



22 June 2017

Lashta Haidari
Northern Beaches Council Warringah
725 Pittwater Road
Dee Why NSW 2099

Our ref: 2126065-7355
Your ref:

Dear Lashta

Dee Why RSL DA review Issues arising from Peer Review

We refer to our Peer Review Report dated 23 May 2017 and the Douglas Partners (DP) response to our report in their letter dated 2 June 2017. The DP response generally acknowledged the issues raised in our peer review report and undertook to address them during the detailed design stage. The DP response also confirmed that the excavation support system shown in their Groundwater Analysis and Preliminary Modelling Report dated 17 March 2017 represents a construction-stage support system and does not constitute a fully tanked basement design.

We considered that the following issues were not addressed or were not adequately addressed in the DP letter dated 2 June 2017:

- **Section 2.2:** In the final paragraph of section 2.2 DP downplays the potential impact of ground settlements induced by groundwater drawdown during construction. We maintain that dewatering could have a significant impact on ground settlement within the drawdown zone, which extends to about 50m outside the basement excavation according to the DP preliminary modelling. Clarence Avenue and houses to the east of it fall within this zone, as does the property owned by Dee Why RSL. This issue can be managed by including a consent condition that requires both groundwater level and settlement monitoring within the drawdown zone and an action plan to limit settlements if they do occur. This may include stopping dewatering if trigger settlement levels are reached or installation of a re-injection system behind the cut-off wall to limit groundwater drawdown during construction (or both)
- **Section 2.6:** The DP response does not mention our recommendation for a Movement Monitoring Plan during basement excavation. This can be covered by including this requirement as a condition of consent.

DP's further response to our comments above was provided in their letter dated 20 June 2017. DP were in complete agreement that the above recommended monitoring plans were required and proposed that they be developed during the detailed design stage.

We agree that detailed management plans, based on design predictions for ground settlement, groundwater drawdown and excavation support movement should be prepared at the detailed design stage and prior to the issue of a Construction Certificate. However, the requirement for these plans to be produced should be identified in the DA geotechnical report and in the CEMP, in the same manner as the requirements for a noise and vibration management plan, dewatering management plan and ASS management plan that were addressed in the DP report and the CEMP.

As there is no mention of a ground settlement, groundwater drawdown or excavation support management plan in the March 2017 DP geotechnical report, we recommend that the requirement to prepare these management plans prior to the issue of a Construction Certificate should be made conditions of the DA consent, should Council approve the development application.

Yours Faithfully
GHD Pty Ltd

A handwritten signature in black ink, appearing to read 'T Colenbrander', written in a cursive style.

Tony Colenbrander
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