

Engineering Referral Response

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| Application Number: | DA2022/1474 |
| Proposed Development: | Demolition works, subdivision of two (2) Lots into four (4) Lots with associated driveway and construction of four (4) dwelling houses. |
| Date: | 20/07/2023 |
| To: | Kye Miles |
| Land to be developed (Address): | Lot B DP 393276 , 14 Gladys Avenue FRENCHS FOREST NSW 2086 Lot A DP 393276 , 12 Gladys Avenue FRENCHS FOREST NSW 2086 |

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 20/7/23

The updated stormwater management plans detail a smaller volume tank adjacent to the boundary of Lot 2. (3.56cumecs)

The updated plans are generally consistent with the previous approved plans . No objections to the 4 lot subdivision subject to conditions.

Comments 12/5/23

The applicants engineer has now amended the stormwater management plans and DRAINS model and has demonstrated that the site bypass has been limited to below 20%. This is an acceptable drainage outcome as a downstream properties have been affected by the subject sites overland flow.

The design proposes at rear OSD tank at adjacent to the boundary of lot 3. The detention volumes have increased compared to the previous stormwater management plan.

No objections subject to conditions.

Previous Comments

The proposed 4 Lot subdivision has been reviewed and is not supported for the following reasons;

- 1) The applicant is to submit a DRAINS model for Council review to support the proposed on site stormwater detention design in accordance with Councils water management for development policy. Noting that minimum allowable site bypass is to be **limited to 20%**.
- 2) The stormwater drainage plans are to amended to feature the minimum information as required by Clause 9.7.3 of Councils Water management for development policy.
- 3) The DRAINS model for the downstream Council drainage system capacity check cannot be opened and is required to be resubmitted for Council review.
- 4) Engineering plans are to be prepared for the proposed concrete Right of way and are to include longsections/cross-sections at suitable intervals and retaining wall locations in accordance with Councils Auspec One minimum information requirements.

The proposal is therefore supported.

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

Recommended Engineering Conditions:

DEFERRED COMMENCEMENT CONDITIONS

Stormwater Drainage Easement

As the natural fall of the land is towards the rear of the site the disposal of stormwater drainage is to be in accordance with the drainage plan submitted by JCO consultants DRW NO DA-SW200 Issue 9. The drainage easement 1.0m wide is to be created under Sections 88B and/or 88K of the Conveyancing Act 1919, burdening No 29 Bluegum cres (Lot 92 DP 30700). The applicant must provide Council with evidence of the created easement on title in order to activate the consent.

Stormwater drainage plans are to be submitted to Council for written approval detailing disposal of stormwater from the site in accordance with Council's Water Management Policy.

Reason: To ensure adequate provision is made for stormwater drainage from the site in a proper manner that protects adjoining properties.

FEES / CHARGES / CONTRIBUTIONS

Construction, Excavation and Associated Works Bond (Drainage works)

The applicant is to lodge a bond of **\$3000** as security against any damage or failure to complete the construction of stormwater drainage connection works to Councils existing stormwater pit as part of this consent.

Details confirming payment of the bond are to be submitted to the Certifier prior to the issue of the Construction Certificate.

Reason: Protection of Council's infrastructure.

Construction, Excavation and Associated Works Security Bond (Crossing / Kerb)

The applicant is to lodge a Bond of **\$8000** as security against any damage or failure to complete the construction of any vehicular crossings, kerb and gutter, any footpath works and removal of any redundant driveways required as part of this consent.

Details confirming payment of the bond are to be submitted to the Certifier prior to the issue of the Construction Certificate.

Reason: Protection of Council's infrastructure.

Construction, Excavation and Associated Works (Road Damage Security Bond)

A bond of \$5000 as security against damage to Council's roads fronting the site caused by the transport and disposal of materials and equipment to and from the site.

Details confirming payment of the bond are to be submitted to the Certifier prior to the issue of the Construction Certificate.

Reason: Protection of Council's infrastructure.

CONDITIONS TO BE SATISFIED PRIOR TO THE ISSUE OF THE SUBDIVISION WORKS CERTIFICATE

Subdivision Works Certificate

A Subdivision Works Certificate is to be approved by Certifier for the provision of engineering works.

Engineering plans for the subdivision works within this development consent are to be submitted to the Certifier for approval under Section 6.13 of the Environmental Planning and Assessment Act 1979.

Civil Engineering /stormwater drainage plans for the subdivision works are to be designed in accordance with the Council's specification for engineering works – AUS-SPEC #1 and Council Water management for development policy. The plans shall be prepared by a suitably qualified Civil Engineer, who has membership to Engineers Australia, National Engineers Register (NER) and or Professionals Australia (RPENG) and registered in the General Area of Practice for civil engineering. The design must include the following information:

1. The Applicant is to provide a certification of drainage plans detailing the provision of on-site stormwater detention in accordance with Northern Beaches Council's [in accordance with the concept drainage plans prepared by JCO Consultants , drawing number DA-SW200-SW201 Issue 9 dated 30/6/23 ,DA -SW300 Issue 9,DA-SW500 Issue 9,DA- SW501 Issue 9,dated 30/6/23. Detailed drainage plans are to be prepared by a suitably qualified Civil Engineer, who has membership to the Institution of Engineers Australia, National Professional Engineers Register (NER) or Professionals Australia (RPENG) and registered in the General Area of Practice for civil engineering.

The drainage plans must address the following:

- i. A catch drain at the rear of Lot 2 to capture all the lot overland flow . The catch drains location is to have no impacts on existing trees to be retained.
 - ii. The locations of any boundary retaining walls.
 - iii. Typical cross sections of detention tanks 1 and 2.
 - iv. Proposed stormwater connection detail to Councils existing Pit SPO 1245
 - v. Detailed drainage plans, including engineering certification, are to be submitted to the Certifier for approval prior to the issue of the Construction Certificate.
 - vi: The project arborist is to confirm the position of OSD Tank 2 will have no impacts of the trees to be retained on site , if there are any impacts OSD Tank 2 is to be relocated to suit.
2. Engineering details of the proposed common concrete access driveway/passing bays including structural details, long sections and typical crossing sections.

The Subdivision Works Certificate must be supported by engineering plans, calculations, specification or any certification relied upon.

Reason: To ensure engineering works are constructed in accordance with relevant standards and

Council's specifications.

Utilities Services

Prior to the issue of the Subdivision Works Certificate, the Applicant is to obtain the following:

- (a) A letter from the utility provider confirming that satisfactory arrangements have been made for the approved development have been made; and
- (b) Evidence that notification has been received from a utility authority that, requirements for the development can be provided.

Details demonstrating compliance are to be submitted to the Certifier prior to the issue of the Subdivision Works Certificate.

Reason: To ensure that services have been provided as required by this Consent.

Pre-Commencement Dilapidation Report

The applicant must prepare and submit a pre-commencement dilapidation report providing an accurate record of the existing condition of adjoining public property and public infrastructure (including roads, gutter, footpaths, etc). A copy of the report must be provided to Council, any other owners of public infrastructure and the owners of adjoining and affected private properties.

The pre-construction / demolition dilapidation report must be submitted to Council for written approval and the written approval is then to be submitted to the Certifier prior to the issue of the any Subdivision Works Certificate and the commencement of any works including demolition.

Reason: Protection of Council's Infrastructure during construction.

Traffic Management and Control

The Applicant is to submit an application for Traffic Management Plan to Council for approval prior to issue of the Subdivision Works Certificate. The Traffic Management Plan shall be prepared to RMS standards by an appropriately certified person.

Reason: To ensure appropriate measures have been considered for site access, storage and the operation of the site during all phases of the construction process.

Structural Adequacy and Excavation Work

Excavation work is to ensure the stability of the soil material of adjoining properties, the protection of adjoining buildings, services, structures and / or public infrastructure from damage using underpinning, shoring, retaining walls and support where required. All retaining walls are to be structurally adequate for the intended purpose, designed and certified by a Structural Engineer, except where site conditions permit the following:

- (a) maximum height of 900mm above or below ground level and at least 900mm from any property boundary, and
- (b) Comply with AS3700, AS3600 and AS1170 and timber walls with AS1720 and AS1170.

Details demonstrating compliance are to be submitted to the Certifier prior to the issue of the Subdivision Works Certificate.

Reason: To provide public and private safety.

Road Reserve

The applicant shall ensure the public footways and roadways adjacent to the site are maintained in a safe condition at all times during the course of the work.

Reason: Public safety.

Progress Certification (Road & Subdivision)

The applicant shall provide written compliance certification is to be provided by a suitably qualified engineer upon completion and/or as and when requested by the Council for the following stages of works:

- (a) Laying of stormwater pipes and construction of pits
- (b) Access driveway base course and sub-grade trimmed and compacted **
- (c) Prior to pouring of concrete Pavement
- (d) Clean-up of site, and of adjoining Council roadway and drainage system.
(**To be tested by a recognised N.A.T.A. approved laboratory).

Details demonstrating compliance are to be submitted to the Principal Certifier.

Reason: To ensure compliance of civil works with Council's specification for engineering works.

Civil Works Supervision

The Applicant shall ensure all civil works approved in the **Subdivision works certificate** are supervised by an appropriately qualified and practising Civil Engineer who has RPENG or NER registration.

Details demonstrating compliance are to be submitted to the Principal Certifier and/or Roads Authority.

Reason: To ensure compliance of civil works with Council's specification for engineering works.

Traffic Control During Road Works

Lighting, fencing, traffic control and advanced warning signs shall be provided for the protection of the works and for the safety and convenience of the public and others in accordance with RMS Traffic Control At Work Sites Manual (<http://www.rms.nsw.gov.au/business-industry/partners-suppliers/documents/technical-manuals/tcws-version-4/tcwsv4i2.pdf>) and to the satisfaction of the Roads Authority. Traffic movement in both directions on public roads, and vehicular access to private properties is to be maintained at all times during the works

Reason: Public Safety.

Vehicle Crossings

The Applicant is to construct **one** vehicle crossing **5** metres wide in accordance with Northern Beaches Council Drawing No A4-3330/ normal low and the driveway levels application approval. An Authorised Vehicle Crossing Contractor shall construct the vehicle crossing and associated works within the road reserve in plain concrete. All redundant laybacks and crossings are to be restored to footpath/grass. Prior to the pouring of concrete, the vehicle crossing is to be inspected by Council and a satisfactory "Vehicle Crossing Inspection" card issued.

A copy of the vehicle crossing inspection form is to be submitted to the Certifier.

Reason: To facilitate suitable vehicular access to private property.

CONDITIONS THAT MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF ANY STRATA SUBDIVISION OR SUBDIVISION CERTIFICATE

Certification of Engineering Works and Works as Executed Data within Private Land

The Applicant shall submit a suitably qualified Civil Engineer's certification that the completed road and drainage works have been constructed in accordance with this consent and the approved Subdivision Certificate plans. Works as Executed data (details overdrawn on a copy of the approved SWC plan) certified by a registered surveyor and submitted to the Principal Certifier prior to the issue of the Subdivision Certificate.

Reason: To ensure compliance of drainage works with Council's specification for engineering works.

Positive Covenant for On-site Stormwater Detention

A positive covenant (under the provisions of Section 88B of the Conveyancing Act 1919) is to be created on the final plan of subdivision and accompanying 88B instrument, requiring the proprietor of the land to maintain the on-site stormwater detention structure in accordance with the standard requirements of Council. The terms of the positive covenant are to be prepared to Council's standard requirements, which are available from Northern Beaches Council. Northern Beaches Council shall be nominated as the sole authority empowered to release, vary or modify such covenant.

Details demonstrating compliance are to be submitted to the Principal Certifier prior to the issue of the Subdivision Certificate

Reason: To ensure ongoing maintenance of the on-site detention system.

Provision of Services for Subdivision

The applicant is to ensure all services including water, electricity, telephone and gas are provided, located and certified by a registered surveyor on a copy of the final plan of subdivision.

Details demonstrating compliance are to be submitted to the Principal Certifier prior to the issue of the Subdivision Certificate.

Reason: To ensure that utility services have been provided to the newly created lots.

Right of Carriageway

The Applicant shall create a right of carriageway (under the provisions of Section 88B of the Conveyancing Act) on the final plan of subdivision and accompanying 88B instrument, to include all vehicular access and manoeuvring areas.

Details demonstrating compliance are to be submitted to the Principal Certifier prior to the issue of the Subdivision Certificate.

Reason: Council's subdivision standards and the statutory requirements of the Conveyancing Act 1919.

Restriction as to User (On-site Stormwater Detention)

The Applicant shall create a restriction as to user (under the provisions of Section 88B of the Conveyancing Act) on the final plan of subdivision and accompanying 88B instrument for the on-site stormwater detention system, restricting any alteration or additions to the system. The terms of such restriction are to be prepared to Council's standard requirements. Council shall be nominated as the

party to release, vary or modify such restriction.

Details demonstrating compliance are to be submitted to the Principal Certifier prior to the issue of the Subdivision Certificate.

Reason: To ensure no modification to the on-site stormwater detention structure without Council's approval.

Services

The Applicant shall ensure all utilities/services and street lighting is installed. The Applicant is to submit a Certification stating the above requirement has been complied with by the relevant authority(s) and/or authorised contractor.

Details demonstrating compliance are to be submitted to the Principal Certifier prior to the issue of the Subdivision Certificate.

Reason: To ensure services have been provided in accordance with the relevant authorities requirements.

Certification of On-site Detention System (New Subdivision)

A Certificate is to be submitted by the design Civil Engineer confirming to the satisfaction of the Council/Principal Certifier that the on-site stormwater detention has been constructed in accordance with the approved subdivision certificate plans and the Development Consent and relevant conditions of Development Consent.

Work as executed stormwater drainage with variations overlain in red and a compliance certificate is to be issued by the design engineer accordingly.

The Subdivision Certificate will not be released until this certification has been submitted to Council and confirmed that all relevant this conditions have been satisfied.

Reason: To ensure the On-site Detention System has been built to the appropriate standard

Sydney Water Compliance Certification

The Applicant shall submit a Section 73 Compliance Certificate under the Sydney Water Act 1994 issued by Sydney Water Corporation. Application must be made through an authorised Water Servicing Co-ordinator. Please refer to the Building Developing and Plumbing section of the web site www.sydneywater.com.au <<http://www.sydneywater.com.au>> then refer to "Water Servicing Coordinator" under "Developing Your Land" or telephone 13 20 92 for assistance.

Following application a "Notice of Requirements" will advise of water and sewer infrastructure to be built and fees to be paid. Please make early contact with the coordinator, since building of water/sewer infrastructure can be time consuming and may impact on other services and building, driveway or landscape design.

Details demonstrating compliance are to be submitted to the Principal Certifier prior to the issue of the Subdivision Certificate.

Reason: To ensure compliance with the statutory requirements of Sydney Water.

Easement for Drainage

The Applicant shall create an easement for drainage (under the provisions of Section 88B of the Conveyancing Act) on the final plan of subdivision, to accompany the Section 88B instrument to ensure all drainage infrastructure is located within the appropriate easement(s).

Details demonstrating compliance are to be submitted to the Principal Certifier prior to the issue of the Subdivision Certificate.

Reason: Council's Subdivision standards and statutory requirements of the Conveyancing Act 1919.

Easement for Services

The Applicant shall create an easement for services (under the provisions of Section 88B of the Conveyancing Act) on the final plan of subdivision, to accompany the Section 88B instrument to ensure all utility services are located within the appropriate easement(s).

Details demonstrating compliance are to be submitted to the Principal Certifier prior to the issue of the Subdivision Certificate.

Reason: Council's Subdivision standards and statutory requirements of the Conveyancing Act 1919.

Release of Subdivision Certificate

The final plan of subdivision will not be issued by Council until the development has been completed in accordance with terms and conditions of the development consent.

Reason: Council's subdivision standards and the statutory requirements of the Conveyancing Act 1919.

Subdivision Certificate Application

The Applicant shall submit a Subdivision Certificate Application to Council, which is to include a completed Subdivision Certificate form and checklist, a final plan of subdivision prepared in accordance with the requirements of the Conveyancing Act 1919, four copies of the final plan of subdivision and all relevant documents including electronic copies. This documentation is to be submitted to Council prior to the issue of the Subdivision Certificate. All plans of survey are to show connections to at least two Survey Co-ordination Permanent Marks. The fee payable is to be in accordance with Council's fees and charges.

Reason: Statutory requirement of the Conveyancing Act 1919.

Title Encumbrances

The Applicant shall ensure all easements, rights of carriageway, positive covenants and restrictions as to user as detailed on the plans and required by the development consent are to be created on the title naming Council as the sole authority empowered to release or modify.

Details demonstrating compliance are to be submitted to the Principal Certifier prior to the issue of the Subdivision Certificate.

Reason: To ensure proper management of land.