



MEMO

To:	Processing Planner	Department:	Environmental Management
From:	Ross Green for Haigh Workman	Department:	Environmental Management
Date:	10/08/20		
Subject:	ENGINEERING CONDITIONS & COMMENTS RC2200253 -222 Newton Road, Omapere		

Site Visit Observation / Notes

The proposal is to subdivide land at 222 Newton Road, Omapere to create a total of five lifestyle lots (four additional).

Site Suitability

The property is primarily in bush with clearings on all proposed lots. An existing dwelling is on proposed Lot 2. A long metal access driveway meanders approximately 500m through the property leading to the dwelling.

The property contour is rolling with a general fall from the north to the south. As there was the possibility of large scale instability on the property, a geotechnical report was requested and received. The geotechnical investigation and slope stability analysis focused on the existing farm race access road through the location of a historic slip. The slip is understood to have occurred approximately 15 to 20 years ago. The historic slip was focused on as it was identified in the geotechnical report as the only area of instability on the property as ascertained from reading historic photos.

The report recommends the access road be realigned to the north of the alignment originally proposed and cut into the batter slope approximately 3m above the current elevation to divert surface runoff away from the headscarp. Culverts and table drains would be utilised to divert surface water into the natural watercourses either side of the headscarp. The new access alignment is to be cut entirely into the existing natural slope with no filling. The report makes a number of other recommendations with respect to the access through the slip area and these will be carried forward to the conditions.

The report concludes that, as long as its recommendations are followed the access is expected to be stable and suitable as a right of way. The access road will have a sufficient setback from the existing headscarp that hard engineering structures will not be required to stabilise the slip.

The northern and southern parts of the property are identified as being erosion prone on the NRC Hazard Maps but these areas are away from where building sites would logically be developed on the lots.

The property is not identified on the NRC's Flood Hazard Maps as containing any areas subject to flooding.

Proposed Lot 2 has an existing house and sheds while proposed Lot 1 has an existing shed with a caravan attached. The vacant lots, Lots 3,4 and 5 are all large in size with several potential building areas, although building sites on the lots have now been identified. Given the nature of the soils in the area, with evidence of the upper layers sliding over harder lower layers, particularly where stormwater discharge is not properly controlled, it is considered prudent to apply the consent notice condition that requires a geotechnical engineer to be involved at the time of building on Lots 3, 4 and 5.

Access

Newton Road is formed to a metal standard, is winding and the carriageway is fairly narrow. In order to mitigate the adverse effects of the additional traffic generated it is proposed to require the applicant to form a turning circle at the end of the road.

Access to the existing house on Lot 2 is gained off the end of Newton Road, with the house being situated approximately 500m away. All of the vacant lots will gain access off Newton Road at this same point. There is an existing right of way easement shown as A,B,C, D on the scheme plan over what will be Lot 5. This is in very poor condition and will need to be upgraded and passing bays constructed. An existing farm race through the property will be upgraded and extended to form right of way access for proposed Lots 3 and 4. The shifting of the alignment of the access in accordance with the requirements of the geotechnical report discussed under 'Site Suitability' will need to be carried out.

Water Supply

The existing house on proposed Lot 2 has its own water supply. Any future dwellings on the vacant lots, Lots 1,3,4 and 5, can utilise roof water catchment for supply. The standard Consent Notice condition in regard to providing sufficient water storage for both potable and fire fighting purposes when residential dwellings are constructed is recommended.

Stormwater Disposal

Proposed Lot 2 is in excess of 3ha in area, with the site having existing impermeable surfaces in regards to the buildings and metal driveway. The creation of any buildings on the currently vacant lots, Lots 1,3,4 and 5 will result in a minor increase in run-off, primarily associated with

the impermeable roof areas plus any other impermeable surfaces. This runoff will not cause issues provided it is not discharged in a concentrated form. The discharge from any new buildings can be dealt with under a building consent but a consent notice condition is proposed ensuring the discharge from impermeable areas does not create scouring.

Sanitary Sewage Disposal

The existing house on proposed Lot 2 has its own on-site effluent disposal system. Given the distance of the house from the proposed boundaries, it is not considered necessary to require this system to be located. Proposed Lots 1,3,4 and 5 are large enough in size that they will be capable of containing on-site effluent disposal within their boundaries. The design of any system can be left to the building consent stage given there is plenty of land available for treatment systems.

Earthworks

Earthworks will be required for upgrading the existing right of way, forming access and entrances into Lots 1,3,4 and 5. The existing driveway and farm race will need to be upgraded. This will involve less than 5000m³ of earthworks, and appropriate sediment and erosion control measures will be put in place during the works.

Proposed Engineering Conditions

The consent holder shall submit plans & details of all works on the right of way upgrading for the approval of Council prior to commencing construction. Such works shall be designed in accordance with the Council's current Engineering Standards and NZS4404:2004.

In particular the plans and details shall show:

The upgrading of the existing track within the proposed right of way serving Lots 1,2,4 to Council Standards. The plans to show the diversion of the access to the north of the slip in accordance with the recommendations of the report from LDE Slope Stability Analysis Of Access Road, Project Reference: 17850 and dated 17 July 2020. The plans shall also show the sediment control measures intended to be installed and maintained during the earthworks.

The Consent Holder shall ensure that the following works are constructed in accordance with the Councils Engineering Standards and Guidelines 2004 and to the approved plans, to the approval of the Council's Development Engineering Officer :-

Construct a turning circle, to Council Standards, to a metal standard at the end of Newton Road to mitigate the effects of the additional traffic generated on the road by way of the subdivision.

Provide a formed double width entrance, to a metal standard, to the right of way which complies with the Councils Engineering Standard FNDC/S/6, 6B/C/D, and section 3.3.7.1 of the Engineering standards and NZS4404:2004.

Provide formed and metalled access on ROW easement A,B,C,D,G,R,S,T,K,U,V,W,O,X and Y to a 3m finished metalled carriageway width with passing bays provided to comply with Rule 15.1.6.1.2 of the Far North District Plan. The formation is to consist of a minimum of 200mm of compacted hard fill plus a GAP 30 or GAP 40 running course and is to include water table drains and culverts as required to direct and control stormwater runoff. Concentrated stormwater runoff is to be discharged in such a manner that there is no erosion.

Prior to earthworks commencing, install erosion and sediment control measures in accordance with Auckland Council Guidance Document 2016/005: Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region [GD05]. The measures shall be maintained and cleaned out as necessary until non erodible cover has been established.

Conditions to be recorded by way of a consent notice on Lots 1, 3, 4 and 5.

All buildings constructed on the lot will require foundations specifically designed by a Chartered Professional Engineer in accordance with design parameters specified by a suitably qualified geotechnical engineer. The foundation design details shall be submitted in conjunction with the Building Consent application.

Provide, at the time of lodging a building consent application for the lot, a specific design for stormwater management, prepared by a suitably qualified Chartered Professional Engineer, which addresses stormwater management measures to prevent erosion caused by stormwater discharge from impermeable areas.

In conjunction with the construction of any dwelling on the lot, and in addition to a potable water supply, a water collection system with sufficient supply for fire fighting purposes is to be provided by way of tank or other approved means and is to be positioned so that it is safely accessible for this purpose. These provisions will be in accordance with the New Zealand Fire Fighting Water Supply Code of Practice SNZ PAS 4509.

On Lots 3,4 and 5

Areas within lots 3,4 and 5 are categorised on the LUC as having a potential for severe erosion. These areas are shown on a copy of the subdivision scheme plan for RC2200253. Prior to undertaking any significant earthworks or clearance of vegetation on the land, the owner should assess the need for a land use consent from the Northland Regional Council and/or an earthworks permit under that FNDC General Bylaws and/or an earthworks resource consent from the Far North District Council.

