

Ref:5910:RY:rp

22 October 2018

The Owners of 1150-1168 Pittwater Road Collaroy  
C/- Horton Coastal Engineering Pty Ltd  
18 Reynolds Crescent  
Beacon Hill NSW 2100

Dear Sir

### **1150-1168 PITTWATER ROAD, COLLAROY SEAWALL STRUCTURAL DESIGN**

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We have carried out the initial structural design for the proposed anchored cantilevered pile and reinforced concrete seawall. The design is documented on drawings 5910 S01F, S02F, S03F, S04F, S10F, S11F, S12F, S16F, S20F.

#### Analysis Summary:

- Scour level (as advised by Coastal Engineer) -2.0m AHD
- Groundwater levels of 3.0m AHD on the landward side of the wall and -0.5m AHD on the seaward side of the wall as advised by the geotechnical and coastal engineers.
- Crest level (as advised by Coastal Engineer) 6.0m AHD (1150 and 1154)  
6.5m AHD (1156 to 1168)

The anchored piled wall has been analysed utilising the scour level and crest levels supplied by the coastal engineer Peter Horton, Horton Coastal Engineering Pty Ltd in concert with JK Geotechnics as reported in Ref 30444 ZRrpt.

The structural design of the wall has been carried out in accordance with the relevant aspects of the following Australian Standards:

- AS4997:2005 Maritime Structures
- AS3600:2018 Concrete Structures
- AS2159:2009 Piling Design and Installation
- AS1170.0:2002 Structural Design Actions

The seawall has been analysed using Microstran Analysis Software. Concrete Design has been carried out using in house spreadsheets.

Wall design has been back-checked with the global stability analysis prepared by the geotechnical engineer.

Durability of the structure is addressed primarily through the use of high strength concrete with adequate cover in accordance with the durability requirements of the design codes listed above. Concrete quality and reinforcement cover will be selected, in accordance with the code requirements, to provide for a design life of at least 60 years.

Prior to construction the detailed structural design will be certified.

Should you require any further information please do not hesitate to contact the writer.

Yours faithfully

**JAMES TAYLOR & ASSOCIATES**

A handwritten signature in black ink, appearing to read 'Richard Yates', is written over the company name.

**RICHARD YATES** B.E.(Hons) MIEAust CPEng NER 620330  
**Director**