Engineering Referral Response

Application Number:	DA2023/0468
Proposed Development:	Alterations and additions to a dwelling house
Date:	01/06/2023
To:	Dean Pattalis
Land to be developed (Address):	Lot 2 DP 1071850 , 46 Pine Street MANLY NSW 2095

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

The proposal is for alterations to the existing garage to provide a double garage.
Council's Stormwater Infrastructure
The subject site appears to be burdened by Council's stormwater pipelines. In accordance with Section 6.7.1 of Council's Water Management for Development Policy, the applicant must accurately locate, confirm dimensions including depth, and plot to scale Council's stormwater pipelines and infrastructure on the development application site plans that outline the proposal. This should be carried out by a service locating contractor and registered surveyor (evidence of methodology used for locating the stormwater infrastructure should be provided).

If the proposed extension is over the existing Council pipe alignment through the site then, the proposal will not be supported.

Please note that concurrence from Council's Stormwater Engineering section will be required.

Access
The proposed grades for the extended vehicular crossing do not appear to comply along the western edge. Any proposed vehicular crossing shall incorporate one of Council's standard vehicle crossing profiles. Applicant shall provide a long-section at both edges of the proposed access driveway to the proposed parking facility and demonstrate compliance with AS2890.1.

A proposal for a separated vehicular crossing that achieves complaint gradients leading to a hardstand area can be considered. Enclosed structures over Council's stormwater infrastructure will not be supported.

Overland Flow

The subject property is possibly burdened by overland flows from upstream catchments. Based on the current proposal it appears that the garage may be affected by overland flow. If the extension of the garage is to be considered an overland flow study is required to ensure that the alterations to the garage does not cause inundation of the dwelling. Hence a design in accordance with Section 11 of Council's Water Management for Development Policy shall be undertaken by a Civil Engineer who is currently registered on the National Engineers Register (NER), should be engaged to investigate and verify whether the subject property is affected by overland flows during a 1% AEP event. In this regard the overland flow study is to include, but not be limited to the following information:

- Hydrological data
- Hydraulics data
- Catchment plan showing sub-catchments (where applicable)
- Computer model such as HEC-RAS showing the 1% AEP stormwater flow over the subject site
- Cross sections detailing the 20% and 1% AEP water surface levels traversing the site
- Extent of water surface levels to extend upstream and downstream of the subject property
- Above details are to be provided for both existing and post-developed conditions
- Any overland flow mitigation measures to protect the proposed development from stormwater inundation must not exacerbate flooding for adjoining properties by diverting more flows to adjoining properties
- Recommended floor levels and driveway crest levels are to be determined in accordance with required freeboard of minimum 500mm above the 1%AEP flood level by the applicant's Engineer.

If an alternate proposal for a separate hardstand area that does not involve any alterations to the existing dwelling is proposed then, the above flood study will not be required.

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.