

HORTON COASTAL ENGINEERING PTY LTD
18 Reynolds Cres
Beacon Hill NSW 2100
+61 (0)407 012 538
peter@hortoncoastal.com.au
www.hortoncoastal.com.au
ABN 31 612 198 731
ACN 612 198 731

Lawrence Street Pty Ltd
Attention: Michael Bacik
C/- MD Living (Attention: Peter Brown)
Suite 2.03 Level 2, 20 Clarke Street
Crows Nest NSW 2065
(sent by email only to peter.b@mdliving.com.au)

6 December 2024

Assessment of Development at 10-28 Lawrence Street Freshwater in Relation to “Coastal Environment” Area

1. INTRODUCTION AND BACKGROUND

It is proposed to undertake a mixed used development at 10-28 Lawrence Street Freshwater (the ‘site’). A Development Application is to be submitted to Northern Beaches Council for these works. The site is partially within a “coastal environment” area as per *State Environmental Planning Policy (Resilience and Hazards) 2021* (SEPP Resilience).

Horton Coastal Engineering was engaged to assess the development in relation to the coastal environment area, as set out herein. The *Coastal Management Act 2016* is also considered.

The report author, Peter Horton [BE (Hons 1) MEngSc MIEAust CPEng NER], is a professional Coastal Engineer with 33 years of coastal engineering experience. He has postgraduate qualifications in coastal engineering, and is a Member of Engineers Australia and Chartered Professional Engineer (CPEng) registered on the National Engineering Register. He is also a member of the National Committee on Coastal and Ocean Engineering (NCCOE) and NSW Coastal, Ocean and Port Engineering Panel (COPEP) of Engineers Australia. Peter has prepared coastal engineering reports for numerous properties in the former Warringah Local Government Area over the last few decades, including in Freshwater. He undertook a specific inspection of the site on 13 December 2022.

All levels given herein are to Australian Height Datum (AHD). Zero metres AHD is approximately equal to mean sea level at present in the ocean immediately adjacent to the NSW mainland.

2. INFORMATION PROVIDED

Horton Coastal Engineering was provided with 27 drawings of the proposed works prepared by CHROFI (Drawings A-DA-000 to 003, 097 to 104, 201, 301, 302, 401 to 403, 421, 422, 501, 502, 601, 602, 801, 901 and 902), all dated 20 November 2024 and various Revisions up to 03. A site survey by Norton Survey Partners was also provided, reference 53094, Issue A and dated 28 August 2024.

3. EXISTING SITE DESCRIPTION

The site is located about 500m NW of Freshwater Beach, within a local neighbourhood small-scale retail, business and community use area (E1 zoning), see Figure 1. An oblique aerial view of the site is provided in Figure 2, with a site photograph in Figure 3.

Based on the survey, ground elevations at the site vary from about 20m to 30m AHD.



Figure 1: Vertical aerial view of site (approximate red outline) in relation to Freshwater Beach (aerial photograph taken 7 March 2023)



Figure 2: Oblique aerial view of site (approximate red outline) on 22 July 2024, facing north



Figure 3: View of site on 13 December 2022, facing SE

4. PROPOSED DEVELOPMENT

It is proposed to demolish the existing structures at the site and to build 30 residential apartments, 9 ground floor retail spaces, and 106 basement parking spaces. The basement finished floor levels are 15.37m and 18.37m AHD, with a lower ground floor at 21.47m AHD, upper ground floor generally at 23.8m AHD, and three levels above that.

5. DESIGN LIFE

A 60-year design life (that is, at 2085, assuming consent is obtained in 2025) has been adopted for the proposed development. This is the same design life as adopted in the *Coastal Zone Management Plan [CZMP] for Collaroy-Narrabeen Beach and Fishermans Beach* that was gazetted on 6 November 2015 and 7 April 2017. Although this CZMP does not geographically apply at the site, it is the only gazetted CZMP in the former Warringah Council area, and hence is relevant to consider in the selection of design life.

As justified in the CZMP, a 60 year life is considered to be appropriate for infill development as it is consistent with the design life used in various Australian Standards (eg *AS 3600 – Concrete structures*), tax legislation, and community expectations.

6. COASTAL ENGINEERING CONSIDERATIONS

The site is well landward of any credible extent of sandy beach erosion/recession for an acceptably rare storm event occurring over an acceptably long design life exceeding 60 years. The site is also well landward of any credible extent of cliff regression over a design life exceeding 60 years.

With the development above 15m AHD, coastal inundation is not a significant risk to the proposed development over a design life exceeding 60 years, including consideration of projected sea level rise.

Therefore, the proposed development is at an acceptably low risk of being impacted by coastal hazards (as defined in Section 4 of the *Coastal Management Act 2016*) over an acceptably long design life exceeding 60 years.

7. MERIT ASSESSMENT

7.1 *State Environmental Planning Policy (Resilience and Hazards) 2021*

7.1.1 *Preamble*

Based on *State Environmental Planning Policy (Resilience and Hazards) 2021* (SEPP Resilience)¹ and its associated mapping, the site is within a coastal environment area (see Section 7.1.2).

7.1.2 *Clause 2.10*

Based on Clause 2.10(1) of SEPP Resilience, “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:

¹ Formerly *State Environmental Planning Policy (Coastal Management) 2018*.

- (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,
- (g) the use of the surf zone”.

This is not a coastal engineering matter, but it can be noted that with regard to (a), the proposed development would not be expected to adversely affect the biophysical and hydrological (surface and groundwater) environments, being in an existing developed area and with conventional stormwater management features such as on-site detention. The existing and proposed development areas are entirely impervious.

Assuming that there are no threatened native flora or fauna species and their habitats of significance at the site (highly unlikely given the developed location) that would be impacted by the proposed works, the works would not be expected to adversely affect the ecological environment. An Arboricultural Impact Appraisal and Method Statement has been completed for the site by Naturally Trees, with recommendations to mitigate any potential negative impacts to retained trees. An Ecologically Sustainable Design (ESD) report has also been completed for the site, outlining various ESD initiatives associated with the development.

With regard to (b), the proposed development would not be expected to adversely affect coastal environmental values or natural coastal processes over an acceptably long design life, as it is well landward of coastal processes for an acceptably rare storm over an acceptably long life.

With regard to (c), the proposed works would not be a source of pollution as long as appropriate construction environmental controls are applied, and note that an Erosion and Sediment Control Plan is included as part of the Civil drawings. The proposed development includes water quality devices, namely a rainwater tank, precast stormwater filtration cartridges, and filter baskets. This has been modelled by Taylor Thomson Whitting in the Civil DA Report as achieving 71% reduction in the post development mean annual load of total phosphorous, 52% for total nitrogen, 87% for total suspended solids, and 100% for gross pollutants (diameter exceeding 5mm). This satisfies the guidelines set out in the Northern Beaches Council 'Water Management for Development Policy', 2021. No sensitive coastal lakes are located in the vicinity of the proposed development.

With regard to (d), the proposed development would not be expected to impact marine vegetation, undeveloped headlands and rock platforms, with none of these items in proximity to the development. No significant impacts on marine fauna and flora would be expected as a result of the proposed development, as the development would not interact with subaqueous areas for an acceptably rare storm and acceptably long life. Assuming that there are no species of native vegetation and fauna and their habitats of significance that would be impacted at the site (highly unlikely given the developed location), (d) is satisfied.

With regard to (e), it can be noted that the proposed development is remote from any foreshore, beach, headland or rock platform, so cannot possibly affect public access to these areas.

With regard to (f), a search of the Heritage NSW “Aboriginal Heritage Information Management System” (AHIMS) was undertaken on 6 December 2024. This resulted in no Aboriginal sites nor Aboriginal places being recorded or declared within at least 200m of the site.

With regard to (g), the proposed development would not interact with the surf zone for an acceptably rare storm occurring over an acceptably long life, so would not impact on use of the surf zone.

Based on Clause 2.10(2) of SEPP Resilience, “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 has been designed and sited to avoid any potential adverse impacts referred to in Clause 2.10(1).

7.1.3 Clause 2.12

Based on Clause 2.12 of SEPP Resilience, “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”.

The proposed development is not credibly expected to interact with coastal processes over an acceptably long life, so cannot possibly cause increased risk of coastal hazards on that land or other land over its design life.

7.1.4 Clause 2.13

Based on Clause 2.13 of SEPP Resilience, “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”.

No certified coastal management program applies at the site.

7.1.5 Synthesis

The proposed development satisfies the requirements of *State Environmental Planning Policy (Resilience and Hazards) 2021* for the matters considered herein.

7.2 Coastal Management Act 2016

The management objectives for the coastal environment area are described in Section 8 of the *Coastal Management Act 2016*. By addressing Clause 2.10 of SEPP Resilience in Section 7.1.2 herein, these management objectives have essentially been addressed. There are no other matters relevant to the subject DA that need to be considered in the *Coastal Management Act 2016*.

8. CONCLUSIONS

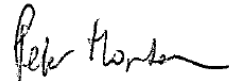
The proposed development at 10-28 Lawrence Street Freshwater is not credibly expected to interact with coastal processes over an acceptably long life exceeding 60 years, and satisfies the requirements of *State Environmental Planning Policy (Resilience and Hazards) 2021* and the *Coastal Management Act 2016* for the matters considered herein.

9. SALUTATION

If you have any further queries, please do not hesitate to contact Peter Horton via email at peter@hortoncoastal.com.au or via mobile on 0407 012 538.

Yours faithfully

HORTON COASTAL ENGINEERING PTY LTD



Peter Horton

Director and Principal Coastal Engineer

This report has been prepared by Horton Coastal Engineering on behalf of and for the exclusive use of Lawrence Street Pty Ltd (the client) and is subject to and issued in accordance with an agreement between the client and Horton Coastal Engineering. Horton Coastal Engineering accepts no liability or responsibility whatsoever for the report in respect of any use of or reliance upon it by any third party. Copying this report without the permission of the client or Horton Coastal Engineering is not permitted.