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LandTech Project Ref: LTA21084

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**RE: GEOTECHNICAL DRAWING REVIEW LETTER  
FOR PROPOSED RESIDENTIAL DEVELOPMENT  
200 CARRINGTON ROAD, MOUNT ALBERT, AUCKLAND**

## Introduction

LandTech Consulting Ltd (LandTech) have been requested to review the design drawings for the proposed residential development at 200 Carrington Road, Mount Albert, Auckland (the site). LandTech have previously investigated the site and the associated geotechnical report, titled:

- *Geotechnical Investigation Report for Proposed Residential Development, 200 Carrington Road, Auckland*, LandTech Project Reference: LTA21084, Revision A, dated 25 March 2021.

We have been provided both Architectural Drawings<sup>1</sup> (by Williams Corporation), Structural Drawings<sup>2</sup> (by General Structures) and Civil Drawings<sup>3</sup> (by Chester). The purpose of our review is to confirm the design drawings are in accordance with the recommendations of our geotechnical report, and suitable for construction at the site given the anticipated subsurface conditions.

## Drawing Review

The architectural drawings shown that five blocks of three-storey residential units will be developed. A total of thirty-four residential units with associated landscaping, access and parking will be developed across the site. The plan indicates that the units will comprise colour steel roofing, and aluminium vertical boards and allcote brick cladding, supporting on a concrete Waffle slab foundations with a Finished Floor Level (FFL) of 52.5m RL.

The structural plans indicate that 400mm thick waffle slabs will sit on top of compact hardfill ranging between 300mm to 600mm thick. The waffle slabs incorporating bridging piles where required will comprise internal and external footings with ranging widths between 300 to 500mm and intermediate ribs 100mm wide.

600mm Bridging piles have been incorporated to the foundations of unit T (Lot 20), x (Lot24) & Y (Lot 25). The bridging piles for Unit X extend down to 1.5m below the underside of the waffle slab, while for Units T and Y the piles extending 3.0 metres below the underside of the waffle slabs.

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<sup>1</sup> Williams Corporation Ltd Building Consent Architectural Drawing Set for 198,198A,200 & 202 Carrington Rd, Mt Albert, dated June 2021.

<sup>2</sup> General Structures Ltd Building Consent Structural Drawing Set for 200 Carrington Rd, Mt Albert (Job No. 1114), dated 17 June 2021.

<sup>3</sup> Chester Ltd Building Consent Civil Drawing Set for 200 & 202 Carrington Rd, Mt Albert (Job No. 14615), dated 17 May 2021.

It should be noted that the structural drawings also show that the intertenancy walls that extend beyond the building platform are supported on 900mm thick gravel.

The Civil Plans indicate that:

- The Majority of the earthworks will comprise of cutting the ridge running through the middle of the site and placing localised filling within the outer edges of the cut ground to create level building platforms. The earthworks plan estimates up to 1634m<sup>3</sup> of cut with associated cut heights up to 1.5m and 33m<sup>3</sup> of fill with associated heights up to 0.5m.
- The proposed earthworks will be supported by specifically designed retaining walls, details of the retaining walls have been provided in the structural plans.
- Stormwater and wastewater for each unit will be collected via 150mm diameter uPVC pipes which connect into the public reticulation system. Services bridging details for pipes situated within the foundation influence zone have been provided by the structural engineer.



It is recommended that inspection of all subgrade for the new buildings and paving is carried out by a Geo-professional prior to fill placement. All fill placed onsite should be well compacted to achieve a 95% maximum dry density. All unsuitable materials are to be removed from below areas of new fill, foundations, and paving.

We are satisfied that the reviewed drawings are suitable for support of the proposed new residential units at the site, given the geotechnical conditions. It is our professional opinion that the as designed foundations will meet or exceed New Zealand Building Code performance criteria from a geotechnical perspective (i.e. no undue differential settlements under SLS loading combinations, and sufficient margin of safety against bearing capacity failure at ULS). This is on the condition of the required geotechnical inspections taking place, and any instructions given to the contractor during construction being followed.

All associated construction drawings and Building Consent documentation are to be provided to LandTech prior to inspections to confirm the Engineers recommendations have been adhered. Construction observations/inspections will not be carried out prior to the issue of Council Consents (i.e. unconsented works will not be inspected). Furthermore, without sufficient observations during the foundation construction phases, LandTech will not be in a position to provide Geotechnical Certification (i.e. PS4 Documentation).

Following our review of the provided drawings we consider the proposed development suitable for construction from a geotechnical perspective. If you have any queries regarding this letter please contact the undersigned at your convenience.

Yours faithfully,  
LandTech Consulting Limited

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