

Engineering Referral Response

Application Number:	DA2024/0303
Proposed Development:	Demolition of existing structures, removal of trees and subdivision of one lot into three lots.
Date:	18/10/2024
To:	Anne-Marie Young
Land to be developed (Address):	Lot 5 DP 222134 , 337 Lower Plateau Road BILGOLA PLATEAU NSW 2107

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 18/10/24

The recently submitted DRAINS model and stormwater management plan has been reviewed and is not supported for the following reasons:

- 1) State of Nature predeveloped conditions have not been modeled in the determination of the the Right of way on site stormwater detention (OSD) and post development discharge requirements . The design is to be in accordance with Councils Water Management for Development Policy.
- 2) Accordingly the OSD required for the proposed dwellings is to be designed based on State of Nature Pre Developed conditions. An allowance is also to be made for supplementary impervious areas in the form of pathways and hard landscaping.
- 3) Additionally the DRAINS model is to include the provision of climate change in accordance with ARR version 4.2.
- 4)The summary information on the concept stormwater management plan does not align with DRAINS model.

The following information previously requested information has still not been provided regarding the flooding impacts on the proposed development.

As the property is impacted by overland flow Barrenjoey Consulting Engineers has

summarised the flood information in terms of 1/100 AEP and FPL levels throughout the development site from Councils Avalon to Palm Beach FloodPlain Risk Management Study and Plan 2017 as prepared by Manly Hydraulics Lab. However no assessment has been made as requested in the previous development application in terms of whether the proposed dwellings have habitable floors w a minimum of 500mm freeboard to the 1/100 AEP overland flow path levels. Additionally an assessment is to be made on the proposed location of the internal access road and the existing overland flow paths that impact the site.

Unsupported

The proposed three lot subdivision has been reviewed and is not supported for the following reasons:

1) Access handle width and grades.

As highlighted by Councils Traffic Engineers comments the access handle from Lower Plateau Road is limited in width to 4.57m, the Pittwater 21 Development Control Plan (DCP) requires a passing bay to an overall minimum width of 5m for a length of 10m with suitable transitions to be provided. It is not possible to provide a suitable passing bay within the driveway corridor as the ROW is only 4.57m so an easement for a right of way to achieve the passing bay requirements is to be obtained from the adjoining property(ies)

The Pittwater 21 DCP also specifies that internal driveways are to be designed and constructed to provide safe access and shall have a maximum gradient of 1:5 (V:H). For internal driveways on steeply sloping or difficult sites, gradients may be increased up to 1:4 (V:H) over a maximum 20m length. The site gradient is approximately 1:3 (V:H) for the last 20m of the driveway corridor, which exceeds the permissible gradient.

2) The subdivision application does not have supported engineering plans that detail access way long sections, cross-sections and retaining wall locations. The engineering plans requirements are detailed in Councils Auspec one design specification.

3) A stormwater management plan is required detailing the provision of on site stormwater detention in accordance with Councils Water management for development policy and in particular section 9.3.7 minimum required information is to be provided on the stormwater management plan. A DRAINS model is also to be submitted to Council for review.

5) As the property is impacted by overland flow Barrenjoey Consulting Engineers has summarised the flood information in terms of 1/100 AEP and FPL levels throughout the development site from Councils Avalon to Palm Beach FloodPlain Risk Management Study and Plan 2017 as prepared by Manly Hydraulics Lab. However no assessment has been made as requested in the previous development application in terms of whether the proposed dwellings have habitable floors w a minimum of 500mm freeboard to the 1/100 AEP overland flow path levels. Additionally an assessment is to be made on the proposed location of the internal access road and the existing overland flow paths that impact the site.

Flood Study Reference: Avalon to Palm Beach Floodplain Risk Management Study and Plan 2017, Manly Hydraulics Laboratory

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.