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10 November 2021

Mr Paul Barrett
AZNGA
Level 10, 88 Phillip Street
Sydney NSW 2000

Dear Paul,

135 Seaforth Crescent, Seaforth NSW 2092

I refer to your request for a traffic engineering assessment of the existing driveway at the above property. The results of my assessment are as follows.

I have reviewed the survey plan and the driveway/ramp section provided. I have measured gradients along the driveway section and carried out a test for ground clearance adequacy, using Autotrack vehicle swept path modelling software, for a standard design vehicle (as per AS/NZS 2890.1:2004 requirements). The results are shown in the attached drawing (Drawing 21113/01). Whilst the maximum gradients greater than 25% could be numerically acceptable for a domestic property (that is servicing up to three residential dwellings), changes of gradients at the top of the driveway are unacceptable. As demonstrated in the attached drawing, the non-complying changes of gradients result in substantial vehicle bottoming.

I conclude that the ramp design is not in accordance with normal engineering practice and does not meet the requirements of **AS/NZS 2890.1:2004: Parking Facilities - Off-street car parking**. It is not suitable for use in its current condition.

Correction of the above deficiency would require either raising the garage level or extending the driveway/ramp, or both.

I am an appropriately qualified and competent person in this area. My qualifications and professional affiliations are listed below.

- MEngSc (Traffic Engineering)
- Member of the Institution of Engineers Australia (MIEAust, PEng)
- Fellow of the Australian Institute of Traffic Planning and Management (FAITPM)
- Past President of AITPM (NSW & ACT Branch)
- Member, CE-001 Working Group for development of AS/NZS 2890 series (parking), Standards Australia

Please feel free to contact the undersigned if you have questions.

Yours faithfully,

Oleg I. Sannikov

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TRAFFIC ACCIDENT
INVESTIGATION

TRAFFIC ACCIDENT
RECONSTRUCTION

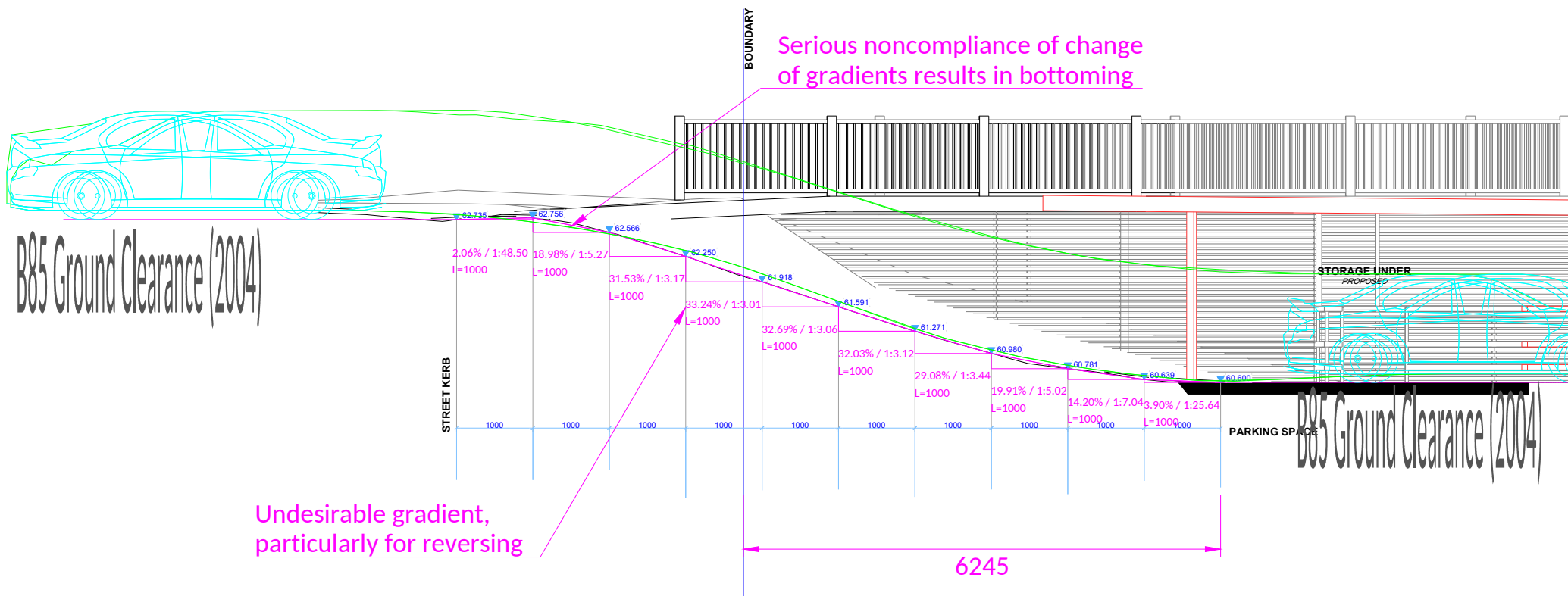
RESEARCH AND
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EXPERT WITNESSES

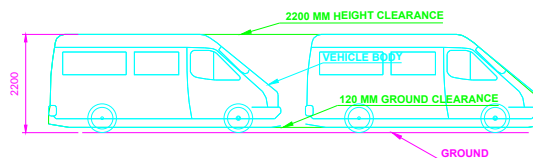
Director:
Principal consultant:
Principal consultant:

Oleg I. Sannikov MEngSc MIEAust PEng FAITPM
Ludmilla Hawley MURP PGradCompSc BA FAITPM
Stephen E. Samuels DEng PhD MEngSci BE FIEAust CPEng MAAS MASA

A Division of Sannikov & Samuels
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LEGEND:

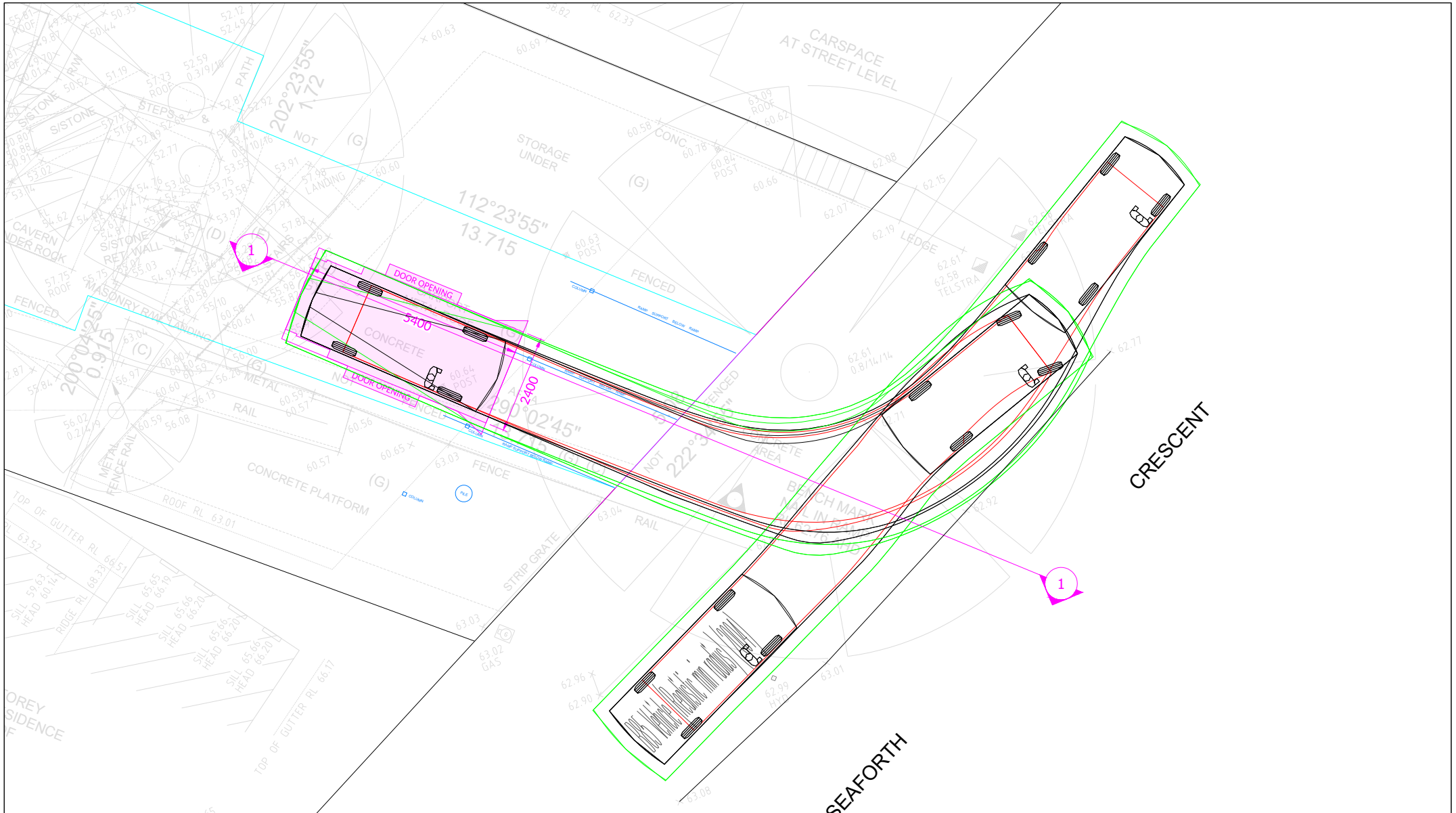


Dwg No 21113/01 Rev. A 22/10/2021
Client: AZNGA

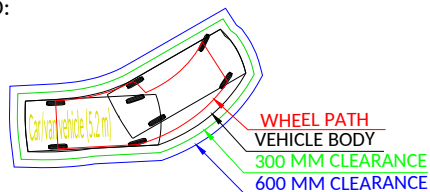
135 Seaforth Crescent, Seaforth NSW 2095

Proposed car park layout
Design checks as per AS/NZS 2890 series
Driveway section 1-1

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LEGEND:



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135 Seaforth Crescent, Seaforth NSW 2095

Proposed car park layout
Design checks as per AS/NZS 2890 series
Driveway section

SCALE 1:125@A4