Tauranga City

LIM

Land Information Memorandum



Land Information Memorandum

This Land Information Memorandum has been prepared for:

Applicant	**Cayley Reeves**
Client	**Cayley Reeves**
Property Address	**18 Ebbtide Way** **Tauranga**
Legal Description	**Lot 8 DP 349963** **1/12 Share of Lot 20 DP 349963** **1/12 Share of Lot 22 DP 349963**
Application Date	**6 November 2026**

This Land Information Memorandum has been prepared for the purposes of Part 6 of the Local Government Official Information and Meetings Act 1987. It is based on a search of Council records only. Additional information relevant to the property may be held on Council's property file or within other Council systems; however, is not included in this Land Information Memorandum. There may be other information relating to the land which is unknown to Council. The Council has not undertaken any inspection of the land or any building on it for the purpose of preparing this Land Information Memorandum. The applicant is solely responsible for ensuring that the land is suitable for a particular purpose. This Land Information Memorandum has been prepared for the applicant only. The Council accepts no responsibility or liability for any use of this report by third parties or for any reliance placed on its contents by persons other than the applicant. This Land Information Memorandum is valid only if reproduced in full and applies only as at the date of issue.

It is recommended that the Certificate/Record of Title, which is not held by Council, be searched by the purchaser.

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Services Information

Land information which is likely to be relevant includes information on private and public stormwater, water and sewer details. Please refer to the appropriate authorities for further information about network utility services.

Service Record

Service Print Attached	**Yes**
Method of Sewer Disposal	**To Public Sewer**
Existing Method of Stormwater Disposal	**To Connection**
Drinking Water Supplied to the Land	**Yes**
Drinking Water Supplier Is:	
(I) Owner of the Land; or	**No Information Available**
(ii) Tauranga City Council [Water Supply Authority Unit (WSA)]; or	**Yes**
(iii) Another Networked Supplier	**No Information Available**
Any Information Notified under Section 206(1) Water Services Act 2021	**No Information Available**

Note:

1. Please note that the existence of a watermain along a property frontage does not necessarily mean that a connection is available. This may need to be provided at the applicant's expense.
2. If the land is supplied with drinking water by Tauranga City Council as a Water Supply Authority, any conditions (generally set out in Tauranga City Council's Supply of Water Bylaw 2019 applicable to that supply are included in this Land Information Memorandum.
3. If the land is supplied with drinking water by a networked supplier other than the WSA, any conditions that are applicable to that supply are included in this Land Information Memorandum.
4. If the land is supplied with drinking water by the owner of the land, any information Council has about the supply is included in this Land Information Memorandum.
5. Any information notified to the territorial authority by a drinking-water supplier under Section 206(1) Water Services Act 2021 is included in this Land Information Memorandum.
6. Water services legislation is transitioning from the Water Services Act 2021 to the local Government (Water Services) Act 2025 and associated amendments. Some information in this Land Information Memorandum may reflect the previous legislative framework and may be subject to change or reinterpretation under the new Act.

Rating and Valuation Details

Tauranga City Council rates are billed twice a year and are due on the last business day of August and February. Unpaid rates for each instalment will incur a 10% penalty.

The valuation details below are based on a revision date of 1 May 2023. This has been used to assess the rates for Council's financial year beginning 1 July 2026.

Further information on property valuations can be found on Council's website at the following link: Property valuations - Tauranga City Council.

Valuation Details

Valuation Reference	**06650 700 09**
Capital Value	**$1,340,000**
Land Value	**$660,000**
Improvement Value	**$680,000**

Rating Details

Current Annual Rates	**$5,280.10**
Balance Owing	**$Nil**

Water Meter Details

Water Meter On Property	**Yes**
Meter Type	**Individual Meter**
Water Rates Owing	**$Nil**

A separate account is issued for water metered properties. Residential meters are read every three months. Commercial/Industrial meters vary depending on use.

Note:

Council's Water Supply Bylaw requires a final water meter reading to be undertaken when a property is sold.

Infrastructure Funding and Financing (IFF) Levy Details

The IFF levy (under the Infrastructure Funding and Financing (Western Bay of Plenty Transport System Plan Levy) Order 2022) is payable for a period of 30 years from 1 July 2024 to 30 June 2054. The method for assessing the liability for an IFF levy on the property is set out in the 2022 Order. The annual levy (as calculated under the 2022 Order) is allocated across the levy area with 50% of the overall levy coming from commercial and industrial properties and 50% coming from residential properties and with the IFF levy on the property being based on the capital value of the property. Further information on the levy is available at the following link: Infrastructure Levy - Tauranga City Council.

IFF Levy Details

Current Annual IFF Levy	**$123.74**
Balance Owing	**$Nil**

Building Information

This information is sourced from Council records and may not reflect the situation on site if work has been undertaken without consent or has been undertaken and was exempt from consent.

This Land Information Memorandum provides a summary of key building-related information and does not include all documents held by Council. It is recommended that the property file is viewed together with this Land Information Memorandum to satisfy any due diligence requirements. The property file may be ordered at the following link: Order a LIM or Property File.

Building Permits and Consents: Information related to Permits (issued prior to 1993) and Consents (issued after 1 January 1993) is listed below. Where the permit issue date is unknown, the application or payment date is recorded instead. Plans and other associated documents, where held by Council, are available on the property file.

Solid Fuel Heaters: It is important that any solid fuel heater has been legally installed, either as part of the original dwelling or by way of a separate permit/consent.

Granny Flats: From 15 January 2026, a small standalone dwelling may be constructed without a building consent, if all exemption conditions are met under Schedule 1A of the Building Act 2004. Further information is available at the following link: Guidelines on Building a Granny Flat.

Permits and Consents

Building Consents

Date Issued	Description of Work	BC Number	CCC Issued
15/08/06	Erect Dwelling	22613	Yes

Compliance Schedule **N/A**

Requisitions **None**

City Planning

The Operative Tauranga City Plan

The Tauranga City Plan provides the rules for how people can build or develop the land they own in our city. This can be land that is residential, commercial, industrial etc. The City Plan covers all subdivision, land use and development, how and where the city grows, how infrastructure is located and how natural and physical resources are managed. It is the blueprint by which any development in Tauranga is managed. It also includes rules on other things that are covered by the Resource Management Act - including hazards, signage, reserves, noise, heritage, etc.

There are specific rules within the City Plan that cover, amongst other matters, building height, earthworks, tree protection, bulk and scale of buildings, setbacks from coastal and harbour margins, and specific residential, commercial and industrial uses depending on location within the City.

Specific rules for each suburb and property can vary depending on the underlying zone of the area and the location of a specific property within that zone.

The majority of the City Plan became 'operative in part' on 9 August 2013. The remaining parts of the City Plan subsequently became operative on 5 July 2014.

A table showing a complete list of variations and plan changes to the operative City Plan can be found in the Table of Plan Change Dates.

It is advised that prospective purchasers of property review and consider all relevant planning rules for the specific property this Land Information Memorandum applies to prior to purchase.

To view the Operative Tauranga City Plan please click here.

If you have any specific queries on any rules or any existing or proposed use of a property, please contact the Tauranga City Council's Duty Planner (07 577 7000) for further information.

Development Contributions

Council operates a development contributions policy under the Local Government Act 2002, and also has financial contributions provisions in its City Plan. The broad purpose of these policies is to fund infrastructure costs that relate to the city's growth from those parties that undertake subdivision, building or development. These contributions are required on building consents, resource consents, service connection authorisations, certificates of acceptance and PIMs for small standalone dwellings. Contributions may remain payable on any property in circumstances where subdivision, building and development projects have not been completed, and in rare occasions where the Council has agreed to defer payment. In addition, further subdivision, building or development of a property may trigger the requirement to pay further development and/or financial contributions.

Council's development contributions team can advise further on these matters in relation to the application of development and financial contributions to the property in question.

Transportation Strategy & Planning and Reserve Management Plans

As part of Tauranga City Council's Transport strategy and planning activities and Reserves Management Plans, properties neighbouring Council-owned or administered land may be subject to transport network development such as walkways and cycleways or other development, activities or use of the land. The Tauranga Reserves Management Plan is available online at the following link: Reserve Management Plans.

Relevant Planning Information

All Planning information for this property is available online through the **City ePlan**.

Zone: Operative Tauranga City Plan	**Medium Density Residential**
Identified Plan Areas	**Coastal Environment Plan Area, Maximum Building Height Combined, Part 9 metres – Refer City Plan Chapter 6 Section 6A.1.13**
	Coastal Environment Plan Area, Maximum Building Height Combined, Part 11 metres – Refer City Plan Chapter 6 Section 6A.1.13
Utilities/Designations	**None**
Protected Heritage/Notable or Groups of Trees, or Protected Buildings	**None Known**
Archaeological or Heritage Sites	**None Known**

Certificates, Notices, or Orders Affecting the Land

Description	Date Issued
Consent Notice	29/04/05

Resource Consents *(Resource Management Act 1991)*

Description	Date Granted	RC Number
Subdivision Consent	06/08/04	1931

Flooding from Intense Rainfall

This property is identified as being within a floodable area in a 1-in-100-year rainfall event, which takes into consideration the effects of sea level rise and climate change based on RCP 8.5 median scenario, as of the year 2130. As such, the property is subject to specific rules in the City Plan that may affect subdivision, development, and land use consenting decisions.

To understand the rules that may apply please consult the relevant City Plan provisions for land use, earthworks and subdivision in Chapter 8D (Flooding from Intense Rainfall), Chapter 4C (Earthworks) and Chapter 12 (Subdivision, Services and Infrastructure).

Please refer to the Natural Hazards section of this Land Information Memorandum for further information.

Land Development

The following information relates to land development and landform characteristics. It is based on information held by council and may include reports, assessments, and other documentation relevant to site development. This information may not reflect the current on-site conditions, or any work undertaken that is not known to council.

The Tauranga City Council does not act as agent for network utility operators.

The landform and geology within Tauranga City have some features which demand particular attention. These features, which may or may not be relevant to the property in question, are outlined in "General Description of Landform within Tauranga District" as attached.

Comments:

Consent Notice

Refer Consent Notice dated 29 April 2005 together with Report on Development Earthworks and Recommendations for Building by S & L Consultants Ltd, reference 17365, dated March 2005.

Documentation Relevant to the Subject Property

Refer the following documentation:

1. Underslab Fill Testing Report by Apex Consultants Ltd, reference TGA1967, dated 14 November 2006.

Natural Hazards

This information relates to nation-wide, city-wide, or region-wide studies and may not reflect the on-site situation or natural hazard investigations and mitigation done on a site-specific property level. It is recommended that hazards identified in this section of the Land Information Memorandum be considered both individually and in combination, as their cumulative effects may influence the overall level of risk.

Flooding

Flood hazard information referenced here includes modelling produced at a nation-wide scale by Earth Sciences New Zealand (ESNZ). The national tool provides consistent flood hazard data across New Zealand and is zoomable to street level, but not to individual properties. For property-specific flood hazard information that may affect this property please refer to the following section of this Land Information Memorandum titled, “Natural Hazards Relevant to the Subject Property”. The modelling produced by ESNZ is available to view at the following link: Flood Hazard Modelling.

Microzoning for Earthquake Hazards

The Council has received reports and results that assessed Tauranga City's liquefaction vulnerability during earthquakes.

Different properties face varying probability levels of liquefaction damage. The maps assess natural ground conditions only and don't consider recent human activities like earthworks, ground improvements, or foundation design that may reduce liquefaction risk. Detailed, site-specific studies by qualified practitioners may take precedence over these city-wide assessments.

Liquefaction information may affect property use and development, including building consent requirements (Building Act 2004, NZ Standard AS/NZ 1170, TCC Infrastructure Development Code Chapter 10.10.6), subdivision consents (Resource Management Act), and infrastructure design.

Further information and reports are available at: Earthquakes and Liquefaction.

Landslide Susceptibility

Council has received an assessment of Tauranga City’s susceptibility to landslides. Two maps have been prepared, one showing areas susceptible to land sliding triggered by rainfall, and the other by earthquakes. A report detailing the assessment and maps are available by accessing the following link: Landslide Susceptibility.

Shallow Groundwater

Council has received an assessment of shallow groundwater conditions in Tauranga City. The assessment analysed groundwater monitoring data from 2015-2021 across 97 monitoring sites and developed predictive models for future conditions under sea level rise.

Shallow groundwater occurs close to the surface throughout Tauranga's low-lying areas. Groundwater levels fluctuate with tides, rainfall, and seasonal variations. In some areas, groundwater sits less than 1 meter below ground surface. The assessment forecasts that rising groundwater levels will occur as sea levels rise.

Development Implications: This information may affect property use and development, including building consent requirements (Building Act 2004), subdivision consents (Resource Management Act), and infrastructure design. Site-specific geotechnical investigations may be required to assess local groundwater conditions and mitigation measures.

The full technical report and spatial datasets are available at: Groundwater.

Bay of Plenty Regional Council

Further information regarding natural hazards held by the Bay of Plenty Regional Council that may be relevant to this property can be found at the below links. Further enquiries may also be made by contacting the Bay of Plenty Regional Council on 0800 884 880.

Bay of Plenty Regional Council – Natural Hazards
Bay Hazards
Bay Explorer

Natural Hazards Relevant to the Subject Property

The following information relates to natural hazards identified at a site-specific scale. It is based on information held by Council and may not reflect the current on-site conditions or any hazard investigations or mitigation measures that have occurred since, or that are not known to Council.

Further information about natural hazards held by Tauranga City Council can be found at the following link: Tauranga City Council – Natural Hazards and may also be identified on Council's mapping website, Mapi.

City Planning Information Related to Natural Hazards

Flooding from Intense Rainfall

This property is identified as being within a floodable area in a 1-in-100-year rainfall event, which takes into consideration the effects of sea level rise and climate change based on RCP 8.5 median scenario, as of the year 2130. Refer attached map which illustrates the effect on this property.

Tauranga City Council regularly updates maps for flooding from intense rainfall, which may change the current modelling for this property. Further information on flood modelling can be found at the following link: Flood Hazard Modelling and Mapping.

Refer also, City Planning section of this Land Information Memorandum for further information about City Plan rules that may apply.

Flooding

Flooding from Intense Rainfall

Refer City Planning Information Related to Natural Hazards section, above.

Inundation

Coastal Inundation

Bay of Plenty Regional Council has produced new maps showing information on coastal inundation for the Bay of Plenty region. The mapping is intended to show inundation likely to occur during a coastal storm event, both now and in the future, and taking into account a range of storm sizes and sea level rise scenarios.

The mapping reflects the best available information on coastal inundation. It is important to note that different properties are exposed to different levels of probability that the hazard will occur, including the likelihood of each assessed sea level rise scenario occurring. The mapping is undertaken at a broad scale and may be superseded by detailed, site-specific assessments undertaken by qualified and experienced practitioners using improved or higher resolution data.

The maps show this property is affected by coastal inundation under the conditions modelled. If you would like further information, please contact Bay of Plenty Regional Council on 0800 884 880.

The presence of coastal inundation information on a property may have implications for the use and development of that property including, but not limited to, the requirements for and assessments of building consent applications under the Building Act 2004 and Building Code, subdivision consent applications under the Resource Management Act and Operative City Plan, and infrastructure design.

The information above reflects updated Bay of Plenty Regional Council coastal inundation modelling. Council is in the process of notifying affected property owners and updating publicly accessible maps.

Further information is available at the following link: Coastal Flooding.

Tsunami

Tsunami – Evacuation Zone Only

Council holds information that shows this property is located in a tsunami evacuation zone, but not within the modelled tsunami inundation zone.

The tsunami evacuation zone is the coastal area that people should move away from in a tsunami threat. The evacuation zone is based on the area of land that could potentially be flooded by a tsunami caused by a rare offshore earthquake that has a wave height of between 8m and 15m along the Bay of Plenty coast. The likelihood of a tsunami like this occurring in any year is calculated as 0.04% (or a 1 in 2,500 chance). The development of the tsunami evacuation zone also considers other factors such as how easy it would be for people to evacuate, safety aspects, the road network, how many people live in different areas, and other social factors.

Further information is available on the Tsunami pages of Tauranga City Council's website and Bay of Plenty Regional Council's website. Information explaining the difference between evacuation zones and inundation zones is also available in the Frequently Asked Questions.

Please see attached tsunami evacuation zone map.

Slopes, Slips and Landslides

Slope Hazard Zones

This site is subject to a slope hazard. Any further development may need to be supported by a report from a Category 1 Accredited Geo-professional and subject to Stormwater Specific Design. Please see the slope hazard zones plan attached and refer to our website for more information.

Relic Slip Features

A relic slip feature has been identified as shown on the attached site plan. Relic slips across Tauranga City were identified in studies conducted in 1980 and 2001 using aerial photography from 1943 to 1997.

Relic slips are features of past landslides that can be seen in the landscape today, such as:

- Head scarps - curved cliff-like formations at the top of old landslides
- Slope debris - loose material and uneven ground below the head scarps

These features can remain visible in the landscape for thousands of years. While they indicate past slope instability, the vast majority of identified features show no known evidence of recent movement.

Relic slips may affect property use and development, including building consent requirements (Building Act 2004, TCC Infrastructure Development Code Chapter 10 Appendix B.5), subdivision consents (Resource Management Act), and infrastructure design.

Reports and results are available at: City wide landslide mapping.

Maungatapu Landslide Advice

Council commissioned a geotechnical study of the Maungatapu peninsula to develop a greater understanding of the landslides occurring on the peninsula. The report has recommended further investigation and monitoring to understand what, if any, actions can be taken to mitigate future slips on the peninsula and Council are currently investigating implementing these recommendations. This site is located in the study area.

Further information about land instability on Maungatapu Peninsula, including a link to the Maungatapu Landslide Advice report by Tonkin & Taylor Ltd can be found at the following link: Land Instability on Maungatapu Peninsula.

Additional Information

Licences Affecting the Land or Buildings

None

Signed for and on behalf of the Council:



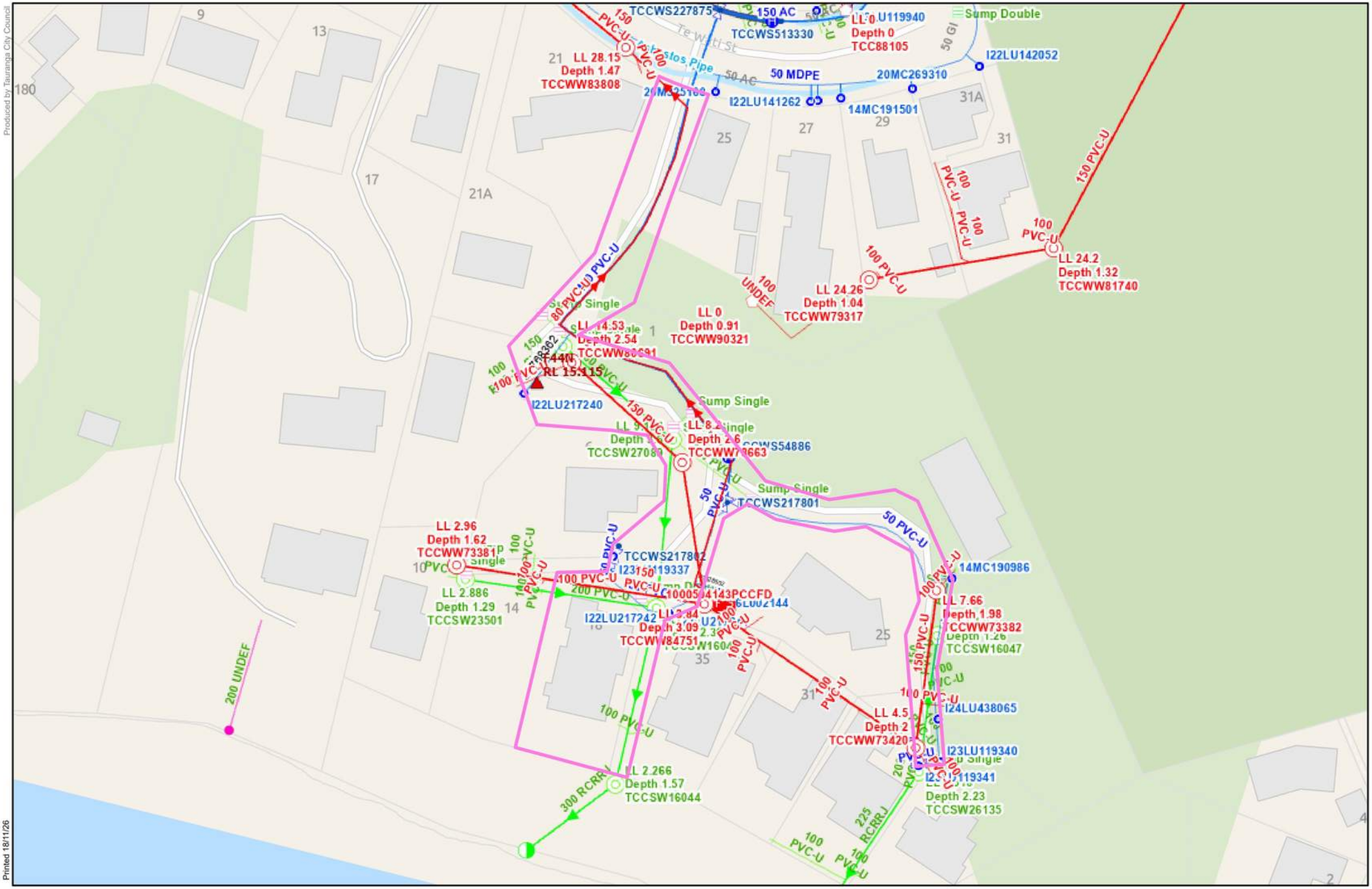
Position held: LIM and Property Files Officer

Date: 18 November 2026

Tauranga City

Services Plan

Tauranga City



Services Plan

0 10 20
Meters

Scale: 1:1,000 @ A4

N

Information shown on this plan is indicative only. The Council accepts no liability for its accuracy and it is your responsibility to ensure that the data contained herein is appropriate and applicable to the end use intended.

Tauranga City

Services Key

Water

- Water Service Line
- Water Meter
- Rider Main
- Reticulation Main
- Trunk Water Main
- Asbestos Pipe (Abandoned)
- Asbestos Pipe (Operational)
- Hydrant
- Valve
- Water Reservoir
- Backflow - Double Check
- RPZ
- Valve
- Private Water Bore

Stormwater

- Service Line
- Rising Main
- Gravity Main
- Stormwater Drain
- Subsoil Drain
- Stormwater Overland Flow Path
- Culvert
- Inlet
- Outlet
- Stormwater Manhole
- Stormwater Sump
- Stormwater Rodding Eye
- Large Sump
- Storage Pond

Wastewater

- Service Line
- Rising Main
- Gravity Main
- Asbestos Pipe (Abandoned)
- Asbestos Pipe (Operational)
- Node
- Rodding Eye (Inspection Point)
- Manhole
- Valve
- Chamber
- Pump Station

Other

- Abandoned assets and lines
- Private assets and lines
- Geotech Utility Buffer

More symbols may appear on the Services Plan than are shown here. For a full key please contact the Tauranga City Council LIM Office.

Tauranga City

Building Information

Tauranga City

As Built
Drainage Plan

Tauranga City

Drainage Plan for: P8985/18/1

Reality

- 1 DEC 2006
RECEIVED

Street Number 18 Street Name EBB TIDE Way

Lot 8 DP 349963

Suburb MAUNGATAPU.

ENTERED

Owner GARDNER

Type of Building DWELLING

Drainlayer W.H. KELLY LTD

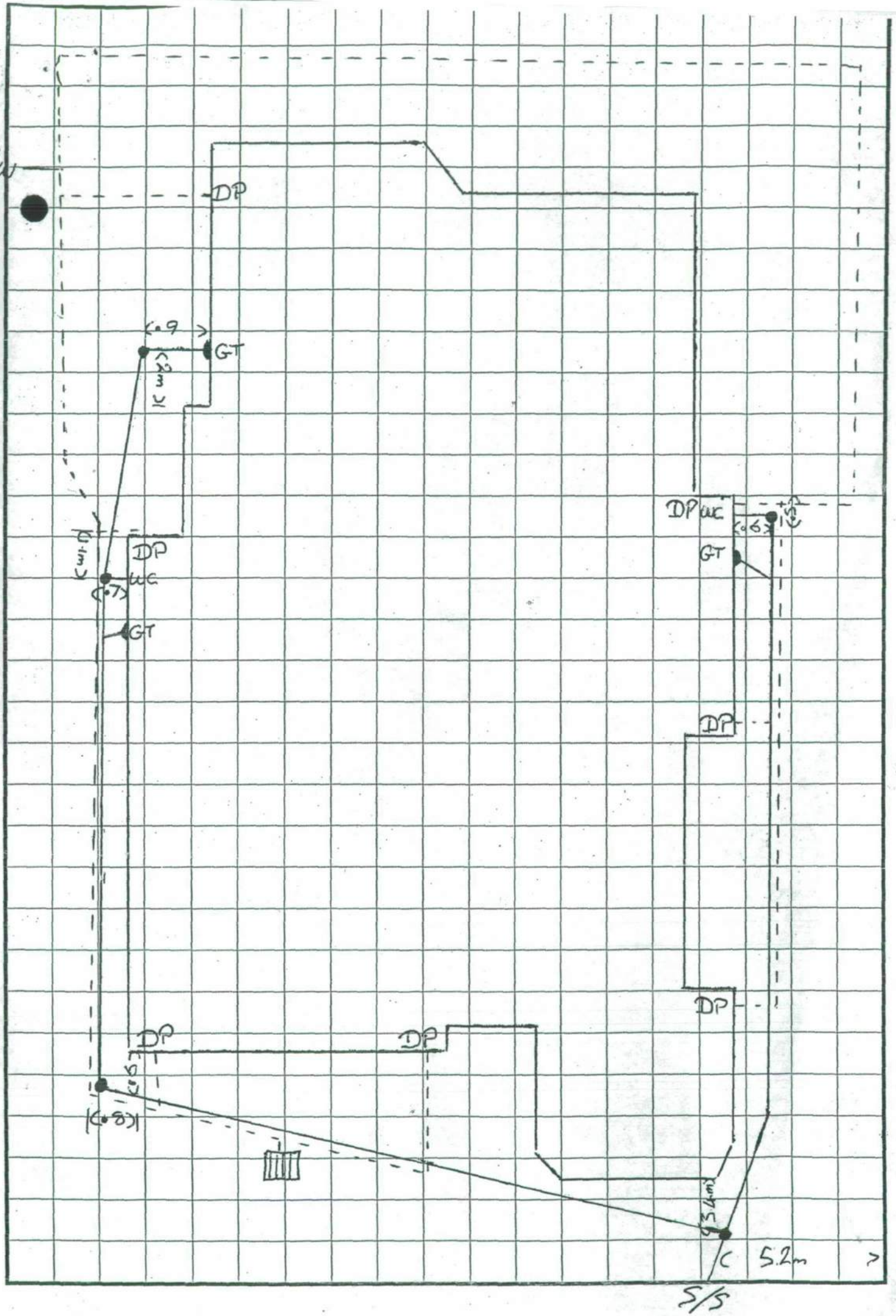
Date of Inspection 14/11/06 Inspector B.I.S. Malcolm Hunt

Drainage Permit No 22613

Note : Plan to be drawn in black ballpoint on graph opposite

Plan to include:

1. The correct position of the drains in relation to the building and boundaries.
2. The position of the street frontage.
3. Depth of drains at connection point.
4. Both foulwater and stormwater drains to be drawn.
5. Clearly define all inspection openings, with accurate measurements from two points.
6. Clearly define all buildings and boundaries.
7. Refer to example drain plan back page.


DP
GT
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DP
5.2m
5/5

Planning Information

Tauranga City

TAURANGA CITY COUNCIL

CONSENT NOTICE PURSUANT TO SECTION 221 RESOURCE MANAGEMENT ACT 1991

TCC Sub 6066
Surveyors Ref: 17365

IN THE MATTER OF Plan 349963

AND

IN THE MATTER OF of Subdivision Consent pursuant to Sections 104, 105, 108, 220 and 221 of the Resource Management Act 1991.

Pursuant to Section 252(1) (a) of the Local Government Act 1974, I, **OWEN TERENCE WYNYARD,** Group Manager: Environmental Services of the Tauranga City Council hereby certify that, by way of resolution passed under delegated authority on _____ the following condition is imposed on the subdivision consent for Lot 2 DPS 20066.

That a consent notice be registered on the Certificate of Title to Lots 1 – 12 stating that:

- *"No further subdivision of any lot or development of more than one dwelling unit per lot shall occur, except through the consideration of a resource consent application, that would need to fully address the effects of further subdivision and/or development in relation to the private accessway.*

  The number of dwellings and/or lots which can be served by a private accessway under District Plan 19.2.1.3(d)(iii) is a maximum of 12. This limit has been reached"

- *Any application for building consent and or ongoing development on Lots 1 – 12 shall be in accordance with the Conditions given in the geotechnical completion report 17365 by S & L Consultants Ltd, dated 18/3/2005 and/or the Statement of Professional Opinion.*

That a consent notice be registered on the Certificate of Title to Lots 1, 10, 11 and 12 that:

- *The existing trees and other indigenous vegetation which have significant local amenity value on the four areas marked I, J, K and L on Lots 1, 10, 11 and 12 are to be protected in perpetuity.*

- *Any replacement plantings on the four areas marked I, J, K and L on Lots 1, 10, 11 and 12 shall only be native trees and/or other indigenous vegetation and are also to be protected in perpetuity.*

Dated at Tauranga this 29th day of April 2005

Owen Terence Wynyard
Group Manager: Environmental Services

TCC Ref: 529833

SCANNED

In Reply Please Quote:	SUB 6066
Application Number:	1931
Your Ref:	17365

Tauranga City

CHAUNTRY COVE LIMITED
C/- S & L CONSULTANTS LIMITED
PO BOX 231
SEVENTH AVENUE
TAURANGA 3030

Attention: Mike Hughes

RESOURCE MANAGEMENT ACT 1991
APPLICATION FOR SUBDIVISION CONSENT BY CHAUNTRY COVE LIMITED
SITE ADDRESS: 23 TE WATI STREET, MAUNGATAPU
LEGAL DESCRIPTION OF SITE: LOT 2 DPS 20066

(A) Pursuant to Sections 93 and 94 of the Resource Management Act 1991, this application may be considered without notification for the following reasons:

(1) The subdivision is a controlled activity with respect to Rule 19.3(b) of the District Plan as the proposal complies with the standards and terms for a controlled activity subdivision in the Residential A Zone.

Therefore, the application does not need to be notified in accordance with Section 93(1)(a) of the Resource Management Act 1991.

(2) The Council is satisfied after taking due consideration of Section 94A(a) of the Resource Management Act 1991 that no adverse effects will arise as a result of this activity that could not arise as a result of a permitted activity with particular regard to Rules 19.2.1.1 and 19.2.1.3(d)(iii) and as no persons are considered potentially affected that notice does not need to be served on any persons in accordance with Section 94B(3)(a).

(3) No special circumstances exist that require notification of this application in accordance with Section 94C(2) of the Resource Management Act 1991 because there are no wider effects on the general community and no effects of an unusual or special nature which make notification desirable in this instance.

.....
Authorised Officer

06/08/04
.....
Date

(B) Pursuant to Sections 104, 104A, 108 and 220 of the Resource Management Act 1991, the Tauranga City Council grants consent to the proposed 13-Lot subdivision of Lot 2 DPS 20066 as shown on plan reference number 17365-01 prepared by S and L Consultants Ltd and dated 23 July 2004 subject to the following conditions:

Tauranga City Council
91 Willow Street Private Bag 12022 Tauranga New Zealand
Telephone 07 577 7000 Facsimile 07 577 7193 Email: service@tauranga.govt.nz Website: www.tauranga.govt.nz

(1) The proposal shall proceed in accordance with the application submitted, including the Archaeological Assessment by Ken Phillips dated March 2004, the Cultural Assessment by Ngati He Kaitiaki Resource Management Unit dated July 2004, and the Geotechnical Assessment by S and L Consultants Ltd, Reference 17365 dated April 2004 and shall comply with any other conditions that this consent is subject to.

(2) All easements required for underground services and rights of way serving lots within the subdivision shall be duly granted or reserved.

Where an easement is required by Council to protect any underground asset either vested or to be vested in Council the easement shall be shown on the survey plan prior to the release of the Section 223 certificate.

The position and width of the easement shall be agreed with Council at the time of the engineering plan approval.

The consent holder is advised:
That easements may be required, in some circumstances, on private property to protect publicly vested assets. In general however, easements will not be required on drainage network reticulation mains that conform with the requirements of the Local Government Act 1974.

Where a drainage pipeline does not conform with the intent of the Act or is of a depth that a safe set back from that main needs to be registered on the title to protect any residential dwelling from damage due to maintenance, repair or replacement of that main.. Watermains of 50mm dia or greater shall be vested in Council and where located on private property will require an easement to be registered on the certificate of title.

In order to ensure minimal encumbrance to a certificate of title the consent holder shall generally, locate all proposed underground services to be vested in Council in the street scene, side or rear yards of any affected property. Where practical, the asset to be vested shall be located at a dimension of not more than 10.0 metres from the road boundary and 1.5 metres from other lot boundaries. This will ensure the best use of space for development purpose for the property affected.

(3) Fencing covenants shall be registered against the titles of any property that shares a common boundary with any of the following Local Purpose Reserves:

- ***Accessway***
- ***Recreation***
- ***Sewage***
- ***Stormwater***
- ***Esplanade***

Exempting Council from the shared cost of fencing along the common boundaries.

Upon application for the Section 223 Certificate for the subdivision the consent

The reason for this condition:
In accordance with the relevant legislation Council is empowered to place a covenant on the title of any property it shares a common boundary with indemnifying Council from the shared costs of fencing that boundary.

holder shall confirm in writing to Council which property boundaries require a fencing covenant to be registered on its title.

The fencing covenants will be prepared by Council's solicitor at the Consent Holder's expense.

(4) All costs associated with complying with all conditions of consent shall be borne by the Consent Holder.

These costs include any fees and charges required by Council, cost of construction of the works and any legal expenses.

(5) All legal documents required to satisfy these conditions shall be prepared by the Council's Solicitor at the consent holder's expense.

(6) The consent holder shall register an easement in gross in favour of Council over any stormwater overland flowpath located on private property, including those resulting from overload of the roading primary stormwater system under extreme rainfall conditions.

The overland flowpath easement shall be shown on the survey plan prior to the release of the Section 223 Certificate and shall be shown as the "Right to Drain Stormwater" and be registered on the survey plan under a "Memorandum of Easements in Gross".

The easement document will be prepared by Council's solicitor at the Consent Holder's expense.

The reason for this condition:
To ensure that where an overland flowpath is proposed to be located on private land, and forms part of the public drainage network from any overload of the primary stormwater network, Council must ensure that all residential dwellings are located clear of the potential hazard and that the property owner does not alter the required overland flow profile or compromise the operation of the flowpath when required.

Tauranga City Council achieves this by way of easement and consent notice.

The consent holder is advised:
Overland flowpaths, where possible, should be located so as to cause least disruption or potential risk to the host property.

Council undertakes the drafting of the overland flowpath easement document and will encompass such issues as avoiding construction of any barriers within the flowpath, non tampering with flowpath inverts, the construction of driveways or footpaths within the flowpath area etc.

(7) All matters and works relating to all sanitary sewer, stormwater, water and roading networks, reserves, landscaping, and network utility services that are proposed to be vested in Council as Public assets shall be designed, supervised, constructed and certified in accordance with requirements of the Council's' Code of Practice for Development [COP], this Resource Consent, the Engineering Plan approval required by Condition 9 below and in accordance with Chapters 11, 15, 24 and

The reason for this condition:
The Code of Practice for Development [COP] is the document specified by the District Plan as being the minimum standard to be achieved where it is proposed to vest any asset into Public ownership.

The COP, details the minimum engineering standards for assets proposed to be vested in Council.

These standards ensure that certain

26 of the District Plan. The certification shall be in accordance with the relevant sections of the COP.

Note: - Issuing of this consent does not constitute approval of any engineering works or details provided in the application for consent and does not preclude the possibility that boundary adjustments maybe required at a later date to accommodate roading or services corridors.

minimum requirements are met and that the community does not receive assets which are excessively costly to maintain or unreliable. (See Objective 7.7.1 and Policy 7.7.1.1 Part A).

The consent holder is advised:
That for the purposes of this consent the Code of Practice for Development as issued on 1 July 1998 and all its associated amendments, shall be the Code of Practice used for compliance with the engineering, landscaping and reserves components of this consent.

The consent holder shall make themselves fully aware of the requirements of the COP as related to their specific activity. Ignorance of the requirements of the COP is not a reason for non compliance with the requirements of the COP.

That in designing, supervising and constructing the works in accordance with the requirements of the COP does not remove the responsibility from the consent holder or their representatives as outlined in the COP.

NOTE: For the balance of this consent all references to the "Council's Code of Practice for Development" will be abbreviated to COP for ease of use.

(8) The Consent Holder shall appoint an appropriately qualified person to undertake the role of Consent Holder's representative in accordance with Section 1.F of the COP.

The reason for this condition:
It is a requirement of the District Plan and the COP that a Consent Holder's Representative be appointed to ensure that all aspects of an activity (subdivision/development) are planned, designed, supervised and certified by a person who has the relevant expertise, qualification and training in the field.

(9) Prior to any works commencing on site (exclusive of site clearance or bulk earthworks associated with any EBOP earthworks consent) the consent holder shall submit, to Council, engineering plans of the proposed activity to and obtain engineering plan approval.

The engineering plans shall be submitted to Council's Asset Development Unit.

The development plans shall show and describe all proposed engineering works and shall, as a minimum, include the following:

- ***The information and plans required by Section 1.L and 1.M of the COP.***

The reason for this condition:
Is that in accordance with the District Plan and the COP the Council requires that engineering plans be submitted to Council to:

a) Ensure all development works proposed to be vested in Council meet the minimum requirements set down in the COP;
b) Assist Council in its overall long-term infra-structure planning and services co-ordination.

- ***All flood risk areas either on private property or road, drainage or recreation reserve land.***

(10) The Consent Holder shall pay an engineering approval and observation fee assessed in accordance with the Council's Schedule of Fees and Charges, based on the assessed value of the works.

The engineering approval and observation fee shall be paid at the time of the submission of the engineering plans and specifications of the proposed development works being lodged with the Council for approval.

The reason for this condition:
An engineering approval and observation fee is required to cover the cost of assessing the engineering plans for approval and the associated inspections required by the engineering plan approval letter.

The consent holder is advised:
That the Schedule of Fees and Charges maybe amended annually during Council's Annual Plan process.

(11) Upon completion of the development works for the activity, or any stage of the activity, the consent holder shall provide the Council with a set of "as-built" plans and documents showing, describing and certifying the construction of all engineering and landscaping works associated with the activity.

Where the activity is a subdivision then the "as-built" plans shall be submitted to Council at the completion of the subdivision or any stage of the subdivision, prior to the release of the Section 224 Certificate.

The "as-built" plans and documents shall display or provide:

- ***The requirements set down Section 1.L.2 (d) and (e) and any requirements made under Section 1.M.1 of the COP;***
- ***Stormwater overland flow-paths which do not form part of the Public drainage network but which may affect the siting of residential dwellings or the development of an allotment;***
- ***Areas of flood risk or modified areas of flood risk.***

Where available, the required documentation shall be supplied on the standard drawings located at the end of Sections 1 through 13 inclusive of the COP.

The reason for this condition:
Tauranga City Council requires that as-built records of underground services are recorded and submitted in order to allow Tauranga City Council to maintain the completeness and accuracy of the services information contained with the Council's GIS system and to carry out the asset management in accordance with the requirements of the LGA 2002 and modern best practice for asset development to ensure consistency with the Code of Practice.

(12) Construction noise from starting up and operation of construction equipment and all other construction activities on the site of the subdivision shall meet the limits recommended in Table 1 in NZS6803:1984, and shall be measured and assessed in accordance with, NZS6803:1984 - "The measurement and assessment of noise from construction, maintenance and

The reason for this condition:
The District Plan requires that construction noise standards are complied with to protect adjoining properties from the effects of excessive noise.

demolition work".
Adjustments provided in Clause 6.1 of NZS6803:1984 shall apply for the full duration of the project, and references in the tables to NZS6802 shall read as references to Clause 4.2.2 of NZS6802:1991. Prior to the activity commencing, a noise management plan shall be submitted to Council, describing how the construction noise standards will be complied with.

(13) Prior to the commencement of any work on site, the Consent Holder shall provide Council with a copy of the earthworks and/or discharge permits for the development/subdivision as required and granted by Environment Bay of Plenty.

The reason for this condition:
That in granting this consent Council acknowledges that one or more resource consents maybe required from Environment Bay of Plenty Regional Council.

Rather than enacting Section 91 of the RMA 1991 Council is satisfied that the Consent Holder is/will undertake application for the required earthworks and/or discharge consents from EBOP and is satisfied that the Consent Holder will be able to obtain the required permits prior to the release of the subdivision S224 certificate.

The consent holder is advised:
That prior to the commencement of the activity on site the consent Holder satisfy himself fully that he will be able to obtain the necessary permits required from EBOP thus ensuring no work is undertaken on site that maybe wasted.

Council will not release any S224 certificates for the subdivision until such time as the EBOP have been granted and will accept no liability for work undertaken by a Consent Holder who has been unable to obtain the required permits from EBOP.

(14) A dust and siltation management plan shall be lodged with the Council. This plan shall describe the measures that the Consent Holder shall utilise in the event that site and weather conditions give rise to actual or potential adverse effects of dust and/or silt on adjoining properties.

The management plan shall describe the measures to be applied to minimise dust, control siltation, intended sources of water and named personnel to be contacted in the event of dust or siltation nuisances occurring.

Earthworks shall not proceed until the consent holder's ability to control any dust/siltation nuisance has been demonstrated to the satisfaction of Council.

The reason for this condition:
In general issues relating to dust/siltation issues on a development/subdivision are addressed by Environment Bay of Plenty through the granting of earthworks and discharge consents. However there are instances where consents from EBOP aren't necessary and the issues relative to dust and siltation may need to be formally addressed.

The consent holder is advised:
In general the issues relating to dust/siltation are dealt with by EBOP and as such a dust management plan is seldom requested by Tauranga City Council.

(15) Prior to earthworks commencing on site the consent holder shall engage the services of a Category 1 Registered Engineer, as defined in Section 2 of the COP to perform the functions of the "Soils Engineer" as detailed and required by Section 2 of the COP.

The reason for this condition:
An important requirement of the RMA 1991 and the District Plan is the creation of safe building platforms associated with the subdivision of land. It is therefore an important requirement to ensure that earthworks undertaken as part of the subdivision are undertaken under appropriate supervision and advice from an appropriately experienced Person.

(16) All earthworks design, testing and construction shall be undertaken in accordance with Section 2 of the COP and the specific requirements of the consent holders appointed "Soils Engineer".

The reason for this condition:
It is a requirement of the COP that earthworks be undertaken in accordance with S2 of the Code.

(17) The consent holder shall undertake earthworks and/or works, as necessary, so that each lot contains a building platform suitable for the intended purpose of the District Plan Zone.

The suitable building platform shall comply in all respects with the requirements set down in Section B1 of the New Zealand Building Code.

The completed building platforms shall possess a minimum factor of safety against slope failure of 1.5 and shall comply with minimum settlement criteria stated in Appendix B of Section B1/VM4 of the NZBC.

At the completion of the earthworks the Soils Engineer shall provide Council with an Opinion of Suitability for Building for the building platforms in the "geotechnical completion report" required by Condition 19.

The reason for this condition:
It is a requirement of Section 106 of the Resource Management Act 1991 and the District Plan that the proposed allotments are provided with a safe building platform each allotment prior to the release of the 224 certificate.

Council accepts that through the granting of the consent the consent holder has displayed that the land has been shown to be suitable for its intended purpose and that the proposed development works, outlined in the application presented, will provide each allotment with a safe building platform.

The consent holder is advised:
In establishing the certified building platform for each allotment the "Soils Engineer" shall ensure that an appropriate level of design, testing, monitoring, certification work and professional judgement is undertaken to adequately establish that each allotment contains at least one certified building platform that is capable of establishing a residential dwelling unit on it that will comply with NZS 3604 and the Building Act 1991 without further geotechnical investigation being required.

(18) The Consent Holder shall, prior to the release of the Section 224 Certificate for the subdivision, provide to Council a "geotechnical completion report" compiled by a Category 1 Registered Engineer.

The report shall:

- ***Comply with the requirements of and supply the information set down in Section 2.F of the COP;***
- ***Display the position of all designated***

The reason for this condition:
It is a requirement of Section 106 of the Resource Management Act 1991 and the District Plan that the proposed allotments are provided with a safe building platform each.
Council accepts that through the granting of the consent the land has shown to be suitable for its intended purpose and that the proposed development works will provide each allotment with a safe building platform.

building platforms and building restriction lines (where applicable);

- ***Provide recommendations on the disposal of on-site effluent and stormwater disposal (if applicable);***
- ***Provide recommendations for the ongoing development of the properties (i.e. advice on maximum cut/fill heights, how to manage steep slopes, methods of earthfill that should be adopted for basement style homes etc);***
- ***Confirm that any earthfills and/or building platforms that have been constructed, comply in all respects with the requirements set down in Section B1 of the New Zealand Building Code; and***
- ***The building platforms shall possess a minimum factor of safety against slope failure of 1.5 and comply with minimum settlement criteria stated in Appendix B of Section B1/VM4 of the NZBC.***

The geotechnical completion report will certify that the proposed building platforms comply with Section 106 of the "Act".

The consent holder is advised:
The geotechnical completion report is an extremely important part of the successful completion of the subdivision and should be compiled by the appropriately qualified person after completion of appropriate design, testing, monitoring and certification work. Each lot should contain at least one safe building platform that is capable of accepting a residential dwelling unit that will comply with NZS 3604, NZS 4229 and the Building Act 1991 without further geotechnical investigation being required. If such a site is not suitable for the use of these standards then the report should list the reasons for non-suitability and provide advice for the specific design required.

Council holds the names of the Category 1 or Category 2 Engineers required for this purpose. Their names are available upon request in the Council's Customer Service Centre.

(19) All building line restrictions or designated building platforms shall be clearly identified and dimensioned on the subdivision survey plan.

The reason for this condition:
Where the subdivision of marginal land requires the placement of BLR's or designates specific building platforms, these need to be drawn to a prospective land owner's attention for their information by placing them on the survey plan.

The consent holder is advised:
The timing of the placement of the designated building platforms and/or the BLR's on the survey plan is a matter for the individual practitioner to decide. It should be noted that the most efficient time for placement of the above is at the time of application for the S223 certificate. Should the practitioner choose to have the survey plan approved at S223 stage without the BLR's or designated platforms then the survey plan will require amendment at the time of application for the S224 certificate and will incur an additional fee for processing the amended survey plan.

(20) Pursuant to Section 128 of the Resource Management Act 1991, the Council may review the conditions of this consent following receipt of the geotechnical completion report and statement of

The reason for this condition:
Part S128 requires that:-
(1) A consent authority may, in accordance with section 129, serve notice on a consent holder of its intention to review the conditions of a

professional opinion required by Condition 18 above.

The Council may require a Consent Notice to be registered on the Certificate of Title of any of the allotments in respect of which the above geotechnical completion report and/or Statement of Professional Opinion recommends Conditions, requiring that any application for building consent and or ongoing development on the lot be in accordance with the Conditions given in the geotechnical completion report and/or Statement of Professional Opinion.

resource consent—
(a) At any time [or times] specified for that purpose in the consent for any of the following purposes:

(i) To deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or

(c) If the information made available to the consent authority by the applicant for the consent for the purposes of the application contained inaccuracies which materially influenced the decision made on the application and the effects of the exercise of the consent are such that it is necessary to apply more appropriate conditions.

(21) All residential lots shall be provided with a separate underground connection to the sanitary sewer, stormwater, water and electricity reticulation systems.

All connections to the reticulation systems shall be provided to a point adjacent to or within the boundary of each lot and shall be in accordance with the requirements of the relevant section of the COP.

The reason for this condition:
It is a requirement of the District Plan and the COP that the Consent Holder provide all lots with a connection to the listed services primary reticulation network.

The consent holder is advised:
This consent does not remove the responsibility of the Consent Holder to obtain adjoining land owner's consent if it is necessary to enter upon adjoining land to service the proposed activity.

The responsibility of gaining the adjoining landowner's consent remains solely with the Consent Holder. Council does not and will not become involved in obtaining adjoining landowner's consent.

Water connections will require the installation of a backflow prevention device and the appropriate water meter in accordance with the Council Policy adopted November 1999.

(22) The proposed wastewater pump station shall be located on a separate lot.

The reason for this condition:
To avoid conflict with the management of the Esplanade Reserve.

The consent holder is advised:
The Council preferred location is in the area of lots 5 and 11.

(23) The wastewater pump station shall be constructed in accordance with the COP.

The reason for this condition:
To ensure standard installation for maintenance purposes

(24) The access to the wastewater pump station shall be sealed.

The reason for this condition:
To avoid ongoing maintenance problems.

The consent holder is advised:
A two coat chip seal will be satisfactory.

(25) The Council shall be granted an easement in gross over Lots 20 and 22 for Esplanade Reserve, wastewater pump station and water supply maintenance purposes.

The reason for this condition:
To ensure continued uninterrupted access for the Council.

Upon application for the Section 223 approval of the scheme plan, the consent holder shall indicate the associated easement relative to the location of the wastewater pump station on the scheme plan.

The consent holder is advised that Condition 22 notes the preferred location of the wastewater treatment pump station is Lots 5 and 11. For this reason, it is considered the easement should be shown at s.223 stage.

(26) The Consent Holder shall construct the shared accessway shown as Lot 20 on the scheme plan in accordance with Section 9.K of the COP and Council's "Vehicle Crossing, Service Connection and Asset Assurance" Policy.

The reason for this condition:
The Resource Management Act, the District Plan and the COP require all properties to be provided with legal and formed access to a Public street.

Construction of the shared accessway shall include:

- ***Construction of a standard vehicle crossing; and***
- ***A proper backing slab; and***
- ***A stormwater disposal system.***

(27) The Consent Holder shall vest in Council Lot 13 as Local Purpose (Esplanade) Reserve.

The reserve shall be shown on the survey plan prior to the release of the Section 223 Certificate for the subdivision.

(28) Fire fighting watermains and fire hydrants shall be installed in accordance with Section 6 of the COP as required to provide all lots with fire fighting coverage.

The reason for this condition:
It is a requirement of the New Zealand Fire Service and the COP that all allotments within the subdivision be serviced for fire fighting capability in accordance with the relevant legislation.

Details of the fire fighting system shall be submitted to Council at engineering plan approval stage in accordance with Condition 9 for approval by Council.

(29) The consent holder shall pay to the Council a Subdivision Impact Fee of a sum equivalent to 2.0% plus GST of the value of the additional 11 lots created, as provided in a valuation by a Registered Valuer.

The reason for this condition:
There is a requirement for additional services as a result of the increased level of activity created by this subdivision and the payment of a Subdivision Impact Fee has been assessed and imposed in accordance with the provisions of Chapter 26 of the District Plan.

The payment of the subdivision impact fee will mitigate the effects of

the increased level of activity and the need for additional services required as a result of the subdivision.

(30) In the event that any archaeological, midden sites or koiwi are unearthed, the Consent Holder shall stop work immediately on that portion of the site that the archaeological, midden sites are located.

The Consent Holder shall contact the New Zealand Historic Places Trust and a representative of Ngati He for advice and carry out a site meeting to determine an appropriate course of action.

The reason for this condition:
All archaeological sites whether recorded or unrecorded under Part 1 of the Historic Places Trust cannot be destroyed, damaged or modified without the consent of the Historic Places Trust of New Zealand. This condition is imposed to comply with Chapter 16 of the District Plan and Section 108 of the Resource Management Act 1991.

The Consent Holder is advised:
Land use consent is required for destruction or modification of any registered archaeological site and the Consent Holder's attention is drawn to Chapter 16 of the District Plan with respect information requirements and matters of discretion and condition.

Excavation of archaeological features should be conducted in accordance with accepted archaeological practice and include the recording and examination of all subsurface archaeological features, sampling of archaeological deposits and materials for further analysis as appropriate, and identification of the extent of archaeological remains.

(31) The Consent Holder shall ensure a qualified archaeologist is present on site at the time of removal of the initial layer of top soil to monitor for any possible archaeological/midden site(s).

Once removal of the first layer of top soil/grass cover on the site is completed, a qualified archaeologist shall carry out a site inspection for the purpose of assessment of the likelihood of the presence of archaeological sites and/or koiwi in the substrata.

The reason for this condition:
All archaeological sites whether recorded or unrecorded under Part 1 of the Historic Places Trust cannot be destroyed, damaged or modified without the consent of the Historic Places Trust of New Zealand. This condition is imposed in accordance with the requirements of Chapter 16 of the District Plan and Section 108 of the Resource Management Act 1991.

The Consent Holder is advised:
Should the Consent Holder be unsure as to whether their proposed activity has any archaeological site or not they should seek professional advice to confirm or otherwise. The Council does not hold some information on positions of archaeological sites.

A representative of Ngati He requests two days notice in advance of the commencement of earthworks or excavation associated with these works and permission to enter and remain on site during the works for the purpose of monitoring the works.

A representative of Ngati He requests two days notice in advance of the planned archaeological inspection

and permission to be in attendance during the inspection.

(32) A representative of Ngati He shall be given two days notice in advance of the commencement of topsoil stripping and shall be given permission to enter and remain on the site for the purpose of monitoring the topsoil stripping.

(33) A representative of Ngati He shall be present during earthworks for the house site on Lot 2.

The reason for this condition:
This area is part of the former Te Puru Pa site and is of cultural significance to Ngati He.

(34) The two areas of existing trees and other vegetation on the site located on the proposed Lots 1, 11 and 12 which are outlined in red on the subdivision plan, Reference Number 17365-01 by S and L Consultants Ltd dated 20 April 2004 are to be protected in perpetuity by covenants registered on the titles of these lots.

The reason for this condition:
To provide permanent protection for areas of indigenous vegetation on the site which have significant local amenity value.

(35) Pipes for stormwater disposal from this subdivision to the Harbour are able to be sub-surfaced through the Esplanade Reserve.

(36) Further details of the design to disperse water flow from the proposed stormwater discharge are to be supplied to the Council prior to any application for a s.224(c) Certificate.

(37) That Lot 20 hereon (Legal access) be held as to twelve undivided one twelfth shares by the owners of Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12 hereon as tenants in common in the said shares and that individual Certificates of Title be issued in accordance therewith (see Request 359207).

(38) That Lot 21 hereon (Legal access) be held as to two undivided one half shares by the owners of Lots 6 and 7 hereon as tenants in common in the said shares and that individual certificates of title be issued in accordance therewith.

(39) That Lot 22 hereon (Legal access) be held as to twelve undivided one twelfth shares by the owners of Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12 hereon as tenants in common in the said shares and that individual certificates of title be issued in accordance therewith.

(40) That Lot 23 hereon (Legal access) be held as to three undivided one third shares by the owners of Lots 9, 10 and 11 hereon as tenants in common in the said shares, and

that individual certificates of title be issued in accordance therewith.

(41) Pursuant to Section 221 of the Resource Management Act 1991, a Consent Notice shall be registered on the Certificate of Title for Lots 1 to 12 inclusive advising the owners and subsequent owners thereof of the following requirements to be complied with on a continuing basis:

"No further subdivision of any lot or development of more than one dwelling unit per lot shall occur, except through the consideration of a resource consent application, that would need to fully address the effects of further subdivision and/or development in relation to the private accessway.

The number of dwellings and/or lots which can be served by a private accessway under District Plan 19.2.1.3(d)(iii) is a maximum of 12. This limited has been reached."

The reason for this condition:
This subdivision is at the limit of the number of lots which can be served by a private accessway under District Plan Rule 19.2.1.3(d)(iii). The impacts of further subdivision on the accessway will need to be fully considered.

The reasons for making this decision are as follows:

(1) Pursuant to Section 104 of the Resource Management Act 1991, regard has been given to the actual and potential effects on the environment of allowing the activity and the relevant objectives, policies and rules of the District Plan.

The site is zoned Residential A in the Tauranga District Plan and the proposed subdivision is a Controlled Activity. The matters over which the Council has restricted its discretion are contained in Assessment Criteria 19.3.2.1 of the Plan. The proposed subdivision of this site into 12 residential lots is in accordance with those matters by the proposal complying with the Controlled Activity Subdivision Standards and Terms and imposition of consent conditions.

The District Plan contains objectives and policies that are relevant to the proposal. Objective 3.2.1 and Policy 3.2.1.1 are concerned with ensuring appropriate development in terms of intensity and scale in order to protect existing and foreseeable amenity values. Objective 7.1.1 and Policy 7.1.1.1 similarly require urban amenity values to be maintained. The proposal will not adversely affect amenity values as the intensity of development resulting from the subdivision could be accommodated on the site as a permitted activity. The Council is therefore satisfied that the proposal is not contrary to the above objectives and policies.

Policy 7.1.1.3 is concerned with ensuring that subdivision is designed, laid out and constructed appropriately in order to provide sufficient access for emergency vehicles, adequate provision of services infrastructure and the visual enhancement of the landscape. The proposed subdivision will not be contrary to the above policy as the proposal will comply with the relevant controlled activity subdivision standards and terms with respect to the above matters and the imposing of consent conditions will also ensure there is adequate provision of services infrastructure.

- *The proposal is to subdivide an existing residential property of 1.7076 ha between Te Wati Street and the Tauranga Harbour to provide 12 residential lots with areas ranging from 660m² to 2870m² (Lots 1 – 12), four access lots (Lots 20, 21, 22 and 23) and a proposed Esplanade Reserve of 2360m² to be vested in the Tauranga City Council (Lot 13).*

- *This subdivision is located adjacent to an established residential area and an existing reserve. It will create an additional 11 residential lots on an existing residential property which has one dwelling on it, which has access from Te Wati Street via an existing sealed driveway.*

- *There are two substantial areas of bush on the site located on Lots 1, 11 and 12 which will be retained in the subdivision of this land. These areas are proposed to be protected by covenants. An area of low-lying land between Lots 3 – 10 and the Tauranga Harbour will be set aside as an Esplanade Reserve.*

- *The subdivision will be served by a private accessway (Lot 20) which will connect with Te Wati Street. It is proposed to access the 12 lots via the accessway and a single cul-de-sac. Four of the lots will be served by a further accessway linking with the cul-de-sac and an access lot (Lot 22) will provide access to the proposed Esplanade Reserve on Lot 13 for maintenance purposes.*

- *The existing wastewater and water supply reticulation in Te Wati Street has the capacity to service this development. Telecom, electricity and gas services are also available to this site. Stormwater from the lots and private ways will be discharged via Lot 22 into the estuary.*

- *A geotechnical assessment has been submitted as part of the application (refer to Paragraph 9.0 in Report, Reference 17365 by S and L Consultants Ltd dated April 2004). This assessment confirms that the land can be earthworked to provide suitable building platforms. Subdivision bulk earthworks are proposed to improve the contour of the land and to form private way subgrades and access to lots. No earthworks are proposed for the existing slopes rising to Te Wati Street or bordering Maungatapu Park. The vegetation in these areas comprising mostly exotic shrubs and some ponga forms will be retained in place as part of the subdivision. The earthworks for this subdivision have been the subject of a separate resource consent application to Environment Bay of Plenty.*

- *A preliminary archaeological assessment of the site has been carried out by Ken Phillips of Archaeology BOP. There are no identified archaeological sites on the property but there are a number of archaeological sites in the vicinity. The Report includes recommendations to protect any archaeological sites on the property during the course of earthworks, and these are included as conditions in the consent.*

- *The applicants have carried out consultation with the Ngati He Kaitiaki Resource Management Unit and protocols have been recommended by Ngati He if any materials suspected to be of archaeological significance are discovered during earthworks on the site. Ngati He have also carried out a cultural assessment of the application which includes a number of recommendations covering protection of indigenous vegetation on the site, recognition of notable trees, access and monitoring of earthworks. The*

applicant has agreed to the majority of the recommendations in the cultural assessment. Overall Ngati He has indicated in the Cultural Assessment that they are opposed to this application in principle. The concerns which can be considered within the scope of the application and granting of consent have been reflected by the imposition of consent conditions.

- *The Council accepts the Esplanade Reserve as proposed in this subdivision. The proposed Lot 22 (Access Lot) will enable Council to access the reserve for maintenance purposes but will not provide for public access. In the future, it is intended to provide public access to the esplanade reserve from the adjacent Maungatapu Park.*

- *Any actual or potential effects generated by this subdivision can be adequately mitigated by consent conditions and are considered to be de minimis. The subdivision is an "infill" development proposal which includes an Esplanade Reserve and two areas of indigenous vegetation which will be protected by covenants. This proposal takes a sensitive approach to the infill development of this area and consequently will have no adverse effect on amenity values.*

(2) *The Council is satisfied that this consent can be granted with conditions with regard to the matters in the District Plan to which it has restricted its discretion in accordance with Section 104A of the Resource Management Act 1991.*

(3) *Pursuant to Part II of the Resource Management Act 1991, regard has been had to the Purpose of the Act (Section 5), Matters of National Importance (Section 6), Other Matters (Section 7) and the Treaty of Waitangi (Section 8). The findings are:*

- *There are no matters of National Importance relevant to this site. The site is known to be of significance to Maori and their interests in relation to this area are set out in the Cultural Assessment by Ngati He Kaitiaki dated July 2004. This document sets out requirements by the tangata whenua for access, monitoring of earthworks, and the protection of areas of indigenous vegetation on the site. These issues have been taken into account in the consent conditions.*

- *In considering the provisions of Sections 5 and 7 in relation to this particular application, the Council has concluded that the activity will use and develop the physical resource of the site in a suitable manner that will enable people and the community to provide for their future economic and social well-being. The Council is satisfied the proposal will maintain the quality of the environment in accordance with the provisions of the Tauranga District Plan.*

ADVICE NOTES:

(1) *Under Section 357 of the Resource Management Act 1991, you have a right of objection to the Council in respect of the above decision. Any such objection shall be made by notice in writing to the Council within 15 working days of receiving this decision. The objection should describe the subject of and reason for the objection and what would satisfy the objection.*

(2) *Where any building or drainage works are required to satisfy conditions of this consent, all consents required under the Building Act 1991 must be obtained prior to the works being carried out.*

(3) *Environment Bay of Plenty Regional Council advise the application site is in close proximity to significant Marshbird Habitat Areas SSL-27 and SSCMA-25 identified in the Regional Coastal Environment Plan. Future owners of residential lots in this subdivision should be advised that animals (including domestic cats and ferrets) could have an adverse effect on the ecological values of these significant sites. Future owners should also be advised of the potential for some garden plant varieties to invade and degrade the significant habitat areas in the vicinity of this subdivision. For any further clarification of the above issues the contact person in Environment Bay of Plenty is Joh Taylor (Environmental Scientist).*

(4) *For any further queries regarding stormwater matters, the contact in Environment Bay of Plenty is Mark Buckley (Environmental Consents Officer).*

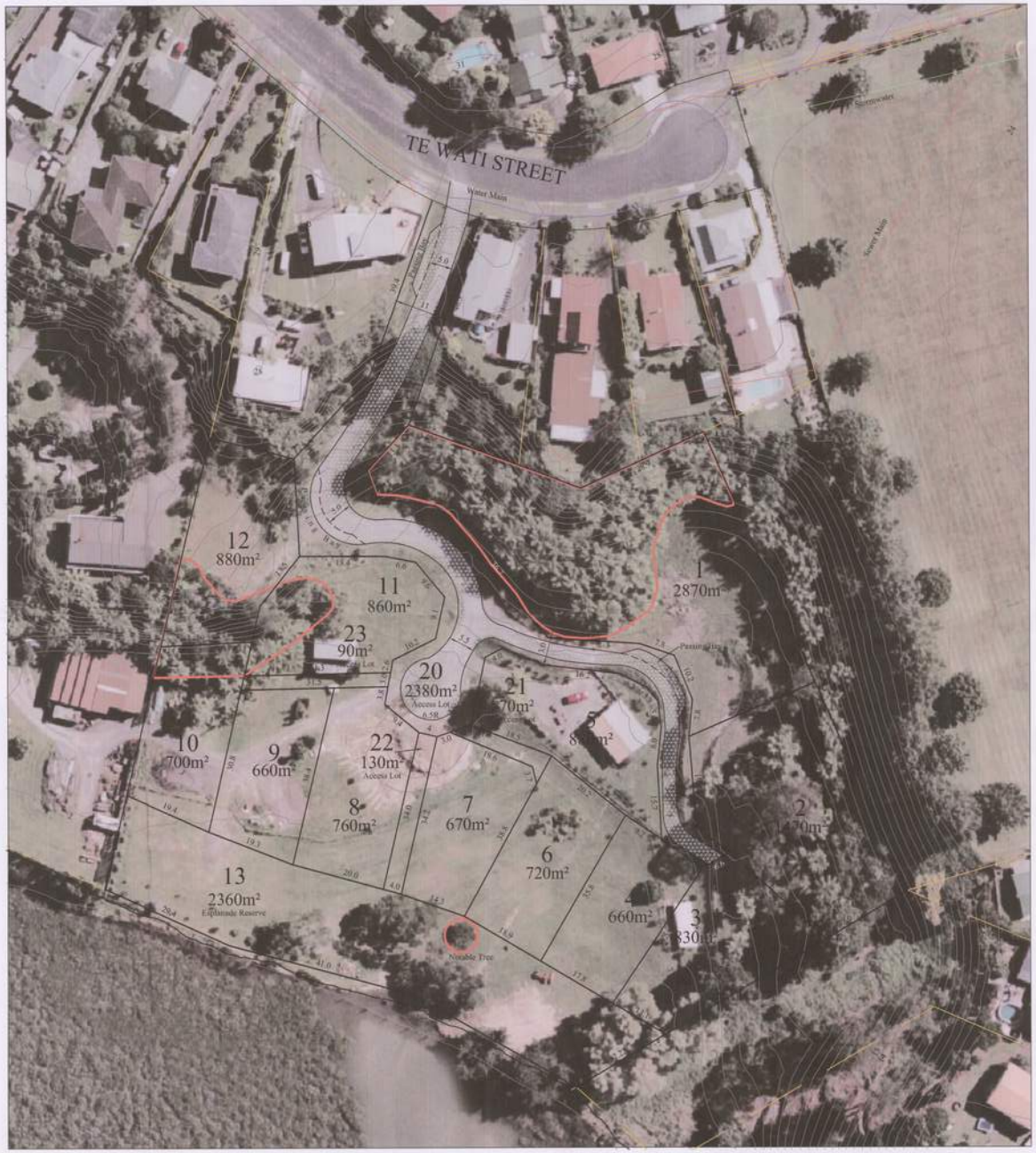
(5) *In accordance with the Council's Schedule of Fees and Charges, if not accompanying this decision, an invoice may be sent at a later date if the actual cost of processing the application the subject of this decision exceeds the application fees deposit paid on lodgement of the application.*

If you have any questions, please contact the Duty Planner.

..... 06/08/04

Authorised Officer **Date**

LF_70754B



Proposed Subdivision of Lot 2 DPS 20066



TAURANGA DISTRICT COUNCIL
RECEIVED
23 JUL 2004
RESOURCE CONSENT

TCC684749

Areas and dimensions are approximate only and subject to survey

Amalgamation Conditions

That Lot 20 hereon (Legal access) be held as to twelve undivided one twelfth shares by the owners of Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12 hereon and one certificate of title be issued in accordance therewith

That Lot 21 hereon (Legal access) be held as to two undivided one half shares by the owners of Lots 6 and 7 hereon and one certificate of title be issued in accordance therewith

That Lot 22 hereon (Legal access) be held as to twelve undivided one twelfth shares by the owners of Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12 hereon and one certificate of title be issued in accordance therewith

That Lot 23 hereon (Legal access) be held as to three undivided one third shares by the owners of Lots 9, 10 and 11 hereon and one certificate of title be issued in accordance therewith

Trees to be Protected

Rev. No.	Description	DATE
1	Protection area Lot 10 extended. Tree noted in Lot 13	29/7/2004

	NAME	DATE	SIGNED
Surveyed			
Designed			
Drawn	NP	31/3/2004	
Checked			
Approved			

REFERENCES

SHRIMPTON & LIPINSKI

S & L CONSULTANTS LTD
SURVEYORS - ENGINEERS - PLANNERS

111 Cameron Road, Tauranga, New Zealand
P.O. Box 231 Ph.(07)577-6069
Fax(07)577-6065
Email: sl.tga@xtra.co.nz

TITLE

Proposed Subdivision

Copyright on this drawing is reserved

ORIGINAL SCALE	DATE
1:500 @ A1	20/4/2004

DRAWING No
17365 - 01

Revision 1

METRIC DESIGN

GRAPHIC SCALE

Land Development

Tauranga City

General Description of Landform within Tauranga District

The landform and geology within Tauranga District have some features which demand particular attention.

(a) Minimum Building Platform Levels

Significant areas of Tauranga District are at risk of flooding through sea level rise, tidal surges within the harbour, storm-wave runup on the ocean coastline and the flooding of streams, sewer drains, ponding areas and overland flow paths in extreme climatic conditions. Council has some "broadbrush" information on many possibly flood prone areas. More detailed investigations by appropriately qualified people may be required to be submitted in support of Resource and Building consents. Building Platforms should be constructed with adequate freeboard above flood levels. Council has adopted a minimum floor level policy. This level is available from Council on request from Council's Development Engineer. However due to the dynamic nature of the environment and the ongoing investigative work these levels may be reviewed at any time. For the purposes of this clause, a "building platform" is defined as the area of ground within a line 1.0m outside the perimeter of the building proper.

(b) Low-lying Land

There are many areas of low-lying land (often adjacent to the harbour) which comprise soft or very soft foundation conditions. These conditions are characterised by normally consolidated fine grained alluvial sediments (silts and clays) which have been deposited in marine or estuarine environments. In many areas they have been subject to random and non-engineered fillings. The materials are prone to settlement caused by consolidation under even minor loadings. These areas require particular care and appropriate geotechnical investigation and advice prior to development concepts being prepared. Whilst most of the Mount Maunganui/Papamoa area has an underlying sand formation, pockets of peat and "black sand" occur which exhibit poor foundation support qualities. These should be removed from building platforms and roading subgrades.

(c) Sloping Ground

The foundation conditions of the low-lying areas in the District have been described in (b) above. The near surface geology of the higher ground within the District comprises a series of weathered fine grained rhyothic ashes known locally as the Older Ashes. The Older Ashes consist of the Pahoia Tuffs overlain by the Hamilton Ash (the top of which is known locally as the "chocolate" layer).

Overlying the Older Ashes is a series of coarse friable silts, sands and pumice lapilli which tends to mantle the topography formed within the Older Ashes and are known locally as the Younger Ashes.

On some sloping ground, particularly the present and relic slips adjacent to the harbour, the ashes often have marginal stability and there are numerous examples of past and recent instability. Deep seated failures are generally confined to the steep banks which are or have in their history been subjected to active toe erosion. Development must be set back from the top of such steep banks, with the setback distance being determined by appropriate geotechnical investigations carried out by a Person who has pre-qualified with Council as a Specialist Geotechnical Advisor.

The majority of other failures on modest to steeply sloping ground are shallow failures (involving the top 1m to 3m of soil), but are nonetheless of serious consequence to any building development. Such failures are usually initiated by extreme climatic conditions. Any sloping ground greater than 15-degree gradient should be subject to appropriate geotechnical investigations to determine whether the ground is adequately stable for development.

SHRIMPTON & LIPINSKI

CHAUNTRY COVE
23 TE WATI STREET
MAUNGATAPU

REPORT ON DEVELOPMENT EARTHWORKS AND RECOMMENDATIONS FOR BUILDING

Our ref: 17365
March 2005

S&L CONSULTANTS LTD - SURVEYORS - ENGINEERS - PLANNERS
111 Cameron Road PO Box 231 Tauranga New Zealand Phone 07 577 6069 Fax 07 577 6065 Email slconsultant@sltga.co.nz

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Appendix 1 Reference Drawings
17365-AB1 Reference Plan
DP 349963

Appendix 2 Statement of Professional Opinion
Lot Summary Report

Appendix 3 Filling Test Results

Appendix 4 Presubdivision Investigation Borehole Logs

1.0 Introduction

The earthworks, internal roading and installation of services for the Chauntry Cove residential development at 23 Te Wati Street are complete.

The twelve residential lots are shown on deposited plan DP 349963.

This report describes the earthworks undertaken for ground improvement on some of the lots and provides recommendations for the locations of future building sites on the improved ground and away from steep slopes present around the perimeter of the development area.

Within the report reference is made to the following drawings included in Appendix I.

- DP 349963 which shows the lot dimensions, building restrictions and boundary positions.
- Drawing 17365-AB1 which shows the areas of improved ground and recommended building areas, building restriction lines test positions and some topographical features.

2.0 Pre Construction Activities

2.1 Previous Site Development

The previous owner of 23 Te Wati Street prior to subdivision formed the current route of the accessway from Te Wati Street to the lower levels in January 1999. Other earthworks undertaken were to place unsupervised filling to raise levels close to the estuary margin to the south west. Filling was obtained from areas in the current areas of lots 2 and 12.

A small house was transported on to a site on current lot 5 in July 1999 and an adjacent garage was constructed in February 2002. At both sites ground improvement work was undertaken whereby soft in situ surface soils were removed and were replaced with imported gravel and sand to a depth of 0.5 m under the observation of S & L Consultants Ltd. A small timber retaining wall, that was at the rear of these buildings, still remains and is shown in position on 17365-AB1.

2.2 Previous Investigations

Prior to seeking subdivision approval in April 2004 a site geotechnical assessment was undertaken. The assessment involved a walkover inspection, a check of past aerial photography to identify recent changes in the landform, a review of office files and the drilling and logging of fifteen investigation boreholes. The locations of these boreholes are shown on 17365-AB1 in Appendix I. The summary logs of these boreholes are contained in Appendix 4.

The information obtained from the visual inspections, a topographical survey of the property and the boreholes was collated and discussed in the "Application for Resource Consent – Sperling Property" reference 17365 and dated 23 April 2004. The assessment concluded that

- on proposed lots 3, 4 and 6 to 10 inclusive the subsoils comprised a raft of non structural filling that overlaid soft estuarine sediments that extended to significant depths. The non structural filling was a mixture of ash silts and topsoil while the estuarine sediments, more than 9 m deep, comprise homigenous sandy silts although at some locations organic soils up to 1 m deep underlaid the filling. It was recommended that the surface fills and underlying organic soils be removed and be replaced with filling under supervision. At the same time the general building levels were to be raised to RL 2.8 m (Moturiki) to comply with the minimum building platform levels stated on the District Plan of Council. As the earthworks activities and the additional overburden pressures at the elevated fill levels could initiate consolidation of the underlying estuarine soils it was recommended that the specified building areas on lots 3, 4 and 6 to 10 be preloaded or surcharged and the rates of induced settlement on the sites be monitored by the survey of settlement markers.
  The margins between areas of improved ground and the non structural filling placed previously was to be defined by a building restriction line shown on the deposited plan.

- On lot 1 shallow non supervised filling was present and at the designated building site this filling would be removed. As competent subsoils exist to support the replacement filling, no preloading was considered necessary.

- On lot 2 the relatively steep slopes had been previously modified to a series of cut batters and berms. Care would be required in developing lot 2 to create and maintain a stable building site.

- On lot 11 a building site was identified on natural ground below cut and fill batters to the north and east and away from steeper natural slopes to the west.

- On lot 12 the building site was identified on a platform levelled from previous earthworks in 1999. Building restriction lines were recommended to be shown on the deposited plan to locate buildings back from the steep slopes to the east and south.

Slope instability analyses were undertaken to determine the positions of the building restriction lines on lot 12 and to confirm that building positions on lots 1, 2 and 3 were not at risk from any instability on the slopes above.

3.0 Subdivision Filling Standards

The performance specification required of the contractor for the controlled filling placed was based on the guidelines contained in NZS 4431:1989 "Code of Practice for Earthfill for Residential Development".

The structural filling placed was imported to the site from the following sources:

- Papamoa sand from Bell Road for the initial 0.5 m lift.
- Ash derivative soils from excavations at the Mayfield Subdivision, Bethlehem.
- Sands from excavations at the Longview Subdivision, Papamoa.

Compaction and subsoil strength acceptance criteria were:

- Air voids percentage - Average value less than 10 (any 10 tests)
  - Maximum single value 12%

- Undrained shear strength (measured with insitu vane)
  - Average value not less than 150 kPa (any 10 tests)
  - Minimum single value 110 kPa

- Scala penetrometer blow counts of 4 or more per 100 mm .

The earthworks were undertaken by Bay Excavators Ltd and were observed by S & L Consultants Ltd engineering and survey staff, and compaction and strength control testing was undertaken by Geotechnics Ltd both on site and at their IANZ approved laboratory in Tauranga.

Eighteen tests were taken at depths prescribed by S & L Consultants Ltd as the fill levels were elevated.

The compaction test results obtained are summarised in Appendix 3 and the test positions are shown on drawing 17365-AB1.

4.0 Scope of Earthworks

4.1 Lots 3, 4, 6 to 10 Inclusive

The soils on the property deemed unsuitable for the direct support of buildings, as identified in pre construction boreholes 2 to 9 inclusive, were excavated from lots 3, 4 and 6 to 10. The excavated soils were placed as non structural filling over the original ground at the southern (estuary) ends of these lots. The finished levels of the structural filling at higher than RL 2.8 (Moturiki) were continued to the esplanade reserve area by the placement of the non structural filling.

The building restriction lines shown on DP 349963 have been established by survey to limit future building development to occur within the areas of structural filling on lots 3, 4 and 6 to 10.

Preparation work prior to the placement of the structure filling included the construction of subsoil drains at locations shown on 17365-AS1 and the lining of the floor of the excavation with Mirafi geofabric.

4.2 *Lot 1*

An area within lot 1 where the pre construction boreholes 13 and 14 identified non structural filling being present was improved by its removal and replacement with imported filling. The area of ground improvement is within the building restriction lines shown on DP 349963. The average depth of replacement filling was 1.2 m.

4.3 *Monitoring of Consolidation by Preloading*

After completion of the filling on the prepared building sites on lots 1, 3, 4 and 6 to 10 a preload formed by 1.0 m of the unsuitable soils removed or topsoil was placed on the prepared sites. Steel bar settlement markers were driven through the preload and into the structural filling in the centres of each of these lots.

Surveys were undertaken over a period of 63 days since the markers were put in place. Settlements recorded were

Lot No.	Total settlement 63 days (mm)	Settlement over last 30 days (mm)
1	3	1
3	1	0
4	1	1
6	4	1
7	7	2
8	5	2
9	11	3
10	6	2

These magnitudes are well within tolerable limits for buildings. The preload was removed after having been in place for 63 days.

4.4 *Accessway Formation*

The accessway route from Te Wati Street to the base of the hillside adjacent to lots 5 and 11 followed the subgrade formation of 1999 by the former owner of the property.

The remaining lower sections of the accessways were formed in areas of minor cut and structural filling placed up to 0.9 m deep on the upper northern and eastern sides of lot 5.

5.0 Recommendations for Building Development

5.1 *Prepared Buildings Sites, Lots 1, 3, 4, 6 to 10*

Prepared building sites have been created on lots 1, 3, 4 and 6 to 10. These building sites are shown on appended drawings 17365-AB1 and DP 349963. The filling has been placed under engineering observation in accordance with NZS 4431 and is

considered suitable to support buildings with shallow foundations. Ultimate bearing capacities in the limit state for foundation detailing may be taken at 300 kPa. With this bearing capacity buildings may be detailed in accordance with NZS 3604.

While observations during construction and subsequent test results indicate that uniform bearing conditions are present it is possible that areas of lower strength soils may be present. Specialist engineering advice, if low strength soils are encountered, may require foundations to be deepened or widened or the low strength soils be improved by recompaction.

5.2 *Building Site on Lot 2*

No subdivision earthworks were undertaken on Lot 2 apart from the cutting of an unpaved accessway up from the accessway along the northern boundary to an existing terrace previously cut along the west facing slopes.

The general area for building on the former sloping ground would take in the terrace which is about 4 m wide and the original sloping ground at 1 on 3 (18 degrees) down to a berm which has been formed above the accessway to lot 3 and within the eastern boundary of the lot. In the formation of the upper terrace a batter had been cut at 38 to 40 degrees into the rising ground to the east and some filling from the cut platform had been placed over the upper section of the sloping ground down to the west.

Care will be required in the development of a building site on the modified slopes. The design of future buildings should take into account the presence of the relative steepness and heights of the cut batters and the presence of the filling at the top of the slopes leading down to the western boundary. No global stability issues are considered to exist but local retaining walls should be constructed to stabilise the cut batters above the terrace if buildings are to be located in close proximity to the batters. The walls would prevent eroded soils from being transported on to the terrace.

Construction can be undertaken over the lower slopes with any filling undertaken according to the techniques and principles of NZS 4431 in which standards for ground preparation prior to filling and compaction of the filling are described. Fills up to 1 m deep and correctly placed should not promote instability but deeper fills should only be undertaken under professional engineering advice.

It is recommended that building proposals for lot 2 are reviewed by a geotechnical engineer or geologist prequalified with Council in accordance with Section 2 of the Code of Practice for Development. This review may require additional subsoil tests and analysis.

5.3 *Building Site on Lot 5*

The areas of ground improved in 1999 and 2002 for the original buildings on the property are shown on 17365-AB1. The ground improvement was considered suitable by specific testing at that time to support buildings detailed in accordance with NZS 3604.

It is possible to erect buildings outside of this previously improved area but it is recommended that the subsoils be checked to determine foundation bearing conditions and whether further ground improvement work is undertaken.

Well compacted but untested filling exists in the batters leading up to the accessway to the north. Disturbance of these batters during site development should only be undertaken under professional engineering advice. Where excavation into the batters is planned such advice may include the need for retaining walls.

5.4 Building Site on Lot 11

Lot 11 comprises south facing slopes of 1 in 7 (8 degrees) which steepen up to the accessway to the north and up to the excavated platform for the building site on lot 12 to the west.

Presubdivision borehole 10 was put down on the 8 degree slopes where building would take place. Stiff ash derivative insitu soils were found to be present in borehole 10.

Building restriction lines are shown on DP 349963 to limit buildings to the flatter slopes and clear of the steeper slopes to the north and west.

If a flatter building site is required on the 1 in 7 slopes earthworks will be required in cut and fill. Cut faces into the sloping ground to the north or west should be restrained with specifically designed retaining walls regardless of their height. The design would take into account surcharge pressures due to the sloping ground behind the walls. While walls less than 1.5 m high are generally exempt from requiring a building consent the wall construction is required to comply with all other conditions of the New Zealand Building Code.

5.5 Building Site on Lot 12

The building area as defined by lines shown on DP 349963 is an area levelled previously by the former owners of the subdivision area and the owners of adjacent 17 Te Wati Street (lot 2 DPS 15227).

The building restriction lines will set buildings back from the steep bush clad slopes to the south and the grassed slopes to the east leading into adjacent lot 11. Buildings located in the designated area for building will be in a position where the stability performance criteria of Section B1 of the New Zealand Building Code would be met.

In the development of the lot it is recommended that no additional filling be placed over the slopes present to the east or south, even if retained behind walls.

A cut batter 3.5 m high and at 26 degrees (1 on 2) has been formed at the northern end of the building area. It is possible to extend the flat section of the building area by excavation into the batter but the excavated faces are to be restrained by specifically designed retaining walls irrespective of the height of the newly cut face. The design would take into account the surcharge pressures from the slope above

and the need to maintain support to the property above at 21 Te Wati Street (lot 1 DPS 20066).

5.6 Stormwater Disposal

All lots are serviced by stormwater reticulation. No stormwater runoff should be disposed of by ground soakage.

Care should be taken for stormwater runoff control in the development of individual lots, especially those where slopes are present (lots 2, 11 and 12) to ensure that surface water is managed so that discharges do not occur over slope faces. Particular care should be taken during the building phase where uncontrolled discharges from downpipe droppers could occur before connection is made to the stormwater reticulation.

6.0 Opinion of Suitability

A Statement of Professional Opinion as to the suitability of the lots created in the subdivision for building development is contained in Appendix 2. A summary of geotechnical conditions (Council form G2A) is also appended.

7.0 Applicability

Recommendations contained in this document are based on data from site observations, soil exposures and boreholes. Inferences about the nature and continuity of subsoils away from these locations are made but cannot be guaranteed.

In all circumstances, if variations in the subsoils occur which differ from that described or assumed to exist, the site should be inspected by an engineer suitably qualified to make an informed judgement and provide advice on appropriate improvement measures.

This report has been prepared specifically for the Chauntry Cove Subdivision and no responsibility is accepted by S & L Consultants Ltd for the use of any part of this report for other development sites in other contexts without their written authority.

S & L Consultants Ltd

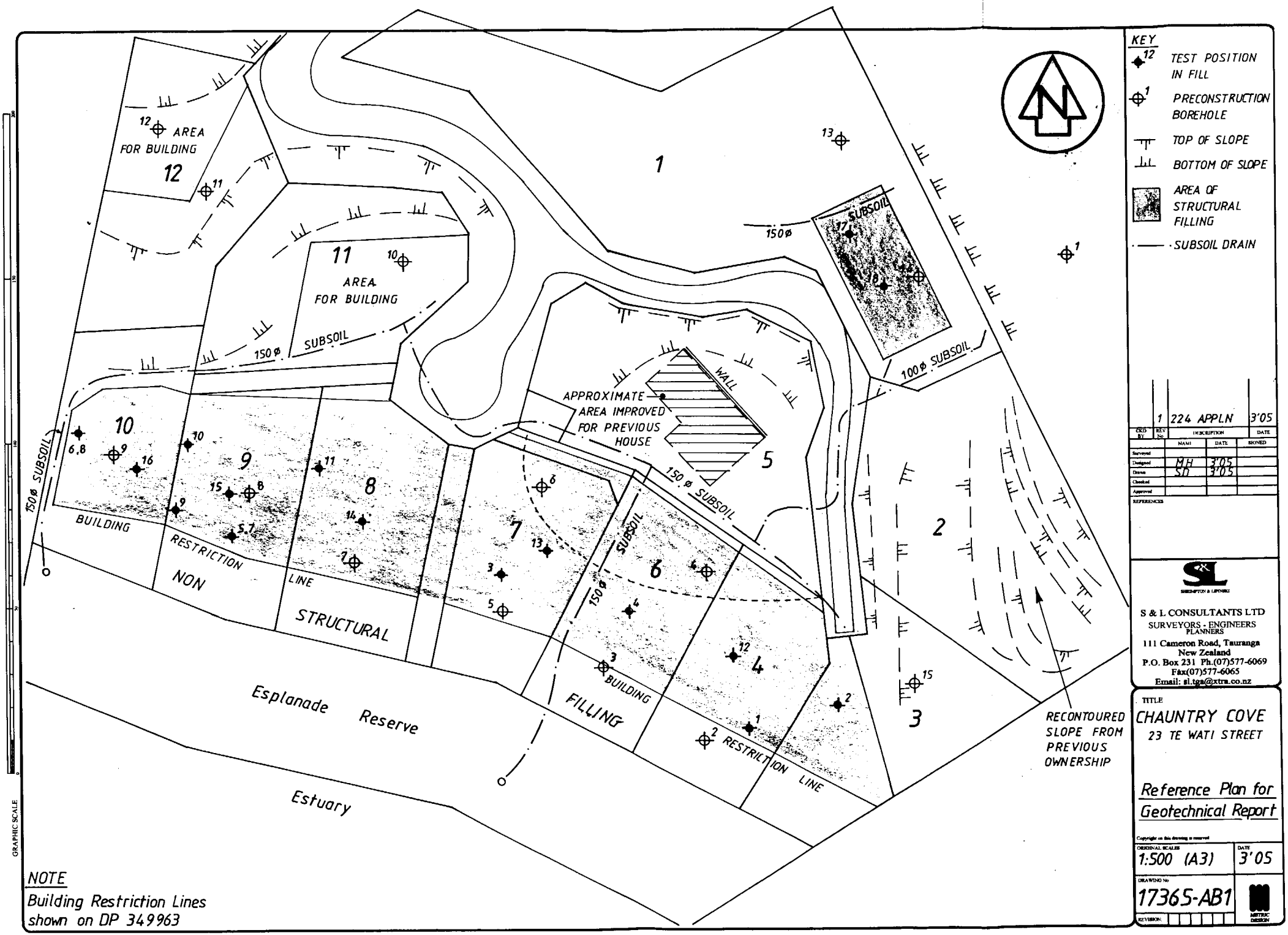
Prepared by M W Hughes CPEng
Geotechnical Engineer **18 March 2005**

APPENDIX 1

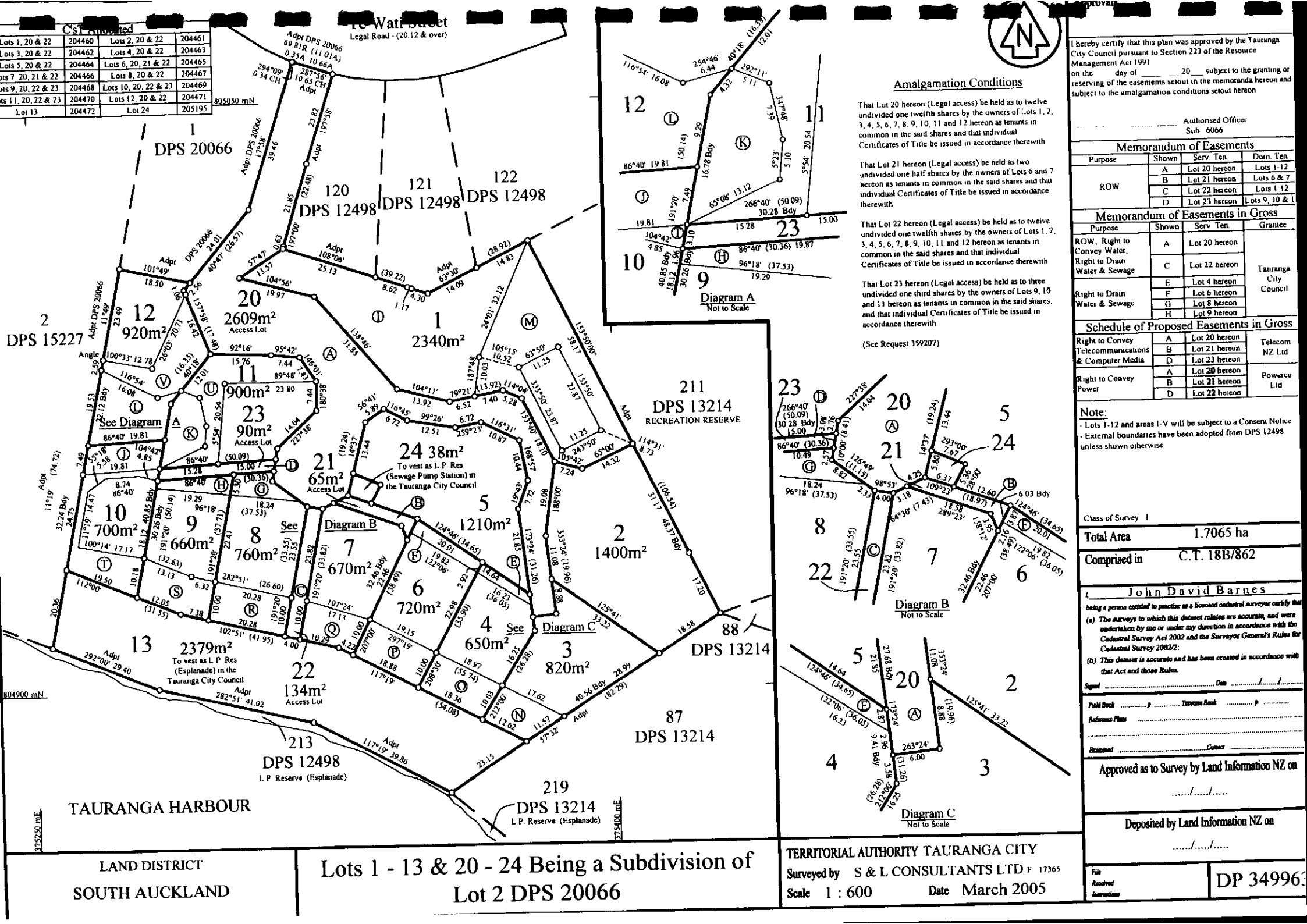
Reference Drawings

17365-01 Reference Plan

DP 349963



NOTE
Building Restriction Lines shown on DP 349963



Amalgamation Conditions

That Lot 20 hereon (Legal access) be held as to twelve undivided one twelfth shares by the owners of Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12 hereon as tenants in common in the said shares and that individual Certificates of Title be issued in accordance therewith

That Lot 21 hereon (Legal access) be held as two undivided one half shares by the owners of Lots 6 and 7 hereon as tenants in common in the said shares and that individual Certificates of Title be issued in accordance therewith

That Lot 22 hereon (Legal access) be held as to twelve undivided one twelfth shares by the owners of Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12 hereon as tenants in common in the said shares and that individual Certificates of Title be issued in accordance therewith

That Lot 23 hereon (Legal access) be held as to three undivided one third shares by the owners of Lots 9, 10 and 11 hereon as tenants in common in the said shares, and that individual Certificates of Title be issued in accordance therewith

(See Request 359207)

I hereby certify that this plan was approved by the Tauranga City Council pursuant to Section 223 of the Resource Management Act 1991 on the day of 20 subject to the granting or reserving of the easements setout in the memoranda hereon and subject to the amalgamation conditions setout hereon

Authorised Officer
Sub 6066

Memorandum of Easements

Purpose	Shown	Serv. Ten.	Dom. Ten.
ROW	A	Lot 20 hereon	Lots 1-12
	B	Lot 21 hereon	Lots 6 & 7
	C	Lot 22 hereon	Lots 1-12
	D	Lot 23 hereon	Lots 9, 10 & 11

Memorandum of Easements in Gross

Purpose	Shown	Serv. Ten.	Grantee
ROW, Right to Convey Water, Right to Drain Water & Sewage	A	Lot 20 hereon	Tauranga City Council
	C	Lot 22 hereon	
Right to Drain Water & Sewage	E	Lot 4 hereon	
	F	Lot 6 hereon	
	G	Lot 8 hereon	
	H	Lot 9 hereon	

Schedule of Proposed Easements in Gross

Right to Convey Telecommunications & Computer Media	A	Lot 20 hereon	Telecom NZ Ltd
	B	Lot 21 hereon	
	D	Lot 23 hereon	
Right to Convey Power	A	Lot 20 hereon	Powerco Ltd
	B	Lot 21 hereon	
	D	Lot 22 hereon	

Note:
- Lots 1-12 and areas I-V will be subject to a Consent Notice
- External boundaries have been adopted from DPS 12498 unless shown otherwise

Class of Survey I

Total Area 1.7065 ha

Comprised in C.T. 18B/862

I, John David Barnes

being a person entitled to practise as a licensed cadastral surveyor certify that

(a) The surveys to which this dataset relates are accurate, and were undertaken by me or under my direction in accordance with the Cadastral Survey Act 2002 and the Surveyor General's Rules for Cadastral Survey 2002/2:

(b) This dataset is accurate and has been created in accordance with that Act and those Rules.

Signed ..... Date ...../...../.....

Field Book ..... p ..... Traverse Book ..... p .....

Reference Plans .....

Examined ..... Correct .....

Approved as to Survey by Land Information NZ on

...../...../.....

Deposited by Land Information NZ on

...../...../.....

File
Received
Instructions

DP 34996

LAND DISTRICT

SOUTH AUCKLAND

Lots 1 - 13 & 20 - 24 Being a Subdivision of Lot 2 DPS 20066

TERRITORIAL AUTHORITY TAURANGA CITY

Surveyed by S & L CONSULTANTS LTD F 17365

Scale 1 : 600 Date March 2005

APPENDIX 2

Statement of Professional Opinion (Form G2)
Lot Summary Report (Form G2A)

SECTION 2

To: The Director of Environmental Services

STATEMENT OF PROFESSIONAL OPINION AS TO THE GEOTECHNICAL SUITABILITY OF LAND FOR BUILDING

DEVELOPMENT: Chauntry Cove Residential Development

OWNER: Chauntry Cove Limited

LOCATION: 23 Te Wati Street, Maungatapu

I Michael William Hughes (Full Name) of S & L Consultants Ltd

P.O. Box 231, Tauranga (Name and Address of Firm)

Hereby confirm that;

1) I am a professional person appropriately qualified with experience in geotechnical engineering to ascertain the suitability of the land for building development and was retained as the Soils Engineer to the above development.

2) An appropriate level of site investigation and construction supervision has been carried out under my direction and is described in my development evaluation dated 18 March 2005

3) In my professional opinion, not to be construed as a guarantee, I consider that;

(a) The areas shown in my report dated 18 March 2005 of each new allotment are suitable for the erection thereon of the building types appropriate to the zoning of the land, provided that;

building restrictions and other recommendations in my report are observed.

(b) The earth fills shown on the attached Plan No. 17365-AB1 have been placed in accordance with the Code of Practice for Development of the Tauranga City Council.

(c) The completed works give due regard to all land slope and foundation stability considerations.

(d) The filled ground as defined in the report is suitable for the erection thereon of residential buildings not requiring specific design in terms of NZS 3604:1999 and related documents:

(e) The original ground not affected by filling is suitable for the erection thereon of residential buildings not requiring specific design in terms of NZS 3604:191 and related documents provided that:

Building restrictions and other recommendations including geotechnical reviews are observed.

4. This professional opinion is furnished to the Council and the owner for their purpose alone, on the express condition that it will not be relied upon by any other person and does not remove the necessity for the normal inspection of foundation conditions at the time of erection for any dwelling.

Signed ..... Date 18 March 2005

TAURANGA DISTRICT COUNCIL

SUITABILITY OF LAND FOR BUILDING DEVELOPMENT

TAURANGA CITY COUNCIL

MAY 98

G 2 Δ

VERSION 1

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TAURANGA DISTRICT COUNCIL

TAURANGA CITY COUNCIL

LOT SUMMARY REPORT

G 2a Δ

MAY 98

SUMMARY OF GEOTECHNICAL DATA/RECOMMENDATIONS FOR INDIVIDUAL LOTS

Subdivision: Chauntry Cove

Te Wati Street, Maungatapu

The comments and notations included on this summary sheet are outlined in the support documents. These shall be read in conjunction with this summary.

T.C.C Sub 6066

File Ref: 17365

Lot#	Area(m^2)	Subsurface Data: Subdivision Filling Y/N	Subsurface Data: Subdivision Filling Depth (m)	Subsurface Data: Natural topography unworked * Y/N	Subsurface Data: Natural topography earthworked Y/N	Subsurface Data: Natural topography earthworked Depth(m)	Foundations: Conventional shallow Foundations to NZS 3604:1999 Y/N/NA	Foundations: Specific Design Y/N/NA	Building line restriction? Y/N	Recommendations/restrictions
1	2340	Y	1.0	N	N		Y	N	Y	
2	1490	N		Y	N		Y	Y	N	see note below
3	820	Y	1.3	N	N		Y	N	Y	
4	650	Y	1.3-1.8	N	N		Y	N	Y	
5	1210	N		Y	N		Y	N	N	
6	720	Y	1.3-1.8	N	N		Y	N	Y	
7	670	Y	1.3-1.8	N	N		Y	N	Y	
8	760	Y	1.3	N	N		Y	N	Y	
9	660	Y	1.3	N	N		Y	N	Y	
10	700	Y	1.3	N	N		Y	N	Y	
11	900	N		Y	N		Y	N	Y	
12	920	N		Y	N		Y	N	Y	

Comments

Refer to S & L Consultants Ltd report reference 17365 for areas of cut and fill and discussion on soil tests and interpretation.

* Natural topography as pre existed subdivision

Building development on lot 2 subject to geotechnical review.

VERSION 1

APPENDIX 3

Filling Test Results

Geotechnics

Our Ref: 650011-135/1
Client Ref: -
30 November 2004

Bay Excavators
PO Box 453
Main Rd
TE PUKE

Attention: Trevor Johnstone

Dear Trevor

SITE TEST REPORT
CHAUNTREY COVE

Date of Testing

Tests were carried out on

- 23 September 2004
- 7 October 2004
- 22 October 2004
- 5 November 2004
- 9 November 2004

Test Location Procedure

Tests were located by the client.

Test Location Plan

See pages 4 to 6 of this report for location plans.

Samples

Samples were taken at each test location and given the following laboratory numbers:

- CHAUNTREY/230904/NDM 1 & 2
- CHAUNTREY/071004/NDM 3 & 4
- CHAUNTREY/221004/NDM 5, 6, 7 & 8
- CHAUNTREY/051104/NDM 9, 10 & 11
- CHAUNTREY/091104/NDM 12, 13, 14, 15, 16, 17 & 18

Client's Instructions

To test the specified area with a nuclear densometer and shear vane.

Specification

None issued

Test Methods

- NZS 4407: 1991 Test 3.1 – Determination of water content
- NZS 4407: 1991 Test 4.2.1 – Density of soils by nuclear densometer (Direct transmission)
- NSGS – Test Method for determining the Vane Shear Strength of a Cohesive Soil using a Hand Held Shear Vane

Test Results

See page 7 and 8 of this report for results.

Test Remarks

The NDM results are outside our calibrated range and are therefore not covered under scope of accreditation.

Shear Vane Testing is only suitable for cohesive soils. The shear vane tests on non-cohesive soils (sand) are therefore not covered under our scope of IANZ accreditation.*

Air Voids calculation is % = (1 - measured dry density/solid density) x 100. This calculation is not covered under our scope of IANZ accreditation.

Solid density is assumed at 2.58t/m^3.

Sample/Material Descriptions

- CHAUNTREY/230904/NDM 1 & 2 - SILT, sandy, yellow/brown, moist, slightly plastic.
- *CHAUNTREY/071004/NDM 3 & 4 - SAND, silty & sandy silt, light orange/brown, mottled orange & cream.
- CHAUNTREY/221004/NDM 5, 6, 7 & 8 - SILT, sandy, light orange/brown.
- CHAUNTREY/051104/NDM 9, 10 & 11 - SILT, traces of medium to coarse sand (pumice), light to medium orange/brown, moist, firm.
- CHAUNTREY/091104/NDM 12 – SILT, medium to coarse, sandy with traces of fine pumice sub-rounded gravel, light to medium grey/brown, moist, very stiff.
- *CHAUNTREY/091104/NDM 13 – SAND, fine to medium, slightly silty, yellow grey/brown, moist, dense (traces of red/brown clay).

- CHAUNTREY/091104/NDM 14 & 15 – SILT, medium to coarse, sandy with traces of fine pumice sub-rounded gravel, moist, light to medium grey/brown with traces of dark brown silt, hard (organics?).
- CHAUNTREY/091104/NDM 16 – SILT, fine to medium, light orange/brown, moist, hard.
- CHAUNTREY/091104/NDM 17 – SILT, fine to medium, medium yellow/brown, moist, very stiff with traces of fine, sub-rounded pumice.
- CHAUNTREY/091104/NDM 18 – SILT, medium to coarse, sandy with traces of fine pumice sub-rounded gravel, light to medium grey/brown with dark brown mottling, moist, very stiff.

General Remarks

We provide the logs and results for your interpretation and inference.

Sample(s) not destroyed during testing will be retained for one month from the date of this report before being discarded.

Descriptions are enclosed for your information, but do not form part of this endorsed report. This work is reported under our standard terms and conditions outlined on the reverse of the letterhead page.

Please reproduce this report in full when transmitting to others or including in internal reports.

If we can be of any further assistance, feel free to call us.

Yours faithfully
GEOTECHNICS LTD

Paul Burton
LABORATORY MANAGER

Tests indicated as not accredited are outside the scope of the laboratory's accreditation

Checked by:

6-Dec-04
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SUMMARY OF NDM TESTING

Assumed solid density: 2560 kg/m³

No.	Date of testing	Location plan No.	Field Wet Density t/m³	Field Dry Density t/m³	Field Water Content %	Oven Water Content (%)	Shear Vane Readings Kpa		Oven Dry Density t/m³	Air Voids (%)	Oven Air Voids (%)
NDM 1	23/09/2004	1	1.74	1.41	23.5	28.5	194 159 175		1.35	12.0	8.6
NDM 2			1.78	1.44	24.0	22.0	173 202 224+		1.46	9.2	10.7
NDM 3	07/10/2004	2	1.76	1.33	32.5	33.0	*141 *152 *156		1.32	5.2	4.6
NDM 4			1.74	1.27	36.5	39.0	*124 *127 *138		1.25	3.7	2.3
NDM 5	22/10/2004	3	1.66	1.18	41.0	48.0	172 175 175	GL as finished	1.12	5.7	2.1
NDM 6			1.57	1.08	44.5	50.0	145 155 158		1.04	3.6	6.9
NDM 7			1.68	1.18	42.0	47.0	145 155 158	300mm below test 5	1.14	5.5	1.8
NDM 8			1.69	1.19	41.5	52.5	154 154 159	300mm below test 6	1.11	6.9	-1.4

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NDM 9	05/11/2004	4	1.70	1.21	40.0	44.5	224+ 224+ 224++		1.2	1.5	1.5
NDM10			1.71	1.25	36.5	44.5	221 224+ 182		1.18	1.5	1.5
NDM 11			1.63	1.15	42.0	47.0	153 179 182	500mm below test 10	1.11	4.5	4.5
NDM 12	09/11/2004	5	1.74	1.34	29.5	29.5	224+ 224++ 224++		1.34	8.0	8.1
NDM 13			1.75	1.34	31.0	32.0	*224+ *201 *224+		1.33	6.4	5.7
NDM 14			1.78	1.33	33.5	28.5	193 224+ 224+		1.38	3.2	6.5
NDM 15			1.66	1.18	41.5	48.0	224+ 209 213		1.12	5.5	2.2
NDM 16			1.61	1.14	41.0	48.5	224+ 224+ 224+		1.08	8.5	4.9
NDM 17			1.66	1.21	37.5	45.0	224+ 214 224+		1.14	8.0	3.9
NDM 18			1.65	1.15	43.5	44.0	224+ 224+ 214		1.15	5.3	5.1

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APPENDIX 4

Presubdivision Investigation Borehole Logs

SINCLAIR & LIPINSKI

Borehole No. MB 1

Sheet: 1 Of: 2

Site: 23 Te WATI STREET (LOT 2 DPS 20066)

Job No. 17365 | Date Excavated: Tu·13/4/04 | RL Ground: | Logged By: MH

Description of Soil	Soil Symbol	Depth (m)	SPT		Undrained Shear Strength (kPa) 50 100 150
SILT: clayey, cohesive, Dark brown yellow, very stiff, slightly moist					
pale yellow, moist	YOUNGER ASHES	2.0	2 3 4	N=7	
slightly sandy, cream grey		3.0	1 1	N=2	
pumice Sand, grey, Dense Dry		5.0	4 4 5	N=9	
CLAY, Dark brown, hard					
SILT: clayey, cohesive, Dark brown orange, very stiff, moist	OLDER ASHES	6.0	3 5 4	N=9	
Black orange manganese		8.0			
		9.0			

EXCAVATION METHOD: 75mm ø MACHINE AUGER + HOLLOW SPT.

S&L SHRIMPTON & LIPINSKI

Borehole No. MB 1

Sheet: 2 Of: 2

Site: 23 TE WATI STREET (LOT 2 DPS 20066)

Job No. 17365. | Date Excavated: Tu. 13/4/04 | RL Ground: | Logged By: MH.

Description of Soil	Soil Symbol	Depth (m)	SPT	GWL	Undrained Shear Strength (kPa) 50 100 150
SILT: coarse, slightly cohesive Some residual sand, Dark brown orange, stiff, very moist, sensitive.	UNDER ASHES	0			
		10			
Sandy, non cohesive, cream with mangarise, medium Dense, moist	TAURANGA BEDS	11	1 3 4 N=7	▽ 11.5	
		12	1 3 7 N=7		
		13			
No recovery.		14	3 6 6 N=12		
		15			

EOH @ 15.0m. TARGET DEPTH

NOTES

1) STANDPIPE INSTALLED
2) GWL TAKEN DURING DRILLING
3) GWL RECORDED WITH DIPMETER.

EXCAVATION METHOD: 75 mm ϕ MACHINE AUGER + HOLLOW SPT.

S&L SHRIMPTON & LUPINSKI

Borehole No. MB 2

Sheet: 1 Of: 1

Site: 23 TE WATI STREET (LOT 2 DPS 20066)

Job No. 17365. | Date Excavated: Tu. 13/4/04 | RL Ground: | Logged By: MA

Description of Soil	Soil Symbol	Depth (m)	SPT	GWL	In Situ Undrained Shear Strength (kPa)
60% Brown orange Ash 40% Topsoil	M.S FILL				
Organic black grey Silt		1.0		W	1.15.
		2.0			30 / 100
SAND : Silty, cream, soft.		3.0			24 / 10
SILT : clayey, cream, soft			1	W<1	
Brown orange Ash, very soft		4.0			102 / 5.
			3 4	W=0	
grey, soft		5.0			
		6.0	1 / 1	W<1	
EOH @ 6.5M TARGET DEPTH					

NOTES

i) STANDPIPE INSTALLED

ii) GWL TAKEN W. 14/4/04

iii) DIPMETER USED TO DETERMINE GWL

EXCAVATION METHOD: 75mm Ø MACHINE AUGER & HOLLOW SPT.

Borehole No. MB3

Sheet: 1 Of: 1

Site: 23 TE WATI STREET (LOT 2 DPS 20066)

Job No. 17365 | Date Excavated: Tu · 13/4/04 | RL Ground: | Logged By: MH

Description of Soil	Soil Symbol	Depth (m)	GWL	IN SITU UNDRAINED SHEAR STRENGTH	Undrained Shear Strength (kPa) 50 100 150
Brown orange Ash mixed with topsoil	N.S FILL	1.0			
SILT - Sandy, grey, very soft				25/10	
clayey		2.0	▽		
		3.0		20/12	
Medium Dense		4.0			
Soft - SPT sinks under own weight			NKI		
		5.0			
EOHS @ 5.0m : TARGET DEPTH					

NOTES.

1) GWL TAKEN ON 13/4/04

2) DIPMETER USED TO MEASURE GWL

EXCAVATION METHOD: 75mm ϕ MACHINE AUGER + HOLLOW SPT.

Borehole No. MB 4

Site: 23 TE WATI STREET (LOT 2 DPS 20066)

Sheet: 1 Of: 1

Job No. 17365 | Date Excavated: Tu 13/4/04 | RL Ground: | Logged By: MBb

Description of Soil	Soil Symbol	Depth (m)	SPT	GWL	Undrained Shear Strength (kPa) 50 100 150
TOPSOIL	FILL				
SAND: Silty, pale grey, loose.		1.0		1.20	
		2.0			
Clay layer					
Silty, loose sand.		3.0			
SPT sinks under own weight			N<1		
		4.0			
		5.0			
SPT sinks under own weight			N<1		
EOR @ 6.0m. TARGET DEPTH		6.0			

NOTES

1) GWL TAKEN ON 13/4/04

2) DIP-METER USED TO MEASURE GWL.

EXCAVATION METHOD: 75MM Ø MACHINE AUGER + HOLLOW SPT

S&L SHRIMPTON & SIPINSKI

Borehole No. MB 5

Site: 23 TE WATI STREET (LOT 2 DPS 20066)

Sheet: 1 Of: 1

Job No. 17365. | Date Excavated: Tu. 13/4/04 | RL Ground: | Logged By: MA.

Description of Soil	Soil Symbol	Depth (m)	GWL	Undrained Shear Strength (kPa) — IN SITU UNDRAINED SHEAR STRENGTH
Brown orange Ash mixed with sand and topsoil				50 100 150
organic black soft		1.0		
SAND: silty, pale grey, loose.			▽	30/10
		2.0		
SILT: clayey, pale grey, very soft		3.0		20/12
Sandy		4.0		18/12
clayey		5.0		
		6.0		
EOB @ 6.0m: TARGET DEPTH.				

Notes

1) GWL MEASURED ON 13/4/04

2) DIP-METER USED TO DETERMINE GWL.

EXCAVATION METHOD: 75mm ϕ MACHINE AUGER.

Borehole No. MB 6

Site: 23 TE WATI STREET (LOT 2 DPS 20066)

Sheet: 1 Of: 1

Job No. 17365. | Date Excavated: Tu · 13/4/04 | RL Ground: | Logged By: MM.

Description of Soil	Soil Symbol	Depth (m)	GWL.	N SPT AND/OR SHEAR STRENGTH	Undrained Shear Strength (kPa) 50 100 150
Ash Silt mixed with 40-50% topsoil					
Black organic silt.		1.0	▽	30/14	
SILT: sandy, Dark grey, very soft		2.0			
clayey, cream.		3.0		20/10	
		4.0			
		5.0		18/10	
		6.0			
		7.0			
		8.0			
		9.0			
EOB @ 9.0m TARGET DEPTH.					

EXCAVATION METHOD: 75mm ϕ MACHINE AUGER

S&L SHRIMPTON & LIPINSKI

Borehole No. MB 7

Site: 23 TE WATI STREET (LOT 2 DPS 20066)

Sheet: 1 Of: 1

Job No. 17365 | Date Excavated: W. 14/4/04 | RL Ground: | Logged By: MH.

Description of Soil	Soil Symbol	Depth (m)	GWL	IN SITU UNDRAINED SHEAR STRENGTH	Undrained Shear Strength (kPa) 50 100 150
TOPSOIL	FILL				
organic black grey soft	OL	1.0	▽		
SAND silty, dark grey, very soft	SP			20/8	
SILT: grey, very soft	ML	2.0			
		3.0		15/5	
		4.0			
		5.0			
		6.0			
END @ 6.0m: TARGET DEPTH.					

NOTES

1) GWL MEASURED ON 14/4/04 WITH A DIP-METER.

EXCAVATION METHOD: 75mm ϕ MACHINE AUGER.

Borehole No. MB 8

Site: 23 TE WATI STREET (LOT 2 DPS 20066)

Sheet: 1 Of: 1

Job No. 17365. | Date Excavated: W. 14/4/04 | RL Ground: | Logged By: MM.

Description of Soil	Soil Symbol	Depth (m)	GWL	In Situ Undrained Shear Strength	Undrained Shear Strength (kPa) 50 100 150
Topsoil					
50% Brown Silt Ash 40% topsoil 10% grey silt	FILL	1.0			
SILT Sandy, cream, very soft.		2.0	▽ 14/4/04	20/8	
		3.0		8/0	
		4.0			
		5.0		10/0	
Clayey, cream, soft		6.0			
		7.0			
		8.0			
9.0m : TARGET DEPTH		9.0			

EXCAVATION METHOD: 75mm ϕ MACHINE AUGER.

S&L SHEIMPTON & LIPINSKI

Borehole No. MB 9

Site: 23 TE WATI STREET (LOT 2 DPS 20066)

Sheet: 1 Of: 1

Job No. 17365 | Date Excavated: W·14/4/04 | RL Ground: | Logged By: MH

Description of Soil	Soil Symbol	Depth (m)	GWL	UNDRAINED SHEAR STRENGTH kPa	Undrained Shear Strength (kPa) 50 100 150
Grey gravelly silt	N.S FILL	1.0			
SILT Organic (40-50%) brown grey		1.80	14/4/04	30/8	
Non organic, Sandy, cream, soft		2.0			
very soft		3.0		18/4	
		4.0		10/2	
		5.0			
		6.0			
		7.0			
		8.0			
EOB @ 9.0m TARGET DEPTH		9.0			

EXCAVATION METHOD: 75 mm ∅ MACHINE AUGER.

S&L
SMITHPTON & LIPINSKI

Borehole No. MB 10

Site: 23 TE WATI STREET (LOT 2 DPS 20066)

Sheet: 1 Of: 1

Job No. 17365 | Date Excavated: W·14/4/04 | RL Ground: | Logged By: MCL.

Description of Soil	Soil Symbol	Depth (m)	Undrained Shear Strength (kPa) 50 100 150
TOPSOIL			
SILT: clayey, cohesive, Dark brown orange, very stiff, slightly moist	ASHES	0.0	
brown orange		1.0	107/45
very moist		2.0	
		3.0	100/50
some sand, non cohesive cream, stiff, very moist sensitive		4.0	
		5.0	80/28
		6.0	

▽ 14/4/04 5.80

EOH @ 6.0m : TARGET DEPTH

EXCAVATION METHOD: 75 MM Ø MACHINE AUGER.

S&L
SINCLAIR & LINDSEY

Borehole No. MB 11

Site: 23 TE WATI STREET (LOT 2 DPS 20066)

Sheet: 1 Of: 1

Job No. 17365. | Date Excavated: W·14/4/04 | RL Ground: | Logged By: MA

Description of Soil	Soil Symbol	Depth (m)	SPT	GWL.	Undrained Shear Strength (kPa) 50 100 150
Brown yellow Ash mixed with minor topsoil, stiff	FILL	1.0			
Natural Buried topsoil		2.0			
SILT: clayey, cohesive, Dark Brown orange, stiff, very moist	ASH				
Some Sand, slightly cohesive Cream, stiff, moist		3.0	2 3 3	N=6	
		4.0			
Sandy, non cohesive.			1 1	N<1	
		5.0		▽ 4.6.	
EOB @ 6.0m. TARGET DEPTH		6.0			

NOTES

i) STANDPIPE INSTALL'D

ii) GWL TAKEN W·14/4/04. WITH DIP-METER

EXCAVATION METHOD: 75mm ϕ MACHINE AUGER + HOLLOW SPT.

S&L SINCLAIR KNIGHT MERZ

Borehole No. MB 12

Site: 23 TE WATI STREET (LOT 2 DPS 20066)

Sheet: 1 Of: 1

Job No. 17365 | Date Excavated: W. 14/4/04 | RL Ground: | Logged By: MH

Description of Soil	Soil Symbol	Depth (m)	G.W.L.	N SITU UNDRAINED SHEAR STRENGTH	Undrained Shear Strength (kPa) 50 100 150
SILT clayey, cohesive, yellow, very stiff, slightly moist	ASHES.	1.0	DRY.	114/54	
moist		2.0			
		3.0		102/55	
Sandy, non cohesive, cream stiff, moist, sensitive		4.0		98/30	
EOB @ 4.5m: TARGET DEPTH					

NOTES

1) STANDPIPE INSTALLED

EXCAVATION METHOD: 75mm ϕ MACHINE AUGER

S&L
SINCLAIR KNIGHT MERZ

Borehole No. MB 13

Site: 23 TE WATI STREET (LOT 2 DPS 20066)

Sheet: 1 Of: 1

Job No. 17365. | Date Excavated: W·14/4/04 | RL Ground: | Logged By: MBB

Description of Soil	Soil Symbol	Depth (m)	SPT	GWL	Undrained Shear Strength (kPa) 50 100 150
TOPSOIL	FILL				
organic black silt	SWAMP	1.0			
SAND : grey, loose SILT : clayey, cohesive, yellow orange stiff, very moist		2.0			
CLAY : Dark brown orange					
SILT : clayey, cohesive, cream s.s., moist, sensitive.		3.0	1 1 2	N=3.	
Seepage @ 4 m		4.0		▽	
EOH @ 4.5m : TARGET DEPTH.					

EXCAVATION METHOD: 75mm MACHINE AUGER & HOLLOW SPT

Borehole No. MB 14

Site: 23 TE WATI STREET (LOT 2 DPS 20066)

Sheet: 1 Of: 1

Job No. 17365 | Date Excavated: W. 14/4/04 | RL Ground: | Logged By: MA

Description of Soil	Soil Symbol	Depth (m)		IN SITU UNDRAINED SHEAR STRENGTH	Undrained Shear Strength (kPa) 50 100 150
Topsoil mixed with ash	N.S FILL				
SILT: Sandy, non cohesive, cream stiff, slightly moist		1.0		95/60	
Seepage		2.0	▽	SEEPAGE	
EOH @ 3.0m TARGET DEPTH		3.0		72/32	

EXCAVATION METHOD: 75mm ϕ MACHINE AUGER.

S&L SHEIMPTON & LIPINSKI

Borehole No. MS 15

Site: 23 TE WATI STREET (LOT 2 DPS 20611)

Sheet: 1 Of: 1

Job No. 17365 | Date Excavated: W 14/4/04 | RL Ground: | Logged By: MH

Description of Soil	Soil Symbol	Depth (m)	SWL	In Situ Undrained Shear Strength	Undrained Shear Strength (kPa) 50 100 150
TOPSOIL					
SILT clayey, cohesive, Dark brown orange, very stiff		1.0			
Slightly cohesive, cream				131/60	
		2.0			
			▼	260	
		3.0		110/48	

END @ 3.0M ; TARGET DEPTH.

EXCAVATION METHOD: 75MM Ø MACHINE AUGER.

Gaichers

Apex consultants limited

Realty House
60 Durham Street
PO Box 13423
Tauranga 3141, New Zealand
telephone (64) (7) 578 3701
fax (64) (7) 578 5270
e-mail tauranga@apex-consult.co.nz
website www.apex-consult.co.nz
Our Ref: TGA1967

14 November 2006

Affordable Homes
P O Box 9020
TAURANGA

ENTERED

Attention: Greg Hooper

Dear Greg

GARDNER HOUSE – LOT 8 EBB TIDE, MAUNGATAPU, UNDERSLAB FILL TESTING

INTRODUCTION

This report is to certify the compaction of imported granular fines as under-slab fill material for a residential building. It assesses whether the fill has been constructed to sound engineering practice and specifications, and conforms to the requirements of NZS 3604:1999.

SITE INSPECTION AND TESTS

An initial site inspection was carried out on the 28 August 06 and confirmed that all topsoil and unsuitable material had been removed from inside the perimeter block foundation wall. A further site inspection and testing of the compacted fill was carried out by this office on the 29 August 06.

The depth of fill ranged from 800mm – 900mm depth. Scala penetrometer tests were carried out at the 4 locations shown in the affixed diagram and the results are attached. The imported granular fines fill showed average compaction values per 300mm of depth ranging between 10 mm/blow and 53 mm/blow.

FILL CERTIFICATION

The testing of the under-slab fill has been carried out in accordance with NZS 4402 test 6.5.2.

It is the opinion of this office that the fill has been soundly compacted to achieve the allowable bearing pressures (kPa) tabulated below.

Bearing Pressure (kPa)	Test			
Depth (mm)	1	2	3	4
300	131	72	83	150
600	245	127	190	200
900	-	190	230	-

It should be noted that the results obtained are limited to the test locations, and while design assumptions may be inferred for the rest of the fill, the final responsibility for the reliance upon the test results rests with the fill contractor/owner.

If you have any queries please contact us.

Apex Consultants Limited
Civil and Structural Engineers

Yours faithfully
APEX CONSULTANTS LTD

Phil Read
NZCE Civil

Reviewed by:

Geoff Morgan
NZCE, BE, CP Eng

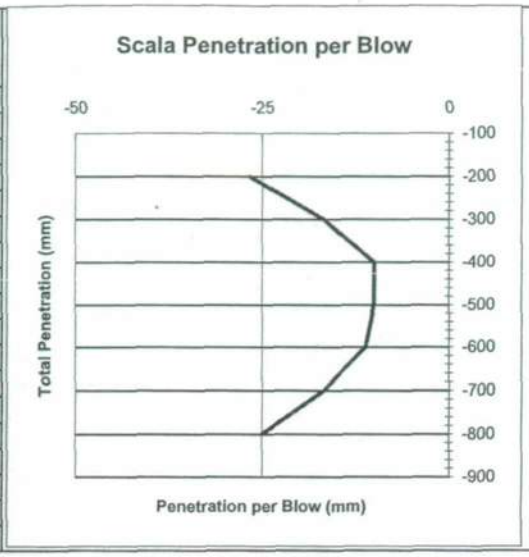
Site Lot 8 Ebb Tide
Description Underslab Fill
Test Location See Photo

Date 29/08/2006 Tested By: P Read

Apex consultants

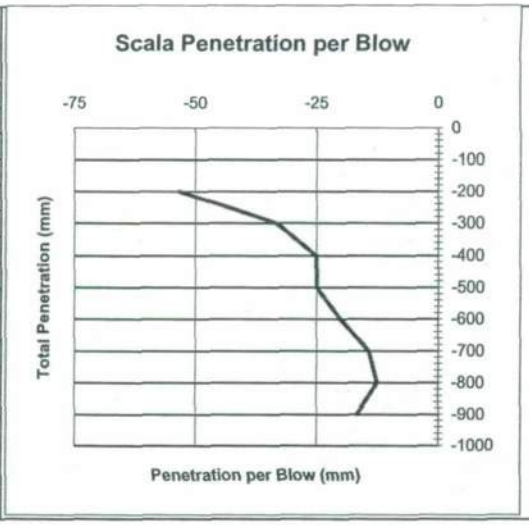
Scala Penetrometer Tests - Test No 1

Total Depth mm	No of Blows (Cumulative)	Ave mm/blow/ 300mm	Bearing Pressure kPa	mm/ blow
0				
-40	0.0			
-200	6.0			-26.7
-300	12.0	21.7	131	-16.7
-400	22.0			-10.0
-500	32.0			-10.0
-600	41.0	10.3	245	-11.1
-700	47.0			-16.7
-800	51.0			-25.0
-900				



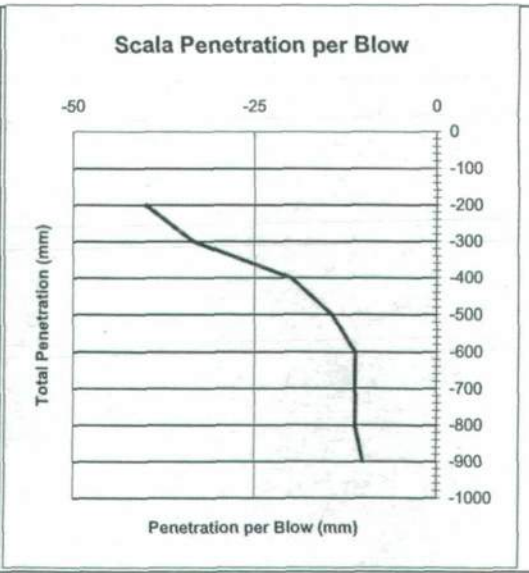
Scala Penetrometer Tests - Test No 2

Total Depth mm	No of Blows (Cumulative)	Ave mm/blow/ 300mm	Bearing Pressure kPa	mm/ blow
0				
-40	0.0			
-200	3.0			-53.3
-300	6.0	43.3	72	-33.3
-400	10.0			-25.0
-500	14.0			-25.0
-600	19.0	23.1	127	-20.0
-700	26.0			-14.3
-800	34.0			-12.5
-900	40.0	14.3	190	-16.7



Scala Penetrometer Tests - Test No 3

Total Depth mm	No of Blows (Cumulative)	Ave mm/blow/ 300mm	Bearing Pressure kPa	mm/ blow
0				
-40	0.0			
-200	4.0			-40.0
-300	7.0	37.1	83	-33.3
-400	12.0			-20.0
-500	19.0			-14.3
-600	28.0	14.3	190	-11.1
-700	37.0			-11.1
-800	46.0			-11.1
-900	56.0	10.7	230	-10.0

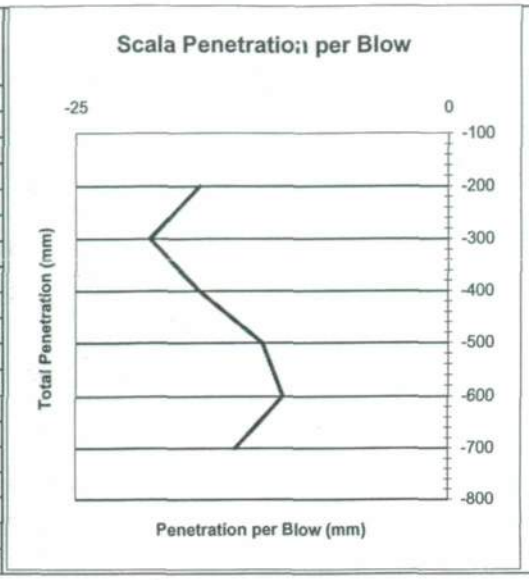


Site **Lot 8 Ebb Tide**
Description **Underslab Fill**
Test Location **See Photo**

Date 29/08/2006 Tested By: P Read

Scala Penetrometer Tests - Test No 4

Total Depth mm	No of Blows (Cumulative)	Ave mm/blow/ 300mm	Bearing Pressure kPa	mm/ blow
0				
-100				
-200	6.0			-16.7
-300	11.0	18.2	150	-20.0
-400	17.0			-16.7
-500	25.0			-12.5
-600	34.0	13.0	200	-11.1
-700	41.0			-14.3



NOTES



REV	REVISION DETAILS	APPD	DATE
A	PLATFORM & SW FINAL DESIGN - FOR TENDER	BP	09/06

Apex consultants

Tauranga 60 Durham Street ph. (07) 578 3701
PO Box 13423 fax. (07) 578 5270

Also at : New Plymouth and Hawera

web www.apex-consult.co.nz email mail@apex-consult.co.nz

Lot 8 EBB TIDE

GARDNER HOUSE

UNDERSLAB TEST LOCATIONS

JOB No.	DESIGNED
CAD No.	DRAWN
DATE	CHECKED
ORIGINAL SCALES	A3

DRAWING No. TGA1967 SHEET OF REV.

Natural Hazards



Flooding from Intense Rainfall

0 10 20
Meters

Scale: 1:1,000 @ A4

N

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Tauranga City

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Natural Hazards Key

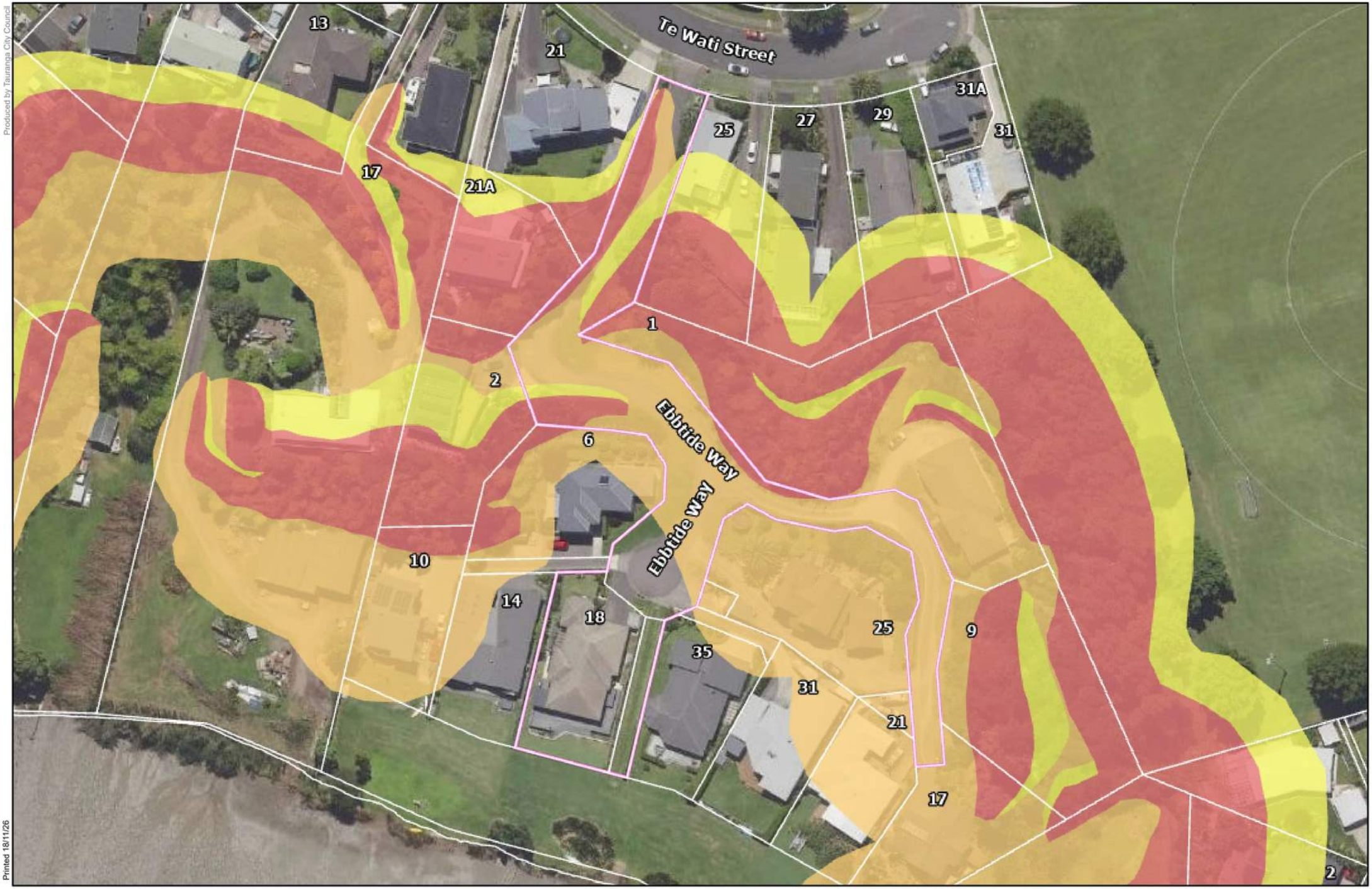
Flooding From Intense Rainfall

- Floodplain
- Flood Prone Area (Depth 100-300mm)
- Flood Prone Area (Depth >300mm)
- Minor Overland Flow Path
- Major Overland Flow Path

Depth x Velocity – 100 Year Event

- < 0.4m^2/s
- 0.4 - 0.6m^2/s
- 0.6 - 0.8m^2/s
- > 0.8m^2/s

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Slope Hazard Zones Plan

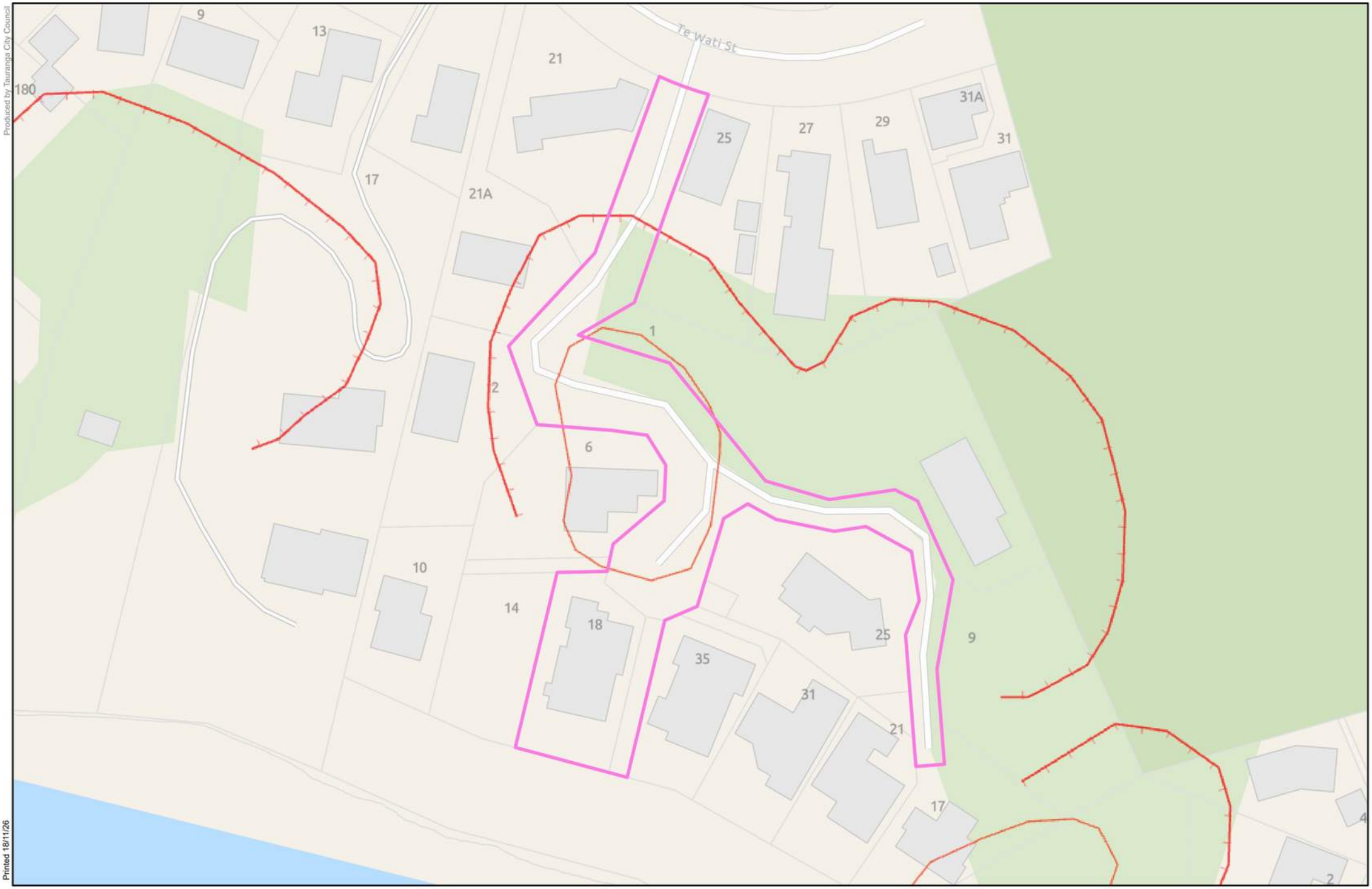
0 10 20
Meters

Scale: 1:1,000 @ A4

N

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Relic Slip Plan

0 10 20
Meters

Scale: 1:1,000 @ A4

N

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Tauranga City

Natural Hazards Key

Slope Hazard Zones



Failure Zone 2:1

Regression Zone 3:1

Runout Zone 4:1

Relic Slip



Slope debris lobe showing evidence of recent or current activity

Possible slope debris lobe



Probable slope debris lobe

Interpreted head scarp with poorly defined morphology



Interpreted head scarp with clearly defined morphology

Slope

TSUNAMI EVACUATION ZONE: Tauranga, Welcome Bay



WARNING

Tsunami is a safety risk here.

The evacuation zone is coloured **BLUE**. In a

LONG or STRONG earthquake

GET OUT OF THE BLUE

- Go inland or to higher ground.
- Walk or bike if you can.
- Stay out of the blue zone. Wait for official updates.

A tsunami might be coming if there...

- is a strong earthquake.
- is a long earthquake, even if it's weak.
- are unexpected sea level changes.
- are loud and unusual noises from the sea.

For more information and updates:

bopcivildefence.govt.nz
bopcivildefence
bopcivildefence
radio

LONG OR STRONG, GET GONE

Tsunami Evacuation Zone

Waterway

Scale: 1:30,000

BAY OF PLENTY EMERGENCY MANAGEMENT GROUP

Tauranga City