Engineering Referral Response

Application Number:	DA2019/1098

To:	Maxwell Duncan
Land to be developed (Address):	Lot 24 DP 7686 , 13 Quinlan Parade MANLY VALE NSW 2093

Reasons for referral

This application seeks consent for the following:

- New Dwellings or
- Applications that require OSD where additional impervious area exceeds 50m2 or
- Alterations to existing or new driveways or
- Where proposals affect or are adjacent to Council drainage infrastructure incl. watercourses and drainage channels or
- Torrens, Stratum and Community Title Subdivisions or
- All new Commercial and Industrial and RFB Development with the exception of signage or
- Works/uses in flood affected areas

And as such, Council's development engineers are required to consider the likely impacts on drainage regimes.

Officer comments

Overland Flow:
The property is shown on Council's best available flood mapping as affected by overland flow flooding. Any future submission shall provide an overland flow flood report to assess the impact of the development with respect to local overland flows. The report shall be prepared by a suitably qualified engineer in accordance with Council's Warringah Stormwater Management Policy Section 9.3 and shall include, but not be limited to, an address of the following:

· The site survey and all levels shall be provided to Australian Height Datum (AHD).

· Catchment plan highlighting the full upstream catchment(s).

· A detailed analysis for any overland flow paths in both pre-development and post-development conditions, considering the 1% AEP storm.

· Consideration is to be given to the capacity of existing Council drainage infrastructure with appropriate blockage factors.

· Submission of plans clearly indicating pre-development and post-development flow path extents for the 1% AEP storm.

· Any relevant supporting longitudinal and cross-sectional information at appropriate intervals,

including at the upstream and downstream property boundaries.

· Provision of any stormwater models (DRAINS, HEC-RAS) used in assessment, and relevant supporting input and output information.

· Demonstration of compliance with flood related development controls, in particular Warringah LEP 2011 Section 6.3 and DCP 2011 Section E11.

· Demonstration that there is no adverse impact to adjoining properties and the road reserve in relation to flood level, velocities and extents.

· Where conflicts occur between existing overland flow paths and the proposed development, detail shall be provided of any proposed flood mitigation measures.

The proposed application cannot be supported by Development Engineering due to lack of information to address:

· Stormwater drainage for the development in accordance with clause C4 Stormwater.

Additional information received on 04/12/2019

The provided Flood Study Report prepared by NY CIVIL ENGINEERING is not consistent with the architectural plans. In particular, the following matters are raised:

1. Proposed finish levels of swimming pool at the rear boundary are significantly higher than natural ground level. It is considered that the proposed swimming pool, deck and fence may impede the overland flow path. As a result, it may impact adversely on adjoining properties and the Council reserve in relation to flood level, velocities and extent. The Flood Study Report does not clearly demonstrate the impacts of the proposed pool, fence and deck on surrounding areas.

2. The Flood Study Report for the development needs to be amended to address clause I1 in Warringah DCP Section E11-Flood Prone Land. In this regard, pools located within the 1% AEP flood extent are to be in-ground, with coping flush with natural ground level. Where it is not possible to have pool coping flush with natural ground level, it must be demonstrated that the development will result in no net loss of flood storage and no impact on flood conveyance on or from the site.

3. Fencing, including pool fencing, shall be designed so as not to impede the flow of flood waters and not to increase flood affectation on surrounding land. Appropriate fencing must comply with the Flood Prone Land Design Standard in addition to other regulatory requirements of pool fencing.

The proposed application cannot be supported by Development Engineering due to lack of information to address:

· Stormwater drainage for the development in accordance with clause C4 Stormwater.
. Flood planning for the development in accordance with clause E11 Flood Prone Land.

Referral Body Recommendation

Recommended for refusal

Refusal comments

Recommended Engineering Conditions:

Nil.