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22 September 2021

Altis Property Partners
c/- Project Strategy
Attention: Mr Anthony Murr
PO Box 271
SUTHERLAND NSW 1499

Dear Sir

Re: 884-928 Mamre Road, Kemps Creek (SSD-17647189)
Response to DPIE Test of Adequacy

Further to your request we are pleased to provide our response to the Soil and Water items raised by DPIE as part of their test of adequacy assessment pertaining to the submission of the EIS for the above development.

We provide this letter and updated engineering report, **Co14021.00-07b.rpt (Revision D)**, and specific confirmation of response to the requested items as follows.

No.	***Item and Response***
Soil and Water	
1	*The EIS refers to stormwater drainage network (interim and ultimate) which drains into the northern and southern networks on the Mirvac and Fraser's sites respectively. Details of the system is noted as requiring further design coordination. Please provide details of this arrangement, evidence of consultation with Mirvac and Frasers including the timing and responsibilities for delivering this infrastructure. Please describe any easements which are required and shown these on a detailed plan.* <u>Response</u> Consultation with the adjoining landowners has been completed throughout the EIS assessment phase. The ultimate drainage networks is noted to follow the proposed road network and trunk drainage systems therein. Consultation and coordination of the proposed drainage connections, including alignment and capacity, has been made with Frasers to the south, and Mirvac to the north. Evidence of this is demonstrated in the design drawings which include the respective designs adjoining the site and are based on shared information between the parties. The need for drainage easements is not required in the ultimate scenario.

No.	*Item and Response*
	During the interim phase (if Altis construct works prior to any construction to the north by Mirvac or the south by Frasers Property), the DRAFT DCP requires developers to maintain existing flow and trunk drainage paths upstream and downstream of the development and collect and convey these flows through the development extent. These conditions have been completed in the design, where flows are conveyed through the development site and demonstrated no upstream, downstream or adjoining properties are affected. We also note that if the Mirvac development (i.e. per their SSD-10448) is constructed prior to Altis (the most likely scenario), however prior to the connecting road being constructed, the ability to discharge through their site is enabled by the provision of a dedicated open channel which connects the eastern flow path to the E2 corridor north of the development. This has been discussed and agreed between the parties and consistent with the requirements of the DRAFT Mamre Road Precinct DCP. Refer **Section 1.2**, SEAR's responses in **Section 1.3** and drawings in **Appendix B**.
2	*The EIS is to be amended to demonstrate that consideration has been made to the immediately adjoining residential property to the south of the site (930-966 Mamre Road) in terms of retaining walls and site level differences. Technical reports are to be amended as needed.* <u>Response</u> Consultation with the adjoining landowners was undertaken by SLR Consulting as part of the community consultation process, directed by Altis. The adjoining owner to the south did not make any comments or engage further with Altis. Level differences between the proposed access road and adjacent site have been minimised as much as practical between providing a road design compliant with Austroads, Penrith Council and TfNSW design requirements and the existing undulating topography. The level difference between the proposed development and adjoining site is generally below 0.5m with a maximum of 1.2m locally in one area. Refer **Section 1.2**, SEAR's responses in **Section 1.3** and drawings in **Appendix B**.
3	*The EIS and technical reports are to be amended to implement soil management measures (Soil and Water Management Plan and erosion and sediment control plan) during all phases of work not just construction* <u>Response</u> The EIS includes soil and water management for all phases of the development. These include initial estate construction, the period between estate development and individual lot development and operational phases of the estate. Refer to **Sections 5, 6 & 7** pertaining to operational phase assessments and **Section 9** and **Appendix C** for construction phases.

No.	*Item and Response*
4	*The stormwater targets and technical information previously provided by EES (including that exhibited as part of the draft Mamre Road Precinct Development Control Plan) have been updated and revised. This information is contained in the attached MUSIC modelling toolkit and includes new stormwater quality and flow targets, a flow duration curve spreadsheet and a MUSIC model file.* *For projects recently issued SEARs, these targets may already be reflected in the advice provided by EES. A FAQ document is also included in the toolkit package.* <u>Response</u> The EIS and our engineering report **Co14021.00-07b.rpt** includes a comprehensive assessment relating to stormwater quality and quantity targets, including revised EES targets (per their letter reference *DOC20/316515* dated 3 May 2021 and MUSIC Modelling Toolkit dated 2 August 2021). Reference to the SEAR's response section (refer **Section 1.3**), **Section 5.1, Section 6** and **Section 7** should be made. Specific discussion on stream health and stormwater discharge is included in **Section 7.5**. Technical output of the EES MUSIC Modelling Toolkit assessments are also included in **Appendix F1** and **F2.** The stormwater management solution considers discharge from the development site consistent with best practice, and the DRAFT Mamre Road Precinct DCP. Confirmation that the waterway discharge targets, based on *Alternate 2* (Flow Discharge Curve (FCC) in combination with Mean Annual Runoff Volume (MARV)) target included in the EES MUSIC Toolkit (2 August 2021) can be met for the estate/ Building 2 development (based on construction of Building 2, the roadways and earthworks over the remainder of the estate) and precinct. It is also noted that the MARV for the precinct would be met for approximately five years when considering the anticipated development rate of 50 Ha/ Annum, which would allow for further development within the estate without additional measures. This is consistent with submission by the Mamre Landowners Group (LOG) and their submission by AT&L ("*LTR003-03-20-747 Final DCP Comments.docx*" dated 17 August 2021). We further note that the requirements of *Alternate 2* of the EES MUSIC Toolkit have been demonstrated for a precinct wetland solution which allows for full development of the estate and precinct. This precinct solution could be delivered within 5yrs by Sydney Water the Waterway Manager of South Creek. We understand the desire by Sydney Water to implement and deliver this system to achieve the ultimate solution for the precinct. Refer report section **Section 7.5** for details. We note that further review of the newly provided MUSIC Toolkit may need to be undertaken by Costin Roe Consulting and the applicant for ongoing consultation with DPIE/EES and Sydney Water, noting however that an interim and final solution for the FDC/MARV waterway discharge arrangement has been able to be demonstrated.

No.	*Item and Response*
5	*It is noted the Architectural plans detail proposed finished floor levels for the development. However, Section 6.7.1 of the EIS states: The final levels over the Site will be subject to detailed earthworks modelling and volume assessments with the objective of achieving a cut to fill balance across the Site. The EIS is to be amended to confirm the final levels of earthworks.* Response The anticipated earthworks levels have been shown on drawing **Co14021.00-SSDA300**. Quoted levels are based on achieving cut to fill and benched site suitable for industrial development. The levels proposed consider allowances for building spoil, retaining wall backfill, service trenching, bulking/ fluffing of cut material and introduction of external grading, and erosion and sediment control measures. Additional considerations to the above is the earthworks levels consider draining the site by gravity, access, existing topography, walls and batters, and landscape areas. A variance on the quoted levels is noted to allow for minor variations in the quoted levels, at detail and post approval phase, which may result from introduction of the allowances noted above which are not fully known at EIS stage. The variances noted are consistent with other developments in the area and approvals in the precinct.

We trust the information contained in this letter meets your current requirements. Please contact the undersigned if clarification of any of the above items are required.

Yours faithfully,
COSTIN ROE CONSULTING PTY LTD

MARK WILSON MIEAust CPEng NER
Director