Wellstead Bird Hide - Approx. Location

Author:

Created: 19 November 2024 from Map Viewer Plus: https://map-viewer-plus.app.landgate.wa.gov.au

1:2,257

0 0.03 0.07 0.1 0.14 km

9.3.2 b) FBG Letter Seeking Design Approval for Wellstead Estuary Bird Hide

To: Mr Martin Cuthbert
Chief Executive Officer
Shire of Jerramungup
Vasey St
Jerramungup, 6337

Cc: Mr Noel Myers, Manager of Planning

12th November 2024

Re: Design approval for Wellstead Estuary bird hide

Dear Martin,

Further to motion number OCM210309 by Shire of Jerramungup Council in March 2021, which gave in-principal support to the Wellstead Estuary bird hide project, I write to advise of progress made since that time and to submit a design for Council approval at the November 27th Council meeting.

In the last 18 months the following progress has been made:

- July 2023: A desk-top engineering review of the bird hide site was conducted by Shore Coastal (report attached). Conclusion: "In general the site is considered a suitable location for the proposed design of the bird hide subject to testing of testing of the underlying sediments, detailed design and approvals."
  Funded by South Coast NRM

- September 2024: A site classification assessment was completed by Structerre Consulting (report attached). Conclusion: no significant obstacles encountered.
  Funded by private donation and a significant discount from Structerre in return for acknowledgement of in-kind contribution.

- October 2024: A new design was drawn up by Ian Weir, which addresses concerns about anti-social behaviour.
  Funded by in-kind contribution.

I have attached the new design for Council consideration and provide the following additional information:

- To minimise anti-social behaviour and to prevent people using the hide for overnight shelter:
  - the whole back section is open to the path.
  - narrow seats around the perimeter will be fixed in place.

    - Recycled plastic grating will be used for the boardwalk and flooring (except under seats) to deter sleeping (and has the added benefits of providing grip to prevent slipping and easy drainage in event of flooding).

- The hide is designed to be easily constructed and to blend into the background vegetation. It has a roof (not evident in drawings).

- The extended arc around one side of the hide acts as to screen people from birdlife as they approach the hide.

- Proposed access to the hide is directly off the Wellstead Estuary walk track via a boardwalk (constructed with recycled grating).

- The design allows for wheelchair access.

The bird hide site on the estuary is currently dry, following an extended period from mid-2021 to late 2023 when it was frequently under water. It would be ideal to complete the approval process and source funding asap in order to capitalise on this fact.

Please don't hesitate to contact me if more details are required.

I look forward to hearing from you.

Yours sincerely

Leonie McMahon
Premer Projects Division
Fitzgerald Biosphere Group

TECHNICAL NOTE

Ref: 2305_01_R01

Title: Wellstead Estuary – Desktop Review of Proposed Bird Hide Site
Project: Wellstead Estuary Bird Hide
Date: 28th July 2023
Author: Stuart Barr, Principal Coastal Engineer (Shore Coastal)
Distribution: Leone McMahon (Fitzgerald Biosphere Group)
Rev: A

Synopsis
This memo provides a brief literature review of the proposed site for a bird hide on the southern shore of the Wellstead Estuary. In general the site is considered a suitable location for the proposed design of the bird hide subject to testing of testing of the underlying sediments, detailed design and approvals.

Background
The Fitzgerald Biosphere Group (FBG) are proposing to construct a public bird hide on the southern shoreline of the Wellstead Estuary in Bremer Bay in the Shire of Jerramungup, subject to funding and approvals. Shore Coastal have been engaged by FBG to undertake a brief desktop review of the proposed site. This includes review of relevant literature, tides and flood levels, and the design concept. The intention is to assess the suitability of the proposed site in terms of coastal stability, and the design in terms of exposure to waves and water levels.

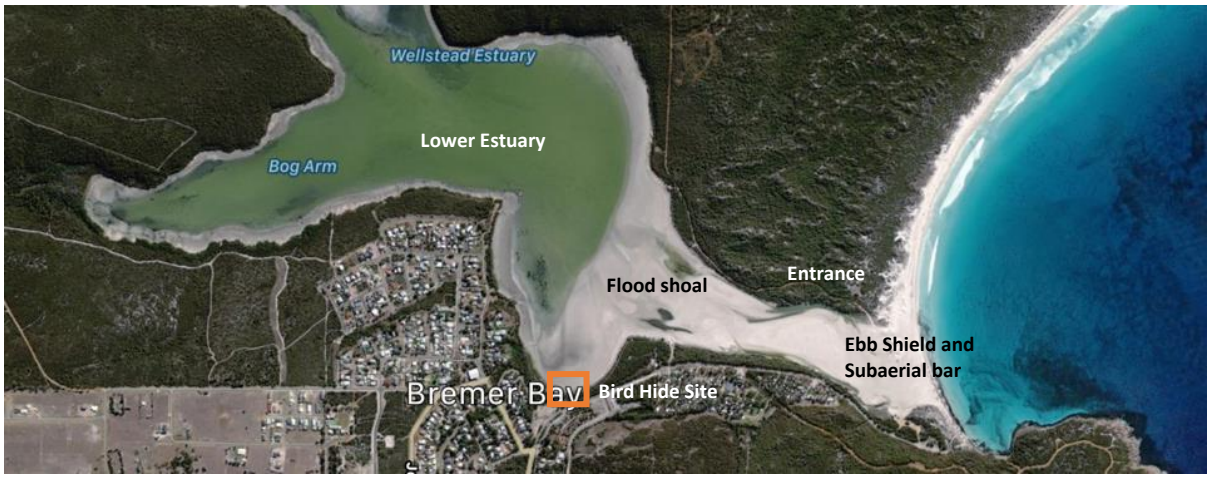


Figure 1 Wellstead Estuary and proposed site for Bird Hide along southern shore.

Literature Review
The Wellstead Estuary is the estuary of the Bremer River and was one of a number of south coast estuaries studies in the 1980s as part of developing an inventory of these sites (1). The management of the estuary is outlined in the Wellstead Estuary Management Plan (2). The catchment of the estuary is relatively small and lies in the coastal belt with typically low (400-600mm) annual rainfall. The riverine part of the estuary occupies a geologically youthful valley cut into relatively soft siltstone rock. The lower estuary or basin, where the bird hide is proposed, widens and is generally shallow with aquatic plants, particularly the seagrass *Ruppia megacarpa*. On the southern shore a

steep hill of Archaen rock (gneiss) rises behind the shell bed flat on which the caravan park is situated and extends to the headland that shelters the estuary entrance (2).

Regolith landform maps identify the southern shores of the estuary as aeolian sand in vegetated dunes, or sandplain (yellow to white sand and clay).

The estuary was previously a drowned river valley when the sea rose to its present level about 6500 years ago. Within the last 4,000 years the bar closed the estuary off from the sea. The extensive shell beds, which are 2 to 3m thick in places, are evidence that the estuary was then a sheltered marine embayment. The estuary may have shallowed in recent years due to clearing in the catchment. Abundant organic matter in the basin sediment probably originates from local aquatic plant growth. When the entrance is open the lower estuary is tidal, although the tidal range becomes attenuated upstream. Sea water flows in on the rising tide (1).

Where the estuary narrows to an inlet channel, it is blocked for most its width by a flood tide delta that extends a kilometre upstream of the entrance, near the Bird Hide site, that is reported to overly shell beds. The entrance bar opens every few years following heavy winter or cyclonic summer rain in the catchment and may remain open for relatively prolonged periods, as has been observed in recent years (Figure 5). However, the entrance may also remain closed for many years during dry periods.

Fringing vegetation along the southern shore is dominated by the paperbark *Melaleuca cuticularis*. Salt marshes are well developed in some of the small covers along the estuary and the tidal-deltaic flood shield.

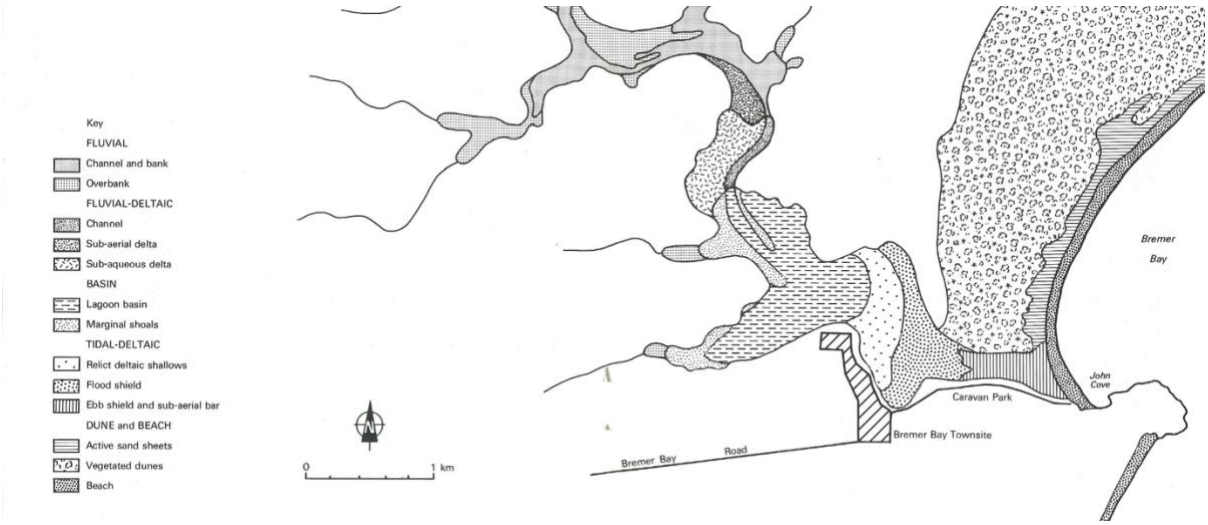


Figure 2 Landforms of the Wellstead Estuary (1).

Figure 3 – Tidal Entrance Flood Shoals. Site of Bird Hide is within the bay along the southern shoreline of the lower estuary to right of picture.

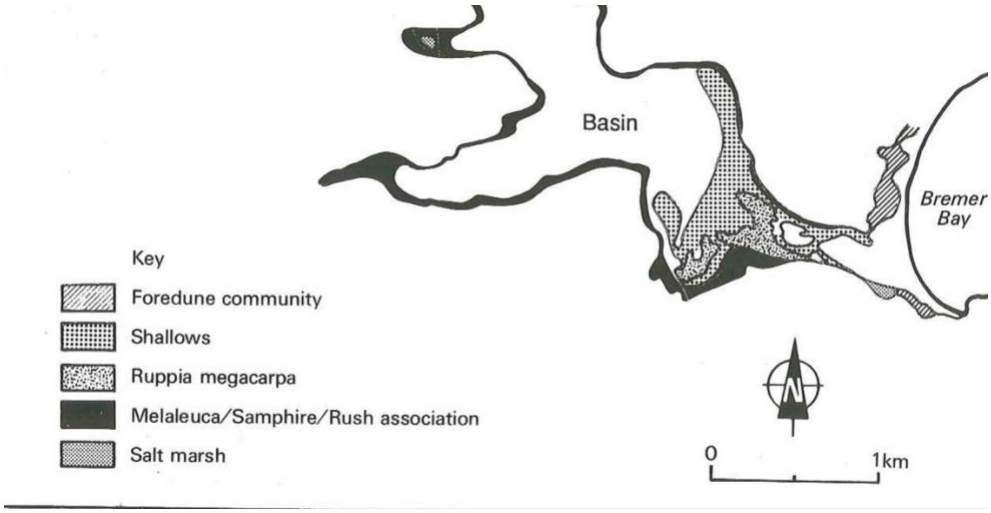


Figure 4 Aquatic Plans of the Lower Wellstead Estuary (1)

Metocean Conditions (Waves and Tides)

The lower estuary is subject to tidal conditions when the entrance is open, although tides may be attenuated locally. Ocean tides have been monitored at the boat harbour at Fisheries Beach in Bremer Bay since 1998. Tidal range from lowest (LAT) to highest (HAT) astronomic tide is in the order of 1.5m. HAT at Bremer Bay is 0.58mAHD (3), however storm surges that coincide with high tides can result in water levels exceeding 1.0mAHD.

Table 1 – Bremer Bay Tidal Planes

TIDAL PLANE	HAT	MHHW	MLHW	MSL	MHLW	MLLW	LAT	CHART DATUM
LEVEL (m AHD)	0.58	0.26	0.09	-0.12	-0.33	-0.51	-0.71	-0.88

Water levels in the lower estuary may also be temporarily higher than 1.0mAHD locally when they back up behind a closed entrance bar during high rainfall years. The water level will be governed by the height of the bar prior to breaching, however there are limited records available in this regard. For context, the Wilson Inlet in Denmark is opened manually when water levels exceed 1.0mAHD to mitigate flooding, but bar levels can exceed 1.8mAHD. The bar has been open in recent years due to high annual rainfall in the catchment.

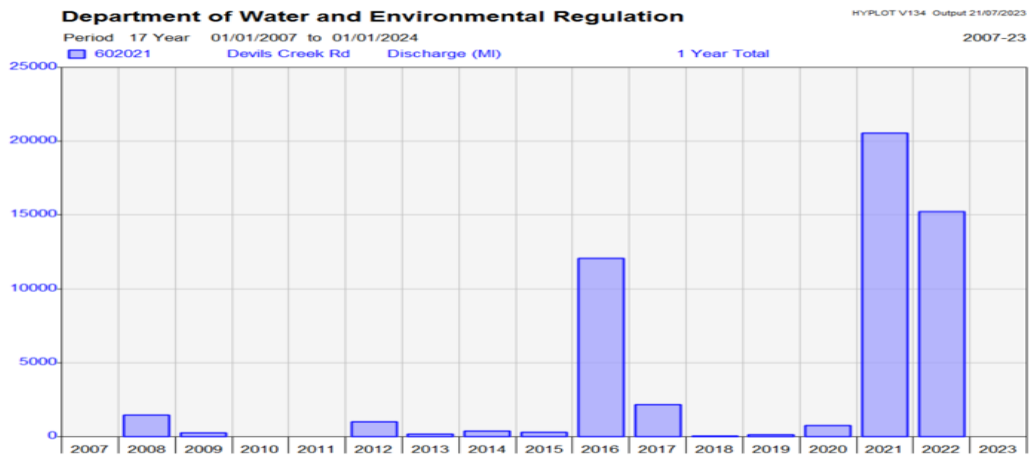


Figure 5 River Flow in Devils Cree tributary to the Wellstead Estuary from 2007 to 2022 showing high rainfall in recent years that have kept the entrance open and the lower estuary tidal.

Figure 6 Entrance Channel Jan-2022 (image by Jamie Turner).

In terms of wave exposure, the Bird Hide site is in am embayment along the southern shoreline, sheltered from winds from the north east through to the north-north west. However, there is a maximum of exposure of 1,300m across the estuary from the north, which is a common direction of severe storms. Nominally, significant wave heights up to 0.4m, with a period of 2 seconds, could be generated from the north across this fetch during extreme conditions, subject to the water levels in the estuary at the time.

Assessment of Proposed Site

The site is located along the southern shoreline of the estuary fringed with trees and salt marsh. The site is at the upstream extends of the flood tide delta and based on aerial photos is likely to be adjacent to marine sands that have been washed in on the incoming tide over many years. However, based on the literature review, extensive shell beds, organic matter from marine plants and silt material may also be evident locally which should be tested. Marine plants are evident in nearshore shoals (Figure 6).

Site photos have been provided by FBG during lower tides in 2022 appear to show a sandy beach, shallow foreshore grade, marine plants, fringing marshes and organic matter (Figure 7). Additional photos supplied by FBG from June 2023 show the site submerged at higher tides with the entrance open (Figure 8).

Historic aerial photographs suggest the shoreline in this area has been relatively stable, with minimal erosion or accretion, over the last 20 years.

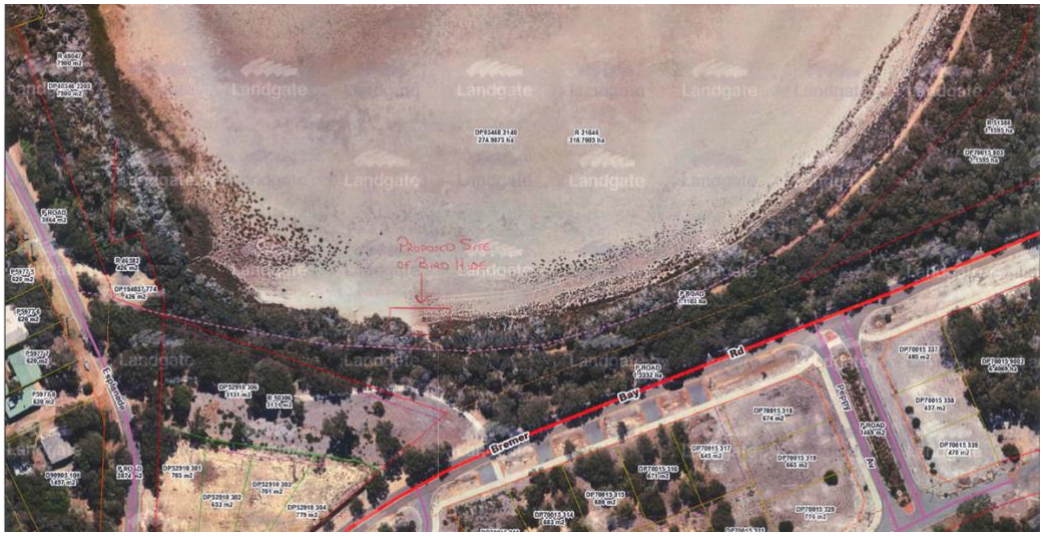


Figure 7 Proposed Bird Hide Site

Figure 8 – FBG Site Photos in Jan-2022 (upper) and Dec-2022 (lower) showing what appears to be a sandy beach, marine plants/salt marsh and organic matter.

Figure 9 – FBG Site Photos (June 2023) showing site submerged at higher tides.

Assessment of Proposed Design Concept

The design concept for the FBG Bird Hide is shown in Figure 9. The concept includes:

- A sheel grit path to the walkway.
- A piled timber walkway across the shoreline. The piles are assumed to be timber.
- A piled timber Birdhide at the end of the walkway, with a dogleg from the walkway to the Bird Hide. The Bird Hide includes walling and presumable roofing.

In general the site is considered a suitable location for the proposed design of the bird hide subject to testing of the underlying sediments, and detailed design.

In particular the following requires consideration in further design development:

- Geotechncial Testing: Dynamic Cone Penetrometer (DCP) testing and cores at the proposed location of the timber piles, and adjacet areas. Whilst from the evidence avaialble the site appears to be sandy, testing would allow for the potentila presence of shell beds, organic matter and silts to be assessed. This testing will determine the suitabilty of the site and the pile design.
- Detailed Design: The following reqiures consideration in detailed design of the structure:
    - Location: Confirm location suitable geotechnicaly, ties in with paths on land side and avoids shading of marine plants.
    - Timber type and treatment to ensure longevity in a marine environment, particularly the timber piles (marine grade). Potential timbers inclde marine grade pine or jarrah.
    - Fixtures: Hot dip Galvanised or stainless fixing to be considered. Refer AS4997 Guideines for Dsign of Marine Structures.
    - Walkway Decking: Timber decking likely to be easier to construct, but micromesh grating as used at the Bremer Boat ramp can provide better slip resistance, light penetration and capacity for submergenct.
    - Walkway Elevation: Walkway deck level to ensure it balances occasional submergance at high tides, with the elvation above ground level at lower tides (i.e. requirement for handrails, refer relevant codes). In general deck should be above 1.0mAHD with decking designed for occasional submergence.
    - Shell Grit Path: Transition from walkway to shell grit path to ensure acceptable grades (refer relevent codes), smooth transiton, mitigation of erosion risk to path at higher tides and allowing sediment movement along the shoreline (i.e. don't bring the shell grit path too far forward).
    - Structural Design: Wind impacts on the structure (wind code).
    - Drainge: Local drainage associated with the path (i.e. limit scour paths for rainfall).

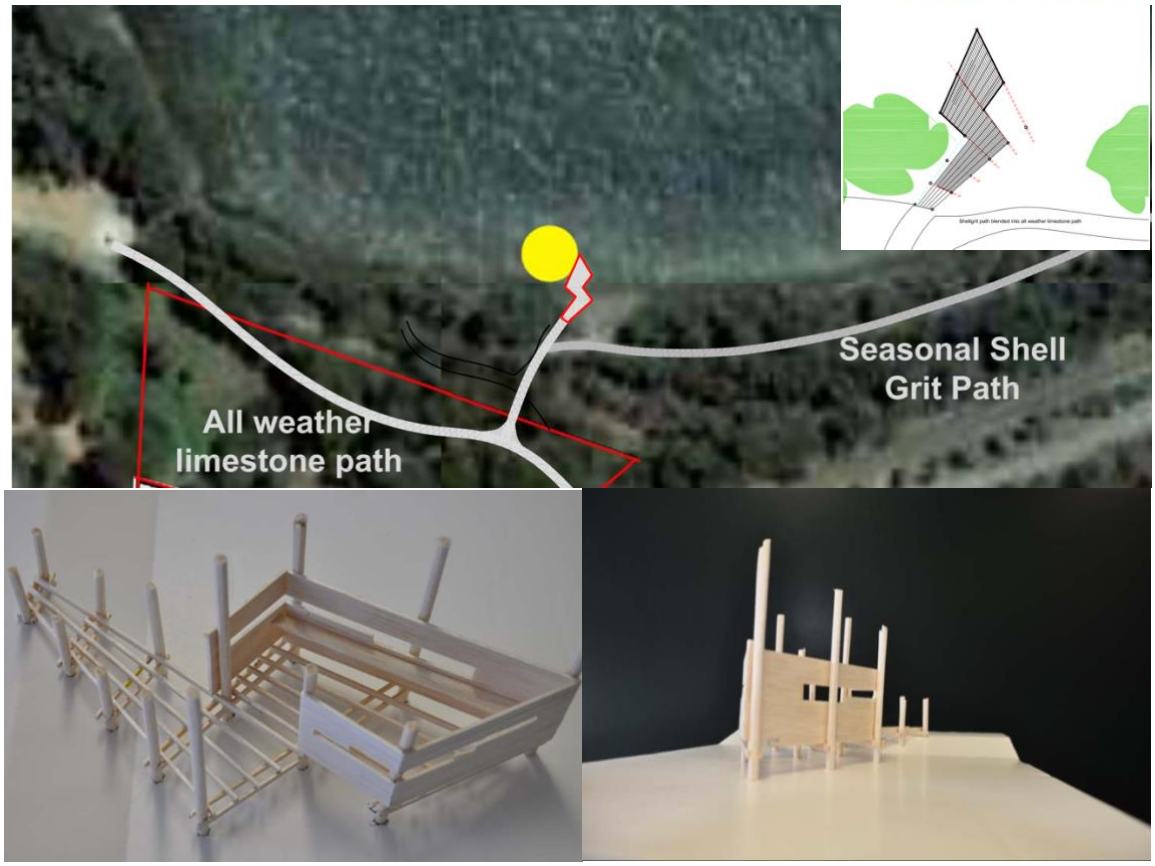
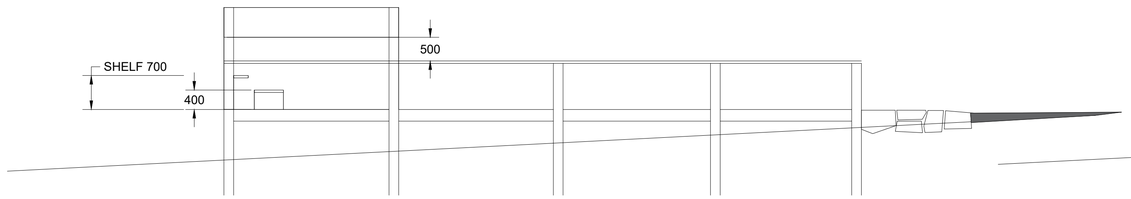
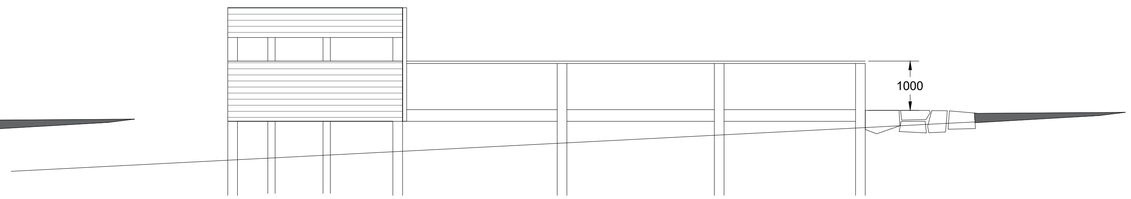


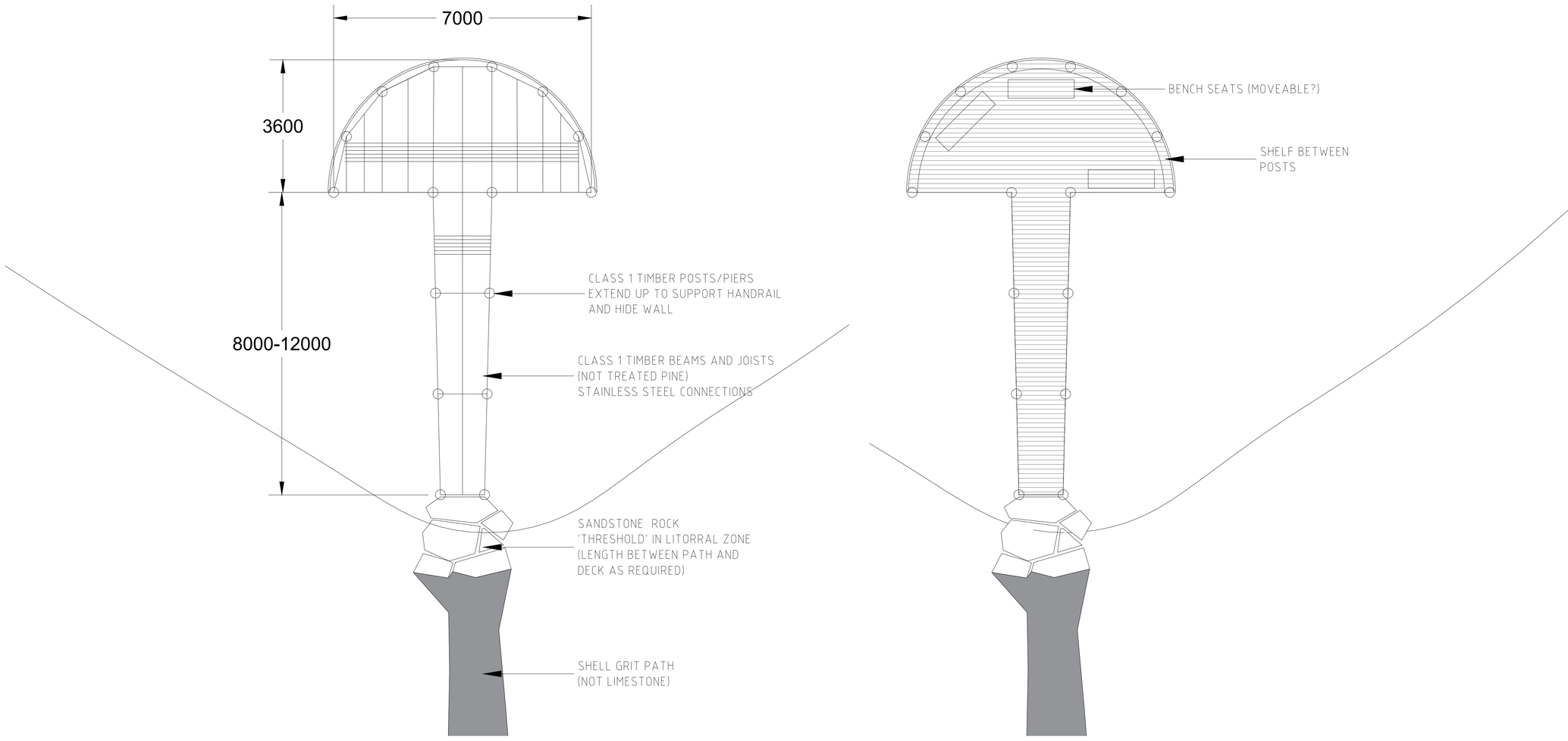
Figure 10 Concept for FBG Bird Hide on Southern Shore of lower Wellstead Estuary in Bremer Bay.

References:

1. DEC 2004 Wellstead Estuary Management Plan
2. EPA 198 Wellstead Estuary, The Estuary of the Bremer River, Estuarine Study Series No.1.
3. DoT 1999 Bremer Bay Navigation Chart, WA909.







9.3.2 d) Wellstead Estuary Bird Hide Design 2024

BANGELUNGUP (BREMER BAY RIVER ESTUARY) **BIRD HIDE**

ianweirarchitect

Registered Architect (NSW, VIC, WA, Tas, QLD)

Telephone: 0411 155 151
3 / 135 Bay Terrace, WYNNUM QLD 4178
email: iw@ianweirarchitect.com
www.ianweirarchitect.com
Trading as **Weir Architects Pty Ltd**

BIRD HIDE

DATE	**22 OCT 2024**
SCALE	**1:75@A1 (1:150@A3)**
DRAWN BY	**IW**
CHECKED BY	**IW**

PROJECT ADDRESS
NEAR SITE OF OLD PAPERBARK COTTAGE

CLIENTS
PEOPLE AND VISITORS OR BREMER BAY

REVISION

ISSUE

NOT FOR CONSTRUCTION

DWG No.

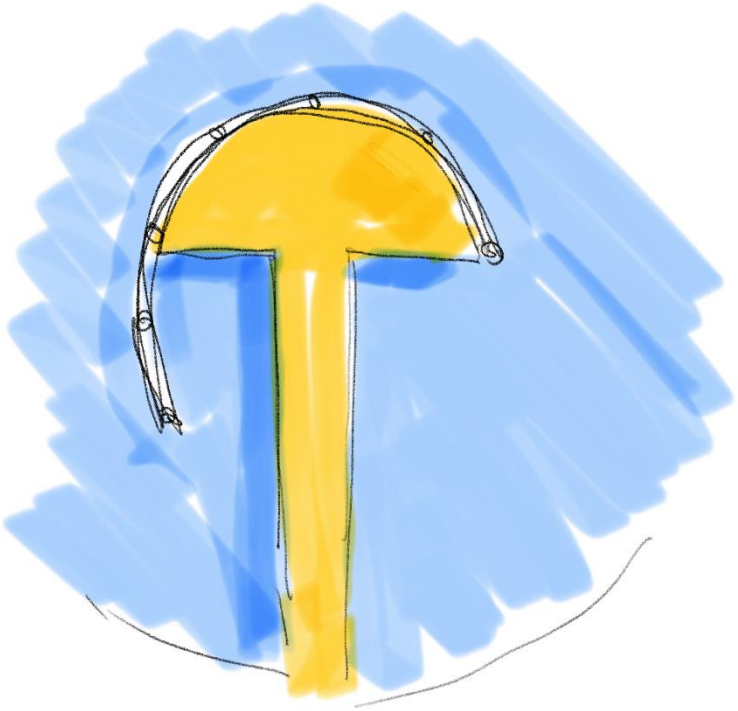
A00

DWG TITLE
TITLE PAGE

9.3.2 e)

Wellstead Estuary Bird Hide design

Additional feature: screen to block bird's view of people entering hide



SITE CLASSIFICATION REPORT

CERTIFICATE 2613654

CLIENT	LEONIE MCMAHON
JOB ADDRESS	**#29 BREMER BAY RD BREMER BAY**
CLIENT JOB NO.	
OWNER	
STRUCTERRE JOB NO.	S1140039
DATE OF ASSESSMENT	12/8/24
SITE RECORD	

SITE CLASSIFICATION	**S**	*(in accordance with AS2870)*
FOOTING DETAIL	**STUMP**	
SAND PAD	**No sand pad required structurally**	
BUSHFIRE PRONE AREA	**Yes**	*(see NOTE 2.)*
CORROSION CLASSIFICATION	**R4**	*(Durability Class in accordance with AS3700)*
WIND CLASSIFICATION	**N3**	*(in accordance with AS4055)*
-TERRAIN CATEGORY	1	
-TOPOGRAPHIC	T0	
-SHIELDING	No Shielding	

Unit 5, 28/30 Prior Street, Albany, Western Australia 6330 | Phone (+618) 9841 1315 | Fax (618) 9841 1346
Perth Phone (+618) 9205 4500 | Fax (+618) 9205 4501 | Email albany@structerre.com.au | Web structerre.com.au
ABN 71 349 772 837 Zemla Pty Ltd ACN 008 966 283 as trustee for the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers

Issued Date: 16 August 2024

SOIL PROFILE

BOREHOLE 1: 0 - 600 SAND with artificial deleterious - grey; 600 hard ground refusal.

APPROXIMATE BOREHOLE LOCATIONS

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.1 August 2021. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference:http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Hand Excavations
This report has been prepared using a hand auger or shovel, with borehole 1 (one) located in the front left hand portion of the site.

Hard Digging (laterite)
Hard digging may be encountered due to the presence of the gravel materials identified. A footing inspection may be required prior to concrete pour, by Structerre if excessive gravel materials are encountered in the excavated footing trenches, to provide certification and/or recommendations.

Flood Levels
Please refer to the local authority for recommendations for the sand pad height due to flood levels. If additional material is to be place on top of the existing level, please refer to this office for further recommendation.

Signed:
Gervase Purich
Chief Executive Officer

Stump Design
A structural review of the proposed residence will be required in order to issue a stumped footing design. Refer to the Engineers Structural Drawings for details on stump construction.

-- END OF REPORT --

Signed:
Gervase Purich
Chief Executive Officer

STRUCterre
consulting engineers
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham
Unit Trust trading as Structerre Consulting Engineers
1 ERINDALE ROAD, BALCATTA W.A. 6021
TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

PROJECT: #29 BREMER BAY RD BREMER BAY

CLIENT: LEONIE MCMAHON

SCALE 1:20

DATE 16/8/24

APPROVED

EXPLANATORY NOTES AND STANDARD RECOMMENDATIONS – STABLE (A CLASS) SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS BY EARTH WORKERS. IT IS RECOMMENDED EARTH WORKERS PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
    a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 RESIDENTIAL SLABS AND FOOTING CONSTRUCTION,
    b. A WIND RATING IN ACCORDANCE WITH AS 4055 WIND LOADS FOR HOUSING,
    c. A COASTAL CORROSION CLASSIFICATION,
    d. ADDITIONAL EARTHWORK RECOMMENDATION WHERE APPLICABLE,
    e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONDITIONS.
5. THE SITE CLASSIFICATION REPORT IS BASED ON THE SITE AS PRESENTED AT THE TIME OF ASSESSMENT. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
6. CLASS A SITES ARE STABLE SITES, GENERALLY SAND, LIMESTONE, GRAVEL OR A COMBINATION. CLASS P ARE PARTICULAR CLASSIFICATIONS SUCH AN UNUSUAL SITES OR SITES REQUIRING ADDITIONAL INVESTIGATION PRIOR TO PROVIDING DETAILS.
7. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITION OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR REASSESSMENT.
8. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE IN ORDER TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
9. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

10. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
11. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS, OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
12. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS – PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
13. ON CLASS A SITES, A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 450mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
14. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
15. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

16. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
    a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
    b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
    c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
    d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
17. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
    a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
    b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
    c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
18. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE- COMPACTING TO A MINIMUM.

RETAINING WALLS

19. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
20. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER TO THE RETAINING WALL THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.

STORMWATER DRAINAGE

21. ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF SOAKWELL AWAY FROM THE BUILDING AND SETBACK MINIMUM OF 1200mm, WHICHEVER IS GREATER. PLEASE REFER BACK TO THIS OFFICE IF REQUIRED THE SET-BACK CANNOT BE ACHIEVED.

STRUCterre consulting engineers
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TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

PROJECT: #29 BREMER BAY RD BREMER BAY

CLIENT: LEONIE MCMAHON

SCALE 1:20

DATE 16/8/24

APPROVED

EXPLANATORY NOTES AND STANDARD RECOMMENDATIONS – STABLE (A CLASS) SITES (Sheet 2 of 2)

WIND CLASSIFICATION

22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
    a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
    b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m.
    c. THE ROOF PITCH SHALL NOT EXCEED 35°.
    d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

    IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

23. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, IT IS RECOMMENDED THAT AN ENVIRONMENTAL ENGINEER BE ENGAGED.

SEISMIC

24. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤0.11. RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF >0.11, ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS RECOMMENDED REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

25. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

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CLIENT: LEONIE MCMAHON

SCALE 1:20

DATE 16/8/24

APPROVED