

Technical Memo

FJA Consulting Engineers Pty Ltd

To: Northern Beaches Council

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Project: 18011

Project Address: 46 Victoria Parade, Manly

Date: 5/06/18

Re: DA Consent (case No: 10823 of 2011) - Condition 19

Introduction

The site is known as 46 Victoria Parade, Manly and legally described as SP 10041, located on the intersection of Victoria Parade and Dungowan Lane.

The site is surrounded by high density units on the Western and Southern sides and is road fronting North and East. The natural topography of the site is quite flat as it is located approximately 200m from Manly Beach.

The site is proposed as a four-level unit development with a basement for parking. The proposed access is off Dungowan Lane.

Condition 19

The basement car parking level is to be adequately protected from flooding.

Response

Due to detailed design of the driveway access, survey information and engineering site inspections, there is clear evidence that the basement carpark of 46 Victoria Parade will not be subject to flooding.

1. The driveway access has been designed in accordance with Councils and AS2890 requirements. The proposed driveway profile is consistent with Northern Beaches Council, Plan No. A4 3330/5 EL – *Extra Low Standard Vehicle Crossing Profile*. Designing in accordance with this profile provides a 150mm freeboard from existing Dungowan Lane edge. Water will have no direct route to the building basement as it will be directed to the other side Dungowan Lane as per the existing conditions.
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2. The survey information received denotes that the proposed access location along Dungowan Lane is at the highest point, meaning most flows will be diverted away from this access location. From the access location Dungowan Lane falls at minimum 1% grade towards Victoria Parade and Ashburner Street. Refer Figure 2 for site location and Dungowan Lane catchment split.
3. To justify the survey levels and confirm the flow direction, engineering site inspections were undertaken to further provide evidence of the Dungowan Lane grading. These inspections confirmed the accuracy of the survey information and that the access location was in fact at the crest point of Dungowan Lane.

Conclusion

FJA Consulting Engineers have found that the basement carpark of 46 Victoria Parade will not be affected by flooding based on the access design as per Council and AS2890 standards, Survey Information and Engineering Site Inspections that have all been completed as part of our analysis.

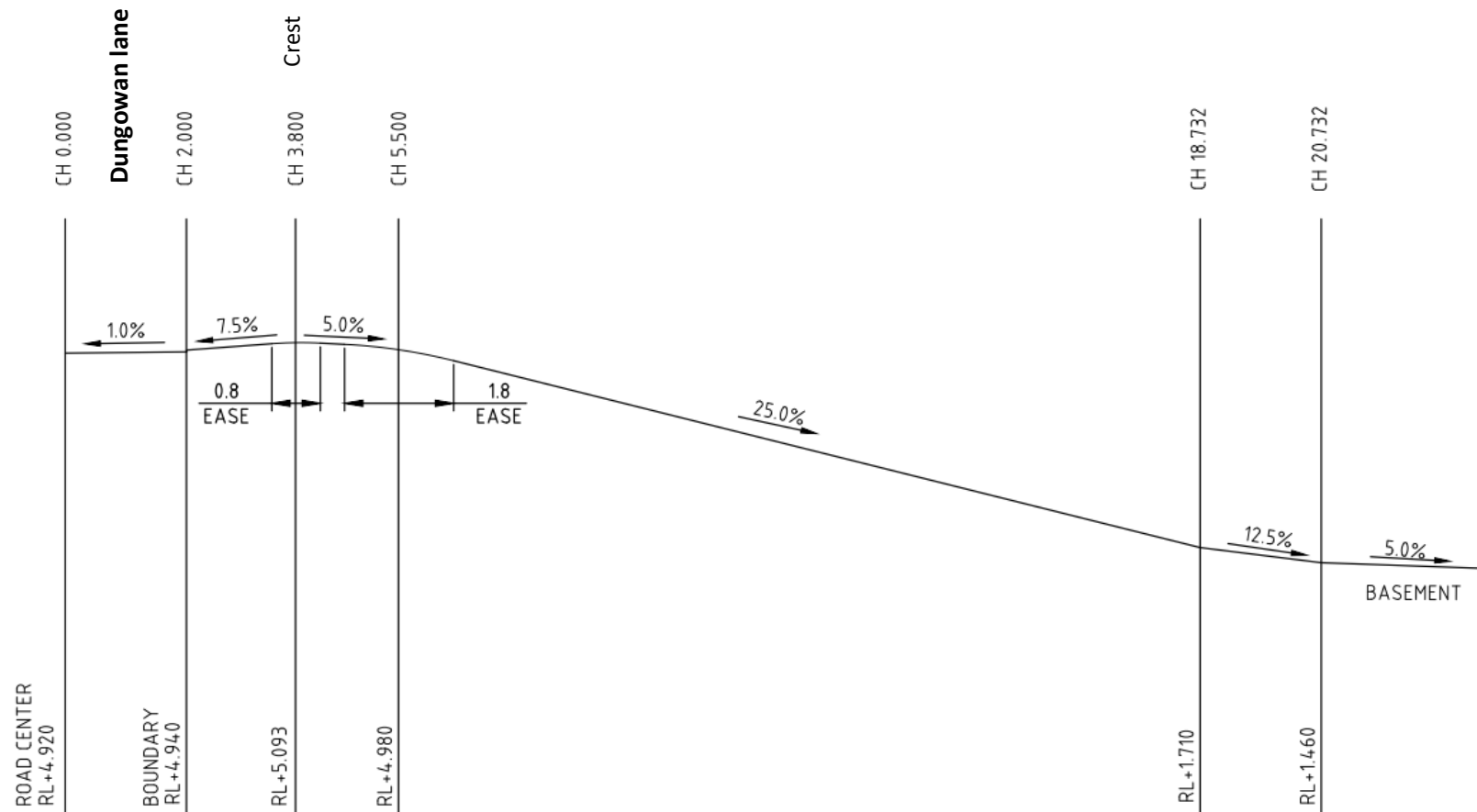


Figure 1 – Access Driveway Longsection

Figure 2 – Dungowan Lane Catchment