

Our Ref: OSK6521-0008

Your Ref: ROL/2024/116

26 June 2025

City of Gold Coast
PO Box 5042
GCMC QLD 9729

Dear Sir/Madam,

RE: INFORMATION REQUEST FOR 176 BAILEYS MOUNTAIN ROAD, UPPER COOMERA

We refer to the City of Gold Coast's Information Request (IR) issued on 28 January 2025 regarding the Development Application lodged by Norfolk Estates Pty Ltd ATF The Solander Investments Unit Trust C/- Saunders Havill Group. On behalf of our client, please find below our response to the civil engineering items:

Original Content

SUBDIVISION ENGINEERING

8. Earthworks for future public road extensions

Proposed Longitudinal Section for Road 1 shows that level difference between proposed finish level of proposed Road 1 and existing ground level of adjoining property (Lot 184 on RP173728) will be 3.11m. Proposed Longitudinal Section for Road 2 shows that level difference between proposed finish level of proposed Road 2 and existing ground level of adjoining property (Lot 184) will be 1.6m. Proposed Longitudinal Section for Road 3 shows that level difference between proposed finish level of proposed Road 3 and existing ground level of adjoining proposed (Lot 184) will be 1.23m.

As such, the proposed longitudinal sections for the abovementioned proposed roads do not comply with Specific outcome 3.3.4.1 (8) (e) of the New communities element of the Strategic Framework. The applicant is requested to submit an amended longitudinal section/s for Road 1, Road 2 and Road 3 showing level differences between proposed finish level of proposed public roads and existing ground level of adjoining property (Lot 184 on RP173727) not exceeding 1m.

Alternatively, if proposed level differences will be retained, the applicant is requested to submit the written agreement from the owner/s of adjoining Lot 184 on RP173727 accepting and acknowledging the onus of future earthworks to rectify the level difference. Please note however, officers will not be able to support level differences which are to the detriment of parties not subject of this development application.

RESPONSE:

The acquisition of 31 Courtney Drive by the client has removed the level differences at the end of Roads 1, 2 and 3. The amendment to the RAL plans means that there were end road terminations had the boundaries of Lot 182 RP 156422 (Road 08) and Lot 187 RP 173728 (Road 10). There will be a level difference of 0.850m at the end of Road 05 and a difference of 0.625m at the end of Road 10.

16. Rear lots

The applicant is requested to provide longitudinal and cross sections for all proposed rear lots in order to demonstrate that access strip areas can achieve appropriate slope gradient from the road carriageway to future building envelopes in accordance with Council's land development guidelines and AS2890.2009.

RESPONSE:

Driveway long sections have been included within the updated drawing package.

For further details, see OSKA Consulting Group, DA Drawing Package included within the *Engineering Infrastructure Report*.

COMMUNITY FACILITIES AND OPEN SPACE PLANNING AND ASSET MANAGEMENT

33. Batters within Park

The Applicant is requested to confirm the proposed grades within the Park. Please note, grades must not exceed 1:4 to allow future maintenance.

RESPONSE:

The proposed grades within the park were typically less than 10%, which will allow for detailed landscape levels and pedestrian pathways to be constructed and achieve no ultimate grades that exceed 1:4.

36. Retaining walls

The Preliminary earthworks plans demonstrate a 0-1.5 metre high retaining wall along the frontage of the Park as well as within the Park. The applicant is to ensure that any retaining walls are appropriately identified on the preliminary earthwork plans for consistency.

a. Retaining walls along the frontage of the Park:

The Applicant is advised that Officers do not support the proposed retaining walls along the frontage of the path. The retaining walls will impact on the City's ability to carry out maintenance and will also increase future maintenance costs. The Applicant is requested to remove all retaining walls along the frontage of the site. This includes surrounding the proposed pad mount.

b. Retaining walls within the Park:

While's the City's policy position is to not accept retaining walls within public parks due to increased ongoing maintenance costs, Officers are however supportive of the retaining wall surrounding the perimeter of the playground and picnic shelter area (refer to wall located near #1 and #4 on the legend of page 6 of the SLI). To further understand the height of the proposed retaining walls and proposed material, the Applicant is requested to submit a retaining wall plan. Please note, for sandstone block, the required standard is A or B grade.

The proposed retaining wall on either side of the pathway as identified below is requested to be removed and replaced with a suitable batter.



RESPONSE:

The proposed retaining walls have been shown on the updated bulk earthworks drawings. 1.5m max retaining walls have been proposed along the frontage of the park to ensure that all proposed batters within the park do not exceed that 1:4. All proposed retaining walls will be a sandstone block wall.

37. Access to Lot 800

To support ongoing maintenance access, submit amended plans demonstrating the proposed access driveway to the bio-retention basin is concrete.

RESPONSE:

The bio-retention access driveways have been nominated as concrete within the updated drawing package.

For further details, see OSKA Consulting Group, DA Drawing Package included within the *Conceptual Stormwater Management Plan*.

WATER AND WASTE

38. Amended Water Reticulation Plan and Reporting

Council acknowledges the provided Preliminary Services Plans (OSK6521-P040 & P041). Officers have identified inconsistencies between these drawings and the planned water supply arrangement for the area.

The subject development is planned to be serviced via a new (WSSIP Identified) DN200 water supply main from Bailey's Mountain Road, along with a new booster pump station to service the catchment. Depending on the timing of surrounding developments, it may be the responsibility of the subject development to undertake the infrastructure upgrades/extensions on behalf of Council to provide the development with water supply.

The applicant is required to consider the timing of implementation of the existing approval 'MIN/2024/449' at 155 Baileys Mountain Road, to determine sequencing of infrastructure upgrade

works.

Council will not accept water supply to 41 and 53 Courtney Drive via an extension of the existing Courtney Drive reticulation main. The acceptable outcome for this proposal is to extend the WSSIP planned water supply infrastructure via Baileys Mountain Road, via Courtney Drive to service the proposal on 41 and 53 Courtney Drive. The applicant shall consider the required sizing for the new mains extension to service the subject proposal and the other properties/future developments on both sides of Courtney Drive.

Based on the above requirements, the applicant is requested to amend the Preliminary Services Plans, ensuring that

- a. The reticulation layout plans are consistent with Council's planned servicing strategy for the area.
- b. The proposed sizing of all mains are clearly noted on the drawings; and,
- c. The Water and Wastewater Assessment Report (OSK6521-0005) by OSKA Consulting is consistent with the amended Preliminary Services Plans and Council's planned servicing strategy for the area.

Furthermore, following a review of the Water and Wastewater Assessment Report (OSK6521-0005) by OSKA Consulting, Council has the following concerns:

- a. Section 3.1 of the report states that the 'The proposed development is gravity supplied by the Peanba Park Road tanks (47 ML) approximately 1.5 km to the southeast. Figure 3 illustrates the extent of the greater Worongary Low Level Zone (LLZ) assessed.' The applicant is to clarify how the Worongary LLZ assessment is linked with servicing this development.
- b. Section 3.3 of the report states that '....using the InfoWater model for the City's **southern potable water network (Northern v95_WSSIP_2019)** provided by the City.' The wording in bold lettering should be amended in the report.
- c. Section 3.4 of the report states that 'All demands from the proposed Breakwater Road development have been allocated evenly across the modelled internal nodes.' The applicant is to explain how the Breakwater Road development is linked with this development.
- d. Section 3.3.2 of the report speaks to the Baileys Mountain Road Booster Pump Relocation. The applicant is requested to provide a layout plan clearly illustrating the servicing boundaries for the proposed booster pump station, servicing not only the subject development site but future lots within the supply catchment. The calculated EP demand/flow and required pressure head is to be provided in Excel format for Council's review of the modelling findings.

RESPONSE:

The proposed external watermain extension has been amended to align with Council's "WSSIP Planned Water Supply Infrastructure". A trunk watermain extension will be constructed along Baileys Mountain Road and along Courtney Drive. In addition, Council has requested a watermain extension along Reserve Road between Rangeview Road and Lawson Street be included as a part of this development. Council has confirmed trunk credits will be awarded for the external water main construction.

For further details, see OSKA Consulting Group, *Engineering Infrastructure Report* and *Water and Wastewater Assessment Report*.

39. Sewer reticulation schematic plan

In addition to the Preliminary Services Layout Plan which outlines the proposed gravity sewer horizontal alignment and points of connection to downstream infrastructure, provide to Council a conceptual longitudinal section confirming that the proposed gravity sewer main extension has sufficient cover and fall in compliance with the SEQ WS&S D&C Code.

RESPONSE:

It is acknowledged that as a part of the neighboring development at 202 Baileys Mountain Road (COM/2024/317) a Council RFI has been issued which has required a change in sewer strategy for the respective development. As such, one of the proposed sewer discharge locations has been amended to cross Yaun Creek and connect directly into the Council's existing sewer trunk main.

Conceptual sewer long sections have been included within the updated sewer drawings.

For further details, see OSKA Consulting Group, DA Drawing Package included within the *Engineering Infrastructure Report*.

HYDRAULICS AND WATER QUALITY

43. Maintenance access for bioretention basin

The development proposes multiple bioretention basins and the applicant is requested to provide further information to demonstrate compliance with the Healthy waters code, Land Development Guidelines (LDG) and best practice design in accordance with Healthy Land and Waters guidelines for bioretention basins.

The applicant has proposed to combined detention and bioretention at 3 different locations. Officers understand that the device will be dedicated to Council for future ownership. The applicant is requested to demonstrate that suitable maintenance access will be provided for each bio basin. e.g. How could machinery access the basins for maintenance activities such as vegetation management or filter media replacement?

RESPONSE:

The concrete maintenance access driveways have been nominated within the provided DA engineering drawings, as well as the respective access long sections provided. Sufficient maintenance access pathways have also been provided around each of the combined detention and bioretention basins.

For further details, see OSKA Consulting Group, DA Drawing Package included within the *Conceptual Stormwater Management Plan* and *Engineering Infrastructure Report*.

44. Flood immunity for stormwater treatment systems

The applicant has proposed bioretention basin (lot 802) for peak flow mitigation and stormwater quality management purposes. It is generally expected that the bioretention basin is designed to have an immunity against 2 year ARI flood level (additionally refer to Table 4.23: Flood immunity and protection requirement for stormwater treatment systems). As such, the applicant is requested to demonstrate that the stormwater treatment systems are protected from future damage resulting from local flooding and the location of proposed bioretention basin is suitable and at an appropriate level.

RESPONSE:

The Q2 flood level adjacent to Basin A (previously lot 802) was RL 31.46, with the proposed top of bund height around the basin being RL 31.60.

45. Private road

*The applicant is requested to demonstrate that the proposed cross drainage culverts underneath the private road (providing access to Lot 144 to 147) have been designed to comply with QUDM and LDG requirements. Specifically, the applicant is requested to demonstrate that the private road is safe for vehicular access for all events up to the 1% AEP, in accordance with QUDM requirements for depth and velocity. Where flow is permitted over access road the maximum flow depth * velocity should be 0.3m²/s in a 1% event.*

Note – The removal of lots 144 – 147 and the private road has been requested by Environmental Assessment.

RESPONSE:

Lots 144 to 147 from the initial development proposal have been removed.

We trust that the above response satisfies your request. If you have any further queries, please do not hesitate to contact our office.

Yours faithfully



Adam Iervese
Civil Engineer

Certified by:-



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