

Archaeological Assessment of the Proposed New
Shed and House

Lot 2 DP 200787

Paroa Bay, Bay of Islands

22 June 2016

Prepared for:

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Glossary

| | |
|-------------|---|
| Classic | The later period of New Zealand settlement |
| Fire scoop | Fireplace used for various reasons (cooking, warming, etc.) |
| Hangi | An earth oven for cooking food |
| Midden | The remains of food refuse usually consisting of shells, and bone, but can also contain artefacts |
| Pa | A site fortified with earthworks and palisade defences |
| Pit | Rectangular excavated pit used to store crops by Maori |
| Radiocarbon | Method of absolute dating using known rates of decay of a carbon isotope |
| Terrace | A platform cut into the hill slope used for habitation |
| Wahi tapu | Sites of spiritual significance to Maori |

1.0 Introduction

N. Watson of Williams and King Ltd commissioned Geometria Ltd on behalf of their client I. and Y. Larsen to undertake an archaeological assessment of a property at Paroa Bay in the Bay of Islands for the purposes of constructing a shed and a house. Several archaeological sites are recorded nearby at Paroa Bay in the Bay of Islands.

This assessment uses archaeological techniques to assess archaeological values and does not seek to locate or identify wahi tapu or other places of cultural or spiritual significance to Maori. Such assessments may only be made by Tangata Whenua, who may be approached independently of this report for advice.

1.2 The Heritage New Zealand Pouhere Taonga Act 2014

Under the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA; previously the Historic Places Act 1993) all archaeological sites are protected from any modification, damage or destruction except by the authority of the Historic Places Trust. Section 6 of the HNZPTA defines an archaeological site as:

"any place in New Zealand, including any building or structure (or part of a building or structure), that—

(i) was associated with human activity that occurred before 1900 or is the site of the wreck of any vessel where the wreck occurred before 1900; and

(ii) provides or may provide, through investigation by archaeological methods, evidence relating to the history of New Zealand; and

(b) includes a site for which a declaration is made under section 43(1)"

To be protected under the HNZPTA an archaeological site must have physical remains that pre-date 1900 and that can be investigated by scientific archaeological techniques. Sites from 1900 or post-1900 can be declared archaeological under section 43(1) of the Act.

If a development is likely to impact on an archaeological site, an authority to modify or destroy this site can be sought from the local Heritage New Zealand Pouhere Taonga office under section 44 of the Act. Where damage or destruction of archaeological sites is to occur Heritage New Zealand usually requires mitigation. Penalties for modifying a site without an authority include fines of up to \$300,000 for destruction of a site.

Most archaeological evidence consists of sub-surface remains and is often not visible on the ground. Indications of an archaeological site are often very subtle and hard to distinguish on the ground surface. Sub-surface excavations on a suspected archaeological site can only take place with an authority issued under Section 56 of the HNZPTA issued by the Heritage New Zealand.

1.3 The Resource Management Act 1991.

Archaeological sites and other historic heritage may also be considered under the Resource Management Act 1991 (RMA). The RMA establishes (under Part 2) in the Act's purpose (Section 5) the matters of national importance (Section 6), and other matters

(Section 7) and all decisions by a Council are subject to these provisions. Sections 6e and 6f identify historic heritage (which includes archaeological sites) and Maori heritage as matters of national importance.

Councils have a responsibility to recognise and provide for the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, wahi tapu, and other taonga (Section 6e). Councils also have the statutory responsibility to recognise and provide for the protection of historic heritage from inappropriate subdivision, use and development within the context of sustainable management (Section 6f). Responsibilities for managing adverse effects on heritage arise as part of policy and plan preparation and the resource consent processes.

2.0 Location

The subject property is located at on the south side of Paroa Bay, south east of Russell (Figure 1), approximately 3-400m inland. The property is 6.2 ha in size and drops from 95m above sea level at the southern boundary, to the north and east, meeting the coast at the northern end. The property is largely in regenerating native bush and is divided by a Right of Way through the centre of the property, providing access across it and to the property to the north.



Figure 1: Location of Lot 2 DP 200787, Paroa Bay (in blue; FNDC GIS).

3.0 Proposed Development

I. and Y. Larsen propose building a shed on the property near the southern boundary, as shown in Figure 2-Figure 3. Near the south western corner of the property, a house site has been identified for later development. Both the shed and the house will be accessed via a driveway formed along the southern boundary from the existing ROW.

4.0 Methodology

The methods used to assess the presence and state of archaeological remains on the property included both a desktop review and field assessment. The desktop survey involved an investigation of written records relating to the history of the property. These included regional archaeological publications and unpublished reports, New Zealand Archaeological Association Site Record Files (NZAA SRF) downloaded via the ArchSite website, and land plans held at Land Information New Zealand.

The field assessment was undertaken on 7 June 2016 over two hours, and was conducted on foot. Eroded or exposed surfaces were inspected for possible subsurface remains. Probing was undertaken at 2m intervals along 2m wide transects and test putting was undertaken on the proposed building sites.

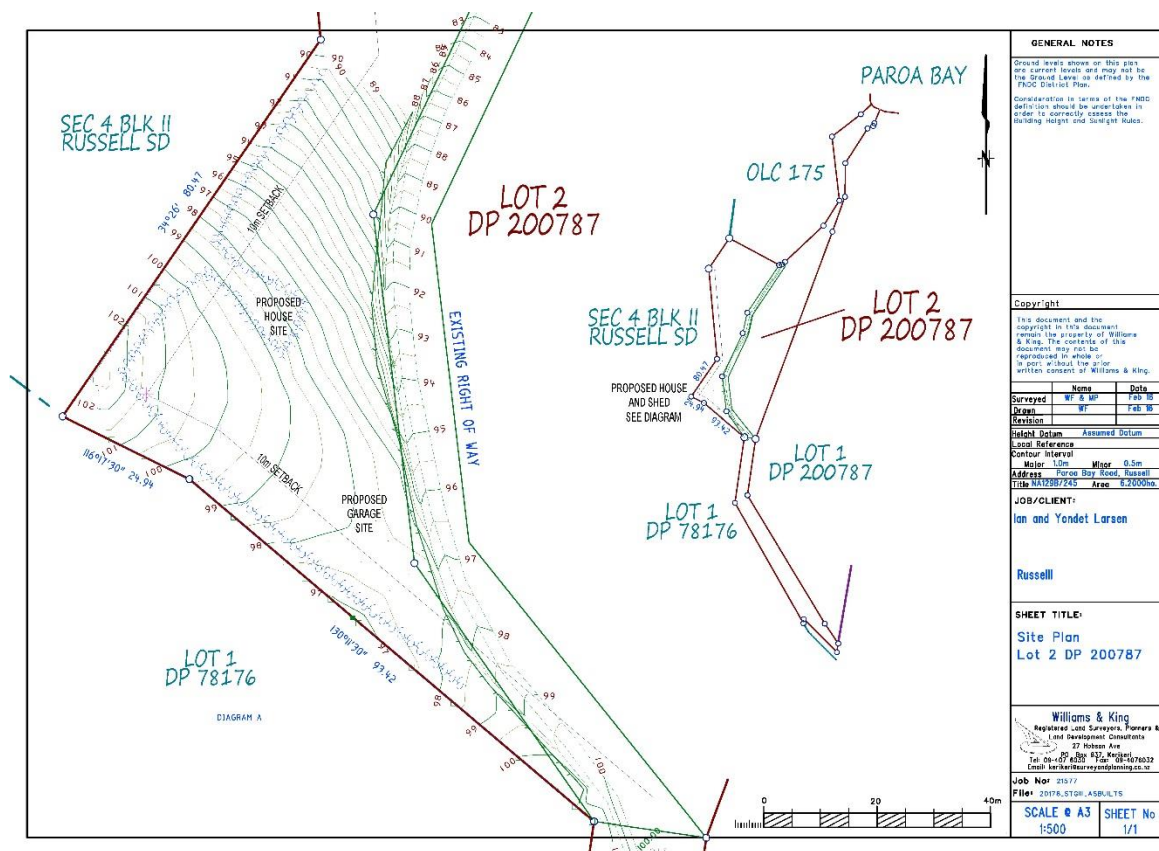


Figure 2: Location of proposed building sites.

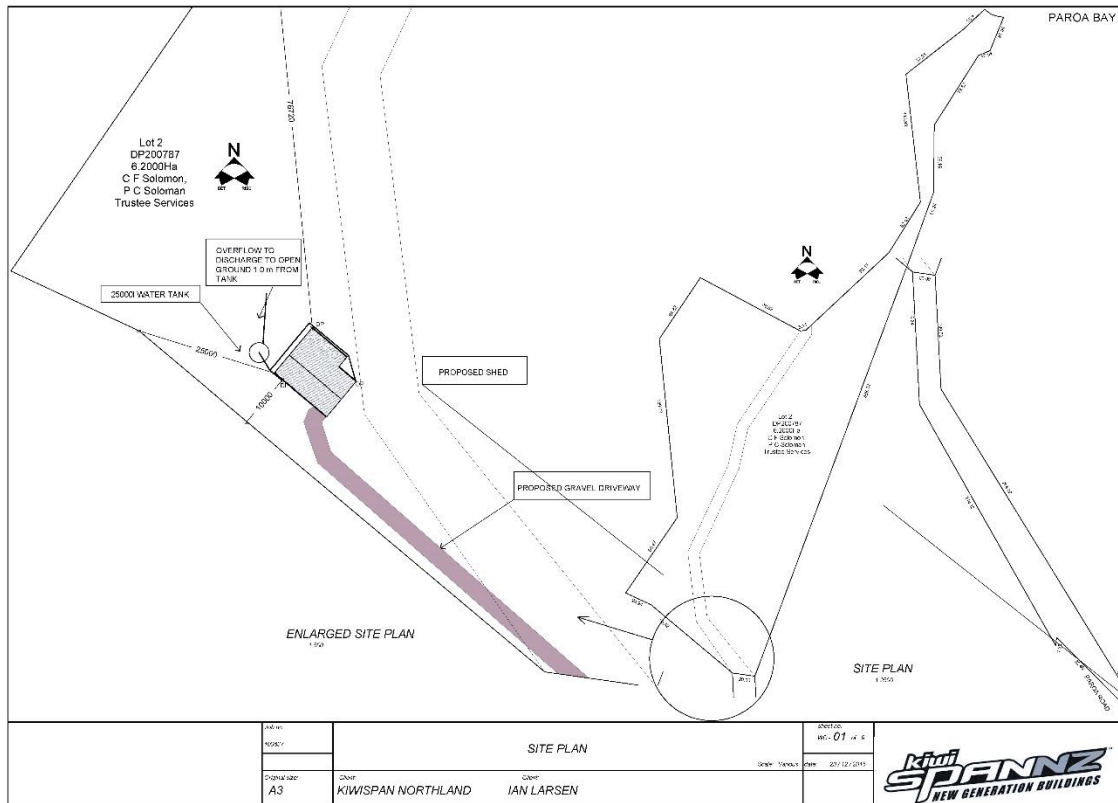


Figure 3: Detail of proposed shed and driveway.

5.0 Background

5.1 Archaeological Context

The Bay of Islands was the focus of dense prehistoric settlement by Maori and a large number of archaeological sites are recorded along the extensive mainland coastline, islands and inland areas. The coastal flats and nearby spurs and ridges were intensively utilised in prehistoric times for occupation, and this is reflected in the presence of numerous shell midden or refuse dumps, defended pa sites, and undefended kainga - as indicated by ditches, banks, terraces and storage pits. Most of these probably date from the 'Classic' or mid-to late prehistoric period from around 1500 to 1800.

A large reconnaissance survey of the south eastern Bay of Islands and Whangaruru North, including Paroa Bay, was undertaken by A. Leahy and W. Walsh in 1978, on behalf of the Historic Places Trust. Another large scale reconnaissance survey of the south east Bay of Islands coastline from Te Tii to Tapeka Point was undertaken by G. Nevin in 1984 for the Northland Harbour Board. Intensive site surveying has been recently undertaken by the Department of Conservation on nearby Urupukapuka, Waewaetoria and Moturua Islands, following on from Leahy and Walsh's original survey of the islands (Leahy and Walsh 1976). Leahy and Walsh (1978: 3) provide a succinct summary of the environment of the area and its occupation by Maori in prehistoric times:

"The broken nature of the coastline afforded sheltered harbours and easily defensible peninsulas. The high ridges behind were used as refuges and lookout points. There were plentiful supplies of sea foods,

birds, forest products, timber and cropping land in a frost-free environment"

Several smaller surveys have been undertaken over the last twenty years in the area between Russell and Rawhiti, for the purposes of assessing the effects of development activity on archaeological sites in the area, including surveys at Paroa Bay by Nevin (1999), Bruce 2004a and B, and Johnson (1999, 2009, 2010).

Despite the large number of sites and increasing coastal development over the last ten years, there have only been a few excavations in this part of the Bay of Islands to provide context for the observed surface archaeology. In 1964, L. Groube excavated Paroa Pa which was sacked by Marion Du Fresne's men following the killing of Du Fresne and several others at Manawaora Bay in 1772. An excavation was also undertaken on an early or archaic Maori site at Mangahawea Bay on Moturua by J. McKay which has recently provided a 13th century radiocarbon date for occupation (J. Maingay pers. comm.). Bickler and Clough (2006) undertook a small sampling excavation on a midden near Parahi Pa in Parekura Bay in 2005, the results of which suggested the site was used for shellfish processing of cockle in the mid-1700s, and that it was probably in use at around the time that the local population was increasing, shortly before the arrival of Captain Cook.

5.2.1 Archaeological Surveys at Paroa Bay

The large-scale reconnaissance survey by Leahy and Walsh succeeded in recording a number of extensive pa on the headlands and inland ridges ringing Paroa Bay, along with a number of smaller sites. The nearest of these is Q05/246, a small pa on the headland 300m north of the northern boundary of the subject property. A number of other sites have been recorded more recently (Figure 4).

Pa site Q05/246 (Figure 5) was recorded by A. Leahy in 1978. It is located on the small headland 300m north of the building sites on subject property, but adjacent to the northern end of the property. It consisted of at least six terraces divided by a defensive ditch. The site was truncated by a farm fence running along the headland. The site has not been revisited by an archaeologist since the original recording, but will not be affected by the proposed development.

In 1999 D. Nevin surveyed the neighbouring property to the east and recorded a number of archaeological sites including anthropogenic or 'made' Maori gardening soils, midden and terraces (Q05/1222-1226). Two of the sites were recorded approximately 300m north east of the building sites, and just east of the subject property. Q05/1223 is located on the western side of the Opokapoka Stream valley and was originally recorded by D. Nevin in 1999 as an 80 x 80m area of slope drains associated with prehistoric or protohistoric Maori horticultural practices. Nevin also noted the features as being present on a 1951 aerial photograph of the area. The gardening system was noted by as consisting a number of one metre wide drains up to 20cm deep, irregularly spaced and running down the slope to the stream, in association with made soils consisting of size-graded water-rolled pebbles, charcoal and shell I. Bruce in 2004.

Q05/1224 was a midden also noted by Nevin and re-recorded by Bruce. Nevin recorded a 2m long midden exposure on the lower end of a ridge dropping down from pa Q05/246. Additional midden was noted by Bruce and recorded under the same site number on the neighbouring property to the east (Bruce 2004a), one of which (the

previously disturbed shell midden, recorded as part of Nevin's Q05/1224 site) was modified by the later construction of a house in the area. While two grab samples from the site were taken, their fragmentary nature precluded any detailed analysis (Bruce2004b: 3-4).

On examining the original Nevin survey plan (Figure 6), Q05/1223 and the original midden of Q05/1224 appear to be located near the northern part of Lot 1 DP 200787, albeit several hundred metres north of the proposed building sites.

Johnson (1999) recorded a number of sites to the east on the Oyster Cove Subdivision and at Paroa Bay Farm, at the head of the Bay and recorded a number of terrace and midden sites throughout the area. Together the headland and ridge pa, terrace and midden sites and gardening areas indicate an intensive occupation of the Bay in the pre- and protohistoric period.

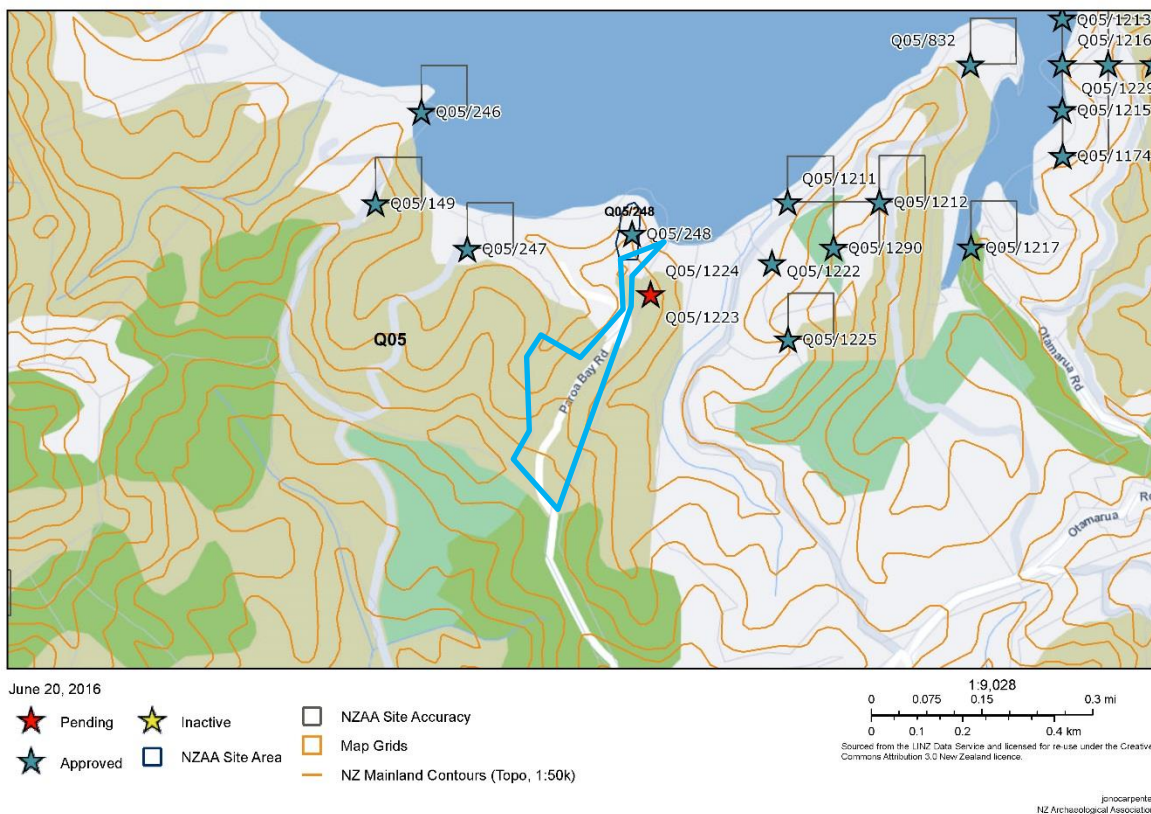


Figure 4: Archaeological sites in the vicinity of Lot 2 DP 200787 (approximate property in blue; ArchSite GIS).

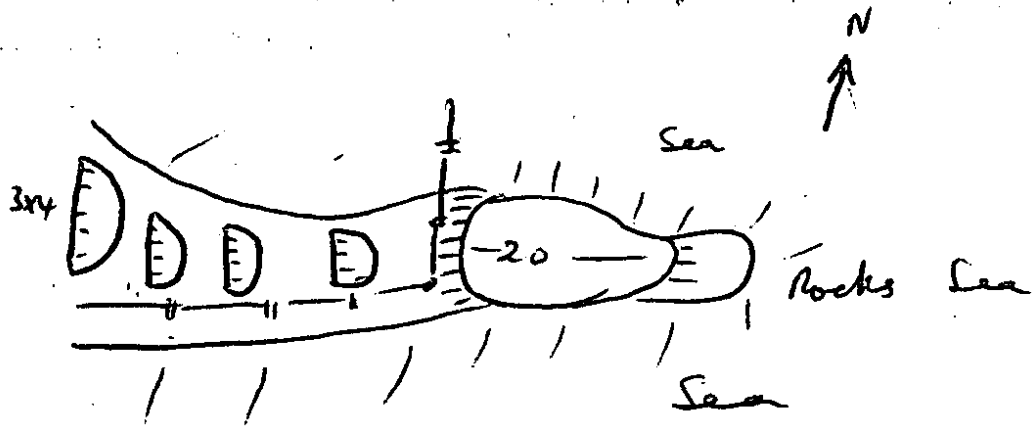


Figure 5: Q05/246 pa, recorded by A. Leahy 350m north of the building sites, in 1978.

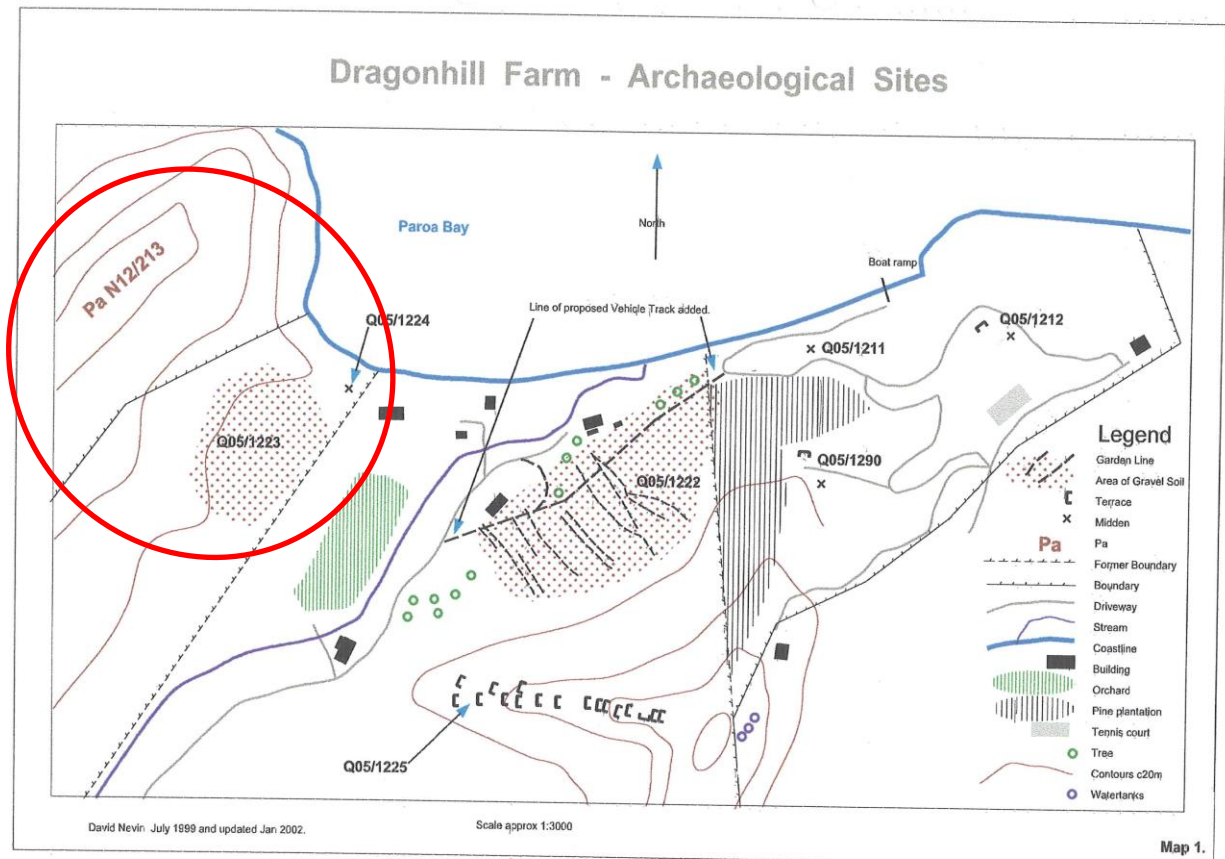


Figure 6: Sites recorded 300m north east of the building sites and on, or adjacent to the northern boundary of the subject property (circled red) by D. Nevin (1999).

5.2 Other Heritage Sites

There are no registered historic places under the Heritage New Zealand Pouhere Taonga Act, or scheduled heritage buildings, objects, notable trees or sites of cultural significance to Maori in the Far North District Plan, on the subject property.

5.3 Historic Background

The land between Rawhiti and Russell is in the rohe of Ngati Kuta and Patukeha. Ngare Raumati were the original inhabitants of Te Rawhiti. From approximately 1770 to 1826, hapu around Kaikohe/Waimate began moving out and extending their influence to Rawhiti. Around 1770, Ngati Miru and Te Wahineiti were defeated at Te Waimate and Kerikeri. In 1800 Ngare Raumati were attacked at Rawhiti by Auha's son and Hongi Hika's father, Te Hotete. The chiefs and brothers Korokoro and Tui accompanied Hongi Hika and Ruatara to Sydney in 1815, along with Te Nana II. One of the primary goals of the journey was to acquire muskets. Their return voyage was captained by Captain Thomas Hansen and brought over Rev. Samuel Marsden. In 1826 Ngare Raumati were finally defeated at Rawhiti using muskets.

Patukeha originated from the Ngai Tawake hapu, a major sub-tribe of Ngapuhi originally from Waimate North. The name Patukeha is derived from the killing of the ancestor Te Auparo, a high chieftainess of the Ngai Tawake tribe, in her keha (turnip) patch at Okuratope, near Waimate North. As a tribute to their mother, the chiefs Moka, Rewa and Wharerahi adopted this name Patukeha thus commemorating their mother in this new hapu name. After the conquest of Ngare Raumati and the confiscation of their lands at Rawhiti in 1826, the three brothers and others who came with them as Patukeha, settled at Rawhiti.

The record of European association with the area begins in 1772 with the visit of Marion Du Fresne to the area to fell kauri for ships spars, prior to his death at Orokawa Bay, at the hands of local Maori.

6.0 Results

The proposed building sites on the property were visited on the afternoon of 7 June 2016. The weather was dry but overcast. Surface visibility was good along the fence lines on the southern and western boundaries which were in short grass, along the ROW running northwards through the property, and on the shed site which was in short grass and manuka. Visibility was poor on the house site due to the regenerating native understorey which has grown up since the site was cleared.

Eight spade test pits were excavated, four each across the shed sites and house site. The soil stratigraphy consisted of 10-15cm to grey brown silty clay topsoil grading into orange-yellow clay. No charcoal or other possible archaeological inclusions, layers or features were observed. The soil profiles appear to be typical for coastal northland where clay soils have been cleared of native vegetation, lightly grazed and then retired and left to regenerate. There was no indication of greasy, charcoal-stained soils, shell midden, or 'made soils' indicating occupation of the immediate vicinity of the proposed building sites.

No archaeological sites or features were observed on the surface of the inspected portion of the property around the proposed building sites, in the test pits, or along the

batters of the existing track. No possible subsurface archaeological features were encountered in the course of soil probing across the site.

The three recorded sites that appear to be located in the immediate vicinity of the northern part of the property, the pa Q05/246 immediately to the west and the slope drain gardening system recorded as Q05/1223 and a midden exposure recorded as part of Q05/1224 immediately to the east were not revisited. No development should be undertaken in this areas without further assessment.

There is no archaeological impediment to the development of the building sites for the shed, house, and associated services.



Figure 7: Looking south east across shed site and driveway route/southern boundary.



Figure 8: Looking north west towards rear of shed site, from access track.



Figure 9: Typical soil profile, shed site.



Figure 10: Future house site, looking south east.



Figure 11: Typical soil profile, future house site.

7.0 Significance Assessment

No significance assessment was required as no archaeological sites or features were identified on the areas proposed for development.

8.0 Assessment of Future Effects

No archaeological sites or features were identified in the proposed building areas and no archaeological effects have been identified.

9.0 Recommendations and Mitigation

An archaeological authority under the HNZPTA is not required and no archaeological mitigation is necessary for the proposed shed, house or driveway in the areas assessed.

If archaeological remains or buried cultural deposits (layers of shell midden, oven stones, artefacts etc.) are encountered on the property in the course of this development, I. and Y. Larsen or their agents should cease work in the immediate vicinity and contact Heritage New Zealand Pouhere Taonga and Geometria Ltd for advice on how to proceed.

However sites appear to be located at the northern end of the property and no ground disturbing activity should occur in that area without further assessment.

10.0 Summary

Geometria Ltd was commissioned by N. Watson on behalf of I. and Y. Larsen to undertake an archaeological assessment for a new shed and future house on the property. Several archaeological sites are recorded in the vicinity but none were observed on the two building sites or alignment of the driveway. No archaeological authority or mitigation is necessary but if archaeological remains are accidentally discovered during works, Heritage NZ and Geometria should be approached for advice on how to proceed. Three previously recorded sites appear to be located in the vicinity of the northern end of the property above Paroa Bay and should be avoided. If any development is proposed for that area, it should be further assessed.

11.0 References

- A History of Ngati Kuta. <http://www.ngatikuta.maori.nz/historynrandr.html>, accessed on 10 August 2010.
- Bickler, S., and R. Clough, 2006. Site Q05/376, Hikuwai Road, Rawhiti, Bay of Islands: Excavation Report (NZ HPT Authority 2006/119). Unpublished report for Ekco Nominees. Clough and Associates, Auckland.
- Bruce, I., 2004a. Archaeological Survey and Assessment for the Gregory Family Property, Paroa Bay, Bay of Islands. Unpublished report by Northern Archaeological Research, Auckland.
- Bruce, I., 2004b. Monitoring Report, Gregory Family Dwelling, Paroa Bay, Bay of Islands. Unpublished report by Northern Archaeological Research, Auckland.
- Carpenter., J., 2010. Archaeological Damage Assessment of Pa Site Q05/287. 304 Rawhiti Road, Bay of Islands. Unpublished report for C. Turner. Geomtria, Whangarei.
- Ferrar, H. T., 1922. Geological Map of the Bay of Islands, Russell and Whangaruru Survey District. New Zealand Geological Survey, Wellington.
- Johnson, L., 1999. Archaeological Survey and Assessment of Proposed Oyster Bay Subdivision. Paroa Bay, Bay of Islands. Unpublished report by Northern Archaeological Research, Auckland.
- Jonhnsn, L., 2009. Archaeological Report on the Monitoring of the Paroa Bay Farms Ltd Road up-grade and associated drainage works (Stage 1). Unpublished report by Northern Archaeological Research, Auckland.
- Leahy, A., and W. Walsh, 1976. Archaeological Site Survey Report. Bay of Islands and Kerikeri/Paihia Area. Unpublished report for the Northland Harbour Board.
- Leahy, A., and W. Walsh, 1978. Archaeological Site Survey Report. South Eastern bay of Islands and Whangaruru North. Unpublished report for the Historic Places Trust.
- Patukeha Hapu. <http://www.patukeha.maori.nz/node/3>, accessed on 10 August 2010.
- Nevin, D., 1999. Dragonhill Farms. Survey 2. Pt 2 Otamarua A2. Paroa Bay, Bay of Islands.
- Nevin, G. E., 1984. Technical Report on the Archaeological and Historical Aspects of the Bay of Islands. Unpublished report for the Northland Harbour Board Bay of Islands Harbour Study.

Appendix A – Archaeological Site Record Form



VISION CONSULTING

Engineers & Planners

| | |
|-----------------|---|
| Job no. | J14181 |
| Project Title | Lot 2 DP 200787 Paroa Bay Road, Russell |
| Project Manager | Dan Simmonds |
| Version Number | 1 |
| Status | Final |
| Date | 09/09/2019 |

OFFER OF SERVICE

| Version No. | Date | Description |
|-------------|------------|--|
| 1 | 09/09/2019 | Offer of service issued to client for approval |

I confirm that this Offer of Service document describes accurately the scope of the work proposed as at the current date and ask for the project to commence the work should proceed unless the Offer of service is rejected.

Lot 2 DP 200787, Paroa Bay Road, Russell

| Signature | Name | Date |
|-----------|--------------|------------|
| | Dan Simmonds | 09/09/2019 |
| | Ian Larsen | 09/09/2019 |

Prepared for
Ian Larsen

9/09/2019

Vision Consulting Engineers Ltd
Level 2, 82 Kerkira Road, Kerkira



Project Information


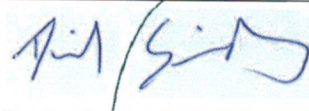
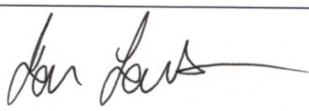
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| Version Number | 1 |
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| Date | 09/09/2019 |

Document Revision History

| Version No. | Date | Description |
|-------------|------------|--|
| 1 | 09/09/2019 | Offer of Service issued to client for approval |

Project Approval

I confirm that this Offer of Service document describes accurately the scope of the work proposed as at the current date and ask for the project to commence. No work should proceed unless the Offer of Service document is approved.

| Signatory | Name | Signed | Date |
|------------------|--------------|---|------------|
| Project Director | Ben Perry |  Managing Director | 09/09/2019 |
| Project Manager | Dan Simmonds |  Senior Geotechnical Engineer, MIEAust CPEng | 09/09/2019 |
| Client | Ian Larsen |  | 09/09/2019 |



Vision Consulting Engineers Ltd
Level 1, 62 Kerikeri Road, Kerikeri



Dear Ian,

Vision Consulting Engineers Ltd (VISION) would be pleased to carry out the services as listed below and look forward to assisting you in this project. To assist in the smooth running of the project this Offer of Service sets out the scope of our engagement and proposes conditions of the engagement. If you are in agreement with these please arrange to sign and return a copy of this as confirmation of our engagement.

Your Project Manager will be Dan Simmonds. Please contact them on 094016287 / dsimmonds@vce.co.nz if you do not understand, or wish to discuss any aspect of the terms of this engagement.

1 Project Definition

Vision Consulting Engineers Limited (VISION) is requested by Ian Larsen to provide a geotechnical report for the proposed new dwelling at Lot 2 DP200787, Paroa Bay Road, Russell.

1.1 Objectives

The project objectives are to provide a geotechnical report providing foundation recommendations for use by the designer.

1.2 Scope and Exclusions

1.2.1 Geotechnical Investigation and Reporting

The following scope of work is proposed:

- Geotechnical Desk Study: Review published and unpublished information about the site
- Preparation of a site testing plan
- Field Work:
 - Walkover assessment of the site and surrounding environs to assess the geomorphology and any geotechnical hazards that may exist or have the potential to exist.
 - Two hand auger borehole with in-situ strength testing using a shear vane to a maximum depth of 3.0m or refusal.
 - Four Dynamic Cone Penetrometer (DCP) tests to a maximum depth of 3.0m or refusal
 - Measurement of 1 ground profile through the proposed dwelling footprint
- Analysis, Calculations, & Design:
 - Review site testing logs
 - Compile data to generate a basic ground model of underlying geology.
- Reporting:
 - Preparation of a geotechnical report presenting the findings of our investigation and providing recommendations regarding foundation design.

1.3 Deliverables

Client: Client to supply a site plan showing location of proposed dwelling, The client shall be responsible for both the completeness and accuracy of the information supplied to us.

VISION: The Project Manager will provide the geotechnical report to the Client at the end of the project.



2 Project Plan

2.1 Timing

Based on our current workload we anticipate providing the reports within 15 working days of receiving your approval to proceed.

2.2 Estimate

Fees will be charged on a time and expense basis. The following fee estimate is provided for your project.

Fee estimate: \$2,500 + Disbursements + GST

Disbursements are mileage charged at \$1.20 + GST per kilometre and ferry charged at \$25 + GST.

2.3 Planning Risks and Assumptions

The estimate is based on the following assumptions:

- The information provided by the client is complete and accurate.
- It is assumed that cuts and fills are limited to a maximum height of 0.5m.
- Information provided by the client is complete and accurate.
- It is assumed that no fill is currently present over the proposed building area.
- It is assumed that all proposed investigation locations are easily accessible.
- It is assumed that power location is not required. If it is required it will be charged at \$100 + GST.
- It is assumed that the property is not showing any signs of instability and is sloping at less than 1V:5H, and that slope stability analysis is therefore not required.
- Specific structural design for the proposed dwelling is excluded from this offer of service.
- The client will provide us all other information we require, and respond to our questions in a timely manner.
- Only 0.5 hrs of liaison for face-to-face meetings, phone conversations or e-mails with the client and FNDC will be required. Any time over this will be charged on a time and expense basis.
- Construction monitoring has been excluded from this offer of service, however once the design develops, a fee estimate can be provided.

2.4 Project Tolerances

The identified tolerances on the project are:

- **Scope and Timing:** We will endeavour to complete the scope outlined above within the stipulated timeframe.
- **Estimate:** We will endeavour to complete the work within our budget estimate. However, because of the nature of the work being undertaken, it is not always possible to estimate accurately the time required. We will notify you if the budget exceeds 15% of the budget estimate.

Note: Our estimates are given in good faith and based on our experience with similar projects. **We may charge fees above our estimate if any additional work is required, or any of our assumptions prove to be incorrect.** If this happens, we will let you know as soon as possible and seek further



instructions. Any additional work beyond the hours outlined in our scope of work, including work for supporting the application through the consent process post lodgement (i.e. additional technical information, Section 92 requests or hearings etc.) will be charged on a time and cost basis at our standard hourly rates.

3 Project Management

VISION is committed to the successful achievement of project objectives within specified budget and time. Each project in VISION is managed through an in-house Project Management Framework based on PRINCE2 methodology.

4 Conditions of Engagement

The "Standard conditions of Engagement" are included in Appendix A. Progress payments will be billed monthly. Payment terms are twenty (20) working days of the relevant invoice being mailed to you. Late payment shall incur a finance charge of 2% per month and a late handling fee of \$15 + GST per month.



instructions. Any additional work beyond the hours outlined in our scope of work, including work for supporting the application through the consent process post lodgement (i.e. additional technical information, Section 92 reports or hearings etc.) will be charged on a time and cost basis at our standard hourly rates.

3. Project Management

VISION is committed to the successful achievement of project objectives within specified budget and time. Each project in VISION is managed through an in house Project Management Framework based on PRINCE2 methodology.

4. Conditions of Engagement

The "Standard conditions of Engagement" are included in Appendix A. Progress payments will be billed monthly. Payment terms are twenty (20) working days of the relevant invoice being issued to you. Late payment shall incur a finance charge of 2% per month and a late handling fee of \$15 + GST per month.

Appendix A Standard Conditions of Engagement



1. The Consultant shall perform the Services as described in the attached documents.
2. Nothing in this Agreement shall restrict, negate, modify or limit any of the Client's rights under the Consumer Guarantees Act 1993 where the Services acquired are of a kind ordinarily acquired for personal, domestic or household use or consumption and the Client is not acquiring the Services for the purpose of a business or commercial gain through trading.
3. The Client and the Consultant agree that where all or any of, the Services are acquired for the purposes of a business the provisions of the Consumer Guarantees Act 1993 are excluded in relation to those Services.
4. The party signing this contract, in consideration of the Consultant entering into the contract with the Client, acknowledges and agrees they are entering into this contract in their personal capacity as well as on behalf of the Client and further acknowledges and agrees it is jointly and severally liable with the Client as a principal debtor to the Consultant.
5. The Client grants to the Consultant an agreement to mortgage over the property to secure the amount owing from time to time to the Consultant for the contract. The Client shall, if required, execute in favour of the Consultant, a register able mortgage in the standard "all monies" Auckland District Law Society form used from time to time with such modifications as the Consultant or Consultant's solicitor deem necessary over the property to secure the due payment of all the money payable by the Client to the Consultant under this agreement, and pay all costs incurred by the Consultant in preparation, execution and registration of the mortgages referred to above.
6. In providing the Services the Consultant shall exercise the degree of skill, care and diligence normally expected of a competent professional.
7. The Client or Agent acting on behalf of the Client shall provide to the Consultant, free of cost, as soon as practicable following any request for information, all information in his or her power to obtain which may relate to the Services. The Consultant shall not, without the Client's prior consent, use information provided by the Client for purposes unrelated to the Services. In providing the information to the Consultant, the Client shall ensure compliance with the Copyright Act 1994 and shall identify any proprietary rights that any other person may have in any information provided.
8. The Client or Agent acting on behalf of the client will be responsible for making the land available for testing, including notification of any people associated with the property that are relevant to this project; for providing information regarding any possible services to the site and through the property.
9. All rights of entry, services information and consents (other than those provided by us under this agreement), to enable completion of the commission, shall be secured by the Agent or the Client.
10. Correction of any damage to any underground services, subsurface soil, rock, groundwater, surface water, buildings, surfaces and/or vegetation arising from the work is outside this agreement.
11. The Consultant shall not be liable for and the Client will indemnify the Consultant for any loss or damage whatsoever arising from a breach of this agreement by the Consultant, directly or indirectly arising out of, resulting from, in consequence of, contributed to or aggravated by asbestos in whatever form or quantity.
12. The Client may order variations to the Services in writing or may request the Consultant to submit proposals for variation to the Services. Where the Consultant considers a direction from the Client or any other circumstance is a Variation the Consultant shall notify the Client as soon as practicable. The Client will inform us immediately of any unforeseen changes, new developments, or other issues that impact and influence this project so that the Consultant can adjust accordingly.
13. The Client shall pay the Consultant for the Services the fees and expenses at the times and in the manner set out in the attached documents. Where this Agreement has been entered by an agent (or a person purporting to act as agent) on behalf of the Client, the agent and Client shall be jointly and severally liable for payment of all fees and expenses due to the Consultant under this Agreement.
14. All amounts payable by the Client shall be paid within twenty (20) working days of the relevant invoice being mailed to the Client. Late payment shall constitute a default, and the client shall pay default interest on overdue amounts from the date that the payment falls due at a rate of 2% per month and in addition the costs of any actions taken by the Consultant to recover the debt.
15. Where Services are carried out on a time charge basis, the Consultant may purchase such incidental goods and/or Services as are reasonably required for the Consultant to perform the Services. The cost of obtaining such incidental goods and/or Services shall be payable by the Client. The Consultant shall maintain records which clearly identify time and expenses incurred.
16. Where the Consultant breaches this Agreement, the Consultant is liable to the Client for reasonably foreseeable claims, damages, liabilities), losses or expenses caused directly by the breach. The Consultant shall not be liable to the Client under this Agreement for the Client's indirect, consequential or special loss, or loss of profit, however arising, whether under contract, in tort or otherwise.
17. The maximum aggregate amount payable, whether in contract, tort or otherwise, in relation to claims, damages, liabilities, losses or expenses, shall be five times the fee (exclusive of GST and disbursements) with a maximum limit of \$NZ250,000.
18. Neither Party shall be liable for any loss or damage occurring after a period of six years from the date on which the Services were completed.
19. The Consultant acknowledges that the Consultant currently holds a policy of Professional Indemnity insurance for the amount of liability under clause 17. The Consultant undertakes to use all reasonable endeavours to maintain a similar policy of insurance for six years after the completion of the Services.
20. If either Party is found liable to the other (whether in contract, tort or otherwise), and the claiming Party and/or a Third Party has contributed to the loss or damage, the liable Party shall only be liable to the proportional extent of its own contribution.
21. The Consultant shall retain intellectual property/copyright in all drawings, specifications and other documents prepared by the Consultant. The Client shall be entitled to use them or copy them only for the works to which the Services relate and the purpose for which they are intended. The ownership of data and factual information collected by the Consultant and paid for by the Client shall, after payment by the Client in full, lie with the Client. The Client may reproduce drawings, specifications and other documents in which the Consultant has copyright, as reasonably required in connection with the project but not otherwise. The Client shall have no right to use any of these documents where any or all of the fees and expenses remain payable to the Consultant and all reports, data, information and advice shall be deemed invalid and the Consultant will not be legally bound by it in any way whatsoever.
22. The Consultant has not and will not assume any obligation as the Client's Agent or otherwise which may be imposed upon the Client from time to time pursuant to the Health and Safety in Employment Act 2015 ("the Act") arising out of this engagement. The Consultant and Client agree that in terms of the Act, the Consultant will not be the person who controls the place of work.
23. The Client may suspend all or part of the Services by notice to the Consultant who shall immediately make arrangements to stop the Services and minimise further expenditure. The Client and the Consultant may (in the event the other Party is in material default) terminate the Agreement by notice to the other Party. Suspension or termination shall not prejudice or affect the accrued rights or claims and liabilities of the Parties.
24. The Parties shall attempt in good faith to settle any dispute by mediation.
25. This Agreement is governed by the New Zealand law, the New Zealand courts have jurisdiction in respect of this Agreement, and all amounts are payable in New Zealand dollars.





**RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD
Search Copy**




R.W. Muir
Registrar-General
of Land

Identifier **NA129B/245**
Land Registration District **North Auckland**
Date Issued 15 May 2000

Prior References
NA350/3

Estate Fee Simple
Area 6.2000 hectares more or less
Legal Description Lot 2 Deposited Plan 200787

Registered Owners
Ian Douglas Larsen and Yondett Pamela Larsen

Interests

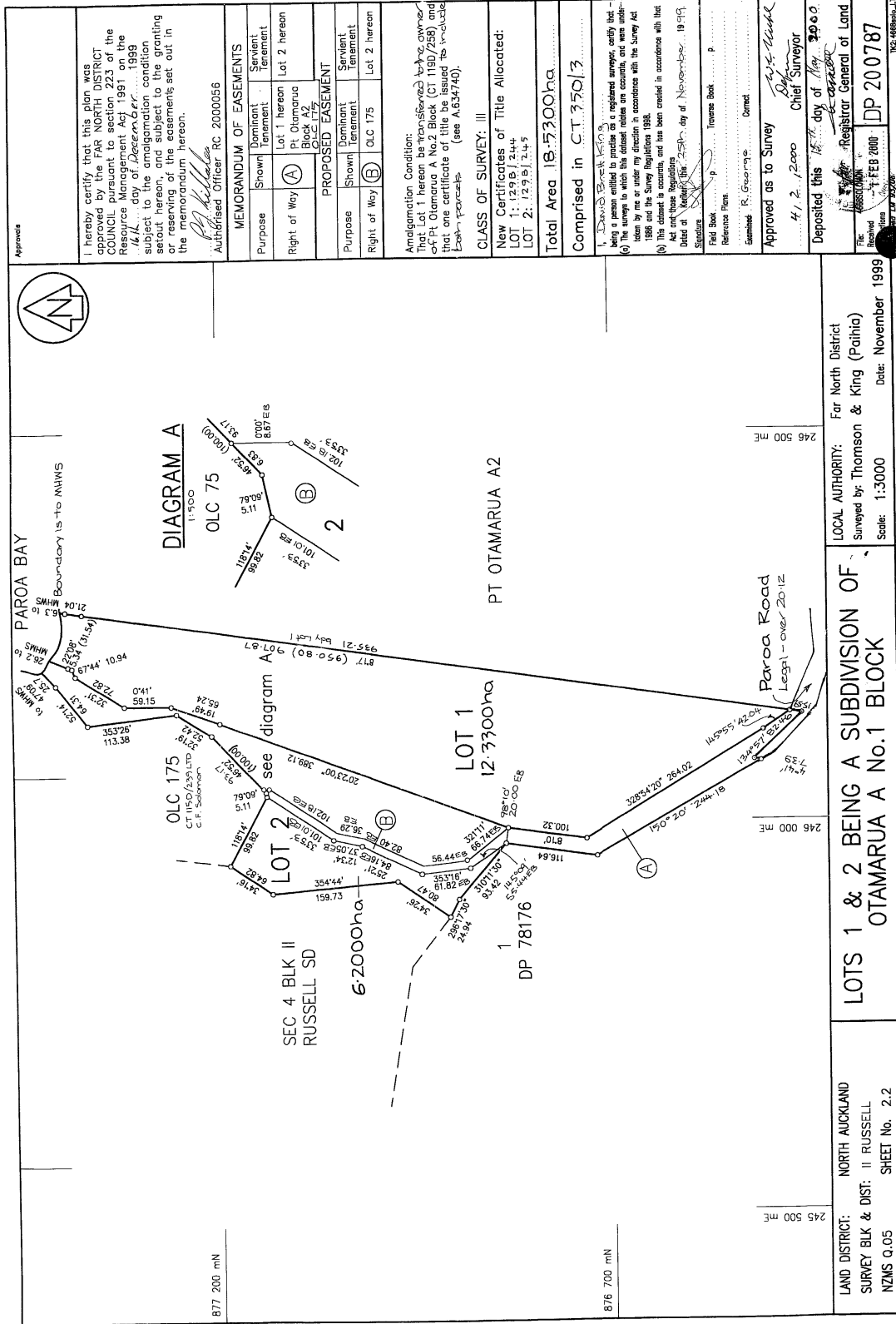
Subject to a right of way over parts marked A and B on DP 200787 specified in Easement Certificate D505411.4 - 15.5.2000 at 9.00 am

Some of the easements specified in Easement Certificate D505411.4 are subject to Section 243 (a) Resource Management Act 1991 (See DP 200787)

Subject to a right of way over part marked A on DP 200787 created by Transfer D505411.7 - 15.5.2000 at 9.00 am

The easements created by Transfer D505411.7 are subject to Section 243 (a) Resource Management Act 1991

11601098.1 Mortgage to Westpac New Zealand Limited - 13.11.2019 at 1:44 pm



Approvals

I hereby certify that this plan was approved by the FAR NORTH DISTRICT COUNCIL pursuant to section 223 of the Resource Management Act 1991 on the 14th day of December 1999 subject to the amalgamation condition set out hereon, and subject to the granting of reserving of the easements set out in the Memorandum of Easements hereon.

P. J. Williams
 Authorised Officer RC 20000556

| MEMORANDUM OF EASEMENTS | | |
|-------------------------|--------------|-------------------|
| Purpose | Shown | Servient Tenement |
| Right of Way (A) | Lot 1 hereon | Lot 2 hereon |
| PROPOSED EASEMENT | | |
| Purpose | Shown | Servient Tenement |
| Right of Way (B) | OLC 175 | Lot 2 hereon |

Amalgamation Condition:
 Herein proposed to be amalgamated are Pt Otamarua A No. 2 Block (CT 1190/258) and Pt Otamarua A No. 1 Block (CT 1190/258) and that one certificate of title be issued to include both parcels. (see A.634740).

CLASS OF SURVEY: III

New Certificates of Title Allocated:
 LOT 1: 29,912,444
 LOT 2: 12,912,445

Total Area 18.5300ha.
 Comprised in CT 350/3

I, David Brock, being a person entitled to practice as a registered surveyor, certify that -
 (a) The survey to which this document relates was made in accordance with the Survey Act 1988 and the Survey Regulations 1988.
 (b) This document is accurate, and has been created in accordance with that Act and the Regulations.
 (c) The date of the survey was the 25th day of November, 1999.

Signature: *David Brock*
 Title: Surveyor
 Reference Plan: *18.5300ha*
 Examined: R. Gray
 Date: 4.2.2000
 Approved as to Survey: *David Brock*
 Chief Surveyor
 Deposited this 14th day of May 2000
 Registrar General of Land
 Date: 1 FEB 2000
 DP 200787

LAND DISTRICT: NORTH AUCKLAND
 SURVEY BLK & DIST: II RUSSELL
 NZMS Q.05 SHEET No. 2.2

LOCAL AUTHORITY: Far North District
 Surveyed by: Thomson & King (Paihia)
 Scale: 1:3000 Date: November 1999

LOTS 1 & 2 BEING A SUBDIVISION OF OTAMARUA A No.1 BLOCK



245 500 mE

246 000 mE

246 500 mE

23 MAY 2000



HAWTHORN
Landscape Architects

I & Y Larsen

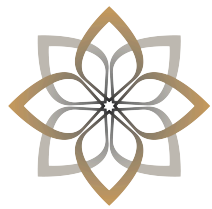
Proposed Dwelling & Garage

Visual Impact Assessment

20th May 2020



Prepared By:
Christine Hawthorn BLA (Hons)



1. Introduction

This visual impact assessment report has been prepared for I and Y Larsen (applicants) due to a request for further information (dated 28th January 2020) from Simeon McLean, Intermediate Planner at the Far North District Council.

This report specifically provides an assessment of the potential visual effects of the proposed development on the landscape. Proposed mitigation measures are recommended to ameliorate any potential visual effects from the surrounding public viewing positions, particularly from the north and coastal marine area.

This assessment has been prepared by a qualified Landscape Architect and in accordance with the NZILA (New Zealand Institute of Landscape Architects) Code of Conduct.

The property is located within the Paroa bay environs, on the south side of the bay near the end of Paroa Bay Road, as shown on Image #3 in the RC application lodged by the applicants (RC 2200260 – RMA LUC).

The applicants propose to construct a dwelling and garage on their property as described and shown on the plans contained within the application lodged under RC 2200260 – RMA LUC.

The proposed dwelling breaches the 8m building height controls that apply to this site within the General Coastal Zone. The northern facade of the dwelling will have three levels (with a basement level being dug down below the existing ground level) and it is this face of the building that breaches the 8m height limit.

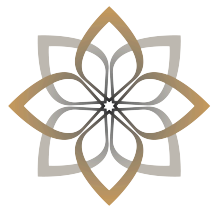
The building materials for the garage I understand will be corrugated iron in New Denim Blue, and the house will also have a roof of this material and colour, while the exterior walls will be a mix of timber and stone cladding (as shown in Image 7 and 8 in the RC 2200260 – RMA LUC). All of the colours of the building materials are earth toned and visually recessive.

The garage is a standard Versatile garage and a single story, the house will be a rectangular form with a hipped gable roof and large overhanging eaves and decking areas as shown on the plans contained in the application lodged under RC 2200260 – RMA LUC.

2. Existing Site

The property is legally described as Lot 2 DP 200787 and has a total area of 6.2ha and is largely in regenerating native bush. The property is an irregular shape and extends from Paroa Bay Road at the southern boundary to Paroa Bay along its very small northern boundary with the coast.

The proposed building sites for the house and garage are located upon the only relatively flat area on the whole property, along a small ridgeline that is at approximately 95m above sea level. This is located next to the existing shed in the middle of the property and adjacent to the western corner of the property. Refer to



the survey plan contained within the RC application lodged by the applicants (RC 2200260 – RMALUC).

The building sites for the house and garage have already been cleared of most of the existing vegetation, as shown in the attached Site Photographs contained in Appendix 1.

Photo 9 illustrates that the land to the west of the house and shed site is vegetated in a mix of native bush and pine trees. This area of land on the neighbouring property extends further up the ridgeline, which results in the proposed house and garage being located below the highest point of the ridgeline. The buildings will also be located below the highest point on the application site, as they are located just off the edge of the crest of the ridgeline.

The fence line located to the south of the building site follows the southern boundary of the site, and bounds another property that is also covered in bush and scrub. There are a number of existing trees along the fence line that provide a vegetated backdrop (refer to Photo 8).

The area of land directly to the north of the house and garage building site is currently vegetated with a stand of Manuka trees that have a young understory of regenerating bush (refer to Photos 1 and 2 and others within Appendix 1). This vegetation is approximately 8-10m tall and screens the view of the building site from the land and water areas located to the north of the site.

The view to the east from the building site is visible in Photos 3 and 6, and is a filtered view through the existing vegetation on site. The view takes in the areas around the end of Otamarua Road and Paroa Bay winery. The view is distant with the houses located within this area of rural residential development being located over 1km away.

The existing shed on the property is shown in Photo 6 is set just off the ridgeline and is recessively coloured and well integrated into the setting by the surrounding bush.

3. Neighbourhood Character and Context

The property is located within the Paroa Bay environs on the steep northern facing hillslopes that overlook Paroa Bay and the inner Bay of Islands. This area has elevated views across the foreground bush setting and distant sea views.

The application site forms one of the medium sized lifestyle blocks that are located on the backdrop hillslopes within this area. These hillslopes are covered in large areas of indigenous bush, with pockets of Pine forest.

The land area that forms the immediate backdrop to the coastal edge of Paroa Bay typically is developed and accommodates varying sized houses, some of substantial size. These are generally quite visible from the foreshore and further out on the water, due to their size, and often white colour and lack of vegetation surrounding them that would otherwise screen them from view (this is illustrated in Viewpoint 3 contained in Appendix 2).

A rural residential cluster of housing is located on smaller lots that are located around the intersection with Paroa Bay Road and Otamarua Road. Within this area there are



pockets of pasture and bush with residential development set upon the hillslopes and ridge tops. The Paroa Bay Winery and restaurant are also located within this area. The vineyard planting of grapes creates a distinctive character to this particular part of the landscape.

4. Visual Impact Assessment

In assessing effects on landscape there is a distinction made between landscape effects (effects on the character and amenity of a landscape, this may not be visible to the general public), and visual effects (the response of a viewing audience, principally from public viewing positions).

These effects are assessed in terms of the degree of change brought about by a development. The degree of landscape and visual effects resulting from a development may be negative (adverse), or positive (beneficial), contributing to the visual character and quality of the environment.

The request for further information by Simeon McLean specifically requires that the potential visual effects of the development are assessed.

Potential visual effects can be generated through visual changes to the landscape as a result of a development. The significance of effects is measured by the visual sensitivity of the landscape and the response of a particular viewing audience.

Visual sensitivity is influenced by a number of factors including visibility, the nature and extent of the viewing audience, whether the proposal is the focal point or part of a wider view, whether the view is transient or permanent and the degree of contrast with the surrounding environment. It is also influenced by the visual qualities of the proposal and the ability to integrate any change within the landscape setting.

The degree of adverse visual effects generated by a proposal also depends upon the character of the surrounding landscape (the context), existing levels of development on the application site, the contour of the land, the presence or absence of screening and/or backdrop vegetation, and the characteristics of the future activities facilitated by the application.

This assessment will establish the potential visibility of the application site and future placement of the dwelling and garage on the site. It will also determine who the potentially effected viewing audiences are and the degree of change brought about by the proposed development of this site, and if there are any potential adverse visual effects associated with this.

Visual Catchment & Viewing Audience

To evaluate the extent of visibility and assess the potential visual impact of the proposed house and garage on the surrounding area a number of viewpoints were chosen that are representative of a range of publicly accessible viewing positions that afford views of the site. Refer to Appendix 2 for the Off Site Viewpoints.

Representative Viewpoints

Viewpoints 1 and 2



HAWTHORN

Landscape Architects

View from the entrance to Paroa Bay Winery and a private driveway off Otamarua Road to a cluster of rural residential houses that are located on western facing hill slopes and ridge tops that look towards the application site.

Existing environment:

The application site is located just over 1km away from these viewing positions that are representative of what residents and visitors to this part of the Paroa Bay area view when looking towards the application site.

The foreground view is made up of Otamarua Road, residential houses and pockets of pasture and the vineyard. This foreground landscape has a natural backdrop of steep to rolling bush-clad hillslopes. From this location there are no sea views.

This area has been widely subdivided over the years and there are a number of lots within the immediate visual catchment that have not been built upon yet. The future built development upon these lots also forms part of the existing environment and context within which the application site is located and viewed.

Potential effects:

The building site on the application site is located over 1km away, which is a fairly long viewing distance. The location of the house site has been indicated on the photos a. On the day of my site visits I was able to pin point the building site location as there was a digger on site and I could just see the yellow machine. The existing shed that is located on the site next to the proposed house site is not visible.

This view will be afforded by the local residents and will be a permanent view for them, with a number of the houses being orientated towards the application site. For visitors to the winery and restaurant the view will be momentary as they pass by.

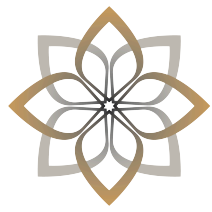
The proposed garage and house will form a very small part of the overall view on offer. The residential nature of the proposed development will be in context with the existing settlement pattern within this area. The proposed structures will be recessively coloured so will blend into the bush setting so that they are not readily visible.

The existing bush surrounding the building site will assist with partially screening the buildings and softening their built form so that they are will be relatively unobtrusive when viewed from this area. The hillslope rises up above the building site, and although the house exceeds the building height restrictions it will not be viewed on a skyline from this area.

Overall the visibility of the proposed structures will be minimal, and the level of change brought about by the proposed development will be small. The viewing audience who has the potential to view the development will still be able to enjoy their current view without any significant change to their enjoyment levels. The level of potential visual effects generated by the development of the garage and dwelling will be very small.

The proposal constitutes only a minor change to the wider view, and awareness of the proposal will not have a marked effect on the overall quality of the scene. The development will result in less than minor adverse visual effects for this viewer group.

Viewpoint 3



View from water to the north of the application site within Paroa Bay, approximately 1.4km away from the site.

Existing environment:

The application site is located approximately 700m inland from the coastal edge of Paroa Bay and is approximately 95m above sea level. The proposed building site is located near the ridgeline as indicated on the photo, and will be located behind the existing stand of Manuka trees that are located to the north of the building site.

The hillslopes that the application site forms a small part of provides the bush-clad backdrop to Paroa Bay. The foreground view is made up of rolling hill slopes that are vegetated in a mix of pasture and pockets of vegetation. The area of flat land behind the foreshore accommodates a number of houses of varying sizes. Some of these are sizable and white which makes them fairly visible from the open water.

This view of the application site is only obtainable from a boat and is transient as the viewer passes by.

Potential effects:

The proposed dwelling and garage will be located close to the ridgeline in the area indicated on the photo. From the water the garage will be obscured from view by the house and also the intervening vegetation located to the north of the garage. The garage is a single story building and will be recessively coloured. It will not be visible from viewing positions to the north of the site or from this water body.

The proposed house is a taller building and will exceed the 8m-height limit for this zone. It will be located just off the ridgeline and behind the existing stand of Manuka trees that are approximately 8-10m tall. This area of vegetation will partially screen the house from view and will break up the roofline and soften the built form. As the gable end of the building will face north, it will only be the apex of the gable that will exceed the 8m height limit. This will result in a relatively small part of the roofline being visible around the top of the canopy line of Manuka, that potentially could be visible.

The long focal length from out on the water will result in the dwelling being viewed as a very small element within the landscape. The use of the recessive earth toned building materials will assist with minimising the presence of the building further. All of these factors result in the proposed development being very visually recessive, to the point where the potential adverse visual effects of the dwelling will be less than minor.

5. Mitigation Measures

To assist with achieving the desired visual integration of the proposed development a number of landscape mitigation measures are recommended and illustrated on the attached Landscape Plan. These include:

- Retention and protection of the existing stand of Manuka trees to the north of the building site from being clear felled. This is necessary to protect this stand of vegetation from being completely removed as it provides vital visual screening of the proposed dwelling from viewing positions to the north. The area beneath the existing tall Manuka trees shall be under planted with fire retardant species, so that they will grow to create a more fire resistant stand of



vegetation. It is recommended that all of this vegetation be protected by a consent notice.

- Planting of tall growing native trees along the western and southern boundaries to provide a backdrop of vegetation to the development when viewed from the north. The planting of these trees will provide a safeguard if the vegetation on the neighbouring properties is ever removed.

6. Conclusion

This visual impact assessment has determined the potential visual effects of the proposed development. The assessment finds that there will be a small degree of change to the existing landscape from the addition of the garage and house into this landscape setting.

The proposed structures will form a small part of the wider landscape scene and due to the long focal lengths involved in viewing the development the structures will not be highly visible. They will be partially screened from view by intervening vegetation and will be visually recessive due to the use of natural earth toned recessively coloured building materials.

The development of a residential dwelling and garage within this landscape will be in context with the current settlement pattern found locally. The surrounding viewing audience to the north and to the east will have distant views of the development. The existing vegetation that surrounds the building site will largely screen the buildings from view.

To ensure that the surrounding vegetation continues to protect the visual amenity and landscape values of the site and surrounding landscape it is recommended to protect the existing vegetation to the north by way of a consent notice.

Yours sincerely

Christine Hawthorn
BLA (Hons.)
Hawthorn Landscape Architects Ltd.

Attachments:

- Appendix 1 – On Site Photographs
- Appendix 2 – Off Site Viewpoints
- Appendix 3 – Landscape Mitigation Plan