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Warriewood Vale Pty Ltd
C/- Plateau Nominees Pty Ltd
3A Macquarie Rd
Morisset Park, NSW

Attention: Mr John Sherwood

Cardno (NSW/ACT) Pty Ltd
trading as
Cardno

ABN 95 001 145 035

34/205-207 Albany Street
North Gosford
NSW 2250
Australia

Phone: +61 2 4949 4300

geotech@cardno.com.au

www.cardno.com.au

Statement of Effects Letter

Proposed Residential Development

8 Forest Rd, Warriewood

It is understood that additional geotechnical comment is required to address the Pittwater Council requirement for a Section 96 due to an increase in unit density. The following statement of effects letter report summarises the amended design and outlines the geotechnical implications of the proposed amendments for the development at 8 Forest Road, Warriewood.

The following has been provided by the client for review:

- > Preliminary architectural drawings prepared by Drew Dickson Architects (Issue P3, dated 11/09/2015) which were supplied for the previous geotechnical investigation by Cardno.
- > Court Approved plans prepared by Drew Dickson Architects (Issue 05, dated 27/02/2017); and
- > Architectural drawings prepared by Drew Dickson Architects (Issue 04, dated 15/12/2017)

Based on the preliminary architectural plans prepared by Drew Dickson Architects (Issue 05, dated 11/09/2015), it is understood that the proposed development originally comprised:

- > Construction of 58 residential apartments within two separate buildings in the centre of the site comprising three to four storey structures which are connected with one level of underground basement.
- > Construction of 26 town houses within the eastern and southern portion of the site. The townhouses to the south are also expected to comprise one level of underground basement.
- > Construction of internal roads along the northern and eastern portions of the site and associated infrastructure.

At the time of the previous Preliminary Contamination and Geotechnical Assessment report prepared by Cardno (CGS2698-005.0 dated 12/10/2015) [1], finished floor levels of the basements were not known.

Following the geotechnical investigation and report, an amended set of court approved drawings was prepared by Drew Dickson Architects (Issue 05, dated 27/02/2017) which comprised the following:

- > Fourteen 3-storey townhouses in the eastern portion of the site along with four 3-storey buildings (A-D) containing a total of 66 apartments within the central portion of the site. These structures are to be connected by one underground basement level with finished floor levels of between 19.4-23.65m AHD.
- > Two internal access roads along the eastern and central portions of the site.

Based on the amended architectural plans prepared by Drew Dickson Architects (Issue 04, dated 15/12/2017), it is understood that the proposed development at 8 Forest Road, Warriewood is to now comprise the following:

- > Fourteen 3-storey townhouses in the eastern portion of the site along with four 3-storey buildings (A-D) containing a total of 72 apartments within the central portion of the site. These structures are to be connected by one underground basement level with finished floor levels of between 19.12-23.225m AHD.
- > Two internal access roads along the eastern and central portions of the site.

Following a review of the provided previous and current architectural drawings, the layout of the proposed development is understood to have altered significantly including the realignment of the internal road network, the placement of the proposed residential structures, and the increased size of the basement carpark.

Reference to the previous Preliminary Contamination and Geotechnical Assessment report indicates the subsurface profile to be generally colluvium overlying residual soils, with shallow bedrock present in the southern portion of the site.

Following the review of the provided AP, and the findings of the previous geotechnical investigation undertaken, the following conclusions can be made.

- > Given the generally consistent subsurface profile, the new locations of the proposed residential structures are expected to have no effect on the design and recommendations outlined in previous Cardno report [1].
- > The realignment of the internal roads may require some additional design and recommendations given sections of the pavement overly the underground basement.
- > Basement elevations were not known at the time of Cardno's previous report, however it is expected that the proposed amended design is expected to comprise similar excavations depths. However, the extent of the area of the basement has increased significantly. The increased basement size is unlikely to be an issue, due to the consistent subsurface profile mentioned earlier. However, additional inspection by a qualified geotechnical engineer may be required during construction due to the significantly larger excavation.

It should be noted that this letter report does not include comments about the Preliminary Contamination Assessment (PCA) portion of the previous Cardno report [1].

Limitations

Cardno have performed consulting services for this project in general accordance with current professional and industry standards.

No additional intrusive testing had been undertaken as part of this letter and subsurface profile presented in this report is an interpretation based on the Cardno's previous intrusive testing located within or outside the subject lot boundaries. Variations in ground conditions can occur within the site that cannot be inferred or predicted. A geotechnical consultant should provide inspections during construction to confirm assumed conditions in this assessment.

Cardno, or any other reputable consultant, cannot provide unqualified warranties nor does it assume any liability for the site conditions not observed. Site conditions may also change subsequent to the investigations and assessment due to ongoing use.

This letter and associated documentation was prepared for the specific purpose as described and should not be relied on for other purposes. The information is provided solely for the use by Warriewood Vale Pty Ltd and any reliance assumed by other parties on the information shall be at such parties own risk.

Yours faithfully,



George Ashworth
Graduate Geotechnical Engineer



Ian Piper
Principal Technical Officer

For Cardno (NSW/ACT) Pty Ltd

References

[1] Cardno, "Preliminary Contamination and Geotechnical Assessment," 2015.