

## Engineering Referral Response

<b>Application Number:</b>	DA2019/0107
<b>To:</b>	David Auster
<b>Land to be developed (Address):</b>	Lot 4 DP 203378 , 44 Rose Avenue WHEELER HEIGHTS NSW 2097

### 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 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 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 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.
- It is considered there may be conflicts with existing overland flow paths and the access driveway. Raising levels along the access driveway may impact on overland flows.
- It shall be demonstrated that the development does not adversely impact on adjoining properties through the diversion, concentration or ponding of overland flows.

- The basement carpark ramp shall provide a crest at the relevant flood planning level in accordance with Council's DCP.
- It is noted that this matter has not been previously raised for other applications lodged across the site, however new overland flow flood study information available to Council has identified overland flows.

#### Stormwater:

The proposed Stormwater Concept Plan is unsatisfactory. Stormwater drainage for the site shall be in accordance with Council's Water Management Policy Section 5 and Council's Stormwater Drainage from Low Level Properties Technical Specification. In particular, the following matters are raised:

- The proposed stormwater works on adjoining lands requires the creation of an easement to drain water through downstream property. The application shall be supported by a letter of agreement to the creation of the easement.
- The proposed stormwater connection to the existing interallotment drainage pipeline shall be supported by evidence of an existing right to drain water or a letter of agreement for drainage to the existing easement.
- As the proposal indicates stormwater from the shared access driveway is to be conveyed across downstream property, any proposed easements to drain water shall also be in benefit to 46 Rose Avenue.
- It shall be demonstrated that the proposed connection to the existing interallotment drainage pipeline has capacity to cater for additional flows from the proposed development. Any upgrade works shall be clearly identified.

In addition, insufficient information has been provided to demonstrate compliance with Council's Water Management Policy Section 9.1, and Council's Onsite Stormwater Detention (OSD) Technical Specification. The minimum information required to be submitted is detailed in Section 3.3, including but not limited to the provision of DRAINS model, and longitudinal sections of interallotment pipelines. In particular, the following matters are raised with regard to this Specification:

- The pre-developed site discharge is to be calculated using a fraction impervious area of 0% i.e. the 'state of nature' condition for all design storms up to and including the 1 in 100 year storm event.
- As the proposal indicates stormwater the shared access driveway to be conveyed to the OSD/interallotment drainage system, this area shall be taken into consideration in any calculations.
- Clarification is required regarding the existing stormwater disposal of the interallotment drainage line. Connection to Council's road drainage network shall be directly to the kerb inlet pit in Lantana Avenue.

#### Driveway:

The proposed access driveway indicates works on adjoining lands within the existing Right Of Way and requires owners consent of all benefited parties. Please consider this in Planning assessment.

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

- Stormwater drainage and overland flows for the development in accordance with clause C4 Stormwater.

**Referral Body Recommendation**

Recommended for refusal

**Refusal comments****Recommended Engineering Conditions:**

Nil.