

Engineering Referral Response

Application Number:	DA2018/1989
To:	Alex Keller
Land to be developed (Address):	<p>Lot 8 DP 629464 , 102 Cabarita Road AVALON BEACH NSW 2107</p> <p>Lot 15 DP 858130 , 100 Cabarita Road AVALON BEACH NSW 2107</p> <p>Lot 14 DP 858130 , 96 Cabarita Road AVALON BEACH NSW 2107</p> <p>Lot 9 DP 629464 , 104 Cabarita Road AVALON BEACH NSW 2107</p>

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 proposed development includes the subdivision of the existing 4 lots into 2 torrens title lots with one of the proposed lots accommodating the existing dwelling and boat shed and the other lot then being further subdivided into a community title subdivision comprising 9 residential lots and one community lot. The works include the construction of a common driveway from the frontage of the site in Cabarita Road which services all the proposed residential lots including the existing dwelling. There is an existing Council drainage line and easement burdening the site which is to be altered as part of the proposal. The proposal also includes the provision of a footpath along the frontage of the site.

The assessment of the application has been undertaken and the following comments apply.

Geotechnical Assessment

The submitted Geotechnical report includes forms 1 and 1A as required by Council's policy and the risk analysis undertaken has shown that the site and existing and proposed development can achieve the 'Acceptable Risk Management' criteria as required by Council's Policy.

Stormwater Assessment

The Hydraulic design for the diversion of the Council stormwater trunk line has been reviewed and the proposed pipe size is insufficient and will need to be increased from the proposed 600mm diameter to

675mm and the necessary drainage easement also increased by 500mm to 2.5 metres. It is considered that these issues can be conditioned. The pipeline will need to be increased in capacity up to the seawall which will require a new outlet. This issue can also be conditioned. The new pipeline will impact a number of trees. A review of the tree assessment by 'Growing My Way Tree Services' indicates that some trees will need to be removed as part of the drainage works and some trees can remain with strict management controls during construction. The above requirement to increase the pipeline size and upgrade the existing line up to the seawall will impact one tree number 70A which will need to be removed. If this is a significant tree which must be retained, it is considered that the pipeline could be diverted to suit. This issue is to be addressed by the applicant's Arborist and Hydraulic consultant if the pipeline is to be diverted.

The internal stormwater system design for the proposed subdivision has been reviewed and is satisfactory subject to conditions. The water quality for the development has been reviewed by Water Management who have provided conditions.

Subdivision Assessment

The proposal requires 2 subdivision certificate applications in order to firstly create 2 lots from the existing 4 lots and then re-subdivide one of the newly created lots into the community title lot. A review of the plans, 88b instruments and management statements indicates that the proposal is satisfactory subject to conditions.

Vehicular Access Assessment

The submitted engineering plans for the driveway access to the site has been reviewed and the proposed width of the driveway varies through the site. There is a narrow section on proposed Road 1 between chainage 114 and the truck turning bay which does not permit passing for two vehicles. This issue has been raised by Council's Traffic Engineer and must be addressed by the applicant.

A review of the cross sections provided for the entry into the garages for the proposed dwellings indicates that the cross fall of the road exceeds 5% in a number of sections. It is considered that the design must include cross sections at a minimum of 5 metre chainages to ensure the cross fall of the proposed road does not exceed 5%. A revised long section to suit this requirement must also be provided for assessment.

A typical section for the proposed pavement design must be provided by the Civil Engineer. The entire access road is to be reconstructed as part of the works including the sub-base. These works may impact upon the existing trees that are to remain and a review of these civil works must be undertaken by the applicant's Tree Consultant to ensure their recommendations can be achieved.

Public Footpath Assessment

The engineering plans indicate the provision of a footpath along the frontage of the site. These works have been recommended by Council's Traffic Engineer. There are a number of trees that may be impacted by these works however the applicant's Tree Consultant has not addressed the impact on the trees as a result of these works. The works will also require a barrier due to the curve in the road which will increase the width of the path and also may require a retaining wall to be constructed. It is considered that a typical detail for this work must be provided by the applicant's Engineer and the design reviewed by the Tree Consultant to assess the impact on the trees.

Also the proposal includes the provision of a waste storage area within the community lot. There appears to be existing trees in this location which have not been assessed by the applicant's Tree Consultant.

Development Engineers cannot support the application due to insufficient information to address clauses B6.1 and B6.2 of Council's DCP.

Additional Information submitted 25/09/2019

The applicant's Consulting Engineer has provided a revised sketch to demonstrate that the driveway grades into the proposed dwellings will comply with the cross-fall requirements. Council's Landscaping Officer has approved the proposal subject to conditions and as such the issues raised with respect to the impact of trees is resolved. The approval also provides comments and conditions with respect to the footpath required in the public road reserve.

Development Engineering raise no objection to approval, subject to conditions as recommended.

Referral Body Recommendation

Recommended for approval, subject to conditions

Refusal comments**Recommended Engineering Conditions:****FEES / CHARGES / CONTRIBUTIONS****Construction, Excavation and Associated Works Bond (Drainage)**

A Bond of \$100,000 as security against any damage or failure to complete the construction of Stormwater drainage works that reverts to Council's care and control as part of this consent.

Reason: Protection of Council's Infrastructure

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

A Bond of \$30,000 as security against any damage or failure to complete the construction of any vehicular crossings, kerb and gutter and any footpath works required as part of this consent.

Reason: Protection of Council's Infrastructure

Construction, Excavation and Associated Works Bond (Maintenance for civil works)

The developer/applicant must lodge with Council a Maintenance Bond of \$10,000 for the construction of drainage infrastructure works. The Maintenance Bond will only be refunded on completion of the six month Maintenance Period, if work has been completed in accordance with the approved plans and to the satisfaction of Council. The maintenance bond is to be paid prior to Council issuing practical completion and may be exchanged for the works bond.

Reason: To ensure adequate protection of Council infrastructure.

**CONDITIONS TO BE SATISFIED PRIOR TO THE ISSUE OF THE CONSTRUCTION
CERTIFICATE****Stormwater Disposal**

Stormwater from the site shall be disposed of to the existing piped Council drainage system burdening
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the site in accordance with Northern Beaches Council's Pittwater 21 DCP 2014 Clause B5.10.

A certificate of compliance and drainage plans are to be provided to the Certifying Authority with the Construction Certificate application by a qualified experienced practicing Civil Engineer, with Corporate membership of the Institute of Engineers Australia (M.I.E.) or who is eligible to become a Corporate member and has appropriate experience and competence in the related field for the drainage system.

Details demonstrating compliance are to be submitted to the Certifying Authority for approval prior to the issue of the Construction Certificate.

Reason: To ensure appropriate provision for disposal and stormwater management arising from development.

Geotechnical Report Recommendations have been Incorporated into Designs and Structural Plans

The recommendations of the risk assessment required to manage the hazards as identified in the Geotechnical Report prepared by JK Geotechnics, Report Number 31842BMrpt dated 30 November 2018 are to be incorporated into the construction plans. Prior to issue of the Construction Certificate, Form 2 of the Geotechnical Risk Management Policy for Pittwater (Appendix 5 of P21 DCP) is to be completed and submitted to the Accredited Certifier.

Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: To ensure geotechnical risk is mitigated appropriately.

Traffic Management and Control

The Applicant is to submit an application for Traffic Management Plan to Council for approval prior to issue of the Construction 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.

Submission of Engineering Plans

Engineering plans including specifications and details of the internal driveway, utility services, inter-allotment drainage system and the stormwater quality treatment system which are to be generally in accordance with the civil design approved with the Development Application, Pittwater 21 DCP 2014, Council's specification for engineering works - AUS-SPEC #1 and any relevant service authority guidelines are to be submitted to the Certifying Authority with the Construction Certificate application. Such details are to be accompanied by a certification by a qualified experienced practicing Civil Engineer with corporate membership of the Institute of Engineers Australia (M.I.E.), or who is eligible to become a corporate member and has appropriate experience and competence in the related field, confirming that the plans/details comply with the above requirements.

Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

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

Submission Roads Act Application for Civil Works in the Public Road

An Application for Works to be approved within Council Roadway, including engineering plans is to be submitted to Council for approval under the provisions of Sections 138 and 139 of the Roads Act 1993. The application is to include four (4) copies of Civil Engineering plans for the design of the footpath including any retaining walls through the nature strip, kerb and gutter with a suitable designed barrier and/or deflective kerb and the driveway crossing which are to be generally in accordance with the Development Application and Council's specification for engineering works - AUS-SPEC #1 and Pittwater 21 DCP 2014. The plans and details are to be accompanied by a certification by a qualified experienced practicing Civil Engineer with corporate membership of the Institute of Engineers Australia (M.I.E), or who is eligible to become a corporate member and has appropriate experience and competence in the field, confirming that the plans/details comply with the above requirements.

The design must include the following information:

1. 1.2 metre wide footpath at the back of the kerb along the frontage of the site and up to the existing bus stop fronting No. 110 Cabarita Road to the east of the frontage.
2. Kerb and Gutter reconstruction along the frontage of the site. The design shall include some form of deflection to prevent vehicles mounting along the curved section and include any pedestrian barrier as required.
3. Any pier and beam or retaining wall details for the proposed footpath construction.
4. Concrete access path from the bin area to the proposed footpath.
5. 6 metre wide driveway crossing.
6. A DDA compliant bus stops.

The fee associated with the assessment and approval of the application is to be in accordance with Council's Fee and Charges.

An approval is to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: To ensure works in the road reserve are designed in accordance with Council's specifications.

Vehicle Driveway Gradients

Driveway gradients within the private property are not to exceed a gradient of 1 in 4 (25%) with a transition gradients in accordance with AS/NZS 2890.1:2004. Access levels across the road reserve are to comply with the allocated vehicle profile detailed in this consent.

Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: To ensure suitable vehicular access to private property.

Utilities Services

Prior to the issue of the Construction Certificate, evidence is to be submitted to the Certifying Authority that

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

Reason: To ensure that services can be provided as required by this Consent

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 Principal Certifying Authority prior to the issue of the Construction Certificate.

Reason: To provide public and private safety.

Shoring of Adjoining Property

Should the proposal require shoring to support an adjoining property or Council land, owner's consent for the encroachment onto the affected property owner shall be provided with the engineering drawings.

Council approval is required if temporary ground anchors are to be used within Council land. A Temporary Ground Anchors (Road Reserve) Application is to be submitted with Council for assessment and approval subject to Council's Fees and Charges. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Construction Certificate

Reason: To ensure that owners consent is obtained for ancillary works, and to ensure the protection of adjoining properties and Council land.

Construction Management Program

An application for Traffic Management Plan is to be submitted to Council for approval. The Traffic Management Plan shall be prepared to RMS standard by an appropriately certified person. An approval is to be submitted to the Principal Certifying Authority prior to the issue of the Construction Certificate.

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 in a manner that respects adjoining owner's property rights and protects amenity in the locality, without unreasonable inconvenience to the community

Stormwater Drainage Application

A Stormwater drainage application under Section 68 of the Local Government Act 1993 is to be submitted to Council for the proposed trunk drainage system within the site. The submission is to include four (4) copies of Civil Engineering plans, specifications and details of the drainage system which are to be generally in accordance with the civil design approved with the Development Application and Council's specification for engineering works - AUS-SPEC #1.

The design is to include the following:-

1. The minimum pipe size of the drainage system is to be 675mm diameter.
2. The pipeline is to be Concrete Rubber Ring Jointed with a minimum Class of 3.
3. All pipe joints are to include bulk heads.
4. Where the outlet is to be replaced the design is to be in accordance with the design principles in Controlled Activities on Waterfront Land: Guideline for outlet structures on waterfront land (NSW Office of Water, July 2012)
5. Pit details for cast insitu style pits.
6. A drainage easement 2.5 metres wide centrally placed over the new drainage line.

The form can be found on Council's website using the following link.

<https://files.northernbeaches.nsw.gov.au/sites/default/files/documents/pdf-forms/stormwater-drainage-approval/4022-stormwater-drainage-approval.pdf>

The fee associated with the assessment and approval of the application is to be in accordance with Council's Fees and Charges.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Construction Certificate.

Reason: To ensure appropriate provision for disposal and Maintenance Stormwater management and compliance with the BASIX requirements, arising from the development.

CONDITIONS THAT MUST BE ADDRESSED PRIOR TO ANY COMMENCEMENT

Public Liability Insurance - Works on Public Land

Any person or contractor undertaking works on public land must take out Public Risk Insurance with a minimum cover of \$20 million in relation to the occupation of, and approved works within Council's road reserve or public land, as approved in this consent. The Policy is to note, and provide protection for Northern Beaches Council, as an interested party and a copy of the Policy must be submitted to Council prior to commencement of the works. The Policy must be valid for the entire period that the works are being undertaken on public land.

Reason: To ensure the community is protected from the cost of any claim for damages arising from works on public land.

CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK

Progress Certification (Road & Subdivision)

Written certification is to be provided by a suitably qualified engineer upon completion and/or as and when requested by the Principal Certifying Authority for the following stages of works.

- (a) Silt and sediment control facilities
 - (b) Laying of stormwater pipes and construction of pits
 - (c) Proof Roll - AUSPEC Standard
 - (d) Sub-grade trimmed and compacted **
 - (e) Base-course laid and compacted **
 - (f) Kerb and gutter construction
 - (g) Pavement
 - (h) Landscaping and vegetation
 - (i) Clean-up of site, and of adjoining Council roadway and drainage system.
 - (j) All layers of the road formation are to be proof rolled to Council's satisfaction
- (**To be tested by a recognised N.A.T.A. approved laboratory).

Details demonstrating compliance are to be submitted to the Principal Certifying Authority.

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

Civil Works Supervision

All civil works approved in the Construction Certificate are to be supervised by an appropriately qualified and practising Civil Engineer. Details demonstrating compliance are to be submitted to the Principal Certifying Authority

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

Notification of Inspections for Public Drainage and Road Works

Council's Development Engineer is to be given 48 hours notice when the works for the trunk drainage line and works within the road reserve reach the following stages:

- (a) Installation of Silt and Sediment control devices
- (b) Prior to backfilling of pipelines
- (c) Prior to pouring of stormwater gully pits
- (d) Prior to pouring of kerb and gutter, footpath and driveway crossing
- (e) Subgrade level / basecourse level / subbase
- (f) Sealing road pavement

NOTE: Any inspections carried out by Council do not imply Council approval or acceptance of the work, and do not relieve the developer/applicant from the requirement to provide an engineer's certification. Council approval or acceptance of any stage of the work must be obtained in writing, and will only be issued after completion of the work to the satisfaction of Council and receipt of the required certification.

Reason: To ensure new Council infrastructure is constructed to Council's requirements.

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 Principal Certifying 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 provision of one vehicle crossing 6 metres wide in accordance with Northern Beaches Council Drawing No A4-3330/3 NL and specifications. 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.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority.

Reason: To facilitate suitable vehicular access to private property.

Maintenance of Road Reserve

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

Reason: Public Safety.

Excavation and Erosion Control

The following measures shall be implemented in the sequence given below, to minimise soil erosion: Approved runoff and erosion controls shall be installed before site vegetation is cleared (other than that associated with the construction of the controls). These shall be as shown on an ESCP approved by council. Topsoil shall be stripped only from approved areas and stockpiled for re-use during site rehabilitation and landscaping. Stockpiles of topsoil, sand, aggregate, spoil or other material shall be stored clear of any drainage line or easement, waters, footpath, kerb or road surface and shall have

measures in place to prevent the movement of such materials onto the areas mentioned. All stockpiled materials are to be retained within the property boundaries. Uncontaminated runoff shall be intercepted up-site and diverted around all disturbed areas and other areas likely to be disturbed. Diversion works shall be adequately stabilised. Runoff detention and sediment interception measures shall be applied to the land. These measures will reduce flow velocities and prevent topsoil, sand, aggregate, or other sediment escaping from the site or entering any downstream drainage easements or waters. The capacity and effectiveness of runoff and erosion control measures shall be maintained at all times to conform to the specifications and standards quoted and to any conditions of approval of those measures.

Measures shall be applied, to the satisfaction of council, to prevent site vehicles tracking sediment and other pollutants onto any sealed roads serving the development. Measures required in permits issued under the Rivers and Foreshores Improvement Act shall be implemented. This Act requires that people obtain approval for any proposed excavation or fill in or within 40 metres of a watercourse. Permits should be sought from the Department of Natural Resources.

Reason: To minimise soil erosion

Safety Fencing of Excavation and/or demolition

The site must be fenced throughout demolition and/or excavation and must comply with WorkCover New South Wales requirements and be a minimum of 1.8m in height.

Reason: To ensure private and public safety

Temporary Sediment

Temporary sedimentation and erosion controls are to be constructed prior to commencement of any work to eliminate the discharge of sediment from the site.

Reason: To reduce erosion and prevent sediment runoff into public assets

Maintenance of Sediment

Sedimentation and erosion controls are to be effectively maintained at all times during the course of construction and shall not be removed until the site has been stabilised or landscaped to the Principal Certifying Authority's satisfaction.

Reason: To ensure sediment controls are effective

Erosion and Sedimentation Responsibilities

Personnel with appropriate training, or demonstrated knowledge and experience in erosion and sediment control shall be responsible for supervising the installation and maintenance of approved erosion and sediment control measures – during and after construction and until the site has been restored to the satisfaction of council.

Reason: To ensure sediment and erosion controls comply with standards

Site Entry Access way

An all-weather access way at the front of the property consisting of 50-75mm aggregate or similar material at a minimum thickness of 200mm and 15metres long laid over geotechnical fabric is to be constructed prior to commencement of works and maintenance over the works period.

Reason: To reduce sediment being taken offsite

Cleaning of Vehicles Leaving Site

Adequate measures shall be undertaken to remove clay from vehicles leaving the site so as to maintain

public roads in a clean condition.

Reason: To reduce sediment being taken offsite

Noise and Vibration

The construction of the development and preparation of the site, including operation of vehicles, must be conducted so as to avoid unreasonable noise or vibration and not cause interference to adjoining or nearby occupations

Reason: To ensure the amenity of the surrounding area for residents

Protection of Adjoining Property - Excavation

Where excavations extend below the level of the base of the footings of a building on an adjoining allotment of land, the person causing the excavation must preserve and protect the building from damage and, if necessary, underpin and support the adjoining building in an approved manner.

Reason: To ensure private and public safety

Site filling - Virgin Excavated Natural Material (VENM)

Where site fill material is necessary, fill materials must:

1. be Virgin Excavated Natural Material (VENM) only, as defined in: The Protection of the Environment Operations Act 1997
2. be free of slag, hazardous, contaminated, putrescibles, toxic or radioactive excavated material and soil, rock or similar material. Putrescibles and non-putrescibles solid waste (including demolition material) is not permitted.
3. Certification is to be provided to the Principal Certifying Authority by a N.A.T.A. approved laboratory.

Reason: To ensure protection of the natural environment

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

Certification of Council Drainage Works and Works as Executed Data within Private Land

The Applicant shall submit a suitably qualified Civil Engineer's certification that the completed works have been constructed in accordance with this consent and the approved Section 68 approved plans. Works as Executed data (details overdrawn on a copy of the approved drainage plan) certified by a registered surveyor in relation to boundaries and/or relevant easements prepared in accordance with Council's 'Guideline for preparing Works as Executed data for Council Stormwater Assets' within the subject site, shall be submitted to the Principal Certifying Authority prior to the issue of the Subdivision Certificate.

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

Certification of Civil Works and Works as Executed Data on Council Land

The Applicant shall submit a suitably qualified Civil Engineer's certification that the completed works have been constructed in accordance with this consent and the approved Section 138 and/or Construction Certificate plans. Works as Executed data certified by a registered surveyor in relation to boundaries and/or relevant easements, prepared in accordance with Council's 'Guideline for preparing Works as Executed data for Council Assets' in an approved format shall be submitted to the Principal Certifying Authority for approval prior to the issue of the Subdivision Certificate.

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

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. Details demonstrating compliance are to be submitted to the Principal Certifying Authority 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

A right of carriageway (under the provisions of Section 88B of the Conveyancing Act) is to be created 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 Certifying Authority 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 for Vehicular Access

A restriction as to user shall be incorporated in the title of Lots 2, 3, 4 and 5 of the community title subdivision that shall preclude those lots from utilising their frontage for vehicular traffic except for the section created as a Right of Carriageway. The wording of the restriction of use is to be prepared by a surveyor, with terms acceptable to Council.

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

Reason: To ensure compliance with Council policy for vehicular access.

Certification of Stormwater Management System (New Subdivision)

A Certificate is to be submitted by a qualified experienced practicing Civil Engineer with corporate membership of the Institute of Engineers Australia (M.I.E), or who is eligible to become a Corporate member and has appropriate experience and competence in the related field confirming to the satisfaction of the Principal Certifying Authority that the stormwater management system has been constructed in accordance with the plans nominated on the Development Consent and relevant conditions of Development Consent. The Subdivision Certificate will not be released until this certification has been submitted and the Principal Certifying Authority has confirmed that this condition has been satisfied.

Reason: To ensure the Stormwater Management System has been built to the appropriate standards.

Stormwater Drainage and Utility Services Plan

A plan of subdivision identifying the location of water, gas, telephone, electricity and stormwater drainage in relation to boundaries and/or relevant easements, prepared by a registered surveyor is to be submitted to Council. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Subdivision Certificate.

Reason: To ensure that services have been provided with appropriate easements as required by the Conveyancing Act 1919

Survey Plan - Construction Identification

A declaration by a registered surveyor shall be provided to Council as evidence that all construction has been effected within the appropriate property, easement boundaries and rights of carriageway. This

shall be in the form of a copy of the final subdivision or easement plan, with the distances from the boundaries to the edges of these structures endorsed in red thereon and signed by the surveyor. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Subdivision Certificate.

Reason: To ensure accurate location of buildings, access and services

Sydney Water Compliance Certification

A Section 73 Compliance Certificate under the Sydney Water Act 1994 must be obtained from 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 charges to be paid. Please make early contact with the Co-ordinator, 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 Certifying Authority prior to the issue of the Subdivision Certificate.

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

Easement for Drainage

An easement for drainage (under the provisions of Section 88B of the Conveyancing Act) is to be created on the final plan of subdivision the accompanying 88B instrument to ensure all drainage infrastructure is located within the appropriate easement(s). Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Subdivision Certificate.

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

Easement to Drain Water - Channel/Floodways

An easement to drain water 2.5 metres wide in favour of Council centrally located over the trunk drainage line traversing the site. The easement is to be detailed on the final plan of subdivision.

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

Reason: To identify Council drainage infrastructure on the property title.

Easement for Services

An easement for services (under the provisions of Section 88B of the Conveyancing Act) is to be created on the final plan of subdivision and the accompanying 88B instrument to ensure all utility services are located within the appropriate easement(s). Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Subdivision Certificate

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

Electrical Substations

The applicant shall dedicate the land required for an electricity sub-station as a public road, if requested by the energy authority. The dedication is to be detailed on the final plan of subdivision, to be submitted to Council with the application for a Subdivision Certificate.

Reason: To comply with statutory requirements of the energy authority

Internal Driveway Compliance Certification

The internal driveways must be certified by a qualified practicing Civil Engineer with corporate membership of the Institute of Engineers Australia (M.I.E), or who is eligible to become a Corporate member and has appropriate experience and competence in the related field confirming to the satisfaction of the Private Certifying Authority that the internal driveway has been constructed in accordance with the approved plans and relevant conditions of Development Consent.

Reason: To ensure internal driveways are constructed to standard specifications.

Subdivision Certificate Applications

The proposed subdivision is staged in two parts. The first stage involves the subdivision of existing lots 8 and 9 in D.P.629464 and Lots 14 and 15 in D.P.858130 to create two lots. The second stage involves the re-subdivision of lot 1 created in stage 1 into a community title subdivision creating ten lots.

Stage 1 Application

The applicant shall submit a completed Subdivision Certificate form, a final plan of subdivision, administration sheet and associated 88b instrument prepared in accordance with the requirements of the Conveyancing Act 1919. Four copies of the final plan of subdivision and two copies of the administration sheet and 88b instrument are to be submitted. 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.

Stage 2 Application

The applicant shall provide evidence of the creation of the subdivision certificate application for Stage 1.

The applicant shall submit a completed Subdivision Certificate form, a final plan of subdivision, administration sheet and associated 88b instrument and community management statement prepared in accordance with the requirements of the Conveyancing Act 1919 and Community Land Management Act 1989. Four copies of the final plan of subdivision and two copies of the administration sheet, 88b instrument and community management statement are to be submitted. 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 and Community Land Management Act 1989.

Geotechnical Certification Prior to Subdivision Certificate

Prior to issue of the Subdivision Certificate, Form 3 of the Geotechnical Risk Management Policy is to be completed and submitted to the Principal Certifying Authority.

Reason: To ensure geotechnical risk is mitigated appropriately.

Title Encumbrances

All easements, rights of carriageway, positive covenants and restrictions as to user as indicated on the plans and required by this consent are to be created on the title naming Northern Beaches Council as the sole authority empowered to release or modify. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Subdivision Certificate

Reason: To ensure proper management of land

