

## Engineering Referral Response

<b>Application Number:</b>	DA2019/1190
<b>To:</b>	Daniel Milliken
<b>Land to be developed (Address):</b>	Lot 1 DP 651395 , 9999 Pittwater Road BROOKVALE NSW 2100 Lot 1 DP 784268 , 9999 Pittwater Road BROOKVALE NSW 2100 Lot B DP 966128 , 9999 Pittwater Road BROOKVALE NSW 2100 Lot 6 DP 785409 , 9999 Pittwater Road BROOKVALE NSW 2100

### Reasons for referral

This application seeks consent for the following:

- New Dwellings or
- Applications that require OSD where additional impervious area exceeds 50m<sup>2</sup> 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

The application is not supported for the following reasons

#### 1) Provision of On Site Stormwater Detention and Design documentation.

- As required by clause 3.3 a Drains model has not been submitted for Councils review. Summary information regarding the OSD design has not been presented as detailed in appendix 9.
- The minimum information as required by section 3.3 has not been provided.

#### 2) Proposed Council stormwater line diversion

The proposed grandstand is located over Council stormwater infrastructure being a 600mm pipe.

Council advised in the pre lodgement notes that the stormwater drainage lines can be re diverted around the proposed grandstand development however the following information which is also required was not submitted:

1. The applicant is to provide an overland flow study to demonstrate that the diverted and upgraded stormwater line is in accordance with councils Water Management policy PL850

and Section 6 Building over or adjacent to Council Systems and easements.

2. The hydrological and hydraulic study is to be prepared by a Civil Engineer registered on the National Engineers register (NER) . The preferred Council model is DRAINS.

3. Councils piped drainage system is to cater for all storms up in excess of the 1 in 20 year AEP up to and including the 1 in 100 year AEP. Any overland flow paths are to have safe velocity versus depth ratios in accordance with Australian rainfall and runoff.

4. Demonstration that all habitable floor levels are to have a minimum 500mm freeboard above the adjoining 100 year flow path top water levels.

5. Hydraulic and Hydrological parameters are to be in accordance with the requirements of Auspec One *D5 Stormwater Drainage Design* are to be used in the preparation of the Hydraulic design plans and report.

6. There is to be no increases to overland flows levels upstream and downstream of the development in all storm events up to and including the 1 in 100 year ARI.

7. The proposed new stormwater line is to be a reinforced concrete pipe to take the superimposed design service loads.

The proposal is therefore unsupported.

Note: Should you have any concerns with the referral comments above, please discuss these with the Responsible Officer.

**Recommended Engineering Conditions:**

Nil.