thetathrahotel

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23rd September, 2009.

Mr. Tom Mithen,
N.S.W. Government
Department of Planning,
G.P.O. Box 39,
SYDNEY. N.S.W. 2001.

Dear Mr. Mithen,

Re: Major Project (MP 05 0010)
Proposed Extension to Tathra Motel.

Further to our recent telephone conversations and in response to the letter of 12th June, 2009 I now enclose two coloured copies of the new drawings and perspective together with three further copies of the drawings and three A3 copies of the drawings. I have also enclosed two copies of the signed Geotechnical Site Investigation Report and two copies of the Confirmation of Stability on the coastline.

We will provide full Engineering Drawings and Survey Drawings and have the Subdivision registered with our Construction Certificate Application.

I confirm I met on site with Michael Van Tilburg from Bega Valley Shire Council and on receipt of these amended drawings we will include the Right of Access they require in the new subdivision plans; meanwhile, we have agreed to allow them to continue with access over our land.

I believe the documents and my comments above have addressed the matter identified in your aforementioned letter with the following exemptions:-

1. The fencing to the site will be extruded aluminium pool type similar to the enclosed brochure.

2. A sediment and erosion control plan will be submitted with the construction drawings as will the amended drainage drawings.

3. We already comply with all of the issues raised by the Department of Lands.

4. There will be no impact on the sewer line during construction as it is well clear of the construction area which will be fenced and protected.

Please contact me if any further information is required.

Yours sincerely,

Barrie Frost.

Encls.

VAN LEEUWEN, STODDARD & LEGLER
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Structural	Buildings Bridges Towers Equipment
Civil	Roads Drainage Water Supply Sewerage Subdivisions
Geotechnical	Site Assessment Soil Testing and Stability
Environmental	Contamination Erosion Water Management Water Quality
Construction	Project Managers Inspections Supervision Plans

Date : 9th September 2009

Mr. Barry Frost
P.O.Box 1536
Gosford NSW 2250

Re : Confirmation of Stability Assessment and Statement of Effects on nearby coastline
at : Tathra Hotel NSW
for : Tathra Hotel Motel Proposed Development

Dear Barry

In accordance with the requirements of the state government authority currently processing your application for the development of the Tathra Hotel Motel and site surrounds, please find attached a signed copy of the relevant Geotechnical report undertaken on the 27th of September 2004. The report identifies issues and effects of the proposed development on the site and suggests controls for excavations and overall construction that will mitigate any arising adverse conditions.

The State government department now requires a statement from the assessing geotechnical engineers that deals with any possible effects of the proposed development on nearby coastal land down hill of the site.

As the assessing geotechnical engineers for the above project we provide the following certification;

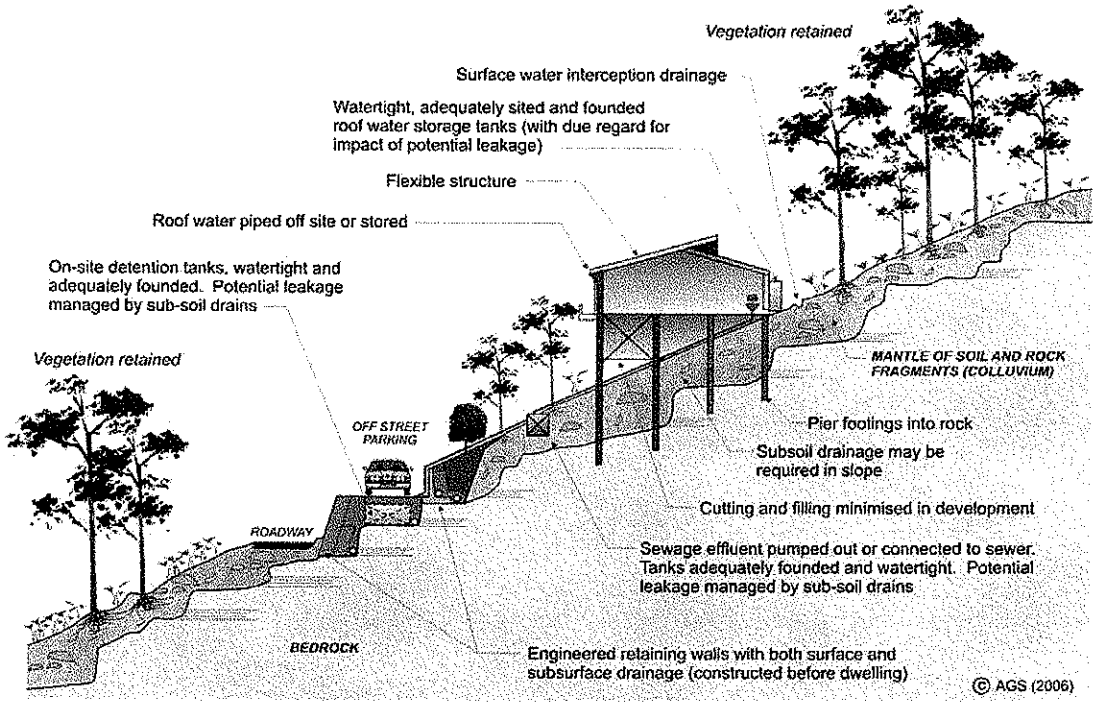
"providing all works for the proposed Tathra Hotel Motel development are undertaken in a good workmanship like manner and that all development controls suggested in the geotechnical report are recognized and completed in accordance with attached guidelines for landslide hazard risk management, the effects of the works and future operations of the hotel motel on the lower lying coastal land will be undetectable and negligible"

If you would like to discuss the above matter or if you require further information or clarification, please contact me at the above telephone or facsimile numbers.

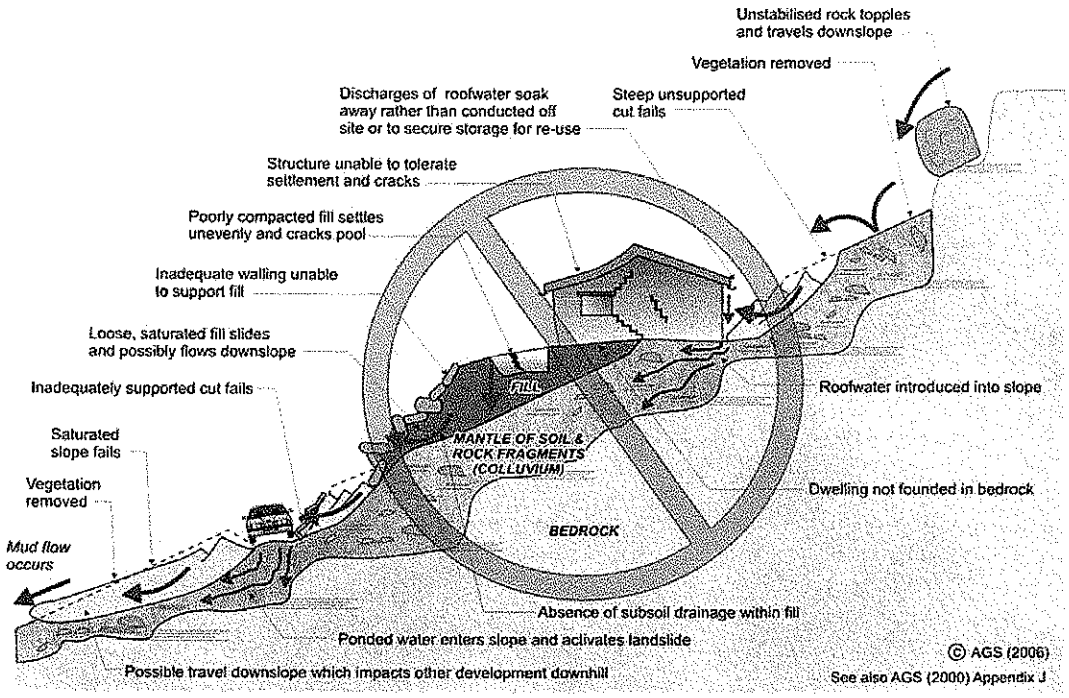
Yours Faithfully

Will Van Leeuwen
(Chartered Professional Engineer, C.P.Eng. M.I.E.Aust.)
(Bach.Civ.Eng., Hons. Municipal.Eng., Geomech Soc.)

EXAMPLES OF GOOD HILLSIDE PRACTICE



EXAMPLES OF POOR HILLSIDE PRACTICE



SYDNEY COASTAL COUNCILS GROUP Inc.
C/- City of Sydney Council
Level 12, 456 Kent Street
GPO Box 1591, SYDNEY NSW 2001

APPENDIX G - SOME GUIDELINES FOR HILLSIDE CONSTRUCTION

	GOOD ENGINEERING PRACTICE	*POOR ENGINEERING PRACTICE*
ADVICE		
GEOTECHNICAL ASSESSMENT	Obtain advice from a qualified, experienced geotechnical practitioner at early stage of planning and before site works.	Prepare detailed plan and start site works before geotechnical advice.
PLANNING		
SITE PLANNING	Having obtained geotechnical advice, plan the development with the risk arising from the identified hazards and consequences in mind.	Plan development without regard for the Risk.
DESIGN AND CONSTRUCTION		
HOUSE DESIGN	Use flexible structures which incorporate properly designed brickwork, timber or steel frames, timber or panel cladding. Consider use of split levels. Use decks for recreational areas where appropriate.	Floor plans which require extensive cutting and filling. Movement intolerant structures.
SITE CLEARING	Retain natural vegetation wherever practicable.	Indiscriminately clear the site.
ACCESS & DRIVEWAYS	Satisfy requirements below for cuts, fills, retaining walls and drainage. Council specifications for grades may need to be modified. Driveways and parking areas may need to be fully supported on piers.	Excavate and fill for site access before geotechnical advice.
EARTHWORKS	Retain natural contours wherever possible.	Indiscriminatory bulk earthworks.
CUTS	Minimise depth. Support with engineered retaining walls or batter to appropriate slope. Provide drainage measures and erosion control.	Large scale cuts and benching. Unsupported cuts. Ignore drainage requirements
FILLS	Minimise height. Strip vegetation and topsoil and key into natural slopes prior to filling. Use clean fill materials and compact to engineering standards. Batter to appropriate slope or support with engineered retaining wall. Provide surface drainage and appropriate subsurface drainage.	Loose or poorly compacted fill, which if it fails, may flow a considerable distance including onto property below. Block natural drainage lines. Fill over existing vegetation and topsoil. Include stumps, trees, vegetation, topsoil, boulders, building rubble etc in fill.
ROCK OUTCROPS & BOULDERS	Remove or stabilise boulders which may have unacceptable risk. Support rock faces where necessary.	Disturb or undercut detached blocks or boulders.
RETAINING WALLS	Engineer design to resist applied soil and water forces. Found on rock where practicable. Provide subsurface drainage within wall backfill and surface drainage on slope above. Construct wall as soon as possible after cut/fill operation.	Construct a structurally inadequate wall such as sandstone flagging, brick or unreinforced blockwork. Lack of subsurface drains and weepholes.
FOOTINGS	Found within rock where practicable. Use rows of piers or strip footings oriented up and down slope. Design for lateral creep pressures if necessary. Backfill footing excavations to exclude ingress of surface water.	Found on topsoil, loose fill, detached boulders or undercut cliffs.
SWIMMING POOLS	Engineer designed. Support on piers to rock where practicable. Provide with under-drainage and gravity drain outlet where practicable. Design for high soil pressures which may develop on uphill side whilst there may be little or no lateral support on downhill side.	
DRAINAGE		
SURFACE	Provide at tops of cut and fill slopes. Discharge to street drainage or natural water courses. Provide general falls to prevent blockage by siltation and incorporate silt traps. Line to minimise infiltration and make flexible where possible. Special structures to dissipate energy at changes of slope and/or direction.	Discharge at top of fills and cuts. Allow water to pond on bench areas.
SUBSURFACE	Provide filter around subsurface drain. Provide drain behind retaining walls. Use flexible pipelines with access for maintenance. Prevent inflow of surface water.	Discharge roof runoff into absorption trenches.
SEPTIC & SULLAGE	Usually requires pump-out or mains sewer systems; absorption trenches may be possible in some areas if risk is acceptable. Storage tanks should be water-tight and adequately founded.	Discharge sullage directly onto and into slopes. Use absorption trenches without consideration of landslide risk.
EROSION CONTROL & LANDSCAPING	*Control erosion as this may lead to instability.* Revegetate cleared area.	*Failure to observe earthworks and drainage* recommendations when landscaping.
DRAWINGS AND SITE VISITS DURING CONSTRUCTION		
DRAWINGS	Building Application drawings should be viewed by geotechnical consultant	
SITE VISITS	Site Visits by consultant may be appropriate during construction/	
INSPECTION AND MAINTENANCE BY OWNER		
OWNER'S RESPONSIBILITY	Clean drainage systems; repair broken joints in drains and leaks in supply *pipes.* Where structural distress is evident see advice. If seepage observed, determine causes or seek advice on consequences.	

GEOTECHNICAL
SITE INVESTIGATION REPORT

(as per AS1726-1993)

Project Details

PROJECT	**Proposed Tathra Hotel and Motel Development**

Client and Site Details

CLIENT	**Mr. Barry Frost**
SITE ADDRESS	**Tathra Hotel and Motel** **Snowy Mountains Highway** **Tathra NSW**
DATE	**27th SEPTEMBER 2004**

1.0 Investigation Objectives

It is required that an assessment be undertaken for Site Development in respect of Geotechnical Conditions and to establish the following data;

a) Sub surface Conditions
b) Strength and Stability of Foundation Strata
c) Estimates of deformation and settlement (where applicable)
d) Level, quantity and quality of groundwater
e) Effect of works on adjoining land
f) Footing recommendations
g) Excavation conditions, ground support or underpinning
h) Properties of borrow materials
i) Failure Mechanisms

Comment - Sites are considered in the larger context of surrounding general area including topography, geology and drainage and comments are offered regarding any affects that adjacent lands may have on the development at hand however this geotechnical report does not include an assessment of stability of adjacent or neighbouring land and merely establishes a risk if any to be further identified or addressed in structural and civil design.

2.0 Structural Aims

The strength of the soil is to be checked for likely response to settlements, bearing pressures and soil slope stability. The methods used for this assessment include ;

a) Soil Classification by profile logging and reference to geological maps
b) Assessment of bearing capacity by classification and penetrometer Testing
c) Assessment of Soil reactivity to moisture(shrink and swell) by classification and sample assessment
d) Risk assessment of site soil instability (land slip) by site investigation

3.0 Project Description

The above property was inspected for the purposes of design and construction of hotel renovations and the construction of a new motel extension. The existing hotel is being renovated and a new motel block proposed to be constructed along with improvements to access and augmentation of public parking. The area where the motel is being built is located towards the rear of the land and is at a lower elevation than the Snowy Mountains Highway and the hotel. The floor levels of the new motel are at the same approximate ground level of the surrounding landscape. A Geotechnical assessment of the site and soil conditions is required to address the limitations if any for the design and construction of the motel and the hotel additions especially in respect of its foundations and overall site stability.

4.0 Site Description

4.1 Site Access

Access to the proposed motel site is achievable from the Snowy Mountains Highway via the carpark between the existing hotel bottle shop and motel units. The carpark driveway is sealed with asphaltic concrete. The Snowy Mountains Highway directly outside the Tahtra Hotel Motel is constructed with kerb and gutter but does not appear to be serviced by stormwater pipe systems.

4.2 Climate and Aspect

The climate in the region is temperate with an average annual rainfall in the order of 900mm. The property is located on a small headland which gives the site 270 degree views and orientation towards the North,South and East.

4.3 Topography

Slope of Site	The site slopes 10% to 15% southwards which is the lower lying land area within the property.
Nature of soil and rock mantle	Soils within the entire property may generally be described as about 200mm to 300mm dark brown to grey upper silty loam topsoils underlain by 1000mm to 1500mm of red brown streaky orange silty sandy clay over highly weathered sandstone and weathered sedimentary rock deposits. The rock base is expected to be irregular and rough.

	Old Fills, Sinkholes , Previous land slips	There are no cracks, holes or mounds on site indicating previous landslips or site instabilities. The carpark at the rear of the hotel has been built up by deposition of fill in an old minor gully. In this area the depth of fill is in the order of 3 metres.
	Buildings or structures on site	The existing hotel is a combination of stud frame walls construction to solid masonry walls construction. The roof is metal and floors vary from concrete slabs on ground to suspended concrete slabs on columns and suspended timber floors. There are no significant signs of distress (such as cracks or out of alignment or plumb) due to footing failure or soil instability. There are no other significant issues in respect of subsurface pipes, water pipes, sewer structures, waste water disposal or previous site developments (ie, old footings)
	Development Density	The site coverage is significant but still less than 50% for buildings. With sealed car parking the coverage may be as high as 75%. There will be significant runoff generation and appropriate collection and disposal is essential. There are adequate areas available for capture of stormwater, treatment and disposal without risk of pollution or causing local instabilities.
4.4 Vegetation		
	Vegetation on site	There are a few significant pine trees on site ~10 to 20 metres in height and 300mm to 900mm trunk diameter. The trees are well foliaged, reasonably plumb and appear to be thriving. The root systems would be extensive. The remainder of the site not covered by buildings or pavement is grassed. There are no areas of exposed soil and non vegetation.
4.5 Drainage		
	Surface Drainage	There are no watercourses on the site. Any construction proposed would not restrict the flow of water from the site. Drainage collected from the buildings and pavement via a series of grated pits and spoon drains however will direct stormwater to a common point creating a flow concentration and it would be required that the collected drainage first be treated and then dispersed via an energy dissipating structure for sheet flow release over the rocky foreshore.
	Groundwater	There was no ground water encountered in test pit excavations
	Flood Levels	The site is not flood prone. Heavy seas from the south however have been recorded to build up and create significant flows down the Tathra wharf road. The hotel and motel site is well elevated above this road and this occurrence is rare.
	Water Logged Ground Drainage Structures	There are no springs or water logged areas on the site. The site is serviced by a sewerage reticulation system and has minimal drainage structures on the site other than a couple of spoon drains and grated pits.
4.6 Geology		
Geological Maps to be used	Soil Sampling and Classification	Visual
	Colour description	Underlying soils are Orange to Red brown in colour and are best described as a gravelly sand clay overlying undifferentiated sedimentary rock.
	Texture Description	Ranges from fine grained with some coarse grained pockets
	Physical Properties	Cohesive (clays), slightly plastic, not friable but tends to be lumpy
	Density description	Cohesive soils – Upper clays Firm to lower underlying Stiff and hard gravelly clays

	Rock Bed	Geological Description - highly weathered residuals of undifferentiated sedimentary shale, siltstone, sandstone and mudstone deposits near boundary of volcanics and minor lavas
4.7 Works Layout	Effect of works on site	The effect of a motel construction will have little effect on the existing drainage regime. The quantity of stormwater generated will increase but properly collected, treated and disposed will ensure that the layout of works as planned will negatively impact the site. All stormwater drainage can drain to the same location as it currently does, a gully south of the main hotel. There is a council sewerage pumping station in this gully but this can easily be accommodated by a reasonable stormwater design and treatment.

Site Foundation Assessment

Stability

Negative Stability factors	
Rear Carpark Slope	The fill placed to provide rear car parking has resulted in a significantly sloped batter. With increased runoff and without stormwater treatment this area may be susceptible to instability in severe conditions.(very wet weather) The batter should be extensively planted and the car park stabilized with a surface seal and stormwater collection system built.
Development Density	development density is increased over that currently on site and in collection of stormwater and groundwater flows will be discharged as a concentrated flow therefore some treatment and flow dispersal initiatives are required.
Climate	soil saturation in high rainfall events common along the east coast of Australia may increase soils susceptibility to slow downhill creep but with sufficient stabilization and stormwater collection and discharge control there should be no problem
Positive Stability factors	
Drainage	the site and its soils are naturally well draining and with adequate provisions for prevention of ground water level build up in high rainfall events and other severe climatic conditions site stability should be maintained.
Rock Mantle	an irregular bedrock base is expected offering more friction against slip in overlying soils
Vegetation	a good coverage of trees and grasses exist effectively reinforcing the soil
Building Condition	the building shows no signs of distress from soil instability or footing settlement
Soil Types	granular well drained soils are more resistant when saturated to downslope creep or slip
Rock Fragments	There are few isolated boulders and stones that indicate wearing, erosion and collapse down slopes
Previous instability	There is no record of recent soil failures in the area
Stability Assessment	
	It is recognised that that a risk of instability exists due to many factors such as slope of building sites, the climate, high rainfall and availability of surface and subsurface water from sources and density of development. The site is considered to present a low risk of instability to any proposed development provided footings are located appropriately into hard natural ground (below topsoil) and that soils are adequately drained and stabilised.

Foundation Soil Classification	Strength Assessments	All foundations and retaining walls must be designed by an experienced engineer. Uniform bearing material is achievable on this site and bearing pressures in excess of 100KPa are achievable by excavation to about 1 metre. If excavations continue beyond 1 metre depth down to soft rock allowable bearing pressures will be in the order of 300KPa to 500 KPa.
	Soil Classiication	Foundation soils may be classified as Class "S" as per AS2870.1-1996 (Slightly Reactive) as the depth of clay soils under the footings is expected to shallow.(<600mm). Foundations may include conventional strip footings or raft slabs. Even bearing is expected to be achieved on this site but where soft areas are encountered during excavations 450mm mass concrete piers may be installed at no more than 2000mm spacings. Piers must extend into harder underlying soils or to rock.

This report has been prepared by :

Will Van Leeuwen
(Chartered Professional Engineer, C.P.Eng. M.I.E.Aust.)
(Bach.Civ.Eng., Municipal.Eng., Geomech Soc.)

signature .....

SOIL TEST PIT LOG SHEET

Client :	Mr. Barry Frost		
Job Description :	Hotel Motel Development		
Job Address :	Snowy Mountains Highway Tathra NSW		
		Date Logged :	August 2004
TEST PIT No. :	**1**	**Logged By :**	W.V.L

Depth (m)	Description	Site Test	Comments
0.0	*Top soil - 200mm to 300mm dark brown to grey*		
0.2	*upper loamy silty sandy clay*		Dry soil
0.4			
0.6	*red brown streaky orange silty sandy*		
0.8	*gravelly clay over highly weathered sandstone*	Pp ~ 3kg/cm2	
1.0	*and weathered sedimentary rock deposits*		
1.2			No moisture
1.4			
1.6			
1.8	LIMIT OF EXCAVATION		
2.0			
2.2			
2.4			
2.6			
2.8			
3.0			
3.2			
3.4			
3.6			
3.8			
4.0			
4.2			
4.4			
4.6			
4.8			
5.0			

Other Comments	

SOIL TEST PIT LOG SHEET

Client :	Mr. Barry Frost		
Job Description :	Hotel Motel Development		
Job Address :	Snowy Mountains Highway Tathra NSW		
		Date Logged :	August 2004
TEST PIT No. :	**2**	**Logged By :**	W.V.L

Depth (m)	Description	Site Test	Comments
0.0	*Top soil - 200mm to 300mm dark brown to grey*		
0.2	*upper loamy silty sandy clay*		Dry soil
0.4			
0.6	*red brown streaky orange silty sandy*		
0.8	*gravelly clay over highly weathered sandstone*	Pp ~ 3kg/cm2	
1.0	*and weathered sedimentary rock deposits*		
1.2			No moisture
1.4			
1.6			
1.8	LIMIT OF EXCAVATION		
2.0			
2.2			
2.4			
2.6			
2.8			
3.0			
3.2			
3.4			
3.6			
3.8			
4.0			
4.2			
4.4			
4.6			
4.8			
5.0			

Other Comments	