

14 July 2023

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Dear Sir

INFORMATION REQUEST

Council refers to the development application lodged with the Douglas Shire Council as detailed below.

Applicant Details

Name: G Argyrou
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WOOLLOONGABBA QLD 4102
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Property Details

Street Address: 14 Murphy Street PORT DOUGLAS
Real Property Description: LOT: 114 TYP: PTD PLN: 2094
Local Government Area: Douglas Shire Council

Application Details

Application Number: OP2023_5422/1
Approval Sought: Development Permit
Nature of Development Proposed: Operational Works
Description of the Development Proposed: Operational Works (Earthworks associated with construction of a dwelling)

Information request

The following further information is required in order to complete the assessment of the works:

Landscaping

1. It is noted that the overlaid trees on the submitted civil plans do not reflect the Vegetation Survey Plan dated 30 June 2022. For instance, the Vegetation Survey Plan specifies Trees 23 and 24 are to be retained and Conditions 3g and 3h reinforce this requirement under the development approval for the house.

However, Edge Drawing C201 nominates removal of these trees in conflict with the Development approval for the house.

In addition, it is unclear how some trees will be viable if the structural root zone is impacted, (Tree 39 – 2800mm Milky Pine, Trees 25, 26 and 27 adjacent driveway are examples where further information is required to understand the implications of tree viability).

The applicant must demonstrate how the proposed civil engineering design complies with the tree retention requirements and the setback requirements from side boundaries (which includes spoon drains) as set out in the development approval for the house.

In responding to this query on vegetation retention, the Applicant is to provide an overlay of the surveyed trees identified for retention and with the proposed civil plans. The overlay must demonstrate the status of each tree shown on the Vegetation Survey Plan and how the proposed works will comply with the requirements of Condition 3(h) of the Decision Notice. The overlay is to include the (SRZ) and tree protection zone (TPZ) for each tree with appropriate annotations. Reference to AS4970 is made with respect to construction clearances to retained trees.

Earthworks

2. The Applicant is to provide commentary on the assessment criteria for the Hillslopes Overlay Code contained in the Douglas Shire Planning Scheme 2018 including how the development achieves performance outcomes PO2 and PO3.

Officers are concerned with the proposed level differences of greater than 4m are shown on the civil plans near the southern edge of the driveway turnaround and at the north-west corner of the lot.

3. A comparison of the current plans (Edge Drawing C201, C231 and C232) and the approved plans (Edge Drawing CSK002 and CSK003) attached to the Decision Notice highlighted that the layout of the driveway and the approximately 4.5m fill batter between Murphy Street and the building pad is not consistent with the site works indicated at the MCU stage.

The Applicant is to provide a site-specific geotechnical report addressing the slope stability and amenity of the proposed earthworks and retaining wall design including, but not limited to, calculations demonstrating the large fill batter is an acceptable solution. In addition, the report is to address the implications of the rock/gravel-lined swale drain modelled at the toe of the 3.5m fill batter. Council is concerned with the drainage and stability implications of directing runoff into the base of the retained fill area.

Advice Note: Officers are concerned that the geotechnical advice previously provided refers to earlier plan revisions and may not reflect the current proposed earthworks

design. The addition of the large fill batter in conjunction with load applied by the building pad and driveway appears to introduce an increased slope stability risk than was previously indicated and investigated.

4. Section 4 on Edge Drawing C232 indicates the development is within a broad swale/depression within the wider topography.

Advice is required from a geotechnical expert and hydro-geologist regarding potential implications of the surface and sub-surface flow paths potentially impacting site stability.

5. Concern is raised regarding the height and gradient of cut/fill batters shown on Edge Drawing C201. Between the northern lot boundary and the proposed rock/gravel lined swale drain outlet (north of the proposed retaining wall), a 2.3m cut batter graded at approximately 1v in 1.3h is interpreted from the design contours and drawing scale.

Attention is also directed to the fill batter between the building pad and HW1/01 which is approximately 2.7m high and at a 1 in 2 gradient based on the design contours and drawing scale.

FNQROC Development Manual D2.11 is referenced which requires that cut/fill batters be generally limited to a maximum slope of 1 in 4. It is also required that all batters higher than 1.5m require certification by a Geotechnical Engineer

The Applicant is requested to submit geotechnical certification for cut/fill batters exceeding 1.5m or steeper than 1 in 2 by a suitably qualified RPEQ Geotechnical Engineer.

6. The Applicant is to confirm what the GCS retaining wall refers to on Edge Drawing C201, and clarify why the wall height is proposed to be 3.5m. This treatment is not consistent with Condition 3e of the development approval for the house.
7. The Applicant is to clarify where the top and toe of the batter aligned on the north-west boundary, shown on Edge Drawing C201, starts and finishes. Revised earthworks plans are to be resubmitted as part of this application.
8. It is noted that a site-specific geotechnical report was not submitted in support of this application and therefore concern is raised with the absence of an assessment of the stability of the high earthworks batters/retaining solutions proposed. Note, this refers to the technical aspects and not other planning controls that need to be assessed.

FNQROC Development Manual D2.11 is referenced which requires that cut/fill batters be generally limited to a maximum slope of 1 in 4. It is also required that all batters higher than 1.5m require certification by a Geotechnical Engineer.

The Applicant is requested to submit geotechnical certification for cut/fill batters exceeding 1.5m or steeper than 1 in 2 by a suitably qualified RPEQ Geotechnical Engineer.

9. Concern is raised regarding labelling of design contours on Edge Drawing C201. The contours are consistent at 0.1m intervals, however, there appears to be conflict between the design levels shown on the south-western side of the allotment. Refer Figure 1 below which shows an elevation difference of 0.4m but the contour labels indicate this level difference is 0.6m.

The Applicant is requested to clarify this inconsistency in the contour labels on Edge Drawing C201. A revised drawing labelling the appropriate design contours is requested.

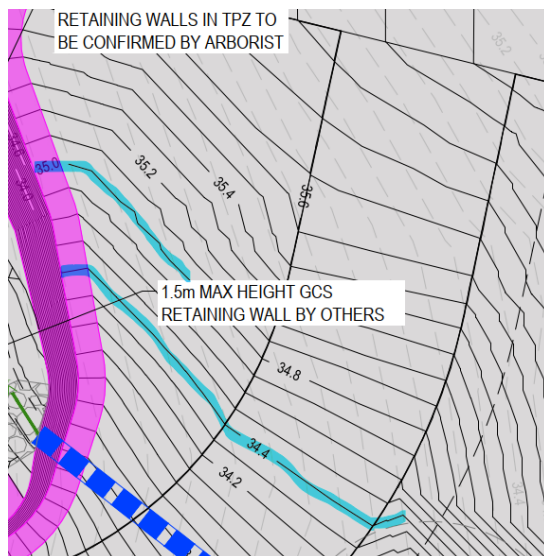


Figure 1: Snippet from Edge Drawing C201

Stormwater

10. The Applicant is requested to clarify how stormwater is conveyed between HW2/02 and FI1/03 shown on Edge Drawing C301. While the legend indicates a swale drain is proposed to link these stormwater elements, no earthworks batters (drain profiles) are shown as is the case for the proposed swale drains on the rest of the property.
11. Separate to the query above, the Applicant is requested to advise why the captured stormwater exiting HW2/01 is not piped through to FI1/02 noting the geotechnical/retaining elements in the immediate vicinity.

Advice Note: Clear articulation how stormwater flows will be conveyed between HW2/02 to FI1/03, and HW2/01 to FI1/02 is required. Any amendments to stormwater or drain profiles are to be provided to Council on revised plans to enable further assessment of this application.

12. Concern is raised regarding the absence of a local drainage study for the catchment area. It is not clear to Officers how the pipe flow capacities indicated on Edge Drawing C341 were determined.

In addition, the ability for the proposed swale drains to accommodate flows from up to 1% AEP stormwater events in accordance with FNQROC Development Manual D4.12 and Queensland Urban Drainage Manual (QUDM) has not been demonstrated. The absence of this information does not allow Officers to proceed with assessment of this application.

The Applicant is requested to provide evidence of a local drainage study of the land to determine the mitigation measures required to minimise such impacts. In particular, the study must address, but is not limited to, all internal and external contributing catchment boundaries and any associated stormwater calculations.

Advice Note: The Applicant must consider Table 9.3.1 of QUDM as part of the drainage study.

13. Provide advice regarding the scour protection measures indicated at changes in horizontal alignment of the proposed swale drains throughout the development shown

on Edge Drawing C301. FNQROC Development Manual D4.13 is referenced which requires that allotment catch drains which have a change in horizontal alignment greater than 45 degrees shall be provided with concrete or wire reinforced rock mattresses to cater for flows in accordance with QUDM.

The Applicant is requested to include concrete or wire reinforced rock scour protection measures within the proposed swale drains in accordance with FNQROC Development Manual D4.13. Amended plans to achieve compliance with FNQROC and QUDM are to be provided to enable further assessment of this application.

Retaining Walls

14. Clarify the interface/location of the proposed retaining wall at the southern end of the shared driveway access shown on Edge Drawing C101. The retaining wall appears to encroach on the existing stormwater alignment. FNQROC Development Manual D2.13 is referenced which requires that the minimum horizontal clearance between any adjacent services and the outermost edge of a retaining wall structure be 800mm and outside the zone of influence, whichever is greater. No imposed loads are to be applied directly to the service infrastructure.

The Applicant is requested to demonstrate that retaining walls are designed in accordance with FNQROC Development Manual D2.13 and Australian Standard 4678 (AS4678). Amended plans to achieve compliance with FNQROC and AS are to be provided to enable further assessment of this application.

15. No engineering drawings detailing the structural elements of the various types of retaining walls proposed throughout the development were submitted with this application.

All retaining walls higher than 1m must be structurally certified as required by FNQROC Development Manual D2.13.

As the retaining elements are integral to achieving the site design levels and achieve compliance with conditions of the development approval, the Applicant is requested to submit structural designs for retaining walls. Designs must be certified by an RPEQ structural engineer and include appropriate certification (Form 15) to enable assessment of the drawings.

Conditions of MCU Decision Notice

16. With respect to the site frontage, concern is raised regarding the absence of sufficient levels (design and existing) and retaining wall details provided with the submitted plans. Reference is made to Condition 3(d), (e) of the MCU Decision Notice dated 7 October 2022 which requires that retaining walls positioned within 2000mm of the front boundary be a maximum height of 1200mm and be suitably landscaped. All exposed retaining walls are to be finished with a natural rock face and a range of dark colour finishes.

The Applicant is requested to demonstrate compliance with, but is not limited to, Condition 3(d) and (e) of the Decision Notice.

Advice Note: The retaining wall bordering the driveway access is within 2000mm of the front boundary for approximately 5.6m of its length.

External Driveway

17. The design relies on the external driveway within the Murphy Street road reserve. Design of this driveway must be included on plans for this development and not rely on adjacent developments proceeding to formalise the access.

The Applicant is requested to provide external works plans (driveway, stormwater, sewer, etc) so that this application can be assessed as a stand-alone development.

Other Details

Please quote Council's application number: OP 2023_5422 in all subsequent correspondence relating to this development application.

Should you require any clarification regarding this, please contact Neil Beck on telephone 07 4099 9451.

Yours faithfully



For
Paul Hoyer
Manager Environment & Planning