



AGENDA ATTACHMENTS

(Part 2)

**Finance, Policy, Operations and Legislation
Committee**

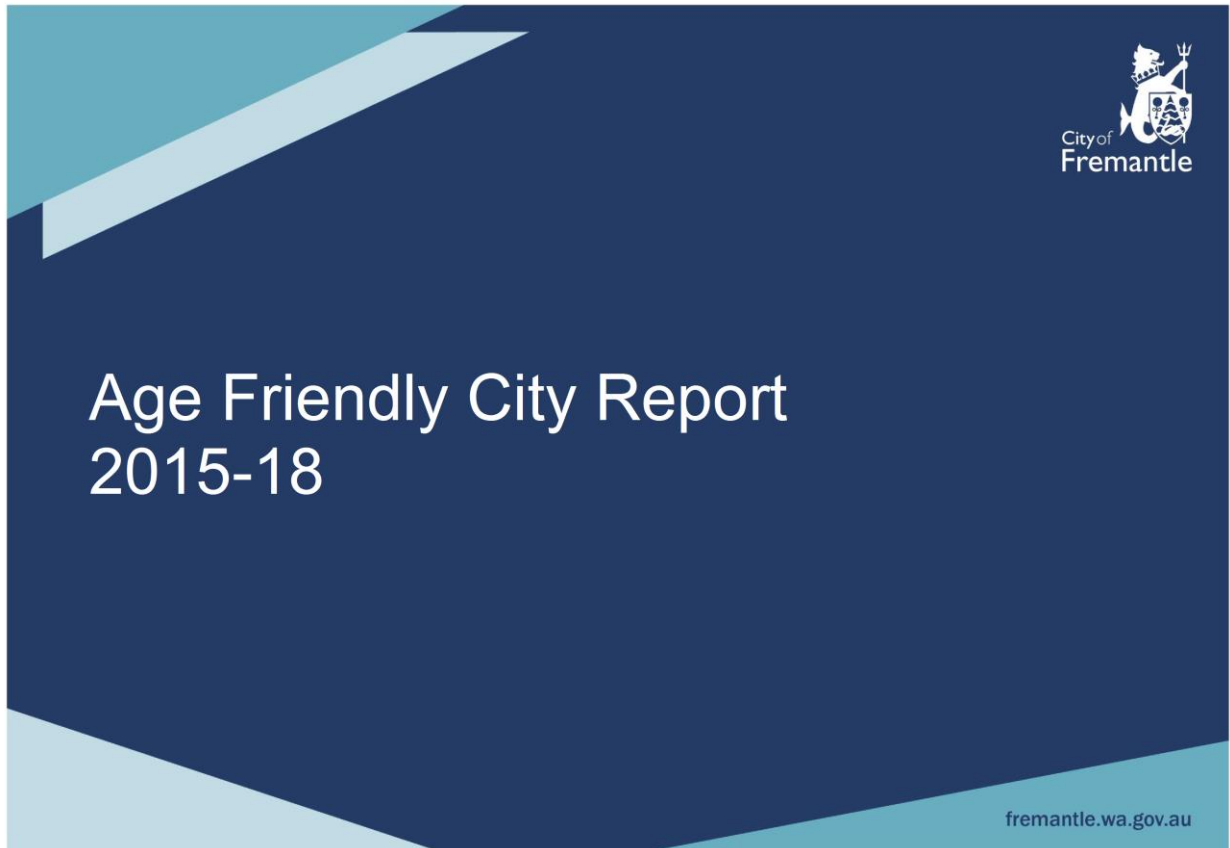
Wednesday, 10 April 2019, 6.00 pm

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FPOL1904-9 AGE FRIENDLY CITY PLAN 2019-2024

ATTACHMENT 1 Age Friendly City 2015-2018 Outcomes Report



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The strategies and actions are practical, realistic and reflective of the City's diverse role. The following has been implemented over a three year time period.

Strategic Action Area 1: Social participation	
Provide a range of lifelong learning activities that encourage older people to participate in community life.	
Action: 1.1:	Implement a program of activities and courses at various locations that encourage participation in arts, culture, and music.
Responsible officer	Community Development Officer Positive Ageing Officer
Outcome	<p>Wanjoo Welcome Lounge provides a centrally located space, adjacent to the library, providing:</p> <ul style="list-style-type: none"> • Free activities for 55 + • opportunity to be paid tutors • Volunteer tutors keep their skills relevant Promotion of Lifelong learning • Social inclusion <p>Wanjoo Lounge is staffed by up to 20 volunteers who:</p> <ul style="list-style-type: none"> • Welcome approx. 20 senior visitors per day • provide basic computer tuition • listen and share what the over 55 community are saying • Welcomed close to 50% male:female ratio according to visitor statistics <p>Approximately 40 people attended quarterly Positive ageing forums with topics including:</p> <ul style="list-style-type: none"> • Cyber crime • Secret Women's Business • Senior' Housing Options & Seniors Living today • Mobile Alerts • Financial Counselling and No Interest Loan Scheme • Elder Abuse

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Provide a range of lifelong learning activities that encourage older people to participate in community life.	
Action: 1.2:	Investigate options for the provision of community space within the Fremantle LGA for older people and community groups to meet.
Responsible officer	Community Development Officer Positive Ageing
Outcome	<p>Come and Try free activities, for over 55s are scheduled, four programs per year with a variety of options:</p> <ul style="list-style-type: none"> • Short, 4-6 weeks 'taster' courses, providing an opportunity to try something new and meet new people. • Weekly ongoing activities include: 12 – 15 ladies crochet and knit rugs for Kids in Wheelchairs 15-20 walkers meet as the Wednesdays, Social Walking Group Approx. 12 people gather for watching 1-1 computer tuition (volunteers) <p>Snapshot July 2016 to June 2017: 65 activities advertised resulting in: 630 participants, with a variety of topics/activities including 27 wellbeing, 15 recreational, 5 cultural, craft, 5 technologies, 4 positive ageing forums.</p> <p>Locations and venues involved in delivering activities: The Meeting Place, Library, The Fremantle Arts Centre, Walyalup Aboriginal Cultural Centre, Sullivan Hall, Fremantle Town Hall and North Fremantle Hall.</p> <p>Curious: Lifelong Learning Program runs quarterly and offers approximately 70 activities and learning opportunities each quarter.</p> <p>Curious adult programs and activities at the Meeting Place, South Fremantle and Fremantle Library include:</p>

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	<ul style="list-style-type: none"> • Social groups (10) - language learning, food, creative writing, textiles, music, craft, walking, book clubs. • Courses and workshops (9) provide skill development and learning opportunities in second languages, computing and getting back to work programs. • Community presentations (8), speakers, author talks, film screening and book launches. • Social support activities and groups (6). <p>80% of adult program and activity participants are over 55.</p> <p>The Meeting Place venue is accessible to anyone with a disability as the venue complies with access codes.</p> <p>The Fremantle Arts Centre offers:</p> <ul style="list-style-type: none"> • Four terms per year following the WA school calendar. • Approx. 100 courses on offer each term. <p>Over 55s made up approx. 60% of enrolments.</p> <p>Collaborations, for learning and meeting, with other local service providers include:</p> <ul style="list-style-type: none"> • Fremantle's Women's Health Care House • Tuart Place • Freo Men's Shed • Fremantle Multicultural Centre • Hilton Harvest Community Garden – providing a space for over 55s to connect with kids in an outdoor natural setting.
Provide a range of lifelong learning activities that encourage older people to participate in community life.	
Action: 1.3:	Provide programs that encourage older people to try new and different sports and participate in physical activity.

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Responsible officer	Community Development Officer Recreation
Outcome	<p>At least one physical activity provided during each bimonthly Come and Try program. For example:</p> <ul style="list-style-type: none"> • Freo Fit, six week sessions, 50% are attended by over 55 cohort • Chair yoga held weekly, 15 to 20 people attend • Gentle Flow Yoga, weekly session • Walking groups, independently driven • Yoga @ Arthur Head – 2014,2015,2016 – 25% seniors • Yoga at Davis Park – 25% seniors • Exer-gaming sessions

Provide a range of lifelong learning activities that encourage older people to participate in community life.	
Action: 1.4:	Investigate how the Fremantle Library can position the service to meet the needs of an ageing population in respect to resource capacity, program delivery and structural and space limitations.
Responsible officer	Steve McQuade – Coordinator, Lifelong Learning
Outcome	<p>The library has become a community hub where lifelong learning is embraced, it also provides:</p> <p>Homebound – delivery of books to residents on a weekly basis:</p> <ul style="list-style-type: none"> • Individuals visited: 18 • Aged Care facilities visited: 3 • multiple seating arrangements and wide access throughout the library to allow access • a fortnightly therapy dog visit • a copy, on request, of all Curious programs in a Reader Version • Author talks or community events accessible venues are used where possible and if not

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	<p>provide information on accessible formats.</p> <ul style="list-style-type: none"> Multi-Purpose room has allowed people using mobility aides to attend author talks and workshops. <p>Lunch time movies, documentaries showed weekly, sourced by Kanopy (on-demand) streaming service.</p> <p>Makerspace, quarterly events that are collaborative, intergenerational providing hands on learning and skill sharing, helps with critical thinking skills and boosts self-confidence.</p>
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Strategic Action Area 2: Community support and health services	
Assist people in Fremantle to age positively and actively by providing appropriate information and support to maximise health and wellbeing.	
Action: 2.1:	Facilitate the establishment of a network of Fremantle based aged care providers to improve communication.
Responsible officer	Community Development Officer Positive Ageing Officer
Outcome	<p>Positive ageing officer attends service providers' quarterly networking meetings covering the broader local government region.</p> <p>Networking with age care service providers to foster good communications and understanding their core work. Collaborative sharing of projects, for example, Dance Hall Days and the Garden Party Collective.</p> <p>Successfully transitioned Fremantle Home and Community Care Clients, in 2018, to Amana Living providing people with support to stay in their home longer.</p>

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	Positive Ageing Liaison Group assists with informing and co-designing programs and activities.
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Assist people in Fremantle to age positively and actively by providing appropriate information and support to maximise health and wellbeing.	
Action: 2.2:	Facilitate an annual over 55s healthy lifestyle forum which provides information to older people to navigate the aged care system.
Responsible officer	Community Development Officer Positive Ageing Officer
Outcome	<p>The expo is a collaboration between three councils – Fremantle, Cockburn and Melville. It provides opportunities for service providers, government organisations, sports and recreation, music, dance and wellbeing activities to be promoted throughout the local region.</p> <ul style="list-style-type: none"> 2016 Healthy Lifestyles EXPO for 55+ was held at the Fremantle Town Hall attracting 62 stallholders and at least 500 visitors. 2018 the Expo was hosted by City of Cockburn 2019 the Expo will be held at Melville Recreational Centre and in partnering with Seniors Recreational Council, an organisation that is recognised as the peak organisation supporting seniors' involvement in sport and recreation.

Assist people in Fremantle to age positively and actively by providing appropriate information and support to maximise health and wellbeing.	
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Action: 2.3:	Investigate how the Fremantle Leisure Centre can position the service to meet the needs of an ageing population in respect to resource capacity, program delivery and structural and space limitations.
Responsible officer	Leisure Centre Manager
Outcome	<p>The Leisure Centre pool is heated between 32 – 34 degrees; this pool is very popular with older people to assist in muscle and arthritic soreness.</p> <p>The Leisure Centre also provides:</p> <ul style="list-style-type: none"> • Discounted rates for the ageing population. • Specialised Fit beyond 50 programs for over 55's including: AquaRom, Seniors' Badminton, EasyMoves, Tai Chi, Liquid Tai Chi, ZumbaGold. • Specialised workshops for over 55's (Stay on your feet / Spinal health / the importance of movement at any age). • Ramps into swimming pool ease of access and egress • Pool program - warm water swimming pool ideal for therapy, water resistant exercises. • Specialised group fitness classes (Fit beyond 50) All of these classes are at a discounted rate \$7.50 per entry. • Free workshops every 2 or 3 months, some of which include: The importance of movement at any age (July) Spinal Health (May) • Currently in progress to have another free workshop in September or October to tie in with 'Stay on your feet' and 'Mental Health Week'

Assist people in Fremantle to age positively and actively by providing appropriate information and support to maximise health and wellbeing.	
Action: 2.4:	Support the provision of a range of services for older people in the Fremantle local government

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	area.
Responsible officer	Community Development Officer Positive Ageing Officer
Outcome	<p>In collaboration with Fremantle Library, Lifelong Learning and Community Development teams established <i>My Community Directory</i>. Activities and services for over 55s in Fremantle area are available online.</p> <p>Curious is a quarterly learning for life programme, showcasing courses, workshops, talks and groups that are running in and around Fremantle. Some courses or workshops are run by the community.</p> <p>Memory Café: social gatherings in a local café are held monthly for people with dementia, carers and family members. Alzheimer's WA is a supporting partner.</p> <p>Home Collection Service: Fremantle residents aged 55 and over can have selected unwanted household items collected from their doorstep for free. The City will collect whitegoods like fridges and washing machines, old mattresses, and e-waste like TV's and computers and take them away to be recycled.</p> <p>The City of Fremantle's 2016-2020 Access and Inclusion Plan outlines a strategic approach to improve access and inclusion for people with disability over the next five years. The actions of this plan will also benefit seniors, people with temporary injuries, disabilities and parents with young children in prams.</p> <p>The City has two beach wheelchairs available for free hire throughout the year – one at South Beach, South Fremantle and one at Bathers Beach. Both wheelchairs can currently be booked in advance or at the time if it is available for use.</p> <p>DADAA works through significant local and cross-sector partnerships that bring arts and health together in a way that effectively responds to the needs of communities. DADAA works in partnership for disability advocacy, accessible programming, digital inclusion, and research and</p>

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	evaluation.
Assist people in Fremantle to age positively and actively by providing appropriate information and support to maximise health and wellbeing.	
Action: 2.5:	Investigate opportunities for the installation of exercise equipment.
Responsible officer	Community Development Officer Recreation
Outcome	Fitness equipment installed at Booyembarra Park, Bruce Lee and Samson Park as these were identified as the preferred location. South beach has been identified as a preferred area and will be considered within the master plan. New play equipment in Bruce Lee is accessible

Strategic Action Area 3: Housing	
Ensure that there is provision of housing which is diverse and affordable to meet the current and future needs of the older people.	
Action: 3.1:	Facilitate the establishment of a network of Fremantle based aged care providers to improve communication
Responsible officer	Community Development Officer Positive Ageing Officer
Outcome	Attend quarterly meetings as part of the Melville Service Network Meeting as the majority of service providers cover Fremantle and the LGA region. The City's Home and Community Care service transitioned, with care and respect, nearly 100

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	clients to Amana Living so that clients could receive a wider variety of services. Positive Ageing Working Group: Established to support the ongoing Age Friendly Action Plan, service providers (4) sit on this group.
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Ensure that there is provision of housing which is diverse and affordable to meet the current and future needs of the older people.	
Action: 3.3:	Consider statutory changes to the local planning scheme to promote accessible and age appropriate housing
Responsible officer	Manager Strategic Planning
Outcome	Planning Scheme Amendment 49 (applicable to key strategic sites in the City Centre) incorporated a definition of 'affordable housing' in the scheme and made provision of a proportion of affordable housing within new developments a requirement where development bonuses are sought. Planning Scheme Amendment 63 (The Freo Alternative) proposes to allow new small infill housing in select locations within the City's suburbs where they meet a range of criteria. One of the bonus criteria relates to accessible (universal) design. The maximum size of dwellings permitted under this proposal is 120m ² . The City is awaiting approval from the Western Australian Planning Commission regarding a planning scheme amendment and a planning policy to guide this form of development. Development Plan 17 (Leighton) and Development Plan 20 (Sealanes site) incorporate a requirement for the local structure plan to "provide a variety of housing styles to achieve a social mix and affordable housing options"

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	Clause 4.3.4 of the scheme allows for the higher density in a split density coded area to apply where one of four criteria are met, one of which is 'provision of "low income housing"'.
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Ensure that there is provision of housing which is diverse and affordable to meet the current and future needs of the older people.	
Action: 3.4:	Establish partnerships with local community housing providers to enable the provision of affordable housing in large development projects and sites owned by the City of Fremantle.
Responsible officer	Manager Strategic Planning,
Outcome	Memorandum of understanding entered with Department of Communities in relation to Burt Street development site to include a proportion of affordable housing and a diverse range of accommodation types (including adaptable housing). Discussion occurring in relation to other potential sites.

Strategic Action Area 4: Civic participation and employment	
Create opportunities for older people to actively participate in the community through civic involvement and paid and voluntary work.	
Action: 4.1:	Develop and implement a range of mechanisms that enable the input of older people into City of Fremantle community engagement processes.
Responsible officer	Community Development Officer Positive Ageing Officer

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	<p>The City of Fremantle is currently reviewing its Community Engagement Policy. The draft policy is expected to be released for public comment in late 2018.</p> <p>Further training is also being undertaken September 2018 with regards to inclusivity (Inclusion Solutions) and creating accessible word documents (VisAbility).</p> <p>Volunteers provide a valuable contribution with ideas and forward planning of what's wanted and needed for older people. The Wanjoo Lounge is a 'shop front' with approx. 20 visitors a day. This provides an opportunity for good community engagement. It is staffed by 16 volunteers.</p> <p>Currently 10 volunteer tutors are providing their skills free of charge to run workshop/activities for the Come and Try activities and including 3 volunteers providing computer teaching.</p> <p>Community engagement projects out for comment are advertised through the Wanjoo Lounge communication channels, News Bites in the local paper and My Say website.</p> <p>The City of Fremantle supports community precinct groups, to encourage any community member to participate and take an active role in providing input into the operations of the local government. The meetings are open forums where anyone with an interest in their local area can attend and engage on a range of community issues.</p> <p>Fremantle Visitors Centre engage 60 Volunteer Ambassadors who provide a friendly face and local knowledge to ensure visitors are able to experience the best Fremantle has to offer.</p>
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Strategic Action Area 4: Civic participation and employment	
Create opportunities for older people to actively participate in the community through civic involvement and paid and voluntary work.	
Action: 4.2:	Support City of Fremantle older employees through flexible work arrangements leading to

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	retirement.
Responsible officer	Director, People and Culture
Outcome	<p>The City has a specific clause in its Workforce Agreement which provides for retirement purchase leave options. This strategy accommodates older employees considering retirement and supports longer-term employment and transition planning.</p> <p>The City's Recruitment Policy demonstrates a commitment to:</p> <ul style="list-style-type: none"> • Ensuring that recruitment, selection and appointment processes are contemporary and flexible. • Establishing a diverse and appropriately skilled workforce to deliver its strategic objectives and business outcomes. • Ensuring that recruitment, selection, appointment and remuneration processes, actions and decisions comply with the minimum principles of merit, equity, interest, transparency and probity and all relevant legislation. • Ensuring recruitment, selection and appointment practices comply with equal opportunity and diversity principles. <p>The objective in relation to diversity is particularly relevant as a diverse workforce includes mature age employees.</p> <p>The City notes a solid representation of employees aged 55 and above. This group represents 21% of the city's workforce.</p> <p>Flexible working arrangements form part of the workforce agreement and gives older employees opportunities to table requests which are considered against business needs.</p> <p>A mentoring program for older employees to develop transfer of knowledge framework that forms part of the workforce development plan as they transition to retirement.</p> <p>For best outcomes for all employees the City is working towards the introduction of Activity Base</p>

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	Working.
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Strategic Action Area 4: Civic participation and employment	
Create opportunities for older people to actively participate in the community through civic involvement and paid and voluntary work.	
Action: 4.3:	Support local organisations to recruit and retain volunteers through the Fremantle Volunteer Service.
Responsible officer	Community Development Officer Volunteering
Outcome	<p>The following statistics from 2016 and 2017 reports for the Fremantle Volunteer Service</p> <p>2016</p> <p>Fremantle volunteer Service</p> <ul style="list-style-type: none"> • Face to Face volunteer consultations; • 50-59 years - 130 people • 60 + years - 114 people • Community consultation with organisations servicing seniors (22) <p>2017</p> <p>Fremantle Volunteer Service</p> <ul style="list-style-type: none"> • Face to Face volunteer consultations • 50-59 years – 105 people • 60+ years – 117 people • Community consultation with organisations servicing seniors (31) • Promotion of volunteering in the Senior /Aged Sector • One Stop Shop (Promotion of Volunteering) • Photographic displays showing seniors volunteering (Fremantle Library and The Meeting place) • National Volunteer Week presentations (i.e. Kay Raymond speaking about volunteering seniors) • Women's Health Day

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	<ul style="list-style-type: none"> Seniors Week Promotion <p>2018</p> <p>New Volunteer Development Program</p> <ul style="list-style-type: none"> Increased marketing of volunteering in the senior sectors/aged care etc Increased support to Volunteer agencies servicing the aged care sector/utilising volunteers over 50's Seniors Week/Healthy Lifestyles Expo National Volunteer Week Social Media blitz profiling volunteers over 50 12 photoshoots of volunteers over 50 years – Social media sharing of their volunteering stories Cycling without Age Project
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Strategic Action Area 4: Civic participation and employment	
Create opportunities for older people to actively participate in the community through civic involvement and paid and voluntary work.	
Action: 4.4:	Implement a health and wellbeing program for all staff at City of Fremantle.
Responsible officer	Organisational Development Senior Project Officer
Outcome	<p>Each year the city runs a health and wellbeing program – the constant events are skin checks and flu shots.</p> <p>This year a more structured program was initiated. Each month we have a new initiative planned and all staff are encouraged to participate. 2018 program included: Leisure Centre discounted membership, Global Corporate Challenge, Fitness classes (Pilates & yoga), Mental Health sessions, Blood donation, Skin checks, Flu shots, Nutrition sessions, Fitness classes (boxing).</p>

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Create opportunities for older people to actively participate in the community through civic involvement and paid and voluntary work.	
Action: 4.5:	Improve volunteer opportunities at the City of Fremantle by developing and implementing organisational recruitment, retention and recognition processes.
Responsible officer	Community Development Officer Volunteering
Outcome	Volunteer Ambassador Program, manual, is being rolled out across all business units that have volunteers.

Strategic Action Area 5: Communication and information	
Provide accessible information on aged care services, health, finance, retirement, community groups and clubs in variety of formats.	
Action: 5.1:	Develop and implement a communication strategy promoting the services provided by the City of Fremantle
Responsible officer	Manager Communications and Media
Outcome	<p>Communication strategy developed and implemented. The City continues to promote its services, program and initiatives on a daily basis and alternative formats are available on request at all times.</p> <p>Videos produced by the City now include closed captions to make them more accessible for a broader audience.</p>

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Strategic Action Area 5: Communication and information	
Action: 5.2:	Upgrade the City of Fremantle website to ensure it meets accessibility guidelines set out by Vision Australia and the Disability Services Act.
Responsible officer	Manager Communications and Media
Outcome:	<p>The City continues to progress developing a new website which includes:</p> <ul style="list-style-type: none"> • Full WCAG compliance. • Resources have been allocated in the 2018/19 budget to provide for project planning and development. • The City continues to monitor the corporate website for accessibility issues and suggested improvements. • Scans are undertaken on a weekly basis to identify and fix broken website and document links and misspellings. • Recent improvements include a more user-friendly search engine to enable residents to quickly and easily find information relating to a rubbish collection and disposal. Scanning tools are also used to identify complex words and suggest simpler alternatives to increase the readability of pages. • All printed material and our weekly NewsBites ad column include a line that the publication is available in alternative formats on request. • The City also continues to have strict style guides for signs, ads and printed material that guide minimum font sizes. • Staff attended the Web Accessibility workshop and regularly they attend monthly Web accessibility meetups with a Digital Access Specialist.

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Strategic Action Area 5: Communication and information	
Action: 5.3:	Provide Fre-info – a community information service
Responsible officer	Community Development Lifelong Learning Coordinator
Outcome:	<p>https://www.mycommunitydirectory.com.au/Western_Australia/Fremantle This is a comprehensive online directory which provides information about what the community are doing and what is available.</p>

Strategic Action Area 5: Communication and information	
Action: 5.4:	Review the way information is provided by the City of Fremantle and ensure that it is available in a range of formats.
Responsible officer	Manager Customer Service
Outcome:	<p>The library has installed an Easy Move Machine for people with a reading or vision impairment.</p> <p>The City continues to provide flexible and accessible means for all people to communicate whether over the phone and TTY, online emails or face to face.</p> <p>Comments and complaints are being recorded and are mostly responded to by the City's Access and Inclusion Officer.</p>

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Strategic Action Area 6: Transportation	
Ensure that older people are able to move around their community easily through public and active transport.	
Action: 6.1:	Advocate to the State Government authorities to improve public transport for older people.
Responsible officer	Various officers have advocated for improved public transport over the last 3 years including working with state government on: <ul style="list-style-type: none"> • Train station access analysis (Fremantle and North Fremantle train stations) • Roll out of bus stop access improvements • Optimum bus route options and improvements (ongoing)
Outcome	Communications are sent to Transperth advocating improved public transport for older people. Transperth representatives attend annual Seniors' Expo Transperth provide up to date information on their website Transperth have an ongoing plan to improve public transport for older people. An annual survey of public transport passengers has revealed: <ul style="list-style-type: none"> • People are very happy with Fremantle's CAT bus services. • Transperth Passenger Satisfaction Monitor for 2017 shows Fremantle's Central Area Transit buses received a 98 per cent overall satisfaction rating. • Fremantle CAT passengers said they felt safe, thought there was plenty of space and information available and liked the friendly drivers. • Showed the Fremantle CAT was the second most popular way for people to get to work, only just behind the private car.

Ensure that older people are able to move around their community easily through public and active transport.	
Action: 6.2:	Continue to contribute to the funding of the Central Area Transit (CAT) Service to allow for easy

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	mobility around the Fremantle central business district.
Responsible officer	Infrastructure Traffic and Design Officer
Outcome	An annual survey of public transport passengers has revealed: <ul style="list-style-type: none"> • People are very happy with Fremantle's CAT bus services. • Transperth Passenger Satisfaction Monitor for 2017 shows Fremantle's Central Area Transit buses received a 98 per cent overall satisfaction rating. • Fremantle CAT passengers said they felt safe, thought there was plenty of space and information available and liked the friendly drivers. • Showed the Fremantle CAT was the second most popular way for people to get to work, only just behind the private car. • Some investigations into alternative Fremantle area transport completed with the findings showing that the current CAT service provides an excellent rapid bus service around town. • Current contract with the Perth Transport Authority ends in Oct 1 2022

Ensure that older people are able to move around their community easily through public and active transport.	
Action: 6.3:	Investigate and advocate for a light rail transport system in Fremantle
Responsible officer	Strategic Planning Senior Strategic Projects Officer
Outcome	Undertaken light rail route and options feasibility studies (as part of the South West Group of Councils) to advocate to state government. Preparing further advocacy information and documents for further advocacy works per Integrated Transport Strategy.

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Ensure that older people are able to move around their community easily through public and active transport.	
Action: 6.4:	Extend the network of footpaths around the Fremantle Local Government Area to encourage active transport Improvements to the existing footpath network through additional pram-ramps and wider median refuges where possible.
Responsible officer	Manager Infrastructure Engineering
Outcome	Continue to be reported on under the ongoing Footpath program.

Ensure that older people are able to move around their community easily through public and active transport.	
Action: 6.5:	Extend the network of bike only and shared use pathways to encourage cycling.
Responsible officer	Manager Infrastructure Engineering
Outcome	Continuous work is being undertaken in conjunction with the BUG and the Bike working group to ensure quality results in regards to improvements within the bike network. Continue to be reported under the Bike Plan.

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Ensure that older people are able to move around their community easily through public and active transport.	
Action: 6.6:	Promote walking and cycling trails in the Fremantle local government area to encourage walking and cycling
Responsible officer	Community Development Officer Recreation
Outcome	<p>Bike Week 2018 – 20% seniors</p> <ul style="list-style-type: none"> • Freo Street Art Rides • Freo History Rides • Light Me Up Ride – led by a senior volunteer <p>Bike Week 2016+2017 - winners of 2017 comp were both seniors</p> <p>Ride to Work Breakfast - 50% seniors</p> <p>Freo Walkabouts 2016- Group walking sessions held over the 4 weeks in October – 75% seniors</p> <p>CoF joined Your Move Campaign -2018</p> <p>Walking trail maps available online</p> <p>Walking Groups</p> <p>Improved footpaths at Bruce Lee and Davis Park to make the parks more accessible</p> <p>Improved shared use paths along Carrington St</p>

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Strategic Action Area 7: Outdoor spaces and building	
Ensure that older people have the same opportunities as other people to access the City's buildings, facilities, parks, reserves, playgrounds and beaches.	
Action: 7.1:	Identify areas in the Fremantle local government area where better seating and shading are required and develop and implement a schedule of works.
Responsible officer	Manager Parks & Landscapes and Manager Facilities and Environmental Management
Outcome	<p>As part of the age friendly initiative the following have been installed:</p> <ul style="list-style-type: none"> • New age friendly seats in various locations including Tuckfield Oval, South Beach, Leighton, Fremantle town centre, Port Beach, Fremantle Park, Griffith Park, Bruce Lee and South Terrace. • New equitable access ramps and hand rails including South Beach Basketball Court, Tuckfield Oval, Monument Hill, Fremantle Leisure Centre pool and Bathers Beach. • Provision of equitable access parking bays including Tuckfield Oval, Hilton Community Garden, Princess May Park, Cappuccino Strip car park, Fremantle Oval. • Inclusion of pram ramps and tactile paving on all road upgrade projects. • New equitable access footpaths including pram ramps and tactile paving on various public projects. • Provision of lighting in various locations including Tuckfield Oval, Cappuccino Strip car park and South Terrace. • City annually plants trees within Fremantle Town Centre and suburbs for provision of shade. • Provision of electrical charging station for mobility scooter outside the library

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Ensure that older people have the same opportunities as other people to access the City's buildings, facilities, parks, reserves, playgrounds and beaches.	
Action: 7.2:	Upgrade key community facilities to ensure they are accessible to older people.
Responsible officer	Manager Infrastructure Engineering, Manager Parks & Landscape, Manager Sustainable Services & Projects
Outcome	<p>The City provided for over \$8 million of accessible infrastructure works in 2017/2018. Capital works projects include:</p> <ul style="list-style-type: none"> • Footpath replacement program, new single use paths, installation of new street lighting on Fremantle's cappuccino strip, new footpath and pedestrian gate at depot, traffic calming and disability ramps between Lefroy road and Carrington and York Streets, Hampton Road widening of the median strips for wheelchairs and prams. • Installation of hearing loop in North Fremantle Community Hall for Council Meetings • Restoration and completion of refurbishment of the Fremantle Old Boys School. The heritage-listed building been given a new lease of life following \$2 million worth of renovations by the City of Fremantle. Local arts and health organisation DADAA, the Fremantle Foundation, CircusWA and PianoEasy now call the 163-year-old building home. • New park at Cantonment Hill was constructed with accessible ramps, BBQs and other infrastructure. • Pocket parks at Hilton and White Gum Valley have now been improved with grade ramps. • The refurbishment of Fremantle Oval building as part of the city's relocation project was significant, providing: accessible pathways, the construction of the cappuccino strip carpark with ACROD parking, including new accessible toilets and a lift. • The City also partnered with state government to improve local roads and pathways in the

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	Hilton Townsite.
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Ensure that older people have the same opportunities as other people to access the City's buildings, facilities, parks, reserves, playgrounds and beaches.	
Action: 7.3:	Improve pathways through the City of Fremantle to allow for easy mobility.
Responsible officer	Manager Infrastructure Engineering, Manager Asset Management
Outcome	Continue to be reported under the Footpath program and the Street Visions program. <ul style="list-style-type: none"> Footpath replacement program, new single use paths, new footpath and pedestrian gate at depot, traffic calming and disability ramps between Lefroy road and Carrington and York Streets, Hampton Road widening of the median strips for wheelchairs and prams. Universal access improvements at the new administration building and carpark A detailed footpath replacement and improvement program is being developed for future years

Ensure that older people have the same opportunities as other people to access the City's buildings, facilities, parks, reserves, playgrounds and beaches.	
Action: 7.4:	Identify night time pedestrian pathways and develop a schedule of works to improve lighting.
Responsible officer	Manager Infrastructure Engineering, Manager Asset Management
Outcome	The City will continue to report under the Footpath program and the Street Visions program. Installation of new street lighting on Fremantle's cappuccino strip

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Ensure that older people have the same opportunities as other people to access the City's buildings, facilities, parks, reserves, playgrounds and beaches.	
Action: 7.5:	Investigate the feasibility of a central business district security patrol.
Responsible officer	Manager Community Safety and Parking
Outcome	Community Safety Officers conduct security patrols of the CBD and surrounding suburbs using bicycles and vehicles and are on duty from 7.00 am to 9.00 pm, seven days a week. Particular attention is given to areas where anti-social activity is known to occur and the well-known dog exercise areas within the City's boundaries. The City's officers strive to be the first responders to anti-social or nuisance behaviour and low level criminal activity such as street drinking and shop lifting. Community Safety Officers conduct security patrols of the CBD and surrounding suburbs using bicycles and vehicles and are on duty from 7.00 am to 9.00 pm, seven days a week. Particular attention is given to areas where anti-social activity is known to occur and the well-known dog exercise areas within the City's boundaries. The City's officers strive to be the first responders to anti-social or nuisance behaviour and low level criminal activity such as street drinking and shop lifting. Nyoongar Outreach Service (also known as Walyalup Mort), is partly funded by the City of Fremantle and performs a vital role in reducing anti-social behaviour on our streets. The Nyoongar Patrol aims to reduce negative interaction and conflict between indigenous people with law enforcement agencies using mediation skills. The patrol provides free transportation out of the City to those that require it and offers referrals to other agencies when needed. The City has numerous ACROD bays to allow for easy and convenient access to ACROD permit holders. If a bay is unavailable, a permit holder is eligible to park in a regular bay, and remain for double time shown on the sign. Official disabled parking permits issued worldwide are accepted in

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	Fremantle.
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Strategic Action Area 8: Respect and inclusion	
Provide activities that promote positive images of older people of diverse cultures and increase community participation.	
Action: 8.1:	Celebrate the achievements of older people through a range of events, activities and media
Responsible officer	Community Development Positive Ageing Officer
Outcome	<p>Afternoon tea dances are held in the Fremantle Town Hall annually during Seniors Week <i>Between Wind and Water</i> theatre production. A collaborative project that started with the collection of stories from people connected to the Fremantle area. The stories were scripted into a theatre production and performed during Heritage Week. Paid actors and local performers. Over 700 people attended.</p> <p>Morning /afternoon teas are held in the Wanjoo Lounge, organised by volunteers for special occasions; Biggest Morning Tea, Remembrance Day, Seniors Week.</p> <p>Library programs and services have been inclusive of Seniors. Sessions have been:</p> <ul style="list-style-type: none"> • Inclusive of the over 55 age group, notably talks by a Vietnam veteran, and a notable former WAFL footballer. • Free hearing tests run during Disability Week. • Collaboration with the Wanjoo Lounge ensures some events held in the library are aimed specifically at seniors. • Tech Help Wednesdays sessions

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	Together with the City of Fremantle, the social enterprise Know Your Nation set up a recording booth in the East Room of Fremantle Town Hall over a four day period in September to immortalise the history of Fremantle. Stories and images were shared on websites. Participants were give a copy of the full audio and the photographs for their families to treasure.
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Provide activities that promote positive images of older people of diverse cultures and increase community participation.	
Action: 8.2:	Implement a range of initiatives that encourage intergenerational and cross cultural relationships.
Responsible officer	Community Development Positive Ageing Officer
Outcome	<p>The Meeting Place initiated the following activities:</p> <ul style="list-style-type: none"> • <i>Pop, Nan and Bub Rock - Come and Play</i>, an afternoon of fun and play in seniors week 2017 • Grandparents Playgroup in collaboration with Playgroup WA <p>The Garden Party Collective – activating micro communities: were trained to be community connectors and younger seniors were encouraged to design and run community, social events in their neighbourhoods. In total 9 themed events reflected each unique location.</p> <p>The City worked collaboratively with community organisations to facilitate Fremantle Women’s Health and Wellbeing Day 2017.</p> <p>Homelessness week: Couch Conversation event was supported by the City working in conjunction with St Patricks.</p> <p>Walyalup Aboriginal Cultural Centre schedules five programs a year, based on the Aboriginal season. Over 55s have the opportunity for cultural changes and join in activities to appreciate the land, the area and history.</p> <p>The City has been on a reconciliation journey since 2000 and is committed to increase respect,</p>

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	foster relationships and develop opportunities for Aboriginal people. Given this commitment and the range of initiatives undertaken, Reconciliation Australia has advised that the format of a Stretch RAP would be most appropriate for the City of Fremantle and this journey started July 2018.
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Provide activities that promote positive images of older people of diverse cultures and increase community participation.	
Action: 8.3:	Provide educational opportunities and workshops for older people that enable access to new technologies
Responsible officer	Community Development Positive Ageing Officer
Outcome	The Wanjoo Lounge has 3 volunteer tutors who provide one-on-one tuition. The Library computers are available for public use. All Things Techno is a Come and Try activity where seniors can bring along iPhone, iPad, laptops or camera and senior students from CBC provide individual learning support as an after school activity.

Provide activities that promote positive images of older people of diverse cultures and increase community participation.	
Action: 8.4:	Provide opportunities for older people to contribute to the delivery of City of Fremantle run services through community reference groups and other community engagement mechanisms.
Responsible officer	Community Development Positive Ageing Officer
Outcome	Presently there are 16 volunteers plus 10 tutors currently providing their skills free of charge to run workshop/activities plus 3 providing computer teaching. Volunteers provide a valuable contribution with ideas and forward planning of what's wanted and

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	needed for older people. Wanjoo lounge has approx. 20 visitors a day. This provides an opportunity for good community engagement. Community engagement projects out for comment are advertised through the Wanjoo Lounge communication channels. The City has established a Terms of Reference for an Age Friendly City working group to establish the next AFC plan. Other working groups being established are: Aboriginal Reconciliation and Access and Inclusion to assist with community engagements. The City implements a Community Satisfaction Survey every two years.
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Provide activities that promote positive images of older people of diverse cultures and increase community participation.	
Action: 8.5:	Implement customer service charter
Responsible officer	Manager Customer Service
Outcome	Manager of Customer Service and Visitor Information is reviewing the customer service charter to implement improved standards, commitments and quality service for the interaction with our customers.

Provide activities that promote positive images of older people of diverse cultures and increase community participation.	
Action: 8.6:	Implement and monitor customer service management system improvements and upgrades
Responsible officer	Manager Customer Service

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<p>Outcome</p>	<p>Improvements and enhancements are continuous and ongoing.</p> <p>All requests for service are created into a work order called CRM, the customer is given a reference number and expected service level for request to be completed. Team allocated the jobs will make contact with customer if the job is not completed within the expected service level.</p> <p>Parking permits are going virtual/online by Jan/Feb 2019 reducing costs and the need for customers to come into the admin building.</p> <p>Call centre operators take requests via phone reducing the need for the customer to write in to the City. All calls are recorded so verbatim details can be retrieved if required.</p> <p>Call centre operators process payments direct over the phone reducing the need for the customer to visit the admin building.</p>
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ATTACHMENT 2 Age Friendly City Plan Community Engagement Report



Community Engagement Report

March 2019

Alternate formats available on request.

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I. Introduction

The City of Fremantle is committed to being the most positive place it can be for our over 55 community and is a registered age friendly city through the World Health Organisation (WHO) Global Network.

According to the ABS the median age in Fremantle LGA is 41.4, higher than the WA average of 36.6. There are 9,568 residents aged over 55, 31.2% of the population (compared to 25.3% in WA)¹. The English proficiency of persons born overseas is high at 93.2%, compared to 88.7% in wider WA.

WHO state that our environments “play an important role in determining our physical and mental capacity across a person’s life course and into older age and also how well we adjust to loss of function and other forms of adversity that we may experience”².

The WHO age-friendly cities guide highlights 8 interconnected domains that cities and communities can address to better adapt to the needs of older people:

- The built environment
- Transport
- Housing
- Social participation
- Respect and social inclusion
- Civic participation and employment
- Communication
- Community support and health services.

In late 2018 City staff were supported by an external consultant to carry out community engagement for a new Age Friendly City Plan covering 2019-2024. This report summarises the approach and ‘what we heard’ via the community engagement.



¹ ABS. Fremantle LGA.

stat.abs.gov.au/itt/r.jsp?RegionSummary®ion=53430&dataset=ABS_REGIONAL_LGA2017&geoconcept=LGA_2017&maplayerid=LGA2017&measure=MEASURE&datasetASGS=ABS_REGIONAL_ASGS2016&datasetLGA=ABS_REGIONAL_LGA2017®ionLGA=LGA_2017®ionASGS=ASGS_2016

² WHO. Age Friendly Environments. <https://www.who.int/ageing/age-friendly-environments/en/>

2. Community Engagement Findings

Phase one engagement was carried out from 8 November to 9 December 2018 to tie in with Seniors Week. A range of both face-to-face and online engagement methods were used and approximately 150 stakeholders and community members were involved. Overall, key themes were:

- Communication and information
- Social participation
- Transport
- Health and community support
- Safety
- Respect and inclusion
- Physical exercise

Stakeholder Consultation

As well as community members identified as key champions, one-on-one consultation included representatives from: Alzheimer's Western Australia; St Patrick's Community Support Centre; Amana Living; Aegis Care; Foundation Housing; Fremantle Volunteer Heritage Guides; Fremantle Multicultural Centre; City services Buster the Fun Bus, the Walyalup Aboriginal Cultural Centre, Leisure Centre and Community Legal Centre.

The top priority for stakeholders is **communication and information**, with transport a secondary priority.



Informal Events

The following free community events or activities were held during Seniors Week and incorporated into the engagement:

- Wanjoo Lounge (over 55 drop in centre in the Fremantle Library)
- Memory Café (for people with Dementia and their carers)
- Fremantle Makerspace event at Fremantle Library
- Couch Conversations at Café Lumos White Gum Valley & The Meeting Place South Fremantle
- Hilton PCYC Senior’s Week Walyalup Kannajil (Noongar singing event).



Two social media posts promoting these events reached a combined 2,700 people.

One-on-one visits to clubs or activities were carried out at:

- Cultural clubs (Fremantle Italian and Portuguese clubs)
- Fremantle Knitting Group
- Amana Living KITES program (community bus outing)
- Sporting and Recreational groups
- Hilton Community Garden
- Fremantle Community Men’s Shed
- Samson Precinct Group (opportunity communicated to all precinct groups).

The top four priorities for community members are **communication and information**, social participation, transport and health and community support.

Surveys / My Say Freo

The survey welcomed input from those who live in, visit, work or volunteer in the City of Fremantle, as well as carers and service providers. The survey was offered online on My Say Freo to reach those unable to attend face-to-face events or as a hard copy collated and entered by City staff. The survey was designed to be robust enough to gather the data for WHO’s eight interconnected domains of urban life, as well as being meaningful and as easy to complete as possible. Alternate formats were available and National Relay Service, Translating and Interpreting Service information was provided.

- The survey was promoted via the My Say Freo newsletter and Working Group.

- Over the phase one project period the My Say Freo page was visited by 342 people, 119 of these read or downloaded event information or documents. In total 78 surveys were completed, 56 online and 22 hard copy.
- Average age of respondents (over 55 years) was 69 years of age, with almost twice the number of females.
- 78% live in, 31% visit and 19% work or volunteer within the City of Fremantle.

Key findings:

- The cohort reached is already engaged in community life- 82% had attended an event, activity or club in the City of Fremantle in the past six months. Of those interested, 78% find it easy or average to socialise, meet new people or participate in activities in the Fremantle community and 87.5% find it easy to find information about events and activities happening in Fremantle.
- 51% currently live in a separate house but if their needs change only 20% feel they can access the type of housing they need locally. The remainder can't or aren't sure.
- 5% of respondents expressed difficulty going for a walk in their local Fremantle area (to get fresh air or visit a park).
- 14% of respondents expressed difficulty going for a walk in the Fremantle city centre (easy or average for the remainder).
- Doing errands, shopping or visiting family and friends in their local Fremantle area is difficult for 20% of respondents. The same tasks in the city centre are difficult for 24% of respondents (easy or average for the remainder).
- Accessing public transport is difficult for 11.5% of respondents (remainder find it easy or average).
- Easy access to public transport, parks, shops (and the ability to walk to most of these) were commonly mentioned as positives, and Esplanade Park is a favoured destination for over 55's from all suburbs. Resident parking permits were also a positive.
- Areas frequently mentioned for improvement were footpaths, pedestrian crossings, lack of public toilets and grocery shops, accessibility for the vision impaired, extending the CAT bus service and the cost of Leisure Centre membership.

Key themes about what an age friendly city means - respect and inclusion, intergenerational, transport, social participation, health and community services.

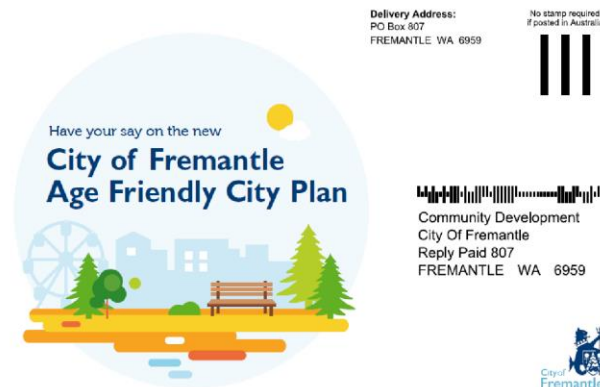
Key priorities for ageing were- health and community services, physical exercise, transport, social participation, finance. Important services to over 55s are the Fremantle Leisure Centre, Fremantle Volunteer Service, the Wanjoo Lounge and The Meeting Place.

Alternate formats were offered and National Relay Service, Translating and Interpreting Service information was provided.

Postcards

Offered a 'light, quick' way to participate in the engagement and were reply-paid. Using community networks these were distributed with prescriptions via local pharmacies and 47 postcards were returned, with males and females evenly represented.

- Over half of respondents live within the City of Fremantle, four identified as homeless, one an overseas visitor and the remainder live in surrounding suburbs.
- Key concerns were transport, safety, social participation and respect and inclusion.



Age Friendly City Plan Working Group

The Age Friendly City Plan working group consists of community representatives, service providers, the Mayor and Elected Members. They guided the plan development and met throughout the process, reviewed and discussing engagement in phase one and two. Representative expressed a keen interest to be involved with further community engagement projects that were link to positive ageing in the city.

Feedback on the Draft Plan

The draft plan incorporating engagement input was available for feedback from 22 February to 19 March 2019, both on My Say Freo and in the Wanjoo Lounge. There were 143 visitors to the page on My Say Freo, 65 people downloaded the draft plan and 10 people providing feedback. No hard copy responses were received. The Age Friendly City Working Group also reviewed and discussed the input received.

Key comments were received on every domain area except communication and were minor changes which were incorporated where possible. General comments received were mostly that the plan covered positive ageing in Fremantle well.

3. Next Steps

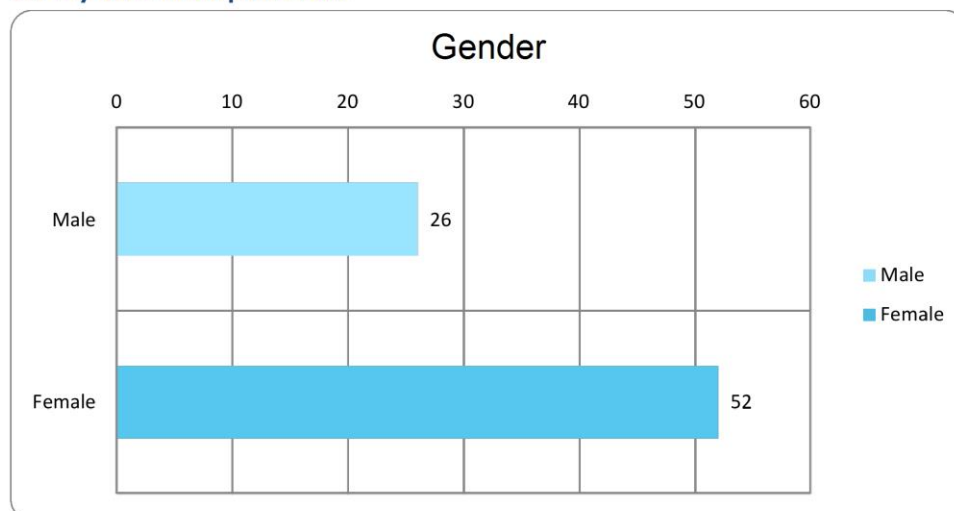
The engagement findings were analysed against the eight interconnected WHO Age-friendly Cities domains and used to develop actions for the Age Friendly City Plan 2019-2024. Participants were updated as the plan progressed and feedback on the draft plan was incorporated.

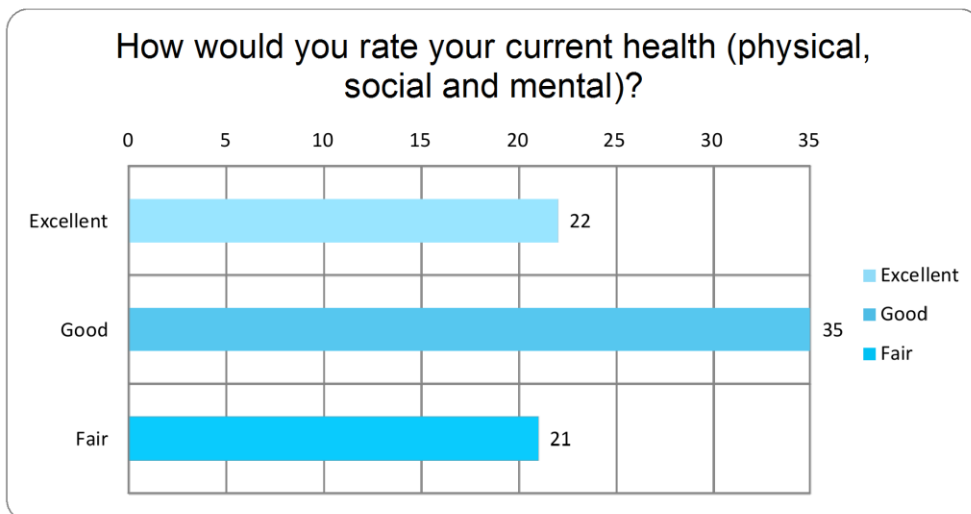
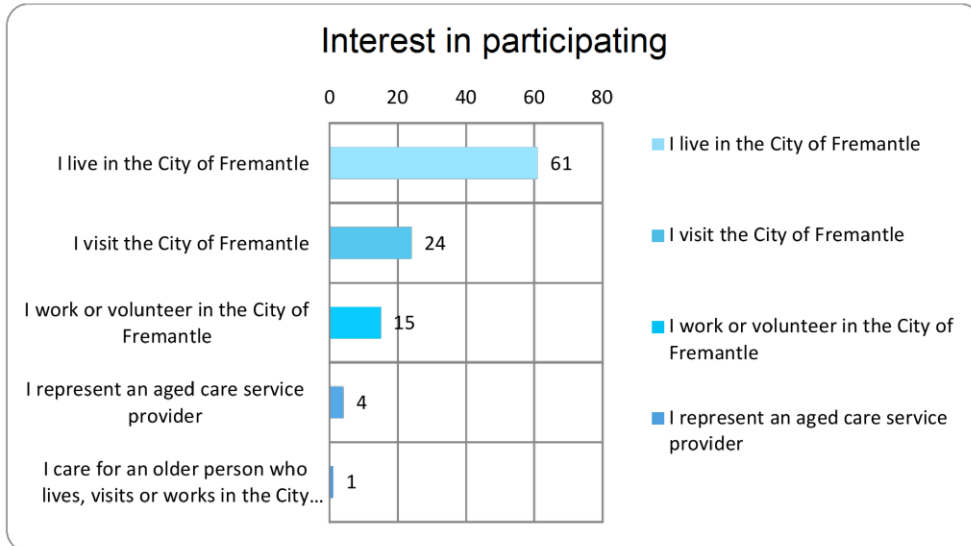
To foster age friendly planning across the organisation the findings, final plan and an internal implementation plan will be shared. The plan will be integrated into operations used to inform other engagements where relevant.

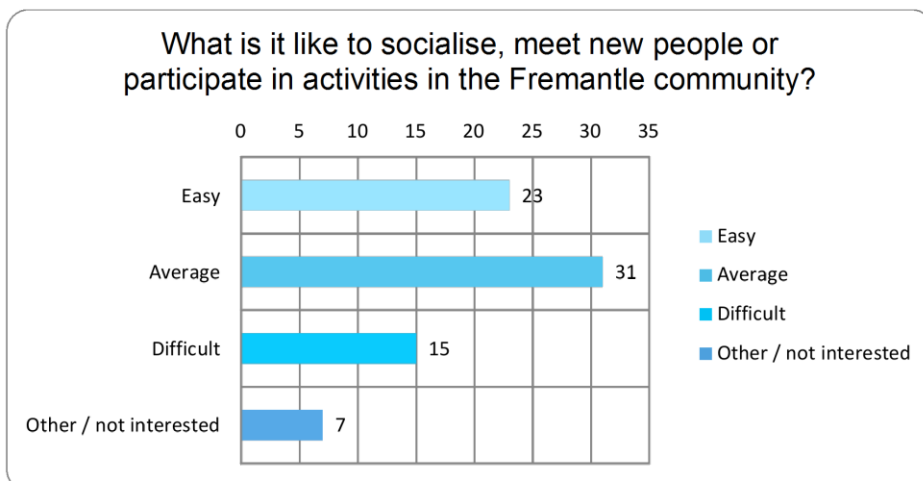
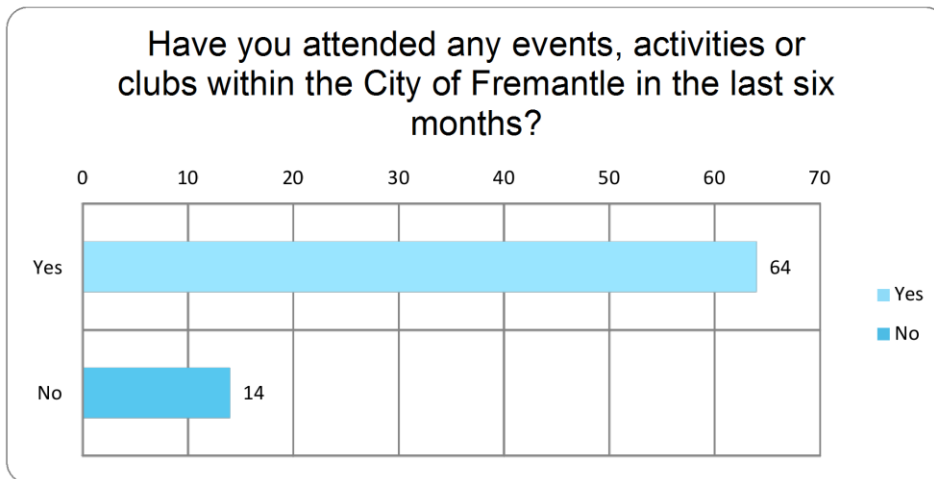
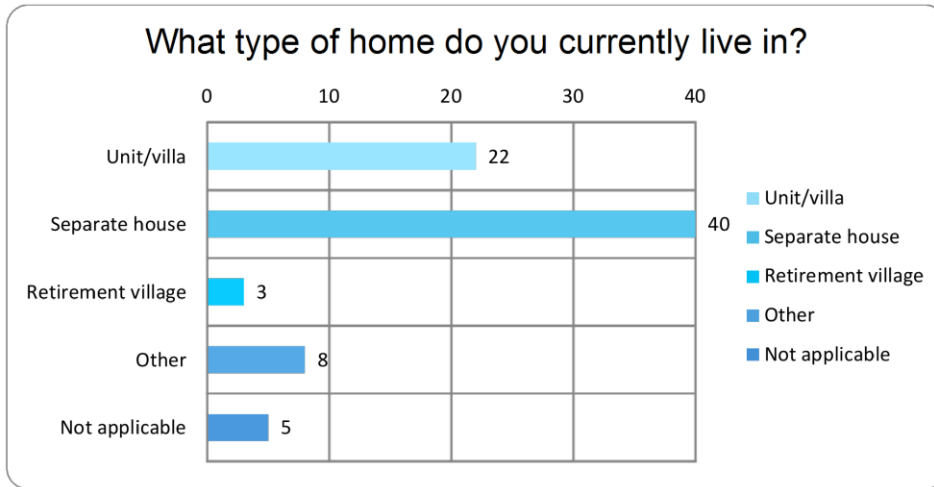


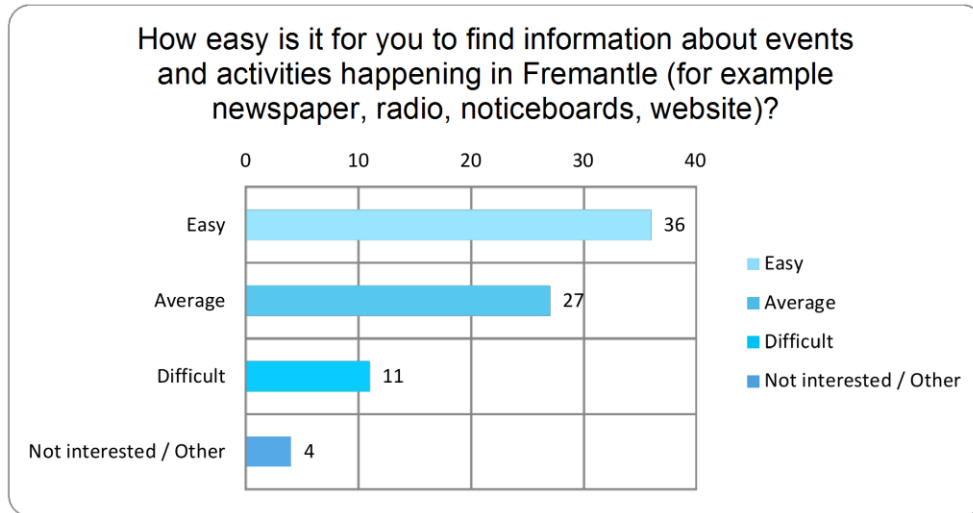
4. Detailed Comments and Responses (Unedited)

Survey data from phase one









What does an age friendly community mean to you?
Intergenerational community where seniors are valued for their contribution to society and services cater for accessibility for seniors.
Public transport Free parking and not just between 9-11am and a limited time in the afternoon Free or much reduced fees for activities which support good health. I have just paid almost \$700 (including reduction) as a member of Fremantle Leisure Centre. On a pro rata basis this doesn't sound too bad but if citizens are doing their best to keep fit and health, the Council should support this
Being safe
Respect for the difficulties encountered as we age. Ample seating in shade so low mobility people can rest when they need to. Discrete signs reminding people that they need to relinquish their seat if an aged person wants to sit down. Minimise curbs and ramps. An outside cafe styled community centre in St. John's square giving a view of the children's play areas. In other countries I've seen beautiful places for the mobility impaired to enjoy being part of the community, watching and interacting with the general community not being shut away in an isolated building.
Somewhere that is not too overly focused on aged services - that would be a retirement village - no thanks! A community where young people have a big presence and where the presence of older people is respected.
It just means a friendly community overall - regardless of age - public transport operators, shop assistants, Council staff, etc. I don't understand the need for an 'age friendly' distinction. A community is either friendly or not - age should have nothing to do with it.

Friendly neighbours keeping in touch with each other.
A map of where the toilets are - with opening hours
I want to keep living here, so supportive services, plus social events may be required. Amenities such as library within walking distance. Services such as unwanted goods being collected are good for older people.
Speaking as myself, a resident (not as my Pop, a visitor) an age friendly community seems to be just another perspective of an accessible community. Many of the infrastructure design features that we attribute to age provide benefits for everyone. I am hoping to stay in the area as I age. I would like a city that provides a more diverse range of housing types, so that people aren't trapped in high maintenance detached houses that are totally car dependent. An age friendly community, for me, would provide access to the basics - fresh food, natural environment, social connection, health services, etc - within easy walk, cycle or bus ride. The buses would be frequent enough to allow spontaneity and freedom of movement for those who aren't driving. Cycling wouldn't be an extreme sport only for the fearless or desperate - it would be normal for 80 year olds to tootle down to Bathers for fish and chips. An age friendly community would re-empower the aged, and indirectly empower those that are currently caring for them. In designing an age friendly community we would also consider the intersecting needs of people with disability, people on low income, children and students, Indigenous Australians, women and other marginalised groups. As an example, women are outliving men, and are traditionally on lower incomes (if any), so any ageing issue is also a feminism and social issue too. I believe Fremantle has the right attitude to all of the above and this is a large part of why I moved here this year. Thanks for asking :)
Nice and quiet.
Accessible, appropriate programmes for working and non working seniors. Social, physical and intellectual programmes both gender and non gender specific.
Mostly Fremantle is
It would be fair to say that Fremantle has not so far been particularly age friendly, is it about to change?
Although it is great that retailers are increasingly donating food to organisations like Foodbank, it seems that is actually taking discounted food away from Freo seniors to give to other suburbs and communities, ie, they no longer have large discounts on outdated stock. Woolies and Coles prices for fresh food is so heavily inflated, a 10% discount only benefits the affluent. The Leisure Centre likewise is very expensive, nearly \$1000pa, and when you get injured, because you can't predict them or know how long they will last they don't refund/extend membership, yet prices rise each year - I suspect it is funding too many chiefs, too tall a mgt hierarchy for such a small LA and Leisure Centre.
People of all ages are welcome - age is no barrier. Universal accessibility to buildings and good pathways connecting destinations. Older people are well catered for and encouraged to be part of the community. Seniors specials and discounts are available and free public transport for seniors.
All ages able to access and enjoy community amenities.

<p>It is significant for the sense of connection and safety and mental/physical health. I really appreciate the free events and courses, the catbus and a real sense of belonging. I also enjoy hubs focused on other age groups i.e. the skatepark, to get the sense we are living in an age diverse community. That is really important for that sense of connection to all. I would hate to be cut off from the community and thrive on giving as well as receiving social connection.</p>
<p>easy access and enjoyable</p>
<p>" Being able to Sleep when I want and Wake up early now that I can!"</p>
<p>Neighbourhood gatherings can be assisted means you can be less lonely , something to share with socialise.</p>
<p>Included, Safe and Affordable</p>
<p>People Helping People</p>
<p>Electric Plug for Gophers Buses with Ramps Having a Place similar to Wanjoo Room & The Meeting place</p>
<p>Aiming at the lowest Denominator person Physically but also caters for young people as well.</p>
<p>Much Improved Footpaths</p>
<p>Firstly I think of pension age people and their needs . But it should be for all ages in the community.</p>
<p>Bring able to access facilities and entertainment without feeling threatened. Not having to negotiate drug addicts and drunks in the course of living through a normal day. Feeling secure both out and at home.</p>
<p>accessible pathways, range of media for information, information provision not reliant on private access to internet or on good internet connectivity, well maintained walkways, accessible public toilets, noise reduction in central Fremantle eg traffic noise and construction noise, drinking fountains, rubbish bins available, seating areas in public spaces, internet kiosks</p>
<p>A place where independent of age, members of the community are free to participate and interact freely on a daily basis. A place where people living with Dementia and their carers can access services and participate with dignity within the community.</p>
<p>Ease of getting around, able to meet like minded people or able to get on with what I want to do with the minimum fuss</p>
<p>Feeling valued , knowing that services are available for residents to make living in our suburb a pleasant experience.</p>
<p>A community providing events & activities for older people to join in including events with active activities. Not just morning & afternoon teas but fun activities & outdoor events that are inclusive for active over 65's singles.</p>

<p>Age friendly needs to take into account Dementia friendly as well - not just age friendly. This means having quiet times for shopping so people with dementia don't become overwhelmed; consideration of their spatial and visual considerations; even pavements; training for shop and cafe owners so they don't mistake dementia for aggression or other misunderstandings. There are many other aspects that can enhance the lives of those living with dementia and their carers.</p>
<p>A community that is accessible for all people of varying abilities - one that I will be able to access despite physical or cognitive changes as i age. Services need to be made known and readily available, with friendly, trained staff who are able to communicate and support people with for example, disability and dementia.</p>
<p>Providing friendly, age appropriate services such as dancing, reasonably priced meals, exercise, yoga etc. etc. within a reasonable walking distance of the city centre. Providing shady seats around the town to enable us to have a rest when needed, including the Skate Park so that we can bring our Grandchildren and watch them in comfort.</p>
<p>Somewhere where you feel safe and comfortable.</p>
<p>It means that my kids can meet older people as we do not have family around us being from Europe.</p>
<p>Easy and flexible public transport options. Parking available for those requiring homecare. Good and accessible medical services. Decent footpaths and easy access/egress to and from footpaths. Wheelchair accessible eg ease of use of wheelchairs on paths, accessing parks, accessing the beach etc Universal access public toilets. Also adequate funding by the City of Fremantle in this area - does the Council have a fixed allocation to service this area? If so how does it compare to other councils? To best practice? What is the Council doing about "ageism"? Does the Council have a position on "healthy ageing"? Does the Council have a position on enabling the autonomy of elderly residents? What is the Council doing about increasing aged care facilities in the local area?</p>
<p>Friendly people</p>
<p>It means having a full range of activities that are accessible and affordable on reduced income</p>
<p>Safe and Accessible environment for Both young and old. Footpaths that are easy to Navigate with shade and places to sit. Events that are all ages not just for the 20-30 year old or children.</p>
<p>To me age friendly community means being accepted for who you are regardless of age. I find that I have friends of all ages in Fremantle and love the mix of young and old at social events. I am able bodied and I might feel differently if I was disabled - at any age. I think it is very healthy for older people to mix with younger people to keep a positive outlook on life in general.</p>
<p>It means catering to the future demographic and being fully inclusive for them. It also means not converting land that was vested by the Govt for aged care into a car park just as happened with Stan Reilly. This should have been developed into a world class aged care, retirement and respite precinct.</p>

<p>Access to shops and medical facilities and public transport are essential, and we have that in Beaconsfield. Would like to see a better range of shops in Freo centre, more interesting shops, less noisy cafes and restaurants. Make a public transport visit worthwhile. There are good facilities for exercise for retirees and these need continued support. Do you have a Visitor's Centre? If not, Why not? An interesting one, history and all. Not just brochure stands.</p>
<p>One where older people can have all their needs met in their area. Our precinct is perfect in this way apart from lacking housing for older people. So many of us in our 60s, 70s and 80s want to 'age in place' and there is no suitable development in our precinct. Yet there is so much development happening in Quarry at and Queen Victoria St for example. [Arts Centre Precinct].</p>
<p>Living in a neighbourly community. Knowing your neighbours and being known by them. Having good access to services -- health, shopping, banking, library. Feeling secure. Having 'joining' opportunities -- choir, gardening, sport ...</p>
<p>a safe community a place where people of all abilities can mix, meet other people, feel accepted & able. feel comfortable & confident that the physical and social environment is inclusive, safe, and easy to do whatever I wish to do; including walking on even clearly marked surfaces, traffic lights that are pedestrian friendly with accessible & appropriate crossings & signals. Enabled to participate easily in activities and decision making processes.</p>
<p>Accessibility</p>
<p>Ease of access to social and cultural events. Sometimes deterred by parking.</p>
<p>People of all ages living in peace and harmony being able to know your neighbors on a first name basis</p>
<p>It would encourage my husband and myself to spend more time in the City of Fremantle if parking improved and more parking made available for Seniors</p>
<p>More street seating. Signs showing what points of interest are down city streets. Non trip pavements (continuous surface rather than pavers). Street market/s (too many cafes and dress shops).</p>
<p>A good cross section of ages, people walking by who always acknowledge you, facilities that you can walk to without driving. (as you get older perhaps using gophers) being able to walk is important to exercise and maintain mobility to maintain self worth. Ready access to leisure and health facilities. having a pet friendly environment which is important for older people so they have interests outside of themselves. A sense of community</p>
<p>Treating old people as valued members of the community. Not putting old people into silos.... much better to mingle old and young.By choice- not by fiat.</p>
<p>Being active, socialising. Having the local government care about people as they age. Making it more accessible and inclusive. As mobility decreases there needs to be support, people looking out for each other & caring.</p>
<p>A caring and compassionate community, culturally diverse and colourful, recreation areas, good public transport inc free and subsidised, good health services that are affordable, seniors card that can be accessed at age 60, health care card available to working poor not just welfare recipients, no sexual harassment of women on the streets, drop-in centre with toilets, internet kiosk and water fountains, one which values and respects Elders , disability friendly</p>

Makes a great difference to one's mental well-being to have an age friendly community & in our part of a very long street for the first time in 28 years all the houses are owner occupied instead of renters - massive difference. Also they are predominantly mature-aged and thus we share the same standards/values & are on the same wavelength! We all lead very busy separate lives (yes most retired people dont sit watching daytime TV whilst waiting to die) but do have time to communicate with one another, sometimes share a cuppa, swap plants, offer assistance & enjoy a good laugh.
Having an intergenerational community where respect between age groups is mutual. To have a designated meeting place for elders of community that other age groups can access via its members . Other councils provide senior centres which incorporate spaces for agencies and transport / meals. Isolation is a huge factor amongst elderly and limited funds to socialize so a central hub with easy access to services is essential.
everything
A quiet place to enjoy company. games tables food available able to meet family.
easy access to public transport
friendly people
Companionship Socialising.
my needs are expressed and tracked into account.
Somewhere comfortable to meet up with friends and have activities to keep fit in Bolt Body and mind.

Phase two feedback (organised by domain)

I. Social participation

- Under 1.2 would it be worth including "or other forms of physical activity" after the word, 'sports'?
- The city needs to take care & thoughtful thinking into making Freo a good place for oldies. Make more opportunities to get people out their houses, break social isolation & have more happening with come and try activities. I think my contribution focussed on making better use of activity based facilities, memberships that cover more than one organisation. CoF can't be all things to all, so work with other orgs so that a wider cross section of ratepayers can use the full range without having to have multiple memberships, beyond the financial reach of most older people.
Note: The original comment was related to cost of FLC membership and cross over with Hilton PCYC.
- Need to facilitate ways for neighbours and friends to support/ check in on people with distant families and other risks. Even with good neighbours, scheduled phone

calls and call buttons, I know of at least 3 incidents where people have fallen in their home and not been discovered for over 24 hours.

2. Community Support and Health Services

- Under 2.1 I wasn't quite sure if this was networking between the City and the aged care providers. If so, would it be worth emphasizing the purpose by saying it upfront, e.g. "Improve communication between the City and Fremantle-based aged care providers by offering opportunities for networking meetings"

3. Civic participation and employment

- Under 3.3 Would it be worth adding "on a paid or voluntary basis" after 'to share their skills and knowledge'.
- Civic Participation and Employment refers to volunteering but not much about paid employment which with the raising of the pension age, 55 - 70 year olds will still need. Promote 'silver mining' for paid work not (just) taking advantage of older people's skills for nothing.
- I would like to be considered for involvement with the implementation plan on a voluntary basis. I have worked in aged care both as a Registered Nurse and Manager of Nursing Homes, and a Hostel and feel I can now make a contribution to our older citizens living in the City of Fremantle.
- Engage older people to help inform staff make progress. How about an ongoing Ref group? Using the skill & knowledge of experience is an asset not to be missed.
- Day time think tanks could both serve to help older people to be involved as well as bring a different view of issues. However, CoF often doesn't involve any public involvement until they have so much skin in 'their' solution, that no one is going to budge them. Involvement is needed at the divergent stage of problem solving rather than only the converging, filling in the detail type thinking.

4. Communication and information

Discussion at working group – The need for ongoing communication, even though it may seem repetitive there are always new people entering the positive ageing category so it is new information to them. Finding ways to pass on information on the age care system as there is consensus that there are difficulties navigating this. It should also focus on the children of older people as they are often involved in finding information and organising services. Focus on getting the information and system in place before it is actually needed. Amana keen to continue involvement in this area.

5. Outdoor spaces and buildings

- Under 5.1 includes "better seating". This has been of concern to me as a Freo resident in recent years. Seniors are encouraged to walk more for exercise, but do need to have the occasional rest. One place that needs more seating is Esplanade Park, for example along the pathway from Marine Terrace to near the "Wheel" and Little Creatures. In some European cities this would be lined with benches. Younger people can sit on the grass, of course, but when you're old it's just too difficult to get up!

Discussion at working group – general discussion around adequate seating perhaps within a set distance to ensure there are enough rest stops.

6. Respect and Inclusion

- I think the plan should make it clear that many of the attributes of an age-friendly environment are also attributes of great places for facilities, children, people with disabilities and the broader population. Older people should not be considered in isolation.

7. Transportation

- 7.2 The references to CAT services need to pick up areas such as Swanbourne St and Knutsford precincts which are poorly served by PT but too far to walk/cycle for some less ambulant people. This issue was also raised some years ago in the forming of the Integrated Transport Strategy.
- 7.4 Perhaps add reference to mobility scooters etc? E.g. "Encourage mobility and social connection by promoting trails for walking/cycling/or access by mobility device in the Fremantle local government area."
- Get the CAT bus to travel around the bridges for the elderly living in North Fremantle. Crossing into North Fremantle via the Stirling bridge and return via the Old Traffic bridge.
- Could we have another point? "Lobby for shelters and seating to be provided at all bus stops."?

8. Housing

- 8.2 Would it be worth adding "and accessible" after the word, 'affordable'?
- Housing - supported housing and home care need to be considered not just affordable housing. We need to identify and protect sites for aged care so people with care needs can stay in their communities as they age.
- Under HOUSING I can't see any commitment or advocacy for home support services which enable ageing people to remain in their own homes? Having housing that is accessible and affordable is only one thing, having extra support as you need it to remain in your own home is so important for mental health and well-being - so people can remain in a familiar place with established friends and relationships.

General comments and things to consider for the implementation plan:

- If implemented seems very good.
- We were not aware that the Age Friendly City Plan was being developed. Having now read the plan it appears to have covered, in broad terms, aspects of ageing in the community very well.
- A lot of promotion and not a lot of actual doing, of funneling money into these area that need attention.
Older people have a wealth of experience. They may not have the capacity to 'do' the same things or with past speed and vigour, but they can still think, evaluate,

consider, express opinions. In fact wisdom is more likely to come from older age groups. The plan covers a lot of areas. I would like to see the actions to make it real. I love living in Freo, we can lead the way in being age friendly.

- The plan has nice words but the actions by the current Council in failing to address the Ord Hampden Rd congestion means that I have serious problems crossing the street each time I want to walk or cycle into the centre of Fremantle. Your plan is meaningless when there is failure to meet current problems for the aging population.
- As an 'older' Fremantle resident, I find the City of Fremantle to be an exciting, enjoyable and safe place to live. While quite general in nature, the strategies outlined in the draft Age Friendly City Plan should assist in ensuring Fremantle remains an age friendly city. I look forward to seeing the implementation plan.

FPOL1904-10 ARTHUR HEAD CLIFF STABILISATION

ATTACHMENT 1 Arthur Head Cliff Stabilisation Final Report



FINAL REPORT
for the Arthur Head Cliff Stabilisation
Prepared by
Hocking Heritage Studio
04th April 2019

Cover image: Arthur Head, Source and date unknown

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HHS Job No. 201855

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1.0 EXECUTIVE SUMMARY

This report has been prepared for the City of Fremantle with solutions for the structural stabilisation of the cliffs and walls at Arthur Head Reserve in Fremantle. Following visual investigations our assessment is there is no generic solution for the entire cliff face to stop or mitigate erosion and rockfall. Some faces have a similar condition while others need to be treated in a specific way to cater for their condition and location.

The recommended interventions for the cliffs are:

- Revegetation (only on ground level, not on cliff faces or cliff edges)
- Limestone masonry repair
- Installation of new limestone masonry (not retaining)
- Prevention of access to the cliff face
- Rockfall fencing installation

Where a more visible strategy is required for mitigating erosion and rockfall risk the following is recommended:

- Concealed cliff support solution (concrete arch)
- Canopy shelter

Some current day remediation strategies have not been considered further due to their intrusive nature to the representation of the cliff or their inadequacy as appropriate solutions, for the reasons identified herein in Section 3.2. These strategies are:

- Reshaping / profiling the cliffs
- Rock bolting / pinning
- Reinforced geogrid
- Rockfall nets / mesh
- Chemical grout injection
- Chemical sealers
- Visible shotcrete application to cliff face
- Improvement to site drainage
- Concrete retaining wall structures

Consideration should be given to the recommendations for Areas 7 and 8. There is an opportunity to not only mitigate erosion and rockfall risk but to also design and install a unique structure that interprets the heritage significance of the place and fits into the art precinct of Bather's Beach.

2.0 INTRODUCTION

2.1 Scope of Works Summary

Hocking Heritage Studio has been engaged by the City of Fremantle ('The Principal', 'The City', 'The Client') to assess the structural integrity and stability of the natural cliff faces and man-made walls at Arthur Head Reserve in Fremantle, as well as design and documentation for recommended works.

The main objective is to eliminate or reduce as much as possible the erosion of the cliff faces and walls at Arthur Head in a manner that is sympathetic of their heritage significance whilst improving access and safety for visitors to the site. In addition, a recommendation to the remediation of the walls and

roof surfaces of the Secret Tunnel linking the Gunner's Cottage to the Whaler's Tunnel is desired.

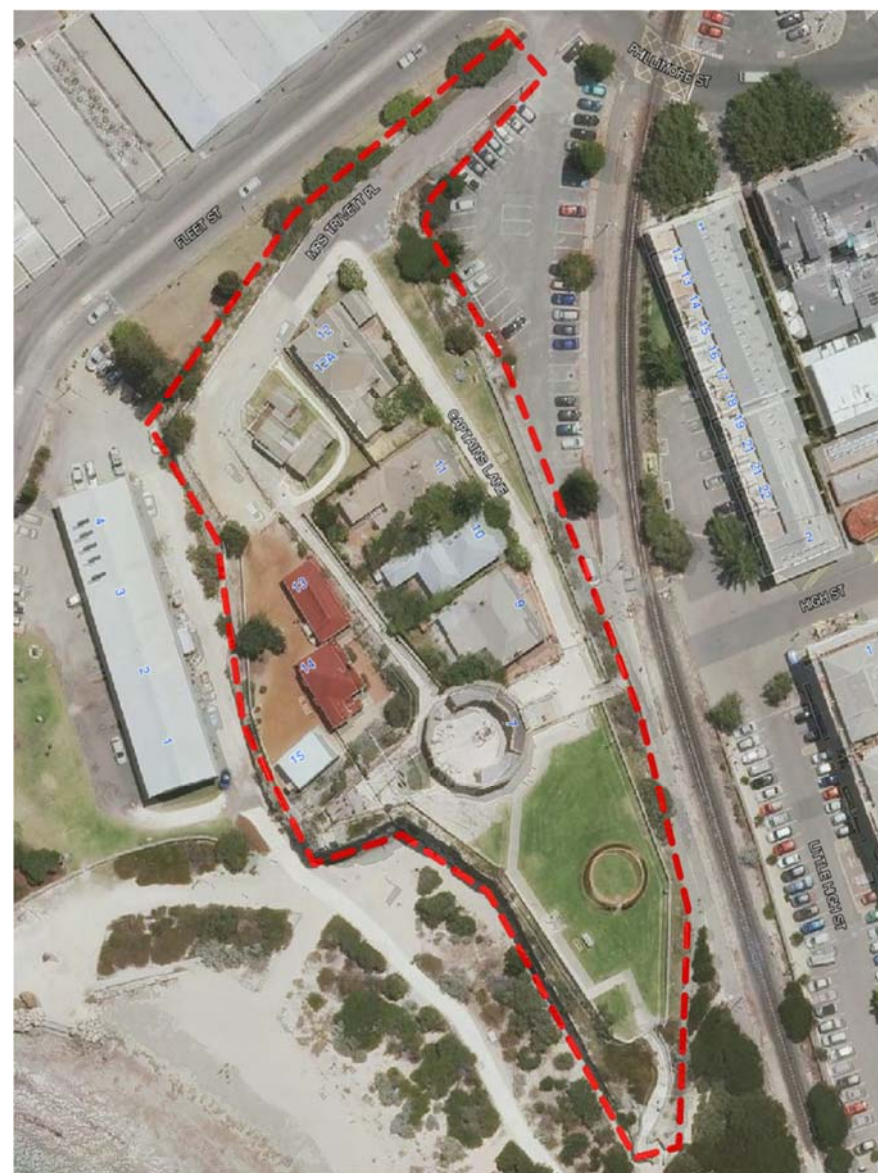
This report clearly identifies its findings and provides specific recommendations by the Consultancy team. Items which require further input from the Client are detailed herein in order to assist with the delivery of a successful project which surpasses expected outcomes.

2.2 The Site

The site is located at Lot 2015 Phillimore Street, Fremantle. It is wholly contained within Reserve 21563, the Arthur Head Reserve.

The extent of works is contained within the area outlined by the dashed red line in the aerial photo below.

There have been conservation and structural stabilisation works to the cliffs and Round House in 2001 and 2004. Additional surveys and remediation works have been undertaken in 2005, 2009 and 2018. A Conservation Management Plan (CMP) for the area was prepared in 2011.



Extent of the area of study at Arthur Head Reserve, Fremantle

2.3 Background

Arthur Head Reserve is a limestone outcrop located on the most western portion of the Fremantle townsite and is a prominent feature elevated above the surrounding landscape. Prior to the Swan River Colony settlement all of the headland west of the railway line was of roughly a similar height to the current reserve and formed a rocky cliff face along the coast line. The headland is named 'Manjaree' by the Whadjuk Noongar language group.

From the earliest days of settlement, limestone was quarried from the headland for public and private works. The first public building in the colony the public jail (now the Round House) built in 1830/1, was constructed from limestone quarried on the site. The Fremantle Whalers Company, one of the first industries in the colony established their trade on what is now Bathers Beach. The company quarried the limestone cliffs to create a rubble jetty, or the Whalers Jetty out from Bathers Beach and also dug the tunnel under the Round House in 1837. Later, substantial amounts of limestone were quarried to construct major public works, the nearby Inner Harbour (1892-1897) and South Mole (1894). The headland subsequently became a busy shipyard managed by the Fremantle Harbour Trust requiring a relatively flat site and accessibility to the water. The last major works removing a portion of the raised limestone headland was in the 1960s when the sheds now known as J Shed were relocated to this site.

The original cliff face on the eastern side is partially supported by a limestone block wall, probably built during the 1960s when the railway line was extended. The cliff faces of the Arthur Head Reserve to the north, south and west are surfaces left by the action of quarrying, not a result of natural forces.

Since quarrying has ceased, the exposure to the aggressive coastal environment and vegetation roots forcing through the base rock, has resulted in considerable erosion and weakening of the quarried cliff faces. Consequently there are now many loose areas in the natural faces which pose a significant risk of injury to persons at the site.

In November 1982, Reserve 21563 was vested in the City of Fremantle "in trust for the purpose of preservation and protection of the Round House and other buildings". The Round House and Arthur Head Reserve were one of the first places included on the State Register of Heritage Places in 1993.

The site continues to be maintained by the City of Fremantle and the Round House is a tourist destination operated by volunteer guides. The nearby Kidogo Art House, J Shed Artist Studio and other commercial attractions have contributed to the popularity of this precinct.

2.4 Heritage Listings

State Register Place 0896 Round House and Arthur Head Reserve	Permanent	19 Nov 1993
Municipal Inventory	Adopted	18 Sep 2000
Heritage List	Included	8 Mar 2007
Register of the National Estate	Permanent	21 Mar 1978
National Trust (WA)	Classified	2 Nov 1967
Department of Aboriginal Affairs Registered Site	-----	-----
Department of Aboriginal Affairs Heritage Places 3421; 3774	Recorded	20 Sept 1999 4 Dec 1999

A meeting with the Department of Planning, Lands and Heritage (DPLH), Heritage Services was arranged, where the scope of project works was explained and findings and remediation recommendations of each area were presented. There was no objection from DPLH in principle however formal commentary from the Development Committee is still pending at the time of this report. Documentation has been lodged for the committee meeting end of November 2018.

2.5 Statement of Significance

The following statement is taken from the Register Entry for Place 0896 Round House and Arthur Head Reserve prepared in 1992. It is noted that there is no reference to the cliffs in this statement.

The Round House is of exceptional cultural significance for the following:

It is the first permanent public building, and the oldest extant (European) building, in Western Australia;

It has a close association with, and is a demonstration of, the colonial system of law and order; and

It is one of only two extant buildings by H.W. Reveley, the first colonial engineer in the Swan River Colony (Western Australia).

The Conservation Management Plan (CMP) prepared by Philip Griffith Architects in 2011 outlines the following Policies for the place:

*"Items of **exceptional significance** include landscape features consisting of: The geological features of Arthur Head and the plateau on which the Round House stands; the cliff faces and revetments on all faces; ... "*

"[Policy 1] The fabric of spaces or elements of exceptional significance must be preserved or restored in such way as to demonstrate their significance."

*"Archaeological areas of **considerable significance** include: The plateau around the Round House including ... the Signal Station*

and Observation Post, and Signal Mast 1905; the western cliff face and caves; ... "

"[Policy 2] The significant fabric of spaces or elements of considerable significance should be preserved, restored or reconstructed as appropriate."

*Areas of **little significance** include landscape features consisting of: the landscape area between the south eastern revetment wall and railway tracks, ... the steps leading from the southern Round House lawn to the lower paths; ... and, pathway materials generally. "*

"[Policy 4] The fabric of spaces or elements of little significance contributes to the significance of the place, but not to the same extent as authentic fabric does. Where fabric of little significance has deteriorated consideration might be given to reinstatement, adaptation, removal or replacement in a manner that allows continuity of interpretive meaning and to suit contemporary requirements. Fabric of little significance should not be summarily dismissed as not being important."

2.6 Project Description

The brief for the project is as follows:

- Assess the existing limestone cliffs and man-made wall/infill conditions
- Assess the Secret Tunnel condition;
- Categorise the risk for each finding;
- Propose and describe remediation options.
- Undertake an aesthetic weighting
- Undertake a cost benefit analysis

The option proposals have to consider the relationship with the site, the context, materiality, high visual aesthetic and heritage significance. Safety-in-Design, current statutory regulations and the City's 'One Planet Program' are acknowledged as part of the design process. 'Green' and 'Grey' stabilisation technics are amongst the research for relevant modern day methodologies.

The proposed options have to provide a comprehensive overview of the necessary remediation works to enable the Principal to schedule and budget for the necessary undertakings.

2.7 Project Team

The team of specialist consultants and engineers involved in the project are listed below:

- Heritage Architect – Hocking Heritage Studio
- Geotechnical Engineer – CMW Geosciences
- Structural Engineer – Atelier JV
- Model & Surveying Engineer – Monaghan Mapping & Surveying
- Quantity Surveying - RBB

The contribution of all of the above is acknowledged in the collation of this report.

2.8 Project Status

The project has reached the end of Schematic Design.

The following tasks have been undertaken and completed:

- 1 Visual site survey of the site
- 2 Desktop review of the following provided reports:
 - Roundhouse Conservation Plans dated July 2002
 - Arthur Head Limestone Cliffs Report dated June 2005
 - Arthur Head Geotechnical Survey dated December 2009
 - Conservation Management Plan dated 2011
 - Visual Inspection Report dated February 2018
- 3 Review of the policies in the *Arthur Head Reserve Conservation Plan from 1999* to ensure that the cultural heritage significance of the place is maintained and enhanced
- 4 Feature and contour survey of the area
- 5 Geotechnical investigations by CMW Geosciences
- 6 Research current day remediation technics
- 7 Remediation option workshop with the consultant team evaluating mitigation technics and options
- 8 High level cost benefit analysis
- 9 Risk analysis



3.0 GEOTECHNICAL CLIFF AND RETAINING WALL INSPECTION

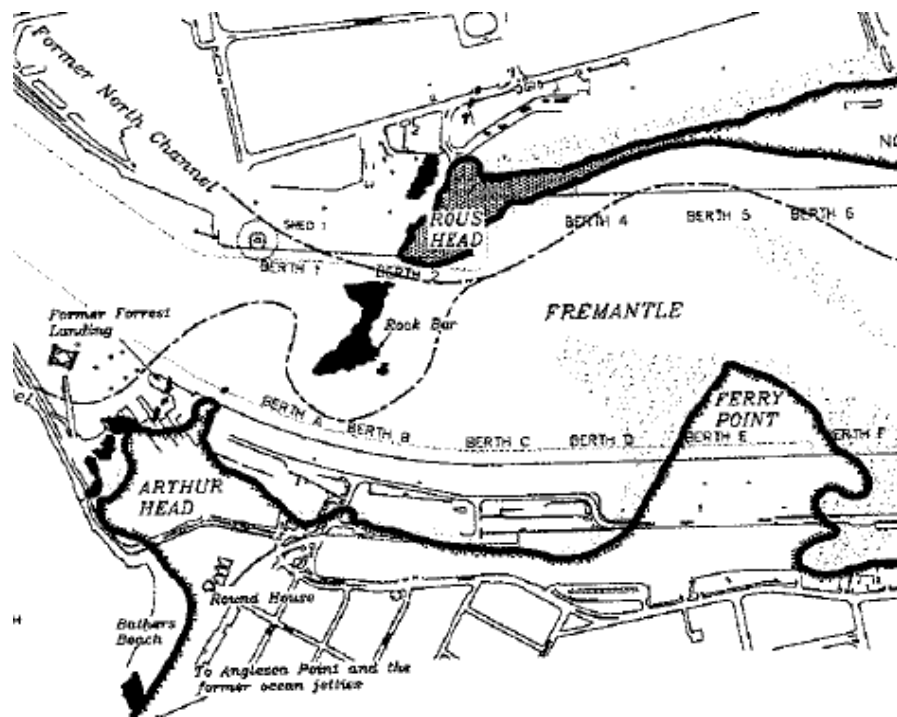
3.1 Arthur Head Geological Setting and Natural and Anthropogenic Processes

The references listed in Section 3.0 were used in the preparation of this section of the report. Refer Figure 1 for layout of features and the eleven Areas described in the text.

3.1.1 Background

The limestone from which Arthur Head Reserve is formed is part of the Tamala Limestone Formation. It is primarily a calcarenite formed from calcium carbonate rich wind-blown dune sands that have become lithified. The subsequent leaching and weathering that has and continues to take place have resulted in rock and soil that is highly variable in strength, density and form. It is variable to the extent that some materials are very high strength rocks and others are very loose sand yet both exist in very close association. This variability can occur across centimetres. Anthropogenic influences have also shaped the current Arthur Head and contributed to the features and in some cases the geotechnical hazards that are present.

The outcrop of limestone forming the Arthur Head Reserve and on which the Roundhouse now stands was once a prominent headland which together with a separate smaller limestone headland (Rous Head) once formed low cliffs either side of the entrance to the Swan River. Arthur Head forming the southern rocky headland and Rous head the northern rocky headland.



Coastline of Fremantle prior to the construction of Fremantle Harbour (after Tutton 2003)

Both headlands were significantly reduced in size through quarrying to facilitate the construction of a number of the early town buildings and in the case of Arthur Head to also provide stone to armour the South Mole. As a result, the outcrop of limestone on which the present day Arthur Head Reserve stands is a remnant of a larger headland and most sides of the present day reserve are quarried faces.

The cliff faces along the western (J Shed and Bather's Beach) side of the reserve in particular, are remnant quarried faces and are sub-vertical.



The Whalers Tunnel, some 73 m long and 3.6 m wide and high, was built connecting Bather's Beach with the western end of Fremantle High Street. Originally stairs connecting the Roundhouse with the High Street descended each side of the tunnel portal. These stairs were realigned in the past to accommodate the construction of a railway line running parallel to Cliff Street. At that time it would appear that, at that time, the quarried faces on the eastern side were also modified and trimmed to make room for the railway and the retaining walls now present along this part of the reserve were presumably built to protect and support the steepened rock face along this side of the reserve. A small (1.2 m wide 1.8 m high) inclined tunnel, called the *Secret Tunnel*, was built in 1938 to connect houses in the northern Arthur Head area with the Whalers Tunnel.

3.1.2 The Limestone in Arthur Head

The Tamala Limestone in Fremantle is generally less than 120,000 years old and extends to depth of about 30 m below sea-level under most of Fremantle, except where it has been removed by a deep palaeo-channel.

The exposed limestone at Fremantle is an aeolianite (a dune deposit) but it has been modified through post-depositional processes and now presents as three distinct lithologies. Indeed, three distinct geotechnical units (units defined by their engineering characteristics and mechanical behaviour) are evident. These distinct units are *caprock*, *zone of roots* and *cross-bedded aeolianite*. The presence or absence of one or more units has a major influence on the rate of erosion, potential for undercutting, and the overall stability of cliffs and risk to people and property.

Caprock

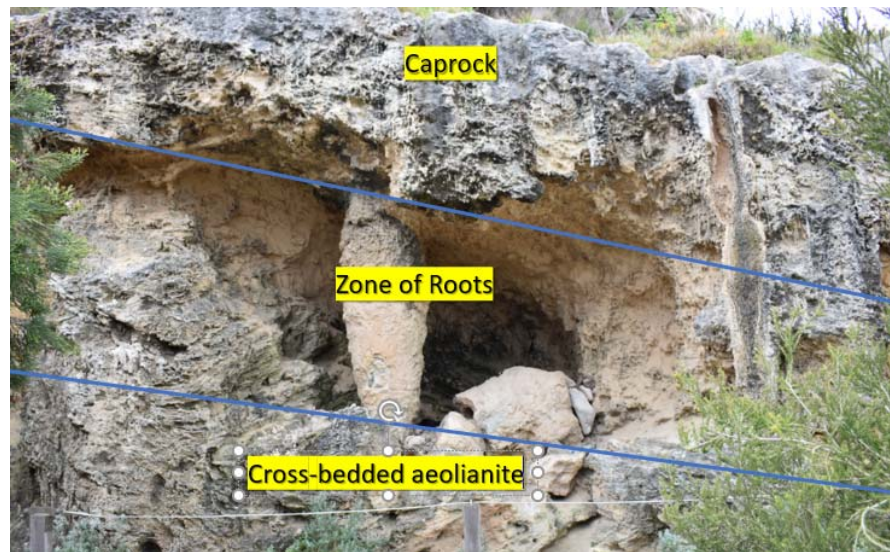
The uppermost lithological unit is a caprock, typically about 1.5 m thick. The caprock can be seen in the cliff faces. Progressing clockwise around the reserve commencing at Area 1 caprock can be seen below the barrier wall at the top of the cliff, in Area 3 above the top of the retaining wall. It is largely absent in area 4, presents as a caprock pavement at the top of the Area 5 cliffs (southern end) It can clearly be seen dipping from north to south in Areas 6 and 7 and is present at the top of the cliff faces in Areas 8 and 9. The same caprock layer also forms a number of the pavements within the reserve itself, in particular on the south and west side of the round house in the path from the public toilets south to the Roundhouse and around the cannon and time-ball platform.

Caprock is very much stronger and less permeable than some of the other Tamala Limestone lithologies and typically has a rock strength of High to Very High. It does however contain holes typically about 0.2 m, but occasionally up to about 0.5 m, in diameter formed by tree roots. The caprock was formed by calcium carbonate enrichment the result of rainfall (carbonic acid) percolating into the aeolianite, dissolving calcium carbonate (calcite) depleting the limestone of its cementing agent. Then, through the warming and drying action of the sun, the calcite is drawn upwards by capillary action where the calcite precipitates to form an enriched zone, namely the caprock.

Zone of Roots

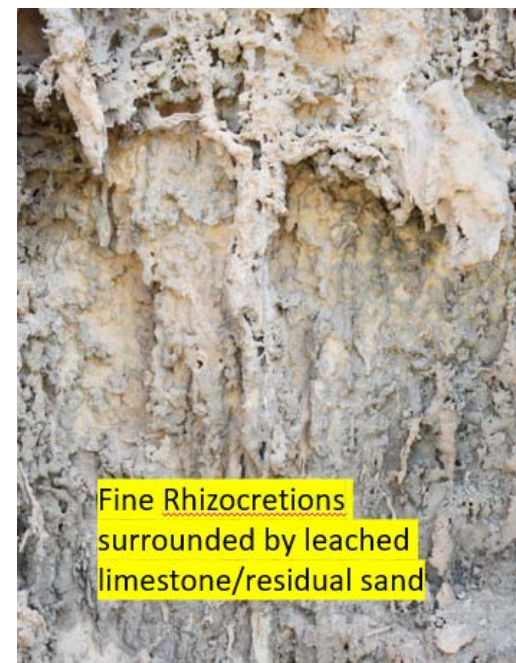
In forming a caprock the limestone immediately beneath it is depleted of calcite and as a result is highly prone to weathering and erosion. Where this material is exposed in cliff faces, wind and rain have resulted in large undercuts, cavities and has created an overall vuggy texture to the limestone. Much of this erosion has taken place since quarrying ceased and as such the larger cavities have occurred in the last 100-150 years. The situation at Arthur Head is therefore dynamic and conditions will continue to change in even a short time frame.

The calcite depleted zone is further complicated by thin tubular cementation that has resulted through the action of tree roots. Occasionally a large root, likely the tap root of a Jarrah or Tuart tree, forms a calcite lined tube and when exposed this becomes a calcrete lithified column as can be seen in the cave in Area 6. These columns are sometimes hollow where the original root has rotted or the calcretised solution tube can become infilled with sand or *terra rosa* soil washed down from above. Smaller tubes generally less than 200 mm diameter can completely fill with high strength calcrete. The presence of these cemented roots or annuli around larger roots is usually in concert with the removal of the calcite cementing agent from the surrounding rock mass often leaching it completely and leaving only a soil. The lithified roots are referred to as *Rhizocretions* and the zone beneath the caprock through which roots penetrate below the original ground surface is referred to as the 'zone of roots'.



The zone of roots is typically between about 4 and 6 m thick at Arthur Head and dips with the caprock towards the south.

The strength of material in the zone of roots varies from very high strength rock to loose sands and voids (where leached sands have been eroded out). The volume of the rock strength lithified rocks is however relatively small as a percentage of the total zone and as such the rock mass is weak and subject to erosion when exposed. These characteristics make the 'zone of roots' a geotechnically problematic strata with respect to cliff stability, rockfall risk and the control of erosion.

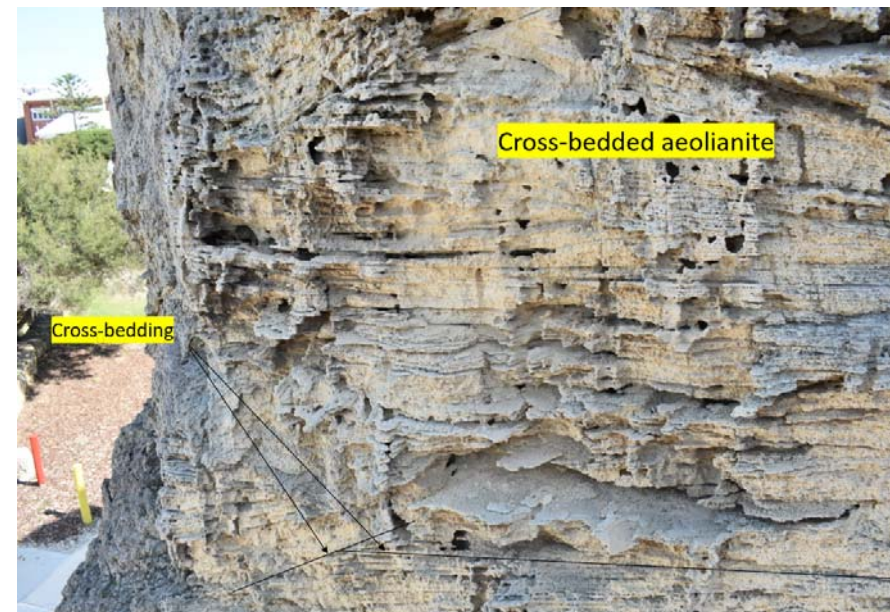


Cross Bedded Aeolianite

The lower part of the cliffs around the western tunnel portal and Areas 9 and 10 are aeolianites that have been unaffected by caprock formation or the variable lithification associated with the 'zone of roots' and calcite depletion. The aeolianite displays distinct cross-bedding. The cross-bedding, reflects the original dune system and although more competent than the overlying "zone of roots" still display variable leaching. Typically

beds of sand are cemented with calcite to form low to medium strength limestone separated from adjacent beds by weaker leached beds which are occasionally completely uncemented. Thus thin "slates" of rock can occur.

Cross bedded aeolianite is less prolific in the southern part of the reserve as the caprock and zone of roots dip towards the south and are present at lower elevations. Nonetheless, the zone of cross-bedded aeolianite are present at the level of the base of the cliffs around the southern part of the reserve.



Weathering, leaching and erosion

The weathering process of limestone is referred to as *leaching* and involves the dissolution and removal of calcium carbonate (Calcite). The result is a loss of material strength and density, the creation of pitted surfaces, vughs, voids and solution features (tubes/pipes etc). A colour change can also occur. Lighter straw-white colours are associated with leached materials whilst unleached limestone not exposed to the atmosphere is whitish and where exposed it commonly becomes grey through a process called *case hardening*. Entirely leached limestone becomes a sand and if the sand erodes away a void is left behind. The heavily leached limestone or sand is highly vulnerable to erosion.

The following erosion mechanisms are observed at the Arthur Head Reserve:

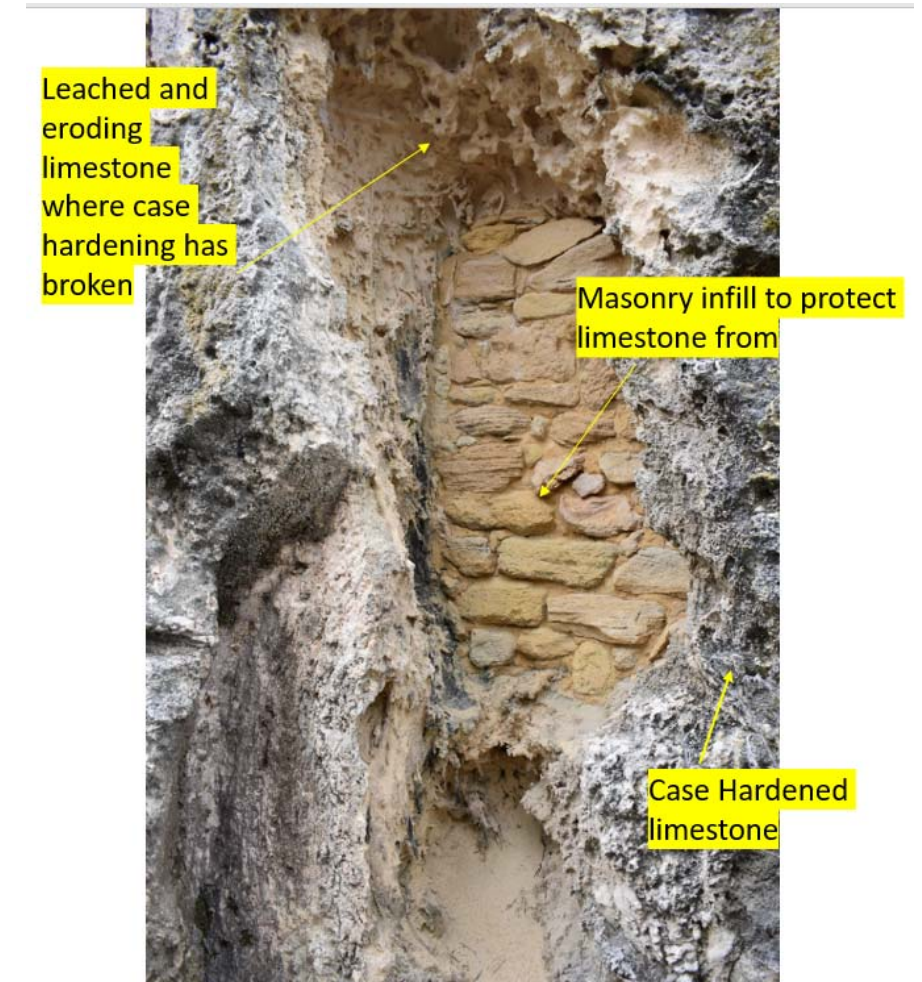
- 1) Wind and rain blowing or washing away sand and friable limestone. This can isolate more competent materials that then falls or topples under gravity.
- 2) Erosion by wind and wind driven rain and salt spray occurring in the zone of roots to form undercut tabular slabs.
- 3) Water can also percolate down tubes within the caprock pavement.
- 4) Water flowing over the edge of the cliffs.
- 5) Root wedging by trees and shrubs

Another leaching mechanism which is relatively common is referred to by Gordon (2012) as soil slotting. It is the minor undercutting of the cliffs and main made limestone walls in the splash zone where rainwater strikes the ground and splashes against the adjacent limestone.



Case Hardening

Many of the rock faces and masonry walls around Arthur Head display case hardening. It is important to understand the significance of case hardening and the need to protect it from damage as far a practical.



Case hardening is the induration or strengthening of limestone surfaces that have been relatively recently exposed. It takes the forms the form of a grey

coloured crust or rock armour that is formed by the sun's heat pulling out capillary water saturated by bicarbonate to the surface where the water evaporates. The hardened surface typically takes about 5 years to form (Gordon 2012). It is however important to note that this indurated crust is only a few millimetres in thickness and it forms by depleting the limestone of its cementing agent in the zone immediately behind the crust. Thus, when the crust is disturbed or removed by erosion or engineering works, the material behind is exposed and will be particularly vulnerable to erosion until such time that a new crust develops. In some instances the rates of erosion exceed that of the case hardening process and the crust never re-establishes. There are examples of this around the cliffs and walls around Arthur Head, and also areas where overhangs have developed or facing work using limestone blocks and mortar have been used to protect the exposed and eroding faces.

3.2 Available Remediation Methods

As part of the study a desk study was undertaken of available remediation techniques namely "green" and "grey" techniques.

Green Techniques:

Green techniques commonly refer to techniques that are concealed or involve stabilisation using natural products or vegetation.

Green techniques might include the following:

- Use of vegetation
- Seeded erosion protection mattresses
- Use of earthen structures reinforced with HDPE geogrids or geotextiles (with a vegetation cover) to buttress or reinforce slopes
- Improvement to site drainage
- Use of Calcite In-situ Precipitation Systems (CIPS)
- Use of limestone masonry with lime mortar joints
- Use of chemical stone (limestone) sealers

Vegetation to stabilise limestone cliffs subject to erosion is not a suitable technique. This includes the use of HDPE geogrids with vegetation cover. It is in fact detrimental for the following reasons:

- 1) It detracts from the original limestone cliff face
- 2) May involve earthen support (as in the case of mechanically stabilised earth) to buttress the unstable faces therefore removing the original amenity
- 3) Shrubs and trees have a root system that will penetrate the limestone and tend to cause root wedging levering out blocks or rock
- 4) Vegetation introduces acids that have a tendency to dissolve calcareous material resulting in leaching
- 5) Fertilisers and reticulated water (uric and carbonic acids) can cause further and accelerated dissolution of weakly cemented limestone

As a result, no planting of vegetation on or on top of cliff faces is recommended as a stabilisation measure. In fact, as a general recommendation all shrubs and trees growing out of cliff faces or growing on top of the cliffs within 2 m of the cliff crest should be carefully removed.

There is one exception where vegetation is beneficial. Trees and shrubs at the base of the cliffs but no closer than 3 m have the tendency to protect

the cliffs from the worst of wind driven rain and salt spray. Therefore, the buffer of shrubs between the western side of Arthur Head and Bather's beach should be preserved.

Ensuring storm run-off does not directly discharge over and onto cliff faces (Improvement to site drainage) is an erosion and rockfall mitigation strategy. Generally, the site drainage was noted to be good and no location of concentrated discharge over the crest of cliffs was noted and as such this option has not been pursued.

There are several locations where limestone masonry, in keeping with the existing *in situ* limestone, provides benefit for the following reasons:

- 1) prevent erosion of a heavily leached area
- 2) to support a face as a retaining wall
- 3) to underpin an overhang

Repair of existing masonry and installation of new masonry walls is a primary form of recommended remediation.

Widespread use of stone sealers is not considered beneficial as these products are designed to limit water penetration. In the case of *in situ* Tamala Limestone the free passage of water into and out of the face is the mechanism that allows case hardening to occur.

Calcite In-situ Precipitation Systems (CIPS)

There is a system for re-cementing limestones that have weathered to sand or improving the cementation of limestones. This system is called a *Calcite In-situ Precipitation System (CIPS)*. It had been commercialized but unfortunately no contractors currently hold a license. We have contacted the patent holders and licenses can still be sold to interested parties

CIPS is a permeation grouting system that delivers 'liquid' calcite into a permeable and porous material such as sand or limestone.

When injected into homogeneous ground through grouting spears it can form spheres (if injected from a point source) or cylinders (if injected at multiple elevations). Overlapping cylinders can be used to form grouted wall. Although CIPS will have similar material appearance to *in situ* limestone the spherical or cylindrical form of the grouted columns would have a distinctly man-made appearance when facing material drops away. The photo below shows an example of cementation from a point source in sand



Furthermore, the limestone at Arthur Head is not homogenous as it contains voids and cavities at different scales (mm, cm etc.), root tubes etc. Unlike conventional cementitious grouting which is designed to infill voids, CIPS is injected as a non-viscous liquid and works by creating cementitious bonds at existing material contacts and not by infilling voids. For these reasons it is not considered an appropriate retaining system for the Arthur Head limestone cliffs. CIPS may however be suitable as a mechanism for slowing down the rate of erosion when applied to the friable and fretting cliff face.

Where the case hardening on limestone faces has been damaged through man-made or natural causes, CIPS could be used to rebuild the cementitious contacts on the leached surface creating a cementitious veneer (a few millimeters thick) that would slow down or prevent erosion until future damage occurs. Application of CIPS in this context would not physically prevent cobbles and pinnacles of rock falling from the faces. It could however reduce the likelihood of such occurrences, by slowing down the amount of day to day erosion and fretting of sandy material, which otherwise would ultimately undermine pinnacles and blocks of limestone. CIPS used in this context would be applied as a surface coating and it is understood this application of CIPS was used as part of the 2001 restoration works of the Whalers Tunnel.

It is not known how successful such an application would be when applied to the exposed vertical faces of Arthur Head and several applications (possibly 5-10) are likely to be required to make a tangible improvement to the outermost few millimeters of the leached and eroded cliff faces. It is also uncertain whether the application of CIPS will noticeably change the appearance of the treated limestone and how it will weather relative to untreated adjacent sections. For these reasons it is recommended that a trial be carried out on a small section of a non-visually prominent and weathered cliff face so that both the physical and aesthetic aspect of the CIPS application can be assessed. To enable a trial, and if successful subsequent use of this product, a contractor would need to purchase a CIPS license.

Grey Techniques

These is a plethora of available grey techniques, including but not limited to the following:

- Rockbolts
- Rock fall netting (rockbolted in place)
- Mesh and shotcrete (anchored in place with rock bolts)
- Grouting
- Concrete retaining walls

Rockbolts can have a use but given the friable nature of the aeolianite and zone of roots, there is a risk of any post tension in the bolt crushing the rock and rock might even crack during the process of installation. Rock bolts therefore have limited use in isolation but would need to be used to secure masonry veneers, mesh and shotcrete or anchored (non-gravity) retaining walls.

Rockfall netting without the use of shotcrete removes some of the rockfall risk. The limestone, especially the cross-bedded aeolianite and the zone of roots however tends to break down into particles that would pass through the aperture of the mesh. Whilst the main rockfall hazard is mitigated the mesh does not prevent erosion and so deterioration of rock faces may still occur with time. Mesh is also considered too visually obtrusive.

Mesh and shotcrete held in place with rock bolts provide a sound and practical cliff stabilisation measure and, in most cases, could achieve the required level of stabilisation and rockfall risk reduction. It has not been recommended however due to damage it would do to the fabric of the amenity and the loss in heritage value that would result.

Grouting using cementitious grouts to penetrate the limestone is not considered a practical option. Whilst grouted blocks and retaining walls can be successfully constructed the exposed grouted limestone will not be attractive. Furthermore, putting aesthetics aside, it is not considered a feasible engineering option due to the significant variation in void size and permeability within the limestone which would result in significant grout volumes and loss of control of where grout flows and uncontrolled issues of grout from faces would almost certainly occur.

Concrete retaining walls could be used to achieve required stabilisation but would clearly result in loss of heritage value and are not considered further.

Allowing the natural faces to Case Harden

In many instances the natural process of case hardening has been affected by outside disturbance such a vegetation wearing against the cliff faces, past trimming of unstable faces, water erosion etc. CIPs can be used to encourage case hardening, if a commercial operator can be found. Even without CIPs faces should be left to find equilibrium and with time (if undisturbed) the exposed surfaces should develop a case-hardened face Gordon (2003) cites a period of about 5 years for a case-hardened face to develop on material that is not actively eroding.

3.3 Site Observations, Qualitative Evaluation of Risk and Mitigation Options

3.3.1 Methodology - Risk Assessment Basis

A framework for assessing the existing risk to people visiting Arthur Head and the risk following remedial improvement (residual risk) is used throughout the study. The residual risk is equivalent to a safety in design risk assessment.

The Australian Geomechanics Society, under funding provided by the National Disaster Funding Program (NDMP), produced Landslide Risk Management Guidelines and have developed Landslide Risk Management Practice Notes. The guidelines and practice notes known collectively as AGS2007 have been used extensively here to evaluate the quantitatively risk to life described in this report. The quantitative risk assessment is presented in Appendix 3.

Assessment of risk is highly subjective. It involves estimation of the likelihood and severity of the event which are both highly subjective. It also involves an assessment of likely exposure and numbers of people traversing areas and for how long. Estimates of risk must therefore be considered as indicative and approximate.

The recommended remedial/risk mitigation option for each area is highlighted in Appendix 3.

The quantitative risk designation adopted in Appendix 3 was used in a simplified form (i.e. very high, high, medium and low) as a basis for a cost benefit analyses (CBA). The CBA is presented in Appendix 4 and shows the

cost benefit as a function of the reduction in the risk level to people any improvement or deterioration in aesthetic value of the amenity and anticipated magnitude of costs resulting from the proposed remedial option.

The CBA is subjective and approximate both in equally weighting of change in risk level and change in aesthetic value but also in the relative estimation of cost.

3.3.2 Site Observations

The site inspection was undertaken on 8 October 2018 by Matthew Tutton a Senior Principal Engineering Geologist and Jit Lim a Project Geotechnical Engineer of CMW Geosciences Pty Ltd (CMW).

An 18 m cherry picker was used to facilitate inspection in some of the higher and unstable cliff areas and to observe cavity and niches within the cliff face that were not apparent from ground level and well as to get a close-up view of cracks etc.

Protection of the public and close by vegetation (pine trees etc.) during the assessment was considered and undertaken. No damage caused by the works was envisaged.

The cliff and retaining walls around the Arthur Head reserve form part of the inspection in addition to the Secret Tunnel. The Whalers Tunnel, Roundhouse and walls to buildings within the reserve complex were not part of the brief and were not inspected. Masonry walls forming a barrier around the reserve were also not part of the brief although comment is made in this report because these walls sit close to the cliff edge and at some locations could be affected by cliff instability. Similarly, loose blocks and mortar present a rockfall hazard at locations where the wall is located directly against the edge of cliff faces.

It was noted that certain sections of the cliffs display common characteristics and for this reason the observations at each of these areas are grouped and are discussed collectively. Photographs relating to each area are presented in APPENDIX 2 together with some general photographs of the reserve. All the photos in APPENDIX 2 are numbered for reference in the text. Additional photographs illustrating specific features are included in the text.

Reference is made to eleven areas of noted rockfall or landslide risk. For the remaining parts of the perimeter of Arthur Head there are low (0-4 m high) shallow sloped (<45°) limestone batter faces where the level of rockfall risk was observed to be low or negligible and therefore further comment is not made. Similarly, there is an undercut in a low 2 m high limestone bank behind a cottage in the northern part of the reserve (see photo below).

The level of risk is considered low due to the nature of the caprock and in the low frequency of people likely being present in this area.



Each of the eleven areas is described consecutively in a clockwise direction commencing in the northern part of the reserve as shown on the map on the next page.

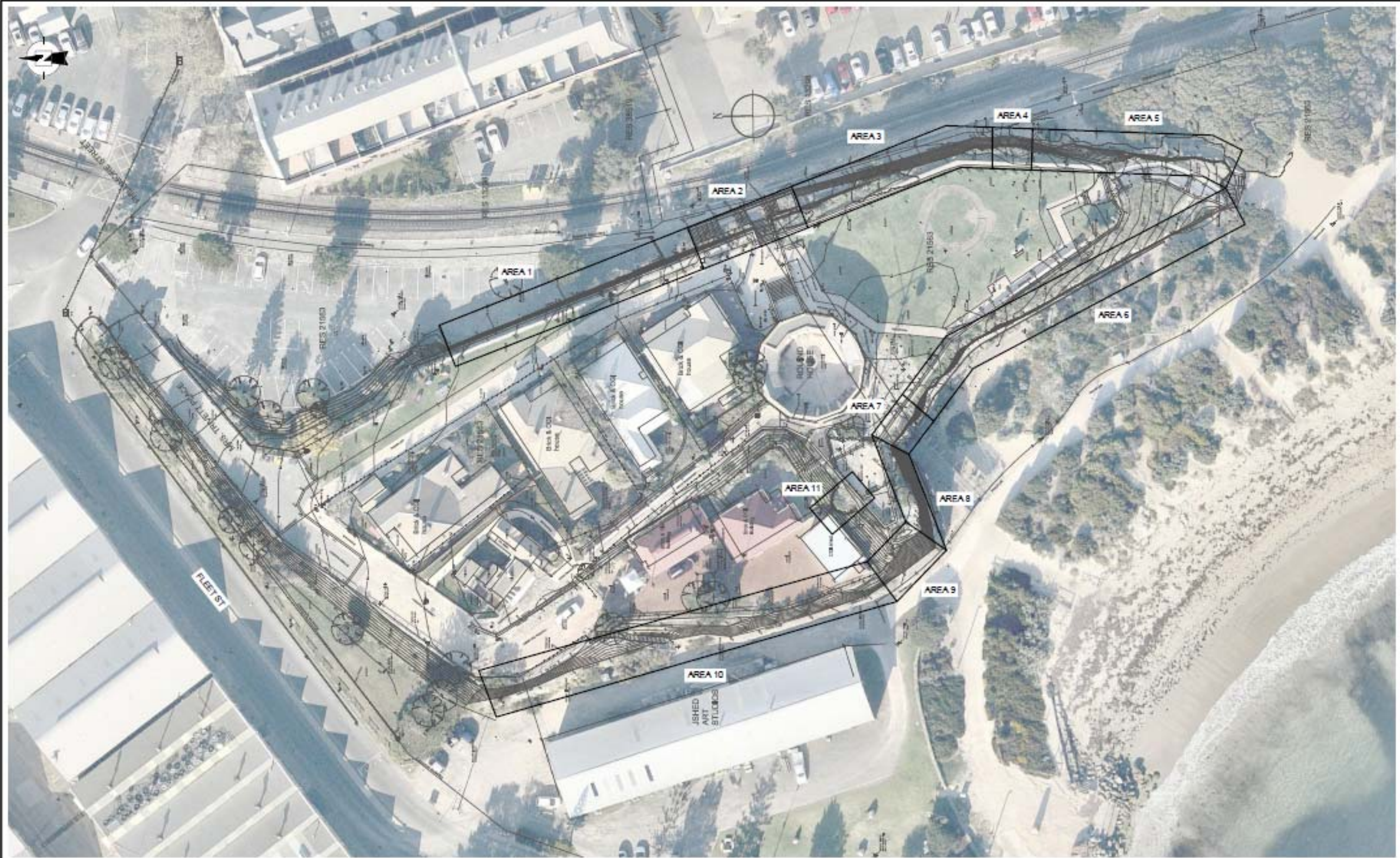
Appropriate mitigation options are listed for each area in a comprehensive table.

Some key notes:

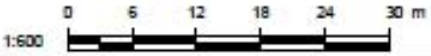
- The **ratings** in the table are to be understood as general weighting only.
- The **Safety Improvement Factor** is a result of 'Current Risk' plus/minus 'Residual Risk'.
- The **Aesthetic Weighting** is based on visual impact of the mitigation strategy including considerations of historic, social, rarity and representative significance of the place.
- The **Benefit** is a result of 'Safety Improvement Factor' plus/minus 'Aesthetic Weighting'.
- The **Cost/Benefit** rating is based on 'Benefit' rating divided by 'Cost' rating.

Observation	...
Risk Category	Very High – High – Medium - Low

Mitigation Options	Current Risk	Assumptions	Residual Risk (say in 10 years)	Safety Improvement Factor	Aesthetic Weighting	Assumption	Benefit	Cost	Benefit/cost	Cost Estimate AUD
1, ...	4 Highest		4 Highest	3 Highest	3 Highest		3 Highest	8 Highest	2 Highest	Amount ex GST
	1 Lowest	Comments	1 Lowest	-3 Lowest	-3 Lowest	Comments	-3 Lowest	1 Lowest	-2 Lowest	



- NOTES:**
1. IMAGE FROM NEARMAP 23.09.18
 2. BACKGROUND SURVEY PLAN SUPPLIED BY CLIENT



CLIENT:	HOCKING HERITAGE STUDIO	DRAWN:	DE	PROJECT:	PER2018-0305
PROJECT:	ARTHUR HEAD STABILISATION WORKS FREMANTLE, WA	CHECKED:	MT	FIGURE:	01
TITLE:	KEY OBSERVATION LOCATIONS	REVISION:	0	SCALE:	1:600
		DATE:	18.10.18	SHEET:	A3 L

3.3.3 Qualitative and Quantitative Risk Assessment

The Australia Geomechanics Society 2007 publication (AGS2007) sets out a procedure for assessment of landslide or rockfall risk which has become an industry standard. For each of the following areas risk was considered in terms of the risk to an individual's life. Account is taken of:

- the type of rockfall or landslide hazards,
- the assessed annual probability of occurrence,
- the spatial probability of the event impact an area that people frequent
- the spatial/temporal probability of a person being in the impact zone at the time of impact
- and, should an impact occur the severity of impact (vulnerability of the individual).

All these factors are used to assess the risk of a person being killed by a rockfall. The results of the quantitative risk assessment are provided in Appendix 3, for:

- the prevailing condition
- the recommended remediation/risk mitigation option
- alternative remediation/risk mitigation options

Risk values suggested as being tolerable in AGS2007 are provided in Appendix 3. A qualitative risk term is also provided in the table and this term is used in the description below and used in the cost benefit analysis provided in Appendix 4.

The following definitions apply:

- Very high or high risk (considered an intolerable level of risk according to AGS2007 and risk level must be reduced)
- Medium (considered a tolerable level of risk in limited circumstances (AGS2007)) Risk mitigation required
- Low (considered a tolerable level of risk (AGS 2007)).

Therefore, all recommendations made below are made (sometimes in concert) to bring the level of risk to low.

3.3.4 Area 1 – Limestone Quarried Face with Masonry infilling

Observations

Observation	Small trees are growing out of the cliff face, rock fall hazard
Risk Category	Medium - Low

Area 1 comprises a near vertical cliff face 4 to 5 metres in height. The cliff is not natural but has been created by quarrying stone. The face is a mixture of natural limestone and masonry infill and dentistry work. The relative proportions of *in situ* limestone to masonry exposed on the face are about 50/50 with the masonry comprising irregular shaped and poorly coursed/bonded blocks. Caprock in present towards the top of the face and the cliff/wall is capped by a masonry boundary wall set hard against the edge of the cutting. It would appear that the masonry infill panels have been added in an *ad hoc* manner likely over multiple repair campaigns (refer Photos 5 and 6).

Multiple hazards are observed primarily associated with the deterioration of the masonry where blocks are weathering, mortar is dropping out and there is loose material at risk of dropping out onto the carpark below as illustrated in the photograph below.



Overall the rockfall hazard along Area 1 is considered to be low to medium for both body work damage to cars and with respect to injury or fatality to people.

Mitigation Measures

Removal of trees and vegetation growing out of the cliff face, replacement of badly weathered blocks and careful pointing and re-bonding of the masonry both within the cutting face and in the wall at the crest should substantially lower the risk. It is recommended that some weepholes be installed as protection against build-up of water pressure behind the wall during heavy rainfall. It is noted that there is an above ground water hydrant at the crest of this cliff. Should this hydrant be left to discharge onto the ground the risk of local instability would be very significantly increased. It is recommended that the management of this hydrant is reviewed to prevent inadvertent discharge.

Risks

The wall on top of the Area 1 cliff face is in a poor state of repair on its outer face and there is a risk to people and cars if pieces of mortar or rubble from this wall were to fall. Furthermore, several small trees are growing out of the cliff face, mainly towards the top of the cliff. The tree roots are wedging out blocks and a cobble sized fragment of limestone was noted wedge behind the trunk of a small tree. It is possible that this block will fall if the tree sways in high winds.

The following photograph illustrates the outer face of



the barrier wall on top of the cliff which is in a poor state of repair.

Mitigation Option	Current Risk	Assumptions	Residual Risk (say in 10 years)	Safety Improvement Factor	Aesthetic Weighting	Assumption	Benefit	Cost	Benefit/cost	Cost estimate AUD
Remove trees, point and rebond masonry	2	hazards will be substantially removed	1	1	1	appearance will improve	2	2	1.00	\$115,000

3.3.5 Area 2 – Main Stairs – Masonry and Brickwork covered in Render

Observations

Observation	Render cracking caused by tree root wedging or thermal expansion
Risk Category	Low

Two staircases originally ascended parallel to the tunnel and along either side of the eastern tunnel portal. The staircases however were realigned in 1897 to make room from the new railway line. Two rendered panels can still be seen either side of the portal (refer Photo 7, Appendix A) which presumably show where the original stairs were cut away from the structure and a single new staircase running parallel to the cliff face was built (refer Photo 9). The large crack seen in Photos 8 and 10 may be a function of the slow rotation of the additional structure (the new stairs) away from the original structure.

Much of the cracking on the right hand side of Photo 9 is the result of root wedging. The offending tree has been removed but the large root remains as can be seen in the photo below.

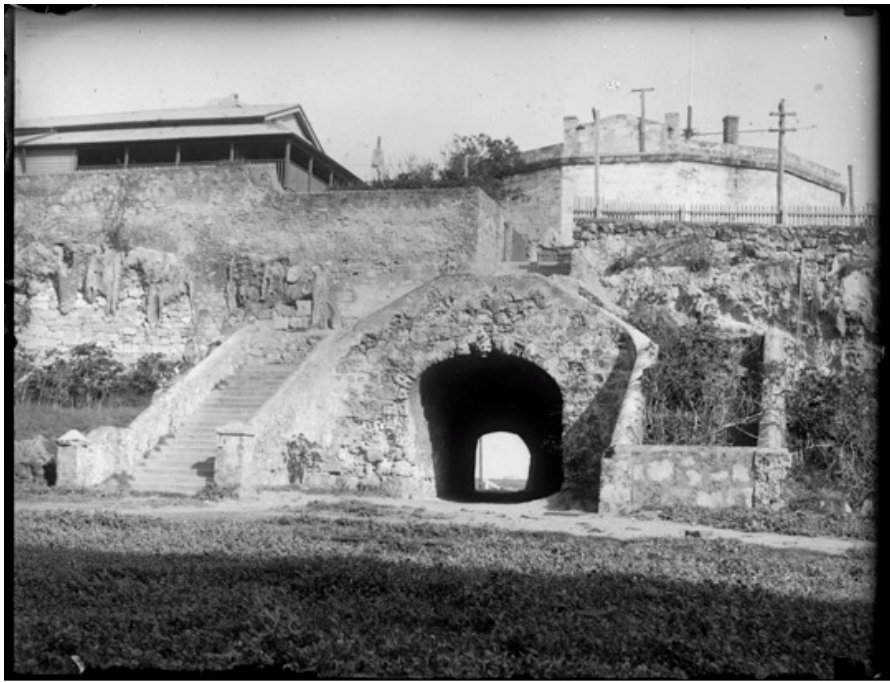


Risks and Mitigation measures

Kinematically there appears to be little risk of collapse and any repairs to the render would be more for aesthetic reasons than to restore stability.

Removing the cement render has the potential to reveal unstable limestone material underneath which will need to be assessed and conserved. Depending on the level of deterioration the walls along the staircase will need to be finished with limewash or lime water to seal the limestone along the trafficable area. Any areas to be re-rendered should be done using a lime based mortar after carbonation.

Mitigation Option	Current Risk	Assumptions	Residual Risk (say in 10 years)	Safety Improvement Factor	Aesthetic Weighting	Assumption	Benefit	Cost	Benefit/cost	Cost estimate AUD
Remove trees, repair render	1	---	1	0	1	appearance will improve	1	1	1.00	\$50,000



State Library of Western Australia

View of staircase c.1928

Area 3 – High masonry retaining wall along railway reserve

Observations

Observation	Material falling from the crest where root wedging is occurring
Risk Category	Medium

A large masonry wall runs north to south along the eastern boundary of the reserve. The wall is about 4.5 m high at its northern end and increases to a height of about 8 m that the southern end. It has a battered face at approximately 75°. At the northern (tunnel) end of the wall there is a bench at the top of the wall with a small cliff of limestone. This bench is nominally 2.5 m wide at the northern end and would be sufficient to catch any rock falling from the small cliff at its crest.

We could not inspect the cliff behind a tree at the crest (refer Photo7) but would expect the bench to be insufficient in width to catch any material falling from the micro cliff at this location. Furthermore, the tree is causing some wedging of the masonry at the top of the wall as shown in the photo below.



Overall the masonry in Area 3 is in relatively good condition and is reasonably well pointed. The wall is not cracked and does not appear to be bulging or showing distress. A few mortar courses are eroded and weathered, particularly at the northern end of the wall.

Risks and Mitigation measures

The wall appears to be in reasonably good condition although there is a medium risk to users of the footpath - cycle path associated with material falling from the crest where root wedging is occurring. This risk can be mitigated by the removal of the trees, securing and rebonding/pointing loose masonry and by the inspection of the micro-cliff behind the tree at the crest of the wall, if necessary following the inspection, securing (likely by blockwork) or removing by hand scaling any loose material in the micro-cliff.

It would be prudent to install weepholes in this masonry wall to allow drainage of water following repairs and repointing works.

Note there is a high risk to the public at the southern end of the wall where the transition into unsupported ground occurs. However, this area is discussed under Area 4.

Mitigation Option	Current Risk	Assumptions	Residual Risk (say in 10 years)	Safety Improvement Factor	Aesthetic Weighting	Assumption	Benefit	Cost	Benefit/cost	Cost estimate AUD
Remove trees, point and rebond masonry	2	hazards will be substantially removed	1	1	1	appearance will improve	2	2	1.00	\$70,000

3.3.6 Area 4 – Weak leached cliff close to rail reserve

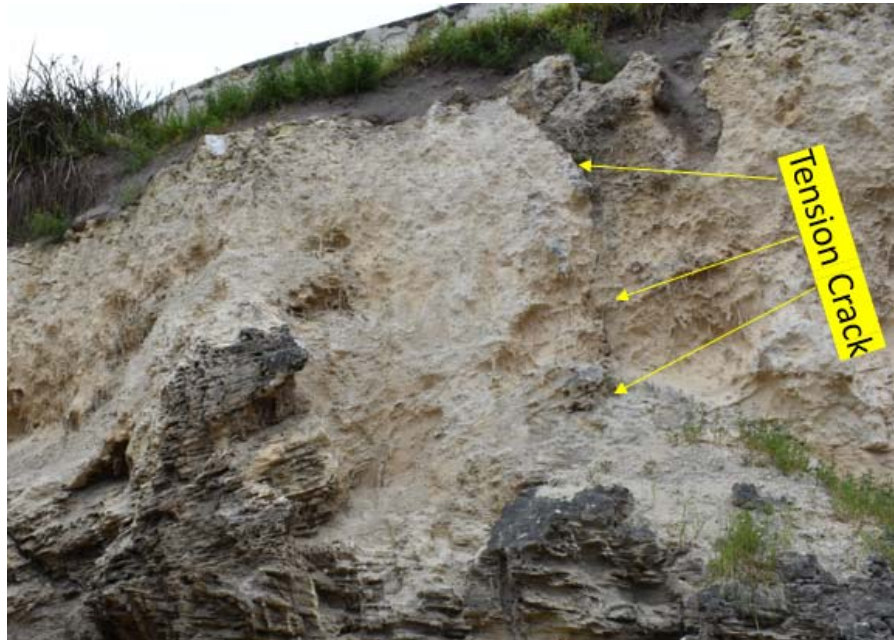
Observations

Observation	unsupported section, risk of unbound material falling, weak rock/soil mass dilates away from face, general fretting and ravelling of the face
Risk Category	High

The unsupported section above the southern end of the Area 3 retaining wall and further south presents a risk to the public using the north to south footpath/cycleway running along the eastern side of the reserve. The extent of this area of risk coincides with the extent of Area 4 (see Figure 1) and is also depicted in Photo 12.

The upper part of the face along Area 4 comprises a highly leached limestone with the properties of a sand. The faces stand near vertical because of weak cementation. This cementation however also provides a mechanism for tension cracks to develop as the weak rock/soil mass dilates away from the face. It is possible that large blocks (volumes > 1 m³) of this weakly cemented sand could collapse from the face with little warning, particularly during or following periods of heavy rainfall if water was to enter the narrow tension cracks within the rock/soil mass.

Slightly further south, in Area 5, cracks are appearing in similar highly leached material. The example from Area 5 illustrated below serves as an analogue for Area 4.



In addition to a large fall of earth, general fretting and ravelling of the face is observed as evident from the accumulation of sand and gravel at the base of the cliff. A falling cobble from this face would present a risk of injury to any person in its trajectory when a fall occurs. The following photo illustrates the weak friable nature of this face and the proximity of the footpath/cycleway.



Risks and Mitigation measures

There is a high risk of loose and unbound material or weakly cemented material falling from the cliff. The risk has been partially mitigated by the closure of the path along the base of this cliff that connects the railway reserve footpath with the southern stairs to Arthur Head. However, at the junction of the closed and open paths, the path closure has not fully mitigated the risk. A likelihood remains of material falling from the upper part of the face that could spill out onto the north south cycleway/footpath which has not been closed (see Photo above). As the consequences of this hazard occurring could be a serious injury or even a fatality we consider the risk to be high. Remedial measures that support this face, at least across the distance where a collapse could reach the main path, are therefore required.

The most **effective support measures** would:

- 1) Extending the existing masonry wall by about 6m and designing the extended wall as a retaining structure, designed to visually match the existing.
- 2) Installing a 900mm high wire fence adjacent to the extended masonry wall to 1.) prevent material falling from the cliff to roll onto the footpath and 2.) prevent the public to enter the area immediately beside the cliff at Area 5.

The following possible options are **not recommended** because they are considered less effective and would only partially mitigate the risks, or would impact negatively on the significance of the place as per the CMP.

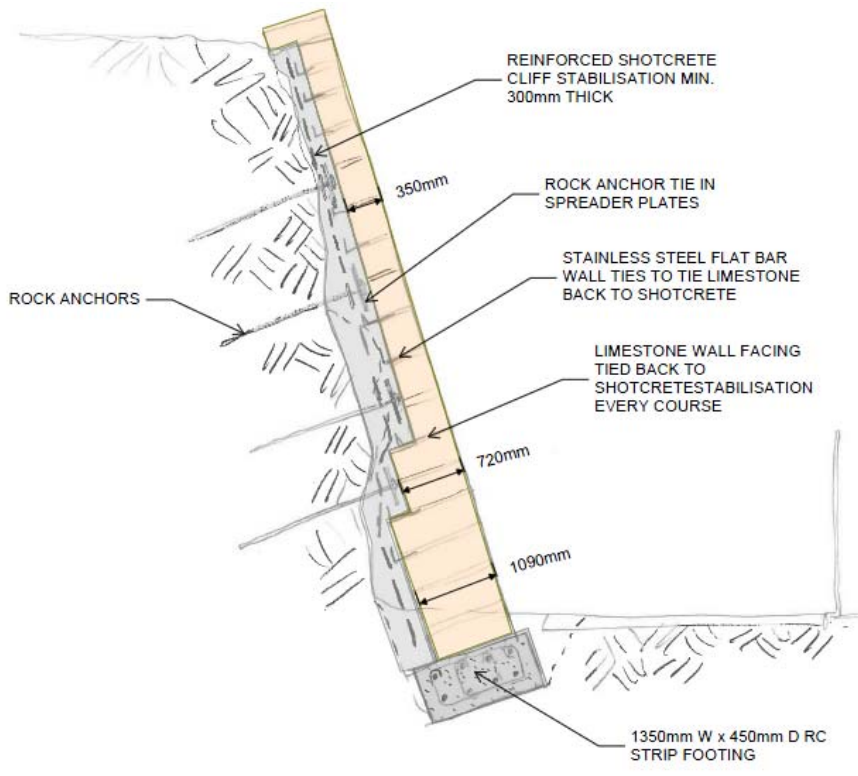
- 1) Re-calcify the face using a Calcite In situ Precipitation System (CIPS). This system is limited by how effectively the solutions associated with CIPS can be introduced into the face.
- 3) Mesh the face, secured with soil nails and use CIPS applied to surface to mitigate against material eroding through the aperture in the mesh.
- 4) Build another type of retaining structure e.g. a soil nail wall involving soil nails, mesh and shotcrete.

Until a permanent retaining option is carried out it will be necessary to mitigate the existing risk to the public traversing the north south footpath/cycleway. One of the following measures is recommended:

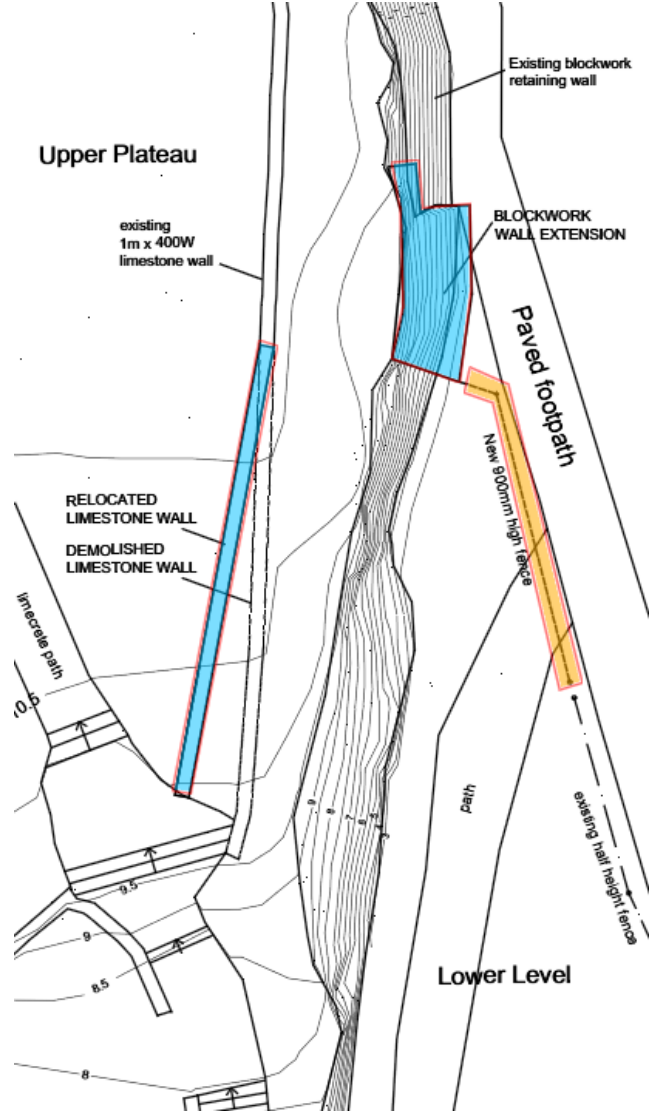
- a) Full closure of the rail reserve cycle/footpath where it passes the hazard
- b) Erection of a temporary support tunnel across the path design to retain earth falls hitting the side of the structure or rock striking the sides or top of the structure.
- c) Part closure of the path by narrowing the path and building a temporary barrier /fence capable of catching falling rock/earth.



Area 4: Sketch illustrating the recommended cliff façade extend to be covered by the masonry wall (blue) and by a 900mm high fence (yellow).



Area 4: Mitigation sketch – Section of masonry extension.



Area 4 and 5: Proposed wall extension, new fence location and upper plateau balustrade relocation.

Mitigation Option	Current Risk	Assumptions	Residual Risk (say in 10 years)	Safety Improvement Factor	Aesthetic Weighting	Assumption	Benefit	Cost	Benefit/cost	Cost estimate AUD
Extend existing adjacent masonry wall	3	will stop deterioration and support face	1	2	2	appearance improves significantly	4	8	0.50	\$90,000
Canopy over	3	protect public				could be designed to look attractive although rock face will				

3.3.7 Area 5 – Weak cliff of leached limestone and cross bedded aeolianite

Observations

Observation	Shallow undercuts, limestone balustrade close to cliff edge
Risk Category	High - Medium

The conditions in Area 5 are similar to those in Area 4 with a covering of loose sand at the top a low, 5 to 6-metre-high, cliff underlain by highly leached limestone with soil like properties in turn further underlain by leached and friable cross-bedded aeolianite (refer Photos 15, 16, 17 and 19).

Towards the southern end of Area 5 the capping of soil gives way to a caprock surface down which a path descends at the southern end of the elevated part of the reserve. A masonry wall is built on top of the cliff and at its southern end this wall is within about 1 metre of the cliff edge. This wall appears to be founded on sand and the southern end of the wall is at risk of being undercut should a cliff edge collapse occur.

Beneath the caprock at the southern end are several shallow undercuts which do not appear to present a risk of collapsing from under the path above due to the competency of the caprock. The situation should however continue to be monitored for changing conditions. There is a cave that appears to have been used as a storeroom in the past. It has been boarded up (refer Photo 18). By viewing through the bars to the barrier (Photo 18) it appears to be quite extensive and no doubt extends under the footpath that descends from the southern part of the reserve.

Risk and Mitigation Measures

There is a risk of collapse to sections of the cliff. This would present a high risk to path users if the footpath (currently closed) that skirts around the base of this cliff was to be reopened. It is recommended that this path remains permanently closed unless a retaining structure is built to support the faces, or at least the path is realigned so it is located beyond the path of falling debris.

At cliff crest level it is possible that some of the weakly cemented leached material falling from the cliff could cut back to and destroy a short section of the masonry barrier wall. To mitigate this risk one of the following could be undertaken.

- 1) Allow the cliff to find equilibrium (get case hardening after time being exposed to weathering) and relocate an about 8m long section of the upper plateau balustrade wall to avoid the retreating cliff edge. Prevent the public to get close to the cliff face by installing a 900mm high fence.
- 2) Build a cliff retention structure with mesh/shotcrete and soil nails.

It is possible the currently boarded up cave (Photo18) presents a risk of crowning upwards to the surface and undermining the path. Surface cover might only be about 2 m.

The stability of the cave could be investigated by removing the barrier to grant access and by a detailed level survey, so the plan area of the cave and the cave soffit elevations can be compared with ground levels. At the same time the roof of the cave can be visually inspected, and the quality of cover materials could also be evaluated by shallow boreholes drilled from above. Depending on the heritage value of the cave, an easy and reliable remedial measure is to build a shutter across the cave entrance and backfill the cave with flowable concrete thus negating the need for investigation and removing any residual risk.

Mitigation Option	Current Risk	Assumptions	Residual Risk (say in 10 years)	Safety Improvement Factor	Aesthetic Weighting	Assumption	Benefit	Cost	Benefit/cost	Cost estimate AUD
Prevent public getting close to cliff face and relocate part of upper plateau balustrade wall	3	Current risk based path being currently operational	1	2	1	no change in appearance	3	2	1.50	\$75,000
Open path at cliff face and cover cliff in mesh/shotcrete and soil nails	3	path around base operational	1	2	-3	appearance with look temporary and have poor aesthetics	-1	7	-0.14	\$175,000

3.3.8 Area 6 – Vertical face of caprock over zone of roots and cross-bedded aeolianite with undercuts

Observations

Observation	caves and undercuts beneath the caprock, rock fall, cracked columns in cave
Risk Category	High - Medium

Area 6 is a near vertical cliff of limestone about 9 metres high at its northern most end tapering to about 3 m high at its southern end. The cliff displays all three of the geotechnical units. The caprock at the higher most level is competent and intact and can be seen in plan as a pavement and also in section at the top of the cliffs. It is underlain by the "zone of roots" which has been eroded at many locations creating caves and undercuts beneath the caprock. The cross-bedded aeolianite form a stratum that is more competent than the zone of roots and is present towards the base of the cliff (refer Photos 21 to 27).

There is a cave towards the southern end of the cliff face. The cave displays a fine example of a large calcretised column formed by a taproot of a eucalypt tree. The column supports a large slab of caprock approximately 1.5 m thick. An adjacent fallen column shows the typical hollow structure of these large Rhizocretions (refer Photo 27). The standing column is also hollow as can be seen in Photo 26 and is cracked across its full width towards its base (refer Photos 26 and 27).

Generally, the caprock appears to be sufficiently competent to bridge the undercuts and cavities that have developed in the underlying zone of roots. However, from time to time a collapse of the edge of the caprock occurs as noted in the photograph below where a former rock bolt has been exposed.



A diagonal crack can be seen in the northern part of the Area 6 face. This appears to be a natural joint (refer Photo below) and although mentioned in earlier surveys does not appear to be developing.



The path along the base of this cliff was closed to the public at the time of the inspection and as such fallen rocks likely do not get cleared away very frequently. Several rocks were noted on or adjacent to the path during our inspection and are testament that the weathering and erosion of the limestone, especially the zone of roots units creating a mechanism to dislodge blocks. Examples of fallen rocks can be seen in Photos 22, 23 and 24.

Risk and Mitigation Measures

Risks to users of the lower path along the base of the cliff due to the hazard from rockfall are considered Medium to High if the path was to be re-opened.

The risk of a larger collapse bringing down a slab of caprock is considered relatively low and the risk of a slab of caprock collapsing and impacting the public area behind the barrier walls on top of the cliff are considered low to very low.

It is recommended that the path remain closed to manage the risk to people at the base of the cliff. It is also recommended that the calcretised column which might be partially supporting the cave (refer Photos 26 and 27) be reinforced at its base by constructing a jacket of concrete around the column to just above the level of the crack. The concrete jacket could be faced with limestone to conceal the concrete and blend in with the surroundings.

Mitigation Option	Current Risk	Assumptions	Residual Risk (say in 10 years)	Safety Improvement Factor	Aesthetic Weighting	Assumption	Benefit	Cost	Benefit/cost	Cost estimate AUD
Permanently close path beside cliff face and reinforce base of column in cave	3	Current risk based path being currently operational	1	2	1	existing appearance is maintained	3	2	1.50	\$50,000
Mesh and shotcrete face and open path to public	3	Current risk based path being currently operational	1	2	-3	affect appearance of face and destroy the cave	-1	8	-0.13	\$155,000

3.3.9 Area 7 – Vertical Face over western tunnel portal

Observations

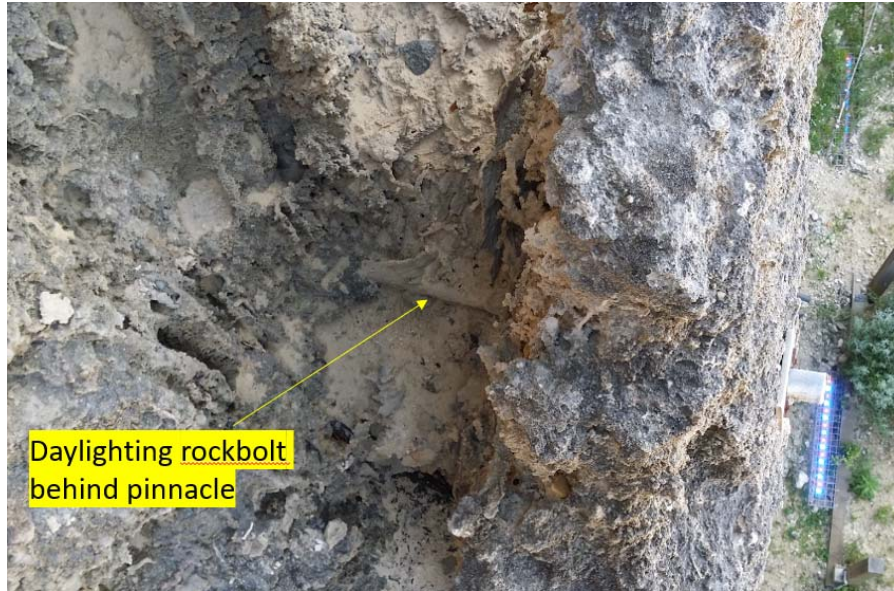
Observation	Dysfunctional rock bolts, cracking, no structural support to the tunnel portal
Risk Category	High

Area 7 is a near vertical cliff of limestone about 10 metres high at the northern end of Area 6 and directly over the western portal of the Whalers Tunnel. The face was inspected using a cherry picker (refer Photos 29 to 39).

The face displays a limestone caprock, an undercut and fretted section within the 'zone of roots' about 5 m thick. The undercuts are up to about 1 m deep and the face beneath the undercut caprock is not smooth but comprises a series of niches and columns. This irregularity in the face is hard to appreciate from ground level.

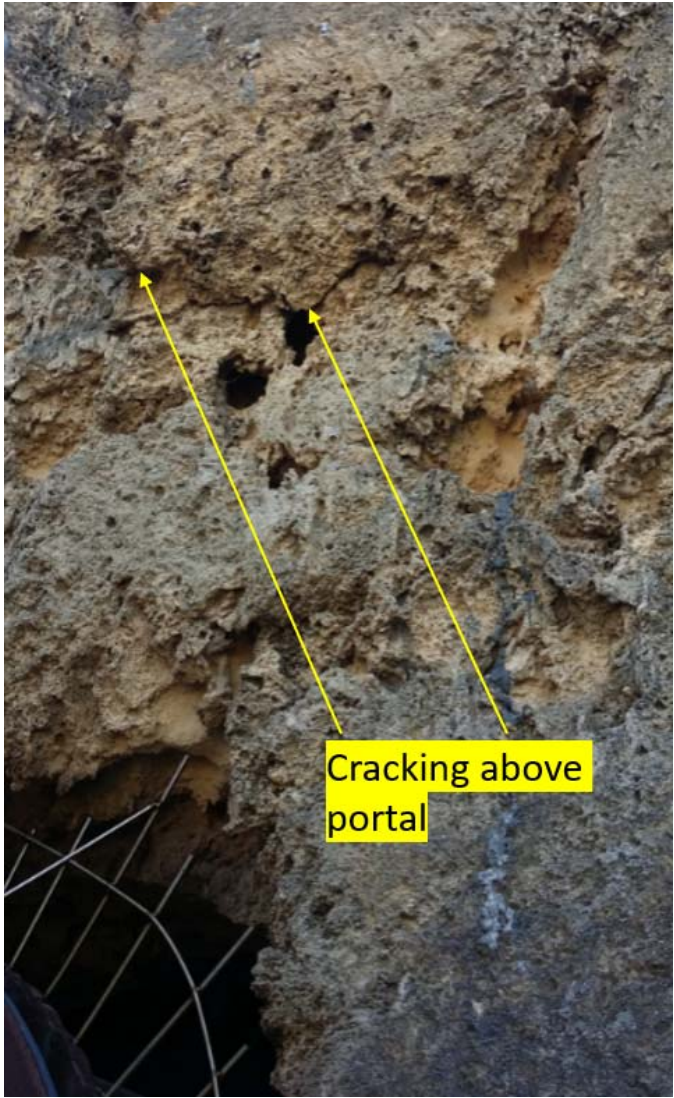
Immediately above the tunnel portal and the faces each side of the portal comprises limestone belonging to the cross-bedded aeolianite unit.

It should be noted that there is evidence of several defunct cable bolts. Two functioning rock bolts can also be seen in the face. These rock bolts appear to have been installed to secure pinnacles of limestone. The presence of the bolts appears however to have resulted in the cracking of the friable pinnacles and the southern most of the two rock bolts can be seen daylighting behind the pinnacle before penetrating the main face (see Photo below).



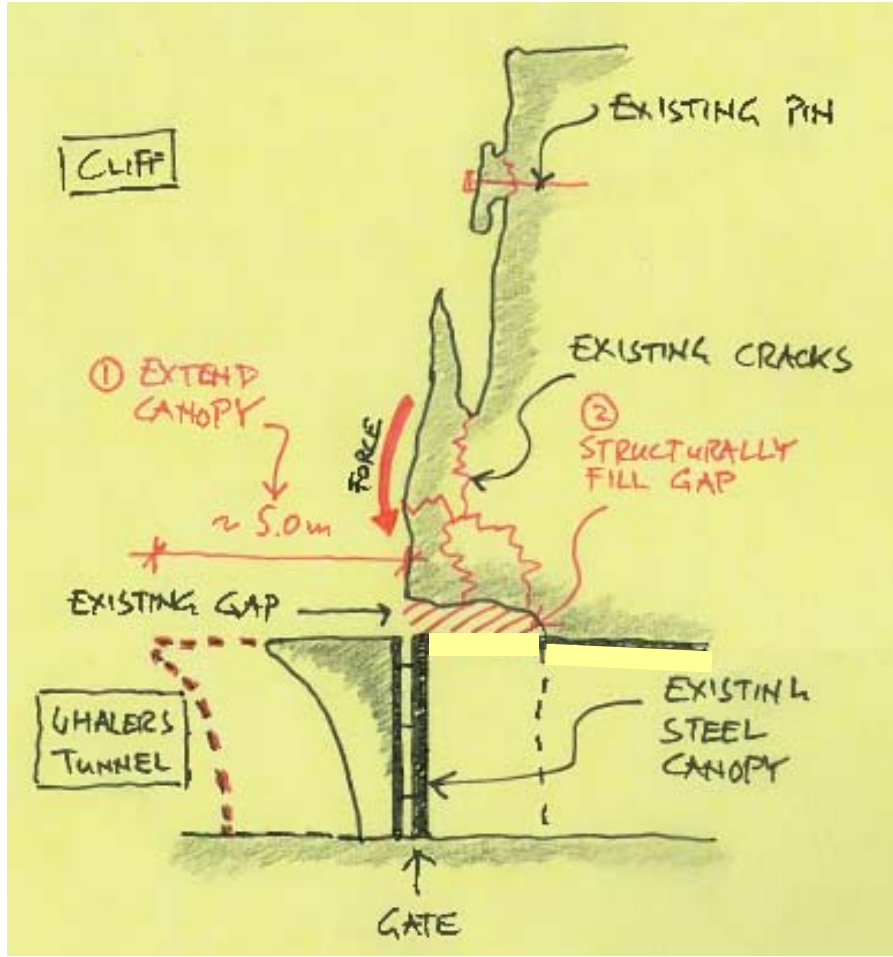
These bolts (without mesh and/or shotcrete) are providing little support to the face with respect to preventing cobble sized falls of rock.

Immediately above the western portal cracking can be seen as noted in the Photo below. Other cracks are present in the area above the portal and the limestone does not form a smooth arch as can be seen in Photo 38.



It was also noted that there is no structural support to the tunnel portal. The cable bolts reinforcing the crown of the tunnel installed in 2001 stop a few metres short of the portal and the steel arched canopy (refer Photos 38 and 39) would only be able protect the public from small cobble sized rocks falling from the face above the portal.

It is visually apparent that this canopy is not able to support the portal as it is not in contact with the crown of the tunnel nor does it extend into the tunnel a sufficient distance to provide the necessary support.



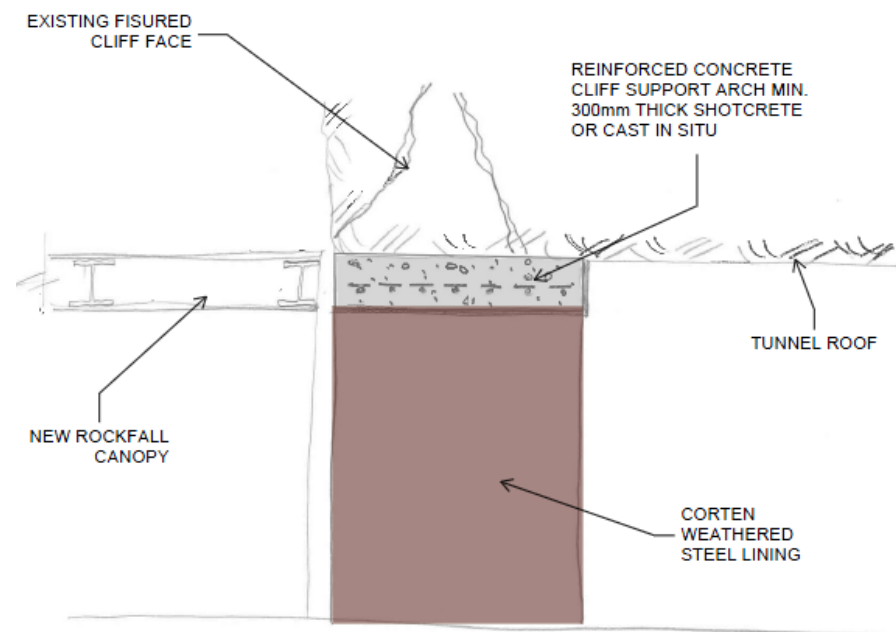
Area 7: Sketch illustrating 1.) The recommended canopy extension and 2.) the recommended structural fill between the steel canopy and rock tunnel roof.

Risk and Mitigation Measures

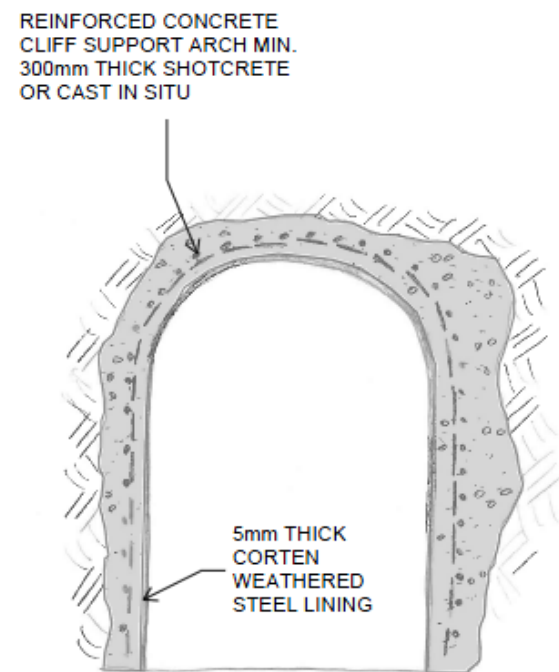
The rock bolts above the portal secure individual pinnacles. These pinnacles show some level of distress and the risk of them falling from the face has not been entirely negated by the installation of the rock bolt. If a fall of an individual pinnacle was to occur it is likely that the existing steel rockfall canopy and temporary scaffold would reduce the risk to injury to people to low with respect to rockfalls of less than about 0.5 m³. There is however a possibility of the falling pinnacles or other pieces of rock triggering a larger collapse that brings down the tunnel roof around the portal for about 1 m into the tunnel and extending upwards possibly even as far as the caprock pavement. If this was to occur rocks would end up on the floor of the tunnel and the steel rockfall canopy would likely collapse as the rock into which it is anchors collapses. Should this event occur, fatalities could result if people were in the vicinity of the portal at the time of collapse.

To significantly reduce the risk of the portal collapse occurring, a structural arch would need to be designed and installed beneath the portal and extending into the tunnel by about 1 m. The space between the structural arch and the tunnel roof and sides would need to be packed with concrete

to provide support with minimum movement. Aesthetically we propose to clad the concrete arch with corten steel to all three faces to match the existing design language of the place. Such a structural arch would reduce the risk of a catastrophic portal failure to very low.



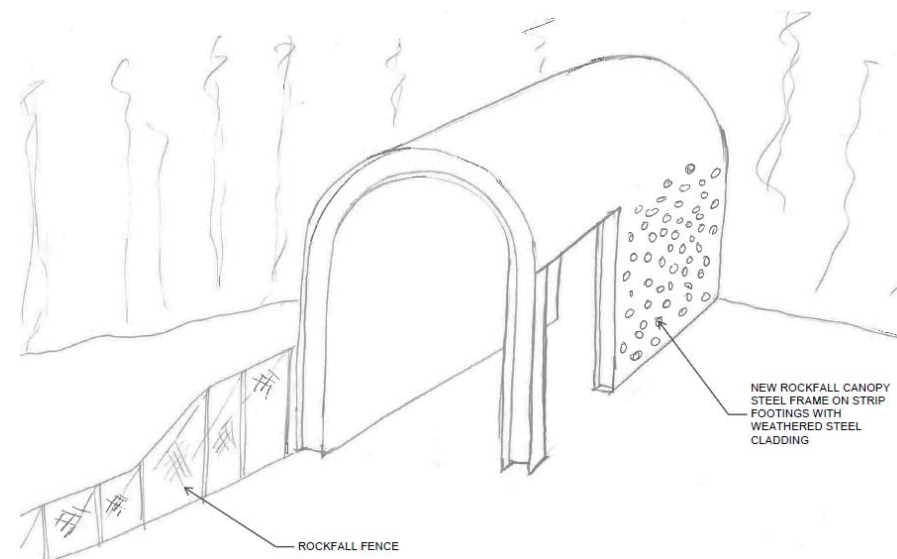
Area 7: Mitigation sketch – Long section of proposed arch supporting the cracking rock portal.



Area 7: Mitigation sketch – Cross section of proposed arch supporting the cracking rock portal.

However, the rockfall risk resulting from the face above the portal would need to be addressed. This could be done with extensive rockfall netting across the cliff face used in conjunction with a rockfall canopy similar to the current canopy. This solution would be detrimental to the representation of the cliff face. The preferred mitigation strategy for this highly public location is therefore a combination of four elements:

1. A larger rockfall canopy designed and constructed extending about 6 m out from the tunnel portal. The exact size of the rockfall canopy is a function of the rockfall risk in Area 7, but also addresses the risk from the adjacent Area 8 and the works undertaken there to mitigate that risk.
2. Application of the CIPS system to pockets of friable material across the cliff to address erosion.
3. A rockfall fence extending out from the canopy structure, which will be explained in further detail in 0 Area 8.
4. Soil and ground covering plants (coastal succulents) to an area between the rockfall fence and the cliff face to mitigate the bounce of falling rocks.



Rockfall Canopy – Option 1

Because of the exceptional significance of the Whaler’s tunnel entry based on its historic value we do not recommend a masonry mitigation strategy to this area such as that proposed for Area 4. The rockfall canopy would be the solution addressing the risk of falling material.

Rockfall analyses indicate that a canopy extending 6 m from the tunnel portal is required assuming, this also connects with a 0.9 m high 10 kJ rockfall fence to intercept any rebounding rocks falling from Area 8.

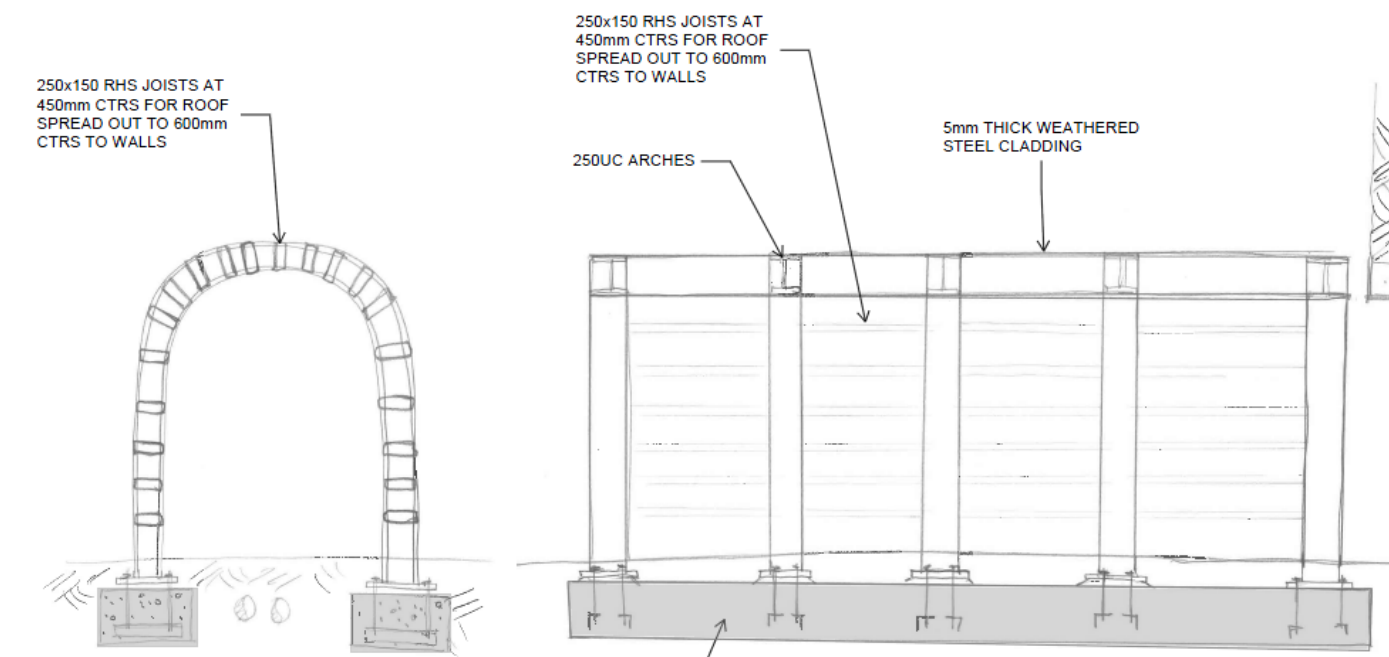
Following the existing shape of the tunnel, we propose a canopy extension of around 6m long, 4 m high and 4 m wide made from steel suitable for the coastal location and clad with corten steel. The canopy roof must be solid but the aides can be open or clad with perforated steel panel.

Because of its location within Fremantle’s “art precinct” (J-Shed, Kidogo Arthouse etc.), there is potential for the canopy steel cladding to be an interpretive artwork of the heritage significance of the place. Opportunities for interpretation can be creatively designed to inform visitors to the site such as using an interpretive perforation showing the Whaling or shipbuilding history.

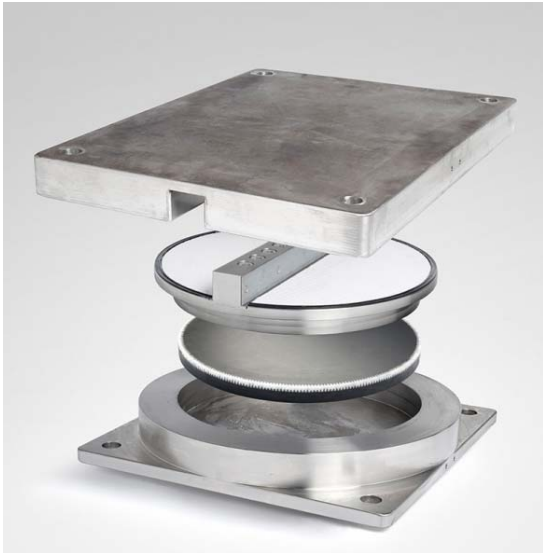
If feasible the existing canopy and steel gate could be retained and reinstalled. This is subject to further intrusive investigation.

The design of steel members is driven by the potential impact forces of fallen material. To avoid a “bulky” construction, the installation of springs under the canopy columns is recommended allowing a more slender steel member design.

Area 7: Rockfall canopy – Visualisation of proposed rockfall canopy and rockfall fence at Whalers tunnel entry (Bather's Beach side) – Option 1

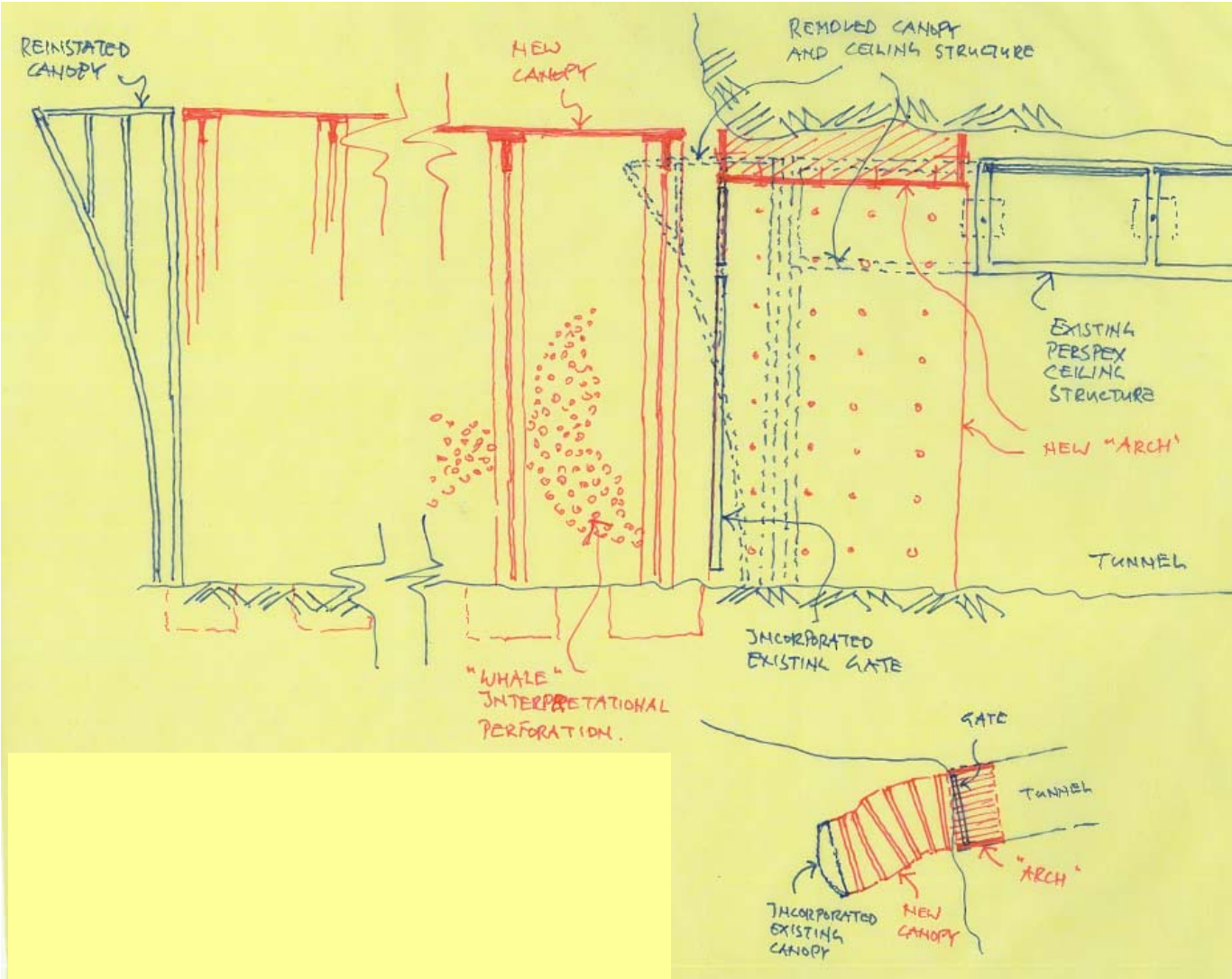


Area 7: Rockfall canopy – Sections of proposed rockfall canopy at Whalers tunnel entry (Bather's Beach side) – Option 1



Mitigation Option	Current Risk	Assumptions	Residual Risk (say in 10 years)	Safety Improvement Factor	Aesthetic Weighting	Assumption	Benefit	Cost	Benefit/cost	Cost estimate AUD
Build support for portal in form of arch	3		1	2	1	support would barely be visual from outside the tunnel visual	3	5	0.60	\$285,000
Extend rockfall canopy by 6m (Option 1) and do not treat face	3		1	2	-1	extension of existing could be designed to complement surrounding	1	5	0.20	\$145,000
Install rockfall netting to cliff face	3		1	2	-3	Netting would significantly affect appearance	-1	4	-0.25	\$115,000

Area 7: Exploded image of spring proposed for canopy column base.



Area 7: Rockfall canopy - Section sketch and site plan - Option 1

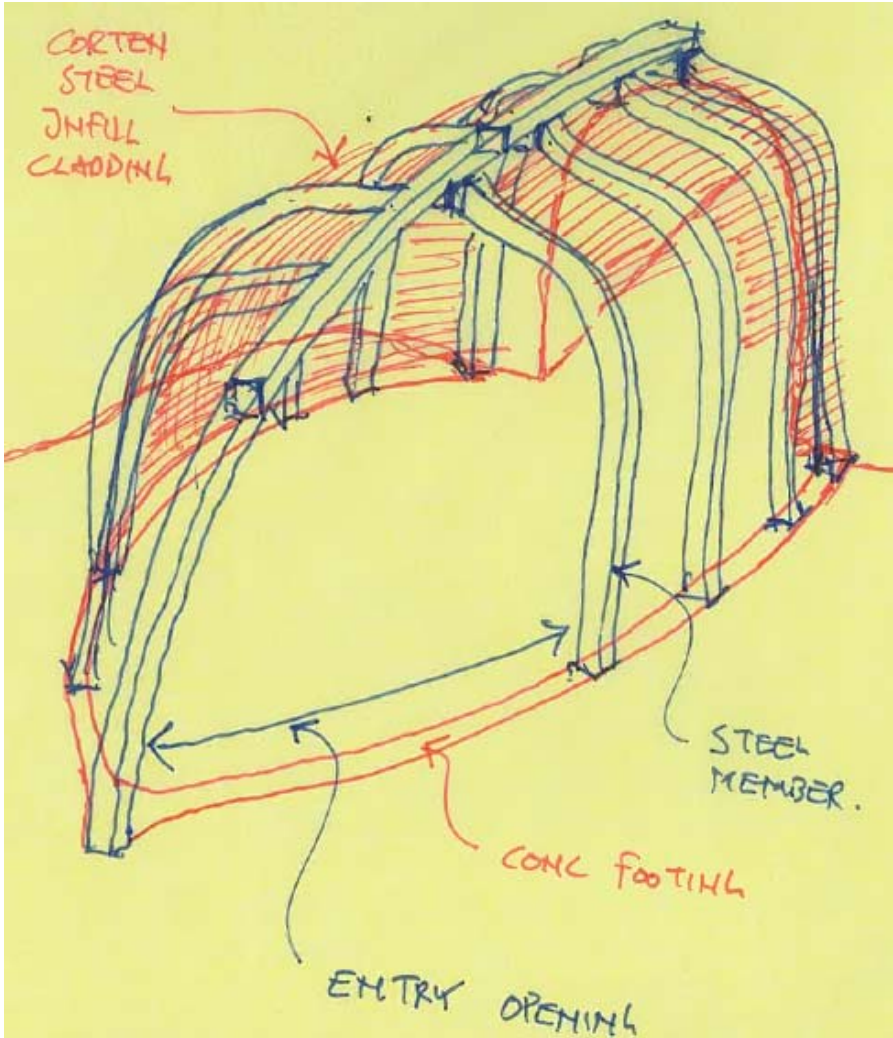
Rockfall Canopy - Option 2

With reference to the history of Bather's Beach as a Whaling and shipbuilding location during early settlements, we propose an interpretive design to the canopy shelter. Beside proper ships they were certainly using small rowing boats which usually got stored on the beach in a flipside position.

This is what Option 2 picks up upon. The design interprets the hull of a flip sided boat. Steel members get installed as the keel and frame, a concrete strip footing follows the curved form of the boat. Suitable steel panel infills provide the necessary shelter function.



Area 7: Rockfall canopy - Simplified visualisation - Option 2



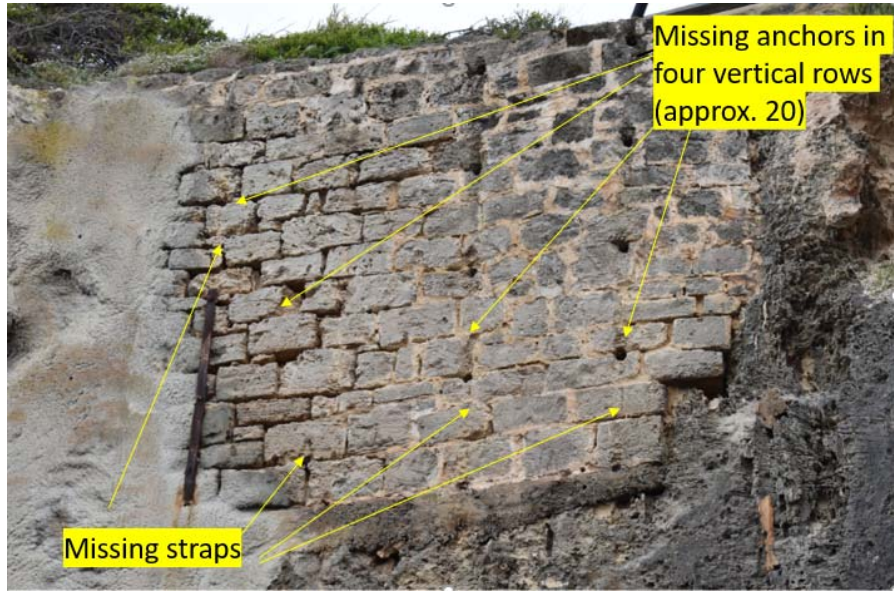
Area 7: Rockfall canopy - Visualisation - Option 2

3.3.10 Area 8 – High face beneath time ball and signal cannon platform

Observations

Observation	Extensive cliff erosion, friable surfaces, corroded masonry ties, rock fall hazards
Risk Category	High

Area 8 comprising a near-vertical cliff about 12 m high is located immediately south of the signal cannon and time ball platforms and close to the western portal of the Whalers Tunnel. Photos 39 to 47 illustrate the cliff face conditions at Area 8. The geotechnical units comprise a caprock between about 0.5 and 1.5 m thick at the top, underlain by a fretted and highly eroded "zone of roots" which is further underlain by the cross bedded aeolianite. At some time in the past a panel of limestone masonry approximately 5 m wide by 4 m high was constructed, presumably to slow down erosion within the 'zone of roots'. This was presumably considered important for safety as this part of the wall is located directly above the tunnel portal. It is apparent that in the past this masonry wall was tied back into the cliff by at least 20 rock bolts, and steel straps approximately 50 mm wide were arranged vertically in four rows. The anchors have all but completely corroded away and only a rusty piece of strapping remains (see photo below). The wall sits upon a concrete footing that can also be seen in the photo below.



The masonry itself is in very poor condition as can be seen in the photo below.



Next to this masonry wall is an area where shotcrete has been applied in an apparent attempt to prevent the erosion and fretting of the upper part of the cliff within the 'zone of roots.' The shotcrete does not appear to have adhered well to the sandy friable surface of the limestone and cracks can be seen (see photo below). Pieces of shotcrete now present a rockfall hazard.



Further west the 'zone of roots' section of the face is particularly friable and it is from this section that a large pinnacle of material (approx. 100 kg)

dropped and was noted and photographed in the Gordon Geological Consultants site inspection report of 2009. The following photo shows the area from which that pinnacle fell.



The strength of the face is highly variable with highly leached zones adjacent to more competent materials (refer the following two photos).





Risk and Mitigation Measures

There are significant risks relating to the cliff at Area 8 in its current condition. Without the tie-back system and in its current state of repair there is possibility to likelihood of the masonry wall collapsing. If the situation is not improved the likelihood of collapse will increase further. The scaffold canopy at the base of this part of the cliff partially mitigates the risk. Depending on the size of the fall there is a risk that some falling debris could smash through the plywood cover to the scaffold or enter the canopy structure from the side. The risk of a fall is considered high but the risk of falling material breaking into the canopy and causing an injury is considered low to medium.

Similarly, if the masonry wall was to collapse *en masse* there is a low to medium risk of the caprock pavement immediately behind the wall collapsing and affecting public safety in the vicinity of the time-ball platform. Thus, whilst path closures or canopies can protect the public at the base of the cliff, some form of retention works are required to stabilise the wall to mitigate risk at the top of the cliff.

The retention options are:

- 1) Masonry repairs, mortar repairs, new pointing and installation of rockbolts /soil nails and steel straps both vertically and horizontally like the original anchoring and strapping applied to this wall.
- 2) Masonry repairs, mortar repairs, new pointing and installation of a high strength rockfall mesh/netting secured and anchored in place with rock bolts/soil nails
- 5) Installation of a high strength rockfall mesh/netting secured and anchored in place with rock bolts/soil nails across the face of the masonry wall and a layer of shotcrete. **Not recommended for aesthetic and Heritage purposes.**

Option1 would result in a similar level of improvement in stability to the other options and would not significantly change the appearance of the existing wall/cliff face.

West of the wall in the area where a pinnacle has previous fallen, the risk of a rockfall or minor cliff collapse affecting public safety at the signal cannon platform is considered low as the setback of the platform from the cliff edge is greater at this location than at the location of the masonry wall.

There are however fewer options to reduce risk at this location.

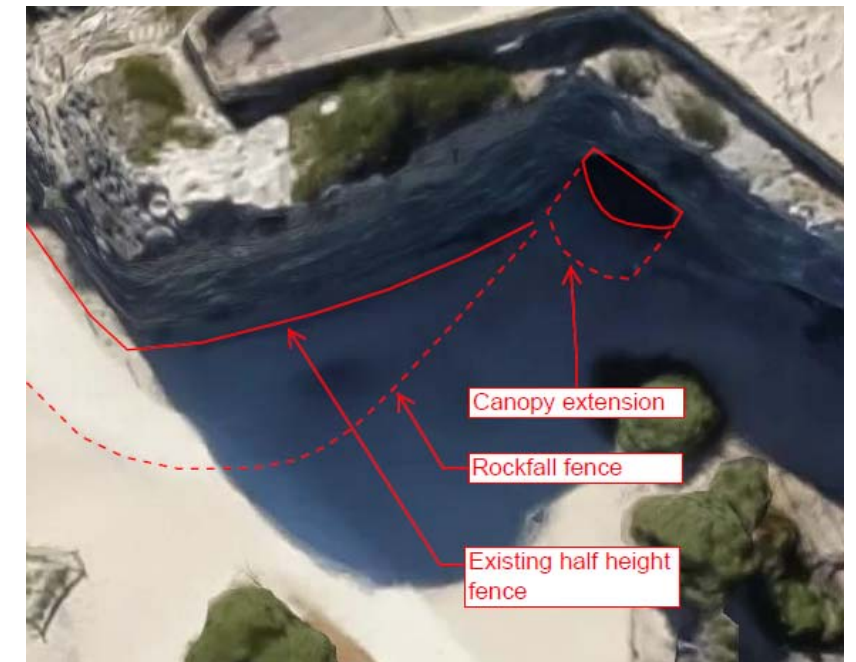
- Trimming of the face is discounted as it will remove case hardened material and expose the slope to erosion.
- A pinned rockfall net/mesh would likely not be effective due to some extremely friable material towards the top of cliff that would fret and wash through the netting apertures and a loss of tension in the net could be expected as material drops out.
- A rock bolted/ soil nailed mesh with an application of shotcrete would improve overall stability and significantly mitigate rockfall risk. Due to the highly irregular surface of the cliff face a shotcrete thickness more than 0.5 m in places could be expected in order to provide cover to the reinforcing mesh. **Not recommended for aesthetic and Heritage purposes.**
- A more aesthetically pleasing option might be to leave the cliff untreated and instead invest in keeping the public out of the impact zone of falling material. This could be achieved by a combination of:
 - Rockfall shelter / canopy (close to the tunnel portal,
 - A rockfall energy absorbing fence barrier where the distance is such that impact from the hazard is from a sideways trajectory (i.e. bouncing rock)
 - Re-routing footpath to keep them out of the rockfall impact, bounce and roll zone.

A surface application of CIPS could be applied to the cliff face to try to slow down the rate of erosion, but this method is unlikely to have sufficient penetration to substantially reduce the risk of rockfall or to improve overall stability.

The current risk if the public were to enter the currently cordoned off zone is very high. These risks could be reduced to low by either the shotcrete option or measures to keep the public protected through distance, fencing and canopies.

Rockfall Fence

A 600mm to 900mm high rockfall fence is proposed to be installed below this location able to withstand a 10kJ force of rebounding rocks falling from the cliff, cabling and posts bolt anchored in concrete as per example image on the next page.



Area 8: Sketch illustrating 1.) the recommended canopy extension and 2.) the recommended rockfall fence location re-routing the public away from the cliff face.

Mitigation Option	Current Risk	Assumptions	Residual Risk (say in 10 years)	Safety Improvement Factor	Aesthetic Weighting	Assumption	Benefit	Cost	Benefit/cost	Cost estimate AUD
Repair masonry wall, install new ties, install rockfall fences and re-route paths	4	assuming temporary path closures and scaffold canopy were removed	1	3	1	existing appearance is maintained	4	5	0.80	\$50,000
Cover face in mesh rock bolted in place	4	assuming temporary path closures and scaffold canopy are removed	2	2	-2	appearance will deteriorate due to mesh	0	5	0.00	\$115,000

3.3.11 Area 9 – Steeply inclined cliff

Observations

Observation	Rock fall, overhangs
Risk Category	Medium

Area 9 is the westernmost edge of the promontory forming the signal cannon platform. It is a face up to 11 m high and is inclined at approximately 65-70°. Overall the face appears more stable than the adjacent southern facing cut face (Area 8). The face is covered with case hardened calcrete. The host units appear primarily to be the cross-bedded aeolianite with a cover of caprock at the summit. The geotechnically problematic zone of roots appears largely absent at this location. There is a small area of infilled blockwork dentistry (refer Photo 48) which appears to have been undertaken to repair an area where case hardening has been lost. Some remnants of a long abandoned and partially dismantled staircase remain on the face (refer Photos 48 and 50).

Risk and Mitigation Measures

The clean nature of this face and the extensive case hardening decreases the likelihood of small pieces falling from the face, although a hazard is present. There is also the risk of collateral damage to this face should material fall from the southerly facing rock face in Area 8. For this reason, it is recommended that the footpath be locally realigned, so the edge is at least 6 m from the cliff face and a catch fence be constructed to contain any falling material that might bounce, roll or slide beyond the exclusion zone and onto the path.

An alternative to relocating the path would be to pin a rockfall netting to the face with soil nails/rock bolts. As the case hardening is largely intact on this face the anchored rockfall netting would be effective in containing and/or preventing falling material, however if the case hardening becomes damaged, the application of shotcrete would become necessary to prevent smaller material from ravelling/washing out through the net apertures.

It is recommended that the hazards associated with the overhanging step illustrated in Photo 50 be removed by removing the step and other man-made debris from the area.

Mitigation Option	Current Risk	Assumptions	Residual Risk (say in 10 years)	Safety Improvement Factor	Aesthetic Weighting	Assumption	Benefit	Cost	Benefit/cost	Cost estimate AUD
Re-route path away from face	2		1	1	1	existing appearance is maintained	2	2	1.00	\$15,000
Rock bolt and mesh face	2		1	1	-2	appearance will deteriorate due to mesh	-1	4	-0.25	\$50,000

Area 10 – Inclined cliff face behind J shed

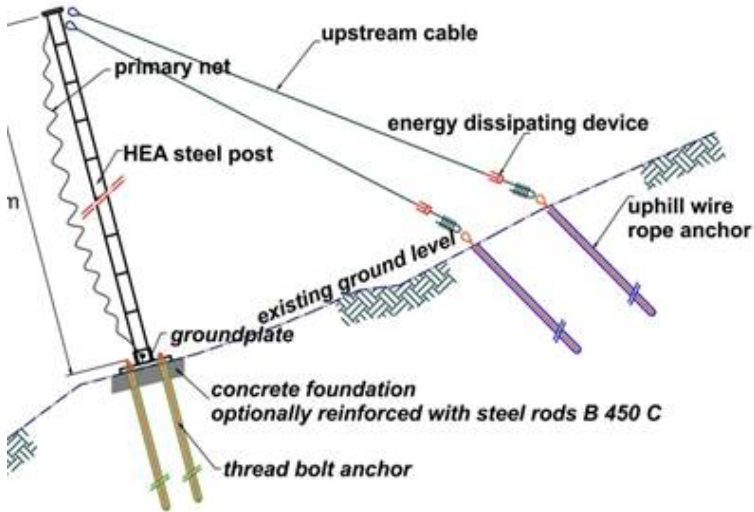
Observations

Observation	Vegetation overhang, little rock fall risk
Risk Category	Low

Area 10 comprising a 45 to 60° case hardened limestone batter some 4 to 6 m in height. The principal unit exposed is the cross-bedded aeolianite (refer Photo 56) and extensive case hardening has resulted in a well cemented and apparently stable face. There are some *Rhizocretions* in the form of calcified taproots at the northern end of the cutting (refer Photos 51 and 52).

Risk and Mitigation Measures

Overall the risk of material falling from this face and striking pedestrians, parked cars etc. is considered low. No mitigations measures are considered necessary other than to keep vegetation trimmed so that trees do not grow and start to wedge blocks of rock by root wedging.



Area 8: Sketch illustrating the recommended rockfall fence system.

Mitigation Option	Current Risk	Assumptions	Residual Risk (say in 10 years)	Safety Improvement Factor	Aesthetic Weighting	Assumption	Benefit	Cost	Benefit/cost	Cost estimate AUD
Trimming of vegetation to avoid wedging	1		1	0	1	appearance will benefit	1	1	1.00	\$50,000



Area 8: Example image of the recommended rockfall fence

3.3.13 Area 11- Man made retaining wall between CGI shed and Time ball Platform

Observations

Observation	Retaining wall in unstable condition
Risk Category	High

A small buttress like promontory of limestone projects northwards from the northern side of the time-ball and cannon signal platforms. In the past it has clearly been modified by the addition of an irregular masonry wall. This feature can be seen in Photos 57 to 60.

According to the CMP, this 'outcrop' was most likely the base of a former 2nd signal mast from about 1905 – 1929 (pg72 item 21 in CMP). It lists the signal mast area as archeologically "considerable significant".

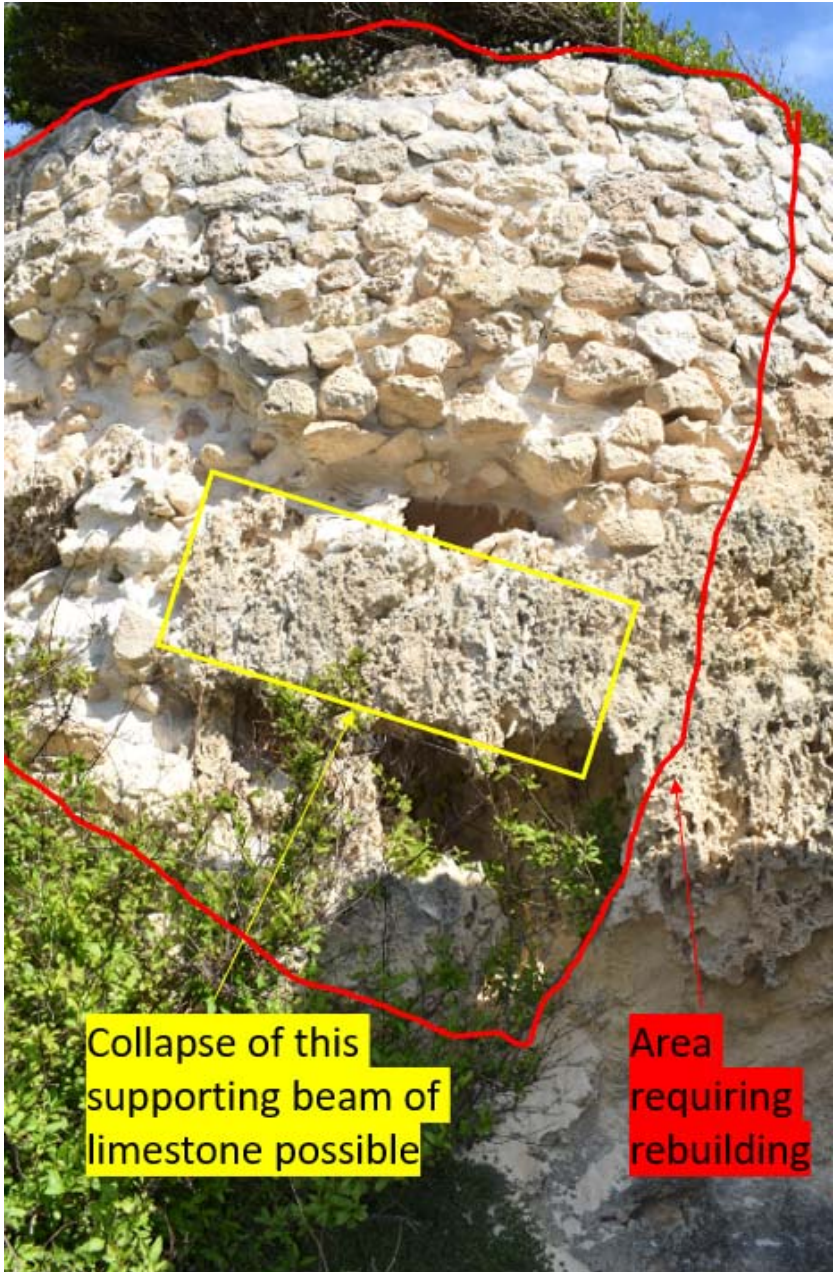
It is however now outside of the masonry barrier wall that surrounds the cannon and time-ball platforms so cannot be accessed by the public. It is currently in an unstable condition with the foundation rock on which the masonry wall is built being vughy and containing large voids.

Risk and Mitigation Measures

A brittle failure of a beam of vughy *in situ* limestone on which the wall stands would result in a collapse of the wall mobilising a large volume of earth, rock and stonework possibly 20+ m³. See Photo below.

There is a strong likelihood of a collapse occurring within the next 10 years. The consequences of the collapse would likely be damage to the green steel CGI shed (refer Photos 58, 59 and 60. The risk with respect to damage to the building is considered high, whilst the risk to people is considered low, solely because of the unlikelihood of anyone being in the line of fire (namely being behind the shed or outside of the barrier wall at the crest) at the time of collapse. The Heritage significance of this buttress needs to be looked at in further detail.

To significantly reduce the risk of collapse, and therefore damage to the building, it is recommended that the area illustrated in the above photo is carefully dismantled, loose rock removed and voids at foundation level infilled with mass concrete or limestone masonry infill before rebuilding the wall to match the existing.



Mitigation Option	Current Risk	Assumptions	Residual Risk (say in 10 years)	Safety Improvement Factor	Aesthetic Weighting	Assumption	Benefit	Cost	Benefit/cost	Cost estimate AUD
Demolish and rebuild unstable retaining wall	3		1	2	1	existing appearance is maintained	3	5	0.60	\$75,000

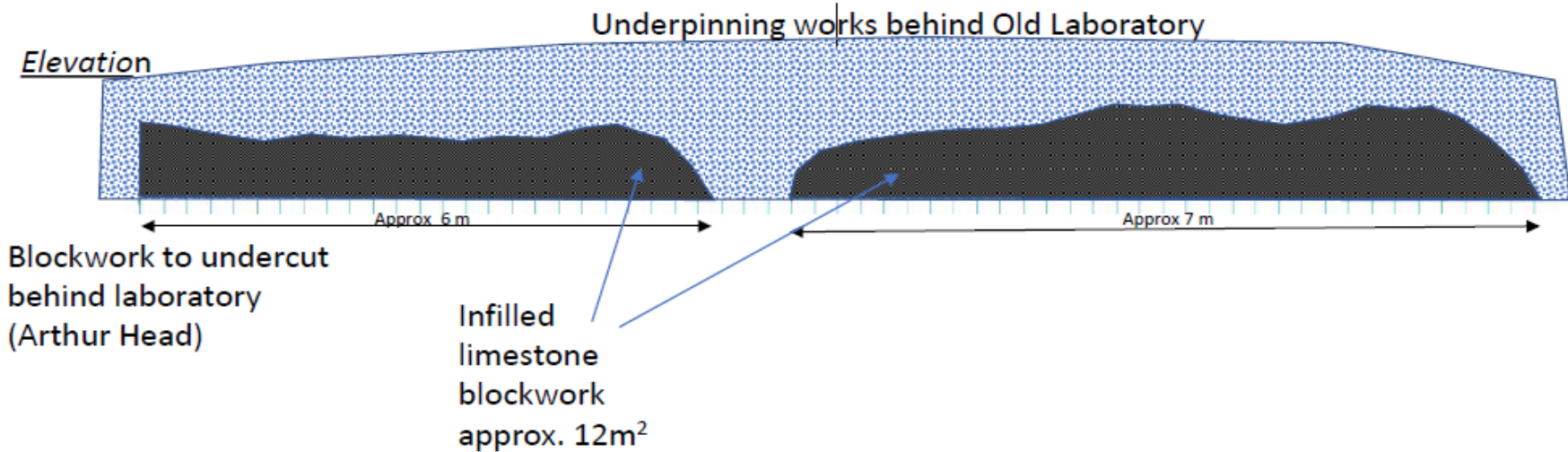
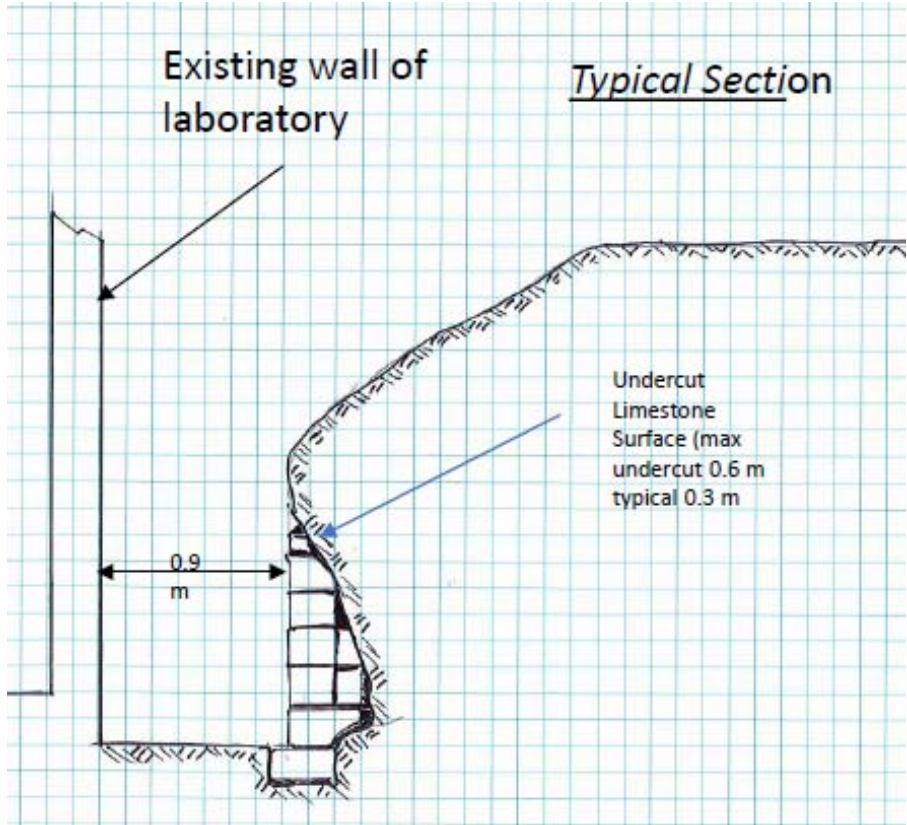
3.3.14 Area 12 – Underpinning works behind Old Laboratory

Observation	Overhanging caprock
Risk Category	Very Low

A small undercut approx. 12m² in size exists behind the Old Laboratory, overhung by stable caprock.

Risk and Mitigation Measures

Carefully clean loose sand from undercut. Carefully excavate base to sound limestone and level to lay first limestone block on bed of lime mortar up to 80 mm thick. Limestone blocks shall be natural limestone and have minimum density of 1200 kg/m³ and minimum compressive strength of 2.2 MPa (wet) and 2.5 MPa (dry). All mortar shall be lime mortar in accordance with specification. Cut 500 x 350 x 150 mm natural limestone blocks to suit recess/undercut requiring underpinning. Pack gaps behind blockwork with lime mortar so no gaps are left. Wall shall be formed 900 mm off face of existing laboratory wall. Finish top of wall with fillet of mortar to shed water. Blocks to be stretcher bond, 150 mm between courses with mortar beds 20 mm thick.



Mitigation Option	Current Risk	Assumptions	Residual Risk (say in 10 years)	Safety Improvement Factor	Aesthetic Weighting	Assumption	Benefit	Cost	Benefit/cost	Cost estimate AUD
Underpinning works	1		1	0	-1		1	2	0.50	\$19,930

3.3.15 Secret Tunnel

Observations

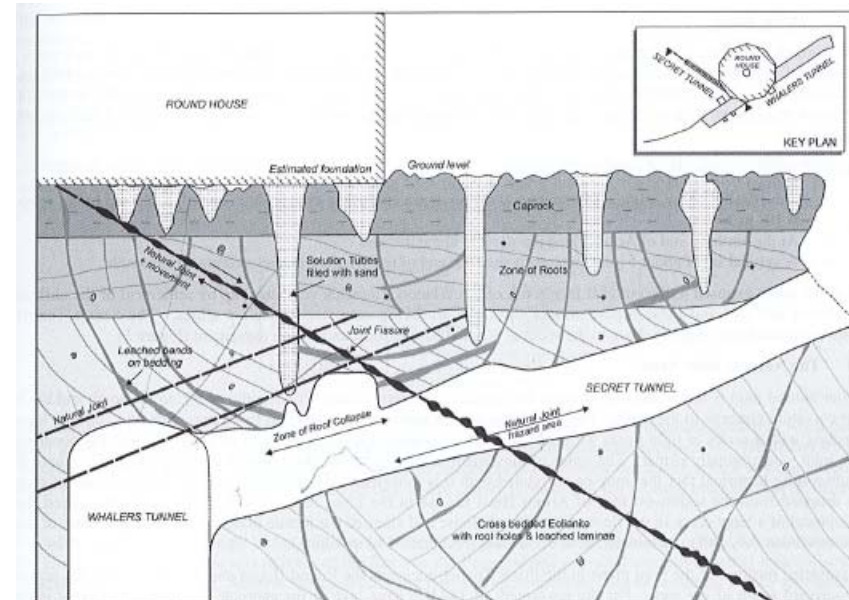
Observation	Friable ceiling material, rock fall
Risk Category	Very High (if opened to public)

It is likely that the Secret Tunnel had not be entered for some time prior to our inspection as indicated by the accumulation of debris across the locked gate at the northern end which had to be cleared to allow access.

The tunnel measures nominally 1.2 m width and 1.8 m high. It is unsupported/ unlined and has been formed in limestone with an arched roof, vertical walls and a flat floor.

The tunnel descends on an incline to intercept the Whalers tunnel about 1.5 m above invert of that tunnel.

The long section presented below is after Gordon (2003). It shows the geometry and geology of the Secret Tunnel. This interpretation largely agrees with our observations, although we infer that the 'zone of roots' extends into the tunnel crown in some areas.



Some key observations from our inspection are listed below:

- 1) A large amount of very loose sand has accumulated in the floor of the tunnel. It is apparent that this sand has largely not been washed into the cave but instead has fallen from the walls and ceiling of the tunnel to form a fine-grained and very loose layer of sand. This can clearly be seen in Photo 61. Accumulation on some but not all of the fallen rocks in Photo 63 support this observation. The large rock in the photo without a drape of sand is presumably a recent fall.

- 2) A rockfall was observed about 2 metres from the Whalers Tunnel portal. This is not the zone of roof collapse described in Gordon 2003 and illustrated in the sketch above. Instead it appears to have been triggered by the installation of one of the radial cable anchors installed during the 2001 remedial works to the main Whalers Tunnel. The photo above illustrates the ribbed duct around the cable anchor that has been exposed in the roof of the Secret Tunnel.

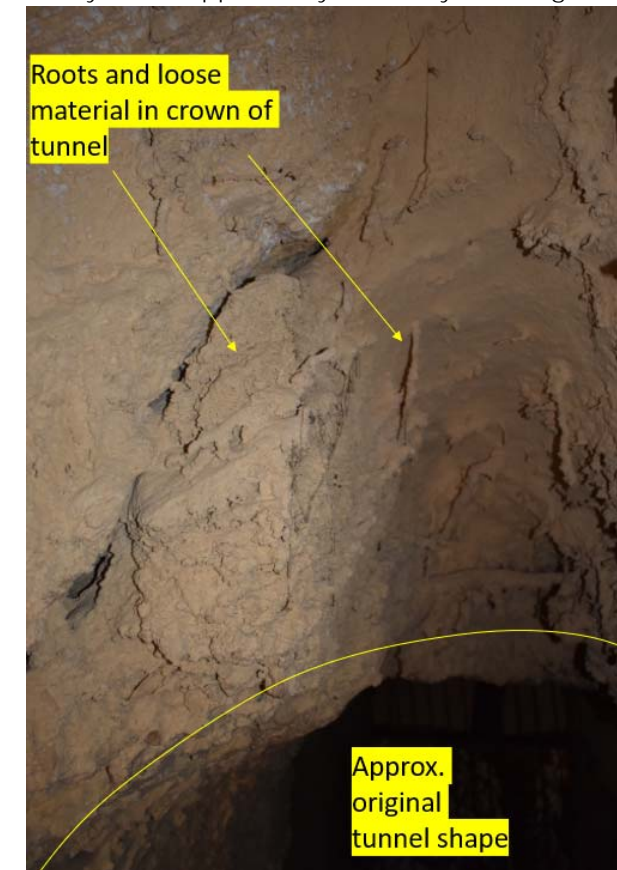


- 3) Much of the Secret Tunnel is within the cross-bedded aeolianite but the 'zone of roots' is exposed in the tunnel roof and is friable in nature. Loss of material has occurred in the crown of the tunnel exposing a number of calcretised root filaments (see Photo below). The roof is thus very friable and a small impact when traversing the tunnel was noted to bring down small pieces of rock and sand.

Risks and Risk Mitigation Measures

The tunnel presents an extreme risk for any public access. Even for occasional inspections, the risk of a rockfall injuring personnel is high and entry should only be made by a geotechnical professional who is able to access the risk of each section before entry. For this reason, it is recommended that the tunnel is permanently closed, and entry permitted only under a properly planned and managed inspection regime.

The only safe way of allowing public entry to the tunnel would be to provide a fully lined/supported system likely involving a fibre-reinforced shotcrete.



Due to the friable and loose nature of the tunnel the ceiling and walls material is likely to fret and fall during the application of the shotcrete.

Alternatively, the CIPS system might assist in binding the friable material stabilising the surface. The public safety however wouldn't be significantly improved. Once the surface gets mechanically impacted, the protecting CIPS layer would brake easily and erosion or rockfall might occur.

Whilst there is a significant risk of small quantities of material falling from the tunnel crown, the risk of a rockfall enlarging and emerging at ground level above, as a crown hole, is considered to be low. The tunnel width is only 1.2 m and a cover of between 5 and 6 m of limestone exists above the tunnel except near the northern portal. There is a caprock pavement over the tunnel and this pavement can be visually inspected at ground level. The caprock pavement is of high to very high rock strength and would likely be

Recommended Mitigation Option	Current Risk	Assumptions	Residual Risk (say in 10 years)	Safety Improvement Factor	Aesthetic Weighting	Assumption	Benefit	Cost	Benefit/cost	Cost estimate AUD
CIPS application	4	Stabilizes erosion	3	1	1	Limited improvement to safety	1	1	1.00	\$85,925
Install full lining system	4		1	3	-3	no longer the original tunnel	0	8	0.00	\$145,000

able bridge any void that developed beneath it due to a collapsing tunnel soffit. The risk of crown hole development to the surface is therefore considered low.

The only conceivable risk of a void daylighting to the surface would be if sand in a solution tube was to wash down into the tunnel. Whilst possible, this hazard is considered relatively minor as it is constrained by the diameter of the solution tube. Most solution tubes are under 25 cm in diameter and the resultant hole at ground level could be easily plugged if it was to occur.

3.4 Retaining Walls

Stability calculation has not been conducted for the existing retaining walls around the Arthur Head reserve. This is because it is not readily apparent as to which walls if any are in fact retaining and supporting a load or pressure imposed on them from the earth behind. Instead it would appear that many of the walls function as erosion protection coverings to prevent the fretting, and removal of leached limestone. By controlling this erosion, the undercutting and progressive deterioration of the cliff face is arrested or at least slowed down and the risk of undercutting of parts of the cliff significantly reduced.

Without undertaking extensive and invasive investigation techniques to drill and probe the thickness of the retaining walls and to also evaluate where the material behind walls is capable of self-support or requires retention, it is not possible to back-analyse the walls to establish the factor of safety against the various mechanism of instability (sliding, foundation failure, overturning, etc.). Instead an observational approach to their stability has been undertaken. This approach involves observing the wall for signs of movement such as bulging that might suggest meta-stability. Similarly, it is recognised that the future stability of the walls depends on ensuring that their condition does not deteriorate and that new disturbing agents are not introduced. Such new disturbing agents could be; water discharging into the ground behind the wall from a tap or hydrant left on, broken reticulation piping, new soak-wells placed close to the back of the wall, modified surface drainage. It is also essential that the overall structural integrity of the wall is maintained, e.g. masonry blocks that have lost mass and strength through weathering and leaching are cut out and replaced, leached and fretted mortar is raked out and replaced and the walls are kept well pointed and in an overall good state of repair. Similarly, where sections of wall such as the panel of masonry in Area 8, beneath the Cannon platform, were previously tied back to the cliff face with steel anchors and supported with straps between the anchors this tie back system requires replacement as it has deteriorated and is clearly no longer functioning. As such this section of wall could collapse without warning most likely during adverse load conditions such as heavy rain and high winds.

3.5 Recommendations and Alternative Options

A quantitative risk analysis of the prevailing risk assuming restored public access and alternative remedial or risk mitigation strategies is recommended. It should be noted that where the option is to close an area to the public the risk still has to be considered based on one of the following:

- Trespassers sleeping in the cave on average 30 days a year
- City of Fremantle Workers entering closed off areas for maintenance purposes and picking up litter etc.
- Occasional inspections (as in the case of the Secret Tunnel).

However, it should be noted that assessment of risk is highly subjective. It involves estimation of the likelihood and severity of the event which is very subjective and assessment of likely exposure and numbers traversing areas. Estimates of risk must therefore be considered as approximate calculations.

The recommended remedial/risk mitigation option is highlighted in Appendix .

A **Schedule of Recommendations** is attached in Appendix .

3.6 Cost Benefit Analysis

A cost benefit analysis (CBA) is provided in Appendix . This CBA was used to inform the recommended option. Both improvement in safety/risk and aesthetics were weighted equally and a scaled value of benefit divided by cost to give a value of benefit/unit cost against which options can be compared. Note this CBA is subjective both in the equal weighting of improvement in risk level and loss of aesthetic value but also in the relative estimation of cost.

4.0 CONCLUSION

The condition of the cliffs at Arthur Head Reserve in Fremantle ranges from good to poor. Some areas are in reasonable condition and only need minor repairs, re-pointing of man-made masonry or vegetation removal and maintenance.

Other areas, especially Areas 4, 7, 8 and 11 are currently poor and a considerable risk to the public due to their degradation and potential collapse close to frequently used pathways or buildings. We emphasise that timely remedial action is needed to address the hazards and minimise the erosion of the cliffs on this historic site with natural and manmade features.

The secret tunnel is currently structurally unsafe and should remain blocked off. It should be noted that the methods of repair for the tunnel are outside the scope of this report.

The preliminary drawings were reviewed by DPLH Heritage Services after their Development Committee meeting at the end of November 2018 with their comments incorporated in the Contract Documentation. This included the completion of an Interpretation Strategy for the place.

Tender documents and specifications have been prepared following the advice of the consultants and acknowledgement of the City of Fremantle.

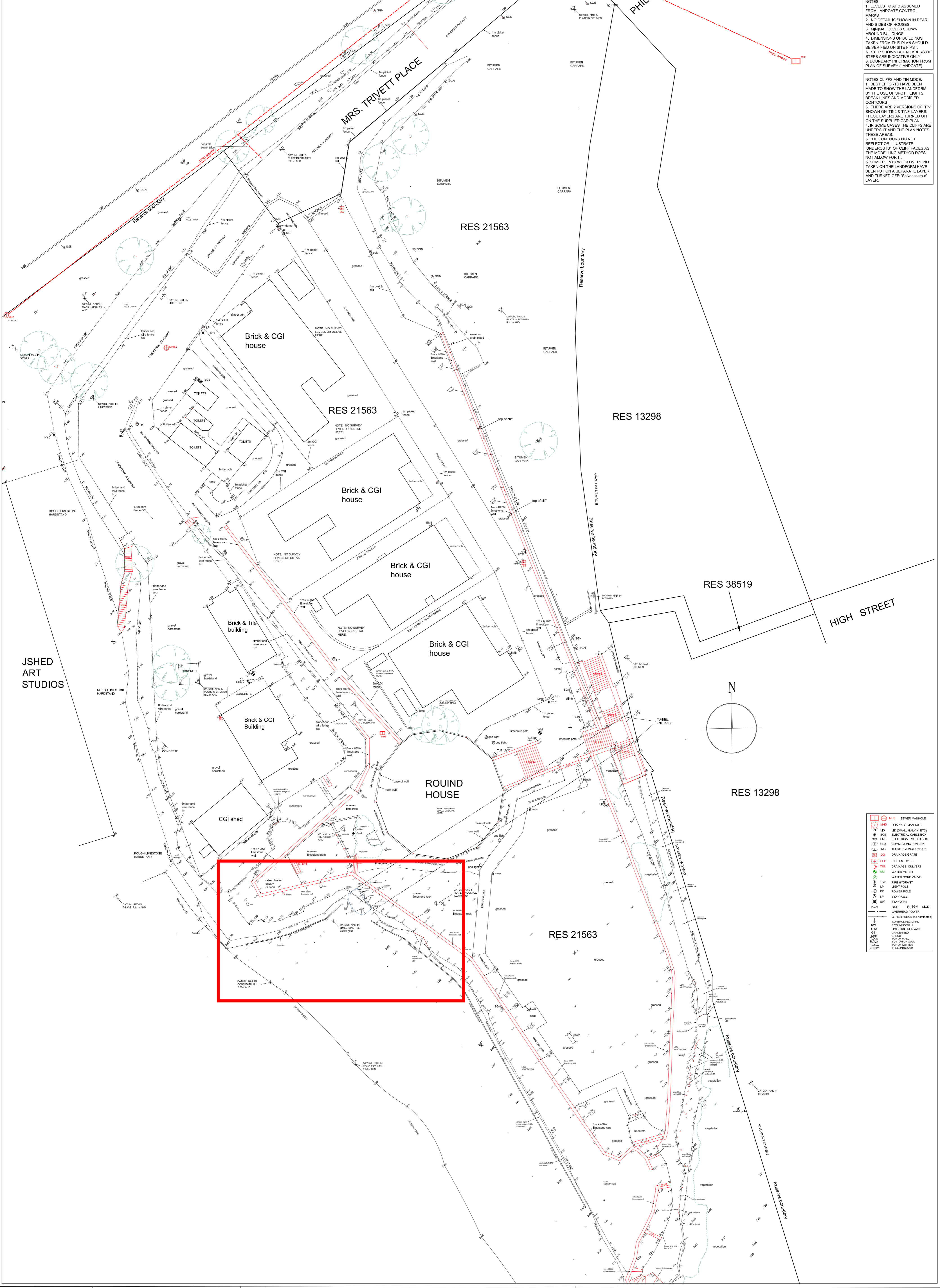
5.0 REFERENCES AND BIBLIOGRAPHY

- Earth Bond Solutions Pty Ltd, Perth, CIPS ("Calcite In situ Precipitation System) undated: A down to earth Australia Invention Data Sheet and Case Studies
- Gordon F. R. 2003, Coastal Limestone, Journal of the Australian Geomechanics Society, Vol 38, No 4 Dec 2003
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- Tutton M. A. 2000 Young Geotechnical Engineers Conference Field Trip Notes to Arthur Head, The Round House, Bathers beach and Whalers Tunnel (unpublished) Feb 2000
- Tutton M. A. 2003, Engineering Geology of Fremantle Harbour. Journal of the Australian Geomechanics Society, Vol 38, No 4 Dec 2003
- Granor Pot Type Structural Bearings, Granor Rubber & Engineering, Bayswater, Victoria, Australia 3153

6.0 **APPENDIX 1**

6.1 **Contour and Feature Plan**

Prepared by Monaghan Mapping & Surveying



NOTES:
 1. LEVELS TO AHD ASSUMED FROM LANDGATE CONTROL MARKS
 2. NO DETAIL IS SHOWN IN REAR AND SIDES OF HOUSES
 3. MINIMAL LEVELS SHOWN AROUND BUILDINGS
 4. DIMENSIONS OF BUILDINGS TAKEN FROM THIS PLAN SHOULD BE VERIFIED ON SITE FIRST.
 5. STEP SHOWN BUT NUMBERS OF STEPS ARE INDICATIVE ONLY.
 6. BOUNDARY INFORMATION FROM PLAN OF SURVEY (LANDGATE)

NOTES CLIFFS AND TIN MODE:
 1. BEST EFFORTS HAVE BEEN MADE TO SHOW THE LANDFORM BY THE USE OF SPOT HEIGHTS, BREAK LINES AND MODIFIED CONTOURS
 2. THERE ARE 2 VERSIONS OF 'TIN' SHOWN ON TIN2 & TIN3 LAYERS. THESE LAYERS ARE TURNED OFF ON THE SUPPLIED CAD PLAN.
 3. IN SOME CASES THE CLIFFS ARE UNDERCUT AND THE PLAN NOTES THESE AREAS
 4. THE CONTOURS DO NOT REFLECT OR ILLUSTRATE UNDERCUTS OF CLIFF FACES AS THE MODELLING METHOD DOES NOT ALLOW FOR IT
 5. SOME POINTS WHICH WERE NOT TAKEN ON THE LANDFORM HAVE BEEN PUT ON A SEPARATE LAYER AND TURNED OFF: 'ShNoncontour' LAYER.



UNIT 11 / 4 FLINDELL ST,
 OCONNOR, W.A. 6163.
 Mob 0418 928065
 Email: jmon@aap.net.au
 Web: www.fremantlesurveying.com.au

	BY	DATE
DRAWN	JTM	15.10.18
APPD	JTM	15.10.18
CHKD	JTM	15.10.18
ISSUED	JTM	15.10.18

CONTOUR AND FEATURE PLAN
 ARTHUR'S HEAD AND ROUND HOUSE RESERVE
 PT RESERVE 21563 PILLAMORE ST, FREMANTLE

CLIENT:	HOCKING HS
SCALE:	1:250A1
DATE:	OCT.18
DATUM:	AHD
DRAWN:	JTM

DRAWING
 REVISION
 REVISION: 12.2.19 further detail west end of tunnel.

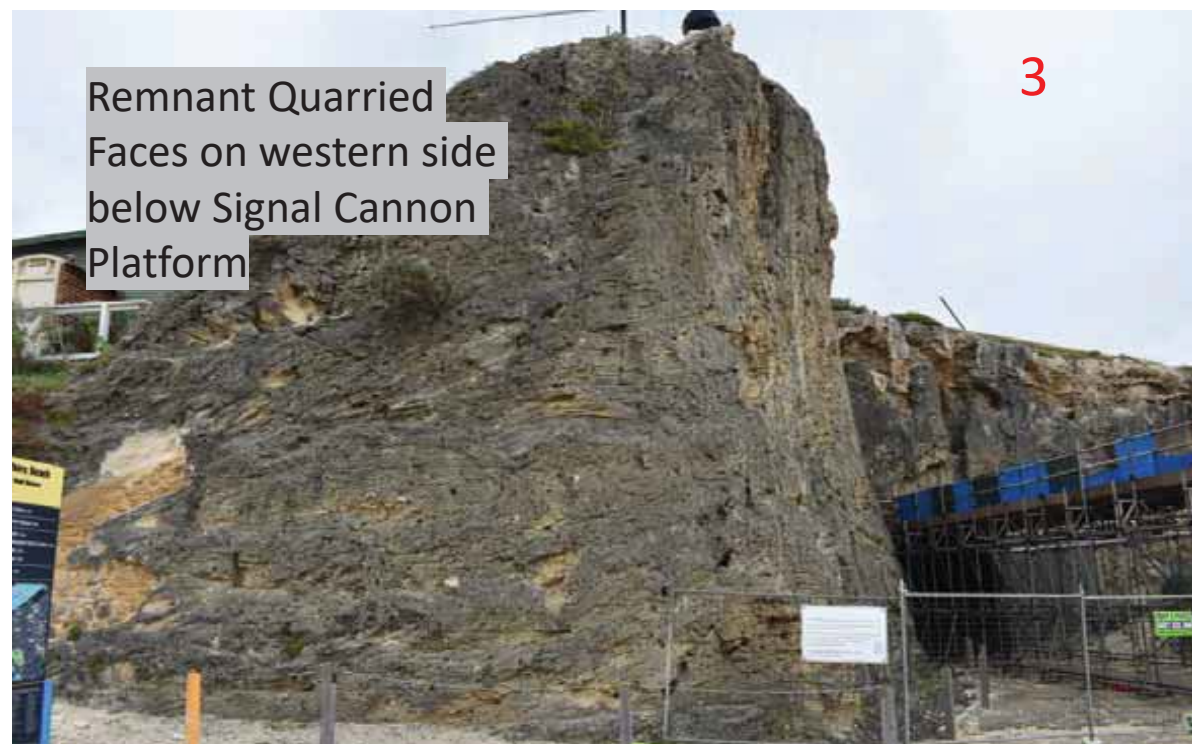
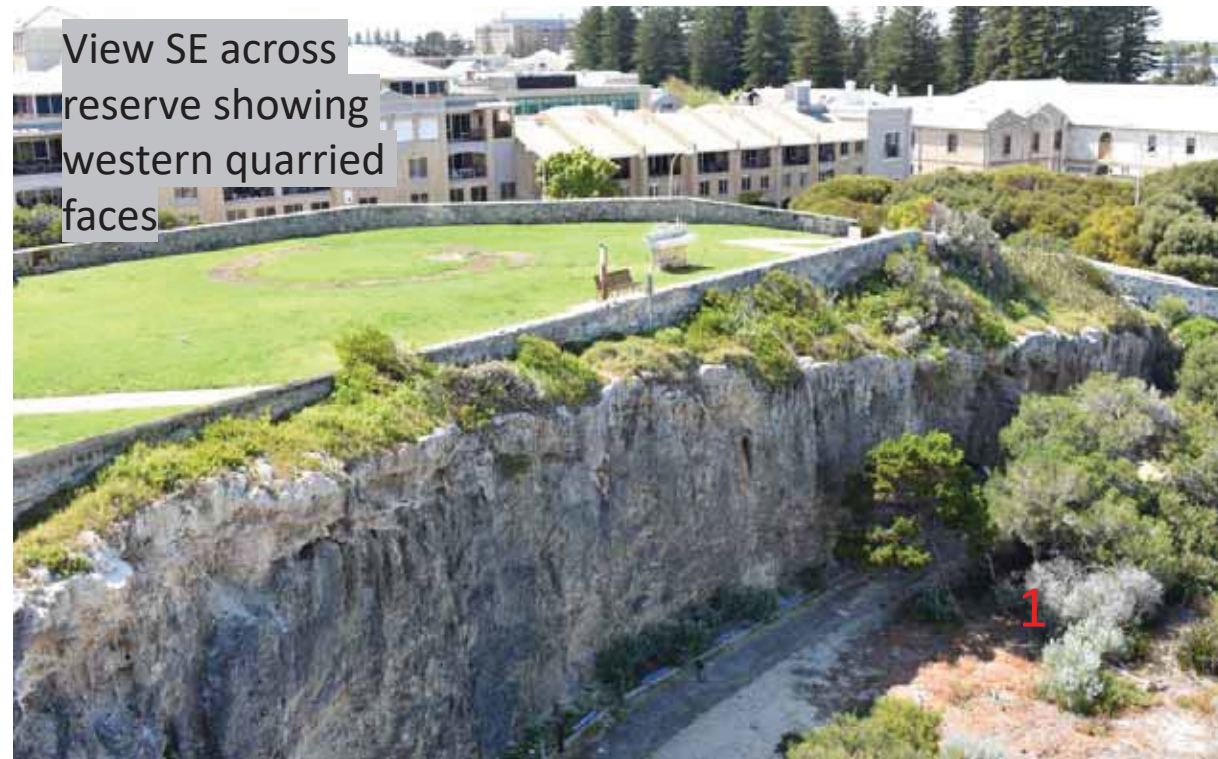


AHR-A 001

7.0 APPENDIX 2

7.1 Photos

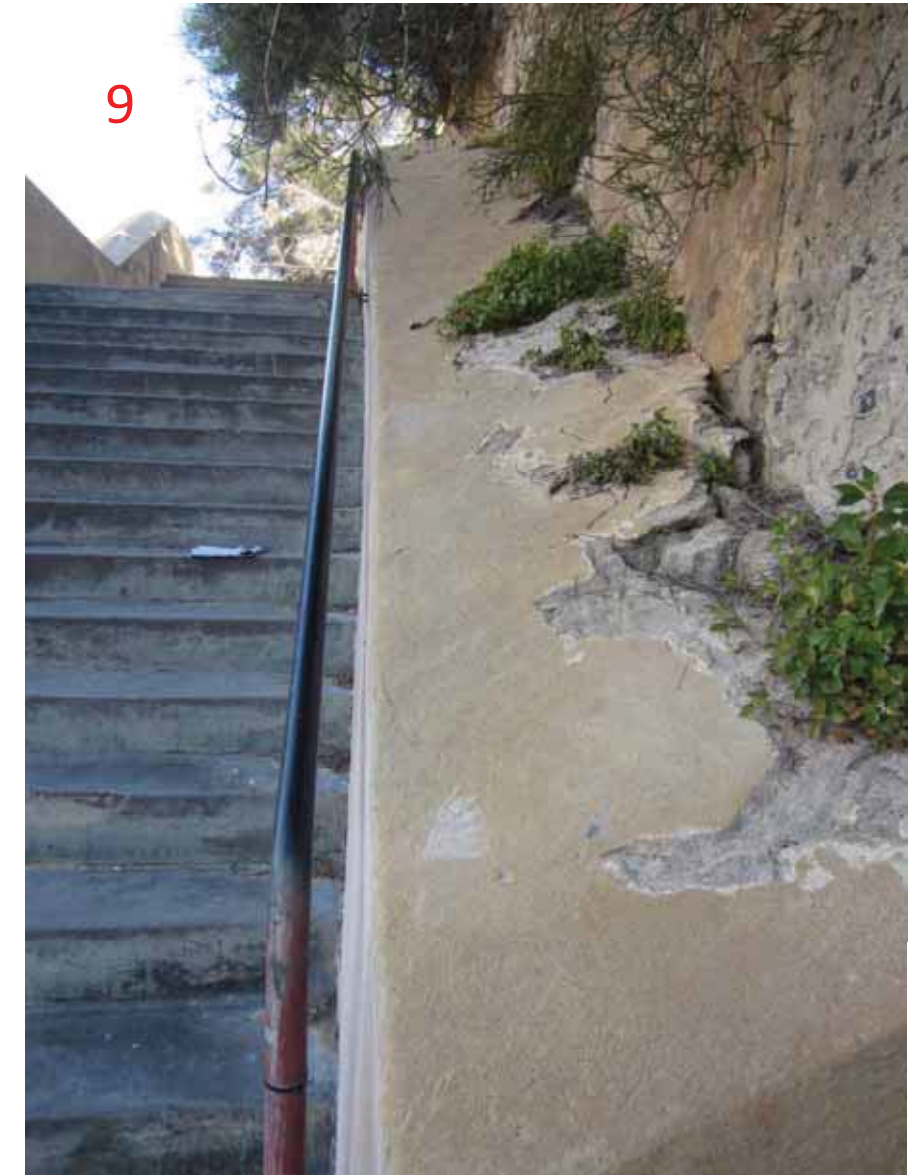
General Photos



Area 1 – Limestone Quarried Face with Masonry infilling



Area 2 – Main Stairs – Masonry and Brickwork covered in Render



Area 3 –High masonry retaining wall along railway reserve

11



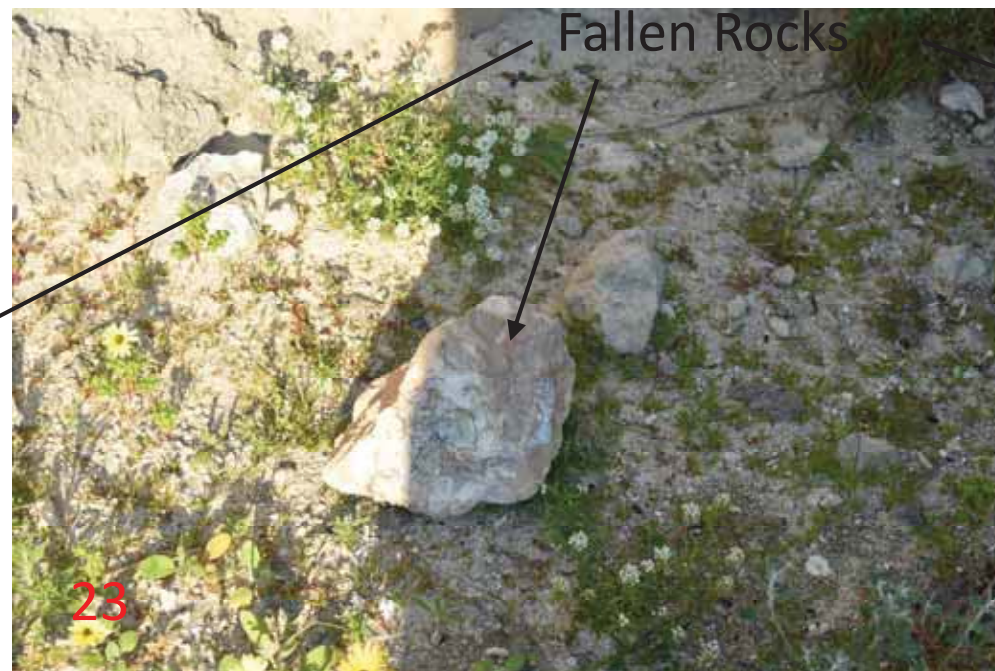
Area 4 – Weak leached cliff close to rail reserve



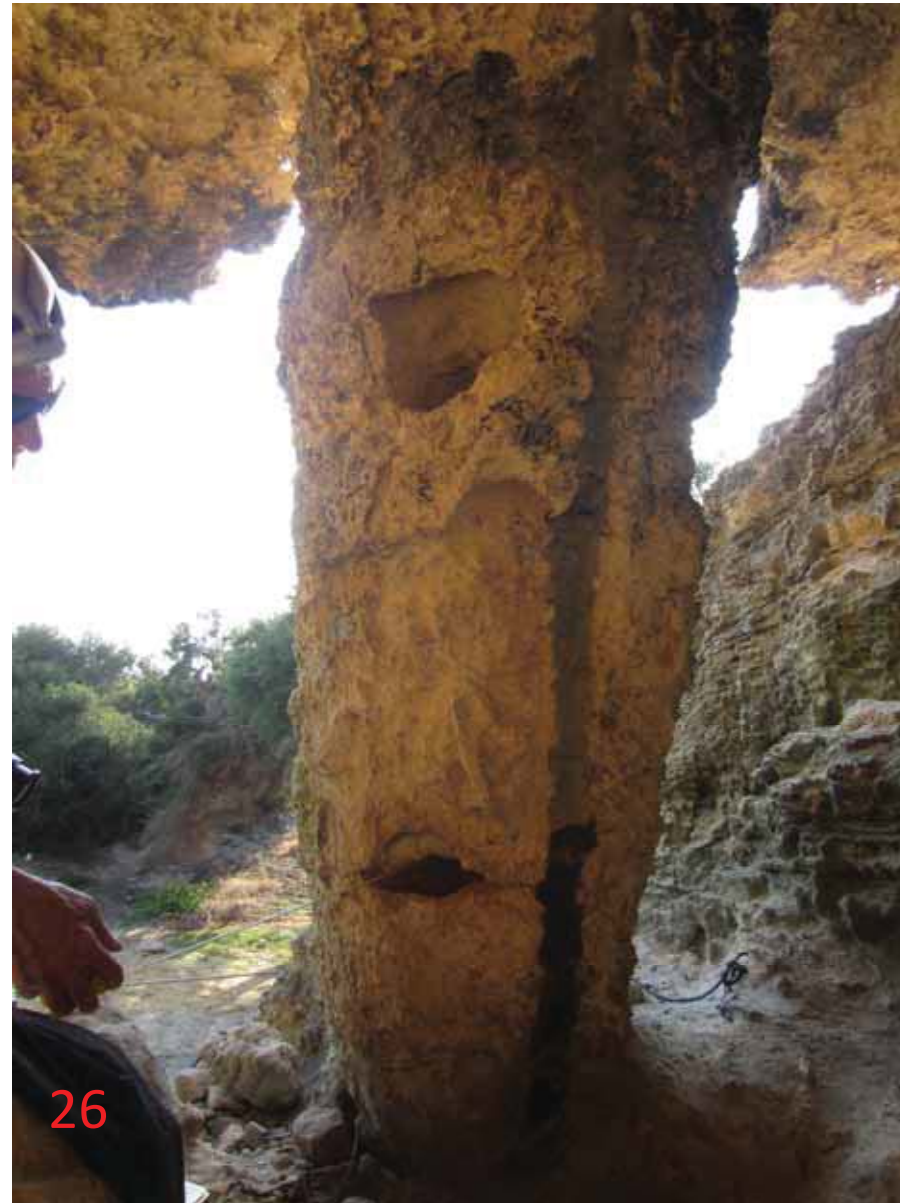
Area 5 – Weak cliff of leached limestone and cross bedded aeolianite



Area 6 – Vertical face of caprock over zone of roots and cross-bedded aeolianite with undercuts



Area 6 – Vertical face of caprock over 'zone of roots' and cross-bedded aeolianite with undercuts



Area 7 – Vertical Face over western tunnel portal



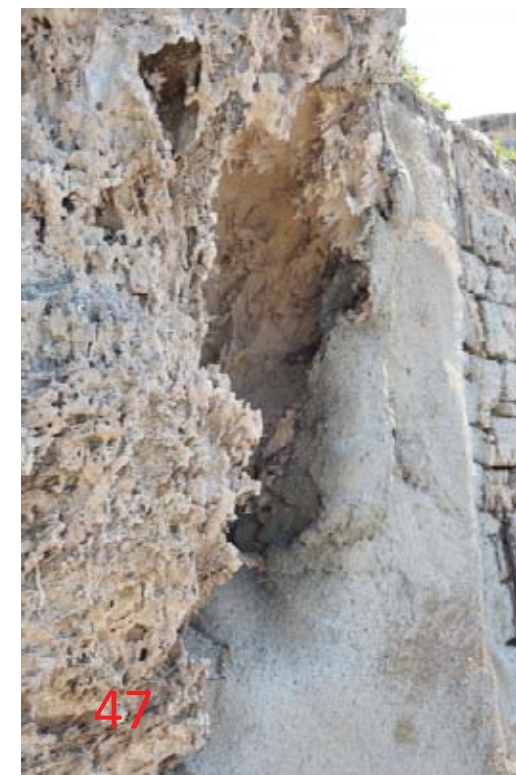
Area 7 – Vertical Face over western tunnel portal



Area 8 – High face beneath time ball and signal cannon platform



Area 8 – High face beneath time ball and signal cannon platform



Area 9 – High steeply inclined cliff



Area 10 – Inclined cliff face behind J shed



Area 11- Man made retaining wall between CGI shed and Time-ball Platform



8.0 APPENDIX 3

8.1 Minutes of Meeting with Department of Planning, Lands and Heritage (DPLH), Heritage Services

Prepared by Hocking Heritage Studio

MEETING MINUTES

Project:	Arthur Head Cliff Stabilisation		
Project No:	2018-55		
Subject:	Meeting with DPLH, Heritage Services		
Venue:	491 Wellington Street, Perth	Date:	31 October 2018, 2pm
Distribution:	All attendees and apologies below	File Note	001
From:	Timo Bleeker (HHS)	Pages	1

Attendees

<i>Name</i>	<i>Organisation</i>	<i>Email Address</i>	<i>Discipline</i>
Janine Symons (JS)	DPLH	janine.symons@dplh.wa.gov.au	Heritage Services
Dinah Mujati (DM)	Hocking Heritage Studio (HHS)	dinah@hockingheritagestudio.com.au	Architect
Timo Bleeker (TB)	Hocking Heritage Studio (HHS)	timo@hockingheritagestudio.com.au	Architect

Apologies

<i>Name</i>	<i>Organisation</i>	<i>Email Address</i>	<i>Discipline</i>
Keith Fragomeli	City of Fremantle	KEITHF@fremantle.wa.gov.au	Client

Ref Number	Discussion	Action by	Date
1.0	Scope of project works was mentioned. Findings and remediation recommendations of Area 1-11 and Secret Tunnel were presented, concentrating on the most intrusive areas as follows:	Note	
1.1	Area 4: Extension of existing masonry wall to cover friable material of cliff face close to public footpath.	Note	
1.2	Area 5: Redirection of balustrade wall to upper level plateau close to steps at southern end.	Note	
1.3	Area 6: Base strengthening of the limestone column in the cave	Note	
1.3	Area 7/8: Arch construction to support Whalers tunnel entry portal; canopy extension up to 6m; rockfall fencing; keeping public away from the cliff face	Note	
1.4	Area 11: Demolition and reinstalment of natural stone man-made wall to circular promontory	Note	
2.0	No objection from JS in principle, however, commentary from the Development Committee is required on the discussed items.	Note	
2.1	Post meeting note: Lodgement of documentation to DPLH required by 9 th Nov for inclusion in Committee meeting on 27 th Nov	HHS	9.11.
	Meeting closed at 2.30pm		

9.0 APPENDIX 4

9.1 Advisory letter by the Development Committee of Department of Planning, Lands and Heritage (DPLH), Heritage Services

Prepared by DPLH



HERITAGE
COUNCIL

Working with Western Australians to recognise, conserve, adapt and celebrate our State's unique cultural heritage

5 December 2018

YOUR REF
OUR REF P0896/44854
ENQUIRIES Janine Symons (08) 6552 4167

Mr Timo Bleeker
Hocking Heritage Studio

By email: timo@hockingheritagestudio.com.au

Dear Sir

ROUND HOUSE AND ARTHUR HEAD RESERVE Cliff Stabilisation

Thank you for your email of 9 November 2018 regarding the following proposed development at:

Place Number P0896
Place Name *Round House and Arthur Head Reserve*
Street Address Lot 2051 Phillimore Street, Fremantle
Development Description Cliff Stabilisation

We received the following report, prepared by Hocking Heritage Studio, dated 9 November 2018:

Heritage Impact Statement for Arthur Head Reserve Cliff Stabilisation, Rev. A

The Development Committee resolved to advise Hocking Heritage Studio that the matter has been considered in the context of the identified cultural significance of the place, and the following advice is given:

Findings

1. Arthur Head is a remnant original coastal limestone feature, greatly diminished by post-settlement quarrying for harbour works.
2. The place has considerable significance as a focal point in the design and layout of the City of Fremantle, as a dominant landmark, and visual termination of High Street.
3. Arthur Head is not mentioned in Heritage Council documentation which discusses built structures.
4. The proposal is for a program of stabilisation works to the Head, following on from urgent stabilisation works supported by the Development Committee (April 2018 meeting).

stateheritage.wa.gov.au
info@stateheritage.wa.gov.au

5. Subsequent to those works, a further geotechnical investigation was commissioned and carried out on 8 October 2018. This referral encompasses the recommendations of that report.

Advice

The proposed development, in accordance with the plans submitted, is supported, subject to the following conditions:

1. Testing of mortars to be carried out prior to works being undertaken. New mortars to match existing.
2. Replacement stone to match existing, and reconstructed masonry infill to match existing.
3. Detail of the following to be provided to the satisfaction of the Director Heritage Operation, Heritage Services:
 - a. Detail of proposed arch and canopy to Tunnel, noting that new interventions should complement the existing canopy and the rugged nature of the Head.
 - b. Detail of proposed rock fall fences, noting that new interventions should complement the existing canopy and the rugged nature of the Head.
 - c. Interpretation strategy to explain the history and extent of development at Arthur Head.
 - d. Detail of proposed relocation of cliff top balustrade, Area 5, noting that existing fabric should be used where possible.

If archaeological material or features are encountered during the works to Arthur Head, works shall cease and Heritage Services, Department of Planning, Lands and Heritage shall be notified immediately in order that consultation with an appropriately qualified historic and/or indigenous archaeologist can be undertaken to assess the finds and provide advice on an appropriate course of action.

Should you have any queries regarding this advice please contact Janine Symons at janine.symons@dph.wa.gov.au or on 6552 4167.

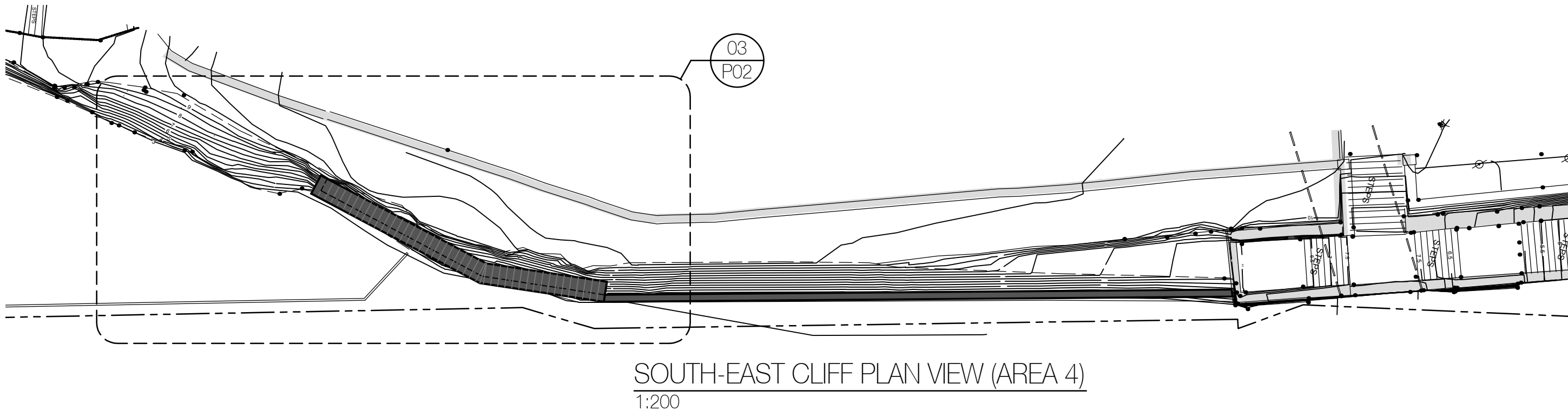
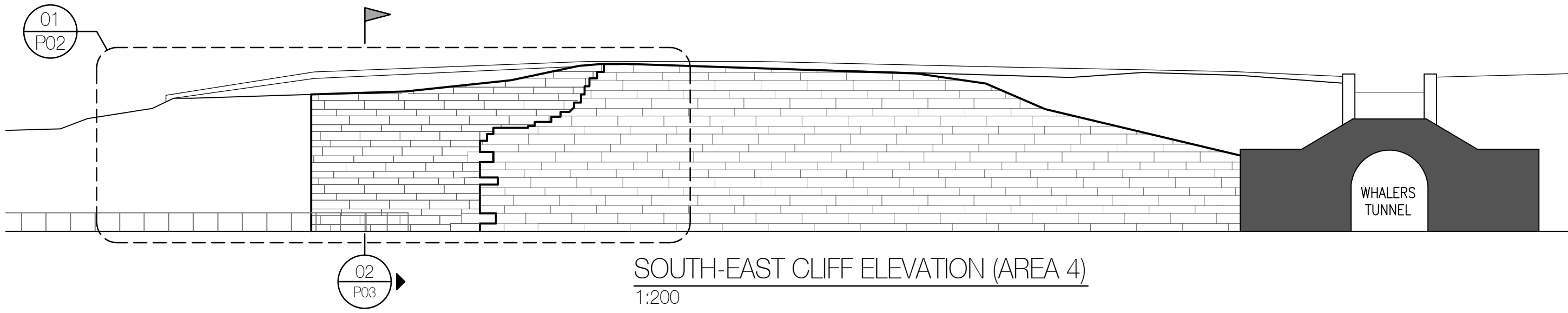
Yours faithfully

Anne Arnold
**CHAIR
DEVELOPMENT COMMITTEE**

10.0 APPENDIX 5

10.1 Structural engineer sketches

Prepared by Atelier JV



0	15/11/18	ISSUED FOR INFORMATION	FH
REV	DATE	DESCRIPTION	RVD
REVISIONS			

CLIENT





T: +61 (0)8 9228 9120 E: info@atelierjv.com.au
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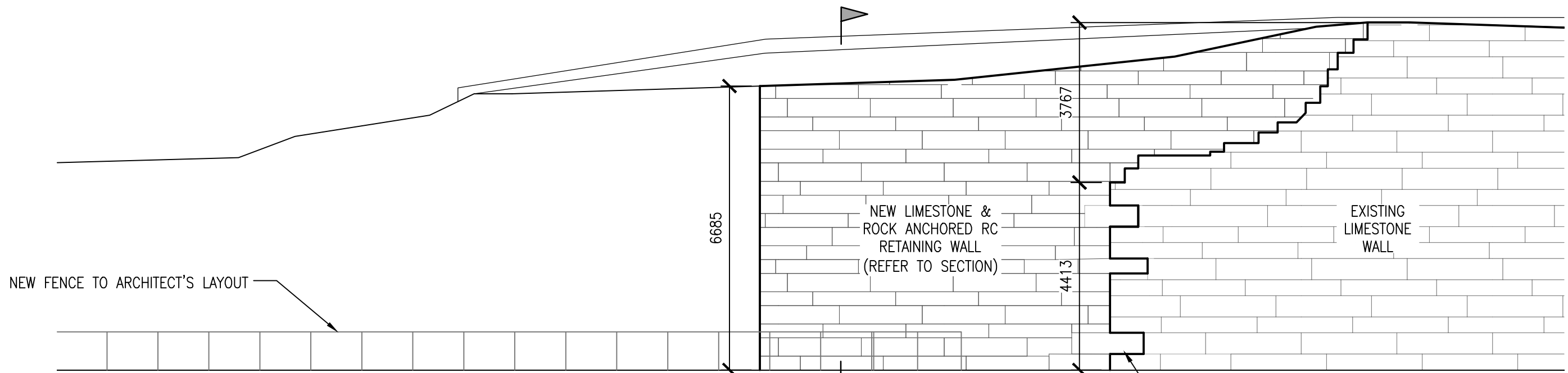
PROJECT

ARTHUR HEAD CLIFF STABILISATION

FREMANTLE

STATUS			
INFORMATION			
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DATUM	GRID	SCALE	
AHD	AMG	AS SHOWN	A3 SIZE

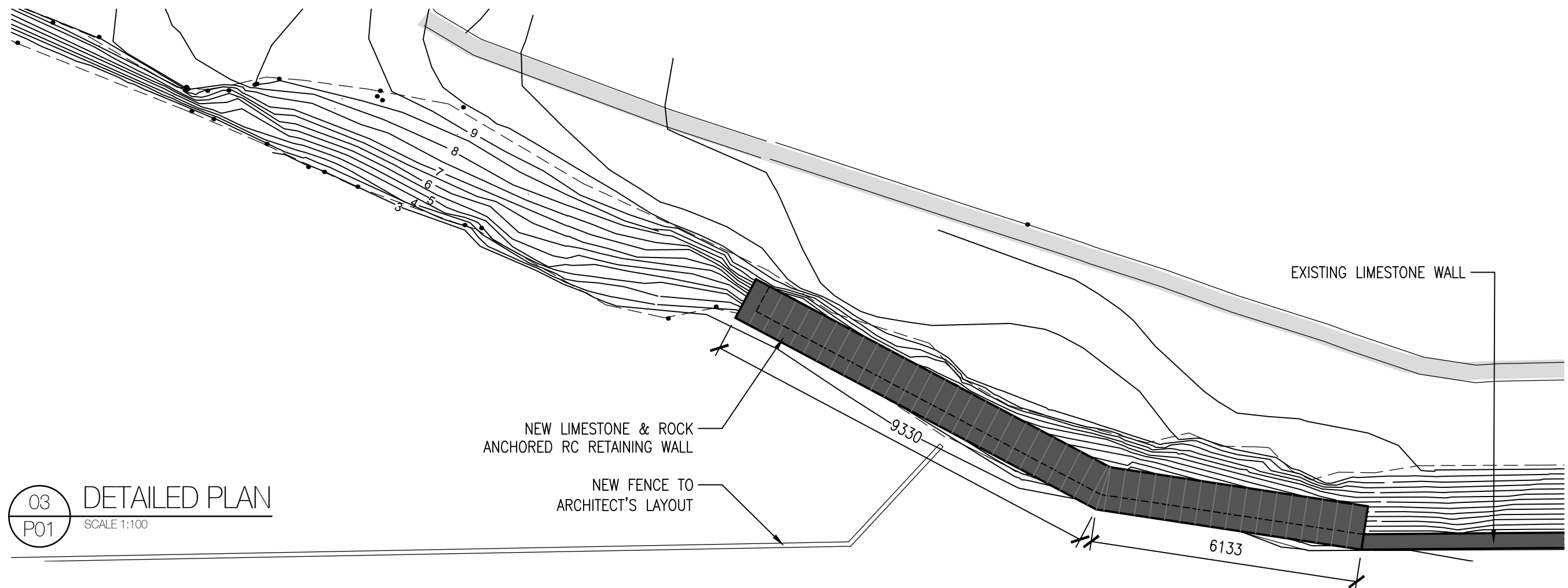
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STRUCTURAL CLIFF STABILISATION WORKS AREA 4 ELEVATIONS		
PROJECT No.	DRAWING No.	REV.
P18107	P01	0



01 DETAILED ELEVATION
P01 SCALE 1:100

02
P03

3No. KEY BLOCKS CUT INTO EXISTING WALL



03 DETAILED PLAN
P01 SCALE 1:100

NEW LIMESTONE & ROCK ANCHORED RC RETAINING WALL

NEW FENCE TO ARCHITECT'S LAYOUT

EXISTING LIMESTONE WALL

0	15/11/18	ISSUED FOR INFORMATION	FH
REV	DATE	DESCRIPTION	RVD
REVISIONS			



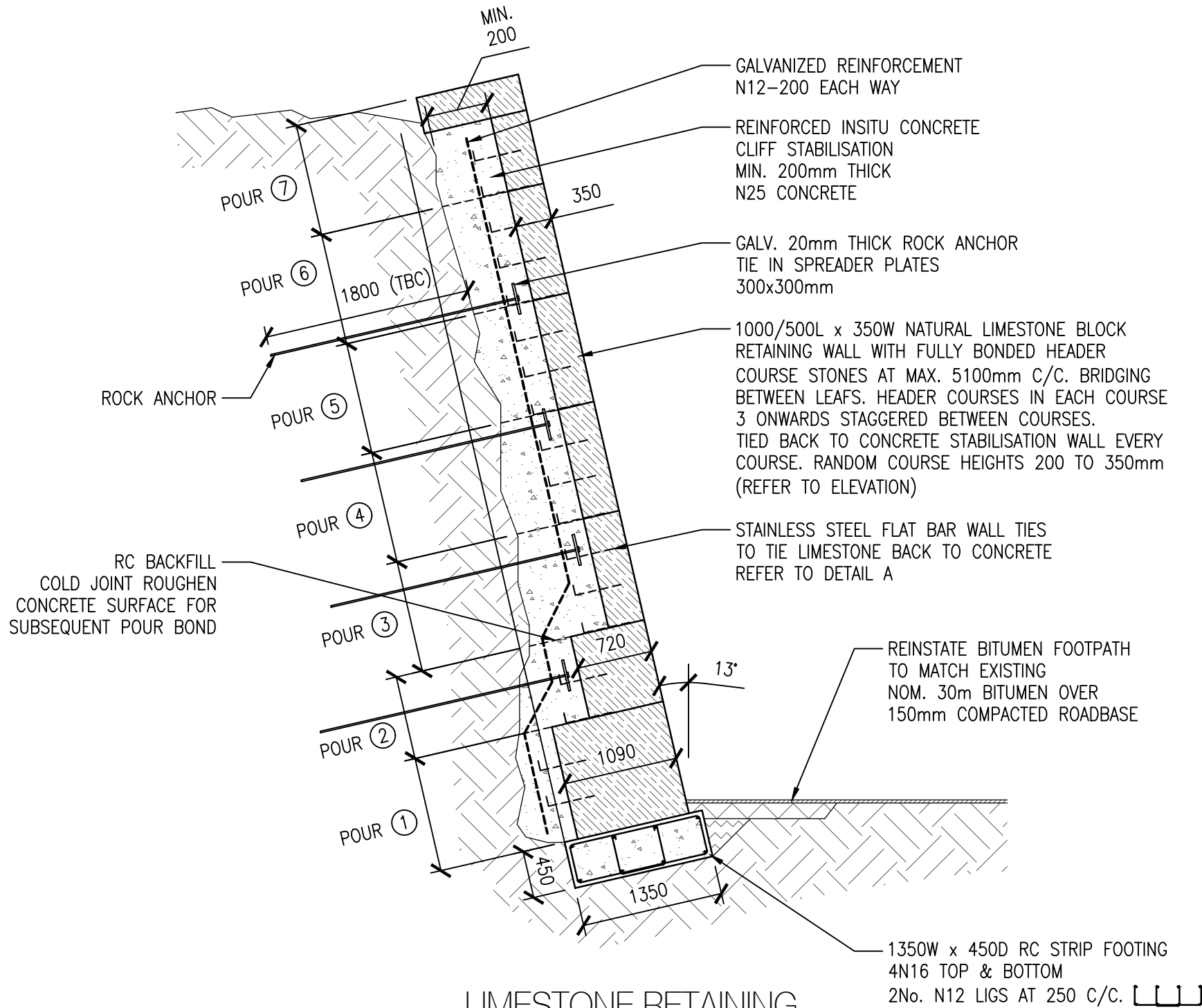
ATELIER JV

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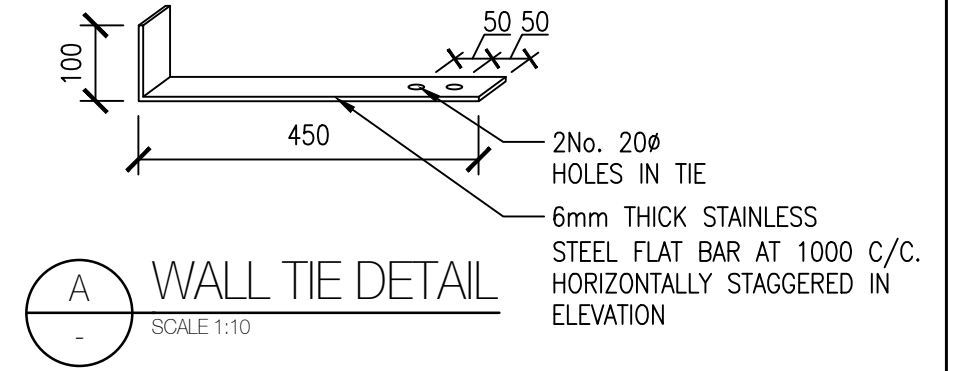
PROJECT: ARTHUR HEAD CLIFF STABILISATION
FREMANTLE

INFORMATION			
DRAWN: FH	DESIGNED: SAJ	CHECKED: SAJ	APPROVED: SAJ
DATUM: AHD	GRID: AMG	SCALE: AS SHOWN	AS3 SIZE

TITLE: STRUCTURAL CLIFF STABILISATION WORKS SOUTH-EAST ELEVATIONS		
PROJECT No: P18107	DRAWING No: P02	REV: 0

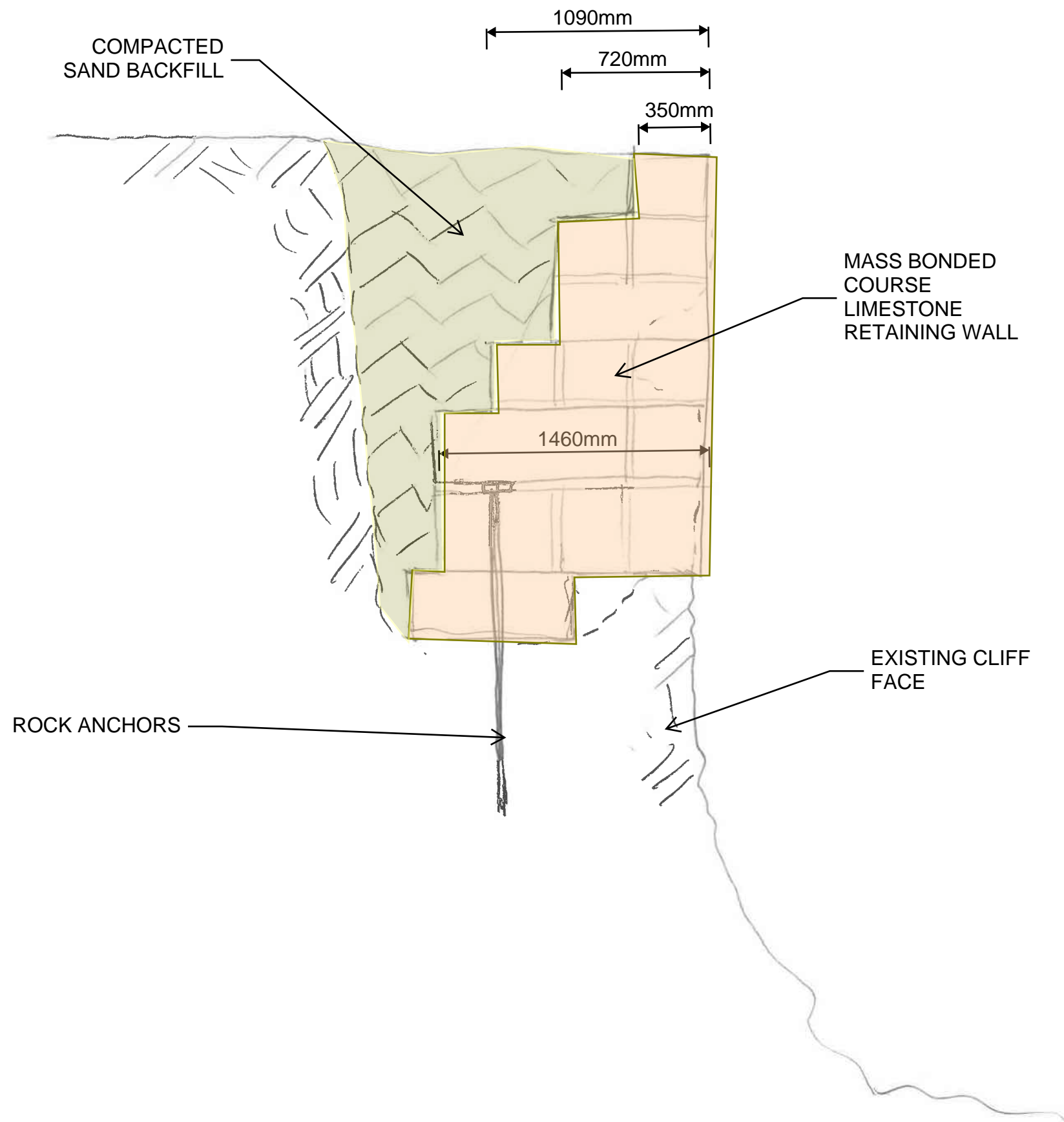


LIMESTONE RETAINING WALL SECTION
 02 P02 SCALE 1:50



- NOTES:
1. DETAILS SHOWN ON THIS DRAWING ARE APPLICABLE FOR Hx350x1000 NATURAL LIMESTONE BLOCKS WITH 20mm MORTAR JOINTS.
 2. NATURAL LIMESTONE BLOCKS SHALL HAVE A MINIMUM DENSITY OF 1200kg/m³ AND A MINIMUM COMPRESSIVE STRENGTH OF 2.2MPa (WET), 2.5MPa (DRY).
 3. ALL TOP SOIL, VEGETATION DELETERIOUS MATERIALS TO BE REMOVED FROM FOUNDATION.
 4. FOUNDATIONS SHALL BE CLEAN GRANULAR SAND COMPACTED TO A MINIMUM 95% MAXIMUM DRY DENSITY, TESTED TO A DEPTH OF 900mm OR NATURAL LIMESTONE SUBSTRATE.
 5. GROUND IN FRONT OF WALL SHALL BE COMPACTED TO 95% MAXIMUM DRY DENSITY PRIOR TO BACKFILLING BEHIND WALL WITH CLEAN AND FREE DRAINING SAND.
 6. MORTAR MIX TO BE NL3: 1 PART LIME PUTTY - 2 PARTS SAND.
 7. POINTING MORTAR IS TO EXTEND A MINIMUM 100mm BELOW FGL ALONG THE FRONT OF THE WALL AND DOWN THE REAR OF THE TOP BLOCK TO 100 BELOW FINISHED LOT LEVEL.
 8. COMPLETED BLOCK WORK OF WALL TO BE OF THICKNESS NO LESS THAN MINIMUM PROFILE SHOWN.
 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CERTIFICATION OF THE LIMESTONE RETAINING WALLS BEING AS-CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND OBTAINING THE COMPACTION SPECIFIED ABOVE. COMPACTION TESTING AND QT RECORDS OF CONSTRUCTION MUST BE MAINTAINED THROUGH-OUT THE BUILD AND KEPT ON RECORD.
 10. DO NOT BACKFILL CONCRETE INFILL WALL UNTIL AT LEAST 5 DAYS AFTER COMPLETION. PROP 350 WALL AS REQUIRED FOR UPPER POURS.

						ARTHUR HEAD CLIFF STABILISATION FREMANTLE		INFORMATION DRAWN: FH, DESIGNED: SAJ, CHECKED: SAJ, APPROVED: SAJ DATUM: AHD, GRID: AMG, SCALE: AS SHOWN		STRUCTURAL CLIFF STABILISATION WORKS AREA 4 - DETAILS PROJECT No: P18107, DRAWING No: P03, REV: 0	
0	15/11/18	ISSUED FOR INFORMATION		FH							
REV	DATE	DESCRIPTION		RWD							
REVISIONS											



REV	DATE	DESCRIPTION	BY
REVISIONS			






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PROJECT: ARTHUR HEAD CLIFF STABILISATION
 FREMANTLE

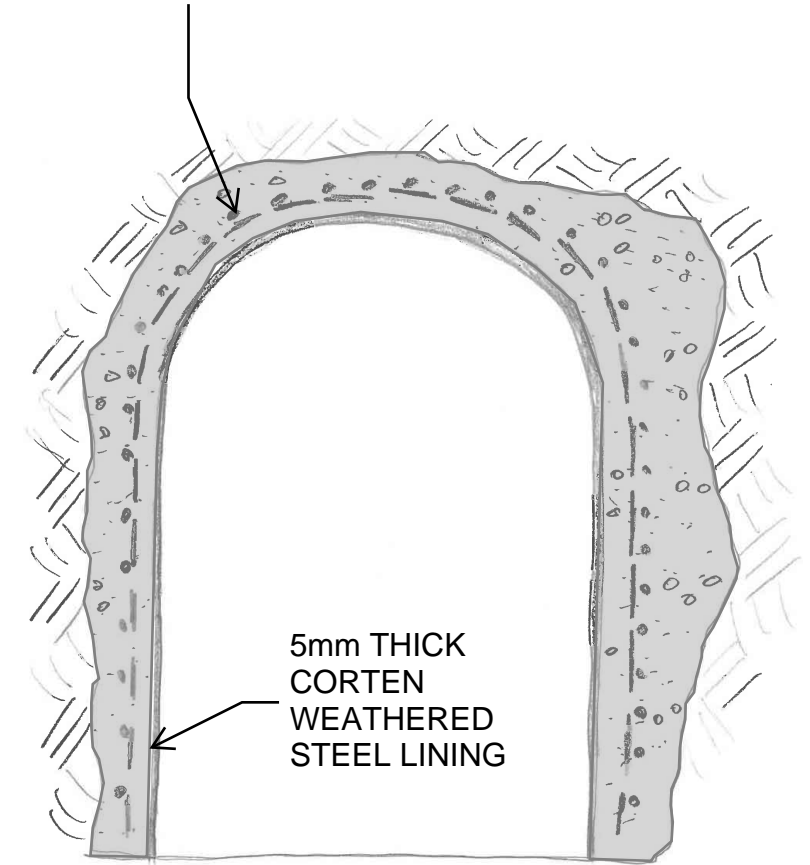
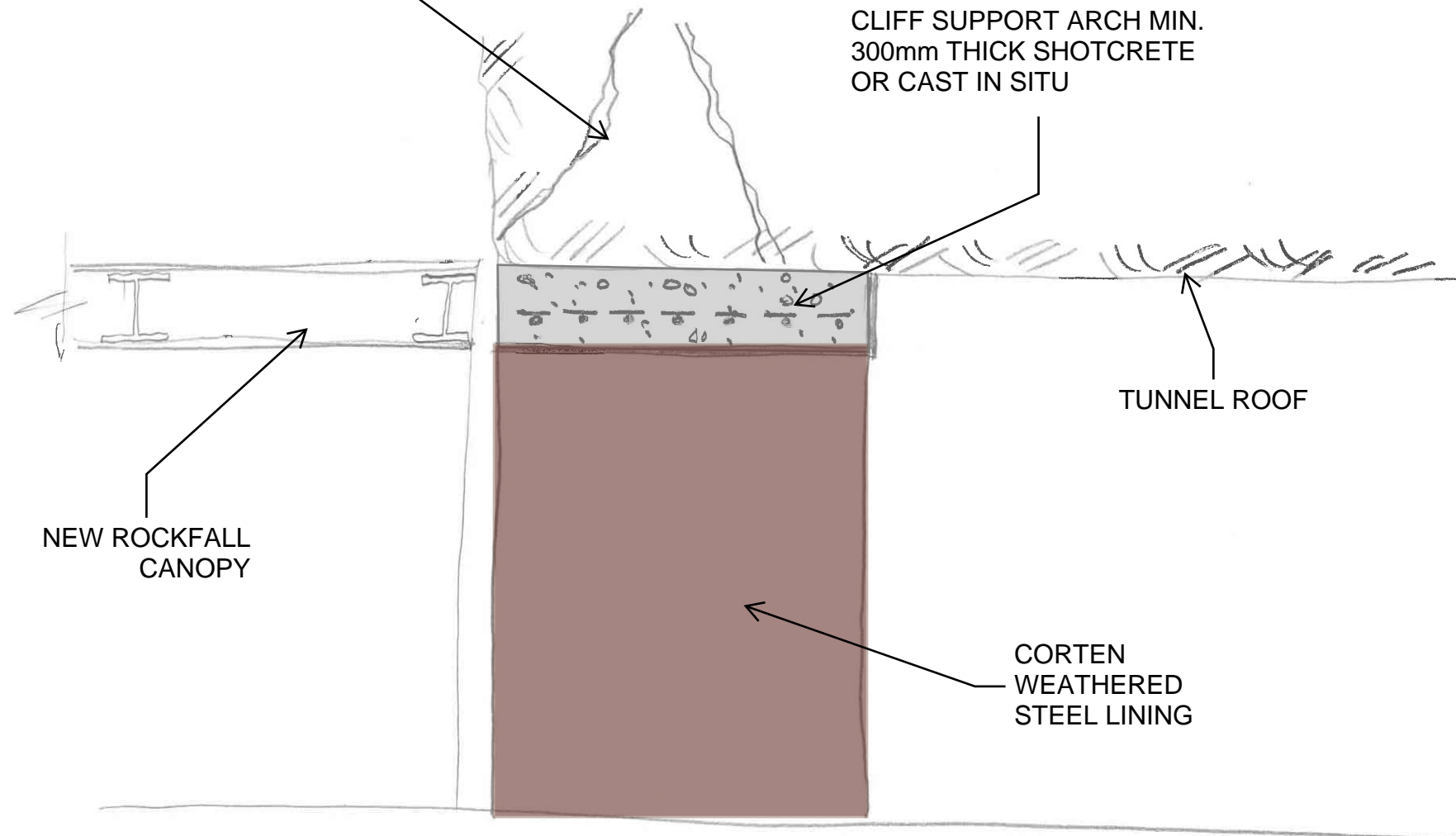
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SAJ	SAJ	SAJ	SAJ
DATUM	GRID	SCALE	AT
AHD	AMG	NTS	A3

TITLE		
STRUCUTRAL SKETCH		
AREA 11 - NORTH WEST WALL		
PROJECT No.	DRAWING No.	REV.
P18107	SK03	-

EXISTING FISURED
CLIFF FACE

REINFORCED CONCRETE
CLIFF SUPPORT ARCH MIN.
300mm THICK SHOTCRETE
OR CAST IN SITU

REINFORCED CONCRETE
CLIFF SUPPORT ARCH MIN.
300mm THICK SHOTCRETE
OR CAST IN SITU



REV	DATE	DESCRIPTION	REVISED BY
-	08/11/18	ISSUED FOR INFORMATION	SAJ
REVISIONS			

CLIENT



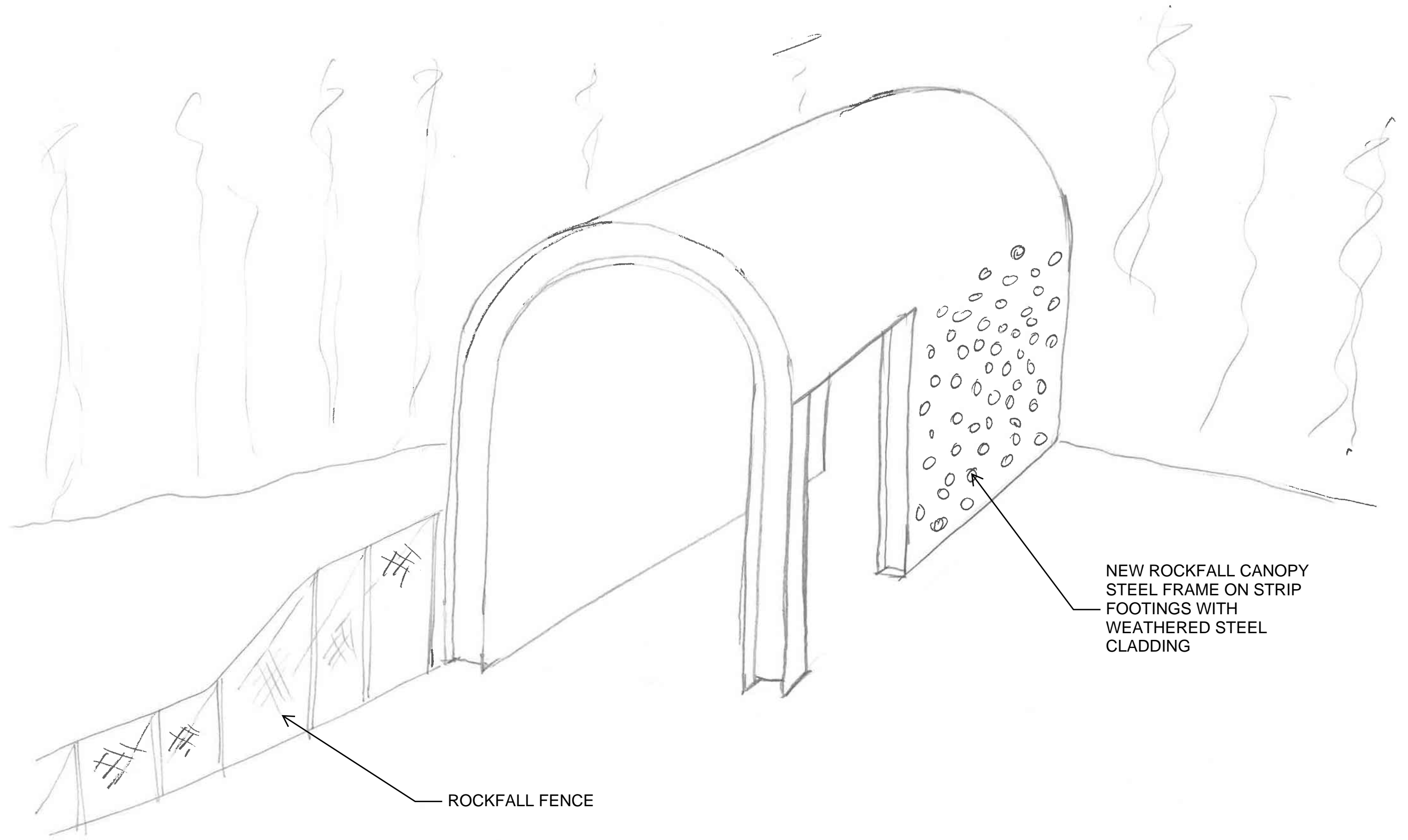


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A: 123 ABERDEEN STREET, NORTHBRIDGE, PERTH, WA 6003

PROJECT
ARTHUR HEAD
CLIFF
STABILISATION
FREMANTLE

STATUS INFORMATION			
DRAWN	DESIGNED	CHECKED	APPROVED
SAJ	SAJ	SAJ	SAJ
DATUM	GRID	SCALE	AT
AHD	AMG	NTS	A3

TITLE STRUCUTRAL SKETCH AREA 7 - TUNNEL PORTAL		
PROJECT No.	DRAWING No.	REV.
P18107	SK04	-



NEW ROCKFALL CANOPY
 STEEL FRAME ON STRIP
 FOOTINGS WITH
 WEATHERED STEEL
 CLADDING

ROCKFALL FENCE

REV	DATE	DESCRIPTION	REVISIONS
-	08/11/18	ISSUED FOR INFORMATION	SAJ
			RVD



ATELIER JV

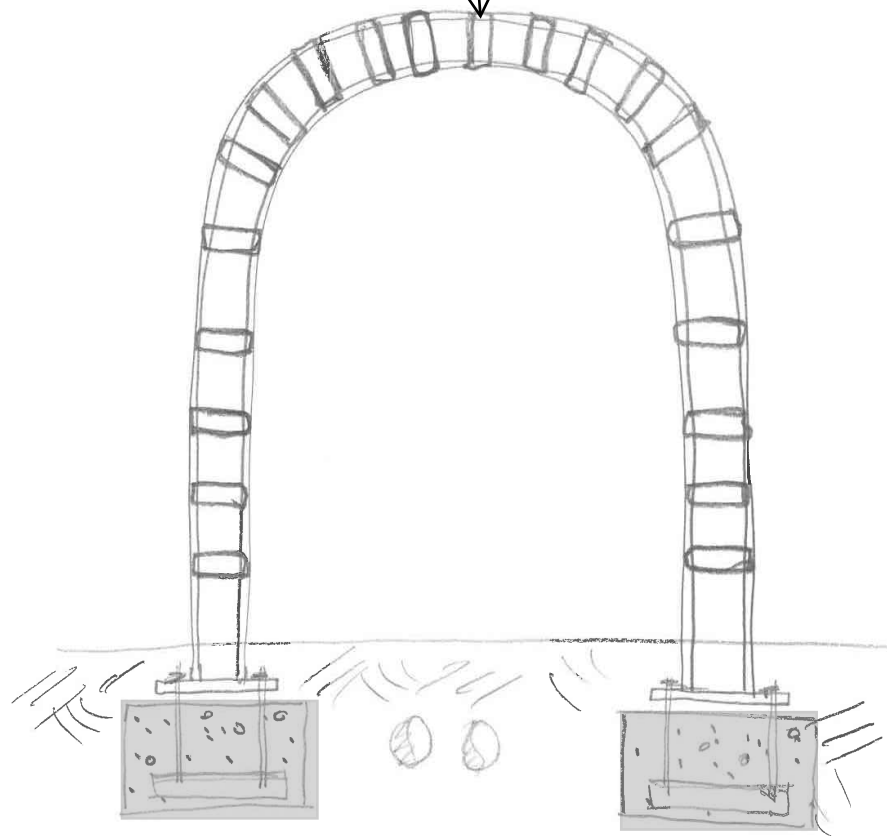
T: +61 (0)8 9228 9120 E: info@atelierjv.com.au
 A: 123 ABERDEEN STREET, NORTHBRIDGE, PERTH, WA 6003

PROJECT: ARTHUR HEAD CLIFF STABILISATION
 FREMANTLE

INFORMATION			
DRAWN	DESIGNED	CHECKED	APPROVED
SAJ	SAJ	SAJ	SAJ
DATUM	GRID	SCALE	AT
AHD	AMG	NTS	A3

TITLE: STRUCUTRAL SKETCH AREA 7 - ROCKFALL CANOPY		
PROJECT No.	DRAWING No.	REV.
P18107	SK05	-

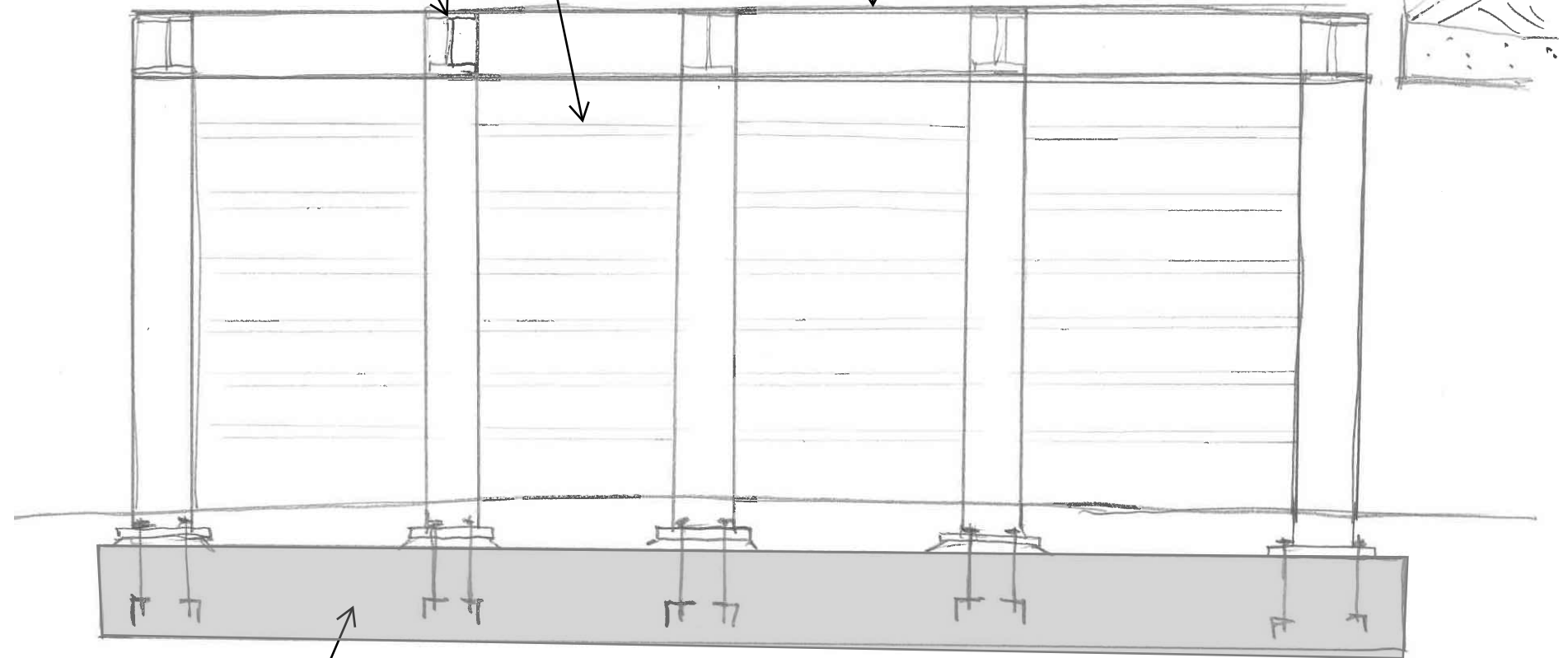
250x150 RHS JOISTS AT
450mm CTRS FOR ROOF
SPREAD OUT TO 600mm
CTRS TO WALLS



250x150 RHS JOISTS AT
450mm CTRS FOR ROOF
SPREAD OUT TO 600mm
CTRS TO WALLS

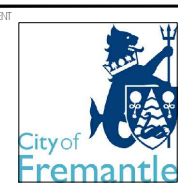
250UC ARCHES

5mm THICK WEATHERED
STEEL CLADDING



600 x 400 RC
STIP FOOTING

REV	DATE	DESCRIPTION	REVISIONS
-	08/11/18	ISSUED FOR INFORMATION	SAJ
			RVD



T: +61 (0)8 9228 9120 E: info@atelierjv.com.au
A: 123 ABERDEEN STREET, NORTHBRIDGE, PERTH, WA 6003

PROJECT
ARTHUR HEAD
CLIFF
STABILISATION
FREMANTLE

STATUS INFORMATION			
DRAWN	DESIGNED	CHECKED	APPROVED
SAJ	SAJ	SAJ	SAJ
DATUM	GRID	SCALE	AT
AHD	AMG	NTS	A3

TITLE
STRUCUTRAL SKETCH
AREA 7 - ROCKFALL
CANOPY

PROJECT No.	DRAWING No.	REV.
P18107	SK06	-

11.0 APPENDIX 6

11.1 Quantitative Risk of Existing Hazards and Proposed and Alternative Remediation Works (using AGS2007 Guidelines)

Prepared by CMW

Appendix 5 Quantative Risk of Existing Hazards and Proposed and Alternative Remediation Works (using AGS2007 Guidelines)

In most case a person is likely to be struck when standing with a rock falling from above. The approximate plan area of the person has been assumed to be 0.5 x 0.5 m. The abbreviation ppl for people is used in the following table.

Area	Observation	Option	Hazard	P _(H)	Assumption	P _(S,H)	Assumption	P _(T,S)	Assumption	V _(D,T)	Assumption	R _(LoL)	Qualitative
1	Small trees are growing out of the cliff face, rock fall hazard	Prevailing Risk	Rock or blockwork infill falls and hits a person at carpark or footpath	1	1 x 15kg rockfall per year	0.003333333	target area (person) 0.5m x 0.5m; hazardous zone area 50m x 1.5m	0.138888889	average 200 ppl/day; average 1 min/ppl	0.15	impact to head fatal Probability of head impact approx 15%	6.94E-05	medium
		1a Remove trees, point and repair	Rock or blockwork infill falls and hits a person at carpark or footpath	0.1	1 x 15kg rockfall per 5 years	0.003333333	target area (person) 0.5m x 0.5m; hazardous zone area 50m x 1.5m	0.138888889	average 200 ppl/day; average 1 min/ppl	0.15	impact to head fatal Probability of head impact approx 15%	6.94E-06	low
3	Material falling from the crest where root wedging is occurring	Prevailing Risk	Rock or blockwork infill falls and hits a person at footpath	0.2	1 x 15kg rockfall per 5 years	0.004761905	target area (person) 0.5m x 0.5m; hazardous zone area 35m x 1.5m	0.347222222	average 1000 ppl/day; average 0.5 min/ppl	0.15	impact to head fatal Probability of head impact approx 15%	4.96E-05	medium
		2a Remove trees, point and repair	Rock or blockwork infill falls and hits a person at footpath	0.02	1 x 15kg rockfall per 50 years	0.004761905	target area (person) 0.5m x 0.5m; hazardous zone area 35m x 1.5m	0.347222222	average 1000 ppl/day; average 0.5 min/ppl	0.15	impact to head fatal Probability of head impact approx 15%	4.96E-06	low
4	Unsupported section, risk of unbound material falling, weak rock/soil mass dilates away from face, general fretting and ravelling of the face	Prevailing Risk	Rock/soil mass collapses and hits a person at footpath	0.5	1 x 250kg rockfall per 2 years	0.023809524	target area (person) 0.5m x 0.5m; hazardous zone area 7m x 1.5m	0.069444444	average 1000 ppl/day; average 0.15 min/ppl	0.9	impact likely fatal	7.44E-04	high
		4a Masonry wall and fence to prevent access to Area 4/5 cliff base	Rock/soil mass collapses and hits a person at footpath	0.02	1 x 15kg rockfall per 50 years	0.023809524	target area (person) 0.5m x 0.5m; hazardous zone area 7m x 1.5m	0.069444444	average 1000 ppl/day; average 0.15 min/ppl	0.15	impact to head fatal Probability of head impact approx 15%	4.96E-06	low
		4b Shotcrete and nail wall and fence to prevent access to Area 4/5 cliff base	Rock/soil mass collapses and hits a person at footpath	0.02	1 x 15kg rockfall per 50 years	0.023809524	target area (person) 0.5m x 0.5m; hazardous zone area 7m x 1.5m	0.069444444	average 1000 ppl/day; average 0.15 min/ppl	0.15	impact to head fatal Probability of head impact approx 15%	4.96E-06	low
		4c Canopy over cycleway and fence to prevent access to Area 4/5 cliff base	Rock/soil mass collapses and hits a person at footpath	0.5	1 x 250kg rockfall per 2 years	0.023809524	target area (person) 0.5m x 0.5m; hazardous zone area 7m x 1.5m	0.069444444	average 1000 ppl/day; average 0.15 min/ppl	0.01	canopy design to withstand rock fall	8.27E-06	low
5	Shallow undercuts, limestone balustrade close to cliff edge	Prevailing Risk	Overhang limestone falls and hits a person on footpath (assume path is re-opened without remediation)	0.2	1 x 250kg rockfall per 5 years	0.004761905	target area (person) 0.5m x 0.5m; hazardous zone area 35m x 1.5m	0.173611111	average 500 ppl/day; average 0.5 m/ppl	0.7	high likelihood of impact causing fatality	1.16E-04	high
		5a Permanently close path at base and rebuild part of balustrade wall at top	Overhang limestone falls and hits a trespasser on closed footpath	0.2	2 x 250kg rockfall per 5 years	0.004761905	target area (person) 0.5m x 0.5m; hazardous zone area 35m x 1.5m	0.013888889	average 1 ppl/day; average 5 min/ppl (for maintenance)	0.7	high likelihood of impact causing fatality	9.26E-06	low
		5b Open path and cover rock face in mesh/shotcrete and soil nails	Overhang limestone falls and hits a person at footpath	0.02	1 x 15 kg rockfall per 50 years	0.004761905	target area (person) 0.5m x 0.5m; hazardous zone area 35m x 1.5m	0.173611111	average 500 ppl/day; average 0.5 m/ppl	0.15	impact to head fatal Probability of head impact approx 15%	2.48E-06	low
6	Caves and undercuts beneath the caprock, rock fall, cracked columns in cave	Prevailing Risk	Overhang limestone falls and hits a person on footpath (assume path is re-opened without remediation)	4	4 x 15kg rockfall per year	0.002564103	target area (person) 0.5m x 0.5m; hazardous zone area 65m x 1.5m	0.347222222	average 500 ppl/day; average 1 min/ppl	0.15	impact to head fatal Probability of head impact approx 15%	5.34E-04	high
		6a Permanently close path and reinforce base of column in cave	Cave collapses and hits a trespasser	0.01	1 x 2000kg rockfall per 100 years	1	collapse would affect whole zone	0.01369863	assume person sleeps in cave for 240 hrs/year (say 15 nights/year)	0.99	rock fall impact fatal	1.36E-04	medium
		6b Mesh and shotcrete face and open path to public	Rockfall hits a person on footpath	0.02	1 x 15kg rockfall per 50 years	0.002564103	target area (person) 0.5m x 0.5m; hazardous zone area 65m x 1.5m	0.173611111	average 500 ppl/day; average 0.5min/ppl	0.15	impact to head fatal Probability of head impact approx 15%	1.34E-06	low
7	Dysfunctional rock bolts, cracking, no structural support to the tunnel portal	Prevailing Risk	Portal collapses on people walking through tunnel	0.05	1 x 2000kg rockfall per 20 years	1	collapse would affect whole zone	0.034722222	average 1000 ppl/day; average 0.05 min/ppl to traverse hazard zone	0.99	rock fall impact fatal	1.72E-03	high
		7a Build support for portal in form of arch	Portal collapses on people walking through tunnel	0.002	1 x 2000kg rockfall per 500 years	1	collapse would affect whole zone	0.034722222	average 1000 ppl/day; average 0.05 min/ppl to traverse hazard zone	0.01	portal would be designed to prevent collapse	6.94E-07	low
		7b Do nothing to support arch and close tunnel	Portal collapses on people walking through tunnel	0.05	1 x 2000kg rockfall per 20 years	1	collapse would affect whole zone	6.94444E-05	average 2 ppl/day; average 0.05 min/ppl to access tunnel for cleaning only	0.99	rock fall impact fatal	3.44E-06	low
		7c Build rockfall shelter and do not treat face	Pinnacle falls and hits a person walking through tunnel	0.2	1 x 500kg rockfall per 5 years	0.020833333	target area (person) 0.5m x 0.5m; hazardous zone area 4m x 3m	0.034722222	average 1000 ppl/day; average 0.05 min/ppl	0.01	canopy design to withstand rock fall	1.45E-06	low
7d Treat face with shotcrete and mesh and do not build rockfall canopy	Pinnacle falls and hits a person walking through tunnel	0.02	1 x 15kg rockfall per 50 years	0.020833333	target area (person) 0.5m x 0.5m; hazardous zone area 4m x 3m	0.034722222	average 1000 ppl/day; average 0.05 min/ppl	0.15	impact to head fatal Probability of head impact approx 15%	2.17E-06	low		

8	Extensive cliff erosion, friable surfaces, corroded masonry ties, rock fall hazards	Prevailing Risk	Mason panel or rocks drop out and hit people	1	1x100 kg rockfall per 1 year	0.00462963	target area (person) 0.5m x 0.5m; hazardous zone area 18 m x 3 m	0.173611111	average 1000 ppl/day; average 0.25 min/ppl (assumes access is restored without remedial works)	0.99	rock fall impact fatal	7.96E-04	very high
8a	Repair masonry wall and install new ties, build canopy, rockfall fences and re-route paths		Rock falls and hits a person at footpath	0.05	1 x 15kg rockfall per 20 years	0.00462963	target area (person) 0.5m x 0.5m; hazardous zone area 18 m x 3 m	0.013888889	average 1 ppl/day; average 20 min/ppl (only CoF maintance staff would enter hazardous zone)	0.15	impact to head fatal Probability of head impact approx 15%	4.82E-07	low
8b	Cover face in shotcrete and mesh negating need for path re-routing and fences		Rock falls and hits a person at footpath	0.02	1 x 15kg rockfall per 50 year	0.00462963	target area (person) 0.5m x 0.5m; hazardous zone area 18 m x 3 m	0.173611111	average 1000 ppl/day; average 0.25 min/ppl	0.15	impact to head fatal Probability of head impact approx 15%	2.41E-06	low
8c	Cover face in mesh and rock bolted in place		Rock falls and hits a person at footpath	10	10 x 1kg rockfall per 1 year	0.00462963	target area (person) 0.5m x 0.5m; hazardous zone area 18 m x 3 m	0.173611111	average 1000 ppl/day; average 0.25 min/ppl	0.05	small rock will fall through mesh and could still cause injury	4.02E-04	medium
9	Rock fall, overhangs	Prevailing Risk	Rock falls and hits a person at footpath	0.5	1 x 15kg rockfall per 2 years	0.006944444	target area (person) 0.5m x 0.5m; hazardous zone area 12m x 3m	0.138888889	average 1000 ppl/day; average 0.2 min/ppl	0.15	impact to head fatal Probability of head impact approx 15%	7.23E-05	medium
9a	Re-route path away from face		Rock falls and hits a person at footpath	0.5	1 x 15kg rockfall per 2 year	0.006944444	target area (person) 0.5m x 0.5m; hazardous zone area 12m x 3m	0.003472222	average 1 ppl/day; average 5 min/ppl for maintance purposes only	0.15	impact to head fatal Probability of head impact approx 15%	1.81E-06	low
9b	Rock bolt and mesh face		Rock falls and hits a person at footpath	1	1 x 1kg rockfall per 1 year	0.013888889	target area (person) 0.5m x 0.5m; hazardous zone area 12m x 1.5m	0.138888889	average 1000 ppl/day; average 0.2 min/ppl	0.05	small rock will fall through mesh and could still cause injury	9.65E-05	medium
9c	Rock bolt, mesh and shotcrete face		Rock falls and hits a person at footpath	0.02	1 x 15kg rockfall per 50 year	0.013888889	target area (person) 0.5m x 0.5m; hazardous zone area 12m x 1.5m	0.138888889	average 1000 ppl/day; average 0.2 min/ppl	0.15	impact to head fatal Probability of head impact approx 15%	5.79E-06	low
11	Retaining wall in unstable condition	Prevailing Risk	Wall collapses and hits a person	0.05	1 x 2000kg rockfall say in 20 years	1	collpase would affect whole zone	0.006944444	average 1 ppl/day; average 10 min/ppl (say 1 worker at rear of shed)	0.9	impact likely fatal	3.13E-04	high
11a	Demolish and rebuild unstable retaining wall		Isolated rock drops out and hits a person	0.05	1 x 15kg rockfall per 20 years	0.027777778	target area (person) 0.5m x 0.5m; hazardous zone area 6m x 1.5m	0.006944444	average 1 ppl/day; average 10 min/ppl (say 1 worker at rear of shed)	0.15	impact to head fatal Probability of head impact approx 15%	1.45E-06	low
ST	Friable ceiling material, rock fall	Prevailing Risk	Rock falls and hits a person in the tunnel (assumed opened to special user groups)	50	50 x 5kg rockfals per year	0.069444444	target area (person) 0.5m x 0.5m; hazardous zone area 30m x 1.2m but increased due to people likely to trigger rockfalls	0.028538813	average 500 ppl for 30 minutes/ year	0.05	fatal head injury likelihod reduced due to likely use of cavers helmets (say 5%)	4.95E-03	very high
Sta	Do nothing and keep closed		Rock falls and hits a person in the tunnel (assumed close and inspected once a year)	2	2 x 5kg rockfall per 1 years	0.006944444	target area (person) 0.5m x 0.5m; hazardous zone area 30m x 1.2m	0.000114155	average 1 hr/yr	0.05	fatal head injury likelihod reduced due to likely use of cavers helmets (say 5%)	7.93E-08	low
STb	Install full lining system		Rock falls and hits a person in the tunnel (assumed open to public)	0.01	1 x 10kg rockfall per 100 years	0.006944444	target area (person) 0.5m x 0.5m; hazardous zone area 30m x 1.2m	0.007534247	average 200 ppl for 20 minutes/ year	0.7	high likelihood of impact causing fatality	3.66E-07	low

LEGEND

$P_{(H)}$	is the annual propbability of the landslide or rockfall
$P_{(S:H)}$	is the probability of spatial impact of landslide or rockfall with an area where people may be present
$P_{(T:S)}$	is the temporal spatial probability of the impact zone being occupied by a person
$V_{(D:T)}$	is the vulnerability of the individual (probability of loss of life of the individual in the event of being impacted by rockfall or landslide)
$R_{(tot)}=P(H)*P(S:H)*P(T:S)*V(D:T)$	Is the risk (annual propobability of loss of life (death) of an individual)

Rows coloured **grey** indicate the existing risks

Rows coloured **green** indicate residual risks following execution of recommended risk mitigation works

AGS Suggested Tollerable loss of life individual risk

Existing slopes/developments 10^{-4} /annum
landslides 10^{-5} /annum

Qualatative Risk defined as follows:

Low	Quantative Risk(loss of life) $<10^{-5}$ /annum
Medium	Quantative Risk (loss of life) $>10^{-5}$ /annum and $<10^{-4}$ /annum
High	Quantative Risk (loss of life) $>10^{-4}$ /annum and $<5 \times 10^{-4}$ /annum
Very High	Quantative Risk (loss of life) $>5 \times 10^{-4}$ /annum

12.0 APPENDIX 7

12.1 Cost Benefit Analysis of the possible remedial options

Prepared by CMW

PER2018-0305 Arthur Head Remedial Work Cost Benefit Analysis

Location	Option	Current Risk	Assumptions	Residual Risk (say in 10 years)	Benefit - Safety Improvement Factor	Benefit - Aesthetic	Assumption	Combined Benefit	Relative Unit Cost	Benefit/unit cost
Area 1	Remove trees, point and repair	2	hazards will be substantially removed	1	1	1	appearance will improve	2	2	2.5
Area 2	Remove trees, re-render	1	---	1	0	1	appearance will improve	1	1	1.0
Area 3	Remove trees, point and repair	2	hazards will be substantially removed	1	1	1	appearance will improve	2	2	2.5
Area 4	Masonry wall	3	will stop deterioration and support face	1	2	2	appearance improves significantly	4	8	0.9
Area 4	Shotcrete and nail wall	3	will stop deterioration and support face	1	2	-3	appearance will look temporary and have poor aesthetics	-1	6	0.3
Area 4	Canopy over cycleway	3	designed to protect public if cliff collapse occurs	1	2	-2	could be designed to look attractive although rock face will deteriorate	0	4	0.8
Area 5	Permanently closed path and rebuild part of barrier wall	3	Current risk assume path (currently closed) is operational	1	2	1	no change in appearance	3	2	3.0
Area 5	Open path and cover in mesh/shotcrete and soil nails	3	Current risk assume path (currently closed) is operational	1	2	-3	appearance will look temporary and have poor aesthetics	-1	7	0.3
Area 6	Permanently close path and reinforce base of column in cave	3	Current risk assume path (currently closed) is operational	1	2	1	existing appearance is maintained	3	2	3.0
Area 6	Mesh and shotcrete face and open path to public	3	Current risk assume path (currently closed) is operational	1	2	-3	shotcrete would negatively affect the appearance of face and the cave	-1	8	0.3
Area 7	Build support for portal in form of arch	3		1	2	1	arch would barely be visible from outside the tunnel	3	5	1.2
Area 7	Build rockfall canopy and do not treat face	3		1	2	-1	extension of existing could be designed to compliment surrounding	1	5	0.8
Area 7	Treat face with shotcrete and mesh only	3		1	2	-3	would substantially affect appearance of the cliff face	-1	6	0.3
Area 8	Repair masonry wall and install new rockbolts and straps, rockfall fences and re-route paths	4	assuming temporary path closures and scaffold canopy currently in place were removed	1	3	1	existing appearance is maintained	4	5	1.4
Area 8	Cover face in shotcrete and mesh negating need for path re-routing and fences	4	assuming temporary path closures and scaffold canopy currently in place were removed	1	3	-4	entire west face of Arthur Head would be a mass of shotcrete	-1	8	0.3
Area 8	Cover face in mesh rock bolted in place	4	assuming temporary path closures and scaffold canopy currently in place were removed	2	2	-2	appearance will deteriorate due to mesh	0	5	0.6
Area 9	Re-route path away from face	2		1	1	1	existing appearance is maintained	2	2	2.5
Area 9	Rock bolt and mesh face	2		1	1	-2	appearance will deteriorate due to mesh	-1	4	0.5
Area 9	Rock bolt, mesh and shotcrete face	2		1	1	-4	entire west face of Arthur Head would be covered in shotcrete	-3	6	0.0
Area 10	Trimming of vegetation to avoid wedging	1		1	0	1	appearance will benefit	1	1	1.0
Area 11	Demolish and rebuild unstable retaining wall	3		1	2	1	existing appearance is maintained	3	5	1.2
Secret Tunnel	Do nothing and keep closed (annual inspections)	4		4	0	1		1	1	4.0
Secret Tunnel	Install full lining system	4		1	3	-3	no longer the original tunnel	0	8	0.4

Only credible options included Do nothing as an option is only included where this is

Comments			Aesthetic weighting		Benefit	Relative Unit Cost		Benefit/Unit Cost
Very High	4		Face completely cover in shotcrete (large area)		-4	Changes in level of risk and aesthetics are weighted equally	Broad approximate relative ranking to rank one option against another.	<0.6
High	3		Face completely cover in shotcrete (medium area)		-3		Cost of annual inspection only	1 0.6 to 0.8
Medium	2		Significant collapse that cannot be readily repaired without loss of aesthetics or faces covered in mesh		-2		Low relative costs	2 and 3 0.9-1.5
Low and Very Low =1	1		Rockfall Fences and rockfall shelters		-1		Medium relative costs	4 and 5 >1.5
			No change		1		High relative costs	6 to 8

13.0 APPENDIX 8

13.1 Schedule of Recommendations

Prepared by Hocking Heritage Studio

2018-55 **Arthur Head Cliff Stabilisation - Schedule of Recommendation**

Revision 1 - 3rd April 2019

Note: Updated weighting figures

Priorisation	Location	Option	Current Risk	Assumptions	Residual Risk (say in 10 years)	Safety Improvement Factor	Aesthetic Weighting	Assumption	Benefit	Relative Unit Cost	Benefit/ Unit cost
1	Area 7	Build support for portal in form of arch	3		1	2	1	arch would barely be visible from outside the tunnel	3	5	1.2
2	Area 7	Build rockfall canopy	3		1	2	-1	extension of existing could be designed to compliment surrounding	1	5	0.8
3	Area 4	Masonry wall extension	3	will stop deterioration and support face	1	2	2	appearance improves significantly	4	8	0.9
4	Area 8	Repair masonry wall and install new rockbolts and straps, install rockfall fence	4	assuming temporary path closures and scaffold canopy currently in place were removed	1	3	1	existing appearance is maintained	4	5	1.4
5	Area 11	Demolish and rebuild unstable retaining wall	3		1	2	1	existing appearance is maintained	3	5	3.0
6	Area 5	Permanently close path beside cliff face and rebuild part of barrier wall	3	Current risk assume path (currently closed) is operational	1	2	1	no change in appearance	3	2	3.0
7	All applicable areas	Undertake CIPS trial, install system to applicable areas	2		3	1	2	existing appearance is maintained	3	3	1.0
8	Area 6	Permanently close path beside cliff face and reinforce base of column in cave	3	Current risk assume path (currently closed) is operational	1	2	1	existing appearance is maintained	3	2	2.5
9	Area 1	Remove trees, point and repair	2	hazards will be substantially removed	1	1	1	appearance will improve	2	2	2.5
10	Area 3	Remove trees, point and repair	2	hazards will be substantially removed	1	1	1	appearance will improve	2	2	2.5
11	Area 9	Re-route path away from face	2		1	1	1	existing appearance is maintained	2	2	1.0
12	Area 2	Remove trees, re-render	1		1	0	1	appearance will improve	1	1	1.0
13	Area 10	Trimming of vegetation to avoid wedging	1		1	0	1	appearance will benefit	1	1	1.0
14	Area 12	Underpinning works	1		1	0	-1	Safety will benefit	1	2	0.5
15	Secret Tunnel	CIPS Application	4	Stabilizes erosion	3	1	1	Limited improvement to safety	1	1	1.0

14.0 APPENDIX 9

14.1 Cost Estimate

Prepared by RBB

Item No	Description	PTE Estimate (Excl GST)	SD Estimate (Excl GST)
PR	Preliminaries	Incl	Incl
1	Area 1 - Refurbishment	\$ 90,620.00	\$ 90,620.00
2	Area 2 - Main stairs - Masonry and Brickwork covered in Render	\$ 38,410.00	\$ 38,410.00
3	Area 3 - High masonry retaining wall along railway reserve	\$ 50,600.00	\$ 56,350.00
4	Area 4 - Weak leached cliff close to rail reserve	\$ 198,639.50	\$ 68,540.00
5	Area 5 - Weak cliff of leached limestone and cross bedded aeolianite	\$ 15,053.50	\$ 58,006.00
6	Area 6 - Vertical face of caprock over zone of roots and cross-bedded aeolianite with undercuts	\$ 121,900.00	\$ 121,900.00
7	Area 7 - Vertical Face over western tunnel portal	\$ 603,698.40	\$ 341,112.50
8	Area 8 - High face beneath time ball and signal cannon platform	\$ 88,952.50	\$ 40,595.00
9	Area 9 - Steeply inclined cliff	\$ 20,700.00	\$ 11,500.00
10	Area 10 - Inclined cliff face behind J shed	\$ 40,135.00	\$ 40,135.00
11	Area 11 - Man made retaining wall between CG1 shed and Time ball Platform	\$ 78,154.00	\$ 60,835.00
12	Secret Tunnel	\$ 68,740.00	\$ 116,580.00
13	Underpinning to Old Laboratory	\$ 19,930.00	\$ -
	Total Estimate (Excl GST)	\$ 1,435,532.90	\$ 1,044,583.50
Con	Contingency (25%)	\$ 358,883.23	\$ 261,145.88
	Total Estimate incl contingency (Excl GST)	\$ 1,794,416.13	\$ 1,305,729.38

GST not included \$176,404.11

Item No	Description	Unit	Work Required Qty	Total Qty	Rate	Subtotal	Contingency - 25%	Total (Excl GST)
	Area 1 - Limestone Quarried Face with Masonry infilling							
1.1	Preliminaries and margin	Item				\$ 11,820.00	\$ 2,955.00	\$ 14,775.00
1.2	Allow for barricades and protection for pedestrians and vehicles	Item				\$ 4,500.00	\$ 1,125.00	\$ 5,625.00
1.3	Allow for erection of scaffolding for inspection and carry out proposed works	m2		240	65	\$ 15,600.00	\$ 3,900.00	\$ 19,500.00
1.4	Remove existing trees, bushes, roots, like and apply necessary treatments to prevent re-growth as required	m2		240	25	\$ 6,000.00	\$ 1,500.00	\$ 7,500.00
1.5	Repair and make good existing barrier wall top which are in poor state	m		50	390	\$ 19,500.00	\$ 4,875.00	\$ 24,375.00
1.6	Repair and make good existing vertical cracks along the limestone and masonry walls - allowed for 4 vertical cracks	m		20	650	\$ 13,000.00	\$ 3,250.00	\$ 16,250.00
1.7	Point and re-bond masonry to match existing	m2		240	55	\$ 13,200.00	\$ 3,300.00	\$ 16,500.00
1.8	Allow for providing few weep holes as protection for water pressure during heavy rain falls - allowed 5no	No		5	400	\$ 2,000.00	\$ 500.00	\$ 2,500.00
1.9	Sundry works	Item				\$ 5,000.00	\$ 1,250.00	\$ 6,250.00
	Sub Total					\$ 90,620.00	\$ 22,655.00	\$ 113,275.00
							\$ -	\$ -
	Area 2 - Main stairs - Masonry and Brickwork covered in Render						\$ -	\$ -
2.1	Preliminaries and margin	Item				\$ 5,010.00	\$ 1,252.50	\$ 6,262.50
2.2	Allow for barricades and protection for pedestrians and vehicles	Item				\$ 4,500.00	\$ 1,125.00	\$ 5,625.00
2.3	Allow for erection of scaffolding for inspection and carry out proposed works	m2		100	65	\$ 6,500.00	\$ 1,625.00	\$ 8,125.00
2.4	Remove existing trees, bushes, roots, like and apply necessary treatments to prevent re-growth as required	m2		70	70	\$ 4,900.00	\$ 1,225.00	\$ 6,125.00
2.5	Repair and make good existing stair guard wall top and sides including new render patching - up works, as required (approx. area)	m2		90	65	\$ 5,850.00	\$ 1,462.50	\$ 7,312.50
2.6	Repair and make good existing stair façade including new render patching - up works, as required (approx. area)	m2		80	65	\$ 5,200.00	\$ 1,300.00	\$ 6,500.00
2.7	Point and re-bond masonry to match existing	m2		30	65	\$ 1,950.00	\$ 487.50	\$ 2,437.50
2.8	Repair and make good existing vertical cracks along stair guard wall including new render patching-up works, etc as required (approx. 3m)	Item				\$ 2,000.00	\$ 500.00	\$ 2,500.00
2.9	Sundry works	Item				\$ 2,500.00	\$ 625.00	\$ 3,125.00
	Sub Total					\$ 38,410.00	\$ 9,602.50	\$ 48,012.50
							\$ -	\$ -
	Area 3 - High masonry retaining wall along railway reserve						\$ -	\$ -
3.1	Preliminaries and margin					\$ 6,600.00	\$ 1,650.00	\$ 8,250.00
3.2	Allow for barricades and protection for pedestrians and vehicles	Item				\$ 4,500.00	\$ 1,125.00	\$ 5,625.00
3.3	Allow for erection of scaffolding for inspection and carry out proposed works	m2		240	65	\$ 15,600.00	\$ 3,900.00	\$ 19,500.00
3.4	Remove existing trees, bushes, roots, like and apply necessary treatments to prevent re-growth as required	m2		240	10	\$ 2,400.00	\$ 600.00	\$ 3,000.00
3.5	Repair and make good existing loosen wall top blocks	m2		40	200	\$ 8,000.00	\$ 2,000.00	\$ 10,000.00
3.6	Re-point and rebond existing loose masonry after removal of trees and roots	m2		140	50	\$ 7,000.00	\$ 1,750.00	\$ 8,750.00
3.7	Allow for providing few weep holes as protection for water drainage during re-pointing works - allowed 10no	No		5	400	\$ 2,000.00	\$ 500.00	\$ 2,500.00
3.8	Sundry works	Item				\$ 4,500.00	\$ 1,125.00	\$ 5,625.00
	Sub Total					\$ 50,600.00	\$ 12,650.00	\$ 63,250.00
							\$ -	\$ -
	Area 4 - Weak leached cliff close to rail reserve						\$ -	\$ -
4.1	Preliminaries and margin	Item				\$ 25,909.50	\$ 6,477.38	\$ 32,386.88

4.2	Allow for barricades and protection for pedestrians and vehicles	Item				\$ 4,500.00	\$ 1,125.00	\$ 5,625.00
4.3	Allow for erection of scaffolding for inspection and carry out proposed works	m2	100	80		\$ 8,000.00	\$ 2,000.00	\$ 10,000.00
4.4	Reinforced concrete strip footing with fibre r/f bars, formwork etc	m3	4	1250		\$ 5,000.00	\$ 1,250.00	\$ 6,250.00
4.5	Reinforced concrete cliff stabilizing fill (N25 grade) including staging pours (7 pours)	m3	30	450		\$ 13,500.00	\$ 3,375.00	\$ 16,875.00
4.6	'1000/500L x 350 wide natural limestone block retaining wall including bridging, ties to concrete stabilizing wall at every course	m2	90	450		\$ 40,500.00	\$ 10,125.00	\$ 50,625.00
4.7	'1000/500L x 350 wide natural limestone block retaining capping course - approx. 1m wide	m2	16	500		\$ 8,000.00	\$ 2,000.00	\$ 10,000.00
4.8	'900 High heavy duty chain link fence	m	25	150		\$ 3,750.00	\$ 937.50	\$ 4,687.50
4.9	Allow for remove vegetation / cut back from the face before building the retaining wall	m2	100	25		\$ 2,500.00	\$ 625.00	\$ 3,125.00
4.10	Excavation limestone for concrete footing	m3	5	150		\$ 750.00	\$ 187.50	\$ 937.50
4.11	Reinstate existing bitumen foot path to match existing including 150 compacted road base	m2	16	250		\$ 4,000.00	\$ 1,000.00	\$ 5,000.00
4.12	32 PVC weep holes and geotextile wrap to footing - 500 high	no	18	85		\$ 1,530.00	\$ 382.50	\$ 1,912.50
4.13	4000 Long x 100 dia. drilling to rock anchors including N20 galvanised bar and plate (approx. 12kg), 40 Mpa grout (0.03m3), all complete	no	21	3000		\$ 63,000.00	\$ 15,750.00	\$ 78,750.00
4.14	Form joint between existing and new retaining walls including cutting 3no existing blocks	m	12	250		\$ 3,000.00	\$ 750.00	\$ 3,750.00
4.15	'12 Dia. fibre reinforced plastic (GFRP) bars at 200 centres each way with stabilizing concrete fill	m2	90	80		\$ 7,200.00	\$ 1,800.00	\$ 9,000.00
4.16	Sundry works	Item				\$ 7,500.00	\$ 1,875.00	\$ 9,375.00
	Sub Total					\$ 198,639.50	\$ 49,659.88	\$ 248,299.38
							\$ -	\$ -
	Area 5 - Weal cliff of leached limestone and cross bedded aeolianite						\$ -	\$ -
6.1	Preliminaries and margin	Item				\$ 1,963.50	\$ 490.88	\$ 2,454.38
5.1	New fencing - Lower level	m	12	160		\$ 1,920.00	\$ 480.00	\$ 2,400.00
5.2	New fencing - Upper Level	m	27	160		\$ 4,320.00	\$ 1,080.00	\$ 5,400.00
5.3	New single gate to fence	no	1	1250		\$ 1,250.00	\$ 312.50	\$ 1,562.50
5.4	Remove existing turf and replace with ground covering vegetation and mulch	m2	24	150		\$ 3,600.00	\$ 900.00	\$ 4,500.00
5.5	Sundry works	Item				\$ 2,000.00	\$ 500.00	\$ 2,500.00
	Sub Total					\$ 15,053.50	\$ 3,763.38	\$ 18,816.88
							\$ -	\$ -
	Area 6 - Vertical face of caprock over zone of roots and cross-bedded aeolianite with undercuts						\$ -	\$ -
6.1	Preliminaries and margin	Item				\$ 15,900.00	\$ 3,975.00	\$ 19,875.00
6.2	Allow for barricades and protection for general public	Item				\$ 5,000.00	\$ 1,250.00	\$ 6,250.00
6.3	Allow for erection of scaffolding for inspection and carry out proposed works	m2	400	65		\$ 26,000.00	\$ 6,500.00	\$ 32,500.00
6.4	Reinforce concrete base to existing column (500 dia.) base in cave and cover concrete base with limestone boulders	No	1	5000		\$ 5,000.00	\$ 1,250.00	\$ 6,250.00
6.5	Mesh and shotcrete face of vertical cliff face (allowance 50% only)	m2	200	325		\$ 65,000.00	\$ 16,250.00	\$ 81,250.00
6.6	Sundry works	Item				\$ 5,000.00	\$ 1,250.00	\$ 6,250.00
	Sub Total					\$ 121,900.00	\$ 30,475.00	\$ 152,375.00
							\$ -	\$ -
	Area 7 - Vertical Face over western tunnel portal						\$ -	\$ -
7.1	Preliminaries and margin	Item				\$ 44,718.40	\$ 11,179.60	\$ 55,898.00
7.2	Allow for barricades and protection for general public	Item				\$ 4,500.00	\$ 1,125.00	\$ 5,625.00
7.3	Allow for erection of scaffolding for inspection and carry out proposed works	m2	90	65		\$ 5,850.00	\$ 1,462.50	\$ 7,312.50
7.4	Build support for existing portal in form of arch including corten (inside tunnel)	m2	64	2344		\$ 150,000.00	\$ 37,500.00	\$ 187,500.00
	Demolition to Existing Canopy							
7.5	Cut, seal and remove existing electrical services to tunnel entry	Item				\$ 1,500.00	\$ 375.00	\$ 1,875.00

7.6	Remove existing steel canopy section to entrance including steel 150 x 50 RHS post. footings etc to receive new concrete casing (plan area measured)	m2		10	120	\$ 1,200.00	\$ 300.00	\$ 1,500.00
7.7	Remove existing perspex ceiling and cladding including framing to entrance soffit to receive new concrete casing	m2		6	80	\$ 480.00	\$ 120.00	\$ 600.00
	Concrete Portal - Tunnel Entrance							
7.8	N50 Concrete to Tunnel base including reo/fm wk/excavation etc	m3		4	650	\$ 2,600.00	\$ 650.00	\$ 3,250.00
7.9	N50 Concrete to tunnel walls and soffit including reo/fm wk/excavation etc	m3		7	1250	\$ 8,750.00	\$ 2,187.50	\$ 10,937.50
7.10	Sundry works - Water stops, construction joints, etc	Item				\$ 1,100.00	\$ 275.00	\$ 1,375.00
	New Design - Cuved double lined hydraulic buffer steel canopy							
7.11	RCC footing	m3		8	750	\$ 6,000.00	\$ 1,500.00	\$ 7,500.00
7.12	Sundry base plates, bolts, etc	Item				\$ -	\$ -	\$ -
	Framing							
7.13	150 UC	t		1.34	8000	\$ 10,720.00	\$ 2,680.00	\$ 13,400.00
7.14	150 UC - curved	t		1.08	14000	\$ 15,120.00	\$ 3,780.00	\$ 18,900.00
7.15	300 PFC	t		2.33	8000	\$ 18,640.00	\$ 4,660.00	\$ 23,300.00
7.16	300 PFC - curved	t		2.41	14000	\$ 33,740.00	\$ 8,435.00	\$ 42,175.00
7.17	250 x 150 RHS	t		4.98	8000	\$ 39,840.00	\$ 9,960.00	\$ 49,800.00
7.18	400 x 200 RHS- Mid beam	t		0.47	7500	\$ 3,525.00	\$ 881.25	\$ 4,406.25
7.19	Steel truss(s) to link modules	Item				\$ 65,000.00	\$ 16,250.00	\$ 81,250.00
7.20	'1200 High industrial hydraulic buffer post including base plates, fixing bolts, fixing to structural framework, etc (0.70t each)	no		12	5750	\$ 69,000.00	\$ 17,250.00	\$ 86,250.00
	Sheets							
7.21	3 thick corten sheets to steel frame	t		1.71	11000	\$ 18,810.00	\$ 4,702.50	\$ 23,512.50
7.22	3 thick corten sheets to steel frame - curved	t		2.92	14500	\$ 42,340.00	\$ 10,585.00	\$ 52,925.00
7.23	'10 thick 300 wide (approx.) corten steel plate welded between curved canopy sections	Note				Excluded		Excluded
7.23a	Extra over corten for 5mm thick	Item				\$ 15,000.00	\$ 3,750.00	\$ 18,750.00
	Sundries							
7.24	Allow welding and cap plates	t		2.7	10000	\$ 27,000.00	\$ 6,750.00	\$ 33,750.00
7.25	Allow connection to tunnel entry (approx. girth 11m)	Item				\$ 1,265.00	\$ 316.25	\$ 1,581.25
7.26	Modify / refix existing steel gate as required	Item				\$ 4,500.00	\$ 1,125.00	\$ 5,625.00
7.26A	PROVISIONAL SUM - Sealer System to Corten					\$ 10,000.00	\$ 2,500.00	\$ 12,500.00
7.27	Sundries	Item				\$ 2,500.00	\$ 625.00	\$ 3,125.00
	Sub Total					\$ 603,698.40	\$ 150,924.60	\$ 754,623.00
	Area 8 - High face beneath time ball and signal cannon platform							
	Arrea 7 .8 & 9 - Fencing & Paving							
	Preliminaries and margin	Item				\$ 6,757.50	\$ 1,689.38	\$ 8,446.88
	Remove existing kerb	m		30	80	\$ 2,400.00	\$ 600.00	\$ 3,000.00
	New fence	m		50	150	\$ 7,500.00	\$ 1,875.00	\$ 9,375.00
	New timber sleeper kerb	m		50	200	\$ 10,000.00	\$ 2,500.00	\$ 12,500.00
	Limecrete paving	m2		150	95	\$ 14,250.00	\$ 3,562.50	\$ 17,812.50
	Compacted crushed limestone paving	m2		20	65	\$ 1,300.00	\$ 325.00	\$ 1,625.00
	Vegetation to rock fall area	m2		120	80	\$ 9,600.00	\$ 2,400.00	\$ 12,000.00
	Sub Total					\$ 51,807.50	\$ 12,951.88	\$ 64,759.38
	Option 1							
8.1	Preliminaries and margin	Item				\$ 4,845.00	\$ 1,211.25	\$ 6,056.25
8.2	Allow for barricades and protection for general public					\$ 4,500.00	\$ 1,125.00	\$ 5,625.00
8.3	Allow for erection of scaffolding for inspection and carry out proposed works	m2		220	65	\$ 14,300.00	\$ 3,575.00	\$ 17,875.00
8.4	Repair, re-point recently constructed limestone masonry wall section	m2		20	120	\$ 2,400.00	\$ 600.00	\$ 3,000.00
8.5	Replace missing or corroded anchor points on recently constructed limestone wall section	No		20	200	\$ 4,000.00	\$ 1,000.00	\$ 5,000.00
8.7	Re-route existing path	m2		36	100	\$ 3,600.00	\$ 900.00	\$ 4,500.00
8.9	Sundry works	Item				\$ 3,500.00	\$ 875.00	\$ 4,375.00
	Sub Total					\$ 37,145.00	\$ 9,286.25	\$ 46,431.25
						\$ -	\$ -	\$ -
	Area 9 - Steepley inclined cliff					\$ -	\$ -	\$ -
	Option 1					\$ -	\$ -	\$ -

9.1	Preliminaries and margin	Item				\$ 2,700.00	\$ 675.00	\$ 3,375.00
9.2	Re-route existing path	m2	80	200		\$ 16,000.00	\$ 4,000.00	\$ 20,000.00
9.3	Sundry works	Item				\$ 2,000.00	\$ 500.00	\$ 2,500.00
	Sub Total					\$ 20,700.00	\$ 5,175.00	\$ 25,875.00
							\$ -	\$ -
	Area 10 - Inclined cliff face behind J shed						\$ -	\$ -
10.1	Preliminaries and margin	Item				\$ 5,235.00	\$ 1,308.75	\$ 6,543.75
10.2	Allow for erection of scaffolding for inspection and carry out proposed works	m2	360	65		\$ 23,400.00	\$ 5,850.00	\$ 29,250.00
10.3	Remove existing trees, bushes, roots, like and apply necessary treatments to prevent re-growth as required	m2	360	15		\$ 5,400.00	\$ 1,350.00	\$ 6,750.00
10.4	Repair and make good to existing cliff face, where trees and roots are removed as required - assume 20%	m2	72	50		\$ 3,600.00	\$ 900.00	\$ 4,500.00
	Sundry works					\$ 2,500.00	\$ 625.00	\$ 3,125.00
	Sub Total					\$ 40,135.00	\$ 10,033.75	\$ 50,168.75
	Area 11 - Man made retaining wall between CG1 shed and Time ball Platform							
11.1	Preliminaries and margin	Item				\$ 10,194.00	\$ 2,548.50	\$ 12,742.50
11.2	Allow for erection of scaffolding for inspection and carry out proposed works	m2	60	65		\$ 3,900.00	\$ 975.00	\$ 4,875.00
11.3	Careful removal of existing limestone cladding/retaining wall to reuse as required (approx. area)	m2	30	300		\$ 9,000.00	\$ 2,250.00	\$ 11,250.00
11.4	Excavate, drill, cut and remove existing limestone bed to receive new concrete footings	m2	14	750		\$ 10,500.00	\$ 2,625.00	\$ 13,125.00
11.5	Concrete mass filling to make up levels to receive new footing bed (approx. quantity)	m3	6	1000		\$ 6,000.00	\$ 1,500.00	\$ 7,500.00
11.6	Reinforced concrete strip footing with fibre r/f bars, form work, etc	m3	4	850		\$ 3,400.00	\$ 850.00	\$ 4,250.00
11.7	190 Reinforced core filled block work including 350 long fiber reinforced plastic wall ties etc	m2	16	350		\$ 5,600.00	\$ 1,400.00	\$ 7,000.00
11.8	300 Wide (approx.) Random rubble limestone facing wall to match existing sizes and pattern	m3	24	500		\$ 12,000.00	\$ 3,000.00	\$ 15,000.00
11.9	Lime stabilized sand back fill	m3	14	200		\$ 2,800.00	\$ 700.00	\$ 3,500.00
11.10	300 thick top soil fill	m3	4	80		\$ 320.00	\$ 80.00	\$ 400.00
11.11	600 long x 32 dia. drainage pipe to retaining wall base	no	12	250		\$ 3,000.00	\$ 750.00	\$ 3,750.00
11.12	Low profile salt resistant landscape planting	m2	12	120		\$ 1,440.00	\$ 360.00	\$ 1,800.00
11.13	Sundry works					\$ 10,000.00	\$ 2,500.00	\$ 12,500.00
	Sub Total					\$ 78,154.00	\$ 19,538.50	\$ 97,692.50
							\$ -	\$ -
	Underpinning to Old Laboratory						\$ -	\$ -
12.1	Preliminaries and margin	Item				\$ 1,680.00	\$ 420.00	\$ 2,100.00
12.2	Underpinning works	m2	14	800		\$ 11,200.00	\$ 2,800.00	\$ 14,000.00
12.3	Footing	m2	13	350		\$ 4,550.00	\$ 1,137.50	\$ 5,687.50
12.4	Sundry works					\$ 2,500.00	\$ 625.00	\$ 3,125.00
	Sub Total					\$ 19,930.00	\$ 4,982.50	\$ 24,912.50
	Secret Tunnel - If Required						\$ -	\$ -
13.1	Preliminaries and margin	Item				\$ 8,640.00	\$ 2,160.00	\$ 10,800.00
13.2	Careful removal of existing loose sand around tunnel and make good to receive new lining	m2	96	200		\$ 19,200.00	\$ 4,800.00	\$ 24,000.00
13.3	New lining system to existing secret tunnel CIPS System	m	96	400		\$ 38,400.00	\$ 9,600.00	\$ 48,000.00
13.4	Sundry works					\$ 2,500.00	\$ 625.00	\$ 3,125.00
	Sub Total					\$ 68,740.00	\$ 17,185.00	\$ 85,925.00
						\$ 1,450,586.40	\$ 362,646.60	\$ 1,813,233.00

15.0 APPENDIX 10

15.1 Safety in Design Report

Prepared by Hocking Heritage Studio

**ARTHUR HEAD RESERVE
CLIFF STABILISATION**

**SAFETY IN DESIGN REVIEW REPORT
Report to City of Fremantle**

**Date : 18 December 2018
Project No: 2018-55**

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HOCKING HERITAGE STUDIO

This report is provided to comply with applicable legislative requirements. All buildings and/or structures present potential hazards during construction, during operation, in their maintenance and in demolition. This report assumes that all parties act reasonably, understand the normal risks in and around buildings and take all reasonable care and precautions in what they do.

This report is prepared by us in our capacity as architects involved in the project. We are not experts in risk assessment nor hazard management and this report should not be relied upon as though it had been prepared by such experts.

1. INTRODUCTION

- Relevant WA legislation and Codes of Practice designed to assist compliance with the relevant legislation (together referred to as the Legislative Regime), set out requirements for safe construction and safe working.
- Relevantly to this Report, the Legislative Regime requires that if work to be carried out on a construction site 'was, is being or is to be done for the client as part of the client's trade or business' then a person involved in the design of that work (or a part of it) has obligations to identify and eliminate or reduce hazards arising from the design and provide a written report to the client on that issue.
- This report considers hazards arising from design (and construction methodologies) and considers control measures in that context. We assume that widely known construction hazards (such as working at heights, working below cranes, working near openings and changes of levels, working with materials containing solvents or other toxins and so on) will be identified, controlled and managed by those in control of the workplace at the time. This is not the architect. This applies equally to the contractor or builder constructing the project and to the future occupants of the building and their maintenance teams. As such, we do not draw particular attention to those hazards in this report.
- This Report is only applicable to the extent that it applies to works within Western Australia.

2. SCOPE

Hocking Heritage Studio was commissioned by the **City of Fremantle** as lead consultant and Architect for the Arthur Head Reserve Cliff Stabilisation Survey.

The subject of this review is:

- Arthur Head Reserve natural limestone cliffs and their man-made retaining walls and infills
- 'Secret Tunnel' leading from the Gunner's cottage to the Whalers tunnel

The scope of services is as follows:

- Assessment of the structural integrity and stability of the natural cliff faces and man-made walls
- Eliminating or reducing erosion of the cliff faces and walls
- Assessment of the Secret Tunnel condition;
- Categorising the risk for each finding;
- Proposing and describing remediation options.

3. REFERENCED DOCUMENTS

The following documents have been referenced as part of this review:

Building Code of Australia (part of National Construction Code).

Code of Practice – Safe Design of Buildings and Structures issued by WorkSafe WA

National Standard For Construction Work, Guidance for Designers issued by WorkSafe WA

Initial Report from 26th October 2018 by Hocking Heritage Studio

Final Report from 19th November 2018 by Hocking Heritage Studio

P01 Area 4 Elevations

P02 South East Elevations

P03 Area 4 Details

P04 Area 11 North West Wall

P05 Area 11 North West Wall

P06 Area 8 Whalers Tunnel

4. DESIGN ASSUMPTIONS/PARTICULAR ASPECTS OF DESIGN

The following assumptions have been made as part of this review.

- This report considers hazards arising from design (and construction methodologies) and considers control measures in that context. Standard hazards (working at heights, working below cranes, working near openings, edges and changes of levels, working with materials containing solvents or other toxins, UV protection and so on) will be controlled and managed by those in control of the workplace at the time. This is not the architect. This applies equally to the contractor or builder constructing the project and to the future occupants of the building/structure and their maintenance teams
- A competent and appropriately licensed and qualified contractor will be engaged to carry out the Works.
- This risk assessment is based on current good industry practice and knowledge.
- This report is limited to consideration of any hazards from a design perspective being those that can, where reasonably practicable, be identified and then removed or mitigated through the design process for which the author of this report is responsible
- The Works will be constructed in accordance with all applicable legislative requirements.
- This report is a summary of the process followed and some of the risk identification. It is assumed, and required, that the entirety of this report (including all appendices) will be read together with the completed Hazard Identification Register
- A risk assessment from a Geotechnical perspective has been undertaken separate to this report.

5. REVIEW METHODOLOGY

Hazard Identification

A Hazard Identification Checklist and Register was utilised to record the findings of the review. A copy of the completed Register is attached to this report.

For each area/location of risk exposure the review described:

- Area of Risk, specific hazard identified
- Estimation of Probability that harm may occur (Risk Assessment Matrix)
- Estimation of Consequence of harm that may occur (Risk Assessment Matrix)
- Estimation of Risk Level (Probability x Consequence = Risk) (Risk Assessment Matrix)
- Control options considered
- Controls implemented

Summary of Risk Assessment Matrix Used

A "5x5" risk matrix was utilized to estimate the level of risk associated with a specific hazard (risk is the probability of harm multiplied by the consequence of harm).

- A. Identify potential hazards associated with the activity through the use of the Hazard Identification Checklist
 B. Perform a risk assessment for the hazards identified by:
 (i) Determining the consequences (refer Table 1);
 (ii) Determining the probability of the event occurring (refer Table 2);
 (iii) Applying the values obtained from Tables 1 & 2 to the Qualitative Risk Matrix (Table 3) to obtain the resultant Risk Score and Level.

TABLE 1 – CONSEQUENCE TABLE			TABLE 2 – PROBABILITY TABLE		
Given that the event occurs, what is the likely outcome?			How likely is it, that the event will occur?		
LEVEL	DESCRIPTOR	CONSEQUENCE	LEVEL	DESCRIPTOR	DESCRIPTION
1	Insignificant	No injury	1	Rare	The event may occur only in exceptional circumstances
2	Minor	First Aid treatment	2	Unlikely	The event may occur at some stage
3	Moderate	Medical treatment required	3	Moderate	The event should occur at some stage
4	Serious	Extensive injuries	4	Likely	Event will probably occur in most circumstances
5	Disaster	Death	5	Almost Certain	Event expected to occur in most circumstances

TABLE 3 – QUALITATIVE RISK ASSESSMENT MATRIX						
CONSEQUENCE						
PROBABILITY	1 Insignificant	2 Minor	3 Moderate	4 Serious	5 Disaster	RISK LEVEL
1 Rare	1	3	6	10	15	High (18 - 25)
2 Unlikely	2	5	9	14	19	Significant (10-17)
3 Moderate	4	8	13	18	22	Moderate (6 - 9)
4 Likely	7	12	17	21	24	Low Risk (1 - 5)
5 Almost Certain	11	16	20	23	25	

6. REVIEW RESULTS

Uncontrolled Risks

The risk assessment forming part of this safety in design review identified that the hazard(s) summarised below are uncontrolled risks (ie no controls have been implemented), and/or remain as High Risks or Significant Risks, even after steps have been taken to reduce them.

All other risks were rated as being MODERATE or LOW and can be reviewed in the Register attached to this report.

RISK ITEM 1	
Area of Risk	All areas
Description of Hazard	Dropping of loose material from cliff face during Works
Risk level (i.e. Probability x Consequence = Risk level)	Moderate / Moderate = 13
Control Options	Temporary netting installed
RISK ITEM 2	
Area of Risk	Area 4,5,7,8
Description of Hazard	Part collapse of cliff face areas during Works
Risk level (i.e. Probability x Consequence = Risk level)	Rare / Disaster = 15
Control Options	Monitoring of cliff face by an experienced Geotechnical professional
RISK ITEM 3	
Area of Risk	All areas
Description of Hazard	Physical injury due to cutting and removal of plant material (bushes, trees etc.) at heights
Risk level (i.e. Probability x Consequence = Risk level)	Moderate / Minor = 8
Control Options	Temporary netting installed, Safe work practices
RISK ITEM 4	
Area of Risk	All areas
Description of Hazard	Site access and site location adjacent to frequented public pathways
Risk level (i.e. Probability x Consequence = Risk level)	Likely / Serious = 21
Control Options	Clear visible signage to the public, appropriate fencing and/or netting,

7

	Active site access management
RISK ITEM 5	
Area of Risk	Area 4,
Description of Hazard	Manual handling of large size limestone blockwork, physical injury from lifting large or heavy objects
Risk level (i.e. Probability x Consequence = Risk level)	Moderate / Serious = 18
Control Options	Safe work practices, First aid kit, emergency action procedure induction
	Minimise prefabricated size and weight of elements
RISK ITEM 6	
Area of Risk	Area 7
Description of Hazard	Manual handling of prefabricated elements on site, physical injury from lifting large or heavy objects
Risk level (i.e. Probability x Consequence = Risk level)	Moderate / Serious = 18
Control Options	Safe work practices, First aid kit, emergency action procedure induction
	Minimise prefabricated size and weight of elements
RISK ITEM 7	
Area of Risk	All areas
Description of Hazard	Restricted transport options for material to and from site
Risk level (i.e. Probability x Consequence = Risk level)	Likely / Minor = 12
Control Options	Active site access management planning
RISK ITEM 8	
Area of Risk	All areas
Description of Hazard	Working off power grid, fuel of generator could ignite
Risk level (i.e. Probability x Consequence = Risk level)	Unlikely / Serious = 14
Control Options	Sealed fuel container
RISK ITEM 9	
Area of Risk	Area 7
Description of Hazard	Physical harm due to cutting and removal of steel elements

8

	on site
Risk level (i.e. Probability x Consequence = Risk level)	Moderate / Serious = 18
Control Options	Safe work practices, First aid kit, emergency action procedure induction
RISK ITEM 10	
Area of Risk	All areas
Description of Hazard	Loading/Unloading of vehicle, risk of injury to personnel during loading/unloading of vehicle due to difficulty of operation & limited situational awareness
Risk level (i.e. Probability x Consequence = Risk level)	Moderate / Moderate = 13
Control Options	Safe work practices Contractor/Subcontractor's extant OHS policy
	Enforce strict controls limiting personnel in vicinity of loading/unloading operations. Eg, "no-go" zones.
	Use personnel in "spotter" role/s to warn equipment operators of hazards to personnel
RISK ITEM 11	
Area of Risk	All areas
Description of Hazard	Physical injury from using rock breaking or drilling machinery
Risk level (i.e. Probability x Consequence = Risk level)	Moderate / Serious = 18
Control Options	Safe work practices, First aid kit, emergency action procedure induction
RISK ITEM 12	
Area of Risk	Area 11
Description of Hazard	Physical injury from removal of limestone blockwork
Risk level (i.e. Probability x Consequence = Risk level)	Moderate / Serious = 18
Control Options	Safe work practices, First aid kit, emergency action procedure induction
RISK ITEM 13	
Area of Risk	Secret Tunnel

Description of Hazard	Physical injury from partly collapsing tunnel roof
Risk level (i.e. Probability x Consequence = Risk level)	Almost certain / Serious = 23
Control Options	Safe work practices, First aid kit, emergency action procedure induction
	Access only with an experienced Geotechnical professional
	Active work stage planning before commencing works on site. Use personnel in "spotter" role/s to supervise
RISK ITEM 14	
Area of Risk	All areas
Description of Hazard	Working in proximity of cliff edges
Risk level (i.e. Probability x Consequence = Risk level)	Likely / Serious = 21
Control Options	Safe work practices, First aid kit, emergency action procedure induction
RISK ITEM 15	
Area of Risk	All areas
Description of Hazard	Chemicals used in workplace
Risk level (i.e. Probability x Consequence = Risk level)	Moderate / Serious = 18
Control Options	Safe work practices, First aid kit, dedicated cleaning station. emergency action procedure induction
RISK ITEM 16	
Area of Risk	
Description of Hazard	
Risk level (i.e. Probability x Consequence = Risk level)	
Control Options	

7. CONCLUSION

This Safety in Design review has sought, so far as reasonably practicable, to involve the participation of relevant project participants, including clients, to mitigate or eliminate hazards through design where possible and draw attention to those which remain as High Risks, Significant Risks or risks for which no controls have been applied

For any ensuing design it is strongly recommended that this Safety in Design review be reviewed and revised as required to reflect any changes to the defined or assumed design.

The review is current as at the date of issue of this report. Any change to design after this date may have an impact on safety. If such changes are made, they should be referred back to the architect. Any changes made to a design without the architect's knowledge removes the architect's ability to consider the risk issues further. The Safety in Design review is based on design scope which is within the architect's control.

**FPOL1904-11 KINGS SQUARE PUBLIC REALM - PAVING, PROCUREMENT
AND PROJECT TIMING FOR STAGE 1 WORKS
ATTACHMENT 1**



**TECHNICAL REPORT:
MATERIAL AND PROCUREMENT REPORT
Kings Square Public Realm Paving**

SUMMARY OF TESTS AND FINDINGS

Date Issued: 03/04/2019

1 INTRODUCTION

The material board and specifically the paving define the character of the different spaces, support wayfinding and the understanding of the public space. Paving is an important component of the public realm urban design.

Therefore, important considerations and paving investigation were performed by the project design team between March 2018 and March 2019 during design development and detail design phases.

The estimated cost associated with the paving and the procurement undertaken by the project design team have formed part of final decisions around the material board.

The following concerns were analysed and considered as part of the material board finalisation:

- Robustness and appropriateness of the paving for the function
- Solar reflectance values and heat island reduction (energy absorbed by the paving surface)
- Compliance with the Australian Standards: breaking load, luminance contrast and slip resistance.
- Natural stone compliance with the relevant ASTM: absorption resistance, density, abrasion, compressive strength, modulus of rupture and flexural strength.

The final material selection/paving strategy for the Kings Square Public Realm conforms to the City of Fremantle Paving Policy and the Urban Design Strategy by CODA endorsed in 2012. It also reflects the intent and principles set out the adopted Concept Plan for Kings Square Public Realm, in February 2018.

2 PAVING CONCEPT

At its 28 February 2018 meeting, the Council approved the Kings Square Public Realm Concept Design that included the concept for paving design. It was noted by Council that a further action would be to develop an on-site material palette trial.

PAVING CONCEPT – PEDESTRIAN PRIORITY STRATEGY:

- Concrete Aggregate used as the main precinct paving.
- Limestone and natural stone as the ‘civic’ delineator:
 - Church
 - Civic Square
 - High Street Hub including Windows To Past
- Granite Cobbles to reinforce tree planting grid and paving matrix.
- City of Fremantle standard Urbanstone concrete pavers around the precinct to be retained as per policy.

The texture of the paving will be utilised as a wayfinding and DDA strategy meaning the smoother finishes will denote heavily pedestrianised areas whereas rough finish will give clues to potential and occasional shared use of the space with cars.

Concrete – Overall Precinct:

- Aggregate rough exposed (3-5 mm) for the trafficable areas and event/servicing access.
- Aggregate light exposure (1-2 mm) for the parking bays and potential event support areas.
- Aggregate honed (smooth) for the pedestrian areas and alfresco dining areas.

The colour grey and beige will be utilised to create interest, emphasize areas or blend with adjacent materials where required. The choice of concrete for the Newman Court, High Street, William and Adelaide Street was driven by function, and also affordability and continuous installation.



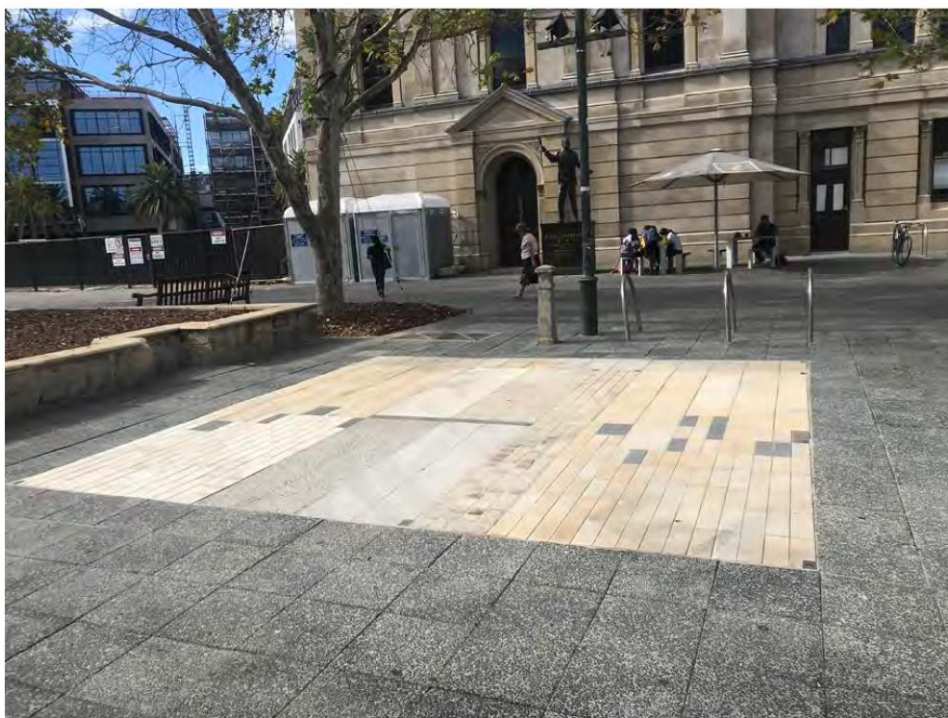
Natural Stone Pavers

- Precinct Granite Cobbles:
 - Natural split finish (rougher) in the trafficable areas
 - Bush hammered (smoother) finish in the pedestrian areas
- Precinct Charcoal Granite Paver & Cobbles:
 - Edges and DDA compliance
 - Parking bays mark-ups
- Church Limestone Pavers:
 - Exfoliated finish, stack bond and church alignment
- High Street/Civic Square Limestone Pavers:
 - Natural finish, running bond and town hall alignment
- High Street/Civic Square Limestone Small Pavers:
 - Natural finish, running bond and town hall alignment

In High Street and Civic Square, the natural stone and the concrete aggregate will

reinforce the objective of creating a new high quality open public/civic space with a clear pedestrian priority focus.

The granite cobblestones proposed have been utilised in the Leighton Beach development successfully. The City of Fremantle has a considerable quantity stored at the depot since the development completion that could be installed in the Stage I works as a cost saving exercise and would also ease storage pressure at the depot.



3 PAVING TRIAL

The paving trial was installed in Kings Square in mid-January 2019, based on the approved concept plan, to test various aspects of materiality, including:

- Potential options of natural stone from different sources
- Constructability, physical performance and maintenance issues
- Colour, finishes and tonal differentiation
- On site luminance and slip resistance

The in-house design team and various business units were invited to attend site and to assist in specific performance testing (e.g. vehicle load and cleaning testings).

Elected Members were invited to inspect the paving trial on site and to receive an informal briefing about the test area and the complexities around material selection. The 'paving trail explained' on-site meetings were held on the 30 January, 7 and 12 February 2019.

PAVING TRIAL RESULTS

Materials trialled:

- 1 Rural Stone Sandstone - Exfoliated (600 x 300)
- 2 Rural Stone Sandstone - Saw Cut (300 x 100)
- 3 Rural Stone Green Porphyry - Flamed (300 x 100)
- 4 Cobblestones Amber (90 x 90)
- 5E Concrete Aggregate Coogee Exposed
- 5H Concrete Aggregate Coogee Honed
- 6E Concrete Aggregate Cottesloe Exposed
- 6H Concrete Aggregate Cottesloe Exposed
- 7 Granite Charcoal - Chiselled (300 x 100)
- 8 Absolute Stone Limestone - Bush Hammered (300 x 100)
- 9 Absolute Stone Cognac Granite (New Civic Building KHA)
- 10 Absolute Stone Limestone - Acid Washed (600 x 300)

NOTE: *The materials listed above by various suppliers used for the trial were purely for the purposes of testing and choosing appropriate finishes. The final supply of materials will be determined in accordance with the City's Procurement Policy and tendering procedures.*

SLIP RESISTANCE TESTING

The third party testing was performed on-site by certified experts – SGS, with the Wet Pendulum Method (AS4586) to confirm the slip resistance of the chosen materials, in both dry and wet conditions. The aim was to **achieve compliance with a minimum P4 classification** and all the paving proposed complied, except for the acid washed finish limestone (10).







Slip Resistance Classification:

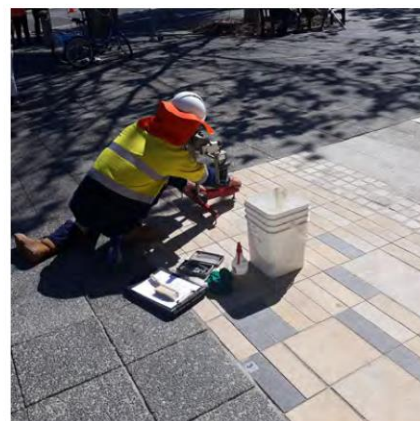
ID	Material:	Classification:
1	Rural Stone Sandstone - Exfoliated	P5
2	Rural Stone Sandstone - Saw Cut	P5
4	Cobblestones Amber	P5
5E	Concrete Aggregate Coogee Exposed	P5
5H	Concrete Aggregate Coogee Honed	P5
6E	Concrete Aggregate Cottesloe Exposed	P5
6H	Concrete Aggregate Cottesloe Exposed	P5
7	Granite Charcoal - Chiselled	P4
8	Absolute Stone Limestone - Bush Hammered	P5
10	Absolute Stone Limestone - Acid Washed	P3

LUMINANCE CONTRAST TESTING

The Kings Square Project Manager performed an initial observation on-site test as DDA compliance auditor, using the Vision Loss Simulator template.

Vision Loss Simulator
To get an idea of the effects of vision impairment hold this vision loss simulator up to your eye.

-  **Macular Degeneration** makes it difficult to focus. Central vision is blurred.
-  **Cataracts** cause the lens of the eye to become cloudy. It causes blurred vision and sensitivity to glare.
-  **Glaucoma** is often caused by an increased pressure inside the eye that can damage the optic nerve. It causes tunnel vision, and blurring of images and text.
-  **Diabetic Retinopathy** is caused by diabetes and causes patches of vision loss, sensitivity to glare and reduces night vision.
-  **Retinitis Pigmentosa** causes tunnel vision. A bit like looking through a drinking straw. It also reduces night vision.
-  Most people who are blind see a grey fog like mist rather than black.



The third party testing was performed on-site by DDA experts – O'Brien Harrop Access (OHA), with the Colorluminator™ to confirm the material luminance (LRV %) and the contrast (LC %) between the chosen materials, in both dry and wet conditions.

The testing targeted specifically the luminance contrast between the:

- Charcoal granite (7) and all other relevant paving
- Charcoal granite (7) and Cobblestones (4)

All the tested materials achieve a luminance contrast **higher than LC 30%** (LC results between 72.45% and 32.46%) and **pass the compliance test** for the colour luminance contrast requirement specified in ASI 428.1 2009 Appendix B and ASI 428.4.1.

The saw cut sandstone finish (2) was excluded from the material board due to technical considerations and concerns regarding cleaning and maintenance, consequently not included in the OHA tested. The saw cut finish was not proposed in the concept by the design team, and was installed as an alternative specified by a supplier.

The testing also confirmed the current materiality of the square in critical areas such as raised crossings and heavy pedestrian flow - grey urbanstone pavers, bitumen and interlock pavers, failed (LC 14%) to comply with the contrast requirement specified in ASI 428.1 2009 Appendix B and ASI 428.4.1.



CONSTRUCTION METHODOLOGY

During detailed design, the project design team required a constructability, physical performance and maintenance assessment of the initially specified paving board.

Three different construction methods for the natural stone paver's installation were implemented for assessment and testing:

- Rigid system
- Semi-flexible system
- Flexible system

The flexible system proved to be the best choice, and was considered for the construction details of the Kings Square Public Realm Stage I of works.

The paving trial also focused on:

- Different types and different materials for the expansion and isolation joints
- Width and products for the stone gaps
- Type of bond: running bond vs stack bond and staggered pavers
- Stone tolerances and dimensions to achieve the intended outcomes
- Sealing vs non-sealing paving
- The appropriateness of each paving and maintenance (wear and tear)

All pros and cons were analysed by the project team, including suggestions submitted by the Contractor who laid the trial area.

CLEANING

Cleaning was carried out to the trial area after it had been subjected to various staining and littering. The City's maintenance team was requested to undertake cleaning in different ways and targeting specific stains (bird droppings, tree seeds, gum and tyre marks). All material in the trial area was considered to perform to acceptable levels.

The technical assessment undertaken by the design team and external parties between January and March 2019 informed the construction details for the Tender Documentation of Stage I Works.



Before Cleaning



After Cleaning

4 FINAL PAVING MATERIALS

The paving trial informed the project design team and underpinned decisions around the final material selection for the Kings Square Public Realm.

Paving Board:

- Exposed Aggregate Concrete Beige (P1 of Stage I Works TD)
- Exposed Aggregate Concrete Grey (P2 of Stage I Works TD)
- Natural Stone – Limestone Paver Small Format (P3 of Stage I Works TD)
- Natural Stone – Limestone Paver Large Format (P4 of Stage I Works TD)
- Natural Stone – Granite Cobbles Amber (P5 of Stage I Works TD)
- Natural Stone – Granite Cobbles Charcoal (P6 of Stage I Works TD)
- Natural Stone – Granite Paver Small Format Charcoal (P7 of Stage I Works TD)

Refer to the end of this technical report for the final material board.

TEXTURE / FINISHES:

The texture of the paving will be utilised as a wayfinding and DDA strategy meaning the smoother finishes will denote heavily pedestrianised areas whereas rough finish will give clues to potential and occasional share of the space with cars.

The charcoal granite stone (small paver and cobble) will be utilised to delineate edges when required, emphasize a feature as wayfinding, for DDA contrast and for parking bays mark-up.

Also a seamless and integrated drainage system will be embedded in the paving features (charcoal and amber cobblestones).

5 MATERIAL PROCUREMENT

The decision of trialling the concept design materials, led to a comprehensive research of the current market for both natural stone and concrete aggregate options. In order to reduce costs and ensure adequate lead times for delivery, the project team recommended that all Kings Square Public Realm natural stone should be supplied and delivered by the City of Fremantle to the Head Contractor of each stage of works (Supply by Principal). The City of Fremantle will purchase the stone directly from a nominated supplier.

The total estimated value for natural stone supply and delivery during all stages of the Kings Square Public Works was \$880,000, therefore a public tender was required. It was further recommended that two public tenders for natural stone supply and delivery be advertised as a benefit to the project, and specifically to the delivery of Stage IA of works within program. Reasons being:

- The lead time for supply of natural stone is on average minimum 12 weeks and this way the City can assess supplier and issue an order before the stage I Civil Works Contract is signed;
- Not all potential suppliers of granite stone are able to supply limestone, and/or the City may not receive the best value for money for both stone types if restricted to supply by one supplier only.
- Tight deadlines to achieve the PC of separable portion Stage IA in line with FOMO opening.

As result the following public tenders have been advertised:

- Granite (Amber and Charcoal) supply and delivery (FCC 914/2019)
- Limestone/Sandstone supply and delivery (FCC 915/2019)

It is noted that the procurement of insitu concrete paving does not need to be pre-arranged as the successful Main Contractor for civil works will have more than adequate time to order and lay this material in a timely manner – for each stage of works, including Stage IA.

REFERENCES / TEST REPORTS

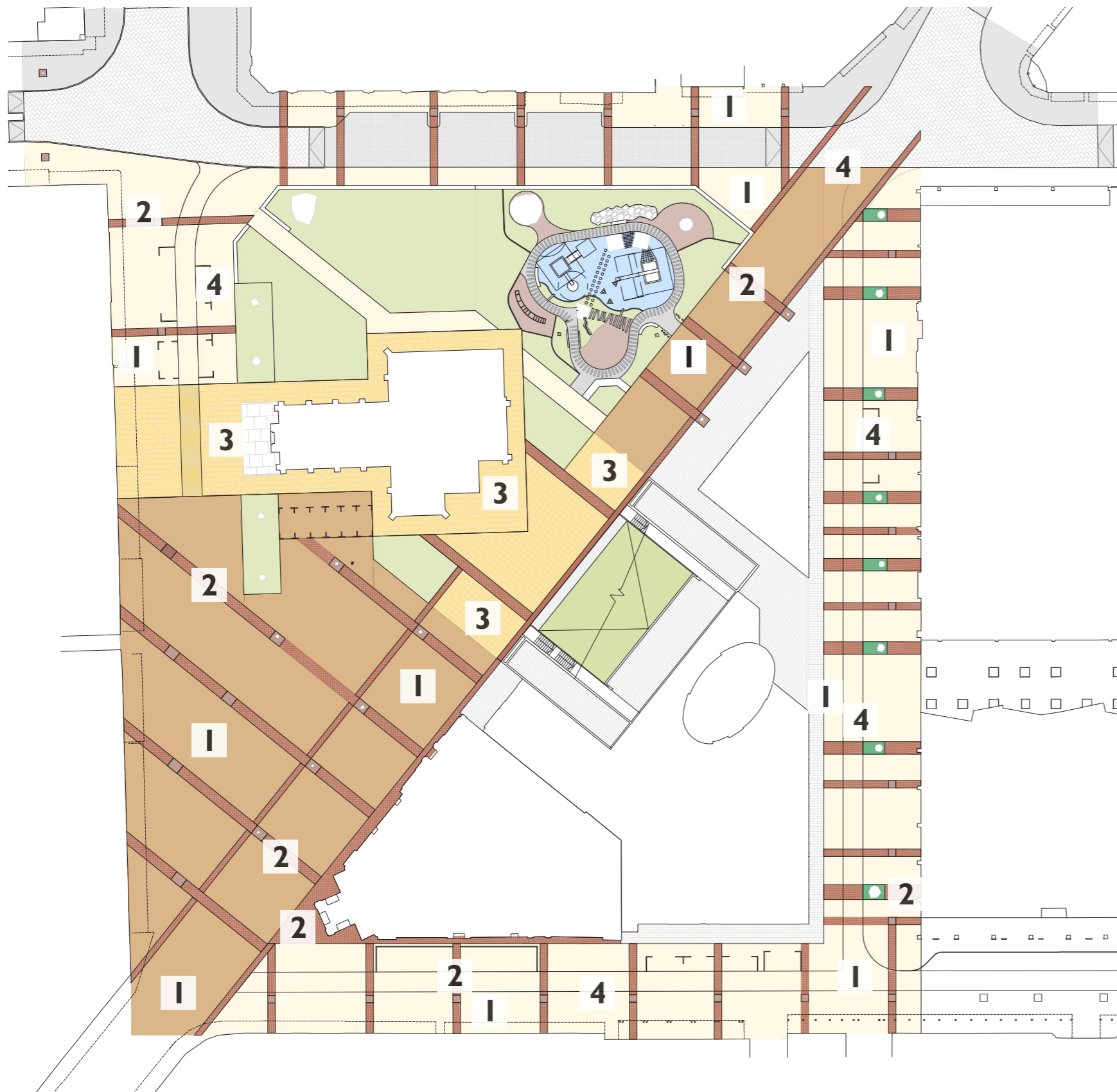
Materiality: Pavement Demonstration Area, January 2018, City of Fremantle

Constructability: Onsite Field Report, 17 January 2019, Lightning Brick Pavers

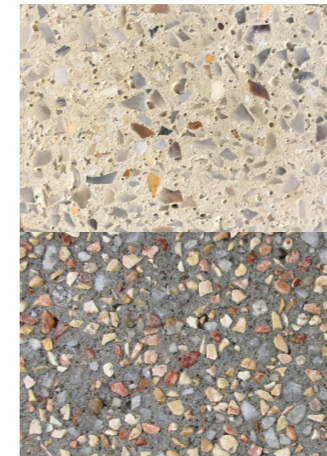
Test Certificate: Slip Resistance, 26 March 2019, SGS Australia Pty Ltd

Luminance Contrast Testing: 2 April 2019, O'Brien Harrop Access

SUMMARY MATERIAL BOARD
KINGS SQUARE PUBLIC REALM PAVING



1
MAIN PAVING
 EXPOSED AGGREGATE CONCRETE



Exposed and honed

2
TREE GRID
 CREAM GRANITE COBBLES



Strips across paving

3
SPECIAL HERITAGE & CIVIC
 NATURAL STONE - LIMESTONE PAVING



Around the church and potentially in front of the civic building

4
EDGE & HIGHLIGHT
 CHARCOAL GRANITE PAVING



Used sparingly to highlight areas or delineate paths



**FPOL1904-12 MEMORANDUM OF UNDERSTANDING - PROPOSED
REDEVELOPMENT OF FREMANTLE ITALIAN CLUB
ATTACHMENT 1**



Memorandum of Understanding

City of Fremantle
ABN 74 680 272 485
City

and

Italian Club Fremantle Inc
ABN 39 664 532 829
Club

and

Fini
ACN 626 002 140
Ocvod Pty Ltd

Jackson McDonald
Lawyers
225 St Georges Terrace
Perth WA 6000

t: +61 8 9426 6611
f: +61 8 9321 2002
w: www.jacmac.com.au

Contact: Simon Moen
Reference: 7166066

sqm 8315533_2

Memorandum of Understanding

Memorandum of Understanding

Date 2019

Parties

City City of Fremantle (ABN 74 680 272 485) of 70 Parry Street
Fremantle WA 6160

Club Italian Club Fremantle Inc. (ABN 39 664 532 829) [REDACTED]

Fini Fini (ACN 626 002 140) [REDACTED]

Recitals

- A. The City has published a document titled Freo 2029 – transformational moves and on 16 December 2015 adopted the Fremantle Esplanade Masterplan.
- B. The City is the primary interest holder of Lot 2038, Lot 1931 and Lot 2039.
- C. The Club is the tenant under the Lease.
- D. Fini is an experienced property developer and hospitality operator.
- E. The parties wish to enter into this agreement to record their common intentions and indicative commercial terms in relation to the Redevelopment Project.

This agreement provides

1. Definitions

Business Day means a day which is not a Saturday, Sunday, public holiday or bank holiday in the city of Perth, Western Australia.

City Redevelopment Area means the area so described in Annexure 1

Club Redevelopment Area means the area so described in Annexure 1

Confidential Information means:

- (a) the existence of this MOU;
- (b) the terms and conditions of this MOU; and
- (c) information a party receives from the another party pursuant to this MOU.

Corporations Act means the Corporations Act 2001 (Cth).

Memorandum of Understanding

Feasibility Report means a report in relation to the Redevelopment Project that includes:

- (a) budgets;
- (b) timelines;
- (c) designs;
- (d) approvals required;
- (e) milestones;

GST means a tax imposed on a party under the GST Act.

GST Act means A New Tax System (Goods and Services Tax) Act 1999 (Cth).

Lease means the lease dated 18 January 1994 of Lot 2039 and Lot 1931:

- (a) for the term of 25 years commencing 29 April 1994 made between the City and the Club (together with an option for a further term of 25 years); and
- (b) in relation to which the Club has exercised the option for the further term; and
- (c) being the subject of caveat E749637.

Local Government Law means any statute, rule, regulation, proclamation, ordinance, scheme or by-law present or future of Western Australia and, where applicable, the Commonwealth, which confers any responsibility, function, duty, obligation or right on any local government established under the *Local Government Act* 1995 (WA).

Lot 2038 means Lot 2038 on Deposited Plan 216961 being the whole of the land in CLT LR3141 Folio 20.

Lot 2039 means Lot 2039 on Deposited Plan 216961 being the whole of the land in CLT LR3144 Folio 424.

Lot 1931 means Lot 1931 on Deposited Plan 212184 being the whole of the land in CLT LR3141 Folio 423.

MOU means this memorandum of understanding including all Annexures.

Precinct means the area comprising the City Redevelopment Area and the Club Redevelopment Area.

PWG means the project working group constituted under clause 8(a)

Redevelopment Project means the redevelopment of the Precinct in the manner contemplated by this MOU.

Road Area the road between Mews Rd and Marine Terrace.

2. Interpretation

- (a) This interpretation clause applies unless inconsistent with the context.
- (b) If a word or phrase is defined, then its other grammatical forms have a corresponding meaning.
- (c) The singular includes the plural and vice versa.
- (d) A reference to a gender includes any gender.
- (e) A reference to a clause, schedule or annexure is a reference to a clause, schedule or annexure to this agreement.
- (f) The word *includes* and similar words are not words of limitation and do not restrict the interpretation of a word or phrase in this agreement.
- (g) A reference to a document includes a variation or replacement of it.
- (h) A reference to a statute includes its subordinate legislation and a modification, replacement or re-enactment of either.
- (i) A reference to this agreement includes an annexure.
- (j) A reference to person includes a reference to:
 - (i) an individual, a body corporate, a trust, a partnership, a joint venture, an unincorporated body or other entity, whether or not it is a separate legal entity;
 - (ii) if the person is an individual, the person's personal representatives and assigns; and
 - (iii) if the person is not an individual, the person's successors and assigns.
- (k) A reference to a thing, including a right, is a reference to either the whole thing or a part of the thing.
- (l) Subject to context, a reference in the GST clause to a term defined or used in the GST Act has the meaning given to that term in the GST Act.

3. The Redevelopment Project

- (a) The City, the Club and Fini agree to explore the Redevelopment Project.
- (b) Each of the City, the Club and Fini perceive there will be benefits for them and the broader Fremantle community should the Redevelopment Project come to fruition.
- (c) In exchange for the benefits to the Club described in this MOU, the Club:
 - (i) supports the Redevelopment Project;

Memorandum of Understanding

-
- (ii) will provide any consents and approvals that are required to proceed with the Redevelopment Project; and
 - (iii) will surrender the Lease and withdraw its caveat.
 - (d) In exchange for the benefits to the City described in this MOU, the City:
 - (i) supports the Redevelopment Project;
 - (ii) will progress a change to the purpose of its management order over the northern part of Lot 2038; and
 - (iii) will progress a cancellation of its management orders over the balance of Lot 2038, Lot 1931 and Lot 2039.
 - (e) It is anticipated that Fini will acquire the Club Development Area from the State as freehold land so as to undertake the Redevelopment Project.
 - (f) Fini will, at its cost, be responsible for:
 - (i) providing the Club with any support (financial and otherwise) that the Club requires in relation to the Redevelopment Project;
 - (ii) pursuing the acquisition of the Club Redevelopment Area;
 - (iii) resolving all land tenure and land assembly issues in relation to the Redevelopment Project;
 - (iv) engaging with the Department of Lands (both on its own behalf and on behalf of the Club.
 - (v) pursuing the changes to the planning scheme and the metropolitan region scheme (if any) required to implement the Redevelopment Project; and
 - (vi) obtaining all required consents, permits and approvals from all relevant authorities to implement and complete the Redevelopment Project.
 - (g) The Club is agreeable to Fini doing the things described above.
 - (h) It is anticipated that the Redevelopment Project will rejuvenate the Precinct and the table in Annexure 1 gives an indication of:
 - (i) the current land tenure and uses of the Precinct; and
 - (ii) the anticipated new tenure and new uses of the Precinct should the Redevelopment Project come to fruition.

4. City Development Area and Club Development Area

- (a) It is anticipated that the City Development Area will comprise:
 - (i) an expansion of the Esplanade Reserve:

Memorandum of Understanding

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- (ii) the City will be responsible for any additional infrastructure on Esplanade Reserve apart from the extension of the grassed area.
 - (iii) an extension of Norfolk street through to Mews road.
 - (b) It is anticipated that the Club Development Area will include:
 - (i) a boutique hotel
 - (ii) residential apartments (potentially including components of seniors or aged living);
 - (iii) new Italian Club premises and facilities;
 - (iv) active spaces for community activity (e.g. boccecourts, half pitch soccer and basketball);
 - (v) a multi storey car park;
 - (vi) other commercial and community uses;

5. Benefits to the Club

- (a) The benefits to the Club of the Redevelopment Project will include:
 - (i) replacement of out of date facilities with contemporary, state of the art facilities;
 - (ii) a reinvigoration of the Club's new facilities and amenities that will attract a diverse group of new members;
 - (iii) a Club that can act as a cultural hub with new cultural, artistic and wellness offerings
 - (iv) an opportunity for the Club to secure its long term future as a significant part of and contributor to Fremantle;
 - (v) alternative accommodation while the Development Project is underway to be provided by Fini.
- (b) Fini will:
 - (i) provide the Club with the new club house facilities, at no cost to the Club or the City; and
 - (ii) pay for the alternative accommodation and temporary relocation costs of the Club while the Development Project is underway.
- (c) It is anticipated that the Club will have no ownership interest in the Precinct other than in the new club house facilities.

6. Benefits to the City

- (a) The benefits to the City of the Redevelopment Project will include:

Memorandum of Understanding

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- (i) significant urban renewal and activation;
 - (ii) the creation of a more connected town centre;
 - (iii) increased opportunities for tourism related activities;
 - (iv) an expanded Esplanade Reserve;
 - (v) the extension of Norfolk Road;
 - (vi) the closure of the road area between Mews Road and Marine terrace;
 - (vii) rates revenue from the Club Development Area; and
 - (viii) the City is not required to contribute any funds to the Redevelopment Project or assume any development risk in relation to the Redevelopment Project.
- (b) In addition to the benefits in clause 6(a), the first stage of the works to the Club Development Area will include a multi storey car park of approximately 200 parking bays, the multi storey car parking will be:
- (i) constructed at the cost of Fini and at no cost to the City;
 - (ii) the subject of its own freehold lot that will be transferred to the City upon practical completion of the relevant works;
 - (iii) leased to Fini or someone nominated by Fini at a peppercorn rent plus all operating expenses and outgoings for a period of time to be agreed between the City and Fini; and
 - (iv) at the end of the lease be owned and operated by the City for the benefit of the City, however the City may see fit.

7. Next steps

- (a) It is anticipated that Fini will, at its cost:
 - (i) undertake some enquiries and investigations to determine whether the Redevelopment Project is feasible and how likely it is that the Redevelopment Project can be brought to fruition;
 - (ii) provide the City and the Club with a Feasibility Report in relation to the Redevelopment Project; and
 - (iii) update the Feasibly Report from time to time.
- (b) The Club, Fini and City are to cooperate with each other in relation to the Redevelopment Project.
- (c) If the City, the Club and Fini are satisfied in their sole and absolute discretion that the Redevelopment Project can be brought to fruition then:

Memorandum of Understanding

- (i) the parties may enter into the various binding agreements needed to undertake the Redevelopment Project; and
- (ii) it is anticipated that those binding agreements will be subject to conditions precedent.

8. Project Working Group

- (a) On and from the date of this MOU, the parties agree to constitute a project working group to:
 - (i) facilitate cooperation between the parties so as to progress towards the Redevelopment Project;
 - (ii) provide a forum for Fini to report about its enquiries, investigations and progress in relation to the Redevelopment Project;
 - (iii) provide a forum for the parties to discuss the Feasibility Report and any updates; and
 - (iv) raise any other matters the parties wish to discuss.
- (b) It is not the function of the PWG and the PWG does not have the power to make decisions or otherwise act in a way which is binding on a party to this MOU.
- (c) The PWG will cease to exist on the termination of this MOU.
- (d) The PWG will comprise two representatives of each party.
- (e) A quorum of the PWG for the purpose of meetings will be constituted by at least one representative of each party.
- (f) The PWG will meet:
 - (i) as often as the parties consider is reasonably necessary;
 - (ii) not more than monthly.
- (g) A City representative will:
 - (i) chair the meetings;
 - (ii) give prior written notice to all PWG members of the date of the next meeting and an agenda for the next meeting; and
 - (iii) take minutes of the meetings of the PWG and circulate draft minutes within 5 Business Days of each meeting to each PWG member, to be considered and confirmed at the following meeting.

9. Ending this MOU

- (a) The MOU automatically comes to an end and is terminated on the day that is 36 months after the date of this MOU.

Memorandum of Understanding

- (b) Before a party can terminate this MOU a party must give the other parties a notice of intention to terminate the MOU.
- (c) Once at least 30 days have past after a party has given a notice of intention to terminate this MOU that party can give a notice of termination of this MOU.
- (d) If any of the following apply:
 - (i) a notice of termination of this MOU is given; or
 - (ii) this MOU has come to an end and is terminated due to the passage of time,
 then
 - (iii) this MOU is at an end;
 - (iv) each party is released from the further performance of its obligations in this MOU;
 - (v) termination of this MOU does not release a party from a breach of this MOU before termination; and
 - (vi) obligations of confidentiality continue to apply.

10. A partly binding and partly non binding MOU

- (a) This clause and clauses to are fully binding on and enforceable by and against each party.
- (b) With the exception of this clause and clauses to this MOU:
 - (i) is a statement of principle and intention only;
 - (ii) is not a binding or enforceable agreement;
 - (iii) does not create legal relations; and
 - (iv) does not give rise to any liabilities or obligations.
- (c) This MOU is not an agreement to undertake the Redevelopment Project.

11. Local government clauses

- (a) Nothing in this MOU diminishes the City's rights and powers or fetters any discretion that the City has under a Local Government Law.
- (b) The City is not required to have regard to this MOU when performing a function under a Local Government Law.
- (c) Nothing in this MOU is an approval by the City, when performing a statutory function, to consent to, authorise or permit the Club or Fini to do any of the things contemplated by this MOU.

Memorandum of Understanding

-
- (d) The Club and Fini acknowledge that the City may have obligations under s3.58 and 3.59 and other parts of the Local Government Act relevant to the Redevelopment Project.
 - (e) The City is not required to pay Fini or the Club and amount in relation to this MOU.
 - (f) There is no binding agreement with the City in relation to the Redevelopment Project unless and until the City, in its discretion, enters into a binding written agreement in relation to the Redevelopment Project.

12. Exclusivity

Until this MOU is terminated the parties agree:

- (a) to deal exclusively with each other in relation to the Redevelopment Project; and
- (b) not consider or accept offers from other persons to undertake the Redevelopment Project or any other development or redevelopment of the Precinct.

13. Duty, costs and expenses

- (a) Each party must pay its own legal and other costs and expenses in relation to the negotiation, preparation, execution and implementation of this agreement, and any related document.
- (b) Fini must pay the Duty payable on or in relation to this agreement, or a transaction or instrument relating to this agreement.
- (c) Fini must not demand, seek to recover or make a claim against the City any costs, liabilities or expenses incurred by Fini in relation to:
 - (i) this MOU;
 - (ii) anything contemplated by this MOU;
 - (iii) the Redevelopment Project;
 - (iv) the termination of this MOU; or
 - (v) the City deciding that it does not want to progress the Redevelopment Project.

14. Confidentiality

- (a) Subject to this confidentiality clause, a party must:
 - (i) keep the Confidential Information and this agreement confidential;
 - (ii) take all reasonable and necessary precautions to maintain the secrecy and prevent the disclosure of the Confidential Information; and

Memorandum of Understanding

- (iii) use the Confidential Information only for the purposes of this agreement; and
- (b) Only to the extent necessary, a party may disclose the Confidential Information and the terms of this agreement:
 - (i) with the written consent of the disclosing party;
 - (ii) in the case of the City, as required by a Local Government Law;
 - (iii) to its representatives, employees, consultants, servants and agents; and
 - (iv) to its professional advisers for the performance of their professional services.
- (c) Upon request, each party must return Confidential Information that it has received.

15. GST

- (a) Subject to an express clause to the contrary, an amount referred to in this agreement which is relevant in determining a payment that one party must make to another party is exclusive of GST.
- (b) GST is payable on a taxable supply made under this agreement.
- (c) For a taxable supply made under this agreement for which the consideration attributable to that taxable supply is exclusive of GST:
 - (i) the recipient must pay to the supplier the amount equal to the GST liability on that taxable supply;
 - (ii) the recipient must pay the supplier the GST liability at the same time as the recipient is required to pay the consideration for that taxable supply under this agreement; and
 - (iii) the GST liability for that taxable supply is the amount equal to the rate of GST multiplied by the consideration attributable to the taxable supply that the supplier makes to the recipient.

16. Notices

- 16.1 A notice must be in writing and in English.
- 16.2 A party must send a notice to the other party at the address listed:
- 16.3

Party	Address	Attention	Fax Email
Fini	[REDACTED]	[REDACTED]	[REDACTED]

Memorandum of Understanding

City	70 Parry Street Fremantle WA 6160	Glen Dougall Director City Business	Glend@fremantle.wa.gov.au
Club	[REDACTED] [REDACTED]	[REDACTED] [REDACTED]	[REDACTED]

- 16.4 A party may vary its address by sending a notice to the other party.
- 16.5 A party must use the new address from the time that it receives the notice.
- 16.6 To deliver a notice, a party must hand deliver, post, fax or email it to the other party's address.
- 16.7 A notice takes effect at the time stated in the notice, but if no time is stated or the time stated is before receipt, then a notice takes effect on receipt.
- 16.8 A notice sent by post is received:
- (a) 3 days after posting if within Australia; or
 - (b) 7 days after posting if posted to or from a place outside Australia.
- 16.9 A notice sent by fax is received:
- (a) at 5.00pm on the Business Day that the notice is sent; or
 - (b) if sent after 5.00pm, then on the next Business Day.
- 16.10 Subject to this clause, a notice sent by email is received at the time that the email reaches the addressee's email address.
- 16.11 A notice by email is received at the receiver's street address supplied under this clause.
- 17. Governing law**
- The law of Western Australia governs this agreement.
- 18. Jurisdiction**
- The parties submit to the exclusive jurisdiction of the courts of Western Australia, the Federal Circuit Court and the Federal Court of Australia.
- 19. Variation**
- The parties can vary this agreement only if the variation is in writing and signed by each party.

20. Assignment, novation or transfer

A party must obtain the prior written consent of each other party before it transfers, assigns or novates a right or obligation under this agreement.

21. Rights are cumulative

A party's rights under this agreement are in addition to its rights at law.

22. Waiver

22.1 A party granting a waiver of a right relating to this agreement must give written notice of that waiver to the party that benefits from the waiver.

22.2 A party's failure, partial failure or delay in exercising a right relating to this agreement is not a waiver of that right.

22.3 A party may not claim that another party's delay or failure to exercise a right relating to this agreement:

- (a) constitutes a waiver of that right; or
- (b) is a defence to its own action or inaction.

22.4 The parties may not waive or vary this clause.

23. Entire agreement

This agreement constitutes the entire agreement between the parties and supersedes all previous discussions, undertakings and agreements.

24. Survival

24.1 The warranties survive termination of this agreement.

24.2 To the extent that a party has not satisfied an obligation or it is a continuing obligation, that obligation survives termination.

25. Further assurance

Each party at its own expense must do everything necessary to give full effect to this agreement.

Memorandum of Understanding

Signed as an agreement

EXECUTED by)
Ocved Pty Ltd (ACN 626 002 140))
in accordance with section 127(1) of the)
Corporations Act 2001:)
)

Signature of Director

Signature of Director

Print name in full

Print name in full

The Common Seal of the
City of Fremantle
was hereunto affixed by the authority of
the Chief Executive Officer and Mayor
in the presence of:

Mayor Signature

Chief Executive Officer Signature

Mayor Name (Please Print)

Chief Executive Officer Name (Please
Print)

The common seal of Italian Club)
Fremantle Inc (ABN 39664532829))
was affixed by the authority of the board in the)
presence of:)

Signature of Board Member

Signature of Board Member

Print name in full

Print name in full

Memorandum of Understanding

Annexure 1

Land	Current tenure and use	Anticipated new tenure and use
Lot 2038: the northern part comprising 5542m2	<p>Crown Land.</p> <p>Reserved for the purpose of vehicle parking.</p> <p>Subject to a management order in favour of the City.</p>	<p>Crown Land</p> <p>Part: Reserved for parks and recreation purposes.</p> <p>Part: Road reserve for the extension of Norfolk Street.</p> <p>This land will comprise the “City Redevelopment Area”.</p>
Lot 1931:	<p>Crown Land</p> <p>Reserved for “club and club premises”.</p> <p>Subject to a management order in favour of the City, with power to lease.</p> <p>Caveat has been lodged by the Club.</p>	<p>Freehold.</p> <p>This land will comprise part of the Club Development Area.</p>
Lot 2039:	<p>Crown Land</p> <p>Reserved for “club and club premises”.</p> <p>Subject to a management order in favour of the City, with power to lease.</p> <p>Caveat has been lodged by the Club.</p>	<p>Freehold.</p> <p>This land will comprise part of the Club Development Area.</p>

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Lot 2038: the southern part comprising 1984m ²	Crown Land Reserved for the purpose of vehicle parking. Subject to a management order in favour of the City.	Freehold. This land will comprise part of the Club Development Area.
Road Area (between Mews Rd and Marine Terrace)	Crown land Road and rail crossing	Road to be closed. Freehold. Road Area to become part of the Club Development Area.
Lot 2038: the southern tip comprising 1133m ²	Crown Land Reserved for the purpose of vehicle parking. Subject to a management order in favour of the City.	Freehold. Part of the Club Development Area.

FPOL1904-13 INDIGENOUS CULTURAL CENTRE VISIONING REPORT
ATTACHMENT 1 INDIGENOUS CULTURAL CENTRE VISIONING REPORT



**WALYALUP ABORIGINAL CULTURAL CENTRE
VISIONING STUDY**

Prepared for the City of Fremantle, July 2018

Prepared for:
City of Fremantle
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EXECUTIVE SUMMARY

The visioning of the Walyalup Aboriginal Cultural Centre (WACC) stands on the shoulders of over 20 years of work undertaken by Aboriginal Custodians, the City of Fremantle and key Stakeholders. The document collates all the background direction, including latest consultation, contemporary strategic visioning to provide a clear way forward for the City of Fremantle (CoF). The outcome is a principled vision and framework for developing a holistic and inclusive Aboriginal Cultural Centre in Fremantle.

Methodology

The methodology of the WACC follows a design yarning approach whereby participants are engaged through a series of one-on-one and / or small group design sessions resulting in an agreed (shared) direction. The process fosters exploration of ideas within a safe and inclusive gentle way, rather than imposing an outcome. This method involves the community from the outset of the design process and does not request a shopping list of ideas. Key decisions are determined within an agreed, principled framework. The engagement strategy is Aboriginal-led, with all input facilitated by a Whadjuk Noongar. The design yarning involved key local Noongar peoples and the wider Aboriginal community, along with CoF and City stakeholders.

Literature Review

Conversations over the years have taken place both formally and informally by CoF around the possibilities of a cultural centre in Fremantle and what community would want from the centre in terms of cultural, social, commercial and visitor needs. An extensive literature review of documentation relating to discussions on this topic, as well as documents produced by both CoF and others (i.e. The Committee for Perth), has led to providing a mixture of themes, principles, values and priorities for such a facility. These include:

- Reconciliation
- Community Service
- Celebrate
- Memorialise
- Education
- Inclusive

- Strong Relationships
- Economic Sustainability
- Flexible

These themes were presented to visioning participants to begin round one discussions on the Walyalup Aboriginal Cultural Centre. This initially concentrated ideas on the purpose before considering the location or form.

Principles

The second round of yarning further refined this list into five principles in order to provide a clear framework for the development of the Walyalup Aboriginal Cultural Centre. The principles are as follows:

A Place of Significance

- Recognise and educate on the significance of Walyalup
- Sense of Place

A Place to Belong

- Inclusive and welcoming to the wider Aboriginal and wider community
- A place to socialise and hold events

A Place of Good Cultural Governance

- At both a governance and operational levels
- Model strong Whadjuk leadership

A Place to Thrive

- Long term vision to achieve financial independence
- Tourism
- Cultural and aligned facility services

A Place to Celebrate Living Culture

- Celebrate and educate including performance, song, dance, language and art
- Capture interest of both locals and tourists

Programming

Programming options and opportunities were continuously discussed and revised with participants throughout the visioning process. It was clear from the literature review there was a strong focus on showcasing arts, both

traditional and contemporary. The programming of the centre is developed around the harmonisation of three spaces, being: 1) public, 2) private and a 3) transitional space. This allows for cultural sensitivities through to outright public display / tourism. Although programming of the centre is recognised as flexible there is a focus on 'the keeping' and 'the sharing' of cultural knowledge.

Location

Locations were refined at each workshop, starting with a wide range of options in Fremantle and resulting in the choice of the Manjaree Boodjar, located in the Bathers Beach/ Arthur Head precinct and currently occupied by the J- Shed building. The site is deemed most suitable due to a number of factors seen as priorities of the participants and discussions with CoF. The Manjaree location will be of benefit to the entire precinct with the appropriate way finding and interpretation, enabling the connection of the Maritime Museum to the North with Fremantle Fishing Boat Harbour to the South.

Looking into the future, it may be that the Manjaree site is the location of the first cultural centre in Fremantle, and future facilities are developed in other locations around the city. For example a tourism focus for a facility located in Victoria Quay, an Aboriginal visual arts and retail centre on Market street and so on.

Governance

A governance structure has been drafted and discussed during engagement. A requirement is to establish a high-standard WACC board, supported by a similar standard Management Executive. The board is to be culturally guided by an agreed group of local Whadjuk families, known as Cultural Advisory Reference Group (CARG). The CARG will provide cultural direction for all Aboriginal input, including non-Whadjuk and non-Aboriginal operators.

Aboriginal employment is a strong theme which is to be considered strategically at governance level. Aiming for culturally respectful Aboriginal ownership and leadership, including facilitating capacity building for leadership and management roles within the Aboriginal community will ensure an authentic cultural experience for both locals and visitors.

Agreed Direction

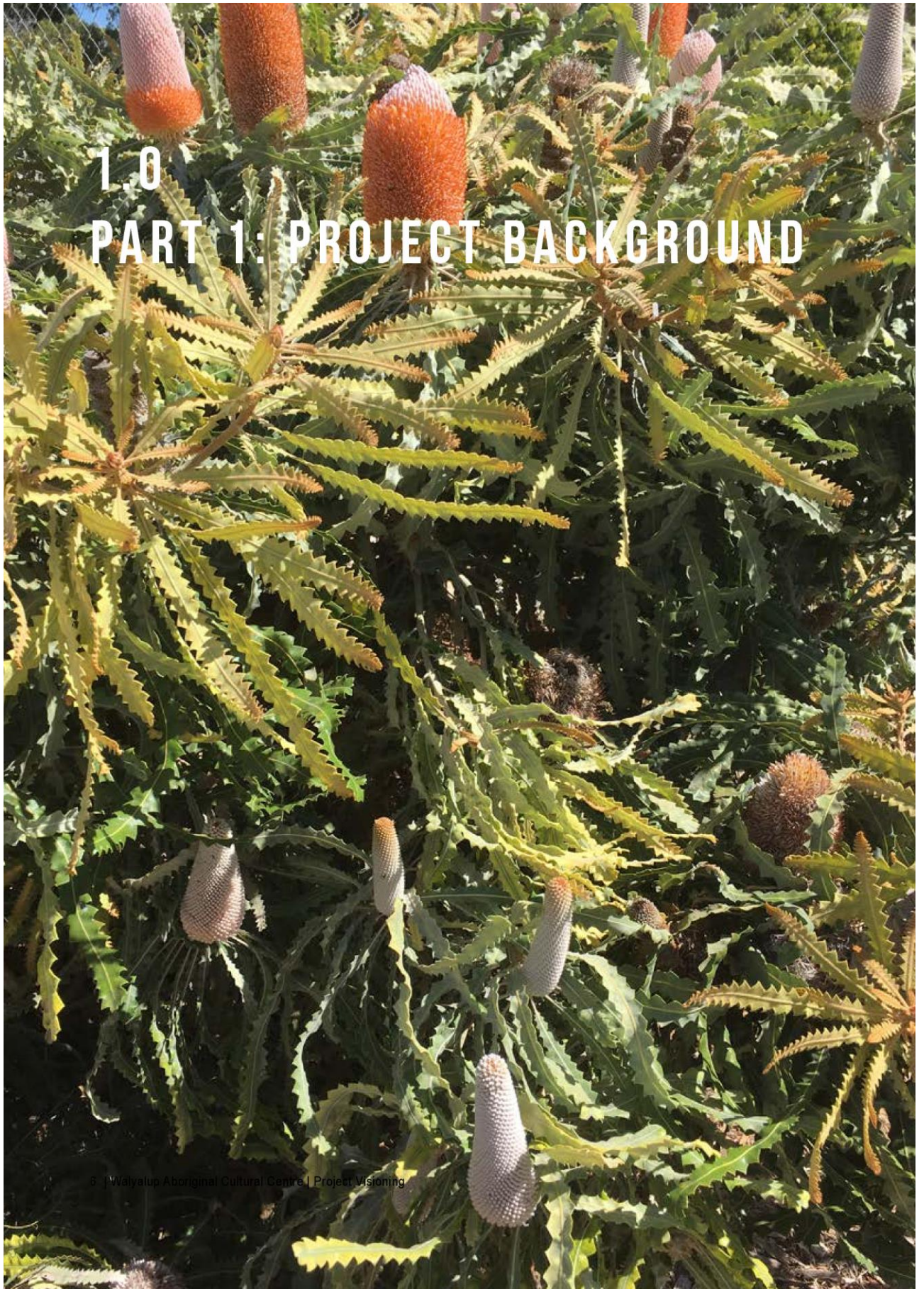
A conceptual agreed direction has been reached which follows the principles developed through the process. This is focused on providing appropriate space for multiple programs, including outdoor space. This shared direction allows the community to see CoF as progressing and delivering on a project that will have a huge positive impact for Fremantle and Australia's first nations peoples.

Next Steps

1. Feasibility Study and Business Case;
 2. Site assessment including geotechnical, environmental, structural and coastal hazard assessments;
 3. Heritage investigation of both the cultural heritage and J-Shed building;
 4. Management and operational planning;
 5. Design and Construction.
- Funding investigations can occur alongside 2, 3 and 4 above once the feasibility study has been completed.



Figure 1. Guiding principles identified in workshop one



1.1 PURPOSE

The aim of the Walyalup (Fremantle) Aboriginal Cultural Centre (WACC) is to provide a recognised and promoted facility where living Aboriginal culture continues to be practiced and celebrated. It is envisaged that the Centre will position the City of Fremantle (CoF) at the nexus of engagement between Aboriginal culture, the people of Perth and visitors to Western Australia.

The purpose of the WACC 'visioning' & 'feasibility' study is to provide an Aboriginal led (yarning) approach to determine the spiritual, physical, organisational and site clear directions. The visioning formalises the high level economic, environmental, social and cultural benefits that will come from leveraging a significant City opportunity and asset. This document focuses and prioritises efforts so that organisational resources are used effectively to achieve its key strategic outcomes and provide a path forward for WACC implementation.

The need for visioning and feasibility of the WACC has come about following calls for a Fremantle Aboriginal Cultural Centre since 1984. In November 2012, the CoF resolved to establish a cultural centre with the main objective of celebrating Aboriginal culture. CoF envisaged that the centre 'should be recognised and promoted as a facility where non-Aboriginal people can connect with Aboriginal culture, and more specifically Whadjuk Noongar culture and a venue that provides opportunities to share cultural pride and stories' (CoF SOW ref). The Walyalup Aboriginal Cultural Centre (WACC) was subsequently opened in March 2014 at 12 Captain's Lane, in the Arthur Head precinct of Fremantle. It has been the CoF's long term intention to move to more suitable premises and they now aspire to establish 'a new facility, developed to modern standards for cultural institutions, in a visible location in Fremantle, [which] would show the respect to traditional owners' (CoF SOW ref).

The CoF acknowledge that to make the centre a reality will require considerable partnership funding towards visioning (sustainable purposing), planning, implementation and management.

The CoF have engaged Richmond Consulting (RC - Ms Sandra Harben) to undertake a detailed study for an Aboriginal Cultural Centre (the Centre) to be situated in Fremantle. The study is to take account of economic as well as cultural sustainability issues with a strong focus on preservation and sharing of the knowledge and culture of Traditional Owners.

1.2 APPROACH

The WACC visioning process fosters a place-based co-design approach to facility / place visioning. This approach requires purging the traditional design and planning practice by redefining the design field as being comprised of support and facilitation, as an alternative to lead consultant. The approach offers space to re-establish the autonomy and sustainability of community groups across political, cultural, social, ecological, and economic circumstances. The proven approach further endeavours to develop trusting and open relationships, a fundamental cultural competency based on the foundations of understanding each other's expectations and attitudes, and subsequently building on the strength of each other's knowledge. Specifically, within visioning projects this approach removes top-down designer and planner bias by working collaboratively to develop local peoples and organisations preferred outcomes. The process fosters exploration of ideas within the framework of agreed values and principles in an open, proactive, and gentle way rather than imposing an outcome. The engagement strategy with leadership from key Whadjuk Noongar peoples and the wider Aboriginal community, along with key CoF stakeholders becomes critical to the visioning process and will directly support the visioning outcomes.

The suggested approach internally separates the Aboriginal led visioning from the feasibility to provide an objective eye on the aspirational findings and directions.

1.3 METHODOLOGY

The visioning and feasibility study are divided into four clear stages to occur over a 6-month, 24-week period, as follows:

Stage 1 - Start-up (establishing project agreed approach, methodology and timeline)

Stage 2 - Visioning - Task 1 – Analysis, Opportunities and Directions, Task 2 Exploring Options & Task 3 Agreed Direction. (Aboriginal led)

Stage 3 - Reporting (draft & final)

We understand Phase 1 is situated at the start of a larger implementation process that basically includes the

following:

- Visioning
- Feasibility
- Capital Funding (determine staging)
- Concept level planning and design
- Detailed Design DA, & Tender
- Construction
- Operation (Management)

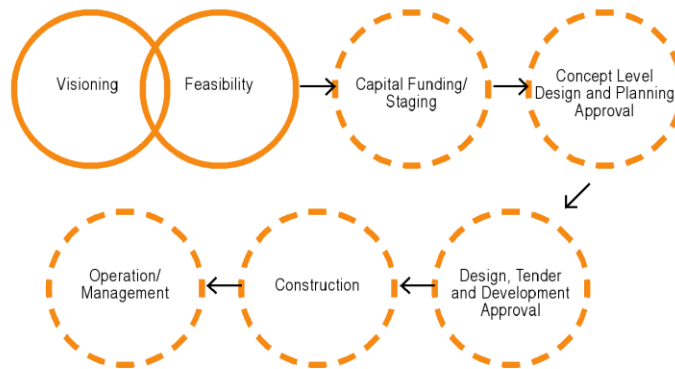


Figure 2. Larger implementation framework

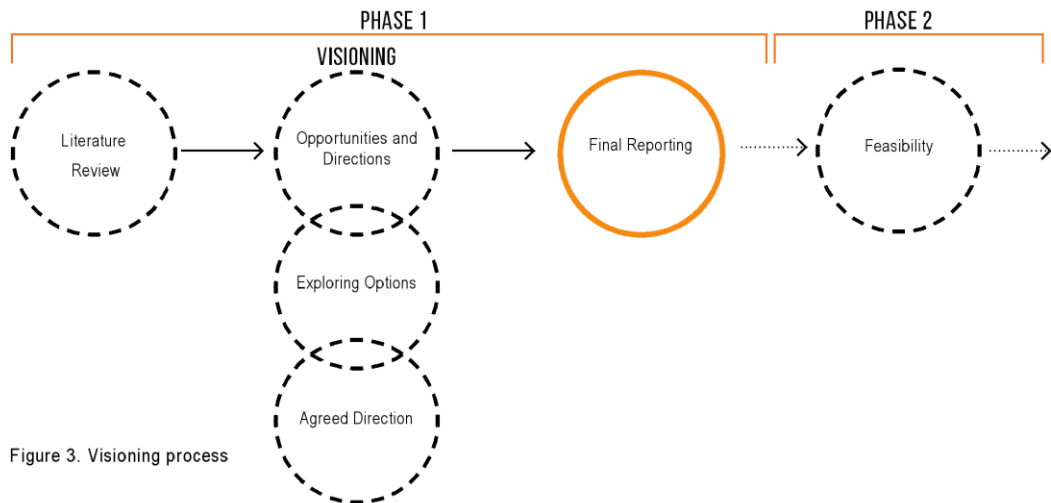


Figure 3. Visioning process

Stage 1 - Project Start-up

The project start-up phase provides opportunity for the project approach, methodology, objectives and timings to be bedded down and collectively agreed.

Tasks

1. Develop visioning approach, methodology and consultation strategy;
2. (M1) Start-up project meeting with CoF project team to confirm approach, methodology, consultation strategy, timing and shared project objectives;
3. Desktop research of CoF & external documents (past studies, reports and strategic plans);
4. Research reporting to summarise themes and key findings; and,
5. (M2) Share key findings with CoF project team.

Stage 2 - Project visioning (12 weeks- Aug 6 - Oct 26)

Project visioning is a collaborative design process that explores the holistic ideas and objectives for a unique place-based Fremantle Cultural Centre, the initial why, what & where. The visioning process is informed and framed within the following sustainability criteria to objectively guide expectations and aspirations:

- **Programming:** Economically viable programs that align with Whadjuk Noongar and the wider Aboriginal community cultural values, support the facility and provide services for the wider Fremantle community;
- **Spatial:** A well thought out design that provides a flexible framework for living ceremony, memorial, repatriation, display and programs. A place that is able to have a physicality, linking the significant songlines and aligns with cultural ecological values.
- **Governance:** Clear roles and responsibilities to ensure proper due diligence, a leadership that encourages an ongoing sustainable management, inspiration, innovation, inclusiveness, building capacity for growth and succession;
- **Economic Viability:** While aspirational, all of the

above programming, built / physical elements and governance has to occur within a practical and economic framework, that will require capacity building through the staged implementation of the vision.

The co-visioning methodology provides space for the project team, key Whadjuk Noongar, other Aboriginal people and Fremantle stakeholders to come together and explore creative ideas, sharing and learning as the WACC idea is transformed to address holistic project attributes, including the understanding around a unique facility, and the realms of:

- Environment;
- Social (cultural);
- Economic; and,
- Governance (management).

The visioning methodology included 3 key Tasks over a 3-month (12 week) timeline:

Task 1 - Analysis, opportunities & directions;

Task 2 - Exploring options; and,

Task 3 - Agreed (shared) direction (concept).



TASK 1 -Analysis, Opportunities & Directions

The Spiritual informs the Physical - The project analysis stage of the visioning initially commences by bringing all participants up to a similar level through sharing of past research and input. The process (at this stage) commences at a high level to refrain from detail, especially designing the physical form.

The opportunities and directions task commences by yarning and determining the core values, vision, mission and objectives, providing a framework that will keep this unique opportunity on track. High level discussions are to focus on the future facilities unique governance, environment, services, programs, economic sustainability and social contribution to Whadjuk Noongar, the wider Aboriginal community and Fremantle.

Tasks

6. Analysis - Collate existing themes and align with project case studies, including precedence;
7. Opportunities and directions – explore future opportunities and directions through key themes, precedents and applicable case studies;
8. Collate information through the preparation of a clear guide for the first round of consultation / discussion;
9. (C1) Consultation Workshop round 1 – Analysis, opportunities & directions (all consultations commence with CoF project team). This initial round of consultation / discussions will determine a clear purpose (Why?) guiding values, mission and key objectives through the social, cultural, environmental economic and governance needs;
10. Collate findings; and,
11. (M3) share/discuss analysis, opps & directions outcomes with CoF project team and preparation of the options task.

TASK 2 - Exploring Options

Following directions from the analysis, opportunities and directions task the team will prepare a number of viable options that align with the project values, mission and objectives. Each option will have elements including spiritual, management, program, services and physical to explore and provide preferred direction for the final agreed project direction (visioning concept).

Tasks

12. Prepare 3 options to illustrate WACC directions received from findings and input of Stage 1 and task 1 visioning;
13. Collate information through the preparation of a clear guide for the second round of consultation / discussion;
14. (C2) Consultation Workshop round 2 – Exploring Options;
15. Collate findings; and,
16. (M4) share/discuss key options outcomes with CoF project team

TASK 3 - Agreed Direction (Visioning concept – 4 weeks)

17. Prepare a draft vision concept to illustrate WACC directions received from findings and input of Stage 1 and task 1 and task 2 visioning;
18. Prepare Vision Concept plans including;
 - vision management
 - vision programs & services
 - vision connections (cultural and physical)
 - vision spatial diagrams
 - vision zones & staging
19. Site assessment & concept (site selection & high-level built form and landscape concept plan);
20. Prepare initial magnitude estimate of cost;
21. Collate findings; and,
22. (M5) share/discuss vision concept outcomes with CoF project team

Consultation / yarning methodology

The consultation period occurs mostly within the visioning process. The approach is to be personal and 'low key', meaning via small group and 'one on one' meetings / discussions. There will be 3 round of consultations with the same people to develop the agreed vision. There will be one round of consultation for each of the 3 visioning Tasks;

Task 1 – Analysis, opportunities & directions (Project Understanding);

Task 2 - Exploring options; and,

Task 3 - Agreed (shared) direction.

Please note the consultation process is dependent on the comfortable rhythm set by Richmond Consulting, Whadjuk Noongar people, the wider Aboriginal community and the key Fremantle Stakeholders. All rounds of consultation are to commence with the CoF project team.

Reporting

The reporting is to be collated and prepared by Richmond Consulting. This will include the process, all findings and outcomes in a clear, graphic and succinct format.

23. Collate information and prepare Draft Vision Report;

24. (M8) Meet with CoF project team to share/discuss outcomes of Draft Report;

25. Minor amendments to report; and,

26. Final WACC Visioning Report for further implementation.



1.4 DESKTOP REVIEW

The first stage of the feasibility study is to conduct a desktop review of previous studies, reports and strategic plans relating to the proposed Walyalup Aboriginal Cultural Centre, in order to understand the context and work that has preceded this study. In addition, the desktop identifies additional studies and reports relating to the development of other Aboriginal Cultural Centres outside the City of Fremantle. The objective of the external review is to understand what other similar projects are being planned or developed within the greater Fremantle region and their potential implications for the proposed Walyalup Aboriginal Cultural Centre.

The aims of the desktop review are to:

1. Summarise consultations undertaken by the City of Fremantle to date, relating to the development and implementation of a Walyalup Aboriginal Cultural Centre.
2. Summarise the development of the Walyalup Aboriginal Centre, review current governance structures, issues, problems, opportunities and aspirations and identify key considerations for the feasibility study.
3. Investigate what other plans are there for similar Aboriginal cultural centres around Perth and summarise what consultation outcomes have been.

1.4.1 INTERNAL DOCUMENTS REVIEW

A range of reports, consultations and policy work has been carried out by the City of Fremantle in order to assist with their decisions in relation to the establishment of a local Aboriginal Cultural Centre. What follows is an overview of key themes that feature in 'internal' documents commissioned by the City of Fremantle.

Community Engagement Consultation Report

This piece is dated Feb to May 2012, and was written by Council's Aboriginal Engagement Officer. It notes the establishment of an internal committee called the Indigenous Action Group in Dec 2011. Membership of this groups included Aboriginal elders, traditional owner representatives, the Mayor, elected members, Council's Community Development Director and Council's Aboriginal Engagement Officer. A key feature of this appendix is the noting of considerable diversity in people's ideas about the functions of an Indigenous Community Centre. These may include a dry out centre, an overnight accommodation facility for homeless people, a drop in centre, an advocacy centre, an art space, a centre to attract tourists, a tourist gift/artefact shop, a café outlet, not a dry out centre, not an accommodation facility for homeless people, a Noongar educative/interpretive centre, a building of character that is situated in a place where it wouldn't be damaged, a place for the crafting of things from mother earth.

What is important to note is that since at least 2011 there has been discussion of the multiple and sometimes competing ideas about the functions of a cultural centre.

Community Engagement Consultation Report

This piece is not dated nor authored but appears to be a record of discussions about a range of Aboriginal cultural centres that have been established elsewhere. These include the Wardan Centre in Indjinup close to Margaret River; the Walkatjurra Centre in Leonora, the Tjulyuru Regional Arts Gallery in Warburton; the Kodja Place in Kojonup; Mowanjum Cultural Centre near Derby; the Champion Centre in Armadale. It is important to note that each of these centres have slightly different functions including operating as tourists centres, art centres, community service spaces, public spaces, law and ceremonial spaces and performance spaces.

Engagement List

This piece is not dated nor authored but appears to be a record of the names of people involved in discussions about setting up a Aboriginal cultural centre. It might be worth noting that over the past two years a range of people not listed have been involved in discussions with the City in relation to negotiations about the successful 'One Day' events.

huge diversity of ideas of what the cultural centre should be

range of people have taken part in conversations with CoF about the cultural centre, not all have been recorded or noted.

non-curated engagement discussion, requires a formulated process

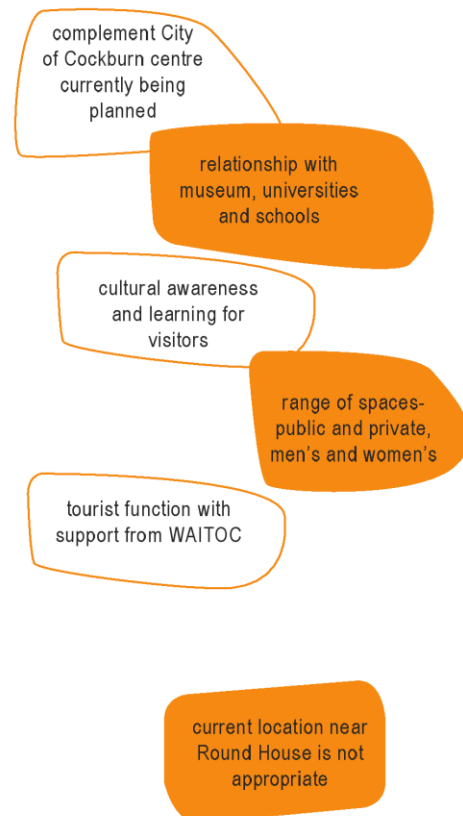
Community Engagement Record

This piece is not dated nor authored but appears to be a more detailed record of discussions with people consulted. This document includes a very detailed set of ideas from a solid number of people, many of whom are professionals in the community development, business, native title, policy and arts arenas. Key ideas canvassed included:

- *Why not have an ICC in a central location such as Kings Square?*
- *It is critical to involve lots of people.*
- *Involvement across the generations is key: ie. young people and older people*
- *There exists a pool of many talented artists, many of whom run small businesses*
- *Language is central*
- *A young energetic champion will be important*
- *An ICC could offer space for Indigenous businesses to use*
- *A house is not going to work – a space is important*
- *A place where traditional dance is taught, food and warmth important, a space that encourages 'yarning'*
- *Aboriginal involvement in governance is important*
- *There are two distinct elder groups: traditional owners and community development elders.*
- *Not enough Noongar work gets showcased, often work features groups from elsewhere in the state and country*
- *Governance will need a mix of cultural leadership and skills leadership.*
- *A key will be the transmission of culture and stories across the generations*
- *There are a number of other events and places that are important to connect with: Wardanji Festival, Booyambara Park, old springs, caves, story from south of Bathers Beach goes all the way to Central Australia*



- Rules will be important: ie no drugs and alcohol
- An ICC could be an important base for sharing around music, dance, stories, art.
- The proximity of the current centre to the Round House is sensitive due to trauma associated with contact and imprisoning of young men
- The CoF could act as a quiet partner. This would be one way to build trust over time.
- Examples of good models include: Kulcha, Fly by Night, Blinco St cooperative, Kaddich Café (Noongar Radio)
- Carpark is major consideration
- Should have a strong visual element for visitors
- Could be great opportunities for school involvement
- Could be good opportunities for relationship with universities
- ICC could be a demonstration of reconciliation
- Kepa Kurl in Esperance is an example of a local enterprise
- WAITOC could offer important advice and support
- Governance could include some non-Indigenous expertise
- ICC could be first 'port of call' to teach cultural respect to visitors travelling elsewhere in WA
- City of Cockburn planning a centre. This could complement Fremantle ICC
- Maybe plan a men's and women's area
- Could link to other areas through signage project
- Maritime Museum exhibitions could be linked



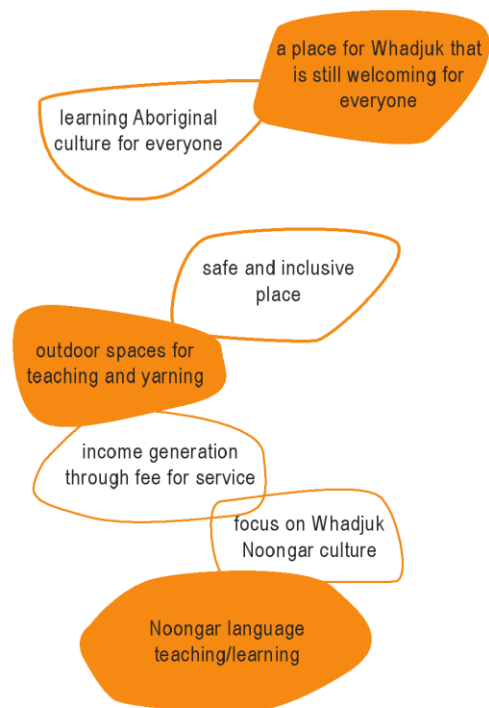
Record of Group Discussions

This piece is not dated nor authored but appears to be a more detailed record of a group discussion with people consulted. Key ideas canvassed included:

- *It's about people around the world learning Aboriginal culture.*
- *Aboriginal kids need to learn about their culture.*
- *Teach Noongar language, many of us were not allowed to speak language or practice culture*
- *In Fremantle, there is no place to call our own. However, need to include other language groups.*
- *Aboriginal people loved working on the stations up north, fond memories even though they weren't paid.*
- *Good stories of Aboriginal people welcoming outsiders*
- *A big space is needed with connection to the outside.*
- *A space where formal and informal interaction with visitors can occur.*
- *Would want to encourage pathways to employment for the younger generation.*
- *Income generation important as government funding is not reliable*
- *Welcome to Country in Fremantle can be officially arranged through ICC, for ships etc.*
- *Grassed area with native plants/food/bush tucker is important*
- *Needs strong governance – strong skills.*
- *The Round House has negative energy, focus needs to be on the positive.*
- *The J Shed area provides a much more open space that aligns with the sorts of activities for the ICC.*
- *There are two things needed, A meeting place and a cultural centre, the meeting place (also referred to as a drop in centre) needs to be close to the cultural centre.*
- *People need to understand what cultural centre is –*

definition.

- *The ICC is not just about sharing culture with tourists, but also non Indigenous Australians – teaching them about culture and history.*
- *The ICC needs to provide a safe comfortable place for the Aboriginal community, this means not dominated by one family.*
- *Fremantle is home to many families.*



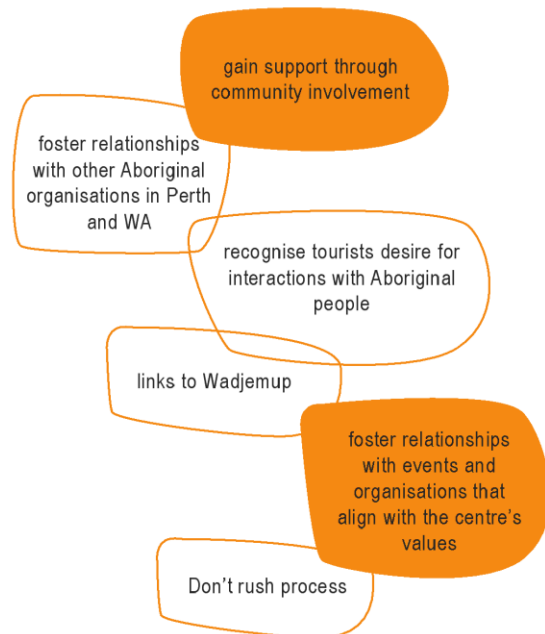
Record of Engagement with Others

This piece is not dated nor authored but appears to be a record of a group discussion with non-Noongar consulted. Key ideas canvassed included:

- *The ICC won't work unless it is supported by the community and the community is actively involved in the planning – involve everyone (or give everyone the opportunity to participate)*
- *83% of visitors to WA want to interact with Aboriginal people*
- *There are other activities and events that could work in conjunction with an ICC ie. Hilton Harvest, South Freo Markets, school festivals, heritage festival*
- *There are other proposals for cultural centres in Perth i.e. Cockburn and Elizabeth Quay. These should be linked to Fremantle ICC*
- *There is considerable potential for relationships with other Aboriginal organisations outside of Freo (eg Dumbartung, Clontarf, AbMusic)*
- *WAITOC could be a key player*
- *There is potential for conflict and collaboration with Aboriginal tour companies*
- *There is considerable tenderness associated with Noongar cultural knowledge given family histories of being forced away from access.*
- *There are potential relationships with Universities – student led projects, Aboriginal student centres*
- *Reconciliation Action Plans in place could be 'leveraged' to gain support from businesses and organisations*
- *The Whadjuk Working Party is now a key player.*
- *The WA Museum is going through a process of building. This could represent a point of partnership*
- *Tourism 'produce' that includes Fremantle with Rottnest could be compelling.*
- *Potential link with Arts Festivals ie, PIAF, Fremantle Festival, Music Festivals*
- *Important that cultural presentations are*

interactive

- *Managing a building will be a major impediment, risk and expense*
- *Start with partnerships with successful cultural groups ie. Yirra Yaakin, University Centres, Museum, Maritime Museum, CANWA*
- *120,000 people visit Round House each year.*



- Don't go too fast or build centre too early

Koora Ni Wahdu Balanya Danaya: The City of Fremantle Policy for Respect, Recognition and Conciliation with Aboriginal People, 2000.

This document was produced nearly 20 years ago and represents the first attempt by the Council to set out a formal policy approach to its work with local Aboriginal people. It set out to "provide a framework, a set of guiding principles and actions to assist the City of Fremantle to tangibly recognise and acknowledge that the Aboriginal people were the first people of this land, and that this country is the country of the Noongar people." This reflects formal Council resolutions in mid 1998 to:

- not become a party to the Federal Court proceedings on the Native Title Claims 94/10, 95/81 and 95/86,
- notify the State Government as the owner of the land under claim accordingly and notify that the City of Fremantle wishes to maintain the community uses of the land under claim and
- develop a Reconciliation Policy that "includes a framework for allowing relevant Indigenous groups an advisory role in the management of vested lands that are subject to Native Title claims.

The Policy and above mentioned framework should identify places in the City of Fremantle where tangible recognition of the prior ownership of the Fremantle area by Aboriginal people can take place."

The policy included statements in relation to the following areas of Council activity: culture, employment, education, families, health, housing, land, custodianship and native title, seniors/elders, tourism and youth.

Notable features include:

- Talk over many years of an Aboriginal culture centre based in Fremantle.
- The lack of spaces in Fremantle where Aboriginal people feel comfortable.
- The clear aspiration of Council to promote Aboriginal culture, identify places of significance, protect local heritage and encourage the use of Aboriginal language and place names.
- The commitment to advocate for the establishment of an Aboriginal cultural centre in Fremantle.

20 | Walyalup Aboriginal Cultural Centre | Project Visioning



Fremantle Indigenous Culture Centre Report 2013

This is a short report of a community engagement exercise that was undertaken to explore preferred uses and models of operation for a proposed Fremantle Indigenous Cultural Centre (ICC) at Arthur Head. The report summarises the responses from 30 Aboriginal community individuals and three group discussions, and provides potential next steps and a percentage figure on preferred uses of the centre.

- Traditional dance, music, song, art and story telling – 97%.
- Link tourists to other Aboriginal places in Perth and WA (cultural centres) - 53%.
- Carving (didgeridoos and boomerangs), crafts – 40%.
- Cooking bush tucker and cultural awareness – 23%.
- An informal space to meet, yarn, interact with tourists, language and Welcome to Country – 20%.

The report also noted those consulted often made the point that the ICC ought to be a place that is welcoming and safe for a broad cross-section of the Aboriginal Community so as not to be dominated by one family group.

The preference for governance and operation ideas included:

- It ought to be 'Aboriginal owned and operated', a registered legal structure, a solid, predominantly local Noongar Board with a young Noongar energetic and experienced manager. A strong view was that the centre not be local government operated. (Note: the report did not set out what 'Aboriginal owned and operated might mean)
- There ought to be an avoidance of reliance on ongoing government funding grants, perhaps seed funding via a government grant, but ongoing revenue through private operation, ie tourism activity based on the opportunity that exists in Fremantle. (Note: the first two claims are not consistent with how things have operated elsewhere ie. in order for many centres to be sustained there has been high reliance on government funding).
- The Fremantle ICC could be a hub connecting tourists to other cultural/tourism centres across WA, including other Aboriginal groups across WA. (Note: the report did not set out the meaning of 'a hub')
- The centre could be a base where Aboriginal performers of dance, song, music and storytelling/ tours operate. A fee would be paid to access the ICC space or tourist network. It was noted that numerous Aboriginal operators currently perform/interact with tourists around Fremantle without a base to operate.
- Tourism is a major opportunity for the ICC, particularly in offering an ongoing source of income, and given potential partnerships with WA Tourism and Western Australia Indigenous Tourism Operators Council. There are apparently 120 000 visitors to the Round House annually and 83 percent of tourists seeking an interaction with Aboriginal people and culture
- Support from the City of Fremantle who could fund an ICC coordinator in an initial period.
- Recruit a "champion"; a young energetic person with strong business management and possibly Board experience to manage the ICC.
- The Establishment of a solid Board predominantly with Noongar Directors, perhaps with two to three highly experienced non Indigenous Directors to teach and advise.



City of Fremantle Strategic Community Plan 2015-2025

This document represents the formal outcome (as accepted by Council) of a process part of what has become known as Integrated Planning and Reporting. This process is mandated under the Local Government Act and demands that Council go through a process of community consultation and involvement to shape the preparation of a plan that guides local government business planning. It is important to note that the only mention of Aboriginal people is in the introductory statements about the importance of the place prior to colonisation and within the cultural region of 'Beeliar'.

Walyalup Aboriginal Cultural Centre: Lessons from the first three years

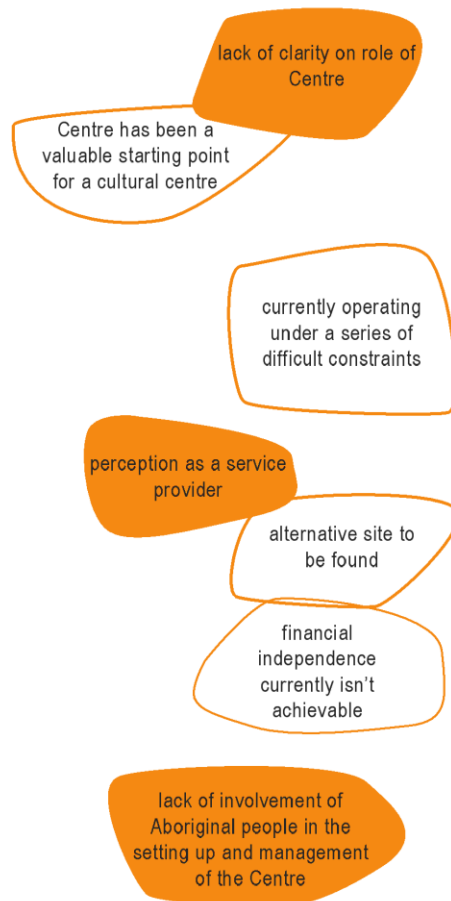
This report sets out to review the achievements and challenges of the Walyalup Centre.

Key conclusions include:

- Despite significant challenges, the Centre has been of some benefit to many people, and has been a valuable 'pilot', guiding the way toward a stronger and more sustainable Centre in the future.
- There is a lack of clarity and/or agreement on what the Centre is or should be.
- The Centre has operated in the face of a number of difficult constraints including: relevance and public access to the site, a loss of space to another organisation assumed to have allied interests, under-resourcing, poor marketing and Communications, the perception from many that the Centre is a service for the benefit of Aboriginal people, rather than a visitor centre.
- However the report concluded that, until a secure, confirmed alternative site/venue can be found the current Centre should continue, along with a strategic approach to address the constraints.
- It also concluded that i) the idea that the Centre will become financially self-supporting is, at this stage, a fantasy, just as it would be for the Round House, the Meeting Place, the Fremantle Arts Centre or the Visitor's Centre and ii) that the Centre was not created by Aboriginal people, and yet to be strong in

its operations.

- Consultants concluded that 12 Captain's Lane is not the best location for a Cultural Centre in the long term. Earlier reports have reaffirmed this.



Walyalup Statement of Significance

This report was commissioned by the City to help guide Aboriginal cultural heritage management work in the area. Part of this work included a series of consultations with the Whadjuk Advisory Group who expressed their aspirations that:

- Fremantle become a "place that speaks the truth";
- There is an acknowledgement of Whadjuk Noongar people's rights and traditional ownership of the land;
- Land be 'handed back' to Whadjuk Noongar community;
- There be more employment and cultural opportunities within the City of Fremantle
- There be public acknowledgement of Whadjuk achievements; Tourism boat to and from Rottnest Island with Whadjuk Noongar tour guides;
- Council ensure that Whadjuk Noongar Intellectual Property is protected;
- There be direct engagement between the City of Fremantle and Whadjuk governances;
- All significant sites in Fremantle should be maintained, preserved and protected; and
- Heritage sites should be respected and acknowledged for boorda – the future and for the generations to come, as they are part of Whadjuk Noongar identity and connect us to the nyittingy – the beginning of time.

The report sets out existing Registered Aboriginal Sites in the Fremantle area as: Site 3419 – Fremantle: Cantonment Hill; Site 3536 – Swan River; and Site 3596 – Rocky Bay.

In addition to carrying out a desktop review of literature concerned with the history of Noongar use of places in the Fremantle area the consultants carried out a further discussion with members of the Whadjuk Advisory Group to inform Council policy in relation to the significance of Fremantle. Insights included:

- Fremantle It is about family, community and its people
- Whadjuk Noongar people have a strong cultural history



- Fremantle was an important place for seasonal travel. It was a place to where Noongar people travelled according to the Noongar seasons (to hunt and gather food) and then travel through for cultural reasons. In telling the story she related to the Pinjarra Noongar who travelled in a circle from their boodja to Walyalup and then cross the "sandbar" [that separated the ocean and the river mouth] up to Perth then down through to Bibra Lake and back to Pinjarra
- Walyalup was a significant place because Noongar people had their traditional camping grounds in and around the area.
- Wadjemup (Rottnest Island) was part of Walyalup. But thousands of years ago the water levels rose and cut it off from here. A lot of our camping grounds and other sites of significance have disappeared.
- It is where contact first occurred and the Noongar people took the "brunt" of its force. The Noongar people had to "flee" from their traditional camping grounds.
- It is a place where "massacres" took place and has links to the Pinjarra massacre site
- The prison is here. Aboriginal people who were released at 5:00pm would be walking down to catch transport but because the law was that Aboriginal people could not be out on the streets after 5:30pm they would get stopped and arrested and put back in prison for breaking the law.
- The Noongar leader Yagan is associated with this part of the boodja – country.

Importantly the report also sets out a 'statement of significance' for the Fremantle area. This is as follows:

The broader Fremantle region is known to Whadjuk Noongar people as Walyalup. Walyalup incorporates the ocean, ocean foreshores, swamps, river mouth, river and land in between. It has social, spiritual, historic and aesthetic values that are further enhanced by its connectedness to other places in the South West region and beyond, and its interpretive potential.

Walyalup has spiritual significance to Whadjuk Noongar people for its connection to dreaming narratives and

Fremantle an important place for seasonal travel

place of traditional camping grounds

physical and spiritual links with Wadjemup

place of first contact, Noongar took the brunt of colonisation

site of massacres and links to Pinjarra massacre site

Fremantle prison

links to Yagan

significance of ocean, foreshores, river

creative ancestral beings, particularly the Waugal, and its ritual role as a place of funerary rites. Walyalup means “the crying place” or “place of tears” and is the place where a person’s spirit leaves to travel across the Wardan – sea towards Wadjemup to their resting place. Walyalup is the birth place of many Noongar stories and is associated with significant dreaming stories including the Seven Sisters, Walyalup and Dingo dreaming and ancestral beings including the Waugal (the rainbow serpent), Yondock (the crocodile), Dwerda (the dingo) and the Wardan Dwerda (sea dogs) which are fundamental to Whadjuk Noongar sense of self, identity and culture.

Walyalup has social significance to Whadjuk Noongar people for its wide social functions. It was a shared space between many Noongar people and was a highly significant place of trade and exchange. It was a place where families gathered for kinship and in-law making, cultural and ceremonial business. It was also a place where Noongar people held their funeral rites. Walyalup played a significant role in Noongar seasonal travel and communication cycles being a place to where the *bidi’s* – trails led. It was a place of abundant resources which facilitated hunting, camping and fishing according to the Noongar season *Kambarang*.

Walyalup holds historic significance for its association with the first Noongar sightings of the arrival of the British fleet at Fremantle and having been one of the first places in Western Australia that Noongar people experienced the full impact of colonisation including massacres, forced removal, the loss of land and incarceration of Noongar and other Aboriginal people on Wadjemup.

Walyalup also possesses aesthetic significance. The visual combination of its elements including the Wardan (Indian Ocean), the Beelias (the Swan River), the river mouth, the remaining hills of Fremantle including Dwerda Weearidinup and Clontarf Hill, all facilitate the ongoing Whadjuk Noongar cultural connection to the dreaming narratives, creative beings and Noongar histories and memories, as well as reinforcing the sense of place of Walyalup. The view to Wadjemup in particular evokes strong feelings and memories associated with colonisation and the imprisonment of Noongar and other Aboriginal men on Wadjemup.

The primary significance of Walyalup is further enhanced by its connectedness and interpretive potential. Walyalup is extensively connected to other Noongar places and

Aboriginal peoples across Australia through its associated creative beings, dreaming narratives and social networks. The Seven Sisters and Dwerda Dreaming’s connect Walyalup with the Central and Western Deserts, South Australia and South West Australia. The Walyalup dreaming connects Walyalup to local places including the Beelias (Swan River), Wadjemup (Rottnest Island), Garrungup (Rocky Bay), Wardan (the Indian Ocean), Dwerda Weearidinup (Cantonment Hill) and Kings Park. These connections are extremely important and form the basis of Whadjuk Noongar identity and culture. Walyalup also holds excellent interpretive capacity as its many publicly accessible open spaces; parks, hills and foreshore areas can provide an opportunity to educate the broader public about Whadjuk Noongar culture and history.



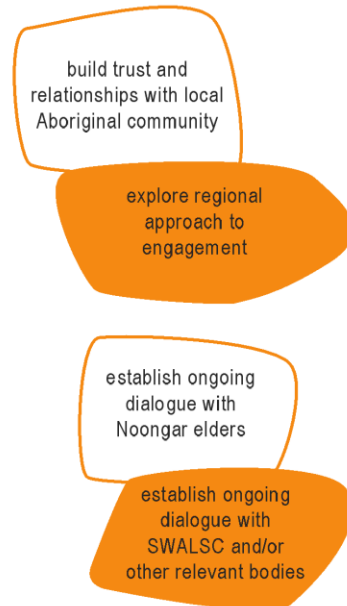
Aboriginal engagement plan Dec 2015

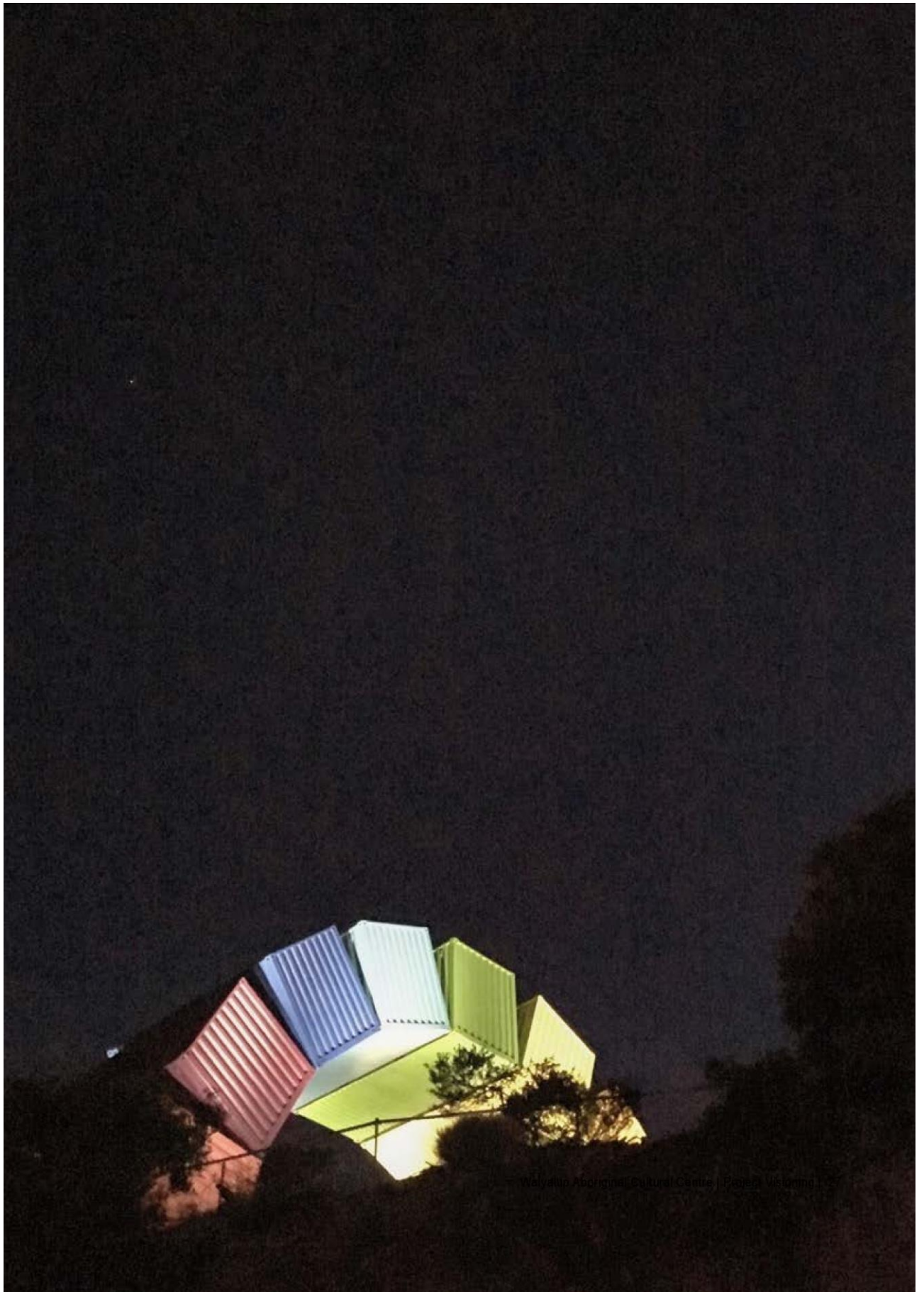
The short document sets out a general outline of how the city plans to build relationships with local Aboriginal people. It was proposed that 'dialogue' with Aboriginal people be thought of as occurring in two ways: 1) with traditional owners through the South West Aboriginal Land and Sea Council and 2) with 'the community'.

It proposes that the City:

- Focuses initially on building trust and grass roots relationship with the local Aboriginal community by engaging with existing forums;
- Explores opportunities and benefits to work with adjacent local government authorities on a 'regional' approach to engage the Aboriginal community;
- Work towards establishing a formal, ongoing dialogue with Noongar elders on community matters;
- Holds a separate land and heritage dialogue with South West Aboriginal Land and Sea Council (SWALSC) and other relevant representative bodies (this includes to provide guidance on appropriate 'welcome to country' activities)
- Considers a formal structure and mechanism for agreement to inform a balanced, long-term dialogue with Noongar community elders and leaders around community matters.

Note: SWALSC may not be the appropriate body after agreements have been established and the Whadjuk or PBC is set up.





1.4.2 EXTERNAL DOCUMENT REVIEW

As part of the desktop review, a number of other proposed and operating Aboriginal cultural centres have been identified around the Fremantle region and greater Perth area.

These may be reviewed to answer the following questions:

- Where are they
- Who's funding them
- How far along in their plans are they
- What is their scope?
- Who has conducted consultation?
- Outcomes of this consultation
- Aspirations
- Content
- Location
- Other issues raised

WA Case Studies

World Centre for Indigenous Culture, (previously planned for Elizabeth Quay, location currently undecided)

An Aboriginal cultural centre has reportedly been part of the long term master plan for the central Perth waterfront for some time . An Aboriginal cultural centre was first proposed in 2007 by the Committee for Perth as a potential component of the Elizabeth Quay development on the foreshore of the Swan River. The initial concept was to establish a landmark 'national Indigenous cultural centre' or 'World Centre for Indigenous Culture' so that Perth could become 'a hub of cultural expression' and could position itself as 'the first capital city in Australia to fully celebrate and promote Indigenous culture' . It aimed to bring Noongar Western Australian and Australian Indigenous culture to the forefront of public acknowledgement and celebration and to represent culture on three levels :

1. Living Noongar culture.
2. Western Australian Centre for Aboriginal Arts and Culture.
3. World Centre for Indigenous Culture.

The Committee of Perth, however, highlighted that 'first and foremost the centre will celebrate Noongar culture and be a place where Noongar people can find spiritual renewal' .

The Committee of Perth's concept for the centre was for it to be truly unique in Australia and the world, including :

- Going beyond providing either a curatorial methodology centred on Indigenous art, culture and artefacts or a live interactive approach to represent traditional performance, language, food or tradition. It will combine these elements as well as facilitate Indigenous and non-Indigenous cultural sharing; enable Indigenous people to self represent culture and country; and provide a place where Aboriginal people can gather and find spiritual renewal.
- Serving a vital capacity-building role by providing real opportunities for Indigenous people to be trained and employed in the centre: Aboriginal people will run it and work in it as cultural diplomats, educators, performers, chefs, cultural caretakers and custodians. The centre will also provide new opportunities for Aboriginal enterprise.
- Being a building of international significance, incorporating iconic architecture; natural building materials; and, crucially, design which is culturally relevant.
- Being recognised globally and will incorporate internationally significant collections of Indigenous artefacts and art.

The Committee of Perth highlighted the concept uniqueness as being the centre's point of difference. They note that there is no known precedent for a World Centre for Indigenous Culture, as existing cultural centres generally adopt a primary focus on live, interactive approaches to represent traditional performance, language, food or tradition, or a curatorial methodology centred around Indigenous art, culture and artefacts .

It was proposed that the centre incorporate the following functions :

1. A keeping place, to serve as a curatorial function for Indigenous art, culture and artefacts of local, national and international significance.
2. A museum, to tell the history of Indigenous people in

- the state and in Australia as a whole.
3. A gallery, to provide exhibition space for Indigenous artists.
 4. Theatre/Performance venue, to provide space for performance of Indigenous dance, music and theatre.
 5. Studio spaces for Indigenous writers, artists and performers.
 6. Places for interactive cultural sharing, to provide a 'hands on' experience of Noongar and Aboriginal culture in its rich and raw form.
 7. Gathering places, where Aboriginal people can find spiritual renewal and where other Indigenous peoples can gather for ceremonial, cultural and social activities.
 8. Capacity building, involving the Indigenous community in developing the centre, running it and working in it as cultural diplomats, educators, performers, chefs, cultural caretakers and custodians. Providing and facilitating targeted training programs for Indigenous people to develop the skills required to work in the centre and empower them as traditional custodians of the land. Providing opportunities for and encouraging Indigenous enterprise within the centre.
 9. Centre for Cultural tourism, provide for local, national and international tourism with cultural displays and tours and acting as a focal point for cultural tourism around the state.
 10. Commercial Operations including retail stores, catering/cafe/restaurant facilities, conference operations, educational facilities, cultural education programs and workshops for Indigenous and non-Indigenous youth and adults. Research resources/ library.

It was proposed to locate the centre on a yet-to-be-reclaimed stretch of the Swan River on the south-western corner of Elizabeth Quay

The concept was developed based upon several rounds of consultation. The first round involved consultation with approximately 150 Aboriginal people, which was subsequently followed by large scale consultation with over



500 Aboriginal and non-Aboriginal stakeholders involved in the arts and cultural community . The outcomes of the consultation process highlighted:

- That there was 'significant goodwill' for the project.
- To truly celebrate Indigenous culture, it needs to be presented in a 'real' form, not simply displayed or customised to suit tourists or the general public.
- The centre should be a place that inspires people to continue experiencing Indigenous culture by harnessing the existing flow of people.
- The centre would need Aboriginal people to be involved in the development and implementation of initiatives, not just as paid dancers, performers or speakers, but in a business capacity.
- The importance of letting people have their say at the appropriate time and ensuring planning is inclusive.

It is essential that the project and its development provides suitable respect and reference to Noongar's as its initial focus.

It would not be acceptable to have Indigenous culture showcase and commercialised to meet the needs of non-Indigenous consumers without meeting the needs of those to whom the culture belongs.

The report also identified several opportunities and risks associated with the development of the World Centre for Indigenous Culture. To overcome these risks the Committee of Perth proposed the establishment of the Indigenous Centre Reference Group, comprised of representatives from government agencies, private collections, the Noongar community and the Committee for Perth.

Opportunities	Risks
First centre of its kind globally and would represent a substantial step in placing Perth on the world stage as the first capital city in the nation which truly celebrates Indigenous culture.	Ability to obtain the necessary State and Federal funding to undertake the project due to competition from other states.

It would be a significant positive step in facilitating reconciliation and building the economic and social capacity of the local Aboriginal community.	Potential for conflict and opposition arising through differing opinions and opposing ideas expressed through the consultation process.
It would give Perth and Western Australia a substantial point of difference as a tourism destination and would cater for 80% of international visitors who desire an authentic Aboriginal experience.	Potential for conflict in the implementation phase of the project, particularly between different Aboriginal family groups.
It would assist revitalising Perth's waterfront.	The scale of the project at a world class standard deters commitment from government and stakeholders.



The plans for the actualisation of the World Centre for Indigenous Culture are uncertain. In 2011 the Barnett Liberal government announced that it would establish a 'National Indigenous Cultural Centre' as part of the City of Perth's new waterfront development at Elizabeth Quay. In 2013, the West Australian reported that '...the cultural centre, which would cost about \$500 million, was not included in the first stage' of the Elizabeth Quay development, and that planning for it stopped in 2011. In January 2016, Premier Colin Barnett publicly stated that 'the Indigenous cultural centre is certainly still desired, and there is a location reserved for it, but not everything can be done at once' and in May 2016, the Premier appeared to revive the plans for the centre by placing a three to five year construction schedule on the project. Despite this, the ABC reported that no funding had been allocated and no scoping work had been undertaken to plan for and cost its construction. In June 2018, the new Labour Minister for Arts David Templeman has indicated that the World Centre for Indigenous Culture is still on hold, due to the level of post-boom debt and construction of the \$400 million new museum project. According to The Australian, Templeman hints that nothing else will happen until after the new museum is completed in 2020.

Centre currently on hold until completion of the new museum in 2020

City of Cockburn

Art, culture, heritage and events strategy – action for 2017-18 was to develop a Memorial walk/Cockburn heritage park. 2019-20 plan action:

Complete an initial Arts, Culture and Heritage HUB feasibility study, including identification and evaluation of potential sites, assessment of stakeholder needs, potential funding sources and vision creation. This will review the need for but not limited to workshop/wet spaces and a new performing arts space

Participate in the project team for the design and construction of the Aboriginal Cultural Visitor Centre.

Contacts: Barbara Freeman or Gail Bowman

City of Melville

2012-13 RAP

Undertook further engagement in 2015 with Aboriginal community to advance reconciliation

Aboriginal community interviewers who interviewed their friends and family members.

Key theme in discussion was:

Sense of place – participants identified some of their favourite places, an interest in having a dedicated Aboriginal community space, and ideas for visual Aboriginal representation.

Planning is progressing for the new Willagee Hub – to incorporate a dedicated Aboriginal space.



The Champion Lakes Aboriginal Interpretive Centre, City of Armadale

The Armadale Redevelopment Authority commissioned the construction of the Aboriginal Interpretive Centre (AIC) at Champion Lakes within the City of Armadale in 2010-11. The purpose of the AIC was to recognise the importance of the Noongar community within the Armadale and metropolitan area, and to create a landmark space where Noongar culture and heritage is discussed, displayed and celebrated. An Aboriginal Reference Group was established to guide the development.

The AIC consists of an amphitheatre with seating for 350 people, an interpretive walkway where local artefacts are displayed, and trails featuring bush tucker and medicine plants. The walkway is covered by a metal canopy that features three large-scale artworks by Noongar artists Norma MacDonald, Shane Pickett, Sandra Hill and Jenny Dawson.



Noongar Cultural, Interpretive and Enterprise Centre, City of Swan

From minutes of Ordinary Meeting of Council, 24 September 2008

The development of an interpretive/cultural centre was identified as a key long term recommendation of the Swan Regional Riverside Park (SRRP) Master Plan.

A feasibility study and business case was undertaken in 2007 by Woods Bagot Australia and Relsprey Pty Ltd. Report title: The Noongar Cultural, Interpretive and Enterprise Centre Feasibility Study and Business Case Final Report (check with State Library or City of Swan)

Consultation undertaken primarily with the City's Swan Indigenous Reference Group, the Midland Redevelopment Authority and the Department of Indigenous Affairs.

Outcomes of the study were:

Proposed cultural centre is feasible with a reasonable likelihood of success. Basic operational costs could be self sustaining within 5 years if managed and promoted properly.

Main risks to the project are in the areas of funding, corporate governance and operational management.

Two preferred sites were identified as meeting the necessary identified criteria, including land owned by the City of Swan adjacent to the Morrison Rd staff carpark, and Riverbank Detention Centre, Caversham.

The proposed Cultural Centre would require construction funding totalling around \$10 million for design and development of the Morrison Rd option, whilst the Riverbank Detention Centre option could be redeveloped for approximately \$12.6 million.

The SIRG indicated a preference for the Cultural Centre to be located on the Swan River.

Both visions according to the City of Swan are long term and expensive and the CoS will need to seek considerable partnership funding from a variety of stakeholders towards building planning and construction costs. Joint funding between City, State and Commonwealth governments is essential if project is to become a reality.

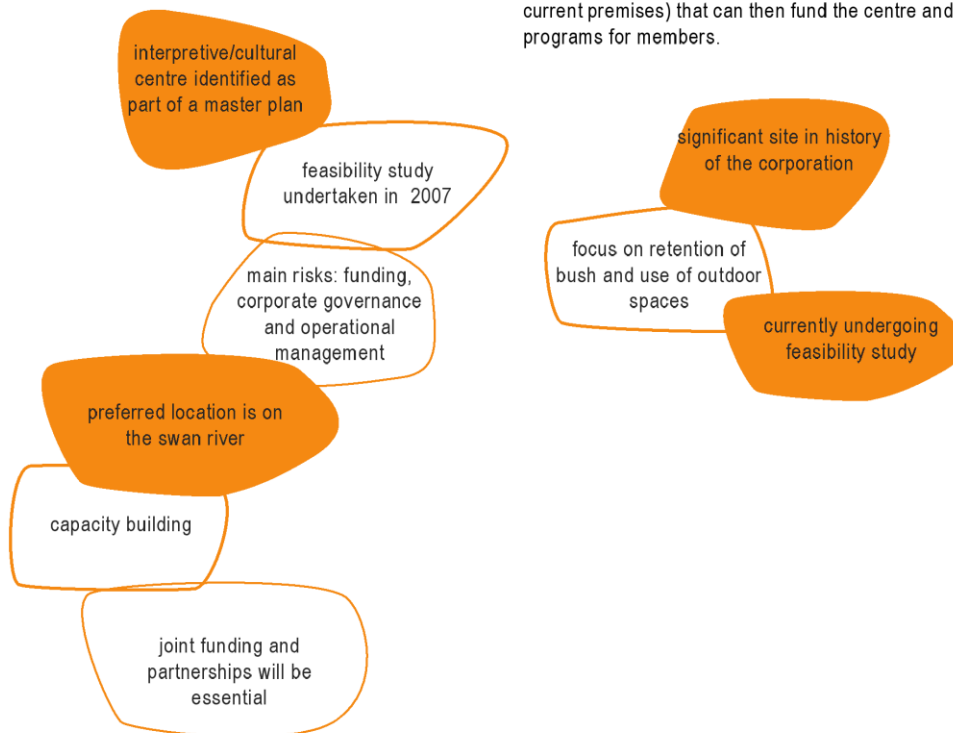
Identified the Indigenous Lands Council and Aboriginal Lands Trust as potential investors in the Cultural Centre.

A large amount of work remains before detailed planning for the Cultural Centre can progress and it was not proposed to seek financial commitments from Council toward construction at this time.

Council agreed on 24 September 2008 to request staff to develop the report's findings to the point where Council, State Government and Commonwealth Government resource commitments can be identified.

Sister Kate's Home Kids Aboriginal Corporation, Place of Healing, Queens Park

Sister Kate's Home Kids Aboriginal Corporation (SKHKAC) are a Stolen Generations group who are currently undertaking a feasibility study for a Place of Healing in Queens Park, Perth. The Place of Healing would include services and spaces specifically for SKHKAC members as well as more public spaces with education, healing and cultural programs for the wider Aboriginal and Torres Strait Islander and non-indigenous community. The Place of Healing places a high priority on an economically sustainable model by running fee for service programs (many of these programs are already in effect at SKHKAC current premises) that can then fund the centre and healing programs for members.



Other Opportunities

Whilst the City of South Perth are not planning to develop any Aboriginal cultural centres, their Aboriginal Engagement Plan (2013? ref) commits to lobbying for an Aboriginal cultural centre along the Derbal Yerrigan. Could be a potential partner or advocate for the WACC.

Other Centres/ Organisations to Research:

Kwinana/Rockingham

Perth Noongar Cultural Centre

National and International Case Studies

The follow centres are examples that have been reviewed and presented in *World Centre for Indigenous Culture, September 2009 and Cultural Experience Centres, November 2009 by the Committee for Perth*. The Committee for Perth identifies there is no benchmark for the type of centre that they envisage should be created in Perth which is a centre that combines a 'live interactive approach' and a 'curatorial methodology centred around Indigenous art, culture and artefacts.'

These centres may provide useful precedents into the operation and physicality of the WACC:

- Brambuk Aboriginal Cultural Centre, The Grampians, Victoria
- Armidale Aboriginal Cultural Centre and Keeping Place, Armidale, New South Wales
- Tjapukai, Cairns, Queensland
- Koorie Heritage Trust Cultural Centre, Melbourne Victoria
- Bangerang Cultural Centre, Shepparton, Victoria
- Muru Mittigar, Cranebrook, New South Wales
- Alaska Native Heritage Centre, Anchorage, Alaska
- UBC Museum of Anthropology, Vancouver, Canada
- Te Papa, Wellington, New Zealand

The Committee for Perth report identifies a wide range of functions of these centres including:

- Curatorial for art and objects;
- Performance spaces;
- Meeting and gathering spaces;
- Cultural education;
- Employment and training opportunities for Indigenous people;
- Research centres;
- Tourism;
- Retail;
- Indigenous catering; and,
- Land management and rehabilitation.

The report also presents a series of museums as precedents of centres for cultural experience. The list is of unconventional museums including Robben Island Museum in Cape Town, South Africa, the Auschwitz Memorial and Museum, Poland and the Museum of Jewish Heritage: A Living Memorial to the Holocaust, New York. Although classed as museums the examples presented are unconventional in how stories are told, resulting in a lasting impact to visitors.

CfP believes there is no benchmark for a centre that combines 'a live interactive approach' and a 'curatorial methodology centred around Indigenous art, culture and artefacts'

1.5 PRELIMINARY ENGAGEMENT LIST

Albert and Irene McNamara	Organisations etc:
Aunty Mingle	
Ayleece Blurton	Bindi Bindi Dreaming
Betty Gartlett	City of Fremantle
Brendan Moore	Peedac
Danny Ford	SWALSC
Ezra Jacobs Smith	WAITOC
Farley Gartlett	
Gerrard Shaw	
Gordon Cole	
Herbert Bropho	
Ingrid Cumming	
James Back	
Jillian Dewar	
Kali Balint	
Karen Jacobs	
Len Collard	
Margaret Culbong	
Morton Hansen	
Rob Eggington	
Russell Hansen	
Scott Chisholm	
Sharon Calgaret	
Sharon Gregory	
Tim Muirhead	
Uncle Ben	
Vivienne Hansen	

1.6 INITIAL THEMING

Main ideas and objectives that have been identified in the desktop review have been distilled into a series of 'themes' which will provide a starting point and guide the next stage of consultation.

The review has made apparent the priorities of stakeholders and what they believe the role of the Walyalup Aboriginal Cultural Centre could or should be.

This has been distilled into the following themes. The themes identified are broad ideas which may translate into different physical forms and are by no means concrete ideas but a launching pad to allow the consultant to engage effectively with stakeholders and community members in the Visioning stage. The themes are not presented in any priority.



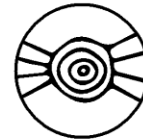
Inclusive

A safe place for all Whadjuk Noongar (not just one family) and the broader Aboriginal and Torres Strait Islander community, as well as tourists, locals and non-Aboriginal people.



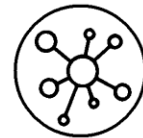
Strong Relationships

The formation and fostering of strong relationships with the community, other cultural centres and service providers. The relationships may be economic, educational, spiritual or a combination.



Celebrate

A place to celebrate and showcase living Aboriginal culture with particular attention to Whadjuk Noongar. This may be through displays, workshops, performances and in the very form/design of space. A large part of this is support and spaces for art (visual, performance and crafts) to occur and be exhibited.



Flexible

A Centre with a fit for purpose design to allow a broad range of functions to occur, including private and public spaces.



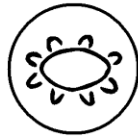
Memorialise

Record and display Aboriginal culture and heritage with an emphasis on Whadjuk Noongar. Walyalup holds spiritual and social significance for Whadjuk Noongar people, as well as its significance as part of the colonisation story.



Education

Provide education about Aboriginal culture with particular attention to Whadjuk Noongar culture, and a place for education programs and research to occur. Foster links with universities and other education institutions.



Reconciliation

Opportunity for meaningful reconciliation action. Inherent in all the programs and functions of the Centre.



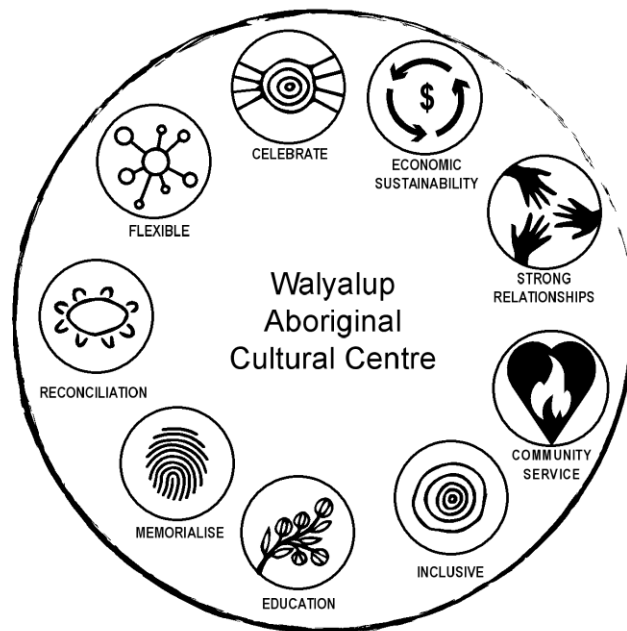
Economic Sustainability

Although government funding will be necessary for the initial set up of the Centre the opportunity for the Centre to work towards an economically sustainable model is apparent. As capacity grows more 'fee for service' activities can occur with profits directed back into the centre as well as other investments. This will provide the centre an independence from external funding. The centre also provides an opportunity for business incubator spaces specifically for Aboriginal businesses. This may take the form of co-working spaces or offices to rent, capacity building and support programs and opportunities to run one off events such as workshops, clinics etc.

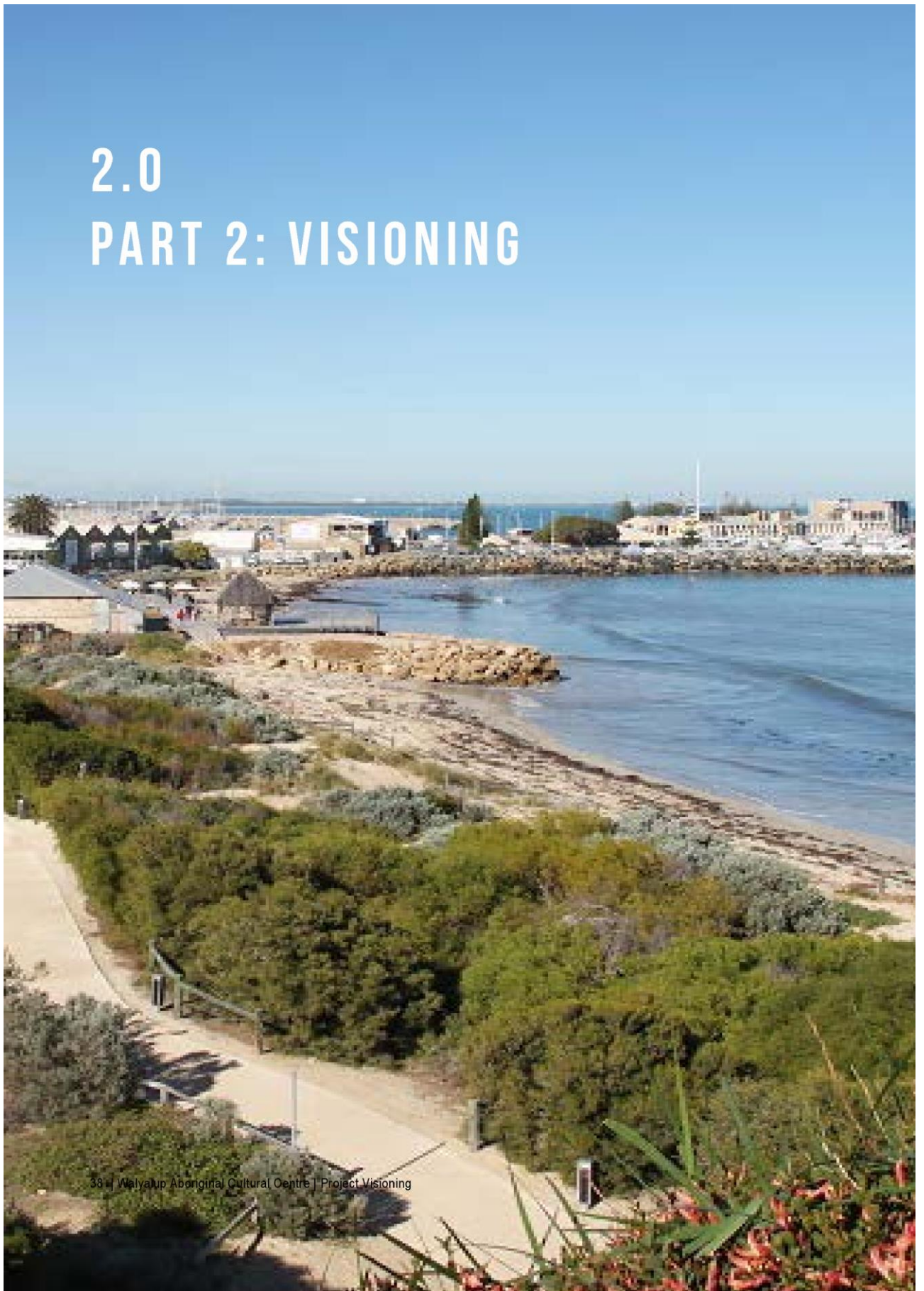


Community Service

Provide a service or series of services to the community that aligns with the Centre's values. This could be health, child and family services and/or accommodation.



2.0 PART 2: VISIONING



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2.1 ANALYSIS, OPPORTUNITIES & DIRECTIONS

Within the analysis, opportunities and directions phase, the following 5 key themes (and principles) were initially identified for the Walyalup Cultural Facility (Living Knowledge Centre). Ongoing engagement with key Noongar People and City Stakeholders confirmed and expanded upon their relevance, as follows:

1. a place of significance
2. a place to belong
3. a place to celebrate 'living culture'
4. a place to thrive
5. a place of good cultural governance

"the themes that have come through from the first Workshop, it covers everything"

1. A PLACE OF SIGNIFICANCE

Whilst acknowledging that this facility would be established in Whadjuk Noongar Boodja (Country), Walyalup (Fremantle) has strong Aboriginal cultural significance. A contemporary cultural facility located in Walyalup would foster, celebrate and showcase, State Aboriginal Culture on an international scale.

The land around Fremantle (Walyalup) has always been a significant place for the Noongar people. Walyalup was the country on both banks of the Derbal Yerrigan (Swan River).¹

The story of how the land once extended past Rottnest but had been inundated by the sea is one of the oldest oral traditions in human history.²

Fremantle has several significant sites and features in traditional stories. For example, the mouth of the Swan River is the place where the Wagyl wrestled with the Crocodile spirit from the north. While the body of the

1. City of Fremantle and Moodjar Consultancy, 2016, Statements of Significance for the Fremantle Area and Registered Aboriginal Sites Cantonment Hill, Rocky Bay and Swan River, p.13

2. City of Fremantle and Moodjar Consultancy, 2016, Statements of Significance for the Fremantle Area and Registered Aboriginal Sites Cantonment Hill, Rocky Bay and Swan River, p.13

crocodile makes up the islands, the crocodile's tail once separated the river's fresh water from salt water.

There is a continued strong connection to Rottnest Island (Wadjemup - or place across the sea), in both a pre and post-colonial sense. The traditional songlines that connect through to our red centre and relationship to the Roundhouse to Wadjemup through the recent history of colonisation means Fremantle will always retain a strong cultural link to the rest of the State.

Through the stories of river and sea It is acknowledged that a culturally significant place should have a strong connection to water, a determining factor in locating the centre.

Selected quotes from participants:

"Fremantle and its surrounds has always been a place where Aboriginals have gathered as families and for community events."

"it is a very 'spirit' place."

"Fremantle was at the centre of the spread of colonisation, it can now be at the centre for reconciliation."

"Fremantle as the heart of tourism can become the heart of cultural tourism."

2. A PLACE TO BELONG

Fremantle Aboriginal People have repeatedly expressed the need for a place to belong. A space for events, to meet, gather, celebrate, yarn, mourn (funerals, wakes) and more. Highlighted is the importance of the centre being inclusive of people and multi-purpose for cultural circumstance.

The visioning for a culturally focused centre requires to be a place that is inclusive to all families and language groups, and not dominated by one family group.

A place where local Aboriginal people are proudly visible yet can be secure and gain privacy, as required (cultural safety). A place comfortable to be in and part of.

Inclusiveness should form an important part of its values and way it is run.

Selected quotes from participants:

"We need a presence, at present there isn't anything. No centres except WACC but none of our people are visiting or visible...in a spot where people will visit and we are visible"

"Centre for belonging; connection to stories of Fremantle; recognition of the Nyungar families connected to Walyalup"

"A site that can cater for all Aboriginal people. Improve their social cultural and economic status."

3. A PLACE TO CELEBRATE LIVING CULTURE

The cultural centre can be more than a typical museum and gallery to include ways of active learning for tourists, visitors, youth, locals and Aboriginal people. A place that is creatively activated by cultural (social, environmental, economic) program to attract commercial and tourism opportunities.

Aboriginal culture is a living culture, spanning from pre-colonial times and contemporary-shared cultures.

Intrinsic to the heart of a living knowledge centre is that Aboriginal people will be using the centre and there will be services and attractors catering to their needs, in turn providing for tourists.

This is beneficial for all, providing much needed programs and fit for purpose spaces for the Aboriginal community to occupy, as well as giving an authentic, educational experience to visitors.

Selected quotes from participants:

"Live performances, makes it exciting. Not a museum."

"Hands on education."

"Pre colonial history, contact, contemporary shared history"

"Continuation of living knowledge - not just about the past 'traditional' Aboriginal culture"

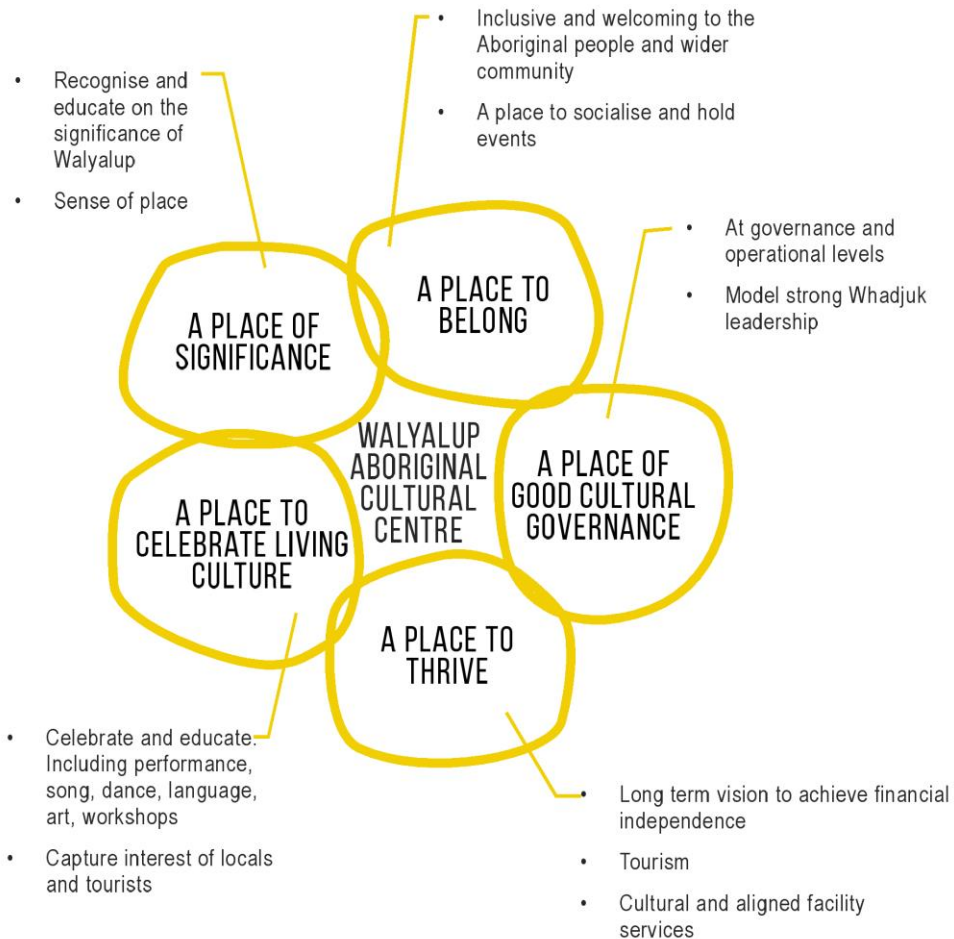


Figure 4. Underlying principles identified in workshop one

4. A PLACE TO THRIVE

It is recognised that tourism and fulfilling commercial service opportunities and gaps that favour Aboriginal People will be a major factor in achieving financial independence for the Walyalup Aboriginal Cultural Centre.

Discussions with the West Australian Indigenous Tourism Operators Council identified huge opportunity in Perth for large workshop spaces that can cater for tour groups. The centre could potentially act as a hub for other Aboriginal tourist operators in Fremantle and further afield, being the 'first port of call' for the Aboriginal tourism experience in Perth and WA.

Corporate cultural awareness training or other culturally aligned fee for service programs may occur.

The centre has also been identified as a potential Aboriginal business hub, offering small studio or office spaces for rent, as well as running funded training / education programs for capacity building.

Selected quotes from participants:

"With the entry fee you get access to shows, performance, language classes etc."

"Passing on skills to younger generations, visitors can view classes and maybe have a go. Earning a fee as well as providing a teaching service to youths and experience for tourists."

5. A PLACE OF GOOD CULTURAL GOVERNANCE

A robust governance structure is required to be established with a high-standard WACC board. The board is to be given cultural guidance by a group of local Whadjuk families, known as Cultural Advisory Reference Group (CARG), and Aboriginal Management Executive. The CARG will provide cultural direction for all Aboriginal input, including non-Whadjuk operators.

Ensuring culturally respectful Aboriginal ownership and leadership will facilitate capacity building within the Aboriginal community and ensure authentic cultural experiences for visitors.

Aboriginal employment is a strong theme which should be considered strategically at the governance level.

Partnership opportunities with business and academic institutions are also to be explored. These arrangements will ensure the Centre is a viable business as well as an active hub for learning where traditional owners can ensure that research is conducted in a respectful and culturally appropriate manner.

Preparing an initial tourism development plan for a tourism experience will provide important imperative as well as marketing opportunities to raise awareness of the living knowledge centre as a 'must-do' destination.

Participants suggested that the centre could evolve over time and possibly across a number of sites providing specific cultural program (i.e. tourism, education, cultural services etc.)

Following the initial shell or establishment phase the WACC growth would be dependent on increasing visitor numbers, the development of skills within the Aboriginal community to manage and operate the experience, the facility and services, and the desire of the community to continue growing the Centre once they have assessed its benefits over the initial phase. Establishment of a facility where the programme can grow with regard to tourist numbers local administration capacity and the ongoing economic viability.

The Business Case sets out these triggers based on an analysis of financial viability and community benefits. A reference group may be formed with representatives from each family group to ensure all views are represented.

A strong constitution should be developed to guide the governance of the centre.

Fremantle's forthcoming Reconciliation Action Plan may provide guidance for the centre at the strategic and governance level.

Selected quotes from participants:

"RAP needs to provide a good framework and governance structure that the vision and aims of the WACC can then sit under - to ensure outcomes are achieved"

"Need experience to run for profit, need strong governance."

OTHER CONSIDERATIONS

Location

Several potential locations were presented to participants in the analysis, opportunities and directions phase. Participants were also asked to put forward any other locations they thought suitable for the centre.

Some participants raised the idea of having an number of locations that may house different aspects of the cultural centre, eg. one location with a tourism focus, one with a business incubator focus and one with a nature/bush focus.

It is recognised that various opportunities and significant restraints apply to all sites discussed, as well as implications on time frames regarding the availability of certain sites or likely development opportunities in the future. The appropriateness of each along with opportunities and constraints is explored further in this report.

Whadjuk Advisory Group

The Whadjuk Advisory Group has expressed the following visions and aspirations for Fremantle. The future Walyalup Aboriginal Cultural Centre will be a significant step for Fremantle in meeting this vision. The below also serves as a checklist to ensure a centre that is aligned with the Whadjuk community's values.

- Fremantle to become a place that speaks the truth;
- Acknowledgement of Whadjuk Nyoongar people's rights and traditional ownership of the land;

- Land hand back to Whadjuk Nyoongar community;
- More employment and cultural opportunities within the City of Fremantle;
- Public acknowledgement of Whadjuk achievements
- Tourism boat to and from Rottnest Island with Whadjuk Nyoongar tour guides;
- Ensure that Whadjuk Nyoongar Intellectual Property is protected;
- Direct engagement between the City of Fremantle and Whadjuk governances;
- All significant sites in Fremantle should be maintained, preserved and protected; and,
- Heritage sites should be respected and acknowledged for boorda (the future and for the generations to come), as they are part of Whadjuk Nyoongar identity and connect us to the nyittiny (the beginning of time).



Figure 5. Location plan

2.2 EXPLORING OPTIONS

This stage explores, at a high strategic level, the physical, programming and governance options of the potential Walyalup Aboriginal Cultural Centre.

The underlying principle of the Walyalup Aboriginal Cultural Centre is to create a place for living culture. Not only does this mean interactive experiences for tourists, but a meaningful place for Aboriginal people.

The practicality of this leads to a spatial arrangement of having 'two side entries'. One side allows access for tourists and the general public, the other side door allows access for the Aboriginal community to socialise and do business in relative and required privacy, and spaces where these two functions excitingly intersect.

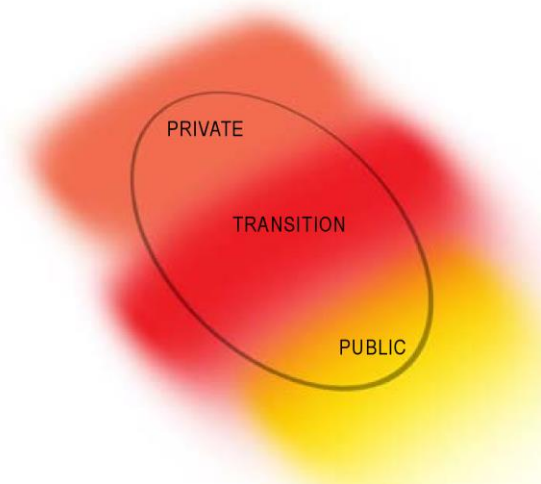


Figure 6. Private to public

Flexible & Adaptable Spaces

The spatial design must allow for adaptability and flexibility in use. For example, the indoor space can hold workshops, lectures, performances and even be divided to host several smaller workshops or events at a similar time.

This flexibility will allow the centre to maximise use of the spaces with a range of viable programs catering for

different groups at different times of the day, as well as the ability to adapt to changing needs in the future.

"[The Centre could be a] 20 year journey, create capacity to build upon. Create spaces to help the process... life phases of the centre - long term journey"

The Programming options align with idea of having private space, public space and transitional spaces including:

- Teaching Aboriginal culture to the younger generations and general public;
- Space for artists and crafts people to develop, produce and promote their work;
- Meeting places for socialising and cultural events;
- Space for performance of traditional and contemporary Aboriginal performing arts;
- A depository for art, media, language and artefacts;
- Opportunities for tourism;
- Employment, training and support opportunities; and,
- Cafe, restaurant, traditional food and hospitality.

The following 'kit of parts' (figure 6) is a wish list of potential programming for the Cultural Centre. These are in line with the themes identified in task one and successful programmes occurring at other living cultural centres across Australia, but are by no means definitive.

Private spaces:

Studio/ small business spaces; 10 @ 28m² each

Library/keeping place; 100m²

Community space with seating, tea and coffee facilities; 70m²

Transitional spaces:

Outdoor performance/yarning space; 250m²

Bush gardens; 500m²

Indoor flexible space (for workshops, lectures, events); 200m²

Kitchen/wet area; 90m²

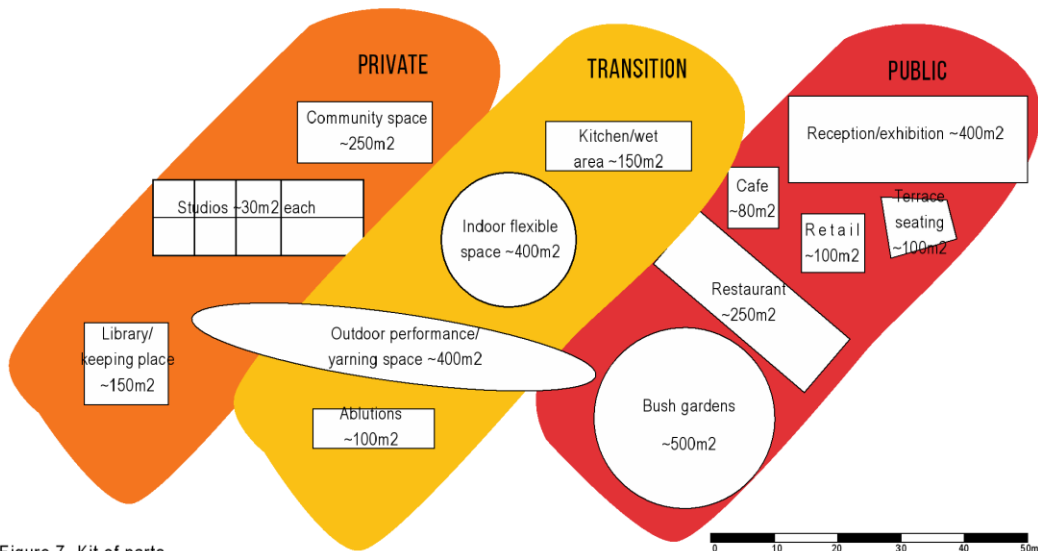
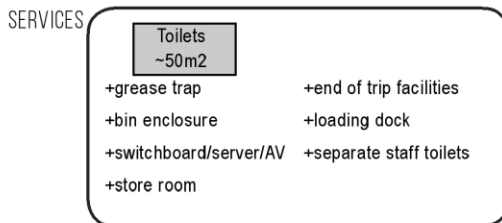
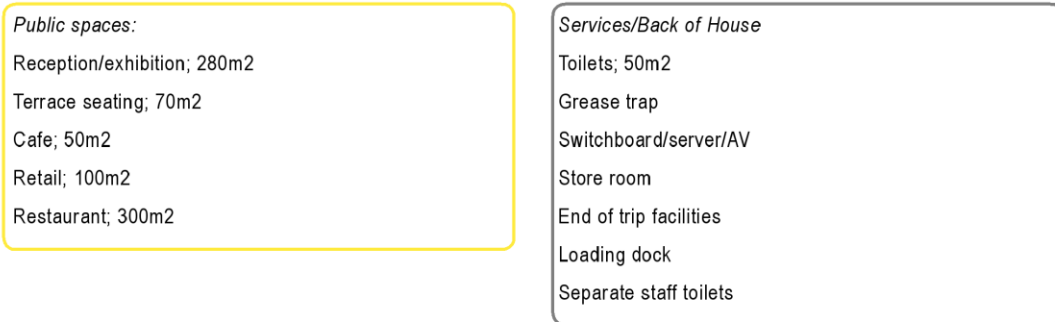


Figure 7. Kit of parts

Suitable Location

In the first workshop eight locations were presented to participants, these were Beach Street gallery, Cantonment Hill, Victoria Quay, J Shed, the Esplanade, Fremantle Park and the Leeuwin Barracks (in East Fremantle). Participants were encouraged to make other suggestions for locations they thought appropriate. These options were narrowed down to three suitable locations, with the addition of Pioneer Park on feedback from the City of Fremantle, due to the following parameters:

Walkability

The Centre should be part of the fabric of Fremantle, not on the outskirts of the City. Easily walkable distances to other attractors in Fremantle in order to capture passers by, both tourists and locals, should be considered.

Public transport connections

Accessible from the Fremantle train station and main bus routes.

Connection to Water

The Swan River and the area known as Manjaree (Bathers Beach and Arthur Head area) and is of great cultural significance to Whadjuk Noongar people and an Aboriginal Cultural Centre should have a physical and visual connection to the water.

Universally Accessible

The existing WACC adjacent the Round House does not have good universal access with multiple level changes within the building. Access to the building by foot is via steps to Captains Lane or a steep road non compliant for pedestrians. Many participants raised this issue with particular concerns for elderly people wishing to visit the WACC. The new facility should have universal access to the building and surrounding gardens/landscape with sufficient ACROD parking and facilities.

Culturally Appropriate

The Aboriginal Cultural Centre should be located to ensure the cultural safety of all users. The current WACC location is directly adjacent the Round House with a dark history of incarceration of Aboriginal people by the State. Many people feel the existing location has had a negative effect on the WACC.

There is opportunity for the new facility to begin a reclaiming process by the Aboriginal community of Walyalup/Fremantle, particularly the Manjaree/Arthur Head precinct.

Outdoor space

Community engagement has shown a great interest in having sufficient outdoor space as part of the facility to hold both formal and informal events, outdoor workshops, bush gardens for teaching visitors about the endemic flora and provide spaces for healing opportunities for the Aboriginal community. The site selected should have capacity to accommodate this.

Use of Existing Facilities

Few sites in Fremantle are without any existing buildings are in a suitable location for an Aboriginal Cultural Centre. Existing infrastructure should be taken into consideration and assessed for suitability to retro-fit, relocate or remove.



- a. Manjaree (currently J-Shed)
- b. Pioneer Park
- c. Victoria Quay
- 1. Fremantle Maritime Museum
- 2. The Round House
- 3. The University of Notre Dame
- 4. High Street
- 5. Fremantle Train
- 6. Cappuccino Strip
- 7. Kings Square
- 8. Fremantle Prison
- 9. Fremantle Oval
- 10. The Esplanade
- 11. Bathers Beach
- 12. Fishing Boat Harbour

Figure 8. Location plan

J-Shed

The J-Shed location has strong visual and physical connections to the water and the beach. The area is known as Manjaree or Arthur Head is recognised as a site of significance by the City of Fremantle as a part of Fremantle’s maritime history and as a trading and meeting place for Noongar people pre-colonisation¹.

Quarrying in the mid 1960’s and the creation of the Port has drastically changed the landscape of the area from pre-colonial times. The old Cargo Shed (J-Shed) was relocated here in 1970 from the ‘H’ Berth in the Port and in 1992 the building was restored by the City of Fremantle. ²

The proximity of the Round House and cultural sensitivities around potentially locating an Aboriginal cultural centre so close to a site known for incarceration and cruelty to Aboriginal people across the State is acknowledged. Some participants raised concerns about cultural sensitivities around the site but no specifics were shared during this engagement. Other participants saw the J-Shed site as an opportunity to claim back an area that held great social significance to Noongar people prior to colonisation. The development of an Aboriginal cultural centre could be an opportunity to assist in a healing and reconciliation process.

The limestone cliff and a level change of approximately five metres does allow for some physical and visual separation from the Round House and participants have generally seen the J-Shed as a more appropriate location than the current location of the WACC in one of the heritage cottages adjacent the Round House.

There is opportunity to take advantage of the surrounding environment for extensive bush gardens and landscaping. The location may prove difficult to attract ‘walk-ins’ from a tourism perspective being removed from the Fremantle centre. The centre should connect in to existing walk trails down High Street, the Fishing Boat Harbour, Bathers Beach and the Port. A more legible pedestrian trail would be of benefit to all these precincts from a tourism point of view.

It should be noted the area adjacent the J-Shed to the south west, currently occupied by TAFE carpark and building, was

¹ City of Fremantle and Moodjar Consultancy, 2016, Statements of Significance for the Fremantle Area and Registered Aboriginal Sites Cantonment Hill, Rocky Bay and Swan River, p.20

² City of Fremantle, 1993, Arthur Head Reserve Strategy Plan, p. 4



Figure 9. Location plan, J Shed



flagged as a redevelopment site in both *Freo 2029*, *City of Fremantle 2015* and the *Fremantle Waterfront Masterplan*, *Cox Howlett and Bailey Woodland, 2000*. There could be an opportunity for a centre to expand in to this space as well.

The J-Shed was quite a popular location during the engagement process, whether using the existing building or a new building. In general the J-Shed location is preferred over the existing WACC location next to the Round House.

“People have said to me J shed could be a good place, but depends on who you ask, need to find out the stories.”

“Most removed from what is happening in freo”

One participant put forward the idea of retaining the existing WACC as an administrative/office building and move the workshops and classes to the J-Shed, which could be a viable option to expand the capacity of arts workshops in the short term.

Location	Opportunities	Considerations
J-Shed	<ul style="list-style-type: none"> • Strong connections to Manjaree (Bathers Beach and Arthur's Head precinct). • Opportunity to reclaim space for Aboriginal people, counteract the negative history of the Round House and colonial impacts. • Opportunity to improve access from Fishing Boat Harbour through to the Maritime Museum 'culture and heritage' trail. 	<ul style="list-style-type: none"> • Existing building is heritage listed. • Cultural sensitivities around proximity to Round House.
J-Shed - Retrofit	<ul style="list-style-type: none"> • Could occur in the relatively short term or as in interim site whilst longer term options play out. 	<ul style="list-style-type: none"> • Retro fitting building could be equally as costly as a new building, and result in a facility less fit for purpose.
J-Shed - New Facility	<ul style="list-style-type: none"> • Take advantage of the limestone cliffs as part of the architecture. • Can create a strong connection to the beach. 	<ul style="list-style-type: none"> • Existing heritage shed will need to be relocated.

Table 3. J-Shed Site Opportunities and Considerations Matrix



Figure 10. Fremantle Waterfront Masterplan (2000)



Image 1. J-Shed looking east from the beach side. Roof of Round House can just be seen behind green building
Image 2. View from J-Shed toward Bathers Beach/Mangaree (above)

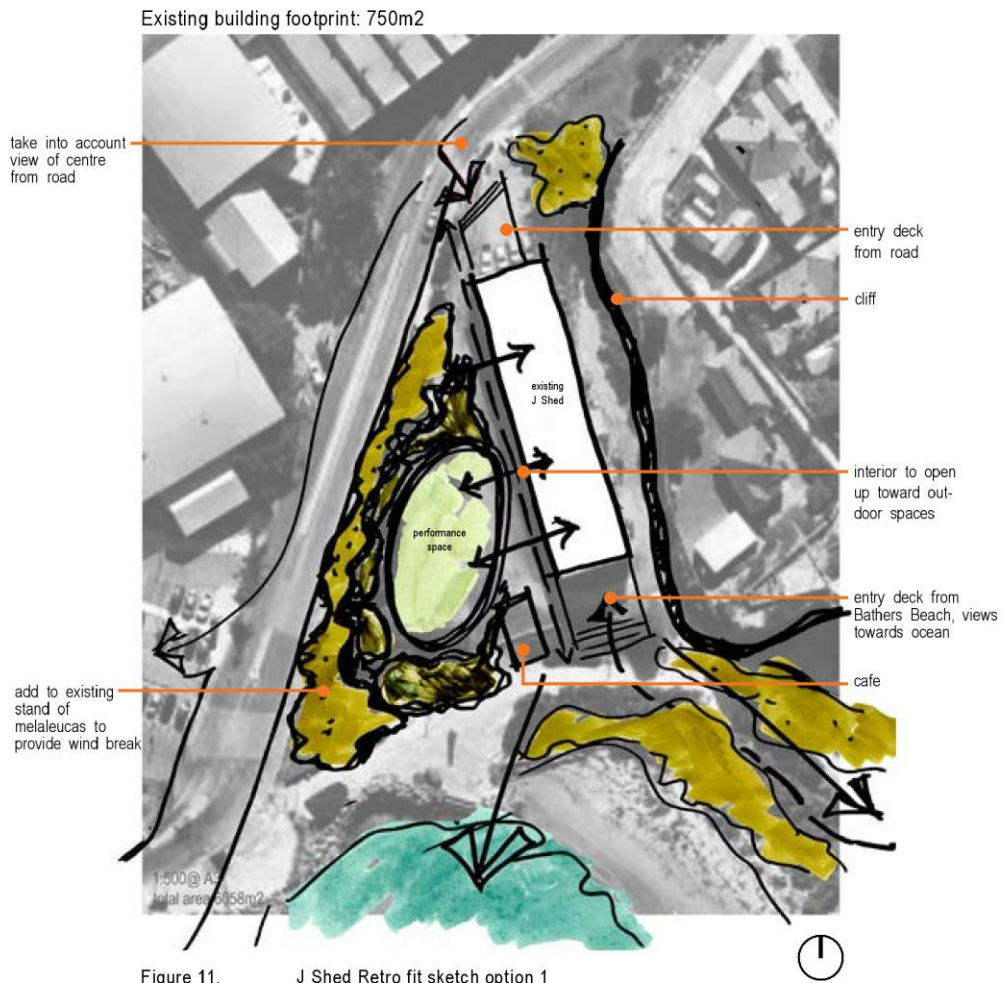


Figure 11. J Shed Retro fit sketch option 1

Proposed building footprint: approx 2250m²

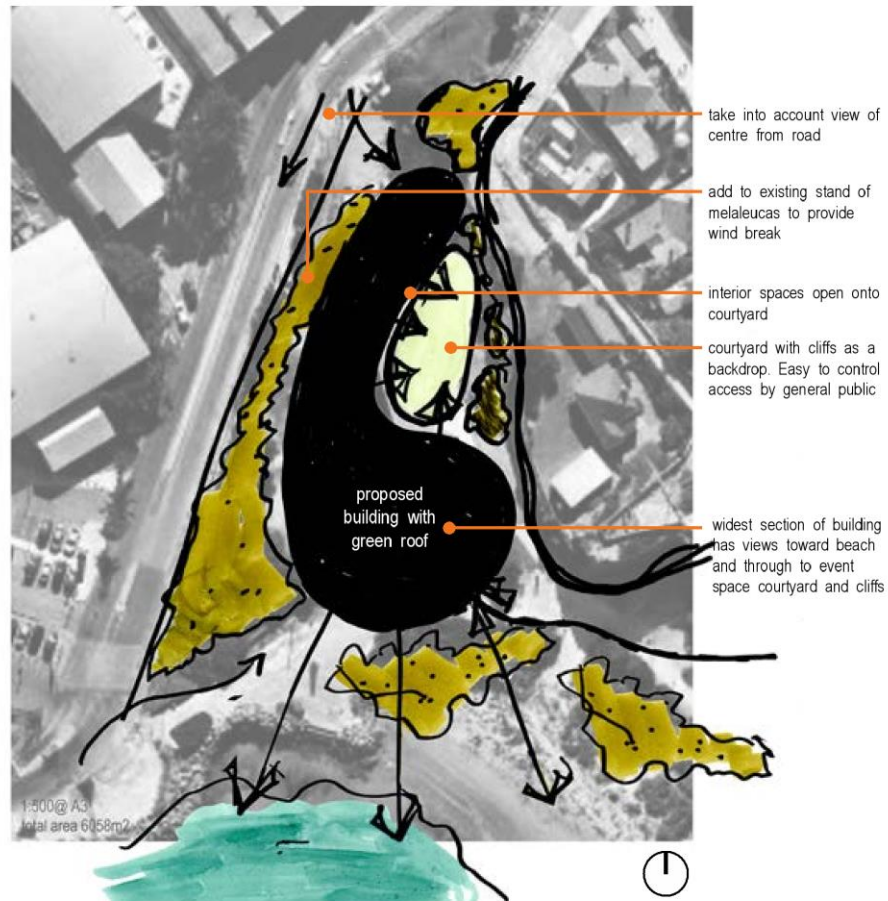
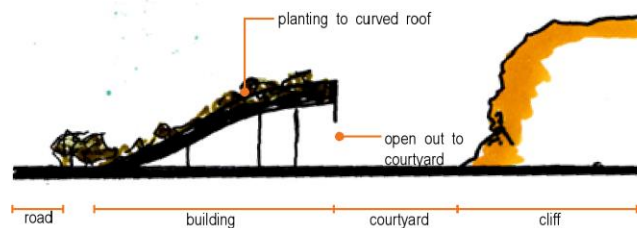


Figure 12. J Shed sketch option 2



Indicative Section

Proposed building footprint: approx. 2500m² + internal courtyard 500m²

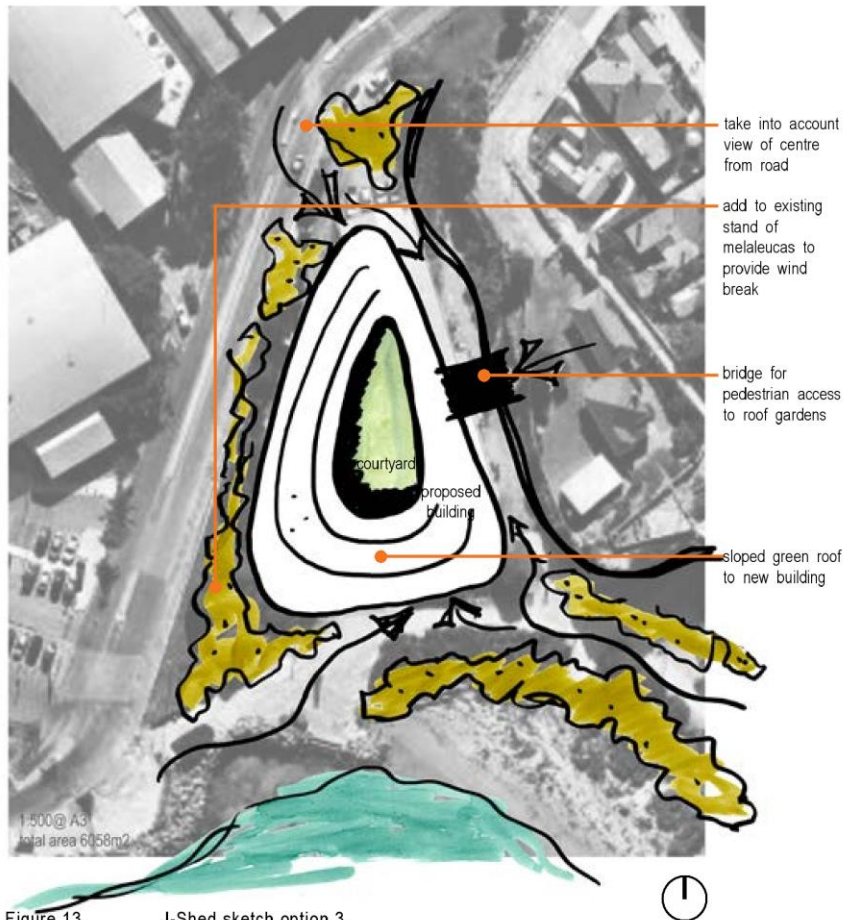
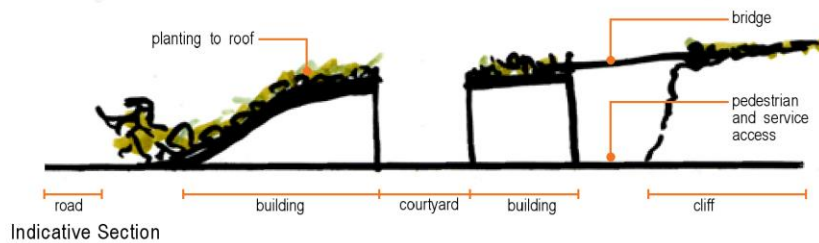


Figure 13. J-Shed sketch option 3



Pioneer Park


Identified by the City of Fremantle, Pioneer Park directly across from the train station has the potential to have a huge impact as a gateway into Fremantle. Pioneer Park is a very public space with high foot traffic between the cafe strip and the train station and is currently quite under utilised. The building located in the park was built in 1895. Later additions have been made by Spare Parts Puppet Theatre from the 1980's including a two storey theatre and foyer. In March 2018 structural issues were identified in the building, with a exoskeleton frame installed to make the building safe.

Upgrades and development of Pioneer Park has been shown in several masterplanning documents in recent years including the *Victoria Quay Commercial Precinct Plan, 2014, Coda and Fremantle Ports*. This is usually associated with a realignment of the trains station forecourt and Phillimore and Market Streets. Generally designs allow for a reduction of parkland, more paved areas and proposed commercial buildings.

Several participants raised issues with Pioneer Park around the displacement of homeless people and others who use the park and the important services such as the Fremantle Street Doctor and Red Cross Soup Kitchen.

"Existing park use, don't displace street doctor and other things happening, has its own culture going on"



Figure 14. Location plan Pioneer Park 

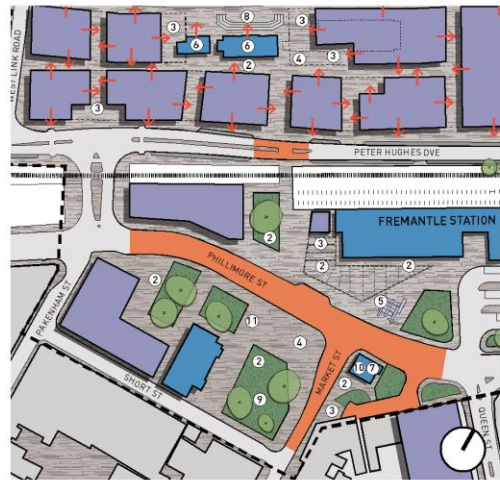



Figure 15. Victoria Quay Commercial Precinct Plan 



Image 3. Short Street looking east (top)

Image 4. Western side of Spare Parts Puppet Theatre building (above)

Location	Opportunities	Considerations
Pioneer Park	<ul style="list-style-type: none"> • Location is a Gateway to Fremantle from the train station. • High foot traffic area. • Can form part of the fabric of Market Street. 	<ul style="list-style-type: none"> • Risk of displacing those who use the Freo Street Doctor and soup kitchen. • Existing building currently occupied by Spare Parts Puppet Theatre.

Table 4. Pioneer Park Matrix



Image 5. View of Pioneer Park and Spare Parts Puppet Theatre from the north-eastern corner of the park (above)

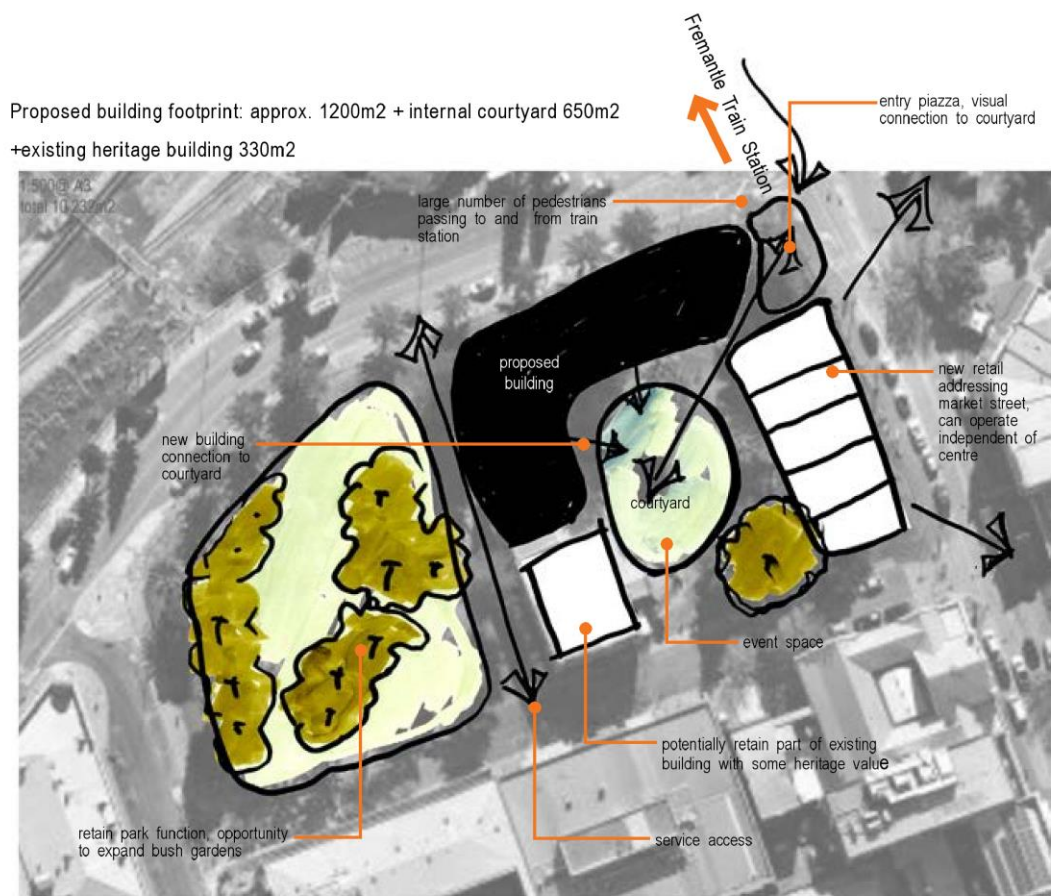


Figure 16. Pioneer Park sketch option 4



Victoria Quay

A long term option dependent on the development of the Quay, this location would provide a strong connection to the water. The opportunity of a 'clean slate' would mean a state of the art, custom built space with few spatial constraints. The close proximity of the passenger ship terminal would attract those tourists arriving to the Port, but is quite isolated from the cafe strip and other main tourist areas.

There has been recent masterplanning around the 'Victoria Quay Commercial Precinct' located just south of the location plan (fig. 17), as well as funding allocated to redevelopment of the Passenger Ship Terminal to the north. The centre could be part of the broad planning of these redevelopments to ensure good connections are included at an early stage of the design.

The Port location had a wide range of reactions, some participants viewed it as 'far-fetched', and others as an opportunity to create a built for purpose facility as part of the redevelopment of the Port.

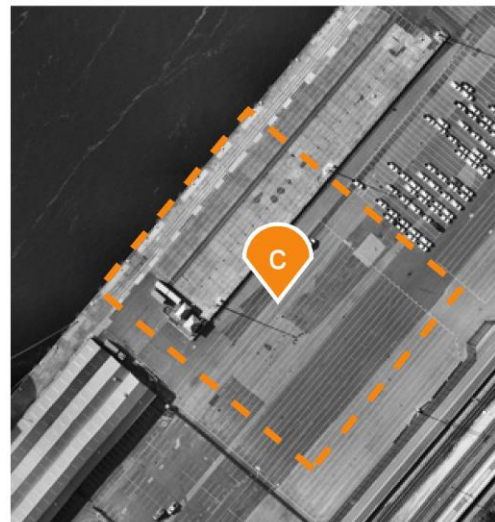


Figure 17. Location plan Victoria Quay

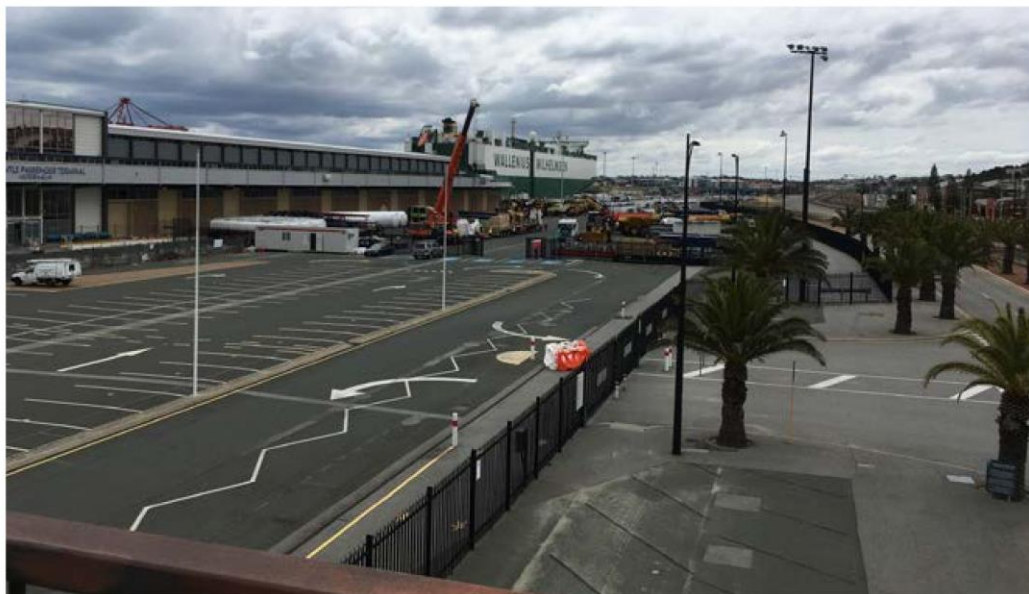


Image 6. View from pedestrian overpass of passenger ship terminal



Image 7. Existing edge condition alongside railway line to Victoria Quay (top)

Image 8. South western end of passenger ship terminal from pedestrian overpass (above)

Location	Opportunities	Considerations
Victoria Quay	<ul style="list-style-type: none"> • New building will be first stop for tourists entering Fremantle by passenger ship. • Will encourage a harbour side promenade from Maritime Museum to Passenger Ship Terminal. • Site is a somewhat 'clean slate'. Little existing infrastructure to contend with and the ability to create well designed access for both pedestrians, vehicles and service vehicles. 	<ul style="list-style-type: none"> • Long term option reliant on development of the Port. • Innovative design required to connect the new Centre to the water.

Table 5. Victoria Quay Matrix



Image 9. View looking south west pedestrian overpass towards Fremantle Train Station

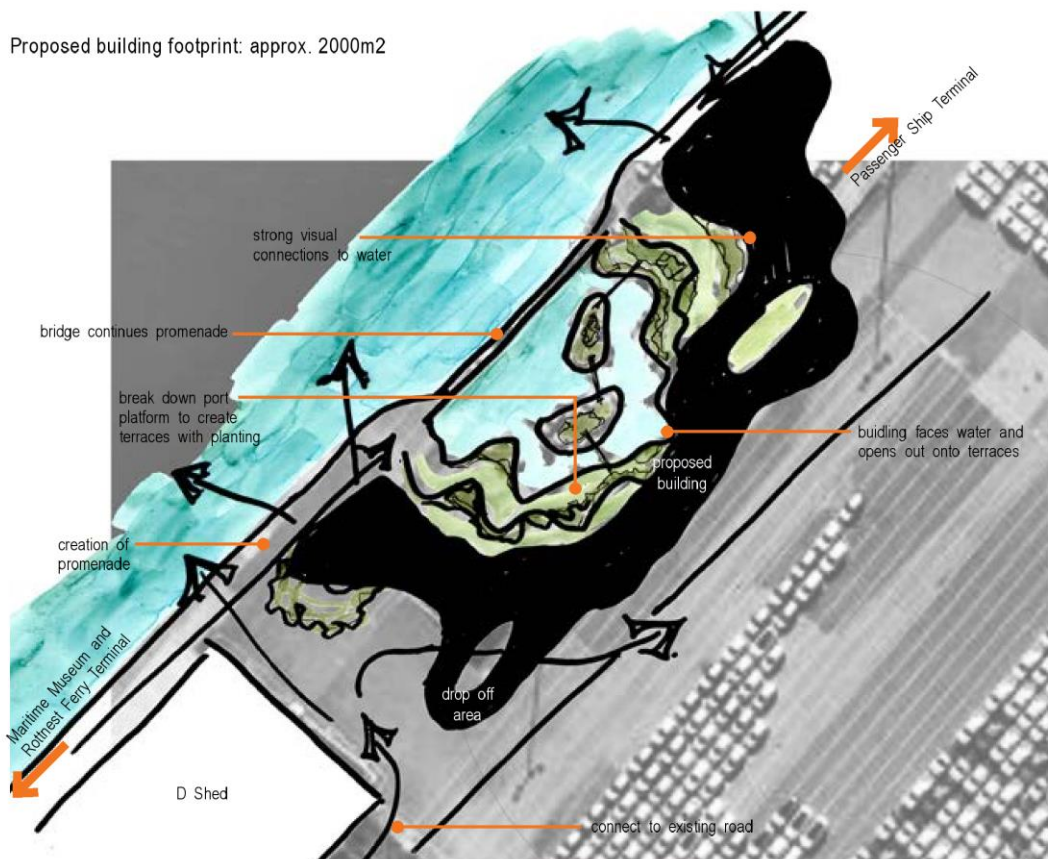


Figure 18. Victoria Quay sketch option 5

2.3 AGREED DIRECTION

The J-Shed location was considered most appropriate through best meeting parameters walkability, connection to water, culturally appropriate, sufficient outdoor space and use of existing facilities. The concept aligns to the themes identified in the literature review and principles identified through this engagement:

- A place of significance;
- A place to belong;
- A place of good cultural governance;
- A place to thrive; and,
- A place to celebrate living culture.

The concept provides guidance in terms of the volume and feel of the space but will need further investigation after the feasibility study.

Connecting the Dots

The integration of the WACC into the existing 'attractors' of Fremantle should be given thought early on in the design process. Not only would this be of benefit to the WACC, but other tourist destinations including the Maritime Museum, Round House heritage precinct, Kidogo Art Gallery and Fremantle Fishing Boat Harbour.

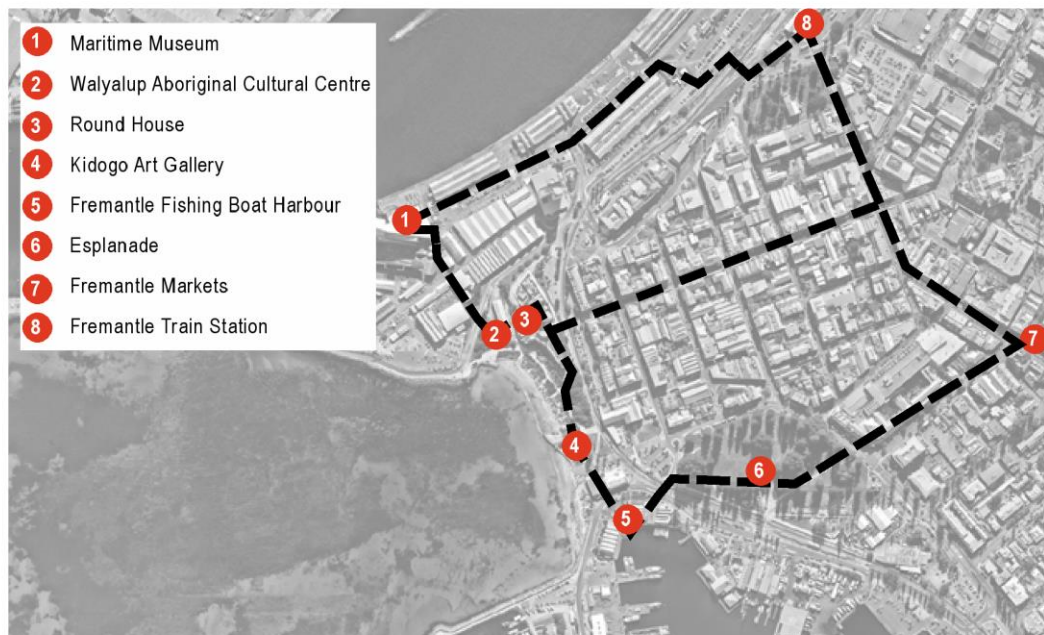


Figure 19. Connectivity



Figure 20. WACC Concept Plan



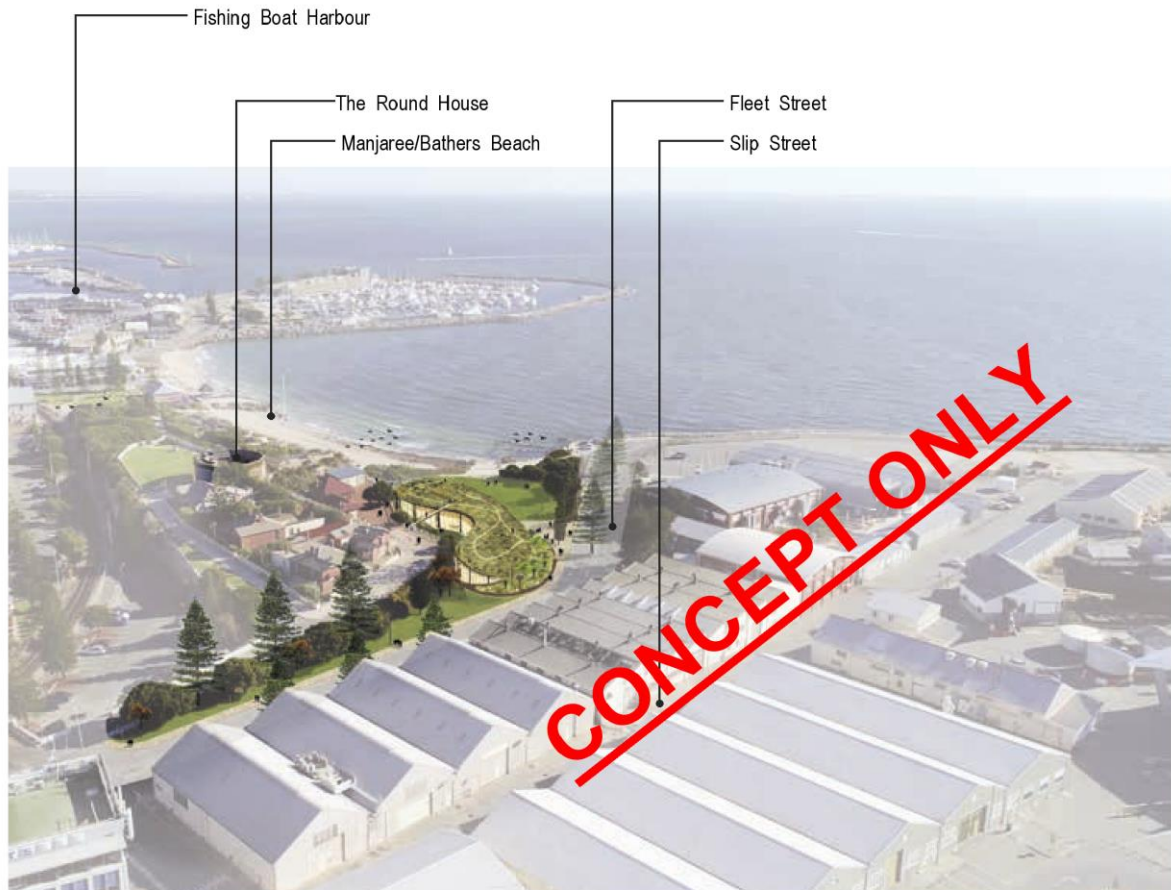


Figure 21. View looking South-West



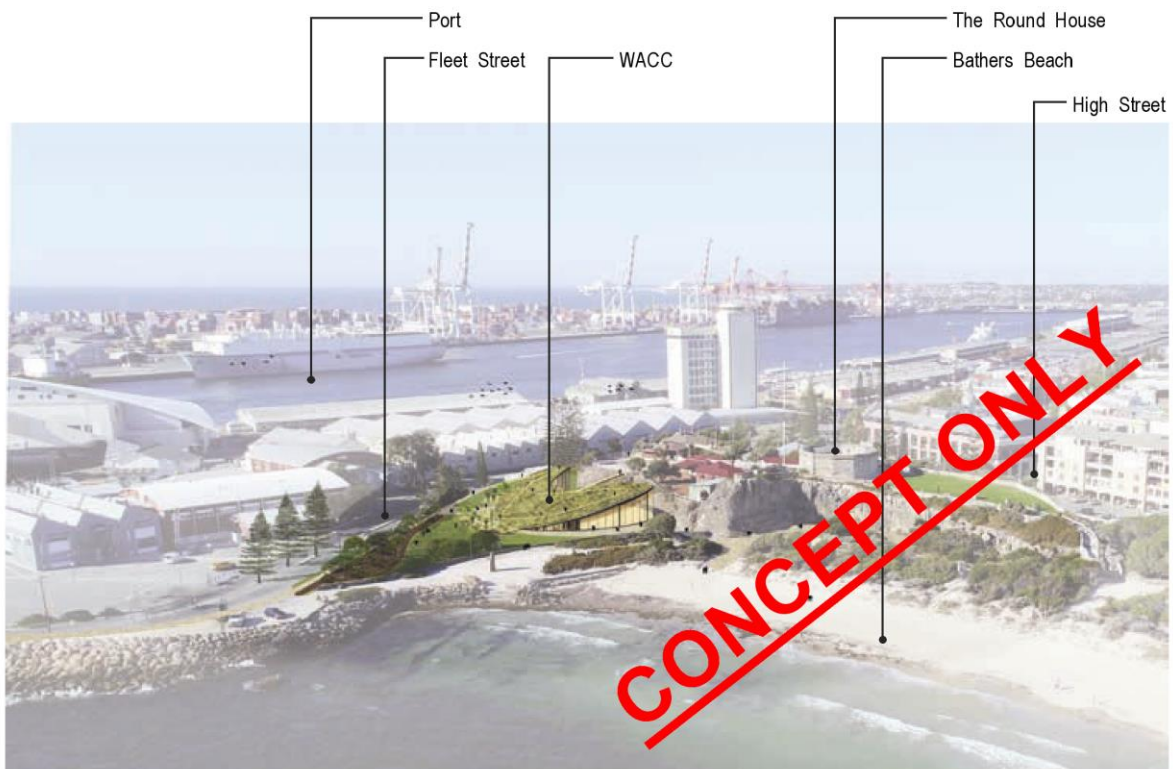


Figure 22. View looking North-East



Parking and Access

- Several large existing carparks are located close to the site for use by visitors to the WACC
- ACROD bays located close to the building
- Drop off area and service access is located at the northern entry to the site off Fleet Street.
- Main visitor entry at south end of building.

- Thought has been given to the WACC forming part of the Manjaree trail and keying in to popular routes for pedestrians including High Street and the Round House precinct. A footbridge from the cliff top close to the existing WACC and Round House allows for direct access from the Round House to the new WACC.



Figure 23. Significant car parks (in orange) close to site (in red)



Figure 24. Vehicle Access



Figure 25. Pedestrian Access



Built Form

- Proposed footprint allows sufficient space for programs identified desirable by participants to occur.
- Crescent shape creates a protected courtyard space against the cliff.
- Southern end of building has good visual connections to the ocean.
- 'Public' space located to south, 'private' space to the north.



Figure 26. Built form



Landscape

- Existing landscape (including limestone cliff, Bathers Beach and existing endemic vegetation) strongly influences the building form
- a protected 'courtyard' space is created by the shape of the building. This can be used as a private space or made accessible to the general public
- The western edge of the site has significant existing *Melaleuca* species which are retained plus additional endemic planting with both edible and medicinal plantings. The 'bush gardens' are an education opportunity for visitors as well as a relaxing space for the centre to open out to.



Figure 27. Landscape



2.4 COSTING

OPINION OF PROBABLE COST - Walyalup Aboriginal Cultural Centre **REV A**

Unverified. Excludes: Consultants fees, Civil, GeoTech, Structural, Relocation of J-Shed, Grading.

A	SITE PRELIMINARYS - CONTNGENCY	Area m2	Item	Rate	Totals
A.01	SITE PREPERATION				
	Site Preperation - not including removal of existing buildings, shuring up limestone cliff or potential soil contaminants	5250	m2	\$150.00	\$787,500
	SITE PRELIMINARYS - CONTNGENCY				\$787,500
1	LANDSCAPE	Area m2	Item	Rate	Totals
1.01	FLEET STREET PATH 3m wide exposed ag concrete path	200	lm	\$400.00	\$80,000
1.02	ENTRY LANDSCAPE Organic mulch, ground covers and tree planting	800	m2	\$550.00	\$440,000
1.03	SERVICE ACCESS Trafficable paving	100	m ²	\$250.00	\$25,000
1.04	EXTERNAL GATHERING SPACE Turf and planting, informal seating	750	m2	\$500.00	\$375,000
1.05	REVEG Remedial works and additional planting to surrounding landscape/dunes	2500	m2	\$350.00	\$875,000
1.06	ROOF BUSH GARDEN - Green Roof Landscape treatement to centre green roof	2000	m2	\$500.00	\$1,000,000
1.07	LAND BRIDGE 4m wide pedestrian land bridge with path and planting	20	lm	\$15,000.00	\$300,000
1.08	INTERNAL GATHERING SPACE Fire pit, adaptable seating, shade, feature trees, native planting	400	m2	\$550.00	\$220,000
1.09	LANDSCAPE ART/INTERPRETATION Nominal amount allowed to commence open space interpretation including green roof	2500	m2	\$500.00	\$1,250,000
	Landscape Total				\$4,565,000
2	BUILT FORM				
2.01	BUILDING (2,250m2)				
	Private (community space 250m2, 10 x studios @ 30m2 each, keeping place 150m2)	700	m2	\$10,500.00	\$7,350,000
	Transition (Kitchen/wet area 150m2, indoor flexible space 400m2, ablutions 100m2)	650	m2	\$11,000.00	\$7,150,000
	Public (Reception/exhibition 400m2, retail 100m2, terrace seating 100m2, restaurant 250m2)	850	m2	\$12,500.00	\$10,625,000
2.02	CAFÉ Decked area with small café, seating	80	m2	\$10,000.00	\$800,000
2.03	SERVICES CONNECTIONS AND UPGRADES Services (ablutions, grease trap, bin enclosure, switchboard/server/AV, store room)	2000	m2	\$600.00	\$1,200,000
	Built Form Total				\$27,125,000
	TOTAL EX GST				\$32,477,500
	Subtotal All Works				\$32,477,500
	15% contingency				\$4,871,625
	TOTAL ALL WORKS EX GST				\$37,349,125

2.5 CONCLUSIONS AND RECOMMENDATIONS

The visioning process fosters a place-based co-design approach to facility / place visioning. This participatory approach is recommended to be continued through the feasibility and development stages of the Walyalup Aboriginal Cultural Centre.

Principles

The high level principles identified are to inform the development and management of the Walyalup Aboriginal Cultural Centre.

- A place of significance;
- A place to belong;
- A place of good cultural governance;
- A place to thrive; and,
- A place to celebrate living culture.

Site

The location of the WACC has been considered through numerous criteria. The Manjaree site has been chosen due to its cultural significance, Aboriginal and non-Aboriginal heritage and walkable connection to key visitor points within Fremantle's historic foreshore. If the WACC was to develop beyond this facility it was agreed different programs could be held within other significant sites around Fremantle, including - commercial/retail at Pioneer Park, and tourism at Victoria Quay.

Programming

The programming of the centre is developed around three spaces, being public, private and transitional. These spaces allows for cultural sensitivities through to outright public display / tourism. Although programming of the centre is recognised as flexible there is a focus on 'the keeping' and 'sharing' of cultural knowledge including promotion and practising of the arts. This provides a solid framework from which the project can develop.

Governance

A governance structure has been drafted and discussed during engagement. A robust governance structure is required to be established with a high-standard WACC board, supported by an Aboriginal Management Executive. The board is to be given cultural guidance by a agreed group of local Whadjuk families, known as Cultural Advisory Reference Group (CARG). The CARG will provide cultural direction for all Aboriginal input, including non-Whadjuk operators.

Ensuring culturally respectful Aboriginal ownership and leadership will facilitate capacity building within the Aboriginal community and ensure authentic cultural experiences for visitors.

Aboriginal employment is a strong theme which is to be considered strategically at governance level.

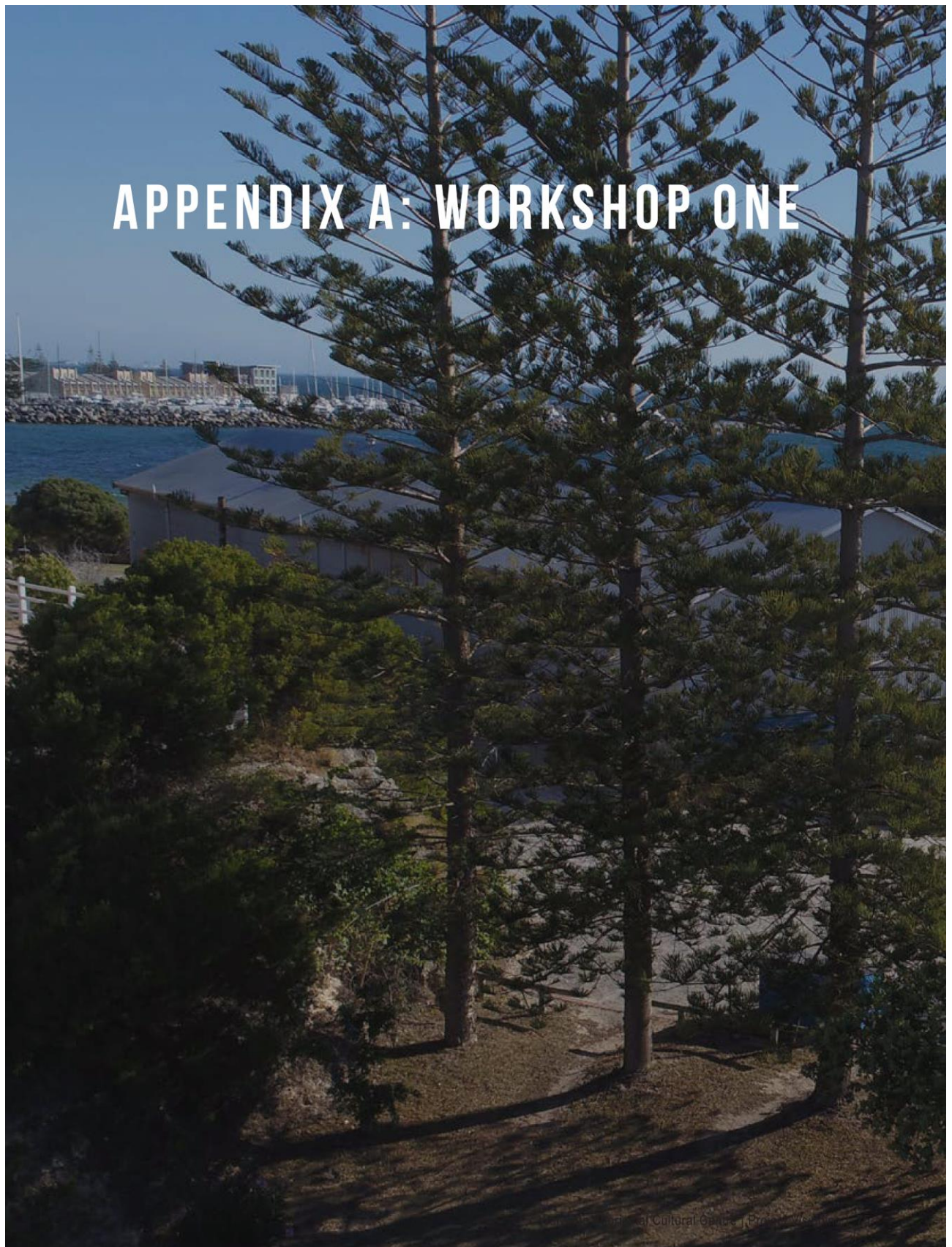
Next Steps

1. Feasibility Study and Business Case;
 2. Site assessment including geotechnical, environmental, structural and coastal hazard assessments;
 3. Heritage investigation of both the cultural heritage and J-Shed building;
 4. Management and operational planning;
 5. Design and Construction.
- Funding investigations can occur alongside 2, 3 and 4 above once the feasibility study has been completed.

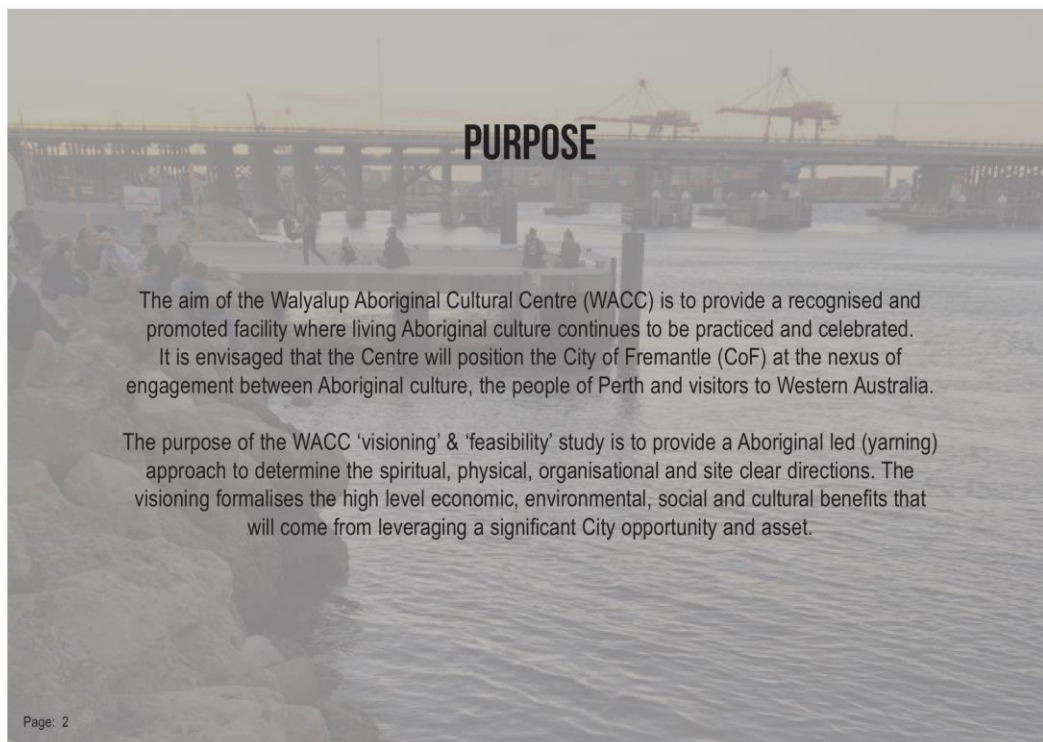


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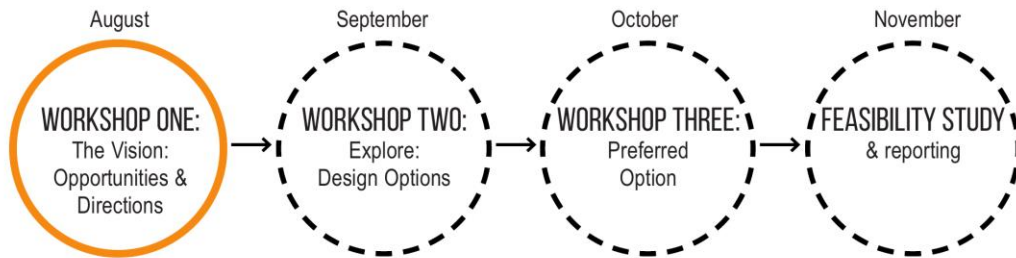
**ATTACHMENT 2 INDIGENOUS CULTURAL CENTRE VISIONING REPORT
APPENDICES**



WORKSHOP ONE GUIDE



PROCESS



Page: 3

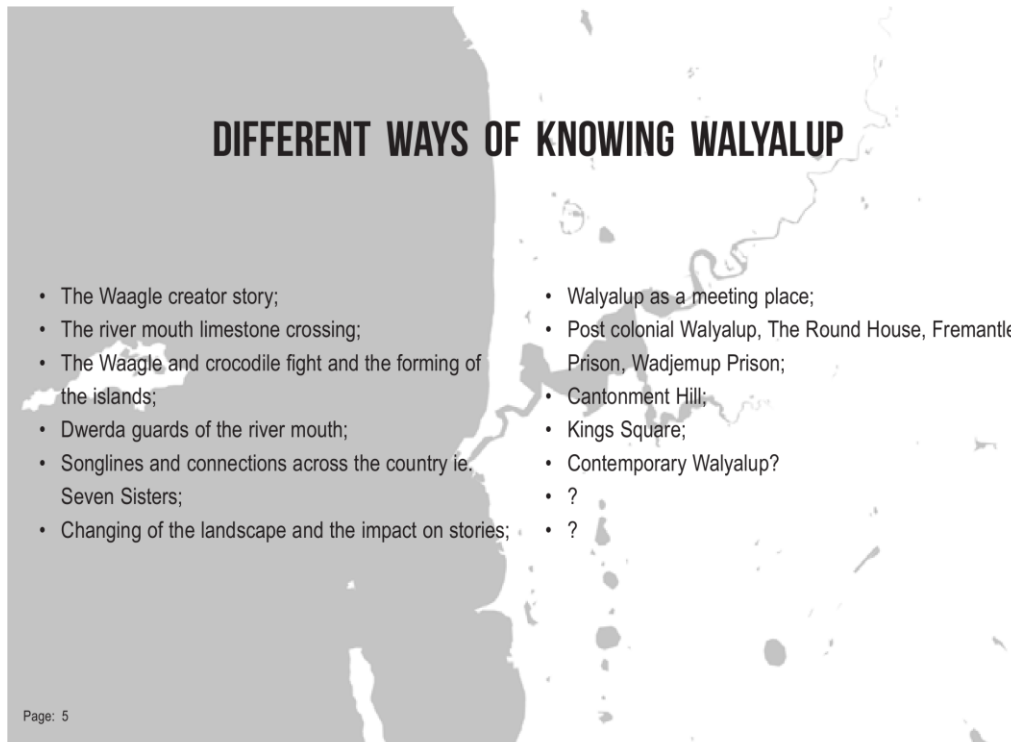
VISIONING

VALUES	VISION	MISSION
<p>What is important to us?</p> <ul style="list-style-type: none"> • Recognition of Whadjuk Noongar Boodjar • Inclusive • Connection to the water • Recognise and celebrate the significance of Walyalup • ? 	<p>What can happen in the future?</p> <ul style="list-style-type: none"> • Provide a service to the community • Be a safe place for Aboriginal people • ? 	<p>How do we get there?</p> <ul style="list-style-type: none"> • Create a Walyalup Aboriginal Cultural Centre in a suitable site on the Derbarl Yerrigan • ?

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Walyalup Aboriginal Cultural Centre | Project Visioning | 77

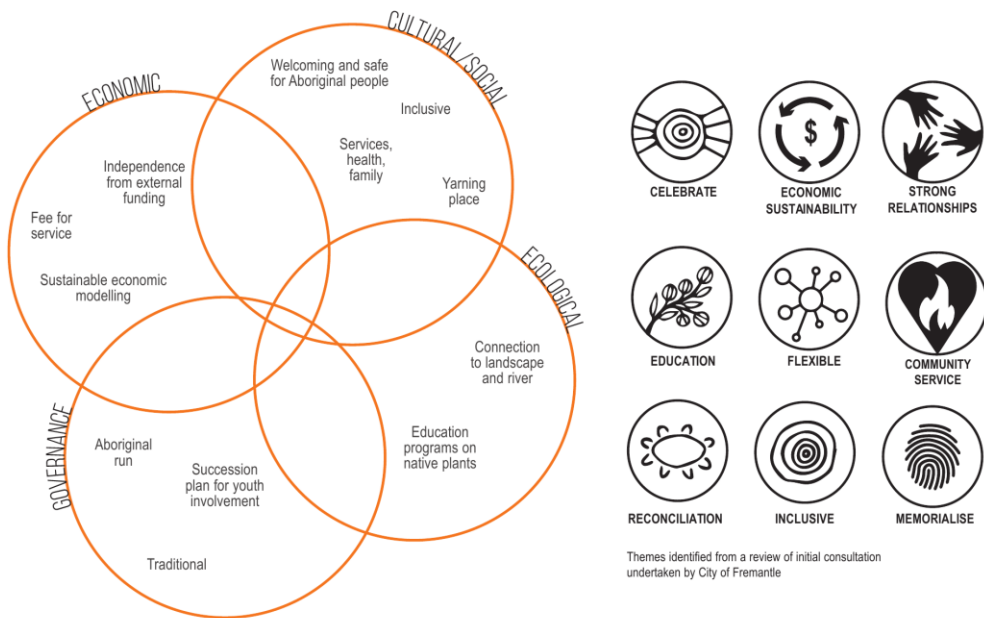
DIFFERENT WAYS OF KNOWING WALYALUP



- The Waagle creator story;
- The river mouth limestone crossing;
- The Waagle and crocodile fight and the forming of the islands;
- Dwerda guards of the river mouth;
- Songlines and connections across the country ie. Seven Sisters;
- Changing of the landscape and the impact on stories;
- Walyalup as a meeting place;
- Post colonial Walyalup, The Round House, Fremantle Prison, Wadjemup Prison;
- Cantonment Hill;
- Kings Square;
- Contemporary Walyalup?
- ?
- ?

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WHAT IS MISSING IN FREMANTLE?



BURRUNJU ABORIGINAL CORPORATION, CANBERRA ACT

- Established to provide local Indigenous people an opportunity to realise their dream of self determination;
- Emphasis on art and music.
- Studio space;
- Gallery space;
- Recording studio;
- Host to and Elders group, diabetes group, carer program, art workshops;
- Various one off events ie. NAIDOC and spaces available for hire by the community;
- Consignment services for marketing, sale and leasing of Aboriginal art and craft;
- Link to walking trails in surrounding bush

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MURU MITTIGAR ABORIGINAL CULTURAL AND EDUCATION CENTRE, CRANEBROOK NSW

- Aims to create better understanding of Aboriginal culture in the wider community, create new jobs, develop skills training and increase economic benefits or tourism;
- Originally funded by federal government, now is entirely self-financing through fee for service;
- Native nursery and seed bank on site.
- Land care consultation services and training;
- Community Finance Hub service;
- Offer cultural awareness (corporate), school programs, teacher's professional development.

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Walyalup Aboriginal Cultural Centre | Project Visioning | 79

NARANA ABORIGINAL CULTURAL CENTRE, GEELONG VIC

- “Narana” means Listening and Learning, it is this concept of “Listening and Learning For Life” which underpins Narana’s mission to be a destination for cultural education and tourism activities which promote greater understanding of Aboriginal Culture and history;
- Authentic, immersive, cultural experiences;
- Art gallery, cafe, retail, native garden trail;
- Cultural education programs for schools and corporate. Emphasis on hands on participation.



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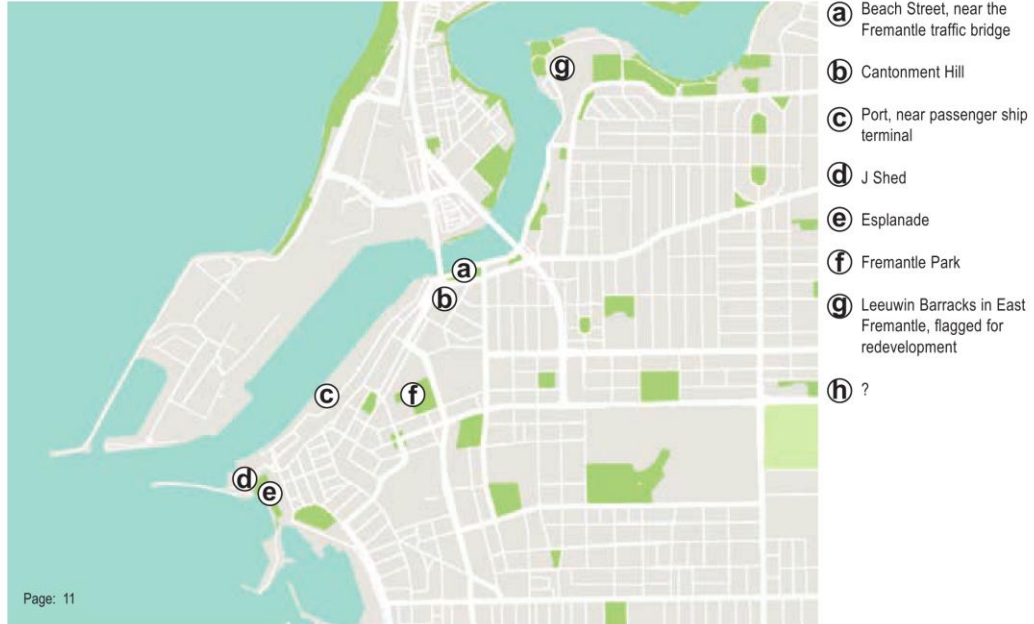
TJAPUKAI, CAIRNS QLD

- Tourism oriented, aimed at providing a deeper understanding of Aboriginal heritage;
- Cultural experience with performance, dance, food and arts;
- ‘High input’ structure;
- Landmark building and grounds;
- An accessible alternative to going out to country;
- Largest Indigenous employer of any tourism enterprise in Australia.



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POTENTIAL SITES



NEXT STEPS



WORKSHOP ONE NOTES

Date Name: Ayleece Blurton
13-Aug

Location
North Fremantle/Mosman Park

Page Comments

1 Values

Nyungar language, Our culture - our stories about our Dreaming, dance, toolmaking, smoking ceremonies, welcome to country. Our land - our birds are our messengers, hunting, artwork, water.

2 Vision

A Place that has our history, Aboriginal clothing ie bookas, hunting materials, artwork, a place to showcase Nyungar dancing, a chill out corner to come and sit and relax, a computer room for Nyungar people to do their business ie Centrelink etc, a sports area to shoot hoops, pooltable ie recreation room for everyone, vending machines, damper making classes, face painting classes, playgroup for kids, retail shop, medical services for Aboriginal to visit the Doctor or podiatrist, ablution block for visiting Aboriginal people or homeless to have a shower, accommodation for people with no place to sleep, breakfast/soup kitchen, need a kitchen/cafe lounge, volunteers, donations, sponsors. It should be a place for all Aboriginal people from all parts of the land. A business for employment services for Aboriginal people, An Aboriginal business to help with driver training, helping to resolve fines enforcement problems, creche so mothers can attend classes ie painting, language classes, search for employment on the computer. Attend courses at the Centre. The Centre should be run by Nyungar Elders and youth. All Nyungar and Aboriginal people to be employed. The Centre should be given a Nyungar name - I like words boodja.

3 Mission

A centre near public transport. Near the river but have lots of land for our native plants. Cantonment Hill is my preference and then the Leeuwin

Name: Betty Garlett
email:

Location
South Fremantle

Comments

Values

Centre for belonging; connection to stories of Fremantle; recognition of the Nyungar families connected to Walyalup;

Vision

Mission

Conference room; offices, social events such as weddings, funeral service, wakes.
Services such as Centrelink, DCP, Department of Housing; Community/Child Health; Street Doctor (Mobile vans) ; Playgroup, storytelling; Workshops for cultural activities such as tool making, Shop/retail; Run courses ie driver training, Nyungar language classes; Art Gallery, Cafe - bush food, bush medicine; Yarning Place ie fire-pit, tourism ventures (1st point of contact) TVs around the gallery showing events for the day like they have a departures and arrival monitors. Run by a Nyungar and Aboriginal committee
I looked at the map and Cantonment Hill would be perfect for the Aboriginal Cultural Centre

Date Name: Bindi Bindi Dreaming
Robyn Maher and Marissa Verma

Page Comments

We are long time residents of the Fremantle are for a long time both as a participant and running workshops in partnership with City of Fremantle in continuing to share our culture. There have been some really great community leaders in delivering programs. But they have come and gone too quick. Which makes the momentum slow down. Our community then loses it trust.

Fremantle and it surrounds has always been a place where Aboriginal have gathered as families and for community events. These again have changed over time.

I think we have to re establish and gather and let you know what Fremantle means to us.

I feel Wardanji is way out of town. I loved it when held at the Esplanade as this was a place I spent sitting and eating fish and chips when I was young with my family. Fremantle Arts Centre has no place in my heart. I've only been to 2 Wardanjis there and have not gone back.

I feel there is no place our community can go and gather and feel at home, the now Cultural centre again I have attachment too even though I've tried to host workshops which many people attended but no Aboriginal people as there is no parking around the centre. This is a deterrent for our community.

A new centre just like Northam would be amazing. There have been many a talk about Cultural centres being built in and around Whadjuk, at City of Cockburn, which I've not heard if still going ahead.

I'd love to see language present, audio recordings of stories, seasons, footprints, artworks. Guided tours in and around the area sharing our culture. Lots of interactive workshops. Artists showing art, weaving, cultural activities. If space a bush infused cafe showcasing our yummy foods. Dance space. Stargazing at night with fire pit. We need a presence, at present there isn't anything. No centres except WACC but none of our people are visiting or visible.

I'm not sure of where it would go but in a spot where people will visit and we are visible. OUR PREFERENCE IS THE ESPLANADE

Hope this will be captured in the project.

Date	Name: Brendan Moore 17-Aug 11:30am 1:pm	Location Fremantle
------	--	-----------------------

Page	Comments
------	----------

1 Values	<p>River, natural environment. People, families and their stories, knowledge and Nyungar values like Respect, Traditions and History ie sharing the colonial history and the contemporary history. There is a unity about this. It creates a bond with one another and we can identify with each other through our stories. We value contemporary culture (Coff) ie contemporary artists challenging traditional culture but still respecting cultural heritage.</p>
----------	--

2 Vision	<p>Aboriginal Cultural Centre - Number one destination in Fremantle. Self sustainable. Paying fee/entry fee - Museum scale. Cutting edge architecture using local natural products ie limestone, wood, rustic steel, glass; the building itself you will want to come just to see the visual aspect because it is appealing. Aboriginal employment. Capacity to provide the community with some local Aboriginal business development ie art classes, language classes. Cultural section ie displays, stories - static section. A dance floor for Aboriginal performance and listening to didgeridoo music, theatre room, shop floor full of textiles, clothes, bush medicines, bush foods, artefacts; Cafe that offers food and beverage; With the entry fee you get access to shows, performance, language classes etc.</p>
3 Mission	<p>Is to secure a site that can cater for all Aboriginal people. Improve their social cultural and economic status.</p>

City of Fremantle:
Fiona Hodges
Beverley Bone
Philip St John
Hannah Fitzhardinge
Rachel Pemberton
Jenny Archibald
Brendon Moore

	Location choice and timeframe is dependent on each other
	Jshed: Reasonably short term
	Victoria Quay: Long term
	Pioneer Park: Medium term
Location	Scale will determine site
	Can it be State significant but also service local community?
	Fremantle is significant, 1st contact, the gateway, Fremantle was at the centre of the ripple effect of colonisation, it can be at the centre of reconciliation as well.
Significance	

Name: Vivienne, Russell and Morton Hansen

Values	<p>A place to 'belong', a place for first contact with Noongar people</p> <p>Inclusiveness</p> <p>Sense of belonging</p> <p>Safety</p>
Vision	<p>Live performances, makes it exciting</p> <p>Not a museum</p> <p>Mia Mia references in building construction</p> <p>One room, walk around and know all, maps of all the language groups on the wall and some artefacts from each group</p> <p>Multi-functional</p> <p>Noongar artwork rooms, not dot paintings</p> <p>Room dedicated to all things Noongar ie clap sticks, artwork, stories</p> <p>Telling the truth about our Noongar artwork</p> <p>Traditional stories, then move through to the contemporary</p> <p>Our history, stories told by us, not the wadjella story</p> <p>Wadjemup story</p>
Governance	<p>Run by Noongar people</p> <p>Aboriginal employment</p> <p>Not one family to own it</p> <p>Have one rep from each family clan group</p> <p>Living Knowledge Centre</p> <p>Govern to the Constitution</p> <p>Noongar to develop framework of respect</p> <p>Offer school based training</p> <p>Give pride to your people, role models for youth</p> <p>Outdoor space for cultural programs</p> <p>Small theatre room</p> <p>Yirra Yaakin to do their plays</p> <p>SA, room where chair flat pack and raise into ceiling cavity</p> <p>Rotate cultural programs</p> <p>Small business support, encourage growth ie bush medicine then selling in shop</p> <p>Entry fee for tourists (\$5?)</p> <p>Coach operators to bring people to the Centre</p> <p>Parking</p> <p>Performance area with toilets/showers</p>

	<p>Some people think it is 'unsafe' to to be around a black place! Mkae sure it is safe. Bring all cultural performances to one place Fremantle is the central place to 'access a product' Promote the Centre at international expos People want to experience unique performance, visual spectacle ie Billy tea, damper, dance, fire</p>
	<p>Centre never to be closed ie for funerals Daily shows at aset times send invites to cultural dance groups each month to perfomr format a script to run show interact with tourist operators, they can bring in lots of tourists Other programs: story telling, find a story teller, liver performances, tool making, art glasses, theatre, not too much technology 'hands on' education. People say Battle of Pinjarra etc but we say Massacres</p>
	<p>Pre colonial history, contact, contemporary- shared history rang of 101 classes, language, Noongar history, Noongar Bush Medicine Fremantle, water/ocean-river</p>
Site	Esplande, Port, South Fremantle Oval
Name:	Jillian Dewar
	<p>Centre in Perth, Swan River on country so people don't have to travel to Northam. If tourists want to look at culture they can do here, there is a desire by tourists. Swan River, connect to water Water- a meeting place, it is were the Waugal travelled - spiritual Noongar did traditional dancing, trade, hunting, living????? At these places near River. Fires, hunting, camps, buh tucker, YG?, Nyingarn, Korda. Families healing together Fremantle is a place where everything happens now. Food, sea air Sense of belonging, it is a very "spirit" place Mum had a dream - all the wirrin came to her talking in Noongar, before she went to Rottnest</p>
Values	<p>Stories of Fremantle Noongar dreaming, stories, out history, seasonal travel of Noongar people 'our stories' Food - café/kitchen Firepit- yarnning, listen to stories in Noongar language, dancing, language classes funerals, wakes, hire of kitchen carve emu eggs, artwork, tapping sticks, wanna sticks, boomerang, coolamans, message sticks, screen priting</p>
Location	Esplande or Port

Date Name: Karen Jacobs
17-Aug

Location:
Mandurah/Coodanup

Page Comments

1 Values

recognising and having an understanding W people here first and we had extensive use of the area it was not just locations we made use of water and land and there was fishing and farming practices to bush medicine ceremonial sites law grounds and permanent living. how those values still continue and how they are practices and remembered today

2 Vision

3 Mission

cultural facilities - vision suit the purpose set by Aboriginal people for the wider community a social purpose educational purpose economic is a whole plan to be set what is the strategic place of the centre for the future but stand alone for the next 50 years and then to repurpose whatever fits aboriginal people at that time. we are going to be different our aspirations will be different. Has to be inclusive of all Aboriginal people but decisions by Whadjuck descendants for all Aboriginal people. For white people too. Does the centre in order to attract govt funds fit the purpose of a charitable trust for charitable purposes 1*legal fiscal responsibility. Educational facility; storage facility for cultural materials or a knowledge centre. Artefacts to come back to the local area. Nyungar cultural educators employed. Knowledge Centre is a cultural centre fa place to receive heritage information about first people;s, a facility to store items of significance. a place where people come and do workshops, art, some centres have health facilities but we have those it is really filling in the gap talking about out intellectual knowledge and environment values and concerns. Our Fremantle stories what is specific bring in the connection to water. it is about the spiritual significance of water we are about fire and water. what the land looked like prior to colonisation ie maps, 6000 years ago. what was important. Rottnest should feature in the centre it should be that point of confection even garden island peron what is the butterfly dreaming, the dwert, crocodile dreaming. marine diversity talk about fishing fish traps in that area. so then bring in the 6 seasons when was it time to fish, harvest, native grasses, whatever the farming practice was. Can we find this out and showcase it at the centre. gp to recording to complete. see recording of karen on this statement Six seasons only one aspect of culture

The spirit
The kiship system
Six seasons, law and governance etc

vision

The wirrin governs what happens in the boodjar
Look at time frame to become financially sustainable
Keep practicing the values that would have happen on country
Understanding the spirit of Walyalup, the land, the water, what sprit is contained in that land
must serve the purpose, CoF should not be determining the purpose of a cultural facility, must be done and said by Aboriginal people, and the wider community

Services

social purpose, educational purpose, economically independent, what is the strategic focus, and what role will it play in the future. Look beyond 5 years. Must be stand alone over the next 50 years. Might need to be re-purposed after that time, dependent on Aboriginal people's needs, will be very different people in 20 years time, aspirations will be different. Therfor centre needs some flexibility around strategic focus changing over time
Inclusive, all Aboriginal people, Whadjuk led but the benefit of the centre will be to everyone, including non-aboriginal people
Does it need to maintain a charitable status? Legal and fiscal responsibility that may attract funds from a variety of places.
1. Educational facility - number of portfolios ie storage facility for cultural material, knowledge centre, artefacts can be returned to the local area. Interpreted by Noongar guides
Heritage information on 1st peoples, storage of significant items, place for workshops or art,

health centres already catered for, focus should be on cultural practices, environmental values and concerns
Fremantle stories, what is specific to the Walyalup area, connection to water. Survival and spiritual aspects to Whajuk.
Fire and water
What the land looked like pre colonial history, landscapes, what was important, connection to Wadjemup and the islands. Drealing stories, butterfly, dwert, crocodile. Fishing, where were the fish traps set. Six seasons, what did they mean in this area, fishing, harvesting, what were the farming practices.
Multipurpose function centre for everybody
Space for hire wakes
What was our customs in birth and death?
Noongar spirits over the ocean to Kooranup

Commercial kitchen, boutique services, bush aromatherapy products, medicine, tucker, art in a commercial way

Make some professional spaces available, but don't duplicate things the government are already covering. A cultural centre doesn't need to improve on all these things.

Site

Focal point should not be decided by CoF. If there is limited space, push into other gov areas along rivers edge? And relocated other businesses if needed.

Mission

Cultural centre charitable purpose thereof for the whole community, Whadjuk, Aboriginal tourists, wider community. Not for Profit centre and maintain strong cultural values.

Name: Len Collard

Location:

email:

Comments

Governance model: Values framework. The bosses to take responsibility of being bosses ie Boodjiya moort talk first about what it is they want and how they go about business on governance of the resource centre. A workshop to be held with all boordiya Walyalup Whadjuk moort about how the governance model framework should be developed, how the policies and procedures are developed and how it is managed and run. The trilogy of moort, boodjar and katitdjin of Walyalup. How can the sense of place be unpacked through an engagement with the Walyalup Whadjuk bosses only sitting down. There will be a role for Whadjuk mob to have a conversation with broader community and then go out to other Noongar groups to come and sit down so that when we do our centre we want to network and link in with other Noongar about boodja moort and katitdjin what does a sense of place mean. Who does the paintings, who has the stories, who does the oral histories and who does the dances, cultural activities, WTC, tours on country etc. When the consultation occurs the key headings for workshop would be ie Ngeern Noonar Moort - who are your family and kin? Good governance is a serious business we need to have inclusivity but not at the governance level. The principles and protocols and practices need to be mapped out. ie the framework would include respect, reciprocity, culturally safe space for the TOs; the TOs have a responsibility to care for the outsiders ie Torres Strait Islanders etc as long as they abide by Whadjuk law and culture. The City of Fremantle has to recognise the Whadjuk Walyalup boordiya moort to develop the governance model. Moort -The governance of the centre will always be governed by Walyalup Whadjuk Noongar people. This needs to happen as a priority as part of the decision-making about the initiative of a Walyalup Aboriginal Centre. The main focus is Walyalup stories and significance of the place, cultural connection, language, photographs, historical literature is around Walyalup stories. The rivers, swamps, ocean and surrounding districts ie Pinjareb Noongar travelled up through the swamps and lakes to Walyalup to connect with moort and to do ceremony and hunting and gatherings. Boodjar - Sites in Walyalup to be acknowledged and identified by their Noongar names ie our language is the primary source of inspiration and information or katitj. Where are the boundaries of Walyalup boodja, look at the nyittiny or dreamtime. What happened how Walyalup came to be? Manjaree is the - gathering place of the peoples to meet their in-laws, husbands and wife and to reinforce familial relationships. Maybe we need to change the name from Walyalup to Manjaree.

a world class destination for overseas visitors. An interstate destination for visitors and for intrastate visitors. World class practice around cultural values, etc. A must go to destination in Fremantle for everyone. It would offer a cultural experience, cultural activities such as dancing, music, art, poetry, cuisine food, visual aids, interactive displays and activities, international class restaurant, bar, movie theatre to show Walyalup Noongar documentaries, stories ie Weewar. Cultural tour operators with office space at the Centre, other businesses to rent office space, medical, legal, health services. A place where small business operators can operate from.

Three sites. The main site for the centre in priority order is Esplanade because it is in the vicinity of the Manjaree. The Barracks, the Harbour. An inland swampy site - visitors can check out the wildlife. It would be a Whadjuk Walyalup interpretative trail. Nyungar tourist operators to take visitors there. So we have a river site, swamp site and then a coastal site. These all include these ie river, coast and inland.

Name: Scott Chisholm

Background

currently running cultural tours at the WACC and working on capacity building at the WACC with the Freo Council (he is employed to run the tours through the council)

Comments

Culturally appropriate location and building
 Self determination and stand alone facility- not slotting into existing setup at the Jshed
 Fremantle as the heart of tourism can become the heart of cultural tourism
 Cultural centre as the departure and arrival of cultural events and tours. Also the relationship between cultural centers in Perth - Fremantle as the main center, with links out to secondary centers.
 Linear Progression of time / experience when entering the center - nyitting - colonisation - now (ecological science) while still sitting within a circular / cyclical culture
 Continuation of living knowledge - not just about the past 'traditional' aboriginal culture
 Center to accommodate and celebrate all aboriginal culture and people, not just Nyoongar
 Tjapukai cultural center in Cairns, something similar here with a building but a strong relationship with landscape - not just a traditional cultural center that is an inward looking building
 This place should be about walking in two worlds, about empowering the local people to take charge of their own culture their way
 Cultural programs to be run from the center, by appropriate facilitators
 Close proximity to the river and natural bushland
 the RAP needs to provide a good framework and governance structure that the vision and aims of the WACC can then sit under - to ensure outcomes are achieved
 This place and process is about walking in 2 worlds, inclusivity, sense of place and belonging

Meeting notes

Time/Date: 10.30am – 12pm, 29 June 2018

Attendees: Gail Beck, Sandra Harben, Jo Thomson

Location: SWALSC Cannington

- Sandra introduced project we're working on
- Gail: The Freo Conciliation Document's (2000) approach was to include all Aboriginal and Torres Strait Islander peoples in Fremantle.
- Freo Advisory Group (now Fremantle Elders' advisory committee) – later changed to Noongar people, representative of less number of people.
- Needs to be inclusive of all Aboriginal and TSI people.
- With regard to the Freo cultural centre, need to revisit what the objectives of the Elders are.
- Noongar/Whadjuk to be the host nation, but inclusive of all.
- Conciliation report – interviewed/consulted 300 families, door to door surveys. Lots of talk of a 'sense of place'.
- Noongar only family-run centre won't work.
- Need to be mindful of native title agreement.
- Needs to have young people ownership so that they can step up and manage the place in the future.

Sandra question: What opportunities do you see for collaboration and partnership?

Elizabeth Quay:

- 2009 – Gail's paper on the cultural centre in Elizabeth Quay. Three rounds of consultation, led by Richard Walley and the Department of Planning (predecessor to MRA/Landcorp).
- Aim was to be a state wide centre, not a Noongar centre.
- Gail lobbied for entrance – had to be Noongar, have a Noongar welcome. Also asked for conference room and Whaduk corporate space which was not accepted. It was agreed that Noongar could have the entrance and give a proper welcome.
- The aim of the Elizabeth Quay centre was to showcase everything Aboriginal in WA.
- After report completed, nothing happened.
- *Who was involved in report?*
- Irene Stainton, Richard Walley, Janet L., Gordon Cole, David Collard, Carol Innes. Broad representation of individuals.
- Stepped back because not for Noongar.
- May be off the table, but need to clarify this. Is Freo to overtake this plan?

Noongar Cultural Centre:

- In 2011 the Noongar cultural centre came up in negotiations with the State. Allocated funds for Noongar cultural centre. 2 hectares and \$10 million. Still on agenda.
- Elizabeth Quay and the Noongar cultural centre are different projects.
- Hassell architects have drawn up concept plans for Noongar centre. Gail showed us the plans.
- Armadale (Champion Lakes) and City of Swan also talking about a cultural centre.
- Incorporated key Noongar principles.
- Initially planned for where the new stadium is located near Burswood. Location now gone. Matagarup bridge original part of Noongar cultural centre design.
- Other possibility for location is the DPAW bushland forever site near UWA.
- Perth Noongar Cultural Centre is still on the table.
- PNCC has to be profitable - \$ put aside for PNCC.
- Planned to have accommodation/hotel next door to make income.
- Designed with Theatre and performance space.
- Potential to move all Noongar collections from the WA Museum to PNCC.
- PNCC will be home to the Whadjuk Regional Corporation.

Comments on Fremantle cultural centre

- The diversity of the Fremantle area needs to be taken into account – better to celebrate diversity.
- Don't take away from Noongar's dream of Perth Cultural Centre.

- Other cultural centres need to be money-making. E.g. include:
 - Shop
 - Hire of space
 - Local artwork sales – small % of sale to centre to sustain centre
- Need to make sure centres don't compete with each other.
- Could generate conflict competing for business.
- Potential to tell Melville's Aboriginal history.
- Focus Freo on first impacts – lots of stories around Freo and Melville area – Freo stories and the story of survival.
- Focus on diversity of peoples in Freo community.
- Focus on Beeliar mob, stories down to Rockingham and Kwinana (broader Fremantle region).
- City of Cockburn, Melville, Fremantle, Rockingham and Kwinana. Footprint of Beeliar mob.
- Tourism out of Kwinana, Islands, Bays etc.
- People historical to site but not Noongar, sat with Noongar people who shared their stories with them. Uniting mob post Native Title.
- E.g. stories of women working in bars in Fremantle. City of Freo should have a number of these stories already recorded.
- Freo needs to build upon maps of places and stories of that region.

Comments on location and content of Fremantle cultural centre

- Needs bush
- User friendly for Aboriginal families and communities
- Outside:
 - places with activities,
 - Open areas for bbqs, gatherings etc
 - health and wellbeing focus
- Inside:
 - show case history in region, opportunity to create change.
 - Need businesses in there (rent)
 - Meeting spaces, e.g. board room, conference facilities
 - International conference facilities
- Needs to be accessible to transport
- Needs space to allow for a sense of place

Governance structure

- Needs experts to run a facility, hope Noongar people involved.
- Noongar people need ownership
- Clarify who this centre will be for – the Council, Aboriginal people or visitors/tourists.
- Need experience to run for profit, need strong governance.
- Need carpark

What opportunities do you see for the Freo cultural centre?

- Freo inclusive cultural centre on history of Fremantle
- Point of Difference by celebrating achievements in Fremantle region
- Links with other cultural centres, e.g. Armadale, City of Swan
- Could have swaps of exhibitions between other cultural centres, direct people to visit other centres
- Freo can use local community to run the Freo centre.
- Tell the collective stories of Aboriginal and TSI people who moved to Fremantle, they are part of Freo and its story.

Name: Robert Taylor (CEO) and Di Below (marketing manager)
WAITOC

Repurposing of the current WACC, might just be exhibition space or youth space. Workshops get a lot of interest.
Huge market for asian visitors particularly Chinese. 1-2 hour workshop sessions indoors.
Demand for ART LANGUAGE and BUSHFOODS/MEDICINE
Gap in the market to cater for large groups, eg tours or school groups for art, music and language
Dance and performance, take into account school times for performing kids. Potential for regular scheduling.
Function space multi purpose eg gallery/events/theatre
Theatre showing aboriginal films, doccos. Charge a fee, always screening and can be unmanned.
Outdoor space important
Outdoor movie nights
markets
licensed area
indoor/outdoor space
Engage the 5 senses touch, taste, smell, sight, sound
Act as a hub/meeting place for other aboriginal tours, bus pickup/drop off/internal workshops
Passing on skills to younger generations, vistors can view classes and maybe have a go. Earning a fee as well as providing a teaching service to youths and experience for tourists.

Comments

Interactive museum/stories like ANZAC centre in Albany, follow an elders story
Monthly displays on different language groups, lending of itmes for that month
displays/activities change with the 6 seasons

Museum/keeping place

Auckland airport wall installation
Albany ANZAC centre
Lines in the Sand (re)making contact

Precedents

Must be in a prominent position, easy to find and walk in.
Esplanade would be ideal to get walk ins as well as tours.
Jshed has potential. Opportunity to develop an interpretive trail
to lead people from the High Street and Roundhouse area around
the headland to the J Shed. Whalers tunnel could become an
intro/entry with lighting/video/sound

Marketing/Exposure

Tourism WA and Curtin currently undertaking a research project
into Chinese market

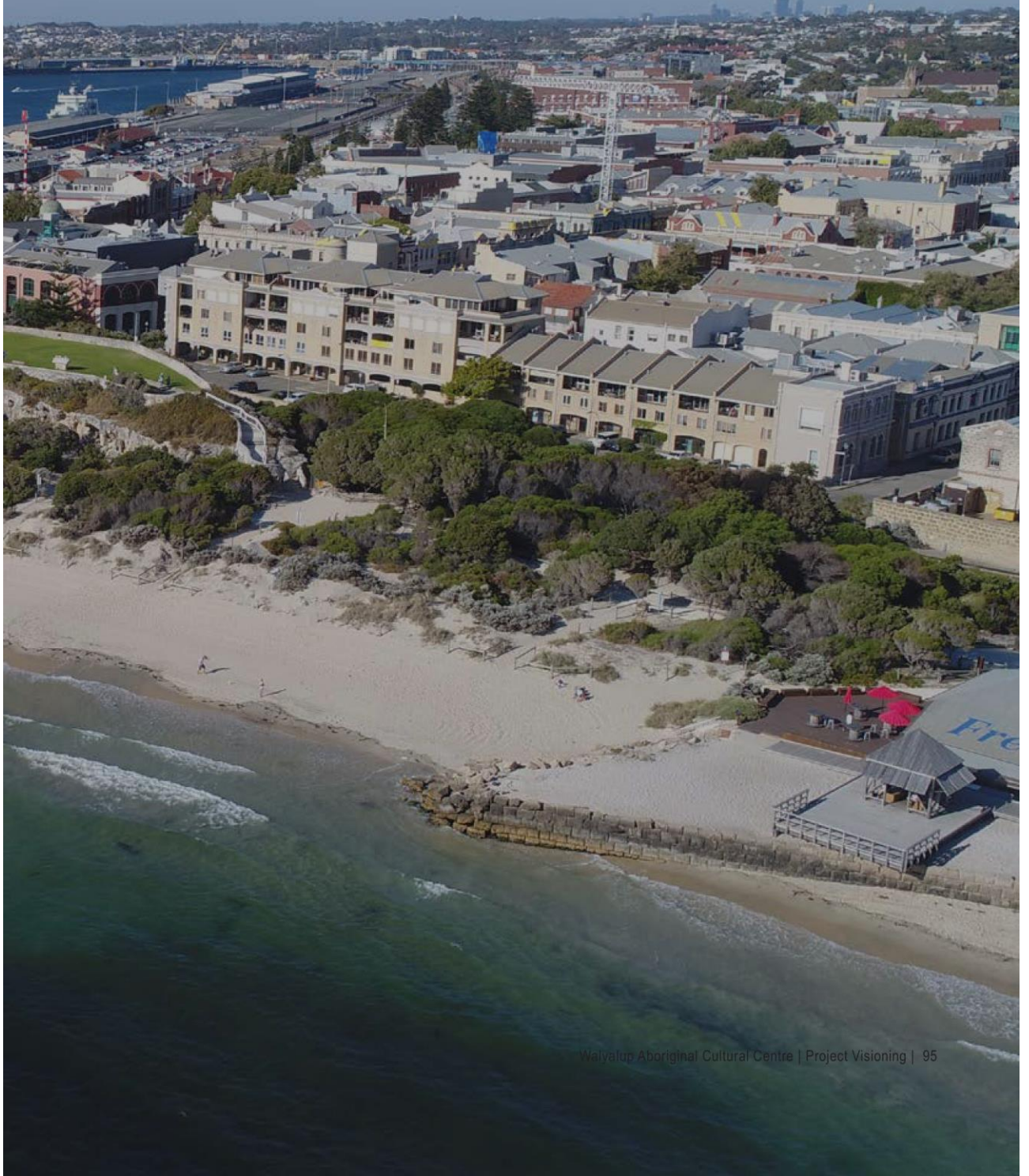
WAITOC will refer Aboriginal tourism programs to tour companies

To buy authentic art from Aboriginal artist

Gaps/interests

Tafe training in F&B industry
Tour Groups, School Groups, Walk ins and Locals

APPENDIX B: WORKSHOP TWO



Walyalup Aboriginal Cultural Centre | Project Visioning | 95

WORKSHOP TWO GUIDE



Page: 1

PURPOSE

The aim of the Walyalup Aboriginal Cultural Centre (WACC) is to provide a recognised and promoted facility where living Aboriginal culture continues to be practiced and celebrated. It is envisaged that the Centre will position the City of Fremantle (CoF) at the nexus of engagement between Aboriginal culture, the people of Perth and visitors to Western Australia.

The purpose of the WACC 'visioning' & 'feasibility' study is to provide a Aboriginal led (yarning) approach to determine the spiritual, physical, organisational and site clear directions. The visioning formalises the high level economic, environmental, social and cultural benefits that will come from leveraging a significant City opportunity and asset.

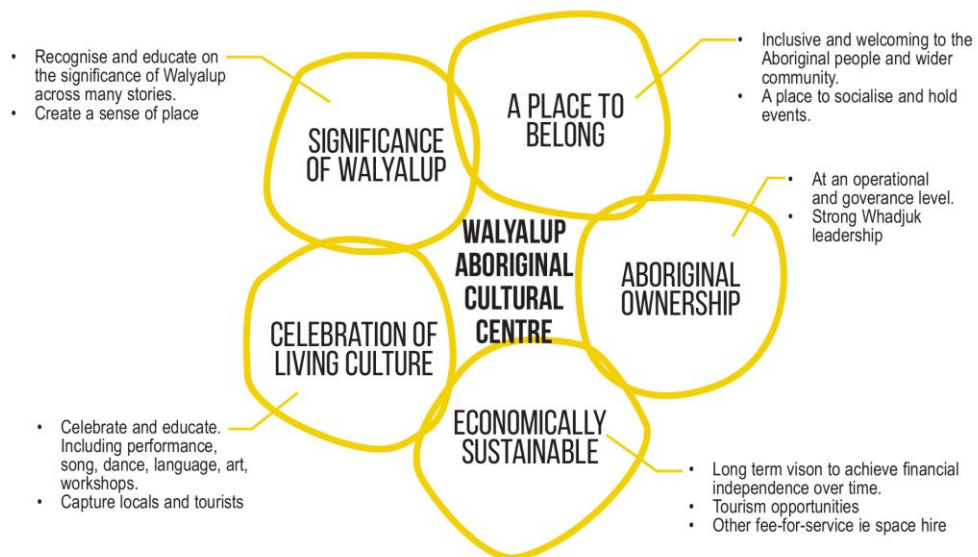
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PROCESS



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KEY THEMES IDENTIFIED FROM WORKSHOP 01



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PROGRAMME



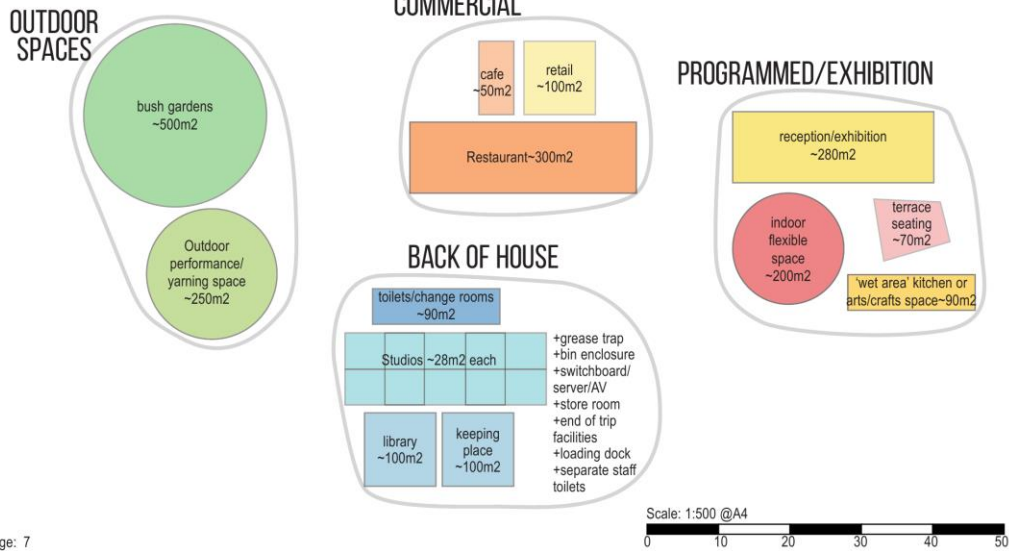
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PROGRAMME



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WALYALUP ABORIGINAL CULTURAL CENTRE KIT OF PARTS



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SPACE STUDY - FLEXIBLE INDOOR SPACE

~200m2

- Large open space able to be used for workshops, lectures, events and more
- Should be connected to an outdoor space and potentially a 'wet' area for more hands on workshops
- Could be dividable so several smaller groups can use at once
- Appropriate infrastructure for an extension of the exhibition space



B Shed, Fremantle 867m2

- Total area with ~60m2 as interior kitchen space and the remainder as outdoor seating



PS Art Space, Pakenham Street Fremantle 600m2

- Makes the most of alfresco dining



Stackwood, Stack St Fremantle 220m2 event space

- 'Blank canvas' available for workshops, markets, events, classes. Links to outdoor courtyard



Moore and Moore, Henry Street Fremantle 165m2

- Large exhibition space plus smaller rooms
- links to courtyard space

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SPACE STUDY - RESTAURANT

- ~300m²
- Showcase of bush foods
- Activates the centre at night
- Opportunities for hospitality training programs and cooking classes
- Includes dining area, commercial kitchen, cool room, toilets



Raw Kitchen, High Street Fremantle 400m²
• Plus shop, mezzanine space for private hire



Propeller, Queen Victoria Street Fremantle 430m²
• Kitchen also services function space next door



The Mantle, Beach Street Fremantle 670m²
• Houses 2 restaurants, a bar, commercial kitchen for hire and studio spaces, hot desks and conference room



Bread in Common, Pakenham Street Fremantle 550m²
• Includes large on site bakery at rear and deli selling bread and other goods

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SPACE STUDY - CAFÉ

- ~50m²
- Can run as part of or independently from the centre
- Activates area during the day
- Opportunities for hospitality training programs and cooking classes



Carriage Café, The Esplanade Fremantle 175m² total area with ~60m² as interior kitchen space and the remainder as outdoor seating



Gino's, Market Street Fremantle 260m²
• Makes the most of alfresco dining



Express Lane Café, B Shed Fremantle 50m² + 90m² of seating
• Supported by ferry terminal but can operate separately



The Attic, Bannister Street Fremantle 150m² over two levels
• Imaginative retro fit of space
• Spread over two levels with small street frontage

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OTHER SPACES



Café option, use of shipping container ~50m2



Reception/Exhibition Space ~280m2
 • Large exhibition space plus smaller rooms
 • links to courtyard space



Terraced seating ~70m2
 • for talks or film showing



Studios, various sizes
 • Build out cubes within a larger space
 • Cater for a range of uses, small business and makers



Retail ~100m2
 • Showcase of Aboriginal arts, crafts, tools and books for purchase. Opportunity for studios in centre to sell wares



Outdoor performance ~250m2
 • Connection to indoor workshop and exhibition space

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LOCATION AND CONNECTIVITY



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POTENTIAL LOCATIONS



a. J Shed

b. Pioneer Park

c. Victoria Quay

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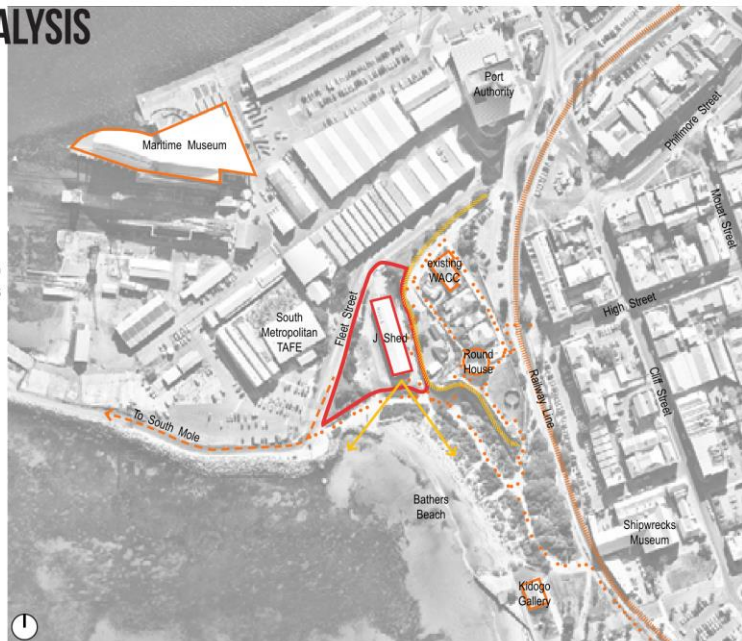
J-SHED SITE ANALYSIS

CONSIDERATIONS

- Project could be achieved in the reasonably short term
- May take advantage of existing building or J Shed potentially relocated and new building designed
- Connection to Bathers Beach
- Connection to heritage precinct
- Potential to be better integrated into the heritage trail to lead pedestrians along High Street, through the whalers tunnel and along the beach
- Not much dedicated parking, although plenty of Wilson Parking in Port area

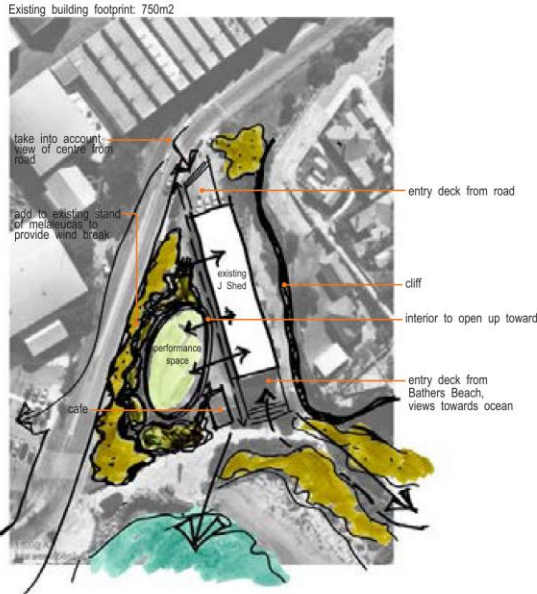
Legend

- Cliff edge
- Railway line
- Main pedestrian routes
- ↔ Views



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J SHED - OPTION 1 - RETROFIT

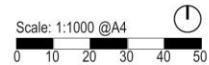


CONSIDERATIONS

- Use of the existing building restricts space for programmes
- Restaurant, terraced seating, keeping place, library and dedicated retail space aren't achievable with existing footprint
- Considerable cost related to making the building fit for purpose, ie heating and cooling

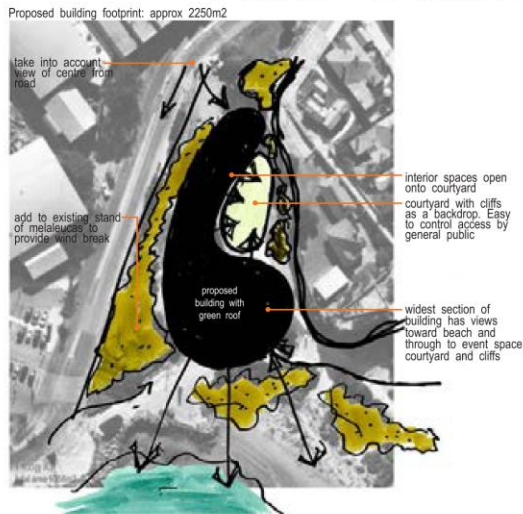
KIT OF PARTS

- Reception/Exhibition
- Indoor flexible space
- 'Wet' area
- Studios
- Outdoor performance space
- Café
- Toilets
- Bush gardens



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J SHED - OPTION 2 - SHELTERED

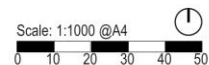
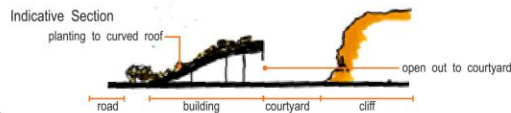


CONSIDERATIONS

- Long term plan
- Create private 'courtyard' space using cliff as back drop
- Integration of landscape in roof of building and surrounding landscape
- Connection to Bathers Beach
- Potential to be better integrated into the heritage trail to lead pedestrians along High Street, through the whalers tunnel and along the beach
- Not much dedicated parking, although plenty of Wilson Parking in Port area

KIT OF PARTS

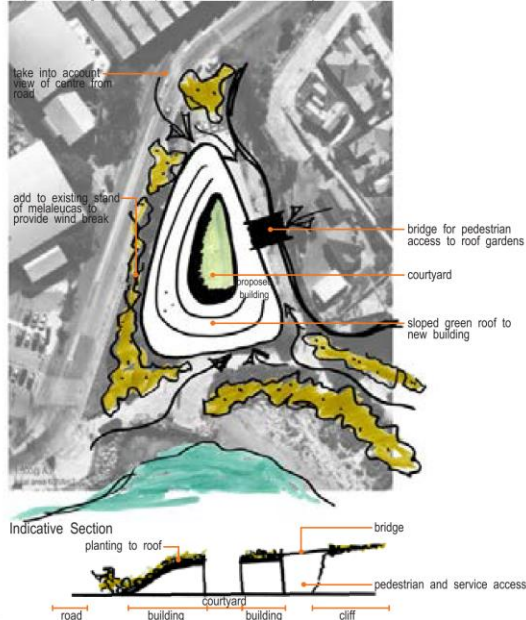
- Reception/exhibition
- Restaurant
- Indoor flexible space
- 'Wet' area
- Retail
- Terrace seating
- Keeping place
- Library
- Studios
- Outdoor performance space
- Café
- Toilets/change rooms
- Bush gardens



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J SHED - OPTION 3 - RECONSTRUCTION

Proposed building footprint: approx. 2500m² + internal courtyard 500m²



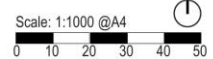
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CONSIDERATIONS

- Long term plan
- 'Reclaiming' of cliff and shoreline as an Aboriginal space
- Integration of landscape in roof of building and surrounding landscape
- Connection to Bathers Beach
- Potential to be better integrated into the heritage trail to lead pedestrians along High Street, through the whalers tunnel and along the beach
- Not much dedicated parking, although plenty of Wilson Parking in Port area

KIT OF PARTS

- Reception/exhibition
- Restaurant
- Indoor flexible space
- 'Wet' area
- Retail
- Terrace seating
- Keeping place
- Library
- Studios
- Outdoor performance space
- Café
- Toilets/change rooms
- Bush gardens



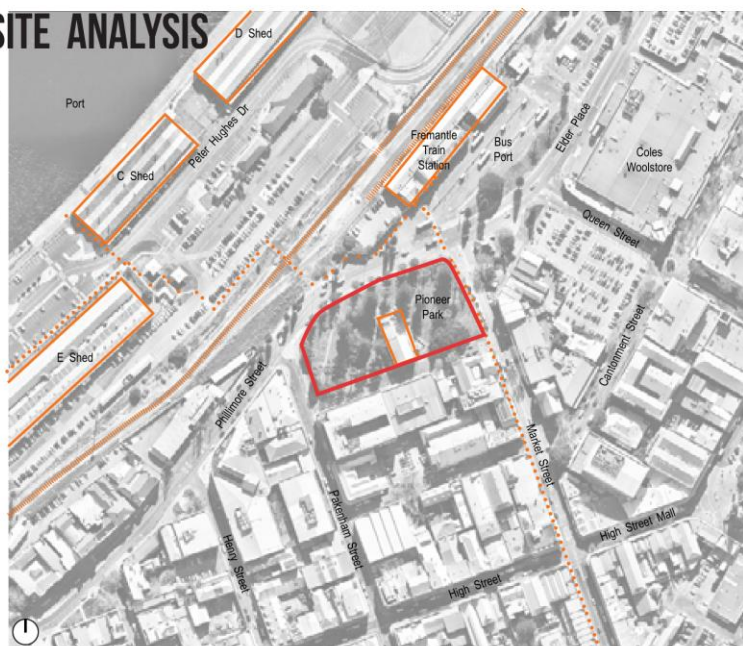
PIONEER PARK SITE ANALYSIS

CONSIDERATIONS

- Highly visible site, first thing people will see when leaving the train station
- High foot traffic area due to proximity to train station
- Opportunity for large retail component continuing the condition of Market Street
- Not much space for parking
- Opportunity to adapt the existing building and parkland in the future as needed

Legend

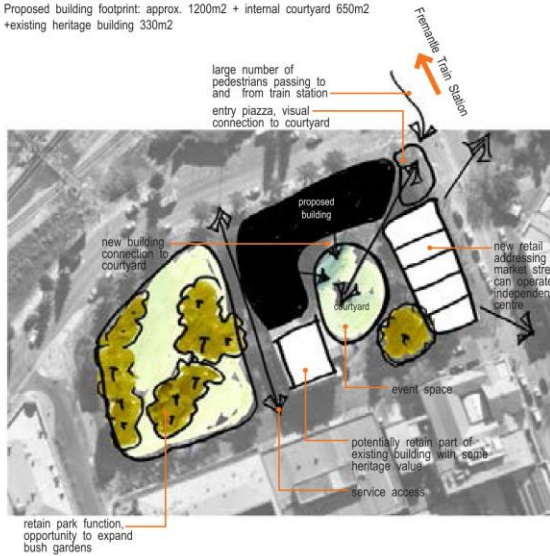
- Railway line
- Main pedestrian routes



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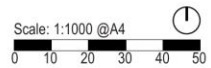
PIONEER PARK - OPTION 4

Proposed building footprint: approx. 1200m² + internal courtyard 650m²
+existing heritage building 330m²



KIT OF PARTS

- Reception/exhibition
- Restaurant
- Indoor flexible space
- "Wet" area
- Multiple retail spaces
- Terrace seating
- Keeping place
- Library
- Studios
- Outdoor performance space
- Café
- Toilets/change rooms
- Bush gardens



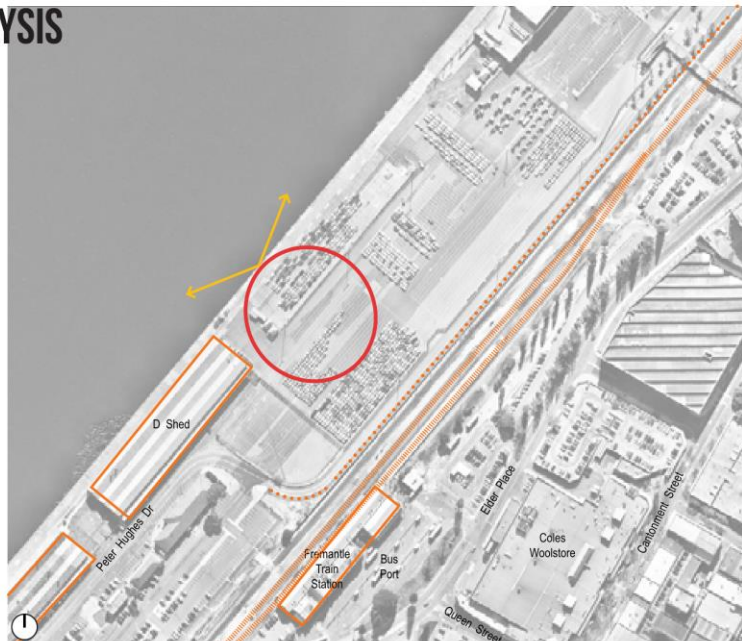
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PORT SITE ANALYSIS

CONSIDERATIONS

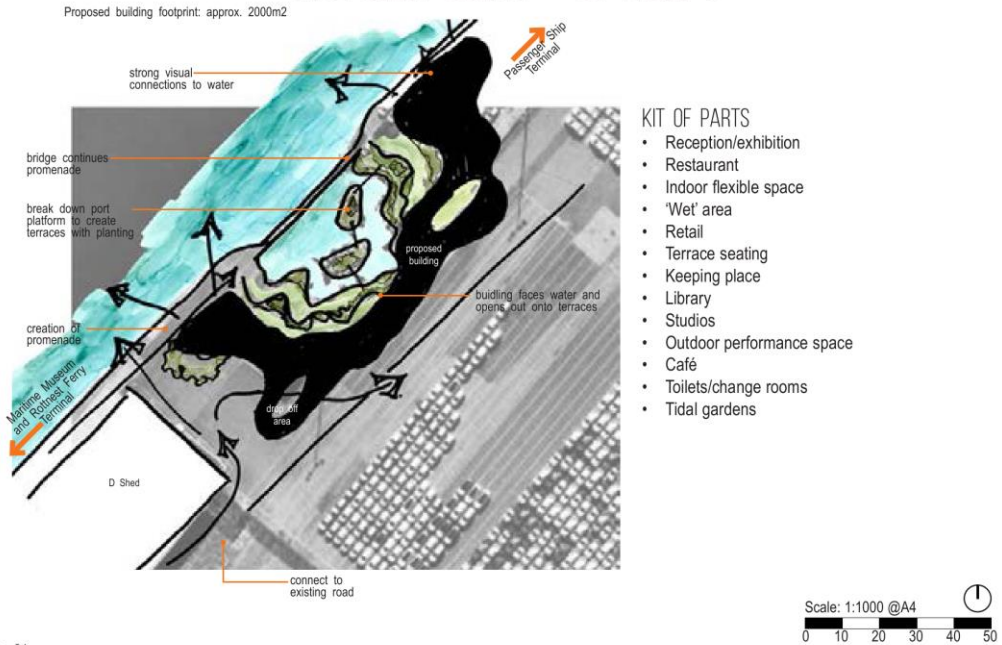
- Very long term plan which will only occur with development of the Port
- Strong connection to water visually, design could start to break down the hard edge of the port platform
- Creation of river side promenade, capturing passing foot traffic from ferry terminals to the south and north
- Can connect into existing road layout.
- Opportunity for well designed drop off areas for coaches and parking for visitors

- Legend
- Railway line
 - Cycle path
 - ↔ Views



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VICTORIA QUAY - OPTION 5



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NEXT STEPS



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WORKSHOP TWO NOTES

Brendan Moore	Sandra Harben
Location	Like the J Shed area for the Aboriginal Cultural Centre.
Themes	Agreed with all the themes that came through.
Building	Need to construct a new one
Role of Centre	<p>We need an Aboriginal Cultural centre that display's, sells and tells the stories of all Aboriginal people around the State.</p> <p>The SWALSC proposed Nyungar Cultural Centre is specifically for all things Noongar.</p> <p>This would be the point of difference between the Nyungar centre and the Fremantle Centre. The FACC would showcase all Aboriginal things</p> <p>The FACC can reflect the view of what the State wants. A cultural centre for all things Aboriginal not just Nyungar.</p>
Ezra Jacobs Smith	<p>Preference needs to be given to supporting Whadjuk and other Noongar artists because we are the Traditional Owners and have never had support on our country in the past.</p> <p>We will also provide support to other Aboriginal people living in the SW but respect must be given to the cultural authority of Whadjuck Noongar</p>

Ingrid Cumming

Sandra Harben

Current Location of WACC
Preferred location

The city had spoken to me about the proposed site prior to its opening. I feel it is conflicting to have a place for our community to share and celebrates culture, healing and connection aside a site of massive trauma and sorry business site. Although connected and in close proximity to several significant sites for the Whadjuk Noongar, it was a poor choice of location due to the history of the area.

Not next to the roundhouse, somewhere where it is easy accessible for Elders, can cater for families have spaces for cultural activity and ceremony to take place (thinking a sand pit ceremony ground, place to have smoking and healing ceremony creative space for artists or programmes that invite people to create art, make bookas, etc) in a prominent location in Fremantle where all people can come and learn, connect and be inspired by Ngullar kura, yeye, boorda kadadjiny.

Kali Balint

13.11.208 2:00pm UDLA

General

Recommend catching up with Noel Nannup
Catch up with WWG
You have traditional custodians, and then Aboriginals living in Freo

Important for it to be an Aboriginal Cultural Centre
Doorway to Aboriginal Culture for Western Australia and even Australia
Options on how to connect
Aboriginal people can come and be

It used to be something is built for Aboriginal people, then excludes everyone lese. Or showcase Aboriginal culture but exclude Aboriginal people
Fremantle is a safe place, already culturally diverse so more likely to be accepted

Noel's circle of Eldership and Impact 100 - video submission
Building capacity of leadership over time
life phases of the centre - long term journey

	<p>Allow space for stories and connections to come back The 20 year journey-----> create capacity to build upon. Create spaces to help the process</p>
Governance	<p>There is a place for Whadjuk but should not be Whadjuk owned Be specific re. committees/boards and rules and what can't be done unified voice? How can this be achieved seems to work in health as profit isn't involved</p> <p>alongside committees have a team of young leaders, mentoring</p>
Spaces	<p>Eco Beach Broome - bush tucker walk, guided or self guided Add another dedicated space for a meeting space- tea, coffee, indoor, outdoor, informal yarning ~50m2 Allow people to expand/retreat in the spaces to feel safe Wakes could be tricky with alcohol</p>
Locations Port	<p>on first look this is favourite work to make it inviting Wellington - Te Anu</p>
J Shed	<p>Most removed from what is happening free</p>
Pioneer Park	<p>Existing park use , don't displace street doctor and other things happening has its own culture going on</p>
Closing Comments	<p>Connection point and showcase history/culture support people through a process gateway for Aboriginal culture into WA Knowledge can be brought and shared lost stories Noel's work in the Catapillar dreaming story - stories came from outside noongar land.</p>

Sharon Calgaret

Artist, about to start teaching painting workshops at the current WACC

Long term involvement and helped set up the WACC with Marie Thorne

General, existing WACC

The existing WACC should be kept. We fought hard to get it.

If the new centre isn't beneficial to people it won't work
There is division at the WACC now, could be worse with a new, bigger centre
Currently a focus on money, greed
We need unity in community, not division

It wouldn't stop me from going or using the centre (if there were divisions), but would make it awkward

Location

J-Shed

If J-Shed is used the current WACC can be kept for admin/office space. Why can't we keep both

If there is discomfort (about the site) people could speak out

No matter where it is located there will be differences (of opinion)
All the people who run workshops need to agree, don't think they will agree to J-Shed
No proof of burials at WACC site?
Reckon J-shed might have more to do with our ancestors than the current WACC site

Pioneer Park

Need parking
Lots of Parkies (homeless/down and out people who spend time in the park), they might deter visitors.

Could move Spare Parts Puppet Theatre to J-Shed
Don't like the building design for Pioneer Park
Street doctor, all the homeless fellas know where it is.
Not enough parking
Don't want to push out Street Doctor

Port

Bit far fetched

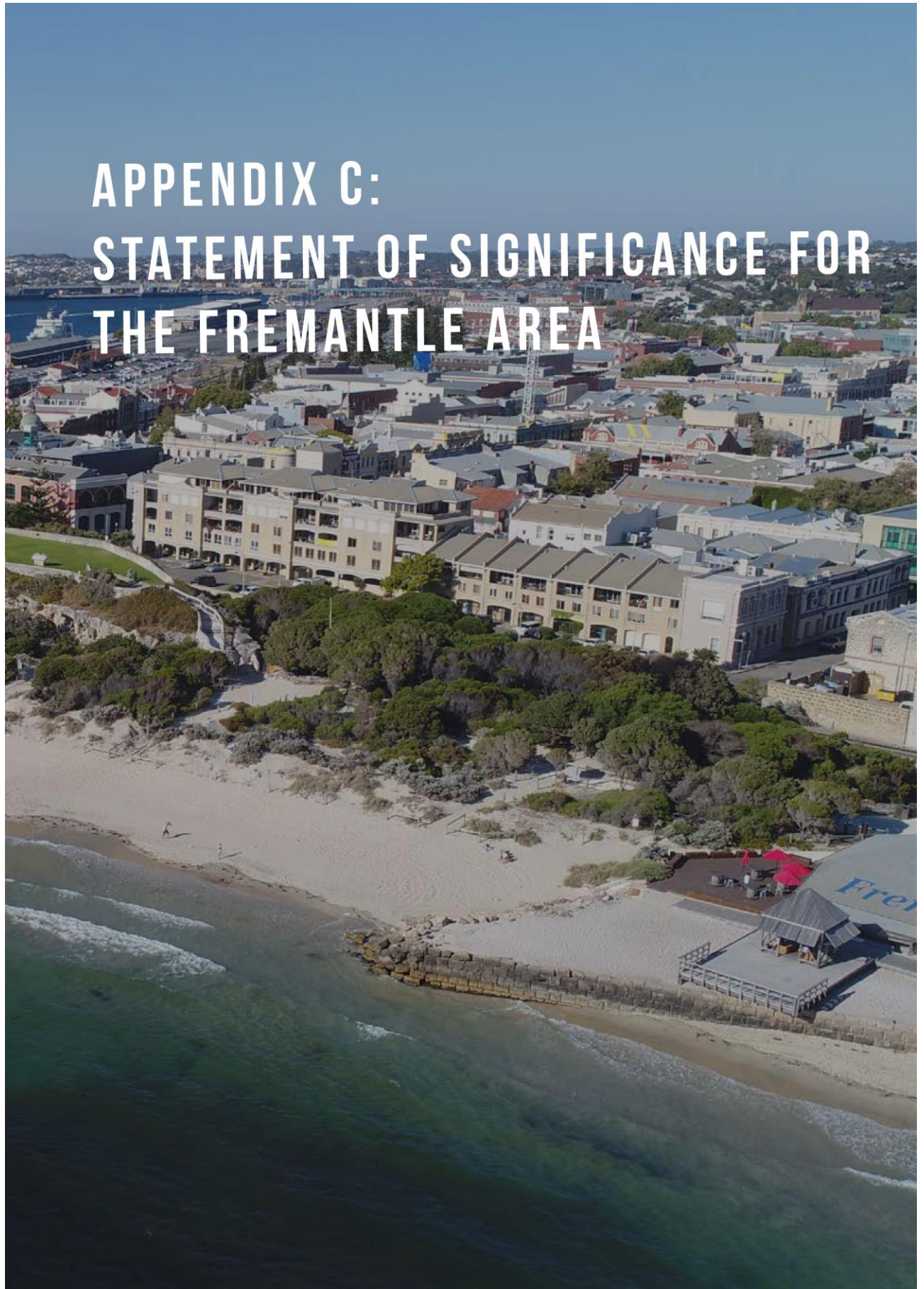
Governance/operations

No one should have more say than anyone else
Don't let anyone think they are above anyone else
Not Aboriginal run
Not just for a couple of families, for all
What's to stop infighting happening at the new place?

Don't need to open all the time, business hours, and some events

Sharon Gregory	10/11/2018 WACC
Noongar Language Teacher	<p>Not brought up as a Aboriginal child. Ballardong heritage, grandmother buried at Moore River Didn't really know about her Aboriginality until teens</p>
Personal Background	<p>Noongar language teacher, started teaching in schools using Mary Banks spelling (1992) Language is a connection to culture Not a good place</p>
Existing WACC	<p>long waiting list for her classes at the meeting palce, struggle to get numbers at the WACC</p> <p>parking and accessibility is bad. Bad acoustics in building weird feeling</p> <p>came back to bring positive vide and healing but not a great feeling</p> <p>what bad things happened at Bathers Beach? People have said to her J shed could be a good place, but depends on who you ask, find out the stories.</p> <p>Roundhouse. Very sick when Sharon went to Rottnest when she was 13.</p> <p>What is the long term plan for TAFE? Could that site become available?</p> <p>Need to have: art, workshops, staffed at all times Services ie organsiations can set up and be there one day a week side and a side, not front and back flexible spaces for confidential needs hold the Wardandi festival Authentic local art interactive Place for the Mob Language Culture positive environment strong cultural governance will there be a board? hard to separate familes in Freo Fair and Equal representation Governance structure will be made as recommendation in reporting Lore: holding and speaking Aboriginal training and input, traineeships in the facility</p>

SWALSC	Sandra Harben
Aboriginal Centre	<p>Good that is an Aboriginal centre not just a Nyungar.</p> <p>Important to be inclusive and use the word Aboriginal because there is going to be a Nyungar Cultural Centre. We have been promised 2 hectares as part of the Settlement with the WA State Government.</p> <p>Because (area) we have a melting pot {of diverse Aboriginal groups} south of the river which includes Rockingham and Fremantle.</p> <p>It is important to have an Aboriginal centre because Native Title has fractured Aboriginal groups.</p> <p>Use this project to bring everyone back together. Our stories are same same but different.</p> <p>Use the centre and the project to bring the groups together and showcase our shared history.</p> <p>SWALSC like the themes that have come through from the first Workshop. It covers everything</p>
Inclusive	<p>Family, friends, everyone can go there. It is not a boy's area, men's area, women;s area - it's a collective area.</p> <p>The centre will be a way of uniting our community both Aboriginal and Non-Aboriginal people.</p>
Design	<p>They prefer the J SHED construct. Use the collective groups to come together to design it [a new Aboriginal Centre]. It could showcase a bit of the Kimberley, a bit of Torres Strait Islander, a bit of Nyungar, a bit of Wongi and Yamatji. It could make for a very interesting building. You need a WOW factor. Collectively [the Aboriginal groups] can design it to give a WOW factor</p> <p>Co-design it. Their wisdom and experience will create the operational component from their design. How good would it be for a tourist to come in and see a Nyungar, Yamatji, Wongi, TSI and Kimberley people all these groups working together [in the cultural centre].</p> <p>That is truly showcasing our diversity and connectivity. The dots still connect us as people and why not give our mob an opportunity to be a part of a WOW factor in Fremantle and actually own and be proud of a collective centre and to celebrate it.</p>
Other Centres	<p>City of Cockburn has moved up the proposed Aboriginal Culture up on their agenda.</p> <p>The Fremantle Aboriginal Cultural Centre needs to ensure the ability to connect with other cultural centres [around the southwest and other areas] so that also shows the unity among us all. Connection between the bidis [paths] is like a bit of a web. Have a map that shows if your in Northam or Albany or Cockburn telling people and tourists to "go here to these Cultural Centres". That way we are helping each other.</p>



Statements of Significance for the Fremantle Area and
Registered Aboriginal Sites – Cantonment Hill, Rocky Bay and
Swan River



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Disclaimer

The results, conclusions and recommendations contained in this report are based on information available at the time of its preparation. Whilst every effort has been made to ensure that all relevant data has been collated, the authors can take no responsibility for omissions and/or inconsistencies that may result from information becoming available after this report's completion.

Spatial Accuracy

Location coordinates contained within this report are in GDA94 Datum, MGA Zone 50 and are accurate to + 10 m.

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ACKNOWLEDGEMENTS

On behalf of the City of Fremantle the Project Team would like to respectfully acknowledge the Whadjuk Nyoongar people past and present for their contribution to the Statements of Significance.

We would particularly like to thank the Whadjuk Working Party (WWP) and the Whadjuk Advisory Group (WAG) for their participation and feedback in the preparation of this document. The Project Team is grateful for access to Nyoongar (people) moort (family or relations), Nyoongar boodja (country) and Nyoongar kaardijin (learned understandings or knowledge).

Whadjuk Advisory Group

Left to right: Whadjuk Nyoongar Elder Mr Richard Wilkes (pictured with Mrs Olive Wilkes), Whadjuk Nyoongar Elder Mrs Marion Collard, Whadjuk Nyoongar Elder Mrs Theresa Walley, Whadjuk Nyoongar Elder Mrs Vera Warrall, Whadjuk Nyoongar Elder Mrs Miriam Champion, Whadjuk Nyoongar Elder Mr Greg Ugle. and Ms Karen Jacobs Whadjuk Nyoongar - Project Advisor appointed by the Whadjuk Working Party.



In the South-West, yeye or today, as in Kura or the past, Nyoongar boordier or elders play a role as custodians of all knowledges, and in particular “special” knowledges, which are passed on from generation to generation.

This Report has been Prepared By Moodjar Consultancy for The City of Fremantle 2 March, 2016

Professor Leonard Collard (BA, MA) Whadjuk Nyoongar, Sandra Harben (BA) Consultant, Whadjuk/Balardong Nyoongar, Dr Benjamin Smith (PhD) Archeologist/Anthropologist at the University of Western Australia, Mrs. Jo-Anne Thomson, (BA, MAppCHS) PhD Candidate at the University of Western Australia, Cultural Heritage Consultant and Archaeologist, Ms Laura Mayer (BA, MA) PhD Candidate at the University of Western Australia.

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1.0 INTRODUCTION

The City of Fremantle recognizes the Whadjuk people as the traditional owners of the greater Fremantle area. Its Nyoongar name is Walyalup and to the Whadjuk people, Walyalup is a place that has strong social, spiritual, cultural and historic significance.

There are three sites of Aboriginal significance recorded on the Register of Aboriginal Sites within the Fremantle local government area, including DAA3419 – Cantonment Hill, DAA3536 – Swan River and DAA3596 – Rocky Bay.

In 2010 the City of Fremantle applied to the Minister of Indigenous Affairs for consent to use the registered sites for the purpose of 'maintenance and improvements, landscape preservation, flora and fauna management'. The Minister granted consent in February 2011, subject to a number of conditions being satisfied to protect and appropriately manage the cultural heritage of the sites prior to works commencing, including the preparation of a Cultural Heritage Management Plan.

In 2011 the City of Fremantle commenced a project to revitalise Cantonment Hill. Cantonment Hill extends over an area of 2.31 hectares of land purchased by the City of Fremantle in 2010 from the federal government. A master plan was prepared in 2012, proposing works to improve the public facilities and enhance the natural features of the site. The project presents a rare opportunity to establish new parkland in the centre of the city, restore and activate the heritage-listed Fremantle Harbor Signal Station and Naval Stores and share the rich Aboriginal and European history of Cantonment Hill with the broader community.

1.1 Consultation with the Whadjuk Working Party

The City has liaised with the South West Aboriginal Land and Sea Council (SWALSC) throughout the process, including the section 18 notice and the development of the Cantonment Hill master plan. In November 2015, after a period of further planning on the Cantonment Hill project, the City approached SWALSC to provide an update on the project and further engage Whadjuk people on the preparation of a Cultural Heritage Management Plan for Cantonment Hill in accordance with the Minister's condition on the section 18 consent.

SWALSC assisted the City to re-establish contact with Whadjuk families through the Whadjuk Working Party, who provided in-principle support for the project and appointed Ms Karen Jacobs to work with the City as an advisor to the project team. This allowed for an effective approach to engagement of the Whadjuk Working Party, and input into the design of the

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engagement process, including a suggestion that the scope be broadened to explore the significance of Cantonment Hill in the context of the significance of the greater Fremantle area to Whadjuk people and its relationship to the other registered sites.

In recognition of the need for a focused dialogue on the project, the City of Fremantle proposed an advisory group of Whadjuk Working Party members be established to assist develop the statements of significance. The Whadjuk Working Party nominated eight members, including Mr Greg Ugle, Mrs Theresa Walley, Mrs Vera Warrell, Marion Collard, Anne Ryder, Neville Collard, Richard Wilkes and Miriam Champion to represent the Whadjuk Working Party on the Whadjuk Advisory Group. The project team met with the Whadjuk Advisory Group in February 2016 and will report back to the Whadjuk Working Party at an ordinary meeting in April 2016.

Moodjar Consultancy was commissioned by the City of Fremantle in February 2016 to engage with the Whadjuk Advisory Group to prepare a Statement of Significance for Fremantle and the three registered sites. Moodjar Consultancy's role was also to capture the visions and aspirations of the Whadjuk Advisory Group for the management of the three sites. The statements of significance, visions and aspirations of the group have informed the preparation of an Aboriginal Interpretation Plan (AIP) and Cultural Heritage Management Plan (CHMP) to support the Cantonment Hill project.

1.2 Report purpose

This report details the Statements of Significance and Whadjuk Working Party visions and aspirations for the Fremantle area. It forms part of suite of documents regarding consultation with Whadjuk Nyoongar elders on the Cantonment Hill project and should be considered in conjunction with the AIP and CHMP.

Moodjar Consultancy bases the Statements of Significance upon consultation and a site visit with the Whadjuk Advisory Group on Wednesday 17 February 2016 and extensive desktop research of literary and oral sources. The report has been written to acknowledge Whadjuk visions and aspirations for Fremantle and values for the recognition and protection of registered sites. In some cases comments have been paraphrased and quotes have been used to illustrate the sentiment of the Whadjuk Advisory Group.

The Whadjuk Advisory Group expressed the following visions and aspirations for Fremantle:

- Fremantle to become a place that speaks the truth;
- Acknowledgement of Whadjuk Nyoongar people's rights and traditional ownership of the land;
- Land hand back to Whadjuk Nyoongar community;
- More employment and cultural opportunities within the City of Fremantle;

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- Public acknowledgement of Whadjuk achievements;
- Tourism boat to and from Rottnest Island with Whadjuk Nyoongar tour guides;
- Ensure that Whadjuk Nyoongar Intellectual Property is protected;
- Direct engagement between the City of Fremantle and Whadjuk governances;
- All significant sites in Fremantle should be maintained, preserved and protected; and
- Heritage sites should be respected and acknowledged for boorda – the future and for the generations to come, as they are part of Whadjuk Nyoongar identity and connect us to the nyittingy – the beginning of time.

2.0 REGISTERED SITES IN THE CITY OF FREMANTLE

2.1 Location

Cantonment Hill is located in the City of Fremantle in the greater Perth metropolitan region. It is located on the south side of the Swan River, immediately south of the Queen Victoria Street Bridge and the intersection of Queen Victoria Street and Canning Highway. The site is bounded by Canning Highway, Burt Street and East Street. Cantonment Hill is approximately 100 m south of the southern bank of the Swan River and 1.8 km east of the Swan River mouth.

Rocky Bay is located in the North Fremantle precinct within the City of Fremantle in the greater Perth metropolitan region. The site is situated at the base of a limestone cliff face on the foreshore of the Swan River below an open public space and car park along Rule Street, North Fremantle. The site is approximately 1.8 km north of Cantonment Hill and 3.3 km northwest of the Swan River mouth.

The Swan River passes through the centre of the City of Fremantle's boundaries see

Figure 1 below.

2.2 Existing Registered Aboriginal Sites

According to the Department of Aboriginal Affairs (DAA) Aboriginal Heritage Inquiry System (AHIS), three (3) Registered Aboriginal Sites are located within the City of Fremantle's boundaries. These three sites are protected under the *Aboriginal Heritage Act 1972* (the AHA). The Sites are listed in Table 1 below, see also 8.1 Appendix 1.

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Table 1. Registered Aboriginal Sites located within the City of Fremantle (Source: DAA's AHIS, February 2016)

DAA Id / Name	Site type	Status	Access	Location	CoF PDA
3419 Fremantle: Cantonment Hill	Ceremonial, Mythological, Camp, Named Place, Plant Resources	Permanent	Open	382525 mE 6453972 mN	Cantonment Hill
DAA 3596 Fremantle: Rocky Bay	Mythological, Named Place	Permanent	Closed	Not available for closed sites	Swan River
DAA 3536 Swan River	Mythological	Permanent	Open	443400 mE 6461957 mN	Located within all Reserves, except Cantonment Hill and Arthurs Head

In addition, the Registered Aboriginal Site DAA 3707 Robb Jetty Camp is located along the southern boundary of the City of Fremantle, and wholly within the City of Cockburn.

Ten (10) Other Heritage Places are also located within the City of Fremantle; including DAA 18332 Clontarf Hill, see 8.2 Appendix 2.

2.3 Section 18 consent

The AHA provides for the recognition, protection and preservation of Aboriginal Sites in Western Australia. It is an offence under s. 17 of the AHA to excavate, destroy, damage, conceal, or in any way alter an Aboriginal site. If an owner of land wishes to use their land in a manner, which is likely to breach s.17 with respect to any Aboriginal Sites, which might be on the land, they are able to apply for consent under s.18(2) of the AHA.

In 2010 the City of Fremantle applied to the Minister of Indigenous Affairs for consent to use the land on which the following three (3) Registered Aboriginal Sites were located, for the purpose of 'maintenance and improvements, landscape preservation, flora and fauna management':

- Site 3419 – Fremantle: Cantonment Hill;
- Site 3536 – Swan River; and
- Site 3596 – Rocky Bay.

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In February 2011 the Minister, pursuant to section 18(2) of the *Aboriginal Heritage Act 1972*, granted consent, subject to conditions pertaining to the protection and management of the site(s) during execution of the purpose¹.

Figure 1. Location of the project area and City of Fremantle boundaries (Courtesy of City of Fremantle)



¹ Note: Subject to condition that a Cultural Heritage Management Plan be prepared for the three sites and approved by the Registrar

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3.0 METHODOLOGY

In order to deliver the required outcomes for this report the following methodologies were used to engage with the Whadjuk Advisory Group and to prepare the Statements of Significance. These methodologies are based on current recognised best practice approaches to Aboriginal heritage management.

3.1 Consultation

A workshop was held on Wednesday 17 February, 2016 at the Walyalup Aboriginal Cultural Centre in Fremantle. The purpose of this workshop was to consult with the Whadjuk Advisory Group to provide an overview of the project and seek feedback on the information provided by the Metro Working Party and other participants in the Cantonment Hill Master Plan and Swan River Foreshore Conservation Management Plan on the site history and significance.

The consultation process was designed to gather additional information relating to the significance of Fremantle as a whole to the Whadjuk people to ensure appropriate inclusion of Whadjuk culture and heritage in City of Fremantle projects, particularly relating to the City's existing Registered Sites. This information was used to inform and develop the Statements of Significance and prepare the AIP for Cantonment Hill. The consultation was also intended to facilitate the identification of any specific requirements for the management of Cantonment Hill during the revitalisation and to inform the preparation of CHMP in accordance with the Minister's section 18 consent and associated conditions, i.e. identify site specific measures to be implemented to protect and manage the Cantonment Hill site.

3.2 Aboriginal engagement

Any consultation, dialogue, discussion, negotiation or conversation with the Whadjuk Advisory Group (WAG) was based on fundamental principles to ensure their meaningful participation in the process. Consultation with the WAG followed the principles of free, prior and informed consent.

Consultation included the provision of sufficient information for people to make an informed decision about the activities and plans of the project with sufficient time to consider options and discuss with other members of the WAG. The consultation was also based on the principle of mutual respect. An acknowledgement of country took place at the beginning of all meetings with the WAG as well as a Welcome to Country at the meeting with the City of Fremantle.

The team followed Whadjuk protocols to ensure a successful consultation process. We were mindful of these protocols during the consultation process. The team sought permission before taking photos of people as well as using their quotes and information. The team developed a consent form to use their intellectual knowledge and multimedia containing images of the WAG.

Confidentiality and privacy are serious issues for the Nyoongar community, particularly information that is culturally complex such as 'women's business' or 'men's business'. The team ensured that

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any information collected as part of this project process remained confidential and private and was recorded and stored in a respectful and culturally appropriate way during the consultation process.

3.3 Desktop study

The desktop study was designed to identify and review the literature that captured Whadjuk expressions about the significance and sense of place for the Fremantle area as a whole. The research for the desktop study reviewed published and unpublished documentary sources and literature, oral histories, recorded stories, narratives and commentaries. These stories, narratives and commentaries surrounding Whadjuk heritage and culture were incorporated into this Report to provide context and for completeness for the Statement of Significance.

2.3.1 Literature and documentary sources

The literature review incorporated oral histories of Whadjuk Nyoongar people and other Nyoongar language groups relating to Nyoongar boodja – country. It also took into account documentary sources, reports made available by the City of Fremantle, published and unpublished material relating primarily to Whadjuk Nyoongar associations with and use of Fremantle. The review also provided background information from published material such as Hallam's Fire and Hearth, the published work of Daisy Bates, Aboriginal Perth and Bibbulmun Biographies and Legends, Southwest Aboriginal Land and Sea Council, Aboriginal worldviews and colonisation: implications for coastal sustainability, Heartsick for County, Recording Traditional Knowledge, Avon Catchment Council. Stories of Love, Spirit and Creation, "Introduction to Nyoongar History and Culture", "Nyoongar of the Beeliar (Swan River)" Narrated by Collard. L, "Spirit of Fremantle" Narrated by Collard. Kickett, E. The Trails of the Rainbow Serpent and Tilbrook, The First South Westerners: Aborigines of Western Australia and., Collard, L. Harben, S & Van Den Berg, R., 2004, "Nidja Beeliar Boodjar Noonookurt Nyinyiny: A Nyoongar Interpretive History Of The Use Of Boodjar (Country) In The Vicinity Of Murdoch University." The literature review also included selected nineteenth-century explorers' journals such as those compiled by Grey (1998/84 [1841] and George Fletcher Moore in secondary form.

3.4 Statements of Significance

We define a Statement of Significance as a concise, distilled, but comprehensive statement of the reasons why a place is of value or importance to past, present or future generations¹. We used a combination of two nationally recognised and endorsed approaches to preparing the statements of significance. Following the Australian ICOMOS Burra Charter (2013), we view cultural significance as comprising the sum of the qualities or values that a place has and as such we will assess the five primary values – aesthetic, historic, scientific, social and spiritual which are listed in Article 1.2 of the Burra Charter (2013) and the three comparative criteria – rarity or representativeness, condition or completeness, and interpretive capacity, as outlined in Significance 2.0 (Russell and Winkworth 2009). Definitions of these terms are included in 8.3 Appendix 3.

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We also followed the process outlined by Significance 2.0 to prepare the statements of significance, which comprised the following steps:

1. Collated file;
2. Researched history and review themes arising from research;
3. Consulted with knowledgeable people through the Whadjuk Advisory Group to whom the places are significant;
4. Explored the context of the places;
5. Analysed and described the components and conditions of the places;
6. Compared with other examples;
7. Identified related places;
8. Assessed the significance of the places against the primary and comparative criteria identified in 8.3 Appendix 3;
9. Prepared succinct draft statements of significance considering all the available information.

The draft Statements of Significance are to be presented to the Whadjuk Working Party at an upcoming extraordinary meeting in March 2016 during which their feedback, comments and input will be sought.

4.0 CONSULATION

4.1 Consultation outcomes

The Whadjuk Advisory Group (WAG) workshop was held on Wednesday 17 February 2016 at the Walyalup Aboriginal Cultural Centre in Fremantle. The workshop was opened with a Welcome to Country. A site visit was undertaken in the afternoon to the vicinities of Cantonment Hill and Rocky Bay.

Prior to getting formal discussions underway the WAG expressed matters that later became more relevant for the study area. The key comments made by the WAG included:

- The participants want their Intellectual Property protected.
- ALL agreed that a six (6) hour meeting was not enough.
- Whadjuk Nyoongar people want to control intellectual rights of their heritage in Fremantle.
- It is important for the City of Fremantle to hear the voices of Whadjuk Nyoongar people.
- Fremantle is a place that needs to speak the truth.
- Want cultural and regional information of Fremantle to be respected and protected. We don't want to give away all our stories – we only should focus on the THREE (3) sites – the other stories are our stories. Fremantle is a place of Aboriginal [Nyoongar] cultural understanding.
- Fremantle is connected to Wadjemup.
- City of Fremantle need to consider if it's appropriate to have this cultural centre here [Walyalup Aboriginal Centre] – because the hill overlooks the Roundhouse and there were

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so many people that were imprisoned and killed there. This needs to be considered for this project because we would normally never be connected to a place where our people suffered.

- Desktop search for literature is the absolute minimum. The people in this room are the ones with the information.
- Fremantle is a birthplace of many Nyoongar stories.
- Yagan has been well known to be around the area.
- Fremantle was shared land with all Chiefs along the Swan River.
- When mum had the photos developed from Coogee Beach, family/spirits appeared in photos from the bush and trees behind them.
- Peel and Neville and O'Connor wanted to buy land from Fremantle to Pinjarra with no Aboriginal [Nyoongar] people on it.
- A lot of ancient camping grounds are now underwater.
- Old lady that had seen a submarine was a Michaels ... and they found two Japanese in it. They camped around the limestone caves near Robb's Jetty and Coogee Beach.

4.2 Sense of place

Whadjuk Nyoongar calls the place Fremantle - Walyalup.

The captured expressions of the Whadjuk Nyoongar people bring an Indigenous perspective and new awareness of place in Fremantle. The Nyoongar call the place Walyalup.

These Nyoongar expressions will enable everyone who lives in Walyalup – Fremantle to relate more intensely to that place's long term history – to see that they are part of a special environment that has sustained people over 50,000 years, that it is a place to belong to with an identity shaped by this history and that it will enlarge tourist and visitor opportunities as a result.

The Whadjuk Nyoongar visions for of boordawan or the future will meet a range of social, cultural and environmental benefits. The vision of employment opportunities and participation in tourism activities will enable new tourist ventures to emerge based on the names of particular places and their associated stories. It will mean each community will be given a physical basis to focus their work on reconciliation and help close the cultural gap. It will deepen everyone's sense of place. It will provide a stronger motivation for protecting the heritage of the area – both natural and built. It will provide a major addition to Fremantle's cultural heritage in itself.

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4.3 Significance of Fremantle as a whole

"Fremantle is a birthplace of many Nyoongar stories". It is a place of Dreaming. These Dreaming stories are intrinsically linked to Beeliar - Swan River, Waugal Cave - Rocky Bay and Cantonment Hill - Dwerda Weeardinup²

The Whadjuk Advisory Group (WAG) made the following comments in regards to the significance of Fremantle as a whole:

- It is about family, community and its people²
- The Whadjuk Nyoongar people have a strong cultural history³
- Fremantle was an important place for seasonal travel. It was a place to where Nyoongar people travelled according to the Nyoongar seasons (to hunt and gather food) and then travel through for cultural reasons. In telling the story she related to the Pinjarra Nyoongar who travelled in a circle from their boodja to Walyalup and then cross the "sandbar" [that separated the ocean and the river mouth] up to Perth then down through to Bibra Lake and back to Pinjarra⁴
- Walyalup was a significant place because Nyoongar people had their traditional camping grounds in and around the area.
- Wadjemup was part of Walyalup. But thousands of years ago the water levels rose and cut it off from here. A lot of our camping grounds and other sites of significance have disappeared⁵
- It has contact history⁶
- It is where contact first occurred and the Nyoongar people took the "brunt" of its force. The Nyoongar people had to "flee" from their traditional camping grounds⁷
- It is a place where "massacres" took place. The WAG participant related where the site was. Fremantle has links to Pinjarra massacre site⁸
- The prison is here. Aboriginal people who were released at 5:00pm would be walking down to catch transport but because the law was that Aboriginal people could not be out on the streets after 5:30pm they would get stopped and arrested and put back in prison for breaking the law⁹
- Beautiful history of Fremantle¹⁰

² Dwerda Weeardinup was cited in the AIC Fremantle City Report. However, this spelling does not reflect the meaning in Nyungar language. Please refer to Observations and Recommendations in this report on page 39.

- This is a place that is associated with Wadjemup – Rottnest Island¹¹
- The Nyoongar leader Yagan is associated with this part of the boodja – country.
- This is where our land was taken from us. Where is our land? We want some land. Fremantle was a quiet place; they used to be able to walk from place to place and be safe, and stay where they wanted to stay. The white people claimed all of Fremantle. They took our ancestors from us. We never live to know our history because the ancestors were taken from us. “We had to draw water from a well to wash ourselves with while the white people had it all handed to them”¹²

4.4 Vision and aspirations for Fremantle as a whole

It’s an aspiration for Whadjuk governance to work direct with City of Fremantle governance.

The Whadjuk Nyoongar visions and aspirations for Fremantle as a whole describe a future that reflects and builds the dream of the Nyoongar people for the future of Walyalup. During the consultation workshop, the WAG identified the following aspirations for Walyalup.

- Sites are only a glimpse of what we used to have. A cultural management plan should [be] cast over all significant sites – all sites are interlinked, you can’t separate one from another. Important to state that we are still traditional owners, we have not relinquished our rights over that.
- An aspiration is to have a land handover by City of Fremantle. They want their land back.
- We want to make a future for family and community.
- Aspirations were to have employment opportunities and cultural opportunities for Whadjuk Nyoongar people in the City of Fremantle. If the city of Fremantle employed our people, that would be a major step. We should say – give us Rangers in the City of Fremantle.
- The aspiration is to acknowledge Whadjuk achievements. For example, Mrs Warrell said that her Grandfather lived around here in 1896 and won the Perth Cup. He was a champion jockey. He won a lot of races in Dandaragan. I would like to see a plaque to acknowledge that at the WA Turf Club in the City of Cockburn and for him to be put in the Fremantle Hall of Fame.
- It’s an aspiration for Whadjuk governance to work direct with City of Fremantle governance.
- Tourism boat to and from Rottnest with Aboriginal tour guides.
- Fremantle has a bad history with the jail. Council should put a plaque up to say who died there as those people deserved to be remembered that they were a part of the system.
- The participants want their Intellectual Property protected
- Want cultural and regional information of Fremantle to be respected and protected. We don’t want to give away all our stories – we only should focus on the THREE (3) sites – the other stories are our stories. Fremantle is a place of Aboriginal cultural understanding.
- Fremantle is a place that needs to speak the truth

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- Nyoongar people to be given preference for any tender work on Cantonment Hill and the other sites.
- The Nyoongar people should tell the stories about these places and be employed to do this.

4.5 Significance of Cantonment Hill

It is associated with the Dingo Dreaming story

The Whadjuk Advisory Group (WAG) made the following comments in regards to the significance of Cantonment Hill:

- It is one of the Seven Sisters Dreaming hills
- Nyoongar used to send signals to the prisoners at Wadjemup
- It is associated with the Waugal Dreaming
- Sighting of the first Europeans from the hill
- Communication site between Nyoongar people
- It is the associated with the Dingo Dreaming story
- A significant navigational marker within the landscape

5.0 DESKTOP RESEARCH

The desktop research revealed a large amount of information about the three Aboriginal Sites DAA 3419 Fremantle: Cantonment Hill, DAA 3536 Swan River and DAA 3596 Rocky Bay as well as the wider Fremantle area. Information gathered about the wider Fremantle area corresponds with place names and meanings. The research has also identified a number of additional heritage places of significance to Whadjuk Nyoongar people within the City of Fremantle that should be further investigated. The key information regarding the wider Fremantle area is presented thematically below. The information specific to the Aboriginal Sites DAA 3419 Fremantle: Cantonment Hill, DAA 3536 Swan River and DAA 3596 Rocky Bay is presented according to each site.

The information gained from the desktop research has been used to augment the knowledge and information contributed by the WAG in the Statements of Significance.

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5.1 Wider Fremantle area

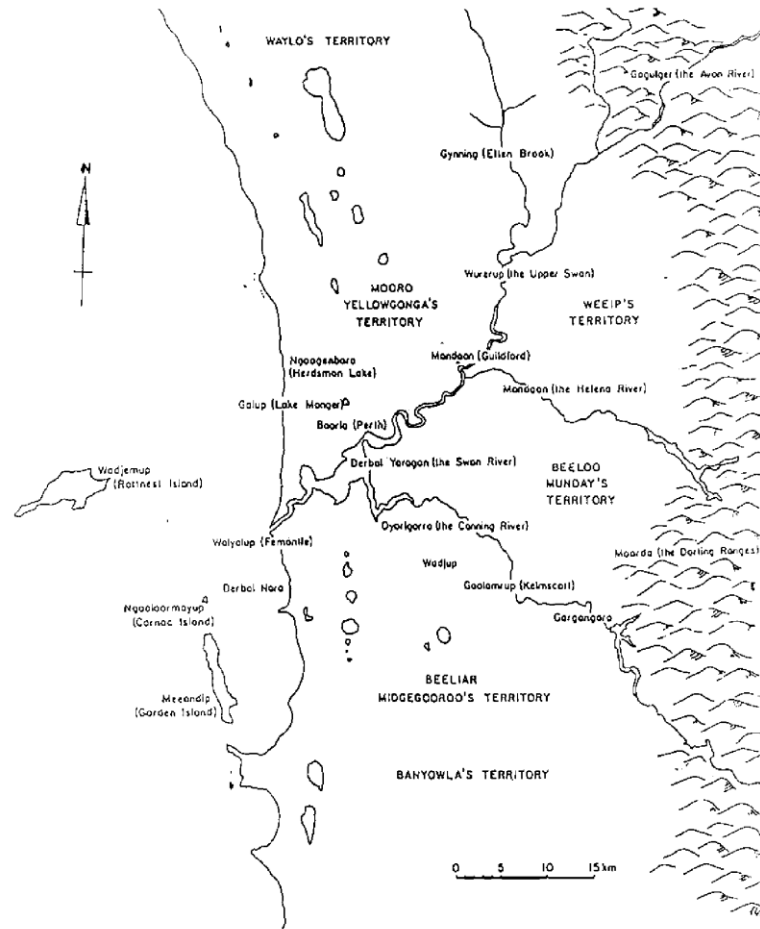
³Walyalup means “the crying place” or the “place of tears”

Whadjuk Nyoongar acknowledge that Walyalup is the location where the “bidi” - trails lead the Nyoongar from their inland camps to this specific part of the coastal area and the Beeliar – Swan River to conduct ceremonial and cultural business, hunt, camp and fish according to the Nyoongar season¹³ – Kambarang⁴. One of the most important ‘bidi’ - trail connecting Nyoongar to other moort – family throughout Whadjuk Nyoongar boodja was the “sandbar” aka limestone rock bar or “crossing”. The rock bar at the mouth of the river was a crossing place for Aboriginal [Nyoongar] men [people]. The “sandbar” or “crossing” was blown up by CY O’Connor to open the waterways.

³ City of Fremantle adopted the placename meaning of Walyalup as “place of the Walyo or Woylie” or kangaroo rat after a consultation meeting on 15th October 2014 with Whadjuk Traditional Owners via Southwest Aboriginal Land and Sea Council. The Traditional Owner’s also named the Walyalup Aboriginal Cultural Centre.

⁴ During the Kambarang season (October/November) we see an abundance of colours and flowers exploding all around us. The yellows of many of the Acacias continue to abound, along with some of the Banksias and many other smaller delicate flowering plants including the Kangaroo Paw and Orchids. Also during this time the Balgas will also start to flower, especially if they’ve been burnt in the past year or closely shaved. One of the most striking displays of flowers to be seen during this season will be the “Mooja”, or Australian Christmas Tree (Nuytsia). The bright orang/yellow flowers serve to signal the heat is on its way.

Figure 2. Midgegooroo's land which includes Fremantle (Source: Green, 1984)



Nyungu Place Names and Territories: Swan River Coastal Plain
(As told to Robert Lyon by Yagan in 1832)

Source: N. Green, *Broken Spears*, Focus Education Services Perth, 1984, p.50

This is the foundation of Midgegooroo and Yagan's family... this is his tribal country right here. You could say this is Yagan's country ... and Bennell's too." (Hayden 2002).¹⁴

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Walyalup⁵ was interpreted by a Whadjuk Nyoongar as “the crying place” or the “place of tears”¹⁵ When a Nyoongar person passes away his spirit travels over the Wardan – sea towards Wadjemup to their resting place. This is a cultural and spiritual belief. Walyalup is the place the local Whadjuk people used to hold their funeral rites here. The deceased would be buried in the sand dunes and the singing and mourning would start so that the deceased could go on their next journey into the spirit world. It was believed that the spirits would cross the sea to Wadjemup (Rottnest Island) and go beyond to return to a later date.”

Wadjemup can mean the “Place of the emu” or “resting place of deceased Nyoongar spirits”. A Whadjuk Elder stated “There are a lot of significant points and I wish that the state government would allow us to register that island. There are men’s ceremonial sites, there are still places of courtship, still places for access of artifacts, bush medicine plants ... Rottnest Island looked completely different prior to settlement than what it does now. It was heavily treed, whereas now it has to have revegetation projects to put the plants back there that were taken. But it looked very different to what it does now”.¹⁶

Manjaree is acknowledged by Whadjuk Nyoongar as the “a place where ‘fair or place of trade occurs’; where families of people gather for kinship and in-law making; where mothers, fathers, and old people get together; and where young men and women whom have ‘come of age’ meet future husbands and wives. It was that part of the boodja – land around the Wardanup - foreshore where Whadjuk Nyoongar and others gathered to undertake cultural and ceremonial business. Trade took place before the settlers actually came to this country. So trade in Nyoongar country is very very old, thousands of years old.”¹⁷

5.1.1 Language and identity

Nyoongar language is central to our identity

Nyoongar language is central to our identity; all throughout the southwest there are Nyoongar place names, significant sites and landmarks. These connect us to our sense of place and give us a sense of belonging. The “language of the land” (Nyoongar place names) connects all Nyoongar to their cultural heritage. The language also tells us if a place is sacred such as Waugol Mia (the

⁵City of Fremantle adopted the placename meaning of Walyalup as “place of the Walyo or Woylie” or kangaroo rat after a consultation meeting on 15th October 2014 with Whadjuk Traditional Owners via Southwest Aboriginal Land and Sea Council. The Traditional Owner’s also named the Walyalup Aboriginal Cultural Centre.

Waugal⁶ Hill), Garrungup (name of the Waugal cave and meaning “place of anger”), and the language can tell us where we can and cannot go, it tells us where food resources are such as Karrakatta which means place of the crabs. Mandyuranup – Point Resolution ‘a place to catch fish’. Blackwall Reach is known as Jenalup – place where the feet make a track, Whadjuk Nyoongar acknowledge Cantonment Hill as Dwerda⁷ Weearidinup (the place of the Dingo Spirit) and Rocky Bay is the location of the Waugal Cave where it resides. Nyoongar say it is a “sacred” rock, it is the resting place of the Waugal.¹⁸

The City of Fremantle Project Team acknowledges that language and their meanings is a very important consideration when undertaking projects that require knowledge and interpretation of stories when it incorporates “the first language” in this case the language of the Nyoongar people. This is why we looked closely at place names and meanings in Whadjuk Nyoongar boodja - country.

5.1.2 Place names and meanings

Firstly, we would like to acknowledge that the WAG participants used the Nyoongar place name “Walyalup” when referring to Fremantle during their discussions.

In the Australian Interaction Consultants (AIC) Report¹⁹ it indicated that an SRP (Swan River People) Elder recalled Aboriginal names for Fremantle “Walyalup” and the entrance to the Swan River in Fremantle, “Manjaree” and Fremantle is within the traditional territory of the Whadjuk people.²⁰ The Swan River Trust has identified that where the Swan River in Fremantle meets the Indian Ocean is known as Manjaree and both sides of the inland Fremantle area are known as Walyalup.²¹ According to Daisy Bates, who recorded Nyoongar knowledge in the early 1900s, the Nyoongar word Wal'yulup is the place name and refers to an area as ‘the point Near Fremantle old jetty’.²² Another source states, “the Aboriginal [Nyoongar] name of the town [Fremantle] is Manjaree or Walyalup.”²³ In the Millendon Memoirs of George Fletcher Moore he records Captain Fremantle’s marines built a fort on Site ID 3536 Swan River - Arthur’s Head, the Whadjuk Nyoongar know it as Manjaree.²⁴ The geography of the place named Arthur’s Head is very different to that of the area bearing this name today. The original Arthur Head no longer exists. Quarrying has, considerably altered the contours of the surrounding coast.²⁵

⁶ Nyoongar Rainbow Serpent – Waugal, Waakal, Wargle, Woggal – spellings all refer to the one and same Mythological being

⁷ Dwerda/dwert – dingo or dog

Manjaree – “place of trade and exchange”

Another source states that Manjaree⁸: (Bathers Beach, Arthurs Head Reserve) is a place where 'fair or place of trade occurs'; where families of people gather for kinship and in-law making; where mothers, fathers, and old people get together; and where young men and women whom have 'come of age' meet future husbands and wives."²⁶

Rottnest Island – Wadjemup

And Wadjemup (Rottnest Island) as the 'place of the emu'. 'There are a lot of significant points and I wish that the state government would allow us to register that island. There are men's ceremonial sites; there are still places of courtship, still places for access of artifacts, bush medicine plants... Rottnest Island looked completely different prior to settlement than what it does now. It was heavily treed, whereas now it has to have revegetation projects to put the plants back there that were taken. But it looked very different to what it does now.'²⁷ Walyalup (Fremantle) is said to be the 'place of tears'; the local Whadjuk people used to hold their funeral rites here. The deceased would be buried in the sand dunes and the singing and mourning would start so that the deceased could go on their next journey into the spirit world. It was believed that the spirits would cross the sea to Wadjemup (Rottnest Island) and go beyond to return to a later date."²⁸

In comparing the different meanings and descriptions given by the various commentators it is clear that the "both sides of the inland Fremantle"²⁹ 'the point Near Fremantle old jetty'³⁰, "the entrance to the Swan River in Fremantle"³¹ and where the Swan River in Fremantle meets the Indian Ocean³² have no meaning in terms of cultural understanding about the area.

*Rocky Bay – Garrungup “place of anger”**Cantonment Hill – Dwerda Weearidinup*

Rocky Bay is acknowledged as the Waugal Cave or Garrungup, a home of the Nyoongar Rainbow Serpent. This site is situated in the North Fremantle precinct foreshore. 3419 Fremantle: Cantonment Hill is also acknowledged as the "Dwerda Weearidinup", it is associated with the Dingo

⁸ The Nyoongar people gave the "word" Manjaree which is similar to the word Mandura [Mandurah] to the newcomers, like so many Nyoongar words they were spelt according to the person recording the Nyoongar knowledge and wrote it how they thought they had heard it. Both these place names mean "the place of trade or exchange". Hence the spelling is different but the meaning doesn't change.

Dreaming Story³³. Whadjuk Advisory Group stated that the "Waugal Cave is near John Street, uncle told me not to go there."³⁴ WAG also acknowledged that a Whadjuk Elder said that the Hill is the Warlitje Mia which means 'Wedge-tail eagles nest'. However, it is more likely to be associated with the Dingo Dreaming site.

Swan River – Beeliar

The Beeliar⁹ - Swan River is an iconic site. Whadjuk Nyoongar people associate the River as the home of the Waugal and Dreaming Stories. The foreshore was referred to [by Tom Bennell] as Wardanup³⁵. The Wardan and Beeliar were places the Nyoongar people traversed often for hunting and gathering food, to collect freshwater from the nearby springs, trade and other matters of ceremonial and cultural importance.

5.1.3 Land (Yagan)

"Where is our land, we have no land"

According to Balardong/Wiilman Janet Hayden: "We have always said that this is Yagan and Midgegooroo's country. This is the foundation of Midgegooroo and Yagan's family... this is his tribal country right here. You could say this is Yagan's country .. and Bennell's too." (Hayden 2002).³⁶ Note: The Native Title Claim for the southwest Nyoongar people was Bennell v State of Western Australia [2006] FCA 1243³⁷

According to Hallam and Tilbrook (1990, p.208): The locality most frequented by Midgegooroo and his group lay south of the Swan Estuary and the Canning River, stretching down to Mangles Bay, half-way towards the Murray River . . . the area to which he and his family had customary usage rights extended west to the mouth of the [Swan] river [Fremantle], and also further north of the Swan estuary to Lake Monger, and north east to the Helena River; while his son Yagan moved freely into the area north of the Swan estuary from the crossing at 'the Flats' [Heirisson Island, just east of Perth city centre] to the lakes behind Perth and yet further north to Upper Swan.³⁸ Each Nyoongar moort or family had their own land for hunting and gathering purposes and regarded the incursion of others onto it as trespass, although resources were shared freely with neighbours.³⁹

Nyoongar moort or family of boordier Midgegooroo were forced off their lands and moved to Lake Monger, three kilometres to the north of their traditional beelya karla or river camping grounds around Walyalup.

⁹ Beeliar, Beelya, Bilya, Darbal Yaragan, Derbal Yaragan refers to the Swan River, alternative spellings are correct

Many non-Indigenous people described Yagan, who was a Whadjuk boordier and patriot who defended Whadjuk Nyoongar boodja in the early days of colonisation, as a “native savage”. However, his moort and other Nyoongar know him as Whadjuk boordier (landowner, patriot, warrior and defender of Nyoongar boodja, moort and kaartadjin).

WAG asked the question “where is our land, we have no land” and “we need to speak the truth”.

5.1.4 Incarceration

The prison is here

Round House – the prison where Nyoongar and Aboriginal people were imprisoned and then sent to Wadjemup for further incarceration.

A consequence of contact in Fremantle was the circular imprisonment - They would release them out of Fremantle Prison at 5:30pm and then arrest them for being out of the street and to go back to Fremantle Prison (because they weren't allowed out past 6pm).⁴⁰

5.1.5 Greater Fremantle Nyoongar Sites

Walyalup was a significant place because Nyoongar people had their traditional camping grounds in and around the area

The desktop review identified a number of additional heritage places that were not included on the DAA Register or Fremantle Heritage Inventory. Several campsites or camping grounds, a school and corroboree ground have been identified in the new literature and coupled with the oral histories of Whadjuk Nyoongar; the Walyalup region was a very popular camp area. Camping grounds are usually associated with “runs” or “bidis” (trails)⁴¹ the sites are listed in Table 2 below.

A Whadjuk Nyoongar gives an insight to the making of camps or mia mia:

Nguny might be bibbul koorliny - that means going south, where all the paper bark trees are, that mean bibbul. Paper bark trees they call them bibbul trees. Bibbul boom. They tear all the paper bark off then they make a little mia mia out of it. A little round camp, they tear all the paper bark off with a wanna stick. The women used wanna sticks in those days. They tear off like an axe. They get all that bark out and jab through and tear it off. They were real good little camps; they never let the rain through. They know how to build it, same as you build your tin [hut]. A little round mia mia. They reckon, they kwop (good). Mia warra mia now. Houses no good. Wedjela making mia now koombar moort kaya - yes that means big house, they're making all big flash places for their families. Ngulluk kurawurra, nitcha ngulluk mia nyinalang ñ Kura warra - that means long time ago, they were living in those little camps.⁴²

Plate 1. Mia Mia (Photo Courtesy of Moodjar Consultancy, February 2016)



Table 2. Nyoongar heritage sites identified from desktop research located within the greater Fremantle area

Name	Type of Nyoongar Site	Current description
Fremantle Park	"The most popular Nyoongar camp area in Fremantle was the scrub that later became Fremantle Park". ⁴³	Lawned park opposite the Fremantle swimming pool, recreational area.
East Fremantle Oval	From the 1890s to about the 1920s there were Nyoongar camps in the Vicinity of the East Fremantle Football Oval. ⁴⁴ Dick Flanagan, who moved to Fremantle as a child in 1890, who remembered: Oh, yes, a good camp full out at Pearse's Paddocks as they call it. Yes, always a [Nyoongar] camp there ⁴⁵	Football oval with administration facilities, seating. Fenced and secure.
Name	Type of Nyoongar Site	Current description
Richmond Raceway	Richmond Raceway no longer exists. Adjacent to the oval, Pearse's Slaughter Yard in East Fremantle was a well-used Nyoongar camp. The area later became Richmond Raceway and is now housing. Dick Flanagan, who moved to Fremantle as a child in 1890, remembered: Oh, yes, a good camp full out at Pearses Paddocks as they call it. Yes, always a black fellows camp there. And they'd go about the Streets selling props, for keeping clothes lines up....or go from house to house to chop a bit of wood up – for tea and sugar. ⁴⁶	Housing established.
Tradewinds Hotel, East Fremantle	In the same general area (1899) a Nyoongar camp was where the Tradewinds Hotel now stands in East Fremantle. ⁴⁷	Hotel
Manjarip (Manjaree)	Daisy Bates recorded in the early 1900s this was an old camping area. ⁴⁸	Vicinity of the old Fremantle tunnel next to the Roundhouse.
Walyalup	Daisy Bates recorded in the early 1900s this was an old camping area. ⁴⁹	'the point Near Fremantle old jetty'
Fremantle Cemetery	As a child in about the 1930s, Rusty Christensen remembers Aboriginal people walking down Marmion Street from the direction of what is now Willagee, east of Fremantle, selling clothes props. At that time, the area to the east of the [Fremantle] cemetery was heavily wooded. His older brother and friends spent time around that area, where they saw an Aboriginal camp and witnessed corroborees. ⁵⁰ As well as commemorating the camp, the	Housing and commercial buildings.

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	<p>plaque refers to a nearby increase site, which is a "sacred site ... with spiritual powers able to help renew certain species of living...plants and animals". .</p> <p>This site or close proximity was also identified as a corroboree ground.⁵¹</p>	
Smelters Camp	Nyoongar camping ground ⁵²	-
South Beach	Nyoongar camping ground ⁵³	-
Corroboree ground	Vicinity of Fremantle Cemetery ⁵⁴	-
School	For young Nyoongar girls ⁵⁵	Not known
Robb's Jetty	Nyoongar camping ground ⁵⁶	-
Coogee Beach	Nyoongar camping ground (WAG)	Housing, Recreational and parks

Map 1. Approximate locations of additional significant Whadjuk Nyoongar sites in the greater Fremantle area



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5.2 DAA 3419 Cantonment Hill

Cantonment Hill is known to Whadjuk Nyoongar people as *Dwerda Weeardinup*, it means 'place of the dog [Dingo] spirit'. *Dwerda Weeardinup* is associated with several significant dreaming narratives including the pan-Australia Seven Sisters narrative, the Walyalup dreaming and the Dingo dreaming.

Whadjuk Nyoongar acknowledges *Dwerda Weeardinup* as being one of the seven hills of Fremantle which is associated with the dreaming story about the Seven Sisters. The Seven Sisters dreaming is one of the widest ranging song lines in Australia and extends from the Central Desert to the West coast of Australia, passing through many different language groups. A Whadjuk Nyoongar Elder identified Cantonment Hill and Clontarf Hill as being the only two of the seven hills left, noting that the rest have "all been destroyed, flattened out".⁵⁷ However, other Whadjuk Nyoongar informants say the Dreaming Hills are still there despite the geography changing - ruined by the mining of limestone in the early days. The spiritual essence of the landscape is still culturally strong and meaningful and still connects us to our Dreaming stories.⁵⁸

Dwerda Weeardinup is also recognised as being associated with the Walyalup dreaming narrative about the Waugal and Yondock (the crocodile):

The Walyalup (Fremantle) Dreaming story tells of Yondock, an ancestral crocodile that travelled down from the north, causing floods and disturbances, creating Wadjemup (Rottnest Island), Ngooloomayaup (Carnac Island), Derbal Nara (Cockburn Sound), and flooding the Derbal Yaragan (Swan River) with salt water. The Waagle or Rainbow Serpent, guardian of the fresh water, smells the salt and travels down Derbal Yaragan to see what's happening. With advice from Wooriji (a lizard) in a cave in North Fremantle and strength gained from a freshwater spring at the East Street Jetty, the Waagle fights the crocodile, bites off his tail and places the tail across the mouth of the river to prevent salt water coming up stream. The tail is secured with hair from the armpits of the Waagle on the southern side of the river, and with toenails from the crocodile on the north side of the river [the site where the Dingo Flour Mill sits]. The rest of the crocodile's body remains as Meeandip (or Garden Island...) and dingoes watch [the guards] from Cantonment Hill to make sure the spirit of the crocodile is not reunited with its tail. Part of the tail remains and is visible from the Maritime Museum. [Cantonment Hill] The Dingo still watches over the coast. This is a sign that the Dreaming is still alive and present in this day⁵⁹

Dwerda Weeardinup is thus known to Whadjuk Nyoongar people as the place where Dwerda, the dingo spirit guards the *Beeliar* and the *Wardan*, to make sure that the spirit of *Yondock* is not reunited with its tail.¹⁰ Further, as outlined in the background above, a Nyoongar Elder⁶⁰ has related her story of the Dingo dreaming in which she identifies the connection between *Dwerda Weeardinup*, the flour mills at North Fremantle and the *Waugal Mia* at Rocky Bay. Her narrative also connects *Dwerda Weeardinup* with the Dingo dreaming from the Western Desert. The Whadjuk Advisory Group also confirmed the wide range of the Dingo dreaming narrative; commenting that “the dog walked all around here and ended up in South Australia. This Dingo story is just one stage of a Dreamtime story of our people”. They also referred to the connection between the dingo and the ‘sea dogs’ (dolphins/porpoise) in the *Wardan*, commenting that “one of the dogs guards the river and the other guards the sea” and that *Walyalup* was a meeting place between the land dogs and the sea dogs.⁶¹ Dwerda is the land dogs and Wardan Dwerda are the sea dogs. A Whadjuk Elder said, “*When the wind blows the sea dogs how*”.⁶²

There is also some evidence to suggest that *Dwerda Weeardinup* was one of the hills from which Nyoongar people first observed the arrival of the British colonial ships. A Nyoongar Elder was quoted earlier in this report that he had been talking to the old Nyoongar people who saw the first people when they landed at *Walyalup*. It is possible that Nyoongar sighted the newcomers from this hill.

The Whadjuk Advisory Group also noted that *Dwerda Weeardinup* would have been a significant navigational marker within the landscape. Whadjuk Nyoongar sources identified that *Dwerda Weeardinup* was used as a signal site where Nyoongar people would light fires to let other Nyoongar people know where they were:

*Before the white men came out, a lot of these big hills or rocks were very useful to Aboriginals, because they used to get up on top of the rock and send smoke signals to let the one mob know what was going on to another tribe. They would make a big fire and when the other people on some other rock saw it, they would tell them they saw their fire and then they would go down and meet each other. They might tell each other news, like, if an old Elder died and they wanted to gather around.*⁶³

Sources also report that in historic times the hill was used to light fires to signal to Nyoongar people imprisoned on *Wadjemup* (Rottnest Island) where to return.⁶⁴

As previously reported by AIC, *Dwerda Weeardinup* was also a significant camping area for Nyoongar people due to its close proximity to food and resources that would have been available

¹⁰ Note: Yoom – bobtail lizard (reptile); ock – of or related to; Yondock is of or related to the yoom.

from the *Beeljar* and wetlands at *Manjaree*.⁶⁵ In Drake and Kennealy, 1995 they refer to Nyoongar camping and fishing along the coast and hunted for other wildlife that lived in the vicinity of the swamps.⁶⁶

5.3 DAA 3596 Rocky Bay

The Whadjuk Nyoongar people know Rocky Bay as *Garrungup*. *Garrungup* means the 'place of anger' and is the name of the cave where the *Waugal* resides. During the site visit one WAG Elder stated that the "Waugal Cave is near John Street. My uncle told me not to go there".⁶⁷ Another Whadjuk Elder related a story that if you go near his waterhole or home the "Waakal kurrunyiny – that means that carpet snake is going to get savage"⁶⁸

The *Waugal* is central to Nyoongar beliefs, law and custom. The *Waugal* has been described as:

*...A large snakelike creature responsible for the creation of the Swan and Canning Rivers and other waterways and landforms around present day Perth and the south west of Western Australia. In Nyoongar beliefs the Wagyl was created by the Rainbow Serpent, which entrusted the Wagyl to protect the rivers, lakes, springs and the wildlife. The Nyoongar people were appointed as the guardians of the land by the Wagyl....*⁶⁹

Further, Stocker *et al* observe that:

*In Nyoongar cosmology, the Waagal is the pre-eminent creative ancestral spirit who made the trilogy of country, family and knowledge... In Nyoongar boodja (meaning country), the rivers, wetlands and coastal lakes are the Dreaming tracks (or storylines) made by the Waagal and are held to be sacred by Nyoongar. Throughout the boodja, waterways interconnected with the Dreaming tracks of other ancestral spirits who travelled across the country. These ancestral spirits encountered each other and in the course of these encounters created the features of the landscape such as hills and the stars.*⁷⁰

Garrungup (DAA 3596 Rocky Bay) is one of the most important *Waugal* sites in the Perth region.

Trevor Walley has given accounts of the *Waugal* narrative associated with the site:

The Waugal was swimming down Derbal Yaragan when he smelt Yondock the ancestral Crocodile swimming down from the north. On his way down the river, Waugal took strength from a freshwater spring at the East Street Jetty. He also stopped in a cave in North Fremantle and took advice from Wooriji the Lizard on how to fight and beat the Spirit Crocodile. The Lizard's advice was to bite the tail off Yondock. The Waugal swam out to the coast, which at that time, lay beyond Wadjemup, and sure enough there he encountered the Spirit Crocodile. The place we're sitting on now [Point Peron], I believe was called "moorli borlup". Moorli borlup is a yellow-finned whiting... And this Yondock comes down and he's aiming for this fish here, this Point Peron here is called moorli borlup, the yellow-finned whiting fish. He's coming down and by pushing his way in, Wadjemup was created just because of his actions. Then he started to push his way in. The Waugal and the Spirit Crocodile began to fight and got locked into a death roll. As they rolled and tumbled, they gouged out Derbal Nara or Cockburn

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*Sound and all the sea waters came rushing in. The Waugal was losing the fight with the Spirit Crocodile when he remembered the Lizard's advice, and bit the tail off the Spirit Crocodile. The body of the Spirit Crocodile drifted off and became Garden Island. You can see at the northern end of Garden Island is all white cliffs. This is where the tail was bitten off. This is why the Garden Island is called Meeandip. The Waugal placed the tail of the Spirit Crocodile at the mouth of the Swan River to prevent salt water coming up the river. It became a limestone sand bar. The tail is secured with hair from the armpits of the Waugal on the southern side of the river and with toenails from the crocodile on the northern side of the river. The Waugal knew that if the tail and body of the Spirit Crocodile were ever re-joined, there would be serious trouble. So, he told Dwert – the dingo – to watch over the coast and make sure that this never happened. This is the site where the Dingo Flour Mill sits and the Dingo still watches over the coast. This is a sign that the Dreaming is still alive and present in this day.*⁷¹

Similarly, de Gand writes:

One of the most significant of the Waugal sites on the Swan River occurs at Rocky Bay ('Garrangup'), just to the northwest of Fremantle, where the Waugal is believed to have crawled into the limestone cliffs to sleep after causing a great flood that submerged all of the land between Rottnest Island (Wadjemup) and the coast (Walyalup). There is still a large limestone cave at Rocky Bay which has a central pillar supporting the roof. The Waugal is said to have curled around this central pillar while sleeping. This cave was used by lime burners from 1890 to 1914.

The Waugal also created seven undulating hills (named the seven sisters) before tunnelling underneath the limestone cliffs at Rocky Bay and out to the Indian Ocean. These hills represented a gateway to the spirits of the dead, which, following the route of the Waugal, passed down the river, through the depths under Garrangup (Rocky Bay) and on to rest at Wadjemup.

An early resident of the Fremantle area, May-Ann Friend, recorded in her diary of 1829 the occurrence of large corroborees at what may have been Rocky Bay. It is not known if the corroborees described by Mrs Friend are related to this site, although a connection might be speculated.⁷²

Other sources also relate stories of *Waugal Mia*. A 2010 Swan River Trust⁷³ report states that the *Waugal* slept in *Garrangup* after creating the Seven Sisters hills within the vicinity, which are said to be the back of the *Waugal* and that the stones at *Garrangup* represent its hard baked excreta. A Whadjuk Elder further said "... East Fremantle, just up from there used to be a reef going across there, that's where the Aboriginal people used to walk across there [the sandbar, aka crossing], to that cave... they used to walk across to that cave."⁷⁴

5.4 DAA 3536 Swan River

The Swan River is known by Whadjuk Nyoongar people as *Beeliar* or *Derbal Yaragan*. The *Beeliar* is identified by Whadjuk Nyoongar people as the track and resting place of the *Waugal* (rainbow serpent). The *Waugal* not only created the *Beeliar* but also remains omnipresent within it – the flow of water is evidence of the *Waugal*'s presence.

Throughout the boodja, waterways interconnected with the Dreaming tracks of other ancestral spirits who travelled across the country. These ancestral spirits encountered each other and in the course of these encounters created the features of the landscape such as hills and the stars.⁷⁵

The Australian Interaction Consultants report outlines one of the narratives associated with the creation of the *Beeliar*. It relates Nyoongar Elders' accounts of how the *Waugal* created the *Beeliar* by "making its way down the river, creating the bends at Belmont and Maylands before emerging through the Narrows into Perth Water to create the large expanse of downstream water"⁷⁶. Vinnicombe and Bates both observe that the *Waugal* is also believed to have created permanent water sources at places where it rested, and a number of these locations subsequently became important centres for trade and exchange⁷⁷.

The Walyulup dreaming is a *Waugal* narrative specific to the Fremantle area and the area where the river meets the sea. Whadjuk Nyoongar people believe that the *Waugal* can be a destructive force if not respected or if its resting place is disturbed and if this happens all the water will dry up.

Whadjuk/Balardong Elder Dorothy Winmar recounts:

They reckon without the Waakal around they would have no water. They would not let the kids go and torment the Waakal. They (Nyoongar) would drive them away. There is a Waakal in the Swan River and he very rarely shows himself. If the water was muddy, the old grannies used to say don't swim in there, because he is having a feed. Don't swim (warra wirrin or bad spirit); wait until the water is clear then you can go and jump in (kwop wirrin or good spirit). He was very important to their lives, because they believed in having fresh water. They wanted the water, so they wanted the snake to stay alive.⁷⁸

Whadjuk Nyoongar Elders report that "when C.Y. O'Connor wanted to create Fremantle Port, he used explosives to blow up the [sand] bar [Yondock's tail] across the Swan River. This created a salt-water environment in what was once a fresh water environment and caused great distress to the Nyoongars at the time"⁷⁹. Anecdotal evidence also suggests that the Nyoongar people then put a curse on him and he rode into the water near Robb's Jetty and shot himself⁸⁰.

A more recent event is also viewed by Whadjuk Nyoongar people as evidence of the *Waugal*'s displeasure at the disturbance of the *Beeliar*. On 30 January 2010, Fremantle Ports began dredging 3.1 million cubic metres of material from Fremantle Harbour in works that were designed to create 27 ha of land for port-related purposes.⁸¹ On 22 March 2010, Perth was hit by a thunderstorm that caused significant damage from hailstones, flooding, winds and a landslide at Jacobs Ladder in Kings Park.⁸² The Whadjuk Nyoongar people believe that the storm was a sign

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that the Waugal was karrunginy - angry⁸³

The Beelias was also very important to Nyoongar people as a major source of fresh water, food and other resources. The foreshores of the Beelias - referred to as Wardanup⁸⁴ by Whadjuk Nyoongar Elder Tom Bennell - contained numerous freshwater springs and an abundance of plant and animal resources. Many campsites are known to have been located near these food and water sources and Drake and Kennealy refer to Nyoongar people camping and fishing along the coast and hunted for other wildlife that lived in the vicinity of the swamps⁸⁵.

The foreshores and the former sandbar at the mouth of the river also facilitated Nyoongar travel for hunting and gathering food, collecting freshwater from the nearby springs, trade and other matters of ceremonial and cultural importance. During the WAG consultations it was reported that the former sandbar at the mouth of the *Beelias* was a significant crossing point, which facilitated the seasonal clockwise movement of Nyoongar people along the *bidi*. The destruction of the sandbar significantly impacted and disrupted these runs, which had long lasting detrimental effects on Nyoongar social, cultural and spiritual life.

A Whadjuk Nyoongar Elder was asked what Walyalup would have been like before colonisation and she said:

*What my Grandmother told me, the way she told it to me, it sounded like it was paradise. They [Nyoongar] didn't want for anything. They lived off the land and the fish from the water. They got the kangaroo skins pegged out and cut them up to dry them and sewed them to make coats; yongka booka, or kangaroo coats, choota bags out of them, rugs to sit in. They were quite contented with their lives. Yes, they used to catch their fish with spears (gidjees). They used to hunt with spears, catch possums and all sorts of animals with fur on them to make the kids clothes out of them; those bookas. Without the booka, it was very cold in the winter. They even made shoes out of fur. They were very clever people; we are still clever. They [Nyoongar] hunted for their living and lived off their land ... wedjelas [white people] took over and our Elders cannot teach our young people to go out to hunting and fishing. We can't hunt near the Swan River or fish. We have to have a license. We can't hunt anymore because we no land left. We have to have a license to go on properties now.*⁸⁶

The Swan River – Beelias is the home of the Waugal - Nyoongar Rainbow Serpent. The abundant food and water of the River made this place an important centre for habitation and subsistence activities.

Whadjuk Nyoongar people acknowledge the importance and sacredness of the Beelias – Swan River, the Dreaming stories and Dreaming tracks (Mythological) associated with the Wargle (Rainbow Serpent), the traditional Nyoongar names of significant places and their meanings, ceremonial sites, places they can and can't go, the Nyoongar seasons, the Nyoongar runs/bidis, they know their camping grounds, locations of natural springs and waterholes.

Statements of Significance for the Fremantle Area and Registered Aboriginal Sites Cantonment Hill, Rocky Bay and Swan River

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Many Whadjuk Nyoongar people have kaartdijin – knowledge of history prior to and post colonisation. They remember the traumas of their ancestors and the massacres including the plight of Whadjuk leader Yagan.

These expressions shared by the Whadjuk Advisory Group give them their cultural, spiritual, historical and physical connection to the land. This is what makes Walyalup special and holds a sense of place for the Whadjuk Nyoongar people.

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6.0 STATEMENTS OF SIGNIFICANCE

6.1 Statement of Significance for the wider Fremantle area

Fremantle has a beautiful history

The broader Fremantle region is known to Whadjuk Nyoongar people as Walyalup. Walyalup incorporates the ocean, ocean foreshores, swamps, river mouth, river and land in between. It has social, spiritual, historic and aesthetic values that are further enhanced by its connectedness to other places in the South West region and beyond, and its interpretive potential.

Walyalup has **spiritual** significance to Whadjuk Nyoongar people for its connection to dreaming narratives and creative ancestral beings, particularly the Waugal, and its ritual role as a place of funerary rites. Walyalup¹¹ means "the crying place" or "place of tears" and is the place where a person's spirit leaves to travel across the Wardan – sea towards Wadjemup to their resting place. Walyalup is the birth place of many Nyoongar stories and is associated with significant dreaming stories including the Seven Sisters, Walyalup and Dingo dreaming and ancestral beings including the Waugal (the rainbow serpent), Yondock (the crocodile), Dwerda (the dingo) and the Wardan Dwerda (sea dogs) which are fundamental to Whadjuk Nyoongar sense of self, identity and culture.

Walyalup has **social** significance to Whadjuk Nyoongar people for its wide social functions. It was a shared space between many Nyoongar people and was a highly significant place of trade and exchange. It was a place where families gathered for kinship and in-law making, cultural and ceremonial business. It was also a place where Nyoongar people held their funeral rites. Walyalup played a significant role in Nyoongar seasonal travel and communication cycles being a place to where the bid'i's – trails led. It was a place of abundant resources which facilitated hunting, camping and fishing according to the Nyoongar season Kambarang.

Walyalup holds **historic significance** for its association with the first Nyoongar sightings of the arrival of the British fleet at Fremantle and having been one of the first places in Western Australia that Nyoongar people experienced the full impact of colonisation including massacres, forced removal, the loss of land and incarceration of Nyoongar and other Aboriginal people on Wadjemup.

¹¹ City of Fremantle adopted the placename meaning of Walyalup as "place of the Walyo or Woylie" or kangaroo rat after a consultation meeting on 15th October 2014 with Whadjuk Traditional Owners via Southwest Aboriginal Land and Sea Council. The Traditional Owner's also named the Walyalup Aboriginal Cultural Centre.

Walyalup also possesses **aesthetic significance**. The visual combination of its elements including the Wardan (Indian Ocean), the Beeliar (the Swan River), the river mouth, the remaining hills of Fremantle including Dwerda Weeardinup and Clontarf Hill, all facilitate the ongoing Whadjuk Nyoongar cultural connection to the dreaming narratives, creative beings and Nyoongar histories and memories, as well as reinforcing the sense of place of Walyalup. The view to Wadjemup in particular evokes strong feelings and memories associated with colonisation and the imprisonment of Nyoongar and other Aboriginal men on Wadjemup.

The primary significance of Walyalup is further enhanced by its connectedness and interpretive potential. Walyalup is extensively **connected** to other Nyoongar places and Aboriginal peoples across Australia through its associated creative beings, dreaming narratives and social networks. The Seven Sisters and Dwerda Dreaming's connect Walyalup with the Central and Western Deserts, South Australia and South West Australia. The Walyalup dreaming connects Walyalup to local places including the Beeliar (Swan River), Wadjemup (Rottnest Island), Garrungup (Rocky Bay), Wardan (the Indian Ocean), Dwerda Weeardinup (Cantonment Hill) and Kings Park. These connections are extremely important and form the basis of Whadjuk Nyoongar identity and culture. Walyalup also holds excellent **interpretive capacity** as its many publicly accessible open spaces; parks, hills and foreshore areas can provide an opportunity to educate the broader public about Whadjuk Nyoongar culture and history.

6.2 Statement of Significance for DAA 3419 Fremantle: Cantonment Hill

Dwerda Weeardinup - is associated with significant dreaming stories

DAA 3419 Fremantle: Cantonment Hill is known to Whadjuk Nyoongar people as Dwerda Weeardinup (place of the Dingo spirit). It is an elevated hill located on the southern side of the Beeliar (Swan River) near where the river meets the ocean. Dwerda Weeardinup is an important place to Whadjuk Nyoongar people. It has social, spiritual, historic and aesthetic values, which are further enhanced by its uniqueness, connectedness to other places in the Fremantle region and beyond, and its interpretive potential.

Dwerda Weeardinup is of high **spiritual** and **social significance** to Whadjuk Nyoongar people for its connection to dreaming narratives and creative ancestral beings. It is associated with significant dreaming stories including the Seven Sisters, Walyalup and Dingo dreaming and ancestral beings including the Waugal (the rainbow serpent), Yondock (the crocodile), Dwerda (the dingo) and the Wardan Dwerda (sea dogs), which are fundamental to Whadjuk Nyoongar sense of self, identity and culture. The hill (still functions as a notable visual marker within the landscape) was used for observing the landscape and signaling other Nyoongar people with smoke and fire. Dwerda Weeardinup, with its close proximity to a wide array of resources, is also a place where people gathered and camped since nyittingy times.

Dwerda Weeardinup holds **historic significance** for its association with the first Nyoongar sightings of the arrival of the British fleet at Fremantle and its association with the incarceration of Nyoongar and other Aboriginal people on Wadjemup.

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Dwerda Weeardinup also possesses **aesthetic significance**. It is an iconic landmark within the Fremantle Nyoongar landscape. Its elevated aspect relative to the surrounding landscape gives it visual and sensory connectivity to the Wardan (Indian Ocean, the place where spirits leave to go to another land), Wadjemup (Rottnest Island), Beeliar (the Swan River, the home of the Waugal), Manjaree (an important place of historic trade and exchange) and Walyalup (the wider Fremantle region). The view to Wadjemup in particular evokes strong feelings and memories associated with colonisation and the imprisonment of Nyoongar and other Aboriginal men on Wadjemup. The aesthetic setting of the place helps to reinforce the sense of place of Dwerda Weeardinup for Nyoongar people.

The primary significance of Dwerda Weeardinup is further enhanced by its rarity, condition, connectedness and interpretive potential. Dwerda Weeardinup is recognised by the Whadjuk Nyoongar community as one of the original seven hills of Fremantle associated with the Seven Sisters dreaming. The site therefore has **rarity** value as only two of these seven hills are known to exist today. Dwerda Weeardinup is **connected** extensively to other places and Aboriginal peoples across Australia through its associated dreaming narratives and social networks. It is connected directly with the Central and Western Deserts, South Australia, the South West Australia and has significant local connections with North Fremantle, Wadjemup (Rottnest Island), Garrungup (Rocky Bay), Wardan (the Indian Ocean), Beeliar (Swan River) and Kings Park. These connections are extremely important and form the basis of Whadjuk Nyoongar identity and culture. Dwerda Weeardinup further holds good **interpretive capacity** because its elevated and open setting offers a space where Whadjuk knowledge holders can interpret and educate the broader public about Dwerda Weeardinup and Nyoongar culture.

6.3 Statement of Significance for DAA 3596 Rocky Bay

home of the Waugal (Nyoongar Rainbow Serpent)

Aboriginal Site DAA 3596 Rocky Bay is known to Whadjuk Nyoongar people as Garrungup (the place of anger). It is a large cave located in a limestone cliff [Waugal Mia] on the foreshore of the Beeliar (Swan River). Garrungup is an exceptionally important place to Whadjuk Nyoongar people. It has social, spiritual, historic and aesthetic values, which are enhanced by its uniqueness, connectedness to other places and beings, and its interpretive potential.

Garrungup holds high **social** and **spiritual significance** to Whadjuk Nyoongar people for its connection to dreaming narratives and creative ancestral beings. Specifically, it is the home of the Waugal (rainbow serpent), the pre-eminent creative ancestral spirit who made the trilogy of country, family and knowledge. The Waugal is central to Nyoongar beliefs, law and custom and is fundamental to Whadjuk Nyoongar sense of self, identity and culture. It is also significant for its association with major dreaming narratives including the Walyalup, Seven Sisters and Dingo Dreaming and other ancestral beings including Yondock (the crocodile) and Dwerda (the dingo).

Garrungup also holds **historic significance** as it is the residence of a significant historic figure (the Waugal) and is the location of a major historical creation event. It has **aesthetic significance**, as

its dramatic and cavernous setting adjacent to the Beeliar (Swan River) enhances its sense of place as the home of a powerful creative being.

The primary significance of Garrungup is further enhanced by its rarity, connectedness and interpretive potential. The site holds **rarity** value, as there are no other similar sites located along the Beeliar in terms of its spiritual, social or physical components. It is extensively **connected** to other Nyoongar places and Aboriginal peoples across Australia through its associated creative beings, dreaming narratives and social networks. The Seven Sisters and Dwerda Dreaming's connect Garrungup with the Central and Western Deserts, South Australia and South West Australia.

The Walyalup dreaming connects Waugal Mia with local places including Wadjemup (Rottneet Island), Dwerda Weearidinup (Cantonment Hill), Wardan (the Indian Ocean), Beeliar (Swan River) and Kings Park. These connections are extremely important and form the basis of Whadjuk Nyoongar identity and culture. Garrungup further holds **interpretive capacity** as its publicly accessible setting can provide an opportunity to educate the broader public about Whadjuk Nyoongar culture and protocols.

6.4 Statement of Significance for DAA 3536 Swan River (Fremantle area)

The Waugal not only created the Beeliar but also remains ever present within it

The Beeliar is a very important place to Whadjuk Nyoongar people¹². It has social, spiritual, historic and aesthetic values, which are enhanced by its connectedness to other places and beings, and its interpretive potential.

The Beeliar holds high **spiritual significance** to Whadjuk Nyoongar people for its connection to dreaming narratives and that this statement of significance only refers to the section of the Swan River located within the City of Fremantle not the Swan River as a whole. It should be further noted, however, that Whadjuk Nyoongar people do not compartmentalise the landscape and view it as all connected.

Aboriginal Site DAA 3536 Swan River is known to Whadjuk Nyoongar people as Beeliar or Derbal Yaragan. The Beeliar is identified by Whadjuk Nyoongar people as the track and resting place of the Waugal (Nyoongar Rainbow Serpent). The Waugal not only created the Beeliar but also

¹² This statement of significance only refers to the section of the Swan River located within the City of Fremantle and includes the river, its foreshores, its bed to an undefined depth and the area where the river meets the sea including the former sandbar at the mouth of the river.

remains ever present within it. The Waugal is the pre-eminent creative ancestral spirit who made the trilogy of country, family and knowledge. The Waugal is central to Nyoongar beliefs, law and custom and is fundamental to Whadjuk Nyoongar sense of self, identity and culture. The Beeliar is also significant for its association with major dreaming narratives including the Walyalup, Seven Sisters and Dingo Dreaming's and other ancestral beings including Yondock (the crocodile) and Dwerda (the dingo).

The Beeliar holds **social significance** for Whadjuk Nyoongar people as it played a very important social role in facilitating Nyoongar travel, trade and other matters of ceremonial and cultural importance, and the provision of fresh water, food, other resources and camping areas. The former sandbar at the mouth of the Beeliar is of particular significance to Whadjuk Nyoongar people as it played a vital role in the seasonal circular movements of Nyoongar people along their cultural trails. The destruction of the sandbar significantly impacted and disrupted these runs, which had long lasting detrimental effects on Nyoongar social, cultural and spiritual life. Memories of the former sandbar evoke sadness and anxiety for Whadjuk Nyoongar people.

The Beeliar also holds **historic significance** for its association with the removal of the former sandbar and opening up of the Fremantle harbor. Further, the Beeliar is the residence of a significant historic figure (the Waugal) and the location of a major historical creation event. The Beeliar has **aesthetic significance** as its exceptional visual and sensory setting facilitates ongoing Whadjuk Nyoongar cultural connection to the dreaming narratives and creative beings and adds to the sense of place as the home of the Waugal – the keeper of the fresh water sources.

The primary significance of Beeliar is further enhanced by its connectedness and interpretive potential. The Beeliar is extensively **connected** to other Nyoongar places and Aboriginal peoples across Australia through its associated creative beings, dreaming narratives and social networks. The Seven Sisters and Dwerda Dreaming's connect the Beeliar with the Central and Western Deserts, South Australia and South West Australia. The Walyalup dreaming connects the Beeliar with local places including Wadjemup (Rottnest Island), Garrungup (Rocky Bay), Wardan (the Indian Ocean), Dwerda Weeardinup (Cantonment Hill) and Kings Park. These connections are extremely important and form the basis of Whadjuk Nyoongar identity and culture. The Beeliar further holds excellent **interpretive capacity** as its many publicly accessible foreshore areas can provide an opportunity to educate the broader public about Whadjuk Nyoongar culture and history.

6.5 Significance assessment limitations

It is important for the City of Fremantle to hear the voices of Whadjuk Nyoongar people

It should be noted that several WAG members conveyed a reluctance to share personal stories or narratives about the Fremantle area due to concern about the protection of intellectual property rights. It is therefore noted that the Whadjuk Nyoongar community hold additional narratives and

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information associated with Cantonment Hill, Rocky Bay and the Swan River, which have not been recorded within this report.

Whilst the WAG visited the vicinity of the Rocky Bay site during the consultation meeting, the significance of the site was not specifically discussed afterwards due to time constraints and an insufficient number of WAG members for a quorum. The statement of significance for Rocky Bay is therefore based upon the literature search and additional comments made by the WAG members during the site visit. The scientific significance of the Rocky Bay site is unable to be assessed. There are no previous assessments and it would be highly culturally appropriate to undertake any form of scientific assessment within Garrungup.

The specific significance of the Beeliar (Swan River) within the Fremantle area was not discussed during the consultation meeting with the WAG due to time constraints and an insufficient number of WAG members at the end of the day to form a quorum. The statement of significance for the Swan River is therefore based upon the literature search and additional comments made by the WAG members during the consultation workshop.

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7.0 RECOMMENDATIONS

7.1 Observations

Moodjar Consultancy advises the City of Fremantle that:

- There were limitations associated with the community consultation that should be acknowledged. Members of the Whadjuk Advisory Group were initially reluctant to engage about several key issues relating to the development of the Statements of Significance and the meeting time on February, 17 2016 was cut short from six hours to five hours when several members had to leave and the meeting was without a quorum. Further time to understand various matters affecting the project and build a relationship will create more meaningful dialogue, participation and involvement between the Whadjuk Advisory Group, Whadjuk Working Party, the City of Fremantle and SWALSC.
- It was observed at DAA 3596 Rocky Bay that despite the site having been blocked off to prevent public access, there was evidence that a person(s) was residing within the cave. Graffiti and damage to the site were also noted.
- Waugal Mia was referred to but no significant discussion took place. It is one of the seven hills of the Dreaming and is associated with the Waugal and its cave.
- Meaning of Walyalup needs discussion as this document states Walyalup as “the place of tears” or the “crying place”. City of Fremantle adopted the place name meaning of Walyalup as “place of the Walyo or Woylie” or kangaroo rat after a consultation meeting on 15th October 2014 with Whadjuk Traditional Owners via Southwest Aboriginal Land and Sea Council. The Traditional Owner’s also named the Walyalup Aboriginal Cultural Centre.
- Weearinup – spelling and meaning is confusing. Suggested spelling should be Weerin-up or Wirrin-up – spirit. For example, Dwerda Wirrin-up – Place of the Dingo Spirit.

7.2 Recommendations

Based on the outcomes of the consultation and desktop research the following **recommendations** are made in relation to the **Cantonment Hill AIP**:

- The site be interpreted to the public in a manner that is cognizant of and sensitive to Whadjuk Nyoongar history and culture;
- The interpretation features Whadjuk Nyoongar cultural narratives in Nyoongar language with a simplified version in English;
- A Whadjuk Nyoongar guide be employed to interpret the stories to the public;
- Additional oral history recording be undertaken to enrich the existing knowledge about Cantonment Hill, as well as the other two sites and the broader Fremantle region.
- Nyoongar people to be given preference for any tender work on Cantonment Hill and the other heritage sites; and

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- Nyoongar people should be employed at Cantonment Hill and the other heritage sites to tell the stories about these places.
- City of Fremantle to follow up with the Whadjuk Working Group for further discussion on place name Dwerda Weeardinup. Also City of Fremantle references Walyalup meaning - place of the walyo or woylie – kangaroo rat. City of Fremantle adopted the placename meaning of Walyalup as “place of the Walyo or Woylie” or kangaroo rat after a consultation meeting on 15th October 2014 with Whadjuk Traditional Owners via Southwest Aboriginal Land and Sea Council. The Traditional Owner’s also named the Walyalup Aboriginal Cultural Centre. Further discussion on the adoption of this placename meaning between WAG and City of Fremantle is recommended.
- Other sources reference Walyalup as the “crying place”. **Wal** to cry, **yal** to come, **up** – location of.
- Additional information is required for Waugal Mia to ascertain significance.

The following **recommendations** are made in relation to the **Cantonment Hill Cultural Heritage Management Plan**:


- Earthworks be monitored for potential subsurface archaeological material;
- The City of Fremantle ensure that its earthworks contractors are advised of and are sensitive to the cultural significance of the site;
- A Stop Work Procedure is put in place for any suspected archaeological or skeletal material located during works;

It is further **recommended** that the City of Fremantle:

- Engage further with Whadjuk Working Party to ascertain the extent of significance of DAA 3596 Rocky Bay and DAA 3536 Swan River;
- Engage with the Whadjuk Working Party to re-examine the current management strategies for DAA 3596 Rocky Bay and to develop and implement in partnership with the Whadjuk Working Party a conservation management plan to prevent further deterioration of the site;
- Develop in partnership with the Whadjuk Working Party an interpretation plan for DAA 3536 Swan River within the City of Fremantle boundaries; and
- Recognize and acknowledge the deleterious effects of the removal of the sandbar at the mouth of the river on Nyoongar people’s social, cultural and spiritual lives and the *Beeliar*, through public interpretation.

8.0 APPENDICES

8.1 Appendix 1 – DAA AHIS Registered Sites



Government of Western Australia
Department of Aboriginal Affairs

Aboriginal Heritage Inquiry System

Aboriginal Sites Database

Search Criteria
4 Registered Aboriginal Sites in LGA - City Of Fremantle

Disclaimer
The *Aboriginal Heritage Act 1972* preserves all Aboriginal sites in Western Australia whether or not they are registered. Aboriginal sites exist that are not recorded on the Register of Aboriginal Sites, and some registered sites may no longer exist.

The information provided is made available in good faith and is predominately based on the information provided to the Department of Aboriginal Affairs by third parties. The information is provided solely on the basis that readers will be responsible for making their own assessment as to the accuracy of the information. If you find any errors or omissions in our records, including our maps, it would be appreciated if you email the details to the Department at heritageinquiries@dca.wa.gov.au and we will make every effort to rectify it as soon as possible.

South West Settlement ILUA Disclaimer
Your heritage enquiry is on land within the following Indigenous Land Use Agreement(s): Whadjuk People ILUA

On 8 June 2015, six identical Indigenous Land Use Agreements (ILUAs) were executed across the South West by the Western Australian Government and, respectively, the Yued, Whadjuk People, Gnaala Karta Bojja, Ballardong People, South West Bogaran # 2 and Wagyl Kaip & Southern Noongar groups, and the South West Aboriginal Land and Sea Council (SWALSC).

The ILUAs bind the parties (including the State), which encompasses all State Government Departments and certain State Government agencies) to enter into a Noongar Standard Heritage Agreement (NSHA) when conducting Aboriginal Heritage Surveys in the ILUA areas, unless they have an existing heritage agreement. It is also intended that other State agencies and Instrumentalities enter into the NSHA when conducting Aboriginal Heritage Surveys in the ILUA areas. It is recommended a NSHA is entered into, and an 'Activity Notice' issued under the NSHA, if there is a risk that an activity will 'impact' (i.e. by excavating, damaging, destroying or altering in any way) an Aboriginal heritage site. The Aboriginal Heritage Due Diligence Guidelines, which are referenced by the NSHA, provide guidance on how to assess the potential risk to Aboriginal heritage.

Likewise, from 8 June 2015 the Department of Mines and Petroleum (DMP) in granting Mineral, Petroleum and related Access Authority tenures within the South West Settlement ILUA areas, will place a condition on these tenures requiring a heritage agreement or a NSHA before any rights can be exercised.

If you are a State Government Department, Agency or Instrumentality, or have a heritage condition placed on your mineral or petroleum title by DMP, you should seek advice as to the requirement to use the NSHA for your proposed activity. The full ILUA documents, maps of the ILUA areas and the NSHA template can be found at <http://www.dmp.wa.gov.au/land/claims/pages/24/indigenous-settlement.aspx>.

Further advice can also be sought from the Department of Aboriginal Affairs (DAA) at heritageinquiries@dca.wa.gov.au.



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Coordinate Accuracy

Accuracy is shown as a code in brackets following the coordinates. Map coordinates (Latitude/Longitude and Easting/Northing) are based on the GDA 94 Datum. The Easting/Northing map grid can be across one or more zones. The zone is indicated for each Easting on the map. (e.g. 500000mE:250 means Easting=500000, Zone=50).

Terminology (NB that some terminology has varied over the life of the legislation)

Place ID/Site ID: This is a unique ID assigned by the Department of Aboriginal Affairs to the place

- o **Registered Site:** The place has been assessed as meeting Section 5 of the *Aboriginal Heritage Act 1972*
- o **Other Heritage Place (which includes):**
 - **Stored Data / Not a Site:** The place has been assessed as not meeting Section 5 of the *Aboriginal Heritage Act 1972*
 - **Lodged:** Information has been received in relation to the place, but an assessment has not been completed at this stage to determine if it meets Section 5 of the *Aboriginal Heritage Act 1972*

Status Reason: e.g. **Exclusion:** - Relates to a portion of an Aboriginal site or heritage place as assessed by the Aboriginal Cultural Material Committee (ACMC), e.g. such as the land subject to a section 18 notice.

Origin Place ID: Used in conjunction with Status Reason to indicate which Registered Site this Place originates from.

Access and Restrictions:

- o **File Restricted = No:** Availability of information (other than boundary) that the Department of Aboriginal Affairs holds in relation to the place is not restricted in any way.
- o **File Restricted = Yes:** Some of the information that the Department of Aboriginal Affairs holds in relation to the place is restricted if it is considered culturally sensitive. This information will only be made available if the Department of Aboriginal Affairs receives written approval from the informants who provided the information. Download the [Request to Access Restricted Information](#) letter and form.
- o **Boundary Restricted = No:** place location is shown as accurately as the information lodged with the Registrar allows.
- o **Boundary Restricted = Yes:** To preserve confidentiality the exact location and extent of the place is not displayed on the map. However, the shaded region (generally with an area of at least 4km²) provides a general indication of where the place is located. If you are a landowner and wish to find out more about the exact location of the place, please contact DAA.
- o **Restrictions:**
 - **No Restrictions:** Anyone can view the information
 - **Male Access Only:** Only males can view restricted information
 - **Female Access Only:** Only females can view restricted information

Legacy ID: This is the former unique number that the former Department of Aboriginal Sites assigned to the place. This has been replaced by the Place ID / Site ID.



Statements of Significance for the Fremantle Area and Registered Aboriginal Sites Cantonment Hill, Rocky Bay and Swan River

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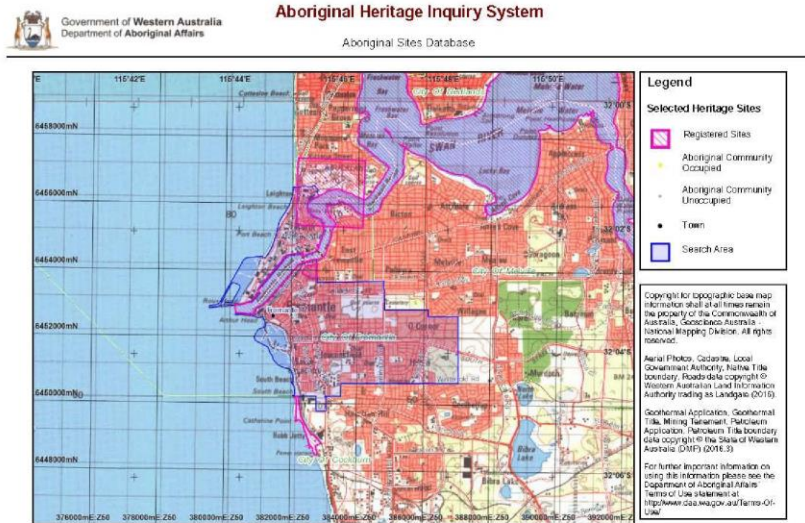
Aboriginal Sites Database

List of Registered Aboriginal Sites with Map

Site ID	Site Name	File Restricted	Boundary Restricted	Restrictions	Status	Status Reason	Origin Place ID	Site Type	Knowledge Holder	Coordinates	Legacy ID
3419	FREMANTLE CANTONMENT HILL	No	No	No Gender Restrictions	Registered Site			Ceremonial, Mythological, Camp, Named Place, Plant Resource	*Registered Knowledge Holder names available from DAA	382528mE 6453922mN Zone 50 (Unreliable)	SO2701
3536	SWAN RIVER	No	No	No Gender Restrictions	Registered Site			Mythological	*Registered Knowledge Holder names available from DAA	446797mE 6461614mN Zone 60 (Reliable)	SO2648
3596	ROCKY BAY	Yes	Yes	No Gender Restrictions	Registered Site			Mythological, Named Place	*Registered Knowledge Holder names available from DAA	Not available when location is restricted	SO2422
3707	ROBB JETTY CAMP	No	No	No Gender Restrictions	Registered Site			Historical, Man-Made Structure, Camp	*Registered Knowledge Holder names available from DAA	382506mE 6446223mN Zone 60 (Reliable)	SO2207

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8.2 Appendix 2 – DAA AHIS Other Heritage Places



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Search Criteria

10 Other Heritage Places in LGA - City Of Fremantle

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South West Settlement ILUA Disclaimer

Your heritage enquiry is on land within the following Indigenous Land Use Agreement(s): Whadjuk People ILUA

On 8 June 2015, six identical Indigenous Land Use Agreements (ILUAs) were executed across the South West by the Western Australian Government and, respectively, the Yued, Whadjuk People, Gnaais Karia Boga, Ballardong People, South West Boorah #2 and Wagyl Kaip & Southern Noongar groups, and the South West Aboriginal Land and Sea Council (SWALSC).

The ILUAs bind the parties (including 'the State', which encompasses all State Government Departments and certain State Government agencies) to enter into a Noongar Standard Heritage Agreement (NSHA) when conducting Aboriginal Heritage Surveys in the ILUA areas, unless they have an existing heritage agreement. It is also intended that other State agencies and instrumentalities enter into the NSHA when conducting Aboriginal Heritage Surveys in the ILUA areas. It is recommended a NSHA is entered into, and an 'Activity Notice' issued under the NSHA, if there is a risk that an activity will 'impact' (i.e. by excavating, damaging, destroying or altering in any way) an Aboriginal heritage site. The Aboriginal Heritage Due Diligence Guidelines, which are referenced by the NSHA, provide guidance on how to assess the potential risk to Aboriginal heritage.

Likewise, from 8 June 2016 the Department of Mines and Petroleum (DMP) in granting Mineral, Petroleum and related Access Authority tenures within the South West Settlement ILUA areas, will place a condition on these tenures requiring a heritage agreement or a NSHA before any rights can be exercised.

If you are a State Government Department, Agency or Instrumentality, or have a heritage condition placed on your mineral or petroleum title by DMP, you should seek advice as to the requirement to use the NSHA for your proposed activity. The full ILUA documents, maps of the ILUA areas and the NSHA template can be found at <https://www.dpc.wa.gov.au/land/claims/Pages/SouthWestSettlement.aspx>.

Further advice can also be sought from the Department of Aboriginal Affairs (DAA) at heritageenquiries@daa.wa.gov.au.



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Coordinate Accuracy

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Terminology (NB that some terminology has varied over the life of the legislation)

Place ID/Site ID: This is a unique ID assigned by the Department of Aboriginal Affairs to the place

Status:

- o **Registered Site:** The place has been assessed as meeting Section 5 of the *Aboriginal Heritage Act 1972*
- o **Other Heritage Place which includes:**
 - **Scored Data / Not a Site:** The place has been assessed as not meeting Section 5 of the *Aboriginal Heritage Act 1972*
 - **Lodged:** Information has been received in relation to the place, but an assessment has not been completed at this stage to determine if it meets Section 5 of the *Aboriginal Heritage Act 1972*

Status Reason: e.g. Exclusion - Relates to a portion of an Aboriginal site or heritage place as assessed by the Aboriginal Cultural Material Committee (ACMC), e.g. such as the land subject to a section 18 notice

Origin Place ID: Used in conjunction with Status Reason to indicate which Registered Site this Place originates from.

Access and Restrictions:

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- o **File Restricted - Yes:** Some of the information that the Department of Aboriginal Affairs holds in relation to the place is restricted if it is considered culturally sensitive. This information will only be made available if the Department of Aboriginal Affairs receives written approval from the Informants who provided the information. Download the [Request to Access Restricted Information](#) letter and form.
- o **Boundary Restricted - No:** place location is shown as accurately as the information lodged with the Registrar allows.
- o **Boundary Restricted - Yes:** To preserve confidentiality the exact location and extent of the place is not displayed on the map. However, the shaded region (generally with an area of at least 4km²) provides a general indication of where the place is located. If you are a landowner and wish to find out more about the exact location of the place, please contact DAA.
- o **Restrictions:**
 - **No Restrictions:** Anyone can view the information.
 - **Male Access Only:** Only males can view restricted information.
 - **Female Access Only:** Only females can view restricted information.

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Aboriginal Sites Database

List of Other Heritage Places with Map

ID	Place Name	File Restricted	Boundary Restricted	Restrictions	Status	Status Reason	Origin Place ID	Type	Knowledge Holder	Coordinates	Legacy ID
3420	FREMANTLE: ANGLESEA POINT	No	No	No Gender Restrictions	Lodged			Named Place	*Registered Knowledge Holder names available from DAA	381281mE 6452417mN Zone 60 (Unreliable)	S02302
3421	FREMANTLE: MANJAREE	No	No	No Gender Restrictions	Stored Data / Not a Site			Camp, Meeting Place, Named Place	*Registered Knowledge Holder names available from DAA	381193mE 6452728mN Zone 60 (Unreliable)	S02303
3774	FREMANTLE: ARTHUR HEAD	No	No	No Gender Restrictions	Stored Data / Not a Site			Camp	*Registered Knowledge Holder names available from DAA	381139mE 6452749mN Zone 60 (Unreliable)	S02167
3775	SOUTH FREMANTLE	No	No	No Gender Restrictions	Stored Data / Not a Site			Ceremonial, Mythological	*Registered Knowledge Holder names available from DAA	382487mE 6454055mN Zone 60 (Unreliable)	S02168
3776	INDIAN OCEAN	No	No	No Gender Restrictions	Stored Data / Not a Site			Mythological	*Registered Knowledge Holder names available from DAA	372624mE 6445362mN Zone 60 (Reliable)	S02169
3664	SOUTH FREMANTLE: ATTFIELD	No	No	No Gender Restrictions	Stored Data / Not a Site			Artefacts / Scatter	*Registered Knowledge Holder names available from DAA	382490mE 6451904mN Zone 60 (Reliable)	S01629
16744	SOUTH FREMANTLE: FRANCISCO ST	No	No	No Gender Restrictions	Stored Data / Not a Site			Skeletal Material / Burial	*Registered Knowledge Holder names available from DAA	382387mE 6451749mN Zone 60 (Reliable)	S03085

Statements of Significance for the Fremantle Area and Registered Aboriginal Sites Cantonment Hill, Rocky Bay and Swan River

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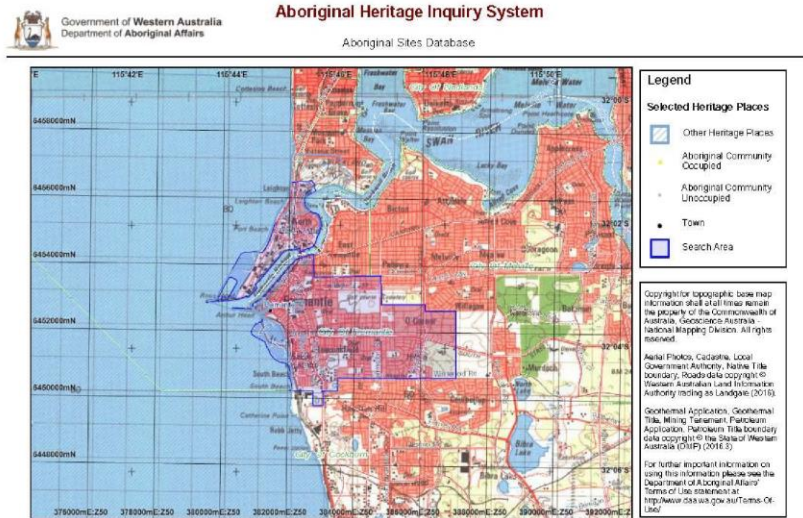
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Aboriginal Heritage Inquiry System

Aboriginal Sites Database

ID	Place Name	File Restricted	Boundary Restricted	Restrictions	Status	Status Reason	Origin Place ID	Type	Knowledge Holders	Coordinates	Legacy ID
18332	Clontarf hill	No	No	No Gender Restrictions	Lodged			Artefacts / Scatter, Ceremonial, Mythological, Camp, Hunting Place, Natural Feature	*Registered Knowledge Holder names available from DAA	383417mE 6450405mN Zone 50 (Reliable)	
21253	Mosman Park	No	No	No Gender Restrictions	Stored Data / Not a Site			Artefacts / Scatter, Ceremonial, Grinding Patches / Grooves, Historical, Mythological, Water Source	*Registered Knowledge Holder names available from DAA	382770mE 6456337mN Zone 50 (Reliable)	
24282	Fremantle Prison	No	No	No Gender Restrictions	Stored Data / Not a Site			Historical, Painting, Other Deaths in custody site.	*Registered Knowledge Holder names available from DAA	382332mE 6452789mN Zone 50 (Reliable)	

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8.3 Appendix 3 – Definitions of significance criteria used

Following Article 1.2 of the Australian ICOMOS Burra Charter (2013)⁸⁷, we assessed the following five primary heritage values. It should be noted that these criteria are not mutually exclusive and can often overlap. We define these terms as per the Australia ICOMOS *Practice Note: Understanding and assessing cultural significance*⁸⁸ as follows:

Aesthetic significance refers to the sensory and perceptual experience of a place, how we respond to visual and non-visual aspects such as sounds, smells and other factors having a strong impact on human thoughts, feelings and attitudes.

A place may have **Historic significance** because it has influenced, or has been influenced by an historic event, phase, movement or activity, person or group of people. It may be the site of an important event.

Scientific significance refers to the information content of a place and its ability to reveal more about an aspect of the past through examination or investigation of the place, including the use of archaeological techniques. The relative scientific value of a place is likely to depend on the importance of the information or data involved, on its rarity, quality or representativeness, and its potential to contribute to further important information about the place itself or a type or class of place or to address important research questions.

Social significance refers to the associations that a place has for a particular community or cultural group and the social or cultural meanings that it holds for them.

Spiritual significance refers to the intangible values and meanings embodied in or evoked by a place which give it importance in the spiritual identity, or the traditional knowledge, art and practices of a cultural group. Spiritual value may also be reflected in the intensity of aesthetic and emotional responses or community associations and be expressed through cultural practices and related places.

We further applied the following four secondary, comparative criteria as outlined in *Significance 2.0*⁸⁹ and NSW NPWS guidelines⁹⁰. These criteria are defined as follows:

Rarity refers to places which show rare or endangered aspects of Australia's history.

Representativeness refers to places which are 'model' examples of heritage places.

Condition refers to the current state of the place in relation to each of the values for which that place has been assessed. Condition reflects the cumulative effects of management and environmental events. Integrity is a measure of the likely long term viability or sustainability of the values identified, or the ability of the place to restore itself or be restored, and the time frame for any restorative process.

Connectedness relates to inter-site relationships, that is, whether a site can be linked to an archaeological complex or where sequence of activities can be discerned.

Interpretive capacity is the potential for the significance of the place to be presented in a wide variety of ways.

9.0 REFERENCES

- ¹ Pearson and Sullivan 1995:130, 176
- ² WAG workshop, Feb 17, 2016
- ³ WAG workshop, Feb 17, 2016
- ⁴ Mrs Teresa Wally, Elder WAG workshop, Feb 17, 2016
- ⁵ Ms Karen Jacobs, WAG workshop, Feb 17, 2016
- ⁶ WAG workshop, Feb 17, 2016
- ⁷ WAG workshop, Feb 17, 2016
- ⁸ Mrs Teresa Wally, Elder WAG workshop, Feb 17, 2016
- ⁹ Mrs Miriam Champion, Elder WAG workshop, Feb 17, 2016
- ¹⁰ Mrs Marion Collard, Elder WAG workshop, Feb 17, 2016
- ¹¹ Ms Karen Jacobs, WAG workshop, Feb 17, 2016
- ¹² Mrs Miriam Champion, Elder WAG workshop, Feb 17, 2016
- ¹³ <http://www.bom.gov.au/iwk/nyoongar/kambarang.shtml>
- ¹⁴ Nidja Beeliar Boodjar Noonookurt Nyinyiny: A Nyoongar Interpretive History Of The Use Of Boodjar (Country) In The Vicinity Of Murdoch University. L Collard, S Harben. Murdoch University
- ¹⁵ Narrated by Collard, L., "Spirit of Fremantle", uploaded 5th February 2011. (11:07) <https://www.youtube.com/watch?v=dpzJweYdfvA>. Video shows Len Collard describing early contact and provides a Whadjuk history of Fremantle.
- ¹⁶ 2013 Collard, L., L. Stocker, and A. Rooney. Nyoongar Wardan Katitjin Bidi - Derbal Nara. Australia: City of Cockburn and Curtin University Sustainability Policy (CUSP) Institute.
- ¹⁷ Recording Traditional Knowledge, Avon Catchment Council.
- ¹⁸ Whadjuk Elder, Mrs Janet Collard, Back to Boyagin Video. Private Collection of Len Collard
- ¹⁹ Australian Interaction Consultants (AIC) Report – City of Fremantle
- ²⁰ Australian Interaction Consultants (AIC) Report – City of Fremantle
- ²¹ Australian Interaction Consultants (AIC) Report – City of Fremantle

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²² "That Was My Home" Voices from the Nyoongar Camps In Perth's Western Suburbs, Thesis Murdoch University

²³ Source: <http://www.creativespirits.info/australia/western-australia/fremantle#ixzz3zHcZB5nJ>

²⁴ The Millendon Memoirs: George Fletcher Moore's Western Australian diaries and letters, 1830-1841/credited with an introduction by JMR Cameron. Moore, George Fletcher. Moore, George Fletcher, 1798-1886. Page 137-138

²⁵ Report on an Investigation into the Aboriginal Heritage of the Arthur Head Area, Fremantle by Susan O'Connor and Rachel Thomson for the City of Fremantle.

²⁶ 2013 Collard, L., L. Stocker, and A. Rooney. Nyoongar Wardan Katitjin Bidi - Derbal Nara. Australia: City of Cockburn and Curtin University Sustainability Policy (CUSP) Institute.

²⁷ 2013 Collard, L., L. Stocker, and A. Rooney. Nyoongar Wardan Katitjin Bidi - Derbal Nara. Australia: City of Cockburn and Curtin University Sustainability Policy (CUSP) Institute.

²⁸ 2013 Collard, L., L. Stocker, and A. Rooney. Nyoongar Wardan Katitjin Bidi - Derbal Nara. Australia: City of Cockburn and Curtin University Sustainability Policy (CUSP) Institute.

²⁹ Australian Interaction Consultants (AIC) Report – City of Fremantle

³⁰ "That Was My Home" Voices from the Nyoongar Camps In Perth's Western Suburbs, Thesis Murdoch University

³¹ Australian Interaction Consultants (AIC) Report – City of Fremantle

³² Australian Interaction Consultants (AIC) Report – City of Fremantle

³³ Australian Interaction Consultants (AIC) Report – City of Fremantle

³⁴ Mrs Teresa Wally, Elder WAG workshop, Feb 17, 2016

³⁵ Video of Tom Bennell oral histories at Boyagin Rock in 1986. (Private collection of Len Collard)

³⁶ Nidja Beeliar Boodjar Noonookurt Nyinyiny: A Nyoongar Interpretive History Of The Use Of Boodjar (Country) In The Vicinity Of Murdoch University. L Collard, S Harben. Murdoch University

³⁷ <http://www.atns.net.au/agreement.asp?EntityID=252>

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³⁸ Hallam, Sylvia J., and Lois Tilbrook. eds. 1990. *Aborigines of the Southwest Region, 1829-1840. The Bicentennial Dictionary of Western Australians. Vol. 8. Nedlands, Western Australia: University of Western Australia Press.*

³⁹ Recording Traditional Knowledge, Avon Catchment Council.

⁴⁰ Mrs Warrell, WAG Workshop

⁴¹ "That Was My Home" Voices from the Nyoongar Camps In Perth's Western Suburbs, Thesis Murdoch University

⁴² "That Was My Home" Voices from the Nyoongar Camps In Perth's Western Suburbs, Thesis Murdoch University)

⁴³ "That Was My Home" Voices from the Nyoongar Camps In Perth's Western Suburbs, Thesis Murdoch University

⁴⁴ "That Was My Home" Voices from the Nyoongar Camps In Perth's Western Suburbs, Thesis Murdoch University

⁴⁵ "That Was My Home" Voices from the Nyoongar Camps In Perth's Western Suburbs, Thesis Murdoch University

⁴⁶ "That Was My Home" Voices from the Nyoongar Camps In Perth's Western Suburbs, Thesis Murdoch University

⁴⁷ "That Was My Home" Voices from the Nyoongar Camps In Perth's Western Suburbs, Thesis Murdoch University

⁴⁸ "That Was My Home" Voices from the Nyoongar Camps In Perth's Western Suburbs, Thesis Murdoch University

⁴⁹ "That Was My Home" Voices from the Nyoongar Camps In Perth's Western Suburbs, Thesis Murdoch University

⁵⁰ "That Was My Home" Voices from the Nyoongar Camps In Perth's Western Suburbs, Thesis Murdoch University

⁵¹ "That Was My Home" Voices from the Nyoongar Camps In Perth's Western Suburbs, Thesis Murdoch University

⁵² "That Was My Home" Voices from the Nyoongar Camps In Perth's Western Suburbs, Thesis Murdoch University

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⁵³ "That Was My Home" Voices from the Nyoongar Camps In Perth's Western Suburbs, Thesis Murdoch University

⁵⁴ "That Was My Home" Voices from the Nyoongar Camps In Perth's Western Suburbs, Thesis Murdoch University

⁵⁵ Verbatim transcript of Patrick Hume speaking with Leonie Stella for the City of Cockburn Oral History Project. The interview took place at Mr. Hume's home on June 14, 2001.

⁵⁶ "That Was My Home" Voices from the Nyoongar Camps In Perth's Western Suburbs, Thesis Murdoch University

⁵⁷ Verbatim transcript of Patrick Hume speaking with Leonie Stella for the City of Cockburn Oral History Project. The interview took place at Mr. Hume's home on June 14, 2001

⁵⁸ Collard, L person communication 2016

⁵⁹ Aboriginal worldviews and colonisation: implications for coastal sustainability. Laura Stocker*¹, Leonard Collard², Angela Rooney¹ Curtin University Sustainability Policy Institute, GPO Box U1987, Perth WA 6845, Australia² School of Indigenous Studies, The University of Western Australia, 35 Stirling Highway, Crawley WA 6009, Australia

⁶⁰ Heartsick for County, Stories of Love, Spirit and Creation. Edited by Sally Morgan, Tjalaminu Mia and Blaze Kwaymullina

⁶¹ Whadjuk Nyoongar, Len Collard personal communication, February 17 2016

⁶² Mr Richard Wilkes, Elder WAG workshop, Feb 17, 2016

⁶³ Collard et al, 2004, p. 62

⁶⁴ City of Fremantle

⁶⁵ Australian Interaction Consultants (AIC) Report – City of Fremantle

⁶⁶ Drake, Cathy, and Shona Kennealy. 1995. Recollections of the Beeliiar Wetlands. Melville, WA: Publisher Unknown.

⁶⁷ Mrs Teresa Wally, Elder WAG workshop, Feb 17, 2016

⁶⁸ Recording Traditional Knowledge, Avon Catchment Council.

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⁶⁹ [http://www.Nyoongarculture.org.au/wp-](http://www.Nyoongarculture.org.au/wp-content/uploads/2013/07/IntroductiontoNyoongarCultureforweb.pdf)

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⁷⁰ Stocker et al 2015, pp.5-6.

⁷¹ 2013 Collard, L., L. Stocker, and A. Rooney. Nyoongar Wardan Katitjin Bidi - Derbal Nara. Australia: City of Cockburn and Curtin University Sustainability Policy (CUSP) Institute.

⁷² de Gand n.d., pp.3-4

⁷³ Swan River Trust, 2010

⁷⁴ Verbatim transcript of Patrick Hume speaking with Leonie Stella for the City of Cockburn Oral History Project. The interview took place at Mr. Hume's home on June 14, 2001.

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⁷⁷ Vinnicombe (1989, p.19) and Bates (1985) in AIC 2010, pp.31

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⁸¹ (The Sunday Times, 2010)

⁸² (Perth Now, 2010)

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⁸⁴ Video of Tom Benell oral histories at Boyagin Rock in 1986. (Private collection of Len Collard)

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