

23 March 2009

DTZ New Zealand  
PO Box 1545  
Wellington

Attention: [ s 9(2)(a) ]

Dear Mr [ s 9(2)(a) ],

**LAND INSTABILITY & STORMWATER MANAGEMENT – 58 Akoranga  
Drive, Northcote, Auckland**

Council is of the understanding that DTZ is the real estate service provider who administers crown land (including 58 Akoranga Drive, Northcote) on behalf of LINZ. This site is currently occupied by the Awataha Marae and associated educational facilities.

As we discussed during our telephone conversation on 10 March 2009 (and in an email sent later that day), there are a couple of issues pertaining to the site at 58 Akoranga Drive, Northcote that need addressing. These are land instability and a defective stormwater pipe.

Land Instability

For some time now council has been experiencing land instability issues around a public wastewater pump station, located adjacent to 27 Kitewao St, to the northwest of your site. In recent times this land deformation appears to have worsened and has compromised the integrity of the pump station and pipe network, putting the local wastewater network and surrounding environment at risk.

Last year council had a consultant undertake a geotechnical investigation that determined there was a band of unstable ground extending from the area of the pump station in a southerly direction into the 58 Akoranga Drive property. Many factors potentially contributing to the instability were identified, including; soft local soils, unconsolidated fill, excavation of the toe of the slope for the emplacement of the NZTA stormwater quality pond, lack of vegetation, lack of adequate drainage and stormwater ingress from the private drainage pipes.

In August last year council staff met on site with representatives from the Marae and NZTA (formally Transit) to discuss risk to property assets. We observed that land movement had occurred at 58 Akoranga Drive. This was particularly evident beneath the health centre car-park and on the lawn outside the meeting house, which had subsided some 0.5-2m. Representatives from NZTA were concerned about the risk to their stormwater quality pond and the motorway. I apologise for not including DTZ in these conversations as there was confusion as to who was the land owner at this time.



As discussed, council would like to undertake a more detailed geotechnical investigation in order for us to design a stabilisation structure for the pump station, to understand the extent of the instability (thus the risk to council assets) and to better establish the causes of the land movement. This geotechnical investigation will involve the drilling of several boreholes and the excavation of one or two test pits. We propose to undertake monitoring of ground water and land movement as part of the programme. As discussed, any access to the site for the purposes of the geotechnical investigation will be done in liaison with the Marae staff and a nominated representative from DTZ (we'll use you as that contact in the first instance).

In your email dated 16 March 2009 you gave landowners permission to undertake this proposed geotechnical investigation on 58 Akoranga Drive, Northcote, provided that it was at council's cost and was done so in consultation with the Marae.

### Stormwater Management

As mentioned above, there appears to be several causal factors for the instability, one of which may be the input of stormwater into the area of instability. This causal factor was identified in the initial geotechnical investigation and the extent to which this could be a problem became more evident when the integrity of the wastewater and stormwater pipes were inspected by remote closed circuit TV (CCTV).

Several public pipes had experienced displacement or collapse. These public pipes have since been repaired. One privately owned pipe (draining the stormwater from the large car park beneath the health centre on 58 Akoranga Drive) was surveyed and was recorded as being damaged. This pipe appears to have been designed to collect rainwater runoff from the car park and discharge it onto the ground surface some distance down slope. A breakage in the pipe in the area of ground instability means that stormwater entering this pipe is being discharged directly into the ground. Stormwater entering the ground in this area may be contributing to the ground movement by acting as a lubricant between soil layers.

A wastewater pipe located in the same area was also displaced by the ground instability. To rectify this issue a new public wastewater pipe was installed that re-directs the pipe alignment away from the unstable area. This has alleviated concerns of wastewater contamination from the defective wastewater pipe. However, due to concerns regarding stormwater runoff from the car park exacerbating ground instability, council decided to retain the old wastewater pipe, which has effectively been operating as a stormwater drainage pipe. This is not ideal because the stormwater is entering the wastewater system, thereby reducing the capacity of the pipes to carry wastewater. This additional flow within the wastewater line may contribute to a wastewater overflow.

Council proposes to cap the redundant wastewater pipe once the DTZ-owned stormwater pipe on your property is fixed. This is a serious issue that needs attending to as a matter of urgency.

Under Section 22.6.4 of North Shore City Council Bylaw 2000, you are required to maintain your drainage system in accordance with that which was approved and in good operating condition.

This work must be done within 28 days of the date of this letter. This letter will remain on the file until you've rectified the problem. Could you please notify me in writing when this work has been completed so that I can close off this aspect of the file.

If you are experiencing difficulty in obtaining a contractor, please give me a call. Council has a list of approved drain layers we can refer you to.

As discussed above, the ground movement in the area below the car park is placing several assets at risk: The council wastewater pump station (and local environment in the event of a sewer overflow), the NZTA stormwater pond (and potentially the motorway), and the car park and Marae buildings/speaking platforms on your land. Council will undertake a second, more detailed geotechnical assessment of the area to assist with our remedial work around the wastewater pump station. This investigation will also help to determine the extent of the ground movement and the causal factors involved. A copy of the report will be made available to DTZ.

The stormwater pipe draining the car park needs to be repaired or redirected away from the area of instability. Your prompt action regarding remediation of the damaged stormwater drainage will be appreciated. Council will assist with advice on appropriate stormwater design (in reference to the issue at hand) if required.

Yours faithfully,

[ s 9(2)(a) ]

[ s 9(2)(a) ]

Environmental Planning Engineer  
NORTH SHORE CITY COUNCIL

Ph. [ s 9(2)(a) ]

E-mail [ s 9(2)(a) ] @northshorecity.govt.nz

Attached – Marked up map of area referred to in letter

cc. [ s 9(2)(a) ] – Awataha Marae



## 58 Akoranga Drive, Northcote - Screen print from Council GIS

