

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 — <u>both available on the Council's web page</u>.

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	Discharge		
Fast Track Land Use*	Change of Consent Notice (s.221(3))		
Subdivision	Extension of time (s.125)		
Consent under National Environmental Stand (e.g. Assessing and Managing Contaminants in S	lard oil)		
Other (please specify)			
* The fast track is for simple land use consents and is r	estricted to consents with a controlled activity status.		

3. Would you like to opt out of the Fast Track Process?		
Yes No If we qualify it will be great to have this.		
4. Consultation		
Have you consulted with ly	wi/Hapū? Yes No	
f 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 <u>tehonosupport@fndc.govt.nz</u>

5. Applicant Details

Name/s:

Email:

Phone number:

Postal address:

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

6. Address for Correspondence

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

Angela Vujcich - Advance Build

Name/s:

Email:

Phone number:

Postal address:

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

CppC Planning - Claire Phillips

* 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:

Tabuteau Wilson Holdings Limited

Property Address/ Location:

53 Motutara Drive, Karikari

Postcode

8. Application Site Details

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

Name/s: Site Address/ Location:	
	Postcode
Legal Description:	Val Number:
Certificate of title:	

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 rearrange 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.

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) Specify 'other' here

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 Unless agreed**

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)Advance Build Ltd - Please use our accountEmail:Phone number:Postal address:
(or alternative method of
service under section 352
of the act)Advance Build Ltd - Please use our account

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.



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)	Angela Vujcich		
Signature:		Date 07-Mar-2025	
	red if the application is made by electronic means		

Checklist (please tick if information is provided)

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



PO Box 550, Warkworth 0941 Mobile: 021 302 340 Email: claire.phillips1@xtra.co.nz Web: www.cppcplanning.co.nz

RESOURCE CONSENT APPLICATION FOR ADVANCE BUILD AT A PROPERTY AT 53 MOTUTARA DRIVE, KARIKARI PENINSULA

MARCH 2025

DELIVERING QUALITY PLANNING

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Applicant:	Advance Build	
Owner:	Tabuteau Wilson Holdings Limited	
Site Address:	53 Motutara Drive, Karikari Peninsula	
Legal Description:	Lot 35 DP 202908	
Site Area:	843m ²	
Consent:	Land Use	
Activity:	Land use consent to relocate a new pre-built dwelling.	
Zone: Operative District Plan: Coastal Residential		
Proposed District Plan	General Residential	
Address for Service:	Claire Phillips Consultant Planner CPPC Planning PO Box 550, Warkworth, 0941, New Zealand Mobile: 021302340 Email: <u>claire.phillips1@xtra.co.nz</u>	

Land use consent is being sought pursuant to section 88 of the Resource Management Act 1991 is being sought to relocate a new pre-built dwelling.

The proposal involves the following elements:

• A new single level dwelling with a floor area of 144m² (roof area of 197.16m²) and will contain three bedrooms, bathrooms, laundry, kitchen, dining and living room.



Figure 1: Perspective of dwelling

- To provide the platform for the proposed dwelling and associated outdoor living and driveway areas, earthworks are to be undertaken with a volume of 25.29m³.
- Water supply is proposed by way of two onsite 25,000 litre water tanks. All water is collected by roof collection and utilized for water supply.
- The proposal involves impervious surfaces of 365.76m².
- Fire fighting approval has been obtained.

SITE DESCRIPTION

The subject property is currently legally described as Lot 35 DP 202908 having an area of 835m². The site is currently vacant of buildings and is in grass. Access to the site is from Motutara Drive, which is formed and sealed. The surrounding area is made up of residential properties with connections to public reticulated services.



Figure 2: Aerial Photo of Locality – Source – FNDC Maps

LAND USE CONSENT

FAR NORTH DISTRICT COUNCIL – OPERATIVE DISTRICT PLAN

The subject site is zoned Coastal Residential as shown on the portion of planning map below:



Figure 3: Zone Map Source – Far North Operative District Plan

Chapter 10 Coastal Environment - Section 8 Coastal Residential

 Buildings are permitted activities provided that they comply with all the standards for permitted activities in the Plan, and further provided that where the building is a relocated building all work required to reinstate the exterior including painting and repair of joinery shall be completed within six months of the building being delivered to the site. Reinstatement work is to include connections to all infrastructure services and closing in and ventilation of the foundations under rule 10.8.5.1.1. The dwelling is a pre-built new relocated dwelling. No reinstatement is required other than foundations. To infringe this standard is a restricted discretionary activity under 10.8.5.2. • Standard 10.8.5.1.5 states that ... *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." The proposed relocated new dwelling is to infringe this standard along the western boundary. To infringe this standard is a restricted discretionary activity under 10.8.5.2.

Chapter 12 – Natural and Physical Resources – Section 4 Natural Hazards

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
as outlined in Rule 12.4.6.1.2. The dwelling at the closest point to the bush line is 7
metres. The proposal is considered to be a Discretionary Activity under Rule 12.4.6.3(a).

FAR NORTH DISTRICT COUNCIL – PROPOSED DISTRICT PLAN

The Far North Proposed District Plan was notified on July 27, 2022. Only some parts of this plan have legal effects and only those rules where relevant are assessed below.

The subject site is zoned General Residential as shown on the portion of planning map below:



Figure 4: Zone Map Source – Far North Proposed District Plan

There are no relevant rules to consider under this document.

Overall the proposal is considered to be a Discretionary Activity.

FAR NORTH DISTRICT COUNCIL – PROPOSED DISTRICT PLAN

Part 2 – District Wide Matters – Natural Environmental Values – Ecosystems and indigenous biodiversity

• IB-R1 states that it is a permitted for vegetation pruning, trimming and clearance provided it is outside the SNA. The site is clear of vegetation and is a permitted activity.

Part 2 – District Wide Matters – Natural Environmental Values – Natural Features and Landscapes

• The site is not within an ONL or ONF, chapter not relevant.

Part 2 – District Wide Matters – Natural Environmental Values – Natural Character

• NATC-R1 states that ... The building or structure, or extension or alteration to an existing building or structure on wetland, lake and river margins is not located within an ONL or ONF." This is not an operative rule, however the proposal is in compliance.

Part 3 – Area-Specific Matters – Zones – Residential Zones – General Residential

• In reviewing the proposed plan, there are no operative rules that relate to the project under the General Residential Zone. It is noted that a dwelling is permitted under GRZ-R1, R2, R3 that meets the standards in GRZ-S1, S2, S3, S5, S6, S7.

RULES ASSESSMENT

FAR NORTH DISTRICT COUNCIL – OPERATIVE DISTRICT PLAN

Chapter 10 Coastal Environment – Section 8 Coastal Residential Zone

	Requirement	Comment	Compliance
10.8.5.1.1 Relocated Buildings	Buildings are permitted activities provided that they comply with all the standards for permitted activities in the Plan, and further provided that where the building is a relocated building all work required to reinstate the exterior including painting and repair of joinery shall be completed within six months of the building being delivered to the site.	The dwelling is a pre-built new relocated dwelling. No reinstatement is required other than foundations.	Requires consideration

	Reinstatement work is to include connections to all infrastructure services and closing in and ventilation of the foundations.		
10.8.5.1.2 Residential Intensity	Each residential unit for a single household shall have available to it a minimum net site area of: Sewered sites: 800m ²	The site has an area of 843m ²	Compliance
10.8.5.1.3 Scale of Activities	NA	NA	Compliance
10.8.5.1.4 Building Height	The maximum height of any building shall be 8m	The dwelling has a height of less than 8 metres, see architectural plans	Compliance
10.8.5.1.5 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	The proposed relocated new dwelling is to infringe this standard along the western boundary.	Requires Consideration
10.8.5.1.6 Stormwater Management	The maximum proportion of the gross site area covered by buildings and other impermeable surfaces shall be 50%.	The proposal involves impermeable surfaces of 43.4% or 365.76m ²	Compliance
10.8.5.1.16 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 45% of the gross site area.	The proposal involves building coverage of 23.67%	Compliance

Chapter 12 Natural and Physical Resources – Section 3 – Soils and Minerals

	Requirement	Comment	Compliance
12.3.6.1.3	Excavation and/or filling,	Proposal requires earthworks	Compliance
Excavation	excluding mining and	with a volume of 25.29m ³ and	
within	quarrying, on any site in	no excavation exceeds 1.5	
Residential	the Residential, Industrial,	metres in height	
zone	Horticultural Processing,		
	Coastal Residential or		
	Russell Township Zones is		
	permitted, provided that:		

(a) it does not exceed	
period per site; and	
(b) it does not involve a cut	
or filled face exceeding	
1.5m in height i.e. the	
maximum permitted cut	
and fill height may be 3m.	

Chapter 12 Natural and Physical Resources – Section 4 – Natural Hazards

	Requirement	Comment	Compliance
12.4.6.1.2	(a) Residential units shall	The dwelling at the closest	Requires
Fire Risk to	be located at least 20m	point to the bush line is 7	Consideration
Residential	away from the drip line of	metres.	
Units	any trees in a		
	naturally occurring or		
	deliberately planted area		
	of scrub or shrubland,		
	woodlot or forest;		

Chapter 15 Transportation – Section 1 – Traffic, Parking and Access

	Requirement	Comment	Compliance
15.1.6A.2.1 Traffic Intensity	Maximum daily one way traffic movements: Residential 20	The proposal will not exceed 20 residential movements	Compliance
15.1.6B.1.1 On-Site Car Parking	The minimum number of on-site car parking spaces to be provided for the users of an activity shall be determined by reference to Appendix 3C,	The proposal involves 2 on- site car parks	Compliance
15.1.6B.1.5	The required size of off- street car parking spaces, the manoeuvring space between, and the vehicle circulation routes providing access to them, shall be as set out in Appendix 3D.	Maneuvering is proposed and compliant	Compliance

ASSESSMENT OF STEPS 1 TO 4 (SECTION 95A)

Section 95A specifies the steps the council is to follow to determine whether an application is to be publicly notified. These steps are addressed in the statutory order below.

STEP 1: MANDATORY PUBLIC NOTIFICATION IN CERTAIN CIRCUMSTANCES

Step 1 states that no mandatory notification is required as:

- the applicant has not requested that the application is publicly notified (s95A(3)(a));
- there are no outstanding or refused requests for further information (s95C and s95A(3)(b)); and
- the application does not involve any exchange of recreation reserve land under s15AA of the Reserves Act 1977 (s95A(3)(c)).

In this case the applicant does not request notification.

STEP 2: IF NOT REQUIRED BY STEP 1, PUBLIC NOTIFICATION PRECLUDED IN CERTAIN CIRCUMSTANCES

Step 2 states that the application is not precluded from public notification as:

- The activities are not subject to a rule or national environmental standard (NES) which precludes public notification (s95A(5)(a)); and
- The application does not exclusively involve one or more of the activities described in s95A(5)(b).

In this case, the proposal is not precluded from notification.

STEP 3: IF NOT PRECLUDED BY STEP 2, PUBLIC NOTIFICATION REQUIRED IN CERTAIN CIRCUMSTANCES

The application is not required to be publicly notified as the activity are not subject to any rule or a NES that requires public notification (s95A(8)(a)).

The following assessment addresses the adverse effects of the activities on the environment, as public notification is required if the activities will have or are likely to have adverse effects on the environment that are more than minor (s95A(8)(b)).

STEP 4: PUBLIC NOTIFICATION IN SPECIAL CIRCUMSTANCES

If an application has not been publicly notified as a result of any of the previous steps, then the council is required to determine whether special circumstances exist that warrant it being publicly notified (s95A(9)).

Special circumstances are those that are:

- exceptional, abnormal or unusual, but something less than extraordinary or unique;
- outside of the common run of applications of this nature; or
- circumstances which make notification desirable.

In this instance I have turned my mind specifically to the existence of any special circumstances and conclude that there is nothing exceptional or unusual about the application, and that the proposal has nothing out of the ordinary run of things to suggest that public notification should occur.

ASSESSMENT OF ENVIORNMENTAL EFFECTS

EXISTING ENVIRONMENT AND PERMITTED BASELINE

ENVIRONMENT

The 'Environment' includes the 'Existing Environment' which includes all lawfully established activities that exist – and the 'Future Environment' which includes the effects of activities enabled by an unimplemented consent where the consent is 'live' that have not lapsed and there are no reasons why the consent is not likely to be implemented.

These activities and their constituent effects form part of the existing (lawfully established) environment.

In this case the site and locality have been described in the site description above. The site is vacant of buildings and is accessed from Motutara Drive.

PERMITTED BASELINE

RMA states that for the purposes of formulating an opinion as to whether the adverse effects on the environment will be minor or more than minor a consent authority may disregard an adverse effect of an activity on the environment if the plan permits an activity with that effect. In this case the site is within Residential Zone and the following activities are provided for as it relates to this application:

- Dwelling complying with the zone standards.
- 20 setback from dripline of trees

ASSESSMENT OF EFFECTS

Having regard to the above and after an analysis of the application, including any proposed mitigation measures, the adverse effects of the activity on the environment are identified and discussed below.

CHARACTER AND AMENITY VALUES

The amenity values of an area are those special qualities, in particular natural and physical characteristics that make an area pleasant, unique or different. In this case, the site is within the Coastal Residential Zone.

The scale and design of the proposal is typical of the surrounding environment and consistent with the surrounding dwellings. Given the existing features of the site it is not unreasonable for the construction and location of a dwelling on the site as proposed. The dwelling does use the topography to its advantage, with a rock batter wall at the rear of the dwelling.

The development will not result in a building that could be considered dominant or out of character, particularly when viewed in conjunction with other dwellings in this locality. This is further supported by the development on adjacent sites, which have also been cleared of the majority of indigenous vegetation. These factors ensure that any effects on are considered to be no more than minor. There will be no obvious differences which differentiate the infringement from that of a complying activity, particularly when viewed from adjacent properties.

The dwelling is considered to be of a size and scale consistent with other dwellings in this immediate vicinity, therefore will maintain the existing character of the area.

Overall, it is considered that the adverse effects of the proposed dwelling on coastal residential character and visual amenity will be no more than minor.

CULTURAL/HISTORIC HERITAGE

There are no known heritage sites or archaeological sites within the area adjacent to the application site. As shown in the map below, there is a history of occupation around the coastal area. There are a variety of structures adjacent to the coastal marine area, such as stairs and paths, with the historical access to the river evident.

In accordance with standard protocols accidental discovery, work must cease immediately, and Council and Heritage NZ notified should any archaeological or heritage site be uncovered during the earthworks. Given this standard and the relatively unlikely nature of any archaeological site being uncovered, it is considered that the effects of the proposal on cultural matters will be less than minor.

TRAFFIC AND ACCESS

The proposal will not result in effects on the cultural or heritage values of the area.

The property has frontage to Motutara Drive, which is formed to an urban sealed standard. The proposal involves accessing the new dwelling over an existing crossing with Motutara Drive.

It is proposed to have two car parking spaces with onsite maneuvering.

Overall the effects of the reverse maneuvering onto Motutara Drive will be less than minor on the roading network.

DUST, NOISE AND VIBRATION EFFECTS

Effects such as noise, dust and vibration on the surrounding environment are less than minor.

The proposal involves land disturbing activities (earthworks) to provide for platform and retaining wall for the residential use of the site.

Through the use of dust minimisation methodologies (commonly accepted), any dust resulting from the works will be minimised. Once the earthworks are completed, the areas will be otherwise covered.

The proposed earthworks are temporary and are expected to be completed in approximately 2 weeks, weather depending. The works will be completed within one earthworks season.

Noise and vibration from machinery during the earthworks operations will comply with the noise and vibration standards throughout the works.

The earthworks and associated rock batter wall will not result in or exacerbate instability.

Overall, it is considered that the earthworks will not result in off-site effects as a result of dust, noise and vibration. The effects of noise, vibration and dust will also be effectively managed with appropriate conditions of consent and is considered to be less than minor.

WATER QUALITY EFFECTS

The main adverse effects on the environment that could potentially arise from earthworks relate to the silt discharge from the earthworks site. If silt is uncontrolled it can create adverse effects on water quality of a waterway.

The applicant will implement erosion and sediment control measures in accordance with the Auckland Councils GD05. The applicant proposes to install measures to control and/or mitigate any silt/stormwater run-off. In particular, the applicant will install a silt fencing and provide a stabilised crossing. Details of how these fences are to be constructed are shown on plan A1.03

of the submitted plans. This level of erosion and sediment control is commensurate of the level of earthworks proposed as part of this application being limited to a volume of 57.4m³.

On this basis of the above, it is considered that any adverse effects on water quality will be less than minor.

NATURAL HAZARDS AND SERVICING EFFECTS

Water supply is proposed by way of two water tanks.

The site is serviced via a reticulated SW network. The proposal involves impervious surfaces of 365.76m². All water is collected by roof collection and water supply. From their there is a surface water diversion drain.

Appropriate separation and water supply will ensure fire fighting supply is accessible with approval from NZ fire service having been provided.

It is considered that the effects of the natural hazards and servicing of the site will be less than minor.

SUMMARY

In summary, having assessed the adverse effects of the activity on the environment, it is considered that the proposed new pre-built dwelling with associated access will be less than minor adverse effects on the environment. In particular the proposal is considered to be consistent with the type of building anticipated within this residential environment.

LIMITED NOTIFICATION ASSESSMENT

ASSESSMENT OF STEPS 1 TO 4 (SECTION 95B)

If the application is not publicly notified under s95A, the council must follow the steps set out in s95B to determine whether to limited notify the application. These steps are addressed in the statutory order below.

STEP 1: CERTAIN AFFECTED PROTECTED CUSTOMARY RIGHTS GROUPS MUST BE NOTIFIED

Step 1 requires limited notification where there are any affected protected customary rights groups or customary marine title groups or affected persons under a statutory acknowledgement affecting the land (ss95B(2) and 95B(3)).

The application site is not affected by customary rights.

STEP 2: IF NOT REQUIRED BY STEP 1, LIMITED NOTIFICATION PRECLUDED IN CERTAIN CIRCUMSTANCES

Step 2 describes that limited notification is precluded where all applicable rules and NES preclude public notification; or the application is for a controlled activity (other than the subdivision of land) or a prescribed activity (ss95B(5) and 95B(6)).

The proposal is a Restricted Discretionary activity and there are no rules precluding notification.

STEP 3: IF NOT PRECLUDED BY STEP 2, CERTAIN OTHER AFFECTED PERSONS MUST BE NOTIFIED

Step 2 requires that where limited notification is not precluded under step 2 above, a determination must be made as to whether any of the following persons are affected persons:

- In the case of a boundary activity, an owner of an allotment with an infringed boundary;
- In the case of a prescribed activity under s360H(1(b), a prescribed person; and
- In the case of any other activity, a person affected in accordance with s95E.

The application is not for a boundary or prescribed activity, and therefore an assessment in accordance with s95E is required. This assessment is set out below.

Overall, it is considered that any adverse effects in relation to adjacent properties will be less than minor, and accordingly that no persons are adversely affected.

STEP 4: FURTHER NOTIFICATION IN SPECIAL CIRCUMSTANCES

In addition to the findings of the previous steps, the council is also required to determine whether special circumstances exist in relation to the application that warrant notification of the application to any other persons not already determined as eligible for limited notification.

There are not considered to be any special circumstances that would warrant notification.

SECTION 95E STATUTORY MATTERS

As required by step 3 above, certain other affected persons must be notified, and the following assessment addresses whether there are any affected persons in accordance with s95E. A person is affected if the effects of the activity on that person are minor or more than minor (but not less than minor).

In deciding who is an affected person under section 95E:

Adverse effects permitted by a rule in a plan or NES (the permitted baseline) may be disregarded.

• It is considered that there is no useful baseline that can be applied as the land needs to be earth worked to provide building platforms and subdivision of the land would also require resource consent.

• The adverse effects on those persons who have provided their written approval must be disregarded.

Because of the minor scale of the proposal no written approvals have been sought for this proposal.

The sections below set out an assessment in accordance with section 95E, including identification of adjacent properties, and an assessment of adverse effects.

ADJACENT PROPERTIES

The adjacent properties to be considered in the limited notification assessment under section 95B and 95E are set out below:

- Lot 2 DP 580077 Motutara Drive, Karikari Peninsula
- Lot 34 DP 202908 Motutara Drive, Karikari Peninsula
- Lot 36 DP 202908 Motutara Drive, Karikari Peninsula
- Lot 30 DP 202908 Recreational Reserve

Written approval has been obtained from Lot 2 DP 580077 – Motutara Drive, Karikari Peninsula, therefore any potential effects on this property can be disregarded.

No other persons are considered to be adversely affected by the activity because:

- The design of the proposal has been designed to be sympathetic with the residential environment, through nestling into the site.
- The proposal retains sufficient separation distances between the neighbouring dwellings (consistent with other locations within this locality) and will not compromise the existing levels of amenity or residential character enjoyed by adjacent properties to a minor or more than minor extent.
- The proposal will be consistent in the character and scale to other dwellings located within the local vicinity and will comply with all the relevant development standards so will not generate adverse effects in terms of shading, overbearance and overlooking to the adjoining properties.
- The proposal will be consistent in the character and scale to other dwellings located within the local vicinity and will comply with all the relevant development standards so will not generate adverse effects in terms of shading, overbearance and overlooking to the adjoining properties.
- Any construction related effects will be temporary and transient and less than minor.
- Suitable erosion and sediment control methods will be utilized to ensure that the effects on the adjacent sites as a result of the earthworks will be less than minor.

The matters that require consideration in assessing this application are set out in section 104 of the Resource Management Act 1991. These matters include the actual and potential effects of the allowing the activity on the environment and the relevant rules and assessment criteria.

ASSESSMENT CRITERIA/MATTERS OF DISCRETION

FAR NORTH DISTRICT PLAN

The following assessment criteria are considered relevant to the application and provide a reliable basis to determine the effects of the proposal. As demonstrated above, the proposal is considered to be consistent with these assessment criteria.

11.2	BUILDING HEIGHT, SCALE AND SUNLIGHT		
	Requirement	Comment	Compliance
	(a) The extent to which adjacent properties will be adversely affected in terms of visual domination, overshadowing, loss of privacy and loss of access to sunlight and daylight.	Written approval has been obtained from the owners adjacent to the HIRB infringement, therefore any effects on them have been disregarded. The proposal does not result in any other infringements to HIRB on any other boundaries, ensuring that the dwelling does not result in visual domination or restrictions to sunlight and daylight.	Compliance
	(b) The ability to mitigate any adverse effects by way of increased separation distances between buildings or the provision of landscaping and screening	No mitigation necessary	Compliance
	(c) The extent of the building area and the scale of the building and the extent to which they are compatible with both the built and natural environments in the vicinity.	The dwelling is modest in nature and similar to other dwellings in the locality.	Compliance

<i>(d) The spatial relationship</i> <i>between the new</i> <i>building and adjacent</i> <i>residential units, and the</i> <i>outdoor space used by</i> <i>those units.</i>	There is sufficient separation between dwellings to ensure that outdoor living is not compromised.	Compliance
<i>(e) The nature of the activity to be carried out within the building and its likely generated effects.</i>	Residential activity envisaged on this site.	Compliance

12.4.7	Fire Risk to Residential Units		
	Requirement	Comment	Compliance
	(f) the degree 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;	The dwelling and associated on-site infrastructure is suitable for the site and will not have effects on the environment. Water supply is proposed by way of two water tanks. This water tank is to collect water from the roof area of the proposed dwelling. There is suitable water supply for fire fighting purposes to ensure that the fire hazard (dwelling) is mitigated. Further the dwelling will contain standard fire safety. The New Zealand fire service has provided their approval. The effects of the proposal on the natural hazard (fire potential) are less than minor.	Compliance
	<i>(g) the extent to which the activity may adversely affect cultural and spiritual values;</i>	There are no known cultural effects resulting from the proposal.	Compliance
	(h) the degree to which any proposed activity is compatible with the maintenance of the natural character of the environment	The subject site and associated dwelling are adjacent to the coastal environment and within the urban area. The design, location and development of the development has taken into consideration the natural character. It is noted that there is no specific landscape	Compliance

	protection at the site and the development is considered to reflect a history of development within this locality and envisaged within the residential Zone, being primarily for residential development.	
(i) the effects on amenity values, landscape values, heritage features and indigenous habitats and ecosystems, especially in the coastal environment and associated with rivers, lakes, wetlands and their margins;	The dwelling is envisaged and will not result in effects on any vegetation on adjacent properties.	Compliance
(j) the effects on natural features, such as beaches, sand dunes, mangrove areas, wetlands and vegetation, which have the capacity to protect land and structures from natural hazards;	The proposal will not affect any natural features.	Compliance
(k) any adverse effects on water quality;	Water quality will be maintained through the implementation of industry accepted erosion and sediment control measures and the control of stormwater.	Compliance
<i>(l) any adverse effects of the activity on any archaeological sites;</i>	There are no known archaeological features within the site. Suitable protocols will be implemented.	Compliance
<i>(m)any effect on the life supporting capacity of soil;</i>	The life supporting capacity of the soil will be retained.	Compliance
(n) the potential impact of sea level rise;	NA	Compliance
<i>(o) in respect of fire risk to residential units:</i> <i>(i) the degree of fire risk to dwellings arising from</i>	Water supply is proposed by way of two water tanks. This water tank is to collect water from the roof area of the	Compliance

the proximity of the woodlot or forest and vice versa; and (ii) any mitigation measures proposed to reduce the fire risk; and (iii) the adequacy of the water supply; and (iv) the accessibility of the water supply to fire service vehicles.	proposed dwelling. There is suitable water supply for fire fighting purposes to ensure that the fire hazard (dwelling) is mitigated. Further the dwelling will contain standard fire safety. The New Zealand fire service is I satisfied that the effects of the proposal on the natural hazard (fire potential) are less than minor and their written approval will be provided once received.	
(p) any cumulative adverse effects on the environment arising from the activity;	There are no known cumulative effects resulting from the proposal.	Compliance
(q) the potential need for ongoing maintenance and the potential effects of such maintenance;	Not applicable	Compliance
(r) the effects of any proposed option to either avoid, remedy or mitigate the effects of identified natural hazards;	Not applicable	Compliance
(s) the ability to monitor the effects of the activity and take remedial action (e.g. removal) if necessary;	Council's usual monitoring if necessary.	Compliance
(t) the extent to which any proposed activity or works intended to provide protection from natural hazards will result in the effects of the natural hazard being transferred to another location.	Not applicable	Compliance

OBJECTIVES AND POLICIES

FAR NORTH DISTRICT COUNCIL – OPERATIVE DISTRICT PLAN

The following objectives and policies are considered relevant when considering this application:

Chapter 10.8 Coastal Residential

- Objectives 10.8.3
- Policies 10.8.4

The objectives and policies seek to achieve the development of new coastal settlements at similar densities to those prevailing at present.

The proposed new dwelling and minimal earthworks are envisaged within the Coastal Residential zone and will continue to maintain the natural character of the area, with the majority of the site open space or landscaped. The proposal is consistent with the direction of this document.

Chapter 12.4 Natural Hazards

- Objectives 12.4.3
- *Policies 12.4.4*

The objectives and policies seek to reduce the risk to life, property and the environment from natural hazards. The proposal involves a development that has taken into consideration the natural hazards within the site, including but not limited to the fire hazard to residential dwellings. The proposal ensures that there is sufficient water supply for fire fighting, which is to be contained within the two water tanks, with the dwelling as far away from the bush line as possible.

FAR NORTH DISTRICT COUNCIL – PROPOSED DISTRICT PLAN

Part 2 – District Wide Natural Environment Values – Ecosystems and Indigenous biodiversity

- Objectives IB-01 IB-05
- Policies IB-P1 IB-P10

The objectives and policies seek to ensure that areas of significant indigenous vegetation and significant habitats of indigenous fauna are protected for current and future generations. Further they seeks to ensure that indigenous biodiversity is managed to maintain its extent and diversity in a way that provides for the social, economic and cultural well-being of people and communities as well as relationships between tangata whenua.

The proposal is consistent with the above.

In summary it is concluded that this proposal satisfies the relevant matters requiring consideration under section 104.

NATIONAL ENVIRONMENTAL STANDARD

There are no NES or other regulations in effect that apply to this application.

PART II OF THE RESOURCE MANAGEMENT ACT

Part II of the Act sets out the Purpose and Principles. This proposal is in keeping with Part II as the effects of the proposal on the environment will be minor and the proposal will not compromise the ability of this site to be used by existing and future generations, also the life supporting capacity of air, water, soil and ecosystems will not be compromised.

Section 5 of the Resource Management Act 1991 (the Act) describes the Purpose and Principles of the Act and provides a definition of 'sustainable management' which includes reference to managing the use and development of natural and physical resources at a rate that allows people and communities to provide for their wellbeing, whilst avoiding, remedying and mitigating any adverse effects of activities on the environment.

This involves sustaining resource potential (excluding minerals), safeguarding the life supporting capacity of air, water, soil and ecosystems and avoiding, remedying or mitigating adverse effects. The effects of this proposal on the environment have been described above.

The proposal is considered to be consistent with the Purposed and Principles outlined above as the effects on character and amenity will be no more than minor. Further any potential effects can be adequately avoided, remedied and mitigated.

Section 6 of the Act requires all persons exercising functions and powers under the Act to recognise and provide for matters of national importance in relation to the natural character of the coastal environment, wetlands, lakes and rivers and the protection of them from inappropriate subdivision use and development. Outstanding natural features and landscapes are also to be protected from inappropriate subdivision, use and development.

The proposal is considered to be consistent with section 6 of the Act as there are considered to be no matters of national importance on this site.

Section 7 relates to other matters that are to which regard must be had in achieving the sustainable management of natural and physical resources: The proposed shed is considered to be consistent with the provisions of the section of the Act.

Section 8 requires that account shall be taken of the principles of the Treaty of Waitangi. The proposal is considered to be consistent with the matters outlined in Section 8.

Overall, it is considered that the proposal is in keeping with Part II of the Resource Management Act 1991.

CONCLUSION

It is concluded that the land use consent pursuant to section 88 of the Resource Management Act 1991 will have less than minor adverse effects on the surrounding environment. Further the proposed activity is considered to be in keeping with the relevant assessment criteria, objectives and policies set out in Far North District Plan.

As a result of the above granting consent to this proposal will be in keeping with the provisions set out in Part II of the Resource Management Act 1991 and sections 104 and 104B.
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Home Starter Pack Authorisation for Council

As the legal owner of property at: 53 MOTUTALA DRIVE RANGIPUTA

I give authority and permission for the builder (Advance Manufacturing Ltd) or nominated designer to apply for a PIM Report, Resource Consent and Building Consents on my behalf and to undertake site visits on my property.

Date:	29/10/2024			Home	e Cor	nsultant:	Tyler Dixon		
Client/s	Name/s:	PAVIS	ASHLEY	bucson	2	ANNA	LOUISE	TABUTEAU	

Client/s Signature:...

Help us Support Starship:

Advance Build are thrilled to have come on board as a partner of the Starship Foundation in support of Starship children's hospital. We are inviting you to help us fundraise as we want to help ensure kiwi kids get the best level of care.





To donate either **\$30, \$50, \$100, \$200 or \$500** please scan the QR Code. We appreciate your support!



RECORD OF TITLE UNDER LAND TRANSFER ACT 2017 FREEHOLD



Guaranteed Search Copy issued under Section 60 of the Land Transfer Act 2017



IdentifierNA131A/253Land Registration DistrictNorth AucklandDate Issued07 September 2001

Prior References NA128C/28

Estate	Fee Simple			
Area	843 square metres more or less			
Legal Description	Lot 35 Deposited Plan 202908			
Registered Owners				
Tabuteau Wilson Holdings Limited				

Interests

Appurtenant hereto is a right of way created by Transfer A169205

D638236.6 Consent Notice pursuant to Section 221(1) Resource Management Act 1991 - 7.9.2001 at 9.00 am

Land Covenant in Transfer D638236.9 - 7.9.2001 at 9.00 am

Fencing Covenant in Transfer D638236.9 - 7.9.2001 at 9.00 am



D638236.6 cono

THE RESOURCE MANAGEMENT ACT 1991

SECTION 221: CONSENT NOTICE

IN THE MATTER of Deposited Plan 202908

PURSUANT to Section 221 and for the purposes of Section 224 of the Resource Management Act 1991, this Consent Notice is issued by the **FAR NORTH DISTRICT COUNCIL** to the effect that the condition described in Schedule 1 below is to be complied with on a continuing basis by the subdividing owner and any subsequent owners after the deposit of the survey plan, and is to be registered on the appropriate titles which are set out in Schedule 2.

SCHEDULE 1

Pursuant to Section 220 (1)(c) of the Resource Management Act 1991 and in accordance with Policy 9.10 of the Transitional Far North District Plan, Lots 24 – 28 (inclusive) and Lots 33 and 35 on Plan No. 202908 are subject to a building line restriction of no less than 7.0 metres from the line of the top of the escarpment as shown on the annexed copy plan.

SCHEDULE 2

- (i) Lots 24 28 being respectively Certificates of Title 131A/243 131A/247
- (ii) Lots 33 and 35 being Certificates of Title 131A/251 and 131A/253

SIGNED;

By the FARMORTH DISTRICT COUNCIL Resource Consents Manager.

DATE:

30 July 2001

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Signed by Doris Mabel **BARRY** by her Attorney and duly authorised agent Michael Ralph Norton in the presence of:

Signed by Pamela SPANHAKE in the presence of:

Witness: Mark Tweedy Occupation: Rolered Address: Skudden Beach. Keri Kerr

Signed by John Bowman MOREY in the presence of:

Witness:..... William James Campbell Legal Executive Occupation:....Mangenul

Address:....

ucealle Witness: Juil

Occupation: Letned 33 Ranjipula Beach Road Address: p. p. 3. Kaitaia

Signed by Beverley June SPANHAKE in the presence of:

Witness: Mulchber Occupation: Retired Address: OKahn Rd Kaitaia

DECLARATION OF NON-REVOCATION OF ENDURING POWER OF ATTORNEY

I, Michael Ralph NORTON formerly of Hamilton, now of Kerikeri, Company Director do solemnly and sincerely declare as follows:

- 1. THAT by Enduring Power of Attorney dated the 18th day of December 1996, a copy of which has been deposited in the North Auckland Land Registry Office as number D.289614.1, Doris Mabel BARRY of Waipapakauri, Farmer appointed myself and Christine Ann LEWIS (jointly and severally) to be her Attorney on the terms and subject to the conditions set out in the said Power of Attorney.
- 2. **THAT** at the date hereof the declarant has not received any notice or information of the revocation of that appointment by the death of the said Doris Mabel **BARRY** or otherwise.
- 3. **THAT** the said Power of Attorney is in all respects in force at the date hereof by virtue of its terms and provisions of Part IX of the Protection of Personal and Property Rights Act 1988.
- 4. **THAT** the declarant is authorised by the Enduring Power of Attorney to execute the annexed instrument.
- 5. **THAT** the annexed instrument complies with all conditions and restrictions set out in the said Power of Attorney.

AND I make this solemn declaration conscientiously believing the same to be true and by virtue of the Oaths and Declarations Act 1957.

DECLARED at Keriken

this 30th day of July

2001 before me:-

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Michael Ralph Norton

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A Solicitor of the High Court of New Zealand





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Lot 24 - 28 35 \$ 35.

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#### TRANSFER

Land Transfer Act 1952

If there is not enough space in any of the panels below, cross-reference to and use the approved Annexure Schedule: no other format will be received.

| Land Registration District                                                                                 |                                                                                                                                                                      |                                                           |                                                                  |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------|
| Certificate of Title No.                                                                                   | All or Part? Area and legal descripti                                                                                                                                | on — Insert only when pa                                  | ert or Stratum, CT                                               |
| 131A/239 -<br>131A247 (incl.)<br>(continued on page 3 A                                                    | All<br>All<br>nnexure Schedule)                                                                                                                                      |                                                           |                                                                  |
| Transferor Surnames must be unde                                                                           | erlined                                                                                                                                                              |                                                           |                                                                  |
| Doris Mabel BARRY,<br>SPANHAKE                                                                             | Pamela SPANHAKE, John                                                                                                                                                | Bowman MOREY a                                            | nd Beverley June                                                 |
| Fransferee Surnames must be unde                                                                           | erlined                                                                                                                                                              |                                                           |                                                                  |
| Doris Mabel BARRY,<br>SPANHAKE                                                                             | Pamela SPANHAKE, John                                                                                                                                                | Bowman MOREY a                                            | nd Beverléy June                                                 |
| The Transferee shall a<br>Fencing Act 1978 in fa                                                           | lso be bound by a fencing c                                                                                                                                          | ovenant as defined in                                     | Section 2 of the                                                 |
| Consideration                                                                                              |                                                                                                                                                                      | /                                                         |                                                                  |
| \$1-00 (One Dollar)                                                                                        |                                                                                                                                                                      |                                                           |                                                                  |
| Operative Clause                                                                                           |                                                                                                                                                                      |                                                           |                                                                  |
| For the above consideration (rec<br>transferor's estate and interest d<br>above such is granted or created | eipt of which is acknowledged) the<br>escribed above in the land in the a<br>d.                                                                                      | e TRANSFEROR TRANSF<br>bove Certificate(s) of Title       | ERS to the TRANSFEREE all the<br>and if an easement is described |
| Dated this 30th day of                                                                                     | July 2001                                                                                                                                                            | ]                                                         |                                                                  |
| Attestation                                                                                                |                                                                                                                                                                      |                                                           |                                                                  |
| Doris Mabel Barry<br>Mc<br>By her Attorney<br>Michael Ralph Norton                                         | Signed in my presence by the<br>Signature of Witness<br><u>MUMA</u> <u>Juve</u><br>Witness to complete in BLOC<br>(unless typewritten or legibly<br>Witness name MAR | Transferor/Transfere<br>Kletters<br>stamped)<br>K TW FEDV | e Doris Mabel Barry                                              |
| (continued on page 2<br>Annexure Schedule)                                                                 | Occupation RETURN<br>Address SKuckiliE                                                                                                                               | RS BEACH                                                  | · · · · · · · · · · · · · · · · · · ·                            |
| Signature, or common seal of Transfere                                                                     | or KERI                                                                                                                                                              | KERI.                                                     |                                                                  |
| Certified correct for the purposes o                                                                       | of the Land Transfer Act 1952                                                                                                                                        |                                                           | Solicitor for the Transfere                                      |

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Approved by Registrar-General of Land under No. 1995/1004

# TRANSFER

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Land Transfer Act 1952



Auckland District Law Society

This page is for Land Registry Office use only. (except for "Law Firm Acting")

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| Approved by Registrar-General of Land under No | 1995/1004 |
|------------------------------------------------|-----------|
| Annexure Schedule                              |           |

25 Page 2 of 4 Pages TRANSFER Dated ઝ૦ July 2001 Continuation of "Attestation" Signed in my presence by the Transferor/ P Apenhake Transferee Pamela Spanhake Signature of Witness Jardie Lucahe Witness name JACQUELINE MARY HECABE Occupation Retried Address 33 Rangiputa Beach Road. R.D.3 Kaitaia Signed in my presence by the Transferor/ Transferee John Bowman Morey Signature of Witness Witness name William James Campbell Legal Executive Occupation Mangonui Address Bauleel Signed in my presence by the Transferor/ Transferee Beverley June Spanhake Signature of Witness hisekber Witness name M. Webber Occupation Refired. Address OKahu Rd. Kaitaia -If this Annexure Schedule is used as an expansion of an instrument, all signing parties and either their witnesses or their solicitors must put their signatures or initials here. Aug

Auckland District Law Society REF: 4135

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|                                                       | Annexure Schedule                                                    |
|-------------------------------------------------------|----------------------------------------------------------------------|
| TRANSFER                                              | Dated 30 July 2001 Page 3 of 4 Pages                                 |
|                                                       |                                                                      |
|                                                       |                                                                      |
| Continuation of "Certific:                            | ate of Title No."                                                    |
| Certificate of Title No.<br>131A/249-131A/253 (inclus | All or Part?<br>sive) All                                            |
|                                                       |                                                                      |
|                                                       |                                                                      |
|                                                       |                                                                      |
| <u>Continuation of "Estate o</u>                      | r Interest or Easement to be created"                                |
|                                                       | ad proprietor of the land formerly contained in Certificate of Title |

AND WHEREAS it is the intention of the Transferor to create certain land covenants between all of the residential lots which are comprised in the land in Deposited Plan 202908 and which are more particularly described in the Certificates of Title subject to this Transfer to the intent that each of the said lots shall have both the burden and the benefit in perpetuity of the said land covenants as hereinafter set forth.

NOW THEREFORE the Transferor covenants with the Transferee that all of the residential lots which are comprised in the said land in Deposited Plan 202908 and which are more particularly described in the Certificates of Title subject to this Transfer shall be subject to the burden of the land covenants in perpetuity as listed in the Schedule of Covenants annexed hereto in respect of the land covenants in perpetuity as listed in the Schedule of Covenants annexed hereto in favour of all other residential lots and shall have the benefit of the land covenants in perpetuity as listed in the Schedule of Covenants annexed hereto in favour of each individual residential lot over all other lots.

AND the Transferee for themselves and their successors in title covenants with the Transferor for the benefit of each of the other lots on Deposited Plan 202908 to at all times faithfully observe and perform all the covenants contained in the Schedule of Covenants annexed hereto to the intent that each of the covenants will forever enure for the benefit of and be appurtenant to each of the other lots on Deposited Plan 202908 and each of the registered proprietors of those lots PROVIDED HOWEVER that the Transferee shall only be liable for breaches of the covenants contained in this Transfer which occur while the Transferee is the registered proprietor of one or more of the lots or any part thereof on Deposited Plan 202908.

If this Annexure Schedule is used as an expansion of an instrument, all signing parties and either their witnesses or their solicitors/must put their signatures or initials here.

Auckland District Law Society

REF: 4135

| Approved by Registrar-General of Land under No | 1995/1004 |
|------------------------------------------------|-----------|
| A Contraction                                  |           |

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Annexure Schedule

|        | TRANSFER Dated 30 July 2001 Page 4 of 4 Pages                                                                                                                                                                                                                                                                                                                    | 3           |  |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--|
|        | SCHEDULE OF COVENANTS                                                                                                                                                                                                                                                                                                                                            |             |  |
| The re | egistered proprietor(s) for the time being shall not unless first authorised so to do in writing by the Transferor:                                                                                                                                                                                                                                              |             |  |
| 1.     | Erect or suffer to be erected on the property any building other than a private dwelling house or dwelling<br>unit containing a floor area of not less than 100 square metres (exclusive of roof overhangs, verandahs,<br>decking, garaging and carports) and buildings accessory to such dwelling having a site coverage of not<br>more than 100 square metres. | ;<br>,<br>t |  |
| 2.     | Permit or suffer the erection of any temporary building or structure upon the land except such as may be<br>used to conjunction with the construction of permanent buildings and which will be removed from the land<br>upon completion of the work.                                                                                                             | :<br>1      |  |
| 3.     | Permit any building or associated works in the course of construction to be left without substantial work<br>being carried out for a period exceeding three months or to remain uncompleted at the expiry of a period of<br>eighteen months from commencement of the work.                                                                                       | :<br>f      |  |
| 4.     | Permit or suffer the use of the land other than for private residential purposes.                                                                                                                                                                                                                                                                                |             |  |
| 5.     | Permit or suffer the land to be occupied or used for residential purposes unless a dwelling house or dwelling unit has been substantially completed in accordance with the terms of this covenant and to the requirements of the appropriate local authority.                                                                                                    |             |  |
| 6.     | Permit or suffer any rubbish to accumulate or be placed upon the land and not permit any excessive growth of grass or vegetation so that the same becomes long or unsightly.                                                                                                                                                                                     | 1           |  |
| 7.     | Permit or suffer the storage or accumulation on the property of any building materials other than in the course of the construction of a dwelling, or any building accessory thereto, in compliance with the provisions of this covenant.                                                                                                                        |             |  |
| 8.     | Allow to be transported onto the property any existing or prebuilt house unless such house has first beer<br>approved in writing by the Transferor.                                                                                                                                                                                                              | 1           |  |
| 9.     | Use any pre-used material in the construction of any buildings or fencing on the property.                                                                                                                                                                                                                                                                       |             |  |
| 10.    | Use any roofing materials on any building whatsoever erected on the property, other than non-reflective materials, that may cause glare offensive to the adjoining owners.                                                                                                                                                                                       | è           |  |
| 11.    | Bring on to or allow to remain on the property any temporary dwelling, caravan, boat, trade vehicle or<br>other equipment, material or machinery which in the Transferor's opinion is unsightly unless garaged or<br>screened or which generates noise likely to cause offence to residents of the area.                                                         | r<br>r      |  |
| 12.    | Construct or form any driveway or vehicle accessway on the property other than to a minimum standard or<br>metalled with road metal and all driveways and vehicle accessways shall be kept in a neat and tidy<br>condition.                                                                                                                                      | f<br>/      |  |
| 13. ·  | Erect or install any water tank or other water storage vessel that if not located underground is not visibly screened.                                                                                                                                                                                                                                           | ý           |  |
| 14.    | Permit any tree, shrub or plant planted on the property to exceed a height of six metres.                                                                                                                                                                                                                                                                        |             |  |

Auckland District Law Society REF: 4135

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#### DECLARATION OF NON-REVOCATION OF ENDURING POWER OF ATTORNEY

I, Michael Ralph NORTON formerly of Hamilton, now of Kerikeri, Company Director do solemnly and sincerely declare as follows:

- 1. THAT by Enduring Power of Attorney dated the 18th day of December 1996, a copy of which has been deposited in the North Auckland Land Registry Office as number D.289614.1, Doris Mabel BARRY of Waipapakauri, Farmer appointed myself and Christine Ann LEWIS (jointly and severally) to be her Attorney on the terms and subject to the conditions set out in the said Power of Attorney. NOT
- 2. THAT at the date hereof the declarant has not received any notice or information of the revocation of that appointment by the death of the said Doris Mabel BARRY or otherwise.
- 3. THAT the said Power of Attorney is in all respects in force at the date hereof by virtue of its terms and provisions of Part IX of the Protection of Personal and Property Rights Act 1988.
- 4. THAT the declarant is authorised by the Enduring Power of Attorney to execute the annexed instrument.
- THAT the annexed instrument complies with all conditions and restrictions 5. set out in the said Power of Attorney.

**AND** I make this solemn declaration conscientiously believing the same to be true and by virtue of the Oaths and Declarations Act 1957.

)

DECLARED at Kenken

30h day of Turky this

2001 before me:-

) )..

**Michael Ralph Norton** 

A Solicitor of the High Court of New Zealand

T.G. TETITAHA SOLICITOR KERIKERI





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# 53 Motutara Drive, Karikari Peninsula For: David Wilson & Anna Tabuteau



P01

# **Concept Plans**

Concept 2 December 2024

**REVISION:** PROJECT NO. DRAWN BY: HC:

FINAL WORKING DRAWINGS TAKE PRECEDENCE OVER CONCEPT PLANS, ALL LANDSCAPING. PLANTING, LIGHTING & FENCING IS SHOWN FOR IMAGING PURPOSES ONLY

1262 JBD TKD

# A smarter move

# **CONTENTS**



CO2



NB: Boundary Lines are Indicative Only

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Proposed New Home for: David Wilson & Anna Tabuteau 53 Motutara Drive Karikari Peninsula

SHEET SiteEocation Plan

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PAGE REVISION PROJECT

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LIVING AREA 144.0 SQ M





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| Rev       | JBD | Oct 08 2024 |
| Rev       | JBD | Oct 10 2024 |
| Rev       | JBD | Oct 11 2024 |
| Rev       | JBD | Oct 31 2024 |
| Rev       | JBD | Nov 13 2024 |
| Rev       | JBD | Dec 9 2024  |
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SHEET TITLE: Floor Plan

SCALE: 1:75 (A3 Original)

02

PROJECT #: PAGE: REVISION:

C02



Armorsteel UltraZen, Coastal roofing or similar

Primelok Federation Smooth 170mm cladding - direct fix



# Site elevation to be confirmed by Surveyor

Roof Pitch 20 deg Veranda Roof Pitch 20 deg Entry Roof Pitch 30 deg Stud height - 20deg raking from 2.4m to Kit/Liv/Din/Bed1 & Bed2 - 2.4m Flat Elsewhere



Elevation 2

HTB: 2m+45deg Elevation 3

Double glazed windows

140mm H3 baseboards, 25mm gap





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Kitchen



#### KITCHEN SPECIFICATIONS:

CABINET INTERIORS: 16mm Moisture-resistant MDF. Colour: White. Finish: Naturale. ISLAND DOORS, DRAWERS & FACE PANELS: Two-pack satin lacquer. 'Non AB Standard' range. Profile: Shaker bevel Colour: Porters paint explorer blue HOB RUN DOORS, DRAWERS & FACE PANELS: Two-pack satin lacquer. 'Non AB Standard' range. Profile: Shaker bevel Colour: Resene Alabaster BENCHTOP: 50mm Silestone. 'Non AB Standard' range. Colour: Statuario Finish: Polished HANDLES: 'Non AB Standard' range. Model: TBC. Length: TBC. Finish: TBC. SINK: ABI Granite Vienna double sink, 760mm sink insert, undermount. Colour: White Granite SINK CABINET: Fitted with space saving waste, 1x adjustable shelf and 1x towel rail. DRAWERS: Full extension soft close drawer system. HINGES: Soft close fully adjustable hinges. KICKBOARD: 150mm extrusion to match cabinetry fronts. SPLASH BACK: Tiles by others LIGHTING: 4 x Recessed LED 'Imperia' downlights. Marked by: • BULKHEAD: By Advanced Build SCOTIA/GIB COVE: None. FLOORING: Tiles

#### APPLIANCES SUPPLIED & FITTED BY ADVANCE BUILD:

Oven and cooktop: Falcon Elise 6 Burner Dual Fuel Freestanding Oven. Allow 1110w 935h 600d Rangehood: Integrated, 700mm TBC. Fridge Space Allowance: 1765h 830w 695d space. Dishwasher: Advance Build standard model, TBC. Allow 603w 600d space. Tap: Advance Build standard model, TBC.

Solo 327 828 Tel 64 4687 232 PO Box 68, Avenuel 0451

#5862 AB Wilson

LEGAL DESCRIPTION:

FULL ADDRESS: 63 Motutara

Drive, Karikari Peninsula

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Laundry





#5862 AB Wilson

LEGAL DESCRIPTION:

FULL ADDRESS: 53 Motutara Drive, Karikari Peninsula

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#### LAUNDRY SPECIFICATIONS:

CABINET INTERIORS: 16mm Moisture-resistant MDF. Colour: White. Finish: Naturale. DOORS, DRAWERS & FACE PANELS: 18mm Melamine with matching laser edging (colour dependent). 'Non-AB' range. Colour: Melteca Provence Blue Finish: Natural BENCHTOP: 36mm Laminate. 'AB Standard' range, square edge. Colour: Flinders Black Finish: Gloss Plus TBC HANDLES: 'AB Standard' range. Model: TBC. Length: TBC. Finish: TBC. SINK: Acero 'DV103' 500mm sink insert, top mounted. SINK CABINET: Fitted with space saving waste, 1x adjustable shelf and 1x towel rail. DRAWERS: Full extension soft close drawer system. HINGES: Soft close fully adjustable hinges. KICKBOARD: 150mm extrusion to match cabinetry fronts. SPLASH BACK: By Others BULKHEAD: None. SCOTIA/GIB COVE: None. FLOORING: Tiles

#### APPLIANCES SUPPLIED & FITTED BY ADVANCE BUILD:

Washing Machine and Dryer: LG 17kg WashTower™ All-In-One Stacked Washer Dryer. Allow 1950h 720w 750d Tap: Advance Build standard model, TBC.



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# Non-Reticulated Firefighting Water Supplies, Vehicular Access & Vegetation Risk Reduction Application for New and Existing Residential Dwellings and Sub-Divisions



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#### Section A - Firefighting Water Supplies and Vegetation Risk Reduction Waiver

## "Fire and Emergency New Zealand strongly recommends the installation of automatic fire detection system devices such as smoke alarms for early warning of a fire and fire suppression systems such as sprinklers in buildings (irrespective of the water supply) to provide maximum protection to life and property".

#### **Waiver Explanation Intent**

Fire and Emergency New Zealand [FENZ] use the New Zealand Fire Service [NZFS] Code of Practice for firefighting water supplies (SNZ PAS 5409:2008) (The Code) as a tool to establish the quantity of water required for firefighting purposes in relation to a specific hazard (Dwelling, Building) based on its fire hazard classification regardless if they are located within urban fire districts with a reticulated water supply or a non-reticulated water supply in rural areas. The code has been adopted by the Territorial Authorities and Water Supply Authorities. The code can be used by developers and property owners to assess the adequacy of the firefighting water supply for new or existing buildings.

The Area Manager under the delegated authority of the Fire Region Manager is responsible for approving applications in relation to firefighting water supplies. The Area Manager may accept a variation or reduction in the amount of water required for firefighting for example; a single level dwelling measuring 200<sup>m2</sup> requires 45,000L of firefighter water under the code, however the Area Managers in Northland have excepted a reduction to 10,000L.

This application form is used for the assessment of proposed water supplies for firefighting in nonreticulated areas only and is referenced from (Appendix B – Alternative Firefighting Water Sources) of the code. This application also provides fire risk reduction guidance in relation to vegetation and the 20-metre dripline rule under the Territorial Authority's District Plan. Fire and Emergency New Zealand are not a consenting authority and the final determination rests with the Territorial Authority.

For more information in relation to the code of practice for Firefighting Water supplies, Emergency Vehicle Access requirements, Home Fire Safety advice and Vegetation Risk Reduction Strategies visit www.fireandemergency.nz

# Section B – Applicant Information

| Applicants Information |                                   |
|------------------------|-----------------------------------|
| Name:                  | Angela Vujcich c/- Advance Build  |
| Address:               | 2077 State Highway 10,<br>Waipapa |
| Contact Details:       | 021351467                         |
| Return Email Address:  | Angela@advancebuild.co.nz         |

### **Section C – Property Details**

| Property Details                          |                          |
|-------------------------------------------|--------------------------|
| Address of Property:                      | 53 Motutara Dr, Karikari |
| Lot Number/s:                             | Lot 35 DP 202908         |
| Dwelling Size:<br>(Area = Length & Width) | 143.3m2                  |
| Number of levels:<br>(Single / Multiple)  | Single                   |

### 1. Fire Appliance Access to alternative firefighting water sources - Expected Parking Place & Turning circle

Fire and Emergency have specific requirements for fire appliance access to buildings and the firefighting water supply. This area is termed the hard stand. The roading gradient should not exceed 16%. The roading surface should be sealed, able to take the weight of a 14 to 20-tonne truck and trafficable at all times. The minimum roading width should not be less than 4 m and the property entrance no less 3.5 metres wide. The height clearance along access ways must exceed 4 metres with no obstructions for example; trees, hanging cables, and overhanging eaves.

| 1 (a) Fire Appliance Access / Right of Way                                         |          |  |
|------------------------------------------------------------------------------------|----------|--|
| Is there at least 4 metres clearance overhead free from obstructions?              | ⊠YES □NO |  |
| Is the access at least 4 metres wide?                                              |          |  |
| Is the surface designed to support a 20-tonne truck?                               | ⊠YES □NO |  |
| Are the gradients less than 16%                                                    |          |  |
| Fire Appliance parking distance from the proposed water supply is <b>10</b> metres |          |  |

If access to the proposed firefighting water supply is not achievable using a fire appliance, firefighters will need to use portable fire pumps. Firefighters will require at least a one-metre wide clear path / walkway to carry equipment to the water supply, and a working area of two metres by two metres for firefighting equipment to be set up and operated.

#### 1 (b) Restricted access to firefighting water supply, portable pumps required

Has suitable access been provided?

⊠YES □ NO

Comments: Concrete water tanks buried

#### Internal FENZ Risk Reduction comments only:

# 2. Firefighting Water Supplies (FFWS)

What are you proposing to use as your firefighting water supply?

| 2 (a) Water Suppl | y Single Dwelling                                                                      |  |
|-------------------|----------------------------------------------------------------------------------------|--|
| Tank              | Concrete Tank                                                                          |  |
|                   | 🔀 <del>Plastic Tan</del> k                                                             |  |
|                   | Above Ground (Fire Service coupling is required - 100mm screw thread suction coupling) |  |
|                   | Part Buried (max exposed 1.500 mm above ground)                                        |  |
|                   | Fully Buried (access through filler spout)                                             |  |
|                   | Volume of dedicated firefighting water 10 000 litres                                   |  |

| 2 (b) Water Suppl | y Multi-Title Subdivision Lots / Communal Supply                                         |
|-------------------|------------------------------------------------------------------------------------------|
| Tank Farm         | Concrete Tank                                                                            |
|                   | Plastic Tank                                                                             |
|                   | □ Above Ground (Fire Service coupling is required - 100mm screw thread suction coupling) |
|                   | Part Buried (max exposed 1.500mm above ground)                                           |
|                   | Fully Buried (access through filler spout)                                               |
|                   | Number of tanks provided Click or tap here to enter text.                                |
|                   | Number of Tank Farms provided Click or tap here to enter text.                           |
|                   | Water volume at each Tank Farm Click or tap here to enter text. Litres                   |
|                   | Volume of dedicated firefighting water Click or tap here to enter text. litres           |

| 2 (c) Alternative Water Supply |                                                   |  |
|--------------------------------|---------------------------------------------------|--|
| Pond:                          | Volume of water: Click or tap here to enter text. |  |
| Pool:                          | Volume of water: Click or tap here to enter text. |  |
| Other:                         | Specify: Click or tap here to enter text.         |  |
|                                | Volume of water: Click or tap here to enter text. |  |

### Internal FENZ Risk Reduction comments only:

#### 3. Water Supply Location

The code requires the available water supply to be at least 6 metres from a building for firefighter safety, with a maximum distance of 90 metres from any building. This is the same for a single dwelling or a Multi-Lot residential subdivision. Is the proposed water supply within these requirements?

| 3 (a) Water Supply Location |                                                                                                |
|-----------------------------|------------------------------------------------------------------------------------------------|
| Minimum Distance:           | Is your water supply at least 6 metres from the building? $\square$ YES $\square$ NO           |
| Maximum Distance            | Is your water supply no more than 90 metres from the building?<br>$\boxtimes$ YES $\square$ NO |

#### 3 (b) Visibility

How will the water supply be readily identifiable to responding firefighters? E.g.: tank is visible to arriving firefighters or, there are signs / markers posts visible from the parking place directing them to the tank etc.

Comments:

```
Tank lids should be visable and the corner of the property
```

#### 3 (c) Security

How will the FFWS be reasonably protected from tampering? E.g.: light chain and padlock or, cable tie on the valve etc.

Explain how this will be achieved:

Lid on tank

Internal FENZ Risk Reduction comments only:

#### 4. Adequacy of Supply

The volume of storage that is reserved for firefighting purposes must not be used for normal operational requirements. Additional storage must be provided to balance diurnal peak demand, seasonal peak demand and normal system failures, for instance power outages. The intent is that there should always be sufficient volumes of water available for firefighting, except during Civil Défense emergencies or by prior arrangement with the Fire Region Manager.

#### 4 (a) Adequacy of Water supply

**Note:** The owner must maintain the firefighting water supply all year round. How will the usable capacity proposed be reliably maintained? E.g. automatically keep the tank topped up, drip feed, rain water, ballcock system, or manual refilling after use etc.

Comments:

Rain Water collection

Internal FENZ Risk Reduction comments only:
# 5. Alternative Method using Appendix's H & J

If Table 1 + 2 from the Code of Practice is not being used for the calculation of the Firefighting Water Supply, a competent person using appendix H and J from the Code of Practice can propose an alternative method to determine firefighting water supply adequacy.

Appendix H describes a method for determining the maximum fire size in a structure. Appendix J describes a method for assessing the adequacy of the firefighting water supply to the premises.

# 5 (a) Alternative Method Appendix H & J

If an alternative method of determining the FFWS has been proposed, who proposed it?

Name: Click or tap here to enter text.

Contact Details: Click or tap here to enter text.

Proposed volume of storage?

Litres: Click or tap here to enter text.

Comments:

Click or tap here to enter text.

\* Please provide a copy of the calculations for consideration.

Internal FENZ Risk Reduction comments only:

Click or tap here to enter text.

# 6. Diagram

Please provide a diagram identifying the location of the dwelling/s, the proposed firefighting water supply and the attendance point of the fire appliance to support your application.

Internal FENZ Risk Reduction comments only: Click or tap here to enter text.

# 7. Vegetation Risk Reduction - Fire + Fuel = Why Homes Burn

Properties that are residential, industrial or agricultural, are on the urban–rural interface if they are next to vegetation, whether it is forest, scrubland, or in a rural setting. Properties in these areas are at greater risk of wildfire due to the increased presence of nearby vegetation.

In order to mitigate the risk of fire spread from surrounding vegetation to the proposed building and vice-versa, Fire Emergency New Zealand recommends the following;

# I. Fire safe construction

Spouting and gutters – Clear regularly and consider screening with metal mesh. Embers can easily ignite dry material that collects in gutters.

*Roof – Use fire resistant material such as steel or tile. Avoid butanol and rubber compounds.* 

Cladding – Stucco, metal sidings, brick, concrete, and fibre cement cladding are more fire resistant than wood or vinyl cladding.

### II. Establish Safety Zones around your home.

Safety Zone 1 is your most import line of defence and requires the most consideration. Safety Zone 1 extends to 10 metres from your home, you should;

- a) Mow lawn and plant low-growing fire-resistant plants; and
- b) Thin and prune trees and shrubs; and
- c) Avoid tall trees close to the house; and
- d) Use gravel or decorative crushed rock instead of bark or wood chip mulch; and
- e) Remove flammable debris like twigs, pine needles and dead leaves from the roof and around and under the house and decks; and
- f) Remove dead plant material along the fence lines and keep the grass short; and
- g) Remove over hanging branches near powerlines in both Zone 1 and 2.

# III. <u>Safety Zone 2 extends from 10 – 30 metres of your home.</u>

- a) Remove scrub and dead or dying plants and trees; and
- b) Thin excess trees; and
- c) Evenly space remaining trees so the crowns are separated by 3-6 metres; and
- d) Avoid planting clusters of highly flammable trees and shrubs
- *e) Prune tree branches to a height of 2 metres from the ground.*

# IV. Choose Fire Resistant Plants

Fire resistant plants aren't fire proof, but they do not readily ignite. Most deciduous trees and shrubs are fire resistant. Some of these include: poplar, maple, ash, birch and willow. Install domestic sprinklers on the exterior of the sides of the building that are less 20 metres from the vegetation. Examples of highly flammable plants are: pine, cypress, cedar, fir, larch, redwood, spruce, kanuka, manuka.

*For more information please go to* <u>https://www.fireandemergency.nz/at-home/the-threat-of-rural-fire/</u>

If your building or dwelling is next to vegetation, whether it is forest, scrubland, or in a rural setting, please detail below what Risk Reduction measures you will take to mitigate the risk of fire development and spread involving vegetation?

### 7 (a) Vegetation Risk Reduction Strategy

Given the size of the site and location to the scrub in the reserve, the proposal is unable to comply with the 20-meter setback from vegetation on property boundary. With respect to the site itself, the vegetation and scrub have been cleared as much as possible. In terms of fire hazard, Advance Build has included in there design the following mitigation: i.The use of fire-resistant building materials - Weathertex weathergroove with Coloursteel roofing, metal guttering and aluminium joinery. As per the product fact sheet, Weathertex weathergroove are flammable but difficult to ignite. ii.Remove all scrub on the property where able to do so. iii.Place the building as far to the front of the property as possible. Currently the separation distance between the Scrub and Dwelling is approx 10m We believe in the event of a fire occurring, the property has good egress to allow for the evacuation and the access via fire appliances

Internal FENZ Risk Reduction comments only:

Click or tap here to enter text.

# 8. Applicant

| Checklist   |                                                                                                                      |
|-------------|----------------------------------------------------------------------------------------------------------------------|
| $\boxtimes$ | Site plan (scale drawing) – including; where to park a fire appliance, water supply, any other relevant information. |
| $\boxtimes$ | Any other supporting documentation (diagrams, consent).                                                              |

I submit this proposal for assessment.

```
Name: Angela Vujcich c/-
Advance Build
Contact No.: 021351467
Email: angela@advancebuild.co.nz
```

Signature:

# 9. Approval

In reviewing the information that you have provided in relation to your application being approximately a *Click or tap here to enter text. square metre,* Choose an item. *dwelling/sub division, and non-sprinkler protected.* 

The Area Manager of Fire and Emergency New Zealand under delegated authority from the Fire Region Manager, Te Hiku, has assessed the proposal in relation to firefighting water supplies and the vegetation risk strategy. The Manager Choose an item. agree with the proposed alternate method of Fire Fighting Water Supplies. Furthermore; the Manager agrees with the Vegetation Risk Reduction strategies proposed by the applicant.

Name: Click or tap here to enter text.

Signature: Click or tap here to enter text. Dated: Click or tap to enter a date.

P.P on behalf of the Area Manager

Fire and Emergency New Zealand Te Tai Tokerau / Northland District

**APPROVED** By GoffinJ at 9:19 am, Feb 13, 2025

Jason Goffin- Advisor Risk Reduction



July 2024



Phone: +64 9 407 8327 • Fax: +64 9 407 8378 • info@haighworkman.co.nz • www.haighworkman.co.nz



### **Revision History**

| Revision Nº | Issued By    | Description | Date      |
|-------------|--------------|-------------|-----------|
| A           | Josh Curreen | First Issue | July 2024 |
|             |              |             |           |
|             |              |             |           |
|             |              |             |           |
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|             |              |             |           |

Prepared By:

Josh Curreen

Senior Geotechnical Engineer MEngNZ

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# **Executive Summary**

Haigh Workman Limited (Haigh Workman) were engaged by Homeworld Design & Build Ltd (the Client) to undertake a geotechnical investigation for a proposed new dwelling at 53 Motutara Drive, Rangiputa (Lot 35, DP 202908).

Based on the results of the geotechnical investigation conducted by Haigh Workman and review of published geological maps, it is considered that the soils directly underlying the proposed building platform comprise natural soils of the Karioitahi Group. All hand auger boreholes refused on a cemented sand layer between 0.5 and 1.0 mbgl. The surface soils comprise a thin layer of topsoil and non-certified fill, overlying loose to medium dense sand. Boreholes BH01, BH02 and BH06 encountered a 100 mm thick band of amorphous peat sitting above the dense cemented sand. This peat layer is considered to be isolated pockets and not a continuous layer throughout the site. The CPTs carried out across the site were pre-drilled for the upper 1.3 mbgl, through the dense weakly cemented layer. The weakly cemented layer was found to be between 1.5 and 3.2 m thick and underlain by medium sand and silty sand to between 11.3 and 16.2 mbgl where a very dense sand layer was encountered.

There is a very steep escarpment along the southern side of the property therefore analyses were carried out to assess the stability of the building platform. Based on the results of the analyses, the proposed building platform is considered to be stable and suitable for construction of the proposed new dwelling. However, the factor of safety for the proposed deck on the southern side of the dwelling is less than required for residential development. The deck does however achieve satisfactory factors of safety for 'amenity areas' as given in the Auckland Council Code of Practice for Land Development and Subdivision. It is therefore recommended that the deck be isolated from the dwelling (i.e. not attached) to mitigate any potential effect from the deck being within the amenity area. Alternatively, the deck could be substituted for a paved area (also detached from the dwelling).

Based on our findings, the natural soils (below topsoil and fill) are considered to meet the definition of "good ground" as contained in NZS3604:2011. There are some isolated pockets containing peat however are only 100 mm thick and not continuous through the site. However, foundations will require specific design due to the proximity to existing public stormwater pipes and the proposed buried water tanks. Specific recommendations are given in section 5.

We consider the following specific items, but not limited to will need to be addressed prior to and at the time of construction to ensure the foundation soils are consistent with the assumptions made within this geotechnical report:

- 1. Geotechnical drawing review prior to undertaking construction observations;
- 2. Observe all foundation excavations for the building prior to foundations being poured.

Provision should be allowed for modifying the foundation solution at this time should unforeseen ground conditions be encountered.



# 1 Introduction

# 1.1 Project Brief and Scope

Haigh Workman Limited (Haigh Workman) were engaged by Homeworld Design & Build Ltd (the Client) to undertake a geotechnical investigation for a proposed dwelling at 53 Motutara Drive, Rangiputa (Lot 35, DP 202908). This report presents the information gathered during the site investigation, interpretation of data obtained and site-specific geotechnical recommendations relevant to the site.

The scope of this report encompasses the geotechnical suitability in the context of the proposed development as defined in the Short Form Agreement variation (accepted by email on 27<sup>th</sup> July 2024). This appraisal has been designed to assess the subsoil conditions for foundation design and identify geotechnical constraints for the proposed development.

This report provides the following:

- A summary of the published geology with reference to the geotechnical investigations undertaken.
- Analysis of the data obtained from site investigations, providing a geotechnical ground model.
- Foundation recommendations.
- Provide comment on ground stability.
- Identification of any additional geotechnical risks and/or hazards.

# 1.2 Proposed Development

We understand that the client intends to construct a single storey lightweight timber frame dwelling on the site. Drawings provided by Homeworld Design & Build (Appendix E) show timber piles and subfloor for the dwelling, however based on discussion with our client, it is understood that a raft slab foundation is now proposed. There is also a timber deck on the southern side of the dwelling which wraps around the western side.

This geotechnical investigation and report considers the geotechnical aspects of the proposed development, with particular reference to the proposed development location, (refer to drawings in Appendix A and E).

Should the proposed development vary from the proposal described above and/or be relocated outside of the investigated area, further investigation and/or amendments to the recommendations made in this report may be required.



### 1.3 Site Description

The property is legally described as Lot 35, Deposited Plan 202908 with a total land area of 843 m<sup>2</sup>. The property is located on the southern side of Motutara Drive, situated on an elevated terrace approximately 43 m above Rangiputa Beach.

The site is currently vacant and flat with a very steep escarpment along the southern boundary. At the time of investigation, the site was grassed with bush/scrub over the steep southern slope.

A public stormwater pipe (375mm concrete pipe) traverses through the property as shown on the attached site plan, G02. A stormwater manhole is also located near the south-eastern corner of the proposed dwelling. FNDC Maps shows this manhole to be approximately 2.1m deep. There is also a public sanitary sewer pipe that runs along the boundary with neighbouring property to the north. Adjacent manhole indicated that this pipe is approximately 1.0m deep.

It is recommended that a CCTV survey be carried out to ascertain the exact alignment and depth of these pipes prior to designing foundations.



**Figure 1: Site Location** 



# 2 Desktop Study

# 2.1 Published Geology

The site is within the bounds of the GNS Geological Map 1 "Geology of the Kaitaia area<sup>\*</sup> 1:250,000 scale<sup>†</sup>. The published geological map indicates the site is underlain by Karioitahi Group weakly cemented and partly consolidated sand in fixed parabolic dunes (eQd) of Pleistocene age. The Karioitahi Group deposits are expected to be underlain at depth by Houhora Complex materials (Mount Camel terrane) comprising sandstone, conglomerate, mudstone and breccia.

An extract from the geological map is shown in Figure 2 below, with geological units presented in Table 1 below.



Figure 2: Geological Map (Kaitaia area, 1:250,000)

#### Table 1: Geological Legend

| Symbol | Unit Name                                                                             | Description                                                       |  |
|--------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------|--|
|        |                                                                                       | Weakly cemented and partly consolidated sand in fixed parabolic   |  |
| eQd    | Karioitahi Group                                                                      | dunes. Clay-rich sandy soils. Minor sand, mud and peat or lignite |  |
|        |                                                                                       | in interdune lake and swamp deposits. Pleistocene age.            |  |
|        | okerau Facies – Houhora Strongly indurated sandstone with lesser conglomerate, pebbly |                                                                   |  |
| Kht    | Complex                                                                               | mudstone, breccia, and mudstone. Zeolite and prehnite-pumpellyite |  |
|        | (Mount Camel Terrane)                                                                 | facies metamorphism.                                              |  |

<sup>\*</sup> Isaac, M.J. (compiler) 1996. Geology of the Kaitaia area. Institute of Geological and Nuclear Sciences 1:250 000 geological Map 1. 1 sheet + 44 p. Lower Hutt, New Zealand: Institute of Geological and Nuclear Sciences Limited.



# 2.2 Historical Aerial Photography

A review of historical aerial photography was undertaken using Retrolens and Google Earth. A summary of the findings is shown in Table 2 below.









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#### 2.3 Geomorphology

The geomorphology across the subject site and surrounding slopes consists of an elevated, gently sloping terrace of weakly cemented, partly consolidated dune sands with a very steep eroded face to the south (between Motutara Drive and Rangiputa Road. These steep slopes are up to 40 degrees below the subject site with locally steeper parts along the adjacent slopes. This steep southern slope is inferred to have been historically eroded by coastal effects, possibly following the last interglacial period.

From the Retrolens historic aerials and LINZ LiDAR data, there is an escarpment that runs along the southern boundary of the lots along the southern side of Motutara drive. There are also several numerous scarp features within this steep southern slope. Features have been mapped using LINZ LiDAR data and QGIS. Refer to Figure 3 and appended drawings (Appendix A).



Figure 3: QGIS Model (Site Features)



# *3 Ground Investigations*

# 3.1 Subsurface Investigations

Haigh Workman undertook geotechnical investigations on 9<sup>th</sup> and 10<sup>th</sup> of July 2024. The investigations comprised the drilling of nine hand auger boreholes (BH01 to BH09), located across the proposed development location. In addition to the hand auger investigations, a total of five Cone Penetrometers Tests (CPT01 to CPT05) were completed at the site.

### 3.1.1 *Hand Auger Boreholes*

The hand auger boreholes were advanced to a maximum depth of 1.0 metre below ground level (mbgl) (BH05). All borehole obtained effective refusal between 0.5 and 1.0 mbgl, with Scala penetrometer testing carried out at the base of BH01, BH03, BH05, BH07 and BH09.

Investigations were logged in accordance with The New Zealand Geotechnical Society, "Guidelines for the Field Classification and Description of Soil and Rock for Engineering Purposes" (2005). Investigation locations are shown on the drawings in Appendix A and investigation hand auger logs are included within Appendix B.

### 3.1.2 Cone Penetrometer Tests (CPT)

Five Cone Penetrometer Tests (CPTs) across the proposed development area were undertaken by Underground Investigations Limited, with testing completed on 10<sup>th</sup> July 2024. Underground Investigations Limited provided a cone penetration rig attached to a rubber tracked machine to test and record ground information. All tests were pre-drilled to 1.3 mbgl due to the dense cemented layer near the surface.

Testing was undertaken to refusal (anchors pulling out of the ground) or until maximum allowable friction was reached during testing. A maximum depth of 16.9 mbgl was achieved at CPT02 location. CPT soundings are presented within Appendix C.

# 3.2 Ground Conditions

Based on the results of the geotechnical investigation conducted by Haigh Workman and review of published geological maps, it is considered that the soils directly underlying the site comprise natural soils of the Karioitahi Group. All hand auger boreholes refused on a cemented sand layer between 0.5 and 1.0 mbgl. The surface soils comprise a thin layer of topsoil and non-certified fill, overlying loose to medium dense sand. Boreholes BH01, BH02 and BH06 encountered a 100 mm thick band of amorphous peat sitting above the dense cemented sand. This peat layer is considered to be isolated pockets and not a continuous layer throughout the site.

The CPTs carried out across the site were pre-drilled for the upper 1.3 mbgl, through the dense weakly cemented layer. The weakly cemented layer was found to be between 1.5 and 3.2 m thick and underlain by medium sand and silty sand to between 11.3 and 16.2 mbgl where very dense sand was encountered.

For the purposes of this report, subsoil conditions on the site have been interpolated between the boreholes and some variation between borehole positions are likely. Table 3 summarises the materials encountered, with depth to base of each unit provided.



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#### Table 3: Summary of Borehole Results

| Borehole<br>Number | Topsoil<br>(mbgl) | Non-certified Fill Material Karioitahi Group<br>(mbgl) (mbgl) |           | Groundwater<br>Observations     |
|--------------------|-------------------|---------------------------------------------------------------|-----------|---------------------------------|
| BH01               | 0.0-0.1           | NE                                                            | 0.1-0.7   |                                 |
| BH02               | NE                | 0.0-0.1                                                       | 0.1-0.7   |                                 |
| BH03               | 0.0-0.1           | 0.1-0.4                                                       | 0.4 - 0.7 |                                 |
| BH04               | 0.0 - 0.2         | NE                                                            | 0.2 - 0.4 |                                 |
| BH05               | NE                | 0.0-0.1                                                       | 0.1 - 1.0 | Groundwater not<br>encountered. |
| BH06               | 0.0-0.1           | NE                                                            | 0.1-0.65  |                                 |
| BH07               | 0.0 - 0.3         | 0-0.3 NE 0.3-0.5                                              |           |                                 |
| BH08               | 0.0 - 0.2         | NE                                                            | 0.2 - 0.5 |                                 |
| BH09               | 0.0 - 0.3         | NE                                                            | 0.3 – 0.5 |                                 |

#### Table 4: CPT Results Summary

| Inferred Geological Unit                             | Test I.D.   |             |             |                        |             |
|------------------------------------------------------|-------------|-------------|-------------|------------------------|-------------|
|                                                      | CPT01       | СРТ02       | СРТ03       | СРТ04                  | СРТ05       |
| PRE-DRILLED                                          | 0.0 - 1.3   | 0.0 - 1.3   | 0.0 - 1.3   | 0.0 - 1.3              | 0.0 - 1.3   |
| Dense weakly cemented SAND<br>[Karioitahi Group]     | 1.3 – 2.9   | 1.3 - 2.0   | 1.3 - 3.2   | 1.3 – 1.9<br>(Refusal) | 1.3 – 1.5   |
| Medium dense SAND & silty<br>SAND [Karioitahi Group] | 2.9 – 11.5  | 2.0 - 16.2  | 3.2 - 10.8  | NE                     | 1.5 – 11.3  |
| Very dense SAND [Karioitahi<br>Group]                | 11.5 – 12.3 | 16.2 – 16.9 | 10.8 - 11.2 | NE                     | 11.3 – 12.1 |
|                                                      | 7.4         | 0.0         | 7.4         |                        | 7.6         |
| Groundwater Level                                    | 7.4         | 8.6         | 7.4         | NE                     | 7.6         |

Note: NE = Not Encountered.

CPT04 was unable to penetrate the cemented sand layer near the surface. All other CPTs were pushed to refusal (inferred to be very dense sand of the Karioitahi Group) at depths of between 11.2 m and 16.9 m.

Groundwater was not encountered in any of the hand auger boreholes. No evidence of groundwater seepage or static groundwater level was observed near the ground surface during the drilling of the hand auger boreholes. Groundwater was measured in CPT01, CPT02, CPT03 and CPT05 at depths between 7.4 and 8.6 mbgl. Standpipes were not installed in the hand auger boreholes or CPTs and no further groundwater monitoring has been undertaken. Groundwater levels can and do fluctuate and higher groundwater levels may be encountered following periods of prolonged or heavy rainfall.



# 4 Geotechnical Assessment

# 4.1 Geotechnical Design Parameters

Geotechnical design parameters recommended in this report are based on in-situ test results, empirical relationships, and back analysis. Back analysis was carried out along cross section B-B'. Sensitivity analyses was carried out for the soil layers to obtain a factor of safety of 1.0 for worst case groundwater conditions. Refer to below for soil parameters adopted within this report.

| Geological Unit                                        | Bulk Unit Weight, γ<br>(kN/m3) | Effective Cohesion<br>c' (kPa) | Effective Friction<br>Angle<br>φ' (degrees) |
|--------------------------------------------------------|--------------------------------|--------------------------------|---------------------------------------------|
| Loose sands [Karioitahi Group]                         | 15                             | 0                              | 28                                          |
| Dense weakly cemented sand<br>[Karioitahi Group]       | 18                             | 10                             | 45                                          |
| Medium dense sand and silty sand<br>[Karioitahi Group] | 18                             | 0                              | 40                                          |
| Very dense sand<br>[Karioitahi Group]                  | 20                             | 15                             | 45                                          |

#### **Table 5: Geotechnical Design Parameters**

# 4.2 Seismic Hazard and Liquefaction Potential

Anticipated peak ground acceleration has been taken from Module 1: Overview of the guidelines – Earthquake geotechnical engineering practice, adopting the mean hazard value of 0.13 g as the principal parameter for pseudo-static analysis (500-year return period). Step-change behaviour response has been assessed adopting the 'lower-bound' value of 0.19 g.

Liquefaction potential has been assessed as negligible given the density of the soils, depth to groundwater and age of the deposits. No further assessment is necessary.

# 4.3 Slope Stability Assessment

#### 4.3.1 Visual Assessment

There are numerous slip features across the very steep southern slopes. However, no obvious signs of instability were observed in the immediate vicinity of the proposed building platform. Due to the steepness of the surrounding slopes and observed instability features, slope stability analyses have been carried out to assess the stability of the site.

### 4.3.2 *Geological Ground Model*

Geological ground models have been developed based on the investigation data. The ground surface has been drawn using LINZ Data Service LiDAR information. Stability outputs for all scenarios are included within



Appendix D. Geological cross section A-A' was developed for site assessment purposes, refer Appendix A. The criteria adopted for assessing the global stability is outlined in Table 6 below.

#### 4.3.3 *Modelling Philosophy*

Slope stability analyses were undertaken along our cross sections A-A' and B-B', measured through the site using computer software by Rocscience, Slide (Version 9.034). Cross section B-B' was used to back analyse through the southern slope to provide geotechnical design parameters, which are presented in Table 5. The purpose of developing the geological ground model was to assess the overall global stability of the steep slopes around the proposed development area, including normal groundwater conditions where encountered, worst credible groundwater and during a ULS seismic event. Selected outputs are presented in Appendix D. The criteria adopted for assessing the global stability is outlined in below. A 5 kPa vertical surcharge to the ground surface has been applied to represent the dwelling and 2 kPa has been applied for the deck.

#### Table 6: Design Factors of Safety (FOS)

|                                                  | Design Factor of Safety* |                |  |  |
|--------------------------------------------------|--------------------------|----------------|--|--|
| Load Case                                        | Dwelling                 | Amenity Area** |  |  |
| Static conditions                                | ≥ 1.5                    | ≥ 1.2          |  |  |
| Worst credible/elevated groundwater conditions   | ≥ 1.3                    | ≥ 1.1          |  |  |
| Seismic conditions<br>(Pseudo-static ULS, 0.13g) | ≥ 1.0                    | N/A            |  |  |

\*Factors of safety are in accordance with The Auckland Code of Practice for Land Development and Subdivision – Chapter 2: Earthworks and Geotechnical, May 2023, Version 2.0.

\*\*Amenity area in Auckland Council CoP is defined as "An area of land extending 8 m from the Building Footprint, or to the lot boundary, whichever is closest. This land will require engineering assessment to ensure that, where instability may be present on the site, it does not detrimentally affect the amenity of the building".

#### 4.3.4 Analyses Results

The stability analyses carried out for all scenarios are outlined in the tables below.

#### Table 7: Cross Section A-A' Analyses Results

| Scenario                   | F.O.S<br>Required | F.O.S<br>(At dwelling) | F.O.S<br>(At deck) | Outcome                                                                                                       |
|----------------------------|-------------------|------------------------|--------------------|---------------------------------------------------------------------------------------------------------------|
| Static conditions          | 1.5               | 1.5                    | 1.4                | F.O.S above required for dwelling<br>but not deck. The deck only has<br>satisfactory F.O.S for 'Amenity Area' |
| Elevated groundwater       | 1.3               | 1.4                    | 1.3                | F.O.S at dwelling and deck is greater than required.                                                          |
| Seismic conditions (0.13g) | 1.0               | 1.3                    | 1.2                | F.O.S at dwelling and deck is greater than required.                                                          |



| Scenario                   | F.O.S<br>Required | F.O.S<br>(At dwelling) | F.O.S<br>(At deck) | Outcome                                                                                                       |
|----------------------------|-------------------|------------------------|--------------------|---------------------------------------------------------------------------------------------------------------|
| Back analysis              | 1.0               | n/a                    | n/a                | Soil parameters adjusted to achieve F.O.S of 1.0 for southern slope.                                          |
| Static conditions          | 1.5               | 1.5                    | 1.3                | F.O.S above required for dwelling<br>but not deck. The deck only has<br>satisfactory F.O.S for 'Amenity Area' |
| Elevated groundwater       | 1.3               | 1.3                    | 1.2                | F.O.S above required for dwelling<br>but not deck. The deck only has<br>satisfactory F.O.S for 'Amenity Area' |
| Seismic conditions (0.13g) | 1.0               | 1.2                    | 1.1                | F.O.S at dwelling and deck is greater than required.                                                          |

#### Table 8: Cross Section B-B' Analyses Results

The stability analyses summary sheets for all scenarios are included in Appendix D. Based on the results of the stability analyses, the proposed building platform is considered to be stable and suitable for construction of the proposed new dwelling.

The factor of safety for the proposed deck on the southern side of the dwelling is less than required for 'residential development' however, achieve satisfactory factors of safety for 'amenity areas' as given in Auckland Council CoP section 2.6.8. It is therefore recommended that the deck be isolated from the dwelling (i.e. not attached) to mitigate any potential effect from the deck being within the amenity area. Alternatively, the deck could be substituted for a paved area (also detached from the dwelling).

With respect to Section 71 of the Building Act, and subject to the recommendations in this report, including stormwater, foundation and earthworks design recommendations being followed, we consider that the proposed works are not likely to accelerate, worsen, or result in slippage on the site or any other property.

# 5 Foundation Recommendations

# 5.1 General

Based on discussions with our client, we understand that the proposed dwelling will be supported on a raft foundation, with the decks on timber piles.

Based on our findings, the natural soils (below topsoil and fill) are considered to meet the definition of "good ground" as contained in NZS3604:2011. There are some isolated pockets containing peat however are only 100 mm thick and not continuous through the site. However, foundations will require specific design due to the proximity to existing public stormwater pipes and the proposed buried water tanks. Specific recommendations are given below.



### 5.2 Shrink Swell Soil Characteristics

The subsoil investigations undertaken across the proposed building site revealed sandy soils which are not expected be susceptible any significant shrink swell effect. The subsoils directly beneath the proposed development area classified as Class A, non-expansive (in accordance with the New Zealand Building Code).

# 5.3 Seismic Site Subsoil Category

The site conditions have been assessed to be consistent with seismic subsoil Class D (Deep or soft soil sites) in accordance with NZS1170.5.

# 5.4 Shallow Foundations

Shallow foundations may be utilised provided all topsoil, fill and otherwise unsuitable soils are removed. Waffle raft slabs should be designed for 'Class A' soils in accordance with AS2870:2011. Further design recommendations are as follows:

- Ultimate bearing capacity for shallow foundations 300 kPa;
- Geotechnical strength reduction factor 0.5;
- Minimum foundation depth for conventional shallow pad and strip footings (including deck) is 500 mm below existing ground level OR onto the dense sand layer, whichever is greater;
- Soil expansivity class Class A (non-expansive);
- Seismic class Site Class D (Deep or soft soil site).

Bearing capacity values included in this report are in accordance with B1/VM4 and are for vertical loads only and do not take in to account horizontal shear or moment actions.

Careful design consideration should be given to shallow foundations where connected to the bridging pile foundations, i.e. stresses will attract to the pile supported foundations and may transfer through the adjacent shallow foundations and slab.

# 5.5 Bored Pile Foundations

Far North Maps indicates that a 375mm diameter concrete public stormwater pipe runs along the eastern and southern sides of the dwelling (and beneath the deck). A stormwater manhole is also located near the south-eastern corner of the proposed dwelling which is approximately 2.1m deep (based on FNDC Maps). Bridging piles will be required where foundation lie within the zone of influence of this pipe. Drain bridging design and construction should be undertaken in accordance with the requirements of Auckland Council drawing SW22, attached in appendix A.

It is recommended that a CCTV survey be carried out to ascertain the exact alignment and depth of these pipes prior to designing foundations.

Piles should be embedded a minimum depth of 1.0 m below the zone of influence of the stormwater pipe. The minimum piled foundation depth should also be no less than 5xD (5 times the pile diameter).



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Figure 4: Pipe bridging detail (from Auckland Council SW22)

Foundations should also be supported on piles within a 45 degree influence zone of the proposed water tanks on the northern side of the dwelling.



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The following parameters may be used for axial load design purposes:

- Ultimate end bearing capacity 300 kPa.
- Side adhesion to be ignored
- Geotechnical strength reduction factor 0.5.
- Embedment depth 5xD, OR 1.0 m below the zone of influence, whichever is greater. (refer to drawing SW22)

The subsoils encountered are likely to be relatively stable during pile hole drilling, but contractors should make allowance for potential pile hole collapse during construction as a precaution. There may be some oversizing of holes due to collapse within the loose surface sand (i.e. upper 0.5m to 0.7m). Pile holes should not be left open for longer than necessary.

All foundations for the proposed building will require specific design by a CPEng structural engineer familiar with the contents of this report.

# 6 Construction

# 6.1 Earthworks

#### 6.1.1 Topsoil, Fill and Unsuitable Soils

All vegetation, topsoil, fill and any soft or otherwise unsuitable material should be removed from the building platform. The topsoil layer was found to be 100mm to 300mm across the site.

If any part of the proposed dwelling is to be constructed on a timber floor supported on timber piles, the existing topsoil and fill may remain in place to that area provided that all surface vegetation has been removed, the required sub floor clearance is provided and the piles are embedded to the required minimum depths.

All excavated topsoil and unsuitable material should be removed from site or stockpiled away from the building platform and clear of the steep southern slopes.

#### 6.1.2 *Cuts and Fills*

Based on the existing topography and discussions with our client, no widespread earthworks are envisaged for the proposed development. Minor filling will be required beneath the floor slab to reinstate the sub-excavated topsoil and fill. This should comprise a clean, well-graded granular fill (GAP40 or 65) compacted using a vibratory roller or heavy plate compactor.

A deep excavation will be required to install the buried water tanks on the northern side of the dwelling. Given the presence and depth of the cemented sand layer, this should remain stable in the short term however should not left open for any longer than necessary. Excavation and installation of the buried tanks should be carried out in one continuous operation (i.e. backfilled the same day) and during a forecast of fine weather.



# 6.2 Retaining Walls

No specifically designed retaining walls are anticipated for the proposed development. If retaining walls requiring engineering design are proposed the matter should be referred back to Haigh Workman for further recommendations.

# 6.3 Planned Vegetation

Vegetation should be maintained as much as possible or further planted over the steeper slopes after completion of the development works. Vegetation reduces surface water and groundwater effects and assists in maintaining slope stability through root binding action.

# 6.4 Stormwater Disposal

Stormwater from paved areas, roofs, tank overflows and all other sources should be collected in sealed pipes and discharged into the Council stormwater system (via attenuation tank if required). Concentrated stormwater flows should not be allowed to discharge onto or into the ground close to the dwelling or on sloping ground as this would be detrimental to foundation conditions and site stability.

When the building platform is formed, the ground around the dwelling should be graded away from the steep escarpment (i.e. towards Motutara Drive).

# 6.5 Geotechnical Review

We recommend that the consent drawings are submitted for review to either ourselves, or another professional geotechnical engineer who is familiar with the contents of this report, once they are ready for submission to Council for approval. We recommend this review is carried out to check the compatibility of the design with the recommendations given within this report.

# 6.6 Construction Observations

We consider the following specific items, but not limited to will need to be addressed prior to and at the time of construction to ensure the foundation soils are consistent with the assumptions made in this geotechnical report:

- 1. Geotechnical drawing review prior to undertaking construction observations;
- 2. Observe all foundation excavations for the building prior to foundations being poured.

Provision should be allowed for modifying the foundation solution at this time should unforeseen ground conditions be encountered.



# 7 Limitations

This report has been prepared for the use of Homeworld Design & Build Ltd with respect to the particular brief outlined to us. This report is to be used by our Client and their Consultants and may be relied upon when considering geotechnical advice.

Furthermore, this report may be utilised in the preparation of building and/or resource consent applications with local authorities. 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.

The recommendations given in this report are based on site data from discrete locations. Inferences about the subsoil conditions away from the test locations have been made but cannot be guaranteed. We have inferred an appropriate geotechnical model that can be applied for our analyses. However, variations in ground conditions from those described in this report could exist across the site. Should conditions encountered differ to those outlined in this report we ask that we be given the opportunity to review the continued applicability of our recommendations. Furthermore, should any changes be made, we must be allowed to review the new development proposal to ensure that the recommendations of this report remain valid.



# Appendix A – Drawings

| Drawing No. | Title                                           |
|-------------|-------------------------------------------------|
| G01         | Site Location Plan                              |
| G02         | Site Investigation Plan                         |
| G03         | Geological Cross Section A-A'                   |
| G04         | Geological Cross Section B-B'                   |
| SW22        | Auckland Council – Typical Pipe Bridging Detail |



|   | Issue | Date       | Revision   | DWG   |                     |                         |                   |                |              |                                   |                                                |                                                                                     | Project | GEOTE   |
|---|-------|------------|------------|-------|---------------------|-------------------------|-------------------|----------------|--------------|-----------------------------------|------------------------------------------------|-------------------------------------------------------------------------------------|---------|---------|
|   | A     | 23/07/2024 | FIRSTISSUE |       |                     | SITE LOC                | ATION             | PLAN           |              |                                   |                                                | Civil & Structural Engineers                                                        |         | 53 MOTU |
|   |       |            |            |       |                     | 1                       |                   | _              | -            | _                                 | 6 Fairway Drive<br>Kerikeri, BOI               | T: 09 407 8327<br>E: info@taichworkman.co.nz                                        | Client  |         |
|   |       |            |            | Scale | 1:1500 @A3          |                         |                   |                | Date         | JUL 2024                          | DIMENSIONS MUST NOT F                          | RE SCALE MEASURED ERON THESE DRAWINGS                                               | -       | HOMEWOR |
|   |       |            |            | Drawn | JMC                 | Checked                 | WT                | Appro          | oved         | WT                                | THE CONTRACTOR SHALL<br>SITE LEVELS, HEIGHTS A | L CHECK & VERIFY ALL DIMENSIONS INCLUDING,<br>ND ANGLES ON SITE PRIOR TO COMMENCING | Project | No. 01  |
| ( |       |            |            | File  | T:\CLIENTS\FRANK RE | ADERIJOBS/24 141- 53 MO | TUTARA DRIVE, RAN | GIPUTA/ENGINEE | RING/GECTECH | IDRAWINGS\24 141 GEO<br>PLANS.DWG | ANY WORK. THE COPYR<br>THERE OF REMAIN THE P   | IGHT TO THESE DRAWINGS AND ALL PARTS<br>ROPERTY OF HAIGH WORKMAN LTD. ©2020         |         | Z4      |
|   |       |            |            |       |                     |                         |                   |                |              | Λ                                 |                                                |                                                                                     |         |         |



| A | Issue | Date 23/07/2024 | Revision | DWG     | SI                 | TE INVES                | TIGATIC            | N PL          | AN            |                                  | HAIGH                                                                     | WORKMANE                                                                                                                  | Project   | GEOTEC  |
|---|-------|-----------------|----------|---------|--------------------|-------------------------|--------------------|---------------|---------------|----------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-----------|---------|
|   |       |                 |          | - Coolo | 4.500 040          |                         |                    |               | Data          |                                  | 6 Fairway Drive<br>Kerikeri, BOI                                          | T: 09 407 8327<br>E: info@taighworkman.co.nz                                                                              | Client    | HOMEWOR |
|   |       |                 |          | Drawn   | 1:500 @A3<br>JMC   | Checked                 | WT                 | Appro         | oved          | JUL 2024<br>WT                   | DIMENSIONS MUST NOT BE<br>THE CONTRACTOR SHALL<br>SITE LEVELS, HEIGHTS AN | E SCALE MEASURED FROM THESE DRAWINGS.<br>CHECK & VERIFY ALL DIMENSIONS INCLUDING,<br>D ANGLES ON SITE PRIOR TO COMMENCING | Project N | No. 21  |
|   |       |                 |          | File    | T:\CLIENTS\FRANK R | EADERUOBS/24 141- 53 MC | TUTARA DRIVE, RANG | IPUTA/ENGINEE | RING/GECTECHI | DRAWINGS\24 141 GEO<br>PLANS.DWG | THERE OF REMAIN THE PR                                                    | COPERTY OF HAIGH WORKMAN LTD. ©2020                                                                                       |           | 24      |

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|-------|-------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------|----------------------------------------|----------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------|------|
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|       | Loose SAND and PEAT<br>[KARIOITAHI GROUP] | PROPOSED DWELLING                                                                   | Public stormwater (approx.) |                                        |                                        |                                                                                 |                                                                                                                   |             |      |
| E Pi  | ublic sewer BDY<br>(approx.)              | BH07 BH08 BH09                                                                      | DECK 8.93                   | TOP OF BANK                            |                                        |                                                                                 |                                                                                                                   |             |      |
| _     |                                           | Medium Dense SAND & silty SAND                                                      |                             |                                        |                                        |                                                                                 |                                                                                                                   |             |      |
| 2     |                                           | Very stiff silly CLAY 3<br>Medium Dense SAVD & silty SAND<br>KARIOITAH GROUPJ<br>5m | _3                          |                                        |                                        |                                                                                 |                                                                                                                   |             |      |
|       |                                           | Very Dense SAND                                                                     |                             |                                        |                                        |                                                                                 |                                                                                                                   |             |      |
| C     |                                           |                                                                                     |                             |                                        |                                        |                                                                                 |                                                                                                                   |             |      |
| _     |                                           |                                                                                     |                             |                                        |                                        |                                                                                 |                                                                                                                   |             |      |
| 3     |                                           |                                                                                     |                             |                                        |                                        |                                                                                 |                                                                                                                   |             |      |
| _     |                                           |                                                                                     |                             |                                        |                                        |                                                                                 |                                                                                                                   |             |      |
| A Iss | sue Date                                  | Revision                                                                            | DWG GEOLC                   | GICAL CROSS                            | SECTION A-A'                           | HAIGH                                                                           | WORKMANE                                                                                                          | Project G   | EOTE |
|       | A Z3/0/72024 FIRST ISSU                   | E                                                                                   |                             |                                        | Dett                                   | 6 Fairway Drive<br>Kerikeri, BOI                                                | Civil & Structural Engineers<br>T: 09 407 8327<br>E: info@taighworkman.co.nz                                      | Client HOM  |      |
|       |                                           |                                                                                     | Drawn JMC                   | Checked wT                             | Approved wT                            | DIMENSIONS MUST NOT BE S<br>THE CONTRACTOR SHALL CH<br>SITE LEVELS, HEIGHTS AND | CALE MEASURED FROM THESE DRAWINGS.<br>ECK & VERIFY ALL DIMENSIONS INCLUDING,<br>NGLES ON SITE PRIOR TO COMMENCING | Project No. | 0.4  |
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GROUPJ<br>CPT04<br>BDY<br>BH01<br>CPT04<br>BDY<br>BH01<br>CPT04<br>CPT04<br>CPT04<br>BDY<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT04<br>CPT0 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                         | E: info@haighworkman.co.n                                                     | diz Client | HOMEW |
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B<br>THE CONTRACTOR SHALL | E SCALE MEASURED FROM THESE DRAWING<br>CHECK & VERIFY ALL DIMENSIONS INCLUDIN | S.<br>G,   |       |
| Scale     1:250     QA3     Date     JUL 2024     Dimensions must not be scale Measured From These drawings in clusters and the contractors shall check a venity all dimensions including.     Client     HOMEW |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |           |              | SITE LEVELS, HEIGHTS AN                       | D ANGLES ON SITE PRIOR TO COMMENCING                                          | Project N  | o r   |

 $\boldsymbol{\Lambda}$ 









STORMWATER CODE OF PRACTICE STANDARD DETAILS

REVISION: 2 REV DATE: 1 NOVEMBER 2015 CAD FILENAME: AC-STD-SW22.DWG

# **GENERAL NOTES:**

- 1. THE INFORMATION ON THIS PAGE IS INTENDED TO SHOW EXAMPLES OF TYPICAL SCENARIOS AND SHALL BE USED FOR GENERAL GUIDANCE PURPOSES ONLY. SIGNIFICANT VARIATIONS ON A SITE-BY-SITE BASIS ARE TO BE EXPECTED AND IT IS IN NO WAY IMPLIED THAT MEETING ANY OF THESE REQUIREMENTS WILL



# Appendix B – Hand Auger Borehole Logs

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### Borehole Log - BH01

Hole Location: Refer to Site Plan

#### JOB No. 24 141

| CLIENT:<br>Date Started:<br>Date Completed:                                                                        | Frank Reader<br>09/07/2024<br>09/07/2024                                                                                                            | SITE:<br>DRILLING METHOD:<br>HOLE DIAMETER (mm) | 53 M<br>Hand<br>50mr | otut<br>I Au<br>n | ara Dri <sup>,</sup><br>ger | ve, Ra                        | angipu      | uta (Lot 35, Deposited Plan 2<br>LOGGED BY: JMC<br>CHECKED BY: WT | 2029          | 908)           |             |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|----------------------|-------------------|-----------------------------|-------------------------------|-------------|-------------------------------------------------------------------|---------------|----------------|-------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| B                                                                                                                  | Soil Descriptio                                                                                                                                     | <b>n</b><br>nes 2005                            | Depth (m)            | Geology           | Graphic<br>Log              | Water<br>Level                | Sensitivity | Vane Shear and<br>Remoulded Vane Shear<br>Strengths (kPa)         | s             | icala<br>(blo  | Pen<br>ows/ | ietro<br>100r         | omete<br>nm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Sandy TOPSOIL; dari<br>Fine SAND; greyish b<br>0.3m: becomes whitis<br>Amorphous PEAT; bla<br>Fine SAND; dark orar | A brown. Loose, moist. R<br>rown. Loose, moist. [KAF<br>h grey. Dense.<br>ack. Moist.<br>gish brown. Very dense.<br>End of hole 0.7mbg<br>(Refusal) | potiets.<br>RIOITAHI GROUP]                     |                      | Karioitahi 15 Ge  |                             | Groundwater Not Encountered L | Ser         | Strengths (kPa)                                                   |               |                | 0 20        | ) 30<br>Refu<br>20+ B | 1 40<br>1 530<br>1 500<br>1 5 |
| LEGEND<br>UDPSOIL                                                                                                  | CLAY                                                                                                                                                | T SAND                                          |                      | PE                | AT                          |                               | F           | Corrected shear va<br>Remoulded shear v<br>Scala Penetromete      | ane r<br>vane | readin<br>read | g           |                       | •                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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| Borehole Log - BH02                                                                                                                                                                                                                                                           | Hole Location: Refe                             | r to Site F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Plan                |                             |             | JOB                                                         | No                            | . 24                    | 141                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------|-------------|-------------------------------------------------------------|-------------------------------|-------------------------|----------------------|
| CLIENT: Frank Reader<br>Date Started: 09/07/2024<br>Date Completed: 09/07/2024                                                                                                                                                                                                | SITE:<br>DRILLING METHOD:<br>HOLE DIAMETER (mm) | 53 Motu<br>Hand A<br>50mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | utara Driv<br>luger | ve, Ra                      | ngipu       | Ita (Lot 35, Deposited Pl<br>LOGGED BY: JM<br>CHECKED BY: W | lan 20<br>1C<br>T             | 2908)                   |                      |
| Soil Descriptic<br>Based on NZGS Logging Guide                                                                                                                                                                                                                                | DN<br>lines 2005                                | Depth (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Graphic<br>Log      | Water<br>Level              | Sensitivity | Vane Shear and<br>Remoulded Vane Sh<br>Strengths (kPa)      | near                          | Scala Pe<br>(blows      | netrometo<br>/100mm) |
| Fine SAND; dark orangish brown. Loose, moist<br>Fine SAND; dark grey. Loose, moist. [KARIOI<br>0.3m: becomes light greyish brown.<br>0.4m: becomes whitish grey.<br>Sandy PEAT; black. Wet, loose.<br>Fine SAND; darkorangish brown. Dense.<br>End of hole 0.7mb<br>(Refusal) | st. Rootlets. [ <i>FILL</i> ]<br>TAHI GROUP]    | 0.0<br>0.0<br>0.5<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.65<br>0.6 |                     | Groundwater Not Encountered |             |                                                             |                               |                         | 0 15 20<br>ESTED     |
| LEGEND<br>TOPSOIL CLAY SIL<br>Note: UTP = Unable To Penetrate. T.S. = Topso<br>Scala penetrometer testing not under<br>Hand Held Shear Vane S/N: Not tester                                                                                                                   | .T SAND                                         | P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PEAT                |                             | FI          | Corrected she<br>Remoulded sl<br>Scala Penetro              | ear vane<br>hear va<br>ometer | e reading<br>ne reading | •                    |

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# Borehole Log - BH03

Hole Location: Refer to Site Plan

#### JOB No. 24 141

| CLIENT:<br>Date Started:<br>Date Completed:                                                 | Frank Reader<br>09/07/2024<br>09/07/2024                                                                     | :<br> <br>                                     | SITE:<br>DRILLING<br>HOLE DIA | METHOD:<br>METER (m | 53 M<br>: Han<br>nm) 50m                                                                                               | /lotut<br>d Au<br>m | ara Driv<br>ger | ve, Ra                      | ngipu       | ta (Lot 35, D<br>LOGGED E<br>CHECKED | eposited Plan<br>BY: JMC<br>BY: WT                      | 202                     | 908)             |                     |                       |                    |
|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|------------------------------------------------|-------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------|-----------------------------|-------------|--------------------------------------|---------------------------------------------------------|-------------------------|------------------|---------------------|-----------------------|--------------------|
| E                                                                                           | Soil Descr<br>Based on NZGS Logging                                                                          | <b>iption</b><br>Guidelines 20                 | 05                            |                     | Depth (m)                                                                                                              | Geology             | Graphic<br>Log  | Water<br>Level              | Sensitivity | Vane<br>Remould<br>Stren             | Shear and<br>ed Vane Shea<br>gths (kPa)                 | r s                     | Scala<br>(blo    | ı Pene<br>ows/1     | etron<br>00m          | neter<br>m)        |
| Sandy TOPSOIL; dar<br>Fine SAND; dark brow<br>Fine SAND; greyish b<br>0.6m: trace dark oran | k brown. Loose.<br>wn. Loose. Some d<br>oorwn. Loose, moisi<br>ngish brown sand.<br>End of hole O<br>(Refusa | ecaying fibr<br>t. [KARIOIT.<br>J.7mbgl<br>al) | AHI GROU                      | ICS. [FILL]         | 0.0<br>0.0<br>0.1<br>0.5<br>1.0<br>1.0<br>1.5<br>2.0<br>2.5<br><br>3.0<br><br>3.0<br><br>4.0<br><br>4.5<br><br>4.5<br> |                     |                 | Groundwater Not Encountered |             |                                      |                                                         |                         | 0 1              | o 20 diate ting) 24 | 30<br>Refus<br>0+ Blo | 40<br>al<br>ws<br> |
| LEGEND<br>TOPSOIL<br>Note: UTP = Unable T<br>Scala penetro<br>Hand Held Sh                  | O Penetrate. T.S. =<br>ometer testing begi<br>near Vane S/N: Not                                             | SILT<br>Topsoil.<br>ns at existin<br>tested.   | ug ground                     | SAND<br>level.      |                                                                                                                        | PE                  | AT              |                             | F           | ILL                                  | Corrected shear v<br>Remoulded shear<br>Scala Penetrome | /ane i<br>r vane<br>ter | readin<br>e read | ıg<br>ing           |                       |                    |


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#### Borehole Log - BH04

Hole Location: Refer to Site Plan

CLIENT: Frank Reader C Г

SITE: 53 Motutara Drive, Rangiputa (Lot 35, Deposited Plan 202908)

| Date Started:<br>Date Completed:                                                                                                       | 09/07/2024<br>09/07/2024                                                                                                                         | DRILLING METHOD:<br>HOLE DIAMETER (mm)                                  | Hand Auger<br>50mm |         |                |                                |             | LOGGED BY: WT<br>CHECKED BY: JMC                          |           |                 |                 |              |
|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------|---------|----------------|--------------------------------|-------------|-----------------------------------------------------------|-----------|-----------------|-----------------|--------------|
| Ba                                                                                                                                     | Soil Description<br>ased on NZGS Logging Guideline                                                                                               | \$ 2005                                                                 | Depth (m)          | Geology | Graphic<br>Log | Water<br>Level                 | Sensitivity | Vane Shear and<br>Remoulded Vane Shear<br>Strengths (kPa) | Sca<br>(I | ala Pe<br>blows | netro<br>s/100n | meter<br>nm) |
| Silty, fine to medium <b>S</b> rootlets. [TOPSOIL]                                                                                     | AND; dark brown to black.                                                                                                                        | Medium dense. Frequent                                                  | 0.0                |         |                | ered                           |             |                                                           | 0         | 5               | 10 15           | 20           |
| Bi<br>Silty, fine to medium S<br>rootlets. [ <i>TOPSOIL</i> ]<br>Fine to medium SAND<br>[ <i>KARIOITAHI GROUP</i> ]<br>(Refusal - orar | ased on NZGS Logging Guideliner<br>AND; dark brown to black.<br>; whitish grey. Frequent gr<br>End of hole 0.4mbgI<br>age hard pan material obse | a 2005<br>Medium dense. Frequent<br>ey streaks.<br>erved at auger tip.) |                    | TS      |                | Groundwater Not Encountered Le | Sens        | Strengths (kPa)                                           |           | 5 NOT 1         |                 | nm)          |
|                                                                                                                                        |                                                                                                                                                  |                                                                         | 4.5                | -       |                |                                |             |                                                           |           |                 |                 |              |
|                                                                                                                                        |                                                                                                                                                  |                                                                         |                    | 1       |                |                                |             |                                                           |           |                 |                 |              |
|                                                                                                                                        |                                                                                                                                                  |                                                                         | 88                 |         |                | ~~~                            | ~~          | Corrected shear val                                       | ne rea    | ding            |                 |              |

Note: UTP = Unable To Penetrate. T.S. = Topsoil. Scala penetrometer testing not undertaken. Hand Held Shear Vane S/N: Not tested.

CLAY

SILT

TOPSOIL

SAND

FILL

Remoulded shear vane reading Scala Penetrometer

•

PEAT



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#### **Borehole Log - BH05**

Hole Location: Refer to Site Plan

| CLIENT:         | Frank Reader |
|-----------------|--------------|
| Date Started:   | 09/07/2024   |
| Date Completed: | 09/07/2024   |

2024 /2024 SITE: 53 Motutara Drive, Rangiputa (Lot 35, Deposited Plan 202908) DRILLING METHOD: Hand Auger HOLE DIAMETER (mm) 50mm

LOGGED BY: JMC CHECKED BY: WΤ

| Soil Description<br>Based on NZGS Logging Guidelines 2005          | Depth (m) | Geology | Graphic<br>Log | Water<br>Level | Sensitivity | Vane Shear and<br>Remoulded Vane Shear<br>Strengths (kPa) | Sc    | cala<br>(blo | ı Per<br>ows/ | ietro<br>100i | omete<br>mm) |
|--------------------------------------------------------------------|-----------|---------|----------------|----------------|-------------|-----------------------------------------------------------|-------|--------------|---------------|---------------|--------------|
| Fine <b>SAND</b> ; orangish brown.Loose. Rootlets. [ <i>FILL</i> ] | 0.0       | I.L.    | ****           | 8 8            |             |                                                           | 0     | ) 1          | 0 2           | 0 30          | 0 40         |
| Fine SAND; dark grey. Loose, moist. [KARIOITAHI GROUP]             |           | _       |                | tere           |             |                                                           | ĪΓ    |              |               |               |              |
|                                                                    |           | P       |                | L N            |             |                                                           |       |              | 1             | '             |              |
| 0.3m: becomes whitish grey.                                        |           | 202     |                | l D            |             |                                                           | In    | nme          | diate         | Ref           | usal         |
|                                                                    |           | 0       |                | Ē              |             |                                                           | (Bo   | ound         | ing)          | 20+ F         | Blows        |
|                                                                    | 0.5       | AH      |                | Ŷ              |             |                                                           |       |              |               |               |              |
|                                                                    |           | 1       |                | ter            |             |                                                           |       |              |               |               |              |
|                                                                    |           | R       |                | va             |             |                                                           |       |              |               |               |              |
|                                                                    |           | ΙŽ      |                | Pur            |             |                                                           |       |              |               |               |              |
| 0.9m: trace peat.                                                  | 1.0       |         |                | Į              |             |                                                           |       |              |               |               |              |
| End of hole 1.0mbgi<br>(Pofugal)                                   | 1.0       |         |                | 0              |             |                                                           | -     |              |               | _             | _            |
| (Reiusal)                                                          |           |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    | <u> </u>  |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    |           |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    | 15        | 1       |                |                |             |                                                           |       |              |               |               |              |
|                                                                    | 1.0       |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    |           |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    |           |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    |           |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    | 2.0       | 1       |                |                |             |                                                           |       |              |               |               |              |
|                                                                    |           |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    |           |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    |           |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    |           | 1       |                |                |             |                                                           |       |              |               |               |              |
|                                                                    | 2.5       |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    |           |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    |           |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    |           |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    | 2.0       | -       |                |                |             |                                                           |       |              |               |               |              |
|                                                                    | 3.0       |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    | <u> </u>  |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    | <u> </u>  |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    |           |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    | 3.5       | 1       |                |                |             |                                                           | -     |              | $\mid$        |               |              |
|                                                                    |           |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    |           |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    |           |         |                |                |             |                                                           |       |              |               |               |              |
| AT A COMPANY AND A CARD COMPANY AND A CARD COMPANY                 |           |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    | 4.0       | 7       |                |                |             |                                                           |       |              |               |               |              |
|                                                                    |           |         |                |                |             |                                                           |       |              |               |               |              |
| STATES AND A LAND AND AND AND AND AND AND AND AND AND              |           |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    |           |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    |           | 4       |                |                |             |                                                           |       |              |               |               |              |
|                                                                    | 4.5       |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    | $\vdash$  |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    | <u> </u>  |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    | $\vdash$  |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    |           | -       |                | 1              | -           | 1                                                         |       |              |               |               |              |
| LEGEND                                                             |           |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    | 200       |         |                |                | 000         | Corrected shear var                                       | ne re | eadir        | ıg            | ſ             |              |
| TOPSOIL CLAY                                                       |           | PE      | AT             | ×              | 💥 FI        | ILL Remoulded shear v                                     | ane   | read         | ling          | , I           |              |
|                                                                    |           |         |                | X              | XXX         | Scala Penetrometer                                        | r     |              | -             |               | •            |
| Note: UTP = Unable To Penetrate. T.S. = Topsoil.                   |           |         |                |                |             |                                                           |       |              |               |               |              |
| Scala penetrometer testing begins at existing ground level.        |           |         |                |                |             |                                                           |       |              |               |               |              |
| Hand Held Shear Vane S/N: Not tested.                              |           |         |                |                |             |                                                           |       |              |               |               |              |
|                                                                    |           |         |                |                |             |                                                           |       |              |               |               |              |



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### Borehole Log - BH06

Hole Location: Refer to Site Plan

#### JOB No. 24 141

| CLIENT:<br>Date Started:<br>Date Completed:             | Frank Reader<br>09/07/2024<br>09/07/2024                                                | SITE:<br>DRILLING METHOD:<br>HOLE DIAMETER (mm) | 53 Motutara Drive, Rangiputa (Lot 35, Deposited Plan 20<br>Hand Auger LOGGED BY: JMC<br>50mm CHECKED BY: WT |         |                |                |             | .029                          | 08)                                   |                |                 |               |              |              |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------|---------|----------------|----------------|-------------|-------------------------------|---------------------------------------|----------------|-----------------|---------------|--------------|--------------|
| В                                                       | Soil Description<br>ased on NZGS Logging Guideline                                      | s 2005                                          | Depth (m)                                                                                                   | Geology | Graphic<br>Log | Water<br>Level | Sensitivity | Vane S<br>Remoulded<br>Streng | hear and<br>I Vane Shear<br>ths (kPa) | Sc             | cala<br>(blo    | Pen<br>ws/    | etro<br>100r | meter<br>nm) |
| Sandy TOPSOIL; darl                                     | k brown. Rootlets.                                                                      |                                                 | 0.0                                                                                                         | TS      | 24 24          | .ed            |             |                               |                                       | 0              | 5               | 10            | 15           | 20           |
| Fine SAND; dark grey                                    | ish brown. Loose. [KARIOI                                                               | TAHI GROUP]                                     |                                                                                                             | =       |                | lter           |             |                               |                                       |                | N               |               | CTEE         |              |
| 0.3m: becomes whitis                                    | h grey. Dense.                                                                          |                                                 |                                                                                                             | IOITAF  |                | Encour         |             |                               |                                       |                | NC              | /1 IE         | SIEL         |              |
| Amorphous <b>PEAT</b> ; bla                             | ack. Moist.                                                                             |                                                 |                                                                                                             | R       |                | lot            |             |                               |                                       |                |                 |               |              |              |
| Fine SAND; dark oran                                    | gish brown. Dense.                                                                      |                                                 |                                                                                                             | Ĺ       |                | ter            |             |                               |                                       |                |                 |               |              |              |
|                                                         | End of hole 0.65mbgl                                                                    |                                                 | _                                                                                                           |         |                | dwa            |             |                               |                                       |                |                 |               |              |              |
|                                                         | (Refusal)                                                                               |                                                 | -                                                                                                           |         |                | un             |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 | 1.0                                                                                                         |         |                | Gro            |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 |                                                                                                             |         |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 |                                                                                                             |         |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 | <u> </u>                                                                                                    |         |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 | 1.5                                                                                                         | 1       |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 |                                                                                                             |         |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 | _                                                                                                           |         |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 | <u> </u>                                                                                                    |         |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 | 2.0                                                                                                         | 1       |                |                |             |                               |                                       | -              |                 | $\square$     |              |              |
|                                                         |                                                                                         |                                                 |                                                                                                             |         |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 | <u> </u>                                                                                                    |         |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 |                                                                                                             |         |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 | 2.5                                                                                                         | 1       |                |                |             |                               |                                       | -              |                 | $\rightarrow$ |              | _            |
|                                                         |                                                                                         |                                                 |                                                                                                             |         |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 | <u> </u>                                                                                                    |         |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 |                                                                                                             |         |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 | 3.0                                                                                                         |         |                |                |             |                               |                                       | -              | -               | $\rightarrow$ | -            | _            |
|                                                         |                                                                                         |                                                 |                                                                                                             |         |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 | -                                                                                                           |         |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 |                                                                                                             |         |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 | 3.5                                                                                                         |         |                |                |             |                               |                                       |                |                 | -             |              |              |
|                                                         |                                                                                         |                                                 | -                                                                                                           |         |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 | -                                                                                                           |         |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 |                                                                                                             |         |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         | WAS MANY                                                                                |                                                 | 4.0                                                                                                         |         |                |                |             |                               |                                       |                |                 |               |              |              |
| North Proves                                            | State And                                                                               | 的公司不是                                           | —                                                                                                           |         |                |                |             |                               |                                       |                |                 |               |              |              |
| ALL                 | and the second second                                                                   | ALCONE STOL                                     |                                                                                                             |         |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         | AT A STATUS                                                                             |                                                 |                                                                                                             | 4       |                |                |             |                               |                                       |                |                 |               |              | _            |
|                                                         |                                                                                         |                                                 | 4.5                                                                                                         |         |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 |                                                                                                             |         |                |                |             |                               |                                       |                |                 |               |              |              |
| S. The second                                           |                                                                                         |                                                 |                                                                                                             |         |                |                |             |                               |                                       |                |                 |               |              |              |
|                                                         |                                                                                         |                                                 |                                                                                                             |         |                |                |             | L                             |                                       | 1              |                 |               |              |              |
| LEGEND                                                  |                                                                                         |                                                 |                                                                                                             |         |                |                |             |                               |                                       |                |                 |               |              | •            |
| TOPSOIL                                                 |                                                                                         | SAND                                            |                                                                                                             | PE      | АТ             | $\otimes$      | F           |                               | orrected shear va<br>emoulded shear v | ne re<br>ane i | ading<br>readii | l<br>ng       |              |              |
| Note: UTP = Unable To<br>Scala penetro<br>Hand Held Sho | o Penetrate. T.S. = Topsoil.<br>meter testing not undertak<br>ear Vane S/N: Not tested. | en.                                             |                                                                                                             |         |                |                |             | 0                             |                                       |                |                 |               |              | -            |



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#### **Borehole Log - BH07**

Hole Location: Refer to Site Plan

| CLIENT:         | Frank Reader |
|-----------------|--------------|
| Date Started:   | 09/07/2024   |
| Date Completed: | 09/07/2024   |

2024 2024 SITE: 53 Motutara Drive, Rangiputa (Lot 35, Deposited Plan 202908) DRILLING METHOD: Hand Auger HOLE DIAMETER (mm) 50mm

LOGGED BY: WΤ CHECKED BY: JMC

| Soil Description<br>Based on NZGS Logging Guidelines 2005                                                                                                                                                                                                                                                                                                                                               | Depth (m)                                                                                                                                                                                                           | Geology    | Graphic<br>Log | Water<br>Level                 | Sensitivity | Vane Shear and<br>Remoulded Vane Shear<br>Strengths (kPa)    | Scala Penetrometer<br>(blows/100mm) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|--------------------------------|-------------|--------------------------------------------------------------|-------------------------------------|
| Based on NZGS Logging Guidelines 2005 Silty, fine to medium SAND; dark brown to black. Medium dense. Frequent rootlets. [70/FS0/L] At 0.25m: becomes streaked light grey. Silty, fine to medium SAND; dark brown to black. Medium dense. Organic amorphous mottles. At 0.45: organic fibrous flecks. [KARIOITAHI GROUP] End of hole 0.5mbgl (Refusal - orange hard pan material observed at auger tip.) | a           0.0           0.0           0.0           1.0           1.0           1.0           2.0           1.0           2.0           3.0           3.0           3.1           4.0           4.0           4.5 | eQd TS Geo | Cra<br>一       | Groundwater Not Encountered Vi | Sens        | Strengths (kPa)                                              |                                     |
| LEGEND<br>TOPSOIL CLAY SILT SAND<br>Note: UTP = Unable To Penetrate. T.S. = Topsoil.<br>Scala penetrometer testing begins at existing ground level.<br>Hand Held Shear Vane S/N: Not tested.                                                                                                                                                                                                            |                                                                                                                                                                                                                     | PE         | AT             |                                | FI          | Corrected shear va<br>Remoulded shear v<br>Scala Penetromete | ne reading reading r                |



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#### **Borehole Log - BH08**

Hole Location: Refer to Site Plan

| CLIENT:         | Frank Reader |
|-----------------|--------------|
| Date Started:   | 09/07/2024   |
| Date Completed: | 09/07/2024   |

2024 2024 SITE: 53 Motutara Drive, Rangiputa (Lot 35, Deposited Plan 202908) DRILLING METHOD: Hand Auger HOLE DIAMETER (mm) 50mm

LOGGED BY: WΤ CHECKED BY: JMC

| Soil Description<br>Based on NZGS Logging Guidelines 2005                       | Depth (m) | Geology | Graphic<br>Log | Water<br>Level | Sensitivity | Vane Shear and<br>Remoulded Vane Shear<br>Strengths (kPa) | Scala Penetrometer<br>(blows/100mm) |
|---------------------------------------------------------------------------------|-----------|---------|----------------|----------------|-------------|-----------------------------------------------------------|-------------------------------------|
| Silty, fine to medium <b>SAND</b> ; dark brown to black. Medium dense. Frequent | 0.0       | TS      | <u>m</u><br>m  | ered           |             |                                                           | 0 5 10 15 20                        |
| Fine to medium SAND; whitish grey. Frequent grey streaks.<br>[KARIOITAHI GROUP] |           | Qd      |                | counte         |             |                                                           | NOT TESTED                          |
| 0.4m: becomes dark brown amorphous organic streaks.                             | _         | e       |                | Ē              |             |                                                           |                                     |
| End of hole 0.5mbgl                                                             | 0.5       |         |                | ş              |             |                                                           |                                     |
| (Refusal - orange hard pan material observed at auger tip.)                     |           |         |                | ter            |             |                                                           |                                     |
|                                                                                 |           |         |                | va             |             |                                                           |                                     |
|                                                                                 |           |         |                | pun            |             |                                                           |                                     |
|                                                                                 | 1.0       |         |                | Gro            |             |                                                           |                                     |
|                                                                                 |           |         |                |                |             |                                                           |                                     |
|                                                                                 |           |         |                |                |             |                                                           |                                     |
|                                                                                 | <u> </u>  |         |                |                |             |                                                           |                                     |
|                                                                                 | 1.5       | 1       |                |                |             |                                                           |                                     |
|                                                                                 |           |         |                |                |             |                                                           |                                     |
|                                                                                 |           |         |                |                |             |                                                           |                                     |
|                                                                                 |           |         |                |                |             |                                                           |                                     |
|                                                                                 | 20        |         |                |                |             |                                                           |                                     |
|                                                                                 |           |         |                |                |             |                                                           |                                     |
|                                                                                 |           |         |                |                |             |                                                           |                                     |
|                                                                                 |           |         |                |                |             |                                                           |                                     |
|                                                                                 | 25        | 1       |                |                |             |                                                           |                                     |
|                                                                                 | 2.0       |         |                |                |             |                                                           |                                     |
|                                                                                 |           |         |                |                |             |                                                           |                                     |
|                                                                                 | _         |         |                |                |             |                                                           |                                     |
|                                                                                 | 3.0       | 1       |                |                |             |                                                           |                                     |
|                                                                                 |           |         |                |                |             |                                                           |                                     |
|                                                                                 |           |         |                |                |             |                                                           |                                     |
|                                                                                 | _         |         |                |                |             |                                                           |                                     |
|                                                                                 | 3.5       | 1       |                |                |             |                                                           |                                     |
|                                                                                 |           |         |                |                |             |                                                           |                                     |
|                                                                                 | <u> </u>  |         |                |                |             |                                                           |                                     |
|                                                                                 | -         |         |                |                |             |                                                           |                                     |
|                                                                                 | 4.0       | 1       |                |                |             |                                                           |                                     |
|                                                                                 |           |         |                |                |             |                                                           |                                     |
| AND THE PART AND THE AND THE AND                                                |           |         |                |                |             |                                                           |                                     |
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| - A REAL PROPERTY OF A REAL PROPERTY OF                                         | 4.5       | 1       |                |                |             |                                                           |                                     |
| JA TO BE STORE WERE AND A STORE                                                 |           |         |                |                |             |                                                           |                                     |
|                                                                                 |           |         |                |                |             |                                                           |                                     |
|                                                                                 | <u> </u>  |         |                |                |             |                                                           |                                     |
|                                                                                 | -         | -       |                |                |             | I                                                         |                                     |
| LEGEND                                                                          |           |         |                |                |             |                                                           | 1                                   |
|                                                                                 |           | PF      | АТ             | $\otimes$      | 💥 FI        | LL Corrected shear van                                    | e reading                           |
|                                                                                 |           |         |                | $\sim$         | $\sim$      | Scala Penetrometer                                        |                                     |
| Note: UTP = Unable To Penetrate. T.S. = Topsoil.                                |           |         |                |                |             |                                                           | -                                   |
| Scala penetrometer testing not undertaken.                                      |           |         |                |                |             |                                                           |                                     |
| Hand Held Shear Vane S/N: Not tested.                                           |           |         |                |                |             |                                                           |                                     |



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#### **Borehole Log - BH09**

Hole Location: Refer to Site Plan

| CLIENT:         | Frank F |
|-----------------|---------|
| Date Started:   | 09/07/  |
| Date Completed: | 09/07/  |

Reader 2024 /2024

SITE: 53 Motutara Drive, Rangiputa (Lot 35, Deposited Plan 202908) DRILLING METHOD: Hand Auger HOLE DIAMETER (mm) 50mm

LOGGED BY: WΤ CHECKED BY: JMC

| • ··· • · · ·                                                                                                   | Ê               | 2    | <u>.</u>     | L _          | /ity    | Vane Shear and                             |                                     |
|-----------------------------------------------------------------------------------------------------------------|-----------------|------|--------------|--------------|---------|--------------------------------------------|-------------------------------------|
| Soil Description Based on NZGS Logging Guidelines 2005                                                          | epth            | eolo | sraph<br>Log | Wate<br>Leve | ensitiv | Remoulded Vane Shear<br>Strengths (kPa)    | Scala Penetrometer<br>(blows/100mm) |
| Silty, fine to medium SAND; dark brown to black. Medium dense. Frequent                                         | <b>Õ</b><br>0.0 | 0    |              | ð            | ő       |                                            | 0 10 20 30 40                       |
| rootlets. [TOPSOIL]                                                                                             |                 | IS   |              | Inter        |         |                                            | •                                   |
| Fine to medium SAND, some silt; dark brown to black, mottled dark reddish                                       |                 | B    |              | ncon         |         |                                            | Immediate Refusal                   |
| brown. Medium dense. [KARIOITAHI GROUP]<br>End of hole 0.5mbgl                                                  | 0.5             | ē    |              | ц<br>Ц<br>Ц  |         |                                            | (Bouncing) 20+ Blows                |
| (Refusal - orange hard pan material observed at auger tip.)                                                     |                 |      |              | Iter N       |         |                                            |                                     |
|                                                                                                                 |                 |      |              | awbr         |         |                                            |                                     |
|                                                                                                                 | 1.0             |      |              | Broui        |         |                                            |                                     |
|                                                                                                                 | 1.0             |      |              |              |         |                                            |                                     |
|                                                                                                                 | -               |      |              |              |         |                                            |                                     |
|                                                                                                                 |                 |      |              |              |         |                                            |                                     |
|                                                                                                                 | 1.5             |      |              |              |         |                                            |                                     |
|                                                                                                                 | <u> </u>        |      |              |              |         |                                            |                                     |
|                                                                                                                 |                 |      |              |              |         |                                            |                                     |
|                                                                                                                 | 2.0             |      |              |              |         |                                            |                                     |
|                                                                                                                 |                 |      |              |              |         |                                            |                                     |
|                                                                                                                 | _               |      |              |              |         |                                            |                                     |
|                                                                                                                 | 2.5             |      |              |              |         |                                            |                                     |
|                                                                                                                 |                 |      |              |              |         |                                            |                                     |
|                                                                                                                 |                 |      |              |              |         |                                            |                                     |
|                                                                                                                 | 3.0             |      |              |              |         |                                            |                                     |
|                                                                                                                 |                 |      |              |              |         |                                            |                                     |
|                                                                                                                 | _               |      |              |              |         |                                            |                                     |
|                                                                                                                 | 3.5             |      |              |              |         |                                            |                                     |
|                                                                                                                 |                 |      |              |              |         |                                            |                                     |
|                                                                                                                 | -               |      |              |              |         |                                            |                                     |
|                                                                                                                 | 4.0             |      |              |              |         |                                            |                                     |
|                                                                                                                 |                 |      |              |              |         |                                            |                                     |
|                                                                                                                 | <u> </u>        |      |              |              |         |                                            |                                     |
|                                                                                                                 | 4.5             |      |              |              |         |                                            |                                     |
|                                                                                                                 |                 |      |              |              |         |                                            |                                     |
| Sale of the second s | <u> </u>        |      |              |              |         |                                            |                                     |
|                                                                                                                 | -               |      |              |              | •       |                                            |                                     |
| TOPSOIL CLAY                                                                                                    |                 | PE   | AT           |              | 🚫 FI    | Corrected shear var<br>Remoulded shear var | ie reading                          |
| Note: UTP = Unable To Penetrate. T.S. = Topsoil.                                                                |                 |      |              |              |         |                                            |                                     |
| Scala penetrometer testing begins at existing ground level.<br>Hand Held Shear Vane S/N: Not tested.            |                 |      |              |              |         |                                            |                                     |



Appendix C – CPT Soundings

| UNDERGROUND<br>INVESTIGATION |     |
|------------------------------|-----|
| Proje                        | ect |
| Project Name                 |     |

# CPT Client Engagement / Quote Request

| Pr                                                                                             | roject Details                                                                                                | Date                                                                                              | 10/07/2024                                                                     |
|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Project Name                                                                                   | Proposed Development                                                                                          | Job Identifier                                                                                    | HW 53 Motutara Rd                                                              |
| Project Address                                                                                | 53 Motutara Rd, Rangiputa                                                                                     |                                                                                                   |                                                                                |
| Engineering Consultant<br>Company Name                                                         | Haigh Workman Ltd                                                                                             | Engineering Project Manager                                                                       | Josh Cureen                                                                    |
| Email                                                                                          |                                                                                                               | Mobile                                                                                            |                                                                                |
| Client Name                                                                                    |                                                                                                               | Client Contact Details                                                                            |                                                                                |
| Test Re                                                                                        | equirements - CPT                                                                                             | Preferred Job Completion Date                                                                     |                                                                                |
| Target No of CPT Tests<br>Required                                                             | 5                                                                                                             | Maximum Test Depth Required                                                                       | Refusal                                                                        |
| No of CPT Tests Required<br>Through Pavement or Other<br>Hard Surface                          | r                                                                                                             | Type and Thickness of Hard<br>Surface                                                             |                                                                                |
| Other Requirements Outside<br>Standard Greenfield Testing                                      | e<br>J                                                                                                        |                                                                                                   |                                                                                |
| Please note: Service clearance is to<br>commencing work. Any delays due<br>in the working day. | o be provided by the client or their agents and detail<br>to service clearance or H&S approvals will be at th | Is are to be provided to the CPT operator prio<br>the clients expense and may reduce the amoun    | r to Underground Investigation Ltd<br>nt of testing being able to be completed |
| Test Requirem                                                                                  | ients - Dissipation Testing                                                                                   | Please List Test No and Approxim                                                                  | ate Target Depth of Dissipation                                                |
| Test No                                                                                        | Depth                                                                                                         | Test No                                                                                           | Depth                                                                          |
|                                                                                                |                                                                                                               |                                                                                                   |                                                                                |
|                                                                                                |                                                                                                               |                                                                                                   |                                                                                |
|                                                                                                |                                                                                                               |                                                                                                   |                                                                                |
|                                                                                                |                                                                                                               |                                                                                                   |                                                                                |
| Please note: In order to provide use<br>for testing. It is preferred if the Geo                | eful dissipation data, UIL recommends carrying out stechnical Engineer for the project discusses this with    | at least one CPT prior to carrying out dissipat<br>th the CPT operator after completion of the in | tion in order to select appropriate depths itial testing.                      |
| Any Othe                                                                                       | r Site Requirements                                                                                           |                                                                                                   |                                                                                |
|                                                                                                |                                                                                                               |                                                                                                   |                                                                                |
|                                                                                                |                                                                                                               |                                                                                                   |                                                                                |
|                                                                                                |                                                                                                               |                                                                                                   |                                                                                |



# **CPT Equipment Information**

| CPT Rig Type                 | Geotech AB - Georig 220         | Maximum Push Capacity                       | 200kN                                    |
|------------------------------|---------------------------------|---------------------------------------------|------------------------------------------|
| Any Deviations Fro           | om Common Setup                 | Reaction Restraint                          | Screw Anchors                            |
|                              |                                 |                                             |                                          |
| Cone Penetrometer            | Nova Cone 100MPa With<br>Memory | Cone Penetrometer Type                      | TE2                                      |
| Manufacturer                 | Geotech AB                      | Load Cell Configuration                     | Compresion                               |
| Tip Area                     | 10cm                            | Pore Pressure Type                          | U <sub>2</sub>                           |
| Full Scale Output of Sensors | q <sub>c</sub> : 100 MPa        | f <sub>s</sub> : 1 MPa                      | u <sub>2</sub> : 2 MPa                   |
| Calibration Test Class       | ISO 1                           | Saturation Method                           | Pump Saturation With<br>Secondary Vacuum |
| Temprature Sensor            | No                              | Data Interval                               | 10mm                                     |
| Temprature Conditioning      | Cone Warmer set to 20° C        | Typical Cone Temprature at<br>Start of Test | 16-20° C                                 |
| Any Deviation                | is From Above                   |                                             |                                          |
|                              |                                 |                                             |                                          |

| UNDERGROUND<br>INVESTIGATION                                                 | СРТ              | Test Informa                | ation                                      |
|------------------------------------------------------------------------------|------------------|-----------------------------|--------------------------------------------|
| Test Hole Number                                                             | CPT01            | Job Identifier              | HW 53 Motutara Rd                          |
| Test Date                                                                    | 10/07/2024       | Operator                    | Craig Greenfield                           |
| Cone Serial Number                                                           | 5681             | Battery Voltage Start       | 6.16                                       |
| Cone Area Ratio                                                              | 0.863            | Start Recording             | 10:43:00 AM                                |
| Probe Radius                                                                 | 0.0177           | Finish Recording            | 11:03:00 AM                                |
| Date of First Push Current<br>Calibration                                    | 14/09/2023       | Measured Ground Water Depth | 7.4                                        |
| Metres To Next Calibration                                                   | 327              | Total Penetration Depth (m) | 12.31                                      |
| Depth of Predrill                                                            |                  | Test ended due to:          | High Tilt High Tip Pressure                |
| Depth at Start of Test                                                       | 0                |                             | High Friction<br>High Pore Pressure        |
| Anchor Depth (Left)                                                          | 0.9              |                             | High Total load<br>Danger of Rods Buckling |
| Anchor Depth (Right)                                                         | 1.4              |                             | Target DepthImage: Anchor Failure          |
| ·                                                                            | Zero Value C     | hange % FSO                 |                                            |
| _                                                                            | Point Resistance | Pore Pressure               | Sleeve Friction                            |
| Zero Shift Since First Push<br>Current Calibration                           | 0.12%            | 0.16%                       | 0.16%                                      |
| End of test with tip loosened                                                | 0.17%            | 0.00%                       | 0.86%                                      |
|                                                                              | Dissipati        | on Testing                  |                                            |
| Test No                                                                      | Depth (m)        | Duration (secs)             | Comments                                   |
|                                                                              |                  |                             |                                            |
|                                                                              |                  |                             |                                            |
|                                                                              | Notes and        | Comments                    |                                            |
| Data loss (typically at rod<br>change points). Either deleted<br>or averaged | qc               | fs                          | u                                          |
|                                                                              |                  |                             |                                            |

| UNDERGROUND<br>INVESTIGATION                                                 | CPI              | Test Informa                | ation                                                      |  |  |
|------------------------------------------------------------------------------|------------------|-----------------------------|------------------------------------------------------------|--|--|
| Test Hole Number                                                             | CPT02            | Job Identifier              | HW 53 Motutara Rd                                          |  |  |
| Test Date                                                                    | 10/07/2024       | Operator                    | Craig Greenfield                                           |  |  |
| Cone Serial Number                                                           | 5708             | Battery Voltage Start       | 6.07                                                       |  |  |
| Cone Area Ratio                                                              | 0.862            | Start Recording             | 11:31:00 AM                                                |  |  |
| Probe Radius                                                                 | 0.0178           | Finish Recording            | 11:56:00 AM                                                |  |  |
| Date of First Push Current<br>Calibration                                    | 9/11/2023        | Measured Ground Water Depth | 8.65                                                       |  |  |
| Metres To Next Calibration                                                   | 650              | Total Penetration Depth (m) | 16.942                                                     |  |  |
| Depth of Predrill                                                            |                  | Test ended due to:          | <ul> <li>High Tilt</li> <li>✓ High Tip Pressure</li> </ul> |  |  |
| Depth at Start of Test                                                       | 0                |                             | High Friction<br>High Pore Pressure                        |  |  |
| Anchor Depth (Left)                                                          | 1.5              |                             | High Total load<br>Danger of Rods Buckling                 |  |  |
| Anchor Depth (Right)                                                         | 1.5              |                             | □ Target Depth ✓ Anchor Failure                            |  |  |
|                                                                              | Zero Value       | Change % FSO                |                                                            |  |  |
|                                                                              | Point Resistance | Pore Pressure               | Sleeve Friction                                            |  |  |
| Zero Shift Since First Push<br>Current Calibration                           | 0.05%            | 0.10%                       | 0.72%                                                      |  |  |
| End of test with tip loosened                                                | 0.10%            | 0.01%                       | 0.06%                                                      |  |  |
|                                                                              | Dissipat         | tion Testing                |                                                            |  |  |
| Test No                                                                      | Depth (m)        | Duration (secs)             | Comments                                                   |  |  |
|                                                                              |                  |                             |                                                            |  |  |
|                                                                              |                  |                             |                                                            |  |  |
| Notes and Comments                                                           |                  |                             |                                                            |  |  |
| Data loss (typically at rod<br>change points). Either deleted<br>or averaged | qc               | fs                          | u                                                          |  |  |
|                                                                              |                  |                             |                                                            |  |  |

| UNDERGROUND<br>INVESTIGATION                                                 | CPI              | Test Informa                | ation                                      |
|------------------------------------------------------------------------------|------------------|-----------------------------|--------------------------------------------|
| Test Hole Number                                                             | CPT03            | Job Identifier              | HW 53 Motutara Rd                          |
| Test Date                                                                    | 10/07/2024       | Operator                    | Craig Greenfield                           |
| Cone Serial Number                                                           | 5801             | Battery Voltage Start       | 5.99                                       |
| Cone Area Ratio                                                              | 0.842            | Start Recording             | 1:15:00 PM                                 |
| Probe Radius                                                                 | 0.0178           | Finish Recording            | 1:33:00 PM                                 |
| Date of First Push Current<br>Calibration                                    | 9/01/2024        | Measured Ground Water Depth | 7.4                                        |
| Metres To Next Calibration                                                   | 922              | Total Penetration Depth (m) | 11.152                                     |
| Depth of Predrill                                                            |                  | Test ended due to:          | High Tilt High Tip Pressure                |
| Depth at Start of Test                                                       | 0                | _                           | High Friction<br>High Pore Pressure        |
| Anchor Depth (Left)                                                          | 1.5              |                             | High Total load<br>Danger of Rods Buckling |
| Anchor Depth (Right)                                                         | 1.5              |                             | Target Depth                               |
|                                                                              | Zero Value       | Change % FSO                |                                            |
|                                                                              | Point Resistance | Pore Pressure               | Sleeve Friction                            |
| Zero Shift Since First Push<br>Current Calibration                           | 0.03%            | 0.04%                       | 0.90%                                      |
| End of test with tip loosened                                                | 0.10%            | 0.07%                       | 0.38%                                      |
|                                                                              | Dissipa          | tion Testing                |                                            |
| Test No                                                                      | Depth (m)        | Duration (secs)             | Comments                                   |
|                                                                              |                  |                             |                                            |
|                                                                              |                  |                             |                                            |
|                                                                              | Notes an         | d Comments                  |                                            |
| Data loss (typically at rod<br>change points). Either deleted<br>or averaged | qc               | fs                          | u                                          |
|                                                                              |                  |                             |                                            |

| UNDERGROUND<br>INVESTIGATION                                                 | СРТ              | Test Informa                | ation                                      |
|------------------------------------------------------------------------------|------------------|-----------------------------|--------------------------------------------|
| Test Hole Number                                                             | CPT04            | Job Identifier              | HW 53 Motutara Rd                          |
| Test Date                                                                    | 10/07/2024       | Operator                    | Craig Greenfield                           |
| Cone Serial Number                                                           | 5845             | Battery Voltage Start       | 5.98                                       |
| Cone Area Ratio                                                              | 0.85             | Start Recording             | 2:21:00 PM                                 |
| Probe Radius                                                                 | 0.0179           | -<br>Finish Recording       | 2:26:00 PM                                 |
| Date of First Push Current<br>Calibration                                    | 13/03/2024       | Measured Ground Water Depth | dry to 1.8m EOB                            |
| Metres To Next Calibration                                                   | 1197             | Total Penetration Depth (m) | 1.897                                      |
| Depth of Predrill                                                            |                  | Test ended due to:          | ☐ High Tilt<br>☑ High Tip Pressure         |
| Depth at Start of Test                                                       | 0                | -                           | High Friction<br>High Pore Pressure        |
| Anchor Depth (Left)                                                          | 1                |                             | High Total load<br>Danger of Rods Buckling |
| Anchor Depth (Right)                                                         | 1.2              |                             | Target Depth     Anchor Failure            |
|                                                                              | Zero Value C     | Change % FSO                | •                                          |
|                                                                              | Point Resistance | Pore Pressure               | Sleeve Friction                            |
| Zero Shift Since First Push<br>Current Calibration                           | 0.01%            | 0.11%                       | 0.04%                                      |
| End of test with tip loosened                                                | 0.12%            | 0.03%                       | 0.82%                                      |
|                                                                              | Dissipati        | on Testing                  | •                                          |
| Test No                                                                      | Depth (m)        | Duration (secs)             | Comments                                   |
|                                                                              |                  |                             |                                            |
|                                                                              |                  |                             |                                            |
|                                                                              | Notes and        | l Comments                  |                                            |
| Data loss (typically at rod<br>change points). Either deleted<br>or averaged | qc               | fs                          | u                                          |
|                                                                              |                  |                             |                                            |

| UNDERGROUND<br>INVESTIGATION                                                 | СРТ              | Test Informa                | ation                                      |  |
|------------------------------------------------------------------------------|------------------|-----------------------------|--------------------------------------------|--|
| Test Hole Number                                                             | CPT05            | Job Identifier              | HW 53 Motutara Rd                          |  |
| Test Date                                                                    | 10/07/2024       | Operator                    | Craig Greenfield                           |  |
| Cone Serial Number                                                           | 5959             | Battery Voltage Start       | 5.95                                       |  |
| Cone Area Ratio                                                              | 0.869            | Start Recording             | 2:55:00 PM                                 |  |
| Probe Radius                                                                 | 0.0179           | Finish Recording            | 3:13:00 PM                                 |  |
| Date of First Push Current<br>Calibration                                    | 26/06/2024       | Measured Ground Water Depth | 7.6                                        |  |
| Metres To Next Calibration                                                   | 1440             | Total Penetration Depth (m) | 12.117                                     |  |
| Depth of Predrill                                                            |                  | Test ended due to:          | ☐ High Tilt<br>✓ High Tip Pressure         |  |
| Depth at Start of Test                                                       | 0                |                             | High Friction<br>High Pore Pressure        |  |
| Anchor Depth (Left)                                                          | 1.5              |                             | High Total load<br>Danger of Rods Buckling |  |
| Anchor Depth (Right)                                                         | 1.2              |                             | Target Depth     Anchor Failure            |  |
|                                                                              | Zero Value       | Change % FSO                |                                            |  |
| -                                                                            | Point Resistance | Pore Pressure               | Sleeve Friction                            |  |
| Zero Shift Since First Push<br>Current Calibration                           | 0.01%            | 0.08%                       | 0.08%                                      |  |
| End of test with tip loosened                                                | 0.07%            | 0.02%                       | 0.42%                                      |  |
|                                                                              | Dissipat         | ion Testing                 |                                            |  |
| Test No                                                                      | Depth (m)        | Duration (secs)             | Comments                                   |  |
|                                                                              |                  |                             |                                            |  |
|                                                                              |                  |                             |                                            |  |
|                                                                              | Notes and        | d Comments                  |                                            |  |
| Data loss (typically at rod<br>change points). Either deleted<br>or averaged | qc               | fs                          | u                                          |  |
|                                                                              |                  |                             |                                            |  |



Cone Penetration Testing craig@undergroundinvestigation.co.nz +64211473249

#### Project: Proposed dwelling Location: 53 Motutara Drive, Rangiputa

### CPT: CPT01 Total depth: 12.29 m, Date: 12/07/2024









Project: Proposed dwelling

Location: 53 Motutara Drive, Rangiputa

## Underground Investigation Ltd

Cone Penetration Testing craig@undergroundinvestigation.co.nz +64211473249

## CPT: CPT02

Total depth: 16.85 m, Date: 12/07/2024









Cone Penetration Testing craig@undergroundinvestigation.co.nz +64211473249

#### Project: Proposed dwelling Location: 53 Motutara Drive, Rangiputa

### CPT: CPT03 Total depth: 11.13 m, Date: 12/07/2024









Cone Penetration Testing craig@undergroundinvestigation.co.nz +64211473249

#### Project: Proposed dwelling Location: 53 Motutara Drive, Rangiputa

## CPT: CPT04

Total depth: 1.89 m, Date: 12/07/2024







Cone Penetration Testing craig@undergroundinvestigation.co.nz +64211473249

#### CPT: CPT05 Total depth: 12.09 m, Date: 12/07/2024

Project: Proposed dwelling Location: 53 Motutara Drive, Rangiputa









## Appendix D – Slope Stability Outputs

















## Appendix E – Client Provided Drawings







|      |                       | © Copyright Homeworld Desig      | © Copyright Homeworld Design & Build Limited |       | TCH 01                                  | WILSON RESIDENC |
|------|-----------------------|----------------------------------|----------------------------------------------|-------|-----------------------------------------|-----------------|
|      | IU                    | 401 Western Hills Drive Woodhill | PH· (09) 438 3779                            | Date: | 22/05/2024                              |                 |
| POBo | PO Box 391, Whangarei | 0800 86 89 86                    | Sheet Size:                                  | A3    | 53 MOTUTARA DRIVE RANGIPUTA, KARIKARI P |                 |
|      | www.homeworld.co.nz   |                                  | Drawn:                                       | 1:    | WILSON 4-FR-140424.pln                  |                 |
|      |                       |                                  |                                              |       |                                         |                 |











| BUNLD |  |
|-------|--|

| SITE NOTES<br>LEGAL DESCRIPTION:<br>SITE AREA:                                                                                                                                  | LOT 35, D.P. 202908<br>843m <sup>2</sup>                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| PHYSICAL ADDRESS:<br>53 MOTUTARA DRIVE RANGIPUTA,RA                                                                                                                             | NGIPUTA, #Site City,<br>0483                                                     |
| WIND ZONE (TO NZS3604:2011):<br>ENVIRONMENT:<br>OVERLAY/NOTABLE AREA:<br>EXPOSURE ZONE:<br>EARTHQUAKE ZONE:<br>INSTABILITY AREA:<br>FLOOD SUSCEPTIBLITY:<br>ACID SULPHATE RISK: | EXRA HIGH (TBC)<br>COASTAL ENV.<br>?<br>D<br>1<br>TBC<br>?                       |
| BUILD AREAS:<br>PROPOSED DWELLING:<br>PROPOSED DECKING:<br>TOTAL COVERAGE:<br>TOTAL SITE COVERAGE:                                                                              | 183.36m <sup>2</sup><br>64.76m <sup>2</sup><br>??m <sup>2</sup><br><b>25.76%</b> |
| IMPERVIOUS AREAS<br>ROOF AREA:<br>PATHS/PATIOS:<br>DRIVEWAY:<br><b>TOTAL IMPERVIOUS AREA:</b>                                                                                   | ??m²<br>??m²<br>??m²<br>??m²                                                     |
| CONTOURS: CONTOUR LINES<br>EXCAVATION REQUIRED:                                                                                                                                 | ?m<br>APPROX CUT ??m <sup>3</sup>                                                |











## ROOF FRAMING

NOTES PURLINS PA45mm H1.2 SG8 PURLINS LAID ON FLAT 2EDGEY (b) HAX. ???mm CRS. IMPORTANT: FIRST PURLINS SPACING AT EAVE AND RIDGE 600mm MAX (MAX. ROOFING END SPAN 800mm) FLING: FIX TO CANORALIS TRUSSES USING 110G 3ELF-DRILLING SCREW, 30mm/LONG (OR ALTERNATE 2.4kN mm CONG (OR ALTERNATE 2.4kN

 P?x45 H1.2 SG8 OUTRIGGERS LAID ON EDGE @ MAX. 1,200mm CRS TO PROVID MAX. 600mm GABLE CANTILEVER FIXING: FIX USING 2/90x3.15mm SKEW NAILS & 2 WIRE DOGS (4.7kN) 90x45 H1.2 SG8 FLY RAFTER TO END O

G8 RAFTERS @ MAX. 90

IRUSSES: GANGNAIL TRUSSES @ MAX. 900mm CRS LOCATED AS SHOWN ON ROOF FRAMING PLAN AND INSTALLED AS PER MANUFACTURERS SPECIFICATIONS.

ROOF FRAMING PLAN TO BE READ STRICTLY IN CONJUNCTION WITH NTM ITEK TRUSS DESIGN & PS1

TOP PLATE TO STUD FIXING LUMBERLOK TYPE B - 4.7KN. FOR ALL REQUIRED WALLS ALTERNATIVE TO NZ

REFER MITEK ON SITE GUIDE 2012 FOR LINTEL FIXING AND TOP PLATE FIXING DETAILS.



#### RAFTERED RAKING

CEILING RAFTERED RAKING CEILINING TO HATCHI AREAS AS SHOWN

FLAT SOFFIT FRAME OUT FOR FLAT SOFFIT AT ENTRY. PROVIDE FRAMING @ MAX. 600 CRS. FOR SOFFIT FIXING.

### ROOF PLANE BRACIN

DIAGONALLY OPPOSE STRIP PLANE BRACING STRIP PLANE BRACING EACH HAVING 4.0kN IN TENSION, FIXED TO EACH TRUSS TOP CHORD / RAFTER INTERSECTED WITH 1/20/2 45 NAIL BULLS 1/30x3.15 NAIL PLUS 5/30x3.15 NAILS AT EACH END

#### LOAD BEARING WAL

INTERNAL LOAD BEARING WALL BELOV SUPPORTING ROOF STRUCTURE ABOVE.

# **ROOF FRAMING PLAN**





## Appendix F – Producer Statement Advisory Note



### IMPORTANT ADVISORY NOTE PRODUCER STATEMENT – CONSTRUCTION REVIEW (PS4)

The Building Consent Authority (BCA) frequently requires Producer Statements–Construction Review (PS4) to be submitted to the BCA in order for a Code of Compliance Certificate (CCC) to be issued. A PS4 is usually required for each specialist area. The requirement for a consultant to issue a PS4 related to their area of work will appear as a condition in the Building Consent documents.

It is the consent holder's responsibility to notify Haigh Workman Limited for geotechnical construction monitoring and testing required for subsequent issue of a PS4. An initial inspection of stripped or excavated ground must take place before any fill or blinding concrete is placed. Retrospective site monitoring of completed or partially completed geotechnical work is not possible and a PS4 will not be issued without all the required observations.

In order to secure our construction monitoring services and avoid delays on site, Haigh Workman Limited require at least 24 hours' notice prior to the time the site visit is required. Construction monitoring is limited to items that have been recommended, designed and detailed by Haigh Workman Limited. We are unable to inspect non-consented or unauthorised work. Haigh Workman Limited do not carry out construction monitoring or issue PS4's for work that has been recommended, designed or detailed by other consultants without prior approval from Haigh Workman Limited. Haigh Workman Limited will not issue a PS4 where construction monitoring and/or testing have been carried out by any other consultant. The PS4 must be sought from the consultant who carried out those inspections.

The full Building Consent, with stamped plans with consent numbers (or a legible copy of the same) including all amendments, shall be made available to us during inspections. We will not commence construction monitoring until the documentation is available or provided to us prior to oursite visit.

Unless stated otherwise in our terms of engagement, the fees associated with construction monitoring and the issue of PS4's are separate from any work carried out prior to commencement of construction. We are able to provide a fee estimate for this work if required. We cannot provide a fixed quote because the quantum of work required frequently depends on the construction program and the performance of others. These things are not known to us in advance of construction. Our normal terms of trade require payment of fees monthly during the inspection period and full settlement prior to release of anyPS4.


## WRITTEN APPROVAL FOR DEEMED PERMITTED BOUNDARY ACTIVITY s87BA of the Resource Management Act 1991

1. Name of person giving written approval (Full Name):

GRAHAM JOHN YUKICH

2. I am the owner of the property at:

59 Motutara Drive, Karikari. I give permission for 53 Motutara Dr, Karikari to breach height to boundary as per signed concept plans attached.

3. Address of the property subject to the proposal:

53 Motutara Drive, Karikari

4. Are you signing on behalf of other owners? Yes / No

If Yes, List their names:

- I have authority to sign on behalf of the other owners of the property listed in 4\*.
- I confirm that I have read the description of the activity and seen and signed the site plans attached.
- In signing this written approval, I confirm that I understand the proposal and understand that the consent
  authority will permit the applicant to undertake the activity (provided they have supplied the correct
  information, including all other written approvals required).
- I understand that I may not withdraw my written approval.

. . . .

\* If signing on behalf of a trust, company or other owners, please provide additional written evidence that you have signing authority.

| Signature:                                                                             | (signature) Date: _/                 | 17-0Z      | -2025 |
|----------------------------------------------------------------------------------------|--------------------------------------|------------|-------|
| Contact Person: V                                                                      | graham Which                         |            |       |
| Electronic Address for Service:<br>(E-mail)                                            | yukichgextra.co.nz                   |            |       |
| Phone Numbers: Work:                                                                   | 027483363Z Home:                     |            |       |
| Postal Address:<br>( <i>or</i> alternative method of service<br>under s352 of The Act) | 25 UPPER HARBOUR DRIVE<br>GREENHITHE |            |       |
|                                                                                        | AUCKLAND                             | Post Code: | 0632  |

## Note to person signing written approval

- You should only sign this form if you fully understand the proposal. You should seek expert or legal advice if
  you need the proposal or deemed permitted boundary activity process explained to you.
- Conditional written approvals cannot be accepted, and written approvals cannot be withdrawn once provided.
- There is no obligation to sign this form, and no reasons need to be given.
- If you do not sign this form, resource consent may be required for the activity and you may have the
  opportunity to submit on the application.



H 17/02/2025

SCALE: 1.200 (v3 Original) PROVECT# PACE REVISION 1262 OTA CO3

SHEET TITLE Site Plan ScALE: 200 JA3 Orioli Proposed New Home for David Wilson 3 Anna Tabuleau 53 Motutara Drive Kankali Peninsula Advance build

out from the former of the

(a) A set of the se

REVISION: BY: CATE Drawn 3:80 New 7:202+ Rev 3:80 Dec 18:2024





\$\$\$ 17/02/2025 SHEET ITTLE Elevation HTTB SCALE: 1: (00 (A3 Original) PROYECT # PACE REVISION 1262 OJA CO3 Proposed New Home for: David Wilson & Anna Tabuteau S3 Motutara Drive Kankari Peninsula (b) A set transmission of a set transmiss Advance build REVISION: BY CATE Drawn THO Fair 12 2025



H 17/02/2025

1262 OIA CO3

SHEET TITLE Site Plan SCALE: 1:200 (v3 Original) Droposed New Home for: David Writson & Anna Tabuteau 53 Motutara Drive Kankari Peninsula

Advance build A smarter move

1016-1010-00128-1010

(a) a second processing of a second processing second procesing second processing second processing

REVISION: Pt/ DATE: Examin 28D New 73024 Rev 38D Don 18/2024





\$\$\$ 17/02/2025 REVISION BY DATE Drawn 180 Fee 1/2025

SCALE 1: 000 (AS CIRIGINAL PROJECT # FAULE REVISION 1262 O3A CO3

SHEET TITLE Elevation HTB

Proposed New Home for: David Wilson & Anna Tabuleau S3 Motutara Drive Karikati Peninsula

Advance build

(2) In contrast, the second second