Te Kaunihera o Te Hiku o te Ika
Far North District Council

Office Use Only
Application Number:

Application for resource consent or fast-track resource consent

(Or Associated Consent Pursuant to the Resource Management Act 1991 (RMA)) (If applying for a Resource Consent pursuant to Section 87AAC or 88 of the RMA, this form can be used to satisfy the requirements of Schedule 4). Prior to, and during, completion of this application form, please refer to Resource Consent Guidance Notes and Schedule of Fees and Charges — both available on the Council's web page.

1. Pre-Lodgement Meeting

Have you met with a council Resource Consent representative to discuss this application prior to lodgement? ◯ **Yes** ✔ **No**

2. Type of Consent being applied for

(more than one circle can be ticked):

- ✔ **Land Use**
- ◯ **Fast Track Land Use***
- ◯ **Subdivision**
- ◯ **Consent under National Environmental Standard** (e.g. Assessing and Managing Contaminants in Soil)
- ◯ **Discharge**
- ◯ **Change of Consent Notice (s.221(3))**
- ◯ **Extension of time (s.125)**
- ● **Other (please specify)** _____

The fast track is for simple land use consents and is restricted to consents with a controlled activity status.

3. Would you like to opt out of the Fast Track Process?

✔ **Yes** ◯ **No**

4. Consultation

Have you consulted with Iwi/Hapū? ◯ **Yes** ✔ **No**

If yes, which groups have you consulted with?

Who else have you consulted with?

*For any questions or information regarding iwi/hapū consultation, please contact Te Hono at Far North District Council **tehonosupport@fndc.govt.nz***

5. Applicant Details

Name/s: Jodi Sosich

Email:

Phone number: Work | Home

Postal address:
(or alternative method of service under section 352 of the act)

Postcode

6. Address for Correspondence

Name and address for service and correspondence (if using an Agent write their details here)

Name/s: Donaldsons Surveyors

Email:

Phone number:

Postal address:
(or alternative method of service under section 352 of the act)

All correspondence will be sent by email in the first instance. Please advise us if you would prefer an alternative means of communication.

7. Details of Property Owner/s and Occupier/s

Name and Address of the Owner/Occupiers of the land to which this application relates (where there are multiple owners or occupiers please list on a separate sheet if required)

Name/s: Jodi Sosich

Property Address/ Location:

Postcode

8. Application Site Details

Location and/or property street address of the proposed activity:

Name/s: Jodi Sosich

Site Address/ Location: 463B WIROA ROAD KERIKERI

Postcode

Legal Description: Lot 1 DP 515337 **Val Number:**

Certificate of title: RT 801466

Please remember to attach a copy of your Certificate of Title to the application, along with relevant consent notices and/or easements and encumbrances (search copy must be less than 6 months old)

Site visit requirements:

Is there a locked gate or security system restricting access by Council staff? ◯ **Yes** ✔ **No**

Is there a dog on the property? ◯ **Yes** ✔ **No**

Please provide details of any other entry restrictions that Council staff should be aware of, e.g. health and safety, caretaker's details. This is important to avoid a wasted trip and having to re-arrange a second visit.

9. Description of the Proposal:

Please enter a brief description of the proposal here. Please refer to Chapter 4 of the District Plan, and Guidance Notes, for further details of information requirements.

Proposed Minor Residential Units

If this is an application for a Change or Cancellation of Consent Notice conditions (s.221(3)), please quote relevant existing Resource Consents and Consent Notice identifiers and provide details of the change(s), with reasons for requesting them.

10. Would you like to request Public Notification?

◯ **Yes** ✔ **No**

11. Other Consent required/being applied for under different legislation

(more than one circle can be ticked):

- ◯ **Building Consent** Enter BC ref # here (if known)
- ◯ **Regional Council Consent (ref # if known)** Ref # here (if known)
- ◯ **National Environmental Standard consent** Consent here (if known)
- ✔ **Other (please specify)** COA-2025-83/0here

12. National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health:

The site and proposal may be subject to the above NES. In order to determine whether regard needs to be had to the NES please answer the following:

Is the piece of land currently being used or has it historically ever been used for an activity or industry on the Hazardous Industries and Activities List (HAIL) ◯ **Yes** ✔ **No** ◯ **Don't know**

Is the proposed activity an activity covered by the NES? Please tick if any of the following apply to your proposal, as the NESCS may apply as a result. ✔ **Yes** ◯ **No** ◯ **Don't know**

- ◯ **Subdividing land**
- ✔ **Changing the use of a piece of land**
- ◯ **Disturbing, removing or sampling soil**
- ◯ **Removing or replacing a fuel storage system**

13. Assessment of Environmental Effects:

Every application for resource consent must be accompanied by an Assessment of Environmental Effects (AEE). This is a requirement of Schedule 4 of the Resource Management Act 1991 and an application can be rejected if an adequate AEE is not provided. The information in an AEE must be specified in sufficient detail to satisfy the purpose for which it is required. Your AEE may include additional information such as Written Approvals from adjoining property owners, or affected parties.

Your AEE is attached to this application ✔ **Yes**

13. Draft Conditions:

Do you wish to see the draft conditions prior to the release of the resource consent decision? ● **Yes** ◯ **No**

If yes, do you agree to extend the processing timeframe pursuant to Section 37 of the Resource Management Act by 5 working days? ✔ **Yes** ◯ **No**

14. Billing Details:

This identifies the person or entity that will be responsible for paying any invoices or receiving any refunds associated with processing this resource consent. Please also refer to Council's Fees and Charges Schedule.

Name/s: (please write in full) Donaldsons Surveyors Ltd

Email: ir

Phone number: V

Postal address:
(or alternative method of service under section 352 of the act)

Fees Information
An instalment fee for processing this application is payable at the time of lodgement and must accompany your application in order for it to be lodged. Please note that if the instalment fee is insufficient to cover the actual and reasonable costs of work undertaken to process the application you will be required to pay any additional costs. Invoiced amounts are payable by the 20th of the month following invoice date. You may also be required to make additional payments if your application requires notification.

Declaration concerning Payment of Fees
I/we understand that the Council may charge me/us for all costs actually and reasonably incurred in processing this application. Subject to my/our rights under Sections 357B and 358 of the RMA, to object to any costs, I/we undertake to pay all and future processing costs incurred by the Council. Without limiting the Far North District Council's legal rights if any steps (including the use of debt collection agencies) are necessary to recover unpaid processing costs I/we agree to pay all costs of recovering those processing costs. If this application is made on behalf of a trust (private or family), a society (incorporated or unincorporated) or a company in signing this application I/we are binding the trust, society or company to pay all the above costs and guaranteeing to pay all the above costs in my/our personal capacity.

Name: (please write in full) Micah Donaldson

Signature:
(signature of bill payer

Date 26-May-2026

MANDATORY

15. Important Information:

Note to applicant
You must include all information required by this form. The information must be specified in sufficient detail to satisfy the purpose for which it is required.
You may apply for 2 or more resource consents that are needed for the same activity on the same form.
You must pay the charge payable to the consent authority for the resource consent application under the Resource Management Act 1991.

Fast-track application
Under the fast-track resource consent process, notice of the decision must be given within 10 working days after the date the application was first lodged with the authority, unless the applicant opts out of that process at the time of lodgement. A fast-track application may cease to be a fast-track application under section 87AAC(2) of the RMA.

Privacy Information:
Once this application is lodged with the Council it becomes public information. Please advise Council if there is sensitive information in the proposal. The information you have provided on this form is required so that your application for consent pursuant to the Resource Management Act 1991 can be processed under that Act. The information will be stored on a public register and held by the Far North District Council. The details of your application may also be made available to the public on the Council's website, www.fndc.govt.nz. These details are collected to inform the general public and community groups about all consents which have been issued through the Far North District Council.

15. Important information continued...

Declaration

The information I have supplied with this application is true and complete to the best of my knowledge.

Name: **(please write in full)** Micah Donaldson

Signature: MD **Date** 26-May-2026

A signature is not required if the application is made by electronic means

Checklist (please tick if information is provided)

- [x] Payment (cheques payable to Far North District Council)
- [x] A current Certificate of Title (Search Copy not more than 6 months old)
- [ ] Details of your consultation with Iwi and hapū
- [x] Copies of any listed encumbrances, easements and/or consent notices relevant to the application
- [x] Applicant / Agent / Property Owner / Bill Payer details provided
- [x] Location of property and description of proposal
- [x] Assessment of Environmental Effects
- [ ] Written Approvals / correspondence from consulted parties
- [x] Reports from technical experts (if required)
- [ ] Copies of other relevant consents associated with this application
- [x] Location and Site plans (land use) AND/OR
- [ ] Location and Scheme Plan (subdivision)
- [x] Elevations / Floor plans
- [x] Topographical / contour plans

Please refer to Chapter 4 of the District Plan for details of the information that must be provided with an application. Please also refer to the RC Checklist available on the Council's website. This contains more helpful hints as to what information needs to be shown on plans.

Donaldson's Surveyors Limited

90 Kerikeri Road - PO Box 211
Kerikeri 0245 - Northland - New Zealand

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DONALDSONS
REGISTERED LAND SURVEYORS

8735
26 May 2026

Planning Division
Far North District Council
Private Bag 752
Kaikohe

Dear Sir/Madam

PROPOSED LAND USE
JODI SOSICH, 463B WIROA ROAD, KERIKERI

We submit herewith a Resource Consent application together with the following:

- - Application Form & Deposit $2625
- - Planning Report
- - Record of Title
- - Wastewater Assessment
- - Stormwater Management Assessment
- - Land Use Plan
- - Building Plans

Yours faithfully

Micah Donaldson
Assoc.NZPl

DONALDSONS
Registered Land / Engineering Surveyors and Development Planners

NZIS REGISTERED PROFESSIONAL SURVEYOR

CSNZ THE CONSULTING SURVEYORS OF NEW ZEALAND
A DIVISION OF THE NEW ZEALAND INSTITUTE OF SURVEYORS

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DONALDSONS
REGISTERED LAND SURVEYORS

PLANNING REPORT

PROPOSED LAND USE ACTIVITY

MINOR RESIDENTIAL UNITS

JODI SOSICH, 463B WIROA ROAD, KERIKERI

Date: 26 May 2026 Reference: 8735

CSNZ THE CONSULTING SURVEYORS OF NEW ZEALAND
A DIVISION OF THE NEW ZEALAND INSTITUTE OF SURVEYORS

NZIS Registered Professional Surveyor.
Member of the Consulting Surveyors of New Zealand.

CONTENTS

INTRODUCTION

The applicant seeks resource consent for one additional minor residential unit on Lot 1 DP 515337, located at 463B Wiroa Road, Kerikeri. The site has an area of approximately 2.15 hectares, including a one-half share in the common access lot described as Lot 4 DP 515337.

The proposal seeks to formalise and legalise two existing detached buildings on the property, both of which are considered to uphold Section 139 of the Resource Management Act 1991 (Permitted Use), and to obtain land use consent for one additional minor residential unit (a total of 3 independent habitable buildings).

The two existing buildings were established on the site prior to the introduction of the National Environmental Standards for Detached Minor Residential Units (NES-DMRU) and therefore did not comply with the operative planning framework.

The current application seeks to regularise the existing arrangement for the existing two buildings, and to extend the land use rights to include a third detached building of similar form, also deemed a minor residential unit having a gross floor area of just 36m^2.

The proposal does not meet the relevant standards for Controlled, Restricted Discretionary, or Discretionary Activity status within the Rural Production Zone and is therefore assessed as a **low impact Non complying Activity** failing to comply with Rule 8.6.5.4.1 Residential Intensity, of the Far North District Plan. Notwithstanding this activity status, the proposal is considered to result in effects on the environment that are **less than minor**.

For the purposes of this planning assessment, the proposed building has been referred to as a "Minor Residential Unit". However, this terminology may not represent the technically correct classification, and Council may apply its own interpretation as to the appropriate planning definition of the structure.

SITE DESCRIPTION

The property's legal reference:

Appellation:	Lot 1 DP-515337
	Lot 4 DP 515337 (common access 1/2 share)
Registered Owner:	A. K Carey & J. V. Sosich
Record of Title:	801466
Total Area:	2.0832ha

The site is located at 463B Wiroa Road, Kerikeri.

The title includes:

Consent Notice 12100552.2

Requires all stormwater from the common access lot to be directed into the detention basin. Satisfied under COA-2025-83/0.
Requires Stormwater from future buildings to be directed to the existing detention basin. Satisfied under COA-2025-83/0.
Requires fire fighting water supply. Satisfied under COA-2025-83/0.
Kiwi zone requires dogs and cats to be keep indoors at night.

Restrictive Covenant 12100552.4 :

That the subject site acknowledges this is a rural environment and shall not oppose normal rural activities.

The property is developed as an established lifestyle block containing mature trees, landscaped gardens, and areas of maintained open space. A natural gully feature traverses the lower portion of the site and contains a wetland area. An existing stormwater detention and treatment device is located within an upper tributary of the gully system and provides pre-treatment for runoff generated from the site's impermeable surfaces including all of the stormwater from the shared common access lot.
According to the underlying subdivision approval RC 2170380, this was designed to accommodate 47m^3 for detention.

There are currently two existing buildings / units located on the property. These units are connected to a shared on-site wastewater disposal system authorised under Certificate of Acceptance COA:2025-83.

To find common ground with the zone rules the buildings will be classified as described following

Building 1 = Existing Principal Residential Unit with an area of 100m^2 (Permitted)
Building 2 = Existing Minor Residential Unit with an area of 36m^2 (Permitted)
Building 3 = Proposed Minor Residential Unit with an area of 36m^2 (Non-Complying)

Due to the modest scale of the existing buildings, sufficient space remains available on the property for the 3rd building and its platform is approximately 46 metres from the principal residential dwelling. The cumulative built form of all three units remains comparable to, or less than, that of a typical rural dwelling, representing an efficient and low-intensity use of the site. In practical terms, the arrangement is on a quid pro quo basis, as it functions similarly to a single larger family residence with separate and independent living wings accommodating extended family members.

The principal dwelling is occupied by the applicants, the existing minor residential unit is occupied by the applicant's mother, and the proposed minor residential unit is intended to accommodate the applicant's daughter. Accordingly, the proposal reflects a genuine multi-generational living arrangement rather than an intensified residential development of the site.

Vehicle access and parking areas servicing both the existing and proposed buildings are already established.
Access to the property is provided via a shared right-of-way arrangement serving both Lot 1 and adjoining Lot 2 DP 515337. The accessway is formed to a width of approximately 3 metres, metalled, and maintained in good condition. The vehicle crossing onto Wiroa Road is double-width and sealed, incorporating a mountable culvert headwall. Sight distances were approved under the original subdivision approval RC 2170380 without concern.

The proposed minor residential unit will have an approximate gross floor area of 36m^2 and is proposed to be located approximately 46 metres south of the principal dwelling on a gently sloping grassed terrace.

The site soils are identified as Okaihau Gravelly Friable Clay (OK), with a Land Use Capability classification of 4e2. These soils are not classified as highly productive land within the meaning of the National Policy Statement for Highly Productive Land, as they do not fall within Land Use Capability Classes 1–3. The site is also not identified as having a history of orchard or horticultural production activities to be compromised by the NES Assessing & managing Contaminants in Soil to Protect Human Health.

Existing Minor Residential Unit

Existing Principal Residential Unit centre of photo

FAR NORTH DISTRICT PLAN

The property is located in the Rural Production zone under the provisions of the Far North District Plan and is not located within any outstanding landscape.

PERMITTED LAND USE ACTIVITY

8.6.5.1.1 RESIDENTIAL INTENSITY

Residential development shall be limited to one unit per 12ha of land. In all cases the land shall be developed in such a way that each unit shall have at least 3,000m² for its exclusive use surrounding the unit plus a minimum of 11.7ha elsewhere on the property.

Except that this rule shall not limit the use of an existing site, or a site created pursuant to ***Rule 13.7.2.1 (Table 13.7.2.1)*** *for a single residential unit for a single household, provided that all other standards for permitted activities are complied with.*

The site exists and was created under rule 13.7.2.1, therefore the principal residential unit is permitted. This is defined by the existing 100m² building.

The existing 36m² building defines a minor residential unit and does not fall under this rule.

The proposed 36m² building is more appropriately characterised as a Minor Residential Unit due to its inherently compact form and, as such, does not comply with this rule. However, this assessment should be read in the context that a structure of the same scale and appearance could otherwise be established as a permitted sleepout, provided it did not contain kitchen or laundry facilities. Accordingly, the resulting environmental effects associated with the proposal are, in practical terms, comparable to those anticipated under the permitted activity framework.

8.6.5.1.2 SUNLIGHT

No part of any building shall project beyond a 45 degree recession plane as measured inwards from any point 2m vertically above ground level on any site boundary (refer to definition of Recession Plane in ***Chapter 3 - Definitions****), except where a site boundary adjoins a legally established entrance strip, private way, access lot, or access way serving a rear site, the measurement shall be taken from the farthest boundary of the entrance strip, private way, access lot, or access way.*

All buildings easily comply without concern being set back more than 10m from the side boundary.

8.6.5.1.3 STORMWATER MANAGEMENT

The maximum proportion of the gross site area covered by buildings and other impermeable surfaces shall be 15%.

Site area (1/2 share common access 7295m² + Lot 1 2.0832ha) = 2.1561ha
The total site cover including buildings, parking and access formation calculates:
Existing & Proposed Buildings 172m²
Access / parking 1820 m².
½ share access impermeable area 348m².
(Total imp = 2340m²)
Percentage cover: **10.8%**

The site complies.

8.6.5.1.4 Setback from Boundaries

"No building shall be erected within 10 metres of any site boundary."
The proposal complies with this standard, with all existing and proposed buildings located in excess of 10 metres from site boundaries.
The closest point from the boundary is 12m, affected the Existing Minor Residential Unit.

Setback from Wetlands – National Environmental Standards for Freshwater 2020 (Version 2026).

Regulation 54(b) of the NES-Freshwater identifies earthworks within, or within 10 metres of, an inland wetland as a Non-Complying Activity.

Existing farm tracks on the property have been recently upgraded in areas adjacent to the wetland margin where there is an historic crossing. These works are considered to constitute maintenance and upgrading of existing accessways and are not considered inconsistent with the intent of the NES-Freshwater provisions.

In relation to the existing and proposed buildings and associated access areas, while portions of the development are located within 100 metres of the wetland, all impermeable surface runoff is directed to existing stormwater management infrastructure incorporating on-site detention and treatment within an engineered ground basin prior to discharge.

This system is identified on the attached land use plan, and provides appropriate management of stormwater effects and maintains the hydrological integrity of the wetland environment in accordance with the underlying stormwater report prepared by Haigh/Workman, as attached.

The proposed minor residential unit itself is located greater than 10 metres from the wetland boundary, however its position is also within 100m of the wetland, and consequently to mitigate those effects, stormwater outflow from the water tank is to be directed into the detention basin.

Accordingly, the proposal complies with the relevant provisions of the National Environmental Standards for Freshwater 2020 as a permitted activity.

12.4.6.1.2 FIRE RISK TO RESIDENTIAL UNITS

(a) Residential units shall be located at least 20m away from the drip line of any trees in a naturally occurring or deliberately planted area of scrub or shrubland, woodlot or forest;

The proposed building is located more than 20m from any bush or woodlot, and therefore complies.

8.6.5.1.5 TRAFFIC INTENSITY

15.1.6A TRAFFIC

*The Traffic Intensity Factor for a site in this zone is **60 daily one way movements**, unless the site gains access off a State Highway administered by the New Zealand Transport Agency, in which case the Traffic Intensity Factor is 30 daily one way movements.*

A single residential unit contributes 10 one-way traffic movements, and a minor residential unit shall be seen to contribute the same or similar number of traffic movements. Therefore the proposal contributes a potential for 30-oneway movements, and this complies with the permitted 60 movement allowance.

Exemptions: The first residential unit on a site, farming, forestry and construction traffic (associated with the establishment of an activity) are exempt from this rule.

Traffic using the shared access (Lot 4 DP 515337) are Lots 1 & 2 DP 515337, and both existing principal residential units are **exempt** from the calculation, leaving only the moments from the two minor residential units.

15.1.6B.1.1 ON-SITE CAR PARKING SPACES

Where:

(i) an activity establishes; or

(ii) the nature of an activity changes; or

(ii) buildings are altered to increase the number of persons provided for on the site;

Both the existing minor residential unit and principal residential unit, both have independent carparks suitable for 2 vehicles, that comply with size and manoeuvring requirements 12m x 6m.
The proposed minor residential unit also complies as detailed on the land use plan.

15.1.6B.1.4 ACCESSIBLE CAR PARKING SPACES

Accessible carparks are not a requirement.

15.1.6C.1.1 PRIVATE ACCESSWAY IN ALL ZONES
Appendix 3B-1 requires a legal boundary width of 7.5m, and carriageway width of 3m with passing bay at 100m intervals or on blind corners.

The legal width of the access is 8m, defined as the common access lot (Lot 4 DP 515337), having metalled carriageway width of 3m.
The access accordingly complies with Appendix 3B-1.

15.1.6C.1.5 VEHICLE CROSSING STANDARDS IN RURAL AND COASTAL ZONES
The entrance onto Wiroa Road is in good condition and with mountable culvert headwall on the primary turning side.

The entrance was recently approved as a double width sealed formation, under resource consent assessment RC 2170380, and therefore should not require any further assessment. The current Engineering Standards and Guidelines May 2023 allow for a smaller profile entrance than those set under the earlier standards.

15.1.6C.1.7 GENERAL ACCESS STANDARDS
There is no requirement for any vehicles to reverse off site.
All corners have radius that exceed 15m, suitable for heavy rigid vehicles.
Berms are vegetated and stormwater flows to defined watercourse subject to detention.

The access upholds existing use rights and is adequate for the proposed land use.

8.6.5.1.6 KEEPING OF ANIMALS
Not applicable.

8.6.5.1.7 NOISE
No concern.

8.6.5.1.8 BUILDING HEIGHT
The maximum height of any building shall be 12m.

No concern all buildings are single storied and compact.
The maximum height from floor to roof is 2.8m.

8.6.5.1.9 HELICOPTER LANDING AREA
Not applicable.

8.6.5.1.10 BUILDING COVERAGE
Any new building or alteration/addition to an existing building is a permitted activity if the total Building Coverage of a site does not exceed 12.5% of the gross site area.

The total building coverage is 172m² approximately 0.8% and therefore complies.

8.6.5.1.11 SCALE OF ACTIVITIES
Not applicable.
All buildings are for family use and therefore no separate business activity associated with this land use activity.

8.6.5.1.12 TEMPORARY EVENTS
Not applicable.

CONTROLLED ACTIVITIES

8.6.5.2.3 MINOR RESIDENTIAL UNIT
Minor residential units are a controlled activity in the zone provided that:
(a) there is no more than one minor residential unit per site;

There would be two minor residential unit on the site. **Does not comply**

(b) the site has a minimum net site area of 5000m²

The net site area exceeds 5000m² . **Complies.**
(c) the minor residential unit shares vehicle access with the principal dwelling;

Access is currently in place and would be shared with the principal dwelling. **Complies.**

(d) the separation distance of the minor residential unit is no greater than 35m from the principal dwelling.

The separation distance from the principal unit includes:
Existing Minor Residential Unit = 32m
Proposed Minor Residential Unit = 46m
The separation distances **do not comply**.

Definition: Minor Residential unit is contained in Chapter 3 and reads as follows**:**
*(i) is not more than **65m²** GFA, plus an attached garage or carport with GFA not exceeding **18m²** (for the purpose of vehicle storage, general storage and laundry facilities). The garage area shall not be used for living accommodation*;

The minor residential units are both made up of:
- internal floor area of **36m²**

The minor residential units both **comply** with the definition.

GROSS FLOOR AREA
The area includes all floors of all buildings on the site, and includes:
(d) floor space in terraces (open or roofed), external balconies, breezeways or porches if more than 50% of the perimeter is enclosed, except that a parapet not higher than 1.2m or a railing not less than 50% open and not higher than 1.4m shall not constitute an enclosure. (A 'breezeway' is a roofed outdoor area);

Deck areas are not more than 50% enclosed and therefore does not meet the definition of Gross Floor Area.

(ii) is subsidiary to the principal dwelling on the site;

The minor residential units will appear subsidiary to the proposed principal residential unit, and in fact function as a larger single dwelling would.

(iii) is located and retained within the same Certificate of Title as the principal dwelling on the site.

All buildings are contained on the same title.

Controlled Activity Assessment

In considering an application under this provision, the Council will restrict the exercise of its control to the following matters:

The proposal does not accord with the Controlled Activity Standards, and instead will be assessed under the Non Complying rules set out under Chapter 11 described below.

OBJECTIVES & POLICIES

RURAL ENVIRONMENT
OBJECTIVES

8.3.2
To ensure that the life supporting capacity of soils is not compromised by inappropriate subdivision, use or development.

The property is used as a lifestyle lot absent of any production base, instead it certainly lends itself to residential activity. Very little soil needs to be disturbed to complete the activity, and all soil would remain onsite for landscaping purposes, maintaining overall the soils onsite life supporting capacity.

8.3.10
To enable the activities compatible with the amenity values of rural areas and rural production activities to establish in the rural environment.

The subject property and those surrounding are all lifestyle / rural residential based, such that the additional building does not detract from the existing theme, or introduce any new out of character activity. Wiroa Road is a very diverse environment with many non-rural style activities nearby, such Bay of Islands Airport, Marsden Estate Winery and Restaurant, Town and Country Motorcycles, Manuka Mountain Honey, tyre services, construction yard, cartage and Happy Cat Boarding Lodge. There are also a number of home occupations including hair and beauty, refrigeration, car detailing, backpackers, and B+B accommodation.
Although these activities are well separated from the application site, with no influence effects, this demonstrates the activity is certainly not contrary to the intent of Policy 8.3.10.

POLICIES
8.4.1
That activities which will contribute to the sustainable management of the natural and physical resources of the rural environment are enabled to locate in that environment.

The vicinity has a definite theme of residential / lifestyle activity, and residential use forms a sustainable use of the land, any typical rural activity would likely detract from this rural residential environment.

8.4.2
That activities be allowed to establish within the rural environment to the extent that any adverse effects of these activities are able to be avoided, remedied or mitigated and as a result the life supporting capacity of soils and ecosystems is safeguarded and rural productive activities are able to continue.

All effects are deemed low impact and compatible. The site is well established and sufficiently large enough to absorb the effects from the proposed land use. Consequently, there is no implied need to enforce any mitigation under consent conditions.

RURAL PRODUCTION ZONE
OBJECTIVES
8.6.3.2
To enable the efficient use and development of the Rural Production Zone in a way that enables people and communities to provide for their social, economic, and cultural well being and for their health and safety.

8.6.3.3
To promote the maintenance and enhancement of the amenity values of the Rural Production Zone to a level that is consistent with the productive intent of the zone.

POLICIES
8.6.4.1
That the Rural Production Zone enables farming and rural production activities, as well as a wide range of activities, subject to the need to ensure that any adverse effects on the environment, including any reverse sensitivity effects, resulting from these activities are avoided, remedied or mitigated and are not to the detriment of rural productivity.

8.6.4.7
That although a wide range of activities that promote rural productivity are appropriate in the Rural Production Zone, an underlying goal is to avoid the actual and potential adverse effects of conflicting land use activities.

The objectives and policies support the land use activity environment. The proposal is considered to promote the nature of this rural environment, without cause to any adversity on rural production activity.

The proposal finds no disconnect with the objectives and policies and certainly is not repugnant to their intent.

Chapter 11 Assessment

11.1 RESIDENTIAL INTENSITY (INCLUDING MINOR RESIDENTIAL UNITS) AND SCALE OF ACTIVITIES

(a) The character and appearance of building(s) and the extent to which the effects they generate can be avoided, remedied or mitigated, consistent with the principal activity on the site and with other buildings in the surrounding area.

The building is a compact 36m² structure with low roof profile.
In comparison to a rural shed structure, something that is currently permitted on this site, the visual impact comparatively is negligible.
The impact in this regard in less than minor.

(b) The siting of the building(s), decks and outdoor areas relative to adjacent properties and the road frontage, in order to avoid visual domination and loss of privacy and sunlight.

The site of the second Minor Residential Unit is within the lower lying extent or the property where there are no immediate onlooking neighbours.
The impact in this regard in less than minor.

(c) The size, location and design of open space and the extent to which trees and garden plantings are utilised for mitigating adverse effects.

As shown in the site photos the property has expansive lawn areas, landscape planting and feature trees. There continues to be ample open space. No concern.
The impact in this regard in less than minor.

(d) The ability of the immediate environment to cope with the effects of increased vehicular and pedestrian traffic.

The increase in traffic movements continues to uphold the permitted entitlements of 60 one way movements therefore no concern.
The impact in this regard in less than minor.

(e) The location and design of vehicular and pedestrian access, on site vehicle manoeuvring and parking areas and the ability of those to mitigate the adverse effects of additional traffic.

The site has good access along an easy grade. There is ample area for parking as already constructed and shown on the land use site plan.
The impact in this regard in less than minor.

(f) Location in respect of the roading hierarchy – the activity should be assessed with regard to an appropriate balance between providing access and the function of the road.

There is no known adverse effects on the road network.
The impact in this regard in less than minor.

(g) The extent to which hours of operation are appropriate in terms of the surrounding environment.

This is a family situation for a residential based activity.
The Principal Residential Unit is for the applicant.
The Existing Minor Residential Unit is for the elderly Mother.
The Proposed Minor Residential Unit is for the applicants daughter.
There are no effects greater than a normal single residential family home activity. The impact in this regard in less than minor.

(*h) Noise generation and the extent to which reduction measures are used.*

No concern.

(i) Any servicing requirements and/or constraints of the site – whether the site has adequate water supply and provision for disposal of waste products and stormwater.

The site is substantially self-sufficient in relation to servicing infrastructure and is capable of accommodating the proposed development without imposing additional demand on public infrastructure networks.

Wastewater from the existing and proposed minor residential units is managed via a shared on-site treatment and disposal system. In terms of occupancy and loading, the anticipated demand is comparable to that of a conventional four-bedroom family dwelling and remains within the functional capacity of the approved system.

Electricity supply to the site is primarily provided through an on-site solar power system, while telecommunications and internet services are obtained through cellular networks.

Potable water is supplied through roof water collection and storage tanks, consistent with typical rural residential development within the locality.

Stormwater generated from impermeable surfaces is directed to existing ground-based detention and treatment basins located within the site's natural gully system. This

infrastructure provides appropriate attenuation and management of runoff prior to discharge.

Overall, the site is suitably serviced, with no identified infrastructure constraints arising from the proposal. Accordingly, the associated effects are considered to be less than minor.

(j) Whether the development is designed in a way that avoids, remedies or mitigates any adverse effects of stormwater discharge from the site into reticulated stormwater systems and/or natural water bodies.

All impermeable surfaces associated with the development are directed to the existing on-site stormwater detention system, which is designed to attenuate and manage runoff generated from the additional impermeable area. As a result, the proposal appropriately mitigates potential stormwater effects, and any associated impacts are considered to be less than minor.

(*k) The ability to provide adequate opportunity for landscaping and buildings and for all outdoor activities associated with the residential unit(s) permitted on the site*.

As demonstrated in the site photographs, the property retains substantial open space for landscaping, amenity planting, and outdoor living activities. The proposed development will not materially reduce the availability or functionality of these areas, and accordingly the effects in this regard are considered to be less than minor.

(l) The degree to which mitigation measures are proposed for loss of open space and vegetation.

Given the site area exceeds 2 hectares, there is no concern regarding the availability of open space or site amenity. The applicants have already established substantial landscaping, planting, and ongoing site maintenance across extensive areas of the property, reinforcing the rural-residential character and overall amenity values of the site. Accordingly, the effects in this regard are considered to be less than minor.

(m) Any adverse effects on the life supporting capacity of soils.
The site comprises Class 4 soils, which are not identified as highly productive land. Any soil disturbance associated with the proposal will remain on-site and be reused for landscaping, planting, and small-scale home produce activities. Accordingly, the proposal will not compromise the productive potential of the land, and the effects in this regard are considered to be less than minor.

(*n) The extent of visual and aural privacy between residential units on the site and their associated outdoor spaces.*

The proposed building separation exceeds the standard 36-metre allowance under the relevant rule. This increased separation is considered appropriate and desirable in this instance, as it provides enhanced privacy and amenity between the units while also enabling the buildings to be located on the most practical and suitable building platforms available on the site. Accordingly, the effects arising from this non-compliance are considered to be less than minor.

(o) Visual effects of site layout on the natural character of the coastal environment.
Not applicable.
The impact in this regard in less than minor.
(*p) The effect on indigenous vegetation and habitats of indigenous fauna.*
The proposal will not result in the removal of significant vegetation or adverse effects on existing landscape features. Stormwater runoff generated from impermeable surfaces is appropriately managed through existing on-site detention infrastructure, which provides attenuation and treatment prior to discharge. Accordingly, the effects in this regard are considered to be less than minor.

(q) The extent to which the activity may cause or exacerbate natural hazards or may be adversely affected by natural hazards, and therefore increase the risk to life, property and the environment.

There are no known natural hazards affecting this site.

(r) Proximity to rural production activities and potential for incompatible and reverse sensitivity effects.

There are no significant rural production activities located in the immediate vicinity of the site that would give rise to reverse sensitivity concerns. The proposal is therefore not expected to compromise the operation of surrounding rural land uses or generate land use conflict. Accordingly, the effects in this regard are considered to be less than minor.

(*s) When establishing a minor residential unit*
(i) the extent of the separation between it and the principal dwelling;

The existing Minor Residential Unit is located approximately 32 metres from the Principal Residential Unit, while the proposed Minor Residential Unit will be positioned approximately 46 metres from the Principal Residential Unit.

These separation distances are appropriate in the context of the site's natural topography and established development pattern, providing adequate privacy and residential amenity between the dwellings. The proposed arrangement is also consistent with the general spatial outcomes and setback expectations anticipated under the National Environmental Standards for Minor Residential Units Regulations 2025.

(ii) the degree to which the design is compatible with the principal dwelling;

All buildings on the site are compatible in scale, form, and appearance, collectively presenting as a cohesive arrangement of compact residential structures or modules. This development pattern is reinforced by the design of the Principal Residential Unit itself, which comprises three independent modules linked together to form a single dwelling. The proposed Minor Residential Unit is therefore consistent with the established built character and architectural form present on the site.

(iii) the extent that services can be shared;

No concerns are identified in this regard, as the existing servicing infrastructure is shared between the dwellings and has sufficient capacity to accommodate the additional Minor Residential Unit. The proposed unit integrates efficiently into the overall site configuration and servicing arrangement without generating adverse effects.

(iv) the extent that the floor plan is fit for purpose;

The existing Minor Residential Unit has proven to function effectively for the accommodation needs of the applicant's family members, demonstrating that the compact design and layout are practical, efficient, and well suited to the intended residential use.
The proposal to replicate a similar floor plan for the additional Minor Residential Unit represents a logical and appropriate solution for accommodating another family member within the established multi-generational living arrangement on the site. This approach is considered both practical and economically efficient when compared with constructing a substantially larger dwelling intended to accommodate all family members within a single structure.
The proposed layout therefore provides a fit-for-purpose residential outcome that appropriately responds to the occupants' needs while maintaining a low-intensity built form consistent with the rural-residential character of the property.

(v) the extent to which landscaping is utilised to mitigate adverse effects;
Landscaping forms a significant component of the overall site design and is extensively utilised to mitigate potential adverse effects associated with the proposal. The property is already well established with mature specimen trees, planted gardens, maintained grassed areas, and natural vegetation associated with the onsite gully and wetland system.

(*vi) the design of the building in regard to how easily it may be removed from a site should circumstances change*.

The proposed Minor Residential Unit is modest in scale, with a gross floor area of approximately 36m^2, and is designed as a compact standalone structure. The building utilises a lightweight construction methodology typical of relocatable or modular-style dwellings, enabling relatively straightforward removal from the site should circumstances change in the future.

(t) With respect to access to a State Highway (SH) that is a Limited Access Road, the effects on the safety and/or efficiency on any SH and its connections to the local roading network and the provision of written approval from the NZ Transport Agency.

Not applicable.

RESOURCE MANAGEMENT (National Environmental Standards for Detached Minor Residential Units) Regulations 2025

The Resource Management (National Environmental Standards for Detached Minor Residential Units) Regulations 2025 ("NES-DMRU") came into force on 15 January 2026 and introduced a nationally consistent permitted activity framework for detached minor residential units ("DMRUs"), commonly referred to as granny flats.

Under the NES-DMRU, one detached minor residential unit per site is **permitted** within rural, residential, mixed use, and Māori purpose zones, provided the development complies with the applicable standards. These standards generally include:

- a maximum gross floor area of 70m^2;
- compliance with district plan building coverage requirements;

- setbacks from boundaries; and
- minimum separation distances from other residential buildings.

In the context of the current application, the site contains:

- one existing Principal Residential Unit;
- one existing Minor Residential Unit; and
- one proposed Minor Residential Unit.

Both the existing and proposed Minor Residential Units are less than 70m² in area, are detached from the Principal Residential Unit, maintain generous separation distances, and are serviced appropriately through shared on-site infrastructure. The overall arrangement remains low intensity in nature and is consistent with the underlying intent of the NES-DMRU, being to facilitate small-scale detached accommodation and multi-generational living arrangements.

The existing Minor Residential Unit and the proposed Minor Residential Unit therefore align well with the general design outcomes and performance expectations contemplated by the NES-DMRU framework, including:

- compact building form and scale;
- maintenance of substantial open space;
- compatibility with rural-residential character;
- efficient use of shared infrastructure and services; and
- provision for extended family accommodation.

However, while the proposal aligns with the intent and physical outcomes anticipated by the NES-DMRU, the proposal does not qualify as a permitted activity under the NES because the regulations permit only **one** detached minor residential unit per site as a permitted activity.

Accordingly:

- the existing Principal Residential Unit is not captured by the NES-DMRU framework, as it is the site's primary dwelling - permitted activity;
- the existing Minor Residential Unit constitutes the first detached minor residential unit on the site, and complies as a permitted activity with the NES detached minor residential unit; and
- the proposed Minor Residential Unit represents a second detached minor residential unit, thereby exceeding the NES permitted activity threshold.

In this instance, the proposal is appropriately assessed as a Non-Complying Activity pursuant to Rule 8.6.5.4(c) of the Far North District Plan. While the proposal exceeds the permitted activity threshold established under the National Environmental Standards for Detached Minor Residential Units 2025 ("NES-DMRU"), the extent of non-compliance is limited solely to the number of detached minor residential units proposed on the site.

Importantly, the proposal otherwise aligns strongly with the intent and anticipated outcomes of the NES-DMRU framework. Both the existing and proposed Minor Residential Units are compact in scale, detached in form, appropriately separated from one another, and integrated within a shared servicing arrangement. The buildings maintain a low-intensity rural-residential character, retain substantial open space and landscaping, and support a genuine multi-generational family living arrangement.

An assessment of the relevant matters of discretion under Chapter 11.1 of the Far North District Plan demonstrates that the proposal generates less than minor adverse effects on the environment.

The proposed arrangement is effectively analogous to a larger family dwelling containing separate accommodation wings for extended family members, rather than representing an intensified or commercially driven residential development. The proposal therefore maintains the character and amenity outcomes anticipated within the Rural Production Zone.

Overall, while resource consent is required due to the presence of a second Minor Residential Unit on the site, the proposal is considered to be entirely appropriate in the context of the site and surrounding environment. The assessment undertaken against Chapter 11.1 confirms that adverse environmental effects are less than minor and that the proposal remains consistent with the broader intent of both the Far North District Plan objectives and policies.

RESOURCE MANAGEMENT ACT 1991

Fourth Schedule

ASSESSMENT OF ENVIRONMENTAL EFFECTS

The following assesses the environmental effects of the proposed activity in accordance with the Resource Management Act 1991 (RMA). The activity under consideration involves the establishment of a minor residential unit. Below is a detailed examination of the potential environmental impacts and adherence to regulatory standards.

1. **Hazardous Substances and Contaminants:**
   - There are no hazardous substances associated with the proposed activity.
   - No discharge of contaminants is anticipated.

2. **Adverse Environmental Effects:**
   - The proposal does not disproportionately cause adverse environmental effects or undermine rural production capacity.
   - There are no adverse impacts on adjoining rural activities.
   - The proposed activity aligns with the environmental expectations of the zone.

3. **Compliance with RMA Principles:**
   - The proposal is consistent with the purpose and principles of the RMA.
   - It does not conflict with matters of national importance.
   - No impact on local iwi or hapu management plans or heritage concerns.

4. **National Environmental Standards:**
   - The proposal does not raise concerns regarding potential soil contamination as the site is not on the Hazardous Activities and Industries List (HAIL), and the land already has a residential use.

CLAUSE 6

(1) An assessment of the activity's effects on the environmental must include the following information:

(a) *if it is likely that the activity will result in any significant adverse effects on the environment, a description of any possible alternative locations or methods for undertaking the activity:*

The proposed land use presents no significant adverse effects, and effects are well managed.

(b) *an assessment of the actual or potential effects on the environment of the activity.*

The actual physical effects associated with the minor residential unit (as a structure) meets the permitted activity standards; for example as a standalone sleepout.

(c) *if the activity includes the use of hazardous substances and installations, an assessment of any risk to the environment that are likely to arise from such use.*

There are none.

(d) *if the activity includes the discharge of any contaminants, a description of –*

(i) the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and

(ii) any possible alternative methods of discharge, including discharge into any other receiving environment:

Wastewater is the only discharge and this is in accordance with industry standards.

(e) *a description of the mitigation measures (including safeguards and contingency plans where relevant) to be undertaken to help prevent or reduce the actual or potential effects:*

There are no issues to address.

(f) *identification of the persons affected by the activity and consultation undertaken, and any response to the views of any person consulted:*

All physical effects are compliant with permitted standards, and the buildings use as a minor residential unit upholds the zones objectives and policies, therefore on that basis there are no affected parties.

(g) *if the scale and significance of the activity's effects are such that monitoring is required, a description of how and by whom the effects will be monitored if the activity is approved:*

No monitoring appears necessary.

(h) *if the activity will, or is likely to, have adverse effects that are more than minor on the exercise of a protected customary right, a description of possible alternative locations or methods for the exercise of the activity (unless written approval for the activity is given by the protected customary rights group).*

No concern.

(2)
A requirement to include information in the assessment of environmental effects is subject to the provisions of any policy statement or plan.

This is covered under the heading 'Northland Regional Policy Statement' below.

CLAUSE 7
7 Matters that must be addressed by assessment of environmental effects

(1) An assessment of an activity's effects on the environment must address the following matters:

(a) any effect on those in the neighbourhood and, where relevant, the wider community, including any social, economic, or cultural effects:

The proposal is considered to promote the zone guidelines and surrounding land use activities, without any unreasonable effects to concern the wider community including social and economic or cultural aspects.

(b) any physical effects on the locality, including any landscape, and visual effects.

No concern.

(c) Any effects on ecosystems, including effects on plants or animals and any physical disturbance of habitats in the vicinity.

The land use does not result in any habitat disturbance.

(d) any effect on natural and physical resources having aesthetic, recreational, scientific, historical, spiritual, or cultural values, or other special value, for present and future generations:

The values outlined are not seen to be depleted in this instance.

There is no influence on Fisheries.

(e) any discharge of contaminants in to the environment, including any unreasonable emissions of noise, and options for the treatment and disposal of contaminants:

There are none associated with the proposal.

(f) any risk to the neighbourhood, the wider community, or the environment through natural hazards or the use of hazardous substances or hazardous installations.

To the best of our knowledge there are no concerns.

PERMITTED BASELINE

To understand the development potential of this 2.0ha parcel, the following assessment outlines credible and realistic land use scenarios that could occur without the need for resource consent.
The assessment considers the environment as it could reasonably be established as of right and compares those effects with the effects arising from the proposed subdivision.
The purpose is to identify actual and permitted environmental effects and, where effects may be more than minor, assist in determining whether consultation with affected parties is appropriate.
The permitted baseline identifies the range of activities that could lawfully occur on the site without consent and enables Council to disregard those effects when assessing potential adverse effects on affected persons during the resource consent process.

Case law guidance:
- *Bayley v Manukau City Council [1999] 1 NZLR 568 (CA) establishes that adverse effects arising from permitted activities are part of the existing environment and may be excluded from assessment.*
- *Eyres Eco Park v Rodney District Council (A147/04) confirms that existing use rights are considered part of the environment.*

The receiving environment, beyond the subject site, is also relevant, as the subdivision may influence adjacent areas. When assessing effects, it is permissible and often necessary to consider the future state of the environment, including:
Modifications from permitted activities; and
Changes from resource consents already granted at the time of assessment.

For this site, common permitted land uses relate to, rural business, home office or accommodation-type activities, where a primary dwelling and secondary buildings can be constructed without exceeding key Rural Production Zone standards:
Key parameters under the Operative District Plan:

- Impermeable surface: The site currently has 10.8% coverage; therefore approximately 4.2% (905 m^2) remains, allowing for a number of secondary buildings or one exceptionally large structure.
- Building coverage: Maximum 15%; currently 10.8%.
- Building height : Maximum 12m
- Scale of activities: 8 person per site (ancillary to farming) or 4 person per site.
- Traffic movements: Maximum 60 one-way movements per day; foot traffic or minivan use is not restricted.

Based on these parameters, reasonable land use scenarios could include:
1. Bed and breakfast accommodation
2. Professional office (consulting or similar)
3. Rural consultancy or produce
4. Trades base with client showroom (e.g., plumbing or electrician)

Although these scenarios are relatively constrained by zone standards, they are feasible with appropriate control measures.

Overall, while a variety of land uses are technically possible, the permitted baseline demonstrates that the proposed land use does not deviate from those effects that are already anticipated under the current zoning as a permitted activity. This comparison provides a significant support for assessing the additional effects associated with the proposal.

In summary, the proposed activity is consistent with the purpose and principles of the Resource Management Act 1991 and is anticipated to result in environmental effects that are **less than minor**. Accordingly, no persons are considered to be adversely affected by the proposal.

The proposal provides an efficient and cost-effective means of meeting a common household need — accommodating a multi-generational family — while representing an appropriate and compatible use of an established rural-residential property. In doing so, the proposal supports the social and economic wellbeing of the occupants by enabling flexible family living arrangements, improving housing availability within an existing property, and making efficient use of established land and infrastructure, consistent with the purpose of sustainable management under the Resource Management Act 1991.

The assessment undertaken demonstrates that the proposal can be adequately serviced, integrates appropriately with the surrounding environment, and is capable of avoiding, remedying, or mitigating potential adverse effects. The scale, design, and layout of the development remain consistent with the character and amenity permitted by the Rural Production Zone, and align closely with the intent and anticipated outcomes of the National Environmental Standards for Detached Minor Residential Units 2025.

Overall, the proposal achieves a balanced and sustainable development outcome that supports social well-being, efficient land use, and responsible environmental management in accordance with the objectives and policies of the Far North District Plan and the Resource Management Act 1991.

Northland Regional Policy Statement

The Northland Regional Policy Statement presents foundation development guidelines for the northland region.

PART 3: OBJECTIVES

3.4 Indigenous ecosystems and biodiversity

Safeguard Northland's ecological integrity by:

a) Protecting areas of significant indigenous vegetation and significant habitats of indigenous fauna;

The site has been historically used for farming where there were onsite farm tracks and gully crossings. The property is already modified through historical land use and recent development. There is no evidence that the site contains areas of significant indigenous vegetation or significant habitats of indigenous fauna. The only identified natural feature is an existing wetland area, which is retained in its natural state and is not encroached upon by building platforms within 10m. All proposed and existing buildings are located clear of this feature, with exception to an existing farm track.
All stormwater is managed via existing detention systems prior to discharge. Accordingly, the proposal avoids any adverse effects on significant ecological areas.

b) Maintaining the extent and diversity of indigenous ecosystems and habitats in the region; and

The development is contained within already modified portions of the site, which comprise farm tracks, landscaped gardens, and existing residential curtilage. No indigenous ecosystem extent is being reduced as a result of the proposal, and no clearance of indigenous vegetation is required. The wetland and gully system remain intact and continue to function as part of the site's natural drainage and ecological corridor. As such, the proposal maintains existing ecosystem extent and does not result in fragmentation or loss of habitat.

c) Where practicable, enhancing indigenous ecosystems and habitats, particularly where this contributes to the reduction in the overall threat status of regionally and nationally threatened species.

While the proposal is not of a scale that requires ecological enhancement measures, the site already incorporates elements that support ecological function, including vegetated gully margins, wetland retention, and extensive landscaping and planting. The retention of open space, combined with stormwater attenuation through ground-based detention systems, assists in reducing hydrological impacts on the receiving environment.

6.1.1 Policy – Regional and district plans
Regional and district plans shall:
(a) Only contain regulation if it is the most effective and efficient way of achieving resource management objective(s), taking into account the costs, benefits and risks;
(b) Be as consistent as possible;
(c) Be as simple as possible;
(d) Use or support good management practices;
(e) Minimise compliance costs and enable audited self-management where it is efficient and effective;
(f) Enable subdivision, use and development that accords with the Regional Policy Statement; and
(g) Focus on effects and where suitable use performance standards.

The activity is small-scale absent of any adverse effects on natural vegetation or waterways.

The proposal is not seen to clash with the Regional Policy Statement and therefore should be assessed under Resource Consent on an enabling basis.

Subdivision, use and development should be located, designed and built in a planned and co-ordinated manner which:

(a) Is guided by the 'Regional Form and Development Guidelines' in Appendix 2;

5.1.1 Policy – Planned and coordinated development

Part A) Regional form and development guidelines
New subdivision, use and development should:
(a) Demonstrate access to a secure supply of water;

No concern, the increase in roof area will increase the catchment for potable supplies.

(b) Demonstrate presence or capacity or feasibility for effective wastewater treatment;

There is ample area for onsite effluent disposal without concern.

(c) If of an urban or residential nature connect well with existing development and make use of opportunities for urban intensification and redevelopment to minimise the need for urban development in greenfield (undeveloped) areas;

This is not urban or residential.

(d) If of an urban or residential nature provide, where possible, opportunities to access a range of transport modes;

Not applicable.

(e) If of a community-scale, encourage flexible, affordable and adaptable social infrastructure that is well located and accessible in relation to residential development, public transport services and other development;

Not applicable.

(f) Recognise the importance of and provide for parks, in regards to medium and large-scale residential and residential / mixed use development.

Not applicable.

(g) If of a residential nature be, wherever possible, located close to or sited in a manner that is accessible to a broad range of social infrastructure;

Not applicable.

(h) Be directed away from regionally significant mineral resources and setback from their access routes to avoid reverse sensitivity effects;

There are no known nearby regionally significant mineral resources.

(i) Be designed, located and sited to avoid adverse effects on energy transmission corridors and consented or designated renewable energy generation sites (refer to 'Regional form and infrastructure' for more details and guidance);

There are no subject energy transmission corridors, or renewable energy sites.

(j) Be designed, located and cited to avoid significant adverse effects on transportation corridors and consented or designated transport corridors;

No concern.

(k) Be directed away from 10-year and 100-year flood areas and high risk coastal hazard areas (refer to 'Natural hazards' for more details and guidance);

There are no flooding areas or high-risk coastal hazards affecting the building sites.

The sites existing impermeable surface cover upholds existing use rights and proposal maintains within permitted site coverage allowance, any stormwater effects therefore are compliant.

(l) Seek to maintain or improve outstanding landscape and natural character values and provide for the protection of significant historic and cultural heritage from inappropriate subdivision, use and development (refer to 'Land, Water and Common Resources' for more details and guidance);

There are no outstanding landscapes.

(m) Protect significant ecological areas and species, and where possible enhance indigenous biological diversity (refer to 'Maintaining and enhancing indigenous ecosystems and species' for more details and guidance);

There is no impact on significant ecological areas. The central gully is already well planted, creating its own habitat.

(n) Maintain and improve public access to and along the coastal marine area, lakes and rivers;

Not applicable.

(o) Avoid or mitigate adverse effects on natural hydrological characteristics and processes (including aquifer recharge), soil stability, water quality and aquatic ecosystems, including through low impact design methods where appropriate;

No concerns.

(p) Adopt, where appropriate, sustainable design technologies such as the incorporation of energy-efficient (including passive solar) design, low-energy street lighting, rain gardens, renewable energy technologies, rainwater storage and grey water recycling techniques;

Many of these aspects are being implemented as described.

(q) Be designed to allow adaptation to the projected effects

No concern.

(r) Consider effects on the unique tangata whenua relationships, values, aspirations, roles and responsibilities with respect to the site of development;

Tangata whenua are protective of waterways and water quality and the proposal does not undermine those aspirations.

(s) Encourage waste minimisation and efficient use of resources (such as through resource-efficient design and construction methods);

No concern.

(t) Take into account adopted regional / sub-regional growth strategies;

No concern with this small-scale activity.

(u) Where appropriate, encourage housing choice and business opportunities, particularly within urban areas.

Lifestyle allotments are an important component of the rural environment, and by intensifying, the onsite use for residential based living enhances the sustainability of the land without undue compromise to the natural environment or integrity of the rural zone.

(b) Is guided by the 'Regional Urban Design Guidelines' in Appendix 2 when it is urban in nature;

Not applicable.

(c) Recognises and addresses potential cumulative effects of subdivision, use, and development, and is based on sufficient information to allow assessment of the potential long-term effects;

The very nature of the wider environment is certainly diverse and has proven over many years to form a well-integrated community with no conflicting effects.

(d) Is integrated with the development, funding, implementation, and operation of transport, energy, water, waste, and other infrastructure;

No concerns.

(e) Should not result in incompatible land uses in close proximity and avoids the potential for reverse sensitivity;

Overall, there is no change to the sites actual use.

(f) Ensures that plan changes and subdivision to / in a primary production zone, do not materially reduce the potential for soil-based primary production on land with highly versatile soils, or if they do, the net public benefit exceeds the reduced potential for soil-based primary production activities; and

No concern, there is no reduction to soil-based primary production.

(g) Maintains or enhances the sense of place and character of the surrounding environment except where changes are anticipated by approved regional or district council growth strategies and / or district or regional plan provisions.

The proposal does not change the sense of place, already exhibiting a defined lifestyle theme that the proposal expands on.

(h) Is or will be serviced by necessary infrastructure.

The site is serviced with all necessary infrastructure.

NATIONAL POLICY STATEMENT FOR HIGHLY PRODUCTIVE LAND 2022

Highly productive land is to be protected for use in land based primary production, both now and for future generations, and is to be recognised as a resource with finite characteristics and long term values for land based primary production.

1.3 Interpretation
Highly productive land – means land that has been mapped in accordance with clause 3.4 and is included in an operative regional policy statement as required by clause 3.5 (but see cluse 3.5(7) for what is treated as highly productive land before the maps are included in an operative regional policy statement and cluse 3.5(6) for when land is rezoned and therefore ceases to be highly productive land).

The site does not have highly productive class 1 – 3 soils.

NATIONAL POLICY STATEMENT For Freshwater Management 2020

Part 1
1.3 Fundamental concept – Te Mana o te Wai
(1) Te Mana o te Wai is a concept that refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. It protects the mauri of the wai. Te Mana o te Wai is about restoring and preserving the balance between the water, the wider environment, and the community.

Objectives and Policies

2.1

The objective of this National Policy Statement is to ensure that natural and physical resources are managed in a way that priorities:

(a) first, the health and wellbeing of water bodies and freshwater ecosystems

(b) second, the health needs of people (such as drinking water)

(c) third, the ability of people and communities to provide for their social, economic and cultural wellbeing, now and in the future.

2.2

Policy 3

Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.

Policy 4

Freshwater is managed as part of New Zealand's integrated response to climate change.

Policy 6

There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration promoted.

Policy 9

The habitats of indigenous freshwater species are protected.

3.5 Integrated management

(1) Adopting an integrated approach ki uta ki tai, as required by Te Mana o te Wai, requires that local authorities must:

(a) recognise the interconnectedness of the whole environment, from the mountains and lakes, down the rivers to lagoons, estuaries and to the sea.

(b) recognise interactions between freshwater, land, water bodies, ecosystems, and receiving environments.

(c) manage freshwater, and land use and development, in catchments in an integrated and sustainable way to avoid, remedy, or mitigate adverse effects, including cumulative effect on the health and well-being of water bodies, freshwater ecosystems, and receiving environments.

(d) Encourage the co-ordination and sequencing of regional or urban growth.

The national policy statement presents strong incentives for development to 'avoid' actual or potential effects that would compromise wetlands, or the natural components linked to waterways.

It has been described that the central watercourse defines a well vegetated overland flowpath, with stabilised base that reduces the impacts associated with sediment dislodgement, and encourages stormwater absorption during a storm's inception.

There is a known wetlands within 100m of the proposed Minor Residential Unit, and those existing.

The applicable regulations are primarily contained within the Resource Management (National Environmental Standards for Freshwater) Regulations 2020, in particular:
Regulation 54 – Activities within or near wetlands

Regulation 54 identifies the following as **Non-Complying Activities**:

- *54(1)(a): Earthworks within a natural inland wetland*
- *54(1)(b): Earthworks within 10 metres of a natural inland wetland*
- *54(1)(c): Vegetation clearance within a natural inland wetland*
- *54(1)(d): Vegetation clearance within 10 metres of a natural inland wetland (subject to limited exemptions)*

These rules are designed to protect wetland hydrology, water quality, and ecological integrity.

Permitted / Exempt Activities

The NES-F provides exemptions for certain activities, including:

- Maintenance and upgrade of existing tracks and accessways (where the footprint is not significantly expanded and effects are no more than minor)
- Ongoing operation and maintenance of existing infrastructure, provided adverse effects on wetlands are avoided
- Stormwater discharge controls where effects are appropriately managed to ensure the hydrological function of the wetland is unchanged.

- All buildings are located greater than 10 metres from the wetland
- Therefore, no breach of Regulation 54(1)(b) occurs in relation to building placement
- No earthworks are proposed within the wetland or within 10 metres of it for building platforms

All impermeable surfaces discharge to on-site detention and treatment systems.
Stormwater is attenuated before entering the wetland environment.
The wetland system is retained in its natural state
Hydrological impacts are controlled therefore maintaining wetland integrity.

Accessway / Farm Track

The access is located approximately 2 metres from the wetland at its nearest point
This would normally trigger Regulation 54(1)(b) (within 10m of a wetland)
However, the key consideration is:
Existing infrastructure exemption / upgrade allowance
The access is:
an old formed farm track / accessway.

Under the NES-F framework, maintenance and upgrading of existing access infrastructure is generally permitted where:

- the alignment remains largely unchanged
- adverse effects on wetland hydrology and ecology are avoided
- sediment and stormwater controls are in place

Effects-based assessment

- The access is already established and functional
- It does not involve expansion into previously undisturbed wetland margin
- Stormwater runoff is managed via existing detention and treatment systems on site
- No direct discharge into the wetland from the access is proposed
- The track is metalled and stable, limiting sediment generation.

Accordingly, the proposal is considered to be consistent with the intent and objectives of both the NES-Freshwater 2020 and the National Policy Statement for Freshwater Management 2020, with effects on the wetland environment assessed as less than minor.

PROPOSED DISTRICT PLAN

The property is located within the Horticultural zone under the proposed district plan.

The proposed minor residential unit activity is not influenced by the proposed district plan because the site is not subject to those parameters currently having legal effect; natural hazards, ecological, cultural / historical or earthworks that do not uphold permitted activity status.

Maximum earthworks thresholds
Rural Production, Horticulture, Kauri Cliffs, Ngawha Innovation Park, Māori Purpose - Rural

The following maximum volumes and area thresholds for all earthworks undertaken on a site within a single calendar year:

EW-S1 **Zone**	**Volume (m^3)**	**Area (m^2)**
General Residential, Mixed Use, Light Industrial, Heavy Industrial, Hospital, Horticulture Processing Facility, Carrington, Kororāreka Russell Township, Hospital, Māori Purpose - Urban	200	2,500
Natural Open Space, Open Space, Sport and Active Recreation, Rural Residential, Settlement, Quail Ridge, Airport	300	2,500
Rural Lifestyle	1000	2,500
Rural Production, **Horticulture,** Kauri Cliffs, Ngawha Innovation Park, Māori Purpose - Rural	5000	2,500
EW-S2 **Maximum depth and slope**	The maximum depth of any cut or height of any fill shall not exceed:	Where the standard is not met, matters of discretion are restricted to:

	1) *1.5m, i.e. maximum permitted cut and fill height may be 3m; or* ***2)*** *3m subject to it being retained by a engineered retaining wall, which has had a building consent issued.*	***a)*** *the location, scale and volume;* ***b)*** *depth and height of cut and fill;* ***c)*** *the extent of exposed surfaces or stockpiling of fill;* ***d)*** *the risks of natural hazards, particularly flood events;* ***e)*** *stormwater controls;* ***f)*** *flood storage, overland flow paths and drainage patterns;* ***g)*** *impacts on natural coastal processes;* ***h)*** *the stability of land, buildings and infrastructure;* ***i)*** *natural character, landscape, historic heritage, spiritual and cultural values;* ***j)*** *the life-supporting capacity of soils;* ***k)*** *the extent of indigenous vegetation clearance and its effect on biodiversity;* ***l)*** *impact on any outstanding natural character, outstanding natural landscapes and outstanding natural features;* ***m)*** *riparian margins;* ***n)*** *the location and use of infrastructure;* ***o)*** *temporary or permanent nature of any adverse effect;* ***p)*** *traffic and noise effects;* ***q)*** *time of year earthworks will be carried out and duration of the activity; and* ***r)*** *impact on visual and amenity values.*

Earthworks associated with the proposal would uphold permitted activity standards.

EW-S3 *Accidental discovery protocol*

The property is not recorded as having any archaeological sites.
Conditions of consent may include that Heritage NZ be contacted if any artifacts are uncovered during earthworks associated with the principal residential unit, and works shall stop until advised.

EW-S5 *Erosion and sediment control*

1) *must for their duration be controlled in accordance with the Erosion and Sediment Control Guidelines for Land Disturbing Activities in the Auckland Region 2016 (Auckland Council Guideline Document GD2016/005);*
2) *shall be implemented to prevent silt or sediment from entering water bodies, coastal marine area, any stormwater system, overland flow paths, or roads.*

Conditions of consent may include that earthworks associated with the principle residential unit include a sediment control plan in accordance with GD05.

EW-S6 *Setback*
Earthworks must be setback by the following minimum distances:

1) *earthworks supported by engineered retaining walls - 1.5m from a site boundary;*
2) *earthworks not supported by engineered retaining walls - 3m from a site boundary;*
3) *earthworks must be setback by a minimum distance of 10m from coastal marine area.*

Note: setbacks from waterbodies is managed by the Natural Character chapter.

The proposal complies with setback standards.

CONCLUSION

The proposal seeks to establish one additional Minor Residential Unit alongside an existing Principal Residential Unit and an another existing Minor Residential Unit. The development is low impact, dispersed, and integrated within a well-established site that already contains built form, access, servicing infrastructure, and extensive landscaping.

The proposed detached minor residential unit serves to provide for existing multi-generational residential arrangement on the site. The layout and scale of development reflect a compact and low-intensity pattern of residential use that is consistent with the character and expectations of the Rural Production Zone.

Adverse effects are limited primarily to the incremental increase in residential activity and built form, which are effectively mitigated through generous separation distances, existing vegetation and landscaping, well established access and servicing arrangements, and on-site stormwater and wastewater management. The proposal does not result in the loss of productive land, significant ecological effects, or adverse impacts on rural amenity, reverse sensitivity, or infrastructure capacity.

Overall, the proposal is considered to be an efficient and appropriate use of an established rural site and is consistent with the relevant objectives and policies of the District Plan and applicable national environmental standards. The effects of the proposal are assessed as less than minor and can be appropriately managed through standard conditions of consent.

Micah Donaldson
ASSOC.NZPI
DONALDSONS
Land / Engineering Surveyors and Development Planners

NZIS
REGISTERED PROFESSIONAL SURVEYOR

Quickmap Title Details

Information last updated as at 17 May 2026

RECORD OF TITLE
DERIVED FROM LAND INFORMATION NEW ZEALAND
FREEHOLD

Identifier **801466**

Land Registration District **North Auckland**
Date Issued 14 October 2021

Prior References
372127

Type Fee Simple
Area 2.0832 hectares more or less
Legal Description Lot 1 Deposited Plan 515337

Registered Owners
Alexander Koben Carey and Jodi Viki Sosich

Type Fee Simple - 1/2 share
Area 1459 square metres more or less
Legal Description Lot 4 Deposited Plan 515337

Registered Owners
Alexander Koben Carey and Jodi Viki Sosich

Subject to Section 241(2) Resource Management Act 1991 (affects DP 515337)

12100552.2 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 14.10.2021 at 10:14 am

Subject to a right to drain water over part Lot 1 DP 515337 marked A on DP 515337 created by Easement Instrument 12100552.3 - 14.10.2021 at 10:14 am

The easements created by Easement Instrument 12100552.3 are subject to Section 243 (a) Resource Management Act 1991

Land Covenant in Covenant Instrument 12100552.4 - 14.10.2021 at 10:14 am

Fencing Covenant in Transfer 12954073.3 - 21.3.2024 at 12:03 pm

13382262.1 Mortgage to ASB Bank Limited - 22.8.2025 at 2:56 pm

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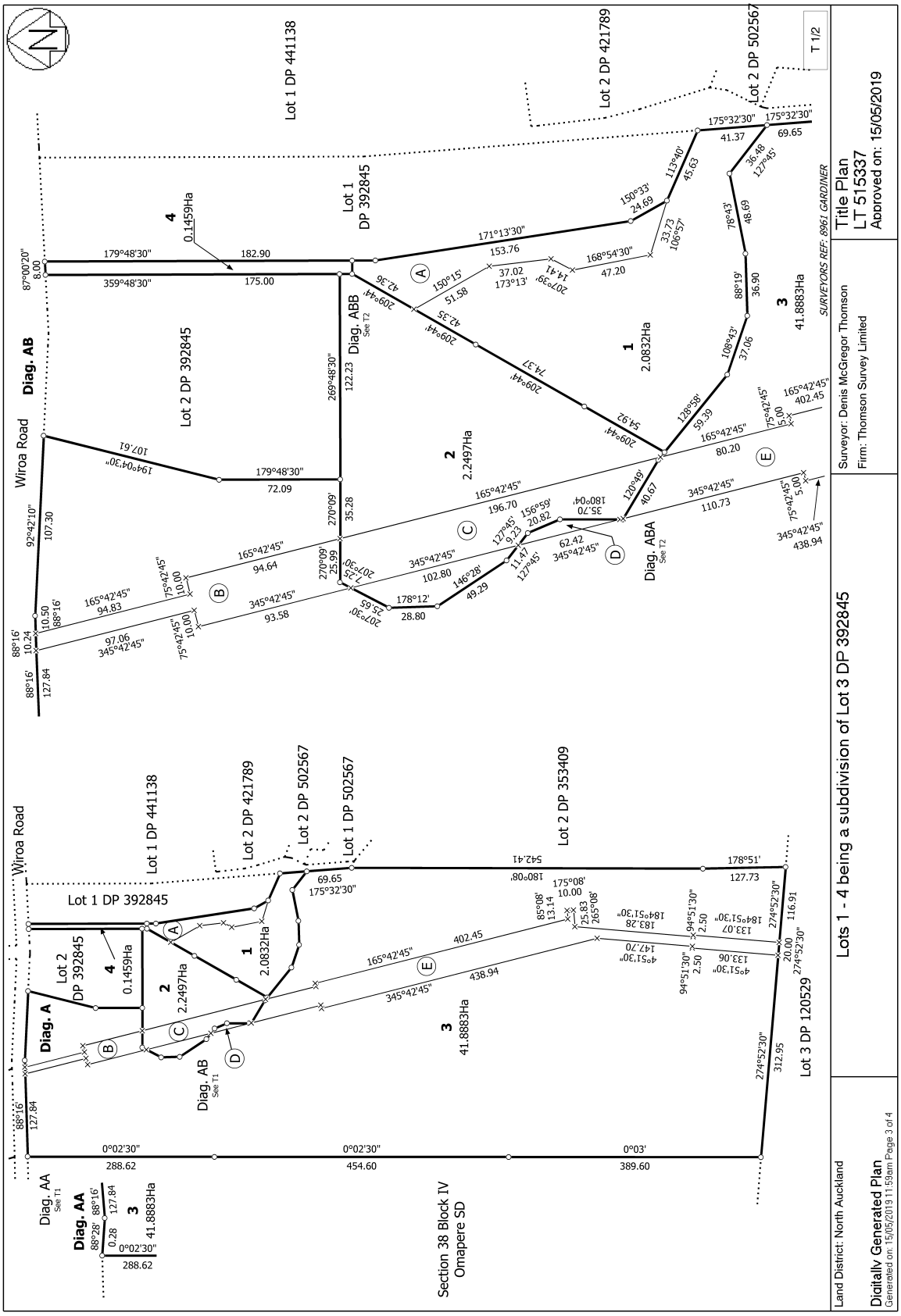
Lot 1 DP 441138
Lot 2 DP 421789
Lot 2 DP 502567
Lot 1 DP 392845
Lot 2 DP 392845
Diag. AB
Diag. ABB
See T2
Diag. ABA
See T2
Wiroa Road
Lot 1 DP 502567
Lot 2 DP 353409
Lot 3 DP 120529
Diag. A
Diag. AB
See T1
Diag. AA
See T1
Section 38 Block IV
Omapere SD
T 1/2
Title Plan
LT 515337
Approved on: 15/05/2019
Surveyor: Denis McGregor Thomson
Firm: Thomson Survey Limited
SURVEYORS REF: 8961 GARDINER
Lots 1 - 4 being a subdivision of Lot 3 DP 392845
Land District: North Auckland
Digitally Generated Plan
Generated on: 15/05/2019 11:59am Page 3 of 4

View Instrument Details

Instrument No	12100552.2
Status	Registered
Date & Time Lodged	14 October 2021 10:14
Lodged By	McMinn, Tania
Instrument Type	Consent Notice under s221(4)(a) Resource Management Act 1991

Affected Records of Title	Land District
801466	North Auckland
801467	North Auckland
801468	North Auckland

Annexure Schedule Contains 2 Pages.

Signature

Signed by Barbara Gail Beck as Territorial Authority Representative on 13/10/2021 06:50 PM

***** End of Report *****

Far North District Council

Private Bag 752, Memorial Ave
Kaikohe 0440, New Zealand
Freephone: 0800 920 029
Phone: (09) 401 5200
Fax: (09) 401 2137
Email: ask.us@fndc.govt.nz
Website: www.fndc.govt.nz

Te Kaunihera o Tai Tokerau Ki Te Raki

Te top place whose future
needs to be, work and invest

THE RESOURCE MANAGEMENT ACT 1991

SECTION 221: CONSENT NOTICE

REGARDING **RC-2170380**
Being the Subdivision of Lots 2-3 DP 392845 Lot 1 DP 409906 Lot 3 DP 120529 Sec 38 Blk IV Omapere SD
North Auckland Registry

PURSUANT to Section 221 and for the purpose of Section 224(c)(ii) of the Resource Management Act 1991, this Consent Notice is issued by the **FAR NORTH DISTRICT COUNCIL** to the effect that conditions described in the schedule below are to be complied with on a continuing basis by the subdividing owner and the subsequent owners after the deposit of the survey plan, and these are to be registered on the titles of the allotments specified below.

SCHEDULE

Lot 4 DP 515337

(i) All storm water originating from the paved surfaces on lot 4 is to be drained to, and discharged into, the detention pond area located on lot 1 as described in Haigh Workman Engineering Report dated October 2016 ref 16 284 submitted with RC 2170380.

Lots 1 & 2 DP 515337

(ii) In conjunction with the construction of any building on lots 1 and 2 requiring building consent. The applicant shall submit for Council approval, and at the time of lodging a building consent application, a stormwater management assessment prepared by a suitably qualified and experienced practitioner, that references Haigh Workman Engineering Report dated October 2016 ref 16 284 submitted with RC 2170380.

Lots 1, 2 & 3 DP 515337

(iii) In conjunction with the construction of any building on lots 1, 2 and 3 which includes a wastewater treatment & effluent disposal system the applicant shall submit for Council approval a onsite wastewater assessment prepared by a Chartered Professional Engineer or an approved FNDC Report Writer. The report shall identify a suitable method of wastewater treatment for the proposed development along with an identified effluent disposal area plus a 100% reserve disposal

Far North District Council

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Kaikohe 0440, New Zealand
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Website: www.fndc.govt.nz

area. The report shall also reference the Haigh Workman Engineering Report dated October 2016 ref 16 284 submitted with RC 2170380.

(iv) Reticulated power supply or telecommunication services are not a requirement for lots 1, 2 and 3 of this subdivision consent. The responsibility for providing both power supply and telecommunication services will remain the responsibility of the property owner.

(v) In conjunction with the construction of any dwelling on Lots 1,2 and 3, and in addition to a potable water supply, a water collection system with sufficient supply for firefighting purposes is to be provided by way of tank or other approved means and to be positioned so that it is safely accessible for this purpose. These provisions will be in accordance with the New Zealand Fire Fighting Water Supply Code of Practice SNZ PAS 4509.

(vi) The property has been identified as containing habitat that supports the North Island Brown Kiwi in high density numbers. These habitats are to be protected. Carnivorous or omnivorous animals (such as cats, dogs or mustelids) have the potential to be kiwi predators. As such no occupier of, or visitor to the lot, shall keep or introduce to the site carnivorous or omnivorous animals (such as cats, dogs or mustelids) which have the potential to be kiwi predators. Except that a maximum of two working farm dogs used for agricultural management are permitted on Lot 3.

SIGNED: P J Killalea.

Mr Patrick John Killalea - Authorised Officer
By the FAR NORTH DISTRICT COUNCIL
Under delegated authority:
PRINCIPAL PLANNER – RESOURCE MANAGEMENT

DATED at **KERIKERI** this 11th day of December 2020

View Instrument Details

Instrument No	12100552.4
Status	Registered
Date & Time Lodged	14 October 2021 10:14
Lodged By	McMinn, Tania
Instrument Type	Land Covenant under s116(1)(a) or (b) Land Transfer Act 2017

Affected Records of Title	Land District
801466	North Auckland
801467	North Auckland
801468	North Auckland

Annexure Schedule Contains 4 Pages.

Covenantor Certifications

I certify that I have the authority to act for the Covenantor and that the party has the legal capacity to authorise me to lodge this instrument ☑

I certify that I have taken reasonable steps to confirm the identity of the person who gave me authority to lodge this instrument ☑

I certify that any statutory provisions specified by the Registrar for this class of instrument have been complied with or do not apply ☑

I certify that I hold evidence showing the truth of the certifications I have given and will retain that evidence for the prescribed period ☑

Signature

Signed by Barbara Gail Beck as Covenantor Representative on 13/10/2021 06:51 PM

Covenantee Certifications

I certify that I have the authority to act for the Covenantee and that the party has the legal capacity to authorise me to lodge this instrument ☑

I certify that I have taken reasonable steps to confirm the identity of the person who gave me authority to lodge this instrument ☑

I certify that any statutory provisions specified by the Registrar for this class of instrument have been complied with or do not apply ☑

I certify that I hold evidence showing the truth of the certifications I have given and will retain that evidence for the prescribed period ☑

Signature

Signed by Barbara Gail Beck as Covenantee Representative on 13/10/2021 06:51 PM

***** End of Report *****

Form 26

Covenant Instrument to note land covenant

(Section 116(1)(a) & (b) Land Transfer Act 2017)

Covenantor

RAYMOND GOVAN GILLETT, NELDA PAULENE GILLETT and UMK TRUSTEES (GILLETT) LIMITED

Covenantee

RAYMOND GOVAN GILLETT, NELDA PAULENE GILLETT and UMK TRUSTEES (GILLETT) LIMITED

Grant of Covenant

The Covenantor, being the registered owner of the burdened land(s) set out in Schedule A, **grants to the Covenantee** (and, if so stated, in gross) the covenant(s) set out in Schedule A, with the rights and powers or provisions set out in the Annexure Schedule(s).

Schedule A

Continue in additional Annexure Schedule, if required

Purpose of covenant	Shown (plan reference)	Burdened Land (Record of Title)	Benefited Land (Record of Title) or in gross
Reverse Sensitivity Covenant		**Lot 1 DP 515337 and ½ share Lot 4 DP 515337 RT: 801466** **Lot 2 DP 515337 and ½ share Lot 4 DP 515337 DP 801467**	**Lot 3 DP 515337 RT: 801468**

Covenant rights and powers (including terms, covenants and conditions)

Delete phrases in [ ] and insert memorandum number as required.
Continue in additional Annexure Schedule if required.

The provisions applying to the specified covenants are those set out in:

~~[Memorandum number _____, registered under section 209 of the Land Transfer Act 2017].~~

[Annexure Schedule 1].

Form L

Annexure Schedule 1 Page 3 of 4 Pages

Insert instrument type

Covenant Instrument

Continue in additional Annexure Schedule, if required

IT IS HEREBY agreed and declared that:

1. The Covenantor, its successors and assigns, and those legally entitled to occupy the Burdened Land, will not at any time complain or object about, nor finance, support or assist in any complaint or objection, nor request the imposition of conditions on, in respect of the Benefited Land or any part of it:
   a. any lawful activities; or
   b. the Covenantee's Operations;
   and, if and when requested to do so by the Covenantee, will provide all and any consents or approvals for the Covenantee's Operations so long as such activities conform to the requirements of the relevant local territorial authorities.

2. If the Covenantor fails to provide such written consents or approvals for the Covenantee's Operations then the Covenantee shall be entitled to provide a copy of this covenant to the relevant territorial authority as evidence that such written consents or approvals have been given by the Covenantor to the Covenantee's Operations.

3. "Covenantee's Operations" means and includes any activity, work, occupation or use carried on by the Covenantee or any other person, now or in the future, on all or any part of the Benefited Land, that is:
   a. Lawfully established at the date this covenant is registered; and
   b. Consistent with the permitted activity standards of the relevant zone environment as at the date this covenant is registered; and
   c. The same or substantially the same nature as a use, work, occupation or activity of a type described in subparagraph a., but of a greater intensity; and
   d. The same or substantially the same nature as a use, work, occupation or activity of a type described in subparagraph a., but involves a change in method of use, work, occupation or activity.

Form L

Annexure Schedule Page 4 of 4 Pages

Insert instrument type

Covenant Instrument

Continue in additional Annexure Schedule, if required

OR
Any activity that is a Recorded Use.

4. "Recorded Use" means, in relation to any part of the Benefited Land, any use, work, occupation or activity involved in or associated with the operation of a dairy and/or beef farm, including, without limitation, spraying, fertilizing and crop harvesting.

5. The Covenantor, its successors and assigns, and those legally entitled to occupy the Burdened Land, will not make any complaint or objection, or finance, support or assist any complaint or objection, in respect of any application by the Covenantee for a Resource Consent or plan change relating to a subdivision or boundary adjustment of the Benefited Land and will, upon request by the Covenantee, provide written consent to any application by the Covenantee for a Resource Consent or plan change in respect of a subdivision or boundary adjustment.

Client:
Job:
Location:
Augerhole No.:
Drilling Method:

REF:
Logger:
Date:
Page:
Checked:

PERCOLATION TEST -GRAPH SHEET

Client: A Carey
Job:
Location:

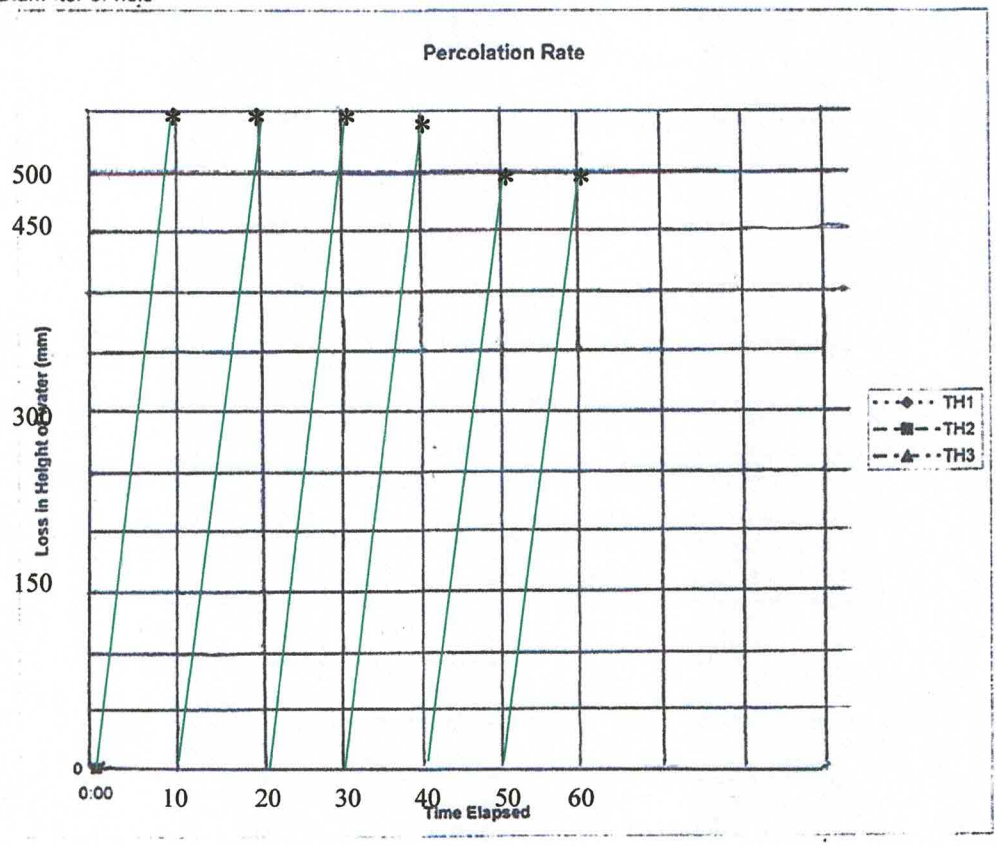
Ref.:
Report No.:
Page:

Tested by: Steve Wood
Date: 20/02/24

Presoaking conditions: 30 Min
Weather conditions prior: Fine

Time	Time elapsed	Loss in height of water TH1	TH2	TH3	TH4		Percolation Rate (mm/hr) TH1	TH2	TH3	TH4
	0	0								
	10 MIN	550					3300			
	10 MIN	550					3300			
	10 MIN	550					3300			
	10 MIN	550					3300			
	10 MIN	500					3000			
	10 MIN	500					3000			

Depth of hole
Depth of topsoil
Diameter of hole



Depth (m)	Legend	Soil Symbol	Soil Description	Water Level	Vane Shear Strength maximum/residual corrected kPa	Soil Sensitivity	Sample Number	Other Tests
0			TOPSOIL					
-0.2								
-0.5			ORANGE FRIABLE CLAY					
-1								
-1.2								
-1.5								
-1.8								
-2								
-2.5								
-3								
-3.3								

Remarks:

Plenty of topsoil and no ground water encountered.

Topsoil		Sand	
Fill		Gravel	
Clay		Peat	
Silt		Rock	

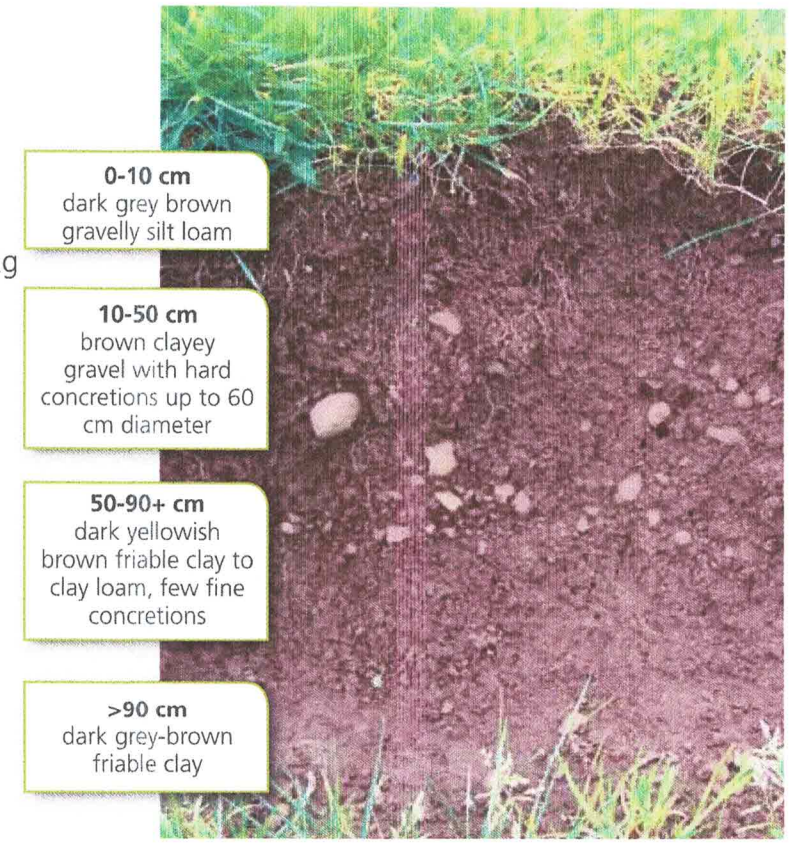
Old basalt volcanic soils

Soil types in this group

- Ōkaihau gravelly friable clay - OK
- Ōkaihau gravelly friable clay with dull brown subsoil - OKu
- Ōkaihau very gravelly friable clay - OKg
- Otaha clay – OD, ODH*
- Otaha gravelly clay loam - ODg
- Pungaere gravelly friable clay - PG
- Taraire gravelly friable clay - TA

This fact sheet uses NZ Soil Bureau map series soil type names and abbreviations.

The H* denotes the hill variant of this soil type, which occurs on slopes over 20° and has a shallower profile.



Okaihau gravelly friable clay (OK) soil profile *Photo by Ian Hanmore*

Features of old basalt volcanic soils

- These soils formed on basalt lava low in silica and rich in iron and aluminium
- They are part of the Kiripaka soil suite
- Old soils on basalt became laterites or 'ironstone soils' as water filtering through kauri produced acids that leached nutrients and clays from the upper horizons
- Leaching is strong to very strong, and the process left an infertile friable topsoil over ironstone nodules
- Heavy dressing of lime and superphosphate by the Lands and Survey Department in the 1950s made farm development possible
- Some soils are bouldery, typical of the edges of lava flows where the igneous rock cooled quickly into the hard balls we call boulders today
- All old basalt volcanic soils are generally free draining, requiring few drainage structure improvements

Northland REGIONAL COUNCIL

Structure and drainage management

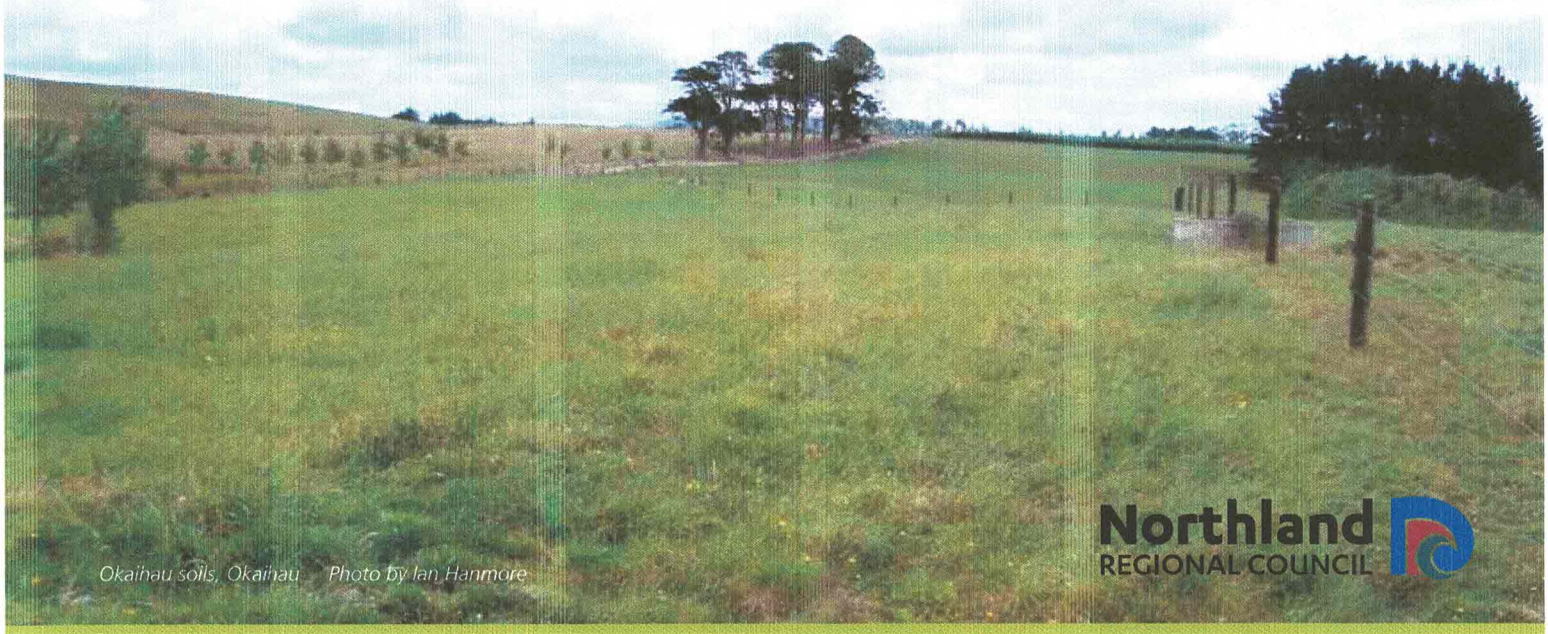
Issues	Management tips
Old basalt topsoils are very thin and have a strongly developed nutty structure that is stable when wet but easily destroyed when dry	To avoid compaction, soils should be allowed to dry after rain for a few days before running heavy equipment or stock over them
This makes old basalt soils 'brittle' and easily damaged by over-cultivation or compaction in summer	Shallow ripping shatters cultivation pans/surface compaction and aerates soils, maintaining structure and reducing fungal root diseases
Topsoils can become a fine powdery surface layer known as a 'dust mulch' that seals the surface, repelling water and increasing runoff	Careful crop-pasture-crop rotations retain topsoil structure
Because soils are generally free draining, they are drought prone; subsoils toxic to plant roots make both pasture and crop species shallow rooted, exacerbating drought problems	Avoid exposing plant-toxic subsoils because replanting any vegetation and/or reinstating topsoil layer is very difficult

Nutrient management

Soil type	Nutrient status	Management strategies
All old basalt volcanic soils	Water filtering through ancient kauri leaf litter left friable, infertile topsoils sitting over ironstone, aluminium and manganese nodules in subsoils; at low pH, free iron and aluminium fix phosphate and other elements and create a hostile environment for plant roots Ōkaihau gravelly friable clay soil can theoretically fix 100+ tonnes of superphosphate/ha	Soils should be well limed to raise pH and decrease free iron/aluminium; phosphate should be applied little and often Applying dairy effluent as sludge or spray will build organic matter and buffer against nutrient loss
All old basalt volcanic soils	Phosphate fixation by iron/aluminium is irreversible, so leaching of phosphate to groundwater is unlikely; however, sediment and nutrient runoff into lakes and rivers is common	Avoid overgrazing and exposing soil surface to drying to retain nutrients in topsoil and keep plant-toxic subsoils well below the surface
All old basalt volcanic soils	Free iron/manganese upsets the balance of many micronutrients, causing deficiencies in both plants and animals	Micronutrient supplements will probably be required for livestock, even when not necessary for plant growth

Erosion control

Erosion risks	Soil type	Specific problems	Possible solutions
Shallow slipping	Rolling hill country soil variants	Slips occur because of more pronounced leaching and extremely friable (crumbly) topsoil Exposed red subsoils are difficult to revegetate because of toxic levels of free iron, manganese and aluminium Slipping is often associated with seepage areas at the heads of gullies	Manage water discharge and flow from higher elevations Plant and cultivate on the contour Break the slope by working in 'protected lands' Form 'protected lands' by grassing water diversion channels at intervals down the slope with runoff directed to protected waterways Investigate using sediment traps in frequently or continuously cropped areas Open plant poplars where groundwater is surfacing to control slipping Mulching exposed red subsoils on road cuttings and where erosion has occurred, with old hay, silage, or effluent pond sludge prior to planting, will assist revegetation Exclusion of stock from revegetated areas is essential for recovery Fence bush enclaves in gully heads to allow ground cover to regenerate and hold soils in place
Sheet erosion	All old basalt volcanic soils	Dry powdery summer surfaces shed water and form a dust mulch The dust mulch seals soil surfaces and repels water, especially under compaction, making sheet erosion after drought more likely Loss of topsoil exposes unproductive, plant-toxic, gravelly ironstone subsoils below, and increases loss of sediment-bound nutrients into waterways	
Rill erosion	All old basalt volcanic soils	Water runoff from compacted land above runs downslope, gouging channels or rills into topsoils Bare, cropped soils are especially susceptible to rill erosion Rills become deeper with successive rainstorms	



Okaihau soils, Okaihau Photo by Ian Hanmore

Northland REGIONAL COUNCIL

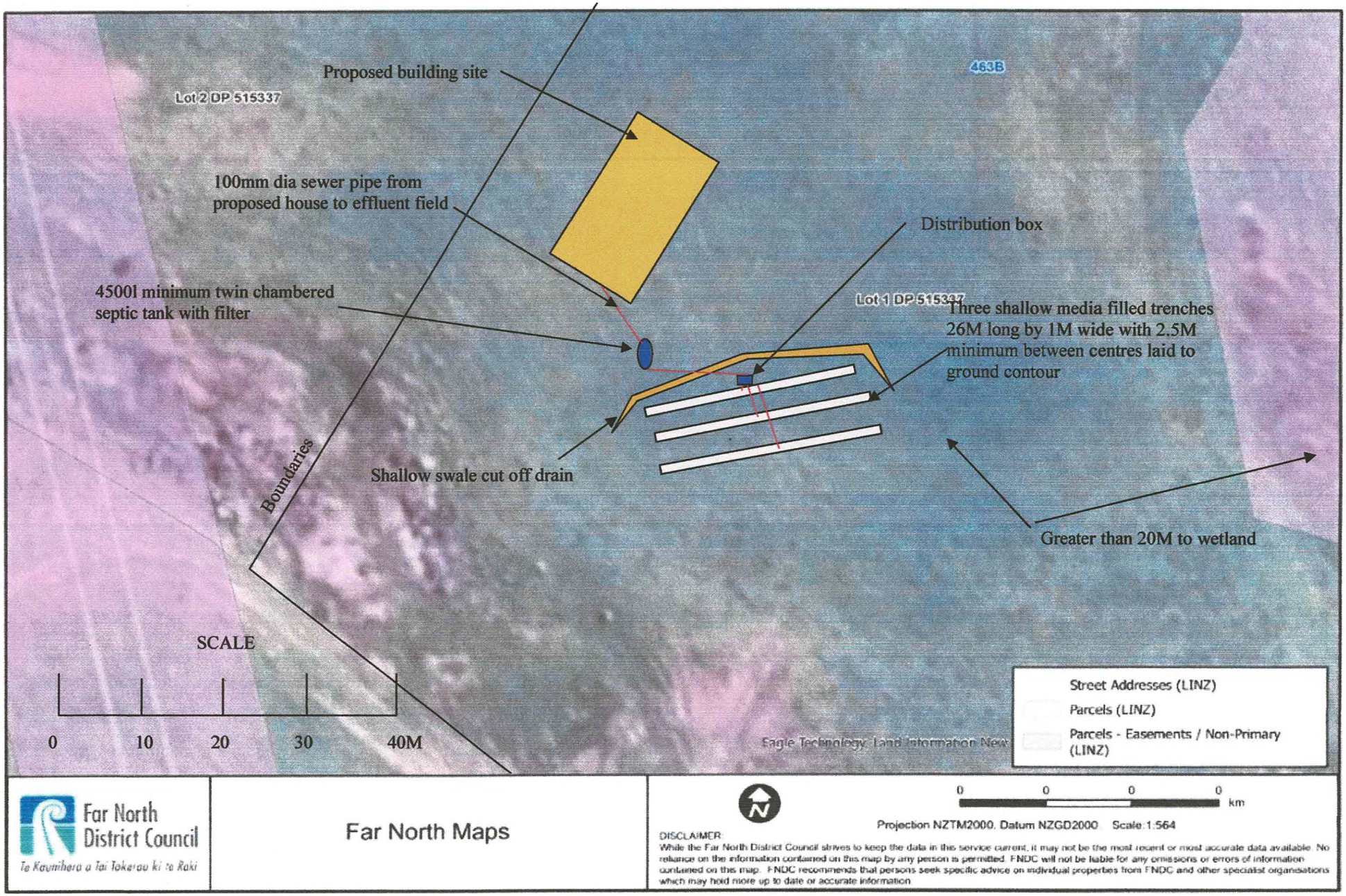
Drainage classes

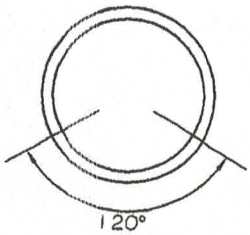
Soil symbol	Full name	Drainage class
KIRIPAKA SUITE Basement rock: volcanic basalt lava flows		
OKg	Ōkaihau very gravelly friable clay	5 - Somewhat excessively drained
ODg	Otaha gravelly clay loam	5⇌4 - Somewhat excessively to well drained
OK	Ōkaihau gravelly friable clay	5⇌4 - Somewhat excessively to well drained
TA	Taraire gravelly friable clay	4⇌3 - Well to moderately drained
OD, ODH	Otaha clay	4 - Well drained
OKu	Ōkaihau gravelly friable clay with dull brown subsoil	4 - Well drained
PG	Pungaere gravelly friable clay	3 - Moderately drained

Northland soil factsheet series

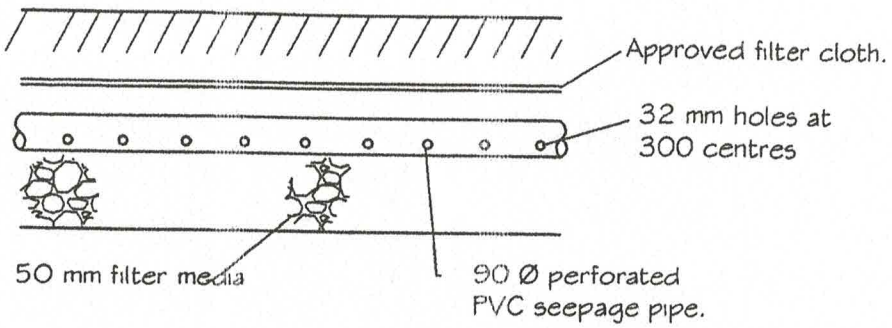
- Northland's climate, topography, historic vegetation and mixed geology have combined to form a complex pattern of soils across the region. There are over 320 soil types in Northland. Other regions in New Zealand average only 20 soil types per region.
- The information in this fact sheet is based on a 1:50,000 mapping scale. Therefore, it is not specific to individual farms or properties. However, it may help you to understand general features and management options for recent alluvial soils.
- Knowing your soils' capabilities and limitations is the key to sustainable production in Northland. Northland Regional Council (NRC) land management advisors are available to work with landowners to provide free soil conservation advice, plans and maps specific to your property.
- Regular soil tests are recommended. If you are concerned about your soil structure or health, the Visual Soil Assessment test could be useful. Contact the land management advisors at Northland Regional Council for more information.
- Further background information about the processes that have formed these soils can be found here: **www.nrc.govt.nz/soilfactsheets**

PLAN

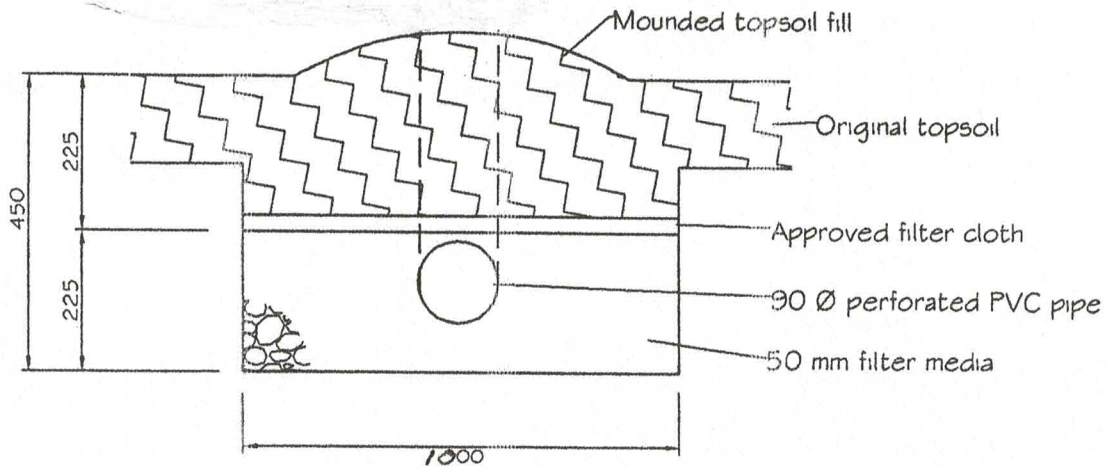

Proposed building site
Lot 2 DP 515337
463B
100mm dia sewer pipe from proposed house to effluent field
Distribution box
4500l minimum twin chambered septic tank with filter
Lot 1 DP 515337
Three shallow media filled trenches 26M long by 1M wide with 2.5M minimum between centres laid to ground contour
Boundaries
Shallow swale cut off drain
Greater than 20M to wetland
SCALE
0
10
20
30
40M
Eagle Technology, Land Information New
Street Addresses (LINZ)
Parcels (LINZ)
Parcels - Easements / Non-Primary (LINZ)
Far North District Council
Te Kaunihera a Tai Tokerau ki te Raki
Far North Maps
0 0 0 0 km
Projection NZTM2000. Datum NZGD2000 Scale:1:564
DISCLAIMER
While the Far North District Council strives to keep the data in the service current, it may not be the most recent or most accurate data available. No reliance on the information contained on this map by any person is permitted. FNDC will not be liable for any omissions or errors of information contained on this map. FNDC recommends that persons seek specific advice on individual properties from FNDC and other specialist organisations which may hold more up to date or accurate information



PERFORATION DETAILS



LONGITUDINAL SECTION



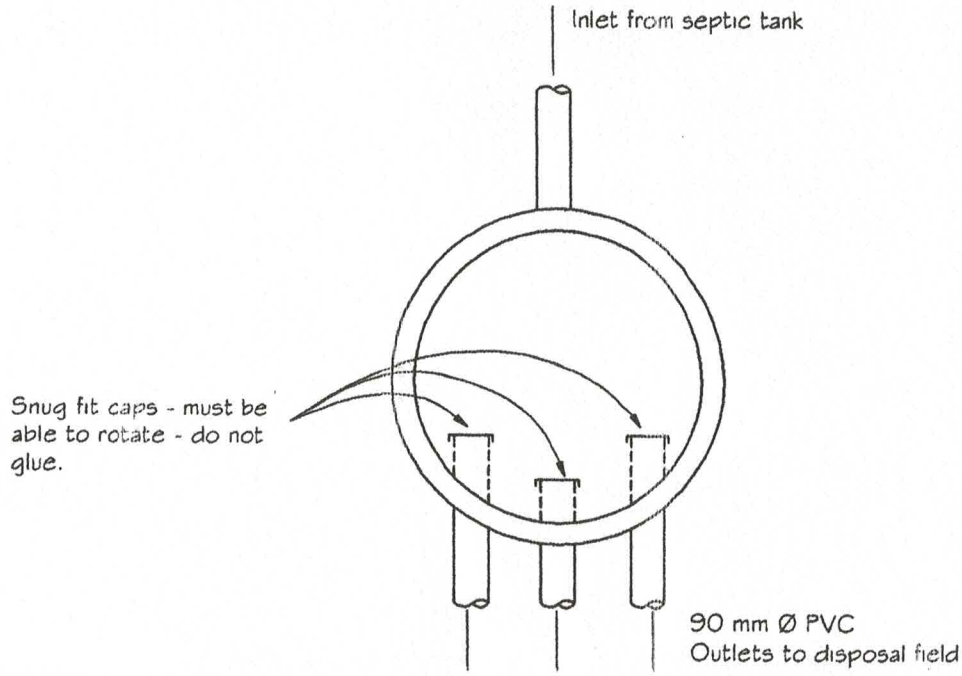
CROSS SECTION

NOTES

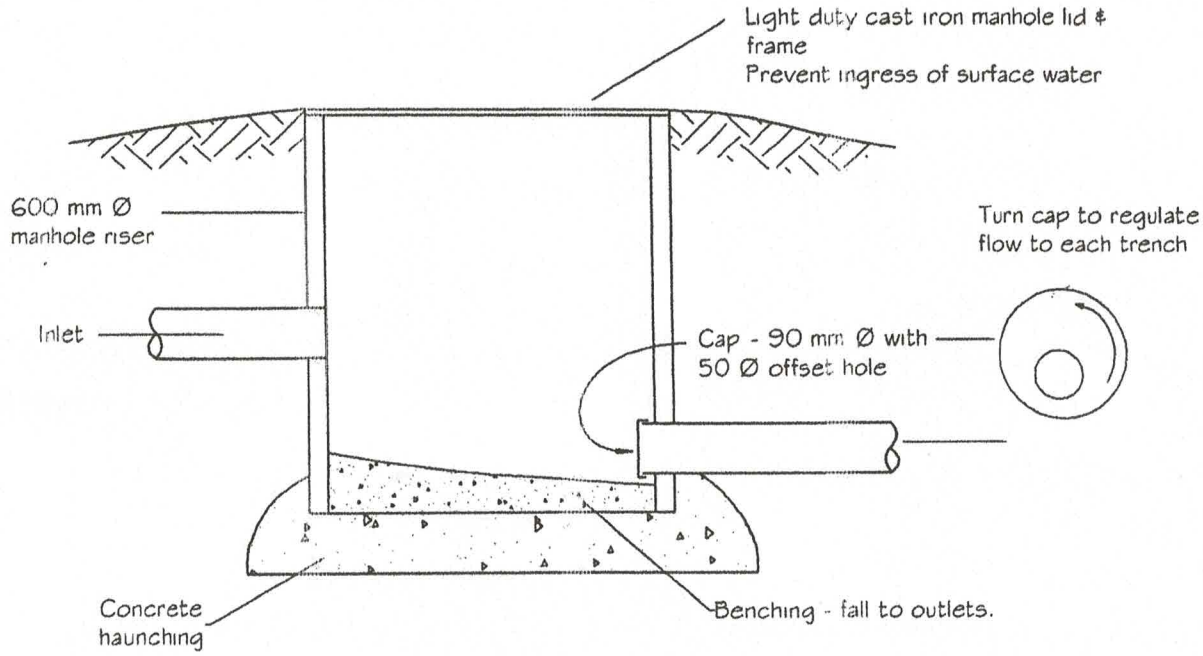
1. Distribution drains to be 90 mm Ø perforated PVC. Holes shall be 32 mm diameter at 300 mm centres and arranged as shown.
2. Distribution pipes to be laid flat or at gradient no greater than 1 in 200.
3. Sides and base of trench to be carefully scratched with a pointed tool before laying filter media.
4. Where two or more trenches are to be laid parallel, the trenches shall be spaced at 2.5 m centres.

TYPICAL SHALLOW SOAKAGE EFFLUENT DISPOSAL TRENCH

	ON-SITE EFFLUENT DISPOSAL Typical Shallow SoakageTrench	Ref:	Sheet:
		Scale: NTS	Drawn: Pip
		Date:	Checked:



PLAN



SECTION

STANDARD DISTRIBUTION BOX DETAIL

	ON-SITE EFFLUENT DISPOSAL Typical Distribution Box	Ref:	Sheet:
		Scale: NTS	Drawn: Pip
		Date	Che

ON-SITE DOMESTIC WASTEWATER MANAGEMENT

Advice to Home Owner/Occupier

Homeowners and occupiers are legally responsible to keep their on-site wastewater system in good working order. The following schedule gives advice on the use and maintenance of the system.

1. **Use of the System**

For the on-site wastewater system to work well there are some good habits to encourage and some bad habits to avoid:

1.1 In order to reduce sludge building up in the tank:

(i) Scrape all dishes to remove fats, grease etc, before washing.
(ii) Keep all possible solids out of the system.
(iii) Don't use a garbage grinder unless the system has been specifically designed to carry the extra load.
(iv) Don't put sanitary napkins, other hygiene products or disposable nappies into the system.

1.2 In order to keep the bacteria working in the tank and in the land-application area:

(i) Use biodegradable soaps.
(ii) Use a low-phosphorus detergent.
(iii) Use a low-sodium detergent in dispersive soil areas.
(iv) Use detergents in the recommended quantities.
(v) Don't use powerful bleaches, whiteners, nappy soakers, spot removers and disinfectants.
(vi) Don't put chemicals or paint down the drain.

1.3 Conservation of water will reduce the volume of effluent disposed to the land-application area, make it last longer and improving its performance. Conservation measures could include:

(i) Installation of water-conservation fittings.
(ii) Taking showers instead of baths.
(iii) Only washing clothes when there is a full load.
(iv) Only using the dishwasher when there is a full load.

1.4 Avoid overloading the system by spacing out water use evenly. For example not doing all the washing on one day and by not running the washing machine and dishwasher at the same time.

Maintenance

2.1 The primary wastewater-treatment unit (septic tank) will need to:

(i) Be desludged regularly i.e. every 3 to 5 years, or when scum and sludge occupy 2/3 of the volume of the tank (or first stage of a two-stage system).
(ii) Be protected from vehicles.
(iii) Have any grease trap cleaned our regularly.
(iv) Have the vent and/or access cover of the septic tank kept exposed.
(v) Have any outlet filter inspected and cleaned.

2.2 The land-application area needs protection as follows:-

(i) Where surface water diversion drains are required by the design, these need to be kept clear to reduce the risk of stormwater runoff entering the effluent soakage area.
(ii) No vehicles or stock should be allowed on trenches or beds.
(vi) Deep rooting trees or shrubs should not be grown over absorption trenches or pipes.

(viii) Any evapo-transpiration areas should be designed to deter pedestrian traffic.
(ix) The baffles or valves in the distribution system should be periodically (monthly or seasonally) changed to direct effluent into alternative trenches or beds, if required by the design.

2.3 Evapo-transpiration and irrigation areas should have their grass mowed and plants maintained to ensure that these areas take up nutrients with maximum efficiency.

2.4 For aeration treatment systems. Check equipment and:

(i) Follow the manufacturer's instructions for maintaining and cleaning pumps, siphons and septic tank filters.
(ii) Clean disc filters or filters screens on irrigation-dosing equipment periodically by rinsing back into the primary wastewater-treatment unit.
(iii) Flush drip irrigation lines periodically to scour out any accumulated sediment.

Auckland Regional Council Technical Sheet G-1
LIST OF WATER TOLERANT PLANTS SUITABLE FOR ON-SITE WASTEWATER DISPOSAL SYSTEMS

GENERAL MATTERS TO CONSIDER WHEN PLANTING A LAND DISPOSAL AREA:

Plants that are suitable for planting in moist conditions, such as those associated with wastewater land disposal fields need to be selected on the basis of both their tolerance for such moist conditions and for their potential for high level of growth/high transpiration of moisture in such conditions.

Standard lawn grass is a proven effective high transpiration plant species in such conditions, as are a large number of other plant species seen in typical domestic gardens.

Consideration needs to be given to effects of roots from plants and from trees in particular on wastewater distribution pipe networks/emitter lines in land application systems. Potential for root intrusion/disruption to the pipe system must be considered prior to selection and planting of a plant or tree species.

Advise on such matters for particular plant species can be obtained from garden centre specialists and landscaping consultants.

NATIVE PLANTS SUITABLE FOR MOIST CONDITIONS IN THE AUCKLAND REGION:

The following list covers native plant species are considered to be suitable for planting in moist conditions, such as those associated with wastewater disposal fields in Auckland situations. They are all tolerant or fond of moist conditions and all are native to the Auckland region. Much of this information has been adapted from one of the ARC Botanic Gardens advisory leaflets; "14 – New Zealand plants for wet places" and the list edited and reviewed by Dr. Rhys Gardner Consulting Botanist, Auckland War Memorial Museum (August 2004).

Grasses, ground covers, and other plants

***Astelia grandis* (swamp astelia)**
Large clump forming plant with bright green, flax-like foliage. Female plants produce upright panicles of orange berries in the centre of the plant. This endemic species will not tolerate eutrophic conditions and prefers peat soils.

***Blechnum novaezealandiae* (kiokio)**
Large, robust fern growing to 1 or even 2m. Hardy species that tolerates most conditions, but does best in well drained, shady areas.

Carex
There are many members of this genus which grow naturally in damp to wet areas. They all have quite fine drooping foliage and are vigorous in moist conditions. Most prefer very light shade. The following species have been identified for their suitability:

Carex dissita
Endemic species with dull green to reddish tufts often 0.5m tall (although this can vary). Tolerates a range of swampy habitats, but is also noted to grow on drier soils under forest cover.

Carex flagellifera
Endemic species with dense spreading reddish-brown tuffs to 0.5m tall. Prefers damp soil and full sun, but is noted to thrive in a variety of habitats including boggy pasture.

Carex geminata
Robust and vigorous endemic species that grows to 1.5m tall. Thrives in a range of wet habitats. Suitable for a larger area.

Carex lessoniana
Robust and vigorous endemic species that grows to 1.5m tall. Similar to *C.geminata* in that the species is spreading and suitable for a larger wet area.

***Carex secta* (purel, makura)**
Endemic species that exhibits tall spreading tussocks. Has been noted to grow to 3m tall, widespread in swampy areas. Useful in the creation of bird habitat.

Carex virgata

Endemic species that forms dense, light green tussocks up to 1m tall. Thrives in a variety of habitats including swamps, drain margins, seepages and wet pastures. Useful in the creation bird habitat.

Cortaderia fulvida (toetoe)

Branching from the base and forming a clump to 4m high. Long strap-shaped leaves with re orange coloured veins, flower heads cream yellow. New shoots exhibit pale waxy cover on l parts (unlike pampas grass) Prefers good drainage and semi-shade. Will struggle to compete dried out in summer.

Cyperus ustulatus (toetoe upoko-tangata, giant umbrella sedge)

Vigorous leafy sedge growing to 1m in open damp places. Tolerates immersion in standing water within a range of habitats from seepages to wetlands.

Dicksonia squarrosa (wheki, tree fern)

Tree fern up to 7m tall that exhibits tolerance of wet open ground, and floods. Found to shelte and accumulate with other native plants. The base of the fern attracts biodiversity. Useful application to streambank and seepage habitats.

Elatostema rugosum (parataniwha)

Herbaceous plant up to 0.5m tall that spreads by rhizomes. Bronze coloured foliage with serra edge. Grows on moist sites in light to heavy shade. Intolerant of dry habitats.

Hypolepis dicksonioides

Large fern that prefers fertile moist, but well-drained ground, grows vigorously and spores into planted areas with abundance. Does however, die back during winter.

Phormium tenax (harakeke, flax)

Fast growing clump-forming flax with large stiff leaves, to 3m. Full exposure and sun. Moist tc wet conditions. Does not have deep or wide roots. Easily propagated from split fans or grown from seed. Attracts birds, especially Tui.

Trees and shrubs

Consideration needs to be given to the effects of roots land application on wastewater distribution pipe networks. This problem can be more significant for large tree species.

Carpodetus serratus (putaputaweta, marbleleaf)

Lowland forest tree up to 7m tall. Large bunches of cream coloured flowers appear in spring followed by black berries.

Coprosma areolata

Species that grows to 4m tall. Low tolerance to drought, with medium to high fertility.

Coprosma robusta (karamu, shining karamu)

Shrubs or small trees growing to 3m+, with glossy green leaves. Masses of orange-red fruit in autumn are attractive to birds. Hardy plant.

Coprosma tenuicaulis (swamp coprosma)

Endemic species that grows to 3m tall. Leaves pale green with slender branches. Will tolerate a range of swampy to boggy habitats including standing water.

Cordyline australis (ti kouka, cabbage tree)

Palm-like in appearance with large heads of linear leaves and panicles of scented flowers. Sun to semi-shade. Prefers damp to moist soil. Grows eventually to 12m+ height.

Dacrycarpus dacrydioides (kahikatea, white pine)

Tree that grows to 40m. Moderately growing species, which prefers wetland and boggy environments. Application of this species must consider the possible impact of its root systems on the wastewater disposal field.

Geniostoma rupestre (hangehange)

Common forest shrub with pale green glossy foliage, growing to 2-3m. Tiny flowers give off strong scent in spring. Looks best in sunny position where it retains a bushy habit, and prefers well-drained soil.

Hebe stricta (koromiko)

Shrub or small tree growing to 2-5m in height. Natural forms have white to bluish flowers. Plant in full sun. Tolerates exposure. (NB Many cultivars and hybrids are available commercially, but these are all unsuitable for use near existing natural vegetation.)

Laurelia novae-zelandiae (pukatea)

Large upright tree (to 30m) with attractive bright green foliage and distinctive whitish bark . Fast growing and able to handle a wide variety of soils. It will tolerate periodic flooding, breathing roots develop in water logged soils. Can be grown from seed. Tolerant of some sun and frost. Not tolerant of wind.

HAIGH WORKMAN LTD
Civil & Structural Engineers

Engineering Report for Proposed Subdivision Lot 3 DP 392845 at 459 Wiroa Road, Kerikeri for Adam & Kariene Gardiner

Prepared for Thomson Survey Ltd

Supporting Report for an Application to the Far North District Council

Haigh Workman reference 16 284

October 2016

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Revision History

Revision N°	Issued by	Description	Date
-	Tom Adcock	First Issue	October 2016

Prepared by

Tom Adcock

Reviewed By

John Papesch

TABLE OF CONTENTS

1 Executive Summary

It is proposed to subdivide Lot 3 DP 392845 at 459 Wiroa Road, Kerikeri to create 2 additional residential lots, an access lot and the balance lot. The proposed and balance lots are all vacant. The proposed lot sizes are:

- Lot 1 – 2.2 ha
- Lot 2 – 2.3 ha
- Lot 3 – 41.74 ha (balance)
- Lot 4 – 0.14 ha (access)

This report assesses the suitability of site for development with regard to access off Wiroa Road, the general suitability of the ground for building, earthworks required to complete the subdivision, wastewater disposal, stormwater management and water supply.

The proposed development is considered feasible from an Engineering perspective.

Land Stability – The underlying geology of the site is basalt lava flows. These flows are in turn underlain by the Northland Allochthon Complex which is exposed further to the south outside the area under consideration. The basalt geology is strong and stable and with the large lot sizes multiple house site options exist. The soils tested demonstrated good stability and bearing strength.

The site is considered suitable for building light timber framed houses generally in accordance with NZS 3604: 2011 incorporating standard foundations. In the case of strip footings and on grade construction any weak or unsuitable materials shall be removed and all fill placed and compacted under the direction of a qualified Engineer and certified as engineered fill.

To avoid the potential effects of expansivity in the clay soils, shallow foundations such as a reinforced concrete slab with traditional strip footings should be embedded into the stiff natural undisturbed earth by a minimum depth of 450 mm below the natural/cleared ground level. Similarly, if rib-raft foundations on clay are proposed, shrink-swell testing as recommended in BRANZ study report SR120 which refers to AS2870 should be carried out.

Access – All lots will gain access off Wiroa Road which has an open speed limit of 100 km/hr and an operating speed of the same through the site, requiring minimum 170 m sight distances. Lots 1 and 2 will share the existing lot 4 access which has been formed and sealed to an acceptable standard with sight distances well in excess of the minimum required. Lot 3 will require a new crossing located at the brow of the hill some 115 m from the eastern boundary in order to achieve minimum sight distances. Formation of the access will require earthworks cutting and splays to achieve a maximum crossing gradient of 3 % and minimum 170 m sight lines. The crossing shall be either sealed or concreted for a minimum distance of 6 m from the edge of the carriageway or to the road reserve boundary whichever is the greater and incorporate a 300 mm diameter concrete culvert fitted with a Transit traversable mountable culvert headwall device at either end.

Earthworks – Earthworks are required for the lot 3 crossing, including sightlines splays and the lot stormwater detention pond. We conservatively estimate the volume at 550 m^3 with a maximum cut height of 1.5 m. No other earthworks are anticipated at subdivision stage.

Stormwater Management – The large lot sizes means that impermeable surfaces will be well within permitted activity rules. For future development roof tank overflow, together with yard and driveway

run-off shall be discharged to the south onto grassed surfaces in a dispersive manner away from buildings and wastewater disposal fields. Using these practical measures on-site will be no more than minor.

The District Plan and Building Code require, surface water, resulting from an event having a 10% probability of occurring annually shall be disposed of in a way that avoids the likelihood of damage or nuisance to other property. Normal practice for large rural sections with well established flowpaths where downstream effects are expected to be less than minor, has been not to provide attenuation. However, at this site a natural gully on the eastern side of Lot 1 lends itself to forming a simple earth bund detention pond. Using a simplified storage assessment, we have determined that a 1 m deep pond with a with a maximum storage volume 47 m^3 and fitted with a 100 mm diameter outlet orifice will attenuate the 10% AEP storm back to pre-development levels.

Run-off from the impermeable surfaces do not necessarily need to be directed to the pond so long as an equal amount of run-off from the 10% AEP event is attenuated on a quid pro quo basis for a pasture surface is 4,064 m^2. We recommend dam side walls of 1 vert.: 3 horiz., a minimum crest width of 0.5 m and a free board 0.3 m incorporating an emergency spillway located at one end of the dam wall on existing ground. The pond will be ephemeral, impounded water occasionally during extreme events. A greater depth may be used if a constant 'wet' pond is desired.

Water Supply – Roof water will be collected to storage tanks for water supply. The system should be fitted with a first flush device or filtration to improve the water quality.

Council Engineering Standards require a water supply that is adequate for firefighting purposes. For a single family home without a sprinkler system the New Zealand Fire Service Fire Fighting Water Supplies Code of Practice SNZ PAS 4509:2008 recommends for a non-reticulated supply as a firefighting supply minimum water storage of 45 m^3 within 90 m.

Wastewater

On-site effluent disposal is sustainable in compliance with the permitted activity requirements of the Regional Water and Soil Plan using secondary treatment and trickle irrigation disposal.

With reference to 2008 FNDC policy for on-site effluent disposal, we have identified on the plan suitable locations for disposal systems associated with identified suitable building sites and identified watercourses and other features which should be avoided. We estimate the cost of a secondary treatment plant and trickle irrigation disposal field at $15,000 including GST per lot.

A reserve area of 100% of design requirements can also be accommodated within all lots.

National Environmental Standard - The National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health (NES) are regulations issued under Sections 43 and 44 of the Resource Management Act. Specialist advice may be required if requested by Council during the consenting process.

The site comprises pasture and bush cover as does the surrounding land use. Based on our walkover inspection there is no visual evidence to suggest previous horticultural or industrial activity.

2 Introduction

It is proposed to subdivide Lot 3 DP 392845 at 459 Wiroa Road, Kerikeri to create 2 additional residential lots, an access lot and the balance lot. The proposed and balance lots are all vacant. The proposed lot sizes are:

- Lot 1 - 2.2 ha
- Lot 2 - 2.3 ha
- Lot 3 - 41.74 ha (balance)
- Lot 4 - 0.14 ha (access)

This report assesses the suitability of site for development with regard to access off Wiroa Road, the general suitability of the ground for building, earthworks required to complete the subdivision, wastewater disposal, stormwater management and water supply.

This report should be read in conjunction with specialist reports being undertaken by others for planning aspects.

2.1 Objective and Scope

The scope of this report encompasses the general engineering aspects of the proposed subdivision as defined on Thomson Survey Drawing 8961.

The scope of our work includes:

- Site mapping
- Review of our geotechnical database, geological maps and Council online hazard mapping
- Evaluation of subsurface conditions with recommendations for building foundations
- Review requirements for access, earthworks, wastewater disposal, stormwater and water supply

2.2 Applicability

This report has been prepared for our Client, Adam & Kariene Gardiner with respect to the particular brief given to us by Adam Gardiner. This report is to be used by our Client and Consultants and may be relied upon by the Far North District Council when considering the application for the proposed subdivision. The information and opinions contained within this report shall not be used in other context for any other purpose without prior review and agreement by Haigh Workman Ltd.

3 Site Description

3.1 Location

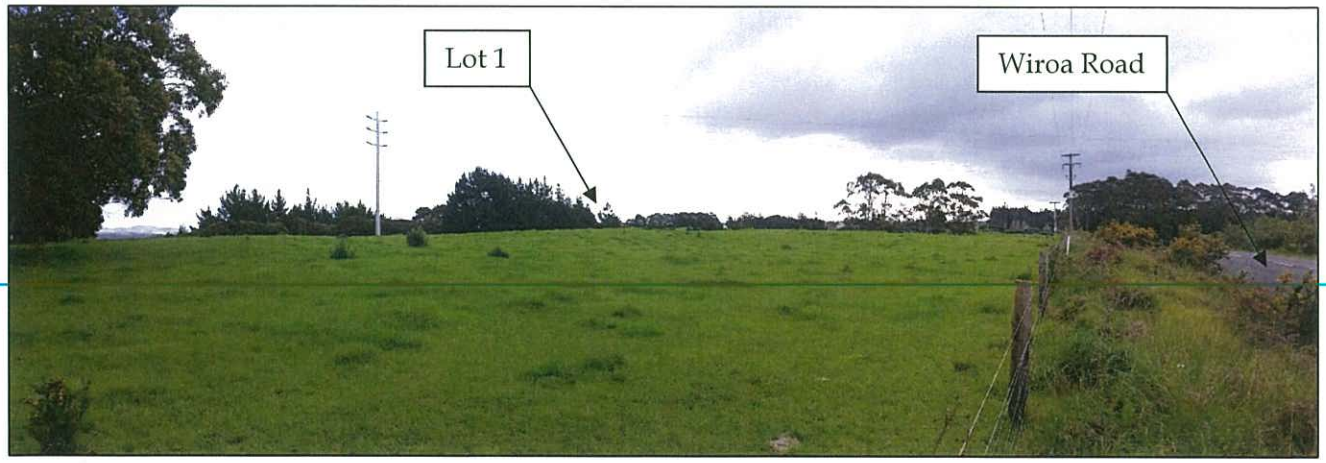
The area of proposed subdivision is located on the southern side of Wiroa Road, Kerikeri approximately 1.4 km west of the intersection with Waimate North Road. The two proposed residential lots 1 and 2 lie some 175 m back from the road with access gained via the narrow access lot 4. The balance Lot 3 has 255 m of road frontage. The property was vacant at the time of our inspection and is zoned Rural Production. being more or less 46.37 ha. For the purpose of this report we have considered a house site on lot 3 on the ridgeline within easy access of Wiroa Road.

3.2 Topography and Drainage

The land is rolling hill country with Wiroa Road following the line of a gently rolling ridgeline and the site occupying flatter ground closer to Wiroa Road, rolling off at a moderate gradient to a stream crossing the property to the south. A gully forming on the eastern boundary of lot 1 connected with the stream.

Lot 1 was dominated by a gently rolling spur feature, bounded by a small gully to the east and the stream to the south. Lot 2 contained a larger proportion of the flatter ground at the brow of the slope before also gently rolling away to the stream. For both lots stormwater run-off during heavier rainfall events will follow the natural contour draining as sheet flow to the southern stream.

Photograph 1 – Lots 1 and 2 viewed looking southwest



Photograph 3 – Lot 3 viewed looking southwest

Balance lot 3 adjacent Wiroa Road contained flat and gently rolling land with frontage onto Wiroa Road. A shallow depression was noted just east of the power lines and was thought by the owner to have been the possible site of a metal extraction pit. Drainage here in the flatter areas is via soakage into the ground as confirmed by the owner.

Ground cover was improved pasture with small areas of bush in places along the water course.

There is no connection available to Council sewerage reticulation or water supply.

A building envelope with dimensions of 30 m x 30 m can be accommodated on all allotments including ample room for on-site wastewater disposal fields.

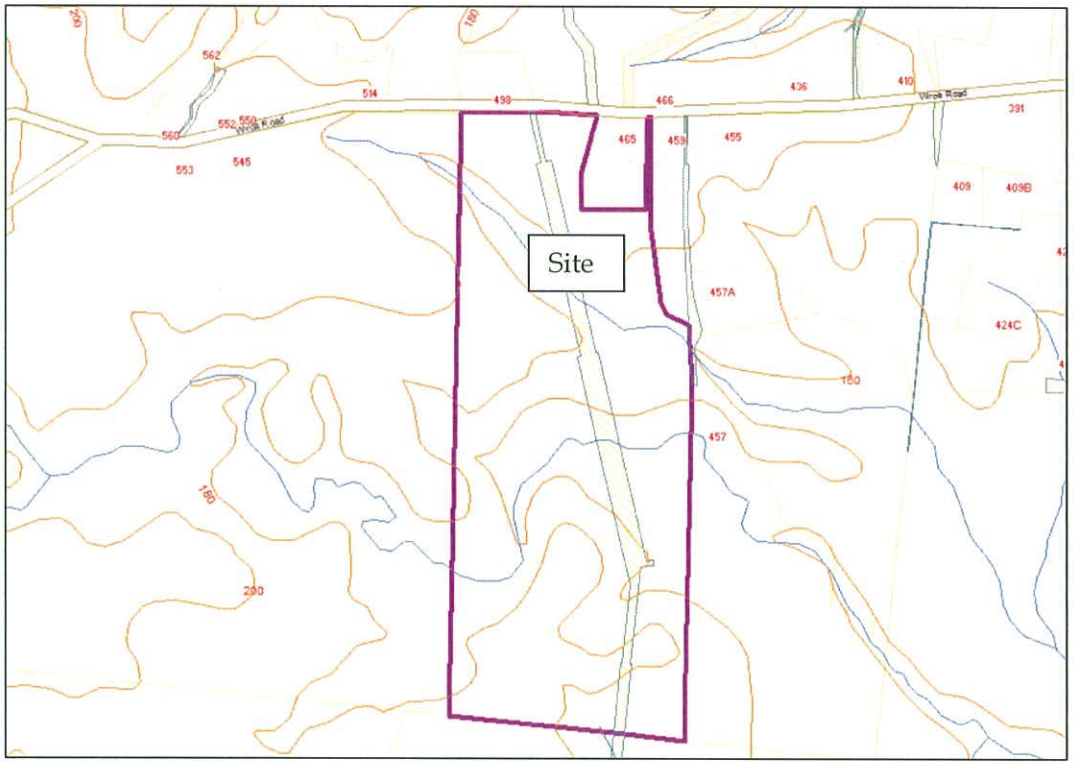


Figure 1 - Location plan

3.3 Proposed Development

The appended survey plan shows the proposed subdivision.

4 Land Stability and Suitability

4.1 Mapped Geology

Reference is made to the following NZMS 290 soil and rock maps and GNS Geological maps:

- New Zealand Geological Survey, NZMS Sheet 290 P 04/05, 1: 100,000 scale map, Edition 1 1982: "Whangaroa - Kaikohe" (Rock Types)
- New Zealand Geological Survey, NZMS Sheet 290 P 04/05, 1: 100,000 scale map, Edition 1 1980: "Whangaroa - Kaikohe" (Soils)
- Institute of Geological & Nuclear Science, GNS Geological Map 2, 2009 'Whangarei'

The maps detail the rock and soils underlying the site as follows:

4.1.1 Bedrock Geology (Rock)

Soil horizons are indicated on the GNS Map as being underlain by Basalt lava flows (Pvb) old flows and flow remnants overlying Mangakahia Complex (Kk) of the Northern Allochthon comprising structurally complex units of tectonically intercalated sandstone and mudstone.

The basalt extends along the Wiroa road ridge line encompassing the area of the site under consideration. Beyond the site to the south and east where the ground dips away the geology changes to ancient weathered sandstones and mudstones of the Northern Allochthon. The basalt is recorded as weathering to soft red brown or dark grey brown clay to depths of 20 m with many rounded corestones.

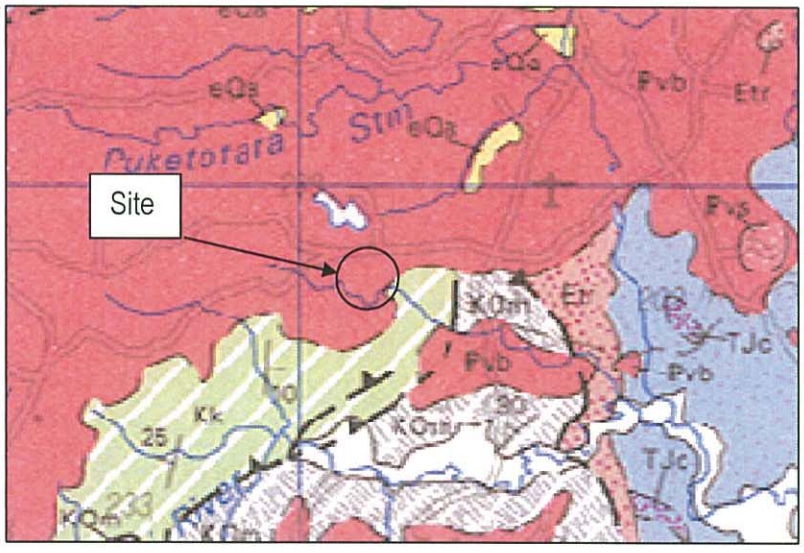
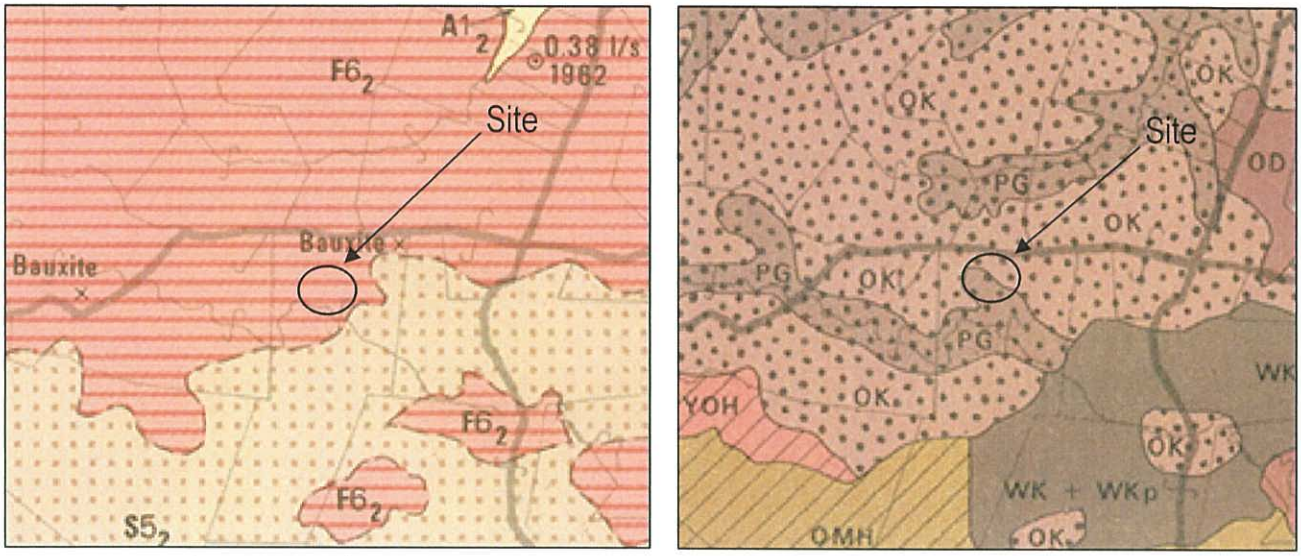


Figure 2 – extract from GNS Sciences Sheet 2, 2009 'Whangarei'

4.1.2 Weathered Geology (Soils)

The parts of the site encompassing the proposed subdivision are shown to be directly underlain by soils of the Rolling and Hilly Land comprising Okaihau gravelly friable clays (OK), typically described as *well to*

moderately well drained. It is our opinion that lots 1 and 2 and the area of lot 3 inspected were volcanic remnants providing suitable soils for house sites. We would describe these soils typically as moderately to slowly drained (TP 58 Category 5).



Figures 3a & 3b – extract from NZ Geological Survey NZMS Sheet 290 P 04/05, 1996 'Whangaroa – Kaikohe' showing rock types (Fig. 2a), and soils (Fig. 2b)

4.2 Soils Investigation

As part of our site investigations two shallow hand augured bore holes were sunk, Borehole BH 1 on lot 1 and BH 2 on lot 3 closer to Wiroa Road. Refer borehole logs appended. Both boreholes were sunk in areas suitable for building sites. BH 1 was sunk to a depth of 2.0 m and revealed 150 mm of rich topsoil depth underlain by a red brown, very stiff, plastic, silty clay. BH 2 was sunk to 2.1 m and revealed 200 mm of topsoil underlain by a very stiff red plastic silty clay, becoming clayey silt after 0.6 m depth. The soils were moist throughout, a wet zone was encountered in BH 1 at 1.9 m but otherwise ground water was not encountered.

The soils tested demonstrated good stability and bearing strength.

4.3 Geotechnical Recommendations

The geotechnical observations and recommendations which are contained in this report are based upon our visual observations, geological mapping and the recommendations from earlier geotechnical investigations and reports. We should be notified of any surface or subsurface conditions which appear to differ from those disclosed by this report, so that these conditions may be reviewed and our recommendations reconsidered where necessary.

4.3.1 Hazards

Hazards listed in the Building Act include; erosion, falling debris, subsidence, inundation or slippage.

We assess the susceptibility of the identified building sites to those potential effects as;

Erosion	No, with retention of vegetation cover

Falling debris	No
Subsidence (vertical settlement)	No
Inundation - from water	No
Slippage	No

4.3.2 Sites Subject to Natural Hazards

The site does not contain any natural hazards that would warrant action under Section 71(1) of the Building Act 2004.

4.3.3 Land Stability

We have visited the site and inspected it for indications of slippage, settlement or instability. The site is predominately gently rolling with very stiff clays overlying basalt basement rock types. The ground slope increases towards the southern boundary on lots 1 and 2 along the watercourse. However, ample suitable house sites are available well away from the steeper sloping ground. Ground conditions are strong with no signs of instability being observed.

4.3.4 Foundations

The site is considered suitable for building light timber framed houses generally in accordance with NZS 3604: 2011 incorporating standard foundations. In the case of strip footings and on grade construction any weak or unsuitable materials shall be removed and all fill placed and compacted under the direction of a qualified Engineer and certified as engineered fill.

On lots 1 and 2 no indications of earlier earthworks were observed within the more likely house site areas, however, within the assessed area of lot 3 adjacent to Wiroa Road a distinct depression was observed just east of the power lines and thought to be the site of earlier metal extraction. Any house should be kept clear of this area or otherwise the ground tested by an engineer with geotechnical expertise to check for the presence of weak ground if for instance the depression contained un-compacted backfill material.

Many Northland soils display shrinkage and swelling properties, in a phenomenon termed expansivity. This can place stress loads on a building's foundation triggered by moisture changes within the soil. Without undertaking detailed laboratory testing we would anticipate the clay portion of the soils falling within the category of moderate to high expansivity.

To avoid the potential effects of expansivity, shallow foundations such as a reinforced concrete slab with traditional strip footings should be embedded into the stiff natural undisturbed earth by a minimum depth of 450 mm below the natural / cleared ground level.

If rib-raft foundations on clay are proposed, shrink-swell testing as recommended in BRANZ study report SR120 which refers to AS2870 should be carried out.

4.3.5 Flooding

The District Council On-line Far North Maps incorporating NRC flood hazard mapping were consulted for identified flood hazards. No flood hazard has been identified for property.

4.3.6 RMA Section 106

Consent authority may refuse subdivision consent in certain circumstances

(1) A consent authority may refuse to grant a subdivision consent, or may grant a subdivision consent subject to conditions, if it considers that –

> *(a) the land in respect of which a consent is sought, or any structure on the land, is or is likely to be subject to material damage by erosion, falling debris, subsidence, slippage, or inundation from any source; or*
>
> *(b) any subsequent use that is likely to be made of the land is likely to accelerate, worsen, or result in material damage to the land, other land, or structure by erosion, falling debris, subsidence, slippage, or inundation from any source; or*
>
> *(c) sufficient provision has not been made for legal and physical access to each allotment to be created by the subdivision.*

(2) Conditions under subsection (1) must be –

> *(a) for the purposes of avoiding, remedying, or mitigating the effects referred to in subsection (1); and*
>
> *(b) of a type that could be imposed under section 108.*

None of the conditions listed in Section 106 of the Resource Management Act are applicable to the building sites indicated on the subdivision scheme plan.

5 Access

All lots front onto Wiroa Road. Access for lots 1 and 2 will be gained via the existing crossing on lot 4. Lot 3 will require a new crossing.

Photograph 4 - Lots 1 and 2 vehicle crossing via lot 4

Photographs 5 & 6 Lots 1 and 2 vehicle crossing via lot 4 viewed 5 m back from edge line

Wiroa Road is a District Arterial road with an open speed limit of 100 km/hr. and an operating speed through the site typically 100 km/hr. The carriageway has a sealed width of 6.0 m. In accordance with FNDC 2009 Engineering Standards Drawing FNDC/S/6 an operating speed of 100 km/hr requires a minimum sight distance of 170 m. The existing lot 4 crossing that will serve lots 1 achieves sight distances in both directions well in excess of the minimum requirement.

The existing lot 4 entrance coincides with the start of a 2.5 m shoulder widening associated with the farm entrance crossing on the opposite side of the road. The crossing is culverted with a Transit traversable mountable culvert headwall and sealed for the first 5 m to the property boundary over a width of 6.5 m at the carriageway shoulder tapering to 5 m at the property boundary.

District Plan Rule 15.1.6.1.2 Vehicle Access requires rural entrances serving two or more properties to be double crossings. Drawing FNDC/S/6B appended, shows a typical arrangement for a double crossing. Given the shoulder widening we consider the existing crossing to satisfactory the requirements for a double crossing.

Lot 3 has no existing entrance and whilst having frontage onto a straight stretch of road there is a noticeable brow located 115 m from the proposed eastern lot boundary and 140 m from the western property boundary. This creates a blind spot zone starting at 30 m from the crest of the brow on the eastern approach from Kerkeri and at 11 m on the western approach from Okaihau. Since a crossing not positioned on the brow will require minimum 170 m sight distances set back from the brow, which exceeds the brow to lot boundary distances (115 and 140 m), a crossing can only be safely positioned at the summit of the brow.

Photograph 7 showing Wiroa Road brow blind spot zone and cutting viewed from Okaihau approach

Wiroa Road crests the brow in a cutting up to 1.5 m deep. Formation of the access will require earthworks cutting and splays to achieve a maximum crossing gradient of 3 % and minimum 170 m sight lines. Refer typical entrance cross-section appended. The crossing shall be either sealed or concreted for a minimum distance of 6 m from the edge of the carriageway or to the road reserve boundary whichever is the greater and incorporate a 300 mm diameter concrete culvert fitted with a Transit traversable mountable culvert headwall device at either end. Refer technical brochure appended.

5.1 Driveways

Driveways within the allotments leading to the house sites indicated on the site plan will be constructed at the building consent stage and do not form part of the subdivision. The earthwork associated with driveway formation is not included in the estimated earthworks volume for the subdivision.

6 Earthworks Required to Complete the Development

6.1 Description of the Works

Earthworks will be required to form the lot 3 crossing and stormwater detention pond on Lot 1.

The earthworks will typically comprise;

- stripping of topsoil
- lot 3 crossing in cut including sightlines splays
- lot 1 stormwater pond embankment

We estimate the earthworks volume as:

- lot 3 crossing 161 m^3 cut
- stormwater pond - 112.5 m^3 fill

We count excavation and filling as earthworks, hence the total volume of excavation and fill is 550 m^3. A saving may be achieved if the cut from the crossing is used for the pond embankment wall.

No other earthworks are anticipated at subdivision stage.

6.2 Resource Consent Required

Under Rule 12.3.6.1.1 Excavation and/or filling, excluding mining and quarrying, in the Rural Production Zone is a permitted activity provided that:

(a) it does not exceed 5,000 m^3 in any 12-month period per site; and

(b) it does not involve a continuous cut or filled face exceeding an average of 1.5 m in height over the length of the face i.e. the maximum permitted average cut and fill height may be 3 m.

The cut/fill face definition excludes a face no greater than 3 m which is to be retained by a properly engineered retaining wall and for which a building consent has been issued.

Based on our assessment, resource consent is not required for the earthworks to form the lot 3 entrance.

6.3 Erosion and Sediment Control

During construction it will be important to control the potential mobilisation of silt. Some of the silt material will be of a very fine colloidal nature, inclined to be very slow to settle out and to cause discolouration for long periods.

When forming the lot 3 access the contractor should attempt to capture any sediment entering the Council road side drainage channel. Control structures such as short lengths of silt fencing or hay bales should be placed at regular intervals along the channel to capture any silt. At the same time, stormwater should be directed away from bare earthworks areas using top soil bunds and the like.

Within the site there is ample room for temporary stockpiling of top soil. Surplus spoil should be disposed of in a controlled manner away from steep slopes and compacted in layers, having first stripped the topsoil. If spoil is to be placed close to a watercourse or flowpath then sediment controls shall be installed using standard controls such as silt fencing and topsoil bunds to direct stormwater.

All bare earthworks areas hall be re-topsoiled and seeded at the earliest opportunity. All silt control measures and devices shall remain in place until bare earthworks areas stabilised with a minimum 85 % grass cover.

7 Stormwater Management

Lots 1 and 2, including the house site on lot 3, assumed for the purpose of this assessment, to be within easy access of Wiroa Road all drained to the watercourse running along the southern boundary of lots 1 and 2. A gully forming on the eastern boundary of lot 1 connected with the stream.

For lots 1 and 2 stormwater run-off during heavier events will follow the natural contour draining as sheet flow to the water course. For the developable portion of balance lot 3 adjacent Wiroa Road drainage is mostly via soakage into the ground with sloping areas also draining to the watercourse.

7.1 Summary of Regulatory Issues

7.1.1 Regional Water and Soil Plan

The Regional Water and Soil Plan for Northland permitted activity rule 21.1.2 (a) requires that:

> *For new subdivision and development, the best practicable option for on-site stormwater disposal shall be identified and incorporated into the stormwater management design to avoid or minimise changes to stormwater flows after development for the 1 in 5-year return period storm event.*

Rule 21.1.2 (d) requires that:

> *The stormwater collection system is designed to cater for stormwater flows resulting from not less than a 1 in 5-year return period storm event and a stabilised overland flow path is provided for to allow flows up to and including a 1 in 50-year storm event in excess of the capacity of the primary system.*

Rule 21.1.2 (b), (c) and (e) control discharges of contaminants likely to be present on industrial sites.

7.1.2 Far North District Plan

11.3 Stormwater Management

13.4.13 Subdivision - Use and development shall avoid adverse effects as far as practicable by using techniques including:

(g) achieving hydraulic neutrality and ensuring that natural hazards will not be exacerbated or induced through the siting and design of buildings and development.

Chapter 3: Definitions - In the case of jointly owned access lots that contain impermeable surfaces within their boundaries, the total area of these impermeable surfaces are to be divided equally and considered as parts of the various sites served by the access lot for the purpose of determining compliance with the relevant stormwater management rules.

Chapter 3 Page 8 - Impermeable surfaces are defined as:

IMPERMEABLE SURFACE

In relation to any site means any building or surface on or over the land which creates a barrier to water penetration into the ground. This definition includes but is not restricted to:

(a) decks (including decks less than 1m in height above the ground) excluding open slatted decks where there are gaps between the boards;

(b) pools, but does not include pools designed to operate as a detention pond;

(c) any surfaced area used for parking, manoeuvring, access or loading of motor vehicles, including areas covered with aggregate;

(d) areas that are paved with concrete, asphalt, open jointed slabs, bricks, gobi or materials with similar properties to those listed;

(e) roof coverage area on plan;

But excludes:

i. Water storage tanks occupying up to a maximum cumulative area of 20m2; and

ii. Paths and paving less than 1m wide, provided they are separated from other Impermeable Surfaces by a minimum of 1m.

For the purpose of calculating impermeable surfaces, account shall not be taken of any additional areas that are overlapped by another form of impermeable surfaces.

In the case of jointly owned access lots that contain impermeable surfaces within their boundaries, the total area of these impermeable surfaces are to be divided equally and considered as parts of the various sites served by the access lot for the purpose of determining compliance with the relevant stormwater management rules.

7.1.3 FNDC Engineering Standards & Guidelines

4.3.2.5.1 Design Storms - The return period for Rural and Rural Residential Areas, Residential Areas and Commercial and Industrial Areas, shall be 10 years.

All areas where no secondary flow path or secondary protection is available shall be 100 years. Secondary protection shall be satisfied by a combination of the primary protection system and appropriately designed secondary flow paths, controlled flood plains and setting of appropriate building levels.

7.1.4 New Zealand Building Code Clause E1 Surface Water

E1.3.1 Except as otherwise required under the Resource Management Act 1991 for the protection of other property, surface water, resulting from an event having a 10% probability of occurring annually and which is collected or concentrated by buildings or sitework, shall be disposed of in a way that avoids the likelihood of damage or nuisance to other property.

7.2 Impermeable Surfaces

The development of each lot will result in impermeable surfaces, mostly access ways, and roofs. We estimate the new impermeable surfaces for the proposed lots to be typically:

Impermeable Surfaces	Lot 1	Lot 2	Lot 3	Lot 4	Proposed Total	Lots 1, 2 & 4 combined
House and garage roof	250	250	250		750	500
Shed	70	70	70		210	140
Yarding concrete	125	125	125		375	250
Vehicle access gravel	390	210	240		840	600
Lot 4 shared access	275	275				
Total impermeable surfaces	1110.0	930.0	685.0	0.0	2725	2040
Lot Area	22000	23000	417400	1400	463800	46400
Percent Impermeable	5.0%	4.0%	0.2%	0.0%	0.6%	4.4%

Under District Plan Rule 8.6.5.1.3 in the Rural Production zone, the maximum proportion of the gross site area covered by buildings and other impermeable surfaces shall be 15%.

Lots 1, 2 and 3 can be expected to comply. The Lot 4 access surfaces are divided equally between lots 1 and 2.

7.3 Effect On-site

For future development on all lots roof tank overflows, together with yarding and driveway run-off should, where possible, be directed to discharge in a dispersive manner onto grassed surfaces away from buildings and wastewater disposal fields to encourage soakage into the ground. Using these practical measures, on-site effects will be minor.

7.4 Effect Off-site

Once fully developed lots 1, 2, 3 and 4 are expected to have impermeable surfaces of just 0.6%. However, this does include the very large balance lot 3 which tends to skew the result. A more realist assessment would be to consider lots 1 and 2 and include the access lot 4 as a shared ROW, in which case impermeable surfaces of 5.0% can be expected.

The District Plan and Building Code require, surface water, resulting from an event having a 10% probability of occurring annually shall be disposed of in a way that avoids the likelihood of damage or nuisance to other property.

Normal practice for large rural sections with well established flowpaths, where downstream effects are expected to be less than minor, has been not to provide attenuation. However, at this site a natural gully on the eastern side of Lot 1 lends itself to forming a simple earth bund detention pond.

Using the Whanagarei District Council Simplified Storage Assessment we have determined that a 1 m deep pond with a with a maximum storage volume 47 m^3 and fitted with a 100 mm diameter outlet orifice will attenuate the 10 % AEP storm back to pre-development levels. The pond will have a surface area at the water line of approximately 141 m^2. The pond will need to be positioned part way up the gully to avoid becoming over whelmed by too greater a catchment.

Run-off from the impermeable surfaces do not necessarily need to be directed to the pond so long as an equal amount of run-off from the 10 % AEP event is attenuated on a quid pro quo basis.

We recommend a dam with side wall profiles of 1 vert. : 3 horiz., a minimum crest width of 0.5 m and a free board 0.3 m incorporating an emergency spillway located at one end of the dam wall on existing ground. This will require a minimum dam wall height of 1.3 m measured from the invert of the outlet pipe. The pond will be ephemeral, impounded water occasionally during extreme events. A greater depth may be used if a constant 'wet' pond is desired. A suitable location for the pond is shown on the site plan appended.

It is our opinion that by using a stormwater detention pond the off-site effects will be no more than minor.

7.5 Ability to Monitor

The site will be accessible at all times and the state of the works and proposed mitigation measures will be very evident.

8 Water Supply

8.1 Potable Water Supply

Water supply will be from stored rainwater collected from building roofs. The system should be fitted with a first flush device or filtration to improve the water quality.

8.2 Fire Fighting

Council Engineering Standards require a water supply that is adequate for firefighting purposes. A reticulated water supply is not available at the site.

For a single family home without a sprinkler system the New Zealand Fire Service Fire Fighting Water Supplies Code of Practice SNZ PAS 4509: 2008 allows for a non-reticulated supply as an alternative firefighting water source a minimum water storage of 45 m3 within 90 m and not closer than 6 m from the source of fire.

In the case of plastic water storage tanks adequate distance or shielding is required to prevent fire damage of the tank. Water storage tanks should be fitted with an approved Fire Service coupling giving a flow of 12.5 L/s at the coupling and access for fire appliances should be as close as possible to the source of fire.

Access for fire trucks should not exceed 16% gradient and be trafficable at all times. The minimum roading width should not be less than 4 m and the height clearance e.g. trees, hanging cables, building eaves at least 4 m.

Hardstanding for a standard fire appliance should not be less than 4.5 m in width by 11 m in length and all reasonable effort should be made to accommodate a vehicle turning circle of approximately 17.5 m.

9 On-site Effluent Disposal

A connection to the Council sewer reticulation system is not available, requiring on-site wastewater disposal.

9.1 Summary of Regulatory Issues

The discharge of sewage effluent on to land is controlled by the permitted activity Rule 15.1 of the Regional Water and Soil Plan for Northland (RW&SP).

The effluent disposal systems will need to be sited to avoid concentrated surface rainfall run-off and natural interflow seepage from higher ground, or be protected by using interception drains. Depending on eventual disposal area locations chosen, some portions of the disposal areas may need to be mounded above the surrounding land to ensure that the lowest point in the field complies with the Regional Water and Soil Plan and Far North District Plan (FNDP) rules:

- not less than 1.2 m above the winter groundwater table for primary treated effluent (RW&SP Rule 15.1.3)
- not less than 0.6 m above the winter groundwater table for secondary treated effluent (RW&SP Rule 15.1.4)

The disposal field shall also have minimum separation distances from watercourses and boundaries as follows:

- not less than 20 m from any surface water for primary treated effluent (RW&SP Rule 15.1.3)
- not less than 15 m from any surface water for secondary treated effluent (RW&SP Rule 15.1.4)
- not less than 30 m from any river, lake, wetland or CMA (FNDP Rule 12.7.6.1.4)
- not less than 20 m from any existing groundwater bore located on any other property (RW&SP Rules 15.1.3 and 15.1.4)
- not less than 1.5 m from a boundary
- not less than 3.0 m from a dwelling

The RW&SP defines ''Surface Water'' as: All water, flowing or not, above ground. It includes water in continually or intermittently flowing rivers, artificial watercourses, lakes and wetlands, and water impounded by structures such as dams or weirs but does not include water while in pipes, tanks, cisterns, nor water in the Coastal Marine Area.

Surface water, as defined in NZS 1547:2012, refers to: any fresh water or geothermal water in a river, lake, stream, or wetland that may be permanently or intermittently flowing. Surface water also includes water in the coastal marine area and water in man-made drains, channels, and dams unless these are to specifically divert surface water away from the land application area. Surface water excludes any water in a pipe or tank.

Interpretation of these rules has evolved to include flood water flow paths. For secondary treated effluent, the appropriate flood level is the 20-year return period flood, and 100 year for primary treatment.

9.2 Design Population and Flow

9.2.1 System Capacity

For subdivision purposes, we assume 3-bedroomed houses on each lot, with a design occupancy of 5.

9.2.2 Source of Water Supply

Water supply will be sourced from roof water collection tanks.

9.2.3 Design Flows

Considering the nature of the occupation we have adopted design flows of 160 litres per person per day for households with standard fixtures, being 800 litres per day for a 5-person household. Flow reduction fittings may be used, but this cannot be assumed in assessing potential wastewater flows.

9.3 Site and Soil Evaluation

9.3.1 Summary of Site and Soil Evaluation

Suitable effluent fields are shown on the appended site plan.

The effluent disposal sites are characterised by:

- Gently to moderately steep topography with a central watercourse
- Moderately well drained soil profile with 150 mm topsoil layer and good grass cover
- Generous section sizes

The soil type in the of the site encompassing the proposed subdivision are shown to be directly underlain by soils of the Rolling and Hilly Land comprising Okaihau gravelly friable clays (OK), typically described as well to moderately well drained. Our boreholes indicate that the soil type in the area of the proposed disposal fields can be described in accordance with TP58 as Soil Category 5 - moderate to slow drainage. The equivalent AS/NZS 1547 is Soil Category 4.

TP58 Soil Category 5 and AS/NZS 1547 Soil Category 4 can be expected to sustain a loading rate of up to 3-4 mm/day with surface or subsoil drip irrigation.

We note that there are multiple suitable positions for on-site effluent disposal available whilst meeting the required setbacks from surface water.

9.3.2 Key Constraints

The key constraints arising from the Site and Soil Evaluation are minor, being;

- potential for ground to become saturated during prolonged rainfall, as applies everywhere
- required separation distances from surface water
- moderately steep ground

The site has broad grassed areas suitable for on-site effluent disposal whilst meeting the required setbacks from surface water. Surface water at this site is considered to be the natural gully shapes and convergent slopes which provide secondary flow. Any land disposal system will be much more than 15 m away from the natural drainage land forms.

9.3.3 Summary of Design Issues

The effluent disposal system will need to be sited to avoid surface run-off and natural seepage from higher ground, or be protected using interception drains.

Secondary treatment and trickle irrigation is considered more sustainable, given the high level of treatment and the opportunity to irrigate discreet areas of the including those at a higher elevation than the treatment plant using pressure supply pipelines. The system also allows the use of treated effluent for irrigation of gardens, lawns or similar landscaped areas and eliminates the potential for concentrated flow to a single drainage path.

Traditional septic tank treatment and soakage trenches are also considered appropriate for this area.

For the purpose of this assessment and for the evaluation area chosen, we adopt trickle irrigation to provide wide dispersal of secondary treated effluent at trickle irrigation rates.

9.4 Assessment of Environmental Effects

9.4.1 Effects on the Environment within the Property

By using trickle irrigation, it is our opinion that there is unlikely to be any detectable environmental effect, 3.0 m beyond the disposal field. Use of the secondary treated effluent for trickle irrigation would enhance landscape vegetation growth particularly during the drier summer months.

9.4.2 Effects on the Environment beyond the Property

It is our opinion that no off-site effects will be detectable.

9.4.3 Cumulative Effects

Given the scale of the site and the aspect, there is unlikely to be any detectable cumulative effect.

9.5 Design for Land Application System

9.5.1 Trickle Irrigation

The use of trickle irrigation disposal is sustainable for the very long term. It provides an easy to install and convenient system for distributing effluent:

- over a much wider, and if required, number of discreet areas
- at an application rate low enough to be sustained by evapo-transpiration without reliance on the soakage

- without unduly disturbing the existing surface

9.5.2 System Siting

For the evaluation areas considered, the sites offer large areas suitable for trickle irrigation disposal. The appended plan shows the natural watercourse that should be avoided. The main design issue is to achieve setback from the surface water feature and to protect the irrigation fields from surface run-off and natural seepage from higher ground using interception drains.

9.5.3 System Design Sizing

The proposed disposal system should be sized to achieve a daily application rate of not exceeding 4 mm per day. We adopt 3.5 mm here. On this basis, a 3-bedroom house would require 800/3.5 = 230 m² or 230 linear metres of dripper tubing. This may be achieved using trickle irrigation tubing with 2.7 litre/hour emitters at 600 mm spacing with the trickle tubes laid 1 m apart.

9.5.4 Reserve Area Sizing

The sites have available reserve areas in excess of 100 % of the disposal area, i.e. at least 230 m² on each site suitable for effluent disposal.

9.5.5 Loading Method

It is proposed that the pump chamber for treated effluent will, as is usual practise, be controlled by float switches which would operate the trickle irrigation pumps on demand. No other means of control is necessary.

9.5.6 Factors of Safety

The major factor of safety is in treatment plant capacity. A standard treatment plant has not less than 50 % spare capacity, in relation to the load from a normal 3-bedroom house.

For disposal, safety factors exist in the reserve area sizing. An allowance for advantageous loss to deep soakage, which adds a further safety factor, has not been included.

9.6 Design for Treatment System

9.6.1 Parameters Affecting Choice of Treatment

- certainty for long term sustainability
- minimal environmental effect

9.6.2 Treatment Plant Design Sizing

The naming of a proprietary secondary treatment plant will be decided by the new owner at the bc stage, when the location and scale of buildings are known. Treatment plants must meet the requirements of AS/NZS 1546.3: 2001.

9.6.3 Siting Requirements

Restrictions on siting of secondary treatment plants are:

- invert level of inlet not less than 0.5 m below floor level
- more than 3.0 m from any house
- more than 1.5 m from any boundary
- easily accessible for routine maintenance

9.7 Construction Installation

9.7.1 Installation Requirements

Treatment plants must be installed to the manufacturers published specifications. The trickle irrigation tubing must be installed by the treatment plant installer.

9.7.2 Commissioning Requirements

The treatment and trickle irrigation must be tested and commissioned by the plant provider.

9.8 Management Procedures

9.8.1 Operation Maintenance Requirements

A maintenance agreement is to be entered into with the provider. Once commissioned, the plant will operate automatically with alarms fitted to advise the house occupants in the event of emergency failure.

9.8.2 Monitoring and Inspection

As part of the maintenance agreement with the plant provider, there should be at least annual inspections with written reports provided to the owner.

9.9 FNDC On-site Effluent Disposal Policy 2008

9.9.1 Likelihood of Failure / Accidental Discharge

The likelihood of a discharge from a household secondary (aeration) treatment plant is low. The pipe work to and within the plant when correctly installed is robust with sealed connections and buried below ground; reducing the likelihood of accidental damage. Only the puncture of a distribution pipe would allow treated effluent to escape in a concentrated manner.

9.9.2 Consequence of Failure / Accidental Discharge

The site is sufficiently remote from; food gathering locations, aquatic recreation and environments sensitive to accidental organic or bacterial loading. In the unlikely event of some form of failure/accidental discharge, the material would have to travel in excess of 15 m over ground to reach any

surface water (adopting the NRC minimum requirement of 15 m from surface water). Most, if not all, of the accidental discharge is likely to be lost to soakage over this distance.

9.9.3 Multiple House Sites

At this site there is more than one location where a trickle irrigation field could be constructed, so the final appropriate location for installing the disposal system cannot be pre-determined.

9.9.4 Vegetation Planting

Trickle irrigation disposal systems rely on evapo-transpiration from sub-surface irrigated lawns or covered surface irrigated landscape planting. Where new planting is required, this must be in place prior for the evapo-transpiration process to begin functioning. A list of suitable plants is appended.

9.10 Appendix E

We also attach completed Appendix E Site Assessment Form.

9.11 Cost estimate

We estimate the cost of a secondary treatment plant at $15,000 including GST as laid out below;

Item	Estimate
(i) Secondary treatment plant delivered to site (excl. GST) including 200-300 m dripper lines	$10,000
(ii) Hydraulic excavator	$1,000
(iii) Electrical connections to pump and control panel.	$500
(iv) Electrical cabling from house to tank incl. trenching	$750
(v) PVC sewer pipework from house to plant inclusive trenching	$750
Total excl. GST	**$13,000**
GST @ 15 %	$1,950
Total incl. GST:	**$14,950**

It should also be noted that prices for treatment plants can vary significantly between suppliers. The treatment plant price stated above is a mid-range price. Prices from suppliers we have obtained vary by +/- $1,000.

Other costs to be considered include;

(i) Covering exposed drip lines with mulch / bark

(ii) Planting with native species suitable for evapo-transpiration and general landscaping

10 National Environmental Standard

The National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health (NES) are regulations issued under Sections 43 and 44 of the Resource Management Act and were introduced from 1 January 2012.

The standards provide a nationally consistent set of planning controls and soil contaminant values to ensure that land affected by contaminants in soil is appropriately identified and assessed before it is developed - and if necessary the land is remediated or the contaminants contained to make the land safe for human use.

NES classifies as permitted activities:

- small-scale (no greater than 25 cubic metres per 500 square metres of affected land) and temporary (two months' duration) soil disturbance activities
- subdividing land or changing land use where a preliminary investigation shows it is highly unlikely the proposed new use will pose a risk to human health.

The Hazardous Activities and Industries List (HAIL) is a compilation of activities and industries that are considered likely to cause land contamination resulting from hazardous substance use, storage or disposal. The HAIL is intended to identify most situations in New Zealand where hazardous substances could cause, and in many cases have caused, land contamination.

Specialist advice may be required if requested by Council during the consenting process.

The site comprised mostly pasture with some bush cover, as does the surrounding land use. Based on our walkover inspection there is no visual evidence to of stock yards or agricultural sheds or any other evidence to suggest previous horticultural or industrial activity.

Appendix A – Proposed Subdivision Plan

Thomson Survey Drawing Ref. 8961 with hand mark-up showing suitable house sites, wastewater disposal areas, exploratory hole soils investigation, proposed stormwater detention pond and lot 3 vehicle crossing.

115m

WIROA ROAD

148 107 8

AMALGAMATION CONDITION:
THAT LOTS 1 & 2 OWN AN EQUAL UNDIVIDED SHARE OF LOT 4

Lot 3 crossing
shallow depression ex-metal pit?

BH2X

LOT 4
0.14Ha

Lot 2
DP 392845

Lot 1
DP 441138

Lot 1
DP 392845

LOT 2
2.3Ha

LOT 1
2.20Ha

LOT 3
41.74Ha

BH1

pond 47m³ storage (141m² area at water line). Bund wall 1.3m high with 100mm ϕ outlet orifice

Section 38
Blk IV Omapere SD

Lot 2
DP 353409

Legend

- water course / flowpath
- disposal area 200m²
- reserve area 200m²
- X BH1 exploratory hole
- surface water interception drain
- 30x30m house site

0 100 200m
Bar Scale

EXISTING EASEMENTS

PURPOSE	SHOWN	SERVIENT TENEMENT	CREATING DOCUMENT
RIGHT TO CONVEY ELECTRICITY, TELECOMMUNICATIONS & COMPUTER MEDIA	B E D	LOT 3 HEREON	EI10312705.2
	C	LOT 2 HEREON	

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TOPOGRAPHICAL DETAIL IS APPROXIMATE ONLY AND SCALED FROM AERIAL PHOTOGRAPHY

OPTION 2

18-10-16

THOMSON SURVEY LIMITED
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Ph: (09) 4077360 Fax (09) 4077322
Registered Land Surveyors, Planners & Land Development Consultants

CONCEPT SUBDIVISION OF LOT 3 DP 392845

PREPARED FOR: GARDNER, A

	Name	Date
Survey		
Design		
Drawn	RAH	30/05/16
Approved		
Rev	SL	5.08.16

8961 Concept REV 3.lcd

ORIGINAL
SCALE 1:2000
SHEET SIZE A3

Surveyors Ref. No: 8961
Series
Sheet 1 of 1

Appendix B – Borehole Logs

Bore Hole logs 1 and 2

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Borehole Log

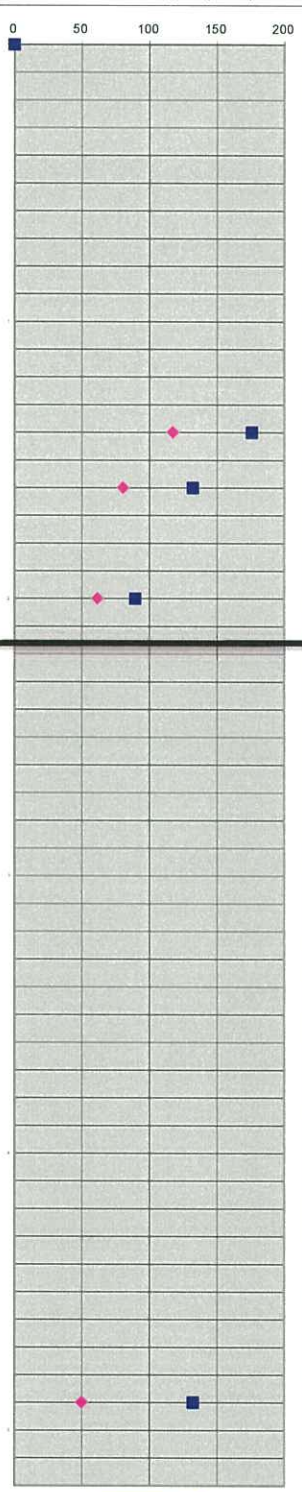
JOB No. 16 284

Borehole no. **BH1**

Client	Adam Gardiner	Date	13-Oct-16
Location	465 Wiroa Road, Kerikeri	Height	Existing Ground
Drilling Method: Hand Auger	Diameter: 50mm	Logged: TMA	Checked:

Soil Description	Depth	Legend	Moisture	Other Tests, Remarks
TOPSOIL dark brown, moist, grassed	0.0		moist	
From 0.15 - CLAY, silty, dark brown, marginally plastic				
0.3 - very stiff				200 kPa + +
	0.5			
From 0.6 - very stiff, brick red brown, plastic despite crumbly appearance				200 kPa + +
0.9 - very stiff				200 kPa + +
	1.0			
				200 kPa + +
1.3 - very stiff, increasing moisture content, trace of silt				176 / 117
1.5 - very stiff,	1.5			
1.9 - stiff, minor gravel, medium, subangular, weak comprising silt, wet	2.0		wet	
2.0 - moist, EOB target depth achieved			moist	
	2.5			
	3.0			
	3.5			
	4.0			
	4.5			
	5.0			

Shear Strength (kPa)



Soils Legend

Topsoil	wwwwwwwwwwww	Fill	////////////	Clay	----------	Silt	xxxxxxxxx
Sand	ooooooooooooooooooooo	Peat	v:v:v:v:v:v	Gravel	OOOOOOO	Rock	

HAIGH WORKMAN LTD
Civil & Structural Engineers
P O Box 89, 0245
6 Fairway Drive, Kerikeri
0230, New Zealand
Phone 09 407 8327
Fax 09 407 8378
www.haighworks.co.nz
info@haighworks.co.nz

Borehole Log

JOB No. 16 284

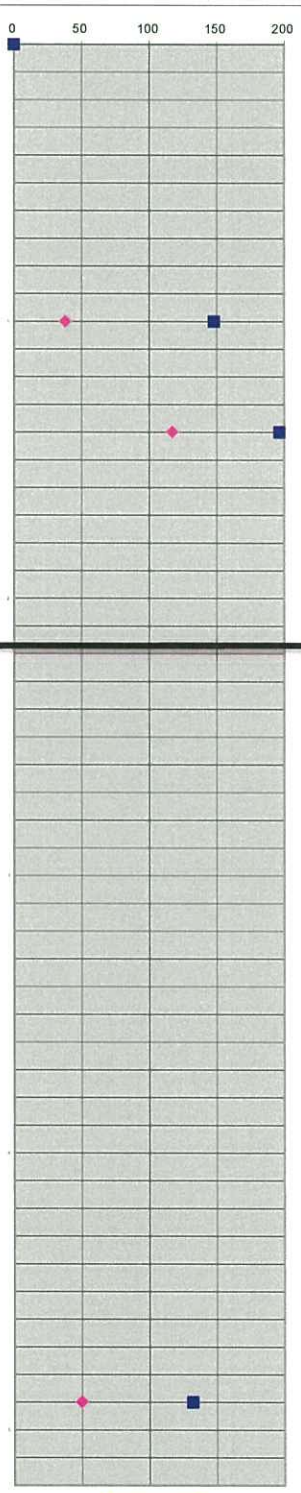
Borehole no. **BH2**

Client	Adam Gardiner	Date	13-Oct-16
Location	465 Wiroa Road, Kerikeri	Height	Existing Ground
Drilling Method: Hand Auger	Diameter: 50mm	Logged: TMA	Checked:

Soil Description	Depth	Legend	Moisture	Other Tests, Remarks
TOPSOIL dark brown, moist, with some bright red, minor	0.0	wwwwww	moist	
gravel subangular, grassed		wwwwww		
From 0.2 - CLAY, silty, very stiff, red, plastic		----------		200 kPa + +
0.3 - very stiff		----------		

	0.5	----------		
0.6 - very stiff but easy boring		----------		200 kPa + +
0.7 - SILT, clayey, non plastic, red with brown, moist		xxxxxxxxx		
		xxxxxxxxx		
0.9 - stiff		xxxxxxxxx		148 / 38
	1.0	xxxxxxxxx		
1.1 - harder drilling, minor gravel medium comprising		xxxxxxxxx		
weak silt		xxxxxxxxx		
1.3 - very stiff, plastic		xxxxxxxxx		196 / 117
1.4 - some purple colourisation		xxxxxxxxx		
	1.5	xxxxxxxxx		
		xxxxxxxxx		
1.7 - very stiff		xxxxxxxxx		200 kPa + +
		xxxxxxxxx		
		xxxxxxxxx		
2.0 - minor gravel, medium, comprising weak silt	2.0	xxxxxxxxx		
2.1 - EOB target depth achieved		xxxxxxxxx		
	2.5			
	3.0			
	3.5			
	4.0			
	4.5			
	5.0			

Shear Strength (kPa)



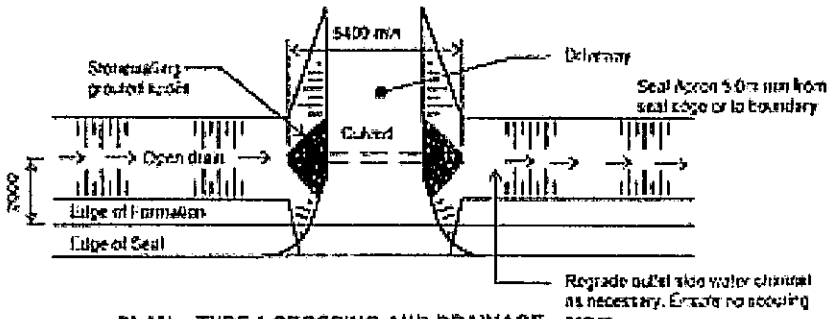
Soils Legend

Topsoil	wwwwwwwwwwww	Fill	////////////	Clay	----------	Silt	xxxxxxxxx
Sand	.o.o.o.o.o.o.o.o.o.o.o.o.o.o.o.o.	Peat	:v:v:v:v:v:	Gravel	OOOOOOO	Rock	

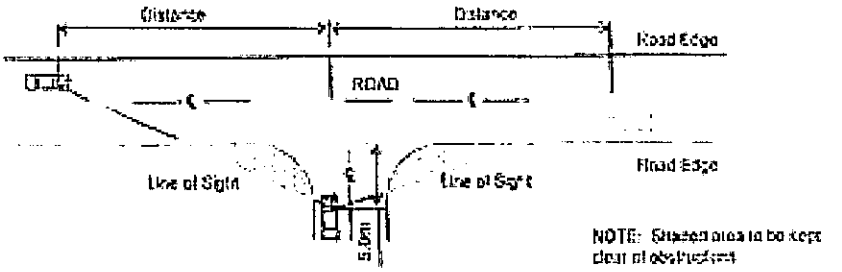
Appendix C – Lot 3 Crossing

Far North District Council Drawings FNDC/S/6 and 6B – Rural Domestic Crossing Layout

Earthworks cut for lot 3 crossing



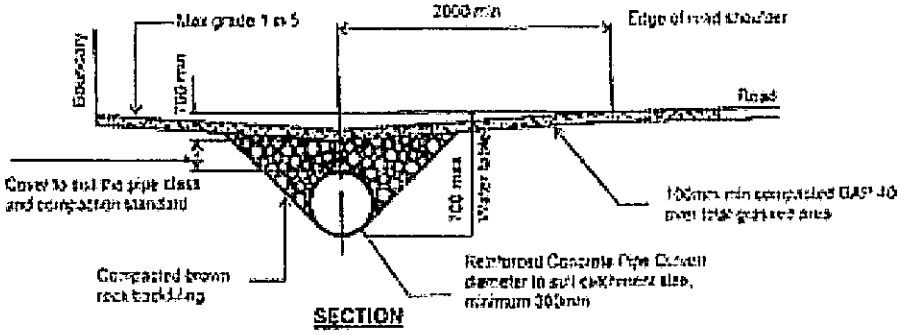
PLAN – TYPE 1 CROSSING AND DRAINAGE



PLAN – TRAFFIC SIGHT LINES NTS

ROAD OPERATING SPEED (km/h)	50	60	70	80	90	100
MINIMUM SIGHT DISTANCE (m)	85	105	85	115	140	170

MINIMUM SIGHT DISTANCE



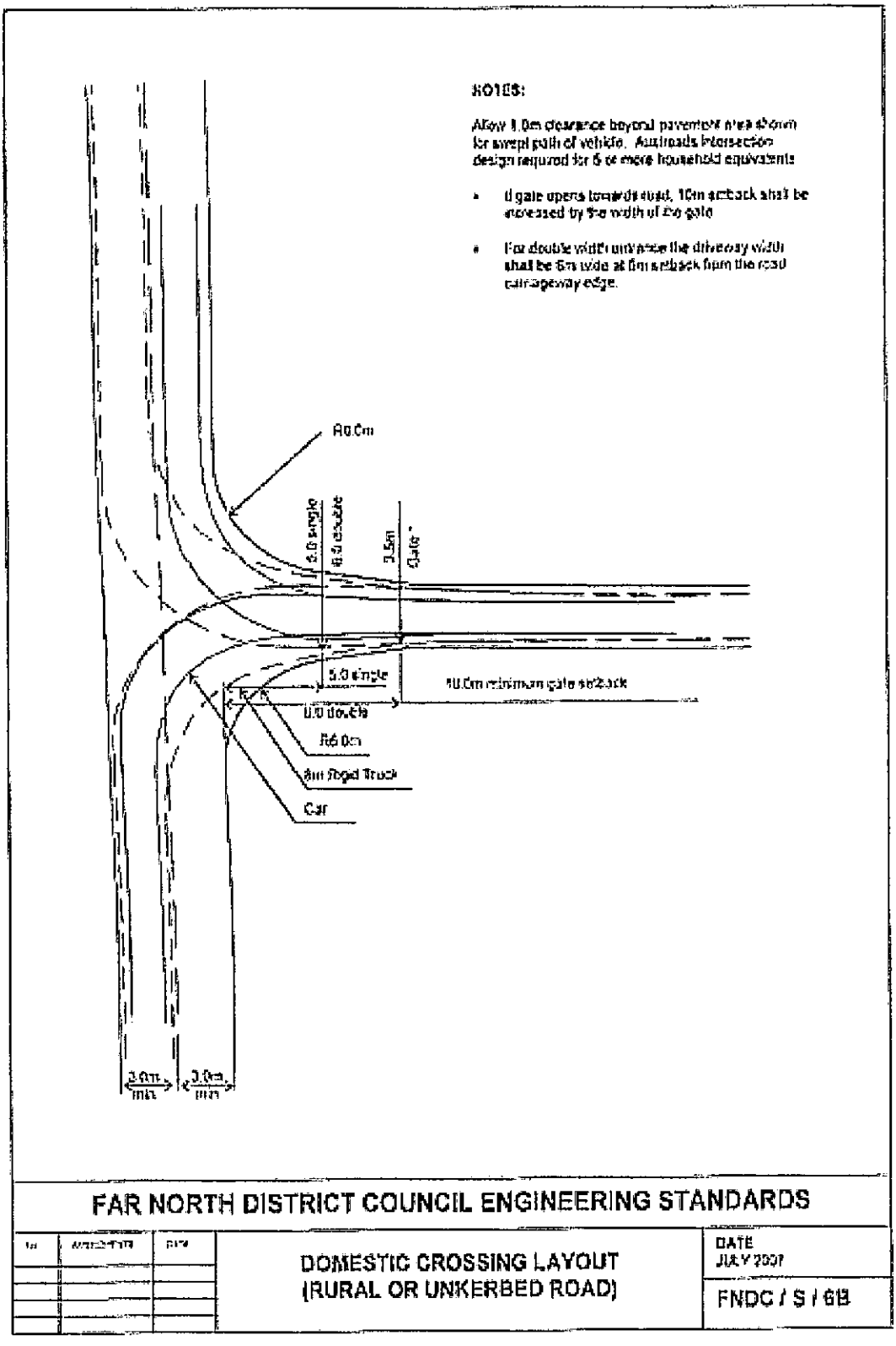
SECTION

NOTES:

1. Width sufficient to allow a vehicle to turn in from the left on an 8 metre inside radius without crossing the centreline. On commercial vehicle crossings (including farms), this radius shall be increased to 15 metres.

2. On arterial roads, vehicle access to properties which generate more than 60 vehicles per day shall be in accordance with Diagram D of the Transit NZ document "planning for a Safe and Efficient State Highway Network Under the Resource Management Act".

FAR NORTH DISTRICT COUNCIL ENGINEERING STANDARDS				
No	Amendments	Date	RESIDENTIAL VEHICLE CROSSINGS UNKERBED ROADS	DATE JULY 2007
				FNDC / S / 6


NOTES:
Allow 1.0m clearance beyond pavement area shown for swept path of vehicle. Austroads intersection design required for 6 or more household equivalents
If gate opens towards road, 10m setback shall be increased by the width of the gate
For double width entrance the driveway width shall be 6m wide at 6m setback from the road carriageway edge.
R9.0m
3.0 single
6.0 double
3.5m
Gate *
5.0 single
10.0m minimum gate setback
6.0 double
R6.0m
8m Rigid Truck
Car
3.0m min
3.0m min
FAR NORTH DISTRICT COUNCIL ENGINEERING STANDARDS
DOMESTIC CROSSING LAYOUT
(RURAL OR UNKERBED ROAD)
DATE
JULY 2007
FNDC / S / 6B

HAIGH WORKMAN LTD
Civil & Structural Engineers

310 Kerikeri Road
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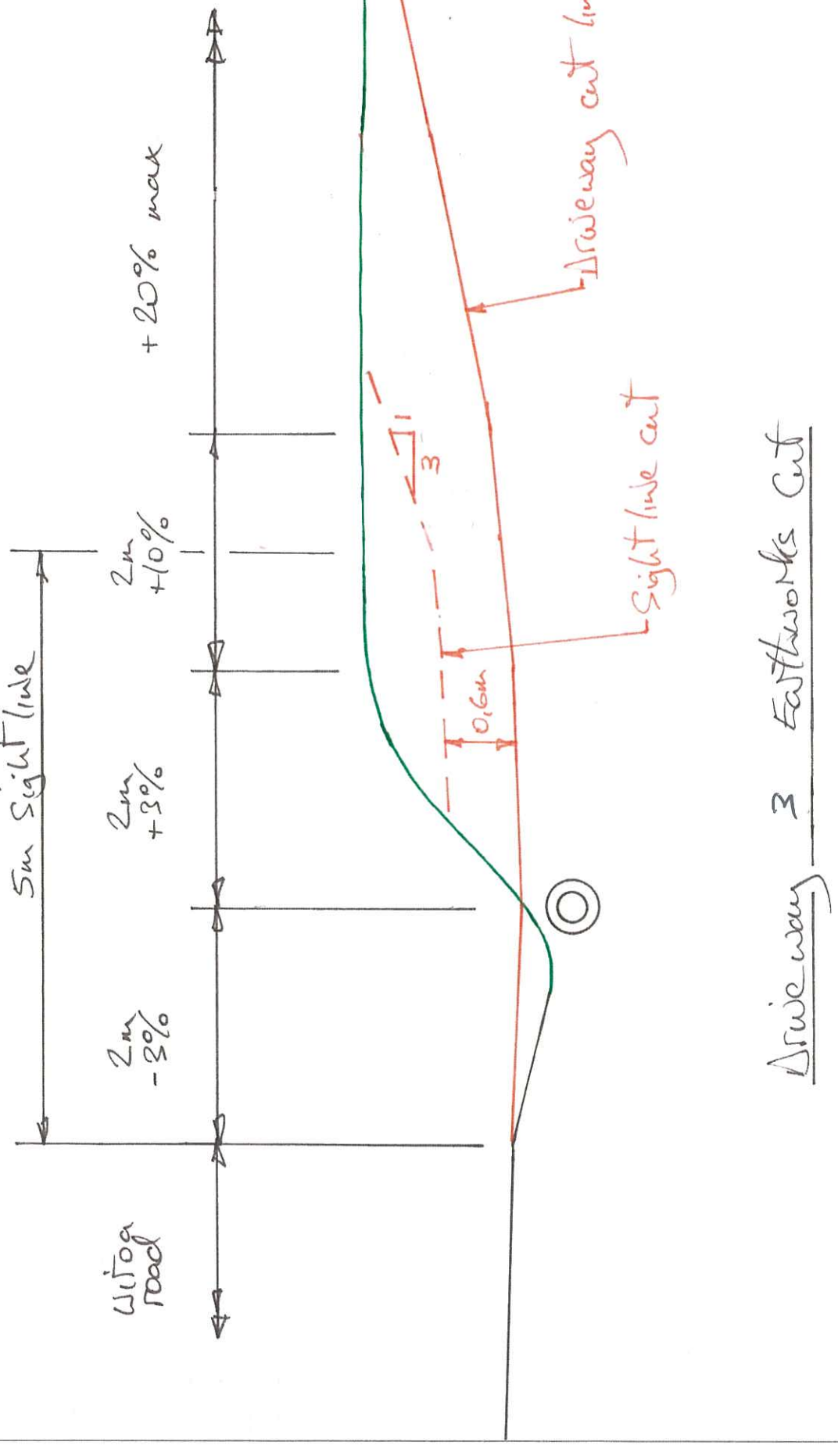
T: 09 407 8327
F: 09 407 8378
E: info@haighworkman.co.nz

Job Title: Gardiner Wiroa Road

Page: 1/1
Job No: 16284
Designer: IMA
Date: 18/10/16



Driveway 3 Earthworks Cut

Appendix D – Lot 1 Stormwater Detention Pond

Simplified Storage Assessment (Rational)

WHANGAREI DISTRICT COUNCIL
Forum North · Private Bag 9023 · Whangarei 0148 · New Zealand
Telephone (09) 430 4200 · 0800 WDC INFO · 0800 932 463 · Facsimile (09) 438 7632
Website http//www.wdc.govt.nz · E-mail mailroom@wdc.govt.nz

Simplified Storage Assessment (Rational)
(Single Lots / Small Developments Only)

Site Address 459 Wilson Road, Kerikeri
Completed by T. Adcock
Date of test 25-10-16 Signature

1 Estimate pre-development run-off from proposed footprint to discharge point

Q_{PEAK} = (C x I_{60} x A) / 3600 **(L/sec)**

Where:

C is from Table 4.1 for existing site condition and hydrological soil group = 0.59

I_{60} is intensity from IDF curves for relevant area of district/or site specific HIRDS data (60 min duration) = 48.8 mm/hr

A is the total development footprint routed to storage = 2725 m^2

Q_{PEAK} = (C x I x A) / 3600 = 21.8 L/sec

2 Establish likely storage depth (**D**, m) and associated orifice size to give pre-development flow from Appendix H. (eg. 1.5m for pond, 2.5m for roofwater tank, etc)

D = 1.0 m

Orifice diameter = 100 mm (to nearest 5mm)

3 Calculate average discharge flow rate for orifice from storage

Q_D = Q_{PEAK} x 0.4 = 8.7 L/sec

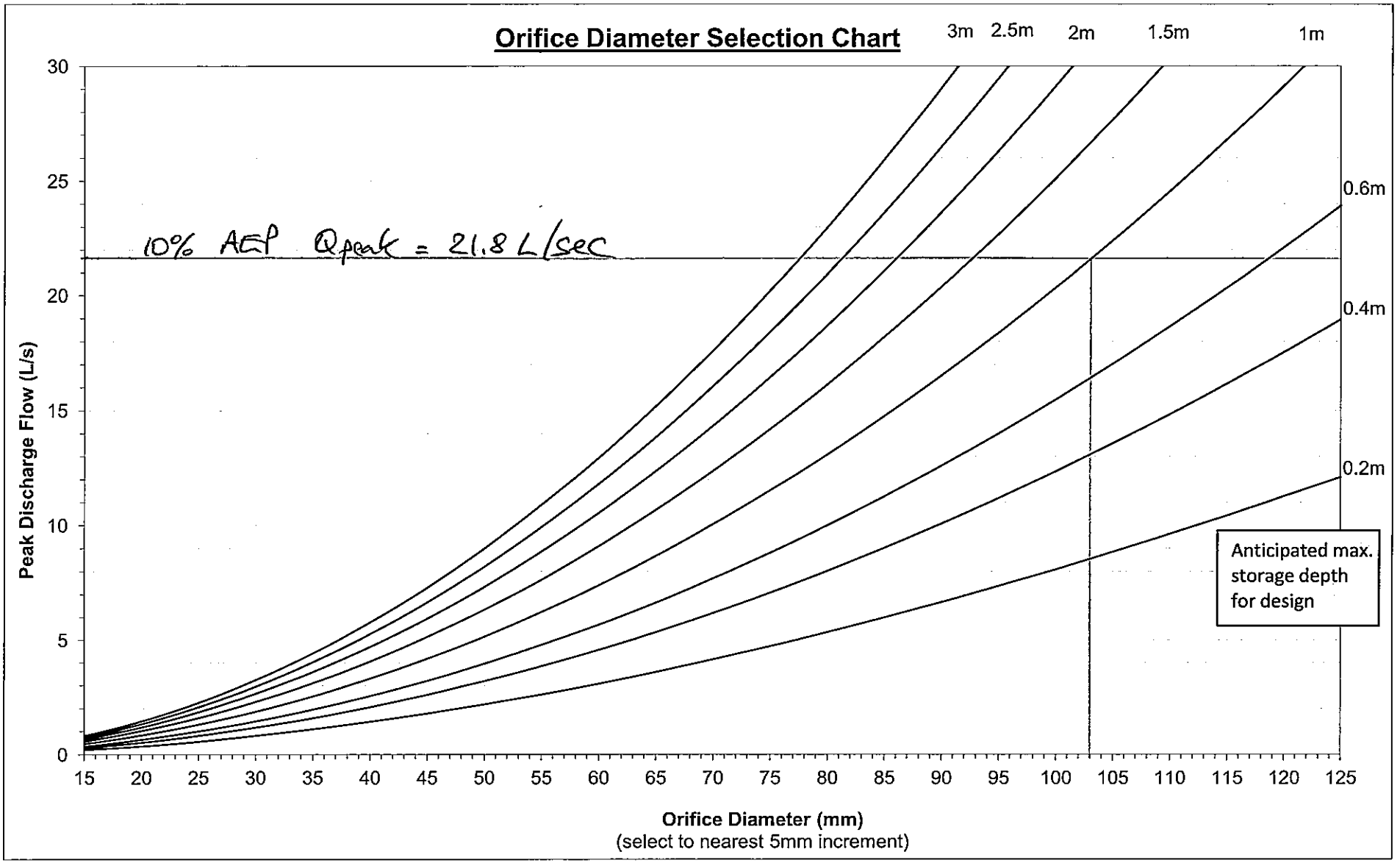
4 Calculate stored volume

Storm duration - T		Storm Intensity, I, (mm/hr)	Volume in, (m^3) V_{IN} = (C x T_{HR} x A) / / 1000,	Volume out, (m^3) V_{OUT} =(Q_D x 60 x x T_{MINS}) / 1000	Volume stored, (m^3) V_{STORED} = = V_{IN} - V_{OUT}
T_{MINS}, (mins)	T_{HR}, (hr)				
10	0.17	111.6	31	5	25
30	0.5	67	54	16	38
60	1	48.8	78	31	47
120	2	34	109	63	47
240	4	26.6	129	126	3

5 Calculate pond area (land required) = ($V_{STORED\ MAX}$ / **D**) x 3 = 141 m^2

Where $V_{STORED\ MAX}$ is the maximum V_{STORED} from table above

Note This worksheet provides a conservative estimation of storage requirements. Specific detailed design will yield improved accuracy and a lesser storage volume requirement


Orifice Diameter Selection Chart
3m
2.5m
2m
1.5m
1m
10% AEP Qpeak = 21.8 L/sec
0.6m
0.4m
0.2m
Anticipated max. storage depth for design
Peak Discharge Flow (L/s)
0
5
10
15
20
25
30
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90
95
100
105
110
115
120
125
Orifice Diameter (mm)
(select to nearest 5mm increment)

Appendix E – TP58 Site Assessment Form

FAR NORTH DISTRICT COUNCIL
Appendix E TP58
On-site Wastewater Disposal Site Evaluation
Investigation Checklist

Part A –Owners Details

1. Applicant Details:

Applicant Name	*Adam & Kariene Gardiner*	
Company Name		
	First Name(s)	Surname
Property Owner Name(s)	*Adam* *Kariene*	*Gardiner* *Gardiner*

Nature of Applicant*	*Owner*

*(*i.e. Owner, Leasee, Prospective Purchaser, Developer)*

2. Consultant / Site Evaluator Details:

Consultant/Agent Name	*Haigh Workman Ltd*			
Site Evaluator Name	*Tom Adcock*			
Postal Address	*PO Box 89*			
	Kerikeri			
Phone Number	Business	*407 8327*	Private	
	Mobile		Fax	
Name of Contact Person				
E-mail Address	*tom@haighworks.co.nz*			

3. Are there any previous existing discharge consents relating to this proposal or other waste discharge on this site?

Yes		No	✓	(Please tick)

If yes, give Reference Numbers and Description

4. List any other consent in relation to this proposal site and indicate whether or not they have been applied for or granted

If so, specify Application Details and Consent No.
(eg. Land Use, Water Take, Subdivision, Earthworks Stormwater Consent)

This assessment is for subdivision consent

Part B- Property Details

1. Property for which this application relates:

Physical Address of Property	*459 Wiroa Road*
	Kerikeri
Territorial Local Authority	FAR NORTH DISTRICT COUNCIL
Regional Council	NORTHLAND REGIONAL COUNCIL
Legal Status of Activity	Permitted: ✓ Controlled: Discretionary:
	15.1.4
Relevant Regional Rule(s) (Note 1)	
Total Property Area (m²)	*46.37 ha, comprising Proposed Lot 1 – 2.2 ha, Lot 2 – 2.3 ha, Lot 3 – 41.74 ha balance*
Map Grid Reference of Property If Known	

2. Legal description of land (as shown on Certificate of Title)

Lot 3	*DP 392845*	*372127*	RTZ No.	
Other (specify)		*Proposed subdivision of the above*		

Please ensure copy of Certificate of Title is attached

PART C: Site Assessment - Surface Evaluation

(Refer TP58 - Sn 5.1 General Purpose of Site Evaluation and Sn 5.2.2(a) Site Surface Evaluation)
Note: Underlined terms defined in Table 1, attached

Has a relevant property history study been conducted?

Yes	✓	No	(Please tick one)

If yes, please specify the findings of the history study, and if not please specify why this was not considered necessary.

Site inspections and observations, review of topographical and geological maps

1. Has a Slope Stability Assessment been carried out on the property?

Yes		No	✓	Please tick

If No, why not?

Gently to moderately sloping site, inherently stable volcanic origin. Proposed irrigation rates are low. Saturation of ground not envisaged and if to occur would only affect top layer of soil and not lead to deep seated slippage or movement.

If Yes, please give details of report (and if possible, please attach report):

Author	
Company/Agency	
Date of Report	
Brief Description of Report Findings:-	

2. Site Characteristics (See Table 1 attached):

Provide descriptive details below:

Performance of Adjacent Systems:

No problems known

Estimated Rainfall and Seasonal Variation:

1700 mm per year. 1000 mm winter, 700 mm summer

Vegetation / Tree Cover:

Pasture

Slope Shape: (Please provide diagrams)

Gentle becoming moderate to south

Slope Angle:

Typically 5 -7°

Surface Water Drainage Characteristics:

Mostly sheet flow and soakage. Central watercourse and natural flowpaths are indicated on the site plan

Flooding Potential: YES/NO

No. Disposal field will be separated from identified watercourse by at least 15 m

If yes, specify relevant flood levels on appended site plan, I.e. one in 5 years and/or 20 year and/or 100 year return period flood level, relative to disposal area.

Surface Water Separation:

Effluent fields > 15m from watercourses, natural flowpaths and proposed stormwater detention pond is attainable

Site Characteristics: or any other limitation influencing factors

None

3. Site Geology **Check Rock Maps**

Okaihau gravelly friable clays underlain by basalt

Geological Map Reference Number	*NZMS 290 rock and soils maps*

4. What Aspect(s) does the proposed disposal system face? (please tick)

North		**West**	
North-West		**South-West**	✓
North-East		**South-East**	
East		**South**	

5. Site clearances, (Indicate on site plan where relevant)

Separation Distance from	Treatment Separation Distance	Disposal Field Separation Distance	FNDC minimum
Boundaries	*>1.5 m*	*1.5 m*	1.5 m
Surface water, creeks, drains	*>15 m*	*>15 m*	15 m
Groundwater	*>0.6 m*	*>0.6 m*	0.6 m
Stands of Trees/Shrubs			na
Wells, water bores	*>40 m*	*>30 m*	20 m
Embankments/retaining walls	*>3 m*	*>3 m*	3 m
Buildings	*>3 m*	*>3 m*	3 m
Rivers, Coastal Marine area	*>1 km*	*>1 km*	30 m

PART D: Site Assessment - Subsoil Investigation

(Refer TP58 - Sn 5.1 General Purpose of Site Evaluation, and Sn 5.2.2(a) Site Surface Evaluation and Sn 5.3 Subsurface Investigations)

Note: Underlined terms defined in Table 2, attached

1. Please identify the soil profile determination method:

Test Pit		(Depth_____m	No of Test Pits	
Bore Hole	✓	(Depth *2.0 m*	No of Bore Holes	*2*
Other (specify):				

Soil Report attached?

Yes	✓	No		Please tick

2. Was fill material intercepted during the subsoil investigation?

Yes		No	✓	Please tick

If yes, please specify the effect of the fill on wastewater disposal

3. percolation testing (mandatory and site specific for trenches in soil type 4 to 7)

Please specify the method
Not required – trickle irrigation proposed

Test Report Attached?	Yes		No	✓	Please tick

4. Are surface water interception/diversion drains required?

Yes	✓	No		Please tick

If yes, please show on site plan

4a Are subsurface drains required

Yes		No	✓	Please tick

If yes, please provide details

5. Please state the depth of the seasonal water table:

Winter	*2.0 or greater*	m	Measured	✓	Estimated	
Summer	*> 2.0*	m	Measured		Estimated	✓

6. Are there any potential storm water short circuit paths?

Yes		No	✓	Please tick

If the answer is yes, please explain how these have been addressed

7. Based on results of subsoil investigation above, please indicate the disposal field soil category
(Refer TP58 Table 5.1)

Is Topsoil Present?	*Yes*	If so, Topsoil Depth?	*0.15* (m)

Soil Category	Description	Drainage	Tick One
1	Gravel, coarse sand	Rapid draining	
2	Coarse to medium sand	Free draining	
3	Medium-fine & loamy sand	Good drainage	
4	Sandy loam, loam & silt loam	Moderate drainage	✓
5	Sandy clay-loam, clay loam & silty clay-loam	Moderate to slow drainage	
6	Sandy clay, non-swelling clay & silty clay	Slow draining	
7	Swelling clay, grey clay, hardpan	Poorly or non-draining	

Reasons for placing in stated category

Soil map classification, soil colour and texture from borehole investigation

PART E: Discharge Details

1. Water supply source for the property (please tick):

Rainwater (roof collection)	✓
Bore/well	
Town supply	

2. Calculate the maximum daily volume of wastewater to be discharged, unless accurate water meter readings are available

(Refer TP58 Table 6.1 and 6.2)

Number of Bedrooms	*3*			
Design Occupancy	*5*			(Number of People)
Per capita Wastewater Production	140	160✓	180	(tick) (Litres per person per day)
Other - specify	200	220		
				Litres per person per day
				Litres per person per day
Total Daily Wastewater Production	*800*			(litres per day)

3. Do any special conditions apply regarding water saving devices

a) Full Water Conservation Devices?	Yes		No	✓	(Please tick)
b) Water Recycling - what %?	%				(Please tick)

If you have answered yes, please state what conditions apply and include the estimated reduction in water usage

Dual flush toilets, low water use dishwasher, no garbage grinders
Reduction of 20 litres per person per day

4. Is Daily Wastewater Discharge Volume more than 2000 litres:

Yes		(Please tick)
No	✓	(Please tick)

Note if answer to the above is yes, an N.R.C wastewater discharge permit may be required

5. Gross Lot Area to Discharge Ratio:

Gross Lot Area	*22,000*	m^2
Total Daily Wastewater Production	*800*	(Litres per day) (from above)
Lot Area to Discharge Ratio	*27.5*	

7. Does this proposal comply with the Northland Regional Council Gross Lot Area to Discharge Ratio of greater than 3?

Yes	✓	No		Please tick

8. Is a Northland Regional Council Discharge Consent Required?

Yes		No	✓	(Please tick)

PART F: Primary Treatment *(Refer TP58 Section 7.2)*

1. Please indicate below the no. and capacity (litres) of all septic tanks including type (single/dual chamber grease traps) to be installed or currently existing: If not 4500 litre, duel chamber explain why not

Number of Tanks	Type of Tank	Capacity of Tank (Litres)
Septic tanks not proposed		
	Total Capacity	

2. Type of Septic Tank Outlet Filter to be installed?

Not applicable

PART G: Secondary and Tertiary Treatment

(Refer TP58 Section 7.3, 7.4, 7.5 and 7.6)

1. **Please indicate the type of additional treatment, if any, proposed to be installed in the system: (please tick)**

Secondary Treatment	✓		
Home aeration plant	✓		
Commercial aeration plant			
Intermediate sand filter			
Recirculating sand filter			
Recirculating textile filter			
Clarification tank			
Tertiary Treatment			
Ultraviolet disinfection			
Chlorination			
Other		Specify	

PART H: Land Disposal Method

(Refer TP58 Section 8)

1. Please indicate the proposed loading method: (please tick)

Gravity	
Dosing Siphon	
Pump	✓

2.High water level alarm to be installed in pump chambers

Yes✓	No

If not to be installed, explain why

3. If a pump is being used, please provide the following information:

Total Design Head	*To be determined at BC stage*	(m)
Pump Chamber Volume		(Litres)
Emergency Storage Volume		(Litres)

4. Please identify the type(s) of land disposal method proposed for this site: (please tick)
(Refer TP58 Sections 9 and 10)

Surface Dripper Irrigation	✓		
Sub-surface Dripper irrigation	✓		
Standard Trench			
Deep Trench			
Mound			
Evapo-transpiration Beds			
Other		Specify	

5. Please identify the loading rate you propose for the option selected in Part H, Section 4 above, stating the reasons for selecting this loading rate:

Loading Rate	*4*		(Litres/m²/day)
Disposal Area	Design	*200*	(m²) *for irrigation lines at 1 m centres*
	reserve	*200*	(m²)

Explanation *(Refer TP58 Sections 9 and 10)*

Loading rate adopted for secondary treated effluent in Category 4-5 soils refer Table 9.2 of TP58

6. What is the available reserve wastewater disposal area *(Refer TP58 Table 5.3)*

Reserve Disposal Area (m²)	*200*
Percentage of Primary Disposal Area (%)	*100*

7. Please provide a detailed description of the design and dimensions of the disposal field and attach a detailed plan of the field relative to the property site:

Description and Dimensions of Disposal Field:

Use a minimum of 200 m of Unibioline trickle tubing or equivalent with 2.3 litre per hour emitters
At 0.6 m centres. Lines to be laid 1.0 m apart, laid in shallow trenches to lawn or covered with bark mulch to gardens / planted landscaped areas

Plan Attached?	*Yes*	✓	*No*		*(Please tick)*

If not, explain why not

PART I: Maintenance & Management

(Refer TP58 Section 12.2)

1. Has a maintenance agreement been made with the treatment and disposal system suppliers?

Yes		No	✓	(Please tick)

Name of Suppliers

To be determined at BC stage

PART J: Assessment of Environmental Effects

1. Is an assessment of environmental effects (AEE) included with application?

(Refer TP58 section 5. Ensure all issues concerning potential effects addressed)

Yes	✓	No		(Please tick)

If Yes, list and explain possible effects

PART K: Is Your Application Complete?

1. In order to provide a complete application you have remembered to:

Fully Complete this Assessment Form	✓
Include a *Location Plan* and *Site Plan* (with Scale Bars)	✓
Attach an Assessment of Environmental Effects (AEE)	✓

1. Declaration

I hereby certify that, to the best of knowledge and belief, the information given in this application is true and complete.

Name	*Tom Adcock*	Signature	
Position	*Engineer*	Date	

Note

Any alteration to the site plan or design after RC approval may result in non-compliance.

ENVIRONMENTAL EFFECTS, MITIGATION MEASURES

A. Assessment of Environmental Effects

Impact on Surface Water (incl. flood times): *Very minor*

Impact on Ground Water: *Very minor*

Impact on Soils: *Minor*

Impact on Amenity Values: *Minor*

B. Public Health Issues

Should access to the disposal area be discouraged? *Not Necessary*

Will odour effects be greater than usual? *No*

Will noise effects be greater than usual? *No*

C. Mitigation Measures

Has conservative approach been taken in choosing system design capacity? *Yes*

Is system design robust (cope with fluctuations of load, climate)? *Yes*

Is level of treatment high? *Yes – secondary treatment*

Protection against failure storage, alarms? *Alarms to be fitted*

Is hydraulic loading rate conservative? *Yes*

Is distribution area protected from hydraulic overload (interception drains)? *Yes*

Will soil type enhance treatment? *Yes*

Are desired separation distances attainable? (to surface water, groundwater, bores) *Yes*

Is the reserve area adequate? *Yes*

ON-SITE DOMESTIC WASTEWATER MANAGEMENT
Advice to Home Owner/Occupier

Home owner and occupiers are legally responsible to keep their on-site wastewater system in good working order. The following schedule gives advice on the use and maintenance of the system.

1. Use of the System

For the on-site wastewater system to work well there are some good habits to encourage and some bad habits to avoid:

1.1 In order to reduce sludge building up in the tank:

(i) Scrape all dishes to remove fats, grease etc., before washing.
(ii) Keep all possible solids out of system.
(iii) Don't use a garbage grinder unless the system has been specifically designed to carry the extra load.
(iv) Don't put sanitary napkins, other hygiene products or disposable nappies into the system.

1.2 In order to keep bacteria working in the tank and in the land-application area:

(i) Use biodegradable soaps.
(ii) Use a low-phosphorus detergent.
(iii) Use a low-sodium detergent in dispersive soil areas.
(iv) Use detergents in the recommended quantities.
(v) Don't use powerful bleaches, whiteners, nappy soakers, spot removers and disinfectants.
(vi) Don't put chemicals or paint down drain.

1.3 Conservation of water will reduce the volume of effluent disposed to the land-application area, make it last longer and improving its performance. Conservation measures could include:

(i) Installation of water-conservation fittings.
(ii) Taking showers instead of baths.
(iii) Only washing clothes when there is a full load.
(iv) Only using the dishwasher when there is a full load.

1.4 Avoid overloading the system by spacing out water use evenly. For example, not doing all the washing on one day and by not running the washing machine and dishwasher at the same time.

2. Maintenance

2.1 The primary wastewater-treatment unit (septic tank) will need to:

(i) Be desludged regularly i.e. every 3 to 5 years, or when scrum and sludge occupy 2/3 of the volume of the tank (or first stage of a two-stage system).
(ii) Be protected from vehicles.
(iii) Have any grease trap cleaned out regularly
(iv) Have the vent and/or access cover of the septic tank kept exposed.
(v) Have nay out let filter inspected and cleaned.

2.2 The land-application area needs protection as follows:-

(i) Where surface water diversion drains are required by the design, these need to be kept clear to reduce the risk of stormwater runoff entering the effluent soakage area.
(ii) No vehicles or stock should be allowed on trenches or beds.
(iii) Deep rooting trees or shrubs should not be grown over absorption trenches or pipes.
(iv) Irrigation areas are not play areas for children and access should be restricted.
(v) Any evapo-transpiration areas should be designed to deter pedestrian traffic.
(vi) The baffles or valves in the distribution system should be periodically (monthly or seasonally) changed to direct effluent into alternative trenches or beds, if required by the design.

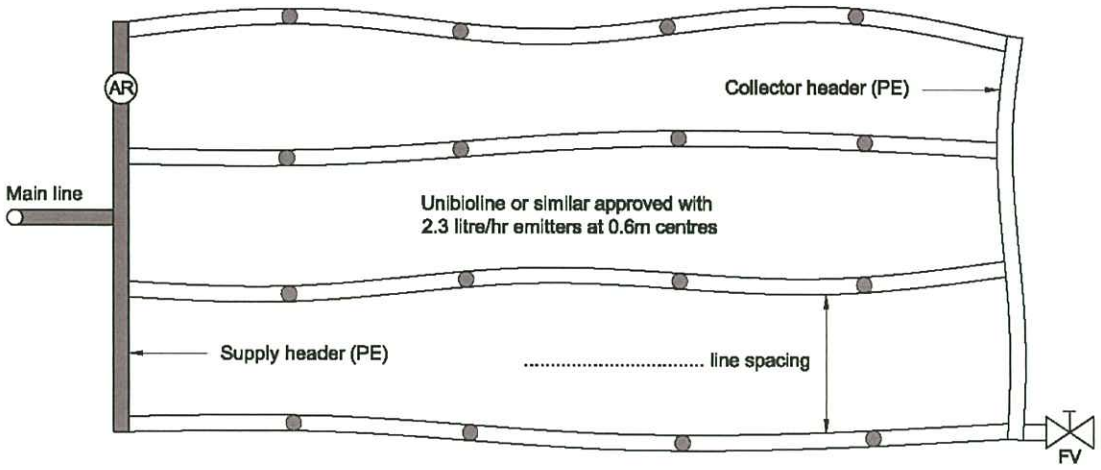
2.3 Evapo-transpiration and irrigation areas should have their grass mowed and plants maintained to ensure that these areas take up nutrients with maximum efficiency.

2.4 For aeration treatment systems. Check equipment and:

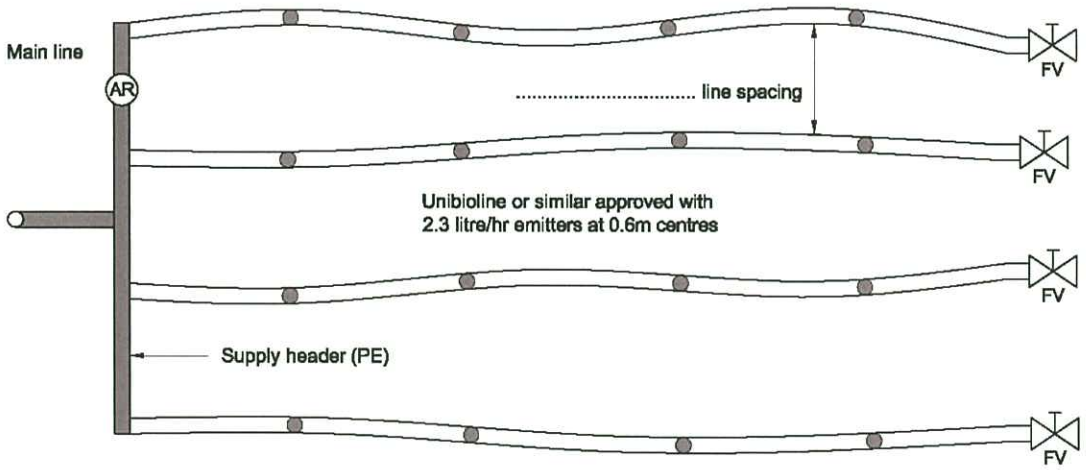
(i) Follow the manufacturer's instructions for maintaining and cleaning pumps, siphons, and septic tank filters.
(ii) Clean disc filters or filters screens on irrigation-dosing equipment periodically by rinsing back into the primary wastewater-treatment unit.
(iii) Flush drip irrigation lines periodically to scour out any accumulated sediment.

Appendix F – Effluent Disposal Field

On-site effluent disposal typical trickle irrigation field layout



Basic Grid Layout



Field Layout Without A Collection Header Pipe

Legend

AR — Air / Vacuum release valve

FV — Flushing valve

DWG: On-Site Effluent Disposal Typical Field Layouts. Trickle Irrigation			
DWG No.	Sheet No. of	Scale	NTS
Drawn PC	Checked	Approved	
File Name		Date	

HAIGH WORKMAN
CIVIL & STRUCTURAL CONSULTANTS LTD.
12 Buter Road, Kerikeri, BOI.
T: 09 407 8327
F: 09 407 8378
E: info@haighworks.co.nz

DIMENSIONS MUST NOT BE SCALE MEASURED FROM THESE DRAWINGS. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS INCLUDING, SITE LEVELS, HEIGHTS AND ANGLES ON SITE PRIOR TO COMMENCING ANY WORK. THE COPYRIGHT TO THESE DRAWINGS AND ALL PARTS THERE OF REMAIN THE PROPERTY OF HAIGH WORKMAN. ©2008

Project	
Client	
Project No.	RC no.

Appendix G – Suitable Plants for Evapo-transpiration Systems

SUITABLE PLANTS FOR EVAPO-TRANSPIRATION SYSTEMS

Native Shrubs and Trees

Coprosma	*Coprosma propinqua*
Hebe	*Hebe*
Manuka	*Leptospermum Scoparium*
Weeping Mapou	*Myrsine Divaricata*
Flax (fast)	*Phormium Tenax*
Pokaka (slow)	*Elaeocarpus Hookerianus*
Cabbage Tree (fast)	*Cordyline Australias*
Rangiora (fast)	*Brachyglottis Repanda*
Lacebark (fast)	*Hoheria Populnea*
Ribbonwood (fast)	*Plagianthus Regius*
Poataniwha	*Melicope Simplex*
Heketara	*Olearia Rani*
Poataniweta	*Carpodetus Serratus*
Kohuhu (fast)	*Pittosporum Tenufolium*

Grasses

Jointed Twig Sedge	*Baumea Articulata*
Longwood Tussock	*Carex Comans*
Pukio	*Carex Secta*
Toetoe (use native species-not invasive Pampas Grass)	*Cortaderia Fulvida*
Umbrella Sedge	*Cyperus Ustulatus*
Oioi	*Leptocarpus Similis*
Hooksedge	*Uncinia Unciniata*

Introduced Species

Canna Lilies, Taro, Aralia, Fuschia, Philodendrons, and Begonias

NORTHLAND REGIONAL COUNCIL

CARING FOR NORTHLAND AND ITS ENVIRONMENT

WHANGAREI: 36 Water Street, Private Bag 9021, Whangarei; Phone 09 438 4639, Fax 09 438 0012.

OPUA: Unit 10, Industrial Marine Park, Opua; Phone 09 402 7516, Fax 09 402 7510.

DARGAVILLE: 61B Victoria Street, Dargaville; Phone 09 439 3300, Fax 09 439 3301.

KAITAIA: 192 Commerce Street, Kaitaia; Phone 09 408 6600, Fax 09 408 6601.

Freephone: 0800 002 004 Environmental Hotline: 0800 504 639 Website: www.nrc.govt.nz

Appendix H – Transit Traversable and Mountable Culvert Headwall

Transit traversable and mountable culvert headwall

Transit traversable and mountable headwalls

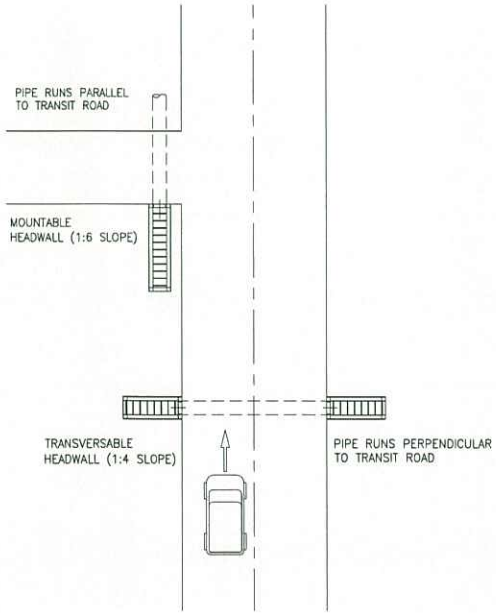
Humes in conjunction with Transit New Zealand have developed headwalls for pipes running either parallel or perpendicular to the carriage way.

When designing the headwalls, we have given particular importance to the ease of installation for the contractors and blockage resistance for the end users. Some of the features of the headwalls are as below:

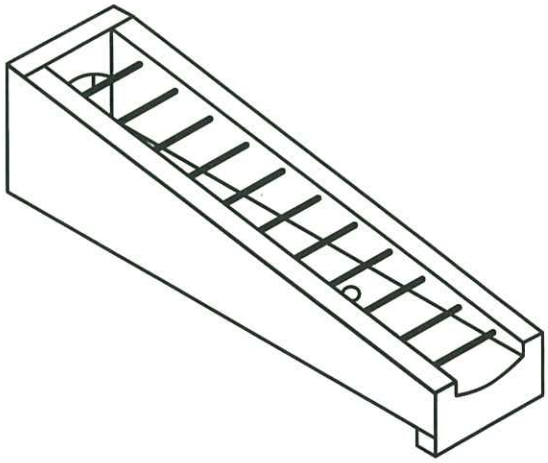
- Reinforced Concrete structure with concrete strength of 40Mpa.
- Cast as one single unit which eliminates the issues associated with the jointing of old and new concrete, such as shrinkage cracks and integrity of the epoxy joint.
- One size headwall accommodates pipe diameters from 225 to 450.
- For ease of installation, we have provided soft spots.
- The bottom of the headwall has a circular profile, which allows the debris to be washed away easily when compared to a flat bottom.
- Transit grating has been independently tested by Opus for its load bearing capacity.

Transit recommends installation of:

- Mountable headwalls with a slope of 1:6 on pipes running parallel to the carriage way.
- Traversable headwalls with a slope of 1:4 on pipes running perpendicular to the carriage way.

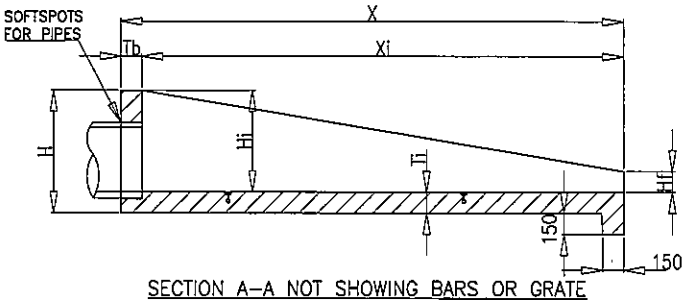


Humes also offers the option of headwalls with 25mm bars for light duty applications.

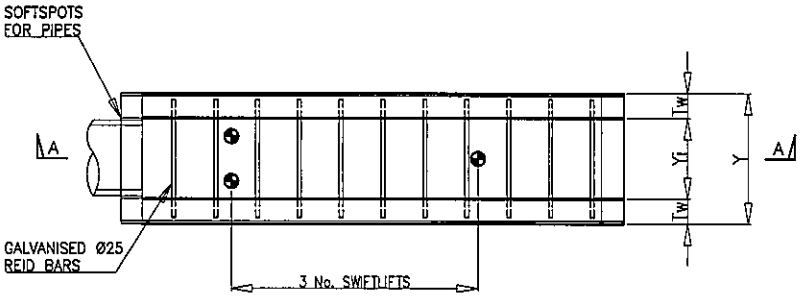


HUMES

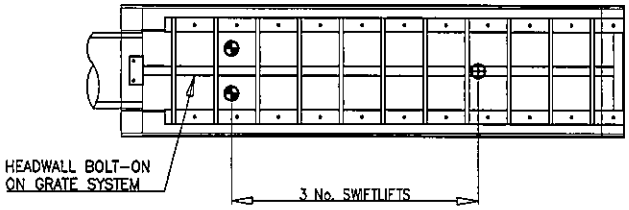
Specifications



SECTION A–A NOT SHOWING BARS OR GRATE



PLAN
BASIC SLOPED HEADWALL



PLAN
TRANSVERSABLE(1:4)/MOUNTABLE(1:6) HEADWALL

Product	Traversable Headwall	Mountable Headwall	Traversable Galvanized Grate	Mountable Galvanized Grate	Headwall with 25mm bars	
Product Code	08480	08481	08485	08486	08482	08483
Slope	1:4	1:6	1:4	1:6	1:4	1:6
Approved by Transit	Yes	Yes	Yes	Yes	No	No
Pipe diameter	225-450	225-450	–	–	225-450	225-450
X (mm)	2450	3600	–	–	2450	3600
Y (mm)	930	930	–	–	930	930
H (mm)	875	875	–	–	875	875
Hi (mm)	725	725	–	–	725	725
Hf (mm)	150	150	–	–	150	150
Xi (mm)	2300	3450	–	–	2300	3450
Yi (mm)	570	570	–	–	570	570
Ti (mm)	150	150	–	–	150	150
Tw (mm)	150	150	–	–	150	150
Tb (mm)	150	150	–	–	150	150
Mass (kg)	2015 (incl. grate)	2925 (incl. grate)	88	146	1940 (incl. bars)	2880 (incl. bars)

Buyers and users of the products described in this brochure must make their own assessment of the suitability and appropriateness of the products for their particular use and the conditions in which they will be used. All queries regarding product suitability, purpose or installation should be directed to the nearest Humes Sales Centre for service and assistance. © Fletcher Concrete and Infrastructure Limited 2008. Printed 05/08.

Te Kaunihera o Te Hiku o te Ika
Far North District Council

HE ARA TĀMATA
CREATING GREAT PLACES
Supporting our people

Private Bag 752, Kaikohe 0440, New Zealand
ask.us@fndc.govt.nz
0800 920 029
fndc.govt.nz

CERTIFICATE OF ACCEPTANCE
Under Section 99, Building Act 2004

COA-2025-83/0

OWNER:	**CONTACT PERSON:**
Alexander Koben Carey and Jodi Viki Sosich **ADDRESS:** 463B Wiroa Road RD 3 Kerikeri 0293	**CONTACT DETAILS:** **Phone Daytime:** **Phone After Hours:** **Mobile:** **Fax:**

LOCATION OF BUILDING:

Address:	3363183 463B Wiroa Road, Kerikeri 0293	Level Unit No.
Legal Description:	Lot 1 DP 515337 1/2 sh in Lot 4 DP 515337	Current, lawfully established, use:
Location of Building:		Year first constructed:

PROJECT DESCRIPTION:

Description of Work: Built 3 cabins and moved to site; built deck to combine cabins as one area and added ramp and stairs for easy access without obtaining Building Consent.

Intended Life:

ACCEPTANCE OF COMPLIANCE

The Territorial Authority named below is satisfied, to the best of its knowledge and belief and on reasonable grounds, that, insofar as it can ascertain, the building work described below complies with the building code:

- Built 3 cabins and moved to site; built deck to combine cabins as one area and added ramp and stairs for easy access without obtaining Building Consent.

The Territorial Authority was only able to inspect the following parts of the building work and this certificate is qualified as follows:

- D1 Access routes - the tread across the entrances
- E2 External moisture - the head flashings
- E3 Internal Moisture - the sealant in the bathroom and the kitchen
- F7 Warning Systems – smoke alarms
- G1 Personal Hygiene – the bathroom and laundry
- G3 Food preparation – the kitchen
- G4 Ventilation – the bathroom and kitchen
- G9 Electricity - Certificate provided by Yong Sheng Li – E277269 dated 22.02.25

- G11 Gas as an Energy Source - Certificate provided by Alan Fox no. 20250 dated 30.10.24
- G12 Water Supply - the Producers Statement 3 and AS/Built provided by Dave Snowden reg no. 26470 dated 23.07.25
- All other building code clauses excluded.

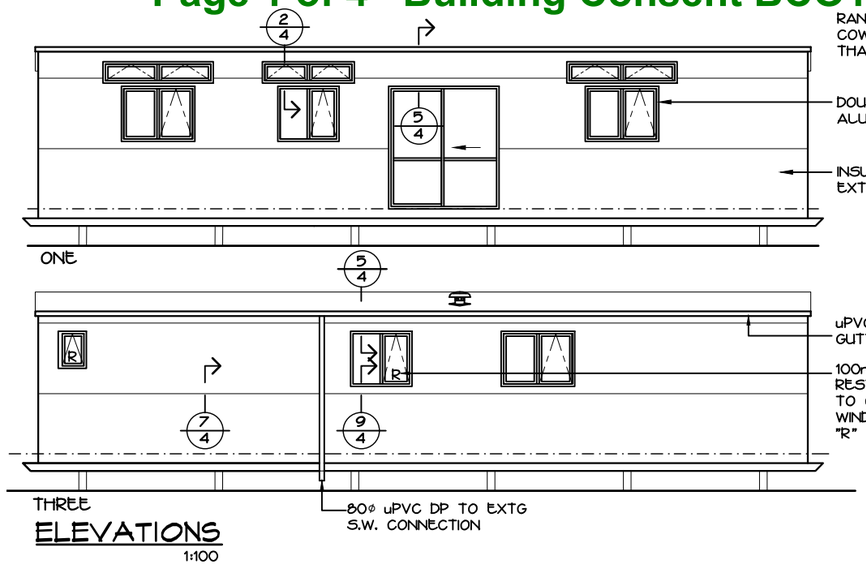
Nothing in this certificate limits the requirement that a person must not carry out building work except in accordance with a building consent, nor does it relieve any person from the requirement to obtain a building consent for building work.

ATTACHMENTS

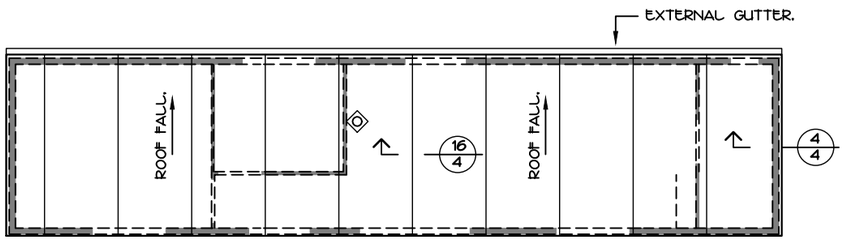
- Approved Plans
- Producers Statements
- Tradesmen Certificates

SIGNED FOR AND ON BEHALF OF THE FAR NORTH DISTRICT COUNCIL

Name: Monica Popata
Position: BUILDING OFFICER Date: 25 July 2025



ELEVATIONS
1:100



ROOF PLAN
1:100

SANITARY PLUMBING.
ALL SANITARY PLUMBING TO NZBC G13/AS/1.

MINIMUM SIZE OF PIPE (mm)		GRADIENT (MIN)
BASIN, SWR, SINK, W.M.	40ø	1:40
W.C.	80ø	1:60

NATURAL VENTILATION
5% MIN. REQUIREMENT AS PER NZBC G4/AS1

ROOM	FLOOR AREA	NO:	OPENING SIZE	
BEDROOM 1	8.54m²	W1	0.54m²	
		W2	0.63m²	
			1.17m²	=13.7% OK
BEDROOM 2	3.68m²	W9	0.54m²	
			0.54m²	=14.7% OK
KITCHEN / DINING / LIVING	17.07m²	W3	0.45m²	
		W4	0.53m²	
		D1	1.80m²	
		W5	0.54m²	
		W6	0.63m²	
		W8	0.45m²	
			4.40m²	=25.8% OK
BATHROOM	3.20m²	W7	0.28m²	
			0.28m²	=8.8% OK

PRODUCER STATEMENT– STRUCTURAL DESIGN.

AS A DESIGNER I HAVE TAKEN ALL REASONABLE STEPS NECESSARY TO VERIFY DESIGN ASSUMPTIONS. I AM SATISHED ON REASONABLE GROUNDS THAT IN RELATION TO THE BUILDING WORK SPECIFIED ABOVE THE PROVISIONS OF THE BUILDING CODE WOULD BE MET IF THE BUILDING WORK WERE PROPERLY COMPLETED IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS ACCORDING TO WHICH THE BUILDING IS PROPOSED TO BE CONSTRUCTED AND WHICH HAVE BEEN SUBMITTED WITH THE APPLICATION. I UNDERSTAND THAT THIS PRODUCER STATEMENT, IF ACCEPTED, WILL BE RELIED UPON BY THE OWNERS AND TERRITORIAL AUTHORITIES FOR THE PURPOSE OF ESTABLISHING COMPLIANCE WITH THE BUILDING CODE.

DATE 4/03/2025

Peter Hill
B.E. (Hons) M.I.P.E.N.Z.
C.P. Engineer No. 47048

RISK MATRIX

	RISK FACTOR	RISK SEVERITY LOW	MEDIUM	HIGH	V. HIGH	SCORE
A	WIND ZONE	0	0	1	2	2
B	NUMBER OF STOREYS	0	1	2	4	0
C	ROOF/ WALL JUNCTION	0	1	3	5	0
D	EAVES WIDTH	0	1	2	5	5
E	ENVELOPE COMPLEXITY	0	1	3	6	0
F	DECK DESIGN	0	2	4	6	0
RISK MATRIX FOR WORST CASE SCENARIO						7
						OK

LEGEND:

- P.S. EL. DIST. BOARD POWER SUPPLY
- SINGLE POWER POINT
- DOUBLE POWER POINT
- CF GAS CALIFONT
- (1) WALL BRACING PANEL
- INTERNAL LIGHTS
- LIGHT SWITCH
- EXTERNAL LIGHT
- TYPE 1 DOMESTIC SMOKE ALARM IN ACCORDANCE WITH NZS 4514:2001 PART 2 (INSTALLED IN EACH HABITABLE SPACE & INTERCONNECTED WIRELESSLY)
- MANROSE 1255 EXTRACT FAN WITH WEATHER COWL

DESIGN DATA

STANDARDS
- NZBC B1, B2, C1, D1, E1, E2, E3,F7, G1, G3, G4, G7, G9, G11, G13, H1

LOADING

MAX WIND ZONE
- VERY HIGH NZS 3604:2011

EARTHQUAKE ZONE
ZONES 1, 2 & 3 NZS 3604:2011

SNOW LOADING
NO SNOW LOAD (OUTSIDE SNOW ZONES OR ZONE N1<400m ELEV.)

DURABILITY

EXPOSURE ZONE
- ZONE C1-C3 AS/NZS 2312.1:2014

INSULATION

CLIMATE ZONE
- ZONE 1-4 H1/AS1/5th

MAX. ALTITUDE FOR P.I.R. PANELS / SPANS ⌀Su FROM REDCO REPORT 12.12.2023.

PANEL			SNOW ZONE			
SPAN L(m)	T(mm)	⌀Su	N1	N2/N3	N4	N5
2.7	100	1.83	800	600	300	600
	150	2.87	1200	700	700	1000
3.4	100	1.40	700	500	200	400
	150	2.23	1200	800	500	800
4.2	100	1.00	600	400	×	200
	150	1.74	700	600	300	600

ELECTRICAL

- ALL ELECTRICAL CABLE IN CONTACT WITH POLYSTYRENE SHALL BE IN A CONDUIT OR BE NON MIGRATORY SHEATHED.

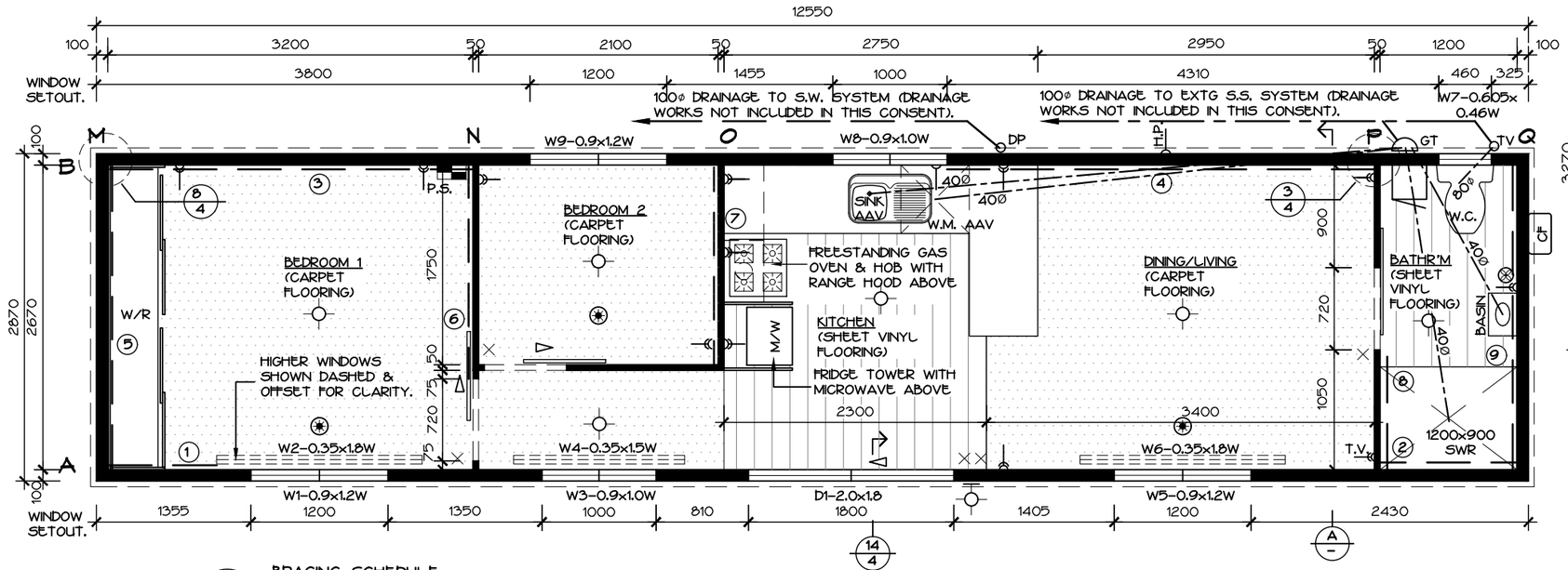
COMPLIANCE

IDENTIFICATION
- EACH UNIT SHALL BE ISSUED WITH A UNIQUE IDENTIFICATION NUMBER.

BUILDING CONSENT
- BUILDING CONSENT AND CODE COMPLIANCE CERTIFICATE SHALL BE OBTAINED FROM AUCKLAND COUNCIL FOR EACH UNIT.

INSULATION SCHEDULE:
PER H1/AS1 5TH EDITION (AFTER 02/11/2023)
CALCULATION METHOD
ZONE 1 - 4 WITHOUT EMBEDDED HEATING SYSTEMS

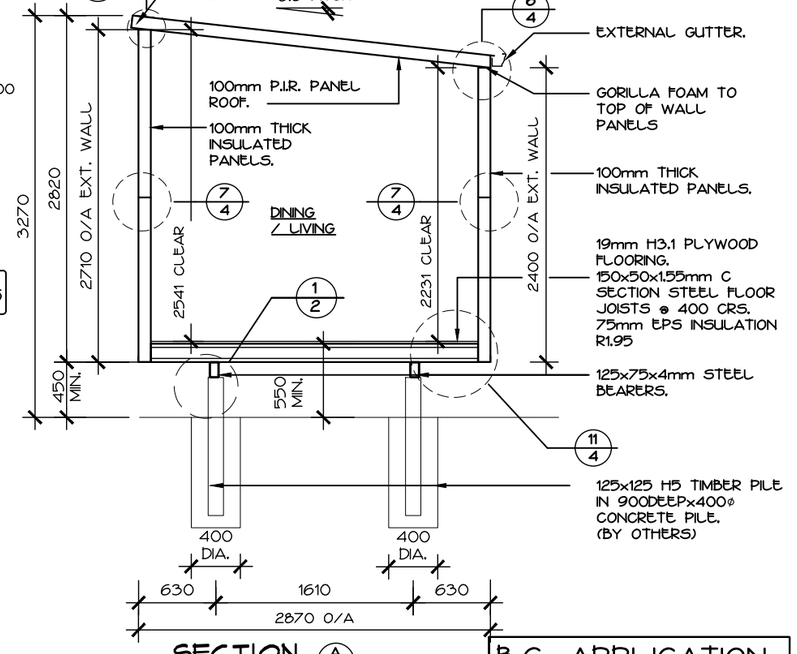
ELEMENT	'R' VALUE	CONSTRUCTION
ROOF	R4.16	100mm PIR INSULATED PANEL
EXTERNAL WALLS	R2.63	100mm EPS INSULATED PANEL
SUSPENDED FLOOR	R2.18	75mm EPS & 19mm PLYWOOD
WINDOWS	R0.37	TYPE: DOUBLE GLAZING FRAME: ALUMINIUM SPACER: THERMALLY IMPROVED GLASS: LOW E/CLEAR GAS: ARGON



FLOOR PLAN
AREA - 36.0m² 1:50

BRACING SCHEDULE:

No.	TYPE	LENGTH	No.	TYPE	LENGTH
1.	PANEL	0.9	6.	PANEL	1.7
2.	PANEL	1.2	7.	PANEL	1.7
3.	PANEL	3.2	8.	PANEL	1.0
4.	PANEL	3.7	9.	PANEL	2.6
5.	PANEL	2.6			



SECTION

B.C. APPLICATION

#	DATE:	REVISION:

HDE HILL DESIGN ENGINEERING LTD
23 Great South Road
PO Box 72 944 Papakura
Phone (09) 298 0654
Fax (09) 297 7869
Email enquiries@hde.co.nz

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Contractor to verify all dimensions on site before commencing work. Written dimensions supersede scaled dimensions.

PROJECT: 12.5x2.8 PORTABLE UNIT at 23 INLET ROAD TAKANINI for COMPACT HOMES LTD.

DRAWING TITLE: DESIGN DATA & GENERAL ARRANGEMENT t561
12.5x2.8 PORTABLE UNIT (TWO BEDROOM)

DWG. No: 1 REVISION: - V250113

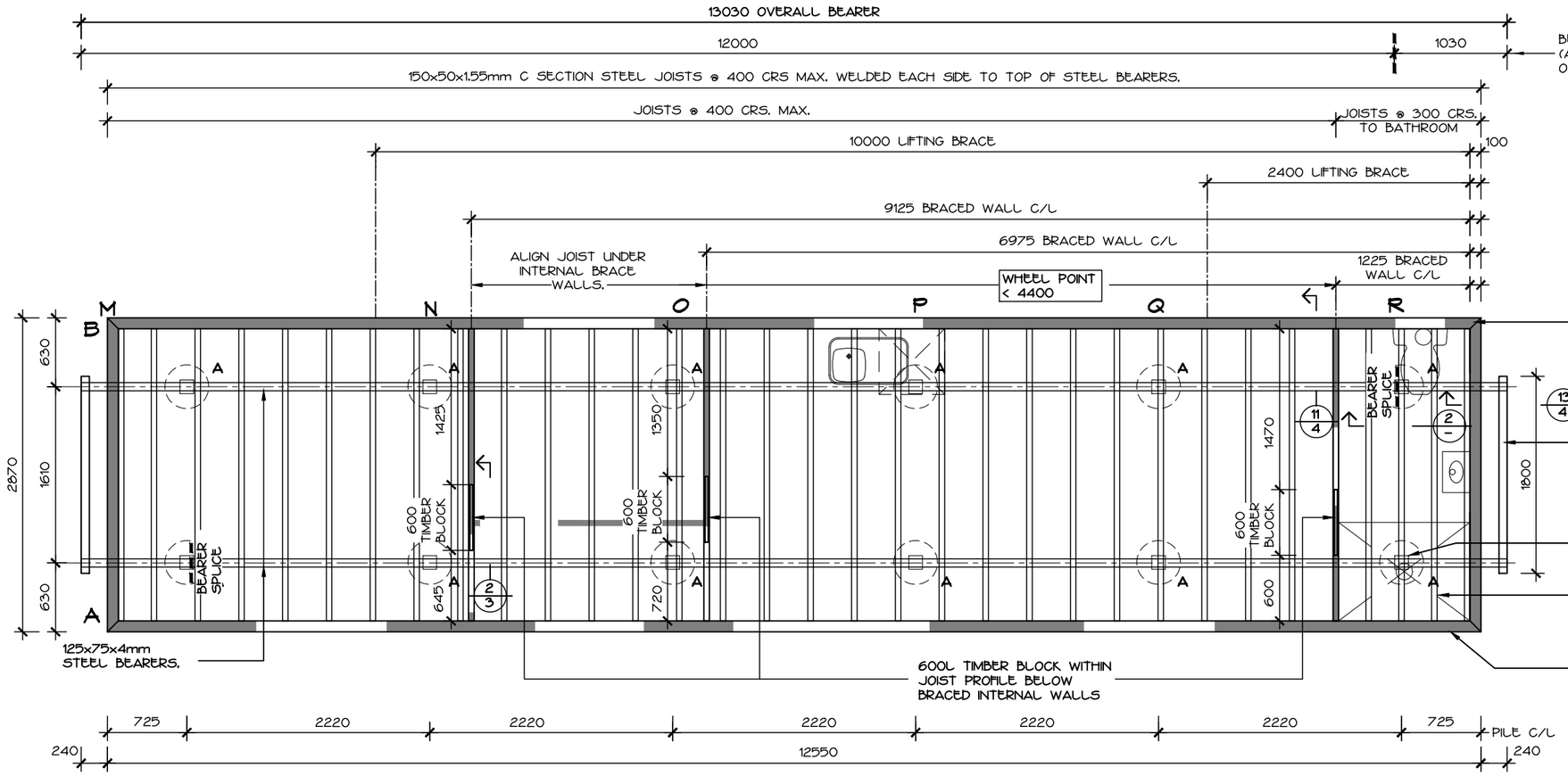
DRAWN: AJP | CHECKED: | SCALES: A3 1:50, 1:100 | OF: 4

DESIGNED: P. HILL | DATE: MAR. '25 | JOB No: 25-6076

HouseMe
BCO10393975 Received by Auckland Council 05/03/2025

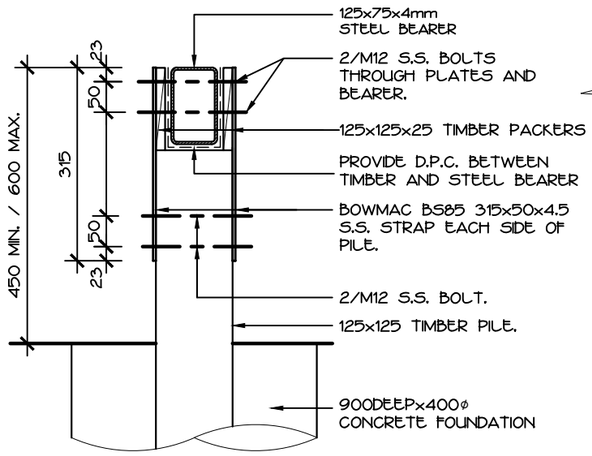
 Building Consent BCO10393975 Approved by Auckland Council

25/03/2025

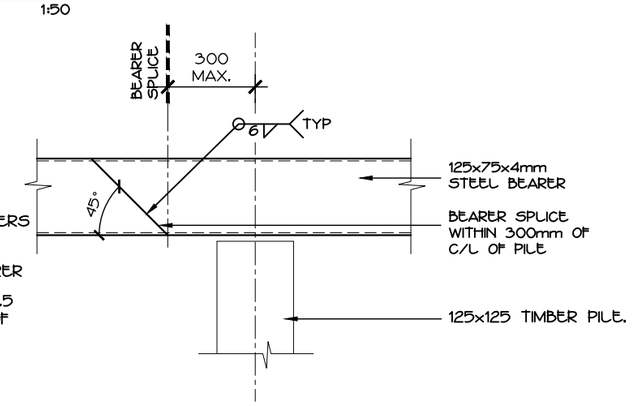


FLOOR FRAMING / FOUNDATION PLAN

1:50



DETAIL (1/1)



DETAIL (2/-)

NOTE
FOUNDATIONS & SITE WORKS NOT INCLUDED IN THIS CONSENT

GLAZING (DOMESTIC)

ALL GLAZING SHALL BE IN ACCORDANCE WITH NZS:4223:2016 AND NZBC F2/AS1.

DOORS

- ALL DOORS WITH GLAZED PANELS GREATER THAN 0.5sqm TO HAVE SAFETY GLASS GLAZING IN ACCORDANCE WITH TABLE 1 OF NZS 4223.3:2016
- ALL DOORS WITH GLAZED PANELS LESS THAN 0.5sqm TO HAVE MINIMUM OF 5mm ANNEALED GLASS OR SAFETY GLASS GLAZING IN ACCORDANCE WITH TABLE 1 OF NZS 4223.3:2016

DOORS WITH SIDE PANELS

- ALL SIDE PANELS WITH GLAZED PANELS GREATER THAN 0.5sqm TO HAVE SAFETY GLASS GLAZING IN ACCORDANCE WITH TABLE 1 OF NZS 4223.3:2016

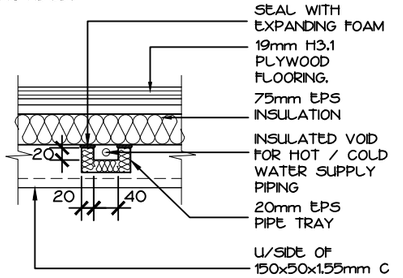
BATHROOMS

- ALL GLAZING WITHIN 2.0m OF THE FLOOR LEVEL IN A BATHROOM, ENCLOSURES CONTAINING BATHS AND SPA POOLS SHALL BE GLAZED WITH SAFETY GLASS IN ACCORDANCE WITH TABLE 1 OF NZS 4223.3:2016.
- ALL GLAZING OVER 2.0m FROM THE FLOOR LEVEL SHALL BE SAFETY GLASS FROM TABLE 1 OR ANNEALED GLASS TO PART 4 OF THE STANDARD.
- FULLY FRAMED SHOWER SCREENS AND BATH ENCLOSURES SHALL BE GLAZED WITH SAFETY GLASS.
- UN FRAMED (FRAMELSS) PIVOT OR HINGED DOORS SHALL BE TOUGHENED SAFETY GLASS 6mm MIN.
- PANELS AND DOORS WITH ONE UN FRAMED EDGE SHALL BE TOUGHENED SAFETY GLASS 5mm MIN.

PIPEWORK INSULATION

WHERE THERE IS THE LIKELIHOOD OF FREEZING (CLIMATE ZONES 4, 5 & 6):

- HOT AND COLD WATER SUPPLY PIPING OUTSIDE OF THE BUILDING THERMAL ENVELOPE SHALL BE INSULATED WITH EITHER 12mm NOMINAL THICKNESS CLOSED CELL FOAM POLYMER INSULATION OR 12mm NOMINAL THICKNESS FIBREGLASS INSULATION PREFORMED TO THE SHAPE OF THE PIPE."
- AN EXPANSION CONTROL VALVE SHALL BE PROVIDED.
- SEAL WITH EXPANDING FOAM



WATER SUPPLY INSULATION DETAIL

1:10

MATERIALS & WORKMANSHIP

ALL MATERIAL & WORKMANSHIP SHALL COMPLY WITH THE N.Z.B.C.

- TIMBER: NZS3602 ALL TIMBER H5: GROUND CONTACT
- CONCRETE: NZS3109: FOUNDATIONS = 17.5mPa
- ROOFING/WALL PANELS: 0.55mm COLORSTEEL ENDURA
- FIXINGS: BOLTS, WASHERS, NAILS, PLATES SHALL BE HOT DIP GALVANISED, EXCEPT IN MARINE OR OTHER CORROSIVE AREAS USE STAINLESS STEEL. ALL BOLTS TO HAVE 50x50x4mm WASHERS.

B.C. APPLICATION

HILL DESIGN ENGINEERING LTD.
P. HILL
B.E.(HONS), M.I.P.E.N.Z.
C.P.ENG. No 47048

HouseMe

#	DATE:	REVISION:

HDE HILL DESIGN ENGINEERING LTD
23 Great South Road
PO Box 72 944 Papakura
Phone (09) 298 0654
Fax (09) 297 7869
Email enquiries@hde.co.nz

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PROJECT: 12.5x2.8 PORTABLE UNIT at 23 INLET ROAD TAKANINI for COMPACT HOMES LTD.

DRAWING TITLE: FOUND. PLAN & DETAILS t561
12.5x2.8 PORTABLE UNIT (TWO BEDROOM)

DWG. No: 2 REVISION: - V250113

DRAWN: AJP | CHECKED: | SCALES: A3 1:50, 1:100 A3 1:10 | OF: 4

DESIGNED: P. HILL | DATE: MAR. '25 | JOB No: 25-6076

BCO10393975 Received by Auckland Council 05/03/2025

3m Metalled formation
Impermeable Area = 697 m²

4
DP 515337
(1459m²)
Common access lot = 8m wide

2
DP 392845

1
DP 392845

Ø300mm
culvert

2
DP 515337

Ø450mm
culvert

Ø300mm
culvert

Easement A
Right to drain water

1
DP 602529

Existing
Minor Residential
Unit 36m²

12m

deck

Parking

12m

32m

eb

drain

LOT 1
DP 515337
2.0832ha

Existing
Principal Residential
Unit 100m²

water
tanks

deck

bank height
average 1.25m

stormwater
attenuation
47.9m³

stormwater
attenuation
Vol 75m³

2
DP 421789

metalled
1820m²

46m

Existing
septic tank
& disposal

Proposed
Tank

Proposed 100 ø to detention basin

Ø200mm
culvert

Proposed
Minor Residential
Unit 36m²

Parking

edge wetland

Existing farm track upgraded

10m o/s

to wetland

3m

5m

edge wetland

box culvert
& crossing

Power
Easement E

easement

3
DP 515337

9
DP 602529

<u>Building Coverage</u>
Buildings 172m² (0.8%)

<u>IMPERMEABLE SURFACES</u>
Buildings 172m²
Metalled 1820m²

Metalled on common
access Lot 4 1/2 share 697m²
(= 348m²)

Total Title Area 2.1561 ha
Total IMP 2340m² = 10.8%

Notes:
For resource consent purpose only.
Coordinates are in terms of NZGD Mt Eden 2000
Heights are in terms of NZVD 2016
Origin of heights is IT SO 50962 (E8TH)

0 10 20 30 40 50 100

Applicant : A Carey, J Sosich
Title : 801466
Total Area : 2.0832ha
Zone : Rural Production

DONALDSONS
REGISTERED LAND SURVEYORS

PROPOSED LAND USE ACTIVITY ON LOT 1 DP 515337
Minor Residential Unit

Contour interval : 0.5m
Scale @ A3 : 1:1000
Date : May 2026
REF : 8735