

22-044.1

02 June 2023

Mr Jaco Lourens
RAC
8320 Wellington St
WEST PERTH WA 6005

Dear Jaco

Ningaloo Reef Resort Redevelopment – Civil DA Design Certification

We confirm that we have carried out the civil design for the above project for the roads and car parks in accordance with the requirements of Austroads and relevant Australian Standards.

The stormwater drainage design for the civil development has been undertaken in accordance with advice received 24 June 2022 from the Shire of Carnarvon, noting that the first 15mm rainfall event is to be detained and post-development flows do not exceed the pre-development flows.

Stormwater runoff in excess of the 15mm rainfall event has been provided with an overland flow path to the Robinson St road reserve.

The overall impervious catchment area in the post-development scenario is approximately 18,450 m², which will require storage of approximately 312.0 m³ of stormwater runoff. Stormwater runoff will be detained via localised swales or basins throughout the development site that will be integrated into the landscaping design.

We confirm a Geotechnical Consultant has undertaken a site investigation and the stormwater has been designed in accordance with the recommendations made by the Geotechnical Consultant.

The civil concept drawing set 22044-C8-DG-01-A adequately conveys the intent of the civil design and includes the following:

- Civil Stormwater Drainage Plan
- Civil Site Plan
- Typical Roadworks Details
- Typical Drainage Details 1
- Typical Drainage Details 2

Please contact our office should you require further information.

Yours sincerely



JUSTIN TAN
Project Engineer - Civil
Perth