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Development Officer
Northern Beaches Council.

Geotechnical Assessment of Proposed Stormwater System at 74 Narrabeen Park Parade, Narrabeen.

We understand that as part of a Development Application (DA 2019/0134) for a new home office structure at 74 Narrabeen Park Parade, Narrabeen that an upgraded stormwater system, incorporating the previously approved development and stormwater on the site, is proposed. This system includes onsite disposal via a dispersion trench.

As a result we have reviewed the following documents:

- Architectural design by Gartner Trovato Architects, Project No.: 1437, Drawing No.: 01 to 12, Revision: A, Dated: February 2019
- Barrenjoey Consulting Engineers – Stormwater Management Plan and Detailing, Job No.: 150310A, Drawing No.: SW1, SW2, SW3.
- Crozier Geotechnical Consultants report titled "Geotechnical Investigation for Proposed Alterations & Additions at 74 Narrabeen Park Parade, Narrabeen", Project No. 2014-255, Issue: 1, Dated: 4th September 2018.

During our investigation it was identified that there were no signs of landslip instability or of excess surface stormwater flow or seepage within the rear of the site, even though existing stormwater control was limited, whilst bedrock was identified at relatively shallow depth.

It was recommended in our geotechnical report that the most suitable option for stormwater disposal is via discharge to the Councils system. However, the site is located on the low side of the street within moderately sloping topography and therefore does not drain to the street whilst it is understood that an easement through down slope properties is not available.

From the proposed Stormwater Management Plan it is understood that a Basix compliant tank plus OSD tanks are proposed as part of the stormwater system, with discharge of excess water via a dispersion pipe, that is designed to maintain similar surface stormwater flows as pre-development.

It is understood that the dispersion outlet will be located below the approved 'Home Office' structure in the backyard. This building is proposed as a suspended structure supported off isolated pile footings with an open sub-floor space. As such provided the structure is founded to bedrock, impact as a result of the dispersion system should be negligible.

Placement of the dispersion outlet below the office structure will result in it being between 5.0m and 8.0m from the down slope property boundary. This will allow for the greatest possible separation distance of the outlet from down slope boundaries with respect to the proposed development, thereby increasing transpiration potential and reducing the possibility of seepage issues within down slope properties.

Due to the shallow depth to bedrock it is considered that landslip instability will remain with the 'Acceptable" risk management criteria.

Hope the above comments meet Council's requirements, if we can be of further assistance in regard to this matter please don't hesitate to contact the undersigned.

Yours faithfully,

Troy Crozier
Principal
MAIG, RPGeo – Geotechnical and Engineering