DOWDELL & ASSOCIATES LTD

OCCUPATIONAL HEALTH ANALYSTS & CONSULTANTS

35 O'Rorke Road, Penrose, PO Box 112-017 Auckland. Phone (09) 526-0246. Fax (09) 579-5389

23rd February 2001

Landlords Ltd
60 Huia Rd
Titirangi
Auckland

Attention : Paul Wilton

Dear Sir,

re: Bulk Fibre Analysis

Sampled by	: Client
Laboratory No.	: 6840
Order No.	: -
Location/Description	: Textured Ceiling Sample

The above sample was examined using 'Polarised Light Microscopy'and confirmed with Dispersion Staining Techniques .

The method employed was an in-house method based upon `Guidance Notes on Asbestos Identification for N.A.T.A. Purposes' - July 1988, and the `Procedure for the Detection and Identification of Asbestos and Other Fibres in Fibrous Inorganic Materials' (L.J. Monkman). The following result applies to the sample as received.

RESULT

Reg No. 34795

Asbestos **NOT** detected

Yours faithfully
DOWDELL & ASSOCIATES LTD

R.J. Nicholson
Analyst

new zealand accredited laboratory

All tests reported herein have been performed in accordance with the laboratory's scope of accreditation

I.B.Murgatroyd
Analyst

qed

This report must not be altered, or reproduced except in full.

James P. Verstoep DIP. ENG. (R'DAM) MIPENZ REG. ENG.

CONSULTING CIVIL & STRUCTURAL ENGINEERS,
INDUSTRIAL ENGINEERS.

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4130 Great North Road,
Henderson,
Auckland 1208.
P. O. Box 69215,
Glendene.

17.10.94

Mr. P. Wilton

Re: Stability for Subdivision No 137 and 139 Victory Rd, Laingholm.

We report on the stability and foundations for the proposed boundary adjustments on the above properties.

Currently, these two lots, lot 101 and 102, D.P. 19099 are long narrow lots fronting Victory Rd. Lot 101 has a driveway formed from Victory Rd. to an existing garage positioned at the top of the formed driveway.

Formation of a new driveway for lot 102 would create considerable difficulties. It is therefor proposed to form a common area for access purposes and divide the lots into a front and rear lot.

Proposed rear lot 2:

This lot commences at the top of the proposed ROW, and contains the existing garage, and a building site on the top of the ridge.

A survey plan of the proposed lots has been drawn by Cato Consultants showing a 20X20 building platform over the top ridge.

Investigation:

Visual inspection indicates that these lots have previously been developed by excavation of the top of the ridge, formation of the driveway, terraces and filling up of the garage platform.

Considerable fill exists below the garage platform leading to Victory Rd.

The proposed building platform on the top of the ridge is virtually flat over its 20x20 metre area. This flat ridge top has been formed by excavation removing the top of the ridge.

Six 50mm diameter boreholes were drilled over the site and slope to Victory Rd. to determine soil conditions, bearing pressures for foundations, and the extent of the cutting and filling which has taken place.

Borelog recordings are attached.

Boreholes 1,2,&3 were drilled on the proposed building platform, borehole 4 immediately below the building platform above the existing garage, borehole 5 on the fill platform 1.5 metres below the garage, and borehole 6 - 5 metres down the East slope.

Borehole 1 was positioned on the edge of the slope falling away to the East. Soils were natural, showing firm dry yellow/brown clays to 800mm, then stiff brown/grey silts, to end of bore at 2000mm.

Borehole 6, five metres down the slope showed similar properties to borehole 1.

No evidence of filling was encountered over the building platform, the edge of the Eastern batter or down the East slope, with the exception of surface rubbish.

Borehole 5 showed approximately 2-8 metres of medium consolidated fill, then moist blue/grey clays before hitting stiff dry sandstone at 3.6 metres.

Discussions:

The New Zealand Geological Map, Cornwallis, 1 in 25,000 shows these lots of interbedded sandstone and mudstone from the Cornwallis formation of the Waitakere group, laid down during the Miocene period. These beds consist of grey, moderately weak andesite sandstone, interbedded with moderately thin beds of light grey, moderately weak, andesite mudstone. Weathered to a residual soil of yellowish brown, soft to stiff silty clay.

The weathered silty clays are susceptible to fretting and erosion if exposed in cut batters or steep slopes.

The steep Eastern slope shows dry clays leading into stiff sandy silts. This office has undertaken several soil analyses of this slope for the adjoining properties and apart from shallow ground creep, this rear slope is considered stable. Saturation, or high watertable level is considered unlikely on this ridge top.

The building site has been formed by excavation of the ridge top, and has exposed stiff soils within the upper metre.

The filling below the garage has been undertaken some 20 years ago, and although is not an "engineered" fill, shows no signs of stress.

Any failure of the fill could effect the existing garage and devalue the property, but it will not have an adverse effect on the building site.

Conclusions:

From the evidence of our inspection and investigations, it is our professional opinion that the building platform is stable.

Foundations beyond a 3 metre offset from the top of the Eastern batter can be designed in accordance with NZS 3604:1990. Foundations within 3 metres of the top of this slope shall be designed by a Registered Engineer familiar with this report, and allow for possible creep movement within the upper 600mm on the slope.

Yours Faithfully,

J.P.Verstoep.

James p. verstoep dip. eng. (r'dam), m.i.p.e.n.z., reg. engineer

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10 January 1989

Mr T. Mason

STABILITY AND FOUNDATION BEARING STRENGTH LOT 101, 102, D.P. 19099
137 VICTORY ROAD, LAINGHOLM.

We report on the stability and foundation bearing strength for the proposed erection of a pole foundation domestic dwelling on Lot 102, D.P. 19099 as instructed by Mr T. Mason.

Mr Mason proposes to purchase both the above lots 101 and 102. An existing cottage is positioned on lot 101.

The proposed building site for lot 102 is on the cut ridge at the rear of the lot. These lots are very narrow and some re-defining of the boundaries between these lots is required to obtain a reasonable building site.

DESCRIPTION.

These lots are long and narrow with road frontage approximately 19 metres and depth 86 metres . Lot 102 widens for the first 32 metres to approximately 24 metres, then narrows to 12 metres on the rear boundary.

A driveway has been constructed onto the widest portion of the lot approximately between lots 101 and 102, to an existing metal weatherboard double garage. The lot rises beyond the garage to a flat plateau, before falling to the rear boundary and towards the Manukau Harbour.

The lot has previously been developed and landscaped. Inspection reveals that the top flat plateau has been formed by excavation, several years ago. Excavated material placed either over the Southern batter, or in front of the Garage.

It is proposed to erect a pole foundation dwelling immediately above the existing garage to the flat platform.

INVESTIGATION.

The lot has previously been developed by the excavation of cut batters, terraces and a driveway to the top plateau. Some siltstone rock is exposed on the cut batters. Visual inspection shows no signs of instability or potential dangers.

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The New Zealand Geological Map, Cornwallis, 1 in 25,000 shows these lots consist of interbedded sandstone and mudstone from the Cornwallis formation of the Waitakere Group, laid down during the Miocene period. These beds consist of grey, moderately weak andesite sandstone, interbedded with moderately thin beds of light grey, moderately weak, andesite mudstone. Weathered to a residual soil of yellowish brown, soft to stiff silty clay.

The weathered silty clays are susceptible to fretting and erosion if exposed in cut batters or steep slopes.

Five 50mm diameter boreholes were driven over the site to determine soil conditions, evidence of filling and soil strengths for foundations. Borelogs are attached.

Borehole 1, positioned immediately above the garage to the front of the proposed house, showed firm dry yellow/brown clays to 800mm, then stiff silty sand. The bore was unable to penetrate below 1.50 metres.

Borehole 2, at the rear of the proposed dwelling, showed similar properties.

Boreholes 3 and 4 at the edge of the plateau were of similar stiff silts with no evidence of filling over the Southern batter.

Borehole 5, positioned at the edge of the 4 metre flat platform to the North of the garage, showed approximately 2.8 metres of medium consolidated filling before encountering stiff sandstone at 3.6 metres.

DISCUSSIONS.

Inspection of the long section plotted up the slope through Boreholes 1,2,3 and 5, show that the proposed dwelling is to be positioned on stiff silts leading to shallow siltstone. The weathered soils over the house site have basically been removed by excavation, exposing stiff partially weathered silts within foundations.

The existing double garage has filling under its Northern half. From its appearance the garage appears to have been erected 15 to 20 years ago. It shows no signs of stress from consolidation of the filling, although inspection of the interior floor was not possible.

The filling below the garage has been placed on a natural slope of 20-25° leading towards the cutting of the roadway. Resulting fill batter slope is 30°.

The extent of benching or compaction of the fill is unknown, although from the borelog results of soils with average shear strength insitu of 80 kPa, it is expected minimum compaction was undertaken.

A detailed study of this filling was not undertaken as visual evidence of the condition of the garage and the batter slope shows no sign of movement or stress. The filling has been in place for some 20 years and is unlikely to cause any major problems now.

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Should this filling ever move, it could cause stress or destruction of the existing garage, but will not effect the stability of the proposed dwelling. Resale value of the property could be reduced should this movement happen.

CONCLUSION.

From the evidence of our inspection and investigations we conclude that a pole foundation dwelling positioned above the garage as shown can be constructed with foundations in accordance with NZS 3604:1984 with the following conditions:

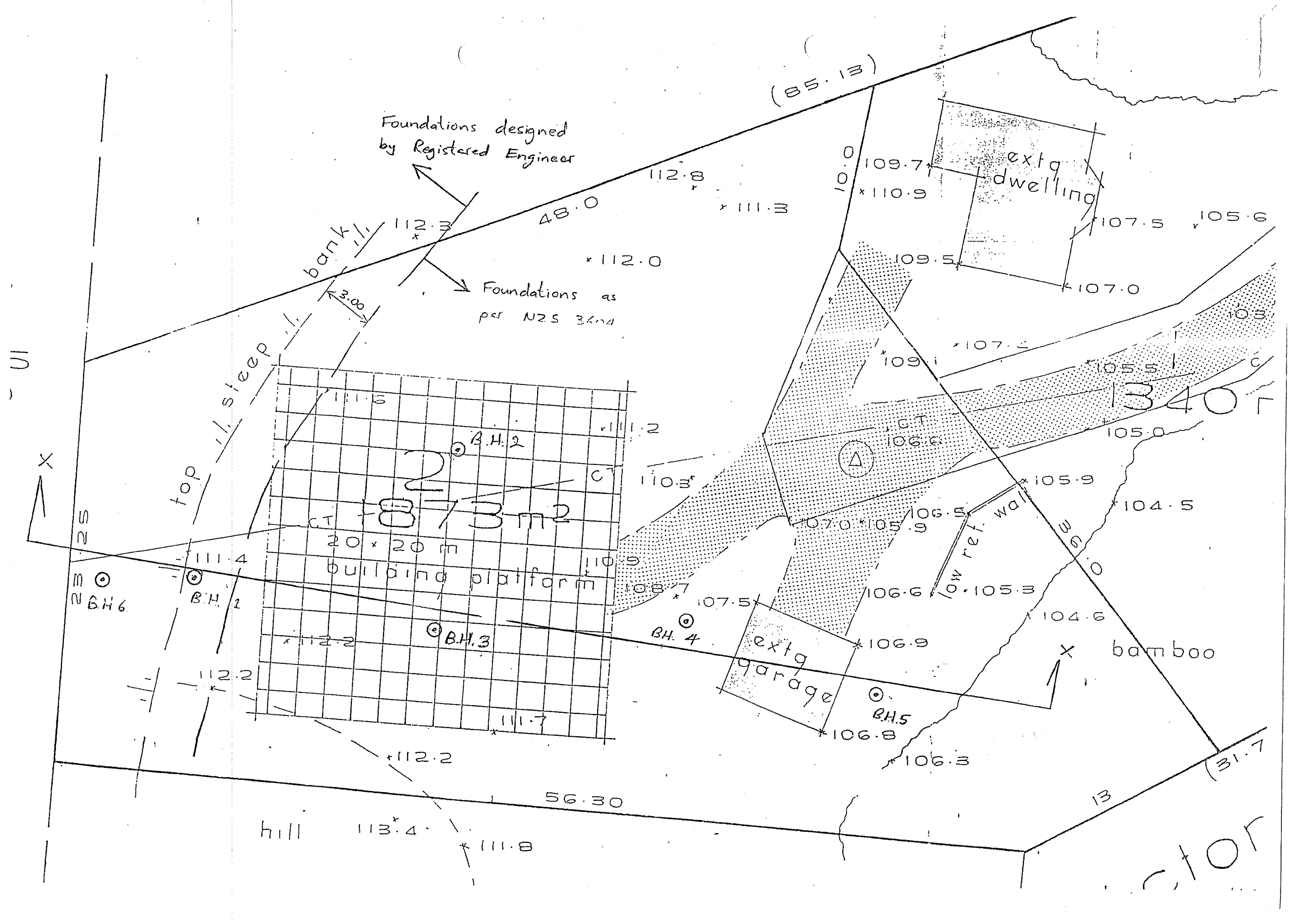
(a) Stormwater discharge from house and yard to be piped to the roadway watercourse.

(b) Occupation of the dwelling to be restructed to after connection of the public sewer line currently being installed.

Yours faithfully

J.P. Verstoep
REGISTERED ENGINEER

Enc..



Foundations designed by Registered Engineer
Foundations as per NZS 3604
(85·13)
48·0
10·0
112·8
111·3
112·3
112·0
bank
3.00
top steep
extg dwelling
109·7
110·9
107·5
105·6
109·5
107·0
107·2
109·1
105·5
105·0
106·6
105·9
104·5
106·5
107·0
105·9
low ret. wall
106·6
105·3
104·6
36·0
107·5
106·9
BH. 4
extg garage
106·8
BH.5
106·3
bamboo
(31·7
13
111·2
110·3
B.H.2
CT
2873m²
20 × 20 m
building platform
110·9
108·7
111·6
111·4
B.H.1
BH6
B.H.3
112·2
111·7
56·30
hill
113·4
111·8