

2017

Land Information Memorandum



■ **60 Woolrich Road, Te Kowhai**
LOT 3 DP 329628

■  www.facebook.com/WaikatoDistrictCouncil ■ 0800 492 452 ■ www.waikatodistrict.govt.nz

Waikato

DISTRICT COUNCIL
Te Kauhīhera o Te Kōwhiri o Waikato

Land Information

Memorandum

In reply please quote: LIM0870/17
If calling, please ask for: Shelley Crosby

LOCAL GOVERNMENT OFFICIAL INFORMATION AND MEETINGS ACT 1987

The information supplied in this Land Information Memorandum is based on existing Waikato District Council records that may not be complete. The property has not been inspected or surveyed by the Council. It is the purchaser's responsibility to check the boundaries of the property.

It is assumed that any purchaser will search the certificate of title that is not held by the Council and will personally inspect the property and its surrounds. This information deals solely with the property named below, and does not disclose any relevant information that may affect adjacent properties.

It is the sole responsibility of any purchaser to ensure that the land is suitable for a particular purpose.

► Property Details:

Valuation Reference:	04420/461.04
Legal Description:	LOT 3 DP 329628
Area:	1.8774 hectares more or less
Property Location:	60 Woolrich Road TE KOWHAI
Owners:	Peter John Kivell, Sandra Mary Kivell

► Property Location:



Information regarding –
 44A(2)
 (c) information relating to any rates owing in relation to the land

► Rates & Rating Valuation:		Information regarding – 44A(2)(c) information relating to any rates owing in relation to the land
Annual rates for 2016/2017	\$2,526.16	Balance Owing: \$0.00 (Balance of 3rd instalment due 23 May 2017)
Value of Improvements	\$ 500,000.00	
Land Value	\$ 300,000.00	
Capital Value	\$ 800,000.00	
Date of Valuation	1 July 2014	

Valuation

Properties in the Waikato District are re-valued every three years in accordance with the Rating and Valuations Act 1988.

Rates and 2011 and 2014 valuations can be viewed online using the Rating Information Database (RID) available on the Waikato District Council website at www.waikatodc.govt.nz

Current Rates

A copy of the current 2016/2017 rates assessment is attached. The 2016/2017 rates are based on the new valuations dated 1 July 2014, which are shown in the table above.

If this property has been connected to any additional council services since the 1 July 2016 assessment, additional charges will be added in respect of this property in the following rating year.

If you have any queries with regards to the 2016/17 rates, please contact a member of the rating team on 0800 492 452 or e-mail rates@waidc.govt.nz.

Rates Capital Value

Please note that the rates reflected on this LIM were calculated based on the capital value of the property as at 1 July of the current rating year. Any changes to the capital value of the property that have taken place since 1 July will be reflected in the rating charges for this property in the next rating year. Please contact a member of the rating team on 0800 492 452 if you require further clarification or have any questions.

Information regarding –
44A(2)

- (f) information relating to the use to which that land may be put and conditions attached to that use:
- (g) information which, in terms of any other Act, has been notified to the territorial authority by any statutory organisation having the power to classify land or buildings for any purpose:
- (h) any information which has been notified to the territorial authority by any network utility operator pursuant to the Building Act 1991 or the Building Act 2004

Under the Waikato District Plan the property is within the:

- Rural Zone
- Waikato River Catchment Policy Area

Please refer to the Waikato District Plan or speak to a duty planner regarding specific requirements for development on properties within these areas.

For any restrictions of the use of the property please refer to the Certificate of Title.

► Resource Consents:

Application No	Description	Decision
70/04/018	SUBDIVISION CONSENT - Create 3 Additional Lots	GRANTED 15 August 2003

Requisitions: No known planning requisitions to date.

Planning rules relating to this property are contained in the Waikato District Plan and are not outlined in this LIM report. The Waikato District Plan is available to view on Council's website at www.waikatodc.govt.nz.

■ Building

Information regarding –
44A(2)

- (d) information concerning any consent, certificate, notice, order, or requisition affecting the land or any building on the land previously issued by the territorial authority (whether under the Building Act 1991, the Building Act 2004, or any other Act):
- (e) information concerning any certificate issued by a building certifier pursuant to the Building Act 1991 or the Building Act 2004:
- (ea) information notified to the territorial authority under section 124 of the Weathertight Homes Resolution Services Act 2006:

It is recommended that a potential purchaser engage a building consultant to complete a pre-purchase inspection of buildings. Irrespective of code of compliance, structures are subject to deterioration over time and works may have been undertaken without building consent. If requested and supplied, a copy of this may be filed on council records for future references and Land Information Memoranda.

Architects and designers require wind & earthquake information to establish bracing requirements for building development.

► Building Consents/Permits:

Number	Description	Consent/Permit issued date	CCC Issued/ Completed Date
BLD0548/08	Dwelling with Attached Garage	26 November 2007	5 June 2008

Requisitions: No known building requisitions to date.

■ Water Supply

information regarding –
44A(2)

- (ba) any information that has been notified to the territorial authority by a drinking-water supplier under section 69ZH of the Health Act 1956:
- (bb) information on—
 - (i) whether the land is supplied with drinking water and if so, whether the supplier is the owner of the land or a networked supplier;
 - (ii) if the land is supplied with drinking water by a networked supplier, any conditions that are applicable to that supply;
 - (iii) if the land is supplied with water by the owner of the land, any information the territorial authority has about the supply:

The property is located outside an area currently served by a community water supply administered by Waikato District Council.

■ Drinking Water (potable water supply)

The property is not connected to a community water supply. It is the property owner's responsibility to ensure suitable drinking water is supplied on-site.

The construction of a bore for the taking of ground water requires consent from the Waikato Regional Council, for further information contact Waikato Regional Council.

Information regarding –
44A(2)

(b) information on private and public stormwater and sewerage drains as shown in the territorial authority's records:

■ Wastewater

The property is located outside an area currently served by a community system for wastewater disposal.

On-site wastewater disposal must comply with the Waikato Regional Plan and the AS/NZS standard for On-site Domestic Wastewater Management. New on-site effluent disposal systems must be designed and certified by an engineer or suitably qualified person.

Existing System

The property has an existing on-site wastewater disposal system. Wastewater disposal systems are sized in relation to the number of bedrooms of a dwelling and the potential occupancy.

Future building works that include additional bedrooms will require an assessment from an engineer or other suitably qualified person approved by the Council, of whether the existing on-site effluent treatment system is capable of adequately treating and disposing of the increased loadings. If upgrades are required, these shall be designed, supervised and certified by an engineer or other suitably qualified person to comply with AS/NZS 1547:2012 and the Waikato Regional Plan.

It is recommended that potential purchasers engage a contractor to inspect the septic tank prior to settlement. The Waikato District Council does not maintain or monitor private wastewater disposal systems and NZ standards indicate a septic tank should be cleaned / emptied every 3 years.

■ Stormwater

The property is located outside an area currently served by a community system for stormwater or land drainage disposal.

For any new development, Onsite Stormwater Disposal will be required under the Waikato District Plan & Waikato Regional Plan prior to connection to any public stormwater network or drains.

For further Information please contact a Project Information Officer at the Waikato District Council.

■ Natural Hazards

Information regarding –
44A(2)

- (a) information identifying each (if any) special feature or characteristic of the land concerned, including but not limited to potential erosion, avulsion, falling debris, subsidence, slippage, alluvion, or inundation, or likely presence of hazardous contaminants, being a feature or characteristic that—
 - (i) is known to the territorial authority; but
 - (ii) is not apparent from the district scheme under the Town and Country Planning Act 1977 or a district plan under the Resource Management Act 1991;

LRI (Us/Peat or Slope)

New Zealand Land Resource Inventory Maps indicate that the soils in this area may have poor bearing capacity for building foundations due to Natural Sloping Topography.

A geotechnical engineer may be required to investigate ground or sub-soil conditions to establish any specific requirements for building development.

Geotechnical Reports Available

Attached for your information is a copy of the Soil and Land Evaluation Report by Richard Chapman NZSS BSSS PhD MSc(Hons), dated 27 June 2003 this was prepared as part of the Subdivision Application to Create 3 Additional Lots.

Attached for your information is a copy of the Domestic On Site Waste Water Management Plan by GA Hughes & Associates (2005)Ltd, dated 10 October 2007; this was prepared as part of the Building Application to Construct a Dwelling with Attached Garage.

Attached for your information is a copy of the Soil Site Investigation Report by JH Wilson - Consulting Engineer, dated 6 September 2006; this was prepared as part of the Building Application to Construct a Dwelling with Attached Garage.

Under section 71-74 of the Building Act 2004, upon application for a building consent applicants must demonstrate that any proposed building work will be protected from hazards.

■ Additional Information

Information regarding –

44A(3) in addition to the information provided for under subsection (2), a territorial authority may provide in the memorandum such other information concerning the land as the authority considers, at its discretion, to be relevant.

■ Health

There are no outstanding Notices or Orders under the Health Act 1956 and related legislation in respect of the property.

■ Refuse

Waikato District Council's goal is to work towards a 'zero waste' target. On 1 July 2016 we introduced a pre-paid service to our refuse and recycling to help Waikato residents reduce the volume of waste they send to landfill. Less waste will save us all more in the long-run.

There are Waikato District Transfer Stations in Huntly, Te Kauwhata and Raglan.

Refuse & Recycling Service Collection day for this property is **Monday**.

For further information please see <https://www.waikatodistrict.govt.nz/services-facilities/refuse-and-recycling>

■ Utilities

The Waikato District Council does not hold records concerning utility systems it does not administer. For information concerning state highways (administered by NZ Transport Agency), electricity, telephone or gas, the relevant network operator should be contacted.

Yours faithfully



Shelley Crosby
Land Information Officer

Peter John Kivell &
 Sandra Mary Kivell

Property Number 2007529
Rateable Value \$800,000

For queries relating to this rates assessment please quote the property number shown above when calling.

L000812

Property details for this rate assessment are as follows:

Valuation Roll No 04420/461.04 **Property Location** 60 Woolrich Road TE KOWHAI
Capital Value \$800,000 **Improvement Value** \$500,000 **Land Value** \$300,000 **Area** 1.877400 ha
Legal Description LOT 3 DP 329628

L000812

PLEASE NOTE: THIS IS NOT AN ACCOUNT FOR PAYMENT - YOU WILL BE INVOICED SEPARATELY.

Description of Rate	Matters for differentiation and Targeted Rate funding	Targeted Rate Factor	Factor Applicable	Charge per Factor	Amount
General Rate		rateable value	800,000	0.0023825	\$1,906.00
Uniform Annual General Charge (UAGC)		fixed charge	1	442.33	\$442.33
District Refuse	collection service available	per SUIP ²	1	127.83	\$127.83
Te Kowhai Community Centre	residential and within Te Kowhai Community Centre area	per SUIP ²	1	50.00	\$50.00
Total rates assessed					\$2,526.16
Total rates remitted					\$0.00
Total rates payable					\$2,526.16
Rates balance as at 30 June 2016					\$(0.04)
Balance of year's rates to be paid					\$2,526.12

(All figures include GST)

Notes

- ¹ Capital Value includes land and improvements
- ² Differential categories are further defined in the funding impact statement adopted as part of the Long Term Plan
- * SUIP - Separately Used or Inhabited Part of a property or building

Functions funded by rates

General rate

The general rate funds a portion of the democracy, community services, infrastructural and regulatory functions that are shown on the table below.

Uniform annual general charge (UAGC)

The uniform annual general charge funds a portion of the democracy, community services and regulatory functions that are people related and are shown on the table below.

Community facility targeted rate

The community facility rate funds the maintenance and operation of halls and community centres within defined rating areas.

Capital works contributions

The capital works contribution has been set for the purpose of covering the capital cost and interest charges of works not met by lump sum contributions for the projects.

Water targeted rate

The water rate funds the supply of water to properties that receive, or are capable of receiving a water supply.

Wastewater targeted rate

The wastewater rate funds sewage disposal for properties that are connected or able to be connected to the wastewater network.

Urban stormwater targeted rate

The urban stormwater rate funds the collection and disposal of stormwater within defined rating areas.

Refuse targeted rate

The refuse collection rate funds the costs of household refuse collection, recycling and disposal within defined rating areas.

Further information on the rationale for funding these functions in this way can be found in the Waikato District Council's Revenue and Financing Policy, copies of which can be obtained from any Waikato District Council Office.

Breakdown of General Rate and Uniform Annual General Charge (UAGC) Applicable to This Rating Unit		
	General Rate \$	UAGC \$
Lifestyle	\$276.94	\$125.89
Area Offices and Other Properties	\$161.25	\$73.29
Corporate and Council Leadership	\$175.35	\$79.75
Grants and Donations	\$27.26	\$12.39
Parks and Green Spaces	\$332.22	\$151.01
Transport	\$892.39	\$0.00
Refuse	\$18.68	\$0.00
Water Management	\$21.92	\$0.00
	\$1,906.00	\$442.33

The supply of water, collection/treatment of wastewater and draining of stormwater are all essential services for the community's ongoing health and well-being, and contribute to the Healthy and Sustainable Community Outcomes. Expenditure from general rates and uniform annual general charges is for scoping new projects, asset management planning, developing policies and to contra the rates levied on these assets.



**COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952**



Search Copy


R. W. Muir
Registrar-General
of Land

Identifier 121288
Land Registration District South Auckland
Date Issued 08 June 2004

Prior References

SA14C/1056

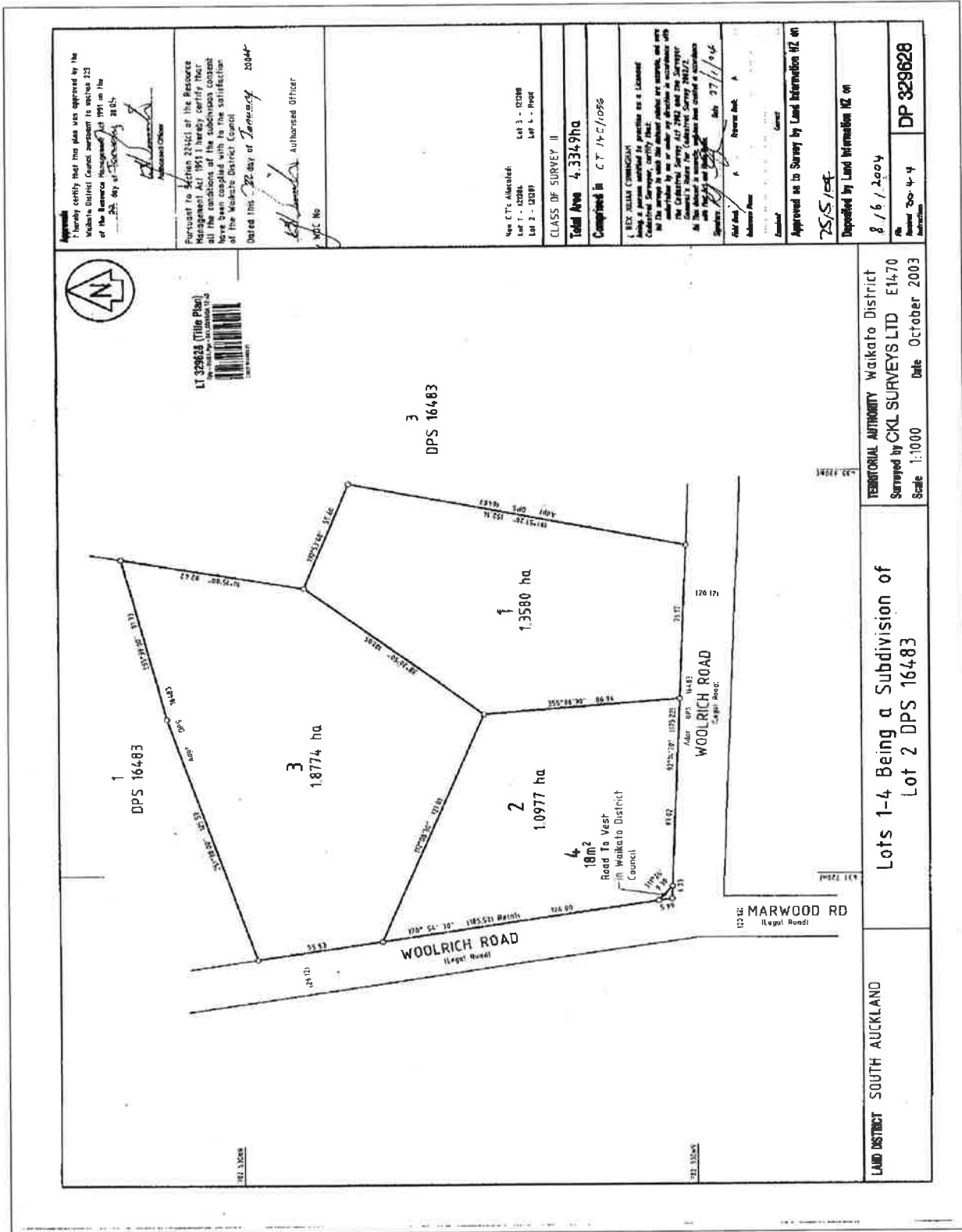
Estate Fee Simple
Area 1.8774 hectares more or less
Legal Description Lot 3 Deposited Plan 329628

Proprietors

Peter John Kivell and Sandra Mary Kivell

Interests

Land Covenant in Easement Instrument 7388087.1 - 25.5.2007 at 9:00 am
7393410.3 Mortgage to ASB Bank Limited - 1.6.2007 at 11:55 am



Approval
I hereby certify that this plan was approved by the Waikato District Council pursuant to section 223 of the Resource Management Act 1991 on the 25th day of February 2004.
[Signature]
Authorised Officer

Pursuant to Section 223(4) of the Resource Management Act 1991, hereby certify that the information contained in this plan is correct and has been compiled with the satisfaction of the Waikato District Council.
Dated this 22 day of February 2004
[Signature] Authorised Officer
W.D.C. No

New C.T. Identified:
Lot 1 - 13580
Lot 2 - 10977
Lot 3 - 18774
Lot 4 - 18sqm

CLASS OF SURVEY II
Total Area 4.3349ha
Completed in CT 14C/1096

I, BEY BELLA COMBOMING
being a person entitled to practice as a Licensed Cadastral Surveyor, certify that:
1. The survey is in accordance with the provisions of the Cadastral Survey Act 1980 and the Survey Act 1988.
2. The boundaries shown on this plan are the boundaries of the lots as shown on the plan.
3. The plan is a true and correct copy of the original plan as shown on the plan.
4. The plan is a true and correct copy of the original plan as shown on the plan.
5. The plan is a true and correct copy of the original plan as shown on the plan.
Signed: *[Signature]* Date: 27/2/04

Old and New Boundaries:
Authorised Officer: *[Signature]*
Approved as to Survey by Land Information NZ on 25/2/04
Deposited by Land Information NZ on 8/6/2004

TERITORIAL AUTHORITY Waikato District
Surveyed by CKL SURVEYS LTD E1470
Scale 1:1000 Date October 2003

**Lots 1-4 Being a Subdivision of
Lot 2 DPS 16483**

LAND DISTRICT SOUTH AUCKLAND

Your Ref:

E1470

In reply please quote:

70 04 018

If calling, please ask for:

Andrew Sowersby

15 August 2003

CKL Surveys
Attention: Bevan Houbrooke
P O Box 171
HAMILTON

Dear Mr Houlbrooke

APPLICATION FOR RESOURCE CONSENT: I SHERBURN – CNR WOOLRICH AND MARWOOD ROAD

You are advised of the following decision on your application, which has been made pursuant to authority delegated by the Council to the Environmental Consents Manager.

"Pursuant to sections 105(1)(b), 105(1)(c), 108 and 220 of the Resource Management Act 1991 the Waikato District Council grants consent to a subdivision to create three new lots with areas less than 13 hectares as a non complying activity under the provisions of the Operative Waikato District Plan and Plan Change 7 and a restricted discretionary activity under Section 36 of the Operative District Plan, on a site legally described as Lot 2 DPS 16483, as comprised in Certificate of Title 14C/1056, South Auckland Land Registry subject to the following conditions:

GENERAL

- 1 The survey plan to give effect to this Resource Consent shall be generally consistent with the proposal shown on plan reference 'E1470:S1' prepared by CKL Planning and Surveying Ltd, received on the 28 July 2003 with the application 70 04 018. A copy of the approved plan is attached.

FINANCIAL CONTRIBUTIONS

Roading

- 2 Pursuant to section 108(2)(a) of the Resource Management Act 1991 a financial contribution for roading of \$9,262.00 (Nine Thousand Two Hundred and Sixty Two Dollars), inclusive of GST, shall be paid to the Council. This is based on a Roothing Contribution of \$4,631.00 (Four Thousand Six Hundred and Thirty One Dollars), inclusive of GST for each additional lot.

Reserves

- 3 Pursuant to section 108(2)(a) of the Resource Management Act 1991, a reserve contribution of \$2,250.00 (Two Thousand Two Hundred and Fifty Dollars), inclusive of GST, shall be paid to Council. This is based on a Reserve Contribution of \$1,125.00 (One Thousand One Hundred and Twenty Five Dollars), inclusive of GST for the creation of two additional Lots, and shall be paid to the Council in lieu of vesting land.

ARCHAEOLOGICAL

- 4 The consent holder shall ensure that, should any human remains or archaeological items be exposed while undertaking works to give effect to conditions of this consent, works in that area will cease immediately. The Police, New Zealand Historic Places Trust, and Kaumatua representing the local Tangata Whenua shall be contacted and work shall not recommence in the affected area until any necessary statutory authorisations or consents have been obtained.

ROADING

- 5 Lots 1 and 3 shall be provided with sealed standard residential vehicle entrances located as indicated on the approved plan, and constructed in accordance with WDC plan No. TSG-E3 to the satisfaction of Council.
- 6 Lot 2 shall be provided with a sealed standard residential vehicle entrance located a minimum of 80 metres from the intersection of the Woolrich and Marwood Roads, and constructed in accordance with WDC plan No. TSG-E3 to the satisfaction of Council.
- 7 Lot 4 shall be road to vest in the Waikato District Council.
- 8 The surface of the sealed entrances shall be two coat chip seal, constructed with 180/200 grade bitumen and G3 and G5 chip. The seal shall extend not less than 5 metres from the edge of the existing seal, or to the property boundary if that is more than 5 metres.

UTILITIES

- 9 The secondary flowpath path from the existing culvert underneath Woolrich Road through the proposed Lot 1 shall be shown on an amended site plan to the satisfaction of Councils Environmental Consents Engineer.
- 10 The proposed entranceways to Lots 1, 2 and 3 shall contain culverts of minimum diameter of 300mm to allow the continued flow of stormwater down the water table drain on Woolrich Road to the satisfaction of Council.

Advisory Note

- 1 The Waikato District Council's Area Engineer is to be contacted a minimum of two weeks prior to any works being carried out in the road reserve.
- 2 When Building Consents are applied for the following matters will need to be addressed in any applications:
 - (i) For some building sites a Registered Engineer may be required to confirm that ground conditions are suitable for building.

- (ii) A design by a suitably qualified person will be required for the effluent disposal system.

The reasons for this decision are:

- a) The provisions of proposed Plan Change 7 – Rural Subdivision are in effect operative under the provisions of section 19 of the Resource Management Act 1991 when assessing this application and little weight has been given to the rural subdivision provisions of the Waikato District Plan when determining this application.
- b) Waikato District Council's Area Engineer has reviewed the application and has exercised discretion in allowing the reduced separation distances as stipulated in Section 36.6, Table 6 of the Waikato District Plan, due to the low traffic volumes on Woolrich Road.
- c) It is considered that the visual character and amenity values of the surrounding Rural environment would not be compromised as the subdivision complies with the provisions of Plan Change 7.
- d) A reserve contribution is required for each lot created by subdivision upon which a dwellinghouse or dwellinghouses are authorised by this District Plan. The subdivision will result in the creation of two additional titles and therefore a \$1,125.00 reserve contribution for each additional lot is required.
- e) A financial contribution for roading has been included as a condition of the consent in accordance with the provisions of section 42 of the Waikato District Plan. The purpose of the financial contribution is to mitigate the effects of the increased development generated by this subdivision on Council's existing infrastructure.
- f) The entrance to Lot 2 is required to be a minimum of 80 metres from the intersection of the Woolrich and Marwood Roads to comply with the Separation Distance requirements of 36.5 Table 6 (d) of the Operative District Pain in an 80 km/hour speed environment."

Review of Decision on non-notified application

Your attention is drawn to section 357 of the Resource Management Act 1991. This section provides that there is a right of objection to Council in respect of this decision. Section 357(5) requires:

Any such objection shall be made by notice in writing to the Council, setting out the reasons for the objection, within 15 working days after the decision or requirement being notified to that person, or within such further time as may in any case be allowed by the consent of the Council.

Right of Appeal

Your attention is drawn to the Resource Management Act 1991 sections 120 and 121 and also the Resource Management (Forms, Fees, and Procedure) Regulations 2003/153, Regulations 16 – 19. Some key provisions to note are as follows:

- i) You may appeal against the decision of the Council by lodging a Notice of Appeal in the prescribed form with the Registrar of the Environment Court and with the Council within 15 working days of the receipt by you, or the person who filed the application on your behalf, of the Council's decision. The address of the Environment Court is as follows:

The Registrar
Environment Court
P O Box 7147
Wellesley Street
AUCKLAND

8th floor, District Court Building
3 Kingston Street
AUCKLAND

Telephone: 09 916 9091
Fax: 09 916 9090

- ii) The appeal must be in the form prescribed by the Resource Management (Forms, Fees, and Procedure) Regulations 2003/153 or to like effect. The regulations may be purchased from Bennetts Government Bookshop. The form is identified as Form 34 in the regulations.
- iii) A filing fee of \$55.00 GST inclusive must accompany every document by which appeal proceedings are commenced.
- iv) Section 121 of the Resource Management Act 1991 sets out important information as to the persons upon whom the appeal must be served and the time when service must take place. It is essential that these provisions be adhered to. Failure to do so may result in your appeal being struck out.

If you are in any doubt as to the procedures to be followed it is strongly recommended that you consult a lawyer.

Yours faithfully



Shelley Wood
ENVIRONMENTAL ADMINISTRATION

APPLICATION PLAN E1470 / S1

Applicant I. Starbom
 Completed in CT 14C/103G
 LOCAL AUTHORITY Waikato District
 LAND DISTRICT South Auckland
 SCALE 1:1000 Date April 2003
 TOTAL AREA 4.7349 Ha

This application plan has been prepared to meet the requirements of Sec. 219 Resource Management Act 1991.

REGISTERED SURVEYOR

Approved by the Waikato District Council under Sec. 105 of the Resource Management Act 1991, at a meeting held on the ___ day of ___ 19___ subject to the conditions in Resolution No. _____

AUTHORISED OFFICER

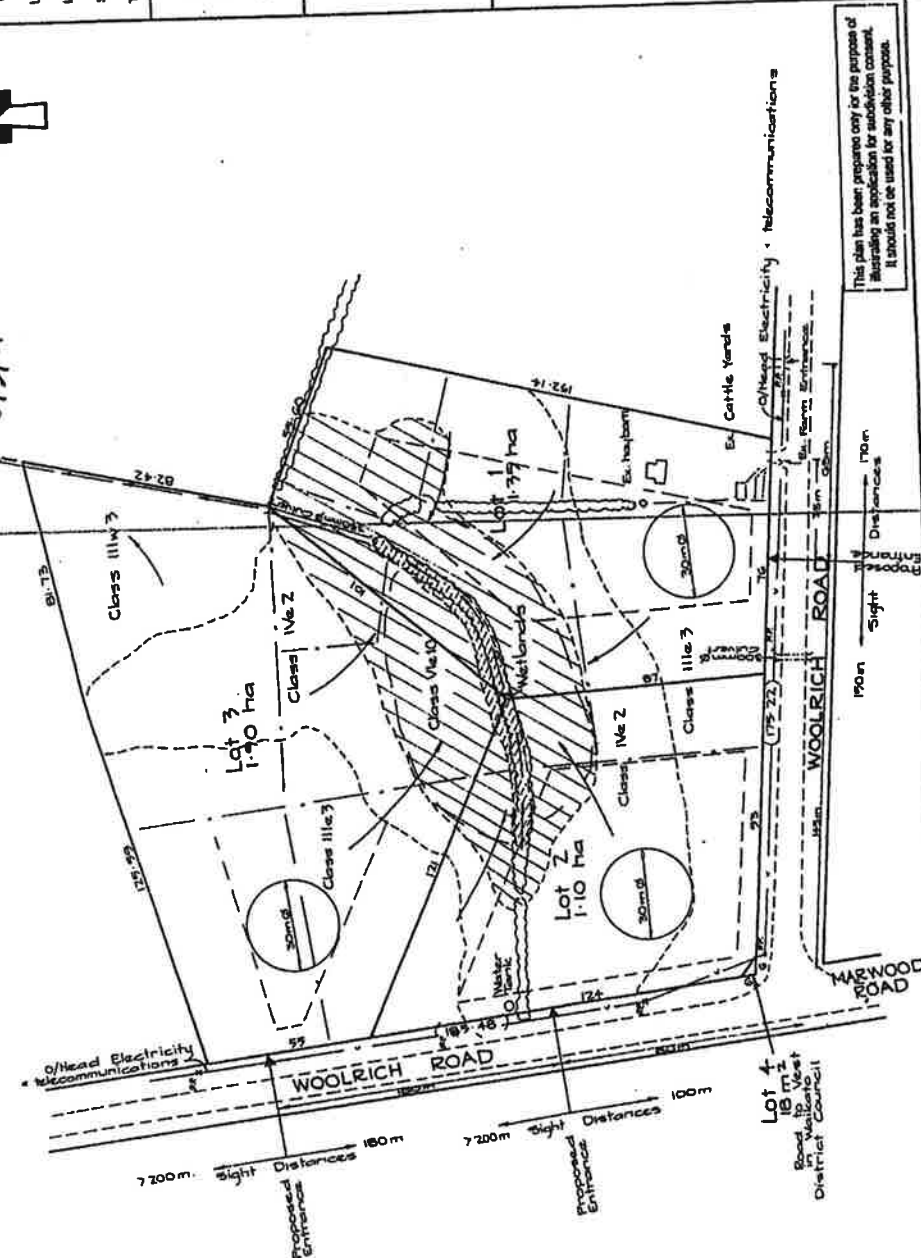
REDUCED COPY

NOTES

- Changes may occur to the layout of the proposal shown as a result of Resource Consent Conditions
- Areas and dimensions on this plan may be subject to change following field survey.

The copyright and intellectual property rights for the information shown on this plan remain the property of CKL Surveys Ltd

APPROVED
Opweyby
 13/4/03



This plan has been prepared only for the purpose of illustrating an application for subdivision consent. It should not be used for any other purpose.

PROPOSED SUBDIVISION OF LOT 2 DPS 16483

Land & Engineering Surveys
 Land Development Consultants
 Resource Management Consultants
 Members of the Consulting Surveyors of N.Z.



HAMILTON TEL 07 554 6475 AUCKLAND COROMANDEL

Soil And Land Evaluation

Richard Chapman NZSS BSSS PhD MSc(Hons)

Matangi Road, RD 4
Hamilton, New Zealand
Telephone (07) 8295437
E-mail r.k.chapman@paradise.net.nz

27th June 2003

Attention: - Mr. I. Sherburn property owner Woolrich Road -Te Kowhai .

Re: Proposed subdivision at the above address – Area of block approximately 4.33 ha. Being Lot 2 DPS 16483.

1.0 Introduction

On the 26th June 2003 I carried out an extensive and detailed soil and Land Use Capability (LUC) classification of the subject land. This is the common method for assessing land in New Zealand; it uses the Land Use Capability System, which is part of NZLRI as produced by the Water and Soil Division of the Ministry of Works, for the National Water and Soil Conservation Organization during the 1970's. LUC uses a systematic arrangement of different kinds of land according to those properties that determine its capacity for permanent sustained production, where the word "capability" is used in the sense of "suitability for productive use" after taking into account the physical limitations the land may have.

LUC is specifically designed to provide an index of versatility. There are eight land use capability classes, four arable and four non- arable, arranged in order of increasing degree of limitation or hazard to use; and a decreasing order of use, from Class I to VIII.

Within each LUC Class the land is assigned a subclass according to the kind of limitation (e = Erodibility, w = Wetness, s = Soil limitations within the rooting zone, c = Climate).

At the most detailed level, LUC groups together those inventory units which respond similarly to the same management and which are suitable for the same kinds of crops, pasture, or forest species with the same potential yield and which require the application of the same conservation measures.

The compilation of LUC worksheets were made from all relevant databases of land resource documents available at the time, consequently some sheets suffered from a lack of information that only detailed soil and geological surveys could have provided. There are therefore **scale limitations**, which should be kept in mind, especially when interpretation is required at the individual farm level.

However, the LUC units displayed on the 1970's maps remain reasonably robust, but are subject to change as evidenced by for example the second edition (1993) for Northland which was carried out at the more detailed scale of 1:50 000, replacing the earlier first edition 1:63 360 maps. In the first edition 69 LUC units were defined, whilst 91 are defined in the second with about 60 of the first edition classification units changed. The average area for a map unit is 125 ha, however at the 1:50 000 scale of mapping it is theoretically possible to delineate an unhooked inventory map unit (no vinculum) area of 60 ha if the geology, soil, vegetation, erosion and slope are uniform (Note 60 ha = 600 m by 1000 m).

The **major objectives of this introduction** are to emphasize that the LUC classification maps are subject to change as a consequence of more detailed mapping and land appraisal. NZLRI information can be used for excellent physical base data for planners (a planning tool) but should definitely not be used as a plan.

2.0 The current LUC and soil classification of the SUBJECT LAND according to maps and NZLRI worksheets at a scale of 1:63 360.

The soils are Hamilton clay loam, a brown granular clay loam, situated on strongly rolling slopes with a moderate to severe erosion hazard when cultivated and Te Kowhai clay loam a gleyed soil with wetness limitations. They are classified **LUC IVe2 and IIw3 respectively**.

3.0 Detailed site and land use capability classification of the subject land at the scale 1: 1000 (see attached map)

I have undertaken a Land Use Capability (LUC) report and a detailed soil classification of the above parcel of land situated on your property at Woolrich Road, according to standard methods (Ministry of Works 1979).

Observations of slope angle, topography and soil parent material were made over the relevant area. Soil auguring to 80 cm depth was used to assess soil properties such as drainage, plant root depths, texture and colour. This information was used to determine soil type and soil boundaries, from which the necessary LUC classification was assigned. **Four LUC classes and three soil types were identified at this detailed scale.**

4.0 Topography

The subject property is situated on the rolling to steep Hamilton Hills comprising of thick layers of Hamilton Ash that mantle older alluvial sediments of the Puketoka Formation. The present day soils on the hills are formed primarily from Hamilton Ash, however an area of lower angle sloping land retains a relatively thin layer of younger volcanic ash, of the so called Mairoa Ash Complex.

In addition to the hill land a topographical feature of the property is the low-lying land supporting Te Kowhai soils that have formed on the swales of the Hinuera Formation. Spring saps at the base of the hills feed through a sinuous area of wetland that links into a drain on the northern boundary.

5.0 Soils

Three soil types were identified: Hamilton clay loam occupies the majority of the rolling to steep-land; Kainui silt loam occupies areas of flattish land adjacent to Woolrich and Marwood Roads; Te Kowhai soil, a poorly drained soil is located at the base of the hill.

6.0 LUC Classification

Soils in LUC class VIe10 are Hamilton soils and are coloured green on the classification map. This land comprises of about 15% of the subject property and includes the steep, greater than 24-degree slopes on the hillsides. The Hamilton soils in this class support semi intensive pasture farming and are capable also of supporting exotic forestry. They would be at extreme risk of erosion if cultivated. **Not high quality soils or land as defined by Waikato District Council (WDC).**

Soils in LUC class IVe2 are Hamilton soils comprising about 35% of the subject land and are coloured pink on the map. The soils occupy rolling to steep land and support semi to intensive grazing. This class is more versatile than VIe2 above, but is never the less prone to moderate to severe erosion hazard if cultivated. **This class is not high quality soil or land as defined by WDC.**

Soils in LUC class IIIe3 are Kainui soils comprising about 35% of the subject land and are coloured brown on the map. They are reasonably versatile soils and capable of more diverse use than the previous two classes; their clayey subsoils are a limiting factor for intensive cropping, however they occupy slopes of less than 8 degrees and have a lower risk of erosion when cultivated. They are not elite soils but are classified as **high quality soils** under the District Plan.

llw3 - Soils in this LUC unit are Te Kowhai comprising about 10% of the subject land and coloured grey on the attached map. This soil has developed on fine sands and silts of the Hingera Formation; they are poorly drained and have poorly structured ochreous mottled light grey subsoil, plant roots are confined to the topsoil. The soils are not suitable for cropping, horticulture or orchards but are supportive of intensive grazing. They are prone to pugging during winter and spring. **Not high quality soil under WDC plan change 7.**

An area of wetland occupies about 5% of the subject property and is coloured dark blue on the attached map. It is not high quality soil.

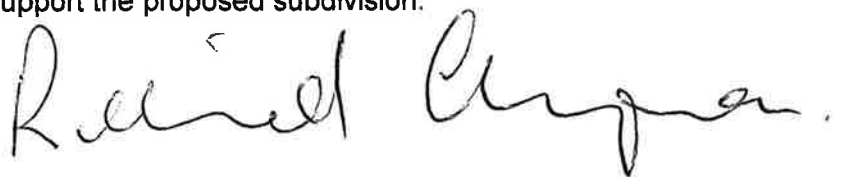
Curtilage

Consists of cattle yards and shed that will ultimately be removed. This area is not classifiable because of modification.

7.0 Proposed subdivision and recommendation

- About 50% of the subject land is both rolling to steep and is classified LUC IV and VI. This land/soil is not versatile and is severely limited by slope angle, erosion risk if cultivated and by poor drainage along the base of the hills.
- About 15% of the subject land is significantly affected by poor drainage, especially in winter from run off from the surrounding hills and from high a water table. This land/soil is classified as llw3 on the standard Land Inventory map but has been re classified as a result of this survey at the more detailed scale of 1:1000 and therefore falls out of the high quality soil category. The reason for reclassification is that on this property the Te Kowhai soil is located at the foot of the hills and is wetter as explained earlier and therefore is significantly limited and of lower versatility than the "standard" Te Kowhai soils occupying areas away from the hills that are classified llw3.
- About 65% of the property consists of soils/land that is not considered high quality soil.
- About 35% of the property is classified LUC III (**high quality soil**). This class III land is mainly sloping.
- The proposed subdivision takes into account the future effective and efficient use of soils: All three Lots will occupy some high quality class III soil but are of sufficient size to accommodate house and curtilage, plus have the ability to utilize the remaining area of land for continued use as either grazing or small scale horticulture.
- The proposed subdivision will include plans to develop, protect and enhance the wetlands in the middle of the property with all Lots "sharing" this proposed feature. This development is to be commended.
- The subject land, located on predominantly rolling to steep hills, a few kilometres to the west of Hamilton City offers excellent rural amenity. The LUC class III high quality soil/land occupies two "isolated" areas and is of awkward shape. However this area of flatter land would provide excellent building platforms for any future development.
- For the above reasons I support the proposed subdivision.

Richard Chapman
Scientific Soil Consultant.



8.0 References

Ministry of Works and Development 1979: Land Use Capability Handbook. Water and Soil Division.

KEY

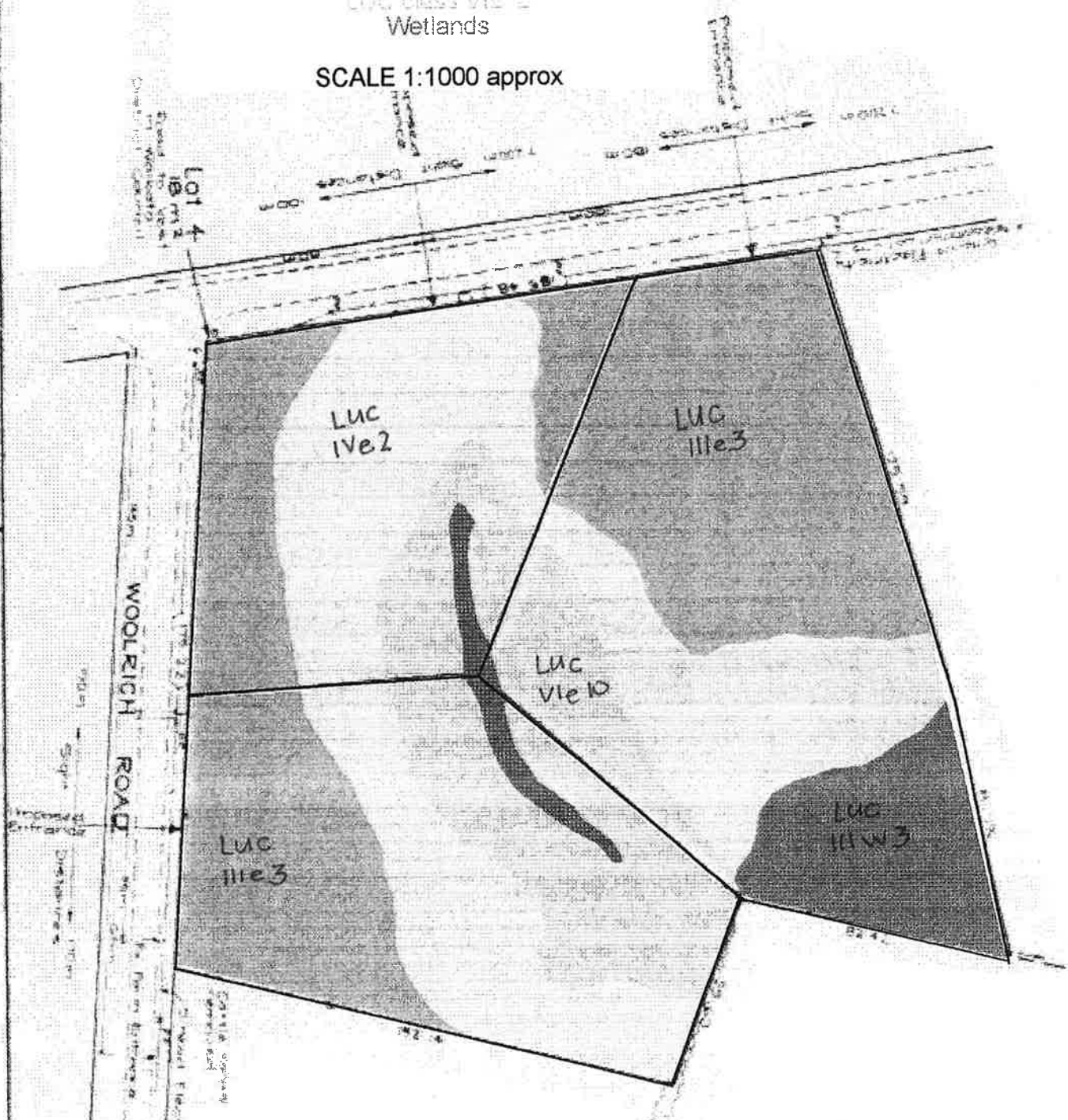
LUC class IIIe3

LUC class IIIw3

LUC class VIe10

Wetlands

SCALE 1:1000 approx



This plan has been prepared using the best possible data available and is intended for use as a guide only. It should not be used for any other purpose.

**Land Use Capability classification for
Sherburn's property located at Woolrich
Road Te Kowhai - Area = 4.3349 ha.**



FINAL CODE COMPLIANCE CERTIFICATE

Section 94(1) Building Act 2004
ISSUED BY THE WAIKATO DISTRICT COUNCIL
BUILDING CONSENT NUMBER: BLD0548/08

FILE

BUILDING LOCATION:	BUILDING WORK
60 Woolrich Road TE KOWHAI	Dwelling with attached Garage
APPLICANT:	PROJECT
P J Kivell, S M Kivell 4 Palliser Dr Huntington Hamilton 3210	
CONTACT:	
QBT Homes PO Box 20343 Hamilton 3240	
LEGAL DESCRIPTION:	Indefinite but not less than 50 years
Property Number: 2007529 Valuation Roll Number: 04420/461.04 Legal Description: LOT 3 DP 329628	

This is a final Code Compliance Certificate issued in respect of all the building work under the above building consent.

Signed for and on behalf of Council:

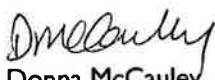
Signature: 

Name: Brett Payne
Position: **Building Control Officer**
Date: 05 June 2008

BUILDING CONSENT NO: BLD0548/08

Section 51, Building Act 2004

ISSUED BY: WAIKATO DISTRICT COUNCIL

BUILDING LOCATION	BUILDING WORK
60 Woolrich Road TE KOWHAI	Dwelling with attached Garage
APPLICANT	PROJECT
P J Kivell, S M Kivell 8 Logan Ct Chartwell Hamilton 3210	Indefinite but not less than 50 years Dwelling \$289451
CONTACT	Total Est. Value of Projects \$289451
QBT Homes PO Box 20343 Hamilton 3240	
LEGAL DESCRIPTION	
Property Number: 2007529 Valuation Number: 04420/461.04 Legal Description: LOT 3 DP 329628	
COUNCIL CHARGES	
The balance of Council's charges payable on uplifting of this building consent, in accordance with the tax invoice are: Total: \$0.00 ALL FEES ARE GST INCLUSIVE	Signed for and on behalf of the Council:  Donna McCauley ENVIRONMENTAL ADMINISTRATION Date: 26 November 2007

This building consent is issued under Section 51 of the Building Act 2004. This building consent does not relieve the owner of the building (or proposed building) of any duty or responsibility under any other Act relating to or affecting the building (or proposed building).

This building consent also does not permit the construction, alteration, demolition, or removal of the building (or proposed building) if that construction, alteration, demolition, or removal would be in breach of any other Act.

This building consent is issued subject to the conditions specified in the attached pages headed "Conditions of Building Consent BLD0548/08".

Waikato District Council
Conditions of Building Consent Certificate No: BLD0548/08

The Building Consent Certificate is issued subject to the following conditions:

- 1 Owner/Builder **MUST** locate boundary pegs prior to Council carrying out a foundation inspection.
- 2 **At least 48 hours' notice** is required prior to the intended commencement of construction:
 - Siting, foundation (prior to pouring concrete)**AND at least 24 hours' notice** prior to any of the following inspections (See Building Regulations 1992):
 - Pre-floor plumbing and drainage
 - Pre-floor building (prior to pouring concrete)
 - Structural framing (pre-wrap)
 - Pre-line plumbing
 - Pre-line building
 - Exterior cladding systems
 - Post-line building
 - Sanitary sewer and stormwater
 - Final inspection to be called for (the owner or builder shall be on site at time of inspection)
 - Owner/builder to locate boundary pegs prior to council carrying out a foundation/siting inspection.**Waikato District Council contact phone number is (07) 824 8633.**
- 3 Verandah posts shall comply with Figure 9.2 and 9.3 NZS 3604, 1999.
- 4 Trusses or rafters shall be fixed at tails to top plate with wire dogs at each end.
- 5 The roof shall be braced to comply with Table 10.1 NZS 3604, 1999.
- 6 The moisture barrier beneath the floor shall comply with the New Zealand Building Code 1991.
- 7 Provide breather type building paper on outside of frame, to extend to top plate level.
- 8 Steel lintels shall be hot dip galvanised to comply with Table 11.4 NZS 3604, 1999.
- 9 Fibreglass insulation shall be a minimum of 75mm in walls and 100mm in ceilings or shall comply with the requirements of E3 ASI of the New Zealand Building Code 1991.
- 10 Footings shall be a minimum of 200mm below cleared ground level.
- 11 Lapse and cancellation of building consent. This building consent shall lapse and be of no effect if:

The building work concerned has not been commenced within 6 calendar months after the date of issue of the consent; or

Reasonable progress on the building work has not been made within 12 calendar months after work has commenced.

The Council can exercise its discretion in either case.

- 12 All drainage and plumbing shall comply with the New Zealand Building Code 1991.
- 13 At least 24 hours' notice shall be required for plumbing and drainage inspections. Plumbing preline inspection shall be required.
- 14 Plumbing inspection shall be required before pouring floor slab.
- 15 An as built drainage plan and an electrical certificate of compliance is required on completion.
- 16 Septic Tank and effluent disposal shall comply with AS/NZS 1547:2001. Registered, supervising engineer to provide a PS4 to Council on completion, or approved suitably qualified person to provide a PS3 on completion.
- 17 Installer of the wastewater treatment system to provide a Produce Statement Construction / Construction Review.
- 18 Stormwater shall be disposed of in an approved manner.
- 19 All roof trusses shall be designed and fabricated by a certified manufacturer.
- 20 No hot and cold water pipes shall be laid under concrete floors unless they are accessible after the job is completed.
- 21 All timber treatment shall comply with NZS 3602:2003.
- 22 Wall framing shall comply with table 8.2, 8.14, 8.18, 10.9, 10.10 or 10.13 figure 8.12 NZS 3604: 1999.
- 23 Domestic smoke alarms must be installed before a final inspection is requested. The number of alarms required and their location in the dwelling is to be in accordance with the New Zealand Building Code.

Date: 26 November 2007

Signed:



**Brett Payne
Waikato District Council**

B10 - BldCert04 - V1 Jul 07

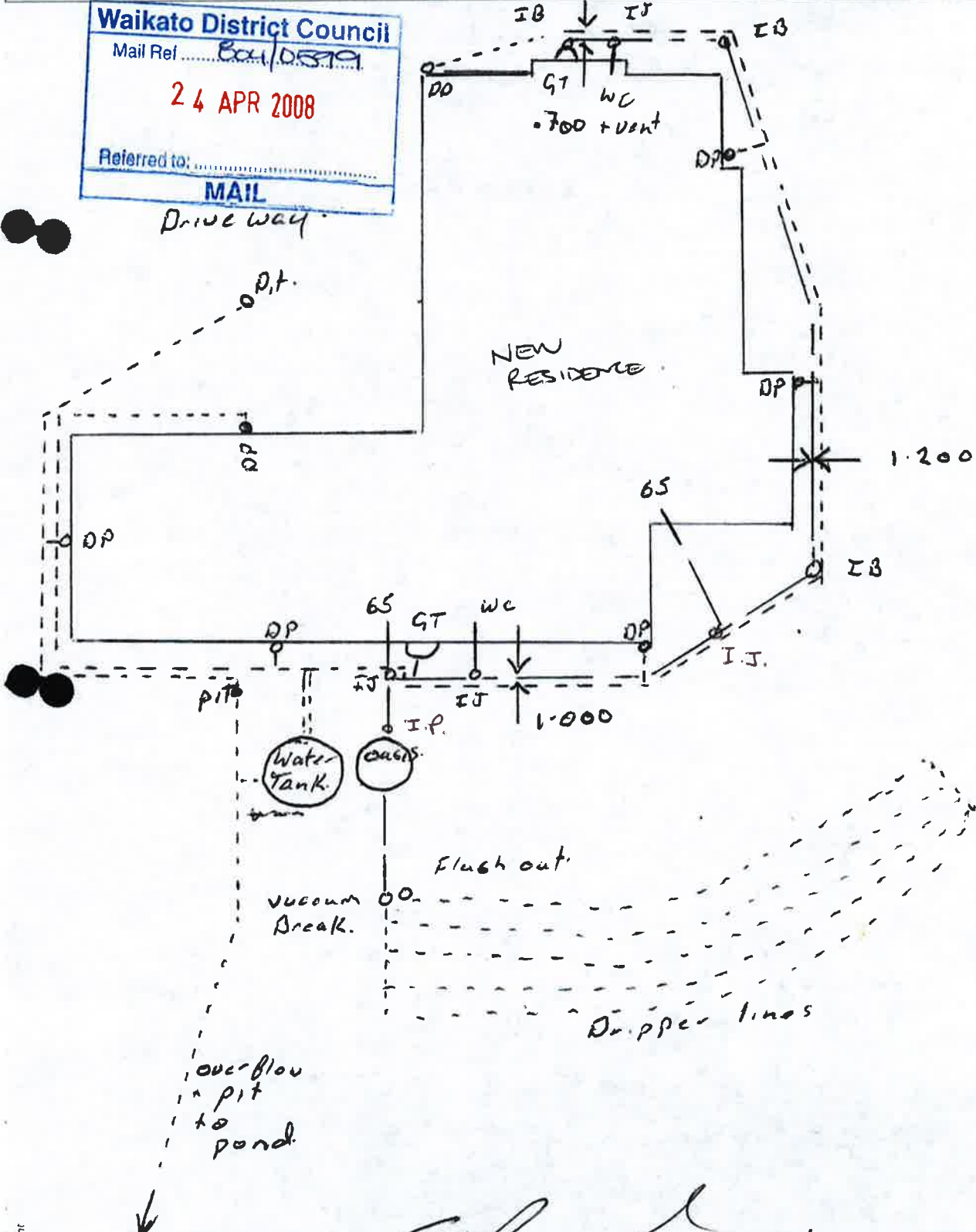
4420/46104

BUILDING UNIT AS LAID DRAINAGE PLAN

STREET: <u>Woolrich Rd.</u> No: _____	LOT: <u>3</u> DPS <u>329628</u>
OWNER: <u>Kivell Residences.</u>	DRAINLAYER: <u>Drainage Systems.</u>
INSPECTOR: <u>Rob Koppers.</u>	REG No: <u>19984.</u>
DATE OF INSPECTION: <u>14.4.08.</u>	CONSENT No: <u>0548/08.</u>

DRAINLAYER PLEASE FILL IN ALL DETAILS

Waikato District Council
 Mail Ref: EX/0579
24 APR 2008
 Referred to: _____
MAIL



DRAINLAYER'S SIGNATURE: *Gabe...* **DATE:** 14.4.08.

DRAINAGE SYSTEMS LTD

Residential, Commercial & Environmental Drainage

Telephone: 07-850 4370 Fax: 07-850 4373 Mobile: 021-972 896 P.O. Box 21170, Flagstaff, Hamilton

PRODUCER STATEMENT

EFFLUENT DISPOSAL SYSTEM

CLIENT – KIVELL RESIDENCE – BUILDING CONSENT No.0548/08

LOCATION – 60 WOOLRICH RD – TE KOWHAI.

Discharge of up to 1200 litres per day of treated effluent to an area of 300 square metres designated disposal field at a hydraulic loading of 10mm/hr.

Domestic effluent will be treated by an Oasis Clearwater Series 2000 System resulting in an effluent quality of the following standard:

BOD less than 20mg/L

Non filterable residue of not more than 30mg/L

For further technical information refer to Oasis Clearwater Series 2000 full Technical Design Manual.

Design Criteria:

Soil Type: Clay loam

Natural Drainage Class: Medium Draining

Design: Average maximum infiltration rate = 10mm/hr
(based on ARC Environmental Technical Publication No 58 [TP58] On site Wastewater Disposal from Households and Institutions).

Design Volume: Average 1200 litres/day:300 square metres disposal area.

This System incorporates the use of Raam sub-surface irrigation tubing laid 200mm below the surface. System design incorporates an evapo-transpiration dosed system using self compensating emitters placed at 1,000mm spacings giving an even distribution over the disposal area.



DRAINAGE SYSTEMS LTD

Residential, Commercial & Environmental Drainage

Telephone: 07-850 4370 Fax: 07-850 4373 Mobile: 021-972 896 P.O. Box 21170, Flagstaff, Hamilton

Assessment of Effects:

- [a] Description: Refer above
- [b] Significant adverse effects on environment: None envisaged if System performs to manufacturer's claims.
- [c] Other options: None considered.

Management & Monitoring

As with your Council's Policy, a Service Contract will be entered into with the owner to ensure the system is commissioned with services @ six monthly intervals from new. Oasis Clearwater Systems undertake to service the system 2 times per year with a copy sent to both the Council and home owner, a copy also retained for our own records. The Service Contract will remain valid until the property is sold, when a new Contract will be entered into with the new owner. Payment of the service fee must be made by the owner to ensure continuity of the agreed contract.

Installation:

A Registered Drainlayer has installed the Oasis Clearwater 2000 Treatment System and sewer connection to the aerated wastewater treatment system.

The system has been installed in conjunction with the Manufacturers, Oasis Clearwater Systems Ltd.

Yours faithfully



M.W. NEWDICK
DRAINAGE SYSTEMS





Electrical Certificate of Compliance

No. **2614415**

for prescribed electrical work that is carried out on electrical installations and involves the placing or positioning or the replacing or repositioning of conductors (including fittings attached to those conductors).

No. of attachments

To be completed whether or not an inspection is required.

CUSTOMER INFORMATION - PLEASE PRINT CLEARLY

Name of customer **Kivel** Phone:

Address of installation **Lot 3 OP329628**

Postal address of customer (if not as above) **WOOLRICH ROAD Tekowhai**

WORK DETAILS

64 No. of lighting outlets No. of ranges

28 No. of socket outlets No. of water heaters

Was any installation work carried out by the homeowner? Yes No

Please tick (✓) as appropriate where work includes:

Mains Main earthing system
 Switchboard Electric lines

Description **new House**
4 x 230 volt sockets
3 x HCF units
eff + water pump
3 x towel rails
4 x 2 way switches

It is recommended that test results be recorded here:

Visual Examination
Earth Continuity
Bonding
Polarity
Insulation Resistance **+2002** Mohm
Other

If necessary attach any pages with sketches of work done

CERTIFICATION OF WORK

I certify that the above electrical work has been carried out in accordance with the requirements of the Electricity Act 1992 and Electricity Regulations 1997.

ELECTRICAL WORKER DETAILS

Name **A Brackett**
Registration no. **216402**
Company **AW ELECTRICAL**
Signature **[Signature]**
Date **27/05/8**
Contact Ph No.

CERTIFICATION OF ELECTRIC LINES

(to be completed where a separate electrical worker has installed the electric line portion of the mains)

Name
Registration no.
Company
Signature
Date
Contact Ph No.

INSPECTION DETAILS Electrical work requiring inspection by a registered electrical inspector

New mains Switchboard Earthing system Installation work in hazardous areas

I certify that the inspection has been carried out in accordance with the requirements of regulation 41 of the Electricity Regulations 1997.

Name Registration no. **I 373**
Signature Date **28 5 01**
Daytime Contact Ph No. **021 887 6049**

CUSTOMER COPY - THIS IS AN IMPORTANT DOCUMENT AND SHOULD BE RETAINED

This form is approved by the Electrical Workers Registration Board (PO Box 10-156, Wellington. Freephone 0800 66-1000) for the purposes of the Electricity Regulations 1997.

BUILDING

Private Bag 3010
Hamilton
New Zealand
Phone 07 838 6699
www.hcc.govt.nz

PRODUCER STATEMENT

PLUMBING SYSTEM PRESSURE TEST

Owner..... P. S. Kivell

Property Address..... 60. Woodrich Rd. Te Kowhai

Lot..... 3DPS..... 329 628Consent No..... BLD0548/08

To The Hamilton City Council:

Please be advised that our company PETER OWEN

Has completed a pressure test on the plumbing system in the building at the above address. We certify that the system was tested to 1500kpa for a period of 30 minutes and in accordance with manufacturer recommendations and complies with the provisions of the New Zealand Building Code Approved Solution G12 and AS3500 as appropriate.

We advise that we have current public liability insurance to the value of at least \$500,000 and have approved quality control measures in place.

We understand that the Hamilton City Council will conduct random audits of our work where a producer statement has been used and if a workmanship or technical fault is detected from these audits then we undertake to carry out all appropriate remedial work as necessary.

Issued By..... P. Owen

P.O. Box 10487 Te Rapa
Ph/Fax 07 847-9699

Address..... Box 5340

Contact Phone Number..... 021 937606

Signature..... [Signature]

Date..... May 2008 Registration Number..... 00045

DC1/Ge Version 1-13 September 1999



REGISTERED INSTALLERS OF
PINK® BATT® INSULATION

Home Insulation Installation Guarantee

for new homes insulated in walls and/or ceilings

This is to certify that

this home has been insulated in the walls and/or ceilings with Pink®Batts® insulation by a Tasman Insulation approved Pink®Batts® installer. Pink®Batts® when properly installed satisfies the requirements of the Australian/New Zealand Standard 4859.1 and the durability requirement of the New Zealand Building Code B2.3.1(a). The PinkFit® installer guarantees that the Pink®Batts® have been properly installed. This guarantee is transferable to any subsequent owners of the home.

Signed..... *S. Jey* Date..... *31/3/08*.....

Pink® Batts® Installer..... *PINKFIT WAIKATO*.....

Registration Details:

Compliance Number: 30926

Builder Details:
GOLDEN HOMES

Site Details:
KVELL RESIDENTS
LOT 3, WOOLRICH ROAD
TE KOWHAI,

Date Printed: 31-Mar-2008
Install Date: 27-Mar-2008
Completion: 27-Mar-2008

Product Details

Pink®Batts® Ceiling R2.6
Pink®Batts® Wall R2.2



Pink®Batts® and PinkFit® are registered trademarks of Tasman Insulation New Zealand.

+64 9 4244258



P.I.M. No 0548/08
Building Regulation Clause B1

PRODUCER STATEMENT – PS4 – CONSTRUCTION REVIEW

(Guidance notes on the use of this form are printed on the reverse side)

ISSUED BY

G A Hughes & Associates Limited...

(Duly qualified Design Professionals)

TO: QET Ltd

TO BE SUPPLIED TO: Waikato District Council

(Territorial Authority)

IN RESPECT OF Concrete Floor and Foundations

At Lot 3 Woolrich Road, Te Kowhai, Hamilton

Lot 3 DPS 329628

G A Hughes & Associates Limited has been engaged by the Owner
(Design Firm) (Owner/Developer/Contractor)

to provide Design & Observation clause(s) B1 **of the Building Regulations 1992 for the**
Soils Testing and Compacted Sand Building Platform for Foundations and Floor as

G A Hughes & Associates Ltd References 56316, 56553 & 08603 Authorised

variation(s) No. (copies attached) have been issued during the course of the works. I have

obtained Building Consent No 0548/08 and the attached conditions of building consent.

As an independent design professional covered by a current policy of Professional Indemnity Insurance to a minimum
value of \$200,000, I or personnel under my control have carried out periodic reviews of the work appropriate to the
engagement and based upon these reviews and information supplied by the contractor during the course of the works

I BELIEVE ON REASONABLE GROUNDS that Part only as specified in the attached particulars
of the building work under the above Building Consent with respect to Clause(s) ... B1 of

Building Regulations 1992 has been completed to the extent required by that Building Consent.


(Signature of duly qualified Design Professional)

Date 3rd June 2008

BE, MIPENZ (Civil & Structural) C P Eng #13402.....

(Professional Qualifications)

Member IPENZ

1036 Whangaparaoa Road, Whangaparaoa HBC 0930.....

(Address)

This form to accompany Form 9 of the Building Regulations 1992 for the issue of a Code Compliance Certificate.

BrOctober 04

+64 9 4244250

GUIDANCE ON USE OF PRODUCER STATEMENTS

This producer statement has been prepared by a combined task committee consisting of members of the New Zealand Institute of Architects, Institution of Professional Engineers New Zealand, Association of Consulting Engineers New Zealand and the Building Officials Institute of New Zealand.

Four producer statements are available and brief details on the purpose of each are as follows:

Design: Intended for use by the person responsible for the design in circumstances where the Territorial Authority will rely on the producer statement to issue a Building Consent.

Design Review: Intended for use by a suitably qualified independent design professional where the Territorial Authority does not undertake an internal review and relies on the independent design professional's review to issue the Building Consent.

Construction: Intended for the use by the contractor of the building works where the Territorial Authority requires a producer statement at the completion of construction.

Construction Review: Intended for use by the person required by the Building Consent to undertake construction monitoring of the building works in circumstances where the Territorial Authority will rely on the producer statement to issue a Code Compliance Certificate.

The producer statements system is intended to provide Territorial Authorities with reasonable grounds for the issuing of a Building Consent or Code Compliance Certificate without having to duplicate design or construction checking by others.

The following criteria are recommended to Territorial Authorities with respect to the use of the producer statements.

Definition of Suitably Qualified Design Professional

A suitably qualified design professional should have recognised qualifications and experience for the work undertaken and should be either:

- (i) an active member of the Association of Consulting Engineers New Zealand (ACENZ) or;
- (ii) a member of the Institution of Professional Engineers New Zealand (IPENZ) having a current policy of Professional Indemnity Insurance for a sum not less than \$200,000 or;
- (iii) a member of the New Zealand Institute of Architects (NZIA) having a current policy of Professional Indemnity Insurance for a sum of not less than \$200,000.

Design Build Contracts

If the design professional is engaged by the contractor, the territorial authority should satisfy itself that it is appropriate for the territorial authority to rely upon a producer statement from the design professional.

Consulting Services during Construction Phase

There are several levels of service which a design professional may provide during the construction phase of a project. The territorial authority is encouraged to require that the service to be provided by the design professional is appropriate for the project concerned.

Requirement to provide Producer Statement

Territorial Authorities should ensure that the applicant is aware of any circumstances in which there may be a requirement for producer statements for the construction phase of building work at the time the building consent is issued as no design professional should be expected to provide a producer statement unless such a requirement forms part of the design professional's engagement.

Attached Particulars

Attached particulars referred to in this producer statement refer to supplementary information appended to the producer statement.

Structural Certification: Producer Statement

hy90 Enhanced Wide-Opening Solution For Golden Homes

The hy90 enhanced wide-opening lintel solution has been designed in accordance with sound and widely accepted engineering principles. When installed in accordance with the specifications, details and limitations of the hy90 brochure for installation and design, it will comply with the requirements of the New Zealand Building Code Section B1 Structure and B2.3 (a) Durability.

4.5m wide x 2.1m high enhanced opening (roof & ceiling only)

Side panel configuration: 7mm F11 plywood outside, 7mm F11 plywood inside

hy90 Section D x B (mm)	Light roof and ceiling		Heavy roof and ceiling	
	Side panel width (mm)			
	400	600	400	600
	Roof load width 'RLW' (m)			
300 x 90	4.2	4.9	2.0	2.4
360 x 90	8.0	9.3	3.8	4.5
400 x 90	9.9	11.8	5.2	6.3



4.8m wide x 2.1m high enhanced opening (roof & ceiling only)

Side panel configuration: 7mm F11 plywood outside, 7mm F11 plywood inside

hy90 Section D x B (mm)	Light roof and ceiling		Heavy roof and ceiling	
	Side panel width (mm)			
	400	600	400	600
	Roof load width 'RLW' (m)			
300 x 90	3.3	3.9	1.6	1.9
360 x 90	6.0	7.0	2.9	3.4
400 x 90	8.3	9.7	4.1	4.8

Refer to the hy90 brochure for span diagrams and typical construction details.

Warwick Banks
 BE (Civil), MIPENZ
 18th April 2007



GOLDEN HOMES
GHT HOMES LIMITED

BROOKLYN
ALTERED
© GOLDEN HOMES
HOLDINGS LTD. 2007

NOTES

ALL BOUNDARY BEARINGS, LENGTHS AND PEG LOCATIONS TO BE CONFIRMED ON SITE PRIOR TO COMMENCING FOUNDATIONS, TO ENSURE HOUSE POSITION IS CORRECT. ANY DISCREPANCIES TO BE REPORTED TO THE DESIGNER IMMEDIATELY.

SEWER & STORMWATER CONNECTIONS TO BE CONFIRMED ON SITE PRIOR TO COMMENCEMENT OF FOUNDATIONS

BUILDING PLATFORM TO BE FLAT WITH A SOIL BEARING CAPACITY OF NO LESS THAN 100kpa

FINISHED FLOOR LEVEL IN RELATION TO HEIGHT TO BOUNDARY RECEPTION PLANE

REQUIREMENTS ARE THE RESPONSIBILITY OF THE FLOOR LAYER. ANY DISCREPANCIES BETWEEN THE PLAN AND PHYSICAL SITE LEVELS ARE THE RESPONSIBILITY OF THE FLOOR LAYER.

THE DESIGNER TAKES NO RESPONSIBILITY FOR ANY ERRORS THAT MAY OCCUR.

SITE COVERAGE

Item	% Coverage
LOT No.3	= 18774 sqm
TWELLING	= 350.5 sqm 1.7
DRIVEWAY	= 246.6 sqm 1.3

CORROSION ZONE : 2
WIND ZONE : HIGH
EARTHQUAKE ZONE : D
SNOWLOAD : 0.0kPa

TERRITORIAL AUTHORITY

WAIKATO DISTRICT COUNCIL

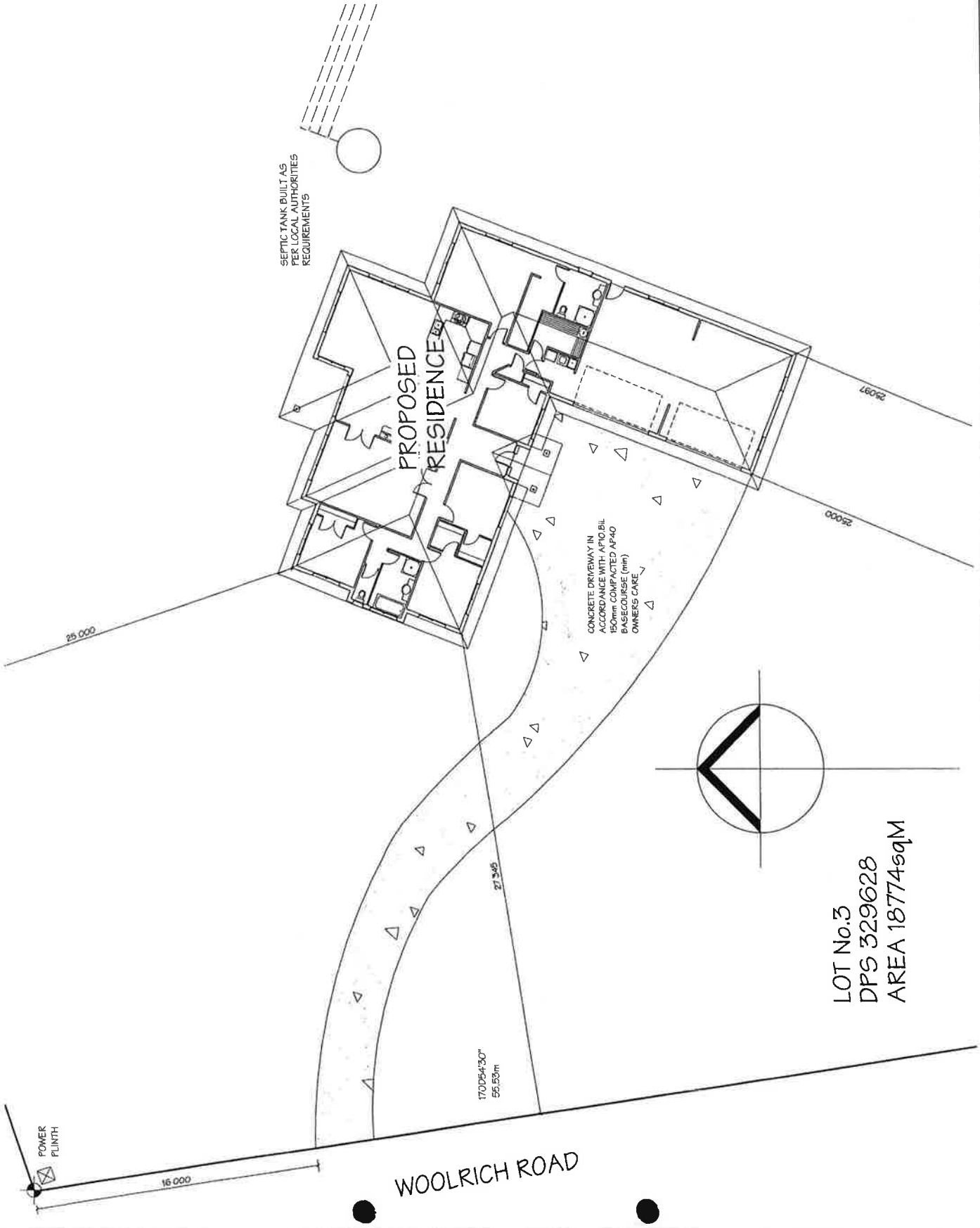
JOB TITLE

KIVEL RESIDENCE
LOT 3, DP 329628
WOOLRICH ROAD
TE KOWHAI

DRAWING TITLE

SITE PLAN

SALES	NEIL
DRAWN	R CDC
TD No.	CHECKED
JOB No.	6630
SCALE	1:200
SHEET No.	3 OF 19
DATE	29/08/07





PLAN NAME
ALTERED
BROOKLYN
 @ GOLDEN HOMES
 HOLDINGS LTD. 2007

NOTES

ALL BOUNDARY BEARINGS, LENGTHS AND PEG LOCATIONS TO BE CONFIRMED ON SITE PRIOR TO COMMENCING FOUNDATIONS. TO ENSURE HOUSE POSITION IS CORRECT, ANY DISCREPANCIES TO BE REPORTED TO THE DESIGNER IMMEDIATELY.

SEWER & STORMWATER CONNECTIONS TO BE CONFIRMED ON SITE PRIOR TO COMMENCEMENT OF FOUNDATIONS

BUILDING PLATFORM TO BE FLAT WITH A SOIL BEARING CAPACITY OF NO LESS THAN 100kpa

FINISHED FLOOR LEVEL IN RELATION TO HEIGHT TO BOUNDARY RECESSED PLANE

REQUIREMENTS ARE THE RESPONSIBILITY OF THE FLOOR LAYER, ANY DISCREPANCIES BETWEEN THE PLAN AND PHYSICAL SITE LEVELS ARE THE RESPONSIBILITY OF THE FLOOR LAYER.

THE DESIGNER TAKES NO RESPONSIBILITY FOR ANY ERRORS THAT MAY OCCUR.

SITE COVERAGE

LOT No. 3	Sum	% Coverage
DKELLING	= 19774 sqm	L7
DRIVENWAY	= 3202.5 sqm	L7
	= 2466.6 sqm	L3

CORROSION ZONE : 2
 WIND ZONE : HIGH
 EARTHQUAKE ZONE : B
 SNOWLOAD : 0.08Pa

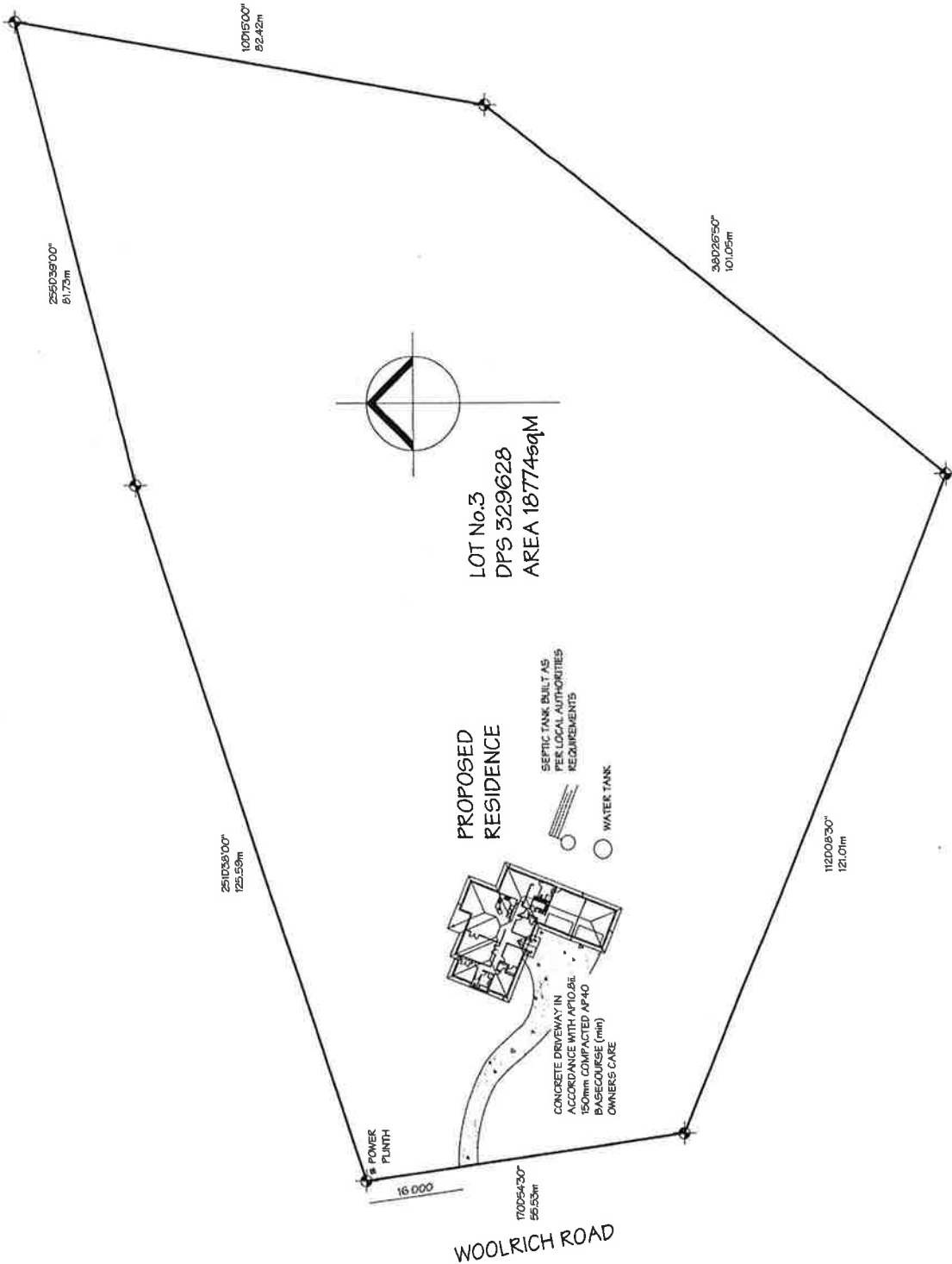
TERRITORIAL AUTHORITY
 WAIKATO DISTRICT COUNCIL

JOB TITLE
 KIVEL RESIDENCE
 LOT 3, DP 329628
 WOOLRICH ROAD
 TE KOWHAI

DRAWING TITLE

LOCALITY PLAN

SALES	NEIL
DRAWN	RCDC
TD No.	CHECKED
JOB No. 6630	SHEET No. 2 OF 19
SCALE 1:750	DATE 29/08/07





GOLDEN HOMES
QBT HOMES LIMITED

BROOKLYN
ALTERED
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NOTES

BRACE LABEL AND LENGTH
BRACE TYPE

GIB BRACES FIRED IN ACCORDANCE WITH GIB BRACING SYSTEMS MANUAL

PLY BRACES FIRED IN ACCORDANCE WITH CARTER HOLT HARVEY ECOPLY FLYBRACE HOUSE BRACING SYSTEM MANUAL

ECOPLY BRACING SHEETS TO BE H3, CCA TREATED DD

90x45 HEAVY HIF CEILING PLANE BRACES AS PER NZS-3604, SECTION 10

Visual Windows Software

HBrace 4.0

House Bracing Design Software for Windows to work in
with NZS 3604 (2007)

HBrace Company, Victoria Road, Newmarket, AUCKLAND

Phone: 09 252 1000
Fax: 09 252 1001
Email: support@visualwindows.co.nz
www.visualwindows.co.nz

CORROSION ZONE : 1,2
WIND ZONE : HIGH
EARTHQUAKE ZONE : B
SNOWLOAD : 0.0kPa

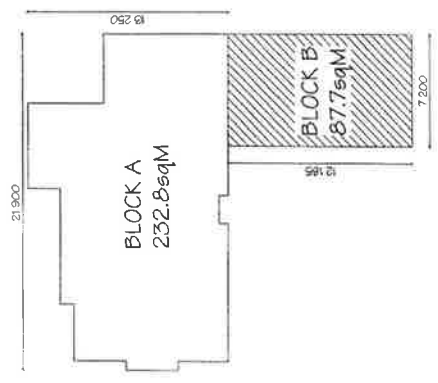
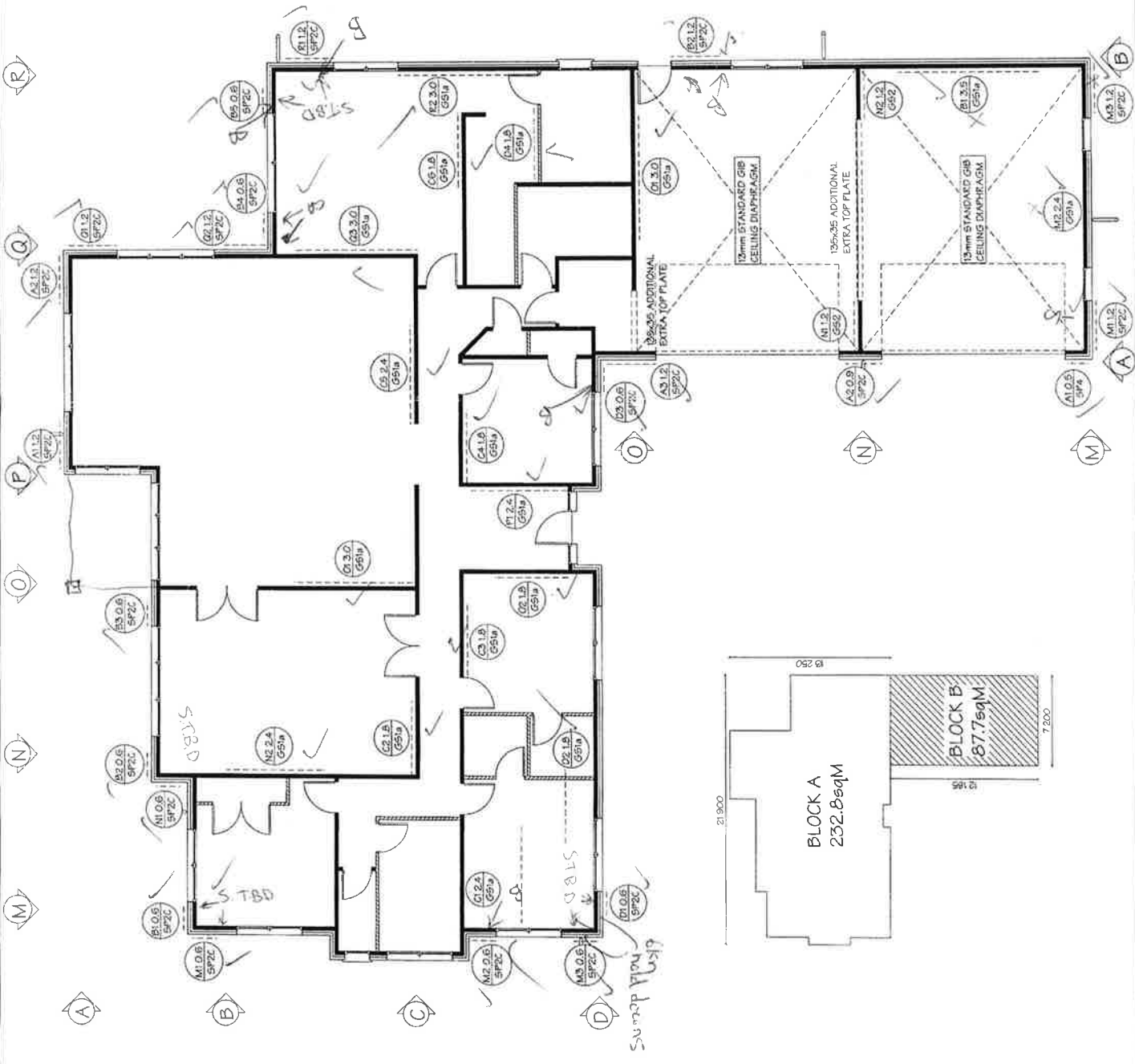
TERRITORIAL AUTHORITY
WAIKATO DISTRICT COUNCIL

JOB TITLE
KIVEL RESIDENCE
LOT 3, DP 329628
WOOLRICH ROAD
TE KOWHAI

DRAWING TITLE
BRACING PLAN

SALES : NEIL
DRAWN : RCDC
TO No :
JOB No : 6630
SCALE : 1:100
DATE : 23/08/07

CHECKED :
SHEET No : 8 OF 19





GOLDEN HOMES
 QB1 HOMES LIMITED
BROOKLYN
 @ GOLDEN HOMES
 HOLDINGS LTD. 2007

PLAN NAME
 ALTERED

NOTES

KEY

- 100mm PVC STORMWATER DRAIN
- 100mm PVC SOIL DRAIN
- WASTE PIPES
- oTV TERMINAL VENT
- oIP INSPECTION POINT
- oGT GULLY TRAP
- oDP DOWNPIPES

ALL DRAINAGE TO NZ STANDARDS

CORROSION ZONE : 2
 WIND ZONE : HIGH
 EARTHQUAKE ZONE : B
 SNOWLOAD : 0.0kPa

TERRITORIAL AUTHORITY
 WAIKATO DISTRICT COUNCIL

JOB TITLE
 KIVEL RESIDENCE
 LOT 3, DP 329628
 WOOLRICH ROAD
 TE KOWHAI

DRAWING TITLE
 DRAINAGE PLAN

SALES	NEIL
DRAWN	RDCD
TD No	1640
CHECKED	[Signature]
JOB No	6630
SHEET No.	4 OF 19
SCALE	1:100
DATE	26/09/07

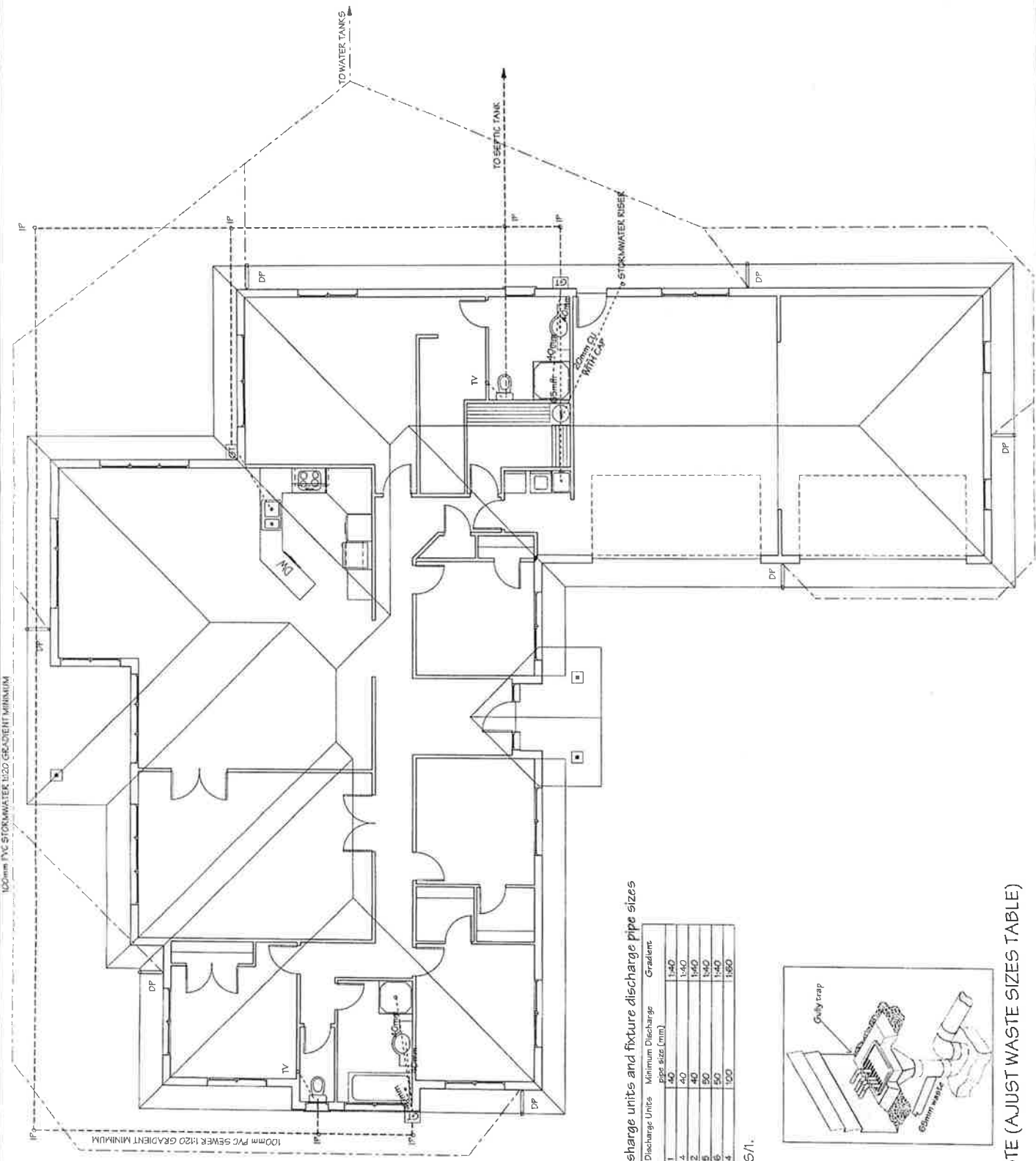
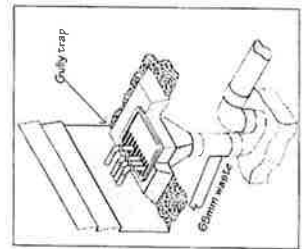


Table C2. Discharge units and fixture discharge pipe sizes

Fixture Type	Discharge Units	Minimum Discharge pipe size (mm)	Gradient
Basin	1	40	1:40
Toilet	4	40	1:40
Shower	2	40	1:40
Laundry	5	50	1:40
Kitchen sink	6	50	1:40
WC	4	100	1:60

NZBC G13 AS/1.



?? WASTE (AJUST WASTE SIZES TABLE)



GOLDEN HOMES
CPT HOMES LIMITED

PLAN NAME
ALTERED

BROOKLYN
@ GOLDEN HOMES
HOLDINGS LTD. 2007

NOTES

- 90x45 M5GB
- 70x45 M5GB
- ALL LINTEL AND BEAM SIZES CALCULATED BY "THE DETAILER"
- WALL FRAMING - EXTERNAL H31 TREATED
- INTERNAL CHEMICAL FREE
- SHOWER TRIM SIZE 905x825 RO (905 TO SUIT)
- ALL WARDROBE SHELVING TO BE 16mm HIGH
- K/HOOD VENTED TO SOFFIT
- H31 TREATED REVEALS TO ALUMINIUM WINDOW JOINERY
- GIB AQUALINE TO WET AREAS
- WET WALL SHEET LININGS FINISHED WITH VINYL COATED WALL PAPER OR SEMI-GLOSS, OR GLOSS COATING.
- RHEEM 250Ltr MAINS PRESSURE H/WC

REFER TO PAGE 18 FOR SAFETY GLAZING REQUIREMENTS



ELEVATION GUIDE

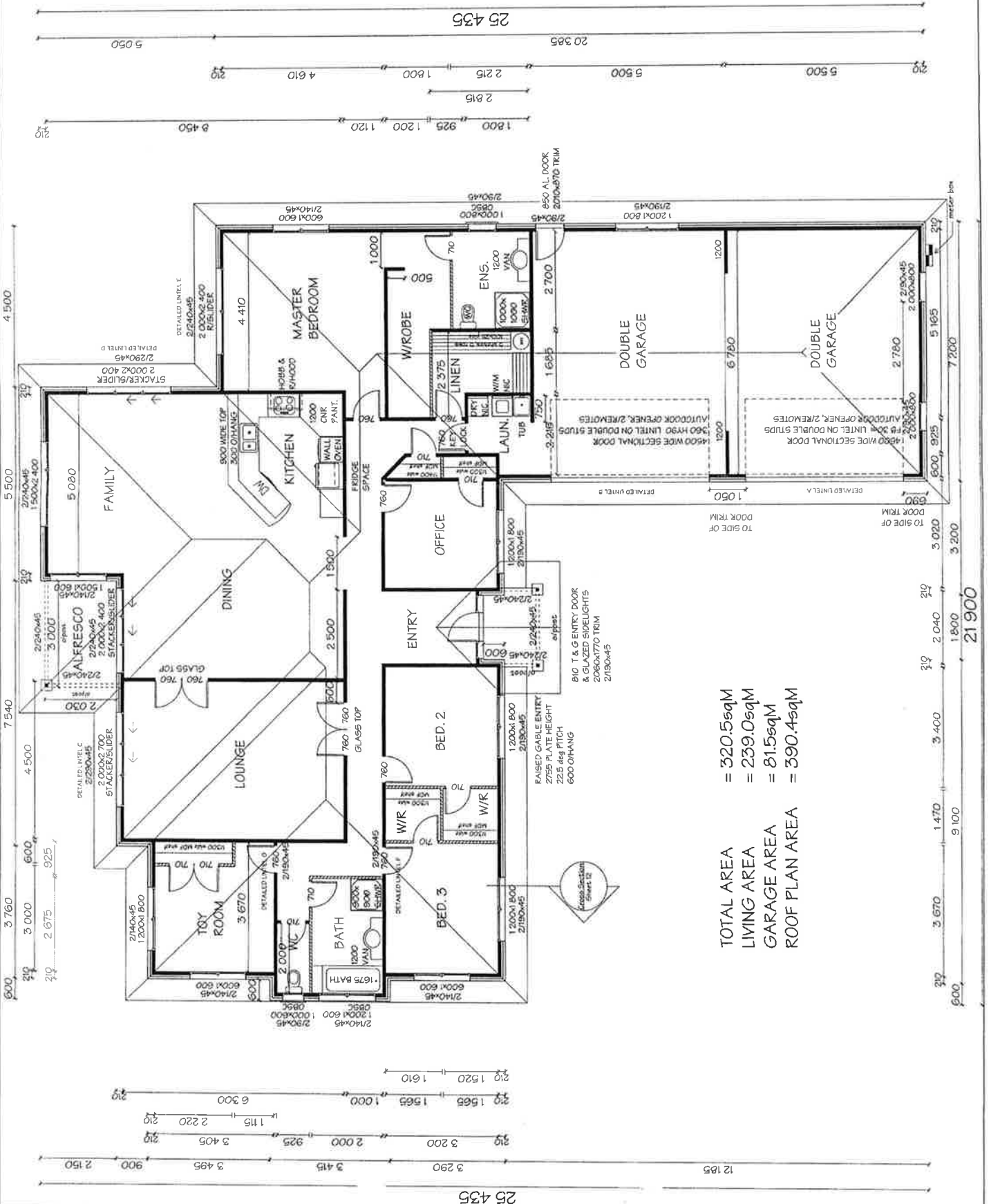
- CORROSION ZONE : 2
- WIND ZONE : HIGH
- EARTHQUAKE ZONE : B
- SNOWLOAD : 0.0kPa

TERRITORIAL AUTHORITY
WAIKATO DISTRICT COUNCIL

JOB TITLE
KIVEL RESIDENCE
LOT 3, DP 329628
WOOLRICH ROAD
TE KOWHA

DRAWING TITLE
FLOOR PLAN

SALES	NEIL
DRAWN	RCDC
TO No.	1640
CHECKED	[Signature]
JOB No.	6630
SHEET No.	5 OF 19
SCALE	1:100
DATE	26/09/07





GOLDEN HOMES
QBT HOMES LIMITED

PLAN NAME

ALTERED

BROOKLYN
@ GOLDEN HOMES
HOLDINGS LTD. 2007

NOTES

ALL FOUNDATIONS ARE INDICATIVE ONLY AND MUST BE CHECKED ON SITE

ALL GLAZING TO BE IN ACCORDANCE WITH THE NZ BUILDING CODE HANDBOOK AND NZS:4223, PARTS 1, 2, & 3 CODE OF PRACTICE FOR GLAZING IN BUILDINGS

FINISHED FLOOR LEVEL IN RELATION TO HEIGHT TO BOUNDARY REGRESSION PLANE REQUIREMENTS ARE THE RESPONSIBILITY OF THE FLOOR LAYER. ANY DISCREPANCIES BETWEEN THE PLAN AND PHYSICAL SITE LEVELS ARE THE RESPONSIBILITY OF THE FLOOR LAYER.

THE DESIGNER TAKES NO RESPONSIBILITY FOR ANY ERRORS THAT MAY OCCUR.

REFER TO PAGE 18 FOR SAFETY GLAZING REQUIREMENTS

CORROSION ZONE : 2
WIND ZONE : HIGH
EARTHQUAKE ZONE : B
SNOWLOAD : 0.0kPa

TERRITORIAL AUTHORITY

WAIKATO DISTRICT COUNCIL

JOB TITLE

KIVEL RESIDENCE
LOT 3, DP 329628
WOOLRICH ROAD
TE KOWHAI

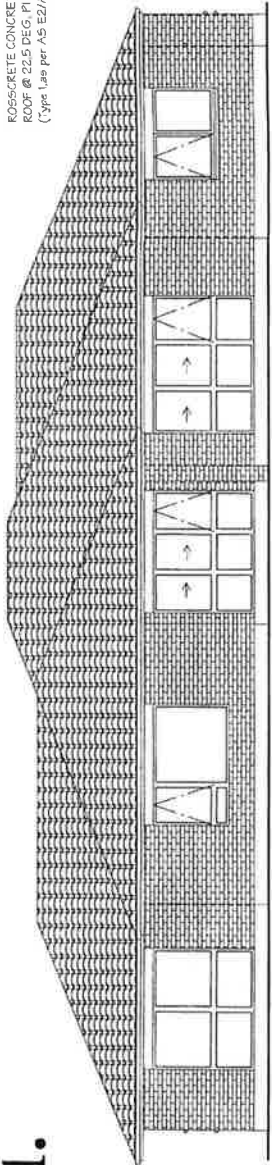
DRAWING TITLE

ELEVATIONS

SALES	NEIL
DRAWN	RCDC
TO No.	CHECKED
JOB No.	SHEET No. 1 OF 19
SCALE	DATE 29/08/07

ROSCONCRETE CONCRETE TILE
ROOF @ 22.5 DEG. PITCH
(*Type 1 use per AS/EZ/AS118.211)

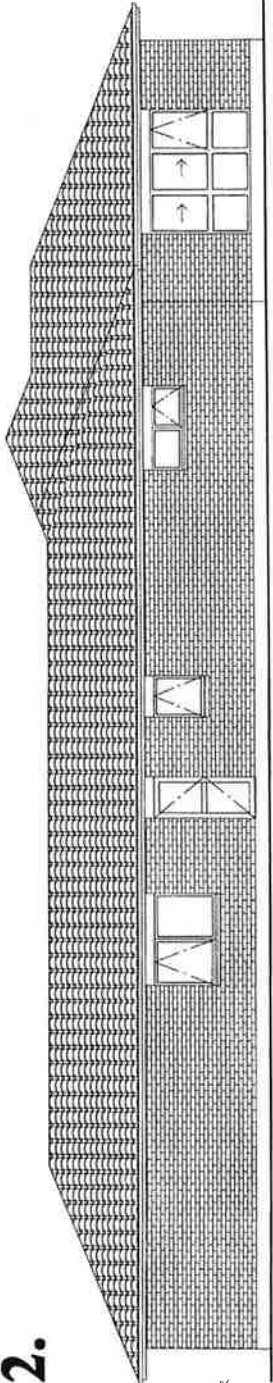
180 SMOOTH HARDIES
WISKARD ON 50x50 PACKING
ABOVE WINDOWS & DOORS



1.

SELECTED 70
SERIES BRICK VENEER

2.

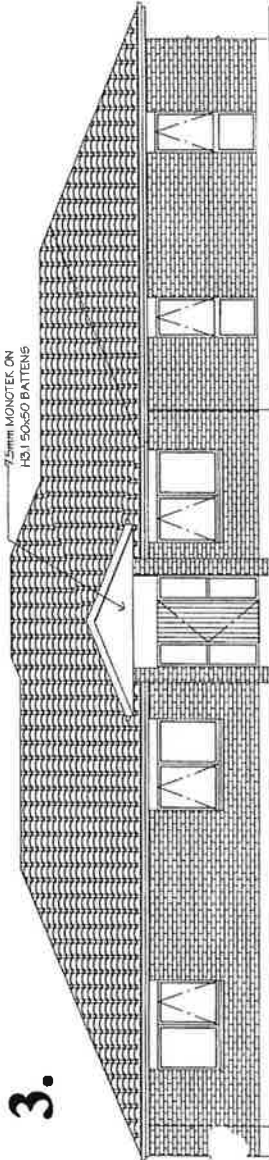


ALUMINIUM JOINERY

850 AL DOOR
2010x870 TRIM

3.

DULLY ACATEX ON
25mm MONOTEK ON
H31 50x50 BATTENS

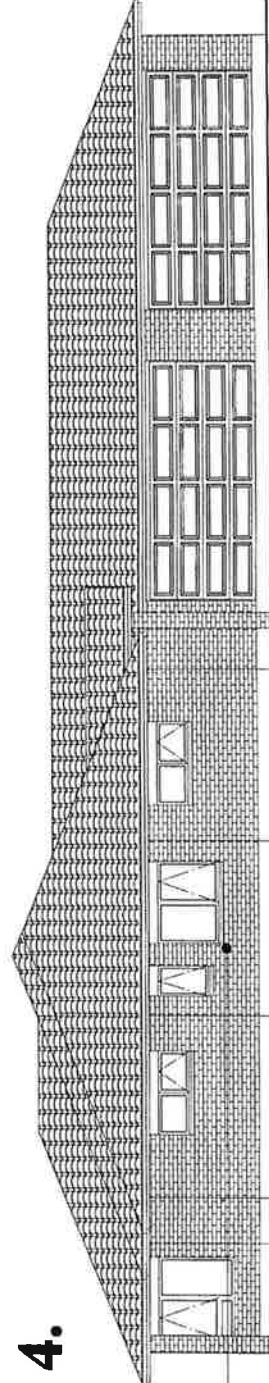


RAISED GABLE ENTRY
2785 PLATE HEIGHT
22.5 DEG. PITCH
600 OHANG

610 T&G CEDAR ENTRY
DOOR & GLAZED Sidelights

4.

BILDON FASCIA &
GUTTER SYSTEM



4500 WIDE SECTIONAL
GARAGE DOOR

4500 WIDE SECTIONAL
GARAGE DOOR

Table 2
Building envelope risk matrix
Paragraph 3.12, Figure 1

ALL WALLS	Risk severity					Subtotal for each risk factor
	LOW	MED	HIGH	VERY HIGH	2008	
Wind zone (per NZS 3604)	0	0	1	2	2008	1
Number of floors	0	1	2	3	4	0
Exposure to wind direction	0	1	2	3	4	0
Exposure to wind direction	0	1	2	3	4	0
Envelope permeability	0	1	2	3	4	0
Deck Detail	0	1	2	3	4	0
Total risk score						1

RISK RATING	LOW	MEDIUM	HIGH	VERY HIGH
RISK SEVERITY	1	2	3	4
WIND ZONE	1	2	3	4
EXPOSURE TO WIND DIRECTION	1	2	3	4
EXPOSURE TO WIND DIRECTION	1	2	3	4
ENVELOPE PERMEABILITY	1	2	3	4
DECK DETAIL	1	2	3	4
TOTAL	1	2	3	4



GOLDEN HOMES LIMITED

PLAN NAME
ALTERED

BROOKLYN
@ GOLDEN HOMES
HOLDINGS LTD. 2007

NOTES

REINFORCED CONCRETE SLAB TO BE IN ACCORDANCE WITH SECTION 7.5.9.6.4 OF NZS:3604:1999

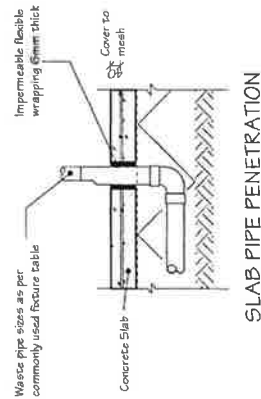
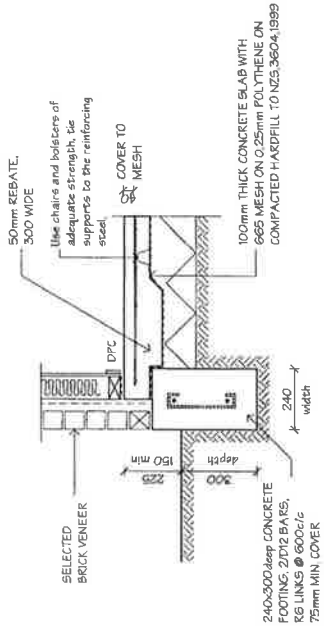
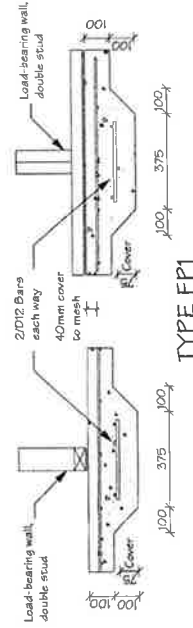
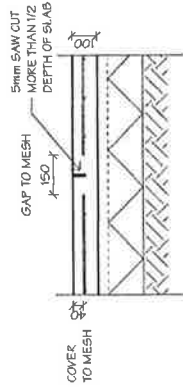
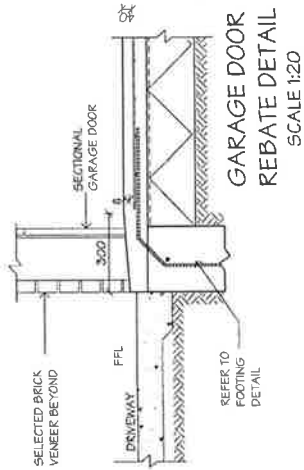
CORROSION ZONE : 2
WIND ZONE : HIGH
EARTHQUAKE ZONE : B
SNOWLOAD : 0.0RPa

TERRITORIAL AUTHORITY
WAIKATO DISTRICT COUNCIL

JOB TITLE
KIVEL RESIDENCE
LOT 3, DP 329628
WOOLRICH ROAD
TE KOWHAI

DRAWING TITLE
FOUNDATION
DETAILS

SALES	NEIL
DRAWN	RDCD
TD No.	CHECKED
JOB No.	6630
SCALE	1:20
SHEET No.	7 OF 19
DATE	29/08/07





GOLDEN HOMES
GBT HOMES LIMITED

PLAN NAME
ALTERED
BROOKLYN
© GOLDEN HOMES
HOLDINGS LTD. 2007

NOTES

- GIB BRACES FIXED IN ACCORDANCE WITH GIB BRACING SYSTEMS MANUAL
- PLY BRACES FIXED IN ACCORDANCE WITH CARTER HOLT HARVEY ECOPLY PLYBRACE HOUSE BRACING SYSTEM MANUAL
- ECOPLY BRACING SHEETS TO BE H3, CCA TREATED DD

CORROSION ZONE : 2
WIND ZONE : HIGH
EARTHQUAKE ZONE : D
SNOWLOAD : 0.0RPa

TERRITORIAL AUTHORITY
WAIKATO DISTRICT COUNCIL

JOB TITLE
KIVEL RESIDENCE
LOT 3, DP 329628
WOOLRICH ROAD
TE KOWHAI

DRAWING TITLE
BRACING DETAILS

SALES	NEIL
DRAWN	RCDC
TO NO.	CHECKED
JOB NO. 6630	SHEET NO. 9 OF 19
SCALE N.T.S	DATE 29/08/07

13mm STANDARD GIB CEILING DIAHRAGM

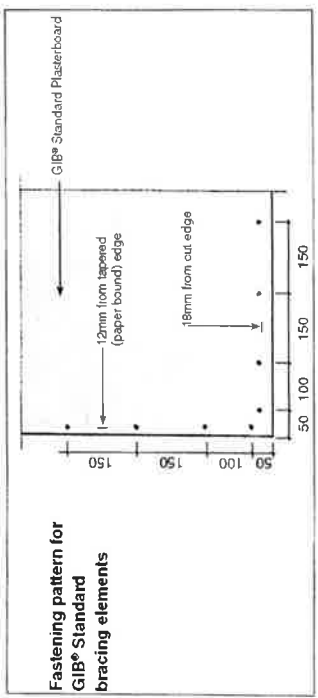
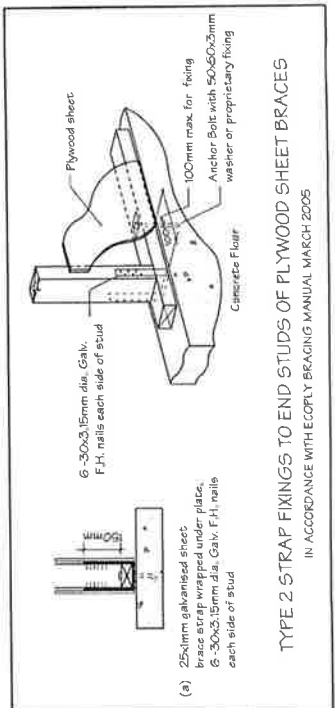
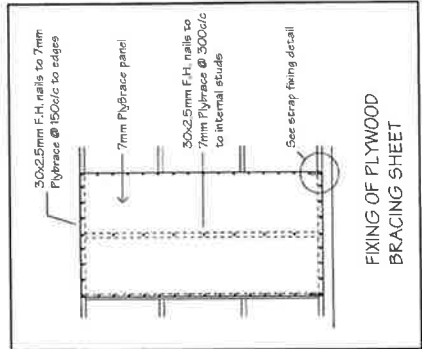
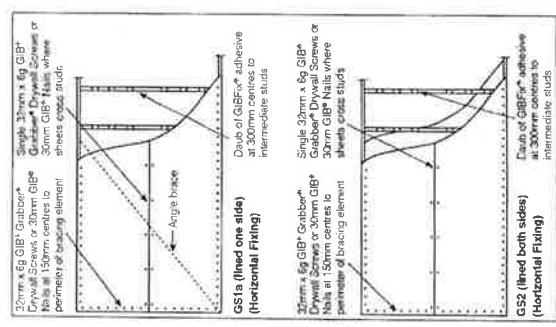
70x35 CEILING BATTENS @ 600c/c

FASTENINGS @ 150c/c TO THE BOUNDARY MEMBERS AROUND ENTIRE PERIMETER OF THE DIAHRAGM

FASTENERS - 32mm x 6g GIB GRABBER DRYWALL SCREWS OR

- 30mm x 2.8mm GIB NAILS

TO BE FIXED IN ACCORDANCE WITH GIB BRACING SYSTEMS MANUAL AND PUBLICATION GIB "SITE GUIDE"





BROOKLYN
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HOLDINGS LTD. 2007

PLAN NAME
ALTERED

NOTES

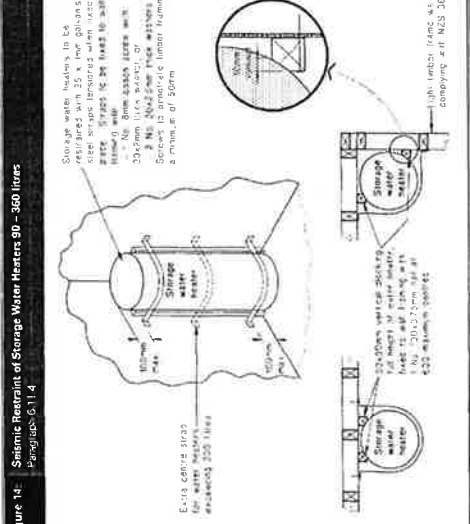
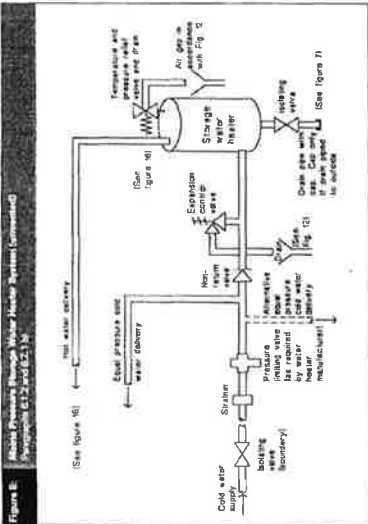
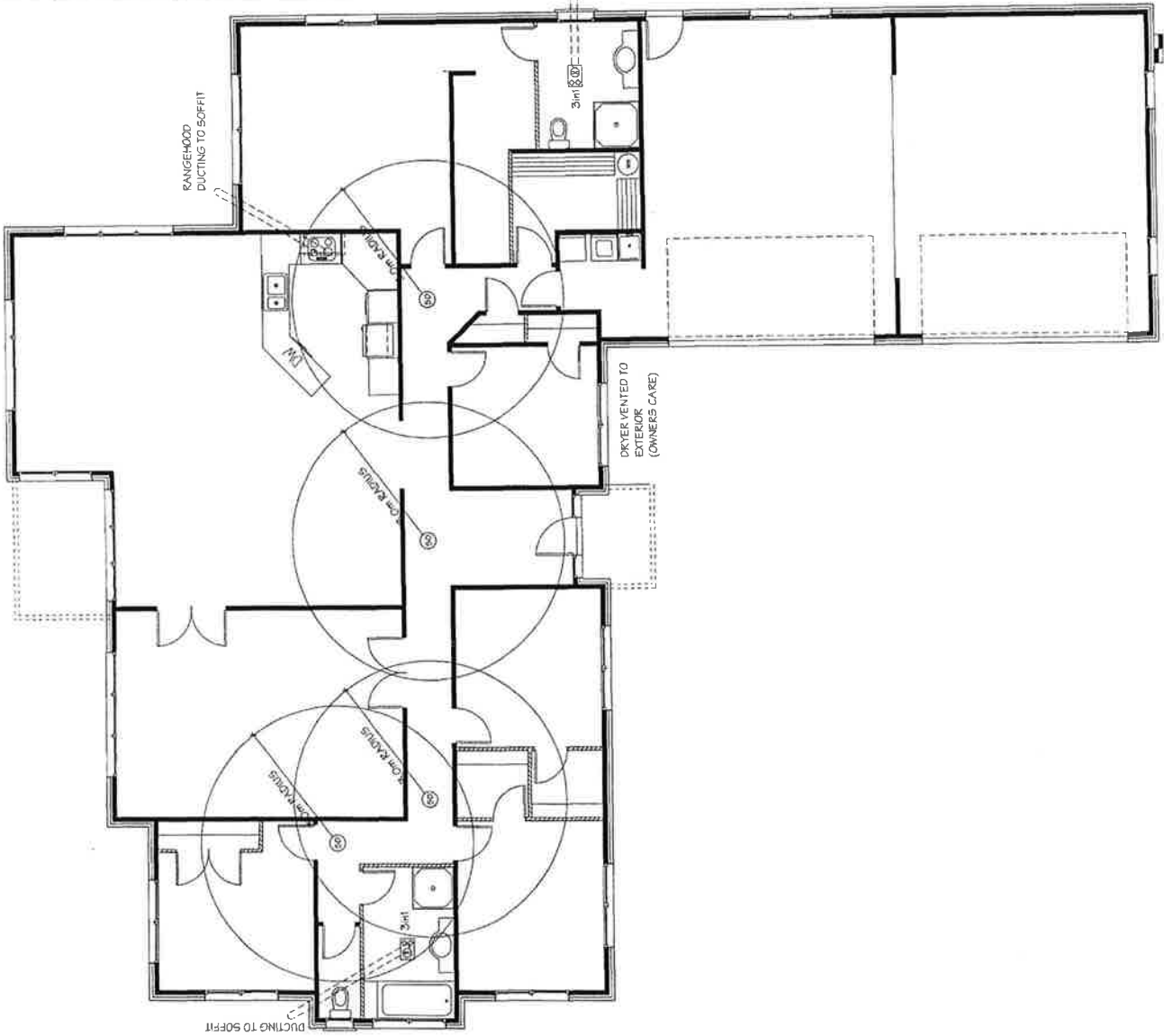
* POSITION OF ELECTRICAL FIXTURES TO BE
CONFIRMED WITH OWNER ON SITE
CORROSION ZONE : 2
WIND LOADING : HIGH
EARTHQUAKE ZONE : B
SNOW LOAD : 0.00kPa

TERRITORIAL AUTHORITY
WAIKATO DISTRICT COUNCIL

JOB TITLE
KIVEL RESIDENCE
LOT 3, DP 329628
WOOLRICH ROAD
TE KOWHAI

DRAWING TITLE
ELECTRICAL PLAN

SALES	NEIL
DRAWN	R/CDC
TO NO.	1640
JOB NO.	6650
SCALE	1:100
CHECKED	10 OF 19
SHEET NO.	DATE
	26/09/07



AN AUTOMATIC SMOKE DETECTION AND ALARM SYSTEM IS REQUIRED WITHIN 3.0m OF EACH SLEEPING ROOM DOOR AND BE ABLE TO BE HEARD FROM THE OTHERSIDE OF THE CLOSED DOOR. ONLY WHERE ONE IS REQUIRED BY THE TABLE A1 OF C/AS1 REFER APPROVED DOCUMENT F7 NZBC. SMOKE ALARMS SHALL BE LISTED OR APPROVED BY A RECOGNIZED AUTHORITY AS COMPLYING WITH LEAST ONE (1) OF: UL 217, U.L.C 5531, AS 3786, BS 5446 PART 1.



GOLDEN HOMES LIMITED

BROOKLYN

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PLAN NAME
ALTERED

NOTES

- (a) LINTEL FIXING
- (b) TOP PLATE FIXING

LINTEL AND STUD TO TOP PLATE FIXINGS IN ACCORDANCE WITH LUMBERLOK WALL FIXING CHARTS

STUD TO TOP PLATE FIXING SCHEDULE (alternative to NZS 3604:1999 Table B.12)
LINTEL FIXING SCHEDULE (alternative to NZS 3604:1999 Table B.14 & Fig. B.12)

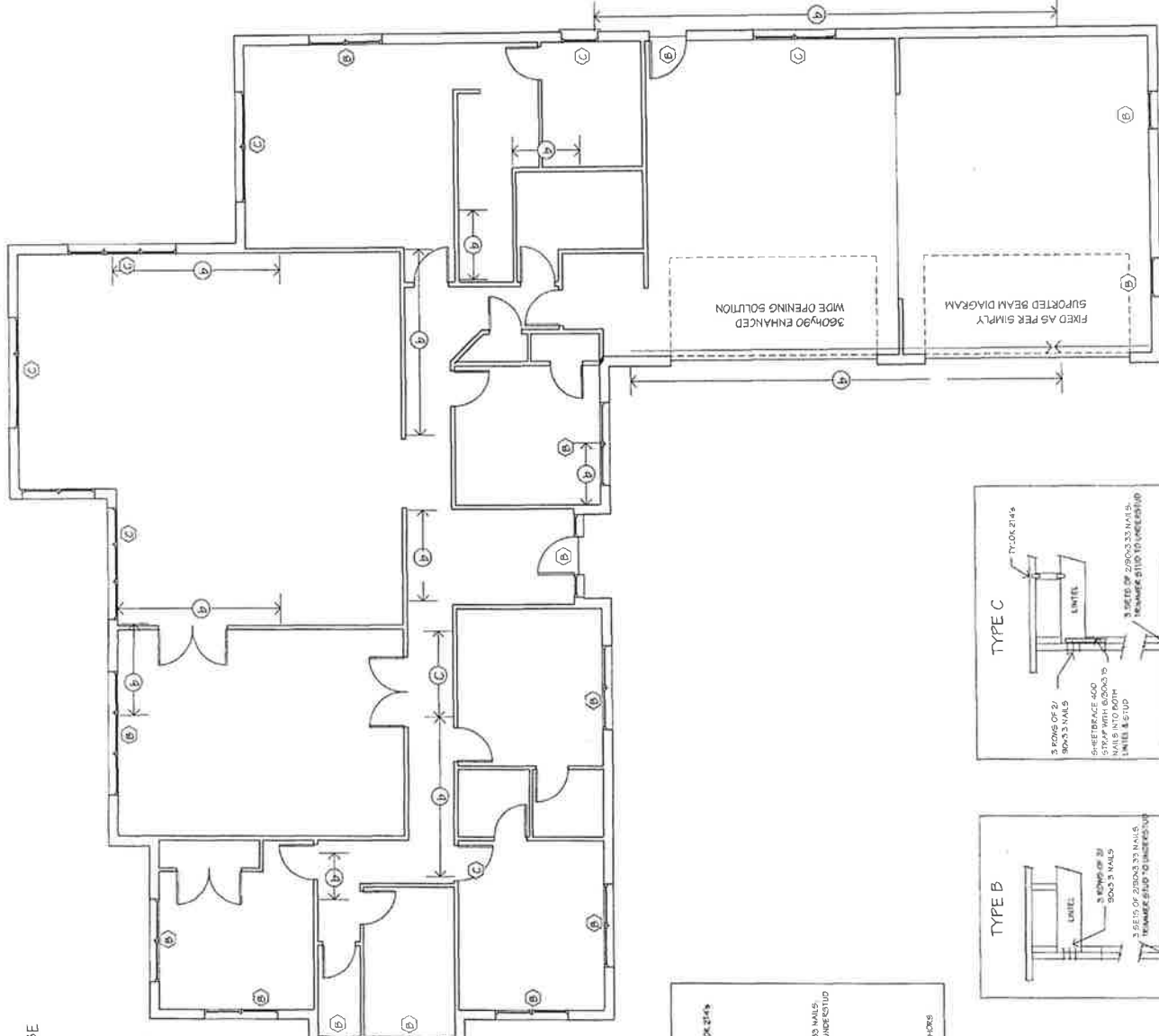
CORROSION ZONE : 2
WIND ZONE : HIGH
EARTHQUAKE ZONE : B
SNOWLOAD : 0.0kPa

TERRITORIAL AUTHORITY
WAIKATO DISTRICT COUNCIL

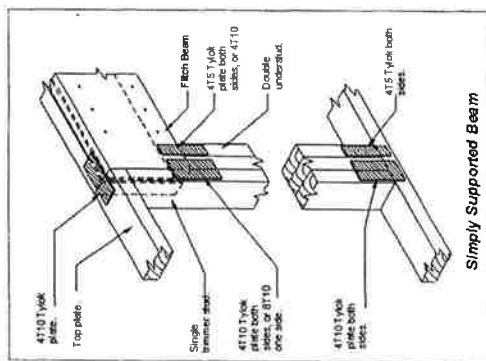
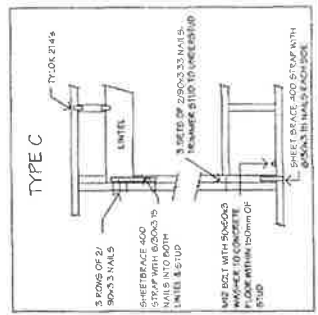
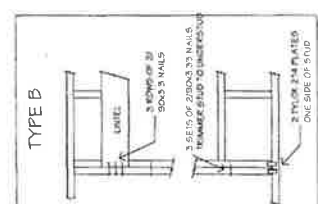
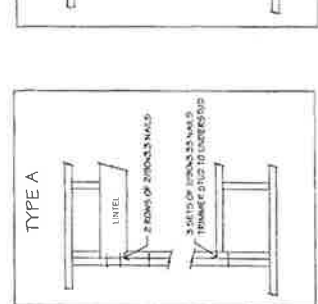
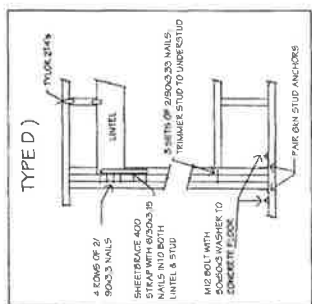
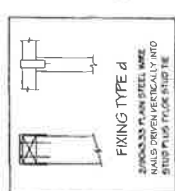
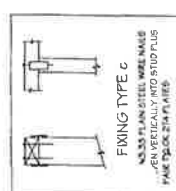
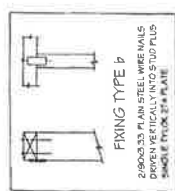
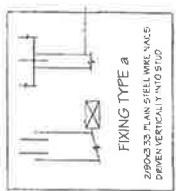
JOB TITLE
KIVEL RESIDENCE
LOT 3, DP 329628
WOOLRICH ROAD
TE KOWHAI

DRAWING TITLE
LINTEL & TOP
PLATE FIXINGS

SALES	NEIL
DRAWN	RJDC
TD No.	1640
CHECKED	
JOB No.	6030
SHEET No.	11 OF 19
SCALE	1:100
DATE	26/09/07



ALL STUD TO TOP PLATE FIXINGS TO BE TYPE C UNLESS NOTED OTHERWISE



Simply Supported Beam

360x90 ENHANCED WIDE OPENING SOLUTION

FIXED AS PER SIMPLY SUPPORTED BEAM DIAGRAM



PLAN NAME
ALTERED
BROOKLYN
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HOLDINGS LTD. 2007

NOTES

- ROOF TRUSSES FIXED AS PER METER NZ DESIGN BY "THE DETAILER" SEE ROOF TRUSSES LAYOUTS
- TILE BATTENS FIXED IN ACCORDANCE WITH METER NZ LTD LUMBERLOK PULPING & BATTEN FINISH CHART IN ACCORDANCE WITH NZS 3604:1999 (SEE ATTACHED SPECIFICATIONS)
- ALL FININGS TO BE IN ACCORDANCE WITH SECTION 4, DURABILITY, NZS 3604:1999
- INSULATION:**
R2.2 FIBREGLASS WALL BATTIS
R2.6 FIBREGLASS CEILING BATTIS
- WALL FRAMING:** N5G9
EXTERNAL H3.1 TREATED
INTERNAL CHEMICAL FREE
- TRUSS FRAMING:** N5G10
H3.1 TREATED REVEALS TO ALUMINIUM WINDOW JOINERY

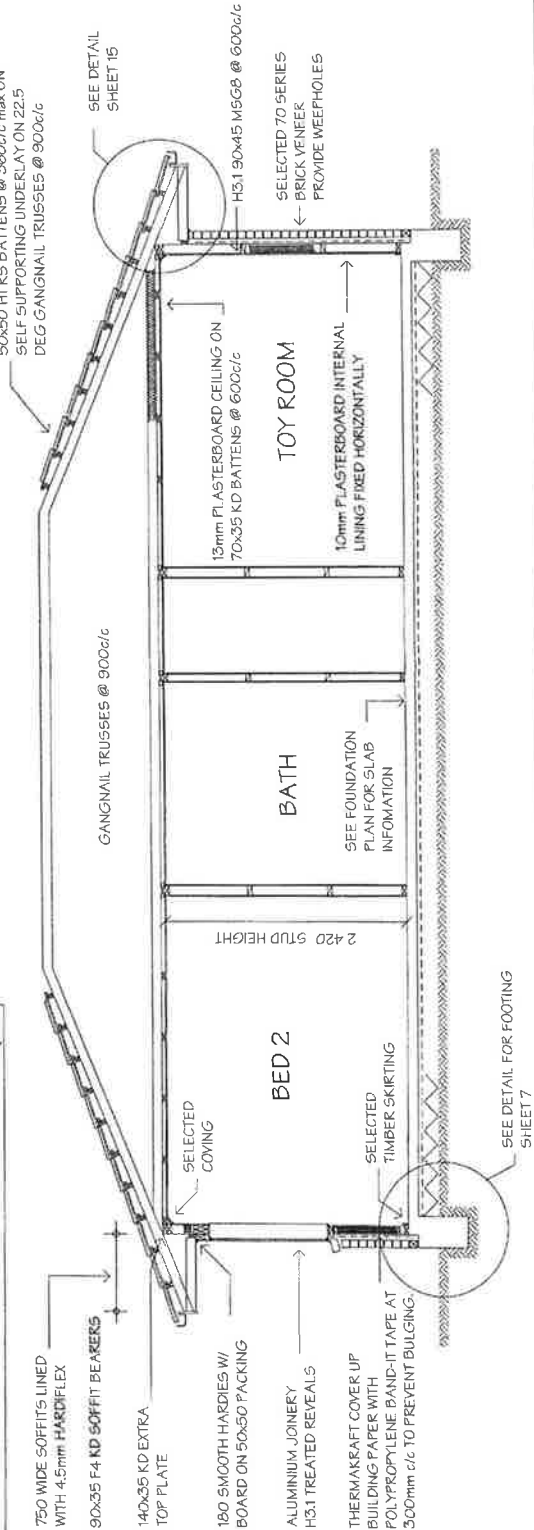
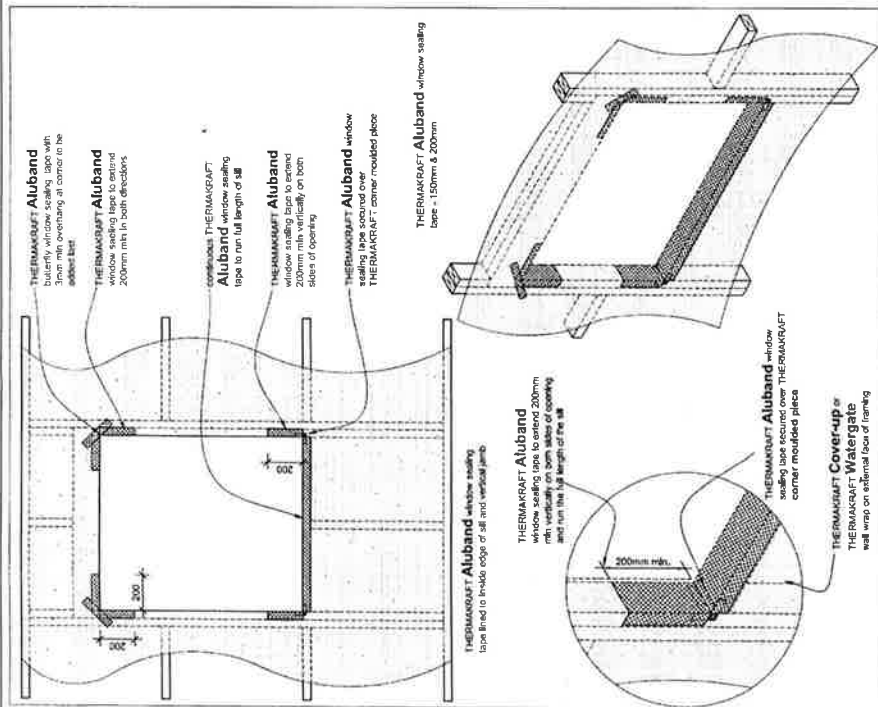
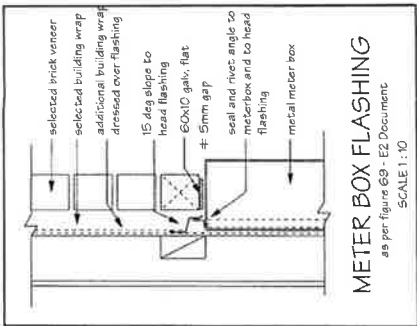
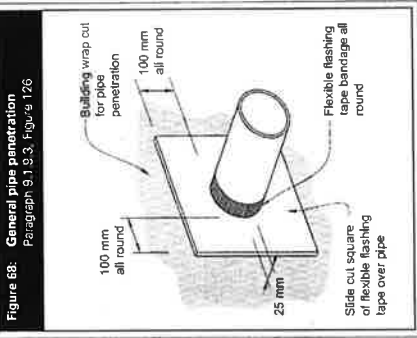
CORROSION ZONE : 2
WIND ZONE : HIGH
EARTHQUAKE ZONE : B
SNOWLOAD : 0.0kPa

TERRITORIAL AUTHORITY
WAIKATO DISTRICT COUNCIL

JOB TITLE
KIVEL RESIDENCE
LOT 3, DP 329628
WOOLRICH ROAD
TE KOWHAI

DRAWING TITLE
CROSS SECTION

SALES	NEIL
DRAWN	R/CDC
TO No.	CHECKED
JOB No.	6630
SCALE	1:50
SHEET No.	12 OF 19
DATE	29/08/07





GOLDEN HOMES
OBT HOMES LIMITED

PLAN NAME
ALTERED
BROOKLYN
@ GOLDEN HOMES
HOLDINGS LTD. 2007

NOTES

- ROOF TRUSSES: FIRED AS PER MITEK NZ DESIGN BY "THE DETAILER". SEE ROOF TRUSS LAYOUTS
- TILE BATTENS: FIRED IN ACCORDANCE WITH MITEK NZ LTD. LUMBERLOK PURLINS & BATTEN FRAMING CHART IN ACCORDANCE WITH NZS 3604:1999 (SEE ATTACHED SPECIFICATIONS)
- ALL FRINGS TO BE IN ACCORDANCE WITH SECTION 4, DURABILITY, NZS 3604:1999
- INSULATION:
R2.2 FIBREGLASS WALL BATT
R2.6 FIBREGLASS CEILING BATT
- WALL FRAMING: M5G9
EXTERNAL: H31 TREATED
INTERNAL: CHEMICAL FREE
- TRUSS FRAMING: M5G10
- H31 TREATED REVEALS TO ALUMINIUM WINDOW JOINERY
- BRICK TIES:
Maximum spacing of 400mm vertically.
Two rows of fixings in the first two courses of veneer panels resting on DPC

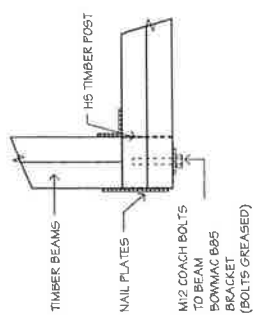
CORROSION ZONE : 2
WIND ZONE : HIGH
EARTHQUAKE ZONE : B
SNOWLOAD : 0.0kPa

TERRITORIAL AUTHORITY
WAIKATO DISTRICT COUNCIL

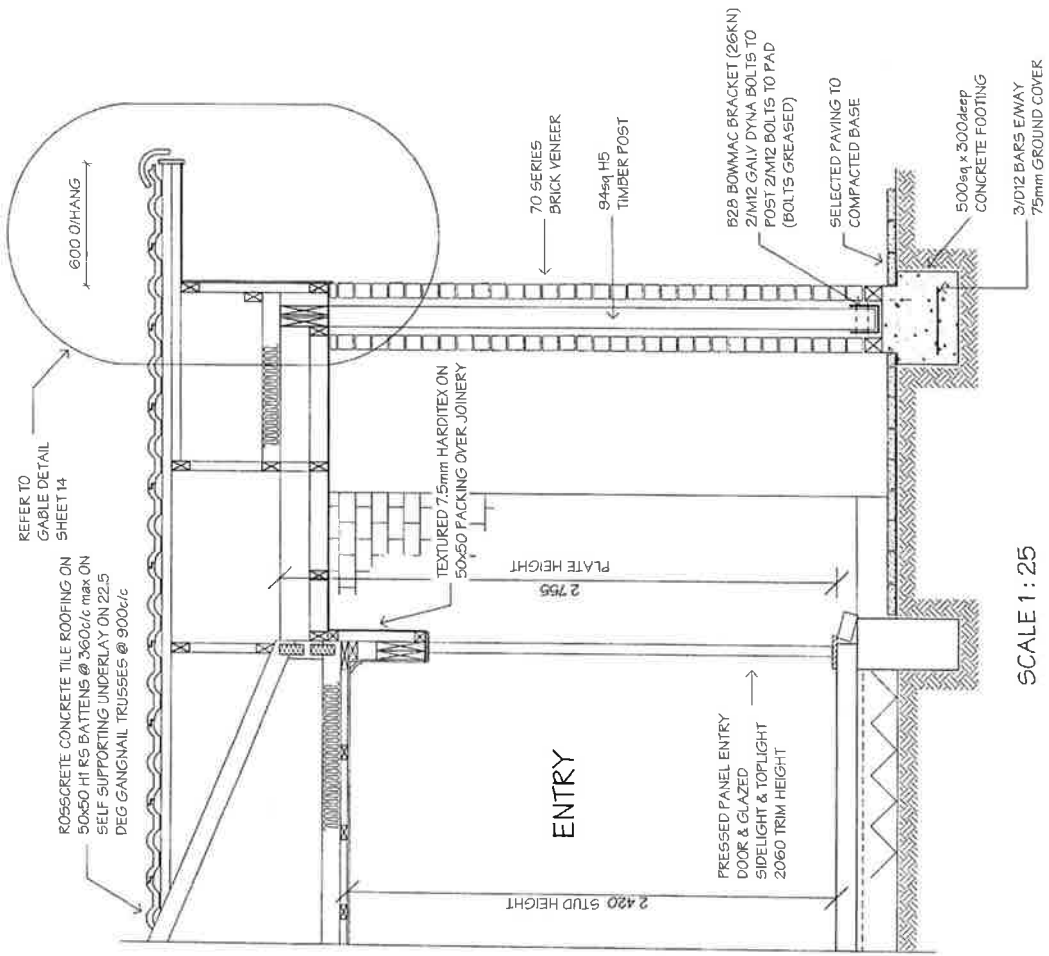
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KIVEL RESIDENCE
LOT 3, DP 329628
WOOLRICH ROAD
TE KOWHAI

DRAWING TITLE
ENTRY DETAILS

SALES	NEIL
DRAWN	RCDC
TD No:	CHECKED
JOB No:	6630
SCALE	A5 SHOWN
SHEET No:	13 OF 19
DATE	29/08/17



POST / BEAM CONNECTION
SCALE 1:10





PLAN NAME
ALTERED
BROOKLYN
© GOLDEN HOMES
HOLDINGS LTD. 2007

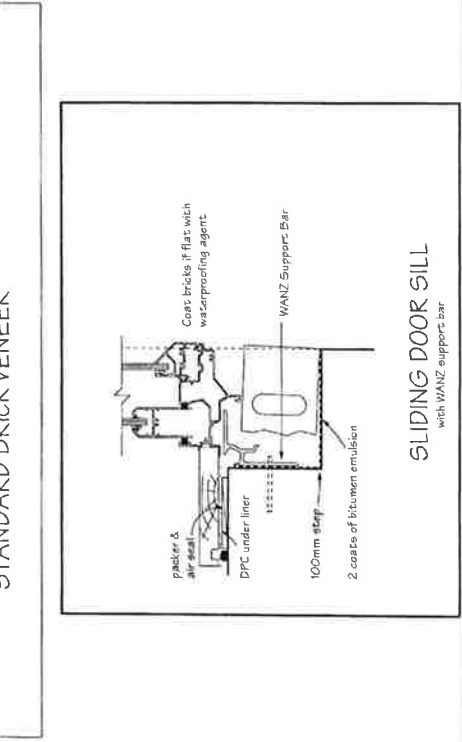
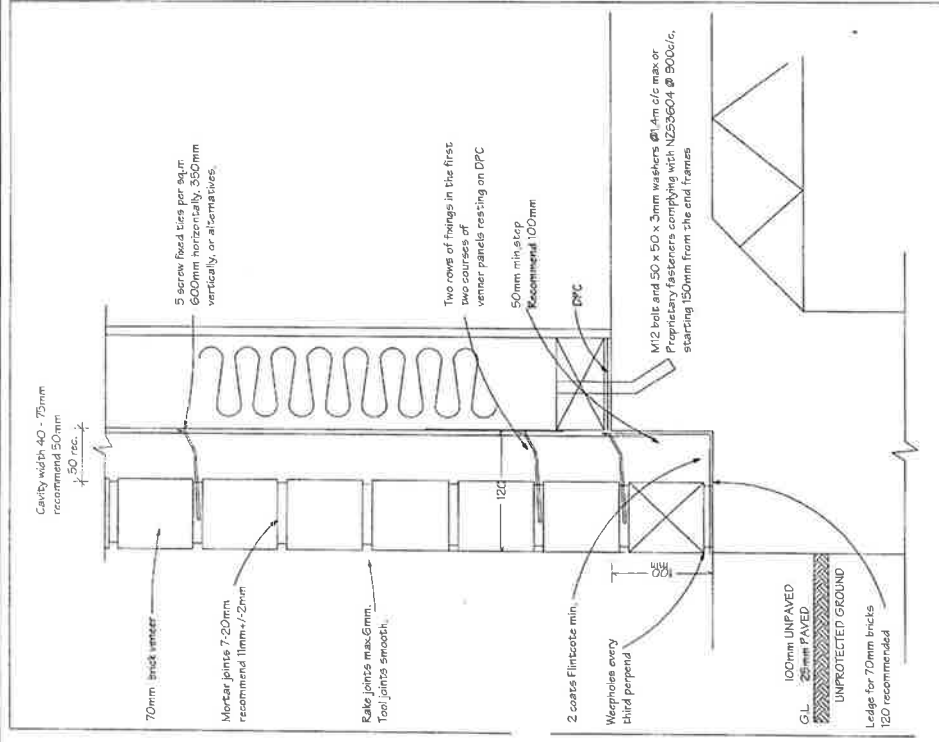
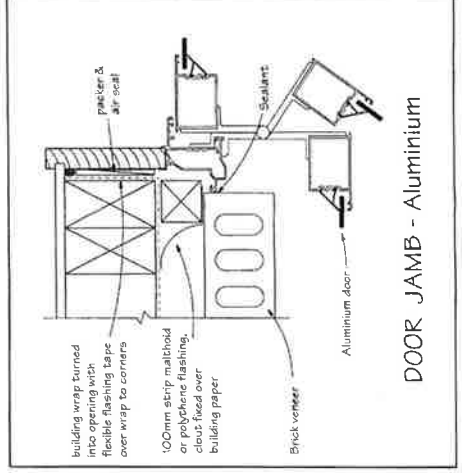
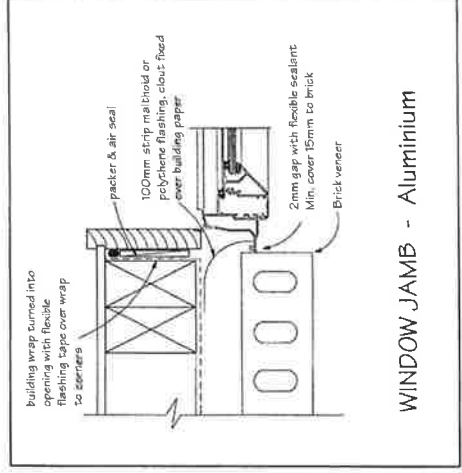
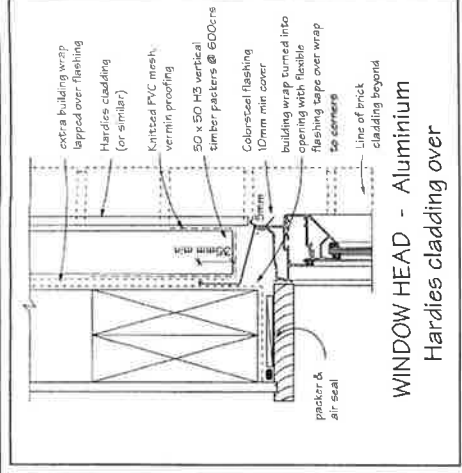
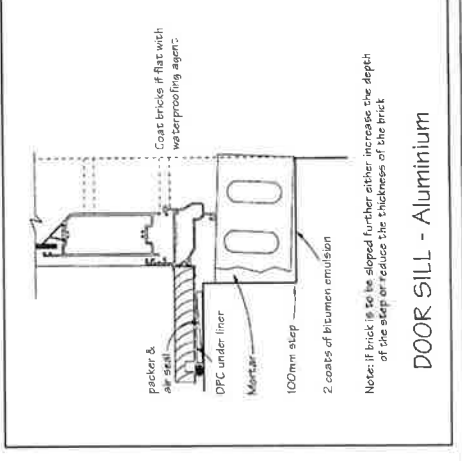
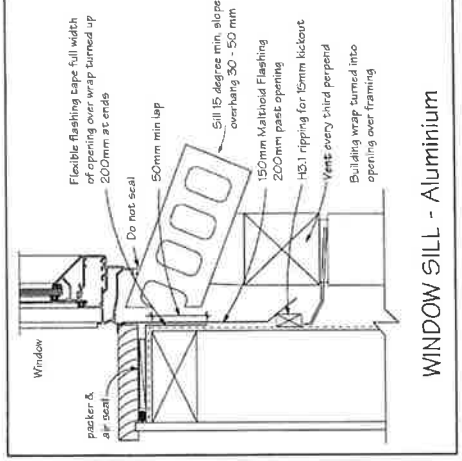
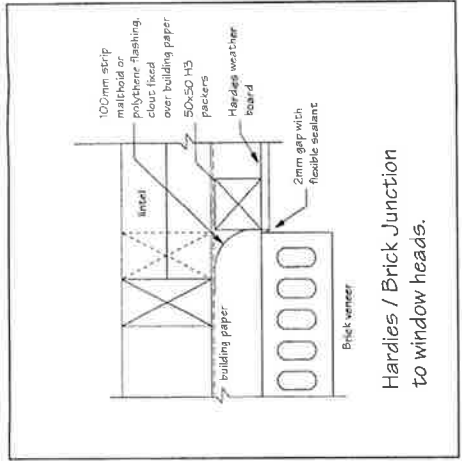
NOTES
ANY METAL FLASHINGS AND FLASHINGS TO BE AS PER SECTION 4, DURABILITY, NZS3604:1999
BRICK TIES:
Maximum spacing of 600mm horizontally, 350mm vertically.
Two rows of fixings in the first two courses of veneer panels resting on DPC
One row of horizontal fixings within 300mm or two courses of the top and bottom edges of any opening
One row of vertical fixings with 300mm of the edge of open end veneer panels

CORROSION ZONE : 2
WIND ZONE : HIGH
EARTHQUAKE ZONE : B
SNOWLOAD : 0.0kPa

TERRITORIAL AUTHORITY
WAIKATO DISTRICT COUNCIL
JOB TITLE
KIVEL RESIDENCE
LOT 3, DP 329628
WOOLRICH ROAD
TE KOWHAI

DRAWING TITLE
BRICK DETAILS

SALES	NEIL
DRAWN	RCDC
TD NO.	CHECKED
JOB NO.	6630
SCALE	1:5
SHEET NO.	15 OF 19
DATE	29/08/07





PLAN NAME
ALTERED
BROOKLYN
© GOLDEN HOMES
HOLDINGS LTD, 2007

NOTES

- ANY METAL LINTELS AND FLASHINGS TO BE AS PER SECTION 4, DURABILITY, NZS 3604:1999
- BRICK TIES:**
Minimum spacing of 600mm horizontally, 350mm vertically.
- Two rows of fixings in the first two courses of veneer panels resting on DPC
- One row of horizontal fixings within 300mm or two courses of the top and bottom edges of any opening
- One row of vertical fixings with 300mm of the edge of open end veneer panels

KORROSION ZONE : 2
WIND ZONE : HIGH
EARTHQUAKE ZONE : B
SNOWLOAD : 0.0kPa

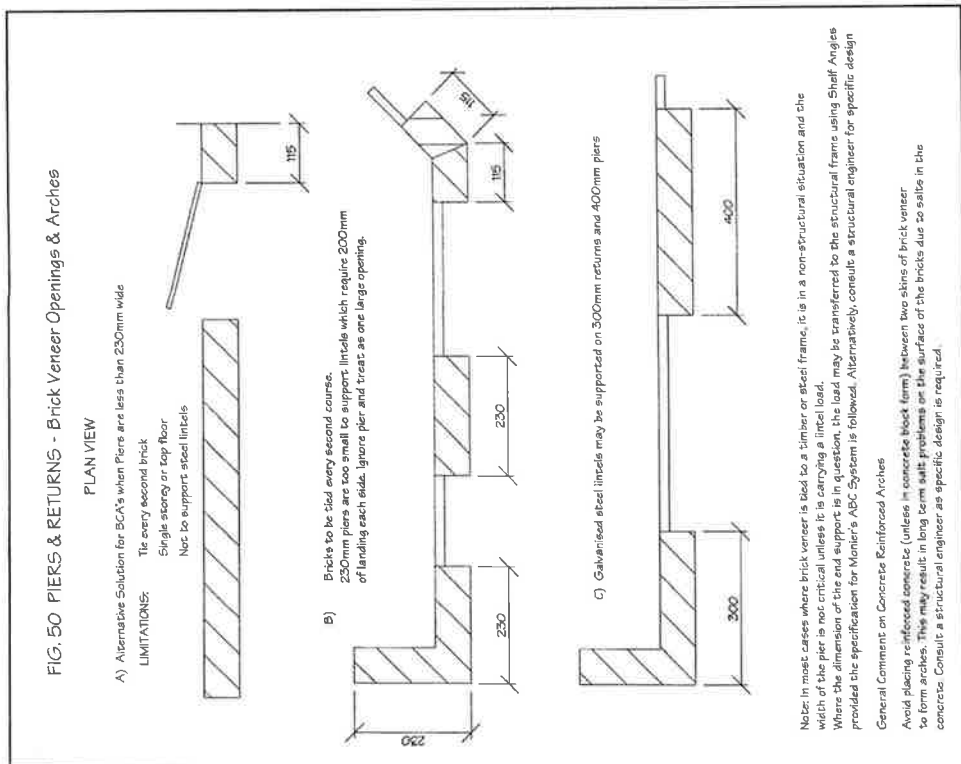
TERRITORIAL AUTHORITY
WAIKATO DISTRICT COUNCIL

JOB TITLE
KIVEL RESIDENCE
LOT 3, DP 329628
WOOLRICH ROAD
TE KOWHAI

DRAWING TITLE

BRICK PIER DETAILS

SALES	NEIL
DRAWN	RGDC
TD No.	CHECKED
JOB No.	6630
SCALE	1 : 10
SHEET No	16 OF 19
DATE	29/08/07





PLAN NAME
ALTERED
BROOKLYN
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NOTES
DETAILS IN ACCORDANCE WITH
NZ BUILDING CODE CLAUSE E2

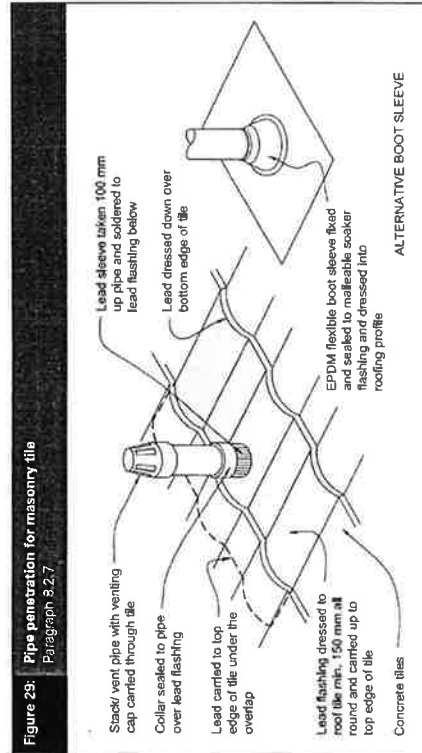
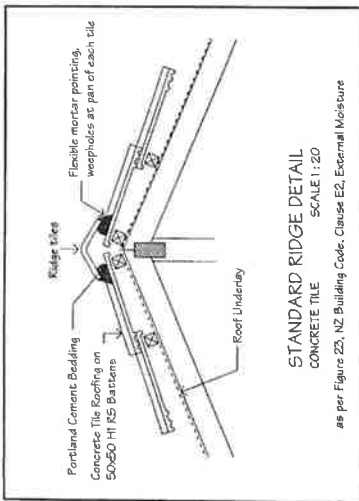
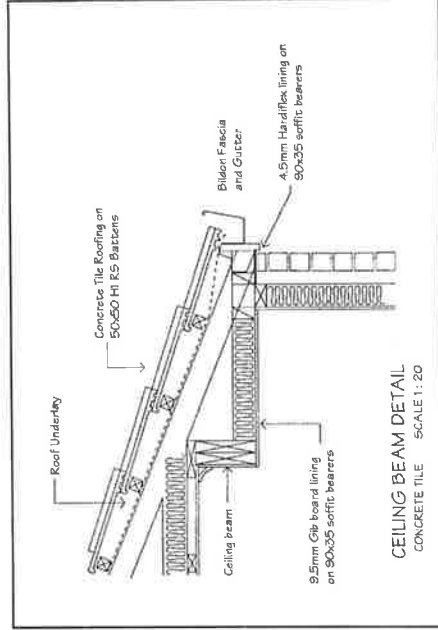
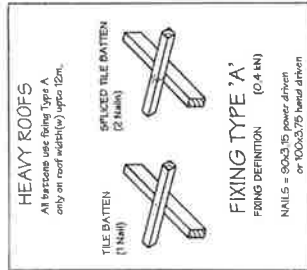
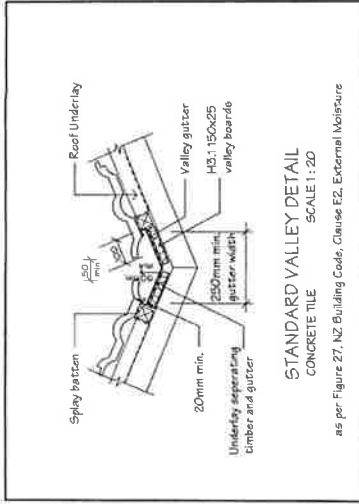
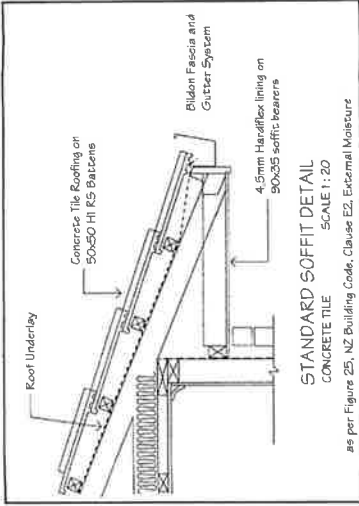
CORROSION ZONE : 2
WIND ZONE : HIGH
EARTHQUAKE ZONE : B
SNOWLOAD : 0.00kPa

TERRITORIAL AUTHORITY
WAIKATO DISTRICT COUNCIL

JOB TITLE
KIVEL RESIDENCE
LOT 3, DP 329628
WOOLRICH ROAD
TE KOWHAI

DRAWING TITLE
ROOF FLASHING
DETAILS

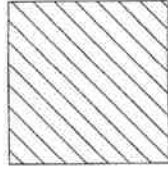
SALES NEIL
DRAWN RCDC
TO NO CHECKED
JOB NO 6630 SHEET NO 17 OF 19
SCALE 1:20 **DATE** 29/09/07





PLAN NAME
ALTERED
BROOKLYN
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HOLDINGS LTD. 2007

NOTES
ALL GLAZING TO BE IN ACCORDANCE WITH THE NZ
BUILDING CODE HANDBOOK AND NZS 4223.
PARTS 1, 2, & 3. CODE OF PRACTICE FOR GLAZING
IN BUILDINGS



GRADE A
SAFETY GLASS

CORROSION ZONE : 2
WIND ZONE : HIGH
EARTHQUAKE ZONE : B
SNOWLOAD : 0.0MPa

TERRITORIAL AUTHORITY
WAIKATO DISTRICT COUNCIL

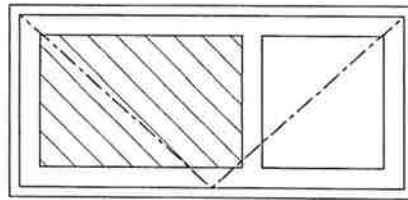
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KIVEL RESIDENCE
LOT 3, DP 329628
WOOLRICH ROAD
TE KOWHAI

DRAWING TITLE
SAFETY GLAZING

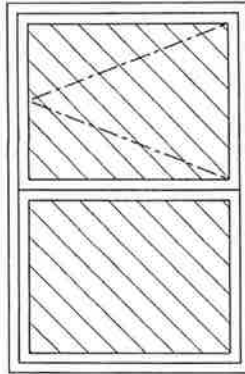
SALES	NEIL
DRAWN	R/CDC
TD No.	CHECKED
JOB No. 0630	SHEET No. 18 OF 19
SCALE 1:25	DATE 29/08/07

DOUBLE GLAZED WINDOW AND DOOR UNITS

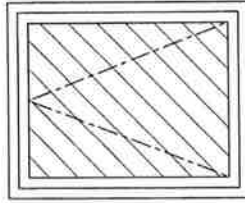
Grade A safety glass as shown, interior panel or both panels (interior & exterior) refers to double glazing.



DOOR
WITH VISION RAIL
(grade A safety glass both panels)



BATHROOM & ENSUITE WINDOWS
(grade A safety glass interior panels only)





PLAN NAME
ALTERED
BROOKLYN
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HOLDINGS LTD. 2007

NOTES

DETAILS IN ACCORDANCE WITH BOTH
GIB AQUALINE WET AREA SYSTEMS MANUAL
& CLEARLITE ACRYLIC SHOWER TRAY
& LINER SPECIFICATIONS

Type 1 Organic Based Wall Tile Adhesive
over Waterproof Membrane

CORROSION ZONE : 2
WIND ZONE : HIGH
EARTHQUAKE ZONE : B
SNOWLOAD : 0.0kPa

TERRITORIAL AUTHORITY

WAIKATO DISTRICT COUNCIL

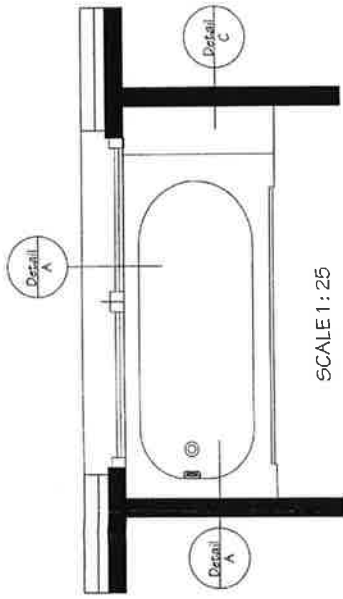
JOB TITLE

KIVEL RESIDENCE
LOT 3, DP 329628
WOOLRICH ROAD
TE KOWHAI

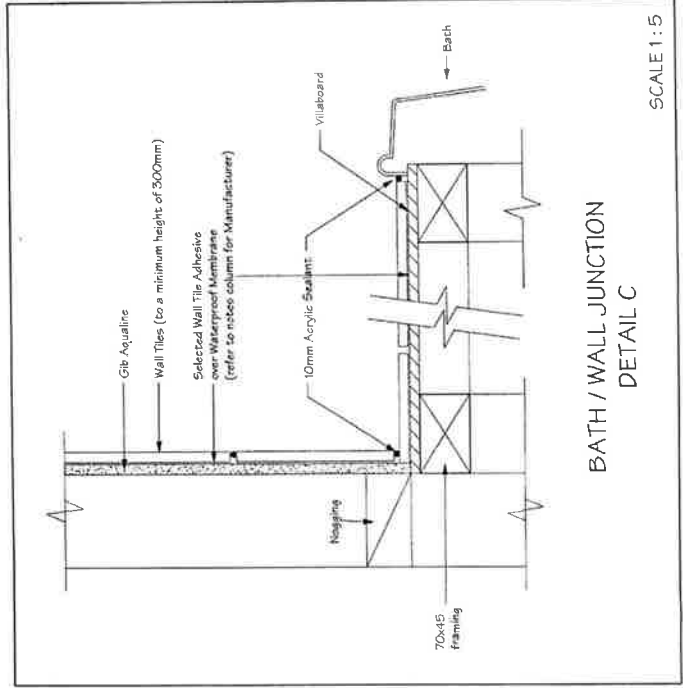
DRAWING TITLE

WET AREA DETAILS

SALES	NEIL
DRAWN	RCDC
TD No.	CHECKED
JOB No.	6630
SCALE	1:5
SHEET No.	19 OF 19
DATE	29/08/07

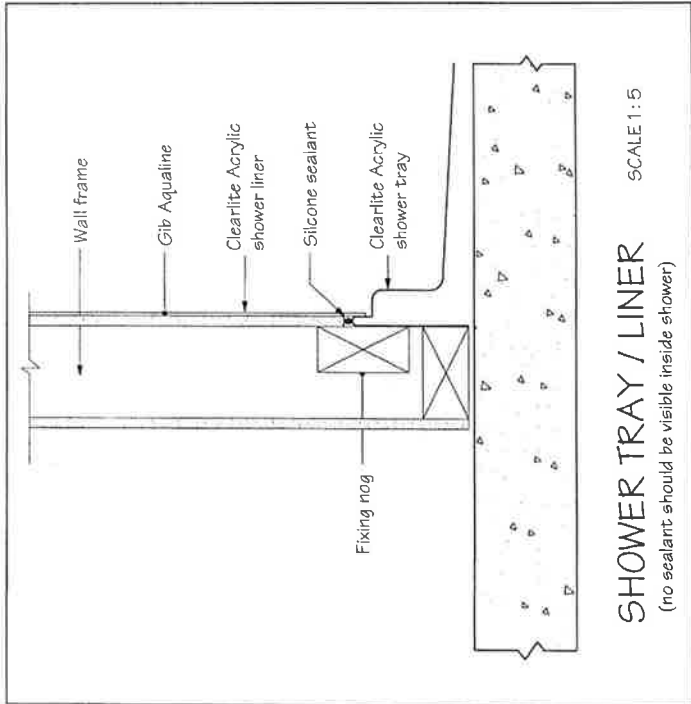


SCALE 1:25



BATH / WALL JUNCTION
DETAIL C

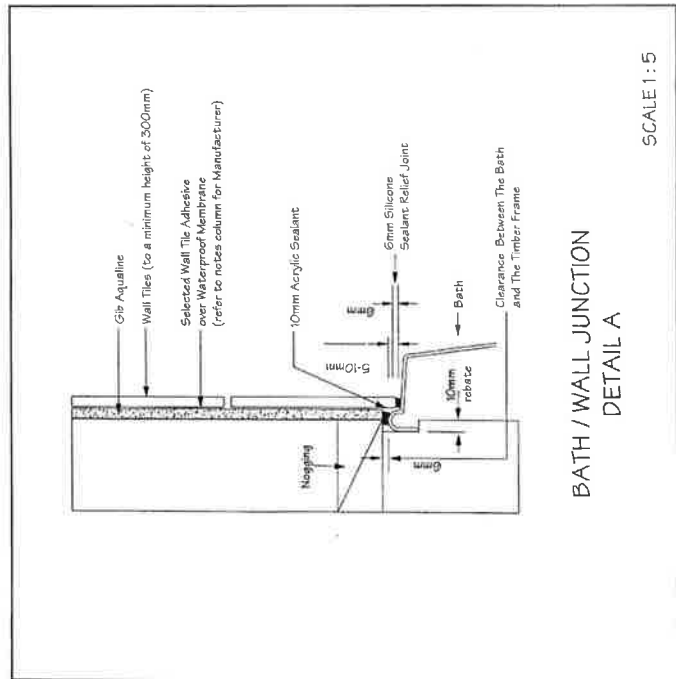
SCALE 1:5



SHOWER TRAY / LINER

(no sealant should be visible inside shower)

SCALE 1:5



BATH / WALL JUNCTION
DETAIL A

SCALE 1:5



JOB No TD1640

Client: QBT Limited

Job Name: 6630 Kivel

Address: Lot 3 Woolrich Road,
 Te Kowhai

Pitch: 22.5

Roof Material: Concrete Tile

Soffit Overhang: 750

Wind Area: High

Snow Load: 0 kPa

Trusses And Rafter At 900 Centres
 Unless Stated Otherwise

These lintels have been sized using
 the GANGLAM 05/2005 and
 FLITCH BEAM April 2007
 selection manuals as provided by
 MITek NZ Ltd.

HYSPAN and HY90 lintels have been
 sized using designIT v2.2 NZ software or
 selection manuals - HYSPAN Edition 2
 and HY90 Edition 1, as provided by
 CHH futurebuild.

Unless otherwise stated all lintels are
 to be selected as per GANGLAM 05/2005
 selection manuals as provided by
 MITek NZ Ltd.

All walls shown on this layout are
 considered to be load bearing.

LINTEL	SIZE	LENGTH
A	FB30M	4720
B	360 HY90	4540
C	300X100	2720
D	300X100	2420
E	250X100	2420
F	200X100	835
G	200X100	835

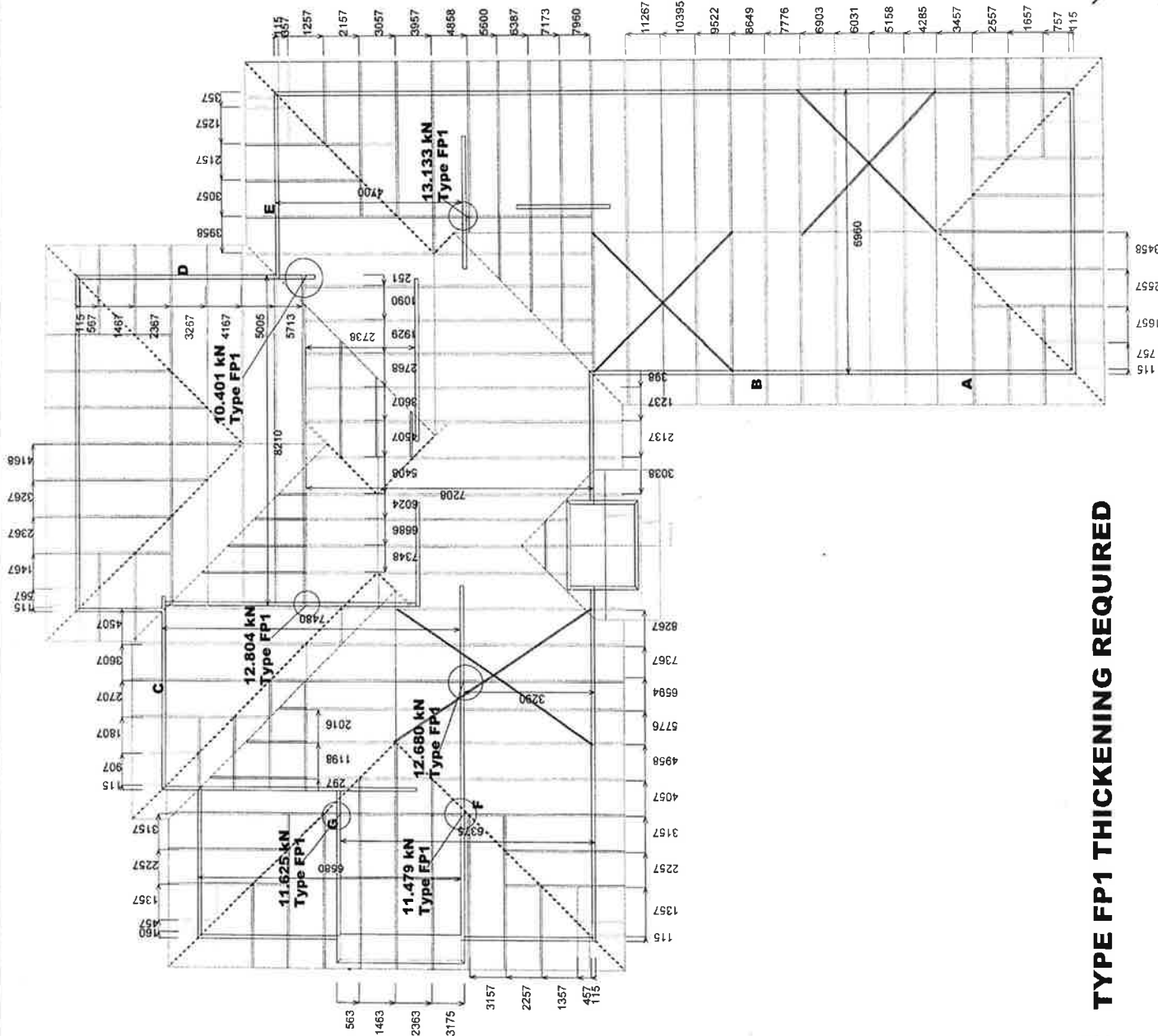
HIP BRACES

90 x 45 Hipboards are to be supported
 by a Hip Brace, fitted as per installation
 instructions supplied in Site Pack

See Page 1 for Truss
 Layout and Fixings

DRAWN BY Tony

DATE 21/09/07 PAGE 2 of 2



LUMBERLOK STRIP BRACE
 WITH TENSIONERS

TYPE FP1 THICKENING REQUIRED



G.A. Hughes & Associates (2005) Ltd.

Consulting Civil & Structural Engineers

Cur. Graham & Newall Streets, Hamilton East. P.O. Box 4306
Ph. (07) 856-9097. Fax (07) 856-2722. Email: steve @gahughes.co.nz

10th October 2007

Golden Homes,
P O Box 20-343,
HAMILTON.

cc. Sandra Kivell

Domestic On - Site Stormwater Management Plan
At #60 Woolrich Road, Te Kowhai.
Ref: 056238 Drawing # 7888/1-4

Dear Madam,

In accordance with your request we have carried out a site assessment and evaluation at the above referenced property. The purpose of this assessment was to determine On-Site Stormwater Management for a proposed residential dwelling on the site.

1. Objective of On Site Stormwater Disposal

As listed in section E1.1 of the NZBC, the objectives of the stormwater disposal management plan are to:

- 1) Safeguard people from injury or illness, and other property from damage, caused by surface water; and
- 2) Protect the outfalls of drainage systems.

2. Investigations

Our investigations and design has been carried out in accordance with the New Zealand Building Code (Section: E1 Surface Water) and NZWERF On-site Storm Water Management Guideline, October 2004, and have included both desk top evaluation and on-site examination.

2.1 Desk Top Evaluation

The site has been evaluated with regard to soil type and geological maps. The overall annual rainfall for the area is 1200 mm. The average annual evaporation is 870 mm.

2.2 On-Site Evaluation

The site was inspected on the 8th October 2007. Weather conditions on the day were cloudy but fine and during the preceding week were showery with some rainy periods.

2.2.1 Topography

The site topography is sloping to rolling with slopes less than 26 degrees and has ground cover of grass. The sites history of land use was as farm land.

G.A. Hughes, Director, B.E., Dip.Mgt., MIPENZ (Civil, Structural), CPEng, IntPE, ANZIM, FNZPI, AREINZ.
J.S. Jaspers, Director, NZCE (Civil), AdvTradeCert (Building)

2.2.2 Site Exposure

The site aspect is northerly and the prevailing wind direction is westerly.

2.2.3 Drainage Contours

The depth of seasonal water table was located at 900 mm at the time of the investigation.

2.2.4 Site Soakage Assessment

Percolation testing was carried out in accordance with NZBC (Surface Water Section 9.0.2). Soil profiles were also carried out by hand auger equipment and indicate soils type as follows –

Percolation hole 1: revealed 100 mm topsoil, 200 mm silty clay loam: fine, very friable and orange then 600 mm clay: fine, sticky and orange, becomes moist at 700 mm depth, becomes wet at 900 mm depth to end of bore at 900 mm depth.
Water table was found at 900 mm depth.

Percolation Hole / Estimated Soil/Permeability Categories are set out below -

Soak Hole #	1
Soil Category	5
Sr: (mm/hr)	240

3.0 Stormwater Disposal System

3.1 On Site stormwater disposal system


On-site stormwater disposal system will consist of one 22.5 m³ water tank (with 4.5 m³ temporary storage) with an overflow to a 110 m³ minimum storage lake. The outlet for the discharge into the lake will require erosion protection (see detail on page 4 (Hamilton City Council, Development Manual August 2007, TS 409)).

NOTE: The fencing around the lake is to comply with the local territorial authorities regulations.

3.2 Silt control & leaf protection

For the effective operation of stormwater soakage disposal, it is essential that organic material and silt to be prevented from entering the soakage trenches. Catch-pits shall be fitted with silt trap and leaf traps shall be fitted to the down pipes. The silt trap and leaf traps are to be inspected and cleaned regularly.

Yours faithfully,


G.A. Hughes,
Director,
G.A. Hughes & Associates Ltd.

CLIENT

Sandra Kivell

G.A. Hughes & Associates Ltd

Consulting Civil & Structural Engineers

P.O. Box 4306, Hamilton. Ph. 0-7-856 9097. Fax 0-7-8562772

ADDRESS

60 Woolrich Road

Te Kowhai

Ref:

Date: 12-Oct-07

CALCULATION SHEET

No: 1

Roof area & coefficient

A1= 390.4 m²

C1= 0.9

Concrete surface area & coefficient

A2= 234.2 m²

C2= 0.86

Total impervious area & average coefficient

A= 624.6 m²

C= 0.89

Pervious area & coefficient

A3= 18149 m²

C3= 0.4

Site area

A= 18774 m²

Soil type: Clay

Rest of site area & coefficient

A4= 18149

C4= 0.41

Rainfall intensity 10%AEP Tc= 60 Minutes

I=

45

mm/hr

Water tank retaining water volume = 22.5 x 0.20 = 4.5 m³

CLIENT

Sandra Kivell

G.A. Hughes & Associates Ltd

Consulting Civil & Structural Engineers

P.O. Box 4306, Hamilton. Ph. 0-7-856 9097. Fax 0-7-8562772

ADDRESS

60 Woolrich Road

Te Kowhai

Ref:

Date: 12-Oct-07

CALCULATION SHEET

No: 2

Check with NZWERF

Rainfall intensity 10%AEP $T_c = 15$ min. $D = 15$ min. $I = 85$ mm/hr

Diameter of orifice 15 mm

Green Field site peak discharge $Q = CIA/360 = 0.40 \times 85 \times 1.877 / 360$

$= 0.1773$ m³/s $= 177.3$ l/s

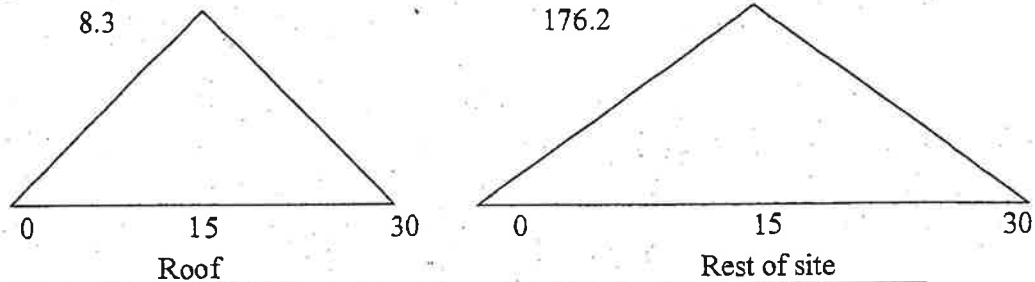
Peak roof discharge $Q = CIA/360 = 0.90 \times 85 \times 0.039 / 360$

$= 0.0083$ m³/s $= 8.3$ l/s

Rest of site peak discharge $Q = CIA/360 = 0.41 \times 85 \times 1.815 / 360$

$= 0.1762$ m³/s $= 176.2$ l/s

Hydrograph



Time minutes	Tank inflow		Tank storage m ³	Tank WL m	Adjust WL m	Tank out- flow l/s	Net Stora ge m ³	Over- flow m ³	Rest of site l/s	Total site l/s
	l/s	m ³								
0	0	0	0	0	0	0	0	0	0	0
2.5	1.4	0.10	0.10	0.01	0.005	0.04	0.098	0	29.36	29.40
5	2.8	0.31	0.41	0.04	0.024	0.08	0.398	0	58.72	58.80
7.5	4.1	0.52	0.92	0.09	0.062	0.13	0.897	0	88.08	88.21
10	5.5	0.73	1.62	0.15	0.118	0.17	1.597	0	117.44	117.62
12.5	6.9	0.93	2.53	0.24	0.193	0.22	2.497	0	146.80	147.03
15	8.3	1.14	3.64	0.34	0.287	0.27	3.597	0	176.16	176.44
17.5	6.9	1.14	4.74	0.44	0.39	0.32	4.5	0.19	146.80	147.12
20	5.5	0.93	5.43	0.51	0.473	0.35	4.5	0.881	117.44	117.79
22.5	4.1	0.73	5.23	0.49	0.496	0.36	4.5	0.672	88.08	88.44
25	2.8	0.52	5.02	0.47	0.477	0.35	4.5	0.466	58.72	59.07
27.5	1.4	0.31	4.81	0.45	0.457	0.34	4.5	0.26	29.36	29.70
30	0	0.10	4.60	0.43	0.438	0.34	4.5	0.053	0.00	0.34
32.5	0	0.00	4.50	0.42	0.424	0.33	4.45	0	0.00	0.33
35	0	0.00	4.45	0.41	0.416	0.33	4.401	0	0.00	0.33
37.5	0	0.00	4.40	0.41	0.412	0.33	4.352	0	0.00	0.33
40	0	0.00	4.35	0.41	0.407	0.32	4.304	0	0.00	0.32
42.5	0	0.00	4.30	0.4	0.403	0.32	4.256	0	0.00	0.32
45	0	0.00	4.26	0.4	0.398	0.32	4.208	0	0.00	0.32

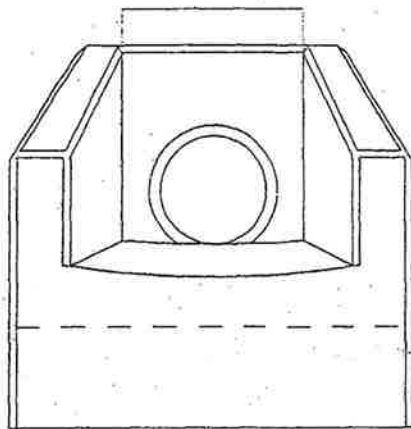
Maximum

0.50 0.36 4.50 176.4 < 177 l/s

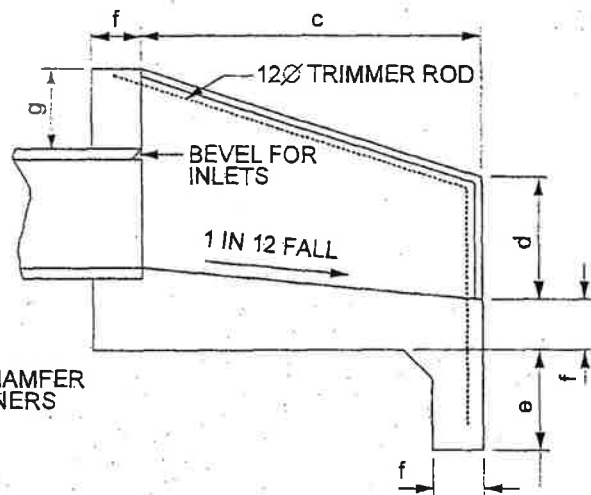
Tank area 10.75 m² Tank height 0.42 m < 0.50 m

Diameter of orifice 15 mm Tank capacity 4.50 m³

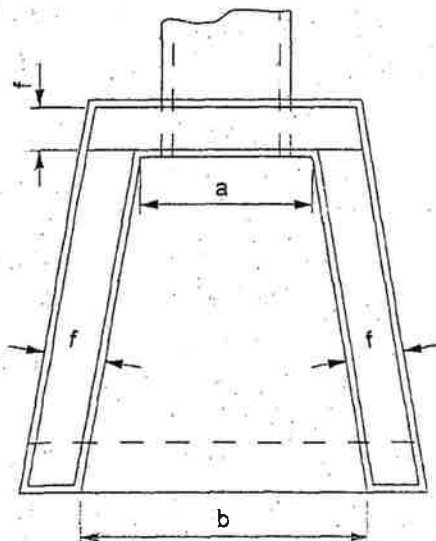
Soils Description	Field Test Data			
	Depth in Metres		Vane Shear Strength (kpa)	Percolation Testing Results
Percolation Hole Log No 1				
TOPSOIL				Time (mins) Dist. (mm)
Silty clay LOAM: fine, very friable & orange				0 200
CLAY: fine, sticky & orange becomes moist at 700 mm depth becomes wet at 900 mm depth	1	WT		1 200
EOB	2			2 210
	3			3 240
	4			5 270
	5			10 310
	6			15 340
	7			20 390
	8			30 430
				40 490
				60 550
<p>Testing carried out on 8th September 2007</p> <ul style="list-style-type: none"> - Weather on day fine & overcast - Proceeding week weather was showery with rainy periods - Hole soaked for 4 hours prior to testing - Water table located at 900 mm depth - Ground contour sloping to rolling with slopes less than 26 degrees 				
<p>Note: The stratification lines represent the approximate boundary between soil types and the transition may be gradual</p>				
<p>G.A.HUGHES & ASSOCIATES Ltd. CONSULTING CIVIL & STRUCTURAL ENGINEERS Cnr. Graham & Newall Streets, Hamilton East. P.O. BOX 4306</p>			<p>#60 Woolrich Road, Te Kowahi, For Sandra Kivell. Percolation Hole 1</p>	
			Drawing No	7888/1 Ref 056238



END ELEVATION



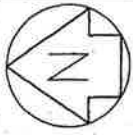
SECTION



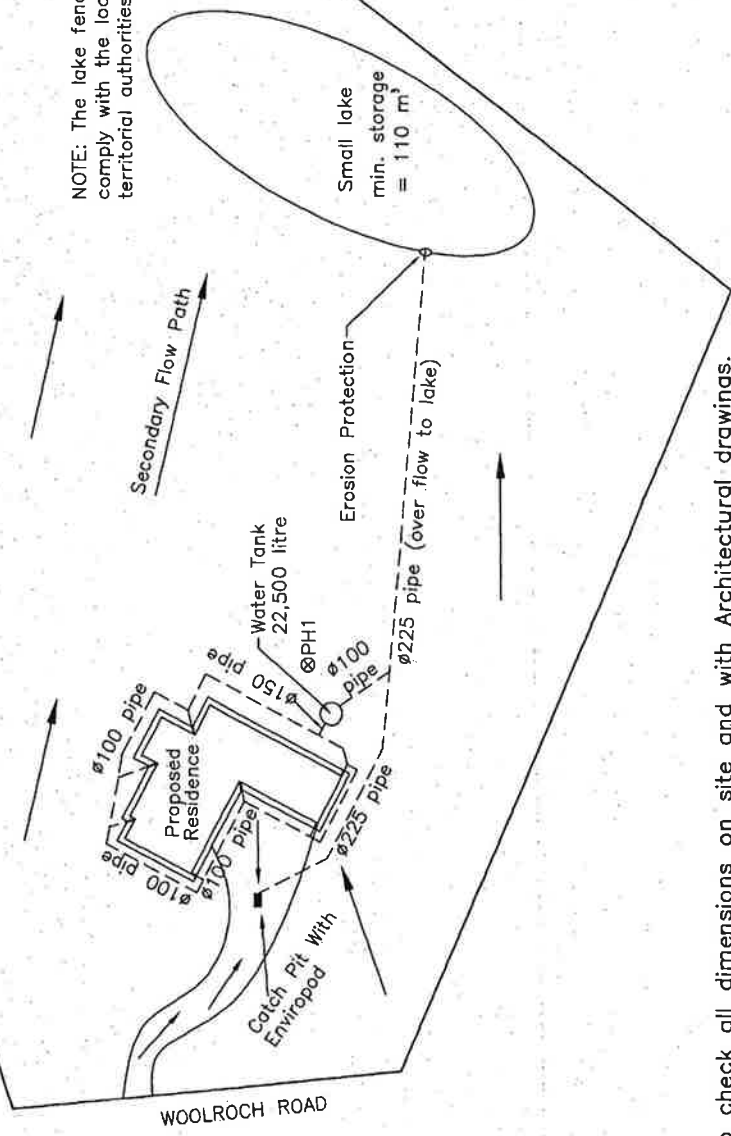
PLAN


PRINCIPAL DIMENSIONS (mm)							
DIA OF PIPE	a	b	c	d	e	f	g
150	300	450	600	200	150	100	150
225	380	600	700	250	200	100	150
300	450	750	750	300	200	100	150
375	550	900	850	350	200	100	150
450	630	1100	900	400	230	150	230
525	700	1200	1000	450	230	150	230
600	800	1400	1100	550	230	150	230
750	1000	1700	1200	600	300	150	300
900	1170	2000	1450	650	300	150	300
1050	1380	2300	1700	750	450	150	300
1200	1520	2600	2100	750	450	150	450
1350	1680	2800	2400	750	450	150	450

1. Reinforce floor & walls with;
 - 150 - 375 665 Mesh
 - 450 - 600 663 Mesh OR 10 dia. rods @ 250 crs.
 - 615 - 900 12 dia. rods @ 250 crs.
 - 1050 - 1350 12 dia. rods @ 150 crs.
2. All reinforcing shall be placed centrally in walls and floor, and shall be continuous between walls and floor.
3. Laps in structural grade bars to be 300mm minimum.
4. There shall be at least two bars whether mesh or MS over the top of the pipe.
5. Concrete is to be ordinary grade (17.5 MPa) in accordance with NZS 3108:1983.
6. Inlet Structures to have reverse apron fall.



NOTE: The lake fencing is to comply with the local territorial authorities regulations



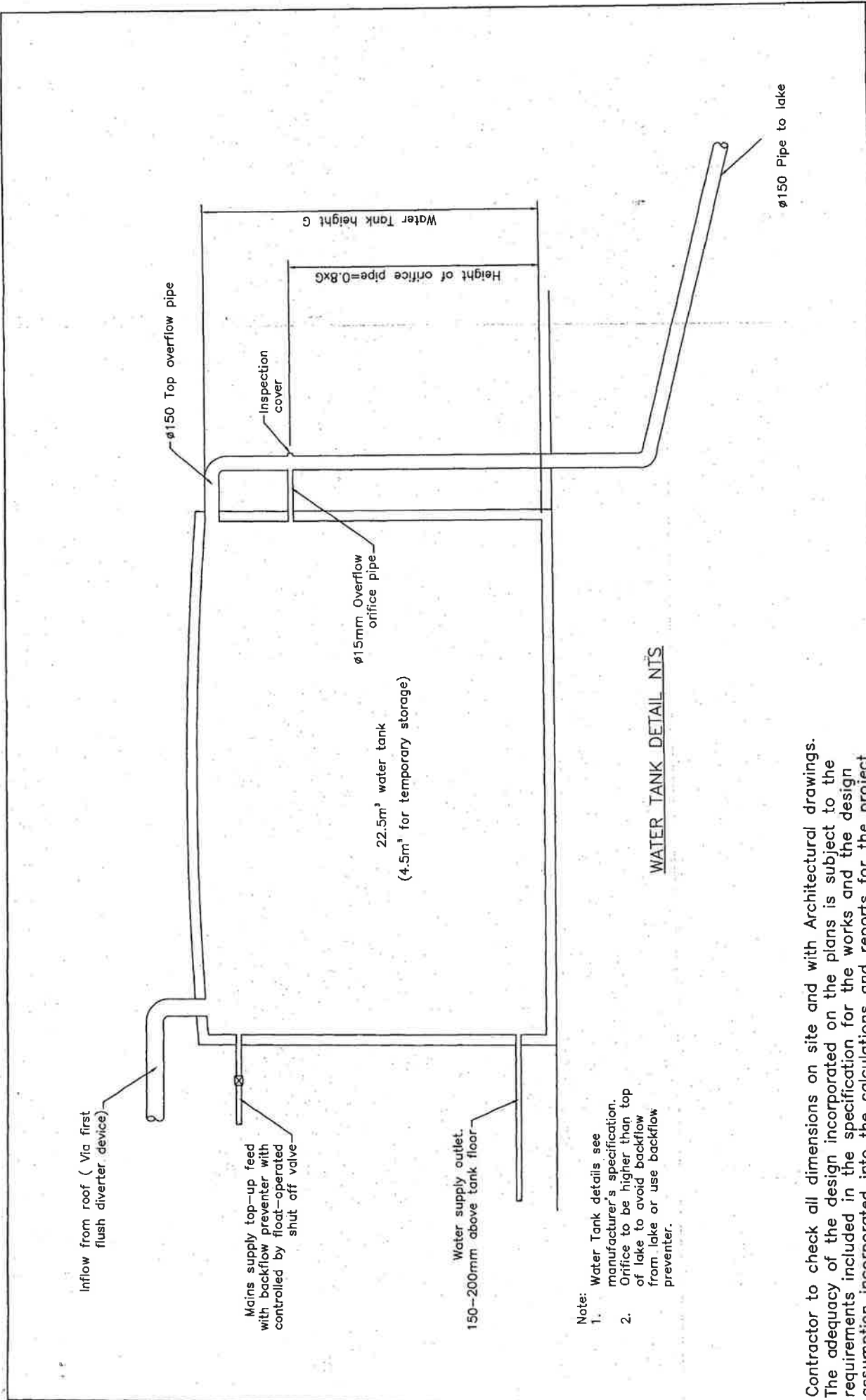
 denotes Catch Pit Location

Contractor to check all dimensions on site and with Architectural drawings. The adequacy of the design incorporated on the plans is subject to the requirements included in the specification for the works and the design assumption incorporated into the calculations and reports for the project

G.A. HUGHES & ASSOCIATES Ltd.		SHEET
CONSULTING CIVIL & STRUCTURAL ENGINEERS		7888/2
Cnr. Graham & Newall Streets, Hamilton East. P.O. BOX 4306		
DRAWN J.LANG	CHECKED	NO 4
TRACED	DATE 10/10/07	REF 056238
	SCALES	
	NTS	

Proposed New Residence At #60
Woolrich Road, Te Kowhai,
For Sandra Kivell.

Site Plan



WATER TANK DETAIL NTS

- Note:
1. Water Tank details see manufacturer's specification.
 2. Orifice to be higher than top of lake to avoid backflow from lake or use backflow preventer.

Contractor to check all dimensions on site and with Architectural drawings. The adequacy of the design incorporated on the plans is subject to the requirements included in the specification for the works and the design assumption incorporated into the calculations and reports for the project

Tank Detail

Proposed New Residence At #60
 Woolrich Road, Te Kowhai,
 For Sandra Kivell.

G.A.HUGHES & ASSOCIATES Ltd.		SHEET	
CONSULTING CIVIL & STRUCTURAL ENGINEERS		7888/3	
Cnr. Graham & Newell Streets, Hamilton East. P.O. BOX 4306			
DRAWN	K.BENNETT	CHECKED	NTS
TRACED		DATE	15/10/07
		SCALES	
		NO	4
		REF	056238

J H WILSON, CONSULTING ENGINEER
32 Anthony Crescent
Hamilton
Phone (07) 843 8427

6 September 2006

Mr I Sherburn

Dear Sir,

Re: Soils Testing at 28 Woolrich Road, Te Kowhai

At your request I have carried out soils testing at the abovementioned subdivision. One only 50mm diameter hand auger test hole was drilled and an accompanying Scala Penetrometer test was carried out on each of the three lots. Shear vane tests were carried out in appropriate soils. The positions of the tests and the test results are shown on the accompanying four A4 drawings numbered 2766 / G1 to G4.

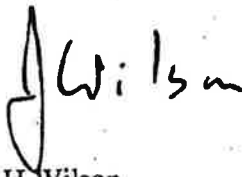
The soils are similar at Test Positions Nos 1 and 2 and consist of topsoil overlying stiff clay, which in turn overlies orange coloured clay silt. The shear vane tests in the clay show that these soils are capable of supporting foundation pressures, under unfactored working loads, of greater than 100kPa. The Scala Penetrometer tests in the clay silts show that these soils are also competent. At Test Position No 3, there was 500mm of topsoil and disturbed soils overlying orange brown clay silts (similar to the deeper soils at Test Positions Nos 1 and 3.) The Scala Penetrometer results show that these soils can support 100kPa pressures under unfactored working loads.

All the sites fall gently away from the road at slopes up to approximately 5 degrees. Near to the central pond, ground slopes increase to approximately 10 degrees. At these slope angles there is an adequate factor of safety against deep seated slope instability. There are no signs of surface soil creep.

It is concluded that the soils are suitable for structures built to the requirements of NZS 3604 "Timber Framed Buildings" and for other types of domestic construction.

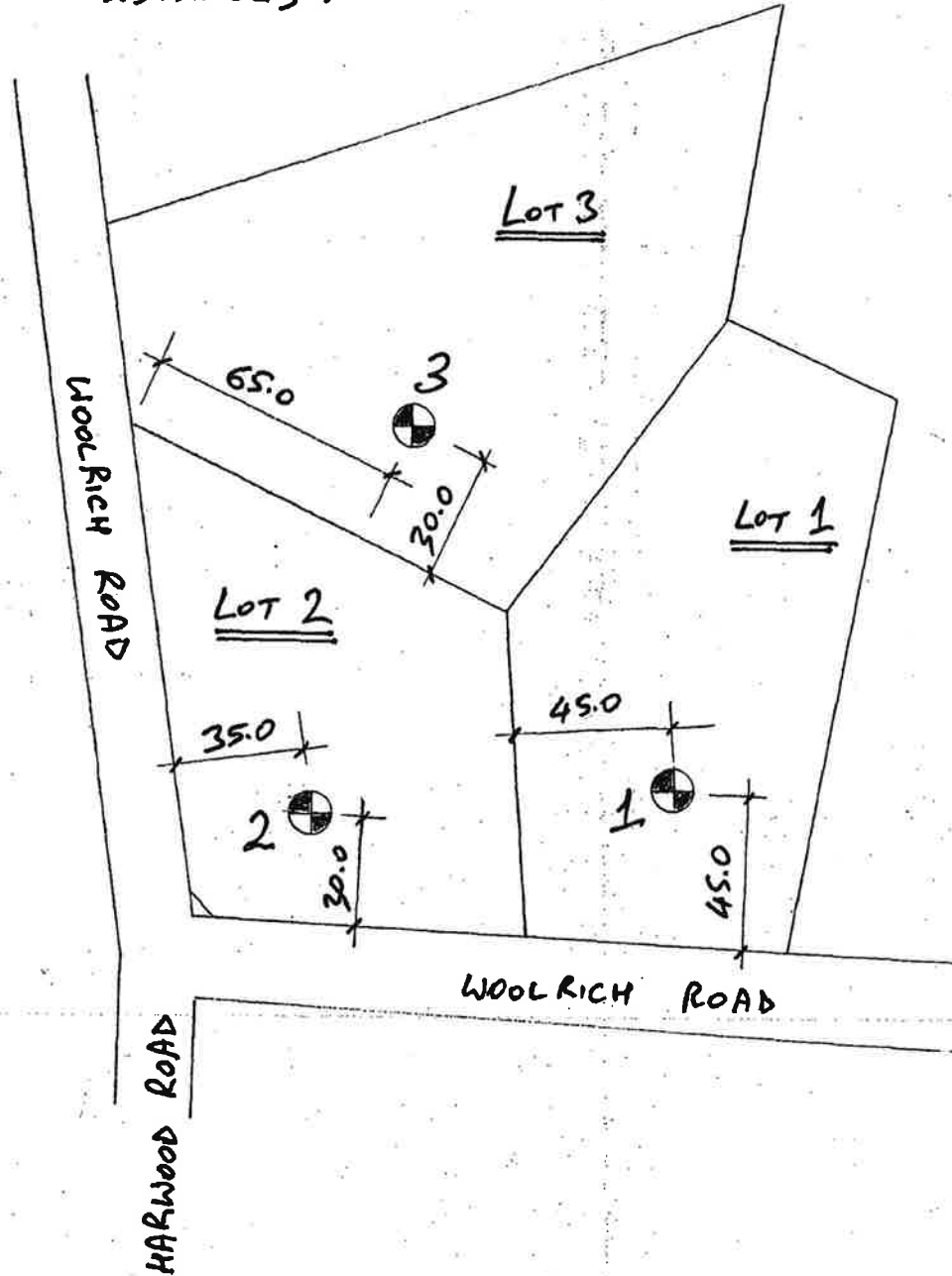
It is expected that the test results will be typical of the soils throughout the subdivision although this cannot be guaranteed. Should soil conditions differing from those described be exposed during construction, further engineering advice should be sought,

Yours faithfully,



J H Wilson

NOTE: DIMENSIONS ARE APPROXIMATE PACED DISTANCES.



TEST LOCATION PLAN

NOT TO SCALE

J H WILSON
CONSULTING ENGINEER
32 Anthony Crescent
Hamilton (07) 843 8427

SOILS TESTING AT
28 WOOLRICH ROAD
TE KOWHAI

Job No	2766
Date	SEPT 06
Sheet No	91
Rev	

TEST NO	Soil Description	Depth (m)	Scala Penetrometer (blows / 100 mm)				Shear Vane (kPa)
			5	10	15	20	
1	<p>TOPSOIL</p> <hr/> <p>CLAY, LIGHT ORANGE BROWN, FIRM</p> <hr/> <p>SILT CLAY, STRONG ORANGE COLOUR BECOMING LIGHT BROWN AT DEPTH</p> <hr/> <p>WET AND SOFTER BELOW 1800</p>	<p>1.0</p> <p>2.0</p> <p>3.0</p> <p>4.0</p>					<p>124</p> <p>124</p> <p>140</p>

TEST NO	Scala Penetrometer (blows / 100 mm)	Shear Vane (kPa)
	5 10 15 20	
	<p>1.0</p> <p>2.0</p> <p>3.0</p> <p>4.0</p>	

J H WILSON CONSULTING ENGINEER 32 Anthony Crescent Hamilton (07) 843 8427	SOILS TESTING AT 28 WOOLRICH ROAD TE KOWHAI	Job No 2766
		Date SEPT 06
		Sheet No 52
		Rev

TEST NO	Soil Description	Depth (m)	Scala Penetrometer (blows / 100 mm)				Shear Vane (kPa)
			5	10	15	20	

TEST NO 2	<p>TOP SOIL</p> <p>CLAY, BROWN, STIFF, WITH BLACK ASH IN TOP OF LAYER</p>		<p>230</p> <p>180</p> <p>110</p>				
	<p>CLAY SILT, STRONG ORANGE COLOUR BECOMING LIGHT BROWN WITH DEPTH</p>						

TEST NO			5	10	15	20	

J H WILSON
CONSULTING ENGINEER
32 Anthony Crescent
Hamilton (07) 843 8427

SOILS TESTING AT
28 WOOLRICH ROAD
TE KONKAI

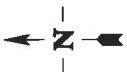
Job No **2766**
Date **SEPT 06**
Sheet No **93**
Rev

Soil Description	Depth (m)	Scala Penetrometer (blows / 100 mm)	Shear Vane (kPa)
		5 10 15 20	
TEST NO 3 <hr/> TOPSOIL AND DISTURBED SOIL <hr/> CLAY SILT , ORANGE BROWN WET, EASIER BORING BELOW 1200 <hr/>	1.0 2.0 3.0 4.0		
TEST NO		5 10 15 20	
	1.0 2.0 3.0 4.0		
J H WILSON CONSULTING ENGINEER 32 Anthony Crescent Hamilton (07) 843 8427	SOILS TESTING AT 28 WOOLRICH ROAD TE KOWHAI	Job No 2766 Date SEPT 06 Sheet No 54 Rev	



Utilities Plan

60 Woolrich Road, Te Kowhai
LOT 3 DP 329628



SCALE 1:2454

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Projection: New Zealand Transverse Mercator
Datum: New Zealand Geodetic Datum 2000

Print Date: 22/02/2017

A4

UTILITIES

- Storm Water**
- SwPoint
 - Catchpit
 - Inlet
 - Manhole
 - Valve
 - Other
 - SW Plant
 - SW Pumpstation
 - SW Line
 - Catchpit Lead
 - Gravity Main upto 200
 - Gravity Main upto 300
 - Gravity Main > 300
 - Service
 - Other
 - Rising Main
 - Drainage District Boundary

Storm Water

- Waste Water**
- WW Point
 - Flow Meter
 - Flush Point
 - Chamber
 - Manhole
 - WWTP Pond
 - TP WW Pump Station
 - Fittings
 - WW Treatment Plant
 - WW Valves
 - Air Valve
 - Check & Non Return Valve
 - FLUSHING Scour
 - Gate & Bypass Valve
 - Sluice Valve
 - Valve
 - Valve - Butterfly
 - Valve Chamber
 - WW Pumpstation
 - WW Line
 - Gravity 100
 - Gravity 200
 - Gravity 300
 - Rising Main 100
 - Rising Main 200
 - Rising Main 300
 - Service
 - Aerial main
 - Other
 - WW Plant

Waste Water

- Water Supply**
- WS Pumpstation
 - WS Valves
 - AIR
 - BUTTERFLY
 - CHECKNON RETURN
 - CLAYTON+PR
 - FLUSHING Scour
 - GATE or PEET
 - SLUICE
 - Other Valve
 - WS Point
 - Chamber
 - Connection
 - Dummy Node
 - Meter
 - Sampling Point
 - Toby
 - Water Treatment
 - Fittings
 - Flush Point
 - Hydrant
 - WS Line
 - Mains 100
 - Mains 200
 - Mains 300
 - Suction Duct Scour
 - Aerial Main
 - Service
 - WS Plant

Water Supply

Introduction to the **PLANNING MAPS**

These planning maps are part of the Waikato District Plan. The maps are referred to in the text volumes.

Map layout

The maps are arranged to show zones and policy or other special controls. Important to note is the delineation between the Waikato Section and the Franklin Section as shown on Map i and Map ii. This delineation is necessary due to the different zones between the two sections and development controls such as policy and overlay areas. Various colours, shadings and lines on the maps represent these zones, policy areas and special controls. The maps also include information such as the alignment of the major electricity and gas transmission corridors and designations. See the map legend for details.

Zones

Except for roads in the Franklin Section all land in the Waikato District is in a zone. Land uses within each zone are expected to generate a compatible range of effects and provide a similar level of amenity.

Roads in the Waikato Section appear white in the maps, as the zone shading has been left off to assist map users with orientation. Although the roads are not shaded, they are in a zone, which is the zone of the land nearest to each point of the road. Where the zone is different on each side of the road, the boundary between the zones is the centre line of the road. Unformed roads are shown with zone shading.

Roads in the Franklin Section are not in a zone and appear white in the maps. This applies to both formed and unformed roads. For activities affecting roads in the Franklin Section refer to Part 15 or seek advice from the appropriate department within Council.

With the exception of the Waikato River and some of its tributaries within the Franklin Section, lakes and rivers appear with blue shading to assist map users with orientation. Although these rivers and lakes are not given any zone shading, they are in a zone, which is the zone of the land nearest to each point of the river or lake. Where the zone is different on each side of the river or lake, the boundary between the zones is the centre of the river or lake.

Activities on the surface of rivers, lakes and other water bodies are subject to the ordinary zone rules, for example the noise rules. A person wanting to build a structure in the water, such as jetty, would also have to observe the zone building standards (regional council consents may also be required).

Policy and Special Control Areas

These areas are mapped areas of the district where certain resource management issues are addressed in the plan, such as heritage, conservation areas, landscapes and ecological features. Some land in the district is not in any of these areas, while others may be affected by a number of these controls. If a site is in any of these areas various rules will apply to that particular activity. For example, the earthworks standards are stricter in a Landscape Policy Area.

Information items

Some of the notations on the maps are included for information and to assist orientation of map users, and may not be referred to in the text of the plan. These items include the Te Araroa National Walkway, the landfill site and the motorsport park at Hampton Downs, marae, urupa and various retirement homes. Identification of these sites on the planning maps does not change the legal or planning status of activities on the land.

Numbered sites

Some sites are shown on the maps with a number and symbol. These sites contain a Heritage Item, Māori Site of Significance, Notable Tree, Outstanding Natural Feature or Designation. The rules that refer to these items are included in the rules for the zone that the site is in or the relevant chapter.

The numbers refer to the text in the plan: Appendices C and F and Chapter 30 of the Waikato Section, and Part 5, Part 8, Appendix Two and the Schedule of Designations of the Franklin Section. Refer to these sections to confirm the identity of the site and to find further information.

For designations in the Waikato Section, the letter before the number identifies the requiring authority that is responsible for the designation. For example, the letter J identifies all designations of New Zealand Transport Agency. See chapter 30 for more details.

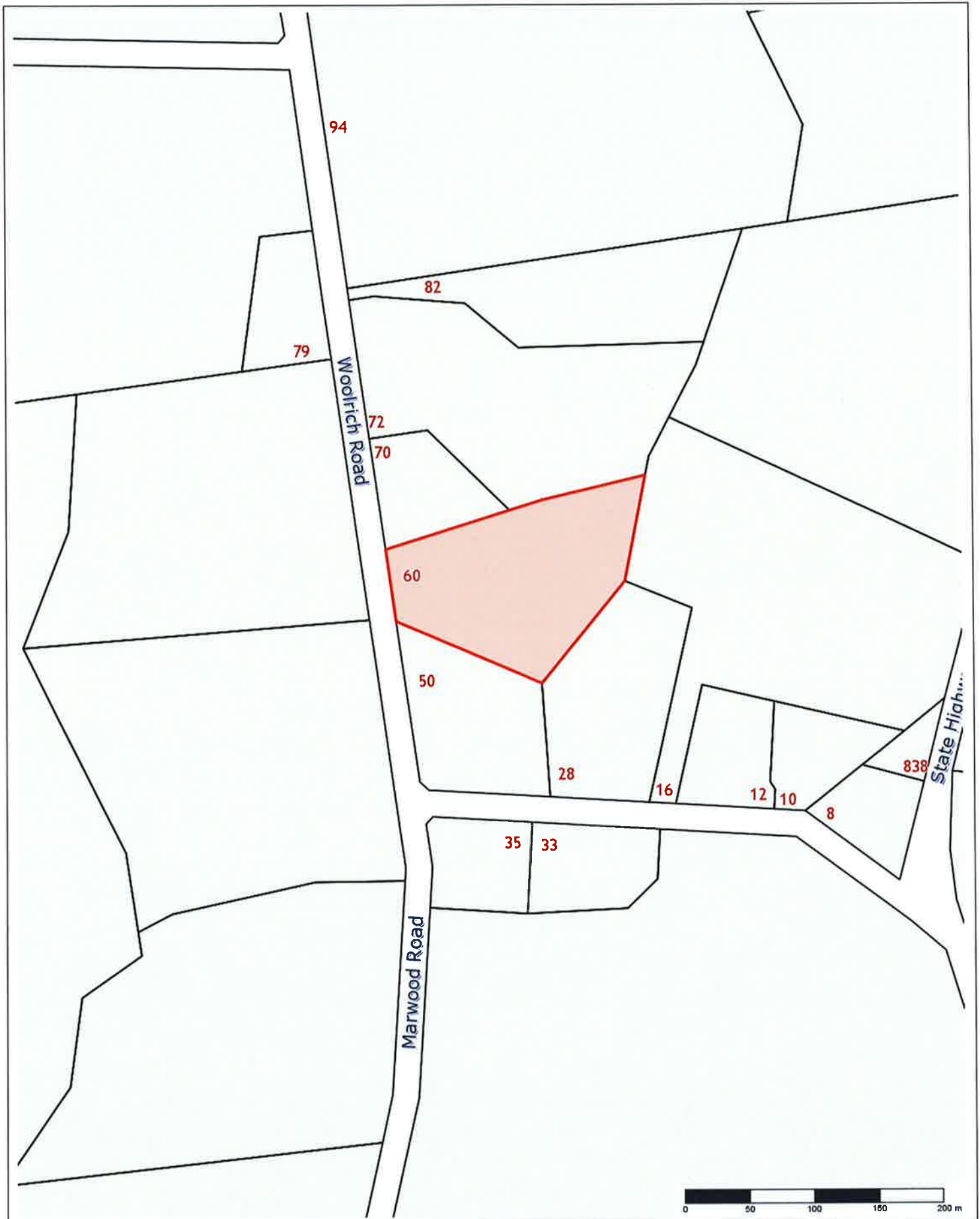
For designations in the Franklin Section, numbers run in numerical order and do not identify the requiring authority that is responsible for the designation. See Schedule of Designations for more details.

Where land is designated, the legal rights and responsibilities of the requiring authority (e.g. New Zealand Transport Agency) and the landowner are set out in the Resource Management Act.

Hazards

Hazard areas shown on the planning maps are not exhaustive. Extensive areas of the district are subject to some flood, erosion, contaminated land or subsidence hazards, but not all these areas are shown on the planning maps. The Council does not have specific knowledge of all sites within the district. Applicants for resource consent will be required to identify relevant hazards in their locality.

Selected areas in the Living Zone of Huntly have been mapped as flood risk areas because of the particular risks in those areas and the availability of a Regional Council flood management plan. Note that the maps are at a scale of either 1:5,000 or 1:10,000; this means that precise detail for each property cannot be inferred from the maps. The maps are intended only to indicate general areas within which special enquiry about flood risks needs to be made. Within the mapped flood risk areas, there will be land that is not affected by the hazard. These areas can only be identified by a site-specific survey.



Legend

<p>Context</p> <ul style="list-style-type: none"> Plan Section Divide State Highway Rail Land Parcel Water Body Reserve 	<p>Infrastructure</p> <ul style="list-style-type: none"> Designation Gas Line Transmission Line Indicative Road Intent Important Local A Indicative Road Intent Important Local B Indicative Road Location Important Collector Indicative Road Location Important Service Lane National Walkway Raglan Navigation Beacon Segregation Strip Walkway Cycleway Bridleway 	<p>Minerals Mining</p> <ul style="list-style-type: none"> Aggregate Extraction Policy Area Aggregate Resource Policy Area Coal Mine Policy Area
<p>Building/Construction</p> <ul style="list-style-type: none"> Airport Inner Noise Control Boundary Airport Outer Noise Control Boundary Airport SEL 95 Noise Control Boundary Background Noise Area High Background Noise Area Noise Control Boundary Noise Boundary Distance (m) 	<p>Natural Environment</p> <ul style="list-style-type: none"> Coastal Marine Area Conservation Policy Area Ecological Corridor Environmental Enhancement Overlay Area Environmental Protection Policy Area Gully Area Hauraki Gulf Catchment Area Identified Significant Natural Feature Landscape Policy Area Management Area Proposed Esplanade Reserve Ridgeline Policy Area Schedule 5A Site of Special Wildlife Interest Threatened Species Serious Decline Threatened Species Gradual Decline Whaanga Coast Policy Area 	<p>Zones</p> <p>Commercial</p> <ul style="list-style-type: none"> Village Business (Franklin) Business (Waikato) Business (Franklin) <p>Open Space</p> <ul style="list-style-type: none"> Forest Conservation (Franklin) Queen's Redoubt Heritage (Franklin) Recreation (Franklin) Wetland Conservation (Franklin) Recreation (Waikato) <p>Industrial</p> <ul style="list-style-type: none"> Heavy Industrial (Waikato) Industrial 2 (Franklin) Industrial Services (Franklin) Light Industrial (Franklin) Industrial Park (Waikato) Light Industrial (Waikato) Industrial (Franklin) Maioiro Mining (Franklin) Aggregate Extraction (Franklin) Timber Processing (Franklin) <p>Cultural</p> <ul style="list-style-type: none"> Pa (Waikato) <p>Residential</p> <ul style="list-style-type: none"> Residential (Franklin) Living (Waikato) Residential 2 (Franklin) New Residential (Waikato) Living Zone Te Kauwhata Ecological (Waikato) Living Zone Te Kauwhata West (Waikato) Village (Franklin) Rural-Residential (Franklin) Country Living (Waikato) Coastal (Franklin) Coastal (Waikato) Rural (Franklin) Rural (Waikato)
<p>Commercial</p> <ul style="list-style-type: none"> Airport Obstacle Limitation Surface Area A and B (Pokeno) Area of Interest / Scheduled Area Business Centre Classification Housing Restriction Area Front Yard Control Line Main Frontage Control Line Mixed Use Policy Area Tamahere Commercial Area Town Centre Town Centre Overlay Area Verandah 	<p>Urban Environment</p> <ul style="list-style-type: none"> Amenity Planting Requirement Anticipated Dwelling Number Concept Plan Papakainga Policy Area Residential Large Lot Overlay Area Residential Medium Lot Overlay Area Structure Plan Boundary Urban Expansion Policy Area Village Growth Area 	
<p>Hazard Policies</p> <ul style="list-style-type: none"> Catchment Management Plan Area 1% Design Flood Level Flood Limit Flood Risk Huntly East Mine Subsidence Huntly South Assessment I Land Stability Policy Area Remediation Policy Area River Stability Policy Area 		
<p>Culture & Heritage</p> <ul style="list-style-type: none"> Battlefield View Shaft Heritage Area Heritage Item Notable Tree Schedule 8A Site of Significance Urupa Waikato River Catchment 		

Map Information

Copyright & Disclaimer - Cadastre boundaries sourced from Land Information New Zealand under CC-BY. Graphical representations of the District Plan rules have been derived from various sources; the representations are to the best of knowledge. Exact boundaries may require further investigation, please direct enquiries to the Planning and Strategy Team, districtplan@waicdc.govt.nz

Map Coordinates - the grid coordinates, provided as easting and northing values, measured in metres, use the New Zealand Transverse Mercator 2000 projection grid coordinates. Eastings are labelled on the top and bottom margins, their values increase towards the east. Northings are labelled on the lateral margin. Their values increase towards the north. For example, the value 5884321 is read as 5884 km and 321 m. 1:50 000 maps are marked at 4 km intervals, the area of a grid is 16 square km or 1600 hectares.

On the overview map the following town abbreviations have been used: Pokeno as Pok, Te Kauwhata as TeK, Huntly as Hun, Ngaruawahia as Nga and Raglan as Rag