

## Referral Response – Natural Environmental

**Subject Property: 1196 Pittwater Road NARRABEEN NSW 2101**

**Application No: DA2010/1372**

**Assessment Officer: Phil Lane**

**Date completed: 28 September 2010**

**Please detail comments below:**

NEU raise no objection subject to conditions.

**Conditions recommended:**

**Coastline Hazard Zones**

- a) In conjunction with appropriate siting of the building relative to the "Wave Impact Zone", full details of appropriate foundation design are to be supplied and certified by an appropriately qualified Geo-technical/Structural Engineer.
- b) A suitably qualified engineer shall undertake the geo-technical/structural design of foundations in accordance with Schedule 13 of the Warringah LEP (2000) and Sections 4 and 5 of the Report, "Narrabeen/Collaroy/Fisherman's Beach Criteria for the Siting and Design of Foundations for Residential Development" (1991). It should be noted that this report is a design guide only and that the provisions of these conditions, such as extent of piling, take precedence.
- c) Piling is to extend to the whole structure for new developments with any part of the structure located east (seaward) of the Zone of Stable Foundation, to account for possible long term effects such as sea level rise and beach recession, and to ensure uniform support to the entire structure.
- d) Any part of the proposed structure within the Zone of Slope Adjustment/Zone of Reduced Foundation Capacity shall be supported on piles to withstand structural vertical, lateral and axial loads and in some cases lateral load induced in the pile by slumping of the soil face.
- f) Piling shall extend to a depth below -1 metre AHD in the Zones of Slope Adjustment and Reduced Foundation Capacity. Details to be submitted and approved by an appropriately qualified Geo-technical Engineer prior to issue of Construction Certificate.
- g) As the site is located in an area susceptible to wave impact, the Construction Certificate application plans must be endorsed or countersigned by a qualified practicing Coastal Engineer with corporate membership of the Institute of Engineers Australia or who is eligible to become a corporate member and has appropriate experience and competence in the related field.

Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

**Reason:** To avoid damage through wave impact.

**Removal of sand**

The applicant/owner is to minimise the amount of sand removed from the property during construction. If sand is removed from the site during construction, it may be placed on the beach reserve in accordance with the direction of the Council's Environment Officers.

Prior to any sand being placed on the beach reserve the following is to be provided:

- a) Certification from an appropriately qualified person, that the sand is clear of any contaminants including but not limited to asbestos, building materials, soil contaminants etc.
- b) Details of transportation from the donor site to the beach reserve.
- c) Written Approval from Warringah Council for the placement of the sand on the beach reserve.

**Reason:** Protection of coastal environment

#### **Coastal Erosion**

This property is on land located in an area where there is likely to be a risk of coastal erosion and wave impact during severe storms. The risk to the property may increase with time due to long-term beach recession caused by greenhouse induced sea level rise or natural coastal processes. To reduce the potential impact to your property, the Council strongly recommends that effective precautions be taken to ensure adequate volumes of sand are maintained within the eastern (seaward) boundary of your property. The Council requires that only free-draining, clean, yellow sand be used to fill allotments.

**Reason:** Protection of coastal environment. (DACNEE09)