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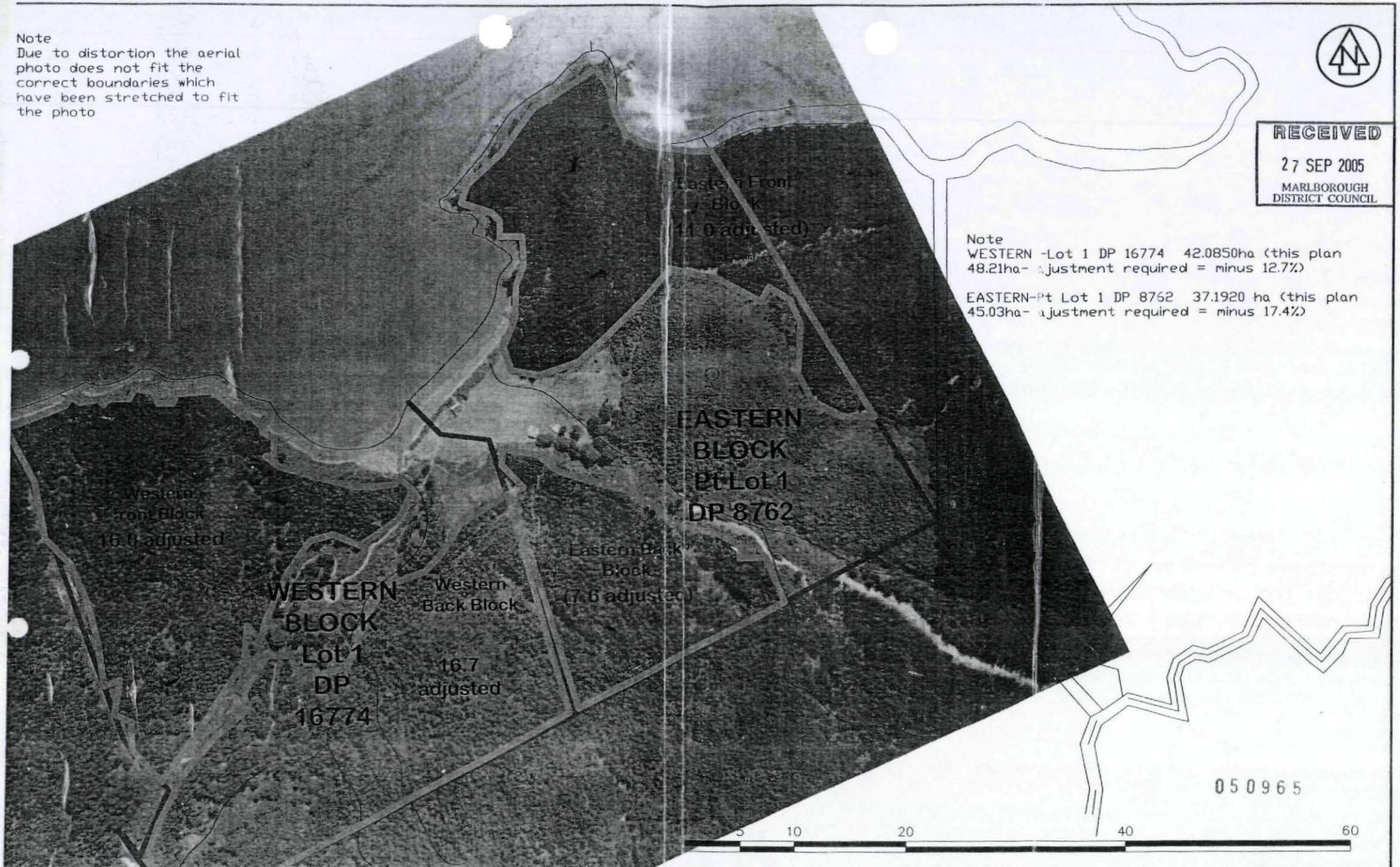

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EASTERN-Pt Lot 1 DP 8762 37.1920 ha (this plan 45.03ha- adjustment required = minus 17.4%)

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JONES & ASSOCIATES LTD
Registered Surveyors & Planners
104 Collingwood Street
PO Box 562
NELSON
Ph (03) 548-2833
Fax (03) 548-1091

Date:

McLaren Bay - Forest Areas

Feb 02, 2005 - 2:15pm
Drawing name: D:\ACAD FILES\1300\1394 McLaren Bay -Feb 04 - Forest areas.dwg

1:250 @A2

Job No: 1394

ptic Tank and Effluent Trench Design G e

Version 14 March 2004

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13	Enter Design Loading Rate (DLR) USE TABLE B	Design Loading Rate: 20 = DLR
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TABLES

TABLE A

Number of Bedrooms	Tank Capacity	Average Daily Flow in Litres = Q
Up to 3	3000	900
4	3500	1200
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TABLE B (Refer to last page for information on soils)

Soil Category	Soil Type	Indicative Drainage Class	Design Loading Rate DLR mm/day Average
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Example
(3 bedroom dwelling in category 2 soil). Trench width 0.6 metres.

1.	Number of bedrooms	3
2.	Average daily flow rate	Q = 900
3.	Tank capacity	3,000 litres
4.	Soil type	Category 2
5.	Design loading rate	DLR = 25
6.	Trench width	0.6 metre = 60

$L = \frac{Q}{DLR \times W}$ $L = \frac{900}{25 \times 0.6}$

Trench length - 60 metres

I certify that all information I have entered in this guide is true

Signed: P.J. Page Name: PETER PAGE Date: 3/9/05

PJ PAGE Plumbing
REG NO 10324

U - 3365

Application for Resource Consent

Site Information

1.0 As per note from Owners

1.2 Locality McLaren Bay, Croisilles Harbour

Owner John Michael and Barbara Joyce Harte

Address 3069 French Pass Road, RD3 Rai Valley

Telephone (03) 5765075

Survey Plan C/T 11A/153 (attached)

Grid Reference Pt. Lot 1 DP 8762

Aerial Photograph (attached)

Regional Authority Marlborough District Council

Site Plan (Attached)

1.2 Soil Type Silty clay gravel overlain by 100 – 150mm o0f topsoil

1.3 Geology of Site The basement rock comprises a greywacke and ultramafic melange of Triassic age, overlain, at the drain site, by a stable pleistocene outwash fan of silty clay gravel.

1.4 Climate Estimated 1500mm P.A. (evenly spread) No reliable data on intensity of seasonal variables available.

1.5 Water Supply A spring from a hill site that never alters winter or summer.

1.6 Existing On Site System 2700 Septic Tank with disposal trench, very good efficient and effective.

1.7 Drainlayers Report (attached)

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1.0 **Site Evaluator**

1.1 Name Plumber and Registered Drainlayer
P J Plumbing
P.O. Box 7255
Nelson
Phone (03) 5458403
E Mail pageplumbing@xtra.co.nz

1.2 Report (attached)

2.0 **On Site Evaluation** as per attached report by P J Page.

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Resource Consent Application
Date 03/09/05

Soil Check & Assessment
By PJ Page
Craftsman Plumber & Registered Drainlayer
Registration No. 10324

On behalf of JM & BJ Harte McLaren Bay Croisilles Harbour

1. On Sunday 28th August 2005 I visited the property of the above situated at McLaren Bay Croisilles Harbour and conducted an on site Soil Assessment for the sole purpose of supplying and installing a Wastewater Management system in accordance with the requirements of the Marlborough District Council.

   The site for the proposed system is an open grassed paddock with good pasture on a very gentle slope of .03 - .05 degrees. The site plan attached shows the proximity to buildings, streams, water supply and M.H.W.

2. I considered that the modified procedure for soil inspection was adequate and that the standard procedure was not required due to the apparent lack of boundary constraints and the site contour. Three boreholes were dug by hand to a depth of 450 mm deep at 6metre intervals. A very friable topsoil of between 100mm and 150mm in depth was quickly and easily removed. The next 300mm consisted of a coarse loam with no large gravel particles and in my opinion ideal for a trench and bed system. 10 litres of water tipped into the borehole (220mm width, 350mm length, 450mm depth) completely dispersed in 20 minutes.
   A further borehole was excavated at the extreme end of the proposed trench to a depth of 1.100m. No large metal particles were found and the sub-water level was not located at this depth.

3. As per the M.D.C. Septic Tank Design Guide I assess the Soil Category to be No.3 Soil Type "Loam" and well drained.

Design

1. Preamble
   As the attached house plan and site plan show, the present house is a 4 BR farmhouse (40 -45yrs old approx.) with an existing septic tank (2700 ltrs) in good order, efficient and effective. The present occupants are 2 persons with visitors and family arriving to fill the bedroom space (school holidays etc) as expected of a holiday

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home in the Sounds area, therefore I have taken this into account in my proposed design.

2. I would recommend that a 4000ltr tank be installed as a separate entity to the existing tank that would give an effective capacity of 6700ltrs. As shown on the site plan the existing bathroom, toilet and the laundry, would be serviced by the existing tank.The new bathroom, WC. and kitchen would be serviced by the new tank This proposal should meet any possible visitor loading.

General Comment

1. I consider that the system I have designed for this property is the best practical option for servicing the site due to the locality to boundaries, the distance from neighbours, streams and MHW and the very good soil type and texture found in the boreholes as described.

2 There would appear to be no reason or need to consult with other parties or Iwi on the matter of this application.

3. I cannot envisage any possible environmental problem arising now or in the future with this proposed installation.

4. This property is not in the Hazard Zone.

Yours faithfully,

P.J.Page
P.J.Page Plumbing

P J Page

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Supplementary Notes for Septic Tank Installation and Resource Consent Application on behalf of JM & BJ Harte McLaren Bay 3069 French Pass Road Croisilles Harbour

Existing Situation

As the attached House plan and site plan show, we are living in a 3-bedroom plus office house (or 4- bedroom house) at present and the existing septic tank has proved efficient and effective. We are proposing to apply for consent to add to our home an additional bedroom, bathroom and lounge effectively giving us a potential 4 bedroom house plus office (or 5 bedroom). No. 3 bedroom will in all respects become an art studio for Mrs Harte who enjoys her painting very much.

We have been advised by our Plumber/Drainlayer and the Building Inspector to install a 4000 ltr. Septic Tank with 60 metres of effluent disposal (3 x20metres) which in effect will be of sufficient capacity to cope with the entire house system should the existing Septic Tank fail in the future.

We would provide for the kitchen effluent disposal to be redirected from the existing septic tank to the new septic tank together with the new bathroom and toilet facilities. Soil type (as per samples) and contour levels are all satisfactory for the proposed unit.

Our completed house plans should be available for lodging for Resource Consent by the 20th September however as the digger and drainlayer are on site we considered that the opportunity to complete this part of the proposal should proceed forthwith hence our separate application.

Effect on the Environment

As the installation of this additional effluent disposal system is well within all the required parameters, we do not consider that there is or would be any adverse effect on the environment.

Yours faithfully

JM & BJ Harte per

26/09/05

MARLBOROUGH DISTRICT COUNCIL

ISO 9002
Form Ref CI 311

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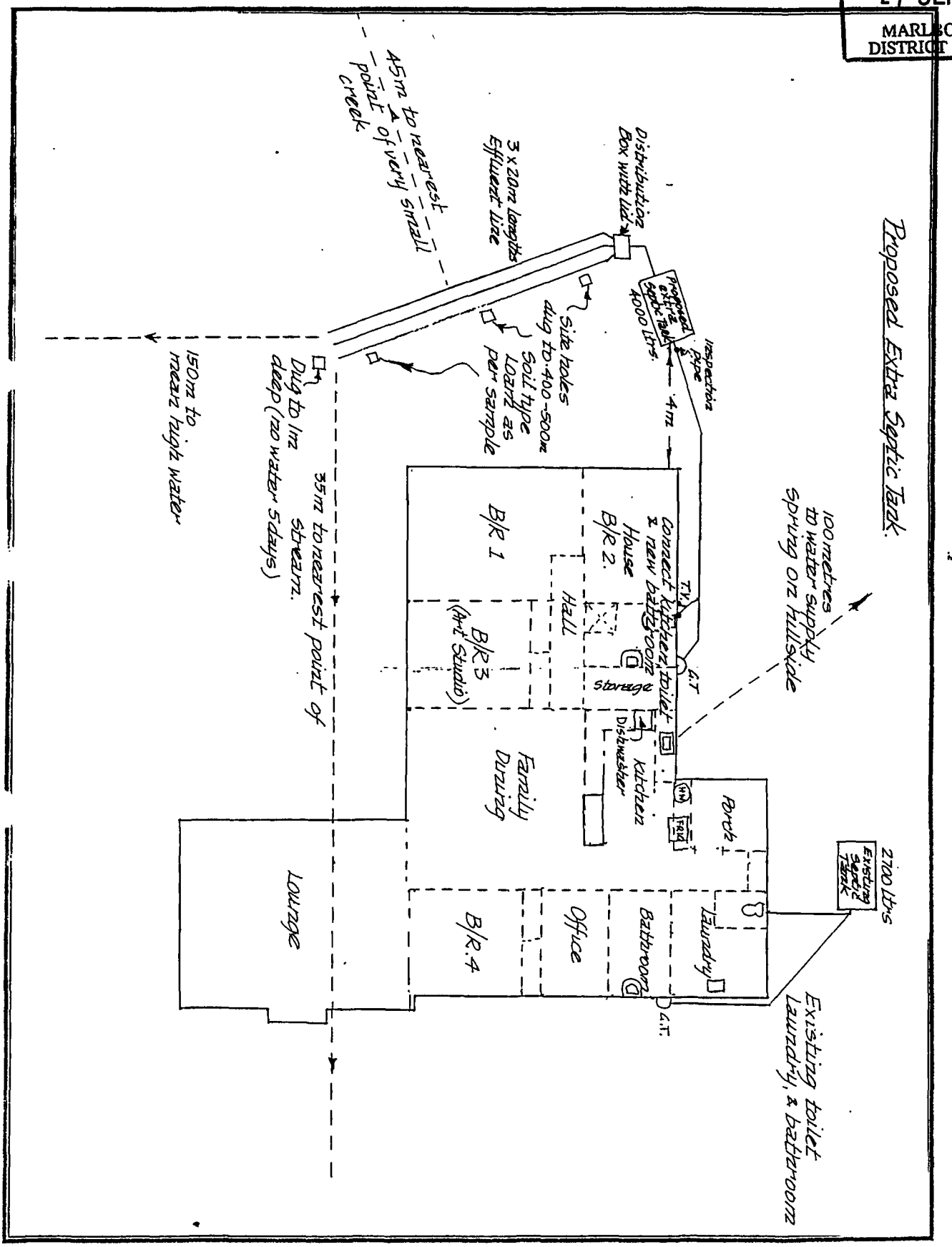
Site Plan

Resource Consent Application

Name ..... JM & KJ HARTE .....



COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**NL11A/153**
Land Registration District	**Nelson**
Date Issued	26 July 1994

Prior References
NL4A/1119

Estate	Fee Simple
Area	37.1920 hectares more or less
Legal Description	Part Lot 1 Deposited Plan 8762

Proprietors
John Michael Harte as to a 1/2 share
Barbara Joyce Harte as to a 1/2 share

Interests

166010.5 Easement Certificate specifying the following easements

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Right of way	Part Section 7 Block VI Whangamoa Survey District - CT NL8B/505	A DP 8762	Part Lot 1 Deposited Plan 8762 - herein	
Right of way	Section 4 Block VI Whangamoa Survey District - CT NL40/146	B & C DP 8762	Part Lot 1 Deposited Plan 8762 - herein	
Right of way	Section 1 Block VI Whangamoa Survey District - CT NL26/111	D DP 8762	Part Lot 1 Deposited Plan 8762 - herein	

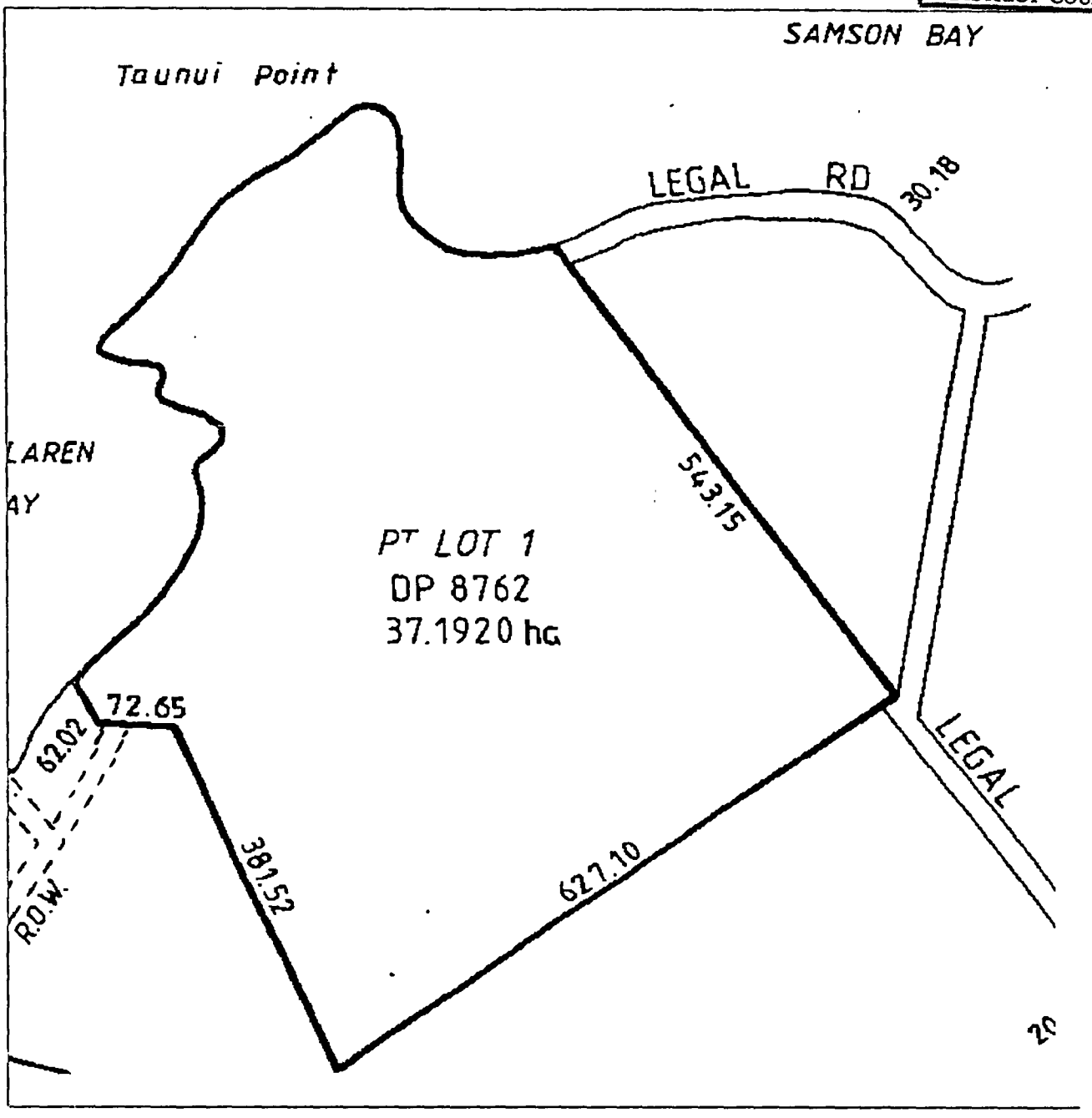
247316.1 Electricity Agreement pursuant to Section 50 Electricity Act 1968 - 15.2.1985 at 11.00 am

340364.3 Easement Certificate specifying the following easements - 26.7.1994 at 10.35 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Right of way	Lot 1 Deposited Plan 16774 - CT NL11A/152	A DP 16774	Part Lot 1 Deposited Plan 8762 - herein	

Appurtenant hereto is a right of way created by Easement Instrument 6419953.1 - 13.5.2005 at 9:00 am

Identifier NL11A/153



Septic Tank and Effluent Trench Design Guide

Version 14 March 2004

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Trench length - 60 metres

I certify that all information I have entered in this guide is true

Signed: P.J. Page Name: PETER PAGE Date: 3/9/05

PJ PAGE PLUMBING
REG NO 10324

SOIL TYPE EVALUATION

This information is for use with this design guide only. The information is a very simplified version of a complex process.

The selection of the soil category is vital for the design of the septic tank and effluent trench. If there is any doubt about the soil category then use the next highest category for the design. This will give longer trench lengths and will help avoid premature effluent trench failure.

Soil Category	Soil Type	Drainage Quality	Guidance Notes
1	Gravels and sands	Rapidly drained	Typically includes sand and fine gravelly soil. Most commonly located along coastal strips and river borders. Rarangi is an area of category 1 soil. If rolled in the hand will not stick together. Not ideal for effluent trenches.
2	Sandy loams	Drained well	Mainly sand or fine gravel but containing traces of loam. Will slightly stick together when rolled but will not form a ball. Sand grains can be felt. Common in the Wairau and Awatere plains around rivers. Good grape growing soil.
3	Loams	Moderately well drained.	Generally described as top soil. Feels spongy when squeezed. Will form a thick ribbon 25mm long when squeezed between thumb and finger. May feel greasy. Good farming and gardening soil.
4	Clay loams	Imperfectly drained.	Clayey soils with some top soil mixed. Can be rolled into a ball with a spongy feel. Will form a ribbon 40-50mm long when squeezed between thumb and finger.
5	Light clays	Poorly drained	Forms a smooth ball that can be rolled into a rod. Will form a ribbon 50-75mm long when squeezed between thumb and finger. Not ideal for effluent trench disposal.
6	Medium to heavy clays		Handles like plasticine. Can be rolled into rods without fracture. Will form a ribbon 75mm long or more when squeezed between thumb and finger. Not suitable for effluent trenches.

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Septic Tank Design Guide

For Residential Septic Tanks and Effluent Trenches only

THIS GUIDE CAN BE USED FOR NEW SYSTEMS, FOR EXTENSIONS TO EXISTING SYSTEMS AND FOR REPLACEMENT SYSTEMS. IT IS NOT TO BE USED IN UNSTABLE OR FLOODABLE ZONES.

Limitations on Use of Septic Tanks and Effluent Trenches

IF ANY OF THESE CONDITIONS CANNOT BE MET THEN A REGISTERED ENGINEER MUST DESIGN THE WASTEWATER TREATMENT AND EFFLUENT SYSTEM

Septic tanks and effluent trenches can only be used in the following circumstances:

1. When the site has been investigated for soil type, ground water level, distance to surface water, sea, lakes, watercourses, and other factors set out in AS/NZS 1547:2000.
2. When the total daily flow rate is no more than 2000 litres per day.
3. Where the soils category is type 2 to 5.
4. Where there is sufficient room available on site to accommodate the required trench length plus **an equivalent reserve area**.
5. Where the system is clear of a 45° line between the bottom of any foundation and the base of any part of the system.
6. Where all parts of the system are more than three metres from any boundary.
7. Where the ground slope is less than 15°.
8. Where the depth to ground water is more than 600mm from the bottom of the effluent trench at all times including the wet season.
9. When the effluent field is more than 30 metres away from a water supply source (well or bore).
10. When the system is more than 30 metres away from any surface water such as sea, stream, lake, drain watercourse or river.
11. Where the system cannot be flooded by stormwater.
12. Where no garbage grinders (waste disposal units) are used in the building.
13. Where there is access for maintenance including pumping out the tank.
14. Where the site is not in a hazard area.

Design Guidelines

1. Septic tanks shall be fitted with a filter on the outlet.
2. The maximum trench depth should be 400mm.
3. The trench bottom should be used for the calculation of the dispersal area. Sides should not be used.
4. Where there are three or more effluent trench branches then a properly constructed distribution box should be used not a distribution valve.
5. Maximum length of effluent trench branch is 20 metres for gravity fed systems.
6. Effluent trench branches longer than 20 metres must be dose loaded.
7. Effluent trench gradient should be maximum 1:200.

Council will accept that septic tanks and effluent systems designed using this guide will reasonably comply with AS/NZS1547:2000. It is possible to achieve smaller tank sizes and trench lengths by a registered engineer undertaking a specific design using the standard. This is intended as a design guide only but if used will be accepted by Marlborough District Council as a reasonable means of compliance with the New Zealand Building Code. Compliance with Marlborough District Council's Resource Management Plans may not always be achieved using this guide. If in doubt discuss with the Council before proceeding.

For help with the use of this design guide contact Marlborough District Council Building Control Section.

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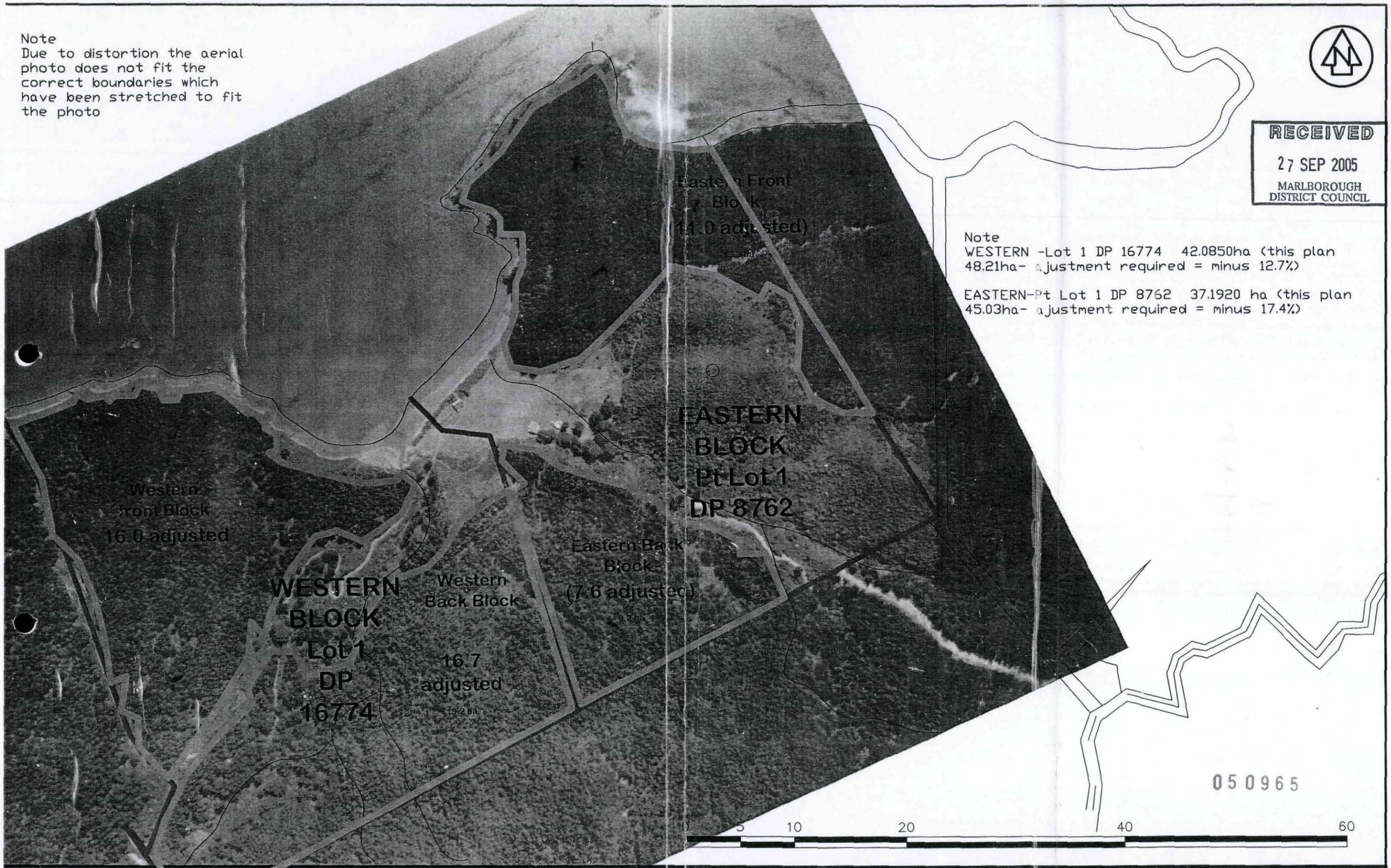

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