BCC DS
RECEIVED
07/10/2026
APPLICATION REF
A007090287

2 October 2026

Brisbane City Council
GPO Box 1434
Brisbane QLD 4001

Attention: Laura Urbina

A007090287 – Information Request Response

Development at 171-173 Upper Kedron Road / 24 Persimmon Street Ferny Grove QLD 4055

In response to Councils Information Request dated 18th of September 2026, please find below information which will form the response to items 5 , 7, 8 , 9 & 10 outlined in the information required.

Road connections

5. The proposed non-standard rear road reserve 'auto court' serving Lots 4–6 is not supported. It does not adequately respond to Sections C and D of the Road hierarchy overlay code, AO9/PO9 of the Subdivision code or the Infrastructure design code. The current configuration would also restrict access from a lower order road for any future development on the adjoining site and limit access to a potential linear open space network along the waterway corridor.

a. Provide a standard 14-metre-wide local road reserve, consistent with BSD-1021, in place of the proposed auto court. This is required to provide suitable road frontage to Lots 4–6 and a standard road connection to 169 Upper Kedron Road.

Response:

Please refer to updated concept plans removing the 'auto court' from the design and it is replaced with a reciprocal access/ services easement over lots 5 & 6 and inclusive of Lot 4.

Stormwater

7. The revised stormwater drainage layout for the consolidated development no longer demonstrates a lawful point of discharge. While the submitted Site based stormwater management plan identifies the existing creek as the lawful point of discharge, this is not demonstrated by the proposed outlet arrangement. Provide an amended RPEQ-certified Site based stormwater management plan demonstrating compliance with AO3.2, AO3.3, AO3.4/PO3 of the Stormwater code and AO4.2/PO4 of the Subdivision code.

a. The proposed localised earthworks to direct the bio-basin stormwater outlet pipe discharge to the neighbouring property is not supported as it has the potential to create adverse impacts on the neighbouring lot. Extend the stormwater outlet to the existing creek as the lawful point via a channel/rock chute or appropriate alternative.

Response:

The proposed basin outlet configuration has been extended to the edge of the existing creek and has been designed to cater for the 1% AEP discharge from the basin inclusive of the 50% blockage factor required in accordance with QUDM. We have also included as a further fail safe an overland flow swale situated over the basin discharge pipe to help capture the extreme events and direct them to the existing creek as the lawful point of discharge.

b. Provide the 1% AEP hydraulic calculations for the proposed outlet channel/rock chute to determine its minimum required sizing and demonstrate the proposed capacity.

Response:

Refer to response provided in Item A

c. Provide an amended easement for underground drainage and open cut over the proposed stormwater pipe and channel outlet to the Creek invert, sized as required to ensure the channel is entirely contained within the easement. An additional 1.2 metres of width is to be provided as part of the easement for inspection and access.

Response:

Please refer to updated drawing SK05 detailing the extents of the proposed easement in the downstream property (3.0m wide)

d. Demonstrate how emergency overflow and spillway flows from the proposed bio-basin are conveyed to the existing creek as the lawful point of discharge. Where a swale or earthwork channel is proposed provide the supporting earthworks details.

Demonstrate the proposed levels, grade and how flows are to be contained within the development site to the lawful point of discharge.

Note: the proposed alignment may result in conflicts with vegetation, as such it is recommended that a holistic approach is taken by the applicant to minimum impacts on existing vegetation.

Response:

Refer to response provided in Item A

Bio Basin

8. Provide the following as part of an updated (RPEQ certified) Site Based Stormwater Management plan to demonstrate that the proposed Bio-retention basin demonstrates compliance with PO1, AO6.1, AO6.2 /PO6 of the Stormwater code and Infrastructure design planning scheme policy.

a. The hydrological analysis for existing conditions would typically use a Tc value based on overland sheet flow over a >200metre flowpath with averaged grass surfaces likely resulting in a TC >10 minutes for pervious catchments. That the use of standard inlet times is not suitable for detention sizing where detailed hydrological calculations are required. Provide a recalculate detention sizing based on detailed hydrological calculations as per QUDM standards.

Response:

The existing topography has an average grade of 10%. In accordance with QUDM Section 4.6.6, *Overland Flow Travel Times*, and Table 4.6.4, *Recommended Maximum Length of Overland Sheet Flow*, the recommended maximum sheet flow length for steep grassland (>10% grade) is 20 m.

Based on QUDM Figure 4.4, the corresponding time of concentration for the above criteria is approximately 7.5 minutes.

Beyond this point, it is assumed that the overland sheet flow will begin to concentrate into rills and can therefore be treated as channel flow. The remaining 180 m of the catchment is treated as channel flow, as follows:

Channel Flow Travel Time

- **Length of slope = 180 m**
- **Slope = 10%**

- **Flow velocity = 2.0 m/s**

Channel travel time:

$$t_c = \frac{180\ m}{2.0\ m/s} = 90\ s = 1.5\ min$$

Total Time of Concentration

$$t_c = \text{Sheet Flow Time} + \text{Channel Flow Time}$$

$$t_c = 7.5\ min + 1.5\ min$$

$$t_c = 9.0\ min$$

Based on the above, a pre-development time of concentration of 10 minutes has been adopted.

Table 4.6.4 – Recommended maximum length of overland sheet flow

Surface condition	Assumed maximum flow length (m)
Steep (say >10%) grassland (Horton's n = 0.045)	20
Steep (say >10%) bushland (Horton's n = 0.035)	50
Medium gradient (approx. 5%) bushland or grassland	100
Flat (0–1%) bushland or grassland	200

Equation 4.5 (Friend, 1954) may be used for determination of overland sheet flow times. This equation was derived from previous work in the form of a nomograph for shallow sheet flow over a plane surface (Figure 4.4). It is noted that values for Horton's *'n'* are similar to those for Manning's *'n'* for similar surfaces.

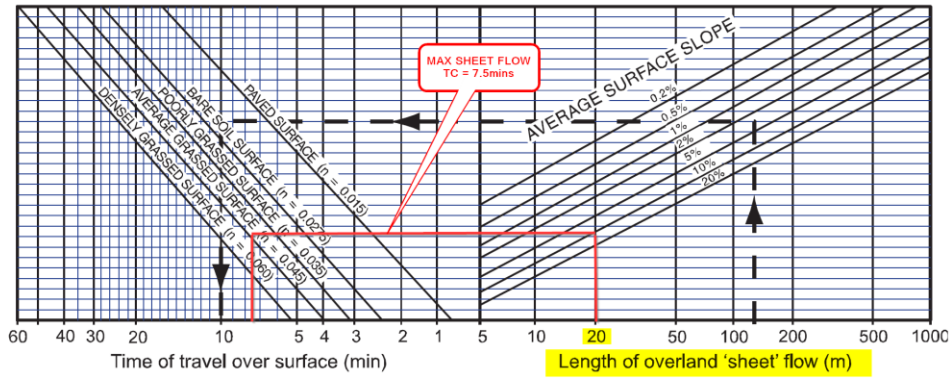


Figure 4.4 – Overland sheet flow times (shallow sheet flow only) (source: ARR, 1977)

b. Confirm that all storm events from 5 minutes to 4.5 hours has been modelled in DRAINS and confirm the critical storm duration for the highest basin stage/outflow.

Response:

The Drains Model has been updated to include all storm events from 5 minutes to 4.5 minutes.

c. The new road that conveys flows to the basin must provide a sag point (low-point) at the basin location in order to ensure all flows can be captured by the basin.

Response:

Please refer to updated SK01 with updated road grading to introduce a sag in front of the proposed basin.

d. The proposed basin embankment width of 1 metre does not meet Councils Infrastructure Design Planning Scheme Policy requirements and is required to be a minimum width of 2.5 metres.

Response:

Please refer to updated SK05 basin plan which updates the basin embankment to 2.5m wide in accordance with council requirements.

e. Basin spillway must be in a location where the embankment meets existing levels (eg lowest level difference) to minimise the likelihood of embankment scour, failure and excessive maintenance.

Response:

Please refer to updated SK05 basin plan which updates the basin spillway to the natural interface with the bikeway

f. Provide earthwork plans, including a long section and cross sections at critical points, for the channel to creek given it will involve significant cut below the existing levels along the boundary of that site to demonstrate no flows will spill and adversely impact neighbouring properties.

Response:

Please refer to updated SK03 plan with additional sections through the basin to reflect the interface immediately adjacent the basin.

9. Proposed Lots 7–19 are not graded towards proposed Road 1, which may obstruct the free movement of surface flows during a major storm event, including where domestic fencing or structures are later installed. Lots 7–19 must be graded towards proposed Road 1 to ensure 1% AEP flows can be conveyed to the proposed bio-basin.

Response:

Please refer to SK01 which includes the proposed pipe sizes and expected flow width of the channel up to and inclusive of the 1% AEP flood event. The proposed solution confirms sufficient capacity for the major design storm and that the flows are encapsulated within the proposed 1.5m wide easement.

Earthworks

10. Earthworks are required within Council's road reserve as part of the proposed intersection works to achieve a standard road pavement width. The Concept Earthworks Plan, SK02, Issue E, identifies the general cut area but provides limited detail on the proposed final levels and grades. Provide additional information to demonstrate how the proposed works comply with the Infrastructure design code, Infrastructure design planning scheme policy and Earthworks code.

a. Provide a Detail and Cross-sections of the proposed earthworks within the verge and clearly indicate the proposed grades, retaining structure and if any existing street trees are affected.

b. If any Earth-retaining structure are proposed, they are required to meet the requirements outlined in Section 8.5 of the infrastructure Design Planning Scheme Policy.

Response:

Please refer to updated earthworks plans that include detail of the proposed verge interfaces and the affected vegetation is considered as part of the ecology assessment.

We trust that the above response provides adequate information for Brisbane City Council to approve the above-mentioned development application.

Please find attached copies of the following documents enclosed for your assessment:

- 1 x A3 PDF copy of C26062 – Upper Kedron Road (171-173) – Concept Plans – Rev C

- 1 x C26062 – Upper Kedron Road Site-Based Stormwater Management Plan Rev B

If you have any concerns regarding this correspondence, please do not hesitate to contact the undersigned.

Regards
Rodgers Consulting Services



Adrian Rodgers
Principal Civil Engineer

RCS
CONSULTANTS
YOU CAN TRUST