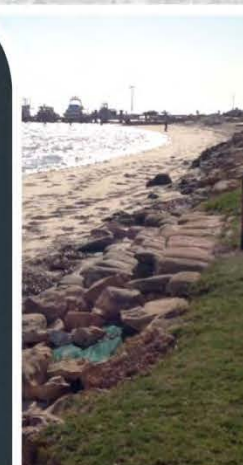
ARCHITECTURE
INTERIORS
URBAN DESIGN
PLANNING
LANDSCAPE



FORESHORE AND MAIN STREET REVITALISATION PLAN

December 2013

Hames
Sharley



DISCLAIMERS

The information contained in this report has been prepared with care by our company, or it has been supplied to us by apparently reliable sources. In either case, we have no reason to doubt its completeness or accuracy. However, neither this company nor its employees guarantee the information, nor does it or is it intended to form part of any contract. Accordingly, all interested parties should make their own inquiries to verify the information, as well as any additional or supporting information supplied, and it is the responsibility of interested parties to satisfy themselves in all respects.

This report is for the use only of the party to whom it is addressed and Hames Sharley disclaims responsibility to any third party acting upon or using the whole or part of its content

This document has been prepared for the use of Shire of Shark Bay only. Copyright © 2013 by Hames Sharley (WA) Pty Ltd. No part of this document shall be reproduced in any form without written permission of Hames Sharley.

REVISION SCHEDULE

| No. | Date | Details | CM |
|-----|----------|-----------------|----|
| 1 | 22/11/13 | Issue to Client | GP |
| 2 | 27/11/13 | Issue to Client | GP |
| 3 | 11/12/13 | Issue to Client | GP |

Contents

| | | |
|-----|--|--|
| 4. | 1. Introduction | |
| | 1.1 Purpose | |
| | 1.2 Process | |
| 5. | 2. Revitalisation Plan Objectives | |
| | 2.1 Place Making | |
| | 2.2 Objectives & Principles | |
| | 2.3 Consideration for Local Conditions & Vernacular | |
| | 2.4 Site Responsive Themes, Styles & Materials Objectives | |
| 8. | 3. Area A | |
| | 3.1 Opportunities | |
| | 3.2 Constraints | |
| | 3.3 Synergies | |
| | 3.4 Key Community & Business Objectives | |
| 10. | 4. Town Centre | |
| | 4.1 Opportunities | |
| | 4.2 Constraints | |
| | 4.3 Synergies | |
| | 4.4 Key Community & Business Objectives | |
| 12. | 5. Area B | |
| | 5.1 Opportunities | |
| | 5.2 Constraints | |
| | 5.3 Synergies | |
| | 5.4 Key Community & Business Objectives | |
| 14. | 6. Revitalisation Plan | |
| | 6.1 Area A | |
| | 6.2 Town Centre | |
| | 6.3 Area B | |
| | 6.4 Interpretive Trail | |
| 28. | 7. Staging & Costs | |
| 36. | 8. Funding Opportunities | |
| 39. | 9. Appendices | |
| | Appendix A - Literature Review | |
| | Appendix B - Community Engagement Outcomes Report | |
| | Appendix C - Draft Revitalisation Drawings | |
| | Appendix D - Staged Order of Magnitude Costings & Quantities | |
| | Appendix E – Business Case | |

1. Introduction

Denham has been identified as a holiday destination in the *Gascoyne Pilbara Project January 2012* and a coastal community prime for revitalisation in the *Denham Town Centre Strategy 2006* and *Shire of Shark Bay Local Planning Strategy 2013*. The Shire of Shark Bay commissioned Hames Sharley to prepare a Foreshore and Main Street Revitalisation Plan to provide planning documentation and a Business Plan for the revitalisation of Knight Terrace and the Denham foreshore to complement the pristine waters of the World Heritage listed Shark Bay. The intent of the Draft Revitalisation Plan is to provide a strategic direction for future projects to deliver enhanced economic development, local investment and increased visual amenity to the Denham Waterfront. The project outcomes will provide documentation to support funding proposals and will enable the delivery of well-connected and accessible places, improve local amenity, and subsequently increase the utilisation of public and community spaces.

1.1 Purpose

Denham has reached a point where the need for a clearly defined strategic direction and vision for future development has become evident. Key issues and opportunities for Knight Terrace and the Foreshore were sought through consultation with both the Shire of Shark Bay and the local community in order to develop a strategic direction that is reflective of the local community's wants and needs.

The Shire is seeking to facilitate sustainable and site responsive development and the Draft Revitalisation Plan is an essential document to help achieve this. The Revitalisation Plan provides documentation of the objectives and principles which have been defined through consultation to improve both the quality of life

experienced by local residents and visitors, as well as assist and enhance the economic performance of the town. The Revitalisation Plan has been prepared to guide planning and decision making in order to improve the amenity and attractiveness of both the Foreshore and Knight Terrace. The Plan builds on previous work undertaken by the Shire to assist to reinvigorate the Foreshore and Main Street to both attract visitors and meet the long term recreational needs of the community.

1.2 Process

The Revitalisation Plan is the culmination of the ideas and propositions of Denham residents, the wider Shark Bay community and a team of design professionals. A community workshop was held in October 2013 to identify the key community issues and opportunities for Knight Terrace and the Foreshore. To provide focus on specific areas the foreshore was divided into three areas which were defined based on existing land use, character and activity. The outcomes of the workshop were used to develop the foundations of a conceptual and strategic direction for the project. Further design and the exploration of funding mechanisms and staging has been developed for the Revitalisation Plan.



Project Process (Indicative Timeframe)



2. Revitalisation Plan Objectives

2.1 Place Making

Upgraded facilities and activity nodes seek to improve the performance of the foreshore as a destination, in terms of both tourist and local perception and use. The location of particular activities and enhanced visual amenity are intended to improve the impression of both the Foreshore and Main Street which are effectively the face of Denham and that from which first impressions of the Town are based.

The Revitalisation Plan is guided by community and business objectives which have been derived from community and business consultation.

2.2 Objectives & Principles

- Activities and community facilities and equipment should build on existing synergies and preferred locations.
- Integrate the town centre as a cohesive and attractive destination.
- Accommodation of the social and recreational facilities with the commercial and entertainment activities.
- Provision for all age groups and interests including both visitors and residents.
- Improve the visual and functional amenity of both the street and foreshore.
- Provide a town centre focal point/place.
- Balance and optimise multiple uses and activities.

2.3 Consideration for Local Conditions & Vernacular

Denham is characterised by hot, dry summers with low rainfall and strong southerly winds, and milder cooler winters. The importance of providing adequate shade and shelter from the strong winds is a key consideration, as is the retention of the existing coastal views of this unique coastal setting.

Knight Terrace is low lying and topographical and storm surge data indicate that the area is susceptible to future sea level rise and inundation from storm surge.

The streetscape consists of a variety of building scale, form and style. In addition newer buildings are built on a pad to avoid flooding potential from tide surge that may occur as a result of specific cyclonic conditions. This is an eclectic streetscape setting without a prominent or consistent vernacular in terms of architectural expression. This should not be interpreted as either disjointed or conflicting in regard to supporting mixed uses or providing service and hospitality amenity in the town centre. It reflects the unique setting and development which is the essence of Denham and should be enhanced where possible.

The construction of the Shark Bay World Heritage Discovery Centre as a dominant architectural feature along Knight Terrace has provided an opportunity to re-explore the town's image, and to incorporate elements of the outstanding and unique natural environment in the town's theme.

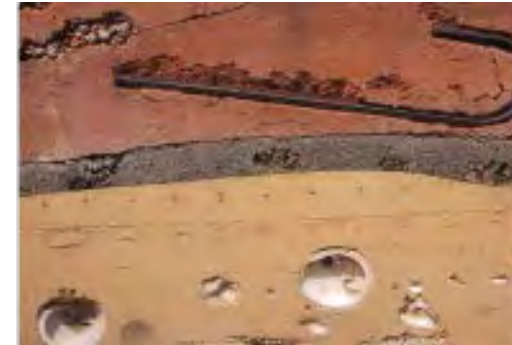
The location of upgraded facilities and activity nodes seek to improve the performance of the foreshore as a destination, in terms of both tourist and local perception and use. The location of particular activities and improved visual amenity seek to improve the impression of both the foreshore and main street which are effectively the face of Denham on which first impressions of the town are based.

Denham has many historical, cultural and environmental elements including Aboriginal history and culture, the pearling, fishing and pastoral industries and the early European landings. The opportunity exists to tell these stories in innovative ways that provide interest to the community and to visitors.



2.4 Site Responsive Themes, Styles & Materials Objectives

| | |
|---------------------------|---|
| Theme/ Style | <ul style="list-style-type: none"> Develop a landscape palette unique to Shark Bay. This palette will incorporate primarily rustic elements with a modern edge Ensure that landscape elements are functional where possible and that sculptural elements are interactive where possible |
| | <ul style="list-style-type: none"> Ensure that a combination of literal and interpretive landscaping and/or sculptural elements are employed, with literal elements representative of the natural 'here and now' setting, and interpretive representative of the Shires rich historic and cultural history |
| Key Element | <ul style="list-style-type: none"> Include a large scale sculptural element in a key location (Town Centre) to represent the unique history and setting of Shark Bay |
| Materials | <ul style="list-style-type: none"> Use low maintenance materials where possible and ensure that all materials used along the foreshore are corrosion resistant |
| Location | <ul style="list-style-type: none"> Locate large scale landscaping and/or sculptural elements in key locations that do not adversely block existing view corridors |
| | <ul style="list-style-type: none"> Locate smaller scale landscaping and/or sculptural elements in locations where view corridors exist to avoid adversely blocking them |
| | <ul style="list-style-type: none"> Rationalise locations of existing plaques and seating |
| Scale | <ul style="list-style-type: none"> Use a combination of both large and small scale landscaping and sculptural elements along Knight Terrace and the foreshore to represent the historic, natural and cultural significance of Shark Bay |
| Partnership Opportunities | <ul style="list-style-type: none"> Work in conjunction with the Department of Premier and Cabinet to incorporate their vision (in terms of sculptures, plaques etc.) where possible with regards to future planning for the Dirk Hartog 400 year anniversary in 2016 |
| | <ul style="list-style-type: none"> Where their vision is yet to be realised develop possible place holders for future landscaping and/or sculptural elements that are likely to be developed by 2016 |



3. Area A

The north-west end of Denham primarily consists of accommodation and residential based uses. The foreshore incorporates two fish cleaning stations and a number of shade structures and barbeque facilities.

This end of the foreshore is fortunate in that it includes of a large expanse of grassed area which is rare in such coastal conditions. At present this grassed area is interrupted by the ad-hoc location of palm trees. There is opportunity to consolidate these palms at either end to provide a large kick-about/ play space which would cater for active recreation and casual sport based activities, as well as create a large events and/or town festival space.

3.1 Opportunities

| | |
|--------------------|---|
| Shelters & Seating | <ul style="list-style-type: none"> Increased provision of shelters and seating will enhance the level of activity and use of this area Visually permeable shelters will maintain views whilst providing wind protection Selectively removing shrubs in key shelter locations will open up views of the bay |
| Boat Ramp | <ul style="list-style-type: none"> Dredging may improve access for larger vessels (outside scope of current revitalisation project, requires a marine engineer) |
| Beach Erosion | <ul style="list-style-type: none"> The upgrade of a low lying section of sea wall will minimise future beach erosion |

| | |
|------------------------------|--|
| Kick-about Space | <ul style="list-style-type: none"> The consolidation of existing palm trees will improve usable kick-about space Develop other elements for shade relief including additional trees around the periphery of the kick-about space Opportunity to consult with the local community to determine possible alternate tree species |
| Interpretive Trail & Artwork | <ul style="list-style-type: none"> Improve the relationship between the Discovery Centre, main street, foreshore and beach Sensitively designed interpretive signage and /or information panels could form a trail to lead visitors from one place to another Possibility to extend this trail by incorporating other elements within the town centre including the old gaol and other places, buildings or monuments of historic, cultural or environmental significance |
| Signage & Wayfinding | <ul style="list-style-type: none"> Enhancing the entry roundabout and the installation of effective signage would improve wayfinding for tourists and visitors |
| Partnership Opportunities | <ul style="list-style-type: none"> Working in conjunction with the Department of Premier and Cabinet to incorporate their vision (in terms of sculptures, plaques etc.) regarding the future planning for the Dirk Hartog 400 year anniversary in 2016 |
| Fitness Equipment | <ul style="list-style-type: none"> Provide some small scale permanent recreational fitness equipment to complement the consolidated kick-about space |

3.2 Constraints

| | |
|----------------------|---|
| Shelters & Seating | <ul style="list-style-type: none"> Increased provision of shelters may lead to underutilisation Poorly designed shelters could contribute to blocked views and a poor outcome |
| Boat Ramp | <ul style="list-style-type: none"> Dredging may not significantly increase the use of this boat ramp Boat ramp may continue to be underutilised due to its inability to cater for larger vessels |
| Beach Erosion | <ul style="list-style-type: none"> Damage and future erosion may occur if sea wall is not upgraded |
| Kick-about Space | <ul style="list-style-type: none"> The ad-hoc location of palm trees inhibits the use of George Wear Park as a kick-about space |
| Swimming Area | <ul style="list-style-type: none"> Beach swimming areas are currently underutilised. A lack of signage to locate these swimming areas may contribute to this The north-west end was considered to be a good location to promote as a snorkelling area. However, a lack of visual interest (fish life etc.) and shallow waters do not support this |
| Signage & Wayfinding | <ul style="list-style-type: none"> Signage consistency, legibility and the modest entry statements make it difficult for visitors to find their bearings and make the most of what the foreshore has to offer. |

3.3 Synergies

A number of activity nodes along the foreshore have been identified through community consultation and engagement. New infrastructure and programming of works should support these nodes. The location of these nodes recognises the relationships that exist between existing and proposed activities and the synergies that can be created by merging some infrastructure and landscaping elements.

The potential to consolidate the existing palm trees to provide a large open space lends itself to the possibility of creating a recreational node at this end of the foreshore with the collocation of a large kick-about space and small scale recreational fitness equipment.

Other potential synergies for this area relate to the complementary co-location of marine facilities with public open space and the associated facilities. Whilst there are toilets and shelters at the north end, there is an opportunity to increase the number of shelters at both ends, particularly at the southern interface with the Department of Transport (DoT) Marine area and the existing fish station.

3.4 Key Community & Business Objectives

- To improve the facilities and to provide a space which offers some variety in the town centre.
- To accommodate events such as the Fishing Fiesta festival, whilst allowing the non event activity to continue as normal.

4. Town Centre

The town centre currently provides quite a high level of amenity and is unique in the region due to the co-location of business, services, and marine recreation with a green parkland setting. It is the focal point of Denham's community and commercial activity. A mix of land uses are established in this area, including tourist accommodation, retail, office, community services and tourist information. The streetscape consists of a variety of building scale, form and style which reflect Denham's eclectic and coastal community character.

4.1 Opportunities

| | |
|------------------------------|--|
| Shelters & Seating | <ul style="list-style-type: none"> Increased provision of shelters and seating will enhance the level of activity and use of this area Visually permeable shelters will maintain views whilst protecting from winds Selectively removed shrubs in key shelter locations will open up views of the bay |
| Interpretive Trail & Artwork | <ul style="list-style-type: none"> Improving the relationship between the Discovery Centre, main street, foreshore and beach Sensitively designed interpretive signage and /or information panels could form a trail to lead visitors from one place to another Possibility to extend this trail by incorporating other elements within the town centre including the old gaol and other places, buildings or monuments of historic, cultural or environmental significance |
| Signage & Wayfinding | <ul style="list-style-type: none"> The installation of signage would improve wayfinding and clearly define Knight Terrace as the main street and other key recreational and swimming locations for tourists and visitors |

| | |
|---------------------------------|---|
| Partnership Opportunities | <ul style="list-style-type: none"> Working in conjunction with the Department of Premier and Cabinet to incorporate their vision (in terms of sculptures, plaques etc.) regarding the future planning for the Dirk Hartog 400 year anniversary in 2016 |
| Parking | <ul style="list-style-type: none"> Improved use of existing parking space could be achieved through the implementation of efficient line marked bays (Note: These would need to continue to cater for caravan, trailer and large boat use on the foreshore) Lack of signage to Barnard Street parking |
| Jinker | <ul style="list-style-type: none"> An upgraded and/or mobile option (Note: As the jinker and winch shed are not located on land owned by the Shire, the above will be incorporated into the Revitalisation Plan and will form a recommendation to be made to the DoT) |
| Recreational & Commercial Jetty | <ul style="list-style-type: none"> Extend and upgrade the existing recreational and commercial jetty facilities Possibility to promote the enhanced jetty as a focal point for the town centre |
| Playground | <ul style="list-style-type: none"> Consolidate the existing play area with additional play facilities to cater for a more diverse age group Restrict child access to Knight Terrace by improving fencing of play equipment Explore the feasibility of a possible water park |
| Beach Access | <ul style="list-style-type: none"> Improved access to the beach through the existing rock wall will improve beach and pontoon use |
| Beach Erosion | <ul style="list-style-type: none"> The upgrade of sea wall constructed of shade cloth will minimise future beach erosion |
| Pedestrian Paths | <ul style="list-style-type: none"> The improved legibility of existing pedestrian paths and improved connections along the foreshore and south-west edge of Knight Terrace can be achieved by upgrading existing pedestrian paths |

4.2 Constraints

| | |
|---------------------------------|---|
| Shelters & Seating | <ul style="list-style-type: none"> Poorly designed shelters could contribute to blocked views |
| Signage & Wayfinding | <ul style="list-style-type: none"> Signage inconsistency, legibility and the modest entry statements make it difficult for visitors to find their bearings and make the most of what the foreshore has to offer. |
| Parking | <ul style="list-style-type: none"> Parking located next to the jinker must be retained for jetty use Parking areas must cater for caravan, trailer and large boat use |
| Jinker | <ul style="list-style-type: none"> Existing jinker requires replacement or upgrade Existing jinker is considered a safety issue |
| Recreational & Commercial Jetty | <ul style="list-style-type: none"> Recreational jetty and commercial jetty require an upgrade Access to commercial ramp is limited for heavier boats |
| Playground | <ul style="list-style-type: none"> Existing playground caters for a limited age bracket Existing playground is poorly fenced and located in close proximity to Knight Terrace Water park expense, upkeep and use of fresh water may hinder its feasibility |
| Beach Access | <ul style="list-style-type: none"> Limited beach and pontoon access through sea wall |
| Beach Erosion | <ul style="list-style-type: none"> Existing sea wall is constructed of shade cloth Damage and future erosion may continue if sea wall is not upgraded |
| Pedestrian Paths | <ul style="list-style-type: none"> Existing paths are narrow, disjointed and not continuous |

4.3 Synergies

Activities and community facilities and equipment should build on existing synergies and preferred locations. As such, the consolidation of the existing play area to create an upgraded play space in the existing location is considered desirable. Similarly, the proposed Water Play area could be co-located adjacent to this site to create a family and children play node to encourage cross-use of the facilities as well as improve safety and parental supervision.

The DoT area is currently very well used. Ensuring that there are good connections to Knight Terrace will maximise the potential for neighbouring businesses to service the users of this space. Because this is an active semi industrial functioning space, ensuring that there are pedestrian friendly amenity areas immediately adjacent will assist to encourage the associated social activity to occur away from boat movements and improve safety.

Other synergistic opportunities are to be realised in order for the town centre area to associate the amenity for the foreshore with the everyday business of the main street and maximise the potential social interactions. In addition to improving the environment for business and customers, providing an identifiable town centre space will clearly identify the tourism functions of the Discovery Centre with Denham as a quality destination, and not just a service and supply destination.

4.4 Key Community & Business Objectives

- To allow the recreation offer to increase and co-exist with commercial activity.
- To improve facilities to allow for social and recreation opportunities to integrate with general retail and business activity.
- To allow the fishing and tourism based boating to grow with upgraded marine facilities.
- To attract more regional tourism through the town including short-medium stay and day trips from surrounding accommodation areas.

5. Area B

The south-east end of the Foreshore is a prime swimming location and recreational beach and water area but currently has a lack of facilities compared to other areas. There is an opportunity to designate part of this area for specific beach related activities such as kite and/or windsurfing to increase its usage and attractiveness to tourists and day visitors.

5.1 Opportunities

| | |
|------------------------------|---|
| Shelters & Seating | <ul style="list-style-type: none"> Increased provision of shelters, seating and barbeque facilities will enhance the level of activity and use of this area |
| Interpretive Trail & Artwork | <ul style="list-style-type: none"> Improved relationship between the Discovery Centre, main street, foreshore and beach Sensitively designed interpretive signage and /or information panels could form a trail to lead visitors from one place to another Possibility to extend this trail by incorporating other elements within the town centre including the old gaol and other places, buildings or monuments of historic, cultural or environmental significance |
| Signage & Wayfinding | <ul style="list-style-type: none"> Enhanced entry roundabout to clearly denote arrival at Denham Define Knight Terrace as the main street and Knetta's Beach as a swimming location for tourists and visitors |

| | |
|------------------|---|
| Parking | <ul style="list-style-type: none"> Explore measures to improve parking use by business owners and visitors. |
| Designated Areas | <ul style="list-style-type: none"> Explore the possibility of a designated activities area Designated area/s to cater for apparatus related activities such as kite and windsurfing to enable swimmers to avoid interference with such activities |
| Beach Access | <ul style="list-style-type: none"> Improved access to the beach over the existing rock wall will improve beach use |
| Beach Erosion | <ul style="list-style-type: none"> Upgrade of the sea wall constructed of shade cloth will minimise future beach erosion |
| Pedestrian Paths | <ul style="list-style-type: none"> Improved legibility of existing pedestrian paths and improved connections along the foreshore and south-west edge of Knight Terrace can be achieved by upgrading existing pedestrian paths |

5.2 Constraints

| | |
|------------------------------|--|
| Shelters & Seating | <ul style="list-style-type: none">▪ Poorly designed shelters could contribute to blocked views |
| Interpretive Trail & Artwork | <ul style="list-style-type: none">▪ The ad-hoc location of existing interpretive signage, plaques and art work is a missed opportunity to cohesively link the foreshore together |
| Signage & Wayfinding | <ul style="list-style-type: none">▪ Signage inconsistency, legibility and the modest entry statements make it difficult for visitors to find their bearings and make the most of what the foreshore has to offer |
| Parking | <ul style="list-style-type: none">▪ The existing informal parking area is considered necessary to retain |
| Designated Areas | <ul style="list-style-type: none">▪ The existing dog beach is considered necessary to retain |
| Beach Access | <ul style="list-style-type: none">▪ Limited beach access through sea wall exists |
| Beach Erosion | <ul style="list-style-type: none">▪ Existing sea wall is constructed of shade cloth |
| Pedestrian Paths | <ul style="list-style-type: none">▪ Existing paths are narrow, disjointed and not continuous |

5.3 Synergies

The key synergy potential for this area involves creating an attractive close link between the best place for short term caravan and boat trailer parking with direct access to the town centre business and foreshore activity, to improve the tourism associated business in town.

5.4 Key Community & Business Objectives

- To retain the simple beach side atmosphere and style with general improvements, increase in facilities and improved access to the beach.
- To retain and upgrade vehicle parking for clientele

6. Revitalisation Plan

Denham is at a point where there is a genuine need for long term planning to provide a strategic vision for future development and the revitalisation Knight Terrace, Denham, and the Denham foreshore.

The Revitalisation Plan has been developed taking into account the following key Shire priorities:

- Design principles to achieve a high quality and distinct streetscape character in the main Denham Townsite that cohesively links historic and new development and recognises the Shires unique world heritage values.
- Provide a focal point for the Denham Townsite with clearly identifiable public spaces that cater for a wide range of local resident, tourist and commercial needs.
- Provide compatible transitions between public recreation spaces and car parking areas which cater for different functions such as commercial fishing, business needs and visitors.
- Achieve good quality pedestrian links that are compatible with public car parking areas.
- Provide a high level of interest and amenity for local residents, businesses and tourists.

The design principles applied to the Foreshore and Main Street revitalisation have been derived from community consultation and best practice urban design principles.

The Revitalisation Plan has sought, where possible to incorporate the following principles:

- Integrate the town centre as a cohesive and attractive destination;
- Accommodation of the social and recreational facilities with the commercial and entertainment activities;
- Provision for all age groups and interests including both visitors and residents;
- Improve the visual and functional amenity of both the street and foreshore;
- Provide a town centre focal point/place; and
- Balance and optimise multiple uses and activities;

The town centre currently provides quite a high level of amenity and is unique in the region due to the co location of business, services, and marine recreation with a green parkland setting. The streetscape consists of a variety of building scale, form and style. In addition, newer buildings are built on a pad to avoid flooding potential from a tide surge that may occur as a result of specific cyclonic conditions. This is an eclectic streetscape setting without a prominent or consistent vernacular in terms of architectural expression. This should not be interpreted as either disjointed or conflicting in regard to supporting mixed uses or providing service and hospitality amenity in the town centre.

The parkland setting is a strong unifying theme for the town centre due to the consistent use of lawn and cotton palms. The cotton palms are the only successful plant for straight trunks and clear stems in this exposed windy environment, and the slightly saline bore water available. Windbreak protection will be required to successfully grow spreading shade trees, and this will block ocean views from Knight Terrace. Trialing of any new tree species for the waterfront should be in locations protected by clumps and rows of the existing palms or built shelter. Species that could be tested include *Delonix regina*, *poinciana*; *Hibiscus tilleacius*, cottonwood; *Ficus microcarpa Hillii*; *Ficus macrophylla* Morten Bay fig; and *Terminalia catappa*, Malay almond.

The lawn provides a soft relief for general passive recreation and marks a strong contrast to the surrounding broader landscape. A green setting of this scale is unique and somewhat precious outside the major regional towns in the region.

The single most important improvement for the foreshores functionality is the elimination of the disconnection between the path systems at the northern section of the DoT marine area, and through George Wear Park along the kerb.

Street parking of large vehicles particularly with boat trailers and caravans regularly blocks ocean views, therefore the plan proposes to accommodate these directly adjacent to the town centre and provide some full time views of ocean and park at the pedestrian crossings.

The planning of the spatial sequence is centred on the Town Square area which is directly opposite the Discovery Centre with its associated forecourt. The intention is to mark the centre of the town by providing an area of higher amenity and provision for general social activity marked with the forecourt pergola shade and potentially a significant art or interpretive work. Associated with this is the upgrade of footpaths and roadway, for improved pedestrian circulation and clarified street parking that reinforces this stretch of Knight Terrace as the town centre. This provides clear legibility as the business and services centre of Denham.

Immediately north of the Town Centre is the DoT Marine area which is the most activated public area in Denham. The Revitalisation Plan supports upgrading this area because it is so popular and is important to the tourism industry.

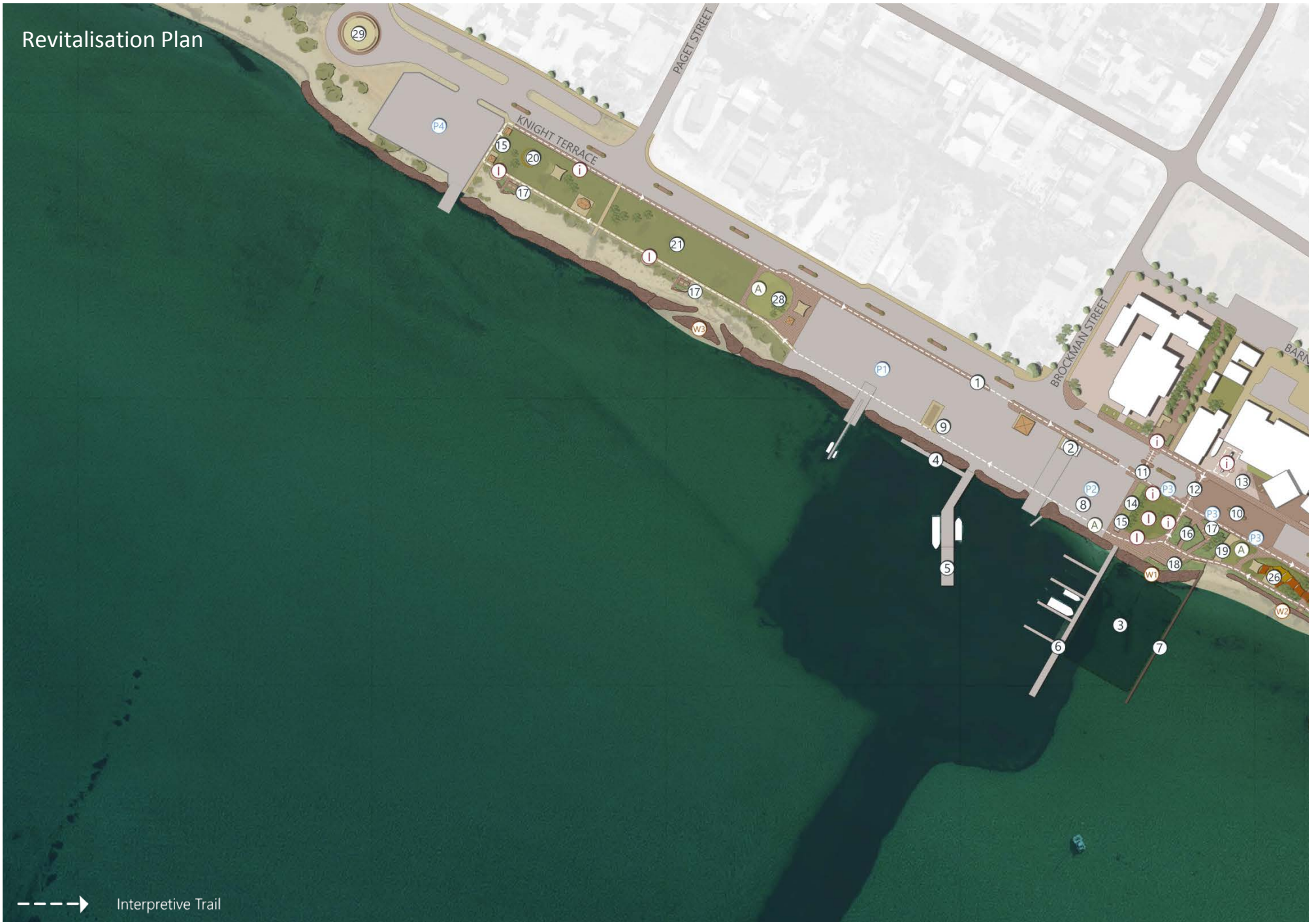
George Wear Park north of the DoT Marine Area is enhanced with proposed facilities associated with more passive social activity and to provide amenity spaces for the adjacent boating facilities at each end. In addition the park is slightly modified to better accommodate some more active casual recreation (kick-about space) or for festivals with one large clear area.

South of the Town Square is the play space. This is currently a popular play facility and the plan proposes to expand and upgrade this use with a comprehensive redevelopment. The plan also nominates a potential site for water play (subject to further investigation for feasibility).

The southern end of Gordon Peter Park will be upgraded with a focus on beach access and more casual amenities and an additional toilet facility.

The plan presents this spatially from north to south into areas of common themes, uses and construction requirements to assist with logical programming of complementary works.

Revitalisation Plan



---> Interpretive Trail



6.1 Area A

| Stage 1B |
|--|
| <p>17 Additional Shelters</p> <p>Proposed shelters are intended to include wind breaks to the south west with views to the west and access to the sea wall area. Two shelters have been shown adjacent to the existing grassed area which still leaves a significant proportion of the park with ocean views. The two shelters are in close proximity to the boat ramp and the DoT marine area respectively. The shelter windbreaks are intended to be enhanced by additional planting that is protected by low windbreaks. Some low rock walling will be necessary to maintain the paving level with the existing footpath and lawn. The shelters are shown of varying sizes to include different number of table and bench settings for more accommodation variety.</p> |
| <p>20 Exercise Station</p> <p>The plan shows the possible location for an exercise station with fixed equipment that can be used as part of an exercise trail along the foreshore.</p> |
| <p>21 Consolidated Open Grass Area</p> <p>The proposed transplanting of 4 existing palms will provide one large grassed area about 60 x 20 m. This area can accommodate some general kick-about space or an unencumbered area for setting up events with marquees or open displays (such as the Fishing Fiesta).</p> |
| <p>I Indicative Key Interpretive Item Locations</p> <p>Nominal locations for new key interpretative item which will form part of the foreshore trail.</p> |
| <p>i Existing Item to Form Part of Interpretive Trail</p> <p>Nominal location for existing interpretative item which will form part of the foreshore trail.</p> |

| Stage 4 |
|---|
| <p>15 Bike Racks near exercise station</p> |
| <p>28 Upgraded Fish Station Area</p> <p>Proposed improvements to this area include paving and a shade sail canopy with 2 table and bench settings.</p> |
| <p>29 Enhanced Entry Statement</p> <p>Enhanced entry statement to clearly denote 'arrival' at Denham.</p> |
| <p>P4 Parking</p> <p>Car park line marking to include boat trailers and general vehicular parking.</p> |
| <p>A Amenity Upgrade</p> <p>Including additional drinking fountain and external lighting.</p> |

| General Infrastructure Upgrade |
|---|
| <p>W3. Sea Wall Upgrade</p> <p>Upgrade of Existing seawall which is currently too low.</p> |
| <p>Note: The future design of general facilities in the Town Centre area will need to consider:</p> <ul style="list-style-type: none"> • Lighting for paths and shelters • Water drinking fountain (1) • Barbecue sets (1) close to shelters • Bike Racks |



---> Interpretive Trail

6.2 Town Centre

| Stage 1A |
|---|
| 1 Earthworks and Footpath Upgrade – Upgrade of existing footpath and vehicle area for crossover construction. Including bollards and wheel stops to protect paths and rockwalls. |
| 2 Demolish Jinker Building - Subject to securing agreements for mobile jinker operations and potential offsite servicing of boats. (Note: Relocation of fuel spill kit will be required.) |
| 3 Dredging to the East of the Recreational Jetty Further dredging of the channel and area adjacent to the boat ramp could be considered to make this boat ramp suitable for slightly larger vessels (bigger than dingy) to reduce the congestion in the DoT area. |
| 4 Wharf Extension to be extended parallel to the seawall for additional flexibility for servicing vessels. Including a new edge wharf extension that could be used for refuelling. |
| 5 Wharf Extension (20m) for additional flexibility for servicing vessels. |
| 6 Recreational Jetty Upgrade and Extension - The proposed improvements shown are based on the DoT concept prepared February 2013, and include extensive reconstruction for extending the jetty and providing boat pens on the north side. |
| 7 Geotextile Groyne to edge the extent of dredging and protect from silting. |
| 8 Signage and Marking for Marina Use – Including marina safety and pedestrian safety information. |
| 9 Relocated Fuel Spill Kit Station |
| P1 Parking - Upgrade paving and provide appropriate line marking and signage for efficient use of the facilities. (subject to DoT design standards). |
| P2 Parking - Efficient line marked bays for access and use of this car parking area due to its proximity to the jetty and town centre. |

| Stage 1B |
|--|
| 10 Upgraded Town Centre Pavement - Upgrade of a section of road and pedestrian paving in the town centre. |
| 11 At-Grade Pedestrian Crossing A for connection to Charlie Sappie Park and the Department of Environment and Conservation (DEC) building access ways. (Note: The DEC has recently changed to the Department of Parks and Wildlife (DPaW) and Department of Environmental Regulation (DeR)) |
| 12 At-Grade Pedestrian Crossing B – Connecting the Discovery Centre forecourt with the town square area. |
| 13 Shade Pergola - Provide shade relief for Discovery Centre Forecourt. |
| 14 Additional Grassed Area near existing palms. This area is created by aligning a pedestrian crossover that links with the recreation jetty and bike shelter. |
| 15 Bike Racks near Town Square area and the recreational jetty. |
| 16 New Town Square - This will be the centre of the foreshore and include the highest level of presentation and amenity of public space in the town centre. It will include a significant art or interpretive element and be immediately surrounded by associated facilities. |
| 17 Additional Shelters - Proposed Seating Area with 3 table settings and wind break. |
| 18 Platform Viewing Area - This space is to complement the activity of the recreational jetty with casual seating and paving with views of the ocean and marina activity. This area is proposed to include low seating height walls that can accommodate some level changes and include an interpretive item. |
| 19 Beach Access for Services - Provision of beach service access (similar to existing location with upgrade of surface). |
| 20 Exercise Station - The plan shows the possible location for an exercise station with fixed equipment that can be used as part of an exercise trail along the foreshore. |
| I. Indicative Key Interpretive Item Locations Nominal locations for new key interpretative item which will form part of the foreshore trail. (Note: Key art piece and appropriate external lighting to be included at one of these nominated locations). |
| i Existing Item to Form Part of Interpretive Trail - Nominal location for existing interpretative item which will form part of the foreshore trail. |



Interpretive Trail



Stage 2

21 Consolidated Open Grass Area

22 Improved Beach Access through seawall.

23 Relocation of Existing Swimming Pontoon for passive recreational use.

24 Additional Swimming Pontoon & Dredging with two slides for active recreational use.

25 Shade Pergola – to provide shade relief and signify entry to playground area

26 Extended & Consolidated Play Area - Full upgrade of the play space including

- Play equipment & Layout - large sail shades and seating for carers
- Additional space recovered from parking area
- Fence and gates to Knight Terrace side
- Shelter and table setting to sea wall
- Beach access through seawall
- Additional drinking fountain and lighting
- Pedestrian crossing and connection to the DEC building walkway access

P3 Parking- Reconfigured parallel parking. This reconfiguration will maximise the paved and/or grassed areas adjacent to the play space to improve safety.

A Amenity Upgrade

Including additional drinking fountain and external lighting.

Stage 3

27 Water Play Area subject to feasibility study and ongoing operation costs.

General Infrastructure Upgrade

W1 Sea Wall Upgrade from proposed geotextile groyne to recreational jetty

W2 Sea Wall Upgrade of existing seawall which is currently constructed from shade cloth

Note: The future design of general facilities in the Town Centre area will need to consider:

- Lighting for paths and shelters
- Water drinking fountain (2)
- Barbecue sets (1) close to shelters
- Bike Racks



6.3. Area B

| Stage 1B |
|---|
| 20 Exercise Station - The plan shows the possible location for an exercise station with fixed equipment that can be used as part of an exercise trail along the foreshore. |
| I. Indicative Key Interpretive Item Locations Nominal locations for key new interpretative item which will form part of the foreshore trail. |
| i Existing Item to Form Part of Interpretive Trail Nominal location for existing interpretative item which will form part of the foreshore trail. |
| Stage 5 |
| 15 Bike Racks near exercise station |
| 22 Improved Beach Access through seawall. |
| 29 Enhanced Entry Statement Enhanced entry statement to clearly denote 'arrival' at Denham. |
| 30 Proposed Picnic Area Sail shade shelters with table settings. |
| 31 Proposed New Toilet Facilities Note final location will be subject to best access to the town sewer. |
| P5 Parking Retain informal overflow parking and seal surface. |
| P6 Parking Formalised parking for caravans and trailers. |
| A Amenity Upgrade. Including additional drinking fountain and external lighting. |

General Infrastructure Upgrade

W4 Sea Wall Upgrade of existing seawall which is currently constructed from shade cloth.

Note: The future design of general facilities in Area B will need to consider:

- Lighting for paths and shelters
- Water drinking fountain (1)
- Barbecue sets (1) close to shelters
- Bike racks

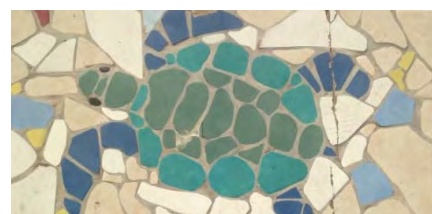
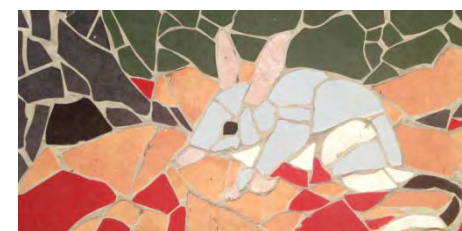


6.3. Interpretive Trail

Denham has a rich history which is made up of historical, cultural and environmental elements, including Aboriginal history and culture, the pearling, fishing and pastoral industries and the early European landings. The Revitalisation Plan has sought to integrate the town centre and foreshore as a cohesive and attractive place whilst exploring the opportunity to tell these stories. To achieve this, an interpretive trail is proposed which will start at the recently erected HMAS Sydney Memorial in the DEC forecourt and lead visitors along and around the foreshore.

This trail will include both existing and proposed items of interest, as well as a key feature item which will be located in the town centre. The trail will provide interest to both the community and visitors and encourage pedestrian movement along the foreshore.

| Stage 1B | |
|---|--|
| Existing Items to Form Part of the Interpretive Trail | |
| ia | HMAS Sydney Memorial |
| ib | Gudrun Anchor |
| ic | Galli-Curci Shark Bay Pearling Lugger |
| id | George Wear Park Plaque |
| ie | Gordon Peter Park Plaque |
| if | Charlie Sappie Park Plaque |
| Proposed Indicative Interpretive Item to Form Part of the Interpretive Trail | |
| I Area A | <ul style="list-style-type: none"> 2 Standard Items |
| I Town Centre | <ul style="list-style-type: none"> 1 Standard Items 1 Large Scale Key Item |
| I Area B | <ul style="list-style-type: none"> 2 Standard Items |
| Note: Whilst the trail does not currently extend further than the foreshore and main street there is an opportunity to expand this to include the Old Gaol, Pioneer Park, Bassett Park and other items, buildings and places of significance. | |





7. Staging & Costs

General notes and preliminaries

The Revitalisation Plan has been prepared to provide for an integrated and responsive improvement of the Foreshore and Main Street areas. The plan presents a holistic vision for the town centre; however some flexibility of development timing needs to be considered to accommodate the unique or one off funding opportunities, from the potential funding sources identified.

Additional consideration should be given to preparing a single detailed Landscape Master Plan of the whole foreshore rather than by stages to address issues such as:

- Standard details
- Materials selections
- Furniture and equipment palette

This is most important for the prominent or volume items such as paving selections, shelters and the trail theme, to determine what items should have consistency or where contrast or variation can be introduced to enhance the visual outcomes.

The staging and costing does not include upgrading of the existing town infrastructure particularly the sea walls.

The costs to undertake these works is estimated at:-

| | |
|--|-----------------------|
| Area A, section of wall built too low | \$226,800.00 |
| Town Centre, re build wall with geotextile | \$324,000.00 |
| Area B, re build wall with geotextile | \$1,036,800.00 |
| Preliminaries at 15% | \$238,140.00 |
| Design and construction contingency 10% | \$182,574.00 |
| Design fees and Expenses | \$251,039.25 |
| Order of magnitude at current prices | <u>\$2,259,353.00</u> |

Indicative Specification. Sea Wall Assumes, Dimensions, .6m wide at base, min height of .9 m Rock to be sound hard material, not subject to erosion. Min 300mm , 600mm Max. Allow +/-100mm on any dimension. Shape; Max dimension not greater than 2 x min dimension. Source of rock assumed to be within 20 km of job site.

There could be economies of scale in regards to contracting. For example;

- Surveying the whole foreshore and main street area before Stage 1; and
- Rockwork associated with seawall access areas for George Wear and Gordon Peters parks at the same time as the DoT Marine Area works.

This staging strategy is indicative only. The commencement of works is subject to economic and environmental conditions which may necessitate amendment to the table below. Costs exclude GST. Detailed costings are included in Appendix D.

| INDICATIVE STAGING SCHEDULE | Stage 1A | Stage 1B | Stage 2 | Stage 3 | Stage 4 | Stage 5 |
|--|----------|----------|---------|---------|---------|---------|
| DoT Marine Area, Design and Engineering | | | | | | |
| DoT Marine area, Marine Constructions | | | | | | |
| DoT Marine area, Civil and Facilities | | | | | | |
| Town Centre, Main Street, Civil and Footpaths | | | | | | |
| Town Centre, Main Street, Town Square area | | | | | | |
| Foreshore, Interpretation trail and exercise equipment | | | | | | |
| George Wear park moving of Palms and new shelters | | | | | | |
| Town Centre, Play Area General | | | | | | |
| Town Centre, Water Play | | | | | | |
| George Wear Park | | | | | | |
| Gordon Peter Park | | | | | | |

Stage 1A DoT Area

| Area | Department of Transport (DoT) Marine Area |
|-----------------|---|
| Priority reason | Popular area that is well used and is most in need of maintenance & upgrading. Completion of marine works is required before Town Square completion. |
| Tasks | Marine engineering & design, including any agreements between DOT and Shire. Planning & design for boat trailer movements and parking. Jinker functions, including movement of vessels through the town for offsite servicing. This could provide a business opportunity in Denham. |
| Notes | Consider sea wall construction outside of this area for economies of scale. |

These costs are not part of the Foreshore and Main Street Revitalisation Plan, however the works are important for realising the plan objectives.

Anticipated order of magnitude cost with loading, preliminaries and fees but no escalation is \$7,149,715.00. This includes the additional land edge wharf not shown on the previous DoT concept plan. This item was included because it was considered a valuable addition to improve vessel access and servicing including re-fuelling.

During the community engagement it was indicated that the geotextile groyne was not needed or seen as a priority. This item was included in the DoT concept plans for the development of the new Recreational Jetty in conjunction with the dredged area it is considered appropriate to construct a groyne. This is to ensure the dredged area is protected from the movement of sand thus maintaining the depth of water and extending the period which maintenance dredging will be required.

The type of construction materials will depend on a number of factors including availability, cost, community acceptance etc. This item has been included in the costing.

Construction cost estimates for the key components include:

| | |
|--|----------------|
| Wharf; extension | \$761,400.00 |
| Land edge wharf parallel to seawall | \$761,400.00 |
| Recreational jetty reconstruction including extensions | \$1,879,200.00 |
| Geotextile groyne with rock cover | \$486,000.00 |
| Surface repair/upgrade | \$133,650.00 |
| Lighting to car park standard | \$135,000.00 |
| Kerbing and footpaths including new crossovers | \$135,000.00 |
| Remaining items | \$867,305.00 |
| Construction total | \$5,023,955.00 |
| Preliminaries, 15% | \$735,593.00 |
| Design and Construction Contingency, 10% | \$577,754.00 |
| Design Fees and Expenses, 12.5% | \$794,412.00 |
| Order of Magnitude at current day prices | \$7,149,715.00 |

Stage 1B Town Centre and Town Square exercise and interpretive trails.

| | |
|-----------------|---|
| Area | Main Street civil and kerb works, including footpaths |
| Priority reason | There is a strong desire for improvements in the town centre, and not just the foreshore. These works are required before other areas for programming of construction. |
| Tasks | Civil design. Utilities and infrastructure. |
| Notes | Kerb and footpath changes are required prior to Town Square & playground works. Allow for the repair of foreshore area edges if the playground work is not proceeding immediately after. Ensure that sufficient pre-lay or conduit installation is included for future foreshore works. Allow for potentials such as communication technologies. |
| Area | Town Square |
| Priority reason | This will finish the interface between DoT area and the Main Street leaving less unfinished edges in the town. May be desirable for ensuring any Dirk Hartog memorial is complete for the anniversary. Gives the main street a focal point relating to the Discovery Centre. |
| Tasks | Landscape Design, interpretation plan |
| Notes | It may not be as popular as the play area for some residents, however the existing play ground will remain in its current position. This is potentially more popular with the business community interested in improving their address and promoting Denham as a destination. |

| | |
|-----------------|---|
| Area | West end- George Wear Park, Footpath and trail, exercise station, moving palms and shelters |
| Priority reason | These works will complete the interpretive and exercise trail in stage 1B and better accommodate festivals and activities better served with larger clear area. |
| Tasks | Interpretation plan. |
| Notes | Will need to ensure that the interpretive work or shelter construction will not impede construction of stage 4 or any seawall infrastructure work. |
| Area | East end- Gordon Peters Park, trail and exercise station. |
| Priority reason | These works will complete the interpretive and exercise trail in stage 1B. |
| Tasks | Interpretation plan. |
| Notes | Will need to ensure that the interpretive work will not impede construction of stage 5 or any seawall infrastructure work. |

Anticipated order of magnitude cost with loading, preliminaries and fees but no escalation is \$1,576,388.00.

Stage 1B construction cost estimates for the key components include:

| Town Centre and Main Street | |
|--|--------------|
| External lighting to paths and square | \$216,000.00 |
| External feature lighting for decorative or effect lighting to art or interpretive area (2). | \$67,500.00 |
| Road paving including kerbs and pedestrian crossings | \$111,888.00 |
| New town centre footpaths | \$159,266.00 |
| New town centre paving for town square | \$39,312.00 |
| Shade pergolas for Discovery Centre forecourt area | \$44,550.00 |
| Interpretive and major artwork | \$33,750.00 |
| Soft landscaping | \$60,014.00 |

| West end, George Wear Park works | |
|---|-------------|
| Footpath to Knight Terrace Kerb | \$29,396.00 |
| Interpretive stations (2) | \$27,000.00 |
| Exercise station | \$22,950.00 |
| Shelters including earth works, low rock walls, windbreaks, lighting and paving | \$92,016.00 |

| East end, Gordon Peters Park works | |
|------------------------------------|-------------|
| Interpretive stations (2) | \$27,000.00 |
| Exercise station | \$22,950.00 |

| | |
|--|----------------|
| Remaining items | \$254,103.00 |
| Construction total | \$1,107,695.00 |
| Preliminaries, 15% | \$166,154.00 |
| Design and Construction Contingency, 10% | \$127,384.00 |
| Design Fees and Expenses, 12.5% | \$175,154.00 |
| Order of Magnitude at current day prices | \$1,576,388.00 |

Stage 2 Play Area General

| Area | Town Centre, Play Area General |
|-----------------|--|
| Priority reason | Popular and well used. |
| Tasks | Detailed play design. |
| Notes | Need to design/select equipment to complement the Recreation Centre facility area for maximising play choices and opportunities in Denham. Ideally feasibility for water play is agreed prior to general play design. |

Anticipated order of magnitude cost with loading, preliminaries and fees but no escalation is \$1,462,233.00. These works include some paving and soft landscaping around the water play area.

Stage 2 construction cost estimates for the key components include:

| Town Centre Play Area General | |
|---|----------------|
| Swimming area with dredging, additional pontoon with slides, beach access through the sea wall, | \$278,235.00 |
| External lighting to paths and playground. | \$256,500.00 |
| Shade shelters to playground | \$67,500.00 |
| Playground new soft fall | \$94,500.00 |
| Playground equipment | \$168,750.00 |
| Soft landscaping | \$39,268.00 |
| Remaining items | \$122,782.00 |
| Construction total | \$1,027,481.00 |
| Preliminaries, 15% | \$154,122.00 |
| Design and Construction Contingency, 10% | \$118,160.00 |
| Design Fees and Expenses, 12.5% | \$162,470.00 |
| Order of Magnitude at current day prices | \$1,462,233.00 |

Stage 3 Water Play Area

| | |
|-----------------|--|
| Area | Water Play Area (Play area surface and equipment only) |
| Priority reason | This will complete the Town Centre. |
| Tasks | Feasibility. Design. |

Anticipated order of magnitude cost with loading, preliminaries and fees but no escalation is \$644,569.00.

Stage 3 construction cost estimates for the key components include:

| Town Centre Water Play Area | |
|---|--------------|
| Shade shelters to water play | \$40,500.00 |
| Waster play equipment | \$406,000.00 |
| Remaining items (softscape repairs and minor finishing) | \$7,425 |
| Construction total | \$452,925.00 |
| Preliminaries, 15% | \$67,938.00 |
| Design and Construction Contingency, 10% | \$52,086.00 |
| Design Fees and Expenses, 12.5% | \$71,618.00 |
| Order of Magnitude at current day prices | \$644,568.00 |

Stage 4 Area A George Wear Park

| Area | Area A George Wear Park |
|-----------------|--|
| Priority reason | Provides more unique spaces and new amenities than the proposed works for the south end of Gordon Peters Park, and will complete the interface between the DoT area. |
| Tasks | Design. Consider the servicing requirements for events; such as potable water sources and electricity cabinets. |

Anticipated order of magnitude cost with loading, preliminaries and fees but no escalation is \$287,721.00.

Cost estimates for the key components include.

| | |
|---|--------------|
| Paving | \$40,365.00 |
| External lighting, paths and paving areas | \$81,000.00 |
| Soft landscaping and irrigation upgrades | \$19,872.00 |
| Remaining items | \$60,934.00 |
| Construction total | \$202,176.00 |
| Preliminaries | \$30,326.00 |
| Design and Construction Contingency | \$23,250.00 |
| Design Fees and Expenses | \$31,969.00 |
| Order of Magnitude at current day prices | \$287,721.00 |

Stage 5 Gordon Peters Park

| Area | Area B Gordon Peters Park east of play area |
|-----------------|--|
| Priority reason | This area has the least change in uses or activity. |
| Tasks | Planning for the facilities location and sewer connection. |

Anticipated order of magnitude cost with loading, preliminaries and fees but no escalation is \$1,047,679.00.

Cost estimates for the key components include.

| | |
|--|----------------|
| Dredging for swimming area | \$20,250.00 |
| Beach access through seawall | \$273,375.00 |
| Public amenities block | \$101,250.00 |
| Sail shades with paving furniture and lighting | \$45,967.00 |
| Lighting to paths | \$121,500.00 |
| Soft landscape | \$111,672.00 |
| Remaining items | \$62,168.00 |
| Construction total | \$736,182.00 |
| Preliminaries, 15% | \$110,427.00 |
| Design and Construction Contingency, 10% | \$84,660.00 |
| Design Fees and Expenses, 12.5% | \$116,408.00 |
| Order of Magnitude at current day prices | \$1,047,679.00 |

Summary of Foreshore and Town Centre Estimates

Subject to the detailed design the following provides a summary of the staging costs.

| | |
|---|-----------------------|
| Stage 1B, Town Centre and Town Square | \$1,576,388.00 |
| Stage 2, Stage 2 Play Area General | \$1,462,233.00 |
| Stage 3, Water Play Area | \$644,569.00 |
| Stage 4, Area A George Wear Park | \$287,721.00 |
| Stage 5, Area B, Gordon Peters Park | \$1,047,679.00 |
| Net Foreshore and Town Centre revitalisation Total | \$5,018,590.00 |

Notes: As quantities are based on an aerial photo scaled to the cadastral data provided. No constructed survey was available. Quantities were measured from preliminary draft concept.

Exclusions; GST, Client costs, temporary relocation costs and escalation.

Ideally seawall reconstruction should be completed before playground area and beach access works. This may also apply to the dredging for the additional pontoon stage 3 and the swimming area Stage 5.

Removal of the existing planting to the seawall may need to be replaced prior to playground construction works to keep seagrass out of Knight Terrace.

Existing path may be damaged and require replacement during seawall repairs for the south end of Gordon Peters Park.

Excludes general seawall upgrade.

8. Funding Opportunities

The revitalisation of the Shark Bay Foreshore and Main Street will to an extent be dependent on the availability of financing and funding. A number of potential funding sources for the implementation of the project have been identified. These are listed and detailed in the table below.

Potential Sources of Funding Grants

| ORGANISATION | GRANT | DETAILS |
|--------------|-------------------------|--|
| Lotterywest | Community Spaces | <p>A grants program which supports various types of community spaces. Primarily looking to support spaces that encourage people to enjoy community life, including both indoor areas, such as a community or interpretive centre, and outdoor facilities, including skate parks, playgrounds, memorials, and community gardens.</p> <p>Cover the construction, purchase, renovation and fit out of a building, earthworks, play equipment, shade facilities and more.</p> <p>Do not provide for the ongoing operation or core maintenance of community spaces.</p> |
| | Heritage & Conservation | <p>Grants to conserve, protect, explain and/or share various aspects of heritage.</p> <p>Generally including the following categories;</p> <ul style="list-style-type: none"> ▪ Grants for conservation of natural heritage ▪ Grants for conservation of cultural heritage ▪ Grants for interpretation of cultural heritage ▪ Grants for community histories |
| | Trails | <p>Grants available to not-for-profit organisations and local government authorities.</p> <p>Support various types of trails such as walking, cycling, horse riding and paddling routes.</p> <p>Generally including the following categories:</p> <ul style="list-style-type: none"> ▪ Planning ▪ Construction ▪ Upgrade ▪ Promotion and Resources |

| | | |
|--|--|--|
| Lotterywest | Arts & Culture | Grants to improve operational efficiency and create better facilities and opportunities for communities. Support arts and culture proposals that assist people who face barriers to participate in community life or cultural activity, as well as a very wide range of purposes including support for cultural groups, projects, community events and more. |
| | Big Ideas | Grants to help create enduring community assets and support large projects and events. Generally including the following categories: <ul style="list-style-type: none"> ▪ Community Assets ▪ Major Events ▪ Large Scale Projects |
| | Local Government Support | Grants to help create better facilities and opportunities for communities which are provided to Local Government Authorities. Provided to projects which have broad community benefit and meet all other Lotterywest requirements, including but not limited to events and celebrations, community and recreation centres, specific programs directed at people with special needs etc. Core local government activities are not eligible for grants. |
| WA Department of Regional Development and Lands Royalties for Regions | Country Local Government Fund - Individual Country Local Governments | <p>Expenditure of Royalties for Regions funds is for the following purposes:</p> <ul style="list-style-type: none"> • To provide infrastructure and services in regional Western Australia; • To develop and broaden the economic base of regional Western Australia; and • To maximise job creation and improve career opportunities in regional Western Australia. <p>Royalties for Regions distributes benefits to regional communities through three supporting funds, the:</p> <ul style="list-style-type: none"> • Country Local Government Fund; • Regional Community Services Fund; and • Regional Infrastructure and Headworks Fund. <p>Royalties for Regions has six policy objectives:</p> <ul style="list-style-type: none"> • building capacity in regional communities; • retaining benefits in regional communities; • improving services to regional communities; • attaining sustainability; • expanding opportunity; and • growing prosperity. |

| | | |
|--|--|---|
| Federal Government Department of Infrastructure and Regional Development | Arts, Culture and Heritage Diversity & Social Cohesion Program | Administered by the Department of Immigration and Citizenship. A community-based initiative for all Australians which aims to address issues of cultural, racial and religious intolerance and develop the community capacity building skills of specific communities. Funding is available for incorporated, not-for-profit organisations and local governments, to develop their own projects and find their own ways of helping their community build stronger community relations. Also includes a new small grants program to assist community groups and organisations with multicultural arts and festivals projects. |
| | Regional Development Australia Fund Round 5b | To contribute funding to proposed projects of rural and regional government and community organisations for the construction or upgrade of local infrastructure. Over \$200 million in funding is available in Round 5b to fund projects in rural and regional Australia. |
| Federal Government Attorney General's Department Ministry for the Arts | Regional Arts Fund Through Country Arts WA | <p>Supports sustainable cultural development in regional and remote communities in Australia. Funding is targeted to activities that will have long-term cultural, economic and social benefits for individuals and communities by:</p> <ul style="list-style-type: none"> ▪ Developing partnerships and cultural networks ▪ Providing artists with professional development and employment opportunities ▪ Supporting arts and community development projects that provide local communities with the opportunity to participate in, and access cultural activities, and ▪ Emphasising building capacity in disadvantaged, youth, very remote and/or Indigenous communities. <p>Note: a funding source for individuals and community arts groups rather than the local government.</p> |

9. Appendices

Appendix A – Literature Review

Appendix B – Community Engagement Outcomes Report

Appendix C – Draft Revitalisation Drawings

- Revitalisation Plan – Foreshore Area
- Revitalisation Plan – Area A
- Revitalisation Plan – Town Centre
- Revitalisation Plan – Area B
- Revitalisation Plan – Interpretive Trail

Appendix D – Shark Bay Foreshore Redevelopment Plan Staged Order of Magnitude Costings & Quantities

Donald Cant Watts Corke December 2013

Appendix E – Shark Bay Foreshore Redevelopment Plan Business Plan

Appendix A: Literature Review

Summary of background information

The following are notes on the literature reviewed as part of the revitalisation plan.

Notes in the boxes are potentially the most relevant for preparing the Revitalisation Plan.

Agencies and Authorities Information

Department of Transport

Maritime Facilities; Redevelopment of foreshore, Concept

Mainly improving what is already provided;

- Geotextile groyne
- Reconstructed recreational jetty
- Extended Wharf
- Extended parking trailer parking (possibly more formalised?)

Recreation focused, servicing all boating activity.
Amenity improvements shown at south end.
Provides an activity focus to foreshore.

Gascoyne Development Commission

Economic development opportunities for the Gascoyne Region associated with resource sector Investment and expansion (Jan 2012).

FIFO base- 14.3 Development of Lifestyle Infrastructure- Improve maritime facilities

Tourism- 15.1 Denham as a holiday Destination- Upgrade boating facilities,

Freshwater theme water park on the foreshore.

Foreshore and main street project strongly aligns with the report evaluations.

Foreshore Reserve Coastal Report, Michael Rogers and Associates

Report prepared for an area north west of our study area, for planning and subdivision.

Minimum Finished Floor Level for residential development 3.8m AHD.

Recommended 85m buffer for erosion.

In extreme events the Foreshore and Knight Terrace may be subject to inundation and erosion.

Possibly similar to most other foreshore developments.

- Some stakeholder requests received may be better accommodated at other town open spaces.
- Risk to amenity infrastructure may be acceptable, this needs to be discussed with the Shire.

No information was provided regarding what a geotextile groyne from the DoT concept will achieve for reducing erosion risk on land.

Heritage, Municipal register

14094 Shark Bay Honour Roll- foyer Heritage Resort

11716 Original Jetty

2369 Denham Town site buildings

11712 Pearl Buyers Cottage, Knight Tce

11709 Poland House Knight Tce

11711 Standring House Knight Tce

11714 Ronberg House, 22 Knight Tce

11717 Ma Fletcher' Cottage 24 Knight Tce

Note that the jetty is the only item within the areas directly impacted by the Redevelopment Plan. If the use remains similar, then changes or modernisation may not be considered to adversely impact the heritage value.

Tourism WA

Shire of Shark Bay overnight visitor Fact Sheet

Possibly not relevant to this study because it has been superseded by "Economic Development Opportunities for the Gascoyne Region associated with Resource Sector Investment and Expansion (Jan 2012)" as far as this project is concerned.

World Heritage

This is more relevant for project themes, not directly applicable for statutory approvals of land works because the town site is excluded, however advice/ review/ consultation required for development particularly marine structures.

Shire of Shark Bay, Town Planning Information

Shire of Shark Bay Local Planning Strategy May 2013

3.0 Objectives

All the objectives have some relevance to the Foreshore and Main Street Project.

The most directly relevant objectives are;

- 5. To provide a range of quality services and amenities; and
- 6. Enhance and develop a distinct 'main street' character for Denham town site.
- 11. Provide convenient access and circulation for cars, service vehicles, pedestrians, and cyclists.

4.3.2 Area 14: Town Centre

Items for Foreshore and Main Street project consideration include:

- Consolidate Town Centre.
- Clear understanding of land use and streetscape issues and achieve a high standard of integrated development that recognises the inter relationships between the Town Centre and the coast, historic development, established land uses and high quality new development.
- Maximise coastal views within and beyond the town.
- Weather protection for pedestrians.

Sub precincts adjacent to the Foreshore and Main Street project extent are as follows);-

Precinct 1a- Retail and Commercial, with particular attention to servicing visitors and tourists including restaurants on Knight Terrace;

Precinct 2b- Accommodation for tourists plus some retail and entertainment servicing tourism;

Precinct 2a- Accommodation for tourists;

Precinct 4a- Priority for tourist accommodation, however existing retail is quite vibrant. Some of this retail should be more strongly encouraged in Precinct 1; and

Precinct 5 - Accommodation for tourists particularly at east end.

5 Strategies and Actions

This section primarily deals with the administrative and regulatory aims for a town plan however includes some items relevant to the Revitalisation Plan project, namely:

5.1.1 Actions for Strategy 1 items I, J & K-maintain and provide amenity, seeking funding for town centre amenities.

Essentially the Revitalisation Plan will need to be relevant for funding applications from state and federal agencies to support the strategies.

During the project we may need to identify what is special about the town centre and why some strategies are appropriate here but not in other parts of the town site. For example, some ideas appropriate for a town centre could be inappropriate for more visually sensitive areas adjacent to natural environments. We may need to highlight/explain in the Plan in order to avoid suggesting precedents for future subdivision near the coast or near ridgelines.

Part 2: Background and Information Analysis

- Denham has capacity to build its role as the regional centre.
- Marine environment is central to local economy.
- Marina would be beneficial.
- Townscape and Main Street programs should be initiated.
- Protection of world heritage values.
- Reference to Town Centre strategy.

This project brief is prepared in accordance with the relevant State Planning Policies. The most relevant are:

- SPP2.6- State Coastal Planning;
- SPP 3.5- Historic Heritage Conservation;

The project brief is responsive to all relevant objectives and no potential conflicts are apparent with information from other agencies.

Note that many of the objectives potentially apply or will need reassessment of the brief for final design for construction when funding is allocated.

Local Laws

The Parking and Disabilities Inclusion and Access Plan is similar to most other local governments. Some statutory regulation will take precedence for a detailed design (ie the BCA).

Plans (from local town plan)

The supplied cadastre is not a CAD drawing, as it has been provided in PDF format. Whilst some line work has been able to be extracted from the PDF file, it is not a true cadastral survey.

Appendix B: Community Engagement Outcomes Report

Appendix C: Draft Revitalisation Drawings

- Draft Revitalisation Plan – Foreshore Area
- Draft Revitalisation Plan – Area A
- Draft Revitalisation Plan – Town Centre
- Draft Revitalisation Plan – Area B
- Draft Revitalisation Plan – Interpretive Trail

Appendix D: Shark Bay Foreshore Redevelopment Plan

Staged Order of Magnitude Costings & Quantities

Appendix E: Shark Bay Foreshore Redevelopment Plan Business Plan

Appendix B: Community Engagement Outcomes Report



FORESHORE AND MAIN STREET REVITALISATION PLAN COMMUNITY ENGAGEMENT OUTCOMES REPORT

October 2013

Hames
Sharley





REVISION SCHEDULE

| No. | Date | Details | CM |
|---------|----------|-----------------|----|
| 1 | 25/10/13 | Issue to Client | GP |
| Details | | | |

Contexts

- 4. Introduction
 - Community Workshop Purpose
 - Community Workshop Process
 - Project Process
- 6. Workshop Outcomes
- 6. Outcomes – Initial Group Discussion
- 8. Outcomes – Area A
- 10. Outcomes – Town Centre
- 12. Outcomes – Area B
- 14. Outcomes – Design Themes
- 16. Key Engagement Outcomes & Planning Guidelines
 - Area A
 - Town Centre
 - Area B
 - Design Themes
- 19. Appendices
 - Appendix A – Literature Review
 - Appendix B – Community Workshop PowerPoint Presentation
 - Appendix C – Workshop Discussion & Display Material

Introduction

Denham has been identified as a holiday destination in the *Gascoyne Pilbara Project January 2012* and a coastal community prime for revitalisation in the *Denham Town Centre Strategy 2006* and *Shire of Shark Bay Local Planning Strategy 2013*. The Shire of Shark Bay commissioned Hames Sharley to prepare a Foreshore and Main Street Revitalisation Plan to provide planning documentation and a Business Plan for the revitalisation of Knight Terrace, Denham and the Denham foreshore to complement the pristine waters of the World Heritage listed Shark Bay. The intent of the Revitalisation Plan is to provide a strategic direction for future planning to deliver enhanced economic development, local investment and increased visual amenity to the Denham Waterfront. The project will provide documentation that can be used to access funding and will deliver well-connected and accessible places, improve local amenity, and subsequently increase the utilisation of public and community spaces.

Community Workshop Purpose

Denham has reached a point where the need for a clearly defined strategic direction and vision for future development has become evident. The identification and understanding of key issues and opportunities for Knight Terrace and the foreshore is essential to the success of the Revitalisation Plan and the Shire of Shark Bay's ability to facilitate sustainable and site responsive development. The Revitalisation Plan objectives are to improve both the quality of life experienced by local residents and visitors, as well as enhance the economic performance of the town. The community workshop was held on the 26th of September, 2013 to gauge community sentiment and gather input to ensure that broad local knowledge, expectations and preferences can be addressed in the Revitalisation Plan.

Community Workshop Process

The Denham residents, as well as the wider Shark Bay community were encouraged to contribute to the formulation of the Foreshore and Main Street Revitalisation Plan through their involvement and participation in the workshop. The workshop focused on identifying the opportunities and issues that were of concern to the local community today, as well as the future opportunities and issues likely to influence Denham main street and foreshore.

Participants were encouraged to share their ideas for the study area, including qualities & character, potential design themes and improvement priorities. In addition the workshop gathered responses to the analysis and sketch design ideas presented. The workshop comprised four components with two interactive sessions. The interactive components consisted of one initial group brain storming discussion session prior to the presentation of analysis and possible design solutions, followed by a comments and feedback session at the conclusion of the presentation. For the purposes of the presentation the study area was broken into three areas which were defined based on existing land use, character and activity.



A copy of the workshop presentation material is included in Appendix B. The workshop components and process was as follows;

1. **Introduction** - an introduction to the project and the purpose of the workshop;
2. **Initial Group Discussion** – brainstorming exercise and discussion to highlight initial community feedback on key issues, opportunities and improvement priorities;
3. **Presentation** - presentation of site analysis and potential design solutions for Area A, Town Centre and Area B and analysis of existing character and potential foreshore design themes;
4. **Group Exercise & Discussion** - exercise and discussion to gather suggestions, responses and feedback with regards to the opportunities and issues highlighted in the presentation, as well as other opportunities and issues that may not have been covered in the presentation.

The workshop outcomes and utilisation of best practice Urban Design will inform the conceptual and strategic direction of the Revitalisation Plan. Once developed the draft Revitalisation Plan will be put on display for a period of no less than 30 days to enable public comment. Following this period, feedback received will be incorporated into the ‘final’ Revitalisation Plan to be presented to the Council for consideration and adoption.

Project Process (Indicative Timeframe)



Workshop Outcomes

The following section consolidates the feedback recorded during the workshop which was attended by approximately 50 members of the Shark Bay community. This information has provided a valuable insight into the key issues and aspirations, as perceived by the local community. Importantly these views will establish clear priorities and subsequently shaped the visions and character themes to be adopted in the Revitalisation Plan.

Outcomes - Initial Group Discussion

Participants were asked to provide some general feedback regarding what the existing issues are, what is currently working well and potential ideas for the future. These are summarised below:

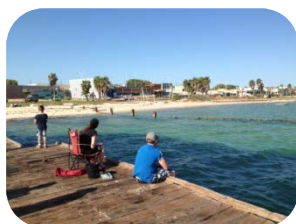
What are the existing issues?

- | | |
|-------------------------|--|
| ▪ Knight Terrace | - lack of directional signage and legibility |
| ▪ Recreational Jetty | - needs to be upgraded |
| ▪ Marine Facilities | - could be improved |
| ▪ Beach Access | - generally poor |
| ▪ Disabled Access | - general lack of disabled access |
| ▪ Footpaths | - poorly connected and difficult to negotiate |
| ▪ Ramp and Jetty Area | - congestion, particularly with regards to larger boats and trailers |
| ▪ Children's Playground | - currently unsafe due to poor fencing and proximity to Knight Terrace |
| ▪ Shade & Seating | - require more |
| ▪ Facilities Locations | - limited access at eastern end |



What works well?

- | | |
|----------------------------|---|
| ▪ Barbeque Area | - well used/ could increase number of barbeques |
| ▪ Shelters | - well used/ could increase number of shelters |
| ▪ Lawn | - existing expanse of lawn is a highly regarded amenity |
| ▪ Jetties | - ability to fish off/ recreational jetty but could be improved |
| ▪ Beach | - clear and clean waters, existing and natural feel and look |
| ▪ Fish Cleaning Facilities | - well used |
| ▪ Pontoon | - recreational value |
| ▪ Palms | - provide shade |



What would you like to see in the future?

- | | |
|------------------------------|---|
| ▪ Windsurfing | - designated area located at one end of the foreshore |
| ▪ Artificial Reef | - located in Department of Transport area (around main jetty) |
| ▪ Development at Eastern End | - development at the eastern end of the beach would be beneficial |
| ▪ Water Playground | - similar to Geraldton |
| ▪ Beach Pools | - develop a beach pool |
| ▪ Interactive Sculptures | - Dugong/ animal themed etc. |
| ▪ Fitness Equipment | - permanently built into the foreshore |
| ▪ Shading and Seating | - increased number of structures right along foreshore |
| ▪ Signage | - improved wayfinding signage |



Outcomes – Area A

Group Exercise & Discussion

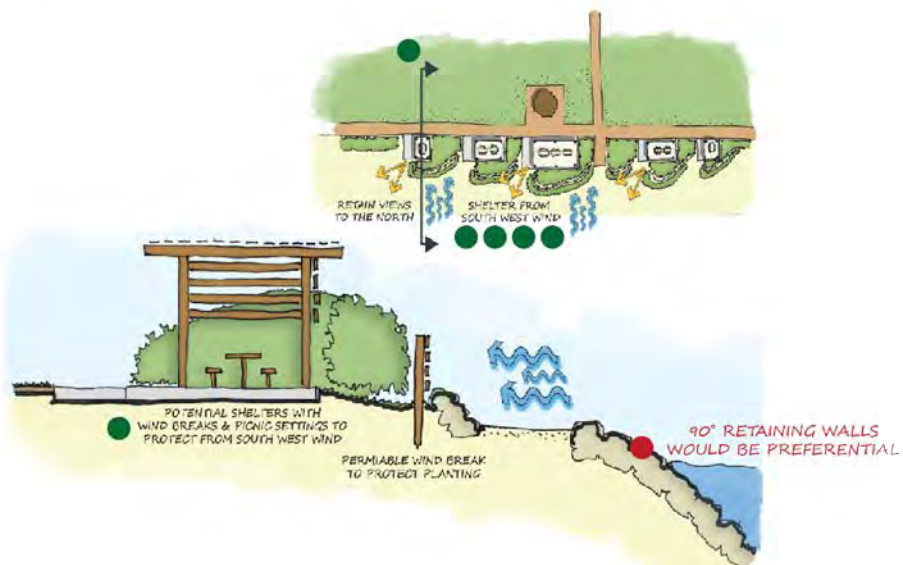
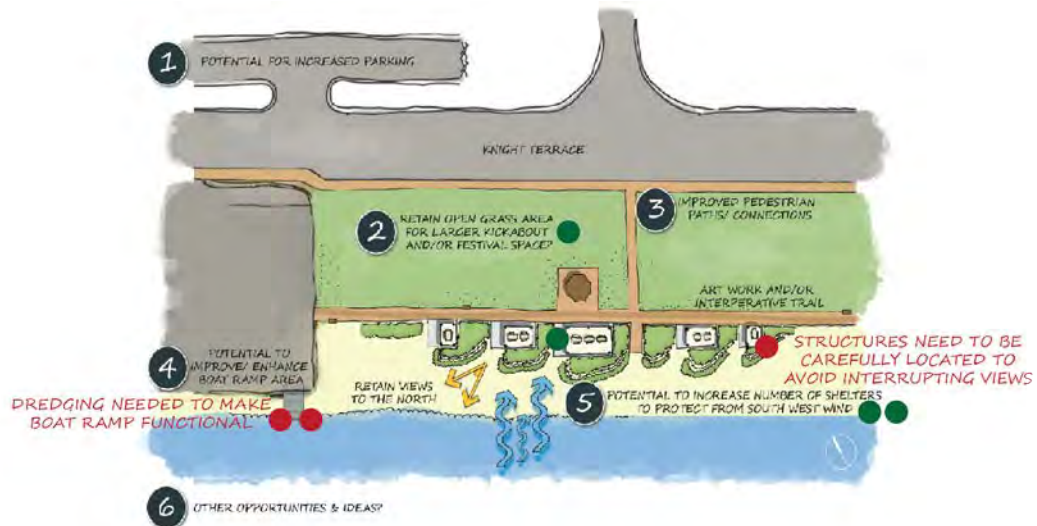
Participants were asked to provide ideas, suggestions and feedback regarding the site analysis and potential design solutions. This feedback is summarised below and includes general comments, ideas and issues as well as priorities that were either agreed upon or favoured by a majority.

General Comments, Ideas & Issues

| | |
|----------------------|---|
| ▪ Shelters & Seating | <ul style="list-style-type: none"> - More shelters required - Concern that the increased provision of these facilities may lead to their underutilisation due to a lack of demand in this area |
| ▪ Boat Ramp | <ul style="list-style-type: none"> - Dredging may be required to increase functionality |
| ▪ Finger Jetty | <ul style="list-style-type: none"> - Mixed impression as to the validity of a finger jetty - The new boat ramp was developed to ease congestion at the two lane ramp in peak periods; however there seemed to be debate about whether or not the new boat ramp was sufficiently equip to achieve this |
| ▪ Beach Erosion | <ul style="list-style-type: none"> - Concern regarding the damage of possible future erosion (topic was raised a number of times) |
| ▪ Swimming Area | <ul style="list-style-type: none"> - Currently underutilised. - Could be an opportunity to utilise the clear waters to the north-west end of the site as more of a swimming beach - Mixed impression as to whether the north-west end would be appropriate to promote as a snorkelling location. Some thought there may not be enough visual interest (fish life etc.) and possibly too shallow for snorkelling. |
| ▪ Beach | <ul style="list-style-type: none"> - Beach would benefit from being regularly raked (to manage seaweed accumulation) |
| ▪ Retaining Wall | <ul style="list-style-type: none"> - Explore the possibility of building 90° retaining walls instead of graded retaining walls |
| ▪ Fitness Equipment | <ul style="list-style-type: none"> - Explore the possibility of locating some basic, permanent fitness equipment for recreational use down this end of the foreshore to cater for an older demographic than that which is currently catered for by the playground |

Agreed Comments, Ideas, Issues & Priorities

| | |
|--------------------------------|---|
| ▪ Shelters & Seating | <ul style="list-style-type: none"> - Positive feedback with regards to location and visually permeable sketch ideas presented. - Consensus that more shelters and seating similar to those located at Little Lagoon to shield from winds was desirable - Consensus that location should minimise view interruptions |
| ▪ Boat Ramp | <ul style="list-style-type: none"> - Preference for increase boat ramp usage (which may require dredging) |
| ▪ Kick-about Space | <ul style="list-style-type: none"> - Consensus that larger/consolidated kick-about space was desirable - Consensus that this consolidated space which could double as an events space <p>Note: To achieve this some of the existing palms may need to be relocated and/or alternative tree species which provide more shade may need to be placed in key locations around the periphery of the kick-about space</p> |
| ▪ Interpretive Trail & Artwork | <ul style="list-style-type: none"> - Consensus that an interpretive trail was a good idea - Consensus that this trail could link this end of the foreshore with the far south-east end to create a more cohesive, pedestrian friendly walk |



● OPPORTUNITIES & IDEAS

Opportunities & Ideas

Which of those presented do you like?
What others do you have?

Existing Qualities & Character

What existing qualities and character should be enhanced?

Improvement Priorities

What improvements and updates do you consider to be a priority?

● ISSUES

Issues

Do you have an issue with any of those presented?
What is the issue?

Existing Issues

What are the existing issues that need to be addressed?

Issue Priorities

What issues do you consider to be a priority?

Outcomes – Town Centre

Group Exercise & Discussion

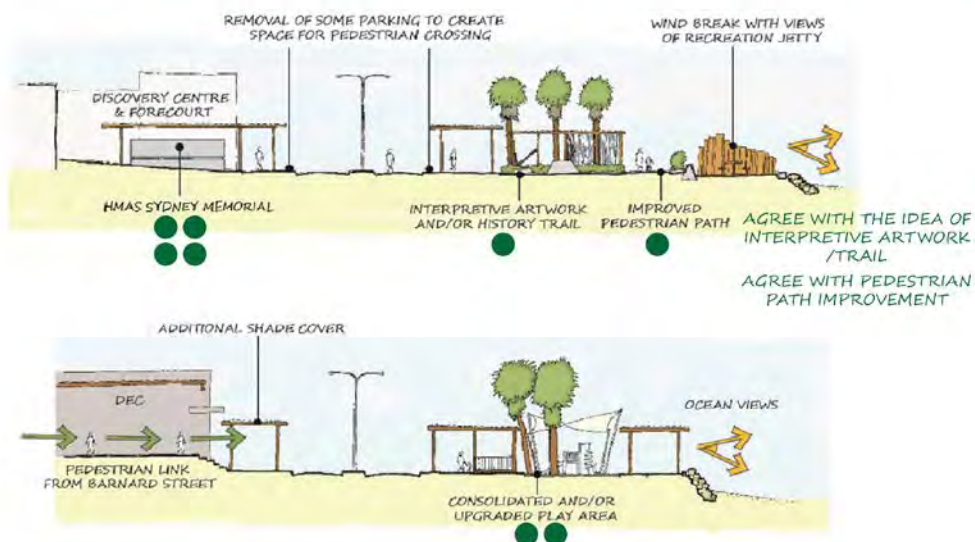
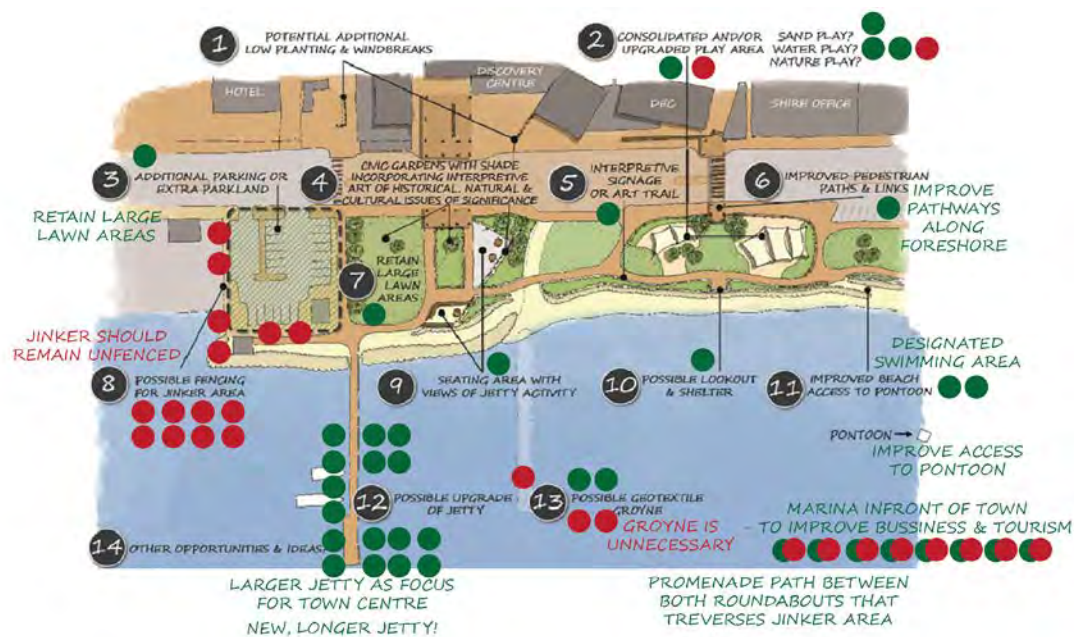
Participants were asked to provide ideas, suggestions and feedback regarding the site analysis and potential design solutions. This feedback is summarised below and includes general comments, ideas and issues as well as priorities that were either agreed upon or favoured by a majority.

General Comments, Ideas & Issues

| | |
|---|---|
| ▪ Barbeques | - An increase in the number of barbeques would be desirable |
| ▪ Lookout | - Lookout was considered desirable |
| ▪ Marina | - Marina in front of the town was rejected almost unanimously, although it was still raised as an idea to boost tourism |
| ▪ Jetty Access | - Access to commercial ramp or similar needed for heavier boats. |
| ▪ Water Park (Contentious Issue) | <ul style="list-style-type: none"> - Concern regarding the expense, upkeep and use of fresh water equipment. - Salt water equipment the preferred option but concern that this may not be an option. - Concern regarding increased rates. - Location was highlighted as an issue. Concern that water spray will be problematic if located too close to parking (strong winds will compound this issue). - Popular in other places/ crowd puller/ major tourist attraction - Discussion that it would be a good option for kids to play in unsupervised but also that a lifeguard might be needed? |
| Note: A feasibility study would be required for this area | |
| ▪ Beach | - Beach would benefit from being regularly raked |
| ▪ Retaining Wall | - Explore the possibility of building 90° retaining walls instead of graded retaining walls |
| ▪ Toilet Facilities | <ul style="list-style-type: none"> - Location important, so as not to detract from views - Mixed consensus on whether or not addition toilet facilities were required and or/feasible |
| ▪ Timed Car Bay (Contentious Issue) | <ul style="list-style-type: none"> - There was concern that timed bays might destroy the existing relaxed town feel and may also deter tourists and holiday makers from staying in town |
| Note: Parking in general is an issue. There may be scope for a parking management strategy or similar | |
| ▪ Rock Walls | - Could explore alternative means of erosion provision which allows for better beach access. |
| ▪ Pontoon Access | - Improve access to pontoon and beach access in general. |
| ▪ Snorkelling | - Create areas for fish & crabs to hide around jetty to boost marine life and improve snorkelling interest. |
| ▪ Existing Groyne | - Currently a small fish habitat and should be retained |
| ▪ Geotextile Groyne | - Mixed views regarding the validity and/or necessity of the proposed geotextile groyne |
| ▪ Playground | <ul style="list-style-type: none"> - Concern that it's current proximity to Knight Terrace is unsafe - Possibly better located to the north-west of town adjacent to the propose kick-about space |
| ▪ Designated Areas | - Mention that a designated swimming area around the recreational jetty would be preferable |
| ▪ Jinker & Winch Shed | - Retention of jinker facilities |

Agreed Comments, Ideas, Issues & Priorities

| | |
|----------------------------------|--|
| ▪ Shelters & Seating | - Consensus that more shelters and seating was desirable |
| ▪ Interpretive Trail & Artwork | <ul style="list-style-type: none"> - Consensus that an interpretive trail was a good idea - Should incorporate a combination of historical, natural & cultural issues of town significance |
| ▪ Parking (Contentious Issue) | <ul style="list-style-type: none"> - Retain parking located adjacent to jinker for jetty use - Need to cater for caravans, tailers and larger boats and should therefore not be marked |
| ▪ Jinker | <ul style="list-style-type: none"> - Denham is a fishing village and the jinker should remain - Jinker area should not be fenced |
| ▪ Recreation Jetty | <ul style="list-style-type: none"> - Consensus that the jetty should be both extended and upgraded - Opportunity to enable the jetty to become more of a focus for the town centre |
| ▪ Playground | <ul style="list-style-type: none"> - Retain existing play area and/or enhance and improve it - Possibility to consolidate this area into a larger play area suitable for a wider variety of ages |
| ▪ Beach Access | - Improve access to the beach over rock wall |
| ▪ Pedestrian Paths | - Upgrade existing paths and improve connections |
| ▪ Water Park | - Subject to feasibility study |



● OPPORTUNITIES & IDEAS

Opportunities & Ideas

Which of those presented do you like?
What others do you have?

Existing Qualities & Character

What existing qualities and character should be enhanced?

Improvement Priorities

What improvements and updates do you consider to be a priority?

● ISSUES

Issues

Do you have an issue with any of those presented?
What is the issue?

Existing Issues

What are the existing issues that need to be addressed?

Issue Priorities

What issues do you consider to be a priority?

Outcomes – Area B

Group Exercise & Discussion

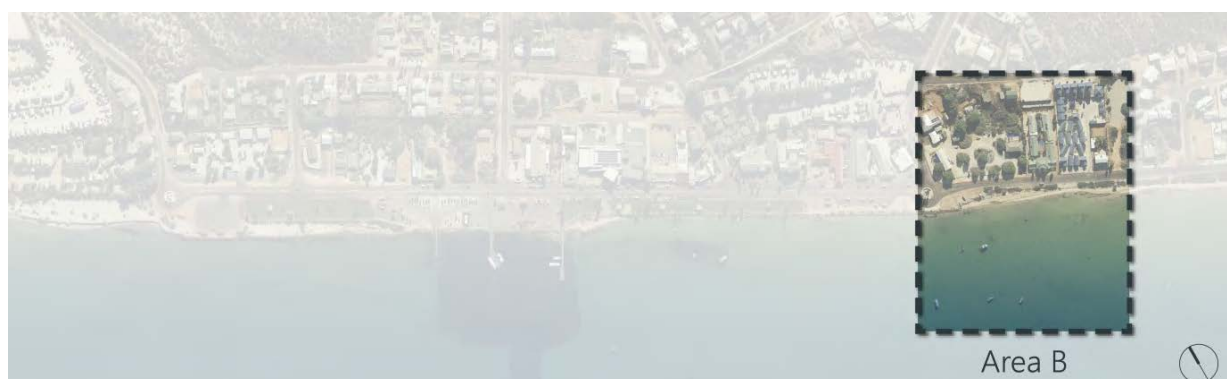
Participants were asked to provide ideas, suggestions and feedback regarding the site analysis and potential design solutions. This feedback is summarised below and includes general comments, ideas and issues as well as priorities that were either agreed upon or favoured by a majority.

General Comments, Ideas & Issues

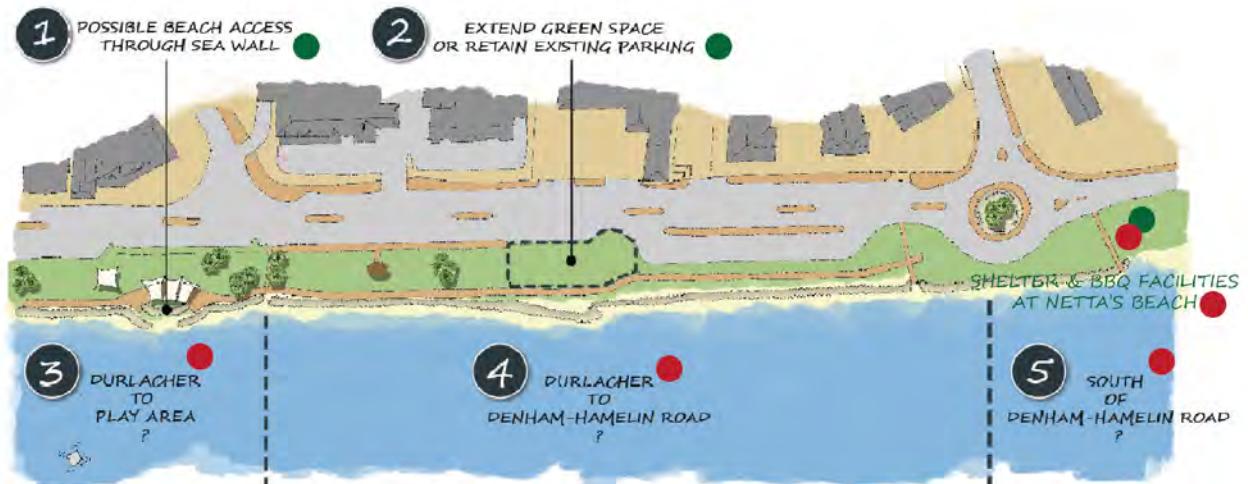
| | |
|-----------------------|--|
| ▪ Shelters & Seating | - An increase in the number of shelters was considered desirable |
| ▪ Drink Fountains | - An increase in the number of drink fountains was considered desirable by some |
| ▪ Toilet Facilities | - An increase in the number of toilet facilities was considered desirable by some |
| ▪ Barbeques | - An increase in the number of barbeques would be desirable (General concern that the addition of the above amenities might make the area too appealing to backpackers) |
| ▪ 'Pearl-like' Paving | - Concern that 'pearl-like' paving would only work if particularly durable material was used which represented pearl, rather than using actual pearl shell |
| ▪ Designated Areas | - Designated kite and wind surfing area at Netta's beach locality was favoured - Designated Swimming only area was also discussed |
| ▪ Tidal Pool | - Suggestion that a tidal pool might provide for a safer swimming area |
| ▪ Artificial Reef | - Some support for an artificial reef - Suggesting that it would be better located further out as apposed so close to shore |
| ▪ Water Park | - Note: Refer to Town Centre general comments, ideas and issues above |

Agreed Comments, Ideas, Issues & Priorities

| | |
|--------------------------------|--|
| ▪ Interpretive Trail & Artwork | - Consensus that an interpretive trail was a good idea - Consensus that more shelters and seating to shield from winds was desirable. |
| ▪ Signage & Wayfinding | - Improve to clearly locate main street and beaches for tourists and visitors - Develop signage to denote safe swimming locations |
| ▪ Designated Areas | - Retention of existing designated dog beach was imperative |
| ▪ Corrosion | - Any new facilities need to be corrosion resistant |
| ▪ Beach Access | - Improve access to the beach over rock wall |



ROCKWALL – CONSIDERATION SHOULD BE GIVEN TO INVESTIGATING OPTIONS REGARDING THE ROCKWALL HEIGHT FOR FUTURE TIDAL SURGES (CLIMATE CHANGE!) WHILST RETAINING VIEWS & BEACH USAGE



DRINKING FOUNTAIN/ TOILET FACILITIES?

SHADE & SHELTER?

SWIMMING ONLY AREAS? SNORKELING ONLY AREA?

NOMINATED KITE SURFING TAKE-OFF AREA?

ART WORK & INTERPRETIVE TRAIL? CONNECTION TO OLD GAOL?

TOILETS BLOCKING VIEW AS COMING ROUND ROUNDABOUT & ONTO KNIGHT TERRACE

6 OTHER OPPORTUNITIES & IDEAS?

KITE SURFING ALONG NETTA'S BEACH LOCALITY

PLAYGROUND & TOILET FACILITIES NEED TO BE BUILT FROM CORROSION RESISTANT MATERIALS – HIGH SALINITY ENVIRONMENT

TIDEPOOL FOR EASY & SAFE SWIMMING

MORE BBQ & SHADED AREAS - 3 OR 4 MORE

HISTORY OF PEARLING - REINCORPORATE A SECTION OF "PAVED WITH PEARL"

NO SIGNS TELLING VISITORS WHERE THEY CAN SWIM

MARINA IN FRONT OF TOWN COULD INCORPORATE MANY OF THESE FEATURES, IF NOT ALL

DREDGED BACH SO YOU CAN SWIM AT LOW TIDE

ARTIFICIAL REEF TO ENCOURAGE FISH CLOSE TO BEACH & ENCOURAGE SNORKELLING

INCREASE NUMBER OF BEACH ACCESS POINTS
REMOVE ROCKS
LIMESTONE WALL, BECOMES SEATING AS WELL

● OPPORTUNITIES & IDEAS

Opportunities & Ideas

Which of those presented do you like?
What others do you have?

Existing Qualities & Character

What existing qualities and character should be enhanced?

Improvement Priorities

What improvements and updates do you consider to be a priority?

● ISSUES

Issues

Do you have an issue with any of those presented?
What is the issue?

Existing Issues

What are the existing issues that need to be addressed?

Issue Priorities

What issues do you consider to be a priority?

Outcomes – Design Themes

Group Exercise & Discussion

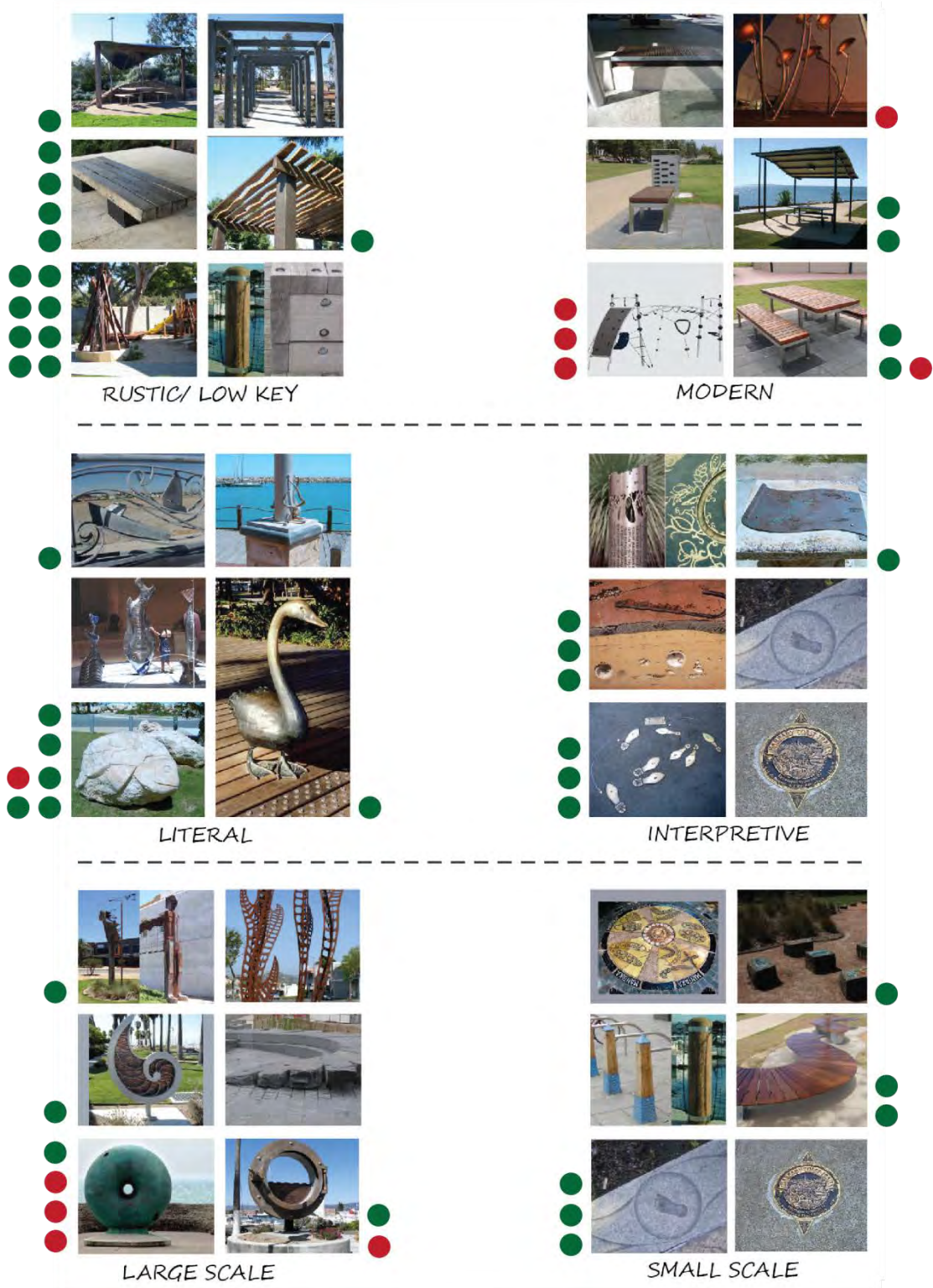
Participants were asked to provide ideas, suggestions and feedback regarding the themes that were presented. This feedback is summarised below and includes general comments, ideas and issues as well as priorities that were either agreed upon or favoured by a majority.

General Comments, Ideas & Issues

| | |
|--------------|--|
| ▪ Materials | <ul style="list-style-type: none"> - Need to be suitable for the area - Need to take into account the local context - Locals should be consulted with regards to the use of materials |
| ▪ Style | <ul style="list-style-type: none"> - Needs to take into account the local context |
| ▪ Vegetation | <ul style="list-style-type: none"> - Locals should be consulted regarding vegetation, including plant species etc. |

Agreed Comments, Ideas, Issues & Priorities

| | |
|-----------------------------|---|
| ▪ Theme/Style | <ul style="list-style-type: none"> - Positive feedback towards rustic style, but it was stipulated that it needs to be both functional and mixed with modern - Literal was the preferred to represent the 'here and now' such as wildlife etc. - Interpretive was the preferred to represent 'historic and cultural' information and history |
| ▪ Key Element | <ul style="list-style-type: none"> - Large scale sculpture that represents the unique history and setting of Shark Bay and frames the sunset whilst not detracting from it |
| ▪ Materials | <ul style="list-style-type: none"> - There was a preference for low maintenance materials |
| ▪ Location | <ul style="list-style-type: none"> - Ensure that the sculptural elements are strategically placed so as not to unnecessarily detract from or block views - Locate smaller scale elements where existing view corridors are located |
| ▪ Scale | <ul style="list-style-type: none"> - A combination of both smaller and larger scale elements was preferred with larger elements to be used less often and primarily in key locations |
| ▪ Partnership Opportunities | <ul style="list-style-type: none"> - Consensus that it would be good to work in conjunction with other agencies involved with enhancing the foreshore or the broader Shark Bay area in general |



OPPORTUNITIES & IDEAS

Potential Design Themes
What themes would you like to see?

Potential Design Themes
What other theme ideas do you have?

ISSUES

Potential Design Themes
What themes do you have an issue with?

Potential Design Themes
Are there any theme ideas you want to avoid?

Key Engagement Outcomes & Planning Guidelines

Area A

| | |
|------------------------------|--|
| Shelters & Seating | <ul style="list-style-type: none"> ▪ Increase provision of shelters and seating where possible with consideration for existing view corridors ▪ Ensure that shelters protect from the wind whilst maintaining a certain level of visually permeability ▪ Selectively remove shrubs to open up views of the coast where the proposed shelters will be located |
| Boat Ramp | <ul style="list-style-type: none"> ▪ Investigate the viability of dredging to make this better for larger vessels (outside scope of current revitalisation project, requires a marine engineer) |
| Kick-about Space | <ul style="list-style-type: none"> ▪ Consolidate the existing ad hoc located palm trees to improve usable kick-about space whilst still maintaining or developing other elements for shade relief ▪ Explore the possibility of providing additional shade trees around the periphery of the kick-about space and consult with local community members to determine whether or not these should be in the form of additional palms or an alternate tree species |
| Interpretive Trail & Artwork | <ul style="list-style-type: none"> ▪ Install sensitively designed interpretive signage and /or information panels to lead visitors from the Discovery Centre, along the main street, foreshore and down to the beach ▪ Explore the possibility of extending this trail by incorporate other elements within the town centre including the old gaol and other places, buildings or monuments of historic, cultural or environmental significance |
| Signage & Wayfinding | <ul style="list-style-type: none"> ▪ Install wayfinding signage to clearly define swimming locations for tourists and visitors ▪ Enhance existing key entry roundabouts by improving signage and interest |
| Partnership Opportunities | <ul style="list-style-type: none"> ▪ Work in conjunction with the Department of Premier and Cabinet to incorporate their vision (in terms of sculptures, plaques etc.) where possible with regards to future planning for the Dirk Hartog 400 year anniversary in 2016 |
| Fitness Equipment | <ul style="list-style-type: none"> ▪ Explore the opportunity to provide some small scale permanent recreational fitness equipment to complement the consolidated kick-about space |

Town Centre

| | |
|---|---|
| Shelters & Seating | <ul style="list-style-type: none"> ▪ Increase provision of shelters and seating where possible with consideration for existing view corridors ▪ Ensure that shelters protect from the wind whilst maintaining a certain level of visually permeability ▪ Selectively remove shrubs to open up views of the coast where the proposed shelters will be located |
| Interpretive Trail & Artwork | <ul style="list-style-type: none"> ▪ Install sensitively designed interpretive signage and /or information panels to lead visitors from the Discovery Centre, along the main street, foreshore and down to the beach ▪ Explore the possibility of extending this trail by incorporate other elements within the town centre including the old gaol and other places, buildings or monuments of historic, cultural or environmental significance |
| Signage & Wayfinding | <ul style="list-style-type: none"> ▪ Install wayfinding signage to clearly define Knight Terrace as the main street and key recreational and swimming locations for tourists and visitors |
| Partnership Opportunities | <ul style="list-style-type: none"> ▪ Work in conjunction with the Department of Premier and Cabinet to incorporate their vision (in terms of sculptures, plaques etc.) where possible with regards to plans for the Dirk Hartog 400 year anniversary in 2016 |
| Parking | <ul style="list-style-type: none"> ▪ Retain parking located next to the jinker for jetty use ▪ Retain unmarked parking areas for caravan, trailer and large boat use |
| Jinker | <ul style="list-style-type: none"> ▪ Retain existing jinker and/or replace with an upgraded/ mobile option ▪ Ensure that the jinker area remains unfenced |
| Note: As the jinker and winch shed are not located on land owned by Shire, the above will be incorporated into the Revitalisation Plan and will be a recommendation made to the Department of Transport | |
| Recreational Jetty | <ul style="list-style-type: none"> ▪ Enhance and improve the jetty where possible |
| | <ul style="list-style-type: none"> ▪ Explore the feasibility of both extending and upgrading the existing jetty facilities |
| | <ul style="list-style-type: none"> ▪ Promote the enhanced jetty as a focal point for the town centre |
| Playground | <ul style="list-style-type: none"> ▪ Consolidate existing play area with additional play facilities that cater for a more diverse age group ▪ Fenced enclosure to restrict children accessing Knight Terrace from play equipment. ▪ Note that a recommendation of the Revitalisation Plan is for the Shire to commission a feasibility study to determine the viability of a possible water park |
| Beach Access | <ul style="list-style-type: none"> ▪ Improve access to the beach over the existing rock wall by creating wall breaks at key locations where better beach access is required, such as adjacent to the pontoon |
| Pedestrian Paths | <ul style="list-style-type: none"> ▪ Improve the legibility of existing pedestrian paths by improving connections along the foreshore and south-west edge of Knight Terrace |
| | <ul style="list-style-type: none"> ▪ Upgrade existing paths and where needed develop new paths to ensure that they are continuous where possible |

Area B

| | |
|------------------------------|--|
| Interpretive Trail & Artwork | <ul style="list-style-type: none"> ▪ Install sensitively designed interpretive signage and /or information panels to lead visitors from the Discovery Centre, along the main street, foreshore and down to the beach ▪ Explore the possibility of extending this trail by incorporate other elements within the town centre including the old gaol and other places, buildings or monuments of historic or cultural significance |
| Signage & Wayfinding | <ul style="list-style-type: none"> ▪ Install wayfinding signage to clearly define Knight Terrace as the main street and Knetta's Beach as a swimming location for tourists and visitors ▪ Enhance existing key entry roundabouts by improving signage and interest |
| Car Parking | <ul style="list-style-type: none"> ▪ Continue to provide unmarked car parking for large trailer and caravan use ▪ Explore the validity for development a parking management strategy |
| Pedestrian Access | <ul style="list-style-type: none"> ▪ Create improved pedestrian access across Knight Terrace, particularly in front of the DEC and children's playground. |
| Designated Areas | <ul style="list-style-type: none"> ▪ Retain existing designated dog beach area ▪ Explore the possibility of a designated activities area. These area/s would cater primarily for apparatus related activities such as kite and windsurfing and would enable swimmers to avoid interference with such activities |
| Beach Access | <ul style="list-style-type: none"> ▪ Improve access to the beach over the existing rock wall by creating wall breaks at key locations |

Themes, Styles & Materials

| | |
|---------------------------|--|
| Theme/ Style | <ul style="list-style-type: none"> ▪ Develop a landscape palette unique to Shark Bay. This palette will incorporate primarily rustic elements with a modern edge ▪ Ensure that landscape elements are functional where possible and that sculptural elements are interactive where possible ▪ Ensure that a combination of literal and interpretive landscaping and/or sculptural elements are employed, with literal elements representative of the natural 'here and now' setting, and interpretive representative of the Shires rich historic and cultural history |
| Key Element | <ul style="list-style-type: none"> ▪ Include a large scale sculptural element in a key location to represent the unique history and setting of Shark Bay |
| Materials | <ul style="list-style-type: none"> ▪ Use low maintenance materials where possible and ensure that all materials used along the foreshore are corrosion resistant |
| Location | <ul style="list-style-type: none"> ▪ Locate large scale landscaping and/or sculptural elements in key locations that do not adversely block existing view corridors ▪ Locate smaller scale landscaping and/or sculptural elements in locations where view corridors exist to avoid adversely blocking them |
| Scale | <ul style="list-style-type: none"> ▪ Use a combination of both large and small scale landscaping and sculptural elements along Knight Terrace and the foreshore to represent the historic, natural and cultural significance of Shark Bay |
| Partnership Opportunities | <ul style="list-style-type: none"> ▪ Work in conjunction with the Department of Premier and Cabinet to incorporate their vision (in terms of sculptures, plaques etc.) where possible with regards to future planning for the Dirk Hartog 400 year anniversary in 2016 ▪ Where their vision is yet to be realised develop possible place holders for future landscaping and/or sculptural elements that are likely to be developed by 2016 |

Appendices

Appendix A – Literature Review

Appendix B – Community Workshop PowerPoint Presentation

Appendix C – Workshop Discussion & Display Material

Appendix A; Literature Review

Summary of Background information

The following are notes on the literature reviewed as part of the revitalisation plan.

Notes in the boxes are potentially the most relevant for preparing the Revitalisation Plan.

Agencies and authorities information

Department of Transport

Maritime Facilities; Redevelopment of foreshore, Concept

Mainly improving what is already provided;

- Geotextile groyne
- Reconstructed recreational jetty
- Extended Wharf
- Extended parking trailer parking (possibly more formalised?)

Recreation focused, servicing all boating activity.
Amenity improvements shown at south end.
Provides an activity focus to foreshore.

Gascoyne Development Commission

Economic development opportunities for the Gascoyne Region associated with resource sector Investment and expansion. Jan 2012

FIFO base- 14.3 Development of Lifestyle Infrastructure- Improve maritime facilities

Tourism- 15.1 Denham as a holiday Destination-. Upgrade boating facilities, Freshwater theme water park on the foreshore

Foreshore and main street project strongly aligns with the report evaluations.

Foreshore Reserve Costal Report, Michael Rogers and Associates

Report prepared for an area north west of our study area, for planning subdivision.

Minimum Finished Floor Level for residential development 3.8m AHD.

Recommended 85m buffer for erosion

In extreme events the Foreshore and Knight Terrace may be subject to inundation and erosion.

Possibly similar to most other foreshore developments.

Some stakeholder requests we receive may be better accommodated at other town open spaces.

Risk to amenity infrastructure may be acceptable, need to discuss with Shire.

No information re what a geotextile groyne from DOT concept will achieve for reducing erosion risk on land.

Heritage, Municipal register

14094 Shark Bay Honour Roll- foyer Heritage Resort

11716 Original Jetty

2369 Denham Town site buildings

11712 Pearl Buyers Cottage, Knight Tce

11709 Poland House Knight Tce

11711 Standring House Knight Tce

11714 Ronberg House, 22 Knight Tce

11717 Ma Fletcher' Cottage 24 knight Tce

Note that the jetty is the only item within the areas directly impacted by the Redevelopment plan, if the use remains similar then changes or modernisation may not be considered to adversely impact the heritage value

Tourism WA

Shire of Shark Bay overnight visitor Fact Sheet

Possibly not relevant to this study because superseded by "Economic development opportunities for the Gascoyne Region associated with resource sector Investment and expansion. Jan 2012" as far as this project is concerned.

World Heritage

More relevant for project themes, not directly applicable for statutory approvals of land works because the town site is excluded, however advice/review/consultation required for development particularly marine structures.

Shire of Shark Bay, Town Planning Information

Shire of Shark Bay Local Planning Strategy May 2013

3.0 Objectives

All the objectives have some relevance to the Foreshore and Main Street Project.

Most directly relevant are;

5; To provide a range of quality services and amenities; and

6, Enhance and develop a distinct 'main street' character for Denham town site....

Also 11 Provide convenient access and circulation for cars service vehicles pedestrians, and cyclists.

4.3.2 Area 14: Town Centre

Items for Foreshore and Main Street project consideration include

- Consolidate Town Centre
- Clear understanding of Landuse and streetscape issues and achieve a high standard of integrated development that recognises the inter relationships between the Town Centre and the coast, historic Development, established landuses and high quality new development
- Maximise coastal views within and beyond the town
- Weather protection for pedestrians

Sub precincts adjacent Foreshore and Mainstreet project extent are (as per Attachment 1):-

Precinct 1a- Retail and commercial, with particular attention to servicing visitors and tourist including restaurants on Knight Terrace

Precinct 2b- Accommodation for tourists plus some retail and entertainment servicing tourism

Precinct 2a- Accommodation for tourists

Precinct 4a- Priority for tourist accommodation however existing retail is quite vibrant, some of this retail should be more strongly encouraged in precinct 1.

Precinct 5 Accommodation for tourist particularly at east end.

5 Strategies and Actions

This section is primarily dealing with administrative and regulatory aims for a town plan however includes some items relevant to the Revitalisation Plan project.

5.1.1 Actions for Strategy 1 items I, J & K-maintain and provide amenity, seeking funding for town centre amenities.

Essentially the Revitalisation Plan will need to be relevant for funding applications from state and federal agencies to support the strategies.

During the project we may need to identify what is special about the town centre and why some strategies are appropriate here but not other parts of the town site. For example some ideas appropriate for a town centre could be inappropriate for more visually sensitive areas adjacent natural environments. We may need to highlight/explain in the Plan to avoiding suggesting precedents for future subdivision near the coast or near ridgelines.

From part 2; Background and Information Analysis

Denham has capacity to build its role as the regional centre.

Marine environment is central to local economy.

Marina would be beneficial

Townscape and main Street programs should be initiated.

Protection of world heritage values.

Reference to town Centre strategy.

This project brief is in accord with the relevant State Policies the most relevant are;

- SPP2.6- State Coastal Planning;
- SPP 3.5- Historic Heritage Conservation

The project brief is responsive to all relevant objectives and no potential conflicts are apparent with information from other agencies.

Note that many of the objectives potentially apply or will need re assessment for the brief for final design for construction when funding is allocated.

Local laws

Parking and Disabilities inclusion and access plan are similar to most other local governments; some statutory regulation will take precedent for a detailed design (ie BCA).

Plans PDF (from local town plan)

Cadastral is not a CAD drawing, some line work is able to be extracted from pdf file, however it is not a true cadastral survey.

Appendix B; Community Workshop PowerPoint Presentation



Foreshore and Main Street Revitalisation Plan

Community Workshop

26th September

**Hames
Sharley**



ARCHITECTURE | INTERIORS | URBAN DESIGN | PLANNING | LANDSCAPE



Agenda

- Welcome – Shire President
- Project Context
- Project & Workshop Objectives
- Group Discussion
 - Key Issues & Opportunities
- Site Analysis & Opportunities
- Character & Themes
- Group Exercise
- Group Discussion
 - Questions, Comments & Feedback





Project Context

DENHAM

Holiday Destination

Gascoyne Pilbara Project 2012

&

Coastal Community

Denham Town Centre Strategy 2006

Shire of Shark Bay Local Planning Strategy 2013



A prime location for revitalisation



Hames Sharley to prepare a **Foreshore and Main Street Revitalisation Plan**



Revitalisation Plan will provide a **strategic direction for future planning**





Purpose of the Revitalisation Plan

Identify **key issues** applicable to the Foreshore and Knight Terrace



Understand and address community **aspirations** and **opinions**



Provide **well-connected, accessible, community** places and enhanced waterfront

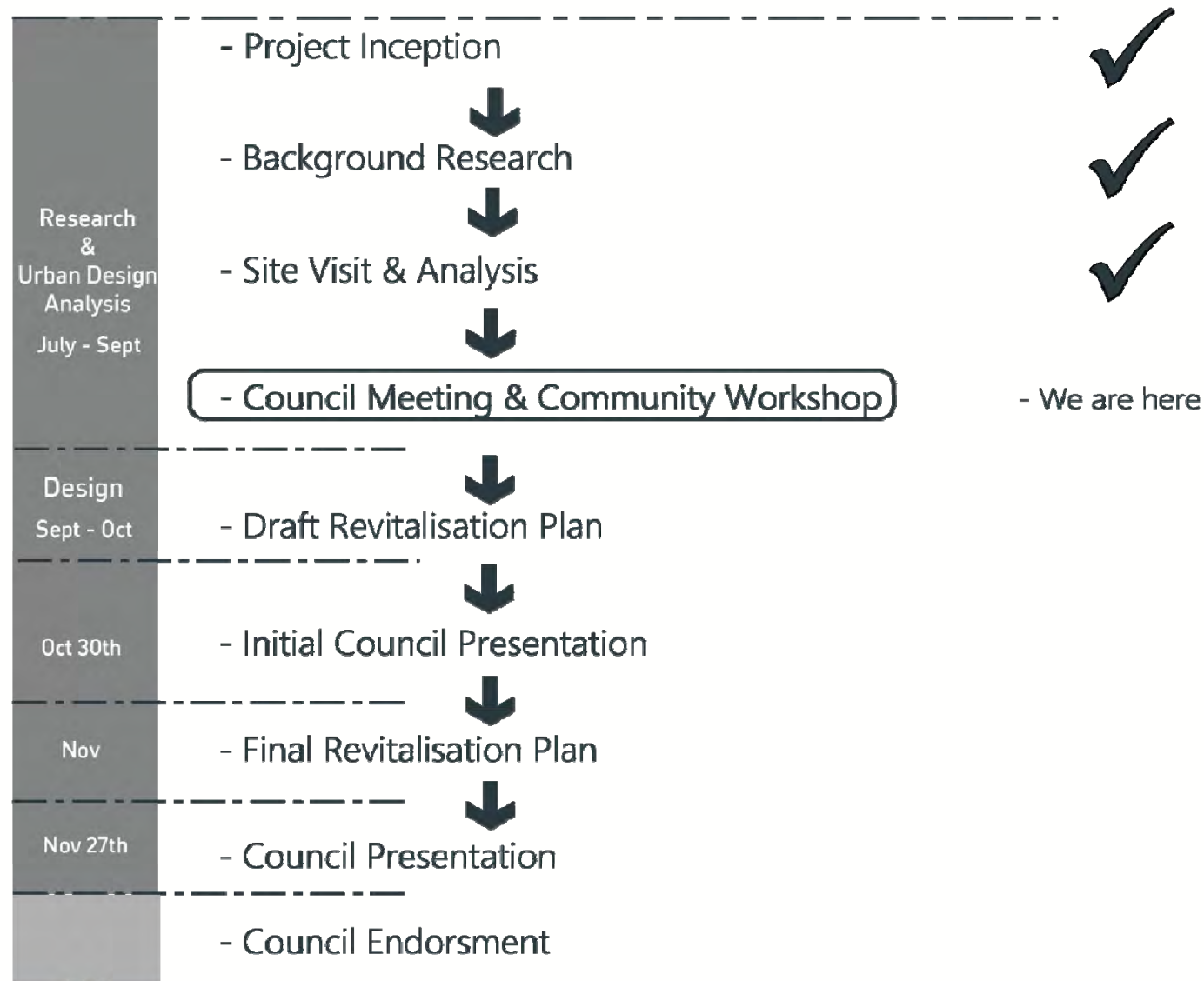


Enable the Shire of Shark Bay to support funding and grants application to facilitate site responsive revitalisation





Project Process





Purpose of Community Workshop

Get community responses and input into:

- Existing **Qualities & Character**;
- Potential **Design Themes**; and
- **Improvement Priorities**





Group Discussion

Key **Issues** & **Opportunities** ?

What issues need to be addressed?

What currently works well?

What would you like to see in the future?



| ISSUES | OPPORTUNITIES |
|--------|---------------|
| | |

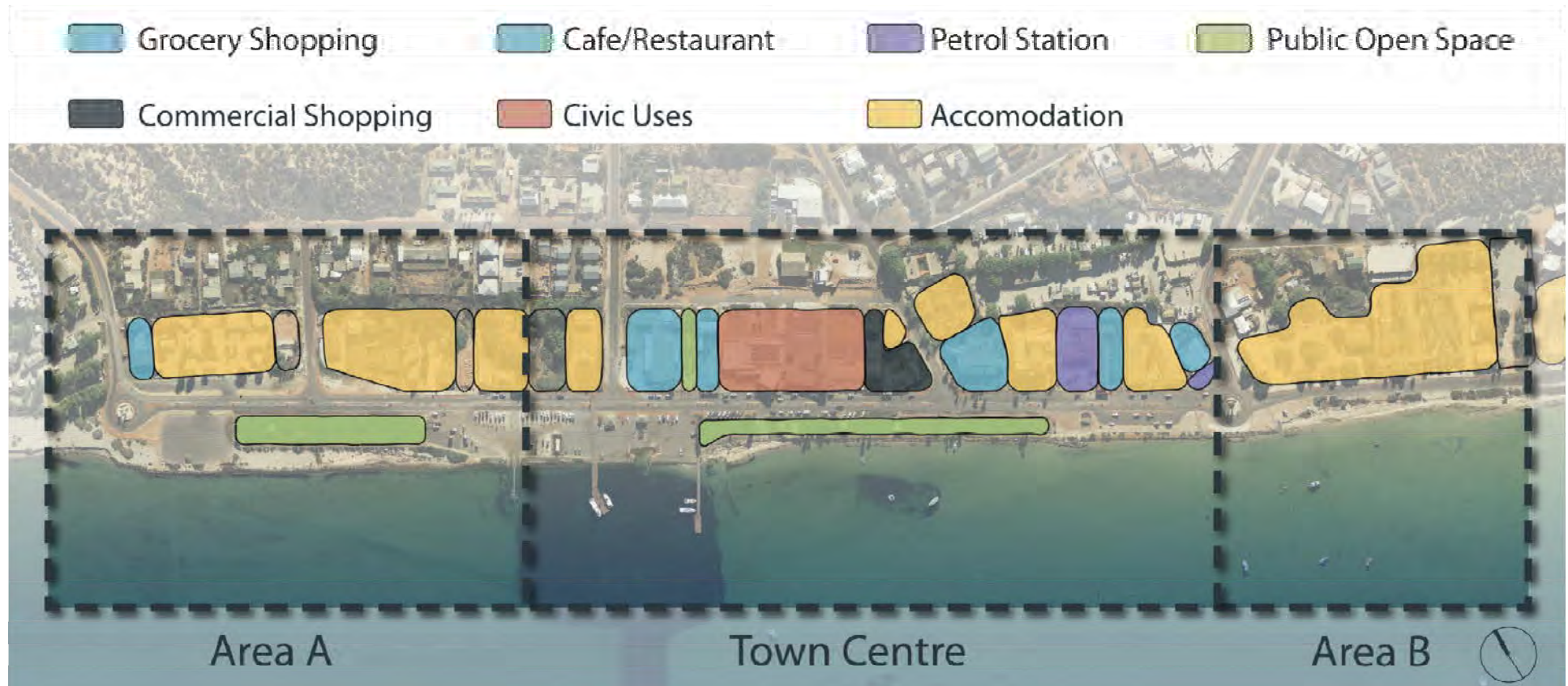


Study Area





Existing Activity





Activity – Area A



Grocery Store



Residential



Boat Ramp



Accommodation



Fish Cleaning Station

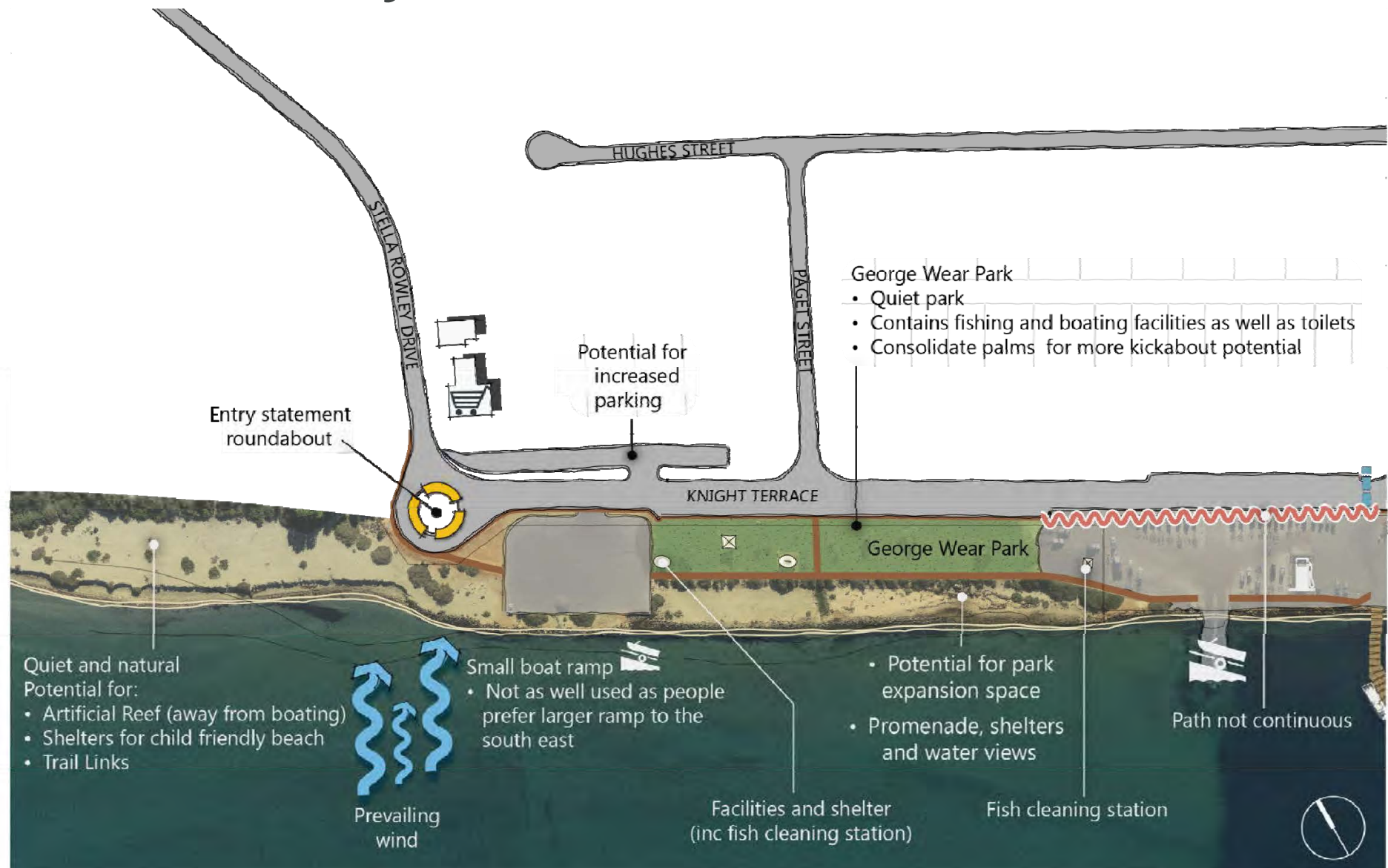


Swimming Beach



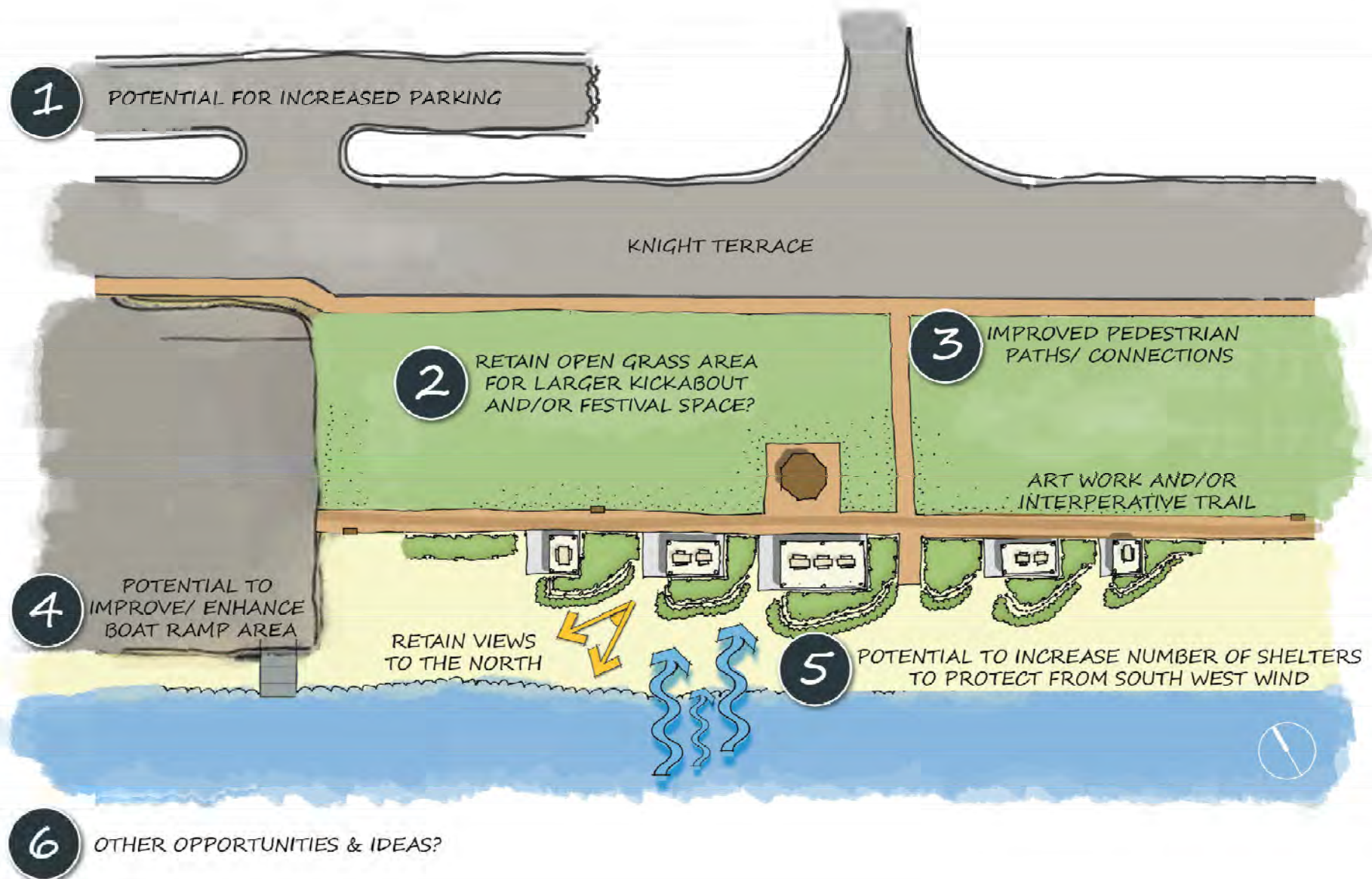


Site Analysis – Area A



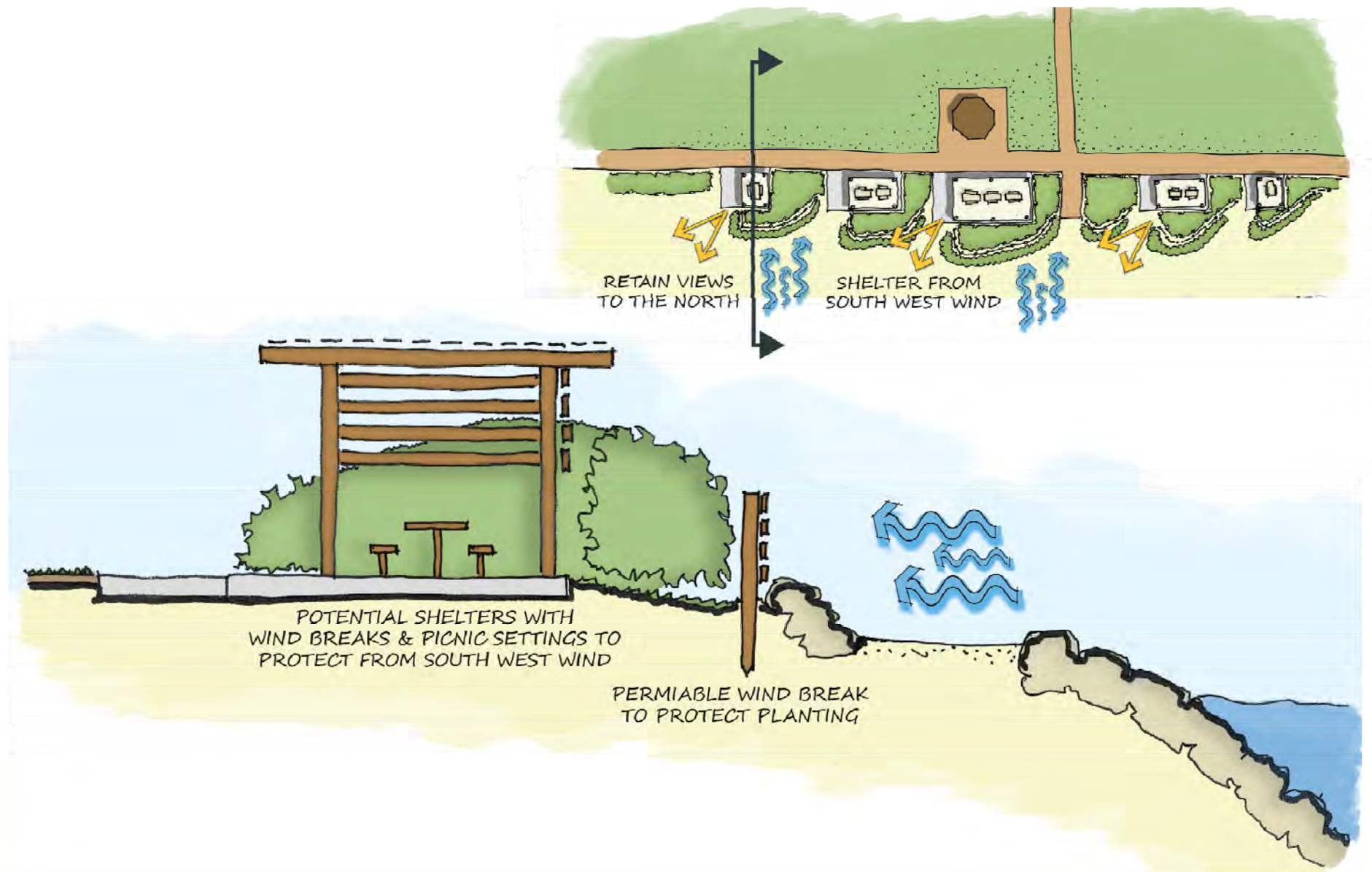


Opportunities for Discussion? – Area A





Ideas for Discussion? – Area A





Activity – Town Centre



Grocery Store



Playground



Boat Ramp



Public Toilets



Accommodation



Pharmacy



Swimming Beach



Cafe/Restaurant



Residential



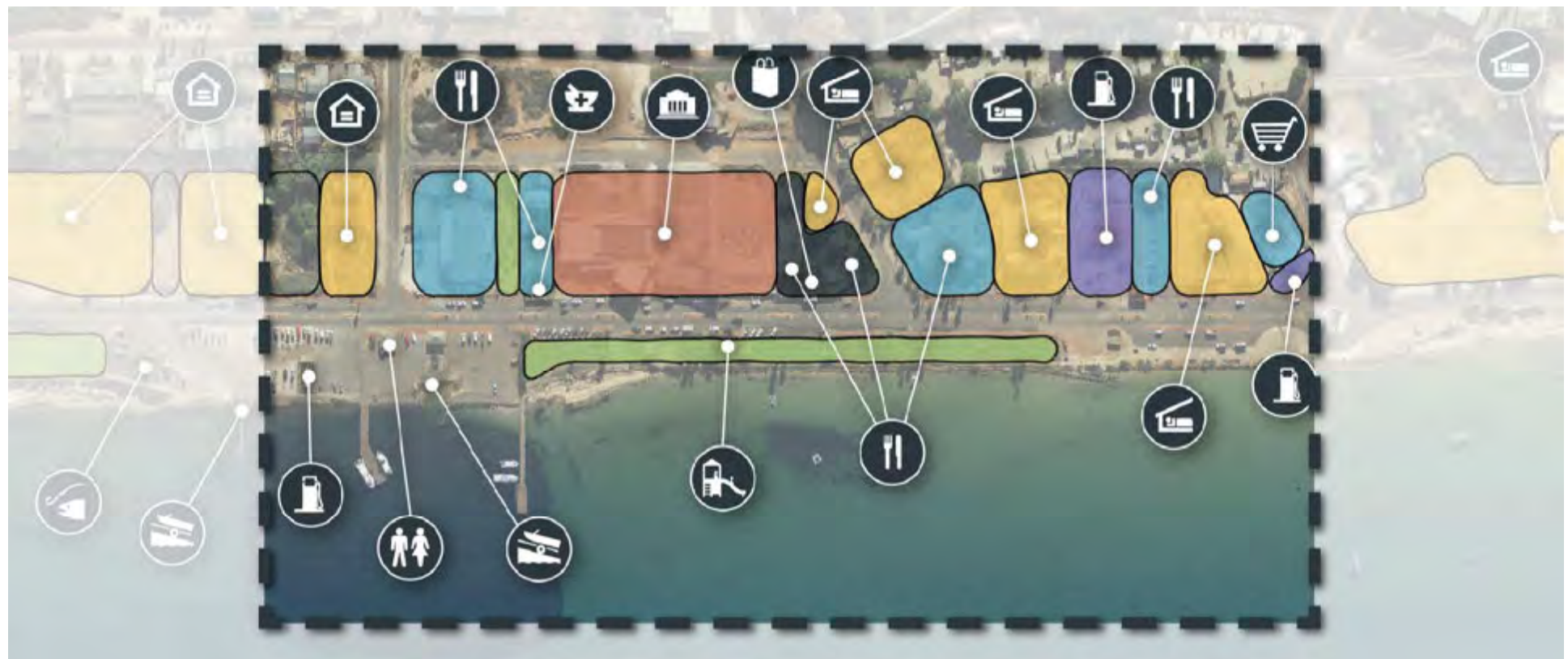
Fish Cleaning Station



Commercial Shop



Civic Uses





Site Analysis – Town Centre

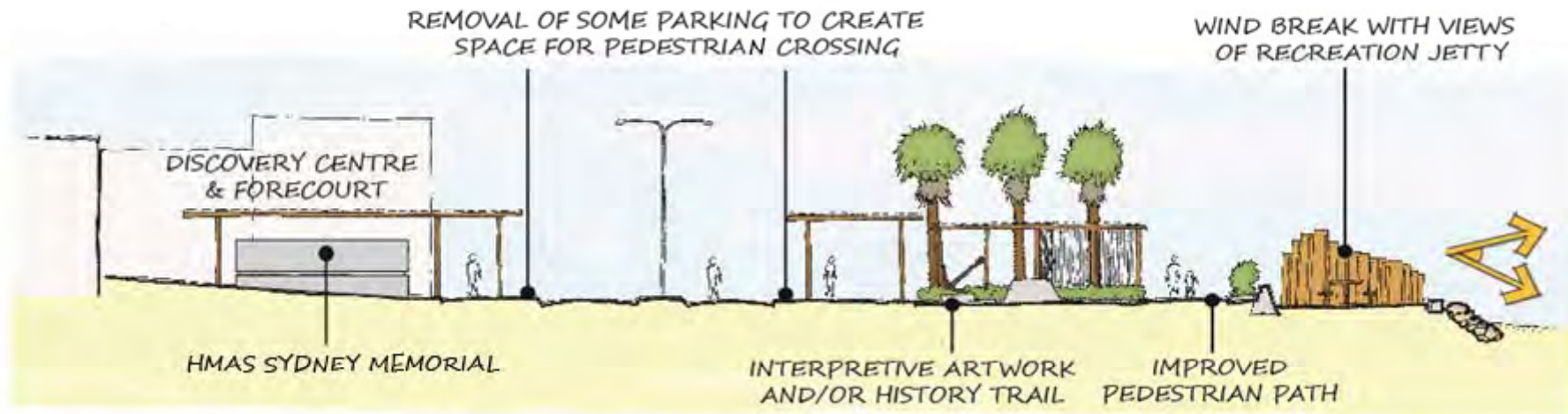


+ Opportunities for Discussion? – Town Centre





Ideas for Discussion? – Town Centre





Activity – Area B



Accommodation

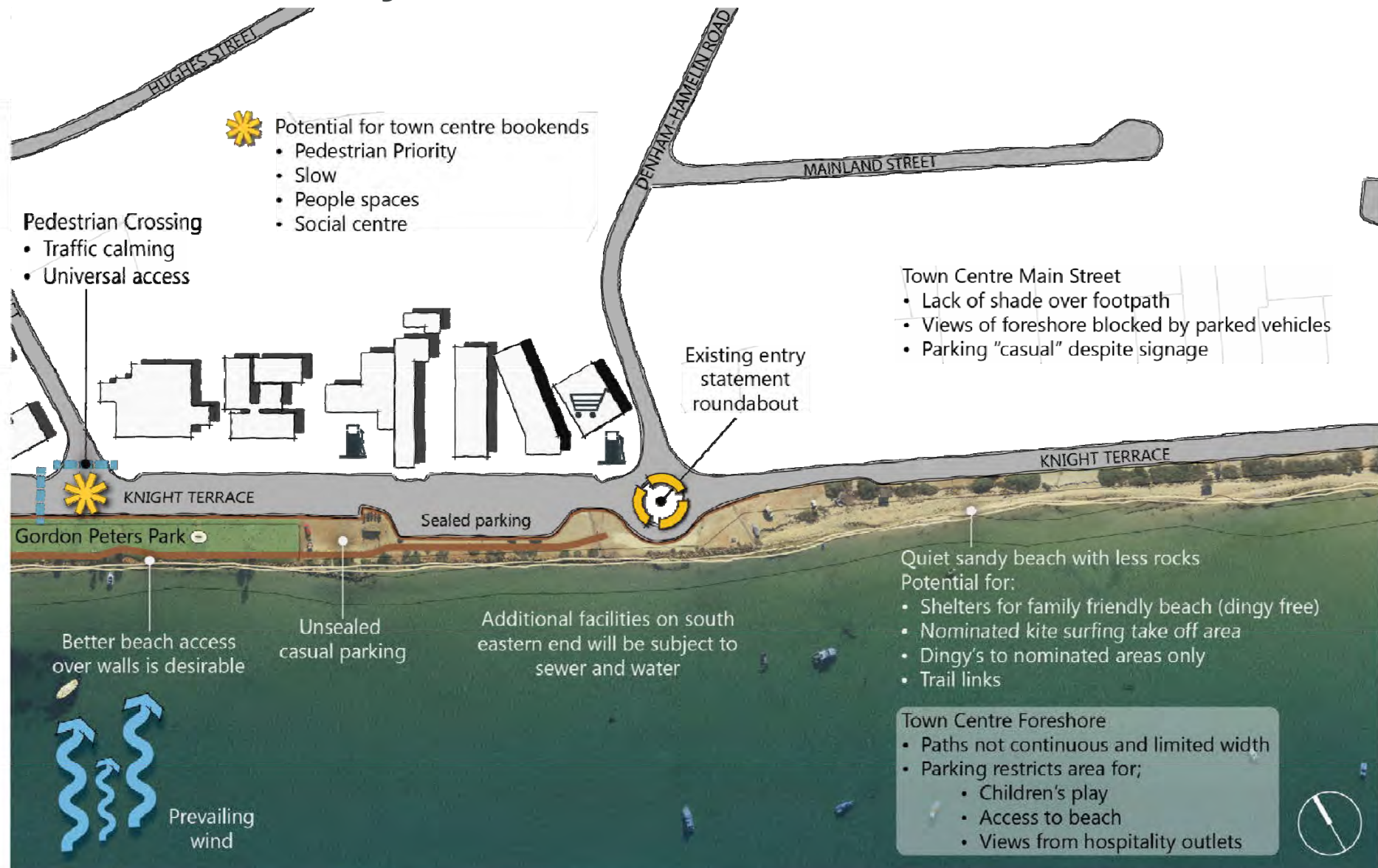


Swimming Beach





Site Analysis – Area B





Opportunities? – Area B





Existing Character





Themes

Rustic/Low Key



or

Modern?





Themes

Literal



or

Interpretive?





Themes

Large Scale



or

Small Scale?





Group Exercise & Discussion



Hames
SHARLEY

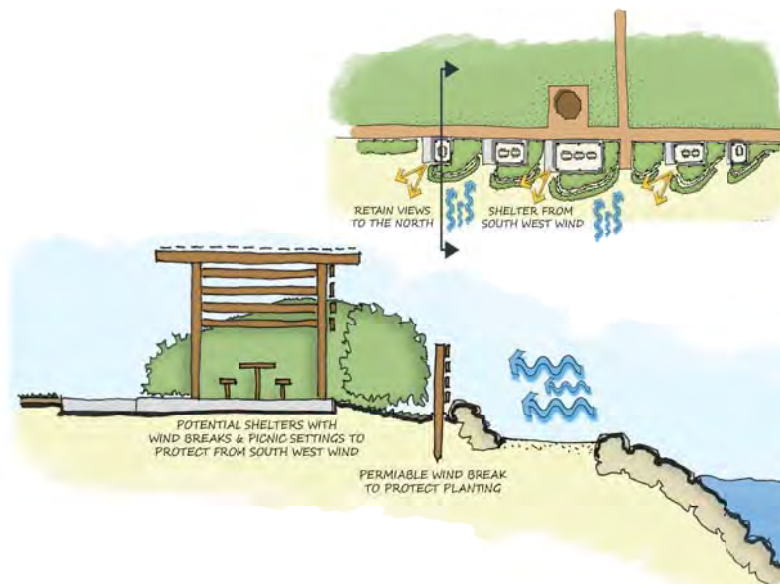
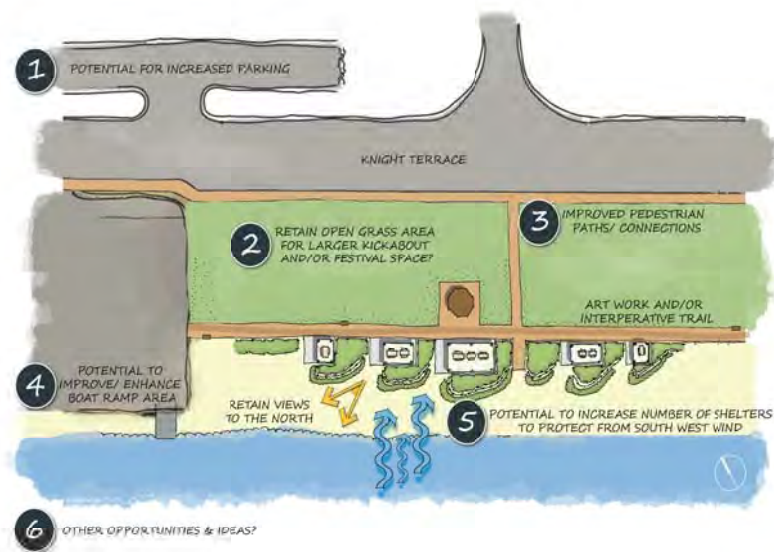
www.hamessharley.com.au

ARCHITECTURE | INTERIORS | URBAN DESIGN | PLANNING | LANDSCAPE



Appendix C; Workshop Discussion & Display Material

Area A



● OPPORTUNITIES & IDEAS

Opportunities & Ideas

Which of those presented do you like?
What others do you have?

Existing Qualities & Character

What existing qualities and character should be enhanced?

Improvement Priorities

What improvements and updates do you consider to be a priority?

● ISSUES

Issues

Do you have an issue with any of those presented?
What is the issue?

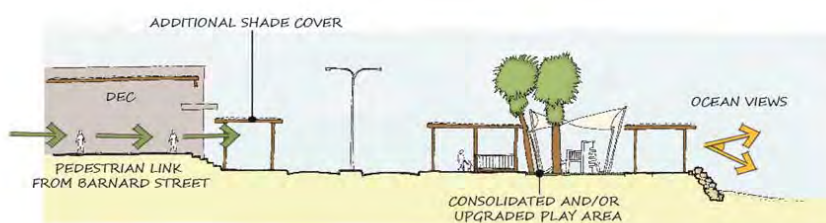
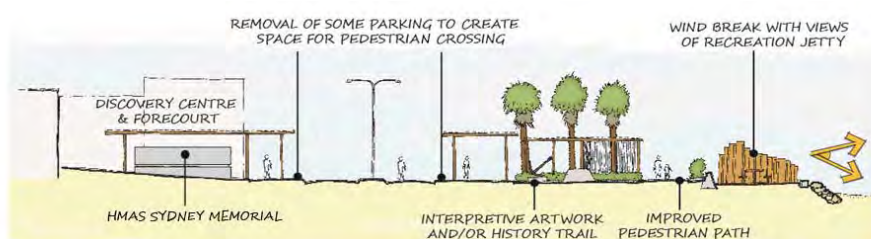
Existing Issues

What are the existing issues that need to be addressed?

Issue Priorities

What issues do you consider to be a priority?

Town Centre



OPPORTUNITIES & IDEAS

Opportunities & Ideas

Which of those presented do you like?
What others do you have?

Existing Qualities & Character

What existing qualities and character should be enhanced?

Improvement Priorities

What improvements and updates do you consider to be a priority?

ISSUES

Issues

Do you have an issue with any of those presented?
What is the issue?

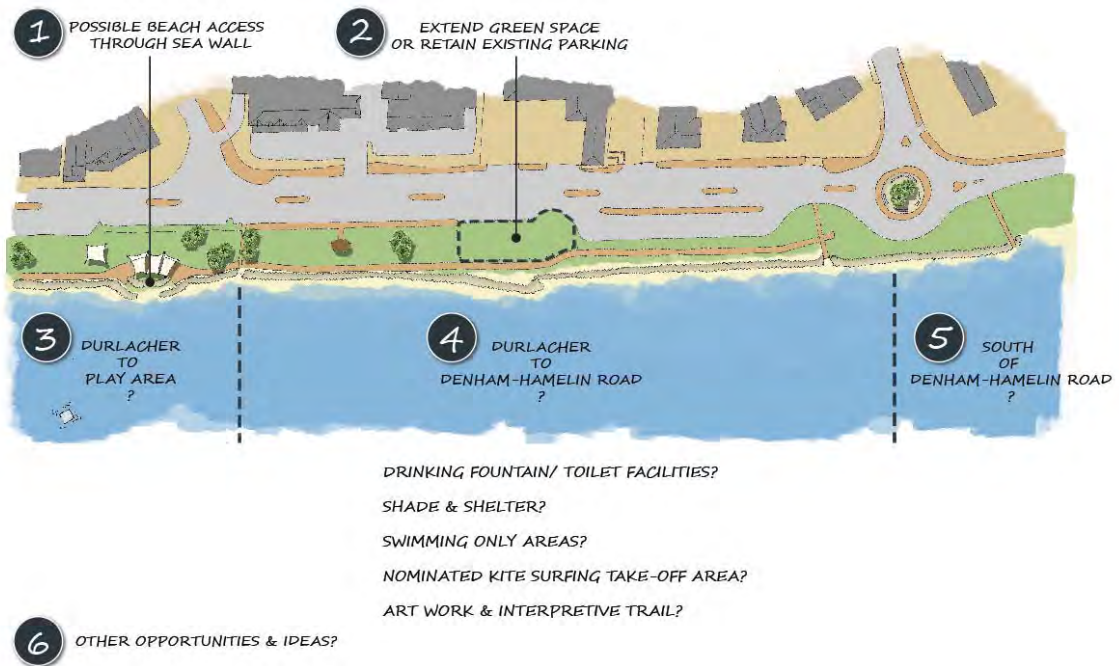
Existing Issues

What are the existing issues that need to be addressed?

Issue Priorities

What issues do you consider to be a priority?

Area B



● OPPORTUNITIES & IDEAS

Opportunities & Ideas
Which of those presented do you like?
What others do you have?

Existing Qualities & Character
What existing qualities and character should be enhanced?

Improvement Priorities
What improvements and updates do you consider to be a priority?

● ISSUES

Issues
Do you have an issue with any of those presented?
What is the issue?

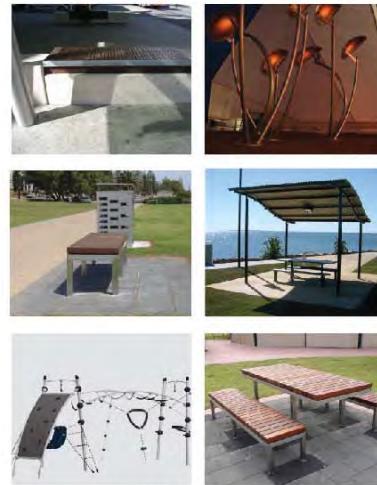
Existing Issues
What are the existing issues that need to be addressed?

Issue Priorities
What issues do you consider to be a priority?

Themes



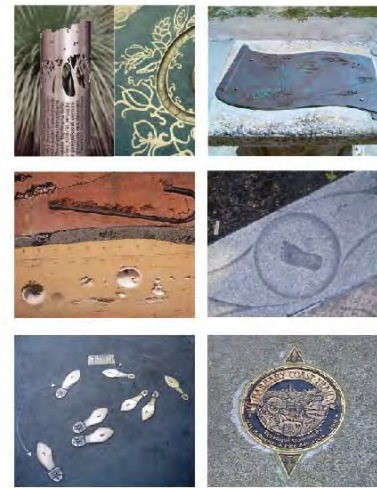
RUSTIC/ LOW KEY



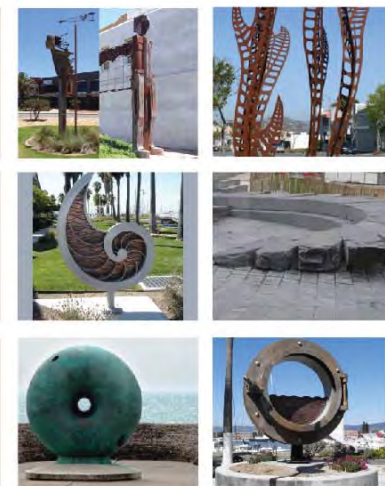
MODERN



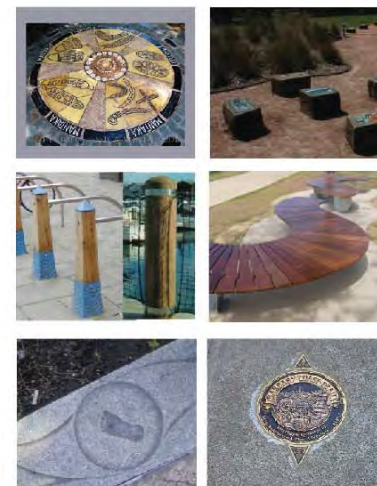
LITERAL



INTERPRETIVE



LARGE SCALE



SMALL SCALE

● OPPORTUNITIES & IDEAS

Potential Design Themes
What themes would you like to see?

Potential Design Themes
What other theme ideas do you have?

● ISSUES

Potential Design Themes
What themes do you have an issue with?

Potential Design Themes
Are there any theme ideas you want to avoid?

Appendix C: Draft Revitalisation Drawings

- Draft Revitalisation Plan – Foreshore Area
- Draft Revitalisation Plan – Area A
- Draft Revitalisation Plan – Town Centre
- Draft Revitalisation Plan – Area B
- Draft Revitalisation Plan – Interpretive Trail



Legend

- 1 Earthworks and Footpath Upgrade
 - 2 Demolish Jinker Building
 - 3 Dredging to the East of the Recreational Jetty
 - 4 Wharf Extension
 - 5 Wharf Extension (20m)
 - 6 Recreational Jetty Upgrade & Extension
 - 7 Geotextile Groyne
 - 8 Signage & Marking for Marina Use
 - 9 Relocated Fuel Spill Kit Station
 - 10 Upgraded Town Centre Pavement
 - 11 At-Grade Pedestrian Crossing A
 - 12 At-Grade Pedestrian Crossing B
 - 13 Shade Pergola - Discovery Centre Forecourt
 - 14 Additional Grassed Area
 - 15 Bike Racks
 - 16 New Town Square
 - 17 Additional Shelters
 - 18 Platform Viewing Area
 - 19 Beach Service Access
 - 20 Exercise Station
 - 21 Consolidated Open Grass Area
 - 22 Improved Beach Access
 - 23 Relocation of Existing Swimming Pontoon
 - 24 Additional Swimming Pontoon & Dredging
 - 25 Shade Pergola - Play Area
 - 26 Extended & Consolidated Play Area
 - 27 Water Play Area
 - 28 Upgraded Fish Station Area
 - 29 Enhanced Entry Statement
 - 30 Proposed Picnic Area
 - 31 Proposed New Toilet Facilities
-
- P Parking
 - I Indicative Key Interpretive Item Location
 - i Existing Item to Form Part of Interpretive Trail
 - A Amenity Upgrade
 - W Sea Wall Upgrade



Draft Revitalisation Plan - Area A

SHARK BAY FORESHORE AND MAIN STREET REVITALISATION PLAN



Legend

1

Earthworks and Footpath Upgrade

2

Demolish Jinker Building

3

Dredging to the East of the Recreational Jetty

4

Wharf Extension

5

Wharf Extension (20m)

6

Recreational Jetty Upgrade & Extension

7

Geotextile Groyne

8

Signage & Marking for Marina Use

9

Relocated Fuel Spill Kit Station

10

Upgraded Town Centre Pavement

11

At-Grade Pedestrian Crossing A

12

At-Grade Pedestrian Crossing B

13

Shade Pergola - Discovery Centre Forecourt

14

Additional Grassed Area

15

Bike Racks

16

New Town Square

17

Additional Shelters

18

Platform Viewing Area

19

Beach Service Access

20

Exercise Station

22

Improved Beach Access

23

Relocation of Existing Swimming Pontoon

24

Additional Swimming Pontoon & Dredging

25

Shade Pergola - Play Area

26

Extended & Consolidated Play Area

27

Water Play Area

P

Parking

i

Indicative Key Interpretive Item Location

i

Existing Item to Form Part of Interpretive Trail

A

Amenity Upgrade

W

Sea Wall Upgrade



Legend

| | |
|----|---|
| 15 | Bike Racks |
| 20 | Exercise Station |
| 22 | Improved Beach Access |
| 29 | Enhanced Entry Statement |
| 30 | Proposed Picnic Area |
| 31 | Proposed New Toilet Facilities |
| P | Parking |
| I | Indicative Key Interpretive Item Location |
| A | Amenity Upgrade |
| W | Sea Wall Upgrade |



- Legend**
- ① Indicative Key Interpretive Item Location
 - ① Existing Item to Form Part of Interpretive Trail
 - ia HMAS Sydney Memorial
 - ib Gudrun Anchor
 - ic Galli-Curci Shark Bay Pearling Lugger
 - id George Wear Park Plaque
 - ie Gordon Peter Park Plaque
 - if Charlie Sappie Park Plaque

Appendix D: Shark Bay Foreshore Redevelopment Plan

Staged Order of Magnitude Costings & Quantities

| STAGE 1 A; DOT Marine Area | | | | | Rate | Cost Estimated | Loading | Cost Estimated After Loading | |
|--|---|------|------|---|---------------|-------------------|---------|---------------------------------|--|
| Item | Description | Qty | Unit | Notes | | | | | |
| | Mobilisation | 1 | item | | \$ 120,000.00 | \$120,000 | 1.35 | \$162,000 | Marine Works all in one mobilisation/contract. From Perth. Rock source within 20km Sea wall is dumped rock shaded with excavator |
| | 2.0 Site | | | | | | | | |
| | Earthworks, along 180m of path and crossover. | 1 | item | For new and re configured paths | \$8,100.00 | \$8,100 | 1.35 | \$10,935 | |
| | Possible line marking for car & boat trailer parking | 1 | item | 180m x 40m total vehicle area | \$36,000.00 | \$36,000 | 1.35 | \$48,600 | |
| | Traffic management | 1 | item | For crossover construction. | \$10,000.00 | \$10,000 | 1.35 | \$13,500 | |
| | Demolish jinker building & make good | 1 | item | | \$10,000.00 | \$10,000 | 1.35 | \$13,500 | |
| | 3.0 Marine | | | See DOT concept March 2013 | | | | | |
| | Additional dredging including east of recreation jetty | 1 | item | | \$129,000.00 | \$129,000 | 1.35 | \$174,150 | |
| | Extend seawall south of recreation jetty to extent of proposed geotextile groyne | 45 | m | | \$4,500.00 | \$202,500 | 1.35 | \$273,375 | 1.2m height |
| | Wharf ; 6 x 20m extension, plus 50 x 2.4m land edge wharf | 240 | m2 | including lighting & refuelling equipment to land edge wharf including lighting signage and rails or balustrades for pedestrian use & disabled access | \$4,700.00 | \$1,128,000 | 1.35 | \$1,522,800 | Assume 6m depth at MSL |
| | Recreation jetty reconstruction; 60 x 3m with 4 n# berthing fingers 20 x 15m, plus 30 x 4.5m fishing area | 435 | m2 | | | | | | |
| | | | | pedestrian use & disabled access | \$3,200.00 | \$1,392,000 | 1.35 | \$1,879,200 | Fingers 1.5 m wide ? |
| | Geotextile groyne | 1 | item | 80m long | \$360,000.00 | \$360,000 | 1.35 | \$486,000 | Assumed rock on geotextile |
| | Signage and markings for marina use | 1 | item | including marine safety and pedestrian safety information | \$15,000.00 | \$15,000 | 1.35 | \$20,250 | |
| | 4.0 Hard works | | | | | | | | |
| | Upgrade amenities building, <u>not included</u> assumed part of maintenance budget. | 1 | item | A brief and extents would be required for an estimate | | \$0 | 1.35 | \$0 | |
| | Fuel spill equipment store shed, 2 x 2m | 1 | item | to replace same in inker shed | \$1,040.00 | \$1,040 | 1.35 | \$1,404 | |
| | Kerb | 220 | m | Nominal subject to design | \$35.00 | \$7,700 | 1.35 | \$10,395 | |
| | Surface-repair/upgrade | 6600 | m2 | subject to car and trailer parking design | \$15.00 | \$99,000 | 1.35 | \$133,650 | |
| | Footpath crossover to Knight Terrace; new | 2 | item | Nominal quantity, kerb ramps and tactile indicators | \$5,400.00 | \$10,800 | 1.35 | \$14,580 | Assumed 1 tactile indicator (external grade) 1200 x 600 |
| | Footpath crossover to Knight Terrace; modify | 1 | item | Nominal quantity, kerb ramps and tactile indicators | \$5,400.00 | \$5,400 | 1.35 | \$7,290 | |
| | External lighting | 1 | item | carparking standard | \$100,000.00 | \$100,000 | 1.35 | \$135,000 | |
| | Paving, Town standard footpath | 285 | m2 | | \$65.00 | \$18,525 | 1.35 | \$25,009 | |
| | Paving, Town Centre selection footpath | 230 | m2 | | \$65.00 | \$14,950 | 1.35 | \$20,183 | |
| | Bollards and wheel stops to protect aprox 230m of paths and rockwalls | 1 | sum | Allowance subject to design | \$45,933.00 | \$45,933 | 1.35 | \$62,010 | Assumed 1 bollard at every 3m and carpaark width at 2.5m |
| | Drinking fountains | 1 | item | nominal number | \$7,500.00 | \$7,500 | 1.35 | \$10,125 | |
| | 5.0 Softscape | | | | | | | | |
| | Nil | | | | | | | | |
| SECTION SUB-TOTAL | | | | | | | | \$5,023,955 | |
| STAGE 1A SUMMARY | | | | | | | | Total | |
| Net Construction Costs | | | | | | | | \$5,023,955 | |
| Preliminaries | | | | | | | | \$753,593.22 | |
| | | | | | | | | \$5,777,548.02 | |
| Design and Construction Contingency | | | | | | | | \$577,754.80 | |
| Design Fees and Expenses | | | | | | | | \$794,412.85 | |
| Order of Magnitude at Current Day Prices | | | | | | | | \$7,149,715.67 | |

| STAGE 1 B, Town centre Reviatalisation | | | | | Rate | Cost Estimated | Loading | Cost Estimated After Loading | |
|---|--|------|-------|---|--------------|-------------------|---------|---------------------------------|---|
| Item | Description | Qty | Unit | Notes | | | | | |
| <u>Town Centre; Town square and street works area, (including edge of DOT Marine area)</u> | | | | | | | | | |
| 2.0 Site | | | | | | | | | |
| | Earthworks, 350m2 | 1 | item | Edge of seawall shown on DOT plan and beach access | \$15,750.00 | \$15,750 | 1.35 | \$21,263 | |
| | Possible line marking for parking | 1 | item | nominal 12 parallel bays | \$750.00 | \$750 | 1.35 | \$1,013 | |
| | Traffic management | 1 | item | For realignment of kerb and associated footpaths | \$10,000.00 | \$10,000 | 1.35 | \$13,500 | |
| | Demolition, paths and the kerbs adjacent to parking and crossing changes, aprox 195m kerbing | 1 | item | Note that there may be value in lifted paving for use elsewhere in the town | \$5,000.00 | \$5,000 | 1.35 | \$6,750 | |
| 4.0 Hard works | | | | | | | | | |
| | Low seating walls | 35 | m | | \$350.00 | \$12,250 | 1.35 | \$16,538 | |
| | Windbreak for shelter | 16 | m | | \$350.00 | \$5,600 | 1.35 | \$7,560 | |
| | Shade pergola for Discovery centre Forecourt 10 x 6, with slat roof | 1 | item | | \$33,000.00 | \$33,000 | 1.35 | \$44,550 | |
| | Furniture settings , table and fixed bench seats | 4 | item | Possibly higher quality selection for the town centre | \$500.00 | \$2,000 | 1.35 | \$2,700 | |
| | External area lighting to 80m paths | 1 | item | total area 1500m2, length of path aprox 80m | \$160,000.00 | \$160,000 | 1.35 | \$216,000 | |
| | External lighting feature/ decorative and effect lighting to art area | 1 | item | Uplighting or similar to 2 items | \$50,000.00 | \$50,000 | 1.35 | \$67,500 | |
| | Pedestrian crossings at grade, Kerb ramps and tactile indicators | 3 | Item | Including median alterations for refuge and parking alignment areas | \$6,500.00 | \$19,500 | 1.35 | \$26,325 | Assumed 1 tactile indicator (external grade) 1200 x 600 |
| | New road kerb to realigned parking and paths | 195 | m | For play areas | \$35.00 | \$6,825 | 1.35 | \$9,214 | |
| | New road kerb flush beam to new road paving . | 80 | m | Including cutting existing seal and base | \$35.00 | \$2,800 | 1.35 | \$3,780 | |
| | Paving, Town Centre selection road pave | 827 | m2 | | \$65.00 | \$53,755 | 1.35 | \$72,569 | |
| | Paving, Town Centre selection footpath | 1815 | m2 | | \$65.00 | \$117,975 | 1.35 | \$159,266 | |
| | Paving, Town Centre park | 448 | m2 | | \$65.00 | \$29,120 | 1.35 | \$39,312 | |
| | Tubular Bicycle Racks | 6 | item | nominal number | \$500.00 | \$3,000 | 1.35 | \$4,050 | |
| | Benches, general to lawn areas under palms | 6 | item | nominal number | \$800.00 | \$4,800 | 1.35 | \$6,480 | Composite timber bench slats (3 seater) |
| | Bollards, removable | 2 | ea | removable for beach service access | \$1,200.00 | \$2,400 | 1.35 | \$3,240 | |
| | Hard-stand /road base to beach service access | 75 | m2 | | \$80.00 | \$6,000 | 1.35 | \$8,100 | |
| | Artwork/ interpretive trail stations, Subject to future trail and interpretation plan | 1 | item | small scale item | \$5,000.00 | \$5,000 | 1.35 | \$6,750 | |
| | Major Artwork/ interpretive trail stations | 1 | item | Subject to future trail and interpretation plan. | \$25,000.00 | \$25,000 | 1.35 | \$33,750 | |
| | Exercise stations, two exercise items each station, marine grade construction | 1 | item | Marine grade equipment | \$17,000.00 | \$17,000 | 1.35 | \$22,950 | Assumed include fixed in equipment |
| | Drinking fountains | 1 | item | nominal number | \$1,500.00 | \$1,500 | 1.35 | \$2,025 | |
| | Electrical and potable water supplies/reticulation | 1 | item | For upgrading or re distribution of existing. | \$5,000.00 | \$5,000 | 1.35 | \$6,750 | |
| 5.0 Softscape | | | | | | | | | |
| | Site preparation, soil conditioner, mulch | 319 | m2 | new planting | \$19.00 | \$6,061 | 1.35 | \$8,182 | |
| | Site preparation, soil conditioner, mulch | 126 | m2 | Re planting to top of repaired seawalls | \$19.00 | \$2,394 | 1.35 | \$3,232 | |
| | Planting (175 & 2000mm pots) incl. fert. | 200 | ea | | \$25.00 | \$5,000 | 1.35 | \$6,750 | |
| | Planting (130 & 150mm pots) incl. fert. | 350 | ea | | \$10.00 | \$3,500 | 1.35 | \$4,725 | |
| | Planting (tubestock pots) incl. fert. | 500 | ea | | \$4.00 | \$2,000 | 1.35 | \$2,700 | |
| | Establishment works, 13 weeks | 1 | weeks | Maintenance after construction | \$7,000.00 | \$7,000 | 1.35 | \$9,450 | |
| | New turf area | 100 | m2 | | \$15.00 | \$1,500 | 1.35 | \$2,025 | |
| | Irrigation; new planting & lawn areas, re configuration for paths | 1 | Sum | Potential upgrade of control systems. | \$17,000.00 | \$17,000 | 1.35 | \$22,950 | |
| Town Centre; Town square and street works area, (including edge of DOT Marine area) SUB-TOTAL | | | | | | | | \$861,948 | |

STAGE 2, Town centre play areas and regular play equipment.

| Item | Description | Qty | Unit | Notes | Rate | Cost Estimated | Loading | Cost Estimated After Loading | |
|--|--|-----|-------|---|--------------|----------------|---------|------------------------------|---|
| 3.0 Marine | | | | | | | | | |
| | Additional dredging for new pontoon with 2 slides and swimming area | 1 | item | Minimal, to existing area by front end loader or excavator | \$75,000.00 | \$75,000 | 1.35 | \$101,250 | |
| | Re-position existing pontoon | 1 | item | | \$5,000.00 | \$5,000 | 1.35 | \$6,750 | Say 4 m x 4 m |
| | New pontoon with 2 slides | 1 | item | | \$13,600.00 | \$13,600 | 1.35 | \$18,360 | Say 4 m x 4 m |
| | New sea wall- to beach access area | 25 | m | | \$4,500.00 | \$112,500 | 1.35 | \$151,875 | 1200mm height |
| 4.0 Hard works | | | | | | | | | |
| | Shade pergola for play area gate opposite DEC crossing, nominal 3 x 3, with slat roof | 1 | item | | \$4,950.00 | \$4,950 | 1.35 | \$6,683 | |
| | Shelter small, nominal 3.6 x 2.8, with wind break slats to 2 sides, (nominal single table setting) | 1 | item | To sea wall in play area | \$5,544.00 | \$5,544 | 1.35 | \$7,484 | |
| | Furniture settings , table and fixed bench seats | 1 | item | Possibly higher quality selection for the town centre | \$500.00 | \$500 | 1.35 | \$675 | |
| | External area lighting to paths and playground | 1 | item | total area 1700m2, length of path aprox 140m | \$190,000.00 | \$190,000 | 1.35 | \$256,500 | |
| | Paving, Town Centre play area | 471 | m2 | | \$65.00 | \$30,615 | 1.35 | \$41,330 | |
| | Drinking fountains | 1 | item | nominal number | \$1,500.00 | \$1,500 | 1.35 | \$2,025 | |
| 4.1 Hard works, play areas | | | | | | | | | |
| | Shade sail shelters for equipment and seating areas | 1 | item | Nominal 800m2 general play and surrounds for the water play areas (345m2) | \$50,000.00 | \$50,000 | 1.35 | \$67,500 | |
| | Playground general softfall area | 200 | m2 | Budget for up to 200m2 total, multiple shade areas required | \$350.00 | \$70,000 | 1.35 | \$94,500 | |
| | Playground fencing, marine grade pool fencing style to 900 high | 100 | m | nominal area subject to design | \$400.00 | \$40,000 | 1.35 | \$54,000 | |
| | Playground fencing, gates self closing with latches | 2 | item | To road side of play spaces only | \$1,500.00 | \$3,000 | 1.35 | \$4,050 | |
| | Playground equipment, for 200m2 marine grade equipment for toddlers to 12 year old children | 1 | item | To road side of play spaces only | \$125,000.00 | \$125,000 | 1.35 | \$168,750 | Provisional sum |
| | Benches | 6 | item | Subject to future design | \$800.00 | \$4,800 | 1.35 | \$6,480 | Composite timber bench slats (3 seater) |
| 5.0 Softscape | | | | | | | | | |
| | Site preparation, soil conditioner, mulch | 152 | m2 | Re planting to top of repaired seawalls | \$19.00 | \$2,888 | 1.35 | \$3,899 | |
| | Irrigation; new planting & lawn areas, re configuration for paths | 1 | Sum | Potential upgrade of control systems. | \$17,500.00 | \$17,500 | 1.35 | \$23,625 | |
| | Planting (130 & 150mm pots) incl. fert. | 150 | ea | | \$10.00 | \$1,500 | 1.35 | \$2,025 | |
| | Planting (tubestock pots) incl. fert. | 300 | ea | | \$4.00 | \$1,200 | 1.35 | \$1,620 | |
| | New turf area repairing and some infill areas | 100 | m2 | | \$15.00 | \$1,500 | 1.35 | \$2,025 | |
| | Establishment works, 13 weeks | 1 | 13 | | | | | | |
| | | 1 | weeks | Maintenance after construction | \$4,500.00 | \$4,500 | 1.35 | \$6,075 | |
| SECTION SUB-TOTAL | | | | | | | | \$1,027,481 | |
| STAGE 2 SUMMARY | | | | | | | | | Total |
| Net Construction Costs | | | | | | | | | \$1,027,481 |
| Preliminaries | | | | | | | | | \$154,122.14 |
| | | | | | | | | | \$1,181,603.09 |
| Design and Construction Contingency | | | | | | | | | \$118,160.31 |
| Design Fees and Expenses | | | | | | | | | \$162,470.43 |
| Order of Magnitude at Current Day Prices | | | | | | | | | \$1,462,233.83 |

STAGE 3, Town centre, Water play facility.

4.1 Hard works, Water play Equipment

Water play equipment for up to 150m2 play space including surface, equipment and plant room
Shade sail shelters for equipment

1

item

Subject to future design
Budget for up to 150m2 total,
multiple shade areas required

\$300,000.00

\$300,000

1.35

\$405,000

Provisional sum

1

item

\$30,000.00

\$30,000

1.35

\$40,500

5.0 Softscape

Irrigation; re configuration for waterplay area
New turf area repairing and some infill areas

1

Sum

\$2,500.00

\$2,500

1.35

\$3,375

100

m2
13

\$15.00

\$1,500

1.35

\$2,025

Establishment works, 13 weeks

1

weeks

Maintenance after construction

\$1,500.00

\$1,500

1.35

\$2,025

SECTION SUB-TOTAL

\$452,925

STAGE 3 SUMMARY

Total

Net Construction Costs

\$452,925

Preliminaries

15%

\$67,938.75

\$520,863.75

Design and Construction Contingency

10%

\$52,086.38

Design Fees and Expenses

12.5%

\$71,618.77

Order of Magnitude at Current Day Prices

\$644,568.89

STAGE 4, West end- George Wear and boat ramp area (area A)

2.0 Site

Possible line marking for trailer parking

1 item For 60 x 40m parking area

\$12,000.00 \$12,000 1.35 \$16,200

4.0 Hard works

Shade sail near existing southern fish station

1 item Nominal 6 x 6m

\$2,160.00 \$2,160 1.35 \$2,916

Furniture for shade sail, table and fixed bench seats

2 item

\$5,000.00 \$10,000 1.35 \$13,500

Paving, Southern fish station and shade sail

460 m2

\$65.00 \$29,900 1.35 \$40,365

Tubular Bicycle Racks

8 item nominal number

\$500.00 \$4,000 1.35 \$5,400

Benches, general to lawn areas under palms

4 item nominal number

\$800.00 \$3,200 1.35 \$4,320

Composite timber bench slats (3 seater)

External lighting

1 item 190m path and fish station area

\$60,000.00 \$60,000 1.35 \$81,000

Drinking fountains

2 item nominal number

\$1,500.00 \$3,000 1.35 \$4,050

Electrical and potable water supplies/reticulation

1 item

\$6,500.00 \$6,500 1.35 \$8,775

5.0 Softscape

Site preparation, soil conditioner, mulch

40 m2 new planting to shelters

\$2.00 \$80 1.35 \$108

New turf area

420 m2

\$10.00 \$4,200 1.35 \$5,670

Irrigation; new planting & lawn areas (315m2) + re configuration for path construction

1 Sum Inc. upgrade of control system, & re configuring along 170m of path edges

\$10,000.00 \$10,000 1.35 \$13,500

Planting (130 & 150mm pots) incl. fert.

40 ea

\$10.00 \$400 1.35 \$540

Planting (tubestock pots) incl. fert.

80 ea

\$4.00 \$320 1.35 \$432

Planting establishment works, 13 weeks

1 weeks Maintenance after construction

\$4,000.00 \$4,000 1.35 \$5,400

SECTION SUB-TOTAL

\$202,176

STAGE 4 SUMMARY

Total

Net Construction Costs

\$202,176

Preliminaries

15%

\$30,326.40

\$232,502.40

Design and Construction Contingency

10%

\$23,250.24

Design Fees and Expenses

12.5%

\$31,969.08

Order of Magnitude at Current Day Prices

\$287,721.72

STAGE 5, East end of Gordon Peter
(Area B)

2.0 Site

| | | | |
|---|---|------|--|
| Earthworks, 250m2 for beach access | 1 | item | To beach access |
| Possible line marking for caravan parking,1400m2 parking area | 1 | item | Southern slip carpark area |
| Sewer connection for new amenities, allow 40m including crossing Knight Terrace | 1 | item | Note; access to sewer may determine location for amenities |

3.0 Marine

| | | | |
|--|----|------|----------------------------------|
| Dredging for swimming area, 150m2 to 1.2m deep (average .9m) | 1 | item | By front end loader or excavator |
| New sea wall- to beach access area | 45 | m | 900mm height |

4.0 Hard works

| | | | |
|---|-----|------|--|
| Public amenities block, 2 disabled compliant toilets, Transportable/ kit standard | 1 | item | With some customisation of external details. |
| Paving for shelters | 170 | m2 | |
| Shade sail shelter near beach access, nominal 4 x 5m | 4 | item | Interconnected to save poles, |
| Furniture settings for shelters, table and fixed bench seats | 4 | item | |
| External lighting to shade sail area | 1 | item | |
| Barbecue sets for existing and new shelters | 1 | item | |
| Tubular Bicycle Racks | 2 | item | nominal number |
| Benches, general to lawn areas under palms | 4 | item | nominal number |
| Bollards and wheelstops for 60m perimeter | 1 | item | For overflow parking area |
| External lighting to 300m path | 1 | item | |
| Electrical and potable water supplies/reticulation | 1 | item | |

5.0 Softscape

| | | | |
|---|------|----------|---|
| Site preparation, soil conditioner, mulch | 30 | m2 | new planting |
| Site preparation, soil conditioner, mulch | 1300 | m2 | Re planting to top of repaired seawalls |
| New turf area | 50 | m2 | Repair to edge of construction |
| Irrigation; new planting & lawn areas, re configuration for paths | 1 | Sum | Potential upgrade of control systems. |
| Planting (130 & 150mm pots) incl. fert. | 1300 | ea | |
| Planting (tubestock pots) incl. fert. | 1300 | ea | |
| Establishment works, 13 weeks | 1 | 13 weeks | Maintenance after construction |

| Rate | Cost Estimated | Loading | Cost Estimated After Loading |
|-------------|----------------|---------|------------------------------|
| \$11,250.00 | \$11,250 | 1.35 | \$15,188 |
| \$7,000.00 | \$7,000 | 1.35 | \$9,450 |
| \$5,000.00 | \$5,000 | 1.35 | \$6,750 |
| | | 1.35 | \$0 |
| \$15,000.00 | \$15,000 | 1.35 | \$20,250 |
| \$4,500.00 | \$202,500 | 1.35 | \$273,375 |
| \$75,000.00 | \$75,000 | 1.35 | \$101,250 |
| \$65.00 | \$11,050 | 1.35 | \$14,918 |
| \$4,000.00 | \$16,000 | 1.35 | \$21,600 |
| \$500.00 | \$2,000 | 1.35 | \$2,700 |
| \$5,000.00 | \$5,000 | 1.35 | \$6,750 |
| \$3,000.00 | \$3,000 | 1.35 | \$4,050 |
| \$500.00 | \$1,000 | 1.35 | \$1,350 |
| \$800.00 | \$3,200 | 1.35 | \$4,320 |
| \$10,600.00 | \$10,600 | 1.35 | \$14,310 |
| \$90,000.00 | \$90,000 | 1.35 | \$121,500 |
| \$5,000.00 | \$5,000 | 1.35 | \$6,750 |
| \$19.00 | \$570 | 1.35 | \$770 |
| \$19.00 | \$24,700 | 1.35 | \$33,345 |
| \$15.00 | \$750 | 1.35 | \$1,013 |
| \$31,500.00 | \$31,500 | 1.35 | \$42,525 |
| \$10.00 | \$13,000 | 1.35 | \$17,550 |
| \$4.00 | \$5,200 | 1.35 | \$7,020 |
| \$7,000.00 | \$7,000 | 1.35 | \$9,450 |

Assumed Setting out and placed in position

Assumed 1 bollard at every 3m and carpark width at 2.5m Assume every 6m 1 light pole

| SECTION SUB-TOTAL | | | \$736,182 |
|--|-------|--|----------------|
| STAGE 5 SUMMARY | | | Total |
| Net Construction Costs | | | \$736,182 |
| Preliminaries | 15% | | \$110,427.30 |
| | | | \$846,609.30 |
| Design and Construction Contingency | 10% | | \$84,660.93 |
| Design Fees and Expenses | 12.5% | | \$116,408.78 |
| Order of Magnitude at Current Day Prices | | | \$1,047,679.01 |

***General town infrastructure, Sea wall upgrades,
Not included in revitalisation project***

| | | | | | | | |
|--|-----|---|-------------------------------|------------|-----------|------|---------------------------|
| 1.0 Area A | | | | | | | |
| Repair existing sea wall- raise section built too low and including construction of new beach access | 70 | m | Aprox additional 300mm height | \$2,400.00 | \$168,000 | 1.35 | \$226,800 900mm height |
| 1.0 Town Centre | | | | | | | |
| Repair existing sea wall- built without geotextile | 100 | m | | \$2,400.00 | \$240,000 | 1.35 | \$324,000 900m height |
| 1.0 Area B | | | | | | | |
| Repair existing sea wall- built without geotextile | 320 | m | | \$2,400.00 | \$768,000 | 1.35 | \$1,036,800 900m m height |

| | | | |
|--|-------|--|----------------|
| General infrastructure total | | | \$1,587,600 |
| SUMMARY | | | Total |
| Net Construction Costs | | | \$1,587,600 |
| Preliminaries | 15% | | \$238,140.00 |
| | | | \$1,825,740.00 |
| Design and Construction Contingency | 10% | | \$182,574.00 |
| Design Fees and Expenses | 12.5% | | \$251,039.25 |
| Order of Magnitude at Current Day Prices | | | \$2,259,353.25 |

Note that the rates used above are for general .9m high rock wall with 300-600mm diameter rock. Suitable specification and details for Denham will require marine engineering input.

Notes
Note quantities based on cadastral and aerial photo, no as
Scope of works as detailed above
General exclusions, drainage, fire & services, structural & civil
engineering for utilities and infrastructure
All costs are current day therefore exclude escalator
GST is excluded
Client costs excluded
Temporary relocation costs excluded