

Royal Far West  
14-22 Wentworth Street & 19-21  
South Steyne Manly

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Dear Sir,

**Royal Far West, Manly – Coastal Assessment Report**

This letter sets out the Royal HaskoningDHV (RHDHV) Coastal Assessment Report for the proposed redevelopment of the Royal Far West (RFW) site in Manly. It is one of two reports prepared by RHDHV for purposes of the development application (DA). The additional report is the RHDHV Coastal Risk Management Report, which should be read in conjunction with this Coastal Assessment Report.

**1. BACKGROUND**

**1.1 Outline of Proposed Redevelopment**

The project sees the implementation of Stages 3 and 4 of the Concept Approval as modified (Application # MP10\_0159 MOD 1) and involves the retention and alterations to the previously constructed Stages 1 and 2 (hospital facility "Centre for Excellence" now known as the 'CCK' building) as well as alterations and additions to Drummond House and the construction of mixed use buildings which incorporate tourist and visitor accommodation, residential apartments and retail/ commercial uses with basement parking and landscaping.

**1.2 Pre-DA Meeting with Council**

Pre-DA meetings were held with Northern Beaches Council staff in 2020 and again in November 2021. An extract from the Pre-DA meeting notes from the 2020 meeting, prepared by Council staff relating to coastal management, was provided to RHDHV and is reproduced below. Coastal management was not raised as an issue at the November 2021 meeting.

- a report, called *Identification of Coastal Hazard Risk Areas to Sea Level Rise for the Manly Local Government Area (2012)* prepared by the Water Research Laboratory of UNSW (WRL) was

*adopted by the former Manly Council. The report maps coastal hazard areas for the present, 2050 and 2100 planning horizons;*

- *coastal hazards are shown to affect the subject site (including beach erosion and recession as well as coastal inundation) under certain scenarios. To enable Council to determine if the proposed development is likely to cause increased risk from coastal hazards on the land or on other land (in accordance with clause 15 of the CM SEPP) a coastal risk management report should be lodged in support of the DA;*
- *the coastal risk management report should address as to whether the building and other works (including existing works to be retained) are engineered to withstand current and projected coastal hazards for the design life of the development and whether the proposed development is likely to alter coastal processes to the detriment of the natural environment or other land;*
- *the report should also recommend measures that should be in place to ensure that there are appropriate responses to, and management of risks associated with, anticipated coastal processes and current and future coastal hazards; and*
- *such a report should be prepared by a specialist coastal engineer who is a registered professional engineer with chartered professional status (CPEng) and with coastal engineering as a core competency and who has an appropriate level of professional indemnity insurance.*

## 2. SUITABILITY QUALIFIED SPECIALIST COASTAL ENGINEER

This report has been prepared by Greg Britton. A brief description of Greg's qualifications and experience is provided below. He is considered to be a suitably qualified specialist coastal engineer in satisfaction of Council's requirements expressed in the Pre-DA meeting notes.



Greg is the Technical Director of Royal HaskoningDHV in Australia based in Sydney. He has a Bachelor of Civil Engineering (Hons I) and was awarded the UNSW University Medal. He has completed a Master of Engineering Science degree specialising in coastal/maritime/water engineering.

He has 43 years professional experience in the investigation, design and documentation, planning, environmental assessment, and project management of coastal, estuary and maritime projects.

Greg has provided expert advice on coastal, maritime and environmental engineering to the NSW Land and Environment Court, NSW Supreme Court, Queensland Supreme Court, Federal Court of Australia and several Commissions of Inquiry. He has fulfilled the role of a Court Appointed Expert (CAE) in the NSW Land and Environment Court.

He has recently been appointed by the NSW Minister for Planning to the Sydney District and Regional Planning Panels as a Coastal Expert.

Greg has extensive knowledge of Manly Ocean Beach having undertaken a range of studies for Council dating from the early 1990s involving coastal processes, coastline hazards and seawall stability.

### 3. SUMMARY OF COASTAL RISK MANAGEMENT REPORT

#### 3.1 General

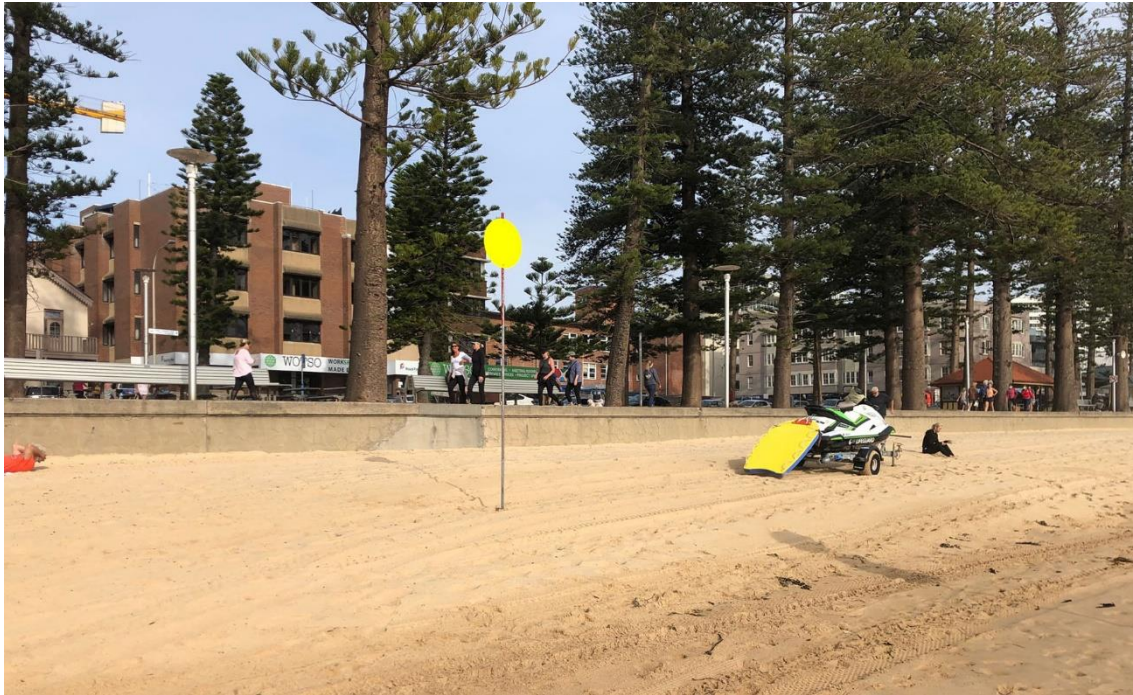
The Coastal Risk Management Report is a separate report and as noted earlier should be read in full in conjunction with this Coastal Assessment Report. For completeness, a summary of the findings of the Coastal Risk Assessment Report is provided in Section 3.2.

Photos 1, 2, 3 and 4 show a number of the features of the area referred to in the following sections.



*Photo 1 View looking towards the site showing the sandy Manly Ocean Beach, seawall and foreshore reserve, and Norfolk Island Pines immediately landward of the seawall (September 2020)*





*Photo 2 Closer view of the vertical concrete seawall located seaward of the RFW site. A seawall in this location has existed since the 1890s (September 2020)*



*Photo 3 View looking north along the promenade showing the paved reserve, shelter areas, seating, three rows of Norfolk Island Pines and South Steyne (September 2020)*





*Photo 4 Additional view looking north along the promenade including the seawall. The promenade is extremely popular with the local community and visitors for recreation and leisure activities (September 2020)*

### 3.2 Summary

The Coastal Risk Management Report reviewed a number of key documents relevant to the coastal hazards at Manly Ocean Beach. Based on this review, it is considered that the coastal hazards shown to affect the RFW site in WRL (2012), referred to in the pre-DA meeting notes, which correspond to a case where the seawall is assumed to have failed providing no relief from future erosion and recession, would not be expected to eventuate in practice since:

- the adopted Coastline Management Plan (CMP) for Manly Ocean Beach includes a commitment by Council to maintain the seawall in its current location into the future;
- the adopted Coastal Erosion Emergency Action Plan (EAP) sets out how Council and other relevant parties would prepare for, and implement, physical protection measures to the seawall in an erosion event that could place the seawall, promenade and Norfolk Island Pines at unacceptable risk; and
- Council has a commitment to upgrade the existing seawall by means of toe protection to address the erosion/recession hazard and by means of raising the coping level to address the oceanic inundation hazard.

The following provisions are also relevant in terms of how it can be expected Council would manage the foreshore of Manly Ocean Beach into the future:

- Manly Local Environmental Plan 2013 (Manly LEP 2013), Clause 6.9 'Foreshore and scenic protection area', which would be expected to ensure measures are in place to protect the scenic

qualities of the coastline, eg. retention of the Norfolk Island Pines, promenade, and long wide largely uninterrupted sandy beach; and

- Manly Development Control Plan 2013 (Manly DCP 2013), Part 5 section 5.4.1 'Foreshores Scenic Protection Area', which would be expected to ensure retention of the existing iconic Norfolk Island Pines.

In the circumstances it is considered reasonable for planning purposes to assess the coastal hazard for the RFW site on the basis of the case outlined in WRL (2012) whereby the seawall is maintained at the current location. For this case:

- the limit of the erosion/recession hazard would be restricted to the face of the seawall some 40m seaward of the RFW site<sup>1</sup>; and
- inundation would not occur associated with the 'quasi-static' component of elevated ocean water level and the bore of water due to wave overtopping would not reach the RFW.

It follows from the above that the coastal risk to the RFW site is not considered to be significant and, accordingly:

- the building and other works (including existing works to be retained) do not need to be engineered to withstand current and projected coastal hazards for the design life of the development;
- the proposed development would not alter coastal processes to the detriment of the natural environment or other land; and
- it is not necessary to put measures in place to ensure there are appropriate responses to, and management of risks associated with, anticipated coastal processes and current and future coastal hazards. Management of the coastal hazards along Manly Ocean Beach will continue to be the responsibility of Council under the existing CMP and under any future Coastal Management Program prepared under the Coastal Management Act, 2016.

## **4. COASTAL ASSESSMENT**

### **4.1 General**

It is necessary for the Coastal Assessment Report to be prepared in accordance with:

- the Coastal Management Act 2016 (CM Act);
- the State Environmental Planning Policy (Coastal Management) 2016 (SEPP Coastal);
- the Manly Local Environment Plan 2013 (Manly LEP 2013); and
- the Manly Development Control Plan 2013 (Manly DCP 2013).

The Northern Beaches Council Development Application & Modification Lodgement Requirements 20/21 for a Coastal Assessment Report also make reference to an assessment against conditions in the Sydney Harbour Regional Environmental Plan (SREP, 2005) and the associated Sydney Harbour

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<sup>1</sup> Even in the event some undermining and damage to the seawall occurred in a severe event prior to the proposed seawall upgrading works and despite actions being implemented in accordance with the adopted EAP, any damage would be reasonably expected to be restricted to the immediate adjacent promenade and not encroach some 40m further landward beyond the promenade, Norfolk Island Pines, and South Steyne into the RFW site.

Foreshores Area DCP (2005). However, the SREP and DCP do not apply to Manly Ocean Beach and are therefore not applicable (refer SREP Foreshores and Waterways Area Map, Sheet 4 of 5).

## 4.2 Coastal Management Act 2016

The objects of this Act are to manage the coastal environment of New South Wales in a manner consistent with the principles of ecologically sustainable development for the social, cultural and economic well-being of the people of the State. In particular, the following objects are noted:

- (a) to protect and enhance natural coastal processes and coastal environmental values including natural character, scenic value, biological diversity and ecosystem integrity and resilience;
- (b) to support the social and cultural values of the coastal zone and maintain public access, amenity, use and safety;
- (f) to mitigate current and future risks from coastal hazards, taking into account the effects of climate change; and
- (i) to encourage and promote plans and strategies to improve the resilience of coastal assets to the impacts of an uncertain climate future including impacts of extreme events.'

Under the CM Act a coastal management program is prepared, the purpose of which is to set the long-term strategy for the co-ordinated management of land within the coastal zone with a focus on achieving the objects of the CM Act. The local Council is responsible for preparation of the coastal management program.

Northern Beaches Council has not yet prepared a coastal management program for Manly Ocean Beach under the CM Act. Currently, the relevant document which guides management of the beach is the Manly Ocean Beach Coastline Management Plan (Patterson Britton & Partners/WorleyParsons, 2008a). As noted previously, this Plan includes a commitment by Council to maintain the seawall in its current location into the future, incorporates an Emergency Action Plan to be implemented by Council and other relevant parties to protect the seawall in a severe erosion event, and includes a commitment by Council to upgrade the existing seawall as required so it continues to protect the foreshore reserve and Norfolk Island Pines (and hence the areas further landward). For these reasons, the RFW site would not be expected to be subject to coastal hazards now or in the future.

A coastal management program prepared in due course under the CM Act to replace the current Coastline Management Plan can be expected to include similar provisions as the current Plan in relation to maintaining the seawall having regard to the objects of the CM Act, particularly those listed under (a), (b), (f) and (i) above.

The CM Act does make reference to considerations for the granting of development consent for certain works (Part 5, Section 27) but this relates to coastal protection works. Such works do not form part of the proposed development of the RFW site and are not necessary. The site has the benefit of the existing coastal protection works (seawall) located some 40m seaward of the site which have been in place since the 1890s and which can be expected to be maintained, as explained above.

### 4.3 State Environmental Planning Policy (Coastal Management) 2018

#### 4.3.1 General

The aim of SEPP Coastal is to promote an integrated and co-ordinated approach to land use planning in the coastal zone in a manner consistent with the objects of the CM Act.

The following clauses in SEPP Coastal are relevant<sup>2</sup>:

- Clause 13 Development on land within the coastal environment area;
- Clause 14 Development on land within the coastal use area;
- Clause 15 Development in coastal zone generally – development not to increase the risk of coastal hazards; and
- Clause 16 Development in coastal zone generally – coastal management programs to be considered.

#### 4.3.2 Clause 13

Clause 13(1) states:

- (1) *Development consent must not be granted to development on land that is within the coastal environment area unless the consent authority has considered whether the proposed development is likely to cause an adverse impact on the following:*
- (a) *the integrity and resilience of the biophysical, hydrological (surface and groundwater) and ecological environment;*
  - (b) *coastal environmental values and natural coastal processes;*
  - (c) *the water quality of the marine estate (within the meaning of the Marine Estate Management Act 2014), in particular, the cumulative impacts of the proposed development on any of the sensitive coastal lakes identified in Schedule 1;*
  - (d) *marine vegetation native vegetation and fauna and their habitats, undeveloped headlands and rock platforms;*
  - (e) *existing public open space and safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability;*
  - (f) *Aboriginal cultural heritage, practices and places; and*
  - (g) *the use of the surf zone.*

With regard to (a), the potential for the proposed development to cause an adverse impact on the biophysical, hydrological and ecological environment is the subject of reports by others.

With regard to (b), the proposed development would not adversely impact coastal environmental values and natural coastal processes in that the works are located landward of the sandy beach, beachfront reserve and Norfolk Island Pines, and would not interact with natural coastal processes on the basis that the seawall would be maintained in its current location in accordance with the adopted Coastline Management Plan.

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<sup>2</sup> It is noted that Clause 12 Development on land within the coastal vulnerability area, does not apply as a Coastal Vulnerability Area Map has not yet been produced.



With regard to (c), there are no sensitive lakes within the vicinity of the proposed development. The potential impacts of the proposed development on groundwater water quality is the subject of a report by others.

With regard to (d), the proposed development would not adversely impact on marine vegetation, undeveloped headlands and rock platforms, as the proposed development is remote from these features and would not interact with them. The potential for the proposed development to adversely impact on native vegetation and fauna and their habitats is the subject of reports by others.

With regard to (e), the proposed development would not adversely impact on public open space and safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability, as the proposed development is situated on private land well landward of these features and would not interact with them.

With regard to (f), the potential for the proposed development to adversely impact on Aboriginal cultural heritage, practices and places, is the subject of a report by others.

With regard to (g), the proposed development would not adversely impact on the surf zone as the development is located landward of the surf zone and would not interact with it.

Clause 13(2) states:

- (2) *Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:*
- (a) *the development is designed, sited and will be managed to avoid an adverse impact referred to in subclause (1); or*
  - (b) *if that impact cannot be reasonably avoided – the development is designed, sited and will be managed to minimise that impact; or*
  - (c) *if that impact cannot be minimised – the development will be managed to mitigate that impact.*

The proposed development is sited on private land landward of the sandy beach, surf zone, headlands and rock platforms, and landward of the seawall, foreshore reserve including the Norfolk Island Pines, and South Steyne. This situation would not be expected to change over the life of the proposed development on the basis of the future management of the coastal hazards by Council. Accordingly, the proposed development is sited to avoid the relevant coastal processes and coastal hazards impacts referred to in Clause 13(1).

Furthermore, having regard to the earlier discussion, is not considered necessary to design the building and other works (including existing works to be retained) to withstand current and projected coastal hazards for the design life of the development as these hazards would not be expected to arise on the RFW site.

#### 4.3.3 Clause 14

Clause 14(1) states:

- (1) *Development consent must not be granted to development on land that is within the coastal use area unless the consent authority:*
  - (a) *has considered whether the proposed development is likely to cause an adverse impact on the following:*
    - (i) *existing, safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability,*
    - (ii) *overshadowing, wind funnelling and the loss of views from public places to foreshores,*
    - (iii) *the visual amenity and scenic qualities of the coast, including coastal headlands,*
    - (iv) *Aboriginal cultural heritage, practices and places,*
    - (v) *cultural and built environment heritage,*
  - (b) *is satisfied that:*
    - (i) *the development is designed, sited and will be managed to avoid an adverse impact referred to in paragraph (a), or*
    - (ii) *if that impact cannot be reasonably avoided – the development is designed, sited and will be managed to minimise that impact, or*
    - (iii) *if that impact cannot be minimised – the development will be managed to mitigate that impact,*
  - (c) *has taken into account the surrounding coastal and built environment, and the bulk, scale and size of the proposed development.*

With regard to (a)(i), the proposed development is sited on private land well landward of the foreshore, beach, headlands and rock platforms and would not adversely impact an existing safe public access to and along these features, including for persons with a disability. This situation would not be expected to change over the life of the proposed development on the basis of the future management of the coastal hazards by Council as noted earlier.

Matters (a)(ii), (a)(iii), (a)(iv), (a)(v) and (c) are the subject of reports by others.

With regard to (b), the proposed development is sited to avoid adverse impacts, as noted above. Furthermore, due to the siting and future management of the coastal hazards, it is not considered necessary to design the building and other works (including existing works to be retained) to withstand current and projected coastal hazards for the design life of the development as these hazards would not be expected to arise on the RFW site.

#### 4.3.4 Clause 15

Clause 15 states:

*Development consent must not be granted to development on land within the coastal zone unless the consent authority is satisfied that the proposed development is not likely to cause increased risk of coastal hazards on that land or other land.*

Due to the combination of the siting of the proposed development 40m landward of the existing seawall and the commitments of Council under the existing Manly Ocean Beach Coastline Management Plan to maintain the seawall in its current location, to implement an Emergency Action Plan to protect the seawall in a severe erosion event, and to upgrade the seawall as required to continue to protect the foreshore reserve and Norfolk Island Pines, the RFW site would not be expected to interact with coastal processes and be subject to coastal hazards over its design life.

As such, the proposed development would not be expected to cause increased risk of coastal hazards on the RFW land or other land.

#### **4.3.5 Clause 16**

Clause 16 states:

*Development consent must not be granted to development on land within the coastal zone unless the consent authority has taken into consideration the relevant provisions of any certified coastal management program that applies to the land.*

There is currently no certified coastal management program under the CM Act for Manly Ocean Beach. In the circumstances, Council would turn to the relevant provisions in the current Coastline Management Plan for the beach (Patterson Britton & Partners/WorleyParsons 2008a). In summary, these provisions would result in the continued existence of a competent seawall and sandy beach in which case the proposed development would not be subject to coastal hazards over its design life.

In the event a certified coastal management program under the CM Act is achieved in the future, it would be unreasonable to consider that similar provisions as exist in the current Coastline Management Plan would not apply under the coastal management program. To do otherwise would result in loss of the sandy beach, loss of foreshore reserve including the iconic Norfolk Island Pines, loss of South Steyne and North Steyne, and loss of a range of other public infrastructure and private property, contrary to objects of the CM Act.

#### **4.4 Manly Local Environment Plan 2013**

As noted in the pre-DA meeting notes prepared by Council staff, the subject RFW site is shown as 'Manly Foreshores Scenic Protection Area' on Council's Foreshores Scenic Protection Area Map in Manly LEP 2013. As such, Clause 6.9 Foreshore scenic protection area must be addressed.

Clause 6.9 states:

- (1) *the objective of this clause is to protect visual aesthetic amenity and views to and from Sydney Harbour, the Pacific Ocean and the foreshore in Manly;*
- (2) *this clause applies to land that is shown as "Foreshore Scenic Protection Area" on the Foreshore Scenic Protection Area Map;*
- (3) *development consent must not be granted to development on land to which this clause applies unless the consent authority has considered the following matters:*
  - (a) *impacts that are of detriment to the visual amenity of harbour or coastal foreshore, including overshadowing of the foreshore and any loss of views from a public place to the foreshore,*
  - (b) *measures to protect and improve scenic qualities of the coastline,*



- (c) *suitability of development given its type, location and design and its relationship with and impact on the foreshore,*
- (d) *measures to reduce the potential for conflict between land-based and water-based coastal activities.*

The matters in Clause 6.9 are principally the subject of reports by others.

From a coastal hazards perspective, the proposed development would not be expected to cause increased risk to coastal hazards on other land, as noted under Section 4.3.4. As such, the proposed development would not impact adversely on features on other nearby land which may contribute to the visual amenity of the coastal foreshore or scenic qualities of the coastline, eg. the Norfolk Island Pines. Indeed, such features are located seaward of the proposed development and would be impacted by coastal hazards earlier than any such impact on the proposed development, should a seawall not be maintained in its current location.

#### **4.5 Manly Development Control Plan 2013**

As noted in the pre-DA meeting notes prepared by Council staff, as the subject RFW site is shown as 'Manly Foreshores Scenic Protection Area', Section 5.4.1 Foreshores Scenic Protection Area of Manly DCP 2013 must also be addressed.

Section 5.4.1 states:

*LEP clause 6.9 designates land in the Foreshore Scenic Protection Area as shown on the LEP Foreshore Scenic Protection Area Map to protect visual aesthetic amenity and views both to and from Sydney Harbour, the Pacific Ocean and the Manly foreshore. Development in the Foreshore Scenic Protection Area must not detrimentally effect the 'visual or aesthetic amenity of land in the foreshore scenic area nor must the development similarly effect the views of that land, including ridgelines, tree lines and other natural features viewed from the Harbour or Ocean from any road, park or land in the LEP for any open space purpose or any other public place'. Any adverse impacts considered in this paragraph will be mitigated. In accordance with these LEP objectives Council seeks to conserve and preserve tree canopies and street trees, wildlife corridors and habitat and minimise cumulative impacts on escarpment, rock shelves and other natural landscape features.*

##### **5.4.1.1 Additional matters for consideration**

*LEP clause 6.9(3)(a) to (d) lists certain matters to be taken into account in relation to all development within the Foreshore Scenic Protection Area.*

- a) *Further to matters prescribed in the LEP, the development in the Foreshore Scenic Protection Area must also:*
  - i) *minimise the contrast between the built environment and the natural environment;*
  - ii) *maintain the visual dominance of the natural environment;*
  - iii) *maximise the retention of existing vegetation including tree canopies, street trees, wildlife corridors and habitat;*
  - iv) *not cause any change, visually, structurally or otherwise, to the exiting natural rocky harbour foreshore areas;*
  - v) *locate rooflines below the tree canopy;*

- vi) *consider any effect of the proposal when viewed from the harbour / ocean to ridgelines, tree lines and other natural features; and*
  - vii) *use building materials of a non-reflective quality and be of colours and textures that blend with the prevailing natural environment in the locality.*
- b) *Setbacks in the Foreshore Scenic Protection Area should be maximised to enable open space to dominate buildings, especially when viewed to and from Sydney Harbour, the Ocean and the foreshores in Manly.*  
*See also paragraph 4.1.4.5 of this DCP and LEP clause 6.10 in relation to Foreshore Building Lines and limited development in the Foreshore Area.*

The matters in section 5.4.1 are principally the subject of reports by others.

From a coastal hazards perspective similar comments apply to those included in Section 4.3 above.

Due to the location of the proposed development, it would not cause any change, visually, structurally or otherwise, to the existing natural rocky foreshore areas, either directly or indirectly, over the life of the development.

We trust the above meets your current requirements. Please contact the undersigned should you require any clarification or additional information.

Yours faithfully



Greg Britton  
Industry & Buildings