James Taylor & Associates
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CONSULT AUSTRALIA
Member Firm

Ref:6355:RY:rp
26 July 2021

The Owners of 1190 to 1196 & 1204 Pittwater Road Narrabeen
C/- Horton Coastal Engineering Pty Ltd
18 Reynolds Crescent
Beacon Hill NSW 2100

Dear Sir/Madam

1190 to 1196 & 1204 PITTWATER ROAD, NARRABEEN
SEAWALL STRUCTURAL DESIGN

We have carried out the initial structural design for the proposed anchored cantilevered pile and reinforced concrete seawall. This design is documented on drawings 6355 S01G, S02G, S03G, S04G, S10G, S11G, S16G, S20G, S30G.

Analysis Summary:

- Scour level (as advised by Coastal Engineer) -1.3m AHD
- Groundwater levels of 3.5m AHD on the landward side of the wall and -0.5m AHD on the seaward side of the wall.
- Crest level (as advised by Coastal Engineer) 7.0m AHD

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. The scour levels are subject to verification of the subsurface conditions.

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 Microstran and in house spreadsheets.

This wall design is derived from similar certified designs we have prepared for neighbouring sites along this beach.

Pile embedment and anchor loads are subject to verification of the in ground conditions by the geotechnical engineers. After verification of the ground conditions the design will be refined to confirm a global stability factor of safety of at least 1.5 is achieved.

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

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Director