



Office Use Only Application Number:

APPLICATION FOR RESOURCE CONSENT OR FAST-TRACK RESOURCE CONSENT

(Or Associated Consent Pursuant to the Resource Management Act 1991 (RMA))

(If applying for a Resource Consent pursuant to Section 87AAC or 88 of the RMA, this form can be used to satisfy the requirements of Form 9)

Prior to, and during, completion of this application form, please refer to Resource Consent Guidance Notes and Schedule of Fees and Charges – both available on the Council’s web page.

1. Pre-Lodgement Meeting

Have you met with a Council Resource Consent representative to discuss this application prior to lodgement? Yes / No

2. Type of Consent being applied for (more than one circle can be ticked):

- Land Use Fast Track Land Use* Subdivision Discharge
- Extension of time (s.125) Change of conditions (s.127) Change of Consent Notice (s.221(3))
- Consent under National Environmental Standard (e.g. Assessing and Managing Contaminants in Soil)
- Other (please specify) _____

***The fast track for simple land use consents is restricted to consents with a controlled activity status and requires you provide an electronic address for service.**

3. Would you like to opt out of the Fast Track Process? Yes / No

4. Applicant Details:

Name/s: _____

Electronic Address for Service (E-mail): _____

Phone Numbers: _____

Postal Address: _____
(or alternative method of service under section 352 of the Act)

Post Code: _____

5. Address for Correspondence: Name and address for service and correspondence (if using an Agent write their details here).

Name/s: Steven Sanson - Sanson & Associates Limited

Electronic Address for Service (E-mail): steve@sansons.co.nz

Phone Numbers: Work: 0211606035 Home: _____

Postal Address: Po Box 318, Paihia, 0247
(or alternative method of service under section 352 of the Act)

Post Code: _____

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

6. 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: Refer Record of Titles appended to the AEE

Property Address/
Location: 70A Te Tapui Road, Matauri Bay

7. Application Site Details:

Location and/or Property Street Address of the proposed activity:

Site Address/
Location: 70A Te Tapui Road, Matauri Bay

Legal Description: Lot 34 DP 113756

Certificate of Title: NA64/C/108
Please remember to attach a copy of your Certificate of Title to the application, along with relevant consent notices and/or easements and encumbrances (search copy must be less than 6 months old)

Site Visit Requirements:

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

Is there a dog on the property? Yes / No

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

8. Description of the Proposal:

Please enter a brief description of the proposal here. Attach a detailed description of the proposed activity and drawings (to a recognized scale, e.g. 1:100) to illustrate your proposal. Please refer to Chapter 4 of the District Plan, and Guidance Notes, for further details of information requirements.

5 x cabins in the Coastal Residential Zone

If this is an application for an Extension of Time (s.125); Change of Consent Conditions (s.127) or 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) or extension being sought, with reasons for requesting them.

9. Would you like to request Public Notification

Yes/No

10. Other Consent required/being applied for under different legislation (more than one circle can be ticked):

- Building Consent (BC ref # if known) Regional Council Consent (ref # if known)
- National Environmental Standard consent Other (please specify)

11. 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 (further information in regard to this NES is available on the Council's planning web pages):

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? (If the activity is any of the activities listed below, then you need to tick the 'yes' circle). 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

12. 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.

Please attach your AEE to this application.

13. 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 all names in full) _____

Email: _____

Postal Address: _____

Post Code: _____

Phone Numbers: Work: _____ Home: _____ Fax: _____

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

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

Name: _____ (please print)

Signature: _____ (signature of bill payer – **mandatory**) Date: 16 November 2023

14. 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.

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

Name: _____ (please print)

Signature: _____ (signature)

Date: _____

(A signature is not required 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)
- 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
- 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.

Only one copy of an application is required, but please note for copying and scanning purposes, documentation should be:

UNBOUND

SINGLE SIDED

NO LARGER THAN A3 in SIZE



Assessment of Environmental Effects

Application for Resource Consent:

Cabins at Matauri Bay

Prepared for: BDO Pakihi Limited

Prepared by Steven Sanson | Consultant Planner

February 2024

1.0 APPLICANT & PROPERTY DETAILS

Applicant	BDO Pakihi Limited
Address for Service	Sanson & Associates Limited PO Box 318 PAIHIA 0247 C/O - Steven Sanson steve@sansons.co.nz 021-160-6035
Legal Description	Lot 34 DP 113756
Record Of Title	NA64C/108
Physical Address	70A Te Tapui Road, Matauri Bay
Site Area	6,933m ²
Owner of the Site	Various – Refer CT in Appendix 1 .
District Plan Zone	Coastal Residential (ODP) Maori Purpose Zone – Rural, Coastal environment Overlay (PDP)
District Plan Features	Kiwi 'present'
Archaeology	Nil known
NRC Overlays	Partially Coastal Environment
Soils	4s2
Protected Natural Area	Nil
HAIL	No

Schedule 1

2.0 SUMMARY OF PROPOSAL

Proposal	The proposal seeks to add four cabins adjacent to the existing Matauri Bay Marae site. Each cabin has a floor area of approximately 32m ² . Infrastructure is also proposed as part of the development.
Reason for Application	<p>The proposal breaches:</p> <ul style="list-style-type: none"> • 10.8.5.1.2 Residential Intensity • 10.8.5.1.7 Setback from Boundaries • 15.1.6A.2.1 – Traffic Intensity <p>Overall, the proposal is a <i>Discretionary Activity</i> under the ODP. No consents are required under the PDP.</p>
Appendices	<p>Appendix 1 – Record of Title & Instruments Appendix 2 – Architectural Drawings [Site Scope] Appendix 3 – Wastewater Report [Water Flow] Appendix 4 – Stop Digging Results</p>
Consultation	Nil
Pre Application Consultation	Nil
Relevant Applications	Nil

3.0 INTRODUCTION & PROPOSAL

3.1 Report Requirements

This report has been prepared for BDO Pakihi in support of a land use consent application at 70A Te Tapui Road, Matauri Bay.

The application has been prepared in accordance with the provisions of Section 88 and the Fourth Schedule of the Resource Management Act 1991. This report serves as the Assessment of Environmental Effects required under both provisions.

The report also includes an analysis of the relevant provisions of the Far North District Plan, relevant National Policy Statements and Environmental Standards, as well as Part 2 of the Resource Management Act 1991.

3.2 Proposal & Background

Application Site: A range of details regarding the site are outlined in Schedule 1 of this report.

These details are supplemented by the Record of Title and relevant instruments located in Appendix 1. The Record of Title confirms that the site is Maori Freehold Land.

A broader description of the site is provided in Section 4 of this Report.

Land Use Consent: The proposal seeks to add four cabins ['residential units'] adjacent to the existing Matauri Bay Marae site.

This includes associated infrastructure such as water tanks, connections to a new wastewater system, and parking and manouvring areas. An existing vehicle crossing will be utilised off Te Tapui Road with additional driveway/manoeuvring areas proposed.

These proposal items are shown on the architectural drawings provided in Appendix 2.

Background: An Order in Council – Severe Weather Emergency Recovery (Temporary Accommodation) Order 2023 was made effective from June 1 2023. This approach allows exemptions from the Resource Management Act 1991 for temporary accommodation until August 9 2026 or until such a time that resource consent was granted for the activity.

Whilst the provisions of the Order in Council are enabling (to a certain extent) all Marae to be situated within the Far North District that are part of the HUD Cabins Project are seeking permanent residence of these cabins, as opposed to the temporary accommodation relief that the provisions provide. This, alongside breaches to District Wide Rules of the Operative District Plan, requires a resource consent to be sought.

Therefore, a full consent for permanent occupancy of the cabins is sought under this consent. Rural/ small settlement areas such as Matauri Bay very rarely receive opportunities such as this and as such this consent seeks to make use of available government funding to support accommodation in rural areas.

Activity Status: The proposal is a Discretionary Activity.

4.0 SITE & SURROUNDING ENVIRONMENT

4.1 Zoning & Resource Features

The proposed activity is located in the Coastal Residential Zone under the Operative District Plan. The site is located in the Māori Purpose Zone – Rural with a partial Coastal Environment overlay under the Proposed District Plan. The zoning is outlined in [Figure 1](#) & [Figure 2](#). There are no resource features of relevance.



Figure 1 – Operative Plan - Zone Maps (Source: Far North Maps)



Figure 2 – Proposed Plan - Zone Maps (Source: Far North Maps)

The site has areas covered by flooding hazards, but the proposed cabin sites are outside those areas. The site is not implicated by identified hazards, HAIL, or any known wetlands.

4.3 Topography & Natural Features

The site is relatively flat, outside of built development is grassed pasture with some scattered vegetation. This is outlined in [Figure 3](#) below.



Figure 3 – Aerial Map (Source: Prover Maps)

4.4 Built Form & Access

The site plan, within the architectural drawings (see [Appendix 2](#)), outlines the existing built development on the site, this includes the water tanks, septic tank, driveway and septic field, as well as existing dwellings on the site (x4)

The site gains access from Te Tapui Road, via two crossing points. These are located on the southern and eastern boundaries of the site. The existing marae complex and associated buildings makes up the predominant built features surrounding the site.

4.5 Surrounding Environment

The surrounds have a coastal residential / lifestyle character and make up the Matauri Bay 'township'. There are a number of residential units located in the surrounding properties. The CMA is located to the north and east. Otherwise, the surrounds are largely in vegetation.

5.0 ASSESSMENT OF RELEVANT RULES

5.1 Assessment Summary

An assessment of the relevant rules of the Far North District Plan has been undertaken and this is provided in Table 1-3 below. Those rules breached are **highlighted** for ease of reference.

Table 1 – Coastal Residential Zone Rules

Coastal Residential Zone Performance Standards		
Rule	Standard	Comment
Rule 10.8.5.1.1 Relocated Buildings	Permitted Activity: 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.	The proposed cabins will comply with this rule as they are all arriving at site 'new'. Complies
Rule 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 Unsewered sites: 3,000m ²	Four proposed cabins breach the residential intensity requirement. Discretionary Activity
Rule 10.8.5.1.3		Residential activities are not covered by this rule.

Scale of Activities		Not applicable
Rule 10.8.5.1.4 Building Height	Permitted Standard: Maximum Height = 8m	Proposed cabins will not exceed this height. PA
Rule 10.8.5.1.5 Sunlight	Permitted Standard: No part of any building to project beyond 45-degree recession plane as measured inwards from any point 2m vertically above the ground on any site boundary Restricted Discretionary Activity: No part of any building to project beyond 45-degree recession plane as measured inwards from any point 3m vertically above the ground on any site boundary	Proposed will not breach the sunlight recession plane. PA
Rule 10.8.5.1.6 Stormwater Management	Permitted Standard: Maximum proportion of the gross site area covered by buildings and other impermeable surfaces is 50% or 1000m ² whichever is the lessor.	Proposed Impermeable area coverage will increase by 128m ² . The overall coverage is less than 50% of the site. PA
Rule 10.8.5.1.7 Setback from Boundaries	Permitted Standard: <ul style="list-style-type: none"> • Minimum setback from road boundaries is 3m. • the minimum setback from any boundary apart from a road boundary is 1.2m except that no set-back is required for a maximum total length of 10m along any one such boundary 	One of the proposed cabins [Ref Unit 04] is within 3m of the road boundary. Restricted Discretionary Activity

	<ul style="list-style-type: none"> not less than 50% of that part of the site between the road boundary and a parallel line 2m therefrom shall be landscaped. 	
Rule 10.8.5.1.8 Screening for Neighbours Non-Residential Activities		Not applicable
Rule 10.8.5.1.9 Outdoor Activities		Not applicable
Rule 10.8.5.1.10 Transportation (see below)		See below
Rule 10.8.5.1.11 Site Intensity – Non-Residential Activities		Not applicable
Rule 10.8.5.1.12 Hours of Operation – Non-Residential Activities		Not applicable
Rule 10.8.5.1.13		Not applicable

Keeping of Animals		
Rule 10.8.5.1.14 Noise		Residential activities. Complies
Rule 10.8.5.1.15 Helicopter Landing		Not applicable
Rule 10.8.5.1.16 Building Coverage	Permitted Standard: 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% or 900m ² , whichever is the lesser, of the gross site area.	Proposed buildings area coverage will increase by 128m ² . The overall coverage is less than 45% of the site. PA

Table 2 - District Wide Standards

District Wide Standards		
Rule	Standard	Performance/Comments
Natural and Physical Resources		
12.1 Landscape & Natural Features	12.1.6.1.1 Protection of Outstanding Landscape Features 12.1.6.1.2 Indigenous Vegetation Clearance in Outstanding landscapes 12.1.6.1.3 Tree Planting in Outstanding Landscapes 12.1.6.1.4 Excavation and/or filling within an outstanding landscape 12.1.6.1.5 Buildings within outstanding landscapes 12.1.6.1.6 Utility Services in Outstanding Landscapes	N/A – None of these features apply to the site.

District Wide Standards		
Rule	Standard	Performance/Comments
12.2 Indigenous Flora and Fauna	12.2.6.1.1 Indigenous Vegetation Clearance Permitted Throughout the District 12.2.6.1.2 Indigenous Vegetation Clearance in the rural Production and Minerals Zones 12.2.6.1.3 Indigenous Vegetation Clearance in the General Coastal Zone 12.2.6.1.4 Indigenous Vegetation Clearance in Other Zones	NVA – No vegetation clearance is required.
12.3 Earthworks	12.3.6.1.2 Excavation and/or filling, excluding mining and quarrying, on any site in the Residential, Industrial, Horticultural Processing, Coastal Residential or Russell Township zones. Permitted – Maximum of 200m ³ within a 12-month period and cannot be higher than 1.5m cut or fill.	Total earthworks associated with the proposal is minimal. Complies
12.4 Natural Hazards	12.4.6.1.1 Coastal Hazard 2 Area 12.4.6.1.2 Fire Risk to Residential Units	The proposed cabins are not within 20m of vegetation. Complies
12.5 Heritage	12.5.6.1.1 Notable Trees 12.5.6.1.2 Alterations to/and maintenance of historic sites, buildings and objects 12.5.6.1.3 Registered Archaeological Sites 12.5.6.2.2 Activities which could affect sites of cultural significance to maori	The site is not implicated by these features. Complies Not implicated by feature.

District Wide Standards		
Rule	Standard	Performance/Comments
12.5A Heritage Precincts	There are no Heritage Precincts that apply to the site.	N/A - None of these features apply to the site. Complies
12.6 Air	Not applicable	N/A
12.7 Lakes, Rivers, Wetlands and the Coastline	12.7.6.1.1 Setback from lakes, rivers and the coastal marine area 12.7.6.1.2 Setback from smaller lakes, rivers and wetlands Permitted = for rivers minimum setback of 10 x the average width of the river where it passes through or past the site provided that the minimum setback is 10m and the maximum is no more than minimum required by Rule 12.7.6.1.1 12.7.6.1.4 Land Use Activities involving the Discharges of Human Sewage Effluent 12.7.6.1.5 Motorised Craft 12.7.6.1.6 Noise	N/A – None of these rules are implicated by the proposal. Complies
12.8 Hazardous Substances		N/A Complies
12.9 Renewable Energy and Energy Efficiency		N/A Complies
13 Subdivision		N/A – No subdivision proposed.
14 Financial Contributions		N/A – No financial contributions required.

District Wide Standards		
Rule	Standard	Performance/Comments
15 Traffic, Parking and Access	<p>Traffic Movements</p> <p>Other Buildings used for Social, Cultural or Recreational purposes (including Grandstands) = 2 traffic movement per every person the facility is designed for.</p> <p>House on Papakinga = 5 traffic movements per unit</p>	<p>The proposal includes an additional 20 traffic movements on a site that already generates 15 traffic movements.</p> <p>Restricted Discretionary</p> <p>The gravel driveway provides for parking.</p> <p>Complies</p> <p>The proposed cabins will utilize an existing access and crossing which will not be used by the existing Marae activities.</p> <p>Complies.</p>
16 Signs & Lighting		N/A – No signage is proposed.

Table 3 - PDP Rules

Matter	Rule/Std Ref	Compliance	Evidence
Hazardous Substances Majority of rules relates to development within a site that has heritage or cultural items scheduled and mapped however Rule HS-R6 applies to any development within an SNA – which is not mapped	<p>Rule HS-R2 has immediate legal effect but only for a new significant hazardous facility located within a scheduled site and area of significance to Māori, significant natural area or a scheduled heritage resource</p> <p>HS-R5, HS-R6, HS-R9</p>	Yes	Not proposed.
Heritage Area Overlays (Property specific)	All rules have immediate legal effect (HA-R1 to HA-R14)	Yes	Not indicated on Far North Proposed District Plan

<p>This chapter applies only to properties within identified heritage area overlays (e.g. in the operative plan they are called precincts for example)</p>	<p>All standards have immediate legal effect (HA-S1 to HA-S3)</p>		
<p>Historic Heritage (Property specific and applies to adjoining sites (if the boundary is within 20m of an identified heritage item)). Rule HH-R5 Earthworks within 20m of a scheduled heritage resource. Heritage resources are shown as a historic item on the maps) This chapter applies to scheduled heritage resources – which are called heritage items in the map legend</p>	<p>All rules have immediate legal effect (HH-R1 to HH-R10) Schedule 2 has immediate legal effect</p>	<p>Yes</p>	<p>Not indicated on Far North Proposed District Plan</p>
<p>Notable Trees (Property specific) Applied when a property is showing a scheduled notable tree in the map</p>	<p>All rules have immediate legal effect (NT-R1 to NT-R9) All standards have legal effect (NT-S1 to NT-S2) Schedule 1 has immediate legal effect</p>	<p>Yes</p>	<p>Not indicated on Far North Proposed District Plan</p>
<p>Sites and Areas of Significance to Māori (Property specific) Applied when a property is showing a</p>	<p>All rules have immediate legal effect (SASM-R1 to SASM-R7)</p>	<p>Yes</p>	<p>Not relevant.</p>

site / area of significance to Maori in the map or within the Te Oneroa-a Tohe Beach Management Area (in the operative plan they are called site of cultural significance to Maori)	Schedule 3 has immediate legal effect		
Ecosystems and Indigenous Biodiversity SNA are not mapped – will need to determine if indigenous vegetation on the site for example	All rules have immediate legal effect (IB-R1 to IB-R5)	Yes	Not indicated on Far North Proposed District Plan
Activities on the Surface of Water	All rules have immediate legal effect (ASW-R1 to ASW-R4)	Yes	Not indicated on Far North Proposed District Plan
Earthworks all earthworks (refer to new definition) need to comply with this	The following rules have immediate legal effect: EW-R12, EW-R13 The following standards have immediate legal effect: EW-S3, EW-S5	Yes	With respect of EW-R12, this requires that the proposed earthworks comply with EW-S3. In effect, EW-S3 triggers the need for an ADP to be applied. It is confirmed that the proposed earthworks will comply with an ADP, and this is volunteered as a condition of consent. EW-R13 links to EW-S5. EW-S5 requires earthworks to be controlled in accordance with GD-05. It is confirmed

			here that the earthworks will be undertaken in accordance with GD-05.
Signs (Property specific) as rules only relate to situations where a sign is on a scheduled heritage resource (heritage item), or within the Kororareka Russell or Kerikeri Heritage Areas	The following rules have immediate legal effect: SIGN-R9, SIGN-R10 All standards have immediate legal effect but only for signs on or attached to a scheduled heritage resource or heritage area	Yes	Not indicated on Far North Proposed District Plan
Orongo Bay Zone (Property specific as rule relates to a zone only)	Rule OBZ-R14 has partial immediate legal effect because RD-1(5) relates to water	Yes	Not indicated on Far North Proposed District Plan

Clause 2(1)(d) of Schedule 4 of the RMA requires applicants to identify other activities of the proposal with the intention of capturing activities which need permission or licensing under other enactments.

As outlined in the report prepared by Water Flow (Refer [Appendix 3](#)) a discharge consent is not required from the Northland Regional Council.

[Section 9.4](#) provides a more considered assessment of relevant NPS's and NES's and in summary, no consents are required under these higher order documents.

6.0 NOTIFICATION ASSESSMENT

6.1 Public Notification

The table below outlines the steps associated with public notification insofar as it relates to s95 of the Act.

Table 4 – Notification Process

<u>Step 1</u>	<u>Mandatory public notification in certain circumstances</u>	
S95A(3)(a)	Has the applicant requested that the application be publicly notified?	No
S95A(3)(b)	Is public notification required under section 95C?(after a request for further information)	TBC
S95A(3)(c)	Has the application been made jointly with an application to exchange recreation reserve land under section 15AA of the Reserves Act 1977.	No
<u>Step 2</u>	<u>if not required by step 1, public notification precluded in certain circumstances</u>	
S95A(5)(a)	Is the application for a resource consent for 1 or more activities and each activity is subject to a rule or national environmental standard that precludes public notification?	No
S95A(5)(b)	Is the application for a resource consent for 1 or more of the following, but no other, activities; (i) a controlled activity; (iii) a restricted discretionary, discretionary, or non-complying activity, but only if the activity is a boundary activity;	No

The proposed development does not meet the tests for mandatory public notification, nor does it meet the tests for precluding public notification.

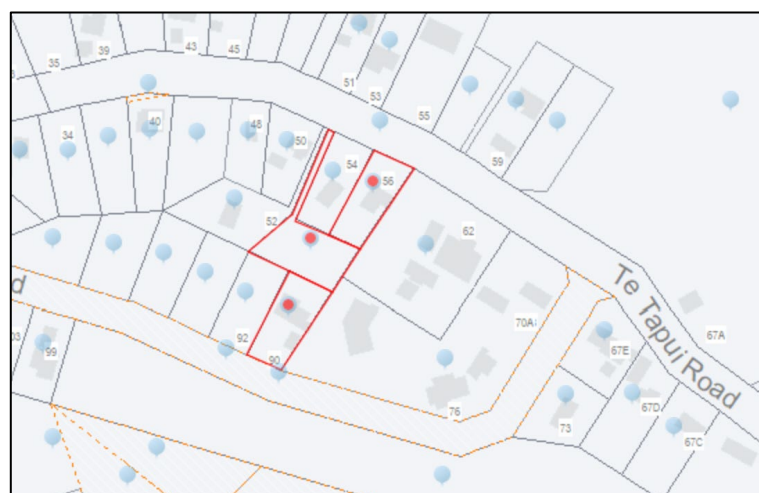
Therefore, an assessment of the proposals effects on the environment is required to ascertain the effects of the development and whether public notification is required.

The section below provides this assessment.

7.0 EFFECTS ON THE ENVIRONMENT

7.1 Effects that May be Disregarded

Effects on persons who are owners and occupiers of the land in, on, or over which the application relates, or of adjacent land must be disregarded when considering effects on the environment (s 95D(a)). Those adjoining properties are shown below in [Figure 4](#).



Address	Suburb	Town	Capital Value	Owners	Last Sale Date	Last Sale Price	Land Area	Floor Area
90 Tapui Marae Road	Matauri Bay	Far North	581000	Carlyn Joy Arani Stewart	01 Jan 1900	21500	1,102 m ²	111 m ²
0 Tapui Marae Road	Matauri Bay	Far North	220000	Jacqui Ann Stewart, Nola Melva Stewart	01 Jan 1900	23500	1,264 m ²	
56 Te Tapui Road	Matauri Bay	Far North	552000	Larneash Harata Apiata	17 Feb 2022	30000	1,036 m ²	84 m ²

Figure 5 – Adjoining Persons (Source: Prover Maps)

The permitted baseline may be taken into account should the Council deem it relevant.

7.2 Written Approvals

No written approvals are provided.

7.3 Effects Assessment

The following assessment has been prepared in accordance with Section 88 and Schedule 4 of the Act which specifies that the assessment of effects provided should correspond with the scale and significance of the proposal.

In terms of localised effects or Effects to People, this assessment is undertaken in Section 8 of this Report. Therefore, assessment criteria which refer to adjacent sites or properties, are addressed appropriately under that section of the report.

Table 5 – Effects Assessment

Item & Assessment Criteria	Comments
Positive Effects	<ul style="list-style-type: none"> • The proposal will provide for additional accommodation and upgraded facilities for tangata whenua and other users of the Marae. • The proposal forms part of a government initiative to support marae and provide resilience in terms of housing from natural events (i.e Cyclone Gabriel). • The proposal, from application through to development, employs a number of service providers and sellers of goods. • The proposal seeks to minimise the effects from earthworks and wastewater by considered design and mitigation measures.
Traffic Intensity (Derived from 15.1.6A.4.1)	<ul style="list-style-type: none"> • The site incorporates existing buildings and activities. This includes 4 x existing residential units. The proposal is for an additional 4 x residential units. Given that the units are all 1 bedroom and located on maori land, the best attribution found in Appendix 3A is ‘house on papakainga’ which is 5 movements per unit. This equates to 35 movements overall (reduction of 1 x house as per exemption). • Time of day for movements will be commensurate with residential use.

	<ul style="list-style-type: none"> • Location of the dwellings in relation to other adjacent properties are outlined in <u>Appendix 2</u>. • Te Tapui Street is considered appropriate for the proposed use. • There are no footpaths in the surrounds. • Sight distances are considered adequate for the existing crossing. • The volume of traffic of the existing street is considered to be low / minimal. • There are no known congestion issues at the development location. • The local neighbourhood will not be impacted by the additional movements. • No known effects resulting to any arterial roads. • There is no known DoC land within 500m of the site. • The proposed gravel pad provides easy and legible access for pedestrians / users internally.
<p>Setback from boundaries (Derived from 10.8.5.2.6)</p>	<ul style="list-style-type: none"> • The proposed cabins are residential in nature and will not adversely affect the existing character and form of the street which is predominantly residential. • There is a large road reserve adjoining the property therefore adverse effects on the street scene or outlook and privacy is not anticipated. There are no footpaths on Te Tapui Road. • A landscaped garden and picket fence is proposed between the road boundary and cabins. This will provide further mitigation for the proposed setback breach. • Buildings proposed do not restrict visibility for vehicle manouvring.

	<ul style="list-style-type: none"> • No effects to public use and enjoyment of esplanade reserves or strips.
<p>Residential Intensity (Derived from 11.1)</p>	<ul style="list-style-type: none"> • The character and appearance of the cabins are modern in nature as brand new builds. They are consistent with the existing residential character and use on the site. • The siting is as shown in <u>Appendix 2</u>. Decks and outdoor areas are mitigated by the proposed fence and landscaping along Te Tapui Road. This avoids visual domination and loss of privacy and sunlight. • The majority of the site remains as open space. • There are no known or resulting traffic (pedestrian or vehicular) issues arising. • The location and design of vehicular access is shown in <u>Appendix 2</u>. • Access is existing to the site and the additional traffic movements are not expected to result in effects on the roading hierarchy. • Hours of operation will be residential in nature. Noise generation will be of a residential character. • The site can be serviced. Refer <u>Appendix 3</u> for the wastewater report. Water is provided on site – refer <u>Appendix 2</u>. • Stormwater effects are managed on site. • Landscaping is proposed along Te Tapui Road. • The loss of open space is off-set by the benefit the housing will provide to people in the locality. This is acceptable within the Coastal Residential baseline. • No effects to soils are resulting. • No vegetation clearance is required. Therefore, there are no effects in terms of vegetation and habitats of indigenous flora / fauna.

	<ul style="list-style-type: none"> • Natural hazards are not of concern. <u>Appendix 4</u> contains consideration of site stability for each unit. • There are no surrounding and genuine rural production activities of concern. • No minor residential units are proposed. • The proposal does not gain access from a state highway.
Effects Conclusion	Considering the assessment above and the mitigation measures proposed it is considered that the proposal results in effects which are less than minor.

8.0 EFFECTS TO PEOPLE

The table below outlines the steps associated with limited notification insofar as it relates to s95 of the Act.

Table 6 – Limited Notification Process

<u>Step 1</u>	<u>certain affected groups and affected persons must be notified</u>	
S95B(2)(a)	Are there any affected protected customary rights groups?	No
S95B(2)(b)	Are there any affected customary marine title groups (in the case of an application for a resource consent for an accommodated activity)?	No
S95B(3)(a)	Is the proposed activity on or adjacent to, or may affect, land that is the subject of a statutory acknowledgement made in accordance with an Act specified in Schedule 11?	No
S95B(3)(b)	Is the person to whom the statutory acknowledgement is made is an affected person under section 95E?	No
<u>Step 2</u>	<u>if not required by step 1, limited notification precluded in certain circumstances</u>	
S95B(6)(a)	the application is for a resource consent for 1 or more activities, and each activity is subject to a rule or national environmental standard that precludes limited notification:	No
S95B(6)(b)	the application is for a controlled activity (but no other activities) that requires a resource consent under a district plan (other than a subdivision of land)	No

8.1 Affected Person Determination

As the proposed activity does not trigger mandatory limited notification, nor is it precluded, an assessment of potential affected persons must be undertaken.

The consent authority has discretion to determine whether a person is an affected person. A person is affected if an activity's adverse effects are minor or more than

minor to them. The effects of the proposal on adjacent landowners have been undertaken below.

8.2 Localised Effects Assessment (Effects to Persons)

Section 7 of this report provides a graphic and table of the relevant adjacent properties that this assessment relates. The relevant persons associated with the assessment are found in [Figure 5](#) in Section 7.0 of this report.

For the following reasons, those parties and persons above not considered to be adversely affected by the proposal to a minor or more than minor level:

- All proposed works are situated within the confines of the site. All effects can be managed on site except in relation to the setback from road boundary breach. NTA comment is requested on this matter, however we assume that the minor infringement can be accepted.
- The assessment found in [Section 7](#) of this report details that there are no effects to localized person in terms of the identified breaches.
- The proposed works are essentially to provide accommodation around an existing marae site. Marae have largely been impacted by accommodation shortages in rural/ small settlement areas which are not usually funded to provide accommodation. The cabins are small in scale and nature.

8.3 Effect to Persons Conclusion

Having considered the effects above, there are no adversely affected persons resulting from the proposal.

9.0 STATUTORY CONTEXT

9.1 Operative Far North District Plan

An assessment of the relevant objectives and policies associated with the Operative Far North District Plan has been undertaken below.

This application is subject to the provisions of the Operative Far North District Plan. The site is zoned Coastal Residential and is to be assessed in terms of the objectives and policies for the zone and the district-wide subdivision and environment provisions.

The proposal would achieve the purpose of the Coastal Residential zone which is to provide for the most intensive development of all the zones in the coastal environment. It is applied in areas where an urban residential style and scale of development exists now. It enables the further development of these areas in a way which retains, as far as possible, the natural character of the coastal environment.

It is anticipated that the size and form of the proposal (which is in general accordance with Council standards) would:

- Enable the development of residential activity in and around existing coastal settlements. (Obj 10.8.3.1);
- Protect the coastline from inappropriate subdivision, use and development. (Obj 10.8.3.2);
- Enable the development of coastal settlements where urban amenity and coastal environmental values are compatible. (Obj 10.8.3.3);

Of prime importance is that the cabins projects allows for the Marae and community of Matauri Bay to enhance their cultural and social wellbeing by providing housing.

Having considered these sections of the Plan, it is concluded that the proposal is not inconsistent with the relevant objectives and policies of the Far North District Plan.

9.2 Proposed Far North District Plan

The Far North District Council have released their Proposed District Plan.

Section 88A(2) provides that “any plan or proposed plan which exists when the application is considered must be had regard to in accordance with section 104(1)(b).” This requires applications to be assessed under both the operative and proposed objective and policy frameworks from the date of notification of the proposed district plan.

In the event of differing directives between objective and policy frameworks, it is well established by case law that the weight to be given to a proposed district plan depends on what stage the relevant provisions have reached, the weight generally being greater as a proposed plan move through the notification and hearing process. In *Keystone Ridge Ltd v Auckland City Council*, the High Court held that the extent to which the provisions of a proposed plan are relevant should be considered on a case by case basis and might include:

- The extent (if any) to which the proposed measure might have been exposed to testing and independent decision making;
- Circumstances of injustice; and
- The extent to which a new measure, or the absence of one, might implement a coherent pattern of objectives and policies in a plan.

In my view the PDP has not gone through the sufficient process to allow a considered view of the objectives and policies for the Maori Purpose – Rural Zone however this has still been provided below. Assessment of the Coastal Environment Overlay is not required as the location of the site where the proposed cabins will be situated is outside the coastal environment.

The proposed use ensures the viability of the marae for future generations along with providing additional accommodation (MPZ-01) and enables the ongoing use of the marae for social and cultural purposes (MPZ-02). The supporting reports confirm the proposal reflects the carrying capacity of the land and surrounding environment (MPZ-03).

The land is maori freehold land and the development is also managed under Te Ture Whenua Maori Act 1993 (MPZ-P1). The proposal is considered compatible with the surrounds, doesn't compromise occupation of the land, rather reinforces it, doesn't

impact adjoining sites, maintains existing character and amenity, provides for community wellbeing and safety, and is serviced by the proposed infrastructure. Overall, all effects can be mitigated appropriately (MPZ-P3).

In terms of MPZ-P4, the proposal meets many of the requirements sought, within the confines of the scale and significance of the activity which is considered as reasonably low in nature. Overall, the proposal is not considered inconsistent with the Maori Purposes Zone.

9.3 Regional Policy Statement for Northland (RPS)

An assessment of the relevant objectives and policies associated with the RPS for Northland has been undertaken and is found in [Table 7](#) below. The RPS sets region wide objectives and policies for the environment.

Table 7 – NRC RPS Review

Objective / Policy	Comment
Integrated Catchment Management	Not relevant
Region Wide Water Quality	Not relevant
Ecological Flows and Water Quality	Not relevant
Indigenous Ecosystems & Biodiversity	There are no SNA's on the site.
Enabling Economic Wellbeing	The proposal allows for various goods/services in the land development sector in Matauri Bay.
Economic Activities – Reverse Sensitivity And Sterilization	The proposal does not result in any reverse sensitivity or sterilization effects given the design and scale of the proposal.
Regionally Significant Infrastructure	The proposal does not impact any regionally significant infrastructure.
Efficient and Effective Infrastructure	The proposal seeks to use existing infrastructure i.e FNDC roads. The proposal also seeks to

	upgrade on site infrastructure for future generations.
Security of Energy Supply	Power is provided to the site.
Use and Allocation of Common Resources	Not relevant.
Regional Form	The proposal does not result in any reverse sensitivity effects, or a change in character or sense of place. Versatile soils are not adversely affected.
Tangata Whenua Role in Decision Making	The Marae trustees are considered appropriate in this respect.
Natural Hazard Risk	Nil affecting the site.
Natural Character, Outstanding Natural Features, Outstanding Natural Landscapes And Historic Heritage	Not relevant.

Having considered the relevant components of the RPS, it is concluded that the proposal is not inconsistent with the relevant objectives and policies.

9.4 National Policy Statements and Plans

With respect to the National Environmental Standard – Soil Contamination, the property file has been reviewed which shows no known activities that are on the HAIL.

In terms of the NES – Freshwater Management, there are no wetlands located on the site. The NES is not considered relevant.

In terms of the NPS for Highly Productive Land. The proposed development is located on the part of the site that does not contain Class 1-3 soils.

Part of the site is not located in the Coastal Environment however the location of the proposed cabins is not. Therefore, the NZCPS is not considered relevant. There are no relevant policy statements or plans to assess.

10.0 PART 2 ASSESSMENT

10.1 Section 5 - Purpose of the Act

Section 5 in Part 2 of the Act identifies the purpose as being the sustainable management of natural and physical resources. This means managing the use of natural and physical resources in a way that enables people and communities to provide for their social, cultural and economic well-being which sustain those resources for future generations, protecting the life supporting capacity of ecosystems, and avoiding remedying or mitigating adverse effects on the environment.

It is considered that proposal represents Part 2, Section 5 of the Act.

10.2 Section 6 - Matters of National Importance

In achieving the purpose of the Act, a range of matters are required to be recognised and provided for. This includes:

- a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:
- b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:

-
- c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:
 - d) the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:
 - e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:
 - f) the protection of historic heritage from inappropriate subdivision, use, and development:
 - g) the protection of protected customary rights:
 - h) the management of significant risks from natural hazards.

In context, the relevant items to the proposal and have been recognised and provided for. Section 6(e) is directly relevant to the proposal.

10.3 Section 7 - Other Matters

In achieving the purpose of the Act, a range of matters are to be given particular regard. This includes:

- (a) kaitiakitanga:
 - (aa) the ethic of stewardship:
- (b) the efficient use and development of natural and physical resources:
 - (ba) the efficiency of the end use of energy:
- (c) the maintenance and enhancement of amenity values:
- (d) intrinsic values of ecosystems:
- (e) [Repealed]
- (f) maintenance and enhancement of the quality of the environment:
- (g) any finite characteristics of natural and physical resources:
- (h) the protection of the habitat of trout and salmon:

-
- (i) the effects of climate change:
 - (j) the benefits to be derived from the use and development of renewable energy.

These matters have been given particular regard through the design of the proposal.

10.4 Section 8 - Treaty of Waitangi

The Far North District Council is required to take into account the principles of the Treaty of Waitangi when processing this consent. This consent application may be sent to local iwi and hapū who may have an interest in this application. We doubt any persons would have a cultural issue with the proposal.

10.5 Part 2 Conclusion

Given the above, it is considered that the proposal meets the purpose of the Act.

11.0 CONCLUSION

Discretionary Activity resource consent is sought from the Far North District Council to carry out the proposed development.

The proposal is considered to result in less than minor effects on the environment and through assessment, there are considered to be no affected persons.

The proposal is consistent with the objectives and policies of the Far North District Plans, the Regional Policy Statement for Northland, and achieves the purpose of the Act. Relevant NPS' and NES' have been considered with the proposal finding consistency with their general aims and intent.

Given the assessment carried out in this report, it is considered that this proposal can be determined non-notified under the RMA 1991.

We appreciate draft conditions to be supplied to us prior to decision being made.

Regards,



Steven Sanson BPlan (Hons)

Consultant Planner

NZPI Member No 4230



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

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




R. W. Muir
Registrar-General
of Land

Identifier **NA64C/108**
Land Registration District **North Auckland**
Date Issued 18 February 1987

Prior References
NA60B/62

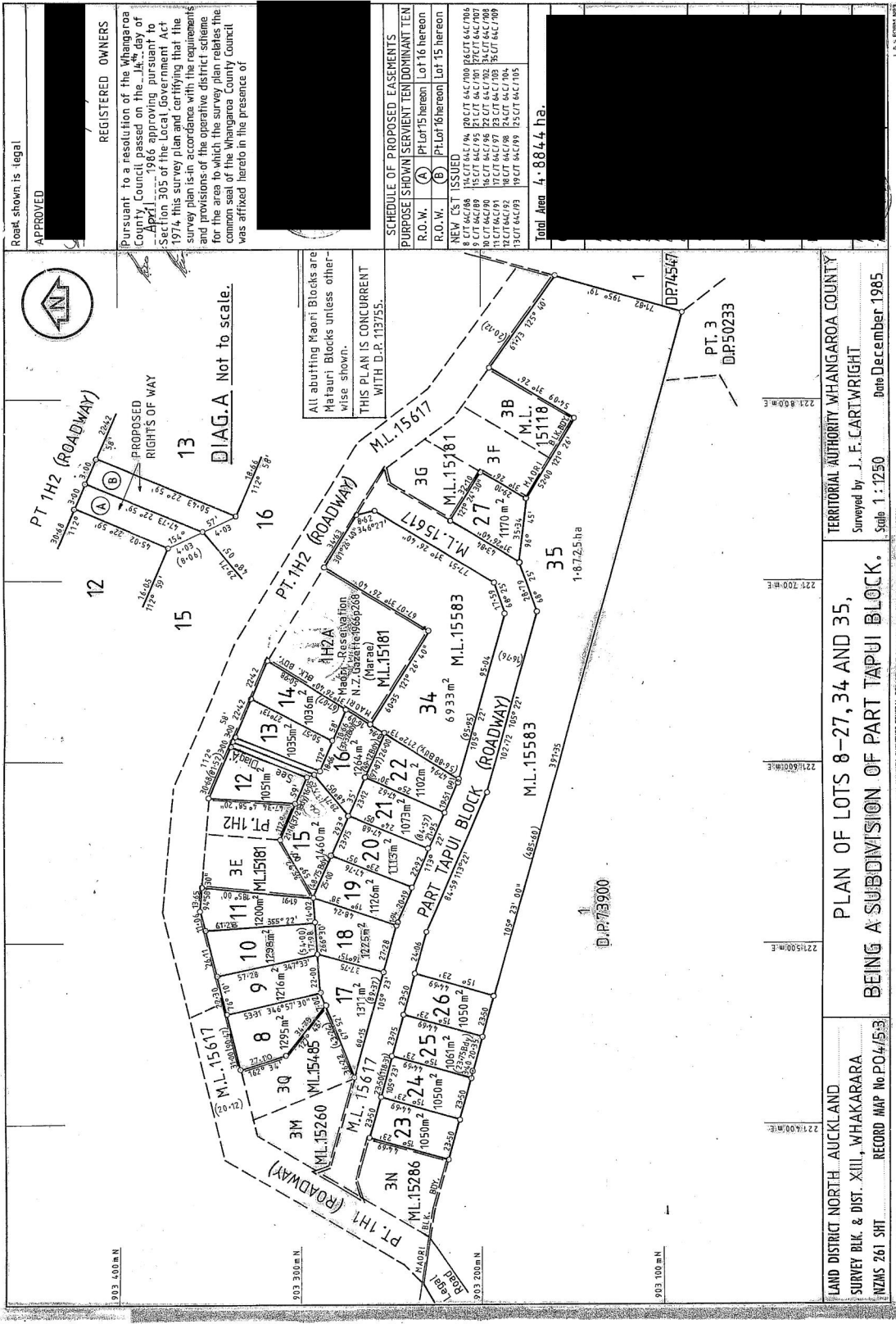
Estate Fee Simple
Area 6933 square metres more or less
Legal Description Lot 34 Deposited Plan 113756
Purpose Maori reservation for the purpose of a meeting place, kaumatua housing and other marae purposes for the common use and benefit of the Maori people and shall form part of the Maori reservation over Matauri 1H2A Block (set aside by Gazette 1966 pg268)

Registered Owners

Waiunupo Komene, Kaye Frances Vea, Moana Christine Kiff and Ngaire Pera as responsible trustees jointly, no survivorship

Interests

C505378.1 STATUS ORDER DETERMINING THE STATUS OF THE WITHIN LAND TO BE MAORI FREEHOLD LAND - 9.8.1993 AT 11.24 AM



Registered Owners

Pursuant to a resolution of the Whangaroa County Council passed on the 14th day of April 1986 approving pursuant to Section 305 of the Local Government Act 1974 this survey plan and certifying that the survey plan is in accordance with the requirements and provisions of the operative district scheme for the area to which the survey plan relates the common seat of the Whangaroa County Council was affixed hereto in the presence of

SCHEDULE OF PROPOSED EASEMENTS

PURPOSE SHOWN	SERVIENT TEN	DOMINANT TEN
R.O.W. (A)	PT Lot 15 hereon	Lot 16 hereon
R.O.W. (B)	PT Lot 16 hereon	Lot 15 hereon
NEW C.S.T. ISSUED		
8 C.T. 64C/08	24 C.T. 64C/08	24 C.T. 64C/08
9 C.T. 64C/09	25 C.T. 64C/09	25 C.T. 64C/09
10 C.T. 64C/10	26 C.T. 64C/10	26 C.T. 64C/10
11 C.T. 64C/11	27 C.T. 64C/11	27 C.T. 64C/11
12 C.T. 64C/12	28 C.T. 64C/12	28 C.T. 64C/12
13 C.T. 64C/13	29 C.T. 64C/13	29 C.T. 64C/13
14 C.T. 64C/14	30 C.T. 64C/14	30 C.T. 64C/14
15 C.T. 64C/15	31 C.T. 64C/15	31 C.T. 64C/15
16 C.T. 64C/16	32 C.T. 64C/16	32 C.T. 64C/16
17 C.T. 64C/17	33 C.T. 64C/17	33 C.T. 64C/17
18 C.T. 64C/18	34 C.T. 64C/18	34 C.T. 64C/18
19 C.T. 64C/19	35 C.T. 64C/19	35 C.T. 64C/19

All abutting Maori Blocks are Maori Blocks unless otherwise shown.

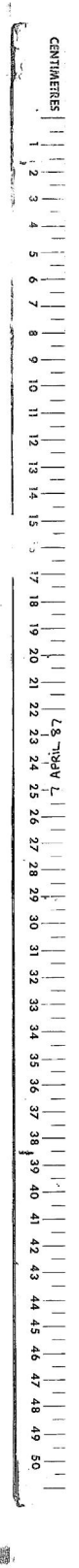
THIS PLAN IS CONCURRENT WITH D.P. 113/755.

Total Area 4.8844 ha.

LAND DISTRICT NORTH AUCKLAND
SURVEY BLK. & DIST. XIII, WHAKARARA
RECORD MAP No. P04/153

PLAN OF LOTS 8-27, 34 AND 35,
BEING A SUBDIVISION OF PART TAPUI BLOCK.

TERRITORIAL AUTHORITY WHANGAROA COUNTY
Surveyed by J. F. CARTWRIGHT
Scale 1:4250
Date December 1985





Report on Maori Land details for the following Record(s) of Title



Record(s) of Title

NA64C/108

Identified as potentially Maori Freehold Land

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

24 November 2023

Far North District Council
Private Bag 752,
Kaikohe 0440

Dear

Ministry of Housing and Urban Development - Cyclone Recovery Cabins

I hope this letter finds you well. I am writing to you on behalf of BDO Pakihi, in relation to the recent submission of resource consent applications for our project within the Far North District. We appreciate the role that the Far North District Council plays in ensuring responsible and sustainable development within the community.

Our project, aimed at fostering enhanced housing outcomes in Northland, operates under a constrained budget. As we navigate through the intricacies of resource management, we are proactively seeking ways to optimise our expenses to maximise the positive impact on the community. Given the financial constraints of our project, we kindly request your consideration for a reduction in the resource consent fees associated with our applications.

The allocation of resources to our housing initiative is of utmost importance, and any cost savings achieved through a fee reduction would directly contribute to the enhancement of housing outcomes for the people of Northland. We believe that by alleviating some of the financial burden associated with the consent process, we can redirect those funds towards the improvement of housing facilities and amenities, ultimately benefitting the broader community.

We understand the importance of adhering to regulatory processes and are committed to fulfilling all requirements set forth by the Far North District Council. We view this request as an opportunity for collaboration, where both parties can work together to achieve positive and sustainable outcomes for the region.

We would be grateful for the opportunity to discuss this matter further and explore potential avenues for cooperation. Your consideration of our request is highly valued, and we are open to providing any additional information or clarification that may assist in the decision-making process.

Thank you for your time and attention to this matter. We look forward to the possibility of working closely with the Far North District Council to bring about positive change in our community.

Kind regards

 u Limited

Solomon Dalton
Director

Email: solomon.dalton@bdo.co.nz
Visit our website: www.bdo.nz

PARTNERS: Solomon Dalton

Angela Edwards

Joanne Roberts

P2985 TEMPORARY ACCOMODATION - MATAURI BAY MARAE - SITE PLANS



Site SCOPE

SHEET LIST		
SHEET NUMBER	SHEET NAME	CURRENT REVISION
AO-000	COVER SHEET	B
AO-010	SITE PLAN - TRUE NORTH	A
AO-011	SITE PLAN - INFRASTRUCTURE	B
AO-012	SITE PLAN - INFRASTRUCTURE - CALLOUT	B
AO-100	FLOOR PLAN LAYOUT	B
AO-110	FOUNDATION PLAN	B
AO-111	SUBFLOOR FRAMING	B
AO-120	PLUMBING & DRAINAGE	B
AO-200	SITE ELEVATIONS	B
AO-201	SITE ELEVATIONS	B
AO-300	TYPICAL SECTION	A
AO-600	STOP DIGGING@ DETAILS	A
AO-601	DETAILS - DECKS	A
AO-602	DETAILS - STAIRS	A

GENERAL NOTES
ALL CONSTRUCTION SHALL COMPLY WITH THE NEW ZEALAND BUILDING CODE & NEW ZEALAND STANDARDS
TOTAL BUILDING m²
HOME SPACE 1 = 32m ²
HOME SPACE 2 = 32m ²
HOME SPACE 3 = 32m ²
HOME SPACE 4 = 32m ²
TOTAL = 128m²
LEGAL DESCRIPTION
PARCEL ID: 4877116
APPELLATION: LOT 34 DP 113756
LOCATION: 70 TE TAPUI ROAD, MATAURI BAY, KAIKOHE , NORTHLAND, 0478
DESIGN LIMITATIONS
CORROSION ZONE: C
LEE ZONE: NO
RAINFALL RANGE: 90-100
EARTHQUAKE ZONE: 1
WIND REGION: A
WIND ZONE: HIGH

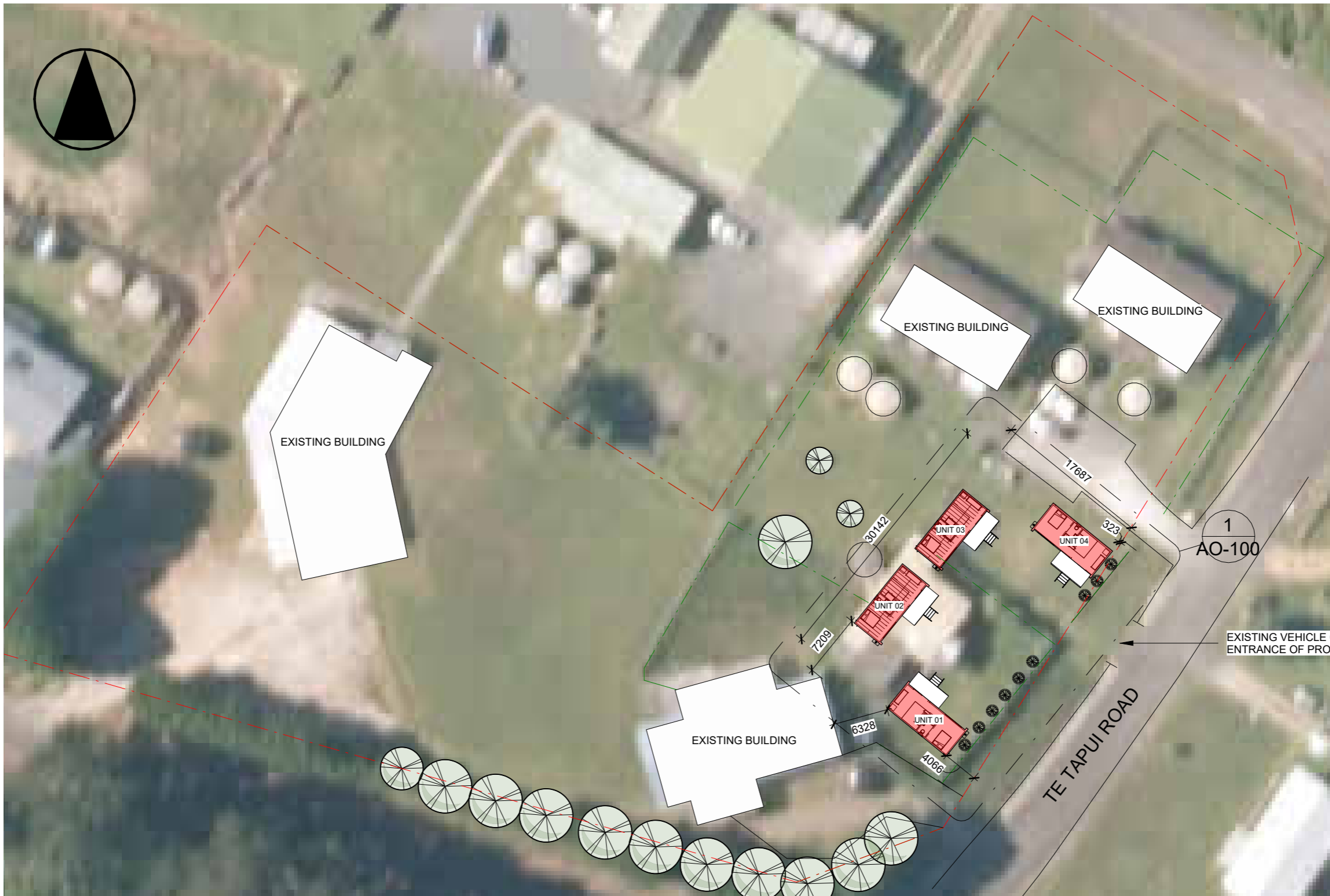


NOTES - SITE
PROPOSED IMPERVIOUS SURFACE: 128m ²
ENSURE ALL GRADES ARE ACHIEVABLE BEFORE WORK COMMENCES
CONTRACTORS ARE RESPONSIBLE TO PLOT & UNCOVER EXISTING DRAINS PRIOR TO THE COMMENCING OF WORKS
STAIRS TO COMPLY WITH NZS 4121:2001. HANDRAILS REQUIRED

REVISIONS - COVER		
REV	DATE	AMENDMENT
2	24/10/23	NEW SHEETS ADDED TO SHEET, BUILDINGS REDUCED

DOCUMENT TRANSMITTAL		
REV	DESCRIPTION	DATE
1	PRELIMINARY	12/10/2023
2	PRELIMINARY	24/10/2023
A	BUILDING CONSENT	21/11/2023
B	BUILDING CONSENT	05/02/2024

CLIENT: TE TŪĀPAPA KURA KĀINGA
 DATE: 05/02/2024
 DRAWN: HAYLEY BARLOW
 CHECKED: MATTHEW ABERCROMBIE



LEGEND	
	SITE BOUNDARY
	EXISTING FENCELINES
	EXISTING BUILDINGS
	PROPOSED MODSPACE® MODULES - 32m ² TOTAL FLOOR AREA 128m ²

NOTES - PROPOSED BUILDINGS
 BARRIERS, STAIRS & HANDRAILS TO COMPLY TO NZBC F4, D1 & NZS 4121:2001. HANDRAIL TO PROJECT 300mm & TURNED DOWN 100mm TO BOTH ENDS

REVISIONS - SITE		
REV	DATE	AMENDMENT
2	24/10/23	PROPOSED UNITS REDUCED TO 4 - RELOCATED ON PROPOSED SITE
A	21/11/23	RAMPS REMOVED, STAIRS ADDED

DOCUMENT TRANSMITTAL		
REV	DESCRIPTION	DATE
1	PRELIMINARY	12/10/2023
2	PRELIMINARY	24/10/2023
A	BUILDING CONSENT	21/11/2023



260 WAIMATE NORTH ROAD,
 KERIKERI, 0293
 projects@sitescope.co.nz
 www.sitescope.co.nz

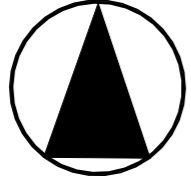


CLIENT: TE TŪĀPAPA KURA KĀINGA
 PROJECT: P2988 TEMPORARY ACCOMODATION - MATAURI BAY MARAE

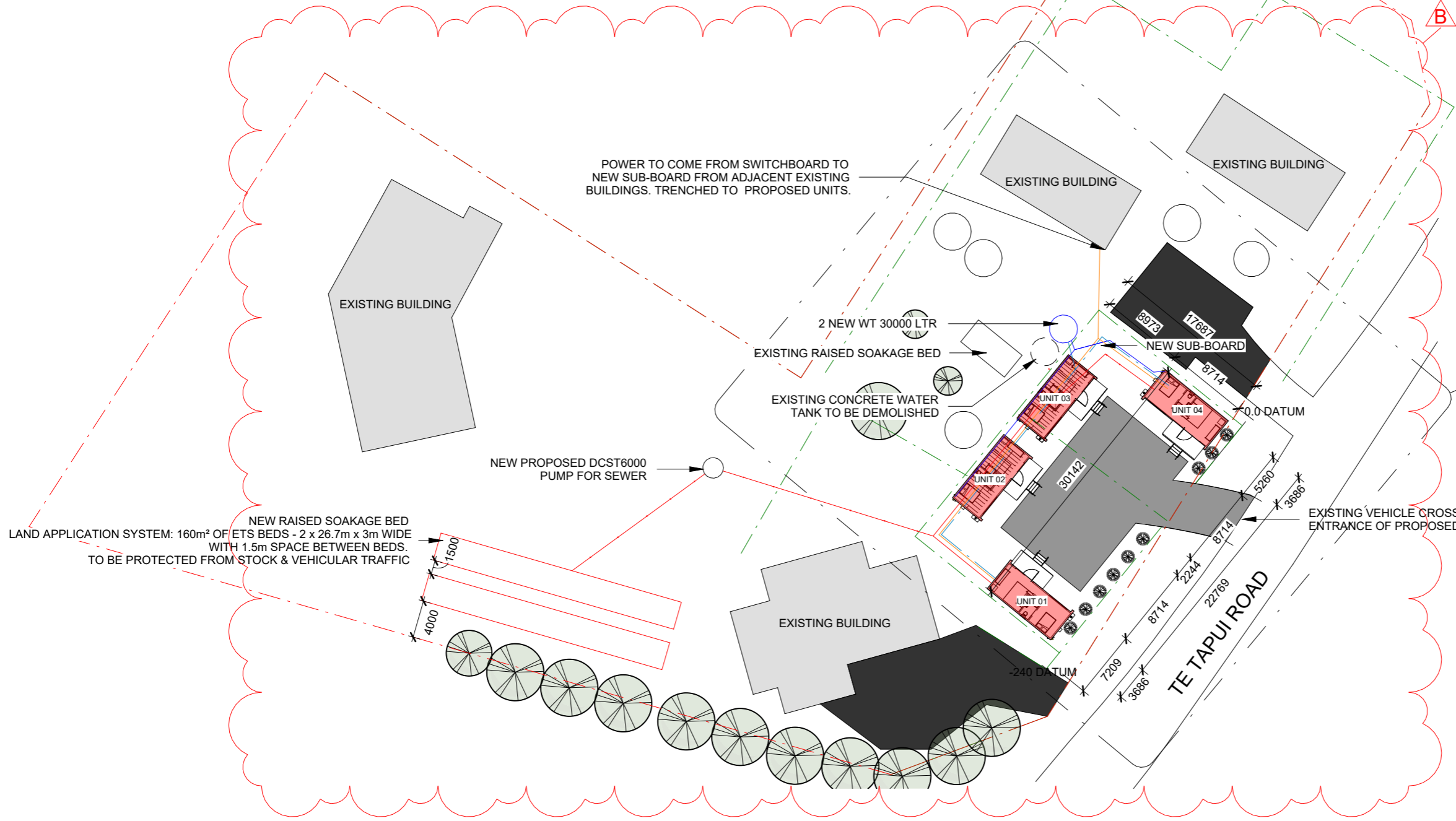
SHEET: **SITE PLAN - TRUE NORTH**

DATE: 21/11/2023
 DRAWN: HB
 CHECKED: MA
 REV: **A**
 SCALE: 1:500
 SHEET NO: **AO-010**





LEGEND	
	SITE BOUNDARY
	EXISTING FENCELINES
	150mm STORMWATER
	150mm GRAVITY SEWER TO NEW RAISED SS SOAKAGE BEDS
	100mm ELECTRICAL CONDUIT
	25mm POTABLE WATER SUPPLY - FROM PROPOSED NEW WATER TANK
	LPG GAS BOTTLES & GAS REGULATOR LOCATION - PER UNIT
	EXISTING BUILDINGS
	PROPOSED MODSPACE® MODULES - 32m² TOTAL FLOOR AREA 128m²
	EXISTING GRAVEL DRIVEWAY
	PROPOSED GRAVEL DRIVEWAY



NEW RAISED SOAKAGE BED
LAND APPLICATION SYSTEM: 160m² OF ETS BEDS - 2 x 26.7m x 3m WIDE
WITH 1.5m SPACE BETWEEN BEDS.
TO BE PROTECTED FROM STOCK & VEHICULAR TRAFFIC

NEW PROPOSED DCST6000
PUMP FOR SEWER

POWER TO COME FROM SWITCHBOARD TO
NEW SUB-BOARD FROM ADJACENT EXISTING
BUILDINGS. TRENCHED TO PROPOSED UNITS.

2 NEW WT 30000 LTR

EXISTING RAISED SOAKAGE BED

EXISTING CONCRETE WATER
TANK TO BE DEMOLISHED

EXISTING BUILDING

EXISTING BUILDING

EXISTING BUILDING

EXISTING BUILDING

EXISTING BUILDING

TE TAPUJI ROAD

1
AO-012

REVISIONS - INFASTRUCTURE		
REV	DATE	AMENDMENT
2	24/10/23	NEW SHEET ADDED TO SET, PROPOSED UNITS RELOCATED
A	21/11/23	RAMPS REMOVED, STAIRS ADDED. PROPOSED GRAVEL DRIVEWAY UPDATED, WATER SUPPLY UPDATED - SEE NOTES
B	05/02/24	ETS BEDS & SS SYTEM RELOCATED & UPDATED TO SHOW NEW SYSTEM. INFINITY, GAS BOTTLE & GAS REGULATORS SHOWN ON PROPOSED UNITS

DOCUMENT TRANSMITTAL		
REV	DESCRIPTION	DATE
1	PRELIMINARY	12/10/2023
2	PRELIMINARY	24/10/2023
A	BUILDING CONSENT	21/11/2023
B	BUILDING CONSENT	05/02/2024

NOTES - INFASTRUCTURE

REMOVE ALL EXISTING FENCES ON PROPOSED SITE. INSTALL NEW 1200h PICKET FENCE. 1500mm FRONT LANDSCAPED AREA TO BE ADDED

GRUNFOS SQE 7-15 N SUBMERSIBLE IN THE WATER TANK TO PUMP TO ALL UNITS. PURETEC HYBRID G13 UNIT TO BE INSTALLED UNDER UNIT 03. TANKS TO HAVE BALANCING PIPE INSTALLED



260 WAIMATE NORTH ROAD,
KERIKERI, 0293
projects@sitescope.co.nz
www.sitescope.co.nz

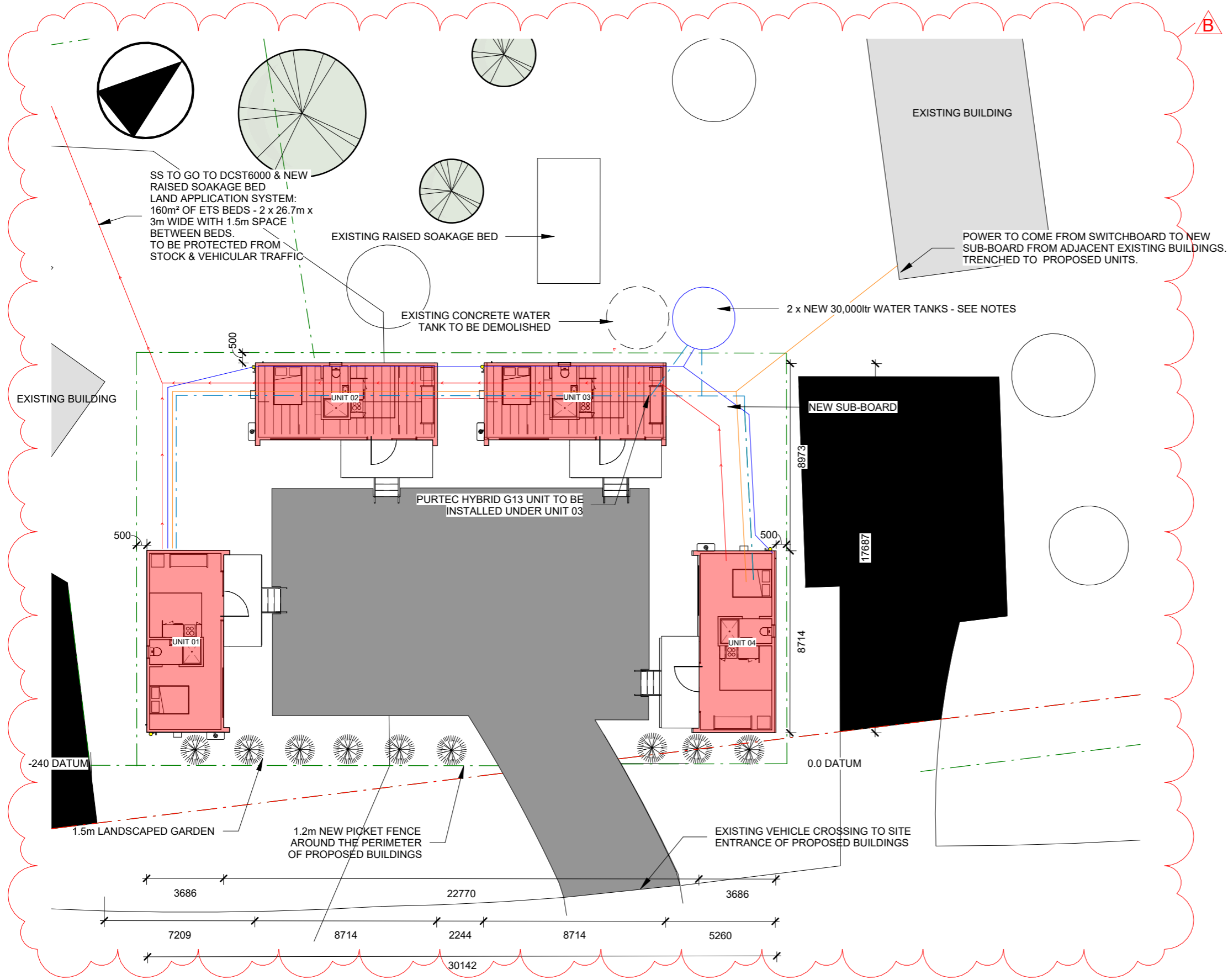


CLIENT: TE TŪĀPAPA KURA KĀINGA
PROJECT: P2988 TEMPORARY ACCOMODATION - MATAURI BAY MARAE

SHEET: SITE PLAN - INFASTRUCTURE

DATE: 05/02/2024
DRAWN: HB
CHECKED: MA
REV: B
SCALE: 1:500
SHEET NO: AO-011

40mm
30
20
10
0



LEGEND	
	SITE BOUNDARY
	EXISTING FENCELINES
	150mm STORMWATER
	150mm GRAVITY SEWER TO NEW RAISED SS SOAKAGE BEDS
	100mm ELECTRICAL CONDUIT
	25mm POTABLE WATER SUPPLY - FROM PROPOSED NEW WATER TANK
	LPG GAS BOTTLES & GAS REGULATOR LOCATION - PER UNIT
	EXISTING BUILDINGS
	PROPOSED MODSPACE® MODULES - 32m ² TOTAL FLOOR AREA 128m ²
	EXISTING GRAVEL DRIVEWAY
	PROPOSED GRAVEL DRIVEWAY

NOTES - INFRASTRUCTURE	
REMOVE ALL EXISTING FENCES ON PROPOSED SITE. INSTALL NEW 1200h PICKET FENCE. 1500mm FRONT LANDSCAPED AREA TO BE ADDED	
GRUNFOS SQE 7-15 N SUBMERSIBLE IN THE WATER TANK TO PUMP TO ALL UNITS. PURTEC HYBRID G13 UNIT TO BE INSTALLED UNDER UNIT 03. TANKS TO HAVE BALANCING PIPE INSTALLED	

REVISIONS - INFRASTRUCTURE		
REV	DATE	AMENDMENT
2	24/10/23	NEW SHEET ADDED TO SET, PROPOSED UNITS RELOCATED
A	21/11/23	RAMPS REMOVED, STAIRS ADDED. PROPOSED GRAVEL DRIVEWAY UPDATED, WATER SUPPLY UPDATED - SEE NOTES
B	05/02/24	ETS BEDS & SS SYTEM RELOCATED & UPDATED TO SHOW NEW SYSTEM. INFINITY, GAS BOTTLE & GAS REGULATORS SHOWN ON PROPOSED UNITS

DOCUMENT TRANSMITTAL		
REV	DESCRIPTION	DATE
1	PRELIMINARY	12/10/2023
A	BUILDING CONSENT	21/11/2023
B	BUILDING CONSENT	05/02/2024



260 WAIMATE NORTH ROAD, KERIKERI, 0293
 projects@sitescope.co.nz
 www.sitescope.co.nz

Te Tūāpapa Kura Kāinga
 Ministry of Housing and Urban Development

CLIENT: TE TŪĀPAPA KURA KĀINGA
 PROJECT: P2988 TEMPORARY ACCOMODATION - MATAURI BAY MARAE

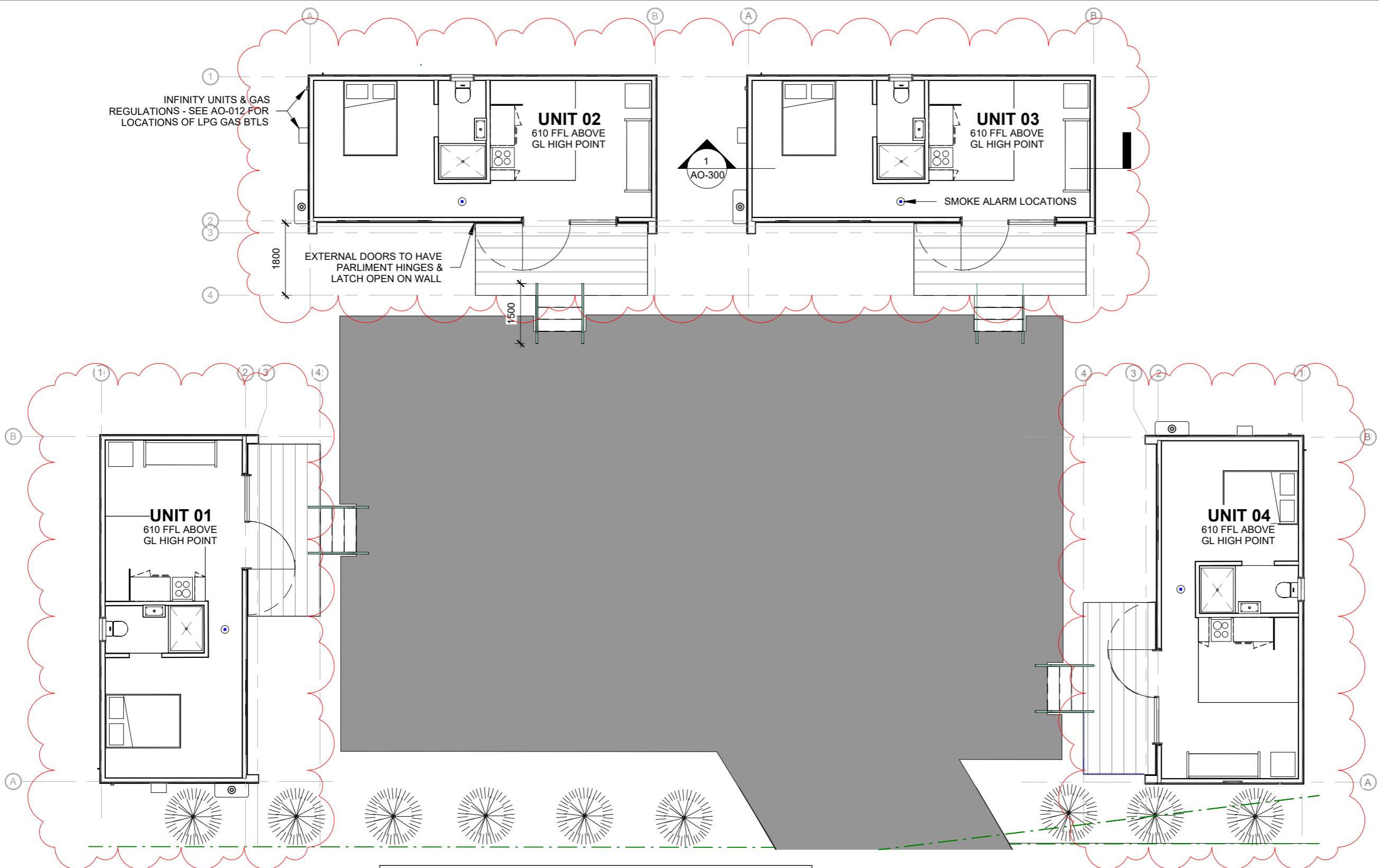
SHEET: **SITE PLAN - INFRASTRUCTURE - CALLOUT**

DATE: 05/02/2024
 DRAWN: HB
 CHECKED: MA

REV: **B**

SCALE: 1:200
 SHEET NO: **AO-012**





NOTES - PROPOSED BUILDINGS

BARRIERS, STAIRS & HANDRAILS TO COMPLY TO NZBC F4, D1 & NZS 4121:2001. HANDRAIL TO PROJECT 300mm & TURNED DOWN 100mm TO BOTH ENDS

LEGEND

HANDRAILS ON STAIRS BETWEEN 840-900mm AFFL ON BOTH SIDES. 300mm PROJECTION RAIL IS REQUIRED @ BOTH ENDS, W. 100mm TURN DOWN TO RAILING. TO COMPLY WITH NZBC F4 & NZS 4121:2001

PROPOSED GRAVEL DRIVEWAY

PROPOSED TIMBER DECKS

SMOKE ALARMS - PER UNIT

REVISIONS -PROPOSED BUILDING

REV	DATE	AMENDMENT
2	24/10/23	NEW SHEET ADDED TO SET, PROPOSED UNITS RELOCATED
A	21/11/23	RAMPS REMOVED, STAIRS ADDED. PROPOSED GRAVEL DRIVEWAY UPDATED
B	05/02/24	SMOKE ALARMS, INFINITY UNITS & GAS REGULATORS SHOWN ON PROPOSED UNITS

DOCUMENT TRANSMITTAL

REV	DESCRIPTION	DATE
1	PRELIMINARY	12/10/2023
A	BUILDING CONSENT	21/11/2023
B	BUILDING CONSENT	05/02/2024



260 WAIMATE NORTH ROAD,
KERIKERI, 0293
projects@sitescope.co.nz
www.sitescope.co.nz

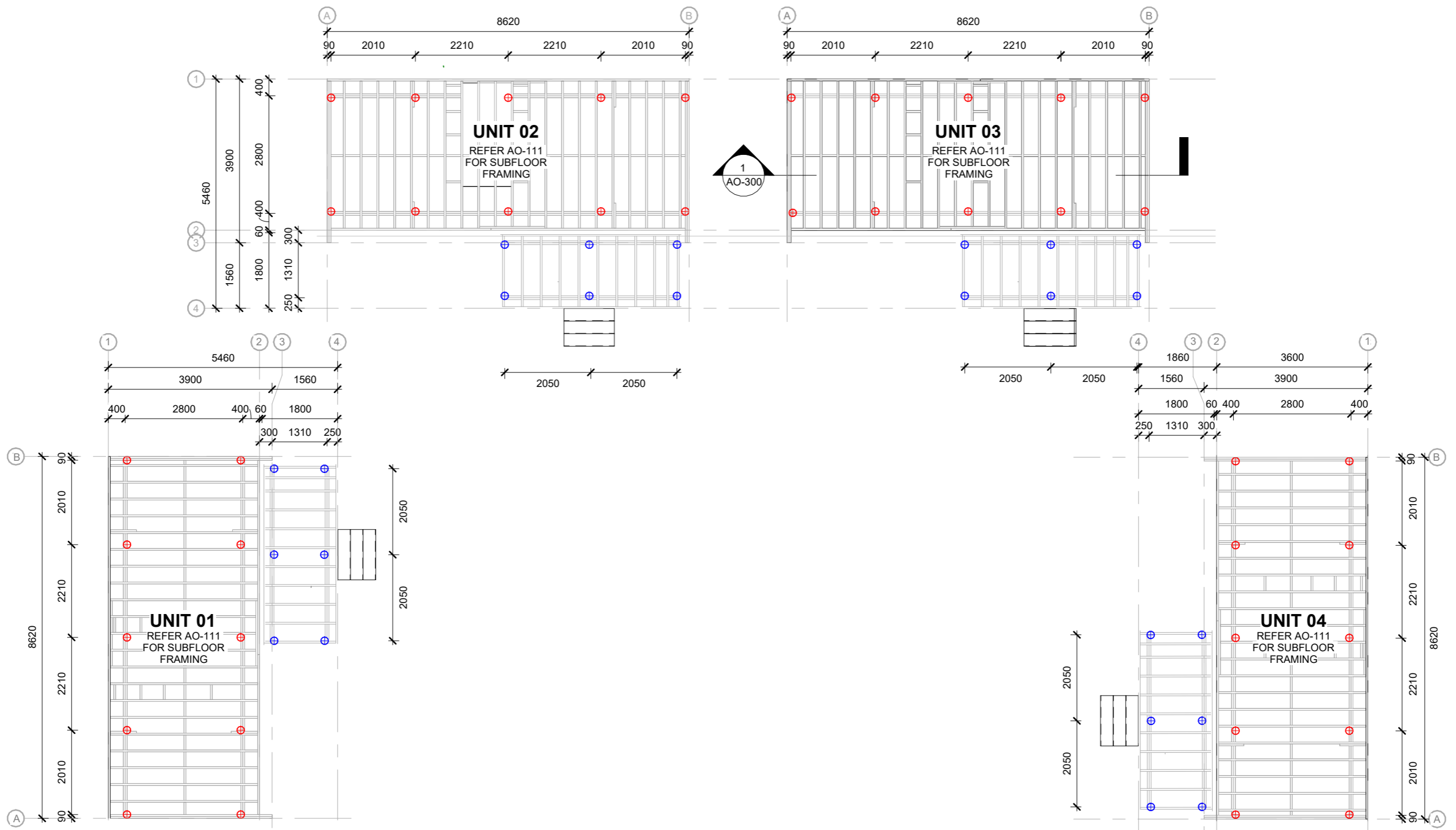


CLIENT: TE TŪĀPAPA KURA KĀINGA
PROJECT: P2988 TEMPORARY ACCOMODATION - MATAURI BAY MARAE

SHEET: **FLOOR PLAN LAYOUT**

DATE: 05/02/2024
DRAWN: HB
CHECKED: MA
REV: **B**
SCALE: 1:100
SHEET NO: **AO-100**

40mm
30
20
10
0



LEGEND	
	STOPDIGGING SGC 76x1600 FOUNDATION GROUND SCREW C/W SGE145 BRACKET
	STOPDIGGING SGC 95x1200 FOUNDATION GROUND SCREW C/W SGE145 BRACKET

FOUNDATIONS/SUBFLOOR FRAMING NOTES
REFER TO ARCHITECTURAL FACTORY DOCUMENTATION AF-110 FOR MODSPACE® PREFAB MODULE BUILDING SUBFLOOR FRAMING DETAILS
STOP DIGGING FOUNDATIONS ARE CODEMARKED

REVISIONS - FOUNDATIONS		
REV	DATE	AMENDMENT
B	05/02/24	FOUNDATIONS LAYOUT & SUBFLOOR UPDATED

DOCUMENT TRANSMITTAL		
REV	DESCRIPTION	DATE
A	BUILDING CONSENT	21/11/2023
B	BUILDING CONSENT	05/02/2024



260 WAIMATE NORTH ROAD,
KERIKERI, 0293
projects@sitescope.co.nz
www.sitescope.co.nz

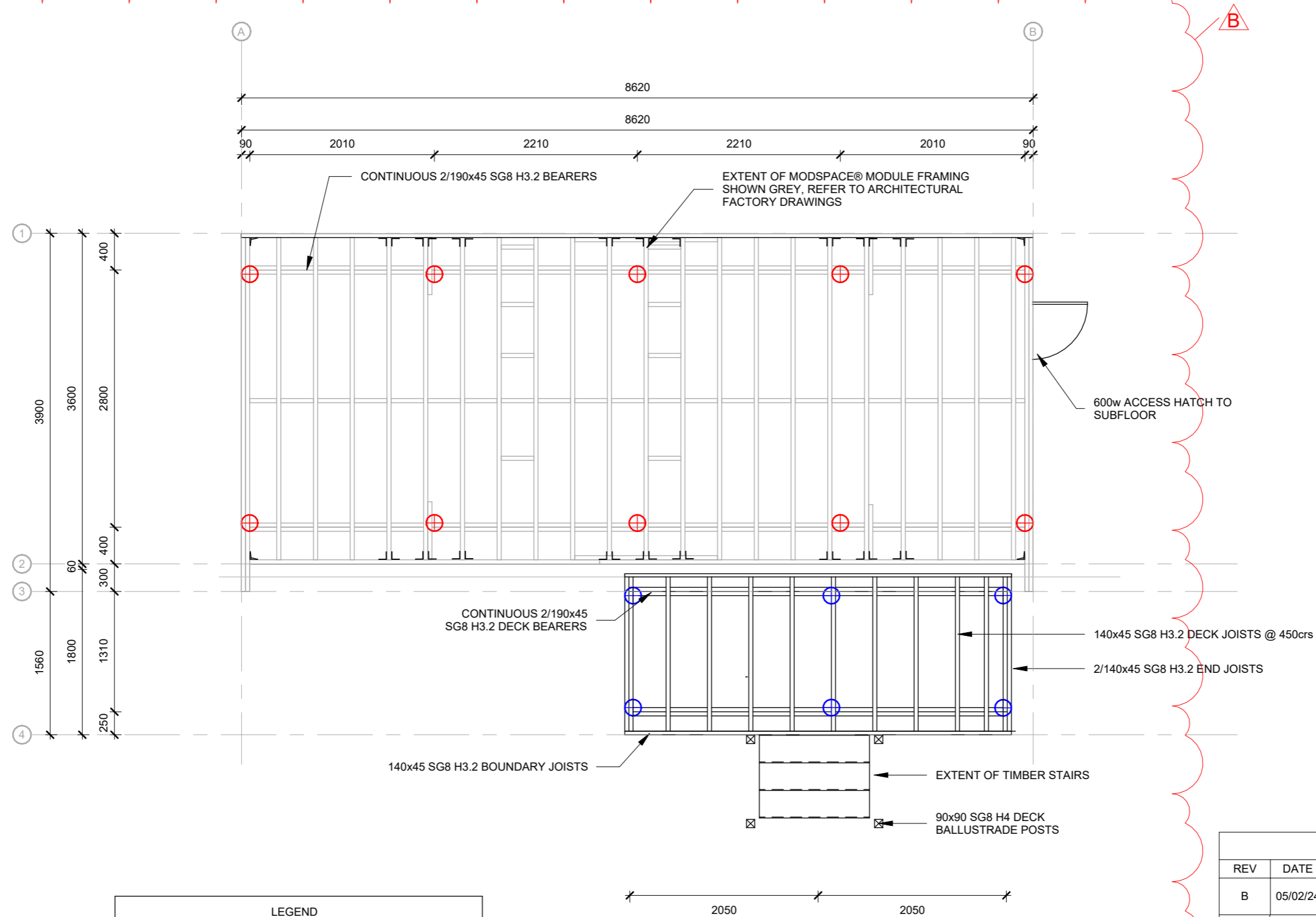


CLIENT: TE TŪĀPAPA KURA KĀINGA
PROJECT: P2988 TEMPORARY ACCOMODATION - MATAURI BAY MARAE

SHEET: FOUNDATION PLAN

DATE: 05/02/2024
DRAWN: HB
CHECKED: MA
REV: B
SCALE: 1:100
SHEET NO: AO-110

40mm
30
20
10
0

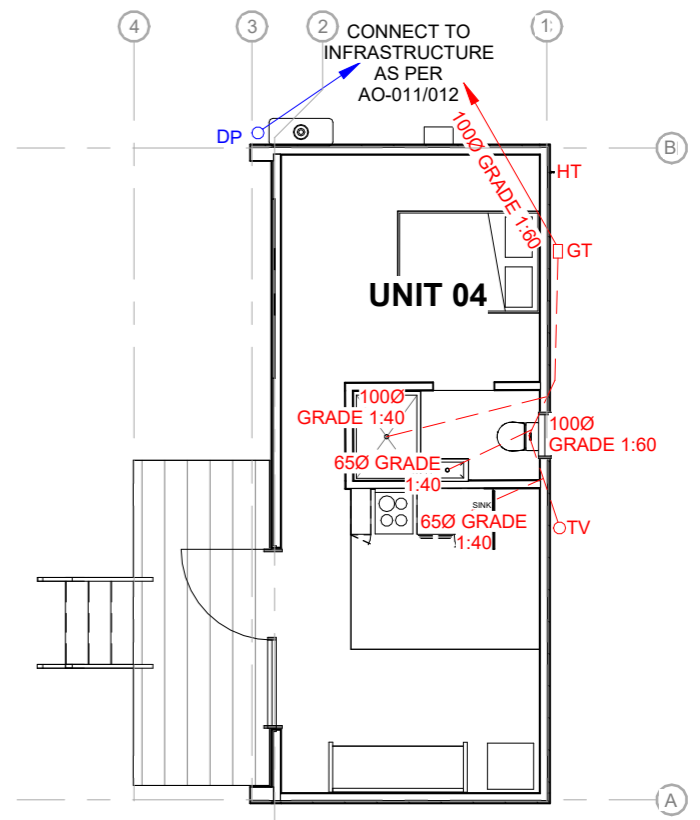
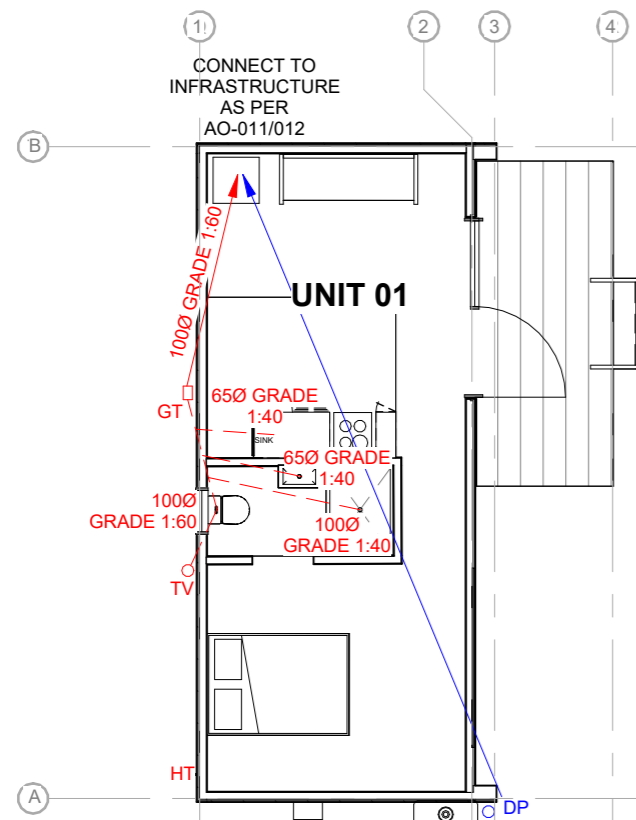
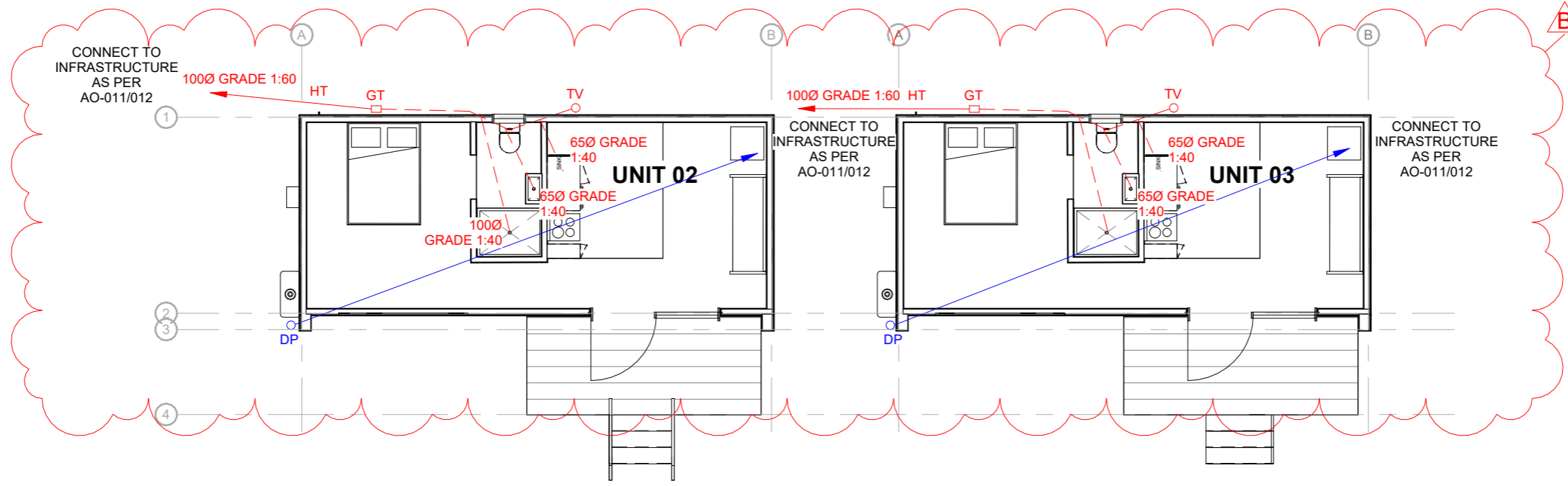


LEGEND	
	STOPDIGGING SGC 76x1600 FOUNDATION GROUND SCREW C/W SGE145 BRACKET
	STOPDIGGING SGC 95x1200 FOUNDATION GROUND SCREW C/W SGE145 BRACKET

REVISIONS - SUBFLOOR PLAN		
REV	DATE	AMENDMENT
B	05/02/24	FOUNDATIONS LAYOUT & SUBFLOOR UPDATED

DOCUMENT TRANSMITTAL		
REV	DESCRIPTION	DATE
A	BUILDING CONSENT	21/11/2023
B	BUILDING CONSENT	05/02/2024

DATE:	05/02/2024	REV:	B	SCALE:	1:100
DRAWN:	HB	CHECKED:	MA	SHEET NO:	AO-111



WASTE PIPE GRADIENTS (MIN)		
40Ø	1:40 MINIMUM GRADIANT	4DU
65Ø	1:40 MINIMUM GRADIANT	21DU
100Ø	1:60 MINIMUM GRADIANT	115DU
WASTE PIPE & DISCHARGE UNITS		
40Ø	KITCHEN SINK	3DU
DRAINAGE PIPE GRADIENT		
65Ø	1:40 MINIMUM GRADIANT	25DU
85Ø	1:60 MINIMUM GRADIANT	61DU
100Ø	1:60 MINIMUM GRADIANT	205DU
150Ø	1:60 MINIMUM GRADIANT	1310DU

REVISIONS - PLUMBING & DRAINAGE		
REV	DATE	AMENDMENT
B	05/02/24	SEWAGE UPDATED

LEGEND	
GT	GULLY TRAP
TV	TERMINAL VENT
HT	HOSE TAP
DP	DOWN PIPE

DOCUMENT TRANSMITTAL		
REV	DESCRIPTION	DATE
A	BUILDING CONSENT	21/11/2023
B	BUILDING CONSENT	05/02/2024



260 WAIMATE NORTH ROAD,
KERIKERI, 0293
projects@sitescope.co.nz
www.sitescope.co.nz

Te Tūāpapa Kura Kāinga
Ministry of Housing and Urban Development

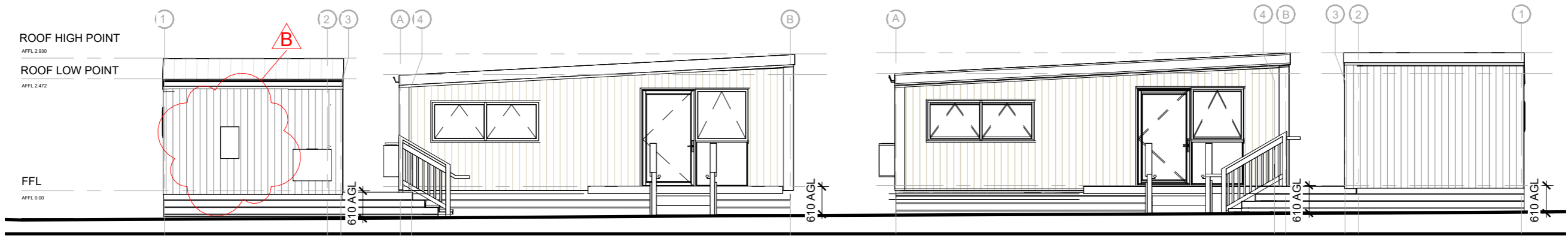
CLIENT: TE TŪĀPAPA KURA KĀINGA
PROJECT: P2988 TEMPORARY ACCOMODATION - MATAURI BAY MARAE

SHEET: **PLUMBING & DRAINAGE**

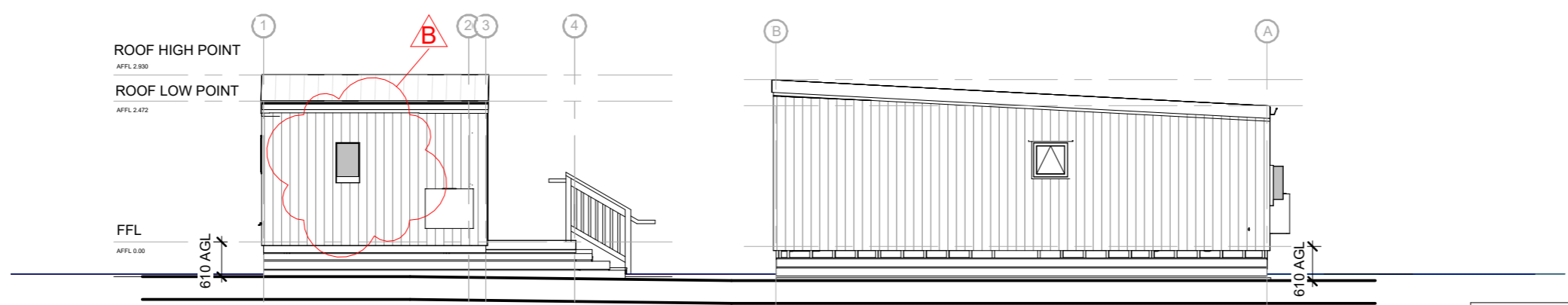
DATE: 05/02/2024
DRAWN: HB
CHECKED: MA

REV: **B**
SCALE: 1:100
SHEET NO: **AO-120**





1 EAST



2 SOUTH

REVISIONS - SITE ELEVATIONS		
REV	DATE	AMENDMENT
B	05/02/24	INFINITY SHOWN

DOCUMENT TRANSMITTAL		
REV	DESCRIPTION	DATE
1	PRELIMINARY	12/10/2023
A	BUILDING CONSENT	21/11/2023
B	BUILDING CONSENT	05/02/2024

DATE:	05/02/2024	REV:	B	SCALE:	1:100
DRAWN:	HB	CHECKED:	MA	SHEET NO:	AO-200



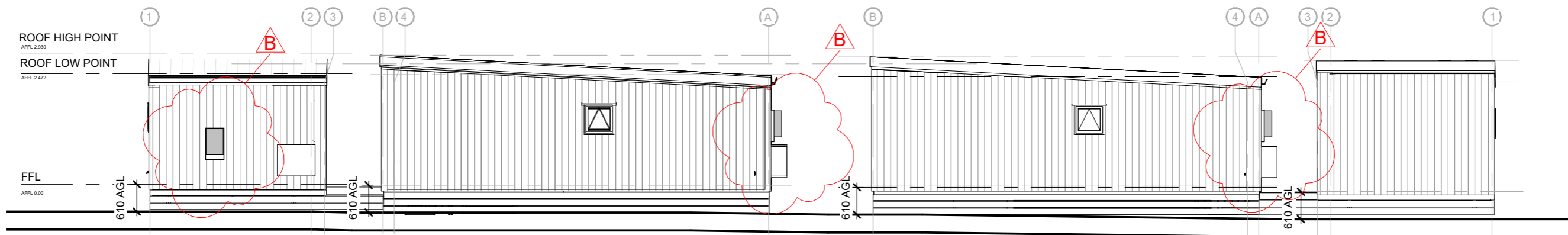
260 WAIMATE NORTH ROAD,
KERIKERI, 0293
projects@sitescope.co.nz
www.sitescope.co.nz



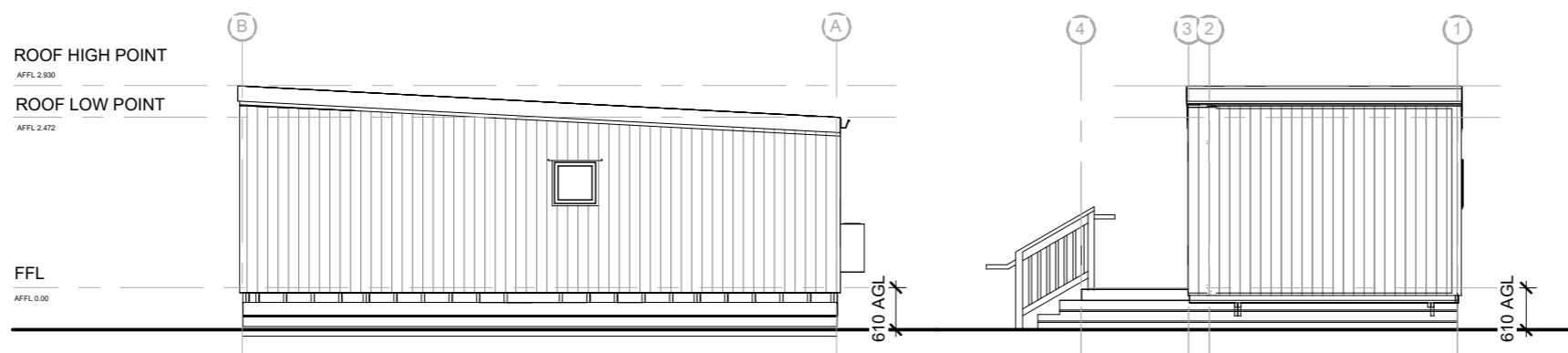
CLIENT: TE TŪĀPAPA KURA KĀINGA
PROJECT: P2988 TEMPORARY ACCOMODATION - MATAURI BAY MARAE

SHEET: **SITE ELEVATIONS**

40mm
30
20
10
0



1 WEST

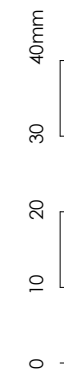


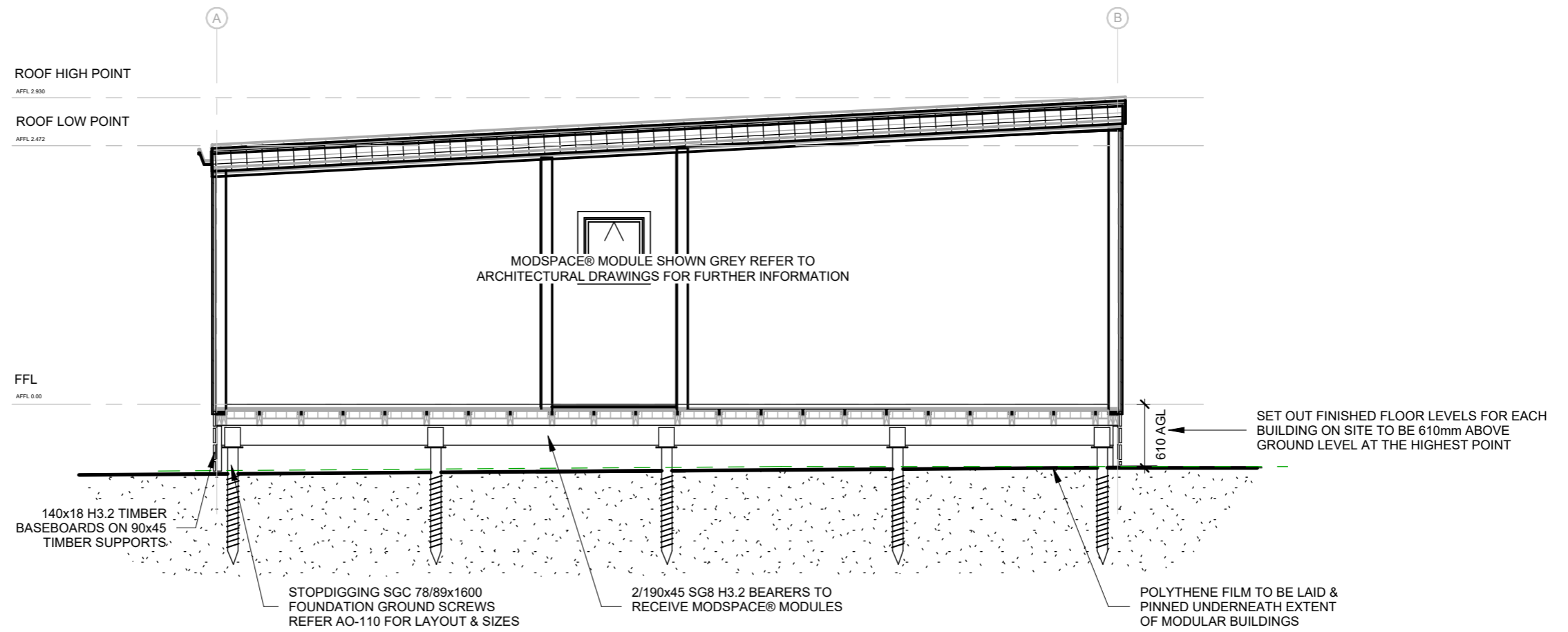
2 NORTH

REVISIONS - SITE ELEVATIONS		
REV	DATE	AMENDMENT
B	05/02/24	INFINITY SHOWN

DOCUMENT TRANSMITTAL		
REV	DESCRIPTION	DATE
1	PRELIMINARY	12/10/2023
A	BUILDING CONSENT	21/11/2023
B	BUILDING CONSENT	05/02/2024

DATE:	05/02/2024	REV:	B	SCALE:	1:100
DRAWN:	HB	CHECKED:	MA	SHEET NO:	AO-201

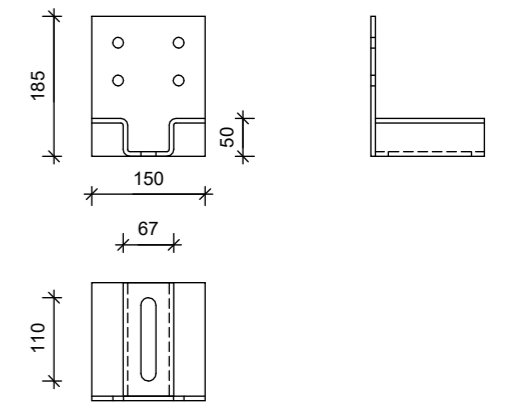
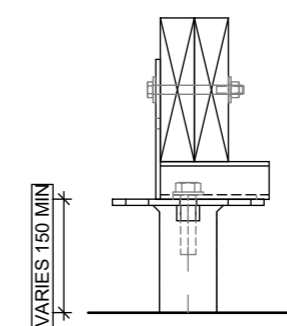
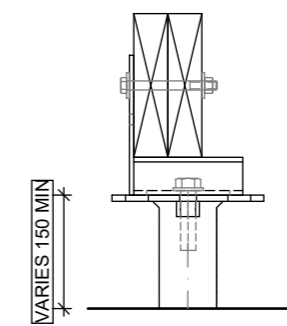
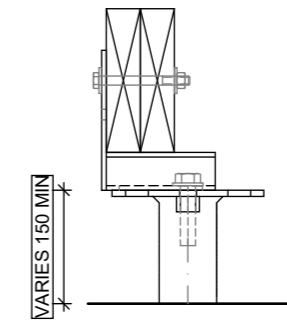
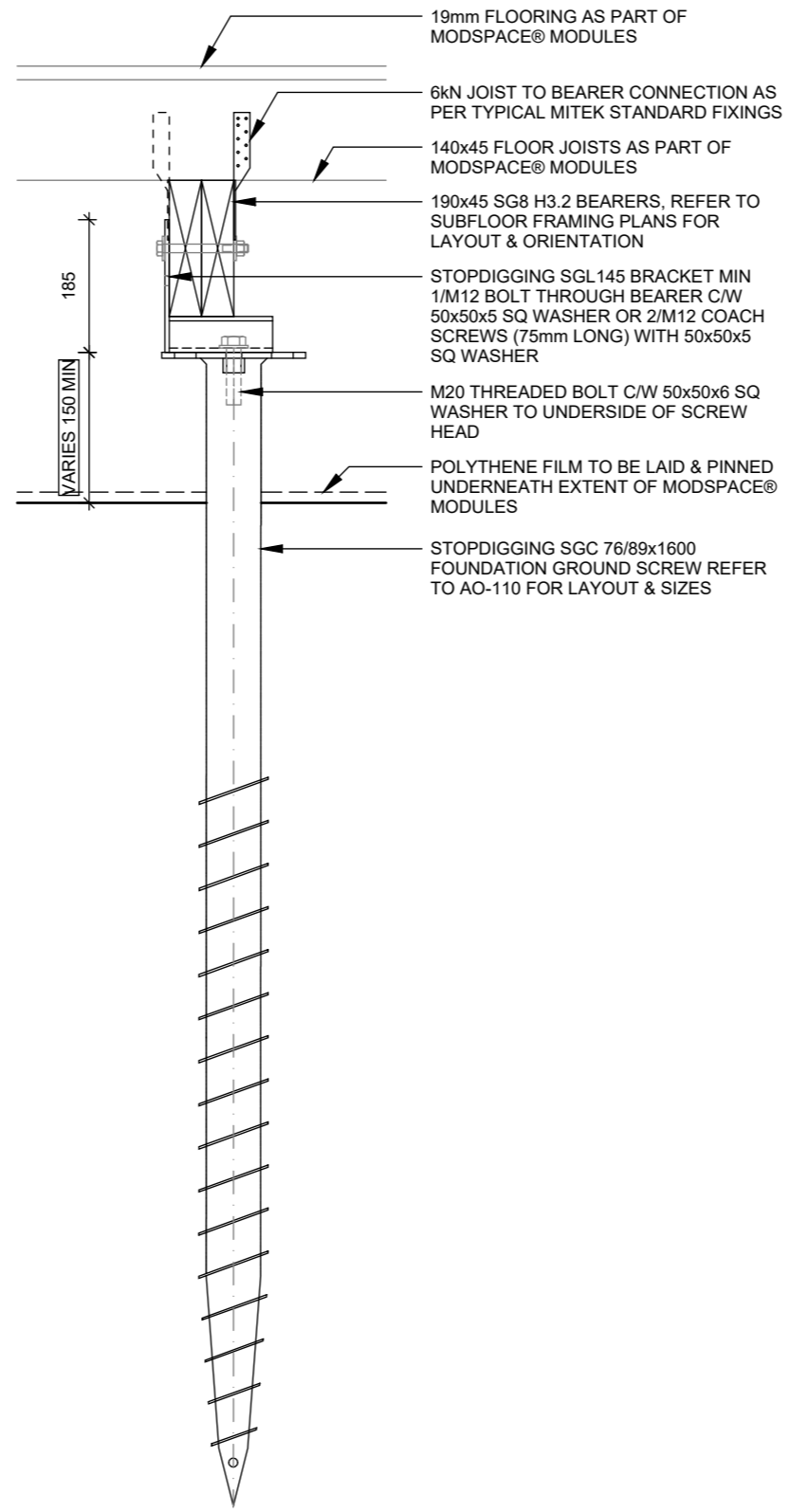
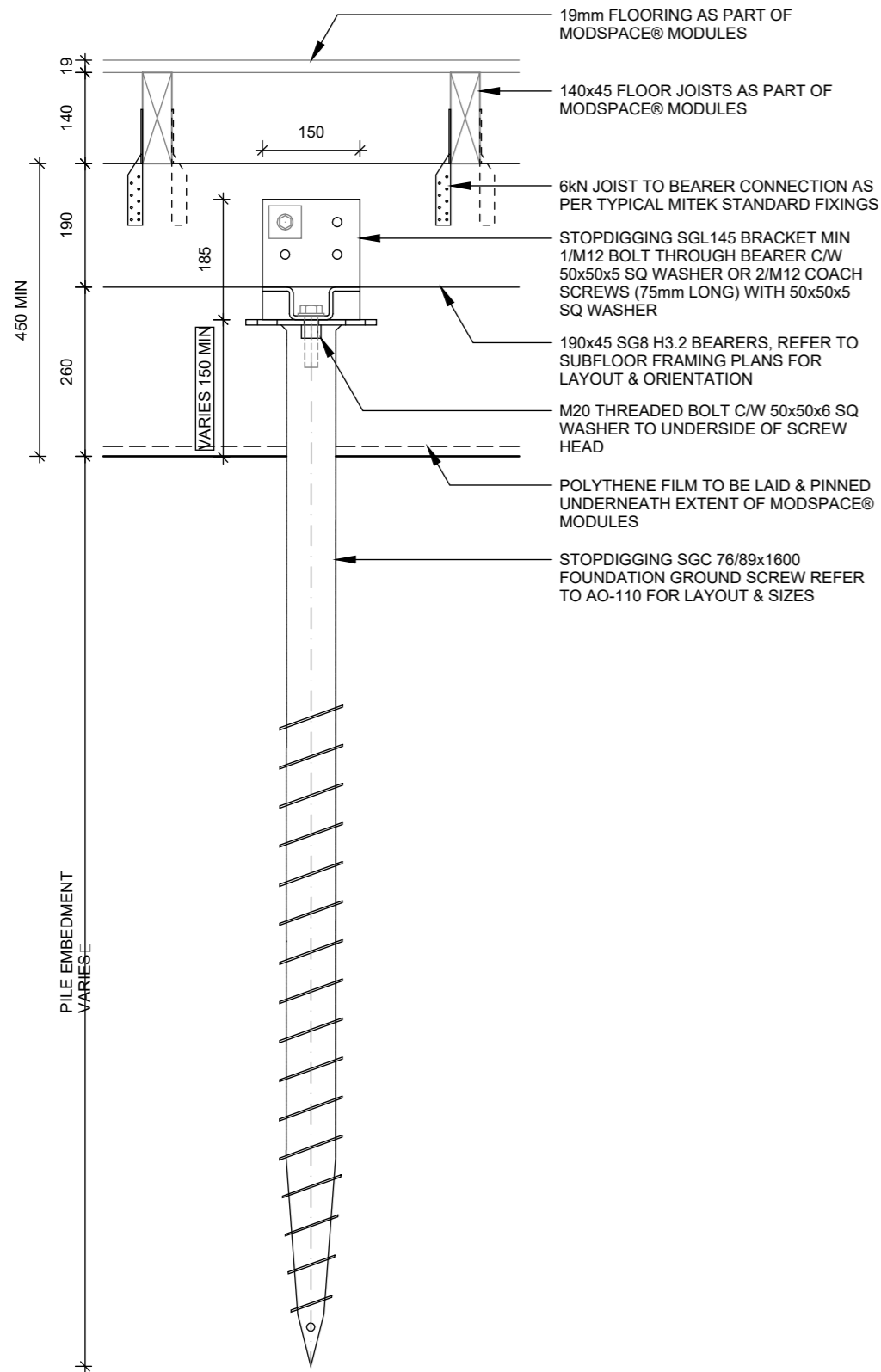




NOTES - SECTIONS	
STOP DIGGING FOUNDATIONS ARE CODEMARKED	
FOR FURTHER DETAIL ON MODSPACE® CONSTRUCTION, REFER TO ARCHITECTUAL FACTURE DOCUMENTATION	

DOCUMENT TRANSMITTAL		
REV	DESCRIPTION	DATE
A	BUILDING CONSENT	21/11/2023

DATE:	21/11/2023	REV:	A	SCALE:	1:50
DRAWN:	HB	CHECKED:	MA	SHEET NO:	AO-300



DOCUMENT TRANSMITTAL		
REV	DESCRIPTION	DATE
A	BUILDING CONSENT	21/11/2023

DATE:	21/11/2023	REV:	A	SCALE:	1:10
DRAWN:	HB	CHECKED:	MA	SHEET NO:	AO-600



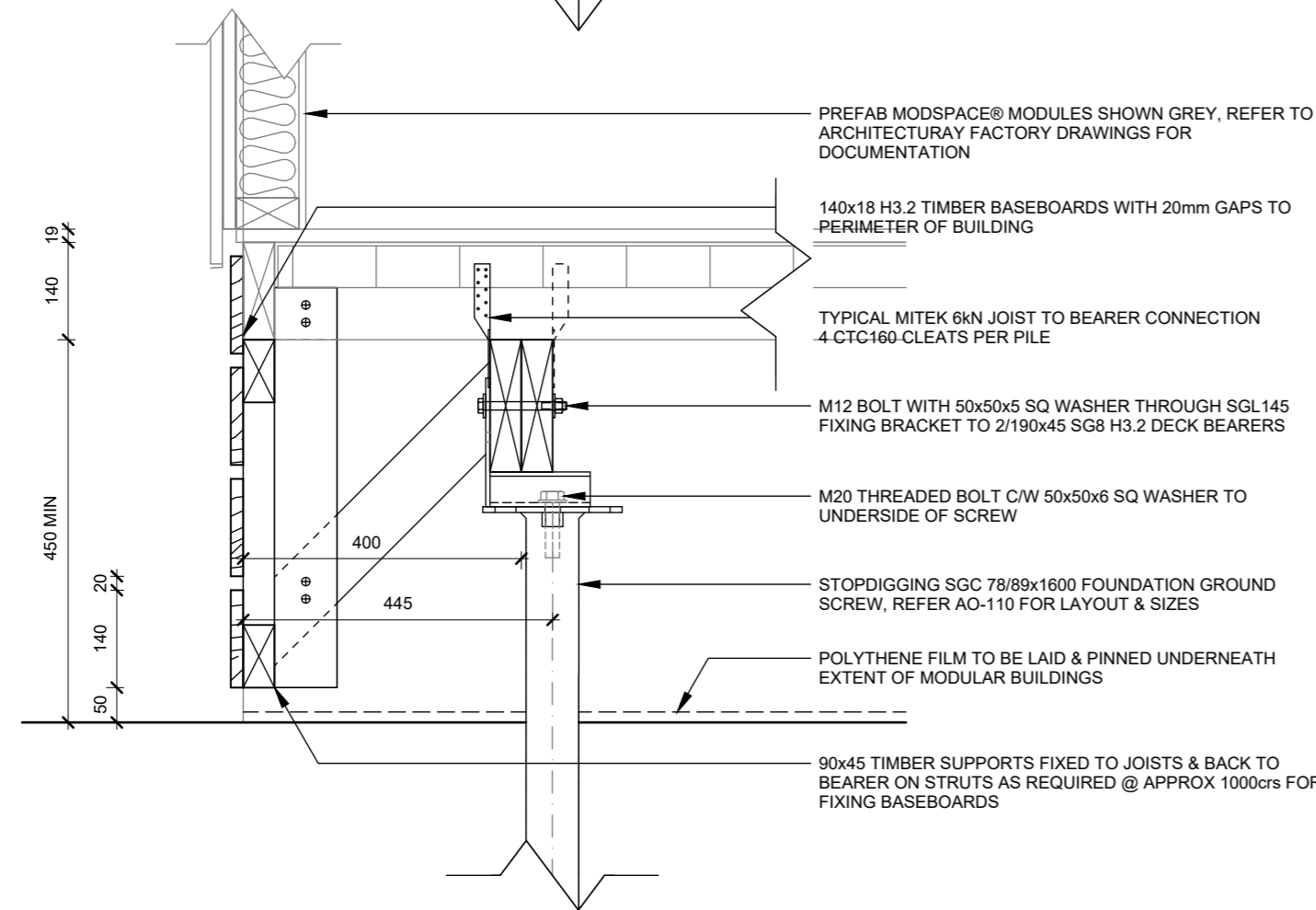
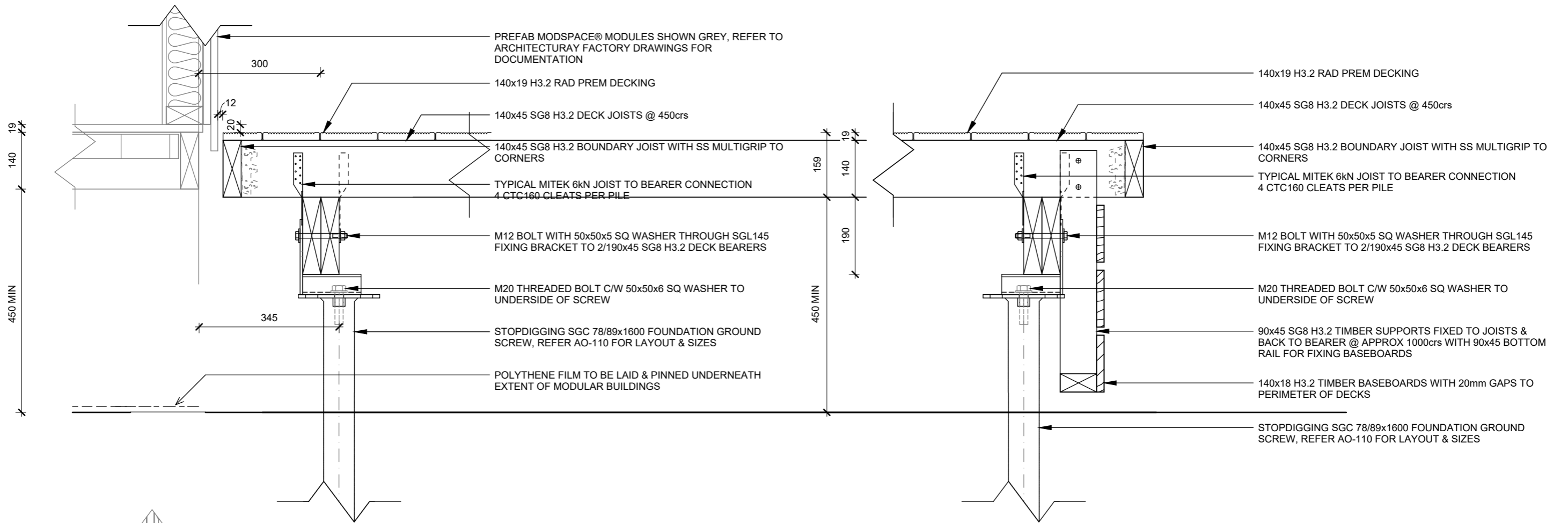
260 WAIMATE NORTH ROAD,
KERIKERI, 0293
projects@sitescope.co.nz
www.sitescope.co.nz



CLIENT: TE TŪĀPAPA KURA KĀINGA
PROJECT: P2988 TEMPORARY ACCOMODATION - MATAURI BAY MARAE

SHEET: STOP DIGGING® DETAILS

40mm
30
20
10
0



DOCUMENT TRANSMITTAL		
REV	DESCRIPTION	DATE
A	BUILDING CONSENT	21/11/2023

DATE:	21/11/2023	REV:	A	SCALE:	1:10
DRAWN:	HB	CHECKED:	MA	SHEET NO:	AO-601



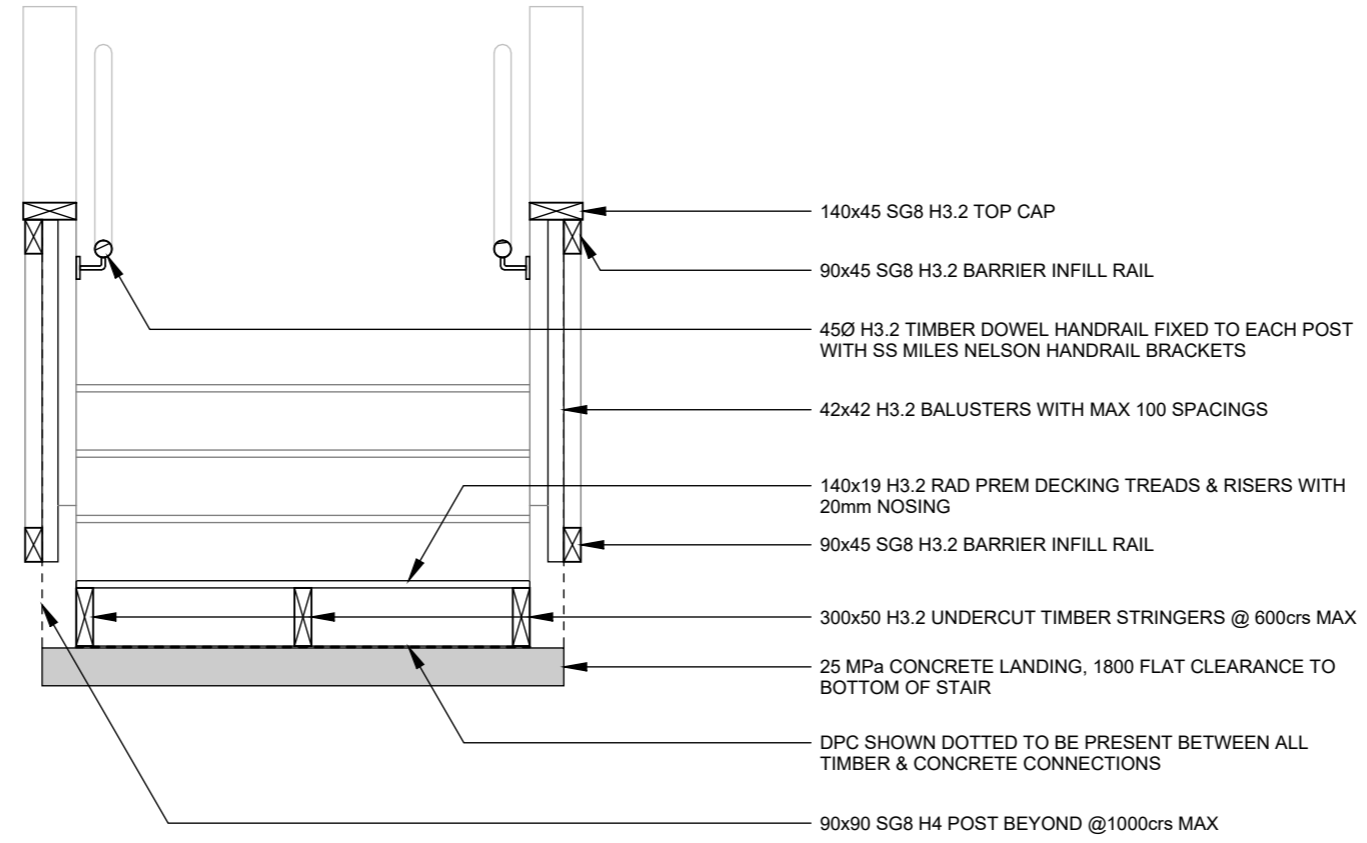
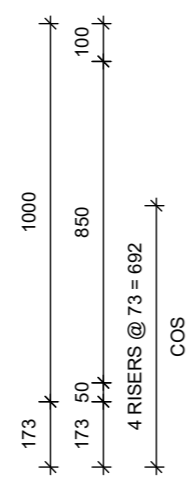
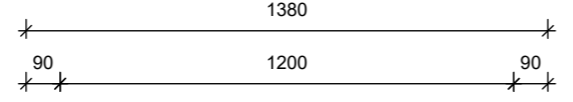
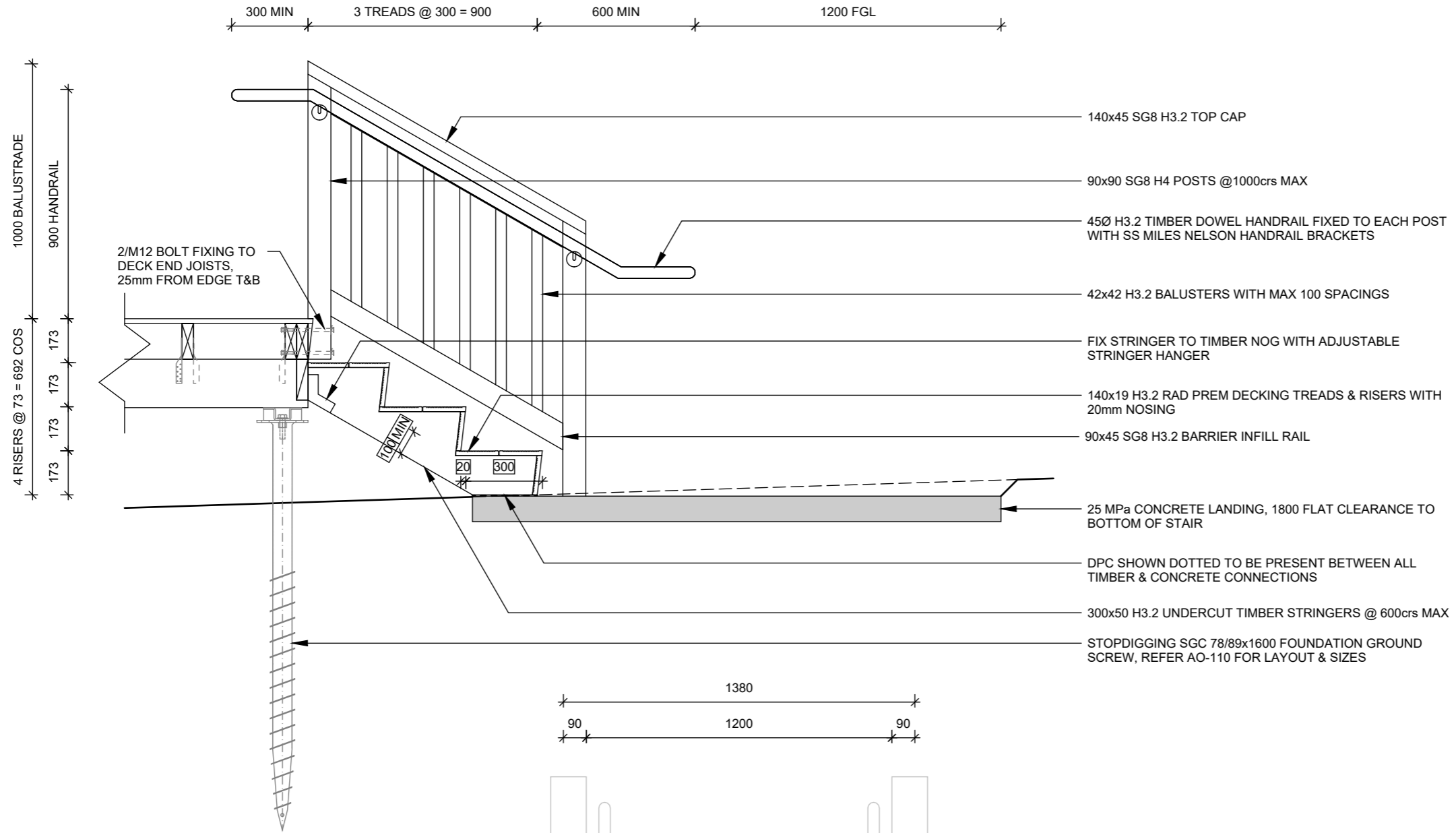
260 WAIMATE NORTH ROAD,
KERIKERI, 0293
projects@sitescope.co.nz
www.sitescope.co.nz



CLIENT: TE TŪĀPAPA KURA KĀINGA
PROJECT: P2988 TEMPORARY ACCOMODATION - MATAURI BAY MARAE

SHEET: DETAILS - DECKS

40mm
30
20
10
0



DOCUMENT TRANSMITTAL		
REV	DESCRIPTION	DATE
A	BUILDING CONSENT	21/11/2023

DATE:	21/11/2023	REV:	A	SCALE:	1:20
DRAWN:	HB	CHECKED:	MA	SHEET NO:	AO-602



260 WAIMATE NORTH ROAD,
KERIKERI, 0293
projects@sitescope.co.nz
www.sitescope.co.nz



CLIENT: TE TŪĀPAPA KURA KĀINGA
PROJECT: P2988 TEMPORARY ACCOMODATION - MATAURI BAY MARAE

SHEET: DETAILS - STAIRS

40mm
30
20
10
0



2024

Waterflow NZ Ltd
Certified Designer

Matauri Bay Marae
60 Te Tapui Road
Matauri Bay
Lot 34 DP 113756

Reference Number: WF11668

Issued 08/02/2024

ONSITE WASTEWATER DESIGN REPORT



TABLE OF CONTENTS

PART A: CONTACT AND PROPERTY DETAILS	3
PART B: SITE ASSESSMENT - SURFACE EVALUATION	5
PART C: SITE ASSESSMENT - SOIL INVESTIGATION	7
PART D: DISCHARGE DETAILS - SEE HYDRAULIC LOADING TABLES	9
PART E: LAND DISPOSAL METHOD	10
PART F: PROPOSED WASTEWATER TREATMENT SYSTEM	11
PART G: OPERATION AND MAINTENANCE OF SYSTEM	11
PART H: SOIL LOG PROFILE	12
PART I: SITE IMAGES	13
DECLARATION	14
SITE LAYOUT PLAN:	15

Attachments

- PS1
- Land Application System Schematics
- Assessment of Environmental Effects
- System & Installation Specifications
- Home Owners Care Guide

**PART A: CONTACT AND PROPERTY DETAILS****A 1. Consultant / Evaluator**

Name:	Matt Riddell
Company/Agency:	Waterflow New Zealand Ltd
Address:	4/525 Great South Road, Penrose, Auckland 1061
Phone:	09 431 0042
Fax:	
Email Address:	matt@waterflow.co.nz

A 2: Applicant Details

Applicant Name:	[REDACTED]
Company Name:	[REDACTED]
Property Owner:	[REDACTED]
Owner Address:	[REDACTED] ay
Phone:	[REDACTED]
Mobile:	[REDACTED]
Email Address:	[REDACTED]

A 3: Site Information

Sited Visited by:	Ken Hoyle	Date:	Thursday, 25 January 2024
Physical Address:	60 Te Tapui Road, Matauri Bay		
Territorial Authority:	Far North District Council		
Regional Council:	Northland Regional Council		
Regional Rule	C.6.1.3		
Legal Status of Activity:	Permitted:	<input checked="" type="checkbox"/>	Controlled: <input type="checkbox"/> Discretionary: <input type="checkbox"/>
Total Property Area (m²):	6933m ²		
Map Grid Reference:			
Legal Description of Land (as on Certificate of Title):			
Lot No:	34		
DP No:	113756		
CT No:	NA64C/108		



A 4: Are there any previous existing discharge consents relating to this proposal or other waste discharge/disposal on the site?

Yes:	<input type="checkbox"/>	No:	<input checked="" type="checkbox"/>
------	--------------------------	-----	-------------------------------------

If yes, give reference No's and description:

--

A 5: Dwelling(s) for which on-site wastewater service is to be provided

Status of dwelling(s) to be serviced:	New	<input checked="" type="checkbox"/>	Existing	<input type="checkbox"/>	Multiple	<input type="checkbox"/>
How many dwellings on the property?	4					
Capacity of dwellings:	Dwelling 1	1 bedroom				
(or number of bedrooms)	Dwelling 2	1 bedroom				
	Dwelling 3	1 bedroom				
	Dwelling 4	1 bedroom				
Notes:						

**PART B: SITE ASSESSMENT - SURFACE EVALUATION****B 1: Site Characteristics**

Performance of adjacent systems:	(Unknown)		
Estimated annual rainfall (mm):	1000 - 1250 (as per NIWA statistics)		
Seasonal variation (mm):	300-400mm		
Vegetation cover:	Lawn Grass		
Slope shape:	Flat		
Slope angle:	<5 °		
Surface water drainage characteristics:	Broad overland to roadside drain		
Flooding potential?	Yes:	No:	x
If Yes, specify relevant flood levels relative to disposal area:			
Site characteristics:	60 Te Tapui Rd is a Maori freehold land title of 6933m2 with an existing Marae and associated buildings. Four single bedroom accommodation units are to be added in an area between the existing buildings. Land disposal is to a flat area adjacent to the southern boundary of the property.		

B 2: Slope Stability

Has a slope stability assessment been carried out on the site?

Yes:		No:	x
------	--	-----	---

If no, why not?

Low slope:	x	No signs of instability:	x	Other:
------------	---	--------------------------	---	--------

If yes, give brief details of report:

Details:	
Author:	
Company/Agency:	
Date of report:	

B 3: Site Geology

--

**B 4: Slope Direction**

What aspect does the proposed disposal system face?

North		West	
North-West		South-West	
North-East		South-East	
East		South	x

B 5: Site Clearances if applicable (also on site plan)

	Treatment Separation Distance (m)	Disposal Field Separation Distance (m)
Boundaries:	>1.5	>1.5
Surface Water:	>20	>20
Ground Water:	>1.2	>1.2
Stands of Trees / Shrubs:	n/a	n/a
Wells/Water Bores:	>20	>20
Embankments / Retaining Walls:	>3	>3
Buildings:	>3	>3
Other:		

B 6: Please identify any site constraints applicable for this property, and indicate how the design process is to deal with these.

Constraints	Explain how constraints are being dealt with
1 Site constraints: (a) (b)	n/a



PART C: SITE ASSESSMENT - SOIL INVESTIGATION

C 1: Soil Profile Determination Method

Test pit:		Depth (mm):		No. of Test pits:	
Bore hole:	x	Depth (mm):	1200	No. of Bore holes:	2
Other:					

C 2: Fill Material

Was fill material intercepted during the subsoil investigation?

Yes:		No:	x
------	--	-----	---

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

--

C 3: Permeability Testing

Has constant head Permeability Testing (Ksat) been carried out?

Yes:		No:	x
------	--	-----	---

If yes, please indicate the details (test procedure, number of tests):

--

Test report attached?

Yes:		No:	x
------	--	-----	---

C 4: SURFACE WATER CUT OFF DRAINS

Are surface water interception/diversion drains required?

Yes:	x	No:	
------	---	-----	--

C 5: DEPTH OF SEASONAL WATER TABLE:

Winter (m):	>1.2
Summer (m):	>1.2

Was this:

Measured:	✓ no sign of ground water or mottling in bore holes
Estimated:	

C 6: SHORT CIRCUITS

Are there any potential short circuit paths?

Yes:		No:	x
------	--	-----	---

If yes, how have these been addressed?

--

**C 7: SOIL CATEGORY**

Is topsoil present?

Yes:	<input checked="" type="checkbox"/>	No:	<input type="checkbox"/>
------	-------------------------------------	-----	--------------------------

If yes, what is the topsoil depth & soil description?

600mm sandy silty loam topsoil over clay loam

Indicate the disposal field soil category (as per AC TP-58, Table 5.1)

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

Reason for placing in stated category:

Result of bore hole/test pit sample	<input checked="" type="checkbox"/>
Profile from excavation	<input type="checkbox"/>
Geotech report	<input type="checkbox"/>
Other:	<input type="checkbox"/>

C 8: SOIL STRUCTURE

Based on results of the in-situ soil profile investigation above (C7) please indicate the disposal (land application) field soil structure:

Massive	<input type="checkbox"/>
Single grained	<input type="checkbox"/>
Weak	<input type="checkbox"/>
Moderate	<input checked="" type="checkbox"/>
Strong	<input type="checkbox"/>

C 9: As necessary, provide qualifying notes on the relationship of Soil Category (C7) to Soil Structure (C8) and the effect this relationship will have on design loading rate selection:

--



PART D: DISCHARGE DETAILS

D 1: Water supply source for the property:

Rain water (roof collection)	x
Bore/well	
Public supply	

D 2: Are water reduction fixtures being used?

Yes:	<input type="checkbox"/>	No:	x	(according to our knowledge at time of design report)
------	--------------------------	-----	---	---

If 'yes' Please state:

Standard Fixtures include dual flush 11/5.5 or 6.3 litre toilet cisterns, and includes standard automatic washing machine, but a low water use dishwasher, no garbage grinder.

D 3: Daily volume of wastewater to be discharged:

No. of bedrooms/people:	1:	1 Bedroom
	2:	1 Bedroom
	3:	1 Bedroom
	4:	1 Bedroom
Design occupance (people): (as per AC TP-58, Table 6.1)	1:	2 people
	2:	2 people
	3:	2 people
	4:	2 people
		Black / Grey water
Per capita wastewater production (litres/person/day): (as per ARC TP-58, Table 6.2)	1:	160 L/day
	2:	160 L/day
	3:	160 L/day
	4:	160 L/day
Total daily wastewater production (litres per day):		1280 L/day

D 4: Is daily wastewater discharge volume more than 2000 litres?

Yes:	<input type="checkbox"/>	No:	x
------	--------------------------	-----	---

D 5: Gross lot area to discharge ratio:

Gross lot area:	6933 m ²
Total daily wastewater production (litres/day):	1280 L
Lot area to discharge ratio:	5.42

D 6: Net Lot Area

Area of lot available for installation of the disposal (land application) field and reserve area:

Net lot area (m ²):	5933 m ²
Reserve area (m ²):	100%

**PART E: LAND DISPOSAL METHOD****E 1: Indicate the proposed loading method:**

	Black / Grey Water
Trickle Fed:	x
Dosing Siphon:	
Pump:	

E 2: If a pump is being used please provide following information:

Total Design Head (m):	
Pump Chamber Volume (litres):	
Emergency Storage Volume (litres):	

Is a high water level alarm being installed in pump chambers?

Yes:		No:	x
------	--	-----	---

E 3: Identify the type(s) of Land Disposal method proposed for this site:

	Black / Grey Water
P.C.D.I. Dripper Irrigation:	
L.P.E.D. System:	
Evapo-Transpiration Beds:	ETS Beds
Other:	
(as per Schematics attached)	

E 4: Identify the Loading Rate proposed for option selected in E3:

as per ARC TP-58, Table 9.2 & Table 10.3	Black / Grey Water
Loading Rate (litres/m ² /day):	8
Disposal Area Basal (m ²):	160
Areal (m ²):	

E 6: Details and dimensions of the disposal (land application) field:

Length (m):	26.7	No. ETS Beds	2	Hole Size:	16.0
Width (m):	3.0	Spacing (m):	1.5	Hole Spacing:	500.0
Notes:	Conventional ETS beds laid on level contour. To be protected from stock and vehicle movements, as per schematic drawing attached. See schematic drawing attached.				



PART F: PROPOSED WASTEWATER TREATMENT SYSTEM

A NaturalFlow DCST6000 System, fed through ETS Beds is suitable for this site. The DCST6000 System has enough capacity to accommodate 2000ltr per day, so will be well within its capacity. The land application system is designed to discharge a maximum volume of 1280ltrs per day and if this is exceeded it could cause failure resulting in environmental and public harm.

PART G: OPERATION AND MAINTENANCE OF SYSTEM

The operation of this complete system will be explained verbally to the owner by the Installer or Agent on Completion of Installation; also provided with Waterflow's Home Owner's Manual.

Waterflow NZ Ltd encourages the Home Owner to monitor and care for your NaturalFlow system yourself, with our backing and support, and by doing so you will learn how your system works and operates and how to keep it in top working order.

It is also recommended that a Maintenance Program contract is in place at all times to ensure this system is maintained at top performance at all times.

All on site wastewater systems require regular maintenance; in this case once annually is suffice and may be specified within the consent process by the Building Department of Far North District Council. This Maintenance will be recorded on hard copy and supplied to both the Owner and Far North District Council Compliance Officer if requested.

NOTE TO OWNER: All written records pertaining to the wastewater system should be retained in a safe place. When a change of ownership occurs, a full and complete history is able to be passed to the new owners.

Animals are to be physically excluded from the installed effluent field to avoid damage, and to reduce the risk of soil compaction in the vicinity of the bed.

Planting within this area is encouraged to assist with evapotranspiration by plants.

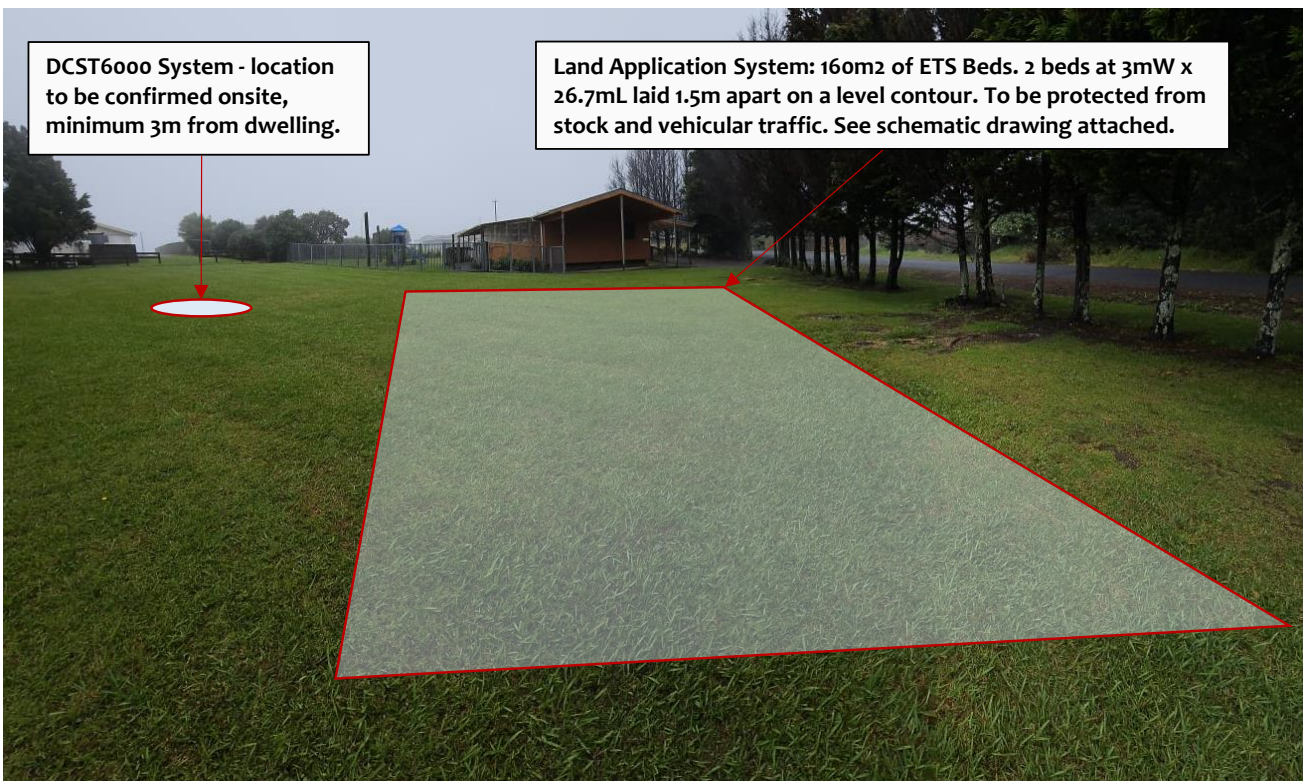
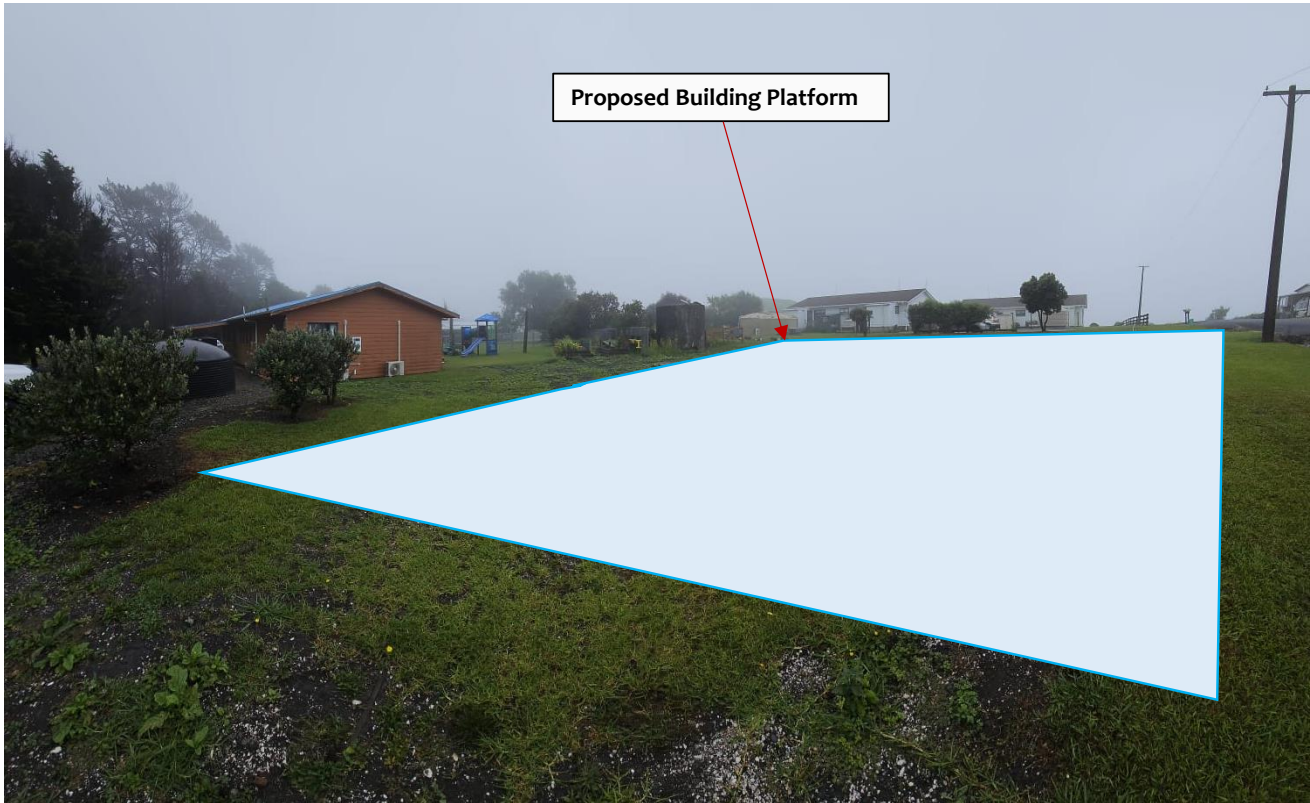
PART H: SOIL LOG PROFILE



**600mm sandy silty loam topsoil over clay loam
Class 5, (as per AC TP-58, Table 5.1)**




PART I: SITE IMAGES






DECLARATION

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

Prepared By:	
Name:	Alexandra Sabath - Wastewater Designer
Signature:	
Date:	8/02/2024

Reviewed By:	
Name:	Matt Riddell - PS Author '2384' Auckland Council, Approved Designer
Signature:	
Date:	8/02/2024

NOTE: The Waterflow Systems are to be installed by a registered drainlayer to the designs supplied by Waterflow NZ Ltd. All work to comply with Regional Council Water and Soil Plans.

Comments/Summary:

The disposal field will need to be protected from traffic and animal grazing. Planting this area is recommended to increase Evapotranspiration.

Suitable plants for the disposal field can be found on our website www.naturalflow.co.nz

Waterflow Treatment systems to be installed by accredited installer unless other arrangements have been made by Waterflow NZ Ltd

For more information do not hesitate to contact the team at Waterflow NZ Ltd on 0800 628 356



Enlargement on next page

100m



SITE LOCATION PLAN:
Matauri Bay Marae
60 Te Tapui Road
Matauri Bay
Lot 34DP 113756
0.6933HA

SCALE:

1 : 4156

@ A3



		<p>DATE DRAW: 8/02/2024 PREPARED BY: Alexandra Sabath REVISED: Matt Riddell</p>	<p>SITE LAYOUT PLAN: Matauri Bay Marae 60 Te Tapui Road Matauri Bay Lot 34 DP 113756 0.6933HA</p>	<p>SCALE: 1 : 1009 @ A3</p>
---	--	--	---	--

STATEMENT OF DESIGN - PS1

Issued by: Matt Riddell

To: Matauri Bay Marae

Copy to be supplied to: Far North District Council

In Respect of: NaturalFlow Domestic Onsite Wastewater and Sewage System Design

At: 60 Te Tapui Road, Matauri Bay

Legal Description: Lot 34 DP 113756

Waterflow NZ Ltd has been engaged by Matauri Bay Marae to provide the technical design services and details in respect of the requirements of G13/VM4 and B2 Durability of the Building Code 2004, for an Onsite Wastewater and Sewage System for their building at the above location.

The Design has been carried out in accordance with Auckland Council TP-58 Guidelines and Clause B2, G13 and G14 of the Building Regulations 2004.

The proposed building work covered by this producer statement is described on the drawings titled: Matauri Bay Marae Onsite Wastewater Design Report, and numbered 1-42 together with the specification, and other documents set out in the schedule attached to this statement.

On behalf of the Design Firm, and subject to:

- (i) Site verification of the following design assumptions: correct installation of the system and drainage fields
- (ii) All proprietary products meeting their performance specification requirements;

As an independent design professional covered by a current policy for Professional Indemnity Insurance, no less than \$200,000*, I **believe on reasonable grounds** the building, if constructed in accordance with the drawings, specifications, and other documents provided or listed in the attached schedule, will comply with the relevant provisions of the Building Code.

Signed by: Matt Riddell - PS Author '2384' Auckland Council, Approved Designer

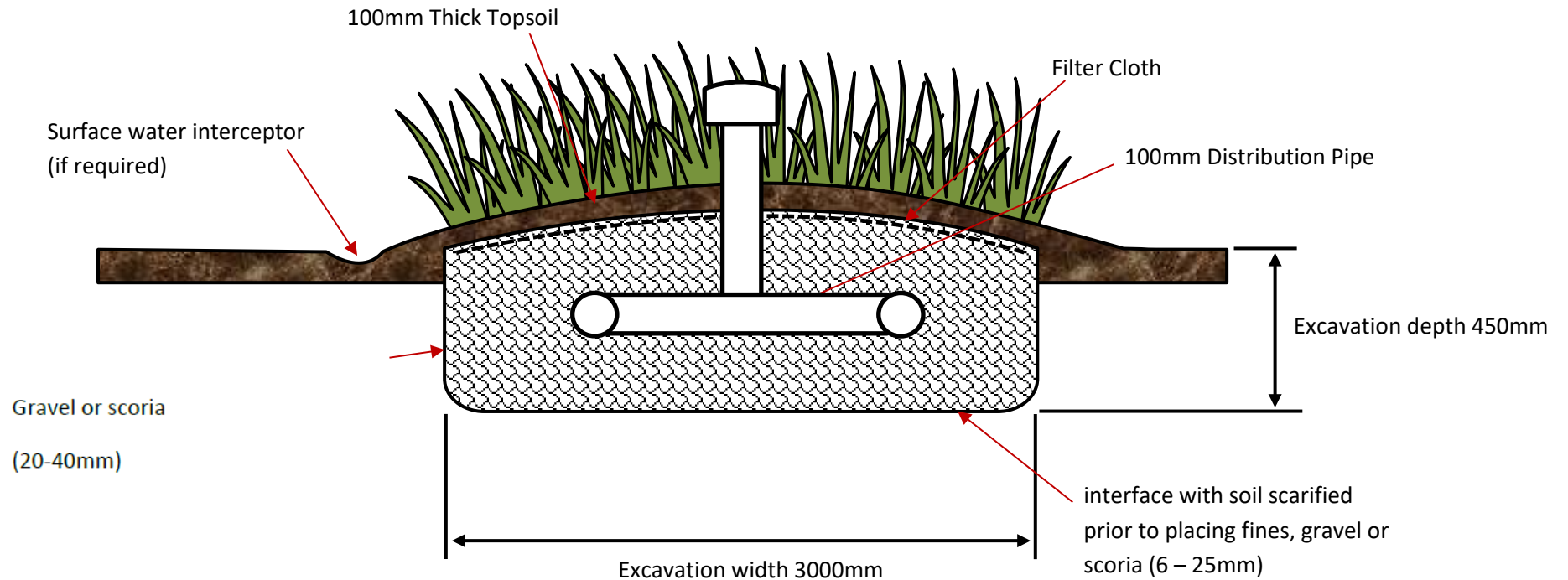
Date: 08/02/2024

Signature: 

Waterflow NZ Ltd
4/525 Great South Road
Penrose, Auckland 1061

Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the Design Firm only. The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of \$200,000.*

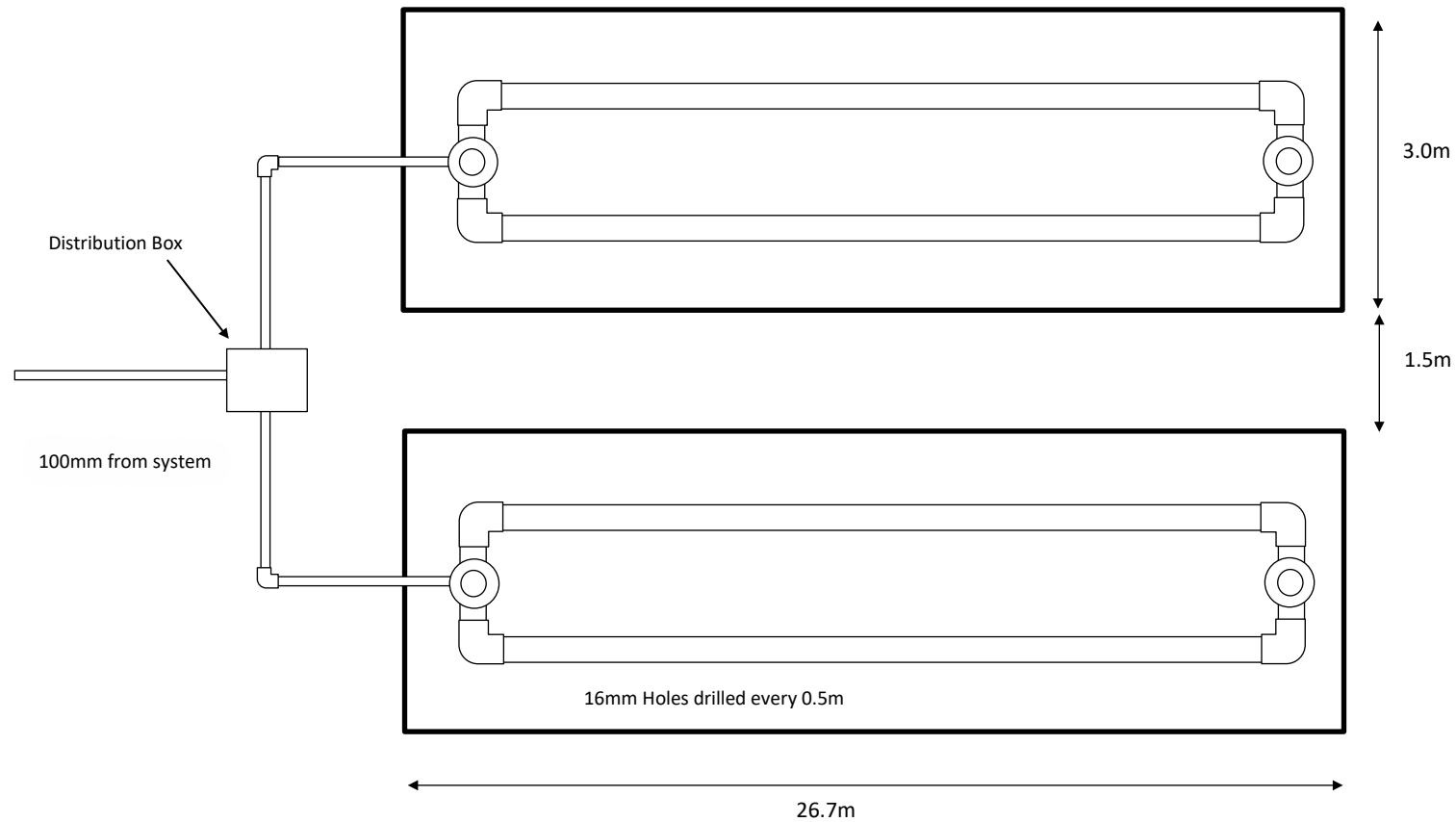
ETS (EVAPOTRANSPIRATION SEE PAGE) CONTOUR BEDS



The standard width for ETS beds is from 750 – 1500mm, but 1800mm up to 3000mm maximum can be utilised provided crowing to shed rainfall is increased accordingly. Contour ETS beds of 450mm to 750mm width can be used on sloping sites.

ETS (EVAPOTRANSPIRATION SEE PAGE) CONTOUR BEDS

Top Elevation



Assessment of Environmental Effects

Matauri Bay Marae of 60 Te Tapui Road, Matauri Bay

Lot 34 DP 113756

1.1 Description of Proposal

The owners of this site propose the construction of four new one bedroom dwellings.

1.2 Site Description

This site, located at 60 Te Tapui Road, is a 60 Te Tapui Rd is a Maori freehold land title of 6933m² with an existing Marae and associated buildings. Four single bedroom accommodation units are to be added in an area between the existing buildings. Land disposal is to a flat area adjacent to the southern boundary of the property.

1.3 Wastewater Volume

In calculating the wastewater flows we have allowed for a maximum occupancy of 8 persons, based on the proposed (as per AC TP-58, Table 6.1). Total wastewater production is based on an allowance of 160 litres per person per day (as per ARC TP-58, Table 6.2), which is conservative given that water supply is roof collected rain water and standard water fixtures will be used throughout the units.

1.4 Wastewater Volume

The DCST6000 system that is proposed will treat the wastewater to a high standard prior to dispersal using a LPED dispersal system into a purpose-designed ETS bed system, where the removal of nutrient will continue, both in the receiving soils and by plant uptake.

The system will be capable of producing reductions in Biochemical Oxygen Demand, Total Suspended Solids, Nitrogen, and Coliforms to a standard that meets the requirements (see details below). The system will cater for the wastewater requirements of the private dwellings (domestic wastewater) and will not service any commercial or trade waste sources. Risk Minor to Nil.

1.5 Proposed Treatment System

The objective of the treatment system is to reduce and remove much of the contaminants from the wastewater prior to discharge into the receiving soil. This will improve the long-term performance of the disposal field as well as reducing the risk to the receiving environment. The system will consist of:

- DCST6000

- ReIn Outlet Filter
- Land Application System

The system is constructed using concrete tank. The system produces treated effluent with BOD <150mg/l, Suspended solids <40mg/l.

1.6 Land Application System

The proposed land application system uses a LPED dispersal system into ETS beds, to disperse the treated wastewater into the receiving soils and dense planting is required to enhance evapo-transpiration. This land application system will be installed in conjunction with existing and proposed landscaping as detailed on the site plan.

1.7 Surface & Ground Water

It is proposed to treat the water to a high standard prior to discharge and the proposed irrigation system will introduce the water into the topsoil horizon using ETS Beds. A low application rate of treated effluent into the topsoil will significantly reduce the likelihood of, any breakout or runoff or any risk of surface water contamination. With the ground water levels being >1.2m this conservative DLR also means the risk of ground water contamination is virtually nil. A majority of the undeveloped areas of this site are suitable for a ETS Beds when the necessary setbacks are observed. Risk Minor to Nil.

1.8 Air Quality

The proposed DCST6000 system will produce no noticeable odour when functioning correctly. Any odour will be contained within the tanks. The land application system will load the soil at a rate that should not cause ponding, spraying or aerosol of the effluent that could potentially cause odours. Risk Minor to Nil.

1.9 Visual Impact

The tanks are installed wholly below ground level with only the lids being visible. The lids will protrude approximately 100mm to prevent egress of storm water into the system. The disposal field will be located in a purpose designed mulched and intensively planted disposal area. Warning signs may be installed to indicate the presence of the disposal area, although probably not necessary in a domestic situation, also the area may be fenced to restrict access.

1.10 Environmental Risks

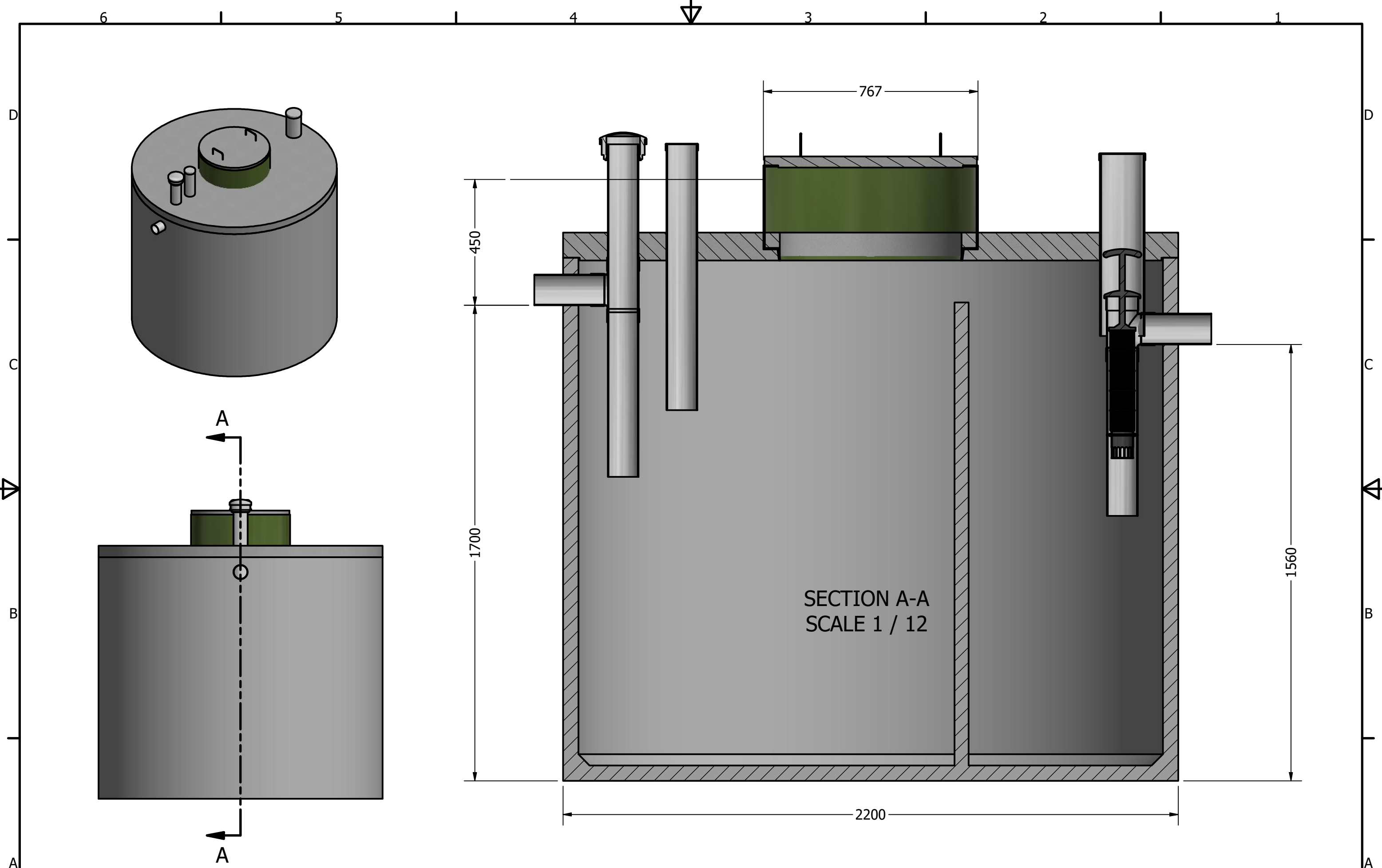
Risks associated with this proposal are minor. The treatment system will be automated, and the Home Owner will be given a 'Home Owners Care Guide' which explains the necessary visual checks to ensure no issues arise with the system, specifically – solids build-up - high water level – discharge failure – filter blockage.

Peak flow into the system are not expected to be significant and the system includes a large emergency storage volume.

1.11 Maintenance Requirements

The maintenance requirement of this system is minimal, with the system fully automated. The system requires little input from the operator apart from the regular visual checks of the treatment system and land application system. All other maintenance interventions must be carried out by service persons familiar with the operation of the system and approved by the manufacturer. Maintenance may include checking of the dissolved oxygen levels, cleaning of effluent outlet filter, removal of excess sludge volume, checking of control panel function, etc....

The owners will be verbally informed at the commissioning of this system of all maintenance requirements and strongly advised to have a service contract in place prior to final sign off of the system installation.



1160 SH12
 MAUNGATUROTO 0548
 PH: 0800 628 356
 E: sales@waterflow.co.nz

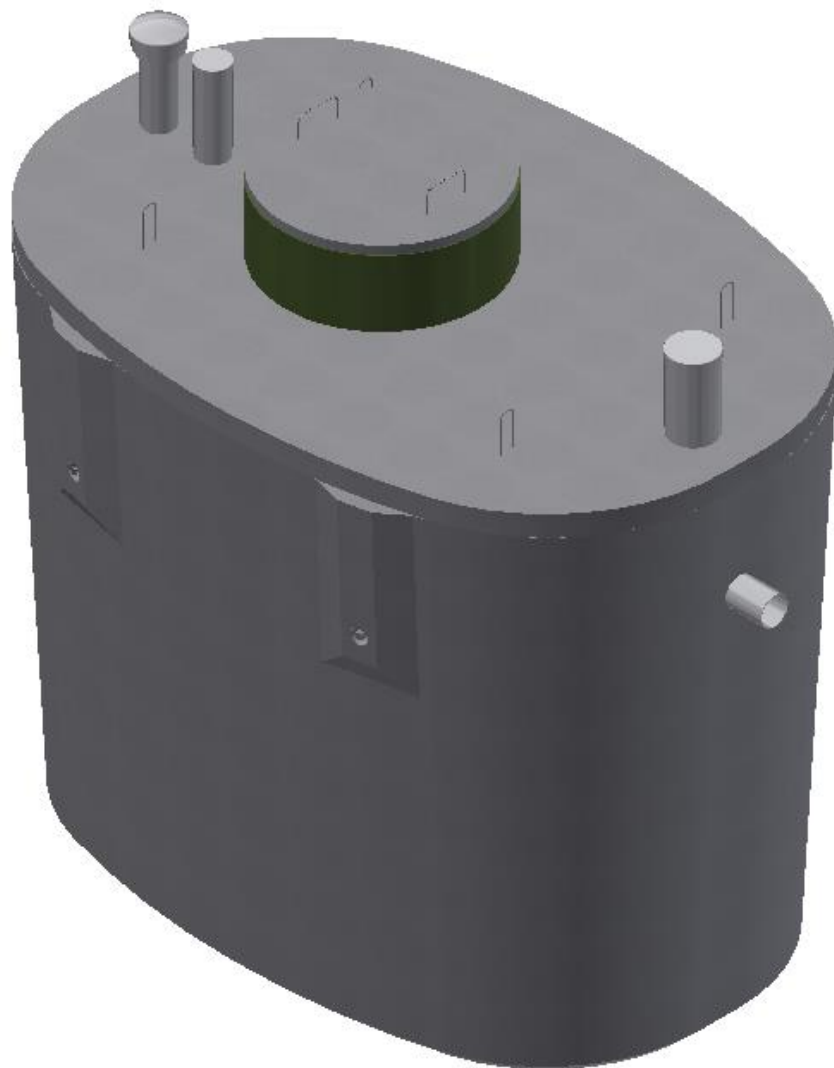
DCST6000 Septic Tank

PREPARED FOR:		Sheet 1 of 1	
DRAWN: Gerald	DATE: 17/04/2019	SCALE: 1 / 26	REF:
REVISION			



Dual Chamber Septic Tank

System Specifications & Installation Instructions



DUAL CHAMBER SEPTIC TANK

System Specification & Installation Instructions

New Zealand's Leaders in Eco-Sustainable, Odourless Wastewater and Sewage Systems

Compliance Requirements

All Waterflow Treatment Systems meet the requirements of the NZ Building Code G13-VM4.

Section 9 of AS/NZS 1546.1:2008 state that tanks constructed to these Standards will meet the requirements of the Code for Clauses B1 and B2, structure and durability.

Compliance with Section 9 of AS/NZS 1546.1:2008 and also Clauses G13.3.4 relating to on-site treatment and disposal systems and G14.3.1 and 14.3.2 relating to the control of foul water as an industrial waste are covered in the 'Waterflow Compliance Requirements' document.

Please feel free to ask for a copy of this complete document, if required.

The Treatment Process

The Dual Chamber Septic Tank comprises of a 2500mm long by 1700mm wide concrete tank, standing 1975mm high. Following the septic tank is a Dose Chamber that controls the discharge; both gravity dose and pump dose options are available.

The wastewater is directed into the first chamber. Here the solids are separated from the liquid through settling and floatation; long term testing has shown this to remove 60-80% of solids, which are then stored in the tank. The liquid from the clear zone then flows into the second chamber where further settling and floatation takes place. Anaerobic digestion further processes the waste producing odoriferous gases and humus, reducing the BOD. This finally passed through an outlet filter as per AS/NZS 1546 1:2008 Clause D3.3.1; which screens the effluent, reducing TSS.

It is then disposed of via a gravity or pump dose into the receiving environment, in accordance with AS/NZS 1547:2012 and the relevant local authority's requirements. The size and extent of the disposal system is determined by the receiving environment and the expected flow volumes. Factors such as soil types, slope and the proximity of potentially sensitive environments such as creeks, wells, bores and other water ways determine the extent, location and type of disposal system chosen.

The Dual Chamber Septic Tank has a 2000ltr reserve capacity to allow for 24hrs emergency storage should a pump fail. The operating capacity of the Dual Chamber Septic Tank is 2000ltrs per day. Reserve capacity is not required for gravity discharge systems.

The Dual Chamber Septic Tank will accumulate solids require regular desludging. Septic tank capacities are calculated up to a 5 year pump out cycle, as per AS/NZS 1547:2012 5.4.2.2.1 as to desludging requirements. It is recommended to service at no longer than 3 years from previous inspection.

See our website: www.waterflow.co.nz

DUAL CHAMBER SEPTIC TANK

System Specification & Installation Instructions

New Zealand's Leaders in Eco-Sustainable, Odourless Wastewater and Sewage Systems

Dual Chamber Septic Tank Specifications

Tanks are made of Concrete which is suitable material for wastewater treatment containment meeting all the requirements of Section 4.3.3 of AS/NZS 1547:2012 which cross references the structural performance requirements of its section 2.4.2.3 back to the relevant provisions of AS/NZS 1546.1, which for plastic septic tanks constructed via by rotational molding using thermoplastics (polyethylene) are set out in Section 9 of that Standard. These tanks have an expected lifespan of 50 years.

Dual Chamber Septic Tank

5200ltrs Nominal capacity

2500mm Length

1700mm Width

1975mm O/A height

Installation Location and Certification

These tanks are not designed for vehicle loads and shall be located no closer than 1.50m to a driveway, road frontage or a building. If for any reason the tank is located where vehicle traffic may drive over the tank or approach closer than 1.50m, or where it may be trampled on by farm stock then the tank should be protected by a concrete slab designed to support these loads. Surface water must also be diverted from flowing into the installation.

Installation must be certified to AS/NZS 1547:2012, the certificate to be issued and held by the regulatory authority.

High Water Table Installations

All tanks have been engineered and constructed from concrete for maximum strength, in accordance with the NZC 3604. Clauses B1 and B2 for structure and durability, to withstand any hydraulic pressures, both lateral and uplift, created by high water table conditions.

Plumbing Pipes and Fittings

All internal plumbing is done with PVC pipes with appropriate connections according to AS/NZS 1260 and AS/NZS 4130.

If in doubt contact the experts on 0800 628 356 or sales@waterflow.co.nz

DUAL CHAMBER SEPTIC TANK

System Specification & Installation Instructions

New Zealand's Leaders in Eco-Sustainable, Odourless Wastewater and Sewage Systems

Backfill and Bedding

Place and bed to NZBC G13/AS2, using compacted granular metal, in layers not exceeding 100mm. Backfill with soil excavated from the hole.

Electrical

Where a pump is required on a flat site electrical connection must be installed according to AS/NZS 3000 and the control and alarm system must be in a weatherproof housing located in a readily visible position.

Warranty

WATERFLOW NZ LTD warrants that the Dual Chamber Septic Tank will be free from defects in material and workmanship for the following periods of time from the date of installation as set out in the following conditions:

1. Concrete Septic Tank - 15yrs
2. Zoeller Outlet Filter - lifetime
3. Pumps - 2yrs
4. WATERFLOW NZ LTD will at its discretion replace or repair such components that prove to be faulty with the same or equivalent part at no charge.
5. Warranty of operation covers the performance of the Dual Chamber Septic Tank as connected to the effluent inflow for which they are designed, and also installed to the criteria as set out in the relative installation instructions and procedures.

Warranty excludes defects due to:

- A) Failure to use the system in accordance with owner's manual.
- B) A force majeure event outside the reasonable control of WATERFLOW NZ LTD such as (but not limited to) earthquake, fire, flood soil subsidence ground water table variations or plumbing fault.
- C) Modifications to surrounding landscape contours after installation
- D) The actions of a third party
- E) The system required to bear loads (either hydraulic or biological) greater than that for which it was designed
- F) Any modifications or repairs undertaken without the consent of WATERFLOW NZ LTD
- G) Failure, where applicable, to fence and plant land application system (disposal field)



1st June 2014

Dean Hoyle

Managing Director

See our website: www.waterflow.co.nz

DUAL CHAMBER SEPTIC TANK

System Specification & Installation Instructions

Dual Chamber Septic Tank Installation Instructions

The Dual Chamber Septic Tank is to be installed or signed off by a registered Drain layer to the design specified by Waterflow NZ Ltd.

The following installation instructions and procedures followed correctly will ensure System performance is not compromised in any way.

1. Excavate a 4m x 2m level platform for the tank at the appropriate depth to ensure adequate fall for inlet pipe from the source. This has to be installed in stable soil conditions.
2. Lay 100mm of bedding metal on platform and place Septic Tank.
3. Trench from septic tank outlet to disposal field (if gravity discharge, ensure there is a constant fall from outlet to disposal field).
4. Where possible excavate a trench away from System and lay drain coil and drainage metal at the base of the system to drain away any surface or ground water. On a flat or high water table site System must be bedded in as per appendix A below.
5. Take a minimum of 3 photos at this point to showing connections and back fill, to ensure correct installation for sign off.
6. Back fill around tanks with the excavated soil.

Caution: System must be protected from excessive super imposed loads both lateral and top loads. E.g. loads from vehicular traffic. There needs to be at least 2m of clearance maintained around system.

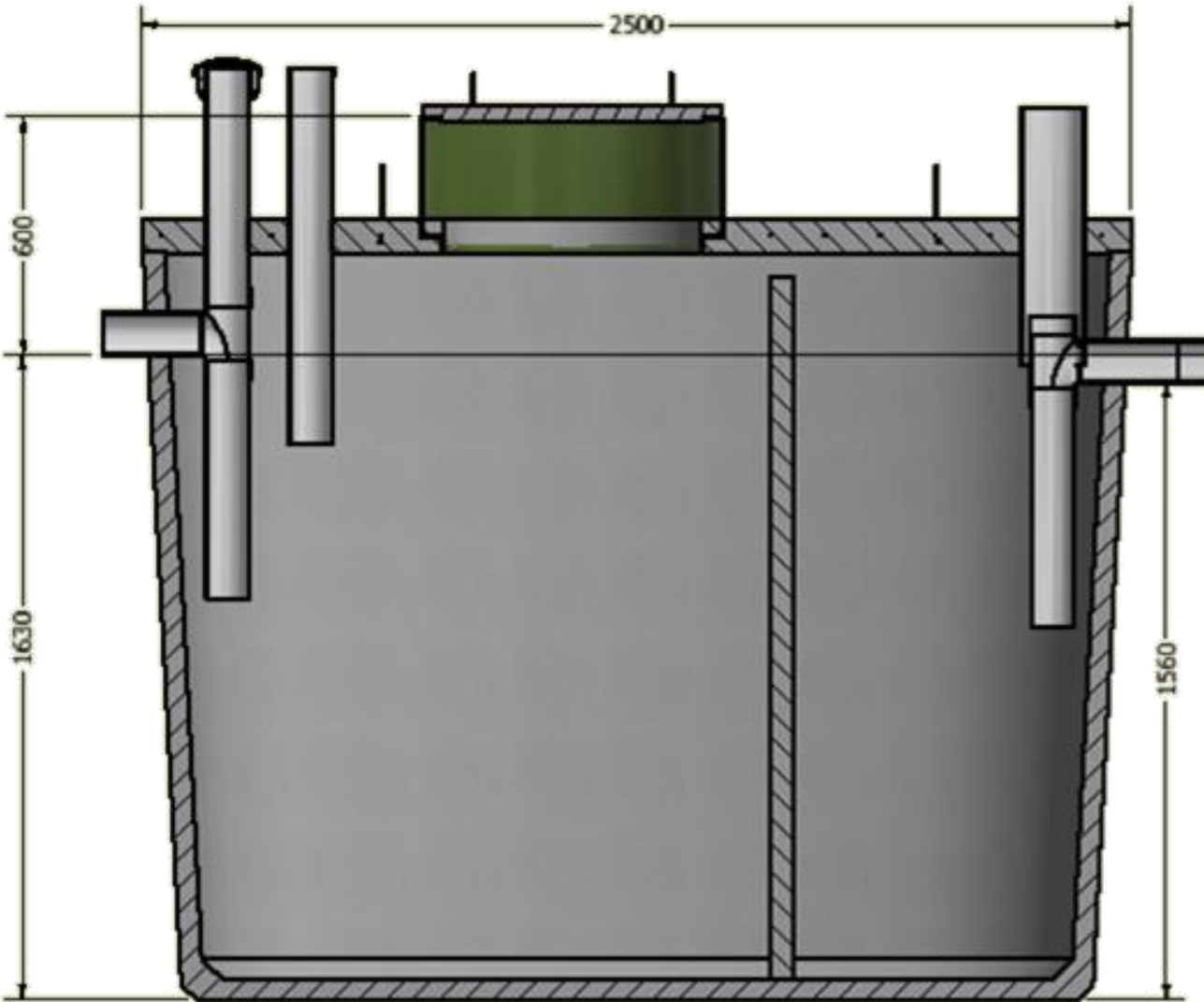
Appendix A

High Water Table: For installation in high water table areas, make sure you have a pump to pump away ground water whilst installing. Excavate a pump cavity to one side of the platform and pump ground water away during entire installation process. Fill Septic Tank with water during installation, this will help with resisting the hydraulic uplift.

DUAL CHAMBER SEPTIC TANK

System Specification & Installation Instructions

Dual Chamber Septic Tank Flow Charts



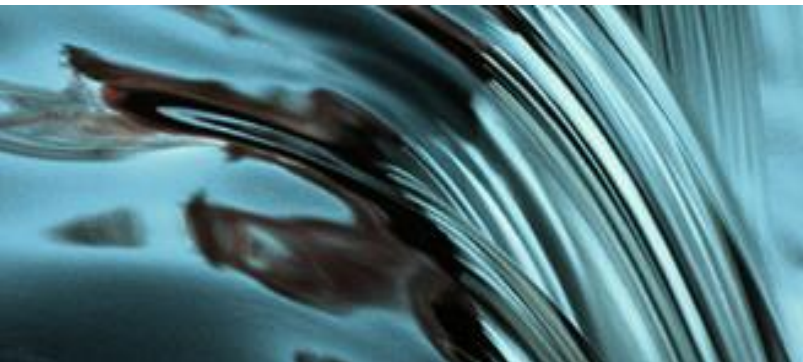


"We do it simpler"

Call us today to discuss your needs

0800 628 356

Or for more information www.waterflow.co.nz

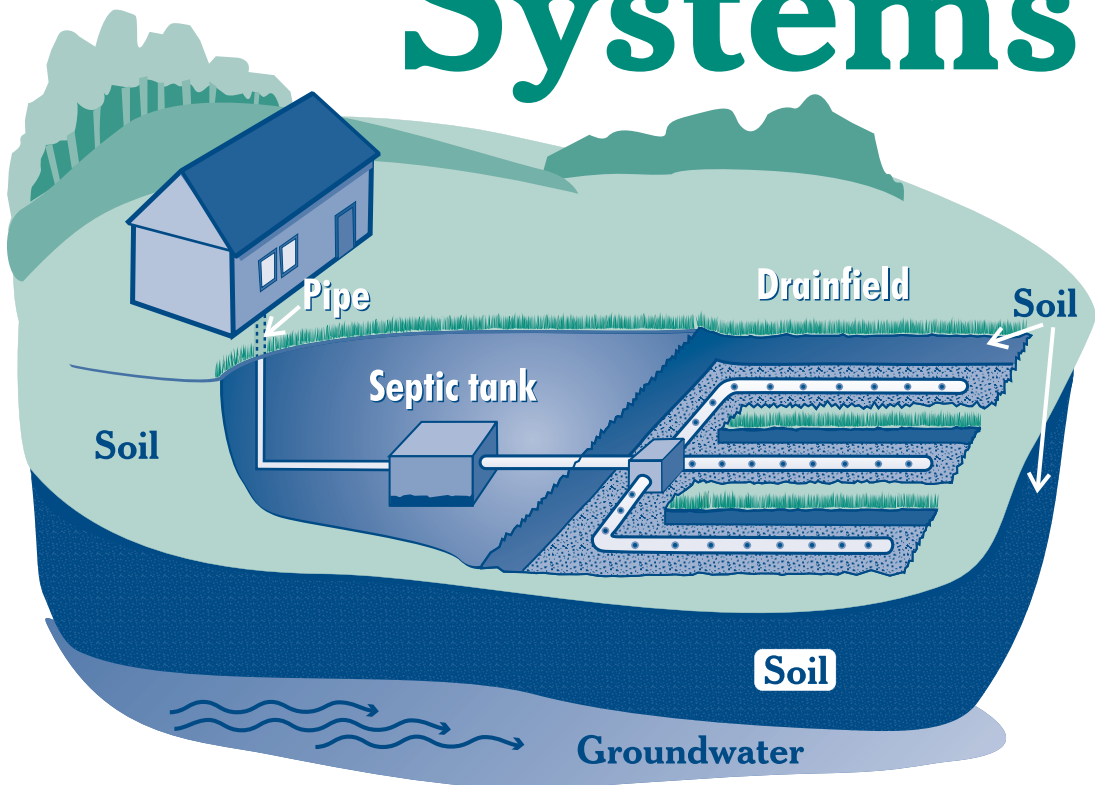


Head Office
Waterflow NZ Ltd
PO Box 24, 1160 State Highway 12,
Maungaturoto 0547, New Zealand
P. 09 431 0042
E. sales@waterflow.co.nz

South Island Office
NaturalFlow South Ltd,
82 Johns Road,
Belfast, Christchurch 8051
P. 03 323 8541
E. sales@naturalflowsouth.co.nz

www.naturalflow.co.nz

A Homeowner's Guide to Septic Systems



What's Inside

Your septic system is your responsibility	1
How does it work?	1
Why should I maintain my septic system?	4
How do I maintain my septic system?	5
What can make my system fail?	9
For more information	13

Your Septic System is your responsibility!

Did you know that as a homeowner you're responsible for maintaining your septic system? Did you know that maintaining your septic system protects your investment in your home? Did you know that you should periodically inspect your system and pump out your septic tank?

If properly designed, constructed and maintained, your septic system can provide long-term, effective treatment of household wastewater. If your septic system isn't maintained, you might need to replace it, costing you thousands of dollars. A malfunctioning system can contaminate groundwater that might be a source of drinking water. And if you sell your home, your septic system must be in good working order.

This guide will help you care for your septic system. It will help you understand how your system works and what steps you can take as a homeowner to ensure your system will work properly. To help you learn more, consult the resources listed at the back of this booklet.

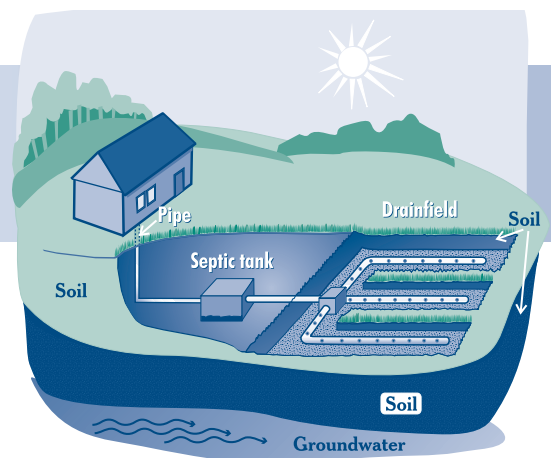
Top Four Things You Can Do to Protect Your Septic System

1. Regularly inspect your system and pump your tank as necessary.
2. Use water efficiently.
3. Don't dispose of household hazardous wastes in sinks or toilets.
4. Care for your drainfield.

How does it work?

Components

A typical septic system has four main components: a pipe from the home, a septic tank, a drainfield, and the soil. Microbes in the soil digest or remove most contaminants from wastewater before it eventually reaches groundwater.



Typical septic system

Septic system aliases:

- On-lot system
- Onsite system
- Individual sewage disposal system
- Onsite sewage disposal system
- Onsite wastewater treatment system

Pipe from the home

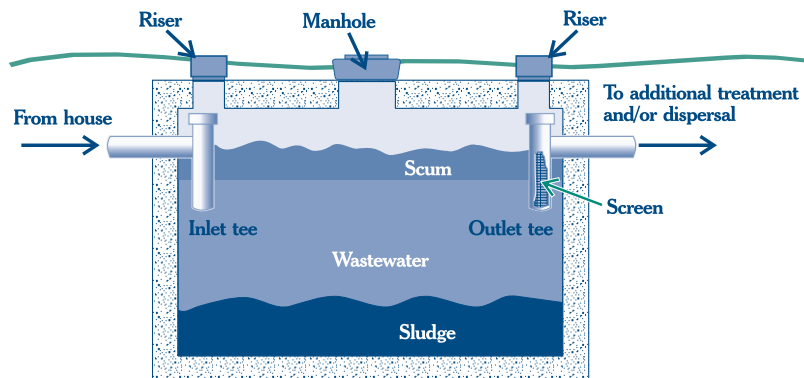
All of your household wastewater exits your home through a pipe to the septic tank.

Septic tank

The septic tank is a buried, watertight container typically made of concrete, fiberglass, or polyethylene. It holds the wastewater long enough to allow solids to settle out (forming sludge) and oil and grease to float to the surface (as scum). It also allows partial decomposition of the solid materials. Compartments and a T-shaped outlet in the septic tank prevent the sludge and scum from leaving the tank and traveling into the drainfield area. Screens are also recommended to keep solids from entering the drainfield.

Newer tanks generally have risers with lids at the ground surface to allow easy location, inspection, and pumping of the tank.

Typical single-compartment septic tank with ground-level inspection risers and screen

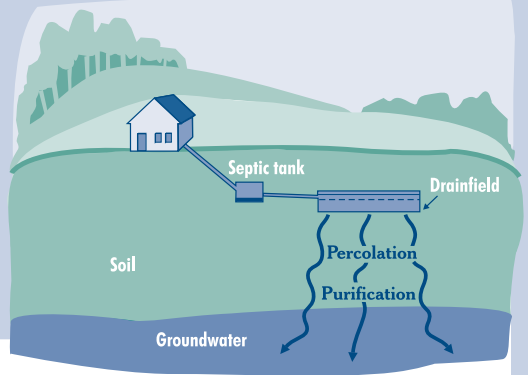


Tip

To prevent buildup, sludge and floating scum need to be removed through periodic pumping of the septic tank. Regular inspections and pumping are the best and cheapest way to keep your septic system in good working order.

Finding Your System

Your septic tank, drainfield, and reserve drainfield should be clearly designated on the “as-built” drawing for your home. (An “as-built” drawing is a line drawing that accurately portrays the buildings on your property and is usually filed in your local land records.) You might also see lids or manhole covers for your septic tank. Older tanks are often hard to find because there are no visible parts. An inspector/pumper can help you locate your septic system if your septic tank has no risers.



Drainfield

The wastewater exits the septic tank and is discharged into the drainfield for further treatment by the soil. The partially treated wastewater is pushed along into the drainfield for further treatment every time new wastewater enters the tank.

If the drainfield is overloaded with too much liquid, it will flood, causing sewage to flow to the ground surface or create backups in plumbing fixtures and prevent treatment of all wastewater.

A reserve drainfield, required by many states, is an area on your property suitable for a new drainfield system if your current drainfield fails. Treat this area with the same care as your septic system.

Soil

Septic tank wastewater flows to the drainfield, where it percolates into the soil, which provides final treatment by removing harmful bacteria, viruses, and nutrients. Suitable soil is necessary for successful wastewater treatment.

Alternative systems

Because many areas don't have soils suitable for typical septic systems, you might have or need an alternative system. You might also have or need an alternative system if there are too many typical septic systems in one area or the systems are too close to groundwater or surface waters. Alternative septic

systems use new technology to improve treatment processes and might need special care and maintenance. Some alternative systems use sand, peat, or plastic media instead of soil to promote wastewater treatment. Other systems might use wetlands, lagoons, aerators, or disinfection devices. Float switches, pumps, and other electrical or mechanical components are often used in alternative systems. Alternative systems should be inspected annually. Check with your local health department or installer for more information on operation and maintenance needs if you have or need an alternative system.

Why should I maintain my septic system?

When septic systems are properly designed, constructed, and maintained, they effectively reduce or eliminate most human health or environmental threats posed by pollutants in household wastewater. However, they require regular maintenance or they can fail. Septic systems need to be monitored to ensure that they work properly throughout their service lives.

Saving money

A key reason to maintain your septic system is to save money! Failing septic systems are expensive to repair or replace, and poor maintenance is often the culprit. Having your septic system inspected regularly is a bargain when you consider the cost of replacing the entire system. Your system will need pumping depending on how many people live in the house and the size of the system. An unusable septic system or one in disrepair will lower your property value and could pose a legal liability.

Protecting health and the environment

Other good reasons for safe treatment of sewage include preventing the spread of infection and disease and protecting water resources. Typical pollutants in household wastewater are nitrogen, phosphorus, and disease-

causing bacteria and viruses. If a septic system is working properly, it will effectively remove most of these pollutants.

With one-fourth of U.S. homes using septic systems, more than 4 billion gallons of wastewater per day is dispersed below the ground's surface. Inadequately treated sewage from septic systems can be a cause of groundwater contamination. It poses a significant threat to drinking water and human health because it can contaminate drinking water wells and cause diseases and infections in people and animals. Improperly treated sewage that contaminates nearby surface waters also increases the chance of swimmers contracting a variety of infectious diseases. These range from eye and ear infections to acute gastrointestinal illness and diseases like hepatitis.

How do I maintain my septic system?

Inspect and pump frequently

You should have a typical septic system inspected at least every 3 years by a professional and your tank pumped as recommended by the inspector (generally every 3 to 5 years). Alternative systems with electrical float switches, pumps, or mechanical components need to be inspected more often, generally once a year. Your service provider should inspect for leaks and look at the scum and sludge layers in your septic tank. If the bottom of the scum layer is within 6 inches of the bottom of the outlet tee or the top of the sludge layer is within 12 inches of the outlet tee, your tank needs to be pumped. Remember to note the sludge and scum levels determined by your service provider in your operation and maintenance records. This information will help you decide how often pumping is necessary.

What Does an Inspection Include?

- Locating the system.
- Uncovering access holes.
- Flushing the toilets.
- Checking for signs of back up.
- Measuring scum and sludge layers.
- Identifying any leaks.
- Inspecting mechanical components.
- Pumping the tank if necessary.

Four major factors influence the frequency of pumping: the number of people in your household, the amount of wastewater generated (based on the number of people in the household and the amount of water used), the volume of solids in the wastewater (for example, using a garbage disposal increases the amount of solids), and septic tank size.

Some makers of septic tank additives claim that their products break down the sludge in septic tanks so the tanks never need to be pumped. Not everyone agrees on the effectiveness of additives. In fact, septic tanks already contain the microbes they need for effective treatment. Periodic pumping is a much better way to ensure that septic systems work properly and provide many years of service. Regardless, every septic tank requires periodic pumping.

In the service report, the pumper should note any repairs completed and whether the tank is in good condition. If the pumper recommends additional repairs he or she can't perform, hire someone to make the repairs as soon as possible.

Use water efficiently

Average indoor water use in the typical single-family home is almost 70 gallons per person per day. Leaky toilets can waste as much as 200 gallons each day. The more water a household conserves, the less water enters the septic system. Efficient water use can improve the operation of the septic system and reduce the risk of failure.

High-efficiency toilets

Toilet use accounts for 25 to 30 percent of household water use. Do you know how many gallons of water your toilet uses to empty the bowl? Most older homes have toilets with 3.5- to 5-gallon reservoirs, while newer high-efficiency toilets use 1.6 gallons of water or less per flush. If you have problems with your septic system being flooded with household water, consider reducing the volume of water in the toilet tank if you don't have a high-efficiency model or replacing your existing toilets with high-efficiency models.



Faucet aerators and high-efficiency showerheads

Faucet aerators help reduce water use and the volume of water entering your septic system. High-efficiency showerheads or shower flow restrictors also reduce water use.

Water fixtures

Check to make sure your toilet's reservoir isn't leaking into the bowl. Add five drops of liquid food coloring to the reservoir before bed. If the dye is in the bowl the next morning, the reservoir is leaking and repairs are needed.

A small drip from a faucet adds many gallons of unnecessary water to your system every day. To see how much a leak adds to your water usage, place a cup under the drip for 10 minutes. Multiply the amount of water in the cup by 144 (the number of minutes in 24 hours, divided by 10). This is the total amount of clean water traveling to your septic system each day from that little leak.



Use Water Efficiently!

- **Install high-efficiency showerheads**
- **Fill the bathtub with only as much water as you need**
- **Turn off faucets while shaving or brushing your teeth**
- **Run the dishwasher and clothes washer only when they're full**
- **Use toilets to flush sanitary waste only (not kitty litter, diapers, or other trash)**
- **Make sure all faucets are completely turned off when not in use**
- **Maintain your plumbing to eliminate leaks**
- **Install aerators in the faucets in your kitchen and bathroom**
- **Replace old dishwashers, toilets, and clothes washers with new, high-efficiency models.**

For more information on water conservation, please visit www.epa.gov/owm/water-efficiency/index.htm

Watch your drains

What goes down the drain can have a major impact on how well your septic system works.

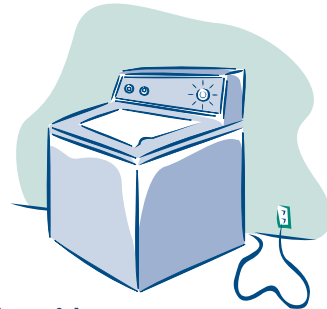
Waste disposal

What shouldn't you flush down your toilet? Dental floss, feminine hygiene products, condoms, diapers, cotton swabs, cigarette butts, coffee grounds, cat litter, paper towels, and other kitchen and bathroom items that can clog and potentially damage septic system components if they become trapped. Flushing household chemicals, gasoline, oil, pesticides, antifreeze, and paint can stress or destroy the biological treatment taking place in the system or might contaminate surface waters and groundwater. If your septic tank pumper is concerned about quickly accumulating scum layers, reduce the flow of floatable materials like fats, oils, and grease into your tank or be prepared to pay for more frequent inspections and pumping.

Washing machines

By selecting the proper load size, you'll reduce water waste. Washing small loads of laundry on the large-load cycle wastes precious water and energy. If you can't select load size, run only full loads of laundry.

Doing all the household laundry in one day might seem like a time-saver, but it could be harmful to your septic system. Doing load after load does not allow your septic tank time to adequately treat wastes. You could be flooding your drainfield without allowing sufficient recovery time. Try to spread water usage throughout the week. A new Energy Star clothes washer uses 35 percent less energy and 50 percent less water than a standard model.



Care for your drainfield

Your drainfield is an important part of your septic system. Here are a few things you should do to maintain it:

- Plant only grass over and near your septic system. Roots from nearby trees or shrubs might clog and damage the drainfield.
- Don't drive or park vehicles on any part of your septic system. Doing so can compact the soil in your drainfield or damage the pipes, tank, or other septic system components.
- Keep roof drains, basement sump pump drains, and other rainwater or surface water drainage systems away from the drainfield. Flooding the drainfield with excessive water slows down or stops treatment processes and can cause plumbing fixtures to back up.

What can make my system fail?

If the amount of wastewater entering the system is more than the system can handle, the wastewater backs up into the house or yard and creates a health hazard.

You can suspect a system failure not only when a foul odor is emitted but also when partially treated wastewater flows up to the ground surface. By the time you can smell or see a problem, however, the damage might already be done.

By limiting your water use, you can reduce the amount of wastewater your system must treat. When you have your system inspected and pumped as needed, you reduce the chance of system failure.

A system installed in unsuitable soils can also fail. Other failure risks include tanks that are inaccessible for maintenance, drainfields that are paved or parked on, and tree roots or defective components that interfere with the treatment process.

Failure symptoms

The most obvious septic system failures are easy to spot. Check for pooling water or muddy soil around your septic system or in your basement. Notice whether your toilet or sink backs up when you flush or do laundry. You might also notice strips of bright green grass over the drainfield. Septic systems also fail when partially treated wastewater comes into contact with groundwater. This type of failure is not easy to detect, but it can result in the pollution of wells, nearby streams, or other bodies of water. Check with a septic system professional and the local health department if you suspect such a failure.

Stop, look, and smell!

Failure causes

Household toxics

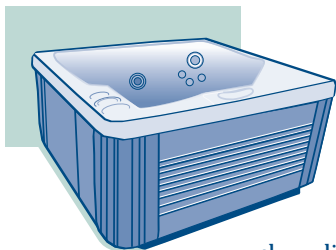
Does someone in your house use the utility sink to clean out paint rollers or flush toxic cleaners? Oil-based paints, solvents, and large volumes of toxic cleaners should not enter your septic system. Even latex paint cleanup waste should be minimized. Squeeze all excess paint and stain from brushes and rollers on several layers of newspaper before rinsing. Leftover paints and wood stains should be taken to your local household hazardous waste collection center. Remember that your septic system contains a living collection of organisms that digest and treat waste.

Household cleaners

For the most part, your septic system's bacteria should recover quickly after small amounts of household cleaning products have entered the system. Of course, some cleaning products are less toxic to your system than others. Labels can help key you into the potential toxicity of various products. The word "Danger" or "Poison" on a label indicates that the product is highly hazardous. "Warning" tells you the product is moderately hazardous. "Caution" means the product is slightly hazardous. ("Nontoxic" and "Septic Safe"



are terms created by advertisers to sell products.) Regardless of the type of product, use it only in the amounts shown on the label instructions and minimize the amount discharged into your septic system.



Hot tubs

Hot tubs are a great way to relax. Unfortunately, your septic system was not designed to handle large quantities of water from your hot tub. Emptying hot tub water into your septic system stirs the solids in the tank and pushes them out into the drainfield, causing it to clog and fail. Draining your hot tub into a septic system or over the drainfield can overload the system. Instead, drain cooled hot tub water onto turf or landscaped areas well away from the septic tank and drainfield, and in accordance with local regulations. Use the same caution when draining your swimming pool.

Water Purification Systems

Some freshwater purification systems, including water softeners, unnecessarily pump water into the septic system. This can contribute hundreds of gallons of water to the septic tank, causing agitation of solids and excess flow to the drainfield. Check with your licensed plumbing professional about alternative routing for such freshwater treatment systems.

Garbage disposals

Eliminating the use of a garbage disposal can reduce the amount of grease and solids entering the septic tank and possibly clogging the drainfield. A garbage disposal grinds up kitchen scraps, suspends them in water, and sends the mixture to the septic tank. Once in the septic tank, some of the materials are broken down by bacterial action, but most of the grindings have to be pumped out of the tank. Using a garbage disposal frequently can significantly increase the accumulation of sludge and scum in your septic tank, resulting in the need for more frequent pumping.



Improper design or installation

Some soils provide excellent wastewater treatment; others don't. For this reason, the design of the drainfield of a septic system is based on the results of soil analysis. Homeowners and system designers sometimes underestimate the significance of good soils or believe soils can handle any volume of wastewater applied to them. Many failures can be attributed to having an undersized drainfield or high seasonal groundwater table. Undersized septic tanks—another design failure—allow solids to clog the drainfield and result in system failure.

If a septic tank isn't watertight, water can leak into and out of the system. Usually, water from the environment leaking into the system causes hydraulic overloading, taxing the system beyond its capabilities and causing inadequate treatment and sometimes sewage to flow up to the ground surface. Water leaking out of the septic tank is a significant health hazard because the leaking wastewater has not yet been treated.

Even when systems are properly designed, failures due to poor installation practices can occur. If the drainfield is not properly leveled, wastewater can overload the system. Heavy equipment can damage the drainfield during installation which can lead to soil compaction and reduce the wastewater infiltration rate. And if surface drainage isn't diverted away from the field, it can flow into and saturate the drainfield.

For more information

Local Health Department

EPA Onsite/Decentralized Management Homepage

www.epa.gov/owm/septic

EPA developed this Web site to provide tools for communities investigating and implementing onsite/decentralized management programs. The Web site contains fact sheets, program summaries, case studies, links to design and other manuals, and a list of state health department contacts that can put you in touch with your local health department.

National Small Flows Clearinghouse

www.nesc.wvu.edu

Funded by grants from EPA, the NSFC helps America's small communities and individuals solve their wastewater problems. Its activities include a Web site, online discussion groups, a toll-free assistance line (800-624-8301), informative publications, and a free quarterly newsletter and magazine.

Rural Community Assistance Program

www.rcap.org

RCAP is a resource for community leaders and others looking for technical assistance services and training related to rural drinking water supply and wastewater treatment needs, rural solid waste programs, housing, economic development, comprehensive community assessment and planning, and environmental regulations.

National Onsite Wastewater Recycling Association, Inc.

www.nowra.org

NOWRA is a national professional organization to advance and promote the onsite wastewater industry. The association promotes the need for regular service and educates the public on the need for properly designed and maintained septic systems.

Septic Yellow Pages

www.septicyellowpages.com

The Septic Yellow Pages provides listings by state for professional septic pumpers, installers, inspectors, and tank manufacturers throughout the United States. This Web site is designed to answer simple septic system questions and put homeowners in contact with local septic system professionals.

National Association of Wastewater Transporters

www.nawt.org

NAWT offers a forum for the wastewater industry to exchange ideas and concerns. The NAWT Web site lists state associations and local inspectors and pumpers.



EPA-832-B-02-005
December 2002
Revised March 2005

Additional copies can be obtained from:
U.S. EPA Publications Clearinghouse
P.O. Box 42419
Cincinnati, OH 45241

Telephone: 800-490-9198
Fax: 513-489-8695

Office of Water
U.S. Environmental Protection Agency

Notice

This document has been reviewed in accordance with U.S. Environmental Protection Agency policy and approved for publication. Mention of profit-making organizations, trade names, or commercial products does not constitute endorsement or recommendation for use.

Recycled/Recyclable
Printed with vegetable-based ink on paper that contains a minimum of 50% post-consumer fiber content processed chlorine-free.



Septic System Dos and Don'ts

(adapted from National Small Flows Clearinghouse)

Dos

- Check with the local regulatory agency or inspector/pumper if you have a garbage disposal unit to make sure that your septic system can handle this additional waste.
- Check with your local health department before using additives. Commercial septic tank additives do not eliminate the need for periodic pumping and can be harmful to the system.
- Use water efficiently to avoid overloading the septic system. Be sure to repair leaky faucets or toilets. Use high-efficiency fixtures.
- Use commercial bathroom cleaners and laundry detergents in moderation. Many people prefer to clean their toilets, sinks, showers, and tubs with a mild detergent or baking soda.
- Check with your local regulatory agency or inspector/pumper before allowing water softener backwash to enter your septic tank.
- Keep records of repairs, pumpings, inspections, permits issued, and other system maintenance activities.
- Learn the location of your septic system. Keep a sketch of it with your maintenance record for service visits.
- Have your septic system inspected and pumped as necessary by a licensed inspector/contractor.
- Plant only grass over and near your septic system. Roots from nearby trees or shrubs might clog and damage the drainfield.

Don'ts

- Your septic system is not a trash can. Don't put dental floss, feminine hygiene products, condoms, diapers, cotton swabs, cigarette butts, coffee grounds, cat litter, paper towels, latex paint, pesticides, or other hazardous chemicals into your system.
- Don't use caustic drain openers for a clogged drain. Instead, use boiling water or a drain snake to open clogs.
- Don't drive or park vehicles on any part of your septic system. Doing so can compact the soil in your drainfield or damage the pipes, tank, or other septic system components.




United States
Environmental Protection
Agency

Office of Water
Washington, DC 20460

Official Business
Penalty for Private Use
\$300
EPA-832-B-02-005

Static Pile Test Report

STOPDIGGING!

Region Manager Name:	
Region Manager Email:	
Region Manager Phone:	
Region:	
Engineer Contact Name:	
Company / Client:	Site Scope
Building Consent Number (If applicable)	TBC
Site Address:	TE TŪĀPAPA KURA KĀINGA, 70 TE TAPUI ROAD, MATAURI BAY, KAIKOHE , NORTHLAND, 0478
Date:	09/02/2024

StopDigging NZ Ltd have conducted in-ground static pile testing on our groundscrews for the purpose of confirming load bearing capacity in the site specific ground conditions.

Testing methodology is based on the Screw Pile Guidance Document ISSN 1176-0907 by IPENZ, some details from AS2159, and ASTM D3689-07. Our pile displacement parameters are 5% of pile diameter / 5mm for compression/tension and 25mm for lateral for determining failure. We typically use a tension test to confirm compression load bearing strength, which offers a further safety factor to the final installation.

PROJECT DETAILS

Single storey cabins and decks. On site testing completed to confirm loading for use of Stopdigging.

Foundation Ground Screws.

Design Loads provided:

Compression Load:	12Kn
Tension Load	10Kn
Lateral Load:	4.5Kn

Location Test Number#	1
GPS Coordinates (If necessary)	N/A
Ground Screw Type	SGC 76x1200
Length mm	1200mm
Screw Head Height Above Ground / In ground (mm)	300mm
Tensile (kN) Stable /Failure	30.00
Lateral (kN) Stable	9.88
Compression (kN) Stable	21.46

Test Result 1:

SGC 1200mm x 76mm embedded to 900mm. Compression loading of 21.46Kn @ 5mm of displacement.

SGC 1200mm x 76mm embedded to 900mm. Lateral loading of 9.88kn @ 25mm of displacement.

SGC 1200mm x 76mm embedded to 900mm. Uplift loading of 30.00kn @ 5mm of displacement.

Test Recommendations:

Complete the cabin foundation installation using a combination of SGC 1200x76 and SGC 76x1600 foundation ground screws.

Complete the foundation installation for the deck using SGU 1200x95 foundation ground screws.

Ground Screw Test Report Ground Screw - Compression

Test 1

Compression Load (Kn)

Stage :	Load : (KN)	Duration:	Min Displacement
1 10%	17.12	1	1mm
2 25%	18.06	1	2mm
3 50%	19.32	1	3mm
3 75%	19.82	1	4mm
4 100%	21.46	15	5mm
5 150%	0.00	0	0

Ground Screw Test Report Ground Screw - Lateral

Test 1

Lateral Load (Kn)

Stage :	Load : (KN)	Duration:	Min Displacement
1 10%	6.02	1	5mm
2 25%	6.34	1	10mm
3 50%	7.12	1	15mm
3 75%	8.42	1	20mm
4 100%	9.88	15	25mm
5 150%	0	0	0

Ground Screw Test Report Ground Screw - Tension

Test 1

Tension Load (Kn)

Stage	Load :	Duration	Min
1 10%	22.00	1	1mm
2 25%	24.00	1	2mm
3 50%	24.50	1	3mm
4 75%	26.00	1	4mm
5 100%	30.00	15	5mm
6 150%	0	0	0



Compression Result – Test 1



Lateral Result – Test 1



Tension Result – Test 1

Static Pile Test Report

STOPDIGGING!

Region Manager Name:	Heremaia Harris
Region Manager Email:	heremaia.harris@stopdigging.co.nz
Region Manager Phone:	021677010
Region:	Far North
Engineer Contact Name:	Hamish Abercrombie – LBP Designer
Company / Client:	Site Scope
Building Consent Number (If applicable)	TBC
Site Address:	TE TŪĀPAPA KURA KĀINGA, 70 TE TAPUI ROAD, MATAURI BAY, KAIKOHE , NORTHLAND, 0478
Date:	09/02/2024

StopDigging NZ Ltd have conducted in-ground static pile testing on our groundscrews for the purpose of confirming load bearing capacity in the site specific ground conditions.

Testing methodology is based on the Screw Pile Guidance Document ISSN 1176-0907 by IPENZ, some details from AS2159, and ASTM D3689-07. Our pile displacement parameters are 5% of pile diameter / 5mm for compression/tension and 25mm for lateral for determining failure. We typically use a tension test to confirm compression load bearing strength, which offers a further safety factor to the final installation.

PROJECT DETAILS

Single storey cabins and decks. On site testing completed to confirm loading for use of Stopdigging.

Foundation Ground Screws.

Design Loads provided:

Compression Load:	12Kn
Tension Load	10Kn
Lateral Load:	4.5Kn

Location Test Number#	2
GPS Coordinates (If necessary)	N/A
Ground Screw Type	SGC 76x1200
Length mm	1200mm
Screw Head Height Above Ground / In ground (mm)	300mm
Tensile (kN) Stable /Failure	30.00
Lateral (kN) Stable	8.40
Compression (kN) Stable	30.62

Test Result 2:

SGC 1200mm x 76mm embedded to 900mm. Compression loading of 30.62Kn @ 5mm of displacement.

SGC 1200mm x 76mm embedded to 900mm. Lateral loading of 8.40kn @ 25mm of displacement.

SGC 1200mm x 76mm embedded to 900mm. Uplift loading of 30.00kn @ 5mm of displacement.

Test Recommendations:

Complete the cabin foundation installation using a combination of SGC 1200x76 and SGC 76x1600 foundation ground screws.

Complete the foundation installation for the deck using SGU 1200x95 foundation ground screws.

Ground Screw Test Report Ground Screw - Compression

Test 2

Compression Load (Kn)

Stage :	Load : (KN)	Duration:	Min Displacement
1 10%	26.24	1	1mm
2 25%	27.06	1	2mm
3 50%	28.44	1	3mm
3 75%	29.24	1	4mm
4 100%	30.62	15	5mm
5 150%	0.00	0	0

Ground Screw Test Report Ground Screw - Lateral

Test 2

Lateral Load (Kn)

Stage :	Load : (KN)	Duration:	Min Displacement
1 10%	3.42	1	5mm
2 25%	4.44	1	10mm
3 50%	5.42	1	15mm
3 75%	6.90	1	20mm
4 100%	8.40	15	25mm
5 150%	0	0	0

Ground Screw Test Report Ground Screw - Tension

Test 2

Tension Load (Kn)

Stage	Load :	Duration	Min
1 10%	22.00	1	1mm
2 25%	24.00	1	2mm
3 50%	26.50	1	3mm
4 75%	28.00	1	4mm
5 100%	30.00	15	5mm
6 150%	0	0	0



Compression Result – Test 2



Lateral Result – Test 2



Tension Result – Test 2

Static Pile Test Report

STOPDIGGING!

Region Manager Name:	
Region Manager Email:	
Region Manager Phone:	
Region:	
Engineer Contact Name:	
Company / Client:	Site Scope
Building Consent Number (If applicable)	TBC
Site Address:	TE TŪĀPAPA KURA KĀINGA, 70 TE TAPUI ROAD, MATAURI BAY, KAIKOHE , NORTHLAND, 0478
Date:	09/02/2024

StopDigging NZ Ltd have conducted in-ground static pile testing on our groundscrews for the purpose of confirming load bearing capacity in the site specific ground conditions.

Testing methodology is based on the Screw Pile Guidance Document ISSN 1176-0907 by IPENZ, some details from AS2159, and ASTM D3689-07. Our pile displacement parameters are 5% of pile diameter / 5mm for compression/tension and 25mm for lateral for determining failure. We typically use a tension test to confirm compression load bearing strength, which offers a further safety factor to the final installation.

PROJECT DETAILS

Single storey cabins and decks. On site testing completed to confirm loading for use of Stopdigging.

Foundation Ground Screws.

Design Loads provided:

Compression Load:	12Kn
Tension Load	10Kn
Lateral Load:	4.5Kn

Location Test Number#	3
GPS Coordinates (If necessary)	N/A
Ground Screw Type	SGC 76x1200
Length mm	1200mm
Screw Head Height Above Ground / In ground (mm)	300mm
Tensile (kN) Stable /Failure	22.00
Lateral (kN) Stable	6.46
Compression (kN) Stable	34.30

Test Result 3:

SGC 1200mm x 76mm embedded to 900mm. Compression loading of 34.30Kn @ 5mm of displacement.

SGC 1200mm x 76mm embedded to 900mm. Lateral loading of 6.46kn @ 25mm of displacement.

SGC 1200mm x 76mm embedded to 900mm. Uplift loading of 22.00kn @ 5mm of displacement.

Test Recommendations:

Complete the cabin foundation installation using a combination of SGC 1200x76 and SGC 76x1600 foundation ground screws.

Complete the foundation installation for the deck using SGU 1200x95 foundation ground screws.

Ground Screw Test Report Ground Screw - Compression

Test 3

Compression Load (Kn)

Stage :	Load : (KN)	Duration:	Min Displacement
1 10%	26.24	1	1mm
2 25%	28.06	1	2mm
3 50%	29.64	1	3mm
3 75%	32.62	1	4mm
4 100%	34.30	15	5mm
5 150%	0.00	0	0

Ground Screw Test Report Ground Screw - Lateral

Test 3

Lateral Load (Kn)

Stage :	Load : (KN)	Duration:	Min Displacement
1 10%	3.62	1	5mm
2 25%	4.44	1	10mm
3 50%	5.12	1	15mm
3 75%	5.90	1	20mm
4 100%	6.46	15	25mm
5 150%	0	0	0

Ground Screw Test Report Ground Screw - Tension

Test 3

Tension Load (Kn)

Stage	Load :	Duration	Min
1 10%	16.00	1	1mm
2 25%	17.00	1	2mm
3 50%	18.50	1	3mm
4 75%	20.00	1	4mm
5 100%	22.00	15	5mm
6 150%	0	0	0



Compression Result – Test 3




Lateral Result – Test 3



Tension Result – Test 3

Static Pile Test Report

STOPDIGGING!

Region Manager Name:	
Region Manager Email:	
Region Manager Phone:	
Region:	
Engineer Contact Name:	
Company / Client:	Site Scope
Building Consent Number (If applicable)	TBC
Site Address:	TE TŪĀPAPA KURA KĀINGA, 70 TE TAPUI ROAD, MATAURI BAY, KAIKOHE , NORTHLAND, 0478
Date:	09/02/2024

StopDigging NZ Ltd have conducted in-ground static pile testing on our groundscrews for the purpose of confirming load bearing capacity in the site specific ground conditions.

Testing methodology is based on the Screw Pile Guidance Document ISSN 1176-0907 by IPENZ, some details from AS2159, and ASTM D3689-07. Our pile displacement parameters are 5% of pile diameter / 5mm for compression/tension and 25mm for lateral for determining failure. We typically use a tension test to confirm compression load bearing strength, which offers a further safety factor to the final installation.

PROJECT DETAILS

Single storey cabins and decks. On site testing completed to confirm loading for use of Stopdigging.

Foundation Ground Screws.

Design Loads provided:

Compression Load:	12Kn
Tension Load	10Kn
Lateral Load:	4.5Kn

Location Test Number#	4
GPS Coordinates (If necessary)	N/A
Ground Screw Type	SGC 76x1200
Length mm	1200mm
Screw Head Height Above Ground / In ground (mm)	300mm
Tensile (kN) Stable /Failure	40.00
Lateral (kN) Stable	9.50
Compression (kN) Stable	52.46

Test Result 4:

SGC 1200mm x 76mm embedded to 900mm. Compression loading of 52.46Kn @ 5mm of displacement.

SGC 1200mm x 76mm embedded to 900mm. Lateral loading of 9.50kn @ 25mm of displacement.

SGC 1200mm x 76mm embedded to 900mm. Uplift loading of 40.00kn @ 5mm of displacement.

Test Recommendations:

Complete the cabin foundation installation using a combination of SGC 1200x76 and SGC 76x1600 foundation ground screws.

Complete the foundation installation for the deck using SGU 1200x95 foundation ground screws.

Ground Screw Test Report Ground Screw - Compression

Test 4

Compression Load (Kn)

Stage :	Load : (KN)	Duration:	Min Displacement
1 10%	42.24	1	1mm
2 25%	44.06	1	2mm
3 50%	48.24	1	3mm
3 75%	50.22	1	4mm
4 100%	52.46	15	5mm
5 150%	0.00	0	0

Ground Screw Test Report Ground Screw - Lateral

Test 4

Lateral Load (Kn)

Stage :	Load : (KN)	Duration:	Min Displacement
1 10%	5.72	1	5mm
2 25%	6.64	1	10mm
3 50%	7.42	1	15mm
3 75%	8.66	1	20mm
4 100%	9.50	15	25mm
5 150%	0	0	0

Ground Screw Test Report Ground Screw - Tension

Test 4

Tension Load (Kn)

Stage	Load :	Duration	Min
1 10%	29.00	1	1mm
2 25%	32.00	1	2mm
3 50%	36.00	1	3mm
4 75%	38.00	1	4mm
5 100%	40.00	15	5mm
6 150%	0	0	0



Compression Result – Test 4



Lateral Result – Test 4



Tension Result – Test 4