

Engineering Referral Response

Application Number:	DA2022/0145
Proposed Development:	Demolition works and construction of a mixed-use development comprising a residential flat building and shop top housing, basement parking, lot consolidation and torrens title subdivision
Date:	22/02/2023
To:	Adam Susko
Land to be developed (Address):	Lot CP SP 32072 , 812 Pittwater Road DEE WHY NSW 2099 Lot CP SP 32071 , 4 Delmar Parade DEE WHY NSW 2099

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

UPDATED COMMENTS. 22/02/2023

These comments only cover the previous council stormwater line upgrade works only .as Flooding team are still to update their previous referral comments .

The application is not supported because the previous requested hydraulic information as detailed below has not ben submitted:

Development Engineering supports the Flood teams comments and position and and also have identified a number or related overland flow/drainage network issues as below:

1) The design capacity of the council stormwater line upgrade is to be confirmed . The minimum design AEP in accordance with Councils Water Management Policy foe development is a 5/100AEP with an overland flow path provided over the pipeline. Easement widths are to be in accordance with the Water Management Plan.

2) A hydraulic grade line analysis is to be provided within Delmar Parade proposed drainage system correct K factors and pit loss factors adopted . It is highly unlikely that the proposed pipe configuration will be supported as the the losses resulting from the 90degree bend would be excessive. The consultant is to realign to a more efficient configuration by upgrading existing pipes in Delmar parade to reduce the hydraulic losses. The 90 degree bend in Delmar Parade not acceptable . All pipes are to circular RCP class applicable pipes.

In addition to the above requested further information the hydraulic engineer is to submit to council in an updated report the existing Council pipe flows running through the site and within Delmar parade and the corresponding AEP event.

PREVIOUS COMMENTS

The applicant has provided a flood study report prepared by SGC engineers Issue C. In reference to Councils flood teams referral response the application is not supported for the following reasons:

- 1)The Flood Impact assessment does not address the requirements of section B3.11 of Councils DCP.
- 2)The flood maps are lacking in detail especially adjacent to downstream and neighboring properties and the adjoining road network.
- 3)From the results provided, by collecting and conveying the entire overland flow to a single discharge point in Delmar Parade has exacerbated existing flood behaviour at various locations, e.g flood depths increased by at least 0.1m in Delmar Avenue and velocity x depth now has increased to above 0.4 etc This resulted increased flood risks to existing properties and road users in Delmar Parade, Accordingly, does not comply with item A1 of section B3.11 of DCP.

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- 2) A hydraulic grade line analysis is to be provided within Delmar Parade proposed drainage system correct K factors and pit loss factors adopted . It is highly unlikely that the proposed pipe configuration will be supported as the the losses resulting from the 90degree bend would be excessive. The consultant should realign to a more efficient configuration by upgrading existing pipes in Delmar parade to reduce the hydraulic losses.

In relation to the On site stormwater detention design/plans the applicant is to submit the DRAINS model to council for review.

The current Development application is not supported.

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.