

Rise Urban.

PART ONE | IMPLEMENTATION
Lot 612 Spinnaker Boulevard
STRUCTURE PLAN

AUGUST 2020

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TITLE: Lot 612 Spinnaker Boulevard

Structure Plan - Part One | Implementation

REFERENCE: REP002-0042020

DATE: 16 August 2020

PREPARED BY: Rise Urban

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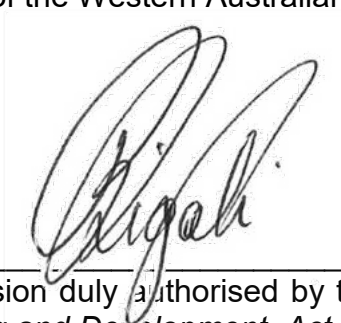
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This structure plan is prepared under the provisions of the City of Busselton
Local Planning Scheme No. 21

IT IS CERTIFIED THAT THIS STRUCTURE PLAN WAS APPROVED BY
RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION
ON:

18 August 2020

Signed for and on behalf of the Western Australian Planning Commission



an officer of the Commission duly authorised by the Commission pursuant to
Section 16 of *the Planning and Development Act 2005* for that purpose, in the
presence of:



Witness

19 August 2020 Date

18 August 2030 Date of Expiry

Executive Summary

The Lot 612 Spinnaker Boulevard Structure Plan (the Structure Plan) facilitates further development of the estate known as Port Geographe. The Structure Plan, which comprises the entirety of Lot 612 Spinnaker Boulevard, captures approximately 2.6 hectares of land and is located on the north western corner of the Spinnaker Boulevard and Layman Road intersection.

The site is zoned 'Tourist' under the City of Busselton Local Planning Scheme No.21 (LPS 21), however an amendment referred to as Amendment 28 (Omnibus Amendment 3), to LPS 21 to rezone the land to 'Urban Development' is currently being progressed. Given the substantial progression of Amendment 28, the Structure Plan is lodged in anticipation of its future zoning as 'Urban Development' and in accordance with LSP 21 which requires a structure plan prior to development and subdivision for land zoned 'Urban Development'. This approach is supported by the Western Australian Planning Commission in correspondence dated 27 August 2018.

The Structure Plan is responsive to the surrounding land use context and natural environment whilst accommodating a range of residential opportunities consistent with State Government density targets. The Structure Plan also fulfils the strategic planning objectives identified in the draft Leeuwin Naturaliste Sub-regional Planning Strategy which identifies the need for infill development. The Structure Plan supports residential densities of R30 and R40 and will deliver approximately 26 dwellings per site hectare consistent with State Government targets.

The Structure Plan also provides for a small commercial site on the corner of Layman Road and Spinnaker Boulevard. This site is intended to provide local convenience to nearby residents and create opportunities for mixed use development.

The site can be readily serviced, with essential infrastructure already located within the adjacent road reserves and easily extended to the structure plan area. An Engineering and Servicing Report has been prepared in support of the Structure Plan.

In addition, a Coastal Hazard Risk Management Plan has been prepared to demonstrate that the Structure Plan is consistent with the State Coastal Planning Policy. The Management Plan provides appropriate management strategies for future development, and ensures that the effects of climate change can be avoided within the 100 year planning horizon.

This Structure Plan report comprehensively addresses all of the relevant planning considerations, and demonstrates that the land is suitable for urban development in the form proposed.

Table 1: Land Use Summary

Table 1 provides a land use summary of the Structure Plan.

| Item | Data | Section number reference within the Structure Plan Explanatory Report |
|---|---|---|
| Total area covered by the structure plan | 2.6 hectares | 1.2 |
| Area of each land use proposed | | |
| Zones (as per the Scheme) | | |
| • Residential | 1.86 hectares | |
| • Local Centre | 0.08 hectares | 3.2 |
| Reserves (as per the Scheme and MRS) | | |
| • Road Reserves | 0.66 hectares | |
| Total estimated lot yield | 52 lots | 3.2 |
| Estimated number of dwellings | 45 - 55 dwellings | 3.2 |
| Estimated residential site density | | |
| • Dwellings per gross urban zoned hectare | 18 - 22 dwellings per gross urban zoned hectare | 3.2 |
| • Dwellings pre site hectare | 23 - 28 dwellings per site hectare | |
| Estimated population | 126 - 154 people @ 2.8 people per household | 3.2 |

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1.0 Structure Plan Area

The Structure Plan Area is shown on Plan A: Structure Plan Map.

2.0 Structure Plan Content

This Local Structure Plan comprises:

- Part One – Implementation Section;
- Part Two – Explanatory Report; and
- Appendices – Technical Reports.

Part One of the Structure Plan comprises the structure plan map and planning provisions. Part Two of the Structure Plan is the planning report component which can be used to interpret and implement the requirements of Part One.

3.0 Operation

This Structure Plan comes into effect on the date that it is endorsed by the Western Australian Planning Commission (WAPC).

4.0 Interpretation and Relationship with Statutory Planning Framework

The Structure Plan constitutes a Structure Plan pursuant to the City of Busselton Local Planning Scheme 21 and the *Planning and Development (Local Planning Schemes) Regulations 2015* Schedule 2 - Deemed provisions for local planning schemes.

The Structure Plan Map (Plan A) outlines future land use, zones and reserves applicable within the structure plan area.

Pursuant to the *Planning and Development (Local Planning Schemes) Regulations 2015* Schedule 2 - Deemed provisions for local planning schemes, a decision maker of an application for development approval or subdivision approval is to have due regard to the provisions of this Structure Plan, including the Structure Plan Map, Implementation Report, Explanatory Report and Technical Appendices.

5.0 Staging

Development staging will follow an orderly sequence and shall not exceed the extension of essential service infrastructure or constructed road access.

6.0 Land Use and Subdivision

6.1 Land Use and Zones

The subdivision and development of land is to generally be in accordance with the Structure Plan.

6.2 Residential

6.2.1 Dwelling Target

In accordance with the requirements of *Liveable Neighbourhoods*, subdivisions are to achieve an average residential density of 26 dwellings per site hectare across the Structure Plan area.

6.2.2 Density

Residential densities applicable to the Structure Plan shall be those residential densities shown on the Structure Plan Map.

7.0 Development

7.1 Local Development Plans

The preparation of a Local Development Plan in accordance with Part 6 of the *Planning and Development (Local Planning Schemes) Regulations 2015* Schedule 2 - Deemed provisions for local planning schemes may be required by the WAPC, on the advice of the City of Busselton, as a condition of subdivision approval for all land in the structure plan area. The Local Development Plan is to be in accordance with the Port Geographe Village Centre Design Guidelines.

7.2 Subdivision and Development Requirements

The following requirements shall apply to subdivision and development:

- Finished floor levels of all habitable rooms shall achieve a minimum of 3.8m AHD; and
- No buildings shall be located within the "Building Exclusion Area" as depicted on Plan A: Structure Plan Map.

7.3 Notifications on Title

In respect of applications for the subdivision of land, the Council shall recommend to the Western Australian Planning Commission that a condition be imposed on the grant of subdivision approval for a notification to be placed on the Certificate(s) of Title(s) to advise of the following:

- Lots are capable of use for short stay accommodation purposes subject to the approval of the City of Busselton; and
- Vulnerable coastal area - This lot is located in an area likely to be subject to coastal erosion and/or inundation over the next 100 years.

8.0 Other Requirements

8.1 Conditions of Subdivision Approval

The following technical reports / strategies are to be prepared and submitted as a condition of subdivision approval (where applicable):

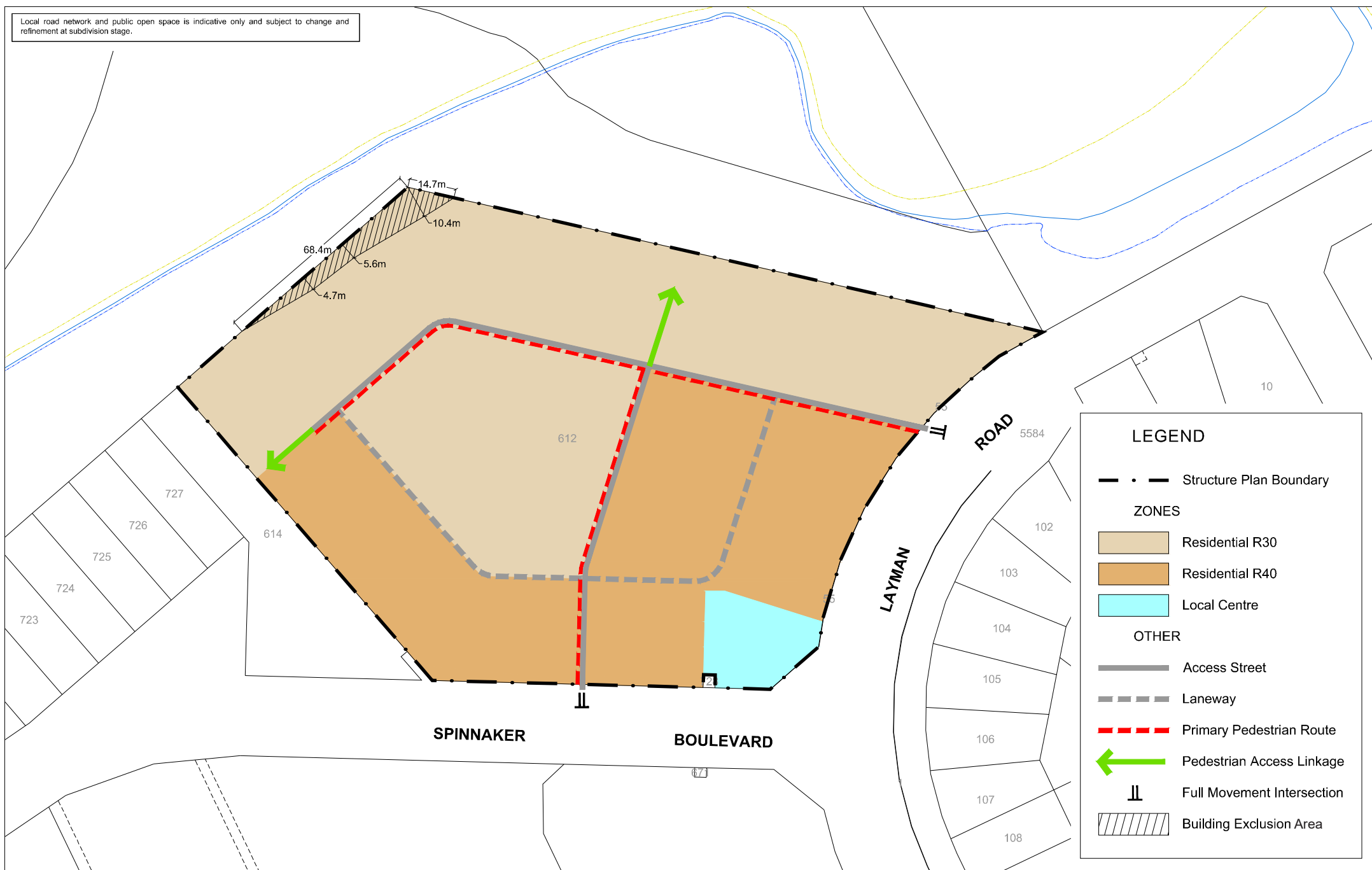
- Urban Water Management Plan.

8.2 Prerequisite Scheme Amendment

Prior to any further subdivision or development, the City's Local Planning Scheme No. 21 is required to be amended to include 'additional site and development requirements', pursuant to Schedule 1, Part 4, cl. 33 of the *Planning and Development (Local Planning Schemes) Regulations 2015*, and to introduce the following requirements for the subject land:

- The land is to be filled and retained to ensure a minimum finished floor level of 3.8m AHD can be achieved (i.e. a minimum fill level of 3.7m AHD);
- The retaining walls associated with the above-mentioned filling of the land shall be designed and certified by a coastal engineer to withstand the anticipated coastal processes as determined by *State Planning Policy 2.6: State Coastal Planning Policy*, to the satisfaction of the local government in consultation with the Department of Transport; and
- No buildings are permitted within the 'Building Exclusion Area' as depicted on the endorsed Structure Plan Map pertaining to the subject land.

Local road network and public open space is indicative only and subject to change and refinement at subdivision stage.





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PART TWO | EXPLANATORY REPORT
Lot 612 Spinnaker Boulevard
STRUCTURE PLAN

JULY 2020

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TITLE: Lot 612 Spinnaker Boulevard

Structure Plan - Part Two | Explanatory Report

REFERENCE: REP004-0042020

DATE: 26 July 2020

PREPARED BY: Rise Urban

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1.0 Introduction

1.1 Purpose

The Lot 612 Spinnaker Boulevard Structure Plan is a Structure Plan for the purposes of clause 15 Schedule 2 – *Deemed Provisions of the Planning and Development (Local Planning Schemes) Regulations 2015*, and the resolution of the Western Australian Planning Commission dated 27 August 2018.

Lot 612 Spinnaker Boulevard is one of the last remaining undeveloped precincts within the Port Geographe Village Centre precinct. The site has long been identified for tourism based land uses however notwithstanding its physical location fronting the eastern extent of the Port Geographe marina sea wall, the site has not been developed as envisaged by the current planning framework.

The purpose of this structure plan is to establish a contemporary planning framework that provides for consolidated development of the site, whilst also recognising the changing nature of tourist accommodation in the south West of Western Australia. The structure plan provides for a permeable and contemporary residential community, along with opportunities for small-scale local convenience that will support the residents of the broader Port Geographe area.

1.2 Site Context

Site Description and Ownership

Lot 612 Spinnaker Boulevard ("the site") is located on the north western corner of the Spinnaker Boulevard and Layman Road intersection in the established suburb of Port Geographe. The site abuts a narrow coastal foreshore reserve and sea wall to the north, while the eastern boundary is shared with a council owned car park and pedestrian access way (Lot 614) that connects Spinnaker Boulevard and the foreshore.

The site is 2.5875ha in area, with a narrow strip of 0.15m comprising approximately 7m² in area abutting Layman Road being identified as "Pedestrian Accessway". The site is otherwise unencumbered.

A legal description and ownership of the site is set out in Table 1.

Table 1 – Lot 612 Spinnaker Boulevard – Legal Description

| Lot | Diagram | Volume | Folio | Owner |
|-----|---------|--------|-------|---|
| 612 | 98980 | 2202 | 1000 | Zermatt Holdings Pty Ltd Capricorn Society Ltd |

The site is currently undeveloped and vacant. It has been filled and leveled as part of earlier subdivision and interim uses, with an approximate finished lot level of 3.2m – 3.6m AHD across the site.

A site plan and orthophoto is Figure 1.

Figure 1: Site Plan



Figure 2: Coastal Context



November 2012



August 2018

Port Geographe Coastal Works

The Port Geographe marina and associated coastal protection works were substantially redesigned and reconstructed in the period between 2013 – 2014 to address some ongoing concerns by Government and the broader community in relation to coastal processes. The previous coastal works comprised a series of groynes that protruded into Geographe Bay on an approximate north-south alignment. The easternmost of these groynes was located immediately to the north of the site, and resulted in a sandy sheltered beach located immediately to the west of the groyne.

In 2013-2014 these groynes were removed, and replaced with a rock sea wall on an east-west alignment running parallel to Spinnaker Boulevard between the site and the ocean entry to the marina. These coastal protection works have resulted in a substantially different foreshore interface with the site than what had previously been constructed. In particular, the north western corner of the site is now located approximately 5 metres from the modified sea wall, and the site no longer has direct beach access.

A plan depicting the 'before and after' coastal context is Figure 2.

2.0 Planning Context

2.1 Statutory Planning Context

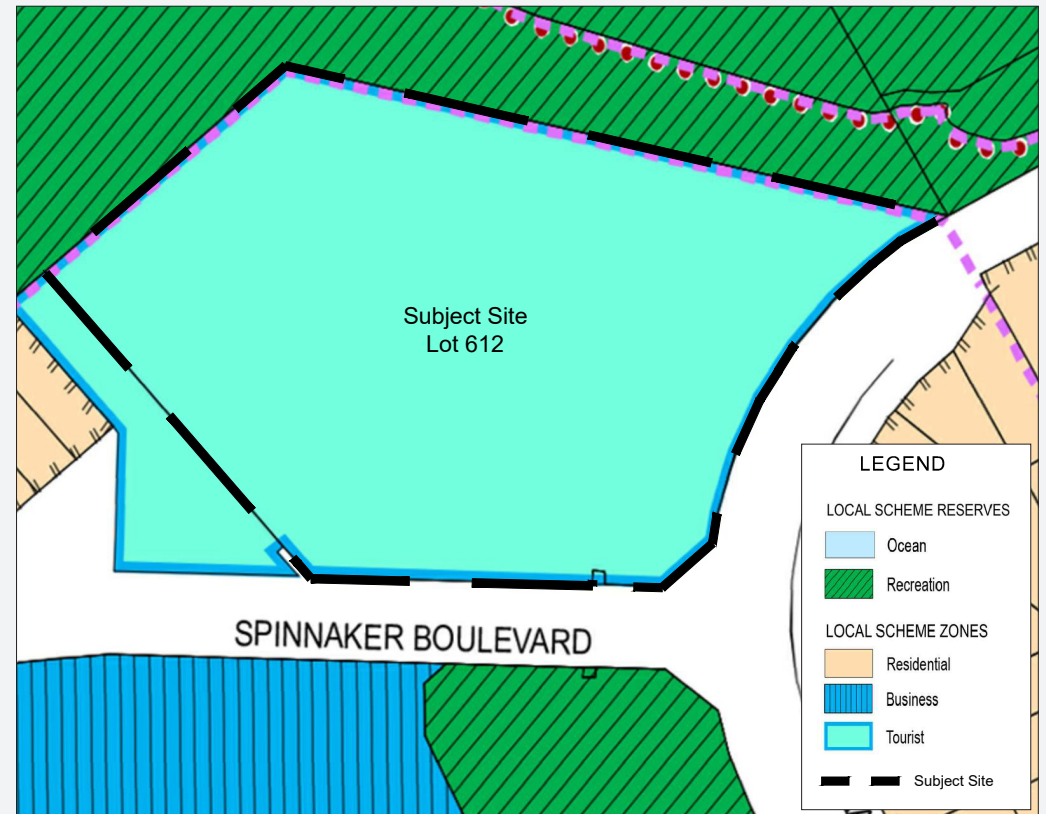
The following provides a brief synopsis of those statutory planning instruments and decisions that are directly relevant to the proposed Structure Plan.

City of Busselton Local Planning Scheme No.21

The site is currently zoned 'Tourist' pursuant to the City of Busselton Local Planning Scheme no.21 (LPS21). The coastal foreshore area to the north of the site is reserved for 'Recreation', while the surrounding areas are predominantly low density 'Residential' (R15) zones.

A zoning plan is Figure 3.

Figure 3: Local Planning Scheme 21 Zonings



Port Geographe Development Plan

The Port Geographe Development Plan ("PGDP") was prepared in the early 2000s, and provided the original planning context for the broader Port Geographe area. The zones and development standards established by the PGDP were largely normalised into LPS21 when it was gazetted in October 2014. As such the PGDP bears little relevance to the ongoing planning and development for the area. Notwithstanding, the PGDP retains its status as a current 'structure plan' pursuant to LPS21.

The PGDP identifies the site as 'Tourist Accommodation' and does not include any development standards or requirements specific to the site.

The current PGDP is Figure 4.

Consistent with advice received from WAPC in August 2018, it is necessary to amend the PGDP to exclude the subject land. This process is to occur in parallel with the determination of this Structure Plan.

Figure 4 : Port Geographe Development Plan



Port Geographe Village Centre Precinct Plan

The Port Geographe Village Centre Precinct Plan ("VCP") was endorsed by the City of Busselton and WAPC in 2008. The VCP was prepared as a supplementary planning instrument to the PGDP, and provides a more detailed framework for the development of the Village Centre precinct, which includes the site. The status of the VCP is unclear; however the Department of Planning, Lands and Heritage has advised that the VCP is to be treated as a 'structure plan' for the purpose of this proposal.

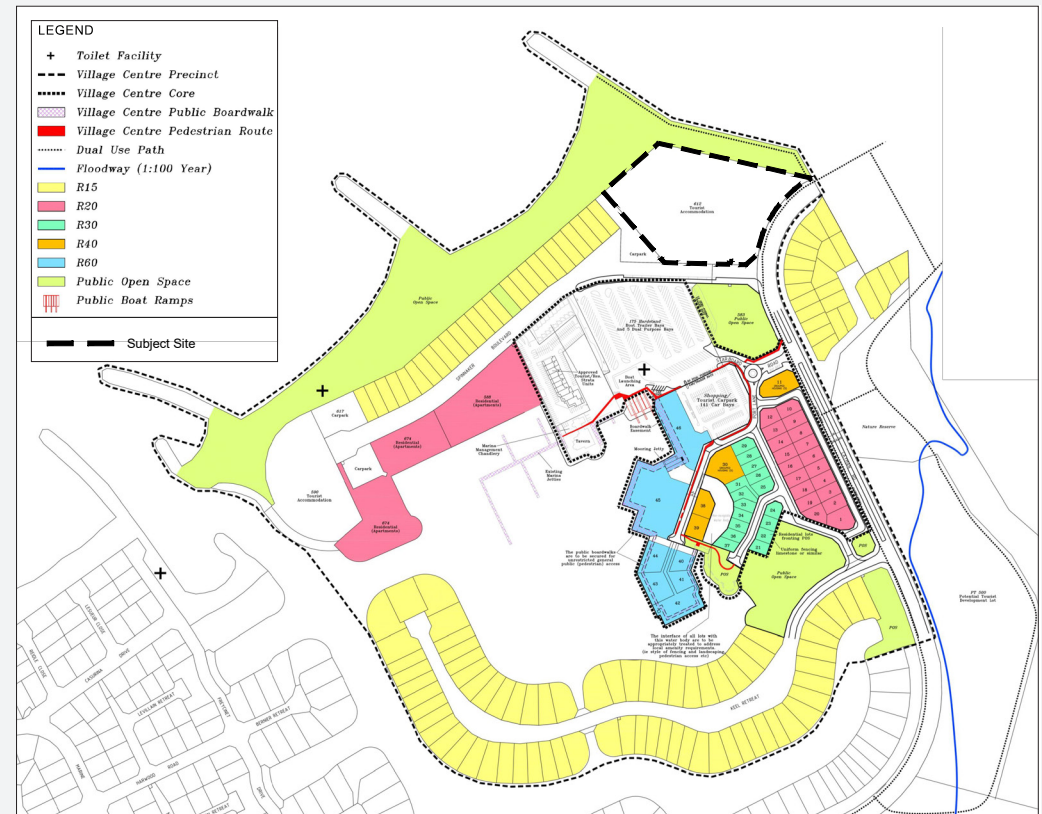
Like the PGDP, the VCP identifies the site as 'Tourist Accommodation' and does not include any development standards or requirements specific to the site.

The current VCP is Figure 5.

Amendment 28 to LPS21 – Omnibus Amendment 3

The City of Busselton resolved to initiate Amendment 28 (Omnibus Amendment 3) to Local Planning Scheme 21 in April 2018. As part of this Amendment, it is proposed to rezone the undeveloped portions of land in the Port Geographe village centre area, including the site, to 'Urban Development' zone in order to facilitate a coordinated planning response for these sites via a structure planning process. It is on this basis that this Structure Plan has been prepared.

Figure 5: Port Geographe Village Centre Precinct Plan



Decision of Western Australian Planning Commission to Prepare a Structure Plan

Clause 15 Schedule 2 – Deemed Provisions of the *Planning and Development (Local Planning Schemes) Regulations 2015* prescribes the circumstances in which a structure plan may be prepared, and states:

A structure plan in respect of an area of land in the Scheme area may be prepared if –

(a) The area is –

i. All or part of a zone identified in this Scheme as an area suitable for urban or industrial development; and

ii. Identified in this Scheme as an area requiring a structure plan to be prepared before any future subdivision or development is undertaken;

or

(b) A State planning policy requires a structure plan to be prepared for the area; or

(c) The Commission considers that a structure plan for the area is required for the purposes of orderly and proper planning.

Although Amendment 28 to rezone the land to Urban Development zone has been initiated by the City and will ultimately satisfy clause 15(a) above, it may be some time before it is finalised and gazetted.

On this basis, and in the interests of progressing structure planning over the land in the interim period, CLE wrote to the Western Australian Planning Commission to request that the Commission resolve to exercise its discretion under clause 15(c) and formally determine that a structure plan for the site (and other areas within the VCPP area) is required for the purposes of orderly and proper planning. The Commission responded in August 2018, and advised that a structure plan (or plans) would be required. In addition, the Commission advised that it would be necessary to concurrently amend the PGDP to exclude the site and note that the site would be subject to separate structure planning.

A copy of the Commission's decision letter of August 2018 is Appendix 1.

2.2 Strategic Planning and Policy Context

The following provides a brief description of the key strategic planning and policy documents that have informed the proposed Structure Plan.

Draft Leeuwin Naturaliste Sub-regional Planning Strategy (WAPC 2017)

The Leeuwin-Naturaliste Sub-regional Planning Strategy is an overarching planning document that outlines the WAPC's approach to future planning and development within the City of Busselton and the Shire of Augusta-Margaret River. The Strategy was advertised as a draft in 2017 and at the time of writing had not been finalised by the WAPC.

The draft Strategy highlights the importance of urban infill and consolidation in established areas such as the suburb of Geographe as a cost-effective means of delivering infrastructure and ensuring sustainable growth in urban areas.

The draft Strategy does not contain any specific provisions or requirements that influence the land uses contemplated by this Structure Plan.

City of Busselton Local Tourism Planning Strategy (City of Busselton 2011)

The City of Busselton's Local Tourism Planning Strategy ("LTPS") was prepared by the City in 2011, and provides the high level strategic framework to guide planning decisions around tourism proposals.

The LTPS classifies tourist accommodation sites in the following basis:

- Strategic tourism sites of State level importance to be retained for tourism only purposes (to be assessed by a State Government tourism committee, allocation of sufficient resources and establishment of a framework at the State level required).
- Strategic tourism locations or activity locations (to also be assessed by a State Government tourism committee, allocation of sufficient resources and establishment of a framework at the State level required).
- Non-strategic tourist zoned land suitable for tourist development.
- Tourist zoned land where alternative zonings may be considered.

The LTPS identifies the site as 'Tourist zoned land where alternative zonings may be considered', and, in relation to the site and the nearby Lot 590 Spinnaker Boulevard, states:

"Building heights greater than 3 storeys may be considered for these sites, subject to further consideration of detailed issues and consultation with the community. The land may be zoned to allow for the full range of permissible uses in 'Residential', 'Tourist' and 'Commercial', but the tourist accommodation component is to be a minimum of 30 per cent of the total number of residential units of development."

The recommendations of the LTPS have been taken into consideration in the formulation of this Structure Plan.

State Planning Policy 2.6 - State Coastal Planning Policy (WAPC 2013)

State Planning Policy 2.6 - State Coastal Planning Policy ("SPP 2.6") is the State Government's response to land use planning in coastal areas throughout Western Australia, and includes specific policy considerations and requirements for both infill and greenfields scenarios across a 100 year planning horizon.

SPP 2.6 was prepared by the Western Australian Planning Commission in 2013, and superseded earlier versions of the policy.

SPP 2.6 requires the consideration of coastal processes and climate change in the assessment of planning proposals in coastal areas. These coastal processes include erosion, storm surge and coastal inundation as a result of extreme storm events.

SPP 2.6 is applicable to this structure plan by virtue of the site's proximity to the coast. The Structure Plan's response to SPP 2.6 is set out in detail in section 3.5 and Appendix 2 of this report.

3.0 Proposed Structure Plan

3.1 Overview

The Structure Plan Map at Figure 6 provides the framework for a robust infill development within the broader context of the Geographe suburb. The Structure Plan Map provides a level of detail that builds upon and refines the principles of the planning framework described in the previous section, whilst also remaining flexible in recognition of more detailed stages of planning still to come.

The Development Concept Plan at Figure 7 demonstrates indicatively one possible manner in which development could occur on the site consistent with the Structure Plan requirements.

The following outlines the fundamental design principles of the Structure Plan.

- Allow for the creation of a diverse range of medium density housing choices, meeting affordable living objectives and promoting housing diversity within an area that currently has limited housing choice.
- Enable both short and long stay residential options, recognising the evolving nature of tourist accommodation and the opportunity for tourist accommodation within a residential setting.
- Provide for local convenience for nearby residents, without compromising broader planning objectives for commercial centres.
- Deliver a permeable, interconnected road and path network through the site and provide suitable connections to the established road and path networks.
- Provide a suitable planning response to the established coastal foreshore reserve that allows for public access and surveillance, as well as consideration of coastal processes across the 100 year planning horizon.

Based on these key principles, the Structure Plan provides a framework for the creation of:

- A total of approximately 45-55 residential dwellings. Higher residential densities are focused around Spinnaker Boulevard and Layman Road, while the balance of the site will comprise of more traditional single lot medium density housing.
- A small commercial site on the corner of Layman Road and Spinnaker Boulevard, providing local convenience to nearby residents, and creating opportunities for mixed use development in the future.
- A clear and permeable grid of local access streets, ensuring safe and efficient vehicle movement internally, as well as promoting walking and cycling. The road network is fully integrated with the existing network via full movement connections to both Spinnaker Boulevard and Layman Road.
- A legible pedestrian network that ensures public access to the foreshore.

The following sections provide a more detailed analysis of the Structure Plan and its response to the opportunities and constraints identified in section 2, as well as the key land use elements described above.

Figure 6: Structure Plan Map



This aerial map illustrates a proposed road layout and median rationalization for the Spinnaker Boulevard area in Perth. The map shows the intersection of Spinnaker Boulevard and Layman Road, with a proposed public footpath connection. Key features include:

- Proposed Road Layout:** A new road layout is shown, including a proposed public footpath connection (Opportunity to Connect Public Footpath) and a proposed median rationalization to allow full movement intersection (Rationalise Median to Allow Full Movement Intersection).
- Median Rationalization:** The map shows the rationalization of the median to allow full movement intersection at the intersection of Spinnaker Boulevard and Layman Road.
- Public Footpath Connection:** An opportunity to connect the public footpath is shown, with a proposed path running along the Spinnaker Boulevard.
- Commercial Use:** A possible commercial use on the corner is indicated, with a red shaded area on the corner of Spinnaker Boulevard and Layman Road.
- Property Numbers:** Various property numbers are visible, including 719, 720, 721, 722, 723, 724, 725, 726, 727, 614, 612, 611, 5584, 101, 103, 105, 106, 107, 108, 115, 116, 117, 118, 119, 12, 11, 43, and 671.
- Topography:** The map shows the topography of the area, including a river and a hill.

3.2 Land Use and Zoning

The Structure Plan proposes a 'Residential' zoning across the majority of the site, with residential density codes ranging from R30 in the central and northern parts of the site, to R40 in the southern and eastern areas. This range of density coding allows for a variety of housing typologies, including smaller 'rear loaded' lots fronting Spinnaker Boulevard and Layman Road, and slightly larger 'front loaded' lots in the centre and northern portions of the site. The precise lot sizes and resultant housing typologies will be largely determined by market conditions and will be confirmed at subdivision stage, however it is intended that the Structure Plan deliver some different housing choices to those which are presently available in the vicinity.

As noted in the previous section, the site is currently zoned Tourist in LPS21, and is identified for 'Tourist Accommodation' in the PGDP. The nature of non-strategic tourism development and accommodation in the south-west of WA has changed significantly in recent times with the advent of private short-stay accommodation services such as Air BnB. The rise of private letting has taken a large portion of the tourism demand that would previously have sought accommodation in a tourist resort style facility. The advent of private short stay rentals, coupled with a declining international tourism market and financiers' reluctance to fund traditional tourist accommodation projects warrants a different planning response to developing this site.

In addition to the changing conditions of tourism development, the physical conditions of the site have also been heavily modified since the PGDP and LPS21 were prepared. In particular, the sandy beach and protective groyne immediately to the north of the site was removed as part of the coastal protection works in 2014, and were replaced with a substantial rock sea wall. This sea wall acts as a physical barrier between the site and the ocean, and has a direct impact on the potential for large scale tourism development on the site.

The Structure Plan balances the historic planning intent for the site as being suitable for tourist accommodation with the changing conditions and the need to facilitate a broader range of land uses within the site. On this basis, the structure plan includes provisions that prevent any restrictions on occupancy, enabling both short stay and permanent occupation within the same community. In order to minimise potential for future conflict between short-stay and permanent occupants, the Structure Plan includes a requirement to include notifications on titles at subdivision stage advising all prospective purchasers that short stay accommodation is permissible in this precinct.

Overall the Structure Plan has the potential to deliver 45-55 residential dwellings, equating to 18-22 dwellings per gross hectare.

The south eastern corner of the site, adjacent to the corner of Spinnaker Boulevard and Layman Road is zoned 'Local Centre' and is allocated a residential density code of R40 for possible residential land uses. The intent is to facilitate a future small-scale convenience store / corner shop or similar in this location in order to provide low intensity retail convenience to local residents. It is not intended for this area to become a 'retail centre' or to compete with other planned or established centres in the locality, and this is reflected in the size and location of the Local Centre zoned portion of the site.

3.3 Movement Network

Vehicle Movement

The Structure Plan provides a permeable grid of local access streets through the site, ensuring efficient east-west and north-south movement. The local access streets are supplemented by two 6m wide laneways, providing vehicle access and parking to the rear of those lots fronting Layman Road and Spinnaker Boulevard. These laneways remove potential for vehicle conflict along Layman and Spinnaker, and ensure that streetscapes remain attractive and are not dominated by garage doors.

The local access streets will be constructed in accordance with the City's specifications, with the precise cross sections to be determined at subdivision design stage.

The structure plan proposes access to the external road network in two locations:

- A full movement access to Spinnaker Boulevard located approximately 75 metres from the intersection of Spinnaker and Layman Road; and
- A full movement access to Layman Road in the north eastern corner of the site.

Both intersections will require some minor modifications to the existing median islands on Spinnaker Boulevard and Layman Road to enable right hand turns. Detailed design of the intersections and modified medians will be determined at subdivision stage in consultation with the City of Busselton.

Given that the structure plan does not contemplate any increase in land use intensity from the PGDP, there is sufficient capacity within the existing road network to accommodate traffic arising from the proposed Structure Plan without the need for any substantial upgrades and / or changes to the road hierarchy.

Pedestrian Movement

The Structure Plan recognises the unique location and context of the site, and provides for a high level of walkability throughout the site. In particular, the Structure Plan provides for a pedestrian link at the western end of the site, connecting to the existing PAW and public car park, as well as a north-south pedestrian link at the northern end of the site, linking the site to the existing foreshore area to the north.

Consistent with Liveable Neighbourhoods, the local access streets will accommodate a footpath on one verge, ensuring a safe and efficient network for pedestrians and cyclists. In addition the rear laneways provide a secondary pedestrian link through the site.

3.4 Public Open Space

The site is well serviced by an existing established open space network. The existing foreshore area to the north and west provides a high amenity interface to the coast, while there is also a designated area of open space on the south side of Spinnaker Boulevard. A plan depicting the existing open space network is Figure 8.

The PGDP provided for an overall public open space provision of 17.7% (north of Layman Road), thereby exceeding the minimum 10% requirement established via State policy. It is not clear whether the site was included as part of the original calculation of gross subdividable area, however given the nature of the proposed tourist accommodation uses proposed at the time, it is reasonable to assume that it was. On this basis, the Structure Plan does not propose to provide any additional public open space.

Figure 8: Open Space Network



3.5 Coastal Processes and Coastal Interface

The Structure Plan satisfies the requirements of SPP 2.6 with respect to coastal processes and climate change.

SPP 2.6 requires consideration of coastal process in conjunction with the effects of climate change across a 100 year planning horizon as part of planning decision making in coastal areas. In particular, SPP 2.6 requires consideration of sea level rise (as a result of climate change), coastal erosion, wave overtopping, and storm surge / coastal inundation in severe storm events.

In order to address the specific requirements of SPP 2.6, the applicant has engaged coastal engineers MP Rogers and Associates to undertake an assessment of coastal hazards in accordance with SPP 2.6.

Key conclusions and recommendations from the MP Rogers assessment are summarised below, while a full copy of the MP Rogers report is included as Appendix 2.

Coastal erosion - Consideration of coastal erosion is not relevant to this structure plan on the basis that the existing coastal protection structure will prevent any significant erosion of the site during the planning timeframe.

Wave overtopping - Wave overtopping the coastal structures during severe weather events is a relevant consideration, and was factored into the design of the existing sea wall as part of the State funded coastal protection works in 2014. As a result, the sea wall has been deliberately raised in height adjacent to the site in order to prevent wave overtopping from impacting on the site. On this basis, no further specific response is warranted to prevent wave overtopping.

Coastal Inundation - Consistent with the advice from the City of Busselton, MP Rogers adopts the Department of Transport's Design Storms for Western Australian Coastal Planning – Tropical Cyclones as a conservative basis from which to determine future impacts of coastal inundation in the event of a major storm event. The report concludes that the 500 year Average Recurrence Interval (ARI) inundation level for Busselton to be 2.9m AHD. When factoring in the established 0.9m allowance for sea level rise over the next 100 years, this results in a required development level of 3.8m AHD in order to avoid coastal inundation risks over the 100 year planning horizon. Current site levels are 3.2m – 3.6m AHD, and as such, some further works will be required at subdivision and / or development application stage in order to achieve these finished levels.

Structure Plan Response

On the basis of the existing coastal protection works and the recommendations of the MP Rogers assessment, there is no need for a specific Structure Plan response in relation to coastal erosion or wave overtopping. In relation to the potential for coastal inundation during a major storm event, the structure plan includes a provision requiring all habitable floor levels to be at or above 3.8m AHD within the Structure Plan area.

3.6 Infrastructure Coordination, Servicing and Staging

Wood & Grieve Engineers have prepared a comprehensive servicing strategy in order to demonstrate the availability and capacity of service infrastructure in order to service the site. A copy of this servicing strategy is included as Appendix 3.

The servicing strategy confirms that the site is connected to all essential service infrastructure, and that there is sufficient capacity within the existing network to accommodate development of the site as envisaged by the structure plan.

The following section summarises the engineering considerations in the Engineering Servicing Report.

Earthworks Strategy

The Report demonstrates that the finished floor levels (FFL) are capable of achieving 3.8m AHD to meet the requirements of SPP2.6. In order to achieve FFLs of 3.8m, retaining walls will likely be required at the existing lot boundary and at entry points. Fill is likely to be required to achieve increased road and lot levels which will require ramping at entry points. Final road and retaining wall levels will be determined at detailed design stage in consultation with the City of Busselton.

The Report demonstrates that the site, once developed, is capable of managing stormwater runoff in a manner which is consistent with the City's requirements, and best practice urban water management. A plan depicting the principles of the drainage strategy for the site is Figure 9.

- The first 15mm (1 year ARI) run off is proposed to be captured via a variety of on-lot soak wells, roadside swales and rain gardens.
- Run off from the 5 year ARI storm events will enter rain gardens with excess run-off diverted into the pit and pipe system open base soakwell pits with additional soakage devices to assist with additional volume storage infiltration.
- Stormwater will be attenuated consistently with drainage infrastructure for the 1 and 5 year ARI events discussed above with bypass flowing along roads. Lot levels will be designed at 500mm above the 1% AEP floor level to protect from the larger storm events.

Waste Water

The Structure Plan area is located within the catchment of the existing vacuum wastewater pumping station, with existing gravity and vacuum storage infrastructure located within the Layman Road and Spinnaker Boulevard reserves. Lots will be connected to DN150 gravity sewerage infrastructure that flows to a collection chamber with a separate connected vacuum valve pit. Vacuum valves will connect to a common DN100 vacuum main which will extend through the Structure Plan area and into the existing mains in Layman Road or Spinnaker Boulevard.

LEGEND

- POTENTIAL FLOOD ROUTES
- POTENTIAL ROAD HIGH POINT
- POTENTIAL "RAIN GARDEN"

The map displays an aerial view of a residential development area. A network of streets is overlaid on the map, including Spinnaker Boulevard, Layman Road, and a road labeled 'ROAD'. Various lot numbers and dimensions are marked on the map. Blue arrows indicate potential flood routes, and blue dots indicate potential road high points. Green ovals indicate potential "rain gardens".

Water Supply

The Structure Plan will be provided with reticulated potable water via the existing DN150 PVC water main within the Spinnaker Boulevard road reserve. DN 100 PVC water mains will be provided to lots within the proposed subdivision and connected to the DN150 PVC main.

Power Supply

Existing 22kV HV & LV Distribution lines are located on the southern side of the Spinnaker Boulevard road reserve will service the Structure Plan area. Lot 612 is fed from an existing Uni Pillar which is directly adjacent to a 500kVA Transformer located on the south western portion of the lot.

Gas Supply

An existing DN100 350kpa high pressure polyethylene gas main is located in Spinnaker Boulevard and Layman Road reserves adjacent to the site. ATCO Gas has provided advice confirming that the existing network can be extended to service the proposed development.

Communications

The Structure Plan is located within an area that has NBN Co services available. The design and installation of pit and pipe infrastructure will be undertaken at the developers cost and will be extended within the communications corridor to service two lots per pit. The pit and pipe system can be designed and installed the same time as other NBN services and handed over to NBN to reticulate cabling as required.

3.7 Development Contribution Arrangements

The City has advised that the site is subject to the 'Port Geographe Developer Contribution and Staging Plan' which, in conjunction with the original development deed for the Port Geographe area, provides the basis for development contributions towards community infrastructure in the locality. This development contribution framework is not included in Schedule 15 of LPS21, and it is understood that it is implemented via a separate deed between the landowners and the City.

Contributions are typically levied as conditions of subdivision and / or development approval, and given that the contribution agreement is separate to the planning framework, it is not necessary for the Structure Plan to duplicate these requirements.

Appendices

Appendix 1: Correspondence from Western Australian Planning Commission August 2018

Appendix 2: Coastal Hazard Assessment (MP Rogers and Associates)

Appendix 3: Engineering Servicing Report (Wood & Grieve Engineers)

Appendix 1



Enquiries: Mr Frank Scibilia
Our Ref: DP/13/00969
Your Ref: 3153Ltr26

CLE Town Planning and Design
PO Box 796
SUBIACO WA 6904

Attention: Mr Cameron Leckey

Dear Cameron

**PORT GEOGRAPHE VILLAGE CENTRE REMNANT LAND - INTENT TO PREPARE
STRUCTURE PLAN**

I refer to your correspondence dated 1 August 2018 seeking support from the Western Australian Planning Commission for the preparation of a structure plan for Lots 585, 590, 612 and portion of Lot 9501, Layman Road and Spinnaker Boulevard, at the Port Geographe Village Centre.

The Western Australian Planning Commission has resolved, pursuant to Schedule 2 Part 4 r.15(c) of the *Planning and Development (Local Planning Schemes) Regulations 2015*, that:

1. three structure plans are required for Lots 590, 612 and for Lots 585 and portion of 9501, respectively, for the purposes of orderly and proper planning.

Further to the above, a structure plan amendment to the Port Geographe Development Plan, identifying the abovementioned sites for separate structure plans, is expected to be undertaken prior to or concurrently with the structure plans for the abovementioned sites.

Please call Mr Frank Scibilia of this office if you have any further queries.

Yours sincerely


David Brash
Principal Planning Officer
South West Regions, Land Use Planning

27 August 2018

Cc Mr Paul Needham, City of Busselton

Appendix 2

R1280 Rev 2

May 2020

Heath Development Company

**Lot 612 Spinnaker Boulevard, Port Geographe
Coastal Hazard Risk Management**

marinas

boat harbours

canals

breakwaters

jetties

seawalls

dredging

reclamation

climate change

waves

currents

tides

flood levels

water quality

siltation

erosion

rivers

beaches

estuaries

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K1577, Report R1280 Rev 2

Record of Document Revisions

| Rev | Purpose of Document | Prepared | Reviewed | Approved | Date |
|-----|--------------------------------------|----------|----------|----------|---------|
| A | Draft for MRA & Client review | C Doak | A Clapin | C Doak | 26.9.19 |
| 0 | Issued for Client use | C Doak | A Clapin | C Doak | 27.9.19 |
| 1 | Updated with minor change | C Doak | A Clapin | C Doak | 26.5.20 |
| 2 | Updated with additional minor change | C Doak | A Clapin | C Doak | 28.5.20 |
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Form 035 18/06/2013

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1. Introduction

Lot 612 Spinnaker Boulevard is a coastal Lot within the Port Geographe development precinct (refer Figure 1.1). This Lot is owned by Heath Development Company, who is seeking to progress development planning for the proposed subdivision of the Lot.

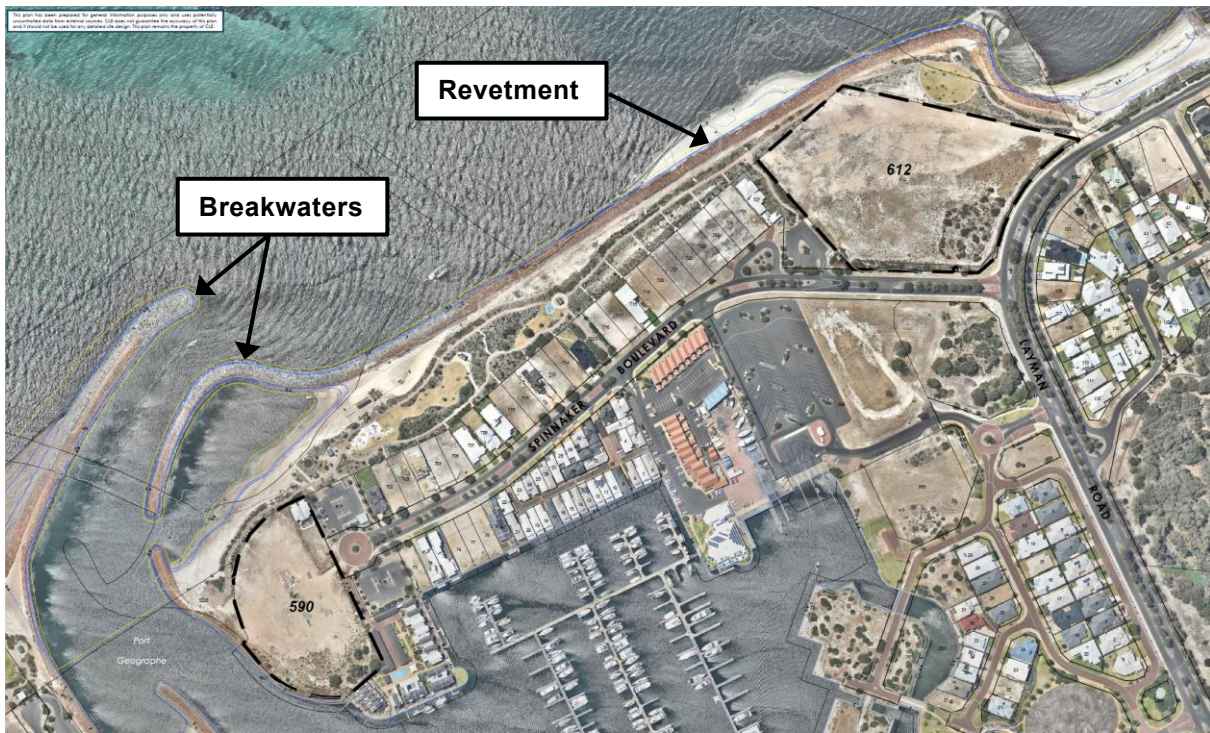


Figure 1.1 Location Plan

Given the proximity of the Lot to the coastline, development planning requires consideration of coastal hazard risks in accordance with the requirements of State Planning Policy 2.6 – the State Coastal Planning Policy (SPP2.6; WAPC 2013).

1.1 Approach to Coastal Hazard Risk Management

SPP2.6 presents a hierarchy for coastal hazard risk management which is primarily focused on promoting future flexibility for coastal managers. However, for the Port Geographe precinct, which underwent a major State Government funded coastal protection structure reconfiguration in 2014, the development approach has been to protect the broader development precinct. Lot 612 benefits from this protection, as do a number of other freehold title lots that exist along the coastal frontage of the Port Geographe development precinct. Consequently, the standard requirements of coastal hazard risk management and adaptation planning outlined within SPP2.6 do not apply to the development of Lot 612. Instead, development planning needs only consider the avoidance of coastal hazards that could directly impact the sites despite the presence of the coastal protection structures.

This means that coastal hazards associated with wave overtopping of the coastal structures and inundation of the site need to be considered. Coastal erosion hazards do not need to be considered given the protection structures mitigate any associated risks.

This report provides details regarding potential overtopping levels and required development levels for the site.

2. Wave Overtopping Hazards

Wave overtopping occurs when waves impact or run-up a structure, resulting in a volume of water passing over (overtopping) the crest. Wave overtopping can be in the form of sheet flow, where waves run-up over the crest and result in what is known as 'green water' impacting the adjacent area. Alternatively, wave overtopping can be in the form of splash from waves breaking on the seaward face of the structure (often termed 'white water'). This splash can be carried over the structure by momentum or as a result of onshore winds. Volumes of overtopping associated with run-up over the crest of a structure are generally more problematic than overtopping caused by breaking waves, however both can be significant with respect to safety of people and property.

Design of the reconfigured coastal structures at Port Geographe was completed by WorleyParsons and is described in their design report (WorleyParsons, 2014). In accordance with sound engineering practices, the design of the structures included assessment of wave overtopping rates based on both the most advanced literature available, as well as from the results of physical model testing.

Appropriately, the crest design of the structures was completed based on guideline overtopping limits presented in EurOtop (2007), which represented the best available information for use in the design process. The crest design included consideration of overtopping rates to ensure no damage to the structures as a result of wave overtopping during the 100 year Average Recurrence Interval (ARI) design event, whilst also preserving the safety of pedestrians during conditions experienced relatively frequently (the 1 year ARI event). Acceptable wave overtopping rates that were adopted for the design are summarised in Table 2.1.

Table 2.1 Acceptable Wave Overtopping Limits for Different Scenarios

| Hazard Type and Reason | Relevant Design Event for Overtopping Level to be Achieved | Acceptable Mean Overtopping Discharge (l/s/m) |
|--|--|---|
| Damage to grassed or lightly protected promenade or reclamation cover for Revetment Seawalls | 100 year ARI | 50 |
| Damage to Building Structural Elements | 100 year ARI | 1 |
| Aware pedestrian, clear view of the sea, not easily upset or frightened, able to tolerate getting wet, wider walkway | 1 year ARI | 0.1 |

As is common practice for the development of coastal protection structures, a 50 year design life was adopted for the design of the Port Geographe structures. Adoption of this design life means that a 0.3 m allowance for sea level rise was used in the determination of appropriate design conditions, as agreed with Department of Transport during the design process. Furthermore, WorleyParsons discussed that *“Department of Transport expressed a preference for adaptive structures. This includes a reservation of space for additional future strengthening of the structures in case the anticipated sea level rise is exceeded during the design life. It also includes consideration of an increased wave height as a result of an unexpected large sea level rise. This should not necessarily lead to a larger armour stone size but can also involve accepting more damage during a storm event. The adaptive measures are further discussed in Section 10.3 of this design report based on a sea level rise of 0.9m. According to [Ref. L1] this corresponds to a*

design horizon of 100 years for sea level rise.” Further discussion regarding the proposed adaptation strategies is provided in Section 2.2 of this report.

2.1 Wave Overtopping – Lot 612

The design for the revetment section fronting Lot 612 was completed primarily to focus on the stability of the structure itself, as well as the safety of pedestrians immediately behind the structure. Overtopping levels were calculated using EurOtop guidelines and were also tested using a physical model. Results showed that the stability and public safety criteria were acceptable (100 year ARI event – 49.6 l/s/m calculated and 17.3 l/s/m in the physical model; and 1 year ARI event – 0.6 l/s/m calculated and 0.06 l/s/m in the physical model), however a further item was identified which required clarification.

The close proximity of the northern boundary of Lot 612 to the proposed structure presented a challenge in terms of ensuring that the reconfigured structure did not adversely impact the development potential of the Lot due to wave overtopping volumes. Therefore, an assessment was completed by WorleyParsons to determine the appropriate design response to ensure that Lot 612 could be developed in full without risk of damage to any buildings constructed on the Lot.

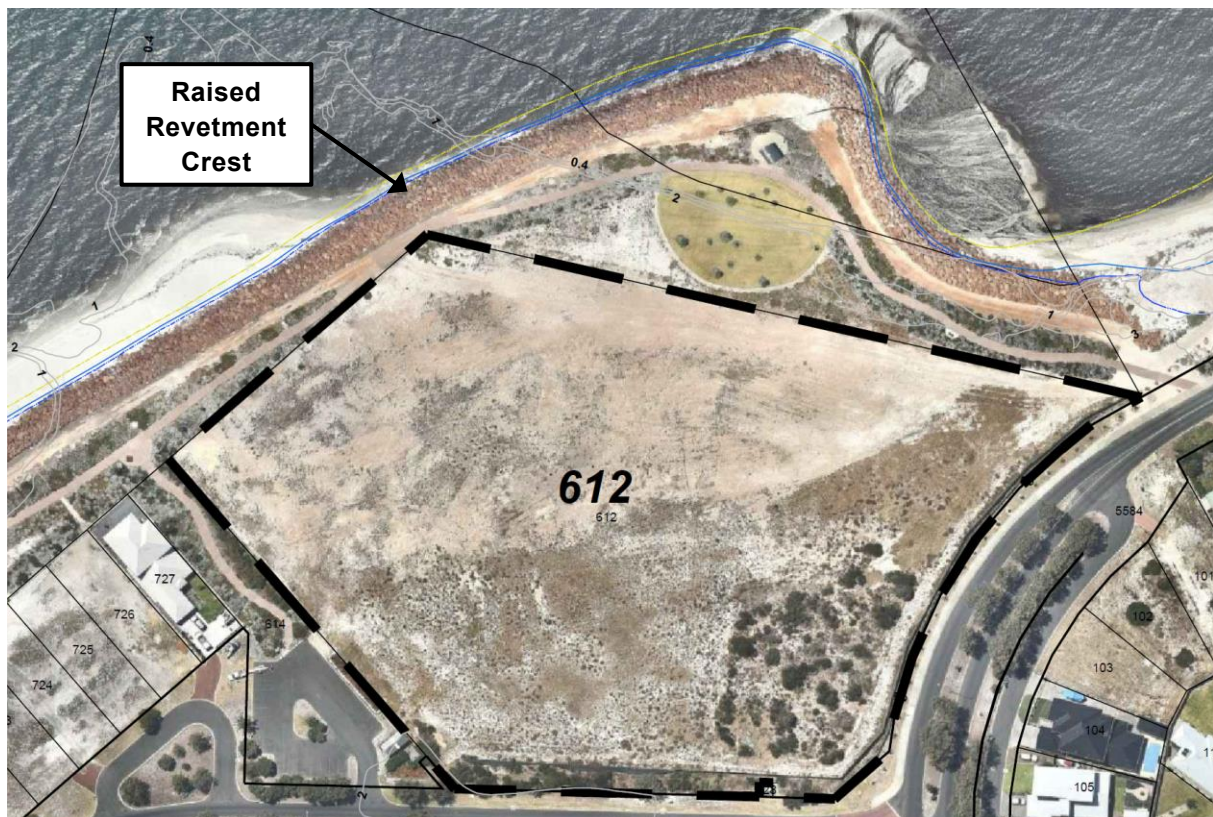


Figure 2.1 Northern Boundary of Lot 612 where Design Crest Elevation was Raised

To overcome this issue a new section design was completed for the structure to locally reduce the overtopping rates. This revised section (Section J1 as shown in the design drawings in Appendix A) featured a crest height 0.5 m higher than the surrounding structure. The results of this change are discussed in the following excerpt from the WorleyParsons report.

Excerpt from WorleyParsons Report

Section J1 features a raised crest to +5.1mCD in order to reduce overtopping rates. The rear of the crest is situated 5m (rather than 10m) away from the Lot 612 boundary.

This modified Section J1 was tested in the flume at MHL. 100-year overtopping rates were measured at the rear of the crest and 5m landward of the crest. Table 7-7 below presents the results of the measurements. As seen in this table, the 0.5m raise in crest elevation brings the modified Section J1 into compliance with the building elements overtopping criteria at the property boundary.

Table 7-7 Overtopping measurements for modified Section J1

| Section | Criterion | | Water Level * ¹ [m +CD] | Crest Level [m +CD] | H _s [m] | q [l/s/m] | Criterion Passed |
|---|-------------------|----------|---------------------------------------|------------------------|-----------------------|--------------|------------------|
| Section J1 (5m from crest) | Building elements | ≤1 l/s/m | 2.9 | 5.1 | 2.5 | 0.1 | Yes |
| * ¹ water levels include 0.3m sea level rise | | | | | | | |

As stated within the above excerpt, the revised Section J1 meets the relevant overtopping criterion for a 50 year planning horizon (based on a sea level rise of 0.3 m). The noted intention outlined by WorleyParsons, and discussed further in Section 2.2, is that beyond this timeframe the structure could be strengthened to accommodate any impacts caused by additional sea level rise, including consideration of the 0.9 m sea level rise which SPP2.6 requires to be considered.

Calculations of the overtopping rates associated with sea level rise of greater than 0.3 m are not provided within the WorleyParsons design report. Therefore, at the request of the City of Busselton and Department of Transport, calculations of potential future overtopping rates have been completed to provide an indication of the potential risk to the Lot 612 development based on the current structure and a sea level rise of 0.9 m (to represent a 100 year planning horizon). Additionally, it is noted that since the design of the entrance structures was completed, the 2013 version of SPP2.6 now requires the consideration of wave overtopping risk associated with a 500 year ARI event.

MRA have been advised that recent modelling work completed in the area has identified a 500 year ARI water level for Port Geographe of 3.4 mAHd, including a 0.9 m allowance for sea level rise. This information, combined with a proposed retained development level of 3.8 mAHd for Lot 612, was used to complete an assessment of the potential overtopping rates.

Estimation of the wave overtopping rates during the 500 year ARI event across a 100 year planning horizon have been made, utilising the second edition EurOtop (2018) manual. The results of this overtopping assessment note that areas of potential overtopping impact will occur on Lot 612. The potential impact on the site is shown in Figure 2.2. Development therefore needs to avoid the construction of habitable buildings in this area to manage the level of coastal hazard risk at the site. It is also noted that the proposed retaining and development of Lot 612 at an elevation of 3.8 mAHd is required to ensure that any overtopping flows do not inundate the site, but rather are directed back towards the ocean.



Figure 2.2 Potential Extent of Wave Overtopping Impact on Building Structural Elements

2.2 Adaptation Strategies for Coastal Protection Structures

As previously mentioned, with direction from Department of Transport, the design by WorleyParsons considered future adaptation requirements for the coastal protection structures to ensure that they would be “adaptive” for sea level rise values higher than that included in the design. Recommendations within the WorleyParsons report for future adaption of these structures included the following:

- *“Placement of additional larger armour stone in front of the exposed sides of the breakwaters and revetment;*
- *Use additional rock to make a berm in front of the exposed sides of the breakwaters and revetment. A berm at around design water level will decrease wave overtopping;*
- *Raise the crest at locations where possible. Sufficient space should be reserved along the eastern revetment to enable raising and strengthening of the crest. At a minimum, the 5m wide core crest width should be reserved to allow an additional layer of armour to be placed;*
- *Carry out sand nourishment in front of the eastern revetment to raise the foreshore, this will decrease the wave loads on the structure; and*
- *To determine the most effective and suitable measure among the above possible measures (and possible others) should be evaluated and quantified in a separate breakwaters and revetment strengthening assessment study and re-design when it becomes necessary. This study should take into account the new value (and prediction) for sea level rise, the effect of sea level rise on design wave conditions and the condition (performance) of the structures at the time of the strengthening works.”*

The above recommendations provide logical strategies for modification to the coastal protection structures should this be required in the future. It is noted that, based on the previous assessment, the revetment fronting Lot 612 should provide a reasonable level of protection even over a 100 year planning horizon with 0.9 m of sea level rise. Nevertheless, other sections of the coastal protection structures are likely to have a higher vulnerability (due to the higher wave conditions) and would therefore require upgrade or strengthening before it was required for the section fronting Lot 612. As the coastal protection structures sit outside of private landholdings it is anticipated that any upgrade to these structures would be completed by the relevant public authority when required.

3. Coastal Inundation Hazards

SPP2.6 outlines that development within the coastal zone should avoid risks associated with inundation resulting from an event with a *“0.2 percent or one-in-five hundred probability of being equalled or exceeded in any given year over the planning time frame”*. Despite not being in a region that is commonly impacted by cyclones, the severity of the required design event described above means that the impact of cyclones needs to be considered.

As outlined previously, MRA have been advised that recent modelling completed in the area has determined that the 500 year ARI water level for Port Geographe is 3.4 mAHD, including a 0.9 m allowance for sea level rise. This water level therefore represents the 500 year ARI water level at the end of a 100 year planning horizon. As previously discussed, a retained **development level of 3.8 mAHD** is therefore proposed for Lot 612 to avoid inundation and overtopping hazards.

4. Conclusion

The reconfiguration of the Port Geographe coastal structures provides protection to the overall Port Geographe development precinct. As a result, the majority of risks typically posed by coastal hazards no longer need to be considered when contemplating development of coastal land areas that are protected by these structures.

The design for the reconfiguration of the coastal structures considered the potential impacts of wave overtopping from the perspective of structural stability, pedestrian safety and avoidance of damage to building structures located on adjacent freehold lots. However, updates to SPP2.6 have required that the potential exposure of the site to risks associated with wave overtopping be reviewed. The results of the revised overtopping assessment have highlighted that the most seaward portions of the Lot have a higher risk of damage to buildings associated with wave overtopping effects and that construction of habitable buildings in this area should be avoided as a result.

Whilst Lot 612 benefits from protection by coastal protection structures, these structures lie outside of land under private ownership. As a result, if any upgrades to these structures are required in the future then these upgrades will be completed by the relevant public authority when required.

Whilst the structures provide protection against wave overtopping, which includes wave run-up, the elevation of the proposed development still needs to be high enough to avoid risks posed by severe inundation events, as well as to ensure that water from wave overtopping is directed back towards the ocean, rather than inundating the site. Review of inundation and overtopping hazards has identified that development of Lot 612 needs to be at or above 3.8 mAHD.

5. References

EurOtop, 2007. *Wave Overtopping of Sea Defences and Related Structures: Assessment Manual*.

EurOtop, 2018. *Wave Overtopping of Sea Defences and Related Structures: Assessment Manual – Second Edition*.

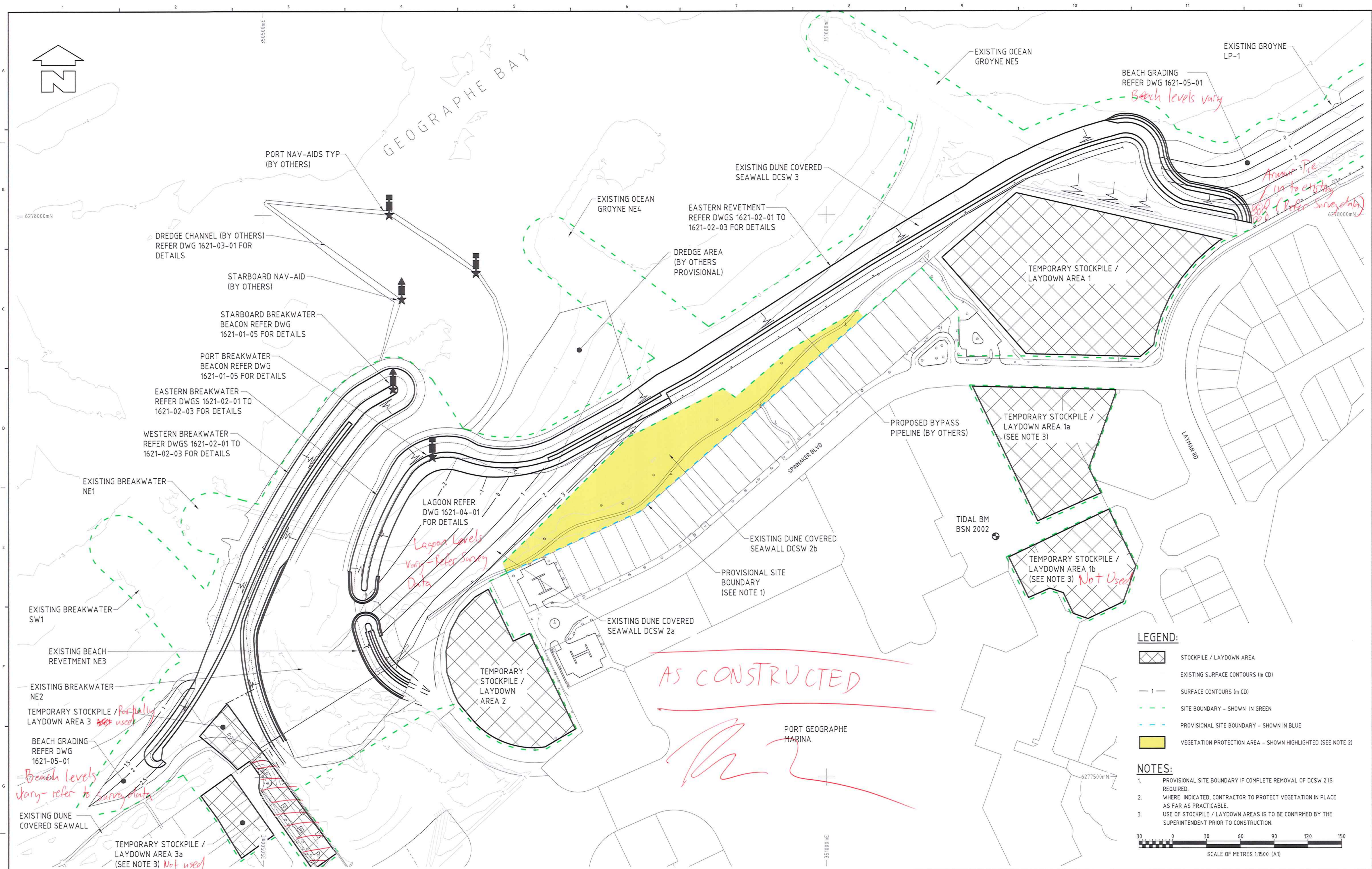
WAPC, 2013. State Planning Policy 2.6: State Coastal Planning Policy. Government of Western Australia.

WorleyParsons, 2014. *Port Geographe Reconfiguration of Coastal Structures – IFC Design Report*. Report 301012-01577-CS-REP-003 prepared for the Department of Transport.

6. Appendices

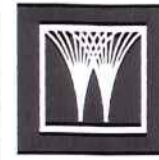
Appendix A As-Constructed Drawings

Appendix A As-Constructed Drawings



| | | | |
|------|----------|--|---------|
| 4 | AS CON | | |
| 3 | 21.03.14 | EASTERN BW SECTION E (CH0 TO CH60) REVISED | TJ |
| 2 | 2.07.13 | ISSUED FOR CONSTRUCTION | ST |
| 1 | 13.02.13 | RE-ISSUED FOR TENDER | ST |
| 0 | 21.12.12 | ISSUED FOR TENDER | ST |
| REV | DATE | AMENDMENT | DRN |
| ORIG | SIZE | M/FILE | FILE NO |
| A1 | | | |

| | |
|--|------|
| GENERAL NOTES | |
| 1. FOR GENERAL NOTES REFER TO DRAWING 1621-01-02 | |
| TIDE LEVELS (m CD) | |
| HAT | MHHW |
| 1.44 | 1.16 |
| MLHW | MSL |
| 1.05 | 0.81 |
| MHLW | MLLW |
| 0.56 | 0.45 |
| LAT | |
| 0.45 | 0.17 |



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|---|---|
| SCALE: | 1 : 1500 @ A1 |
| UNLESS OTHERWISE STATED DIMENSIONS IN MILLIMETRES | |
| HORIZ: | MAP GRID OF AUSTRALIA BASED ON GDA94 - ZONE 50 |
| VERT: | CHART DATUM WHICH IS 2.185m BELOW TIDAL BENCHMARK BSN 2002 AND 0.68m BELOW AHD |
| DESIGNED | D.HANSEN |
| CHECKED | D.TODD |
| DRAWN | S.TEBBUTT |
| CHECKED | T.JAMES |
| PROJECT MANAGER | K.Y.LIM |
| APPROVED | |
| APPROVED | |
| APPROVED | |
| AUTHORISED | |
| DIRECTOR PROJECT DELIVERY COASTAL INFRASTRUCTURE | |

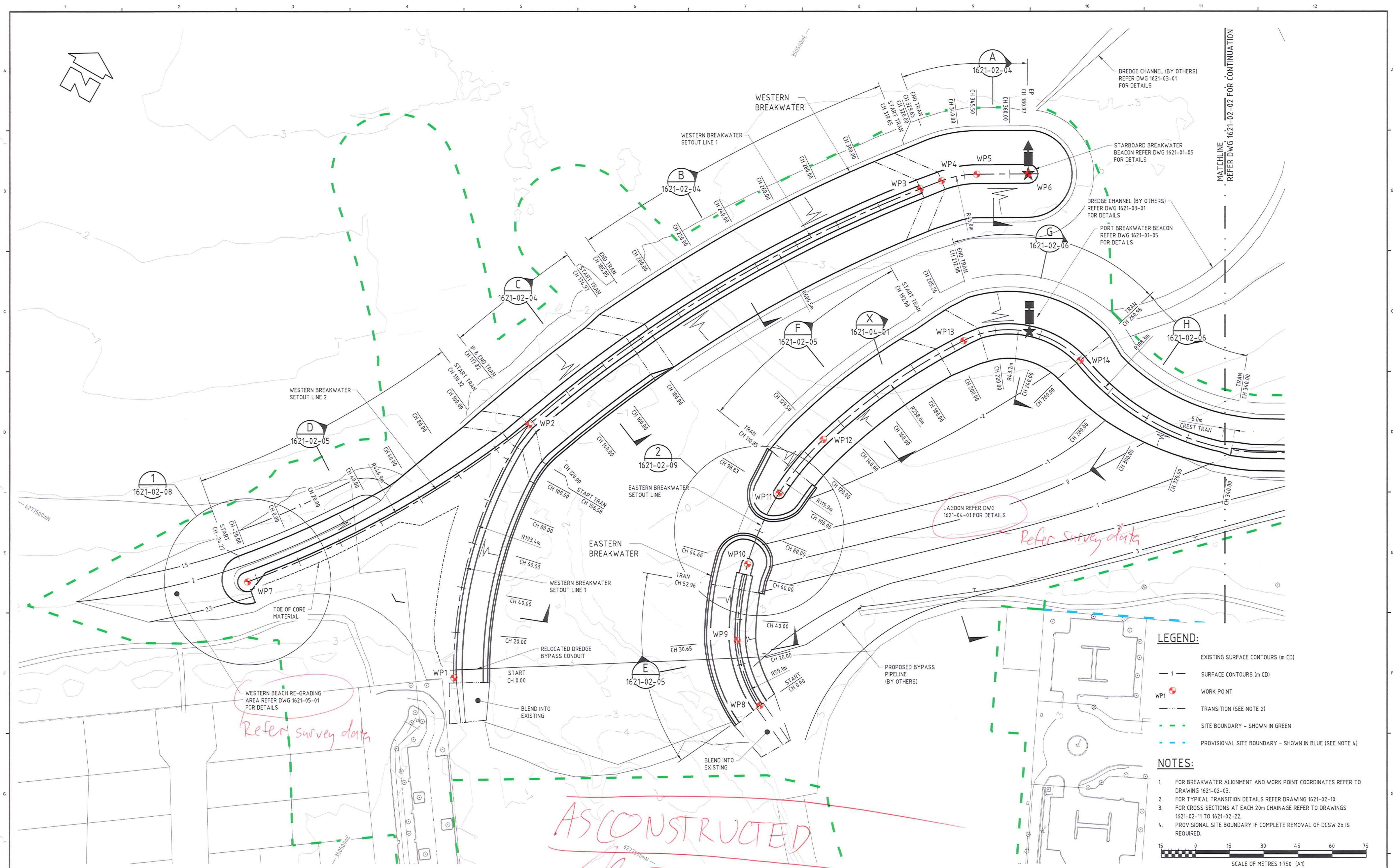
Department of Transport

**BUSSETON - PORT GEOGRAPHE
RECONFIGURED BREAKWATERS & SEAWALLS - DESIGN
GENERAL ARRANGEMENT**

DRAWING NUMBER 1621 - 01 - 03



34



| | | | | |
|-----|----------|--|-----|-----------------|
| 4 | 21.03.14 | EASTERN BW SECTION E (CH0 TO CH60) REVISED | TJ | |
| 3 | 21.02.14 | REVISED SECTION H1 PER DOT | TJ | |
| 2 | 2.07.13 | ISSUED FOR CONSTRUCTION | ST | |
| 1 | 11.02.13 | RE-ISSUED FOR TENDER | ST | |
| 0 | 21.12.12 | ISSUED FOR TENDER | ST | |
| REV | DATE | AMENDMENT | DRN | DESIGN APPROVAL |
| A1 | | | | |

GENERAL NOTES

1. FOR GENERAL NOTES REFER TO DRAWING 1621-01-02

| TIDE LEVELS (m CD) | | | | | | |
|--------------------|------|------|------|------|------|------|
| HAT | MHHW | MLHW | MSL | MHLW | MLLW | LAT |
| 1.44 | 1.16 | 1.05 | 0.81 | 0.56 | 0.45 | 0.17 |

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|--|---|
| SCALE: | 1: 750 @ A1 |
| DESIGNED | D.HANSEN |
| CHECKED | D.TODD |
| DRAWN | S.TEBBUTT |
| CHECKED | T.JAMES |
| PROJECT MANAGER | K.Y.LIM |
| HORIZ: | MAP GRID OF AUSTRALIA BASED ON GDA94 - ZONE 50 |
| VERT: | CHART DATUM WHICH IS 2.185m BELOW TIDAL BENCHMARK BSN 2002 AND 0.68m BELOW AHD |
| 0 | 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 |
| BAR MEASURE INDICATES IF SCALES HAVE BEEN VARIED | |

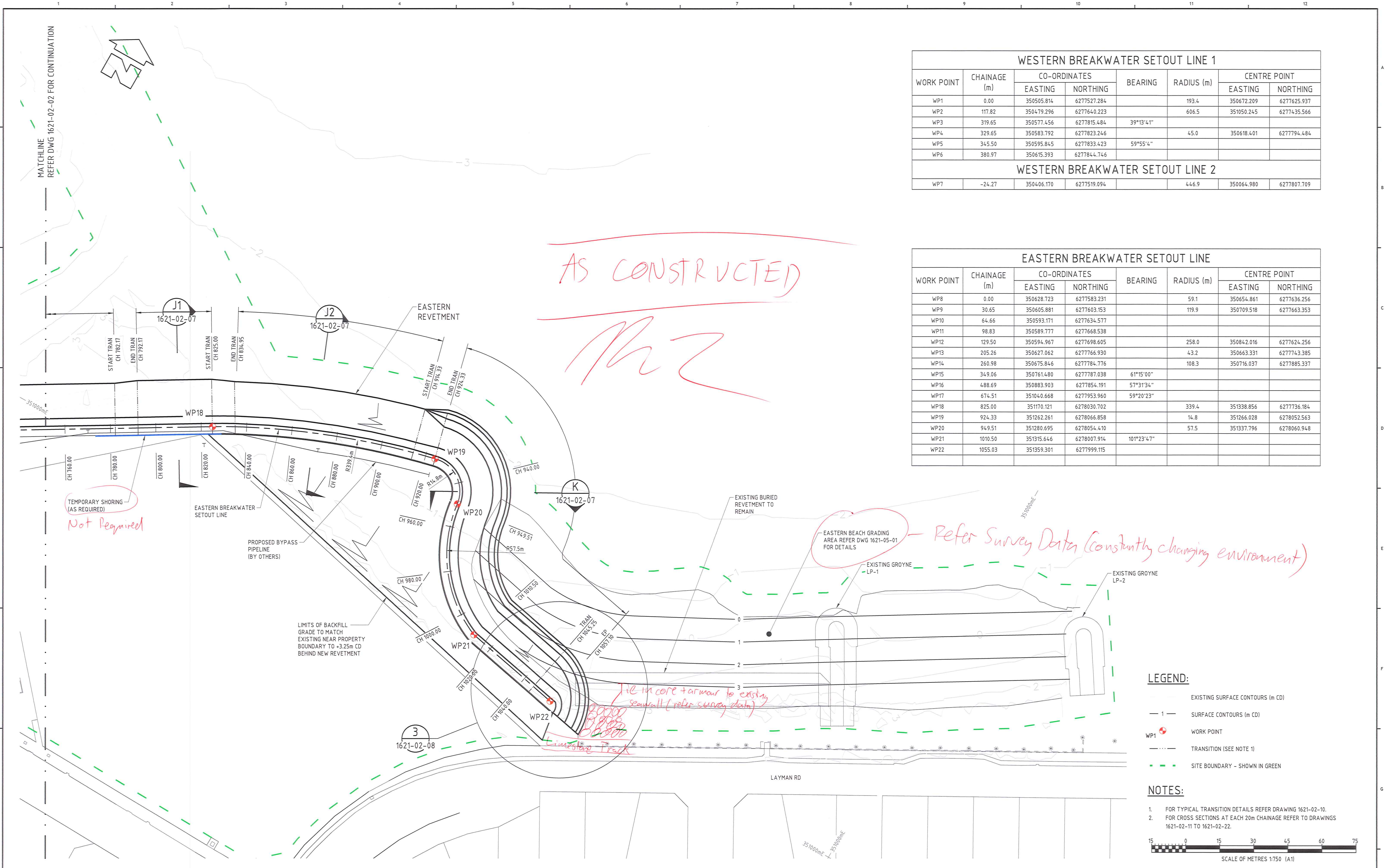
| | |
|---|--|
| APPROVED | |
| APPROVED | |
| APPROVED | |
| AUTHORISED | |
| DIRECTOR PROJECT DELIVERY COASTAL INFRASTRUCTURE | |

Department of Transport

BUSSELTON - PORT GEOGRAPHE
RECONFIGURED BREAKWATERS & SEAWALLS - DESIGN
SETOUT PLAN - SHEET 1

DRAWING NUMBER 1621 - 02 - 01

REVN 45



| WESTERN BREAKWATER SETOUT LINE 1 | | | | | | | |
|----------------------------------|-----------------|--------------|-------------|-----------|------------|--------------|-------------|
| WORK POINT | CHAINAGE (m) | CO-ORDINATES | | BEARING | RADIUS (m) | CENTRE POINT | |
| | | EASTING | NORTHING | | | EASTING | NORTHING |
| WP1 | 0.00 | 350505.814 | 6277527.284 | | 193.4 | 350672.209 | 6277625.937 |
| WP2 | 117.82 | 350479.296 | 6277640.223 | | 606.5 | 351050.245 | 6277435.566 |
| WP3 | 319.65 | 350577.456 | 6277815.484 | 39°13'41" | | | |
| WP4 | 329.65 | 350583.792 | 6277823.246 | | 45.0 | 350618.401 | 6277794.484 |
| WP5 | 345.50 | 350595.845 | 6277833.423 | 59°55'4" | | | |
| WP6 | 380.97 | 350615.393 | 6277844.746 | | | | |
| WESTERN BREAKWATER SETOUT LINE 2 | | | | | | | |
| WP7 | -24.27 | 350406.170 | 6277519.094 | | 446.9 | 350064.980 | 6277807.709 |

| EASTERN BREAKWATER SETOUT LINE | | | | | | | |
|--------------------------------|-----------------|--------------|-------------|------------|------------|--------------|-------------|
| WORK POINT | CHAINAGE (m) | CO-ORDINATES | | BEARING | RADIUS (m) | CENTRE POINT | |
| | | EASTING | NORTHING | | | EASTING | NORTHING |
| WP8 | 0.00 | 350628.723 | 6277583.231 | | 59.1 | 350654.861 | 6277636.256 |
| WP9 | 30.65 | 350605.881 | 6277603.153 | | 119.9 | 350709.518 | 6277663.353 |
| WP10 | 64.66 | 350593.171 | 6277634.577 | | | | |
| WP11 | 98.83 | 350589.777 | 6277668.538 | | | | |
| WP12 | 129.50 | 350594.967 | 6277698.605 | | 258.0 | 350842.016 | 6277624.256 |
| WP13 | 205.26 | 350627.062 | 6277766.930 | | 43.2 | 350663.331 | 6277743.385 |
| WP14 | 260.98 | 350675.846 | 6277784.776 | | 108.3 | 350716.037 | 6277885.337 |
| WP15 | 349.06 | 350761.480 | 6277787.038 | 61°15'00" | | | |
| WP16 | 488.69 | 350883.903 | 6277854.191 | 57°31'34" | | | |
| WP17 | 674.51 | 351040.668 | 6277953.960 | 59°20'23" | | | |
| WP18 | 825.00 | 351170.121 | 6278030.702 | | 339.4 | 351338.856 | 6277736.184 |
| WP19 | 924.33 | 351262.261 | 6278066.858 | | 14.8 | 351266.028 | 6278052.563 |
| WP20 | 949.51 | 351280.695 | 6278054.410 | | 57.5 | 351337.796 | 6278060.948 |
| WP21 | 1010.50 | 351315.646 | 6278007.914 | 101°23'47" | | | |
| WP22 | 1055.03 | 351359.301 | 6277999.115 | | | | |
| | | | | | | | |

- LEGEND:
- EXISTING SURFACE CONTOURS (m CD)
 - 1 SURFACE CONTOURS (m CD)
 - WP1 WORK POINT
 - TRANSITION (SEE NOTE 1)
 - SITE BOUNDARY - SHOWN IN GREEN

- NOTES:
- FOR TYPICAL TRANSITION DETAILS REFER DRAWING 1621-02-10.
 - FOR CROSS SECTIONS AT EACH 20m CHAINAGE REFER TO DRAWINGS 1621-02-11 TO 1621-02-22.
- 15 0 15 30 45 60 75
SCALE OF METRES 1:750 (A1)

| | | | | | |
|-----|----------|-------------------------|-----|-----------------|--|
| 2 | AS CON | | | | |
| 1 | 2.07.13 | ISSUED FOR CONSTRUCTION | | ST | |
| 0 | 21.12.12 | ISSUED FOR TENDER | | ST | |
| REV | DATE | AMENDMENT | DRN | DESIGN APPROVAL | |
| A1 | | | | | |

| GENERAL NOTES | | | | | | |
|--|------|------|------|------|------|------|
| 1. FOR GENERAL NOTES REFER TO DRAWING 1621-01-02 | | | | | | |
| TIDE LEVELS (m CD) | | | | | | |
| HAT | MHHW | MLHW | MSL | MHLW | MLLW | LAT |
| 1.44 | 1.16 | 1.05 | 0.81 | 0.56 | 0.45 | 0.17 |

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| | |
|---|-------------------------|
| SCALE: | 1: 750 @ A1 |
| UNLESS OTHERWISE STATED DIMENSIONS IN MILLIMETRES | |
| HORIZ: MAP GRID OF AUSTRALIA BASED ON GDA94 - ZONE 50 | DESIGNED D.HANSEN |
| VERT: CHART DATUM WHICH IS 2.185m BELOW TIDAL BENCHMARK BSN 2002 AND 0.68m BELOW AHD | CHECKED D.TODD |
| | DRAWN S.TEBBUTT |
| | CHECKED T.JAMES |
| | PROJECT MANAGER K.Y.LIM |

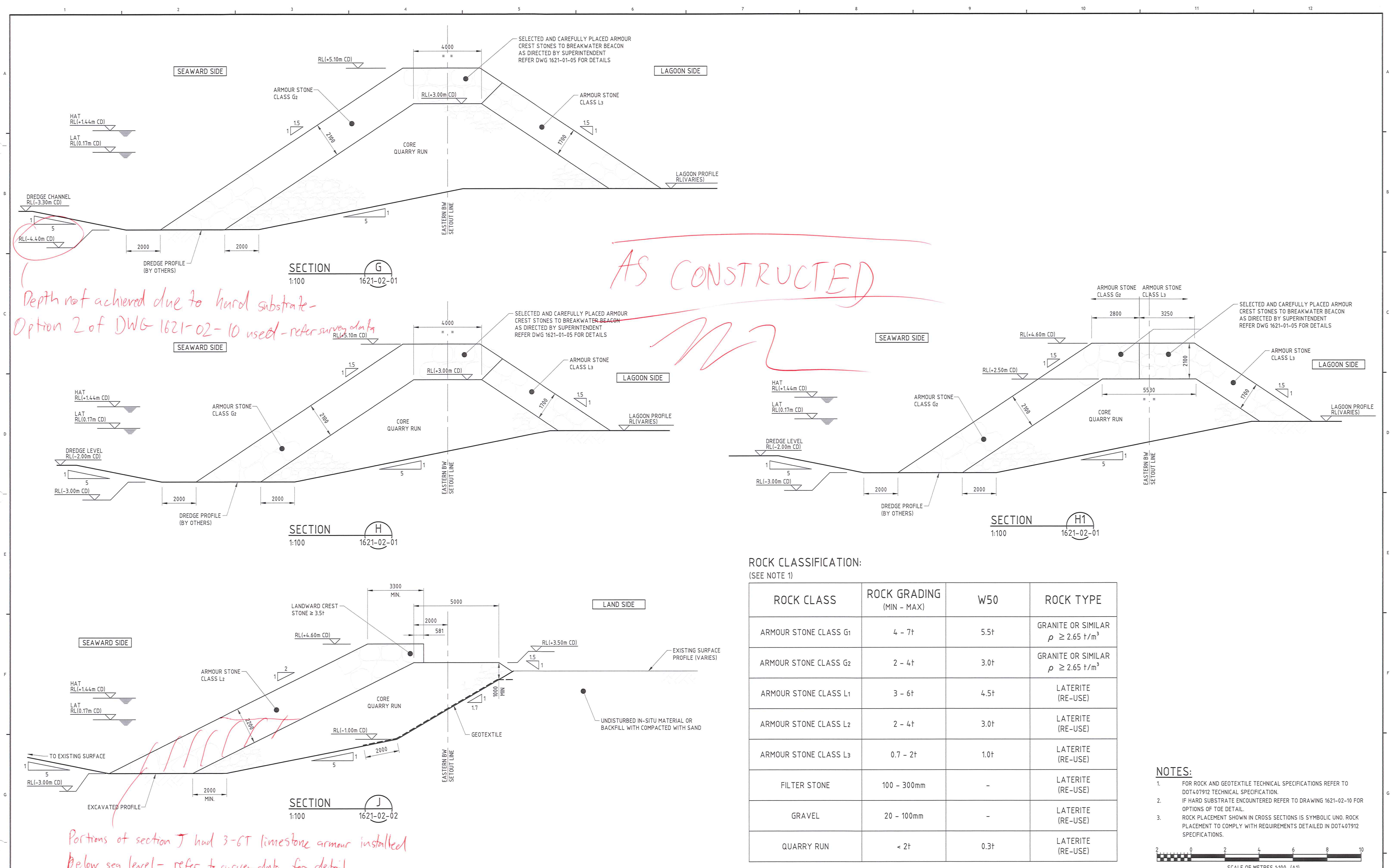
| | |
|----------|---|
| APPROVED | D.HANSEN |
| APPROVED | D.TODD |
| APPROVED | S.TEBBUTT |
| APPROVED | T.JAMES |
| APPROVED | K.Y.LIM |
| APPROVED | L. Ronewich 08/07/13 |
| APPROVED | R. Soga 08/07/13 |
| APPROVED | E. Smith 08/07/13 |
| APPROVED | DIRECTOR PROJECT DELIVERY COASTAL INFRASTRUCTURE |

Department of Transport

BUSSELTON - PORT GEOGRAPHE
RECONFIGURED BREAKWATERS & SEAWALLS - DESIGN
SETOUT PLAN - SHEET 3

DRAWING NUMBER 1621 - 02 - 03

REV 12



ROCK CLASSIFICATION:
(SEE NOTE 1)

| ROCK CLASS | ROCK GRADING (MIN - MAX) | W50 | ROCK TYPE |
|-----------------------|-----------------------------|------|--|
| ARMOUR STONE CLASS G1 | 4 - 7t | 5.5t | GRANITE OR SIMILAR $\rho \geq 2.65 \text{ t/m}^3$ |
| ARMOUR STONE CLASS G2 | 2 - 4t | 3.0t | GRANITE OR SIMILAR $\rho \geq 2.65 \text{ t/m}^3$ |
| ARMOUR STONE CLASS L1 | 3 - 6t | 4.5t | LATERITE (RE-USE) |
| ARMOUR STONE CLASS L2 | 2 - 4t | 3.0t | LATERITE (RE-USE) |
| ARMOUR STONE CLASS L3 | 0.7 - 2t | 1.0t | LATERITE (RE-USE) |
| FILTER STONE | 100 - 300mm | - | LATERITE (RE-USE) |
| GRAVEL | 20 - 100mm | - | LATERITE (RE-USE) |
| QUARRY RUN | < 2t | 0.3t | LATERITE (RE-USE) |

- NOTES:
- FOR ROCK AND GEOTEXTILE TECHNICAL SPECIFICATIONS REFER TO DOT407912 TECHNICAL SPECIFICATION.
 - IF HARD SUBSTRATE ENCOUNTERED REFER TO DRAWING 1621-02-10 FOR OPTIONS OF THE DETAIL.
 - ROCK PLACEMENT SHOWN IN CROSS SECTIONS IS SYMBOLIC UNO. ROCK PLACEMENT TO COMPLY WITH REQUIREMENTS DETAILED IN DOT407912 SPECIFICATIONS.

4

AS CON

3

20.02.14

REVISED SECTION H1 PER DOT

TJ

2

15.11.13

RE-ISSUED FOR CONSTRUCTION

TJ

1

2.07.13

ISSUED FOR CONSTRUCTION

ST

0

21.12.12

ISSUED FOR TENDER

ST

REV

DATE

AMENDMENT

DRN

DESIGN APPROVAL

A1

M/FILM

FILE NO

CROWN COPYRIGHT

GENERAL NOTES

1. FOR GENERAL NOTES REFER TO DRAWING 1621-01-02.

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ABN 61 001 279 812

SCALE:

1: 100 @ A1

UNLESS OTHERWISE STATED DIMENSIONS IN MILLIMETRES

HORIZ: MAP GRID OF AUSTRALIA
BASED ON GDA94 - ZONE 50

VERT: CHART DATUM WHICH IS 2.185m BELOW TIDAL
BENCHMARK BSN 2002 AND 0.68m BELOW AHD

DESIGNED

D.HANSEN

CHECKED

D.TODD

DRAWN

S.TEBBUTT

CHECKED

T.JAMES

PROJECT MANAGER

K.Y.LIM

APPROVED

APPROVED

APPROVED

AUTHORISED

DIRECTOR PROJECT DELIVERY

COASTAL INFRASTRUCTURE

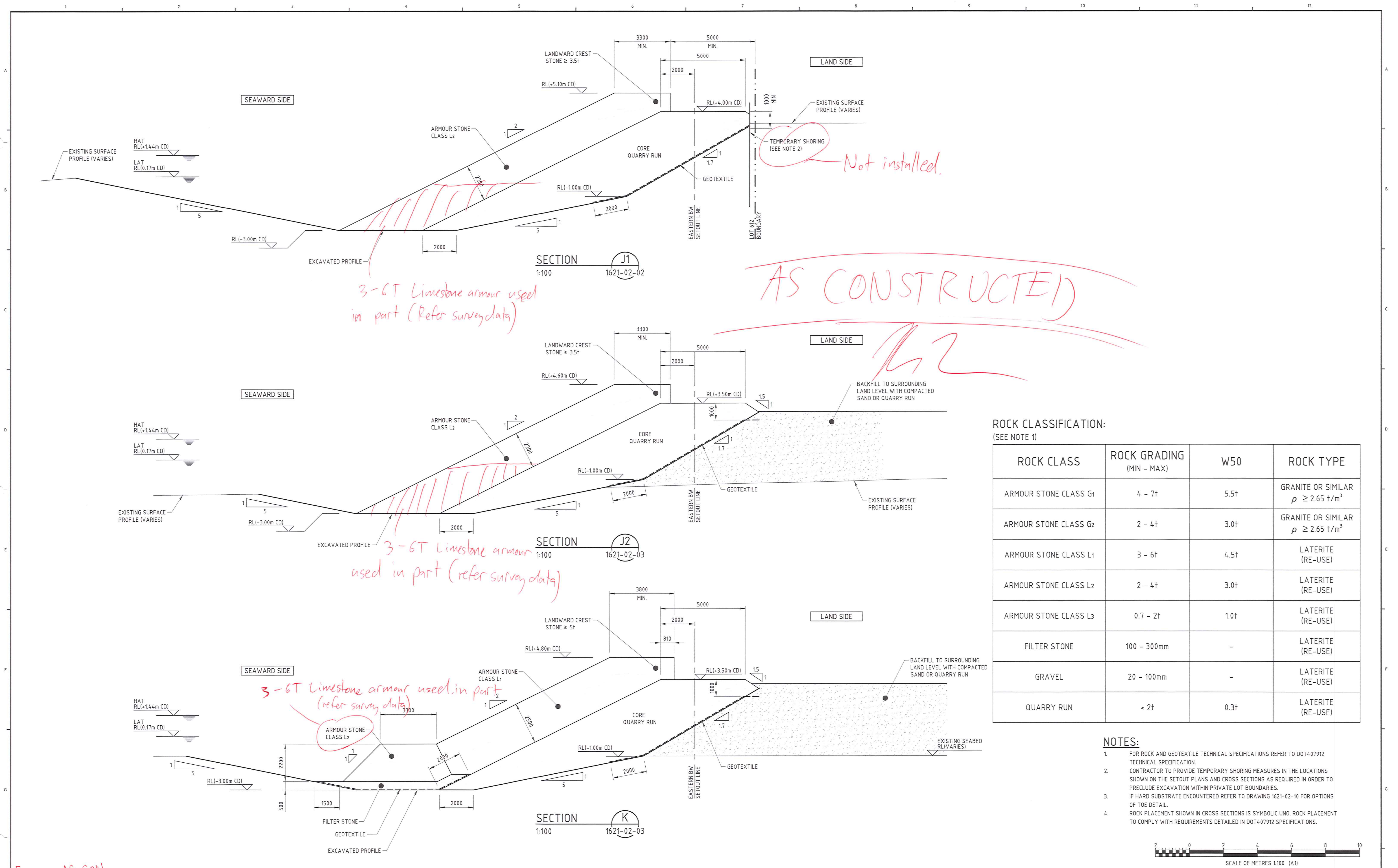
Department of Transport

BUSSELTON - PORT GEOGRAPHE
RECONFIGURED BREAKWATERS & SEAWALLS - DESIGN
TYPICAL SECTIONS - SHEET 3 OF 4

DRAWING NUMBER

1621 - 02 - 06

84



ROCK CLASSIFICATION:
(SEE NOTE 1)

| ROCK CLASS | ROCK GRADING (MIN - MAX) | W50 | ROCK TYPE |
|-----------------------|-----------------------------|------|--|
| ARMOUR STONE CLASS G1 | 4 - 7t | 5.5t | GRANITE OR SIMILAR $\rho \geq 2.65 \text{ t/m}^3$ |
| ARMOUR STONE CLASS G2 | 2 - 4t | 3.0t | GRANITE OR SIMILAR $\rho \geq 2.65 \text{ t/m}^3$ |
| ARMOUR STONE CLASS L1 | 3 - 6t | 4.5t | LATERITE (RE-USE) |
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| ARMOUR STONE CLASS L3 | 0.7 - 2t | 1.0t | LATERITE (RE-USE) |
| FILTER STONE | 100 - 300mm | - | LATERITE (RE-USE) |
| GRAVEL | 20 - 100mm | - | LATERITE (RE-USE) |
| QUARRY RUN | < 2t | 0.3t | LATERITE (RE-USE) |

- NOTES:
- FOR ROCK AND GEOTEXTILE TECHNICAL SPECIFICATIONS REFER TO DOT407912 TECHNICAL SPECIFICATION.
 - CONTRACTOR TO PROVIDE TEMPORARY SHORING MEASURES IN THE LOCATIONS SHOWN ON THE SETOUT PLANS AND CROSS SECTIONS AS REQUIRED IN ORDER TO PRECLUDE EXCAVATION WITHIN PRIVATE LOT BOUNDARIES.
 - IF HARD SUBSTRATE ENCOUNTERED REFER TO DRAWING 1621-02-10 FOR OPTIONS OF TOE DETAIL.
 - ROCK PLACEMENT SHOWN IN CROSS SECTIONS IS SYMBOLIC UNO. ROCK PLACEMENT TO COMPLY WITH REQUIREMENTS DETAILED IN DOT407912 SPECIFICATIONS.

5 AS CON

| | | | | |
|-----|----------|----------------------------|-----|-----------------|
| 4 | 28.01.14 | RE-ISSUED FOR CONSTRUCTION | TJ | |
| 3 | 07.01.14 | RE-ISSUED FOR CONSTRUCTION | TJ | |
| 2 | 15.11.13 | RE-ISSUED FOR CONSTRUCTION | TJ | |
| 1 | 2.07.13 | ISSUED FOR CONSTRUCTION | ST | |
| 0 | 21.12.12 | ISSUED FOR TENDER | ST | |
| REV | DATE | AMENDMENT | DRN | DESIGN APPROVAL |
| A1 | | | | |

GENERAL NOTES

1. FOR GENERAL NOTES REFER TO DRAWING 1621-01-02.

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SCALE: 1 : 100 @ A1

HORIZ: MAP GRID OF AUSTRALIA
BASED ON GDA94 - ZONE 50

VERT: CHART DATUM WHICH IS 2.185m BELOW TIDAL
BENCHMARK BSN 2002 AND 0.68m BELOW AHD

DESIGNED: D.HANSEN
CHECKED: D.TODD
DRAWN: S.TEBBUTT
CHECKED: T.JAMES
PROJECT MANAGER: K.Y.LIM

APPROVED: [Signature]
APPROVED: [Signature]
APPROVED: [Signature]
AUTHORISED: [Signature]

DIRECTOR PROJECT DELIVERY
COASTAL INFRASTRUCTURE

Department of Transport

BUSSELTON - PORT GEOGRAPHE
RECONFIGURED BREAKWATERS & SEAWALLS - DESIGN
TYPICAL SECTIONS - SHEET 4 OF 4

DRAWING NUMBER 1621 - 02 - 07

REV 45

m p rogers & associates pl

www.coastsandports.com.au

Appendix 3



Enquiries: Mr Frank Scibilia
Our Ref: DP/13/00969
Your Ref: 3153Ltr26

CLE Town Planning and Design
PO Box 796
SUBIACO WA 6904

Attention: Mr Cameron Leckey

Dear Cameron

**PORT GEOGRAPHE VILLAGE CENTRE REMNANT LAND - INTENT TO PREPARE
STRUCTURE PLAN**

I refer to your correspondence dated 1 August 2018 seeking support from the Western Australian Planning Commission for the preparation of a structure plan for Lots 585, 590, 612 and portion of Lot 9501, Layman Road and Spinnaker Boulevard, at the Port Geographe Village Centre.

The Western Australian Planning Commission has resolved, pursuant to Schedule 2 Part 4 r.15(c) of the *Planning and Development (Local Planning Schemes) Regulations 2015*, that:

1. three structure plans are required for Lots 590, 612 and for Lots 585 and portion of 9501, respectively, for the purposes of orderly and proper planning.

Further to the above, a structure plan amendment to the Port Geographe Development Plan, identifying the abovementioned sites for separate structure plans, is expected to be undertaken prior to or concurrently with the structure plans for the abovementioned sites.

Please call Mr Frank Scibilia of this office if you have any further queries.

Yours sincerely


David Brash
Principal Planning Officer
South West Regions, Land Use Planning

27 August 2018

Cc Mr Paul Needham, City of Busselton



AGILE PLANNING FOR THE NEW NORMAL

Cameron Leckey (MPIA)

0427 058 484

cameron@riseurban.com.au

[RISEURBAN.COM.AU](https://riseurban.com.au)