Land Information Memorandum

Application

Stephyn St James	No.	L260630
St James and Co	Application date	22/10/2026
27C Kahu Drive	Issue date	30/10/2026
Mangawhai 0505	Phone	021 359 425
	Fax	

Please Note: This LIM report contains information for the entire legal description below.

Property

Valuation No.	0122011490
Location	3 Sunrise Lane, Mangawhai
Legal Description	LOT 2 DP 347150
Owner	Millow Hannah Susan : Townshend Hamish Richard & Others
Area (hectares)	0.4000

Rates

Government Valuation	
Land	$580,000
Capital Value	$1,460,000
Improvements	$880,000
Current Rates Year 2026 to 2027	
Annual Rates	$5,108.46
Current Instalment	$1,277.11
Current Year - Outstanding Rates	$1,277.11
Arrears for Previous Years	$ 0.00
Next Instalment Due	20/11/2026.

Note: Rates are charged in four instalments for the period commencing 1 July and ending 30 June each year.

Mangawhai Wastewater Development Contribution paid.

Please refer to the Kaipara District Council Long Term Plan 2024/2027 and in particular to the Wastewater Targeted Rates and to the Kaipara District Council Development Contribution Policy 2025 which can be found at the Council website.

Planning/Resource Management

Zoning:	**Kaipara District Plan 2013:** Residential – Mangawhai Harbour Overlay. See attached information regarding the District Plan.

Full details of the zone requirements are found in the current District Plan. Relevant zone ordinance can be found at the Council website.

Note: Kaipara District Proposed District Plan was publicly notified Monday 28 April 2025. Submissions on the Proposed District Plan closed Monday June 30, 2025. Please refer to the Kaipara District Plan Review in relation to potential changes that may affect this property.

23/06/25 **RESOURCE CONSENT 240025:** Proposed 2 lot Subdivisions, changing the existing consent notice, breaching 13.10.1a Earthworks. Lot 2 DP 347150, 3 Sunrise Lane,

	Mangawhai. Decision Notified 29/05/25: GRANTED BY LOCAL AUTHORITY OFFICER 29/05/25. **Copy of Decision, Scheme plan and Geotechnical Report attached.**
5/04/04	**RESOURCE CONSENT 030218**: SUBDIVISION OF LOT 10 DP180861 CT111D/918 OF 2.8HA ALLOTMENT INTO SEVEN RURAL-RESIDENTIAL ALLOTS. **Created DP 347150.** Section 224 Issued 3/11/05: GRANTED UNDER DELEGATED AUTHORITY 15/03/04.
	RM030218 Consent notice on Lot 1 DP 347150 at the time of applying for a building consent for a dwelling on the lot, the proposed point of access shall be advised to Council. (Found on parent property: 0122011345).
	RM030218 Consent notice on Lot 1 DP 347150 if the point of access is to be other than from the adjacent ROW, a separate crossing shall be constructed to Jack Boyd Drive. Any separate crossing to be formed to the standards detailed in KDC/A4/S28 of KDC Draft Eng Code of Practice for Land Subdivision & Development 2000 & any necessary permit procedures shall be followed. (Found on parent property: 0122011345).
	RM030218 Consent notice on Lots 1 to 7 DP 347150 draw attention to the report by John Hawley Consulting (Job No. 362, dated 11th November 2003) and require compliance with the recommendations of that report with respect to: buildable areas building foundations, building floor levels, wastewater treatment and disposal, stormwater disposal. Areas not suitable for building are marked on the plan. RM150220 registered cancellation of this clause (2a) from Lot 1. **Copy of Report attached.**
	RM030218 Consent notice on Lots 1 to 7 DP 347150 require that residential development of each site shall be limited to single dwellings until a connection to the community sewerage scheme planned by the Council for Mangawhai (hereinafter referred to as the `Ecocare project`) is available.
	RM030218 Consent notice for Lots 1 to 7 DP 347150 the use of individual effluent disposal systems and any communal effluent disposal scheme within the subdivision is permitted until such time as connection to Ecocare is available. At that time the property will be required to connect to the Ecocare and must comply with Councils requirements relating to connection including the payment of any development contribution, connection fee, or any other charge.
	RM030218 Consent notice for Lots 1 to 7 DP 347150 all specimen of plants within the approved landscape enhancement plan installed by the subdivider in accordance with condition 2(i) of the subdivision, shall be preserved and protected from destruction and/or removal, and maintained in a healthy state.

Access is private and not maintained by Council.

No other information located.

Building

4/03/22	BUILDING CONSENT 220057: New Connection to Council WW, Decommission Septic: Code Compliance Certificate Issued 31/01/24.
18/11/10	BUILDING CONSENT 100550A: Thickenings to slab: Code Compliance Certificate Issued 5/04/11.
2/09/10	BUILDING CONSENT 100550: New Dwelling: Code Compliance Certificate issued 5/04/11.
18/04/08	BUILDING CONSENT 080186: Utility shed with bathroom and septic: Code Compliance Certificate issued 30/07/08.
23/11/07	BUILDING CONSENT 070799: New Garage: Code Compliance Certificate issued 19/06/08.

No other information located.

Sewer and Water

Sewer	Connected – Mangawhai Wastewater
Stormwater	Existing.
Water	Not available.

Stormwater lines and manhole on within boundary.

Copy of As Built Drainage plan attached.

No other information located.

Land and Building Classifications

No information located.

Refer to copy of map from District Plan for other classifications in the immediate vicinity.

Compliance with Swimming Pool Bylaw

No pool registered to this property.

Land Transport Requirements

No information located.

Natural Hazards

A Natural Hazard as defined under the Resource Management Act 1991 as meaning any atmospheric or earth or water related occurrence (including earthquake, tsunami, erosion, volcanic and geothermal activity, landslip, subsidence, sedimentation, wind, drought, fire, or flooding) the action of which adversely affects or may adversely affect human life, property, or other aspects of the environment.

Territorial authorities are required under sections 44A(2)(a) and section 44B of the Local Government Official Information and Meetings Act 1987 to include information that identifies the following, to the extent it is known by the territorial authority;

- natural hazards and potential natural hazards.
- impacts of climate change that exacerbate natural hazards or potential natural hazards; and
- the cumulative or combined effects of natural hazards or potential natural hazards as exacerbated by the impacts of climate change.
- information included in the District Plan identifying natural hazards is no longer excluded from the information to be included in a LIM.

Natural Hazard information for this property, to the extent it is known by the Kaipara District Council, is attached.

Additional site-specific Natural Hazard information may be provided via third parties as part of site development such as subdivision. This information when available will be provided with Planning or Building consent information.

Special Land Features

River Flood Hazard Zone – **See attached Northland Regional Council Natural Hazard information.**

Coastal Flood Hazard Zone **See attached Northland Regional Council Natural Hazard information.**

This identification may affect any proposed building work on the property in relation to both resource consent and building consent. For further information you may want to visit the Natural Hazards website.

You may also wish to contact the Northland Regional Council on Freephone 0800 002 004 and ask to speak with the Natural Hazards Advisor.

Within close proximity to Tsunami Hazard Evacuation Zone (private entranceway) – **See attached Northland Regional Council Natural Hazard information.**

For further information visit the Northland Regional Council Natural Hazard website.

No other information located.

Licences/Environmental Health

No information located.

Network Utility Operators

Information related to the availability of supply, authorisations etc (eg, electricity or gas) can be obtained from the relevant Network Utility Operator.

Other Information

No title search has been done on this property.

Notes

1. Final inspections on buildings were not mandatory prior to 1 January 1993. Should an evaluation of the building be required an independent qualified person should be consulted. In the interests of safety, an inspection of any fireplace within the dwelling may be requested of Council at any time, after paying the appropriate fee.
2. Every care has been taken to ensure that the information supplied by the Council on this form is accurate. The Council relies on information available to it and will not be held responsible for incomplete or inaccurate information provided, or for any errors or omissions made in good faith.
3. Please note that the property was neither inspected nor visited during the preparation of this Land Information Memorandum. Information is based on a search of Council records only and no inspection of the land or any building on it will be undertaken for the purpose of preparing the Report.
4. Other information may be held by other authorities, for example the Northland Regional Council or Heritage New Zealand.
5. This Land Information Memorandum is a disclosure of information (which may be historical) held by the Council at the time of application and is subject to change.
6. Any enquiry not accompanied by a fee will be invoiced separately. (All prices are GST inclusive).
7. No Record of Title was supplied with this application for this Land Information Memorandum. The Council therefore does not warrant that the information supplied is related to the correct property.
8. Any Resource or Building consents run with the land; if the project is incomplete, there may be existing/additional charges to pay for which the new owner will be liable.
9. A Development Contribution and or Financial Contribution may be payable if development is carried out, the effect of which is to require new or additional assets or assets of increased capacity and as a consequence Council incurs capital expenditure to provide appropriately for those assets and that capital expenditure is not otherwise funded or provided for. Future rating policies are outlined in Council's Long Term Plan 2024-2027.

Name: _____ Date: 30/10/2026

Performance Standards of the Kaipara District Plan 2013

To view the performance standards (rules) for each zone please refer to the relevant chapter of the Kaipara District Plan 2013:

Rural - Chapter 12

Residential - Chapter 13

Business: Commercial and Industrial - Chapter 14

Māori Purposes: Māori Land – Chapter 15A

Māori Purposes: Treaty Settlement Land – Chapter 15B

Estuary Estates – Chapter 16

Estuary Estates - Chapter 16A – Trifecta Development Area

All Zones - Chapter 10 Network Utilities and Chapter 11 Transport Network

How can I view the Kaipara District Plan 2013?

If you have access to the internet and want access to the most up to date information, visit the website **www.kaipara.govt.nz**

If you do not have access to a computer, you can visit one of the following locations to view a hard copy of the Plan:

Venue	Opening Hours	
Kaipara District Council Office – Dargaville 32 Hokianga Road Dargaville Telephone 0800 727 059	Monday – Tuesday Wednesday Thursday - Friday	8.00am to 4.30pm 9.00am to 4.30pm 8.00am to 4.30pm
Kaipara District Council Office – Mangawhai Unit 5, The Hub 6 Molesworth Drive Telephone 0800 727 059	Monday – Friday	9.30am to 3.00pm
Dargaville Library Corner Poto and Normanby Streets Dargaville Telephone 0800 534 542	Monday – Wednesday Thursday Friday Saturday	9.30am to 5.00pm 9.30am to 6.00pm 9.30am to 5.00pm 9.30am to 12.30pm
Mangawhai Library 45 Moir Street Mangawhai Telephone 0800 532 542	Tuesday - Wednesday Thursday Friday Saturday	10.00am to 5.00pm 10.00am to 6.00pm 10.00am to 5.00pm 10.00am to 1.00pm
Kaiwaka Library Corner State Highway 1 and Kaiwaka Mangawhai Road Kaiwaka Telephone (09) 431 2539	Monday Tuesday Wednesday - Saturday	4.00pm to 6.00pm Closed 10.00am to 2.00pm
Maungaturoto Library Centennial Building Hurndall Street Maungaturoto Telephone (09) 431 8811	Monday – Tuesday Wednesday Thursday – Saturday Friday Terms 1 & 4 also	10.30am to 1.00pm 10.30am to 4.00pm 10.30am to 1.00pm 4.00pm to 6.00pm
Paparoa Library Brook House 1980 Paparoa Valley Road State Highway 12 Paparoa Telephone (09) 431 7555	Monday Tuesday Wednesday Thursday Friday Saturday	2.00pm to 4.30pm 10.00am to 1.00pm 2.00pm to 4.30pm 10.00am to 4.00pm 11.00am to 1.30pm 10.00am to 12.00pm

All Maps

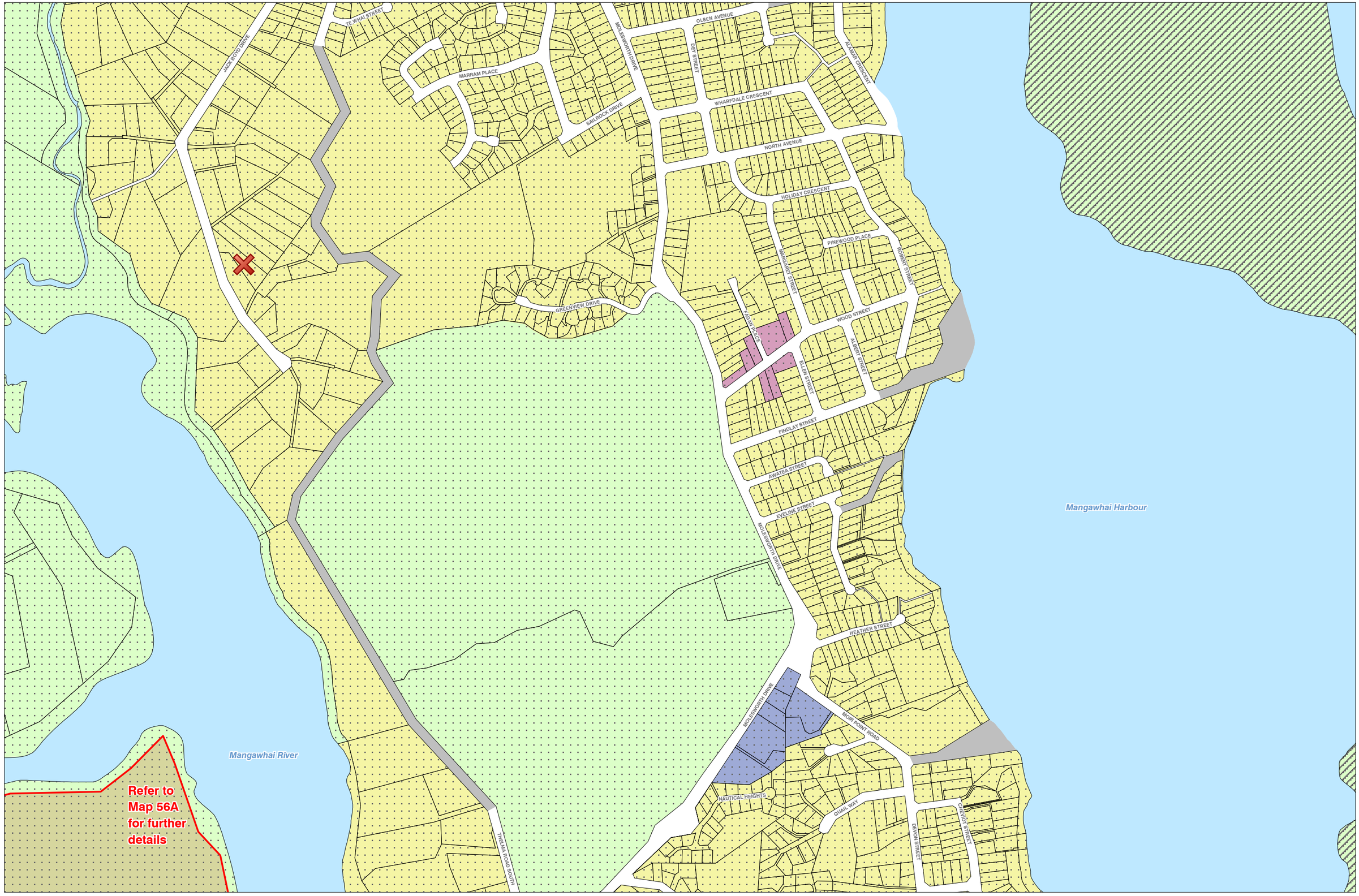
- State Highway
- Railway
- Bridge or Causeway
- Unformed Road
- Sea, Lakes and Rivers
- Parcel Boundary

Map Series One - Land Use

- Estuary Estates
- Rural
- 8m Height Restriction
- Business: Commercial
- Business: Industrial
- Residential
- Maori Land
- Treaty Settlement
- Estuary Estates
- East Coast Overlay
- Harbour Overlay
- Kai Iwi Lakes Overlay
- West Coast Overlay

Map Series Two - Sites, Features and Units

- Heritage Resource
- Notable Tree
- Maungaturoto Dairy Factory Wastewater Pipeline
- 110-220 kV Electricity Transmission Line
- 50 kV Electricity Transmission Line
- Petroleum Gas Pipeline
- Designation Areas
- Outstanding Natural Landscape
- Reserve Management Units
- Areas of Significance to Maori
- Maungaturoto Dairy Factory Noise Contour Boundary (45dBA leq)



KAIPARA DISTRICT
Kaipara te Oranganui • Two Oceans Two Harbours

Scale: 1: 7,500 @ A3

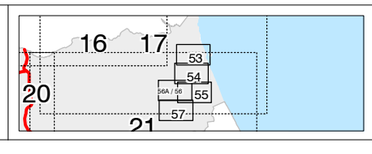
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KAIPARA DISTRICT PLAN - OPERATIVE VERSION - JULY 2013

Map Series One

Land Use : Mangawhai

Map 54 of 60



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KAIPARA DISTRICT
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Cadastre from 19 March 2021.

KAIPARA DISTRICT PLAN - OPERATIVE NOVEMBER 2013

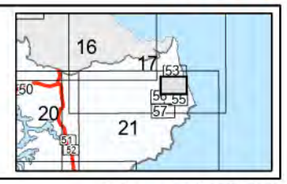
Map Series Two

Sites, Features and Units Mangawhai

N

0 10 20 Km

A3 Scale: 1:7,500



Date Updated:4/08/2021

Rates Information - 2026/27

Valuation ID	0122011490	Old Valuation ID	C:0122011345

Property Description

Location (GIS)	3 Sunrise Lane, Mangawhai
	View in Google Maps
Legal Description	LOT 2 DP 347150
Certificate of Title	193722

Use	91 Residential: Single Unit (other than bach)	Category	RD201B
TORAS	111000	Category Group	Residential Dwelling fully or semi detached
Tenure	Property is not leased. Owner is also occupier.	Category Condition	Average - Good Economic
Ownership	Private: Individual	Ward	4
Rateability	Rateable	Region	1
Apportionment	Std property - Not Applicable, Not apportionment	Zone	9A

Valuations

Area (Hectares)	0.4000	Land Value	580,000
Improvements	880,000	Capital Value	1,460,000
Nature of Improvements	DWG OBS OI		
Valuation Date	1/09/23		

Rates for Current Year - 2026/27

Type	Description (Basis)	Factor	Amount $
002	Uniform Annual General Charge - Rating Unit	1.00	725.00
012	Mangawhai Stormwater - (L)	580,000.00	414.12
081	Mangawhai Harbour Restoration (MHR) - Rating Unit	1.00	80.00
233	General Rate Residential & Small Sized Lifestyle - (L)	580,000.00	1,381.73
201	Mangawhai Wastewater Connected - SUIP	1.00	1,435.93
238	Parks and Libraries Targeted Rate - Rating Unit	1.00	367.65
242	Museums Targeted Rate - Rating Unit	1.00	14.00
	** Kaipara District Council Sub-Total		4,418.43
250	NRC Targeted Council Services Rate - Rating Unit	1.00	249.11
253	NRC Pest Management Rate - Rating Unit	1.00	129.34
254	NRC Targeted Flood Infrastructure Rate - Rating Unit	1.00	43.11
255	NRC Targeted Emergency and Hazard Management Rate - Rating Unit	1.00	68.37
256	NRC Targeted Regional Rescue Services Rate - Rating Unit	1.00	11.09
257	NRC Targeted Regional Sporting Facilities Rate - Rating Unit	1.00	7.94
259	NRC Targeted Land and Freshwater Management Rate - (L)	580,000.00	160.83
260	NRC Targeted Regional Economic Development Rate - (L)	580,000.00	20.24
	** Regional Council Sub-Total		690.03
	Total Rates Levied 2026/27		5,108.46
	(GST on Rates Levied)		666.32
	Rates Last Year 2025/26		4,927.58
	Last Year's Final Instalment		1,231.89

Rates Last Year 4,927.58 Instalments YTD 2,554.23 Current Instalment 1,277.11

History

Year	Land Value	Capital Value	Annual Rates
2025/26	580,000	1,460,000	4,927.58
2024/25	580,000	1,460,000	4,645.93
2023/24	400,000	1,050,000	4,310.77
2022/23	400,000	1,050,000	3,736.65
2021/22	400,000	1,050,000	3,480.69
2020/21	320,000	860,000	3,427.44
2019/20	320,000	860,000	2,289.68
2018/19	320,000	860,000	2,142.26
2017/18	185,000	560,000	1,753.28
2016/17	185,000	560,000	1,726.42

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In the Matter of:	The Resource Management Act 1991
And	
In the Matter of:	An application under Section 88 of the Resource Management Act 1991 made by Hamish Townshend
File Reference:	RM240025

Decision on Resource Consent Application

Activities

Activity 1: The applicant seeks to subdivide the application site legally described as LOT 2 DP 347150, RT 193722 via a 2-lot General Residential subdivision consent to create an additional residential allotment. The proposed Lot 1 contains an existing dwelling and connection to the service and has a total site area of 1730m² and a net of 1369m². The proposed Lot 2 will be a vacant site for future residential development and has a total site area of 2270m² and 2254m² net area.

Activity 2: The application involves earthworks for a new vehicle crossing for the proposed Lot 2, which Rule 13.10.1a is thought as the proposed earthworks volume and area would be 125m³ over an area of 340m², which exceeded the District Plan allowance of 200m² with a volume of 100m³, Additionally, the application site sits is wholly within the Flood Hazard Zone as per the Northland Regional Council Natural Hazard Map.

Activity 3: The application requests the cancellation of Consent Notice6694939.2 Conditions 2(a) (b) and (c).

Location

Address: 3 Sunrise Lane, Mangawhai

Legal Description: LOT 2 DP 347150, RT 193722

Reasons for Consent

Kaipara District Plan (Operative 2013) Rule Assessment

The following apply to the subject property:

Zoning: Residential Zone

Overlays: Mangawhai Harbour

Rules: 13.10.1a 'Excavation and Fill' – The proposed earthworks volume and area would be 125m3 over an area of 340m^2, which exceeded the District Plan allowance of 200m^2 with a volume of 100m^3, Additionally, the application site sits are wholly within the Flood Hazard Zone as per the Northland Regional Council Natural Hazard Map. Therefore, being assessed as a Restricted Discretionary Activity.

13.11.1 'General Residential Subdivisions' - provides for subdivision as a Controlled activity in the Residential Zone (Overlay) where the minimum lot size is at least 1000m^2. All of the proposed lots would be at least 1000m^2 in area and the proposal meets Rule 13.10.1a as outlined above, Therefore, being assessed as a Restricted Discretionary Activity.

To cancel the Consent Notice 6694939.2 Clause 2 (a) (b) and (c) pursuant to section 221(3) of the Act to allow for the new Geotechnical Assessment to supersede the previous engineering report and removed the outdated condition as the site has the connection to the reticulate wastewater connection. Therefore, resource consent is required as a discretionary activity.

Activity Status: Discretionary Activity

Proposed Kaipara District Plan: Notified 28 April 2025 - Rule Assessment

On 28 April 2025, the Council notified the Proposed Kaipara District Plan ("**PDP**"). The submission period is currently open and closes on 30 May 2025.

Some rules in the PDP have immediate legal effect upon notification in accordance with section 86B(3) of the RMA. Rules in the PDP with immediate legal effect are identified with an orange gavel next to the rule. Rules with legal effect must be complied with.

Pursuant to section 86B(1), all other rules in the PDP, including rules relating to subdivision, have legal effect only once decisions on submissions relating to rules are made and publicly notified. If a rule is not subject to any submissions in opposition, it can be treated as operative under section 86F of the RMA. Rules that do not have legal effect (or are not operative under section 86F) do not trigger the need for a resource consent under the PDP.

As the submission period is still open, and the further submission period has not commenced, it is not possible for Council to determine if any rules in the PDP, including rules relating to subdivision, can be treated as operative under section 86F. Therefore, currently only those rules that qualify under section 86B(3) have immediate legal effect from the date of notification of the PDP.

Outcome of rule assessment under the PDP:

Subdivision consent is not required under the PDP, as rules in the PDP relating to subdivision do not currently have legal effect.

Determination/s

Determination 1

1. Pursuant to Section 221(3) of the Resource Management Act 1991, clause 2 (a) (b) and (c) of Consent Notice 6694939.2 as it relates to LOT 2 DP 347150 is cancelled; and

Determination 2

2. Pursuant to Section 104, 104A, 104B, 108 and 220 of the Resource Management Act 1991 ("the Act"), the Kaipara District Council **grants** RM240025; subject to the following conditions:

General

1. The activity shall be carried out in accordance with the plans and all information submitted with the application formally received by the Kaipara District Council ("Council") on date:20/03/24

- Application form, and assessment of environmental effects prepared by Envolve Planning, dated date February 2024.
- All the correspondence emails during the S92 consultation of this application.

Plan title and reference	**Author**	**Rev**	**Dated**
Lot 1 & 2 being a Subdivision of lot 2 DP 347150, Drawing Number 23029-04	224c Service Ltd	N/a	March 2025
Lot 1 & 2 being a Subdivision of lot 2 DP 347150, Drawing Number 23029-04 (Black and white version)	224c Service Ltd	N/a	March 2025
Report title and reference	**Author**	**Rev**	**Dated**
Geotechnical Investigation for Proposed Subdivision at 3 Sunrise Lane, Mangawhai Heads, Ref: 24003	Wiley Geotechnical	N/A	09/02/2024
Northpower Confirmation, Reference: 00053057	Northpower	N/A	09/11/2023
Infrastructure Report, Job No. 3120	SPL Consultants	N/A	January 2024
Overland Flow Path Report, Job No. 3120	SPL Consultants	N/A	February 2025
Other additional information	**Author**	**Rev**	**Dated**

Capacity confirmation for wastewater connection from the Council's Asset Manager	Melissa Parlane	N/A	31/05/2024
RM240025 Engineering Assessment Report - Stormwater. W-REF: P24-525	David Usmar - WOODS	N/A	22/04/2025

Advice Note: Where there is any apparent conflict between the application and the consent conditions, the consent conditions shall prevail.

Charges

2. The Consent Holder shall pay any subsequent further charges imposed under Section 36 of the Act relating to the receiving, processing, granting and monitoring of this resource consent within 20 days of receipt of notification of a requirement to pay the same, provided that, in the case of any additional charges under Section 36(5) of the Act that are subject to challenge, the Consent Holder shall pay such amount as is determined by that process to be due and owing, within 20 days of receipt of the relevant final invoice.

Section 125 – Consent Lapse Date

3. Under Section 125 of the Act, this consent lapses five years after the date it is granted unless:

a) A survey plan is submitted to Council for approval under Section 223 of the Act before the consent lapses, and that plan is deposited within three years of the approval date in accordance with Section 224 of the Act; or

b) An application under Section 125 of the Act is made to the Council before the consent lapses (five years) to extend the period after which the consent lapses and the Council grants an extension.

Accidental Discovery Protocol

4. In the event of an 'accidental discovery' of sub-surface archaeological material (shell, midden, hangi, storage pits, etc), work must cease in the immediate vicinity of the remains and immediate steps must be taken to secure the site (tape it off). The Consent Holder must notify Council, Heritage New Zealand Pouhere Taonga and representative tangata whenua of the relevant iwi so that appropriate actions can be taken.

Pre-Commencement Conditions

5. Prior to the commencement of any physical work authorised under this consent, a Construction Management Plan ("CMP") in accordance with Section 3.3 of Council's Engineering Standards 2011 shall be provided to Council's Development Engineer, or their delegated representative for certification, and shall include:

(i) Details of the site manager including full contact details;

(ii) Construction methodology including proposed plant and machinery to be utilised;

(iii) Proposed procedures for controlling sediment runoff and dust generation; (iv) Programme of works;

(iv) Proposed hours of work on the site;

(v) Details of the number and timing of truck movements on the access route to the site;

(vi) Details of any proposed materials storage areas;

(vii) Traffic management plans;

(viii) Proposed communication strategy to advise members of the public of the construction works;

(ix) For all road construction works, the Consent Holder shall give Council's Asset Manager at least 10 working days' notice of commencement of any works on any Council Road.

Land Use Conditions

6. Prior to the commencement of any work authorised under this consent, an Erosion and Sediment control Plan in accordance with Section 3.3 of Council's Engineering Standards 2011 shall be provided to Council's Development Engineer, or their delegated representative for approval.

7. The erosion and sediment control measures shall be implemented in accordance with approved Erosion and Sediment Control Plan submitted as a requirement under Condition 1 of this consent, Section 4 KDC Engineering Standards 2011, and Auckland Region GD05 guidelines. Erosion and sediment control devices be inspected with monitoring after heavy rainfall by the site supervisor, site engineer, or council representative.

8. The consent holder shall employ a suitably qualified Engineer acceptable to Council to investigate, direct and supervise all construction works and the cut and fill, compaction process, to ensure that an appropriate design and construction methodology is carried out to maintain the short- and long-term stability of the site and surrounds.

9. The consent holder shall implement, to the satisfaction of the Council's Monitoring officer, suitable measures to prevent depositing of earth on surrounding streets by trucks moving fill and other materials to and from the site. In the event that any material is deposited on the street, the consent holder shall take immediate action, at their expenses, to clean the street. The loading of earth fill and other materials shall be confined to the subject site.

10. All earthworks shall comply with Section 4, Land Stability and Earthworks of the current Kaipara District Council's Engineering Standards 2011.

Prior to Section 223 Certification

11. **Prior to the sealing of the Survey Plan pursuant to Section 223 of the Act the following conditions shall be complied with:**

General

(a) The survey plan shall be generally in accordance with the plan of subdivision titled 'Lot 1 & 2 being a Subdivision of lot 2 DP 347150', Drawing Number 23029-04 , dated March 2025, and prepared by 224c Service Ltd.

Easements

(b) The survey plan shall show all necessary easements as required for ROW access, electricity, and telecommunication service.

(c) The survey plan shall show easements in gross in favour of the Kaipara District Council for the purpose of providing overland flow of stormwater over parts of Lots 1 and 2. All easements shall be included in a memorandum of easements endorsed on the survey plan and be granted or reserved. The Consent Holder shall meet the costs for the preparation, review and registration of the easement instruments on the relevant records of title.

Engineering Design

(d) The Consent Holder shall submit a detailed set of engineering plans, specifications and calculations, prepared in accordance with the Council's Engineering Standards 2011 to the Council's Development Engineer, of their delegated representative for approval.

The engineering plans, calculations and specifications shall be prepared by a suitably experienced Chartered Professional Engineer (CPEng).

OR

The engineering plans, calculations and specifications shall be prepared by a suitably experienced person/s who:

(i) Have the appropriate experience in the relevant areas; and

(ii) Hold appropriate qualifications and membership of professional bodies; and

(iii) Have professional indemnity insurance to the value of at least $1,000,000.

The engineering plans, reports, calculations and specifications shall include, but may not be limited to the following:

I. Design details for stormwater drainage to serve Lot 2 in accordance with Section 6 of the Council's Engineering Standards 2011. This will include culvert (new culvert and replacement culvert) pipe sizing calculations, flood levels and longitudinal sections of the access way where that access crosses over the two Right to Drain Water Easements (as shown on Overland Flow Path Assessment Report -revised 2025) to ensure that the overland flow paths operate as intended in 10% and 1% AEP scenarios.

II. Lots 1 and 2 ground contour levels and cross-sections (within the two Right to Drain Water easements through the site) as well as ground contour levels over the balance of the site.

III. A Flood Hazard Risk Assessment covering proposed vehicle crossing and driveway, and any material damage that would result from that hazard.

IV. Design details of the construction for proposed Lot 2's vehicle crossing in accordance with Section 5.2.18 of the Council's Engineering Standards 2011, drawing S06.

V. Design details for the connection/upgrades of Wastewater system to serve Lot 2 in accordance with Section 7 of the Council's Engineering Standards 2011. The following design details must be provided:

The low-pressure pump station must be sealed unit to prevent the ingress of floodwater. A vent must be provided and maintained which allows the unit to vent at a level above the 1:100-year flood level.

Prior to Section 224(c) Certification

12. **Before a Certification is issued pursuant to Section 224(c) of the Act, the following conditions are to be complied with:**

Utility Connections

a) Electricity and telecommunications connections shall be provided to the boundary of the net site area of Lot 2 and all new cabling shall be underground. The Consent Holder shall provide confirmation from the network utility supply authority/authorities of compliance with this condition.

Easements

b) The Consent Holder shall provide written confirmation from a licensed cadastral surveyor that all services and accesses constructed under this consent are located within the appropriate easement boundaries.

Engineering

c) All works except the driveway on the engineering plans approved under Condition 11(d) of this consent are to be completed to the approval of the Council's Development Engineer, or their delegated representative.

Compliance with this condition shall be determined by the following:

i. Site inspections undertaken as agreed in Council's engineering plan approval letter for the engineering plans as required by Condition 11(d) of this consent;

ii. Provision and approval of supporting documentation provided by the Consent Holder in support of the constructed works, including Producer

Statements, completion certificates, works acceptance certificate, statement of compliance of as built works and as built plans, construction management plans, operation and maintenance plans and all other test certificates and statements and supporting information required to confirm compliance of the works as required by Section 3 of the Council's Engineering Standards 2011.

As-Built Plans

d) The Consent Holder shall submit certified and dated 'As-Built' plan/s of completed works and services in accordance with Council's Engineering Standards 2011 to the satisfaction of the Council's Development Engineer, or their delegated representative.

The Consent Holder/Consent Holder's contractor shall supply the required As-Built details in hard copy and electronic (AUTOCAD) format. For pdf files different assets should be marked using following colours:

Water Assets – Blue

Wastewater Assets – Red

Stormwater Assets – Green

New, Disposed and Abandoned assets should be clearly indicated.
Private and Public assets should be clearly indicated.
Co-ordinates in New Zealand Transverse Mercator NZTM2000.
Levels in New Zealand Vertical Datum 2016 (NZVD2016)

Additional sink facility

e) The existing sink facility within the cabin on the proposed Lot 1 shall be decommissioned, and the water connection shall be sealed. Evidence of compliance must be sent to and confirmed by the Council's Monitoring Officer before the S224 certification is granted for this application.

Consent Notice/On-going conditions

f) Pursuant to Section 221 of the Act, the following conditions shall be complied with in perpetuity and shall be registered on the titles of Lots 1 and 2 by way of Consent Notice(s).

In Regards to Lots 1 and 2

General

(i) Earthworks, the location of buildings, building foundations and stormwater and wastewater disposal shall be subject to specific engineering design by a suitably qualified Chartered Professional Engineer having regard to any soil instability/saturation and flood hazard issues that may exist or arise as a result of the development. Design shall take into account the recommendations identified in the report titled "Geotechnical Report", dated 9 February 2024, prepared by Wiley Geotechnical, and submitted to Council with subdivision consent RM240025

as well as the 'Engineering Design' report submitted as part of the Section 223 Certification with subdivision consent RM240025.

Right to Drain Water Easements

(ii) No structures whatsoever (apart from access crossings detailed in the 'Engineering Design' submitted as part of the Section 223 Certification with subdivision consent RM240025) are permitted within the Right to Drain Water easements, including fences. Fences can be constructed along the boundary of the easement but will be designed to allow water to pass freely through.

(iii) The Right to Drain Water easements areas are not to be built on or over for any purpose and are to be maintained clear of debris and any material or objects that may, in the opinion of Council, restrict or hinder the overland flow path.

(iv) The Right to Drain Water easements area ground contour levels, profile and access crossings level and profile over those easements will remain as detailed in the 'Engineering Design' report submitted as part of the Section 223 Certification with subdivision consent RM240025. The easement area outside the formed access way will be maintained in grass, preferably Kikuyu or similar, to prevent erosion.

Earthworks

(v) Ground contours, level and profile of the site should remain generally as shown in 'Engineering Design report' submitted as part of the Section 223 Certification with subdivision consent RM240025. No earthworks or retaining wall construction is to take place on the site that may in any way, in the opinion of Council, negatively impact on the function of the overland flow paths. For clarity, the overland flow paths could extend outside the boundary of the Right to Drain Water easements.

In Regards to Lot 2:

Flooding

(vi) The site has been identified as being susceptible to inundation in a 100-year Annual Average Recurrence Interval (ARI) flood event. To provide for a 500mm freeboard above the 100-year ARI flood level, taking into account the effects of climate change, the following minimum finished floor levels are required for any dwelling within the lot:

- 4.00m NZVD2016

Foundations

(vii) Any new dwelling shall use timber foundation piles in general accordance with the report titled "Geotechnical Report", dated 9 February 2024, prepared by Wiley Geotechnical, and submitted to Council with subdivision consent RM240025. Foundation design will take into account the 'Flood Hazard Risk Assessment' report submitted as part of the Section 223 Certification with subdivision consent RM240025.

Firefighting Water Supply

(viii) Sufficient firefighting water supply shall be provided for any single residential dwelling on the lot with a minimum volume of 10,000 litres and shall remain accessible an available all year round.

(ix) Unless specifically authorised in writing by Fire and Emergency New Zealand, sufficient firefighting water supply shall be provided for any commercial or industrial land use on Lot 2. Sufficient firefighting water supply is deemed to mean meeting full criteria of the Code of Practice for firefighting water supplies 9SNZ PAS 4509.

Suitable Driveway

(x) At the time of the building consent for the future residential development, a suitable driveway shall be constructed to the satisfaction of the Council's Development Engineer and in accordance with the approved engineering design at the Section 223 certification with subdivision consent RM240025. The Council will undertake inspections as required to confirm compliance and there will be a Council charge for the inspections payable by the lot owner/applicant of the building consent.

Solicitors Undertaking

g) A solicitor's undertaking shall be provided to Council confirming that all consent notices prepared for registration under the relevant conditions of this resource consent will be duly registered against the new titles to be issued for the subdivision. The solicitor must provide a post registration title and instruments.

All consent notices to be prepared or registration under the relevant conditions of this resource consent shall be prepared by a Solicitor at the Consent Holder's expense.

Consent Notice – Cancellation in Part

h) Clause 2 (a), (b) and (c) of Consent Notice 6694939.2 respect of the property at 3 Sunrise Lane, Mangawhai being legally described as LOT 2 DP 347150 shall be cancelled at the time of Section 224(c) certification.

i) A solicitor's undertaking shall be provided to Council confirming that the cancellation of parts of the consent notice under Condition 12 (h) of this consent will be lodged in conjunction with the registering of the new consent notices required under Condition 12 (f) of this consent.

Financial Contributions

j) A cash contribution in lieu of reserves shall be paid based on 5 % of the assessed value of Lot 2 of the subdivision, such value to be determined by a registered valuer appointed by Kaipara District Council, at the applicant's expense.

At the time of payment of the contribution, the valuation upon which the cash contribution is calculated shall be no more than three (3) months old.

Final Charges

k) The Consent Holder shall pay all final charges imposed by Council under Section 36 of the Act relating to the monitoring, certification and completion of the conditions of this resource consent.

Advice Notes

i. Under the Local Government Act 2002, the Consent Holder will be required to pay to Council a Development Contribution of *$24 797* plus GST for each additional lot for Wastewater treatment, *$3 315.00* plus GST for each additional lot for roading east, and $496.00 plus GST for each additional lot for community in the Kaipara District.

The proposed development will result in 1 additional allotment. The estimated total Development Contribution will be *$28 608* plus GST.

A copy of Council's policy on Development and Financial Contributions included within the Long Term Plan 2021-2031 and Development Contributions Policy (2020) can be obtained from Council offices in Dargaville and Mangawhai or downloaded from Council's website www.kaipara.govt.nz.

ii. Under the Council Engineering Standards 2011, the Consent Holder will be required to ensure the person responsible for carrying out construction work holds public liability insurance to the value of at least $2,000,000.00, and professional indemnity insurance to the value of at least $1,000,000.00.

iii. The scope of this resource consent is defined by the application made to Council and all documentation supporting the application.

iv. All archaeological sites are protected under the provisions of the Heritage New Zealand Pouhere Taonga Act 2014. It is an offence under that Act to modify, damage or destroy any archaeological site, whether the site is recorded or not. Application must be made to Heritage New Zealand Pouhere Taonga (HNZPT) for an authority to modify, damage or destroy an archaeological site(s) where avoidance of effects cannot be practised.

v. If you disagree with any of the above conditions, or additional charges relating to the processing of this application, you have a right of objection pursuant to sections 357A or 357B of the Act. Any objection must be made in writing to Council within 15 working days of notification of decision.

Reasons for the Decision

1) A decision was made under delegated authority to process the consent on a non-notified basis as per the Council's accompanying Notification Assessment Report.
2) In terms of Section 104(1)(a) of the Act, subject to compliance with conditions, the effects of the activity on the environment are considered to be acceptable.
3) In terms of Section 104(1)(b) of the Act, subject to compliance with conditions, it is considered that the proposal is consistent with the relevant objectives and policies of the Kaipara District Plan 2013 and the Northland Regional Policy Statement 2016 as discussed in this report.
4) In terms of Section 104(1)(c) of the Act, other relevant matters, including financial and development contributions and monitoring have been considered in the determination of the application.
5) Having considered the professional reports from both sides regarding the flood hazard mitigation measures and Consent conditions have been adopted accordingly with the specialist's recommendations.
6) The Council has taken into account the relevant principles outlined in Sections 6,7 and 8 of the Act and it is considered that granting this resource consent achieves the purpose of the Act as set out in Section 5.
7) On 28 April 2025, Council notified the Proposed Kaipara District Plan ("PDP"). The submission period is currently open and closes on 30 May 2025.
8) As the submission period is still open, only those rules that qualify under section 86B(3) have immediate legal effect from the date of notification of the PDP.
9) There are no rules in the PDP with immediate legal effect in accordance with section 86B(3) of the RMA that are applicable to this proposal
10) The proposal has been assessed against the objectives and policies in the PDP that have immediate legal effect and are relevant to the proposal.

Reporting Planner _____ 29 May 2025

Frank Yan

Signed  29 May 2025

JJ Pienaar

Team Manager Resource Consents

Kaipara District Council

Signed under delegated authority pursuant to Section 34A of the Resource Management Act 1991

RM240025

Section 104 of the Resource Management Act 1991 – Assessment Report

Details of Application	
Applicant	Hamish Townshend
Property to which the consent relates	3 Sunrise Lane, Mangawhai, Lot 2 DP 347150, RT 193722

1. Description of Proposal

1.1 The applicant seeks to subdivide the application site legally described as LOT 2 DP 347150, RT 193722 via a 2-lot General Residential subdivision consent to create an additional residential allotment. The proposed Lot 1 contains an existing dwelling and connection to the service and has a total site area of 1730m² and a net of 1369m². The proposed Lot 2 will be a vacant site for future residential development and has a total site area of 2270m² and 2254m² net area.

Table 1: Proposed subdivision.

	Lot Size	Condition
Proposed Lot 1	1730m²	Existing Dwelling
Proposed Lot 2	2270m²	Vacant

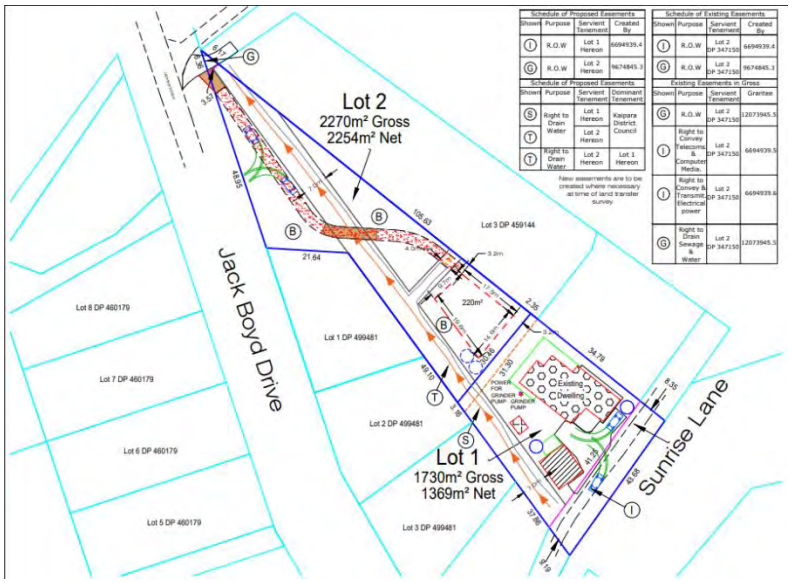


Figure 1: Proposed Subdivision

1.2 The application involves earthworks for a new vehicle crossing for the proposed Lot 2, which Rule 13.10.1a is thought as the proposed earthworks volume and area would be 125m^3 over an area of 340m^2, which exceeded the District Plan allowance of 200m^2 with a volume of 100m^3, Additionally, the application site sits is wholly within the Flood Hazard Zone as per the Northland Regional Council Natural Hazard Map.

1.3 The application requests the cancellation of Consent Notice 6694939.2 Conditions 2(a) (b) and (c). Consequently, this application will be assessed as a Discretionary Activity.

1.4 The application site is located at 3 Sunrise Lane, Mangawhai. The access for the proposed Lot 1 would remain as the existing access through Sunrise Lane and for Lot 2, it will be from Jack Boyd Drive via a newly created vehicle crossing to be formed.

1.5 Electricity connections would be available for the proposed Lot 2 and Lot 1 is serviced with the existing connection.

1.6 The proposed Lot 1 will be serviced with existing connection in terms of the three-water supply, and for Lot 2, the site will be eligible for the Council's reticulate wastewater system, such connection has been confirmed with capacity by the Council's Asset Manager, Ms. Melissa Parlane (31/05/2024), and for the water supple and stormwater collection, the applicant has provide an Infrastructure Report prepared by SPL CONSULTANT (Dated February 2025) which confirms that these services can be supplied to the Lot 2 via roof-collection and tank storage at the time when detailed design shall be provided at the building consent stage and will be included as Consent Notice condition for this application.

1.7 During the consultation of this application, A Section 92 Further Information Request has been sent out with the following queries:

Site Plan

1. *Please provide an updated site plan showing the contours information. Please note that the contours information shall be in accordance with The New Zealand Vertical Datum 2016 (NZVD2016).*
2. *Please provide the black-and-white version of the updated scheme plan.*
3. *Please outline the proposed earthworks calculations on the proposed scheme plan.*

Impermeable Surface Calculations

4. *Please comment on the impermeable surface calculation for the proposed Lot 1 in relation to the proposed new lot size. Please note that if the impermeable surface calculation exceeds 40% of the District Plan allowance, Rule 13.10.8 'Permeable' shall be included with the application, and relevant AEE shall be provided.*

Dwellings

5. *During the site visit, a kitchen facility within the existing shed building was noticed. Please note that the extra sink facilities raise concerns as the existing barn building can functionally operate as a self-contained residence. Hence, the proposed development will be a 'second*

dwelling'. Please confirm if the sink facilities will be removed or included in the proposal for this resource consent.

Infrastructure

6. *Please provide written approval of the Council's Asset Manager, which certifies the capacity of the Council water supply can be extended to serve the additional lot.*

AEE

7. *Please update your AEE to include a limited notification assessment.*

Engineering

8. *The existing Overland Flow Path would be used for stormwater disposal at the application site. An easement shall be established and proposed for future maintenance purposes.*

The relevant response from the applicant has been received until 31/05/2024, which confirms the following matters:

- An updated Scheme plan with sufficient information regarding queries 1-4 are satisfied.
- Confirm that the existing sink facility will be decommissioned and sealed followed by a consent condition which satisfies query 5.
- Written confirmation from the Council's Asset Manager, Ms. Melissa Parlane, which satisfied query 6.

1.8 However, after discussion with the council's engineering team and further understanding of the application site's unique location and surrounding environment, further questions regarding the proposed Infrastructure Report prepared by SPL Consultants (Job No: 3120, Date: January. 2024) has been raised in which a detailed stormwater report that evaluates the impact of on-site stormwater disposal and the effects on the surrounding environment and infrastructure has been requested. The Report needs to address the following matters:

- *The Council's Utility Service Map indicates that there are two open drain type stormwater lines connected within the subject site. The stormwater line on the northeast side (Asset ID: 20190802142023) has been utilized as the disposal line for the Council's Flood Protection Pond down Anchorage Road. According to the elevation data on our GIS map, both stormwater lines are situated at a low position and collect stormwater from higher ground. A future driveway is planned to be built on top of the stormwater line, and most of the subject site, especially the proposed building location for Lot 2, falls within the 10-year flood zone. It is important to note that the proposed Infrastructure Report did not assess the stormwater effects on the wider and surrounding environment.*
- *The Council has been working to improve flooding in the Jack Boyd Drive area, including the Stormwater Culvert in the northwest corner of the site. Because the stormwater line on the site is connected to the Council's Stormwater Culvert, the AEE and the proposed Infrastructure Report did not assess the effects on the Council's infrastructure in relation to the proposed development.*

Note: The stormwater report will need to be peer-reviewed by the Council's appointed stormwater engineers to confirm that the proposed development would have a less than minor effect on the stormwater effects. The S92 queries will not be satisfied until the peer-reviewed report is received.

1.9 Mr. Damian Crampton from SPL Consultants has provided the further assessment named 'Overland Flow Path Assessment Report (Dated June 2024). This report was subsequently forwarded to the Council's appointed Stormwater Consultant, Mr. David Usmar from Woods Ltd, for peer review. The initial peer review outcome, received on 30/07/2024, included the following queries:

1. *It is critical that the realistic future extent of the overland flow path is estimated. What tidal scenario was considered when calculating the extent of the overland flow paths?*
2. *As per section 6.4.1 of the KDC Engineering Standards please clarify how the overland flow path is kept to a defined channel.*
3. *OLFP B does not include the flow from Northcoast Pond. Please explain.*
4. *Flow calculations use 10% and 90% for Impervious/Pervious areas. This is unlikely to represent the future residential ground coverage. Please explain.*
5. *Flow calculations appear to use 24-hour rainfall depths based on HIRDS historical data. It is expected practice to use climate change adjusted figures to the best available current guidance. Please explain.*
6. *Lot 2 is in the NRC Coastal Hazard Flood Zone and the minimum required floor level is calculated as 4m from NRCs CFHZ2 flood data. Please comment on, if the combined effect of coastal and pluvial flooding has been considered in estimating the safe future minimum floor level.*
7. *Scheme Plan (April 2024) indicates required easement over OLFP from catchment A. Please also indicate the required stormwater easement over the OLFP from catchment B on the Scheme Plan.*
8. *Please indicate the vertical datum used.*
9. *As the property is close to the bottom of the catchment it is generally accepted that detention of stormwater flow is not advisable for mitigation of flooding. Please comment.*

1.10 In terms of the queries above, Mr. Damian Crampton from SPL Consultants has provided the further assessment named 'Overland Flow Path Assessment Report (Dated February 2025). The updated assessment has been reviewed by Mr. David Usmar and generally agreed with, the final peer review report has been received on 22/04/2025 hence all the S92 queries have been satisfied.

2. Draft Conditions

2.1 Draft conditions were shared with the applicant/agent on 9/05/2025 The conditions have been agreed by the agent/applicant on 28/05/2025.

3. Site Consent History and Proposed Consent Notice Cancellation

3.1 The application site, legally been described as Lot 2 DP 347150 (RT193722), was created by a 7-lot rural residential subdivision development RM030218. Consent Notice 6694939.2 has been registered on the Record of Title (ROT) as result of the development.

3.2 The Consent Notice contains several interests that are considered relevant to the proposed development as follows:

- Clause 2(a) that stipulates future development shall consider the recommendation of John Hawley Consulting (Job No. 362, dated 11 November 2003) submitted at time for the subdivision, which classified the area 'B' on Lot 2 DP 347150 not suitable for building.
- Clause 2 (b) that requires only one residential dwelling shall be erected on the site until connection to the Council's reticulate sewerage system ('Ecocare Project') been available on site.
- Clause 2 (c) requires an individual effluent disposal system and communal effluent disposal shall be used until the Council's Ecocare project is available and with all the relevant payment applied. It is agreed to cancel certain old Consent Notice requirements that can be repeated as they relate to previous lots to avoid additional interest in the new titles and unnecessary confusion for future lot owners.

4. Site Description and Surrounding Environment

4.1 The subject site is accessed through a private road, Sunrise Lane, to the public road, Jack Boyed Drive. It is currently vacant in a well-established residential area of Mangawhai Heads. The surrounding area is primarily residential, with lot sizes ranging from 600m^2 to 45ha but typically falling between 1000m^2 and 2000m^2. The primary land use in the area is for residential purposes.

4.2 As shown in the application documents (Infrastructure Report, 2.2) the site is located within the Coastal Flood Zone 3 (CFHZ3) 1% AEP flood extent. This results in a flood RL 3.5m and a proposed FFL of 4.00m which has been assessed as adequate. The site is also located within the CFHZ2 and Regional River Flood Hazard Zone (10%AEP) flood extents.

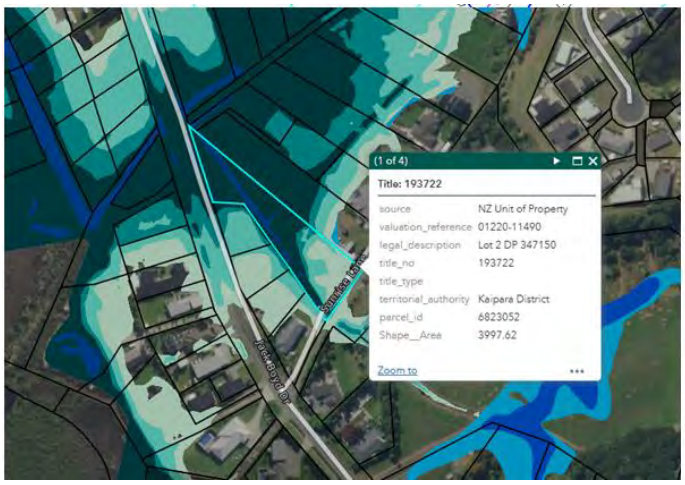


Figure 2: The Flood Hazard Zone Appeared on The Subject Site

4.3 There are two open drain type overland flow path connected within the subject site. The stormwater line on the northeast side (Asset ID: 20190802142023) has been utilized as the disposal line for the Council's Flood Protection Pond down Anchorage Road. According to the elevation data on our GIS map, both stormwater lines are situated at a low position and collect stormwater from higher ground.



Figure 3: The Subject Site's Existing OLFP

5. Kaipara District Plan (Operative 2013) Rule Assessment

5.1 The following apply to the subject property

Zoning: Residential Zone

Overlays: Mangawhai Harbour

Rules: 13.10.1a 'Excavation and Fill' – The proposed earthworks volume and area would be 125m^3 over an area of 340m^2, which exceeded the District Plan allowance of 200m^2 with a volume of 100m^3, Additionally, the application site sits are wholly within the Flood Hazard Zone as per the Northland Regional Council Natural Hazard Map. Therefore, being assessed as a Restricted Discretionary Activity.

13.11.1 'General Residential Subdivisions' - provides for subdivision as a Controlled activity in the Residential Zone (Overlay) where the minimum lot size is at least 1000m^2. All of the proposed lots would be at least 1000m^2 in area and the proposal does not meet Rule 13.10.1a as outlined above, Therefore, being assessed as a Restricted Discretionary Activity.

To cancel the Consent Notice 6694939.2 Clause 2 (a) (b) and (c) pursuant to section 221(3) of the Act to allow for the new Geotechnical Assessment to supersede the previous engineering report and removed the outdated condition as the site has the connection to the reticulate wastewater connection. Therefore, resource consent is required as a discretionary activity.

Activity status: Discretionary Activity

Proposed Kaipara District Plan: Notified 28 April 2025 - Rule Assessment

*On 28 April 2025, the Council notified the Proposed Kaipara District Plan ("**PDP**"). The submission period is currently open and closes on 30 May 2025.*

Some rules in the PDP have immediate legal effect upon notification in accordance with section 86B(3) of the RMA. Rules in the PDP with immediate legal effect are identified with an orange gavel next to the rule. Rules with legal effect must be complied with.

Pursuant to section 86B(1), all other rules in the PDP, including rules relating to subdivision, have legal effect only once decisions on submissions relating to rules are made and publicly notified. If a rule is not subject to any submissions in opposition, it can be treated as operative under section 86F of the RMA. Rules that do not have legal effect (or are

not operative under section 86F) do not trigger the need for a resource consent under the PDP.

As the submission period is still open, and the further submission period has not commenced, it is not possible for Council to determine if any rules in the PDP, including rules relating to subdivision, can be treated as operative under section 86F. Therefore, currently only those rules that qualify under section 86B(3) have immediate legal effect from the date of notification of the PDP.

***Outcome of rule assessment under the PDP**:*

Subdivision consent is not required under the PDP, as rules in the PDP relating to subdivision do not currently have legal effect.

6. Notification Assessment

6.1 A decision was made under delegated authority to process the consent on a non-notified basis as per the Council's accompanying Notification Assessment Report.

7. Statutory Acknowledgements

7.1 Relevant to this application, any statutory acknowledgement within the meaning of the Act specified in Schedule 11 would be contained within the Te Uri o Hau Claims Settlement Act 2002. Environs Holdings Limited is a subsidiary of Te Uri o Hau Settlement Trust authorized to participate in the Resource Management Act 1991 proceedings.

7.2 The application was formally received to Te Uri o Hau upon receipt by the Council on 20/03/2024. At the time of writing this report no concerns were raised by Te Uri o Hau and it is considered they are not adversely affected by the proposed development.

8. Section 104(1)(a) – Actual & Potential Effects on the Environment

Trade Competition

8.1 With regard to Section 104(3)(a)(i), there are no known issues in the consent application or as a result of the submission process that raise questions of trade competition.

Written Approvals

8.2 With regard to Section 104(3)(a)(ii), the Council must not have regard to the effects on those persons who have given written approval to the application. No persons/parties have been provided written approval.

Permitted Baseline

8.3 In accordance with Section 104(2), the Council may disregard an adverse effect of an activity on the environment if the Plan or a National Environmental Standard permits an activity on the site with that effect (commonly referred to as the 'permitted baseline' test). The purpose of the permitted baseline test is to isolate and make effects of activities on the environment that are permitted by the Plan or NES irrelevant. The baseline has been defined by case law as compromising non-fanciful (credible) activities that would be permitted as of right by the plan in question.

8.4 With respect to the application, there is no permitted baseline as there are no permitted subdivisions and Consent Notice variation. However, residential, rural-production, commercial and industrial activities complying with the performance standards of Section 13.10 of the District Plan and consent notices on the title provide a permitted baseline for development on the lot.

Receiving Environment

8.5 The 'environment' upon which effects are to be assessed comprises the exiting and reasonably foreseeable future environment. In identifying the environment, it is necessary to consider the environment as it is at the time of application, and the likelihood of change to that environment in the future, based upon the activities that could be carried out as a right or with respect to resource consents that have been granted (where it is likely that they will be given effect to).

8.6 The receiving environment is described in Section 4.0 of this report.

Assessment of Effects

Positive Effects

8.7 The proposal creates one additional residential lot that will provide for the applicants and any future residents well-being.

Access and Traffic

8.8 The proposed Lot 1 will be accessed via the existing vehicle crossing the private road, Sunrise Lane and eventually to Jack Boyd Drive.

8.9 The proposed Lot 2 will be accessed separately and directly from Jack Boyd Drive via a new vehicle crossing. Although no details of the new vehicle crossing have been provided for this application, the applicant has offered a Consent Notice condition to be imposed on Lot 2, stating that an up-to-standard vehicle crossing will be provided at the time of building consent for future residential development.

8.10 It is noted that the entire application site is subject to a flood hazard zone. As shown in Figure 1 above, the proposed building platform and vehicle crossing location will be connected via a culvert that crosses through the proposed easement. A discussion has been held between the Council's Principal Development Engineer, Mr. Prasad Sappa, and the Council's appointed Stormwater Consultant, Mr. David Usmar from Woods Ltd.

8.11 They concluded that a specific engineering design for the driveway and design details for stormwater drainage to serve Lot 2 shall be provided at the S223 stage to the satisfaction of the Council. These engineering designs shall take into account the application site's flood hazard risk, including any material that would result from a flood event. As this specific condition has been imposed by this report, it is considered that the adverse effects of flood hazards and stormwater factors to the vehicular access on the proposed Lot 2 can be adequately addressed by the proposed development and have less than minor and acceptable effects.

Servicing

8.12 In relation to water supply, drinking water for any future dwelling on the proposed Lot 2 would be provided by roof catchment collecting rainwater into storage tanks at the time of development. Reticulated water supply is not available for the proposed lots. The allotment will require onsite water tanks that will collect and store rainwater. The tanks must be design adequately in order to provide the storage required for the new dwelling and reserve water for fire safety use. Specific details of water tanks shall be provided to the council for approval during the building consent stage.

8.13 The new lot will be connected to Mangawhai's public wastewater system with a public sewer connection available along Jack Boyed Drive. The existing piped asset is to be removed. New assets and disposed assets are to be indicated on the as-built plan required as a condition of consent. The connection is subject to council approval and the design and construction shall be carried out in accordance with the Kaipara District Council Engineering Standards.

8.14 Full details to be provided in the Building Consent application. Lot 1 is already connected to the wastewater reticulation network.

8.15 Given the above, it is considered that any adverse effects resulting from the wastewater treatment proposed would be adequately addressed and acceptable.

8.16 Power and telecommunications are available to the boundary of the parent lot and the provision of this service can be extended to the proposed lot boundaries.

8.17 Overall, it is considered that the proposal is able to be appropriately serviced without constrain the respective utility networks and will result in less than minor effects and therefore acceptable.

Landscape, Character and Amenity Values

1. The application site is located within an established residential area in close proximity to the Mangawhai Estuary. Existing residential lots in the surrounding area along Jack Boyd Drive, and Sunrise Lane range in size from 800m2 to 3ha. The proposed lots meet the minimum lot size of 1000m2 required for the zone as per Rule 13.11.1 'General Residential Subdivision'.

8.18 As mentioned above, the location of the proposed building platform on Lot 2 would be well separated from the road reserve area of Jack Boyd Drive and as shown in Figure 4 and 5 below, the existing vegetation provides a soft and integrated landscape edge to the existing residential properties surrounding the site and a structured landscape response and planting pattern proposed for the street.



Figure 4: The site's Existing Landscaping



Figure 5: The Existing Vegetation Along the OLFP

8.19 The site is not located within an Outstanding Natural Landscape, nor does it influence views of any Outstanding Natural Landscapes.

8.20 Overall, any effects from this proposal on the residential character and amenity values of the surrounding area are considered appropriate.

Reverse Sensitivity

8.21 The surrounding area is characterized by small to large residential land holdings and respective residential activities.

8.22 The new lots are generally consistent with the intentions of the residential density planned for by the District Plan (Rule 13.10.3a) and will provide two residential lots to provide for continued residential use of the land which is not considered to have adverse effects on the viability of surrounding landholdings and residential activities. The surrounding land uses are generally similar in nature to the proposed lots. Therefore, it is considered that no reverse sensitivity effects are anticipated as a result of the proposed development; and the development is considered acceptable overall.

Flood Hazards

8.23 As previously mentioned in the traffic assessment, there are two existing OLFP that merge on the application site. Given the topography of the surrounding area, both OLFPs are at a lower stream while merging on the site and are utilized as stormwater discharge drains for the neighboring properties at higher elevations during rain events.

8.24 At the northern corner of the application site, where the OLFP passes through, it joins the Council's stormwater discharge drainage network for the Jack Boyd Drive area, as shown in Figure 3 above. Since culverts were proposed to provide vehicular access to the proposed building platform, concerns regarding stormwater management and the potential risk of increased water flow density were raised during the S92 consultation.

8.25 A detailed assessment of stormwater management risks has been made in Mr. David Usmar's engineering report (Woods, Dated 22/04/2025) page 3 – 4. In short, he has made recommendations as follows:

> *The proposed private infrastructure will be generally in accordance with KDC Engineering Standards. The site poses some significant challenges with converging overland flow paths from two large catchments external to the site and most of the site lying within both the NRC Coastal Flood Hazard Zone and Regional River Flood Zone. The major OLFP is proposed to be protected by a 7m wide easement, and this is expected to contain the majority of the 1%AEP flood extent.*
>
> *The flow path is not contained within a defined channel, but this is considered the best option to prevent any further issues with neighbouring properties. The minor OLFP is proposed to be protected by a 4m wide easement.*

Access crossings over the OLFPs and culverts require specific design to ensure that the overland flow path operates as expected.

As the proposed building platform and access is located within the NRC Coastal Flood Hazard Zone specific geotechnical design and hazard assessment will be required.

8.26 This report generally agrees with Mr. Usmar's assessment and has adopted the recommended consent conditions from Mr. Usmar's Engineering Report. It is considered that the adverse effects of flood hazards and stormwater factors on the proposed development on Lot 2 can be adequately addressed. Therefore, the effects on the overall environment are deemed to be less than minor and acceptable.

8.27 In regarding the earthworks, the applicant has offered a pre-commencement condition of a Construction Management Plan to be imposed by this consent to ensure that the earthworks proposed by this consent will be carried out in best practice and in accordance with the District Plan requirements. Therefore, it is considered that the adverse effects on the proposed earthworks to be less than minor and acceptable.

Conclusion

8.28 In summary, having assessed the effects of the activity, subject to compliance with conditions it is considered that the activity will result in less than minor and acceptable, adverse effects on the environment.

9. Section 104(1)(b) – Provisions of Standards, Policy Statements and Plan

National Policy Statements

9.1 National Policy statements are instruments issued under section 52(2) of the Act. The National Policy Statements of relevance to this application are:

- National Policy Statement on Highly Product Land 2022 (NPS-HPL)
- National Policy Statement on Urban Development 2020 (NPS-UD)
- National Policy Statement for Freshwater Management 2020 (NPS-FW)
- National Policy Statement on Renewable Electricity Generation 2011 (NPS-REG)
- New Zealand Coastal Policy Statement 2010 (NZCPS)
- National Policy Statement on Electricity Transmission 2008 (NPS-ET)

9.2 The site is not identified as being a contaminated site within the Northland Regional Council's Register of contaminated sites, nor has it previously been used for activities listed on the HAIL Register produced by the Ministry for the Environment. Therefore, consent is not required under the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health. The proposal does not require consideration under any other NPS.

National Environmental Standards

9.3 National Environmental Standards are regulations issued under section 43 of the Act. The National Environment Standards of relevance to this application are:

- National Environmental Standards for Air Quality 2004 (NES-AQ)
- National Environmental Standards for Sources of Drinking Water 2007 (NES-DW)
- National Environmental Standards for Telecommunication Facilities 2016 (NES-TF)
- National Environmental Standards for Electricity Transmission Activities 2009 (NES-ET)
- National Environmental Standards for Assessing and Managing Contaminates in Soil to Protect Human Health 2011 (NES-CAS)
- National Environmental Standards for Plantation Forestry 2017 (NES-PF)
- National Environmental Standards for Freshwater 2020 (NES-F)
- National Environmental Standard for Marine Aquaculture 2020 (NES-MA)
- National Environmental Standard for Storing Tyres Outdoors 2021 (NES-ST)

9.4 The proposal does not require any consent under any NES.

Regional Policy Statement

Regional Plan for Northland

9.5 The proposal does not require any consent under the Regional Plan for Northland.

Kaipara District Plan 2013

Chapter 4: Overlays

Objective 4.4.1 To promote the preservation, restoration, rehabilitation and enhancement of the natural character of the coastal environment.

Objective 4.4.2 To enable subdivision, land use and development in the Overlays, where it recognises and provides for:

- The protection of natural character; and

- Maintenance or enhancement of the water quality of receiving environments; and ·

- Maintenance or enhancement of amenity values; and

- Any other specific values identified in an Overlay.

Objective 4.4.12 To recognise and where appropriate protect cultural, heritage and amenity values, including the special sense of place of land within the Mangawhai Harbour Overlay.

Policy 4.5.1 By encouraging consolidation of coastal settlements where it contributes to the avoidance of sprawling or sporadic patterns of development in the coastal environment.

Policy 4.5.2 By managing the location, scale and design of subdivision, use and development to minimise the potential adverse effects on the natural character of the coastal environment.

Policy 4.5.17 By managing the scale, location and design of activities in the Mangawhai Harbour Overlay.

Chapter 13: Residential Zone

Objective 13.5.1 To maintain and where appropriate enhance the amenity values of the residential environment.

Objective 13.5.4 By managing the effects of those activities which have the potential to adversely affect residential amenity (e.g. building location, earthworks and vegetation clearance).

Objective 13.5.2 To ensure that the servicing of new subdivision and development does not adversely affect the environment, particularly sensitive receiving environments.

Objective 13.5.7 To recognise business and economic activity that enables people and communities of the District to provide for their social, economic and cultural wellbeing, while avoiding adverse effects (including reverse sensitivity effects) on the environment.

Policy 13.6.1 By requiring subdivision and development to avoid adverse effects on the outlook and privacy of adjoining properties, while being compatible with the character and amenity of the surrounding environment.

Policy 13.6.2 By requiring activities in residential areas to be sited, designed and operated in such a way that avoids, remedies or mitigates adverse noise and traffic effects on health, safety and amenity values.

Policy 13.6.3 By requiring subdivision and development to demonstrate adequate service provision (including maintenance), and ensure the costs of any service provision or upgrades are borne by the development.

Policy 13.6.12 By ensuring that where sites are not connected to a public water supply, wastewater disposal or stormwater disposal system, suitable provision can be made on each site for an alternative water supply or method of wastewater disposal or stormwater disposal, which can protect the health and safety of residents and can avoid any significant adverse effects on sensitive receiving environments.

Policy 13.6.13 By requiring the provision of safe and practicable vehicular access from a public road to each site

9.6 The application site is located in a highly modified environment and the proposed development would further consolidate built development within this existing settlement, therefore in the immediate context the natural character values of the surrounding area would be maintained and not degraded.

9.7 The proposal seeks consent to undertake a two-lot subdivision of a residential allotment located within the Residential Zone and surrounded by residential development, with lots in the surrounding area ranging in size from 800m2 to 3ha.

9.8 Any further development on the proposed lot would be positioned consistently with surrounding development patterns and making use of the current infrastructure within the Residential Zone. It is considered that both wastewater and stormwater disposal can be managed in an acceptable manner to ensure there will be no impact on sensitive receiving environments and meets the objectives and policies of the District Plan.

9.9 Minimal additional traffic movements will result from the proposed development. Council's Development Engineer has reviewed the application material and considers that due to compliance with the Kaipara District Council Engineering Standards, the proposal will result in less than minor adverse effects on traffic safety.

Proposed Kaipara District Plan

9.10 As outlined above, subdivision consent for this proposal is only required under the Operative Kaipara District Plan. While the Proposed Kaipara District Plan has been publicly notified, rules relating to subdivision in the Proposed Kaipara District Plan do not currently have legal effect. However, the objectives and policies of the Proposed Kaipara District Plan (notified version 28 April 2025) have legal effect and are relevant to the assessment of the application for subdivision consent under section104(1)(b) of the RMA.

9.11 Identify objectives and policies in the PDP relevant to the proposal and assess them.

9.12 Conclude whether the proposal is consistent with, inconsistent, or contrary to the proposed objectives and policies of the PDP.

9.13 There is support for this proposal in the relevant provisions of the Regional Policy Statement and the majority of objectives and policies contained within the District Plan and the Proposed District Plan, however the above assessment identifies that the application will be inconsistent with a number of objectives and policies that relate to public open space and esplanade reserve considerations.

Conclusion

9.14 On balance, the proposal is considered to be consistent with the relevant provisions of the Regional Policy Statement and the objectives and policies contained within Chapters 4, and 13 of the District Plan.

10. Section 104(1)(x) – Other Matters

Contributions

Financial Contribution

10.1 Section 22.10.6 of the District Plan sets out the amount of reserves contributions for subdivision of land for principally residential purposes where lots can accommodate a residential dwelling at 5% of the value of a 4000m² building site on a rural lot. In this case, one additional undeveloped lot is proposed and therefore a reserves contribution is required and will be imposed as a condition of consent.

Development Contribution

10.2 The Local Government Act 2002 provides the Council with the ability to charge development contributions for increased capacity on existing Council assets in accordance with Council policy. The Consent Holder would be required to pay development contributions for the one additional undeveloped lot.

Precedent

10.3 A precedent effect is not an effect on the environment, but rather, it is a consideration of how a decision to allow the proposed activity may subsequently lead to subsequent similar applications being granted (in the sense of like cases being treated alike). The matters of precedent and District Plan integrity are considered relevant for this application.

10.4 The proposal is for a Discretionary activity subdivision in accordance with the main criteria of Rule 13.11.1 'General Residential Subdivision'. For these reasons, it is considered acceptable and does not set an adverse precedent, as any future subdivision proposals of this nature would likely be approved given compliance with the District Plan and lack of adverse effects. Consequently, the application is not considered to set an undesirable precedent.

Status of Proposed Kaipara District Plan

10.5 On 28 April 2025, Council notified the Proposed Kaipara District Plan ("PDP"). The submission period is currently open and closes on 30 May 2025.

10.6 Some rules in the PDP have immediate legal effect upon notification in accordance with section 86B(3) of the RMA. Rules in the PDP with immediate legal effect are identified with an orange gavel next to the rule. Rules with legal effect must be complied with.

10.7 Pursuant to section 86B(1), all other rules in the PDP have legal effect only once decisions on submissions relating to rules are made and publicly notified. If a rule is not subject to any submissions in opposition, it can be treated as operative under section 86F of the RMA. Rules that do not have legal effect (or are not operative under section 86F) do not trigger the need for a resource consent under the PDP.

10.8 As the submission period is still open, and the further submission period has not commenced, it is not possible for Council to determine if any rules in the PDP can be treated as operative under section 86F. Therefore, currently only those rules that qualify under section 86B(3) have immediate legal effect from the date of notification of the PDP.

Reasons for consent under the PDP

10.9 The proposal has been assessed against the rules in the PDP that have immediate legal effect upon notification. The proposal does not engage any of the rules with immediate legal effect. Therefore, no consideration has been given to any of those rules in this consent.

11. Section 37 Extension

11.1 Section 37 of the Act provides for a consent authority to extend a time period specified in the Act. Under section 37A(4)(b) of the Act, a consent authority may extend the time period (up to no more than twice the maximum specified in the Act), where either:

(i) Special circumstances apply (including special circumstances existing by reason of the scale of complexity of the matter) or

(ii) The applicant agrees to the extension, and the authority has taken into account –

a. The interests of any person who in its opinion, may be directly affected by the extension or

b. The interest of the community in achieving adequate assessment of the effects of a proposal, policy statement, or plan and

c. Its duty under Section 21 to avoid unreasonable delay.

11.2 An extension of 15 working days is required to the time limit for notification of this decision (as specified under Section 115 of the Act). The applicant has agreed to the extension and it is considered that community interests are not negatively affected by the extension. The extension of 5 working days is not considered to be an unreasonable delay.

12. Section 106 Assessment

12.1 Pursuant to Section 106(1)(a) Council may refuse to grant a subdivision consent, or may grant a subdivision consent subject to conditions if it considers that there is a significant risk from natural hazards.

12.2 As mentioned in the detailed flood hazard assessment, with the recommended condition been imposed by this decision, it is considered the flood hazard will be mitigated.

12.3 Pursuant to Section 106(1)(c) Council may refuse subdivision consent if sufficient provision has not been made for legal and physical access to each allotment to be created by the subdivision.

12.4 The proposed new vehicle access is to be provided at the time of building consent and will be compliant with the KDC Engineering Standards.

13. Part 2 of the Act

13.1 Whilst it is accepted that the relevant plans as detailed in the above assessment have been competently prepared in accordance with Part 2 of the Act, for completeness an assessment of Part 2 matters is now included.

Section 5 – Sustainable Management Purposes of the Act

13.2 Section 5(1) states that the purpose of the Act is to promote the sustainable management of natural and physical resources with sustainable management defined in Section 5 (2).

13.3 It is considered that the proposal will promote the sustainable management of natural and physical resources as the proposal will enable the use and development of the physical resources of the site in a manner that would continue to enable the applicant and current and future landowners to provide for their future social and economic wellbeing. At the same time the proposal sufficiently avoids, remedies or mitigates adverse effects on receiving environments, amenity and residential character of the surrounding environment.

Section 6 – Matters of National Importance

13.4 Section 6 of the Act sets out matters of national importance that a consent authority must recognise and provide for. The proposal is considered to be consistent with the provisions of Section 6 as it does not detract from the natural character of the coastal environment and is not located within any outstanding natural landscape. The proposal does not result in the removal of any indigenous vegetation and does not restrict access to the coastal environment.

Section 7 – Other Matters

13.5 Section 7 of the Act sets out other matters a consent authority must have particular regard to. The following matters are considered relevant.

a. Kaitiakitanga
   i. The ethnic stewardship
b. The efficient use and development of natural and physical resources
   i. The efficient 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 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 delivered from the use and development of renewable energy.

13.6 Pursuant to Section 7(b) particular regard shall be had to the efficient use and development of natural and physical resources. The proposal involves the creation of one additional residential lot which is unlikely to generate adverse effects. This is considered efficient use of the physical resources.

13.7 Pursuant to 7(c) particular regard shall be had to the maintenance and enhancement of amenity values. In this case, the proposal is consistent with the site's residential character and would maintain the character and amenity values of the surrounding environment.

13.8 Pursuant to 7(g) particular regard shall be had to maintenance and enhancement of the environment. In this case, wastewater will be disposed of via Council's reticulated public network and stormwater will be disposed of appropriately onsite and therefore the health of the surrounding environment would be maintained.

Section 8 – Treaty of Waitangi

13.9 Section 8 of the RMA requires a consent authority to take into account the principles of the Treaty of Waitangi (Te Tiriti 0 Waitangi). The proposal does not raise any treaty issues.

14. Reason for Decision

14.1 A decision was made under delegated authority to process the consent on a non-notified basis as per the Council's accompanying Notification Assessment Report.

14.2 In terms of Section 104(1)(a) of the Act, subject to compliance with conditions, the effects of the activity on the environment are considered to be acceptable.

14.3 In terms of Section 104(1)(b) of the Act, subject to compliance with conditions, it is considered that the proposal is consistent with the relevant objectives and policies of the Kaipara District Plan 2013 and the Northland Regional Policy Statement 2016 as discussed in this report.

14.4 In terms of Section 104(1)(c) of the Act, other relevant matters, including financial and development contributions and monitoring have been considered in the determination of the application.

14.5 Having considered the professional reports from both sides regarding the flood hazard mitigation measures and Consent conditions have been adopted accordingly with the specialist's recommendations.

14.6 The Council has taken into account the relevant principles outlined in Sections 6,7 and 8 of the Act and it is considered that granting this resource consent achieves the purpose of the Act as set out in Section 5.

14.7 On 28 April 2025, Council notified the Proposed Kaipara District Plan ("PDP"). The submission period is currently open and closes on 30 May 2025.

14.8 As the submission period is still open, only those rules that qualify under section 86B(3) have immediate legal effect from the date of notification of the PDP.

14.9 There are no rules in the PDP with immediate legal effect in accordance with section 86B(3) of the RMA that are applicable to this proposal

14.10 The proposal has been assessed against the objectives and policies in the PDP that have immediate legal effect and are relevant to the proposal.

Reporting Planner: _____ 29/05/2025

Frank Yan

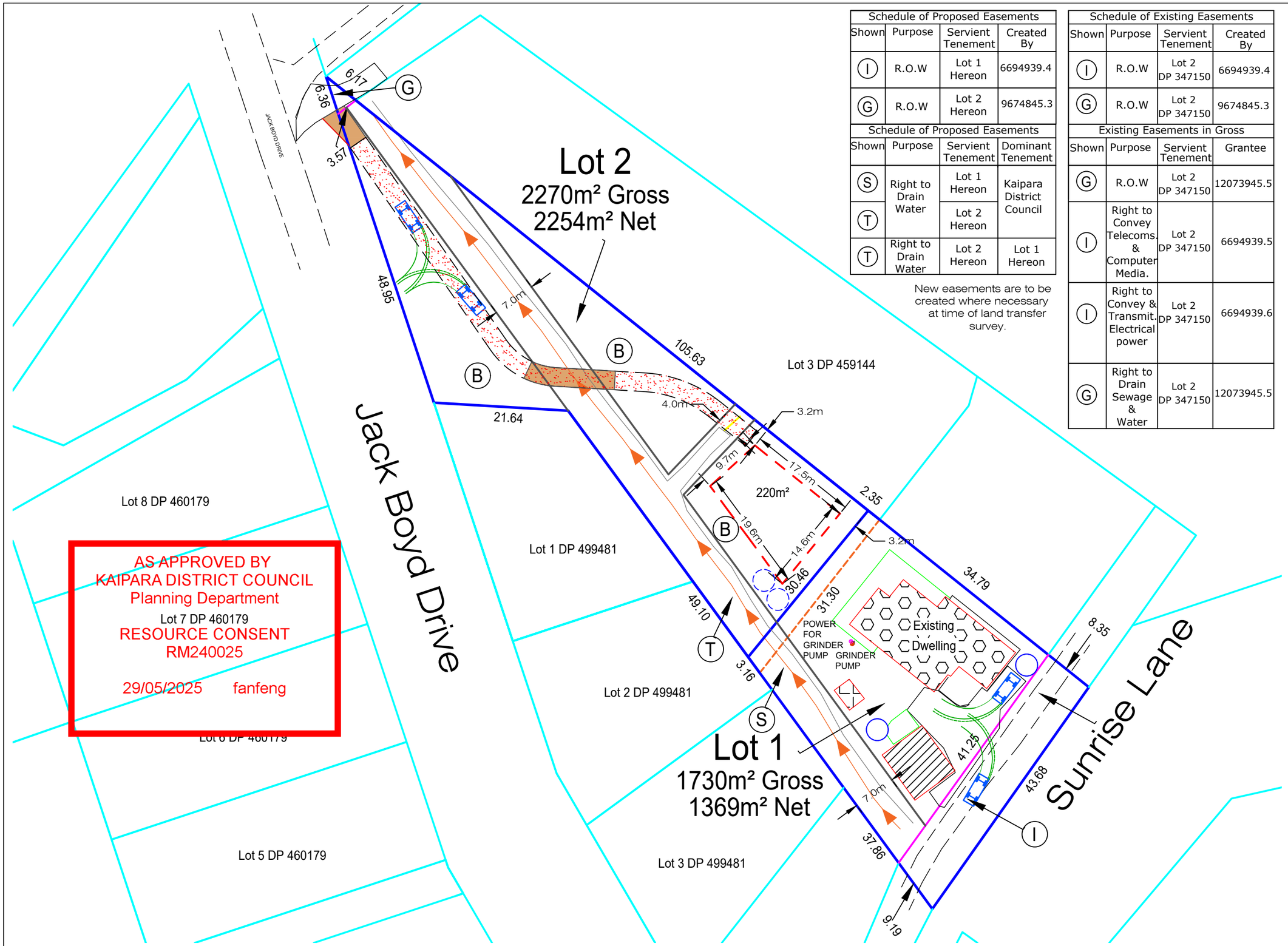
Signed: JJ Pienaar 29/05/2025

JJ Pienaar

Team Manager Resource Consents

Kaipara District Council

Signed under delegated authority pursuant to Section 34A of the Resource Management Act 1991



Schedule of Proposed Easements			
Shown	Purpose	Servient Tenement	Created By
I	R.O.W	Lot 1 Hereon	6694939.4
G	R.O.W	Lot 2 Hereon	9674845.3

Schedule of Proposed Easements			
Shown	Purpose	Servient Tenement	Dominant Tenement
S	Right to Drain Water	Lot 1 Hereon	Kaipara District Council
T		Lot 2 Hereon	
T	Right to Drain Water	Lot 2 Hereon	Lot 1 Hereon

New easements are to be created where necessary at time of land transfer survey.

Schedule of Existing Easements			
Shown	Purpose	Servient Tenement	Created By
I	R.O.W	Lot 2 DP 347150	6694939.4
G	R.O.W	Lot 2 DP 347150	9674845.3

Existing Easements in Gross			
Shown	Purpose	Servient Tenement	Grantee
G	R.O.W	Lot 2 DP 347150	12073945.5
I	Right to Convey Telecoms. & Computer Media.	Lot 2 DP 347150	6694939.5
I	Right to Convey & Transmit. Electrical power	Lot 2 DP 347150	6694939.6
G	Right to Drain Sewage & Water	Lot 2 DP 347150	12073945.5

LEGEND

- Property Bdy
- Abuttal Bdy
- Existing Covenants
- Deck
- Existing Easements
- Proposed Easements
- Overland Flowpath
- Proposed Accessway From Eng Drawing
- Existing Dwelling
- Existing Shed
- Existing Cabin
- Indicative Proposed Dwelling Location 220m²
- Existing Water Tank
- Indicative Water Tank Location

House	248m²
Cabin	12m²
Shed	72.1m²
Decks x 2	90.7m²
Tanks x 2	19.4m²
Concrete	39.3m²
Gravel	144m²
Total	625.5m²
Percentage	36.2%

Area labelled B on Lot 2 DP 347150 is subject to existing land covenants to be extinguished.

Appurtenant easements are to be retained. New easements are to be created where necessary. Existing easements and existing easements in gross are to be separated out and split under the new proposed allotment numbers where required and an existing land covenant is proposed to be extinguished

Land District:	North Auckland
Total Area:	4000m²
RT:	193722

NOTES:
1. Coordinates are in terms of Mount Eden Circuit 2000.
2. Please see RT 193722 in conjunction with DP 347150 for a full list of easements and covenants that may affect Lot 2 DP 347150.
3. Areas and measurements are subject to final land transfer survey.
4. There are existing appurtenant easements to be retained please see RT 193722.
5. Overland flow path Information provided by others
6. Impermeable areas calculated from topographical survey which was provided by Horizon Surveying.

224c Resource Consent Support

224c Services Ltd
Resource Consent Support
Ph 021 332 961
andrew@224c.co.nz

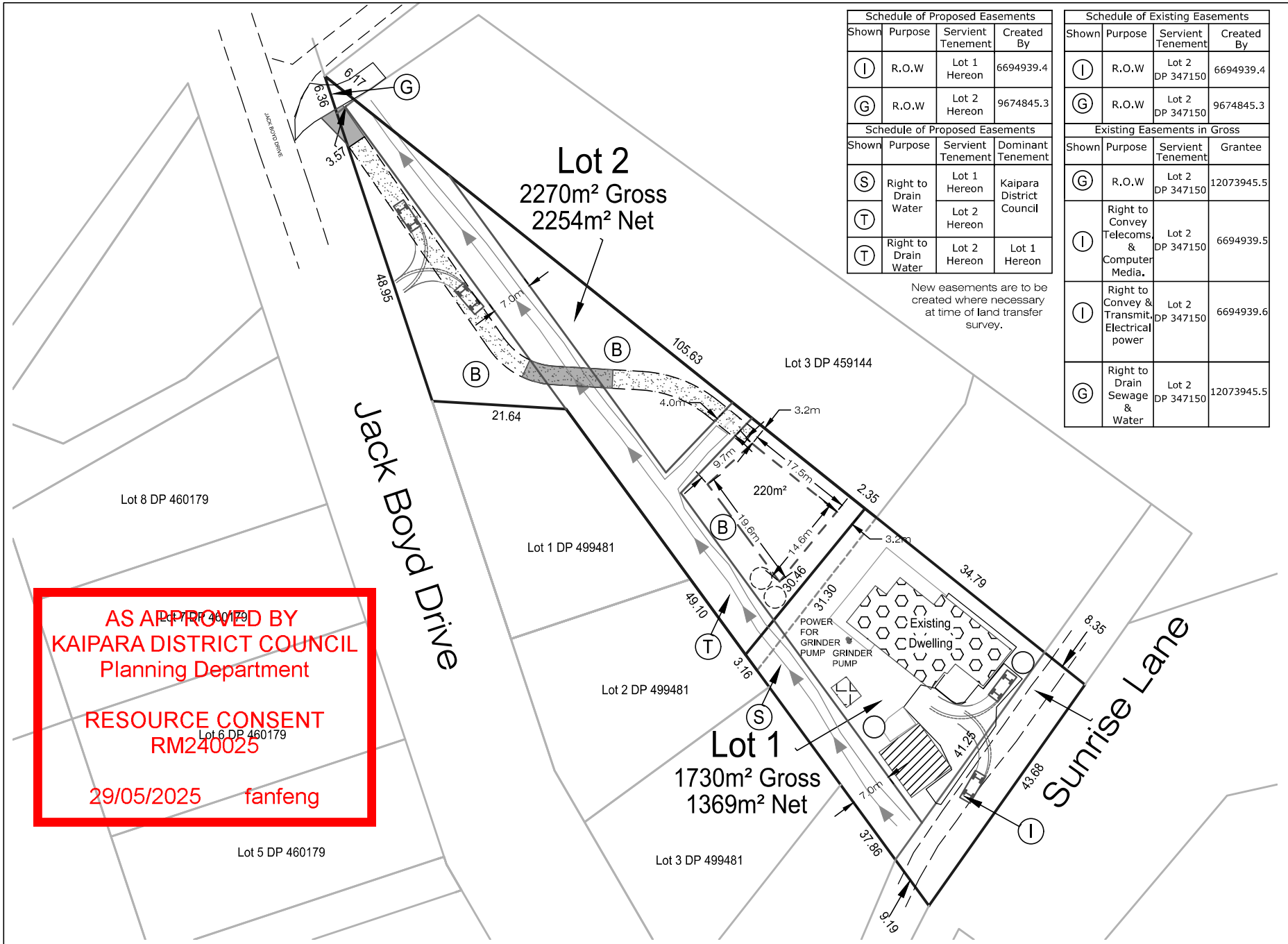
Project:

H & H Townshend
3 Sunrise Lane
Mangawhai

Plan Title:

Lots 1 & 2 Being a Subdivision of Lot 2 DP 347150

Original Scale:	Original Size:
1 : 600	A3
Date:	Drawing Number:
March 2025	23029-04



AS APPROVED BY
KAIPARA DISTRICT COUNCIL
Planning Department

RESOURCE CONSENT
RM240025

29/05/2025 fanfeng

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LEGEND

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- Proposed Accessway From Eng Drawing
- Existing Dwelling
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- Indicative Proposed Dwelling Location 220m²
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Percentage	36.2%

Area labelled B on Lot 2 DP 347150 is subject to existing land covenants to be extinguished.

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Land District:	North Auckland
Total Area:	4000m²
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4. There are existing appurtenant easements to be retained please see RT 193722.
5. Overland flow path Information provided by others
6. Impermeable areas calculated from topographical survey which was provided by Horizon Surveying.

224c Resource Consent Support

224c Services Ltd
Resource Consent Support
Ph 021 332 961
andrew@224c.co.nz

Project:
H & H Townshend
3 Sunrise Lane
Mangawhai

Plan Title:
Lots 1 & 2 Being a Subdivision of Lot 2 DP 347150

Original Scale:	Original Size:
1 : 600	A3
Date:	Drawing Number:
March 2025	23029-04

evolve
Planning + Landscape Architecture

2.0 Geotechnical Report

9 February 2024

Hamish Townshend
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Hamish.townshend@gmail.com
kylie@evolveplng.co.nz

RE: Geotechnical Investigation for Proposed Subdivision at 3 Sunrise Lane, Mangawhai Heads

Wiley Geotechnical Limited (WGL) was requested by Evolve Planning on behalf of Hamish Townshend to provide a geotechnical investigation to support an application for a 2 Lot subdivision. We understand Lot 1 contains an existing dwelling. We have received and reviewed an Infrastructure Report including a proposed subdivision scheme plan produced by SPL Consultants (Ref 3120, dated January 2024).

WGL visited the site on 1st February 2024 and made the following observations:

- The overall site is located on low lying ground with levels ranging between RL1 and RL3.
- No evidence of foundation failure or subsidence was observed in the foundation of the existing dwelling on proposed Lot 1.
- A potential building site was identified towards the south-eastern boundary of Lot 2 which is located in a relatively flat low lying area.
- An open drain runs along the south-western boundary of the overall site, flowing to the north-west.
- No obvious signs of instability were noted.
- One hand auger and a Scala Penetrometer (Scala) test were undertaken within a potentially suitable building site to a maximum depth of 4.9 m below ground level.

Geology

The GNS map for the site indicates that it is underlain by alluvial/colluvial deposits of the Tauranga Group comprising “unconsolidated to poorly consolidated mud, sand, gravel and peat deposits of alluvial, colluvial and lacustrine origins”.

NRC GIS Hazards Map

According to the Northland Regional Council Hazard Maps, the proposed future dwelling site is included in an area of flooding risk. As seen in Figure 1, the proposed development area is located in Coastal Flood Hazard Zone 0 (Current), Zone 1 (50 years), Zone 2 (100 years) and Zone 3 (100 years and Rapid Sea Level Rise Scenario). It is also located within the 100 year region wide river flood hazard zone.

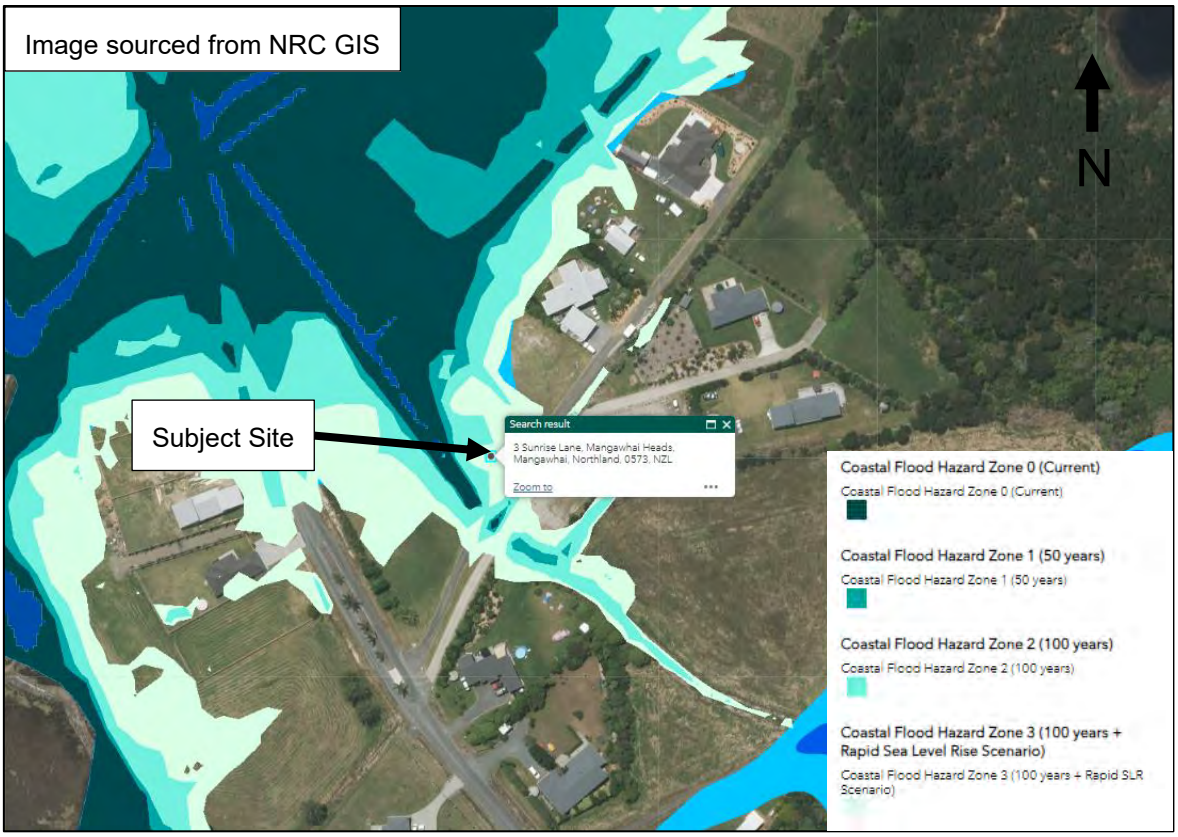


Figure 1: NRC Hazards Mapping

Seismic Hazards

Since there are no known active faults crossing the property, it is our opinion that ground rupture is unlikely at the subject property. Granular soils, such as sand, are susceptible to liquefaction in the event of future earthquakes. This may result in settlement or lateral deformation. Based on the regional earthquake risk (discussed further below), it is our opinion that there is a relatively low risk of liquefaction induced settlement or lateral movement such that specific liquefaction design is not required.

We recommend that the future structures and improvements are designed to account for seismic shaking and ground motions. For seismic design at the site and in line with NZS 1170.5:2004 the corresponding design peak ground accelerations (PGA) for the site have been calculated from NZS 1170.5:2004 using the recommendations of the New Zealand Geotechnical Society as follows:

$a_h = Z\ R\ C$

In which:

Z = base PGA called “Hazard factor” and is given by Table 3.3 and Figures 3.3 and 3.4 of NZS 1170.5:2004. Z = 0.13 for areas north of Auckland.

R = “Return period factor” and is given by Table 3.5 of NZS 1170.5:2004 (R = 1.0 for 500 year return period and R = 0.25 for a 25 year return period)

C = Site response factor called “Spectral shape factor” in NZS 1170.5:2004 and is based on the seismic site classification. We consider this site to be **Class D (1.12)**, based on soil depth and therefore C = 1.33.

The design PGA at the site is given as:

ULS: a_h = 0.13 x 1.00 x 1.12 = 0.145 (i.e. PGA = 0.145 g)

SLS: a_h = 0.13 x 0.25 x 1.12 = 0.036 (i.e. PGA = 0.036 g)

Field Exploration and Subsurface Conditions

WGL carried out a shallow subsurface investigation consisting of one hand augers with shear vane testing within the approximate areas shown on the site plan below.



Figure 2: Approximate Subsurface Exploration Location

The hand auger investigation was carried out to a depth 1.2 m. A Scala Penetrometer test was carried out from the surface adjacent to the borehole to a depth of 4.9 m. The subsurface material encountered in our hand auger investigation generally consisted of topsoil underlain by organic stained sandy silt, grading into grey sand before poor retrieval was encountered due to saturated soil at 1.2 m depth.

Groundwater was encountered at 0.9 m during our testing. The groundwater level may vary from the depth measured at the time of exploration, as a result of seasonal change, recent precipitation and/or irrigation practices.

Based on this, it is our opinion that the material encountered in our subsurface investigation is broadly consistent with published geologic mapping. The bore logs are presented as an appendix to this report and are written in general accordance with the New Zealand Geotechnical Society field classification guidelines (NZGS, 2005).

Expansive Soils

Expansive clay and silt soils are common in the wider Northland region and have the tendency to shrink and swell, particularly with seasonal fluctuations of soil water content. This behavior has implications for foundation design and surface structures and should be incorporated during foundation design.

Based on our visual and field assessment of the soils encountered onsite, and our experience in the area, we consider that the Expansive Site Class for this site is “M - moderate” - in accordance with AS 2870.

Conclusions and Recommendations

It is our opinion that the proposed development is feasible from a geotechnical point of view, provided the recommendations presented in this report and standard development practices are incorporated in the design and construction of the project.

The soil underlying the site does **not** reach “good ground” in the upper metre as defined in NZS 3601 (2011) based on the scala results as the requirement is 5 blows per 100mm with a Scala Penetrometer; however the results of the geotechnical investigation indicate a suitable bearing capacity is available at depth for future residential development, with Scala Penetrometer readings generally greater than 5 blows per 100mm below 3.0m.

We consider the site to be suitable for the proposed subdivision in accordance with the provision of Section 106 of the Resource Management Act 1991, and that standard earthwork and construction practises will not result significant increase or risk of erosion, subsidence, falling debris, slippage or inundation by soil or rock.

This report is not to be used for the purposes of any building consent applications regarding the foundations of future structures.

Pile Foundation

It is our opinion that piles designed in accordance with NZS3604 (2011) and extending to a minimum depth of 3.5-5.0 m will be suitable to support the proposed dwelling. Based on the soil type and depth to groundwater, we recommend the use of driven piles. Piles may be installed as drilled piers, however this may require both dewatering and casing to maintain a clean and open hole.

A geotechnical ultimate bearing capacity of 450 kPa should be available.

Concrete Foundation

Based on the ground conditions and required fill heights a concrete foundation is unlikely to be a viable solution unless pile supported. If filling is proposed a detailed deep investigation and geotechnical analysis of settlement risk at building consent stage would be required.

Earthworks

For the development scheme provided we anticipate the majority of the earthworks will be limited to site clearing for the building platform and construction for the driveway access. We recommend that any site concept plans be discussed with WGL or suitably qualified Geotechnical Engineer familiar with the site and the contents of this report.

In addition, we suggest the following:

- All cut surfaces should be inspected by WGL (or suitably qualified Geotechnical Engineer) prior to placing any fill to ensure founding conditions are as anticipated;
- All excavated soil to be removed from site or placed in an engineered stockpile that is strategically placed such that it would not trigger slope instability or settlement. If there is any soil to be placed permanently on site, we suggest contacting WGL for further guidance:
- In areas of tree removal where planned structures or roadways are located, the full root ball should be removed;
- Any proposed earthworks and drainage plans should be approved by a suitably qualified Geotechnical Engineer familiar with both the site and the recommendations within this report for review and comment;
- If filling is proposed then further deep investigation with a CPT rig and settlement analysis will be required at building consent stage to determine the settlement risk to the site and neighbouring properties along with the limitations.
- If required, fill placement should be placed in accordance NZS 4431 – Code of practice for Earth Fills for Residential development. Fill should be placed on a suitably stripped and prepared subgrade including the removal of any non-engineered fill;
- All proposed batter slopes should be restricted to gradients no steeper than 1v:3h.

Wastewater Disposal

We understand that the future dwelling on proposed Lot 2 will connect to the existing Kaipara District Council wastewater infrastructure with connection points illustrated in the Kaipara District Council GIS.

Stormwater

We understand that stormwater recommendations and attenuation calculations have been undertaken by SPL Consultants as part of the Infrastructure Report (Ref 3120, dated January 2024).

Flooding

The NRC Hazard Maps indicate that the site is in a Coastal Flood Hazard zone. Recommendations for the finished floor level for the future dwelling on proposed Lot 2 have been included in the Infrastructure Report by SPL Consultants (Ref 3120, dated January 2024).

LIMITATIONS

(i) This report has been prepared for the use of our client, Hamish Townshend and their professional advisers and the relevant Regional Authorities in relation to the specified project brief described in this report. No liability is accepted for the use of any part of the report for any other purpose or by any other person or entity.

(ii) Assessments made in this report are based on the ground conditions indicated from published sources, site inspections and subsurface investigations described in this report based on accepted normal methods of site investigations. Variations in ground conditions may exist between test locations and therefore have not been taken into account in the report. If variations are found during excavation or at foundation preparation stage WGL should be notified immediately so we can amend our recommendations.

(iii) This Limitation should be read in conjunction with the ENZ/ACENZ Standard Terms of Engagement.

We trust that this information meets your current requirements. Please do not hesitate to contact the undersigned at richard@wileygeotechnical.co.nz or matt@wileygeotechnical.co.nz if you require any further information.



Richard Tichborne - BSc, PgDip, MEngNZ
Senior Geotechnical Engineer



Matt Wiley, MSc(Hons), MEngNZ
Principal Engineer

Reviewed By:



Raymond Su - BE(Hon), MEngSc(Geotechnical), CMEngNZ, CPEng

Principal Engineer

Attachments:

- Bore Logs

WILEY GEOTECHNICAL LTD

BOREHOLE No. 1

SITE: 3 Sunrise Lane, Mangawhai Heads

REF: 24003

Sheet 1 of 1

REDUCED LEVEL (RL) / INFERRED GEOLOGY	DESCRIPTION OF SOIL	SOIL SYMBOL	DEPTH (m)	SAMPLE TYPE	WATER CONTENT (%	WATER LEVEL
T	TOPSOIL dark brown, sandy, moist, to 200 mm					
Alluvial/Colluvial Deposits of Tauranga Group	SILT moderately sandy, slightly clayey, slightly plastic, brown, moist to wet					
	water at 0.9 m					V
	SAND grey, fine to medium grained, wet saturated		1			
	E.O.B: 1.2 m		2			
			3			
			4			
			5			

CORRECTED VANE SHEAR STRENGTH (kPa)

● Peak Field Vane

○ Remoulded Field vane

50 100 150

Depth (m)	Peak	Remoulded
0.5	74	24
1.0	40	17
1.2	37	13

SCALA PENETROMETER BLOWS / 100 mm

5 10 15

Depth (m)	Blows / 100 mm
0.1	1
0.2	0
0.3	0
0.4	1
0.5	1
0.6	2
0.7	1
0.8	2
0.9	2
1.0	2
1.1	2
1.2	3
1.3	2
1.4	3
1.5	3
1.6	2
1.7	2
1.8	2
1.9	3
2.0	2
2.1	2
2.2	3
2.3	3
2.4	3
2.5	3
2.6	3
2.7	4
2.8	4
2.9	4
3.0	5
3.1	6
3.2	6
3.3	8
3.4	7
3.5	8
3.6	9
3.7	9
3.8	9
3.9	10
4.0	10
4.1	12
4.2	12
4.3	13
4.4	14
4.5	12
4.6	12
4.7	12
4.8	12
4.9	12

NOTES Groundwater was encountered at 0.9 m.

Hand auger encountered poor retrieval at 1.2 m due to saturated soil.

Scala Penetrometer test performed from the surface adjacent to the borehole.

LOGGED BY: MD

DATE DRILLED: 1-Feb-24

DRILL METHOD 50 mm Hand Auger

CONO 6694939.2 Cons
Cpy – 01/01, Pgs – 009, 16/12/05, 09:07
DocID: 312259447

IN THE MATTER of the Resource Management Act 1991 ("the Act")

AND

IN THE MATTER of a subdivision consent as evidenced by Land Transfer Plan No. 347150

AND

IN THE MATTER of a Consent Notice issued pursuant to Section 221 of the Act by THE KAIPARA DISTRICT COUNCIL ("the Council")

I, ALAN JOHN McKERCHAR Chief Executive Officer for the Council HEREBY CERTIFY that the following conditions to be complied with on a continuing basis was imposed by the Council as conditions of approval for the subdivision as effected by Land Transfer Plan No. 347150 ("the plan")

(1) The registered proprietor of the land described in the First Schedule hereto:

(a) Shall advise the Kaipara District Council of the proposed point of access at the time of applying for a building consent for a dwelling on the land described in the Second Schedule hereto; and

(b) Shall, if the point of access is to be other than from the adjacent right of way, construct a separate vehicle crossing to Jack Boyd Drive. Any separate vehicle crossing shall be formed to the standards detailed on Drawing KDC/A4/S28 of the Kaipara District Council Draft Engineering Code of Practice for Land Subdivision and Development Year 2000, and any necessary permit procedures shall be followed.

(2) The registered proprietors and prospective purchasers of the lands described in the Second Schedule hereto:

(a) Shall comply with the recommendations of the report by John Hawley Consulting (Job No. 362, dated 11 November 2003) with respect to:
a copy of which is annexed hereto

- 'Buildable' areas
- Building foundations
- Building floor levels
- Wastewater treatment and disposal
- Stormwater disposal; and
- The areas not suitable for building on LT Plan 347150 marked A on Lot 1

(b) Shall limit the residential development of each site in the lands described in the Second Schedule hereto to single dwellings until a connection to the community sewerage scheme planned by the Kaipara District Council for Mangawhai (hereinafter referred to as the "Ecocare project") is available; and

B on Lot 2
C on Lot 3
D on Lot 4
E on Lot 5
F on Lot 6
G on Lot 7

(c) Shall only use individual effluent disposal systems and any communal effluent disposal scheme within the subdivision until such time as connection to the Ecocare project is available. At that time, the lands described in the Second Schedule hereto will be required to connect to the Ecocare project, and must comply with all of the Kaipara District Council's requirements relating to such connection, including the payment of any development contribution, connection fee or any other charge.

(d) Shall preserve and protect from destruction and/or removal, and maintain in a healthy state, all specimen of plants within the approved landscape enhancement plan installed by subdivider in accordance with condition 2(i) of the subdivision.

FIRST SCHEDULE

An estate in fee simple in all those parcels of land situated in the North Auckland Registry described as follows:

Area	Lot	D.P.	C.T.
4000m2	1	347150	193721

SECOND SCHEDULE

An estate in fee simple in all those parcels of land situated in the North Auckland Registry described as follows:

Area	Lot	D.P.	C.T.
4000m2	1	347150	193721
4000m2	2	347150	193722
4039m2	3	347150	193723
4000m2	4	347150	193724
4000m2	5	347150	193725
4000m2	6	347150	193726
4002m2	7	347150	193727

DATED at Dargaville this 9th day of May 2005

SIGNED by the said ALAN JOHN McKERCHAR, Chief Executive Offier for THE KAIPARA DISTRICT COUNCIL pursuant to the authority of the Council given pursuant to Sections 252(1)(a) and 715 of the Local Government Act 1974

A.J. McKercher

JOHN HAWLEY CONSULTING

4 Gordon Craig Place
Algies Bay
WARKWORTH

Tel:094256949
Fax:094256946
Mob: 025 622 1693

jghawley@voyager.co.nz

11 November 2003

Job No: 362

GEOTECHNICAL REPORT re STABLE HOUSE SITES
in
PROPOSED SUBDIVISION - 7 LOTS
for
Mr RAY McCARDLE
at
JACK BOYD DRIVE, MANGAWHAI HEADS

Mr Ray McCardle
Box 481
Drury
South Auckland

In response to your instructions we have examined the property in Jack Boyd Drive Mangawhai Heads, - Lot 10, DP 180 861 - which you propose to subdivide into seven Lots in the manner shown on the attached plan. The purpose of this report is to support your application for consent to subdivide.

Our examination was directed towards
(a) delineating stable sites with stable access on each of the seven proposed Lots, and
(b) making recommendations re foundation design, stormwater management and wastewater treatment/disposal, and
(c) identifying any other issues which would call for professional engineering attention.

We are pleased to report as follows:-

Property Description

Lots 2 to 7 are similar in that each comprises portions of almost level terraces on two levels. The lower (more floodable) terrace is on the north-western ends of the Lots, see plan.

Existing large open drains provide low resistance/high gradient routes for stormwater to flow to the Estuary a few hundred metres to the West.

The property has been grazed for many years and parts of it mown in recent years.

Many houses have been built in recent years on the alluvial terrace to which the upper terrace on this property belongs. Lot 1 is virtually entirely on this upper terrace.

Geological Setting

The property is on geologically very recent alluvium. Our boreholes revealed grey topsoil with low organic content underlain by very firm yellow and grey silty clays and clays.

Previous Habitation

No signs of pre-European occupation or activities were seen on the property.
No signs of European activities of historic interest were seen on the property.

Water Supply

Water supply for houses on the Lots would be by collection of rainwater from roofs.

Stormwater

Overflows from all roof water supply tanks, and runoff from all sealed driveway and parking areas should be taken in closed conduit to the open drains/stream channels. The topography will allow this to be achieved without difficulty.

The drain which presently cuts across Lots 2 and 3 (and touches the corner of Lot 4) will need to be realigned so that larger "buildable areas" exist on Lots 2 and 3. This could be done most conveniently by taking it along the boundary between those Lots and the right-of-way. It would then meet the drain running along the NE boundary between Lots 1 and 2.
(In order to minimise the number of culverts, the drain might be best relocated on the SE side of the right-of-way, see plan.)

The existing drain channel should be filled with fine-grained soil (clays and silty clays) compacted in layers not exceeding 150mm thick while at moisture contents close to Optimum Moisture Content (ie near their Plastic Limit). Soft muds shall first be stripped from the floor of the channel. This stripping and compaction work shall be examined by a registered engineer to check suitability of compaction equipment, soils, layer thickness, moisture content etc.

Site Locations and Dimensions

On each of the seven Lots the stable building site may be defined as "all the land on the upper terrace". This includes the whole of Lot 1 and those portions of Lots 2 to 7 which lie southeast of the (existing) building restriction line which cuts across near the centres of those Lots, see plan.

All proposed Lots are large (approx 4,000m2) but Lots 2 to 7 have significant parts which are restricted for building because they are low-lying and judged floodable. The Lot with the smallest "buildable area" or "stable site" is Lot 3. However the area of its "stable site" extends to approximately 1,300m2 or 30% of the Lot and well over a quarter of an acre.

Access

Lot 1 has level stable access direct from Jack Boyd Drive. Level access across stable land to the "stable building areas" on Lots 2 to 7 is available, or may be established by realigning one of the drains (see above) and upgrading the culvert across the combined open drain, - near the boundary between areas "A" and "B" on the right-of-way, see plan.

Foundations

The soils have high bearing capacity. The "buildable areas" are suitable for concrete pad and piled foundations designed and constructed in accordance with NZS 3604. However -
(a) Because the area could be susceptible to ponding (not to be confused with flooding) finished floor levels should be at least 300mm above the existing surrounding ground, and
(b) Because Lots 2 and 3 will include strips of fill placed (compacted) in the present drain alignment, foundations for houses on Lots 2 and 3 should be subject to specific design to determine whether the proposed house extends onto such areas, and if so whether foundation design should be modified accordingly.

Safe bearing stress for foundations of 100 kPa (Ultimate Bearing Capacity 300 kPa) is available on the "buildable areas" on all seven Lots.

On-site Wastewater Treatment/Disposal

On each of these large Lots the option is available of using either an Aerated Wastewater Treatment System (ie a system with "in tank" aeration) or a septic tank for anaerobic decomposition followed by aerobic treatment in raised beds of sand, The options therefore include -

(a) double chamber septic tanks fitted with a 1.5mm filter between chambers and a dosing pump sending doses of effluent to distribution lines laid in aerobic treatment areas (sand beds) raised at least 400mm above the level of the upper terrace, or
(b) an Aerated Wastewater Treatment System (such as Advantex, Enviroflow, Oasis, Lifestyle, etc) with RAAM (or similar) dripper lines distributing effluent over sand beds raised at least 200mm on the upper terraces, or
(c) two neighbouring houses sharing an AWTSystem, or
(d) a "mixed" system comprising dual chamber septic tanks on each Lot leading to Enviroflow (or similar) aeration units located on the common boundaries.

Options (c) and (d) have the advantage of being "mini-community systems".

Costs (installed) are approximately $6,500 for Option (a) $12,000 to $15,000 for Option (b) and $7,000 per Lot for Options (c) and $9,000 per Lot for Option (d). Competitive tenders may however stray from these estimates. (Estimates may be properly compared only if ALL include freight and installation and gst.)

Sharing aeration/disposal areas between neighbouring properties has the advantage of reducing peaks and troughs in loadings to the ground.

Designs of systems should conform with Technical Publication 58 of the Auckland Regional Council (which has been adopted by Northland Regional Council) with AS/NZS 1547: 2000 and with other requirements of Northland Regional Council.

NRC requires that Resource Consent be applied for if more than 3m3 of effluent per day is to be applied or depth to groundwater is less than 2m, and under some other circumstances.

Seven 4-bedroom houses would (from TP58) produce 7 x 6 x 140 = 5,880 litres/day ie 5.88 m3 per day, ie more than 3m3/day. Furthermore, here (as on most properties) ground water levels can be expected to rise to a depth of less than 2m during wet weather. Resource Consent will therefore be required.

The ground is too flat and subject to ponding during heavy rainstorms to be relied upon for aerobic treatment of effluent from septic tanks without the construction of raised beds. This, together with the proximity of the Estuary leads us to recommend that a wastewater system which includes aerobic treatment "in house" be chosen, ie option "b, c or d" above.

Makers of AWTSystems require that a maintenance contract be entered into. These involve six-monthly inspections at a cost of approximately $200 pa for each system.

Leaflets describing Advantex, Reflection, Enviroflow, and Lifestyle are enclosed. Enviroflow has the advantages of (a) having its secondary treatment tank as a separate unit [allowing it to shared and/or used in conjunction with a septic tank (Options "c" and "d")] and (b) having its aerobic treatment and electrical components above ground. The latter feature means it would not be relying on seals if ponding occurred during heavy rainstorms.

For an application rate of 5mm/day the RAAM dripper lines would need to be spread over an area of 168m2 per house. There is more than adequate area on the upper terraces on each of the Lots for this to be found particularly as the area can be of almost any shape.

We recommend that RAAM lines be laid on a strip running along both sides of a common boundary. In order to give the 2x168 = 336m2 required for two 4-br houses the strip could be (say) 40m long and 4.2m wide on each of the Lots. When planted up these areas would form substantial "hedges areas".

A shared Enviroflow aeration unit (secondary treatment tank only) could be placed on the common boundaries between Lots 2/3 and Lots 4/5 and Lots 6/7. Lot 1 would have a stand-alone system.

Geotechnical Hazards

Slope Instability, Volcanism, Seismic Acceleration, and Fault Line Displacement are not significant hazards on these seven Lots. Clay Dispersion, High Compressibility and Delayed Compressibility are not of significance in these soils.

Flooding is the only hazard calling for specific consideration.

We understand that the flooding issue was considered in detail prior to the subdivision of neighbouring ground on this same upper terrace and prior to the building of houses on it.

We further note that in the event of the stream level rising out of its channel there is a wide area of lower terrace ground over which it would spread. This would greatly reduce the magnitude of a rise in stream level and ensure that the upper terrace was not flooded.

Several major rainstorm events have occurred in the general area in the last decade, and some quite major ones this year. It is generally accepted that the more intense a rainstorm is the more non-uniform it is in space and in time. It is not certain therefore that very severe rainstorms measured at recording stations were of the same intensity in this catchment.

In view of the absence of significant flooding of the valley floor in recent decades we have reached the opinion that flooding is very unlikely to occur on the upper terrace on each of Lots 2 to 7 or anywhere on Lot 1, ie on the seven "buildable areas" or "stable building sites". With house floor levels raised at least 300mm above existing ground level we believe that the risk of flooding of the houses would be at an "acceptable level" and that even minor flooding of gardens at present ground level is very unlikely.

Summary - see over

Summary

It is my professional opinion that, -

- the seven identified sites1 are not subject to slope instability2 or any other geotechnical hazard, and

- the seven sites are not likely to become subject to slope instability or any other geotechnical hazard, and

- the building of a house on any or all of the seven sites is not likely to lead to instability of any of the sites themselves or of any other property, and

- all seven sites are on good ground in the sense in which that term is used in NZS 3604, (1999) and

- the drain which presently cuts across Lots 2 and 3 should be realigned along the boundary of the right-of-way, and the existing channel filled in with compacted fine-grained (clayey) soils under the supervision of a registered engineer, and

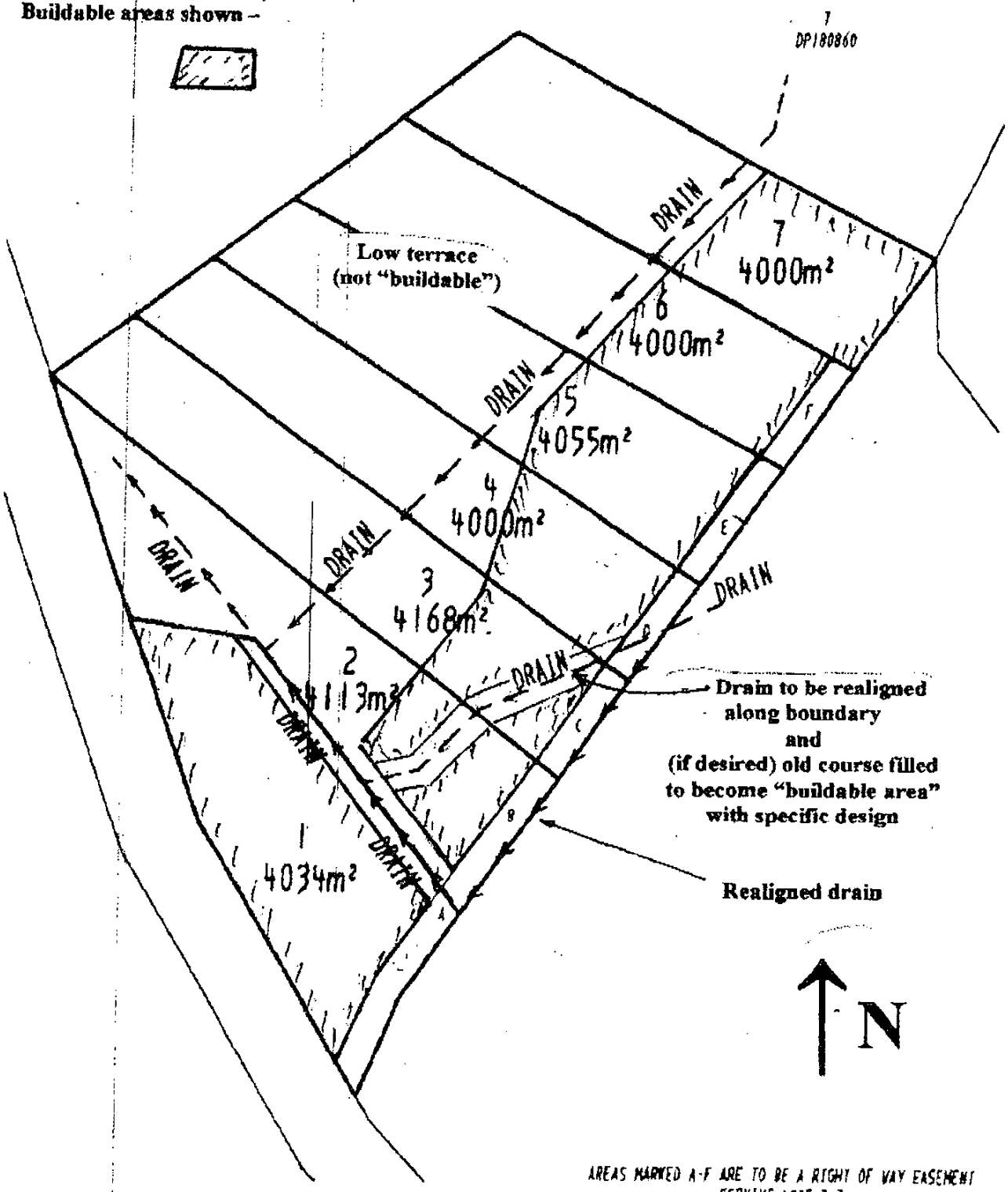
- the seven sites are suitable for houses with foundations designed in accordance with NZS 3604 (1999) except that (i) finished floor levels should be at least 300mm above existing ground level, and (ii) foundations on Lots 2 and 3 should be subject to specific design including allowances for wherever a proposed house extends onto areas of filled drainage channel, and

- overflows from water tanks and runoff from sealed driveway and parking areas should be led in closed conduit to the drains/stream channels which cut across the property, and

- the soils are such, and the available areas large enough to allow on-site treatment/disposal of wastewater either by installation of Aerated Water Treatment Systems, or by installation of a dual chamber septic tank and dose-loaded effluent distribution lines on a raised treatment bed. Some "mixed" or "hybrid" possibilities also exist which amount to "mini-community systems" see above. All systems should be designed in accordance with Technical Publication 58 of the Auckland Regional Council (which has been adopted by Northland Regional Council), with AS/NZS 1547 and with other Northland Regional Council requirements. Resource Consent from the Regional Council will be required because of the total volume of effluent produced by seven houses.

If you wish for any clarification of points raised above, or any other geotechnical matters, please do not hesitate to telephone or Fax this office at the numbers given above.

Yours faithfully
J G Hawley
Reg Eng



JOHN HAWLEY CONSULTING
4 Gordon Craig Place,
Algies Bay, Warkworth.
jghawley@xtra.co.nz

Subdivision Plan
Mr Ray McCardle
Jack Boyd Drive, Mangawhai Heads

Tel: 0-9-425 6949
Fax: 0-9-425 6946
Job No. 362
Date 10-11-03

Form 7
Code compliance certificate

Section 95, Building Act 2004

The building

Street address of building:	3 Sunrise Lane, Mangawhai
Legal description of land where building is located:	Lot 2 DP 347150
Building name:	N/A
Location of building within site/block number:	3 Sunrise Lane Mangawhai
Level/unit number:	0
Current, lawfully established, use:	8.0.1 Ancillary
Year first constructed:	2022

The owner

Name of owner:	Hamish Townshend, Hannah Millow and CLM Trustees 2018 Ltd
Contact person:	Hamish Townshend
Mailing address:	3 Sunrise Lane, Mangawhai
Street address/registered office:	N/A
Phone number:	Landline: N/A Mobile: 021306017
Daytime:	Landline: N/A Mobile: 021306017
After hours:	Landline: N/A Mobile: 021306017
Facsimile number:	No information provided
Email address:	hamish.townshend@4sq.co.nz
Website:	No information provided

First point of contact for communications with the council/building consent authority:
Francis Stanton (Dream Planning); Mailing Address: PO Box 123
Mangawhai 0505; Mobile: 0274471370; Email: franks@dream-inc.co.nz

Building work

Building consent number:	BC220057
Description:	New Connection to Council WW, Decommission Septic
Issued by:	Kaipara District Council

Code compliance

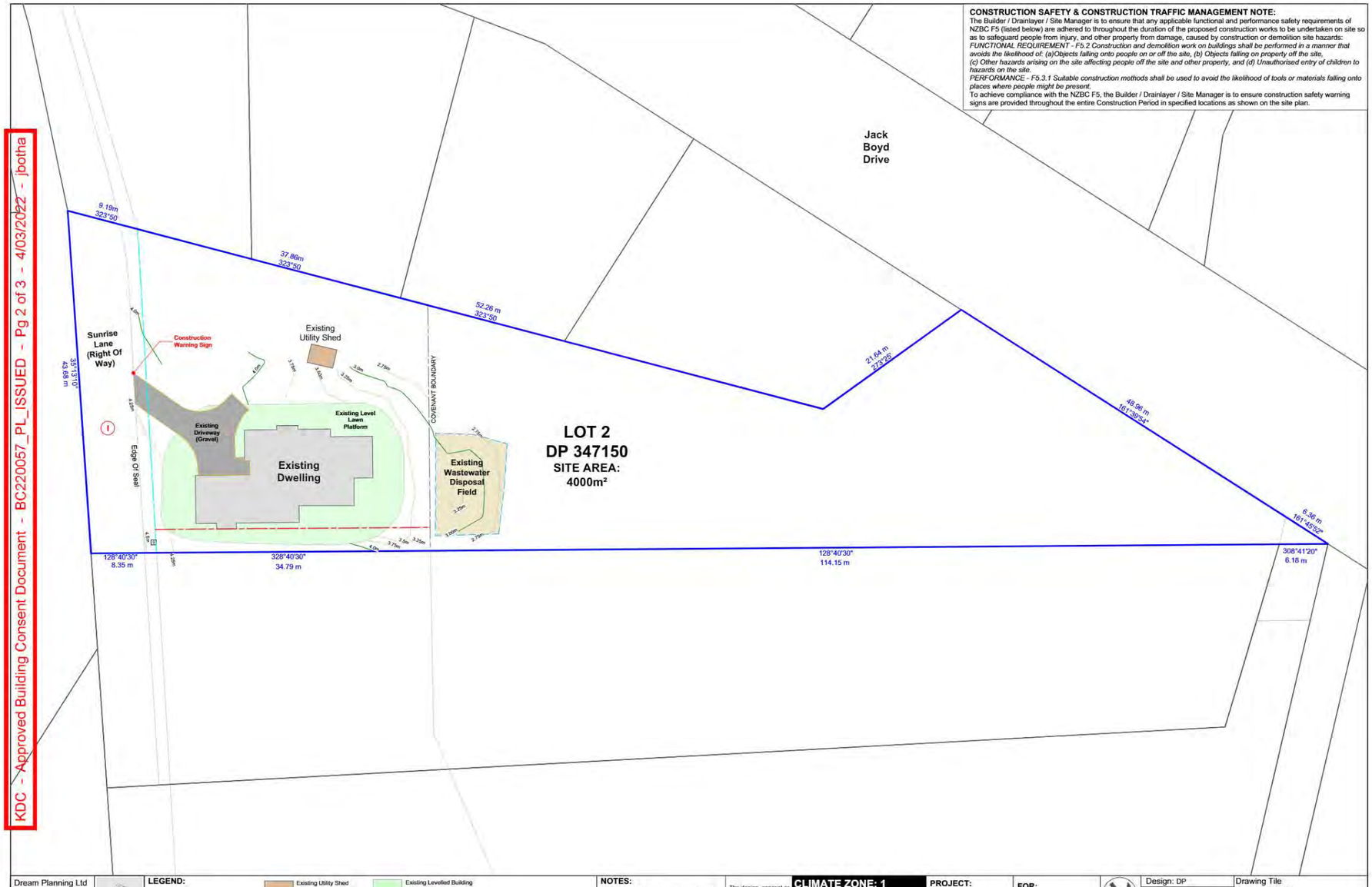
The building consent authority named below is satisfied, on reasonable grounds, that -
the building work complies with the building consent.



Signature: John Dowden
Position: Building Services Officer
On behalf of: Kaipara District Council
Date: 31 January 2024

KDC - Approved Building Consent Document - BC220057_PL_ISSUED - Pg 2 of 3 - 4/03/2022 - jbotha

CONSTRUCTION SAFETY & CONSTRUCTION TRAFFIC MANAGEMENT NOTE:
The Builder / Drainlayer / Site Manager is to ensure that any applicable functional and performance safety requirements of NZBC F5 (listed below) are adhered to throughout the duration of the proposed construction works to be undertaken on site so as to safeguard people from injury, and other property from damage, caused by construction or demolition site hazards:
FUNCTIONAL REQUIREMENT - F5.2 Construction and demolition work on buildings shall be performed in a manner that avoids the likelihood of: (a)Objects falling onto people on or off the site, (b) Objects falling on property off the site, (c) Other hazards arising on the site affecting people off the site and other property, and (d) Unauthorised entry of children to hazards on the site.
PERFORMANCE - F5.3.1 Suitable construction methods shall be used to avoid the likelihood of tools or materials falling onto places where people might be present.
To achieve compliance with the NZBC F5, the Builder / Drainlayer / Site Manager is to ensure construction safety warning signs are provided throughout the entire Construction Period in specified locations as shown on the site plan.



Dream Planning Ltd
4 Wood Street
Mangawhai
P.O Box 123
Mangawhai

Ph (09) 431 4568
admin@dream-inc.co.nz

LEGEND:
- Existing Subject Site Boundary
- Existing Easement Boundary
- Existing Neighbouring Property Boundary
- Boundary Setback Control
- Existing Dwelling Enclosed Floor Area
- Existing Utility Shed Enclosed Floor Area
- Existing Driveway Access (Gravel Surface)
- Existing Major Contour (1m Intervals)
- Existing Minor Contour (0.25m Intervals)
- Existing Wastewater Effluent Field
- Existing Levelled Building Platform Area

NOTES:
- all drawing & notes dimensions in millimetres unless shown
- verify all dimensions before construction
- contractor to contact designer for confirmation of any construction material matters before construction is undertaken
- any variations to be checked and cleared with designer
- any questions to be directed to designer and resolved before construction

The design, concept or drawing on this design sheet are not to be reproduced or manipulated without written authority of, & copyright shall remain vested to Dream Planning Ltd ©

CLIMATE ZONE: 1
SITE AREA: 4000m²
WIND ZONE: HIGH
EQ ZONE: 1
EXPOSURE ZONE: C

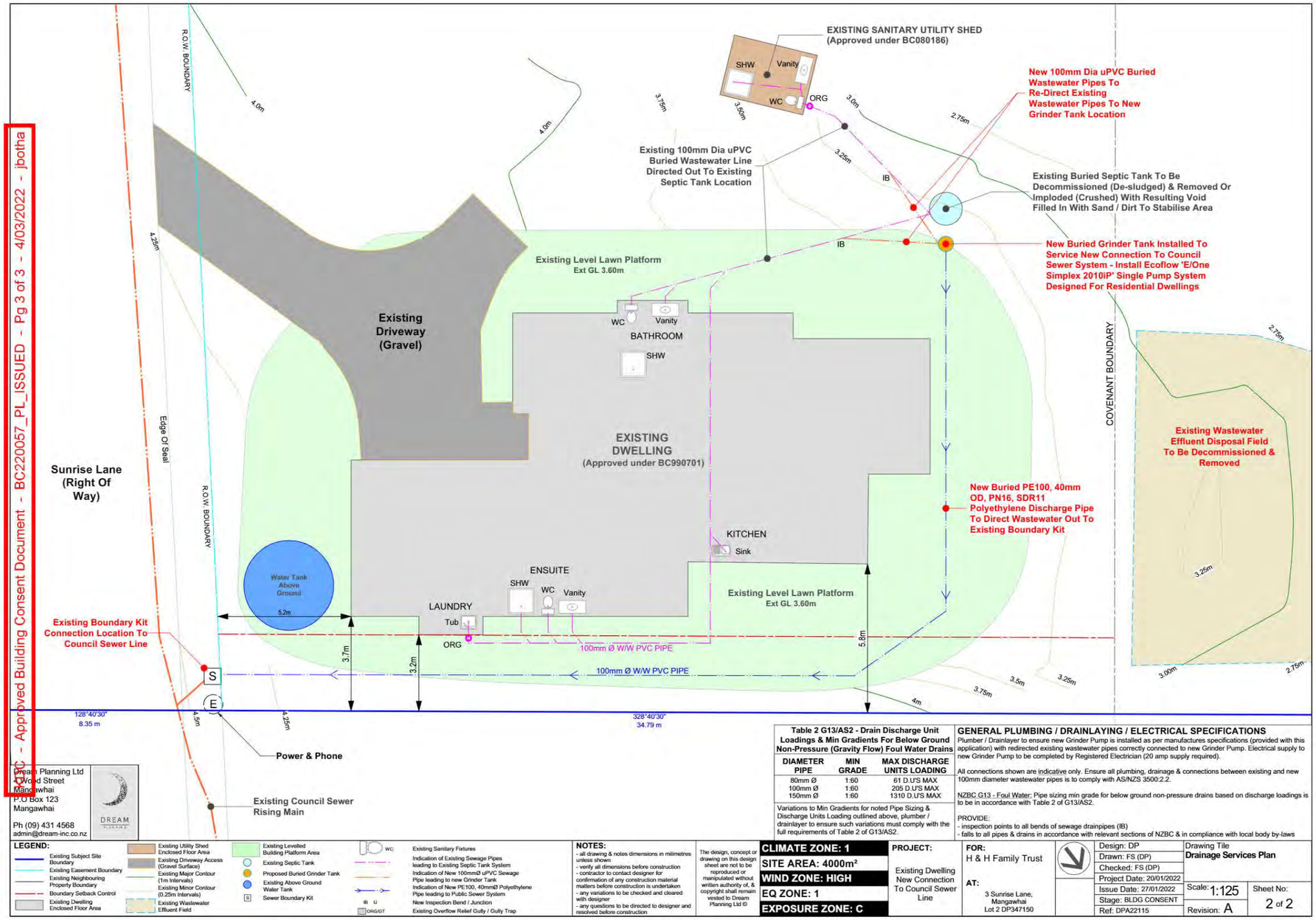
PROJECT:
Existing Dwelling
New Connection To
Council Sewer Line

FOR:
H & H Family Trust

AT:
3 Sunrise Lane,
Mangawhai
Lot 2 DP347150

Design: DP	Drawing Tile: **Overall Site Plan**
Drawn: FS(DP)	
Checked: FS (DP)	
Project Date: 20/01/2022	
Issue Date: 27/01/2022	Scale: 1:425
Stage: BLDG CONSENT	Sheet No: 1 of 2
Ref: DPA22115	Revision: A

ACC - Approved Building Consent Document - BC220057_PL_ISSUED - Pg 3 of 3 - 4/03/2022 - jbotha



Dream Planning Ltd
4 Wood Street
Mangawhai
P.O Box 123
Mangawhai

Ph (09) 431 4568
admin@dream-inc.co.nz

LEGEND:
Existing Subject Site Boundary
Existing Easement Boundary
Existing Neighbouring Property Boundary
Boundary Setback Control
Existing Dwelling Enclosed Floor Area
Existing Utility Shed Enclosed Floor Area
Existing Driveway Access (Gravel Surface)
Existing Major Contour (1m Intervals)
Existing Minor Contour (0.25m Intervals)
Existing Wastewater Effluent Field
Existing Levelled Building Platform Area
Existing Septic Tank
Proposed Buried Grinder Tank
Existing Above Ground Water Tank
Sewer Boundary Kit
Existing Sanitary Fixtures
Indication of Existing Sewage Pipes leading to Existing Septic Tank System
Indication of New 100mmØ uPVC Sewage Pipe leading to new Grinder Tank
Indication of New PE100, 40mmØ Polyethylene Pipe leading to Public Sewer System
New Inspection Bend / Junction
Existing Overflow Relief Gully / Gully Trap

NOTES:
- all drawing & notes dimensions in millimetres unless shown
- verify all dimensions before construction
- contractor to contact designer for confirmation of any construction material matters before construction is undertaken
- any variations to be checked and cleared with designer
- any questions to be directed to designer and resolved before construction

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CLIMATE ZONE: 1
SITE AREA: 4000m²
WIND ZONE: HIGH
EQ ZONE: 1
EXPOSURE ZONE: C

PROJECT:
Existing Dwelling New Connection To Council Sewer Line

FOR:
H & H Family Trust

AT:
3 Sunrise Lane, Mangawhai
Lot 2 DP347150

Design: DP	Drawing Tile: **Drainage Services Plan**
Drawn: FS (DP)	
Checked: FS (DP)	
Project Date: 20/01/2022	
Issue Date: 27/01/2022	Scale: 1:125
Stage: BLDG CONSENT	Sheet No: 2 of 2
Ref: DPA22115	Revision: A

Table 2 G13/AS2 - Drain Discharge Unit Loadings & Min Gradients For Below Ground Non-Pressure (Gravity Flow) Foul Water Drains

DIAMETER PIPE	MIN GRADE	MAX DISCHARGE UNITS LOADING
80mm Ø	1:60	61 D.U'S MAX
100mm Ø	1:60	205 D.U'S MAX
150mm Ø	1:60	1310 D.U'S MAX

Variations to Min Gradients for noted Pipe Sizing & Discharge Units Loading outlined above, plumber / drainlayer to ensure such variations must comply with the full requirements of Table 2 of G13/AS2.

GENERAL PLUMBING / DRAINLAYING / ELECTRICAL SPECIFICATIONS

Plumber / Drainlayer to ensure new Grinder Pump is installed as per manufactures specifications (provided with this application) with redirected existing wastewater pipes correctly connected to new Grinder Pump. Electrical supply to new Grinder Pump to be completed by Registered Electrician (20 amp supply required).

All connections shown are indicative only. Ensure all plumbing, drainage & connections between existing and new 100mm diameter wastewater pipes is to comply with AS/NZS 3500:2.2.

NZBC G13 - Foul Water: Pipe sizing min grade for below ground non-pressure drains based on discharge loadings is to be in accordance with Table 2 of G13/AS2.

PROVIDE:
- inspection points to all bends of sewage drainpipes (IB)
- falls to all pipes & drains in accordance with relevant sections of NZBC & in compliance with local body by-laws

Decommissioning Statement
For
H Townshend

Site:
3 Sunrise Lane,
Mangawhai Heads
Lot 2 DP 347150

The Biocycle septic system has been emptied by MacJimray Septic Tank Services.
The system has been collapsed & filled with compacted sand to make safe.

Mark Wharfe
Registration 17721

510 Tara Road,
RD2,
Kaiwaka 0573

Mobile: 0274 778678
E-mail: mark@markirdrainage.co.nz

KAIPARA DISTRICT

KAIPARA DISTRICT COUNCIL

Private Utility Service As-Built Record

(Section 216, Building Act 2004)

Part A Consent Details (to be completed in all cases)

Building Consent Number 220057

Applicants Name H Townshend, H Millow

Applicants Mailing Address .....

.....

Site Address 3 Summer Lane

Part B As Built Services Information (to be completed in relation to service provided, ticking each box as appropriate)

Stormwater Existing

Pipe Diameter	Pipe Material	Connection Type
☐ 80mm	☐ uPVC	☐ Public Utility Service Connection
☐ 100mm	☐ Vitrified Clay	☐ Soak Hole
☐ 150mm	☐ Ductile Iron	☐ Stream
☐ 225mm	☐ Concrete	☐ Drain
☐ Other_____mm	☐ Other_____	☐ Other_____

Water Supply

Pipe Material - Cold	Hot Water Cylinder
☐ uPVC	☐ High Pressure _____Litre
☐ Copper	☐ Low Pressure _____Litre
☐ Polybutylene	**Meter Type**
☐ Other _____	Make _____Model_____

Pipe Material - Hot

- ☐ uPVC
- ☐ Copper
- ☐ Polybutylene
- ☐ Other _____

Diameter _____

Serial Number _____

Reading ☐☐☐☐☐☐☐ m³

(Quote all black figures inclusive of zeros only)

Note Part B As Built Services Information

Wastewater - Pressure (Pump Make/Model) E-one

Connection Diameter	Pipe Material	Connection Type
✓ 40mm	☐ uPVC	☐ Public Utility Service Connection
☐ 50mm	☐ Vitrified Clay	☐ Septic Tank
☐ 80mm	☐ Concrete	☐ Other _____
☐ Other_____mm	✓ Other PE PN16	

Wastewater - Gravity

Connection Diameter	Pipe Material	Connection Type
☐ 65mm	✓ uPVC	☐ Public Utility Service Connection
☐ 80mm	☐ Vitrified Clay	☐ Soak Hole
✓ 100mm	☐ Concrete	☐ Stream
☐ Other_____mm	☐ Other _____	✓ Other E-one

Wastewater - Disposal System Description

Septic Tank

Size: 800 litres

Type
- ✓ **Septic tank DECOMMISSIONED**
- ☐ Ecotank
- ☐ Biocycle

Effluent Field

Trench _____m
- ☐ Deep Soakhole
  - Depth _____m
  - Number of holes _____m
- ☐ Other _____

Sanitary Facilities

✓ Toilet	Number 2	
☐ Bidet	Number _____	
☐ Urinal	Number _____	

Waste Disposal Unit
- ✓ No
- ☐ Yes Type _____

Certification

I Mark Charles being

- ☐ Owner
- ☐ Occupier
- ☐ Craftsman plumber — Registration Number _____
- ✓ Registered drainlayer — Registration Number 17721

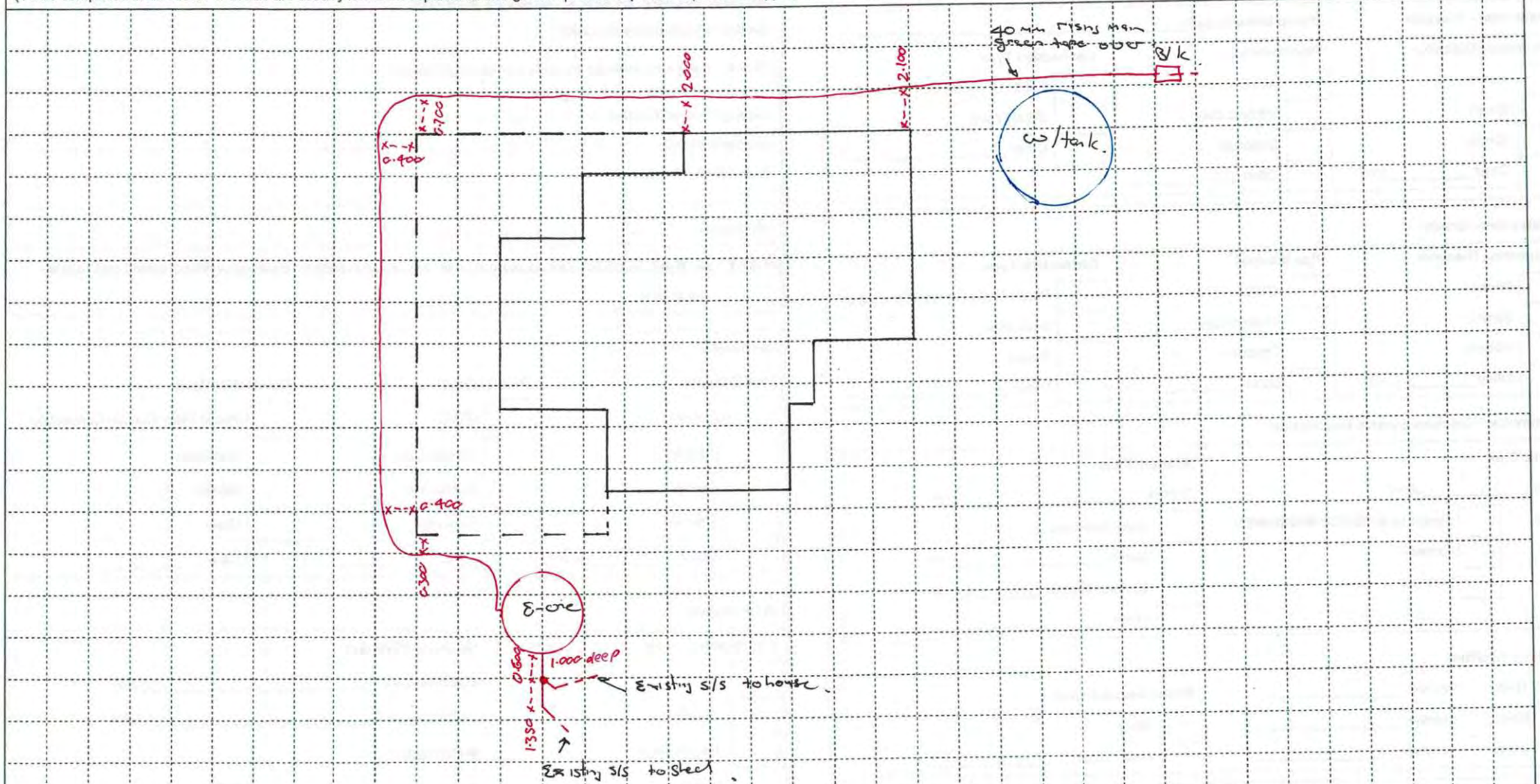
certify that this Private Utility Service As-Built Record is an accurate representation of the work carried out.

Signature

24/5/22

Date

PART C: As Built Services Plan
(To be completed in all cases. If details are already noted on separate drawings then provide copies in duplicate as appropriate and attach to this sheet. Ensure that drawing numbers, etc, are noted below.)



BIC 220057

Scale: NTS in

Site Address: 3 Sunrise lane

Please provide at least two measurements for each access point for future location

KAIPARA DISTRICT

Kaipara te Oranganui · Two Oceans Two Harbours

KAIPARA DISTRICT COUNCIL

Commissioning Statement (PS3) ~~– AS/NZS 1547~~ E-one.

Issued by: Mark Scharle being a Registered Drainlayer.

In respect of installation and commissioning report for the onsite ~~wastewater disposal~~ E-one grinder for:

(Owner) H. Townsend . H. Millow

At (Address) 3 Sunrise lane

Legal Description: Lot 2 DP 347150 Valuation

I have sighted the issued building consent (BC 220057) and have tested the onsite ~~wastewater~~ E-one system including the pipes and fittings in accordance with the ~~AS/ NZS 1547 clause 4.5.6,~~ the New Zealand Building Code, and the manufacturers specifications and requirements.

I have tested and checked the ~~onsite waste water~~ E-one system and installed the system as follows:

( ) Tested the onsite effluent disposal system in accordance with AS/NZS 1547:2000 and provide a schedule to the owner for the systems maintenance.

(✓) Has been installed in accordance with G13 (Foul Water) and G14 (Industrial Liquid Waste) and B2 (durability 15 years) of the Building Regulations 1992.

I believe on reasonable grounds that the work complies with the Building Consent issued.

I also understand that Kaipara District Council in accepting this commissioning report (PS3), will be relying on it to establish compliance at the completion of the building work.

Signature of Registered Drainlayer:

Drainlayer's Registration Number: 17727

Registration Expiry Date: 3/23

Date: 24/5/22

RECEIVED: 30 Sep 2008 SCANNED: 30 Sep 2008 BOX: 3 BATCH: 34814 DOC: KDCAAHDB

Code Compliance Certificate 070799

Form 7, Section 95, Building Act 2004

CJ and JM Sterling
10 Monkton Close
Greenhithe
Auckland

Issue Date: 19/06/08
Overseer: Derek Free

THE BUILDING:

Street Address of Building:	JACK BOYD DRIVE, MANGAWHAI
Valuation Number:	0122011490
Legal Description:	LOT 2 DP 347150
Building Name:	
Location of Building within site/block number:	
Level/Unit Number:	
Current Lawfully Established Use:	Outbuilding - Garage
Year First Constructed:	

THE PROJECT:

Description:	New Garage DOMESTIC ONLY - GARAGES
Type of Work:	
Intended Use:	Outbuilding - Garage
Intended Life:	Indefinite, but not less than 50 years
Stages:	Being Stage 1 of an intended 1 Stages

THE OWNER:

Owners Name:	CJ and JM Sterling				
Owners Mailing Address:	10 Monkton Close, Greenhithe, Auckland				
Street Address/Registered Office:					
Phone Number	**Landline:** 09 4137244	**Daytime:** 09 9693521	**After Hours:**		
	Mobile: 029 9693521	**Fax:**			
Email:	colin.sterling@iag.co.nz	**Website:**			

FIRST POINT OF CONTACT:

First Point of Contact:	Full Name: CJ and JM Sterling Mailing Address: c/- Shayne Stuart, 63B Jack Boyd Drive, RD 2 Kaiwaka Phones:: 021 487711: 09 4314023 Email: stubuild@clear.net.nz

BUILDING WORK:

Building Consent Number:	070799
Issued By:	Kaipara District Council

This Code Compliance Certificate is issued by the Kaipara District Council. As the Building Consent Authority it is satisfied, on reasonable grounds that :

(a) the building work complies with the Building Consent 070799

(b) the specified systems in the building are capable of performing to the performance standards set out in the building consent.

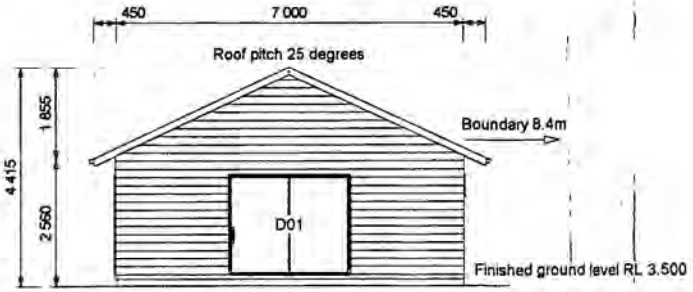
(a)

Signature **Date:** 19/06/08 **Position** Building Services Officer

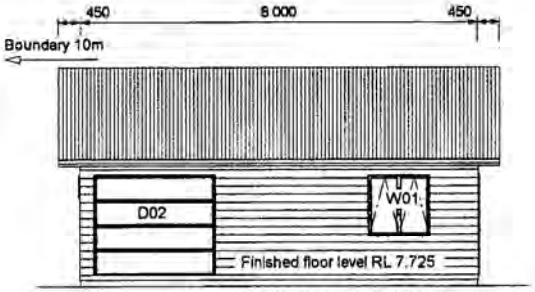
On behalf of: Kaipara District Council

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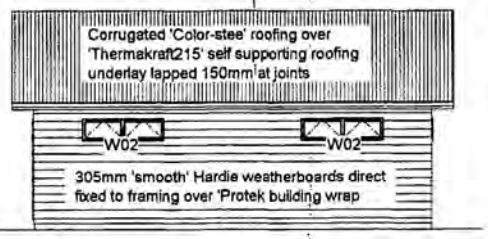
KAIPARA DISTRICT COUNCIL
AMENDMENTS APPROVED
DATE 07/07/08 BC
Elephant Boy Way
BUILDING INSPECTOR



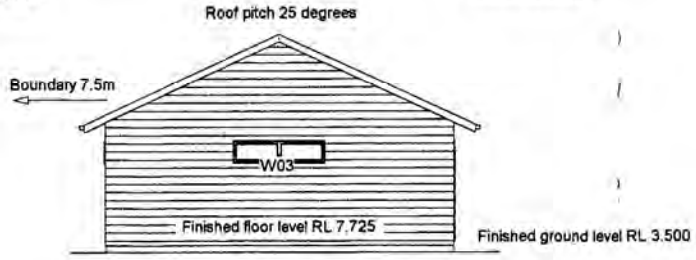
North Elevation



East Elevation



West Elevation



South Elevation

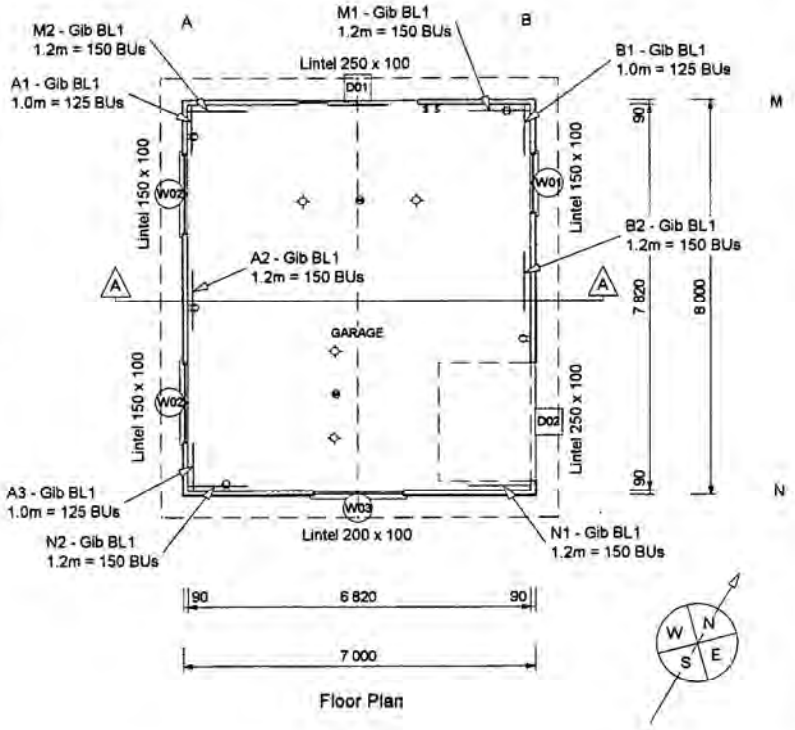
Electrical Key

- Double switched 10 amp power outlet
- Standard ceiling light
- Switch
- Smoke alarms

Note: All electrical work indicated on this drawing shall be confirmed by the owner in content, type and location before any work commences

WINDOW SCHEDULE			
NUMBER	QTY	SIZE	DESCRIPTION
W01	1	1 200X1 200	MULLED UNIT
W02	2	1 600X400	MULLED UNIT
W03	1	1 800X400	MULLED UNIT

DOOR SCHEDULE			
NUMBER	QTY	SIZE	DESCRIPTION
D01	1	2 400X2 000	EXT. SLIDER-GLASS
D02	1	2 400X2 000	GARAGE-PANEL



Floor Plan

The durability of all materials used on this project shall comply with Section 4 of NZS 3604:1999 as a means of compliance with Clause B2 of the New Zealand Building Code

All components used in this structure shall be installed, fixed and flashed in accordance with the manufacturers specifications and the New Zealand Building Code.

All construction shall be carried out in accordance with The New Zealand Buiding Code, NZS 3604 and any Local Authority Bylaws.

Bracing changed to 'Gib'
17/12/07 D C Stewart

Floor Area = 56.46 sq.m

All framing shall be MSG 8 or VSG 8 unless noted otherwise

Mangawhai Draughting and Design
Dave Stewart
Phone 09 4314 804 Fax 09 4314 802 Mobile 029 4314 804
email dave.draft@xtra.co.nz

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New Garage for
Jewel and Colin Sterling at
Jack Boyd Drive, Mangawhai

Floor Plan and Elevations

Drawn: Dave Stewart
Date: October 2007
Scale: 1 : 100

Sheet: three A
of: fifteen
Drawing No: A3 / 810

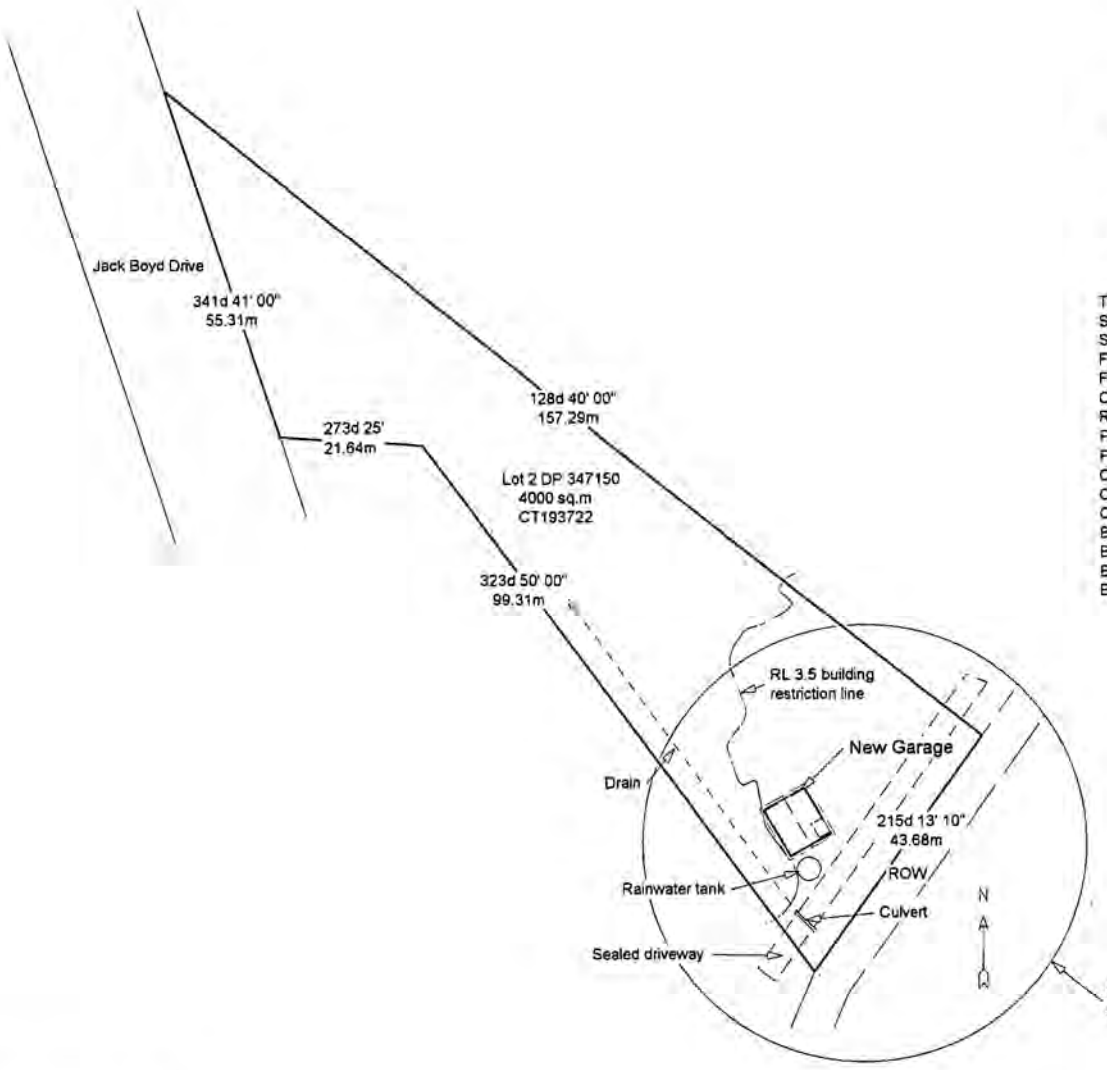
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COUNCIL

KAIPARA DISTRICT COUNCIL

BC 070799

BUILDING INSPECTOR



Drawing Index

Title	Drawing
Site Plan	1
Site Plan Enlargement	2
Floor Plan and Elevations	3
Foundation and Roof Plans	4
Cross Section A - A	5
Roofing Details	6
Framing Details	7
Framing Details	8
Cladding Details	9
Cladding Details	10
Cladding Details	11
Bracing Design Details	12
Bracing Construction Details	13
Bracing Construction Details	14
Bracing Construction Details	15

The durability of all materials used on this project shall comply with Section 4 of NZS 3604:1999 as a means of compliance with Clause B2 of the New Zealand Building Code

All components used in this structure shall be installed, fixed and flashed in accordance with the manufacturers specifications and the New Zealand Building Code.

All construction shall be carried out in accordance with The New Zealand Building Code, NZS 3604 and any Local Authority Bylaws.

Building Footprint Area = 56.46 sq.m
Property Area = 4000 sq.m
Building Site Coverage = 1.4%
Allowable Site Coverage = 35%
Earthworks - Cut to Waste = 34 cu.m

Mangawhai Draughting and Design
Dave Stewart
Phone 09 4314 804 Fax 09 4314 802 Mobile 029 4314 804
email dave.draft@xtra.co.nz

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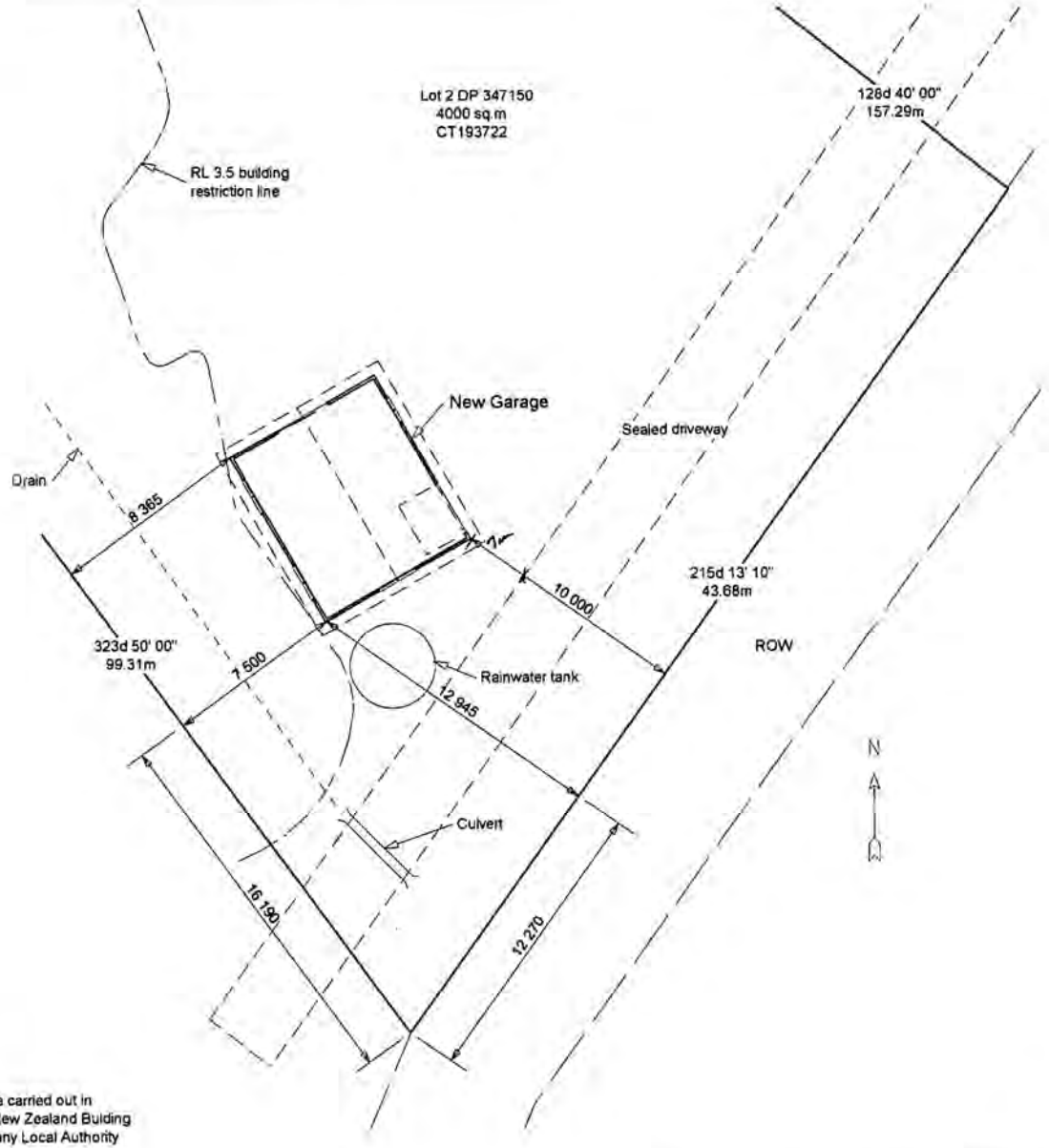
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New Garage for
Jewel and Colin Sterling at
Jack Boyd Drive, Mangawhai

Site Plan

Drawn:	Dave Stewart	Sheet:	one
Date:	October 2007	of:	fifteen
Scale:	1 : 750	Drawing No:	A3 / 810

RECEIVED: 30 Sep 2008 SCANNED: 30 Sep 2008 BOX: 3 BATCH: 34814 DOC: KDCAAHDB



The durability of all materials used on this project shall comply with Section 4 of NZS 3604:1999 as a means of compliance with Clause B2 of the New Zealand Building Code

All components used in this structure shall be installed, fixed and flashed in accordance with the manufacturers specifications and the New Zealand Building Code.

All construction shall be carried out in accordance with The New Zealand Building Code, NZS 3604 and any Local Authority Bylaws.

Building Footprint Area = 58.46 sq.m
Property Area = 4000 sq.m
Building Site Coverage = 1.4%
Allowable Site Coverage = 35%
Earthworks - Cut to Waste = 34 cu.m

Mangawhai Draughting and Design
Dave Stewart
Phone 09 4314 804 Fax 09 4314 802 Mobile 029 4314 804
email dave.draft@xtra.co.nz

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New Garage for
Jewel and Colin Sterling at
Jack Boyd Drive, Mangawhai

Site Plan Enlargement

Drawn: Dave Stewart
Date: October 2007
Scale: 1 : 200

Sheet: two
of: fifteen
Drawing No: A3 / 810

RECEIVED: 30 Sep 2008 SCANNED: 30 Sep 2008 BOX: 3 BATCH: 34814 DOC: KDCAAHDB

Hawthorn Geddes
engineers & architects ltd

In reply please quote: 6296 Rev.2

3 August 2007

KAIPARA DISTRICT COUNCIL
BC 070799
BUILDING INSPECTOR

Jewel & Colin Sterling
10 Monkton Close
Greenhithe
AUCKLAND

ENGINEERING REPORT FOR LOT 2 DP 347150 JACK BOYD DRIVE, MANGAWHAI

Purpose

The purpose of this report is to address on-site effluent disposal, foundation design and flooding on the above site in support of a building consent application.

This report supersedes our earlier reports; dated May 8, 2007 and June 6 2007.

Proposal

The proposal is to construct a 3 bedroom dwelling with attached garage on the above property. It is proposed to have a small boatshed and domestic workshop to the west of the dwelling. The structures will be lightweight timber framed dwellings.

Water supply will be by roof supplied tank water only, no bore or reticulated supply.

Site Description

The property is irregularly shaped with an area of some 4113m² located to the north east of Jack Boyd Drive. The property is composed of nearly level terraces on two levels. The upper level abuts a formed Right of Way (ROW) off Jack Boyd Drive. The lower level makes up the majority of the property and abuts onto Jack Boyd Drive and another formed ROW at the northern extent of the property. Two drainage channels are located within the property boundaries. The larger channel flows along the western boundary with the neighbouring property. A second channel flows into this drain from the east roughly in the middle of the property. There is a third drain which does not border the property but flows along the southern edge of the southern ROW into the large drain along the western boundary. Two culverts are also located on the property: a 600mm diameter culvert at the southern end of the property, (where the large drain flows beneath the southern ROW); and, a 450mm diameter culvert located at the northern extent of the property which flows beneath the southern ROW

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At the time of our investigation the property had been cleared of trees and was covered in grass and had been re-contoured by the current owners using.

A plan showing the contours and other relevant features is attached to this report.

Previous Reports

We have reviewed the subdivision report prepared by John Hawley Consulting, reference 362, dated 11 November 2003. The report recommends restricting building to the elevated area of the property due to potential flooding but does not stipulate a minimum RL. To increase the size of the buildable area, the report recommends realigning a drain which flowed across the upper level of the property.

This work was done and the realigned drain now flows along the south east of the formed ROW. Earthworks were conducted to fill in the old drainage channel on the property. We have not been shown any documentation to certify this work.

The report recommends secondary treatment of the effluent with subsoil irrigation as a method of land application of treated effluent.

Subsoil Conditions

The soils are described as alluvium and alluvium estuarine deposits. The soils retrieved during the investigation were consistent with this description.

Two boreholes were augered to assess subsoil conditions. The location of the boreholes is shown on the attached plan and the borelogs are attached to this report.

Both boreholes encountered similar profiles. This consisted of loosely packed sand overlying silts. The borehole drilled in the location of the filled in drainage channel encountered some 0.4m of fill in the form of loosely packed sand overlying the in situ soils. Groundwater was encountered in both boreholes at a depth of up to 1.1m.

Scala Penetrometer tests conducted in the surface sands were typically less than 3 blows per 100mm.

Shear vane strengths in the silts were between 35kPa and 70Kpa.

On-site Effluent Disposal

The permitted activity rule for disposal of primary treated effluent via standard trenches sets out a minimum groundwater separation of 1.2m. Groundwater levels were measured in our investigation at a depth of some 1.1m. Under the permitted activity rules, land application via pressure compensated dripper

RECEIVED: 30 Sep 2008 SCANNED: 30 Sep 2008 BOX: 3 BATCH: 34814 DOC: KDCAAHDB

lines allows for a minimum of 0.6m separation from groundwater levels. Therefore, land application is limited to pressure compensated dripper irrigation lines.

Land application by dripper irrigation requires a higher degree of treatment to prevent blockage of the lines. We therefore recommend installing a secondary treatment plant capable of treating effluent to the standard set down by the Northland Regional Council.

The soils encountered in the borehole are classified as Loams, or category 3 soils, in accordance with AS/NZA 1547. A design irrigation rate of 28mm/week is considered appropriate for soils of this type.

Our design is detailed below, and the disposal field is shown on the attached site plan, #6296. This system is considered appropriate for the topography and soils encountered on site.

The location as shown is more than 15m from any surface water and has greater than 0.6m separation from seasonal groundwater levels.

It is a requirement of the regional Soil and Water Plan for a permitted activity that the owners of secondary treatment systems enter into an on-going maintenance agreement with the supplier or other approved person.

Failure to follow these guidelines may result in overloading the soakage field causing a failure of the system.

Design (in accordance with AS/NZS 1547:2000)

3 bedrooms	5 people
Daily effluent flow- Standard fixtures	140 litres/person/day
Maximum daily wastewater volume	140 x 5 = 700 litres/day
Design irrigation rate	28mm/week
Application area	175m^2
Reserve area 30%	55m^2

Design Summary & Recommendations

1. Install a proprietary secondary treatment plant capable of treating a minimum of 700 litres per day on a continual basis so that the treatment level consistently meets Regional Water and Soil Plan requirements for secondary treated effluent.

2. Discharge the secondary treated effluent evenly over an area of 175m^2 in size west of the proposed house location as shown on the attached plan. A reserve area of 55m^2 shall be set-aside. The disposal area should be planted with suitable plant types.

3. Lay Uniraam irrigation tubing at 1m centres in accordance with proprietary design and cover the irrigation tubing in a 50mm layer of mulch.

RECEIVED: 30 Sep 2008 SCANNED: 30 Sep 2008 BOX: 3 BATCH: 34814 DOC: KDCAAHDB

4. Operate the system in accordance with the attached operation and maintenance schedule.

Foundations

The near surface soils of this site do not meet the requirements of good ground in NZS3604 due to the existence of uncertified fill. Therefore, we recommend excavating down to good ground within the building envelope and backfilling with compacted hardfill.

This will involve excavating a minimum of 600mm of material from beneath the building envelope, or down to natural ground, and backfilling with compacted hardfill. The hardfill shall be placed in 150mm layers and compacted to achieve an average Clegg Impact hammer reading of 15, with no value less than 12. The compacted hardfill will then be suitable for standard foundations designed to the "Good Ground" criteria of NZS 3604.

Flooding

Previous reports concerning this site indicate that the lower portion of the property is susceptible to flooding but that the elevated portion is not likely to flood. Since subdivision however, the property has been re-contoured.

The controlling factor to flood susceptibility will be two culverts. An existing 600mm diameter culvert under the ROW at the south end of the property with an invert of RL of 2.36 has a catchment of some 6.5Ha. A second and smaller culvert downstream has a total catchment of some 10.5ha.

An analysis of the catchment was performed using the rational method. The time of concentration of these catchments is 30 minutes giving rainfall intensity of 100mm/hr. We calculated a run-off of 0.63m^3/sec through the larger culvert, and 1.0m^3/sec through the smaller culvert. We found that the larger culvert will head up around 500mm and will not overtop the ROW during a 1 in 50 year rainfall event. However, the culvert at the northern end of the property will overtop the ROW.

This culvert will overtop Jack Boyd Dr. by an estimated 300mm to a level of a pproximately RL 2.5m. Minimum floor levels should be at least 500mm above the flood level, or RL 3.0. Ground levels across the proposed house site exceed RL 3.5m

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Therefore, we recommend that minimum floor levels for any buildings on this site are at, or above, RL 3.5m.

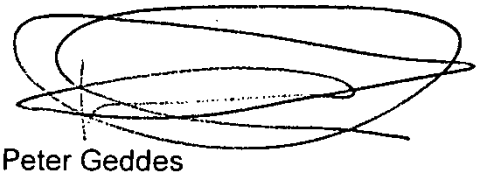
Subject to the recommendations set out in this report, in terms of Section 72 of the Building Act, we consider that:

(a) The land on which the building work is to take place is not subject to, and is not likely to be subject to inundation; and

(b) The building work itself is not likely to accelerate, worsen, or result in inundation of that land or any other property.

Limitation

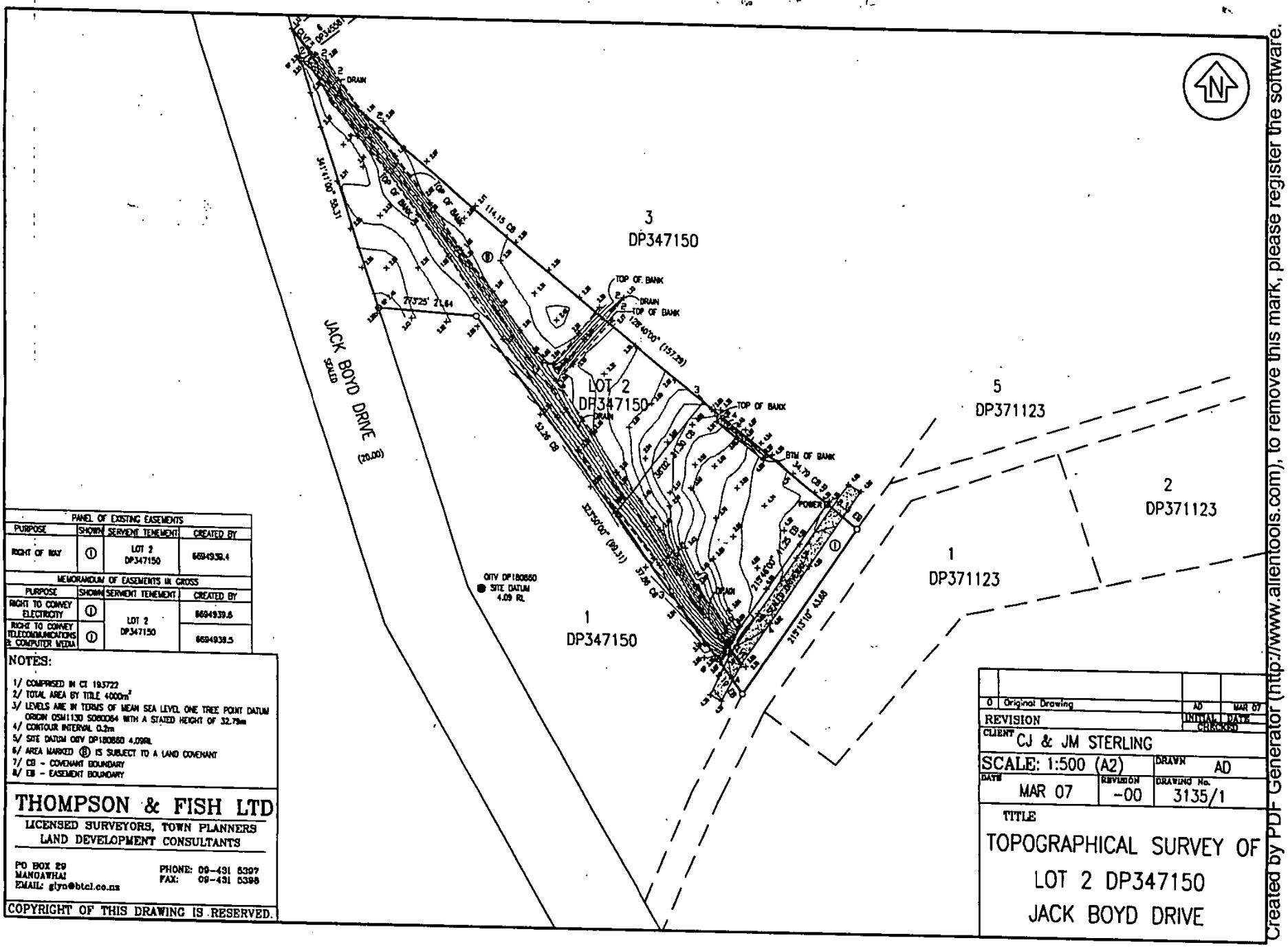
This report has been prepared solely for the benefit of our clients Colin and Jewel Sterling and the Kaipara District Council in relation to the building consent application for which this report has been prepared. The comments in it are limited to the purpose stated in this report. No liability is accepted by Hawthorn Geddes Engineers & Architects Ltd in respect of its use by any other person, and any other person who relies upon any matter contained in this report does so entirely at their own risk.



Peter Geddes
Hawthorn Geddes
engineers & architects ltd

Report Prepared By: Jordan Walker

Encl: Site Plan (1 page x A3)
Borelogs (2 pages x A4)
Operation & Maintenance Schedule (2 pages x A4)



PANEL OF EXISTING EASEMENTS			
PURPOSE	SHOWN	SERVIENT TENEMENT	CREATED BY
RIGHT OF WAY	①	LOT 2 DP347150	8694939.4
MEMORANDUM OF EASEMENTS IN GROSS			
PURPOSE	SHOWN	SERVIENT TENEMENT	CREATED BY
RIGHT TO CONVEY ELECTRICITY	①	LOT 2 DP347150	8694939.6
RIGHT TO CONVEY TELECOMMUNICATIONS & COMPUTER MEDIA	①		8694939.5

NOTES:

1/ COMPRISED IN CT 193722
2/ TOTAL AREA BY TITLE 4000m²
3/ LEVELS ARE IN TERMS OF MEAN SEA LEVEL ONE TREE POINT DATUM ORIGIN OSM1130 5060084 WITH A STATED HEIGHT OF 32.79m
4/ CONTOUR INTERVAL 0.2m
5/ SITE DATUM QTV DP180860 4.09RL
6/ AREA MARKED (B) IS SUBJECT TO A LAND COVENANT
7/ CB - COVENANT BOUNDARY
8/ EB - EASEMENT BOUNDARY

THOMPSON & FISH LTD
LICENSED SURVEYORS, TOWN PLANNERS
LAND DEVELOPMENT CONSULTANTS

PO BOX 29
MANGAWHAI
EMAIL: glyn@btcl.co.nz
PHONE: 09-431 5397
FAX: 09-431 5398

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REVISION	INITIAL	DATE
0 Original Drawing	AD	MAR 07

CLIENT: CJ & JM STERLING

SCALE: 1:500 (A2)	DRAWN: AD
DATE: MAR 07	REVISION: -00
	DRAWING No.: 3135/1

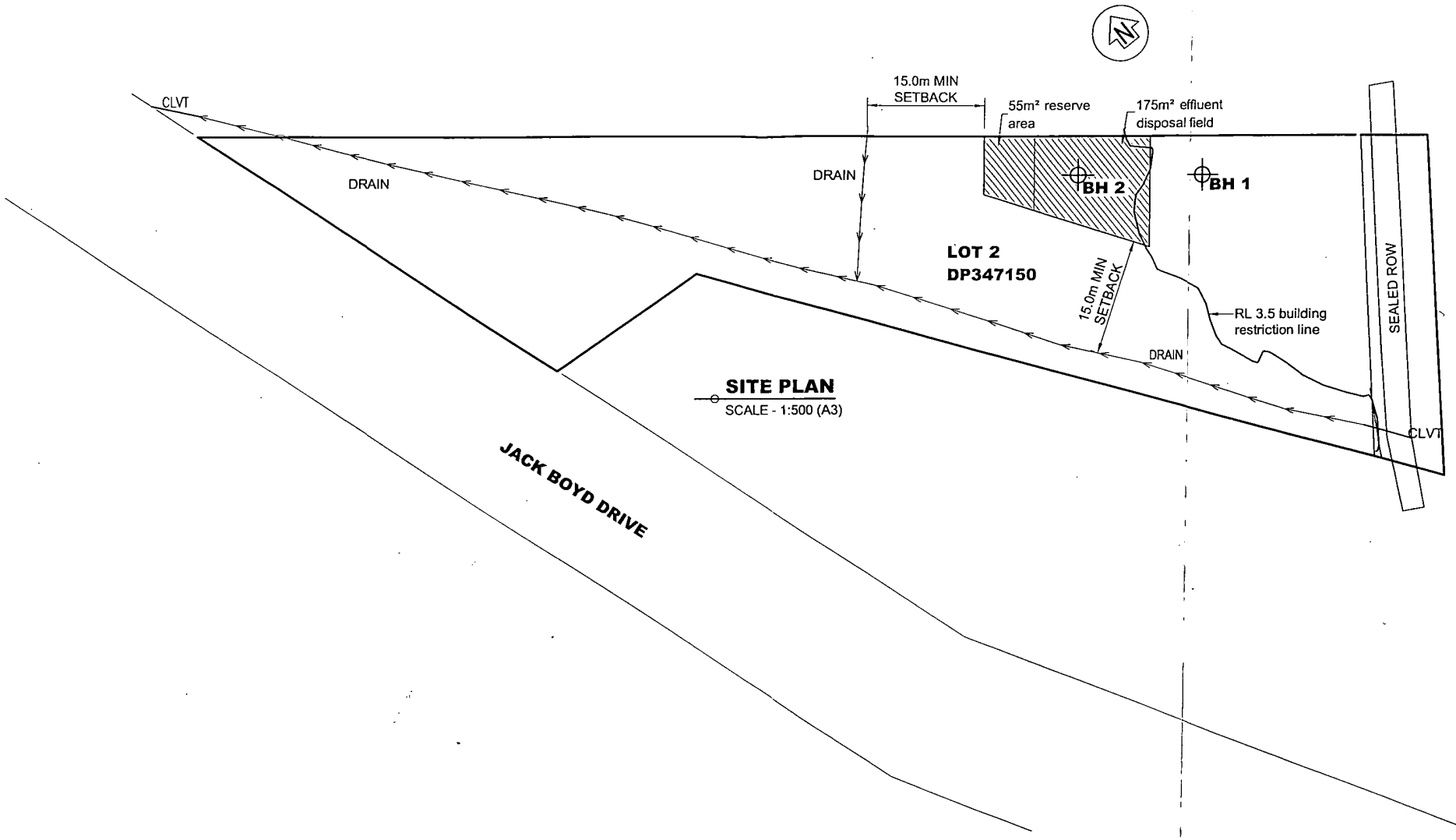
TITLE

TOPOGRAPHICAL SURVEY OF LOT 2 DP347150 JACK BOYD DRIVE

Created by PDF Generator (http://www.alientools.com), to remove this mark, please register the software.

RECEIVED: 30 Sep 2008 SCANNED: 30 Sep 2008 BOX: 3 BATCH: 34814 DOC: KDCAAHDB

RECEIVED: 30 Sep 2008 SCANNED: 30 Sep 2008 BOX: 3 BATCH: 34814 DOC: KDCAAHDB



SITE PLAN
SCALE - 1:500 (A3)

HAWTHORN GEDDES
engineers and architects
7 SELWYN AVENUE, P.O. BOX 575, WHANGAREI
TELEPHONE (09) 438 7139, FAX (09) 430 0711
EMAIL: hg@hgcs.co.nz

CLIENT: **JEWEL AND COLIN STERLING**
JACK BOYD DRIVE
MANGAWHAI

PROJECT: **SITE PLAN**

No	REVISION DETAILS	BY	DATE
R3	EFFLUENT FIELD SIZE REDUCED	HB	03/08/07
R2	BOREHOLES ADDED	TKH	06/06/07
R1	ISSUED WITH ENGINEERING REPORT	DT	27/04/07

THIS DRAWING WAS PRODUCED BY C.A.D. IT SHOULD NOT BE AMENDED MANUALLY AND MAY HAVE BEEN PHOTO-REDUCED.

ORIGINAL SIZE. A3.

DATE: APRIL 2007
DRAWN: DT
SCALE: AS SHOWN
CHECK:
APP'VD:

CLIENT No. 6296

SHT 01 of 01

Rev. R3

RECEIVED: 30 Sep 2008 SCANNED: 30 Sep 2008 BOX: 3 BATCH: 34814 DOC: KDCAAHDC

Code Compliance Certificate 080186

Form 7, Section 95, Building Act 2004

C and J Sterling
10 Monkton Close
Greenhithe
Auckland

Issue Date: 30/07/08
Overseer: Eastern

THE BUILDING:

Street Address of Building:	JACK BOYD DRIVE, MANGAWHAI
Valuation Number:	0122011490
Legal Description:	LOT 2 DP 347150
Building Name:	
Location of Building within site/block number:	
Level/Unit Number:	
Current Lawfully Established Use:	Ancillary - bathroom and septic
Year First Constructed:	

THE PROJECT:

Description:	Utility shed with bathroom and septic OTHER OUTBUILDINGS EG SHED, WORKSHOP, SLEEPOUT
Type of Work:	
Intended Use:	Ancillary - bathroom & septic
Intended Life:	Indefinite, but not less than 50 years
Stages:	Being Stage 1 of an intended 1 Stages

THE OWNER:

Owners Name:	C and J Sterling			
Owners Mailing Address:	10 Monkton Close, Greenhithe, Auckland			
Street Address/Registered Office:				
Phone Number	**Landline:** 09 4137244	**Daytime:**		**After Hours:**
	Mobile: 0299693521	**Fax:**	094439313	
Email:	colin.jewel@xtra.co.nz		**Website:**	

FIRST POINT OF CONTACT:

First Point of Contact:	As above

BUILDING WORK:

Building Consent Number:	080186
Issued By:	Kaipara District Council

This Code Compliance Certificate is issued by the Kaipara District Council. As the Building Consent Authority it is satisfied, on reasonable grounds that :

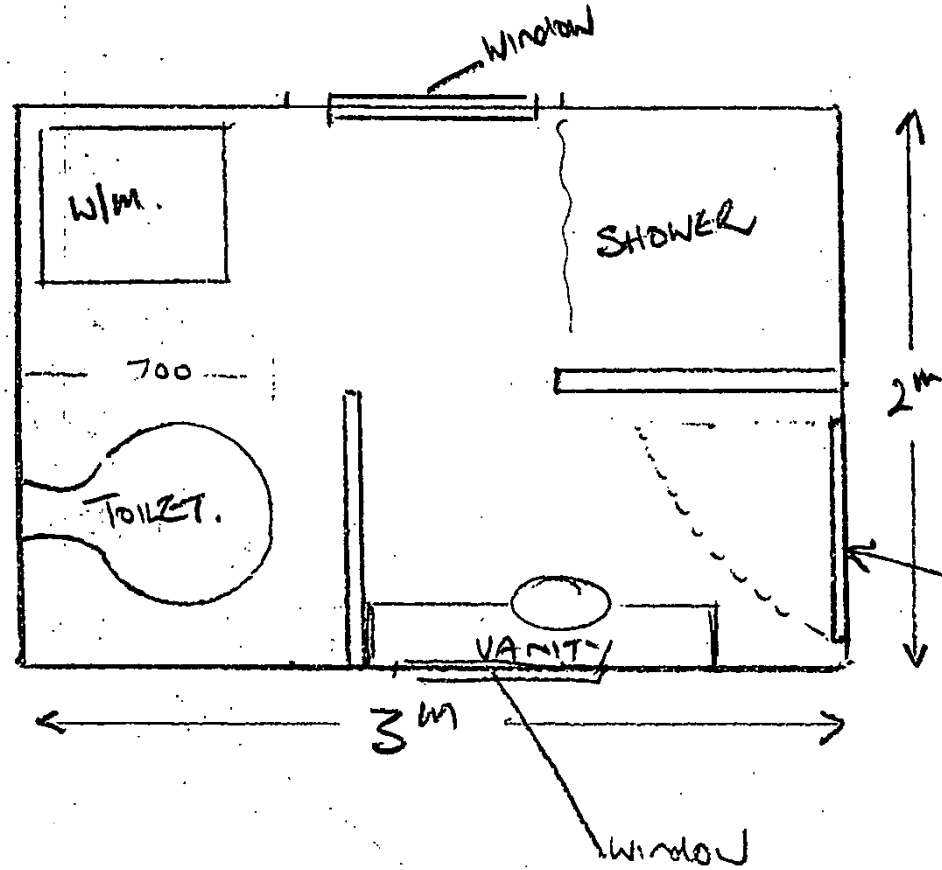
(a) the building work complies with the Building Consent 080186

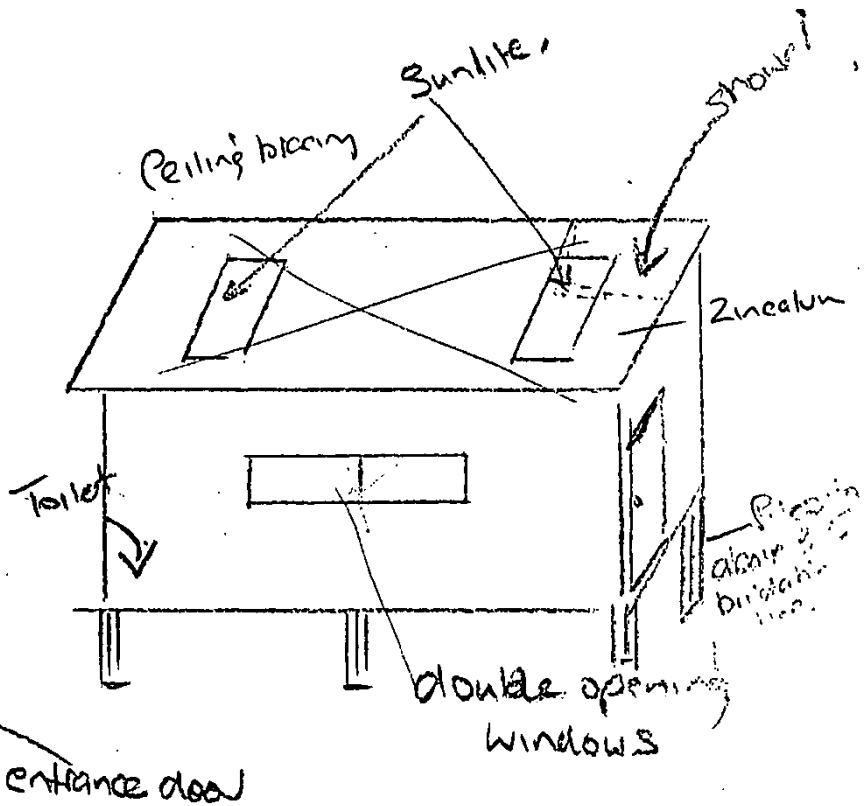
(b) the specified systems in the building are capable of performing to the performance standards set out in the building consent.

(a)

Signature **Date:** 30/07/08 **Position** Building Services Officer

On behalf of: Kaipara District Council





Bearers @ 3m 150 x 50

Joists @ 400mm spaces. 100 x 50

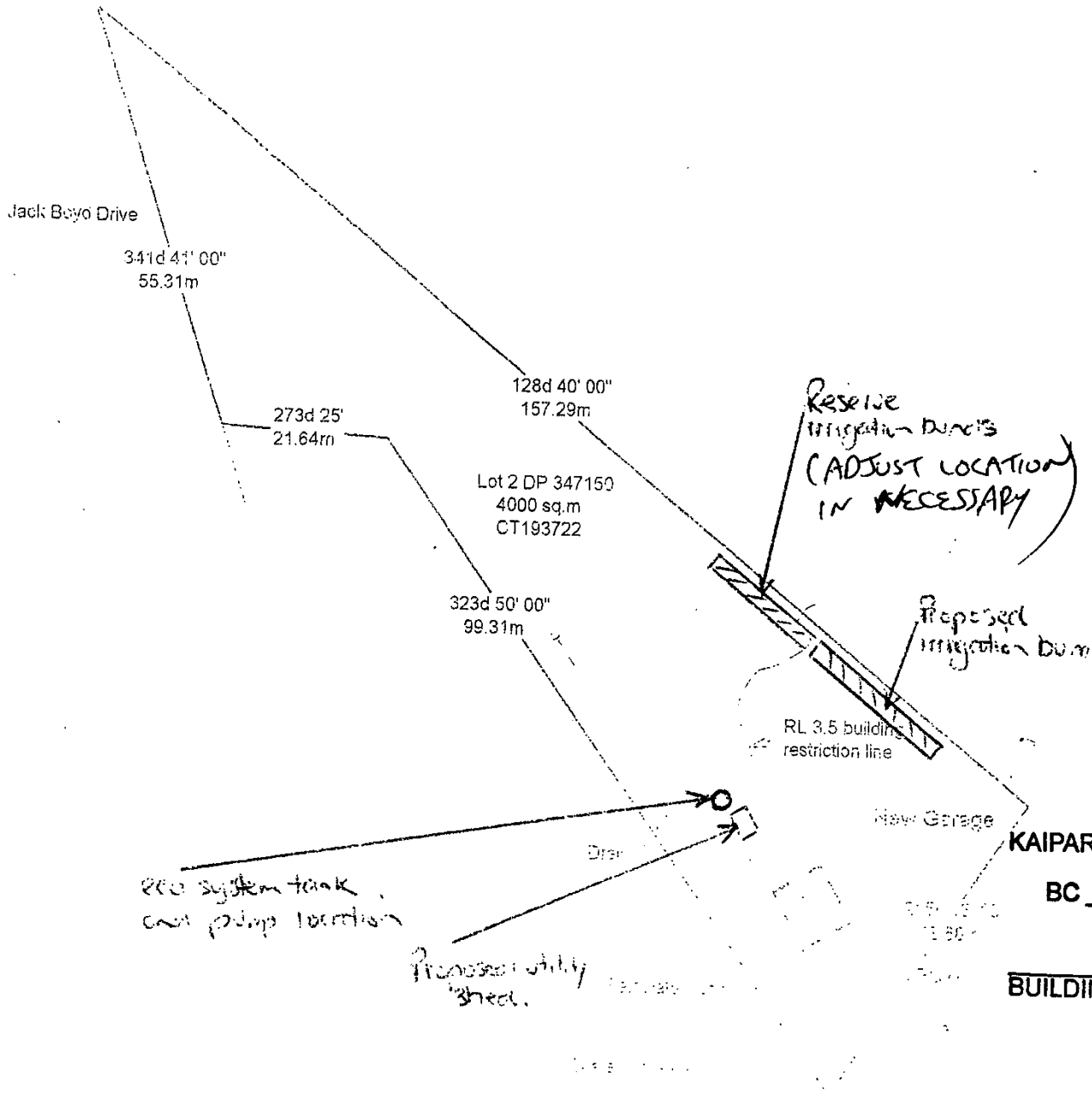
Floor area is inside measurement required 3m x 2m.

20ml marine ply floor

Hardiplank cladding.

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Drawing Index

Title
Site Plan
Site Plan Enlargement
Floor Plan and Elevations
Foundation and Roof Plans
Cross Section A - A
Roofing Details
Framing Details
Framing Details
Cladding Details
Cladding Details
Cladding Details
Bracing Design Details
Bracing Construction Details
Bracing Construction Details
Bracing Construction Details

KAIPARA DISTRICT COUNCIL

BC 080886

BUILDING INSPECTOR

RECEIVED: 30 Sep 2008 SCANNED: 30 Sep 2008 BOX: 3 BATCH: 34814 DOC: KDCAAHDC

KAIPARA DISTRICT

Wastewater - Pressure (Pump Make/Model)_____

Connection Diameter	Pipe Material	Connection Type
☐ 40mm	☐ uPVC	☐ Public Utility Service Connection
☐ 50mm	☐ Vitrified Clay	☐ Septic Tank
☐ 80mm	☐ Concrete	☐ Other _____
☐ Other_____mm	☐ Other _____	

Wastewater - Gravity

Connection Diameter	Pipe Material	Connection Type
☐ 65mm	✓ uPVC	☐ Public Utility Service Connection
☐ 80mm	☐ Vitrified Clay	☐ Soak Hole
✓ 100mm	☐ Concrete	☐ Stream
☐ Other_____mm	☐ Other _____	✓ Other onsite treatment

Wastewater - Disposal System Description

Septic Tank

Size: 8000 litres

Type
- ☐ Ecotank
- ✓ Biocycle
- ☐ Other _____

Effluent Field

Trench _____m

- ☐ Deep Soakhole
  - Depth _____m
  - Number of holes _____m
- ✓ Other Roam dripline

Sanitary Facilities

- ✓ Toilet Number 1
- ☐ Bidet Number _____
- ☐ Urinal Number _____

Waste Disposal Unit

- ✓ No
- ☐ Yes Type _____

Certification

I Mark Wake being

- ☐ Owner
- ☐ Occupier
- ☐ Craftsman plumber
- ✓ Registered drainlayer

Registration Number 17721

certify that this Private Utility Service As-Built Record is an accurate representation of the work carried out.

Mwke — Signature

30/5/08 — Date

KAIPARA DISTRICT

KAIPARA DISTRICT COUNCIL

RECEIVED
13 JUN 2008
entered
KAIPARA
Kaipara District Council

Private Utility Service As-Built Record

(Section 216, Building Act 2004)

Part A Consent Details (to be completed in all cases)

Building Consent Number 080186

Applicants Name C & J Sterling

Applicants Mailing Address _____

Site Address 2/63 Jack Boyd drive

Part B As Built Services Information (to be completed in relation to service provided, ticking each box as appropriate)

Stormwater

Pipe Diameter	Pipe Material	Connection Type
☐ 80mm	✓ uPVC	☐ Public Utility Service Connection
✓ 100mm	☐ Vitrified Clay	☐ Soak Hole
☐ 150mm	☐ Ductile Iron	☐ Stream
☐ 225mm	☐ Concrete	☐ Drain
☐ Other_____mm	☐ Other_____	✓ Other water tank

Water Supply

Pipe Material - Cold
- ☐ uPVC
- ☐ Copper
- ☐ Polybutylene
- ☐ Other _____

Hot Water Cylinder
- ☐ High Pressure _____Litre
- ☐ Low Pressure _____Litre

Meter Type

Make _____ Model _____

Pipe Material - Hot
- ☐ uPVC
- ☐ Copper
- ☐ Polybutylene
- ☐ Other _____

Diameter _____

Serial Number _____

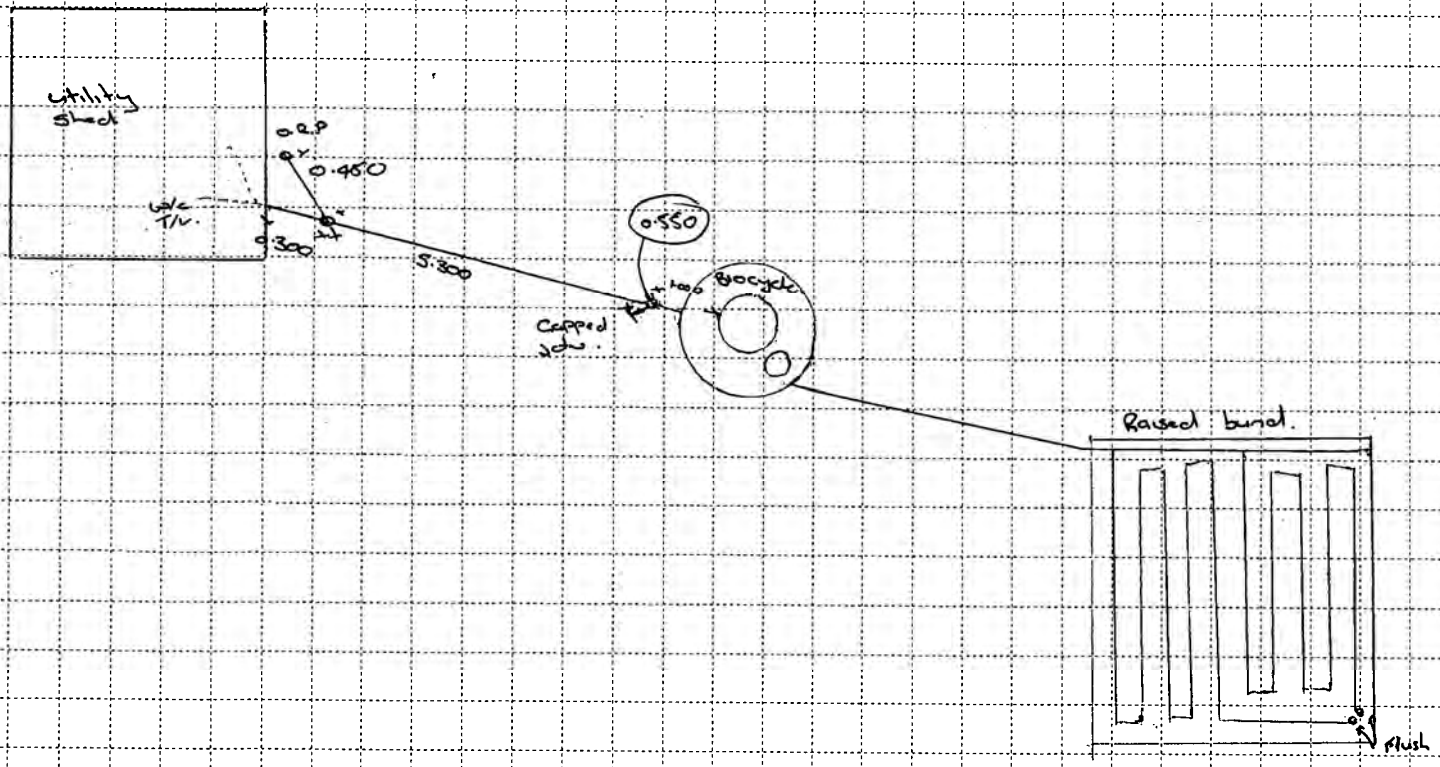
Reading ☐☐☐☐☐☐☐ m³

(Quote all black figures inclusive of zeros only)

Note Part B As Built Services Information Continued on last page

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PART C: As Built Services Plan
(To be completed in all cases. If details are already noted on separate drawings then provide copies in duplicate as appropriate and attach to this sheet. Ensure that drawing numbers, etc, are noted below.)



Scale: N.T.S. in _____

Site Address: _____

_____

Please provide at least two measurements for each access point for future location

RECEIVED: 30 Sep 2008 SCANNED: 30 Sep 2008 BOX: 3 BATCH: 34814 DOC: KDCAAHDC

COUNCIL

Markir Drainage Ltd

REGISTERED DRAINLAYER

09 March 2008

Drainage Proposal for Mr C Sterling

Site: Lot 2 in block of Lot 10
Jack Boyd Drive
Mangawhai
DP180861

It is proposed to build a small utility shed with basic amenities i.e. toilet, shower & hand basin, with a view in the future to build a 3 bedroom house on this site.

As per the engineering reports for this area with the winter ground water being well above the required separation of 1.200m between water & effluent the site is suited to an aerated wastewater treatment System, in this case a Biocycle 7900 Series Aerated Wastewater Treatment System with the treated water being pumped to raised beds, a minimum of 0.400mm above the existing ground, these beds to be planted & mulched.

The siteing of the raised beds would be to the north side of the property to keep well clear of the existing drains on the south western side boundary.

Effluent Design: allow for 4 people x 140 L/day = 560 L/day
560 ÷ 4mm/m² per day soakage
= 140m raam dripline
There is adequate ground for reserve area to add to irrigation when future house is built.

The owners will enter into a 6(six) monthly Service & Maintenance Contract with Biocycle's Accredited Service Agent to ensure the system is operating correctly.

This proposal meets the engineering design for Biocycle & the requirements for NRC & KDC soil & water plans.

Signed

Mark Wharfe

KAIPARA DISTRICT COUNCIL
BC 020186
DA
BUILDING INSPECTOR

510 Tara Road,
RD2,
Kaiwaka

Phone:09-431-4907
Mobile: 0274-778-678
E-mail: mark_kirsty@xtra.co.nz

RECEIVED: 27 Jul 2011 SCANNED: 27 Jul 2011 BOX: 2 BATCH: 75638 DOC: KDCAANEU

Code Compliance Certificate 100550

Form 7, Section 95, Building Act 2004

C and J Sterling
P O Box 40886
Glenfield
Auckland

Issue Date: 5/04/11
Overseer: Eastern

THE BUILDING:

Street Address of Building:	JACK BOYD DRIVE, MANGAWHAI
Valuation Number:	0122011490
Legal Description:	LOT 2 DP 347150
Building Name:	
Location of Building within site/block number:	
Level/Unit Number:	
Current Lawfully Established Use:	Housing - Detached - Dwelling
Year First Constructed:	

THE PROJECT:

Description:	New Dwelling NEW (& PREBUILT) HOUSE, UNIT, BACH, CRIB, TOWN HOUSE
Type of Work:	
Intended Use:	Housing - Detached - Dwelling
Intended Life:	Indefinite, but not less than 50 years
Stages:	Being Stage 1 of an intended 1 Stages

THE OWNER:

	Owners Name:	C and J Sterling		
	Owners Mailing Address:	P O Box 40886, Glenfield, Auckland		
Street Address/Registered Office:				
Phone Number	**Landline:**	**Daytime:**		**After Hours:**
	Mobile:	**Fax:**		
Email:			**Website:**	

FIRST POINT OF CONTACT:

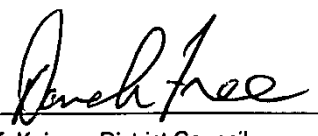
First Point of Contact:	Full Name: C and J Sterling Mailing Address: C/- Ridgeway Construction Ltd, P O Box 636, Orewa Phones:: 021 2793606: 09 4269887

BUILDING WORK:

Building Consent Number:	100550
Issued By:	Kaipara District Council

This Code Compliance Certificate is issued by the Kaipara District Council. As the Building Consent Authority it is satisfied, on reasonable grounds that:

- The building work complies with the Building Consent 100550

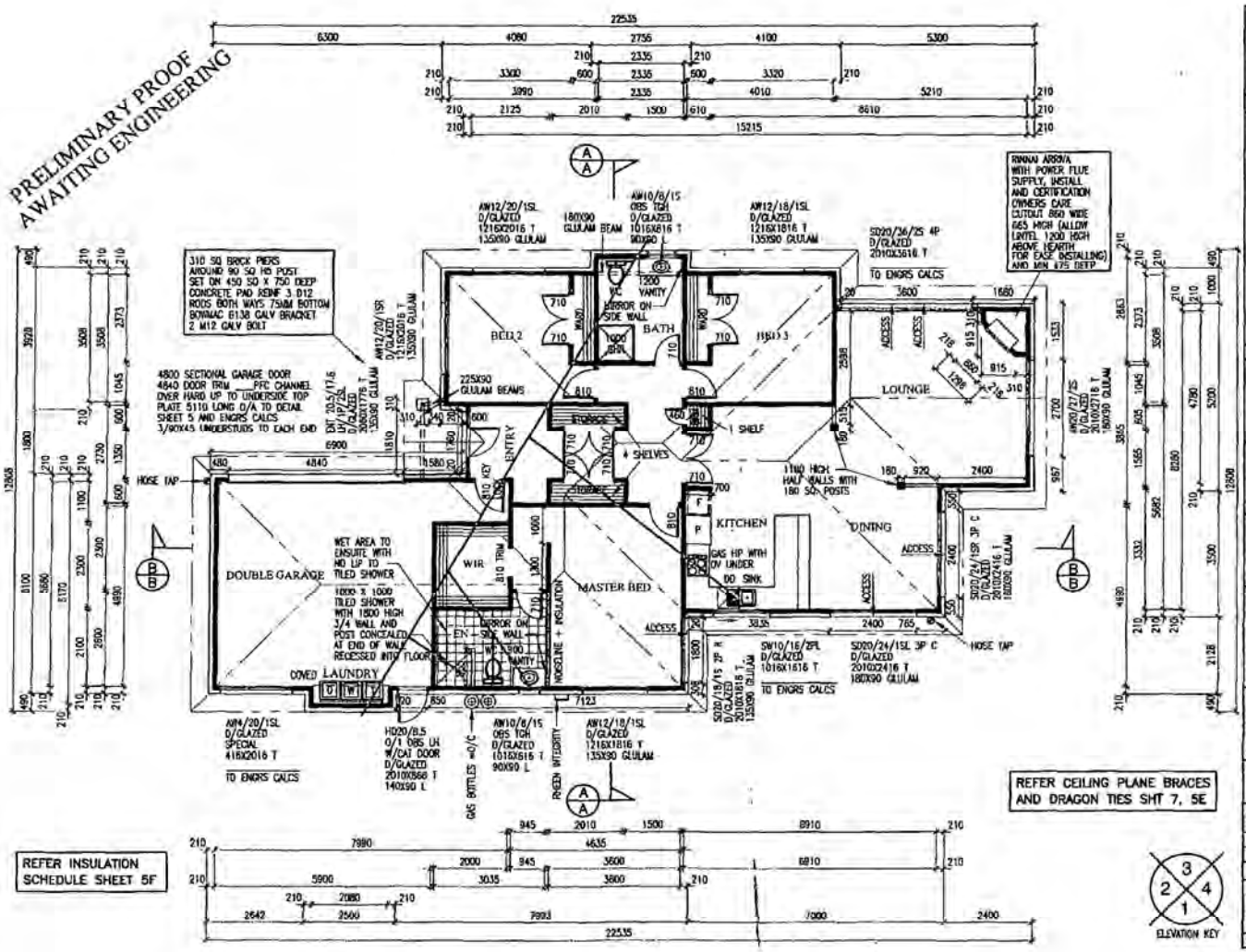
Signature  **Date:** «IssueDate» **Position** Building Services Officer

On behalf of: Kaipara District Council

RECEIVED: 27 Jul 2011 SCANNED: 27 Jul 2011 BOX: 2 BATCH: 75638 DOC: KDCAANEU

BC100550
Underfloor
AS built.

PRELIMINARY PROOF
AWAITING ENGINEERING



SPECIAL

NOTES
1. 45MM TRIMMER STUDS TO INTERNAL DOORS & 25MM JAMBS AND ARCHITRAVES.
2. GRADE A & B SAFETY GLASS TO BE USED IN ACCORDANCE WITH NZSS 4223 & NZ BUILDING CODE.
3. ALL ASPECTS OF THIS PROJECT MUST FULLY COMPLY WITH NZS 3604 & ALL RELEVANT RELATED APPROVED DOCUMENTS AND PROVISIONS OF THE NZ BUILDING CODE WHETHER OR NOT DETAILED IN THESE PLANS.
4. GARAGE TO BE LINED AND PAINTED.
5. SEALED LINER SHOWER TRAY UNITS C/B AQUALINE AROUND.
6. TILED SHOWERS WITH APPROVED WATERPROOFING TO DETAIL SHEET 5F TILES TO BE COMPATIBLE WITH F600N TO 10MM AQUALINE SHEET ON WALLS.

TIMBER GRADING
STUDS 90X45, H1.2 UNLESS SPECIFIED. ALL STRUCTURAL TIMBER TO BE MINIMUM MACHINE STRESS GRADE 8 TIMBER. H3.1 TREATED TO INTERNAL WET AREAS. ALL LINTELS TO BE MINIMUM MACHINE STRESS GRADE 8 TIMBER.

ZONES	
WIND ZONE	HIGH (R2)
CORROSION ZONE	1
EARTHQUAKE ZONE	C
SNOW LOADING	0

WINDOW CODES
AW12/20/15L — WINDOW TYPE AND SIZE
(2.40–0.96) — WINDOW AREA–OPENING AREA
1216X2016 T — TRIM SIZE FOR PRECUT
190X90 L — LINTEL SIZE

AREAS	
FLOOR AREA HOUSE	157.29 SQ. METRES
DOUBLE GARAGE	40.96 SQ. METRES
TOTAL AREA	198.25 SQ. METRES
PERIMETER FRAME	70.93 METRES
SOFFIT/GABLE LENGTH	73.29 METRES
ROOF AREA	231.55 SQ. METRES

LEGAL DESCRIPTION

LOT NO	2
DP	347150
AREA	4000 SQ. METRES
STREET NO	XXX.

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SALES KARYN	
DRAWN SHAUN	DATE 13/07/2010
AMENDED	
AMENDED	

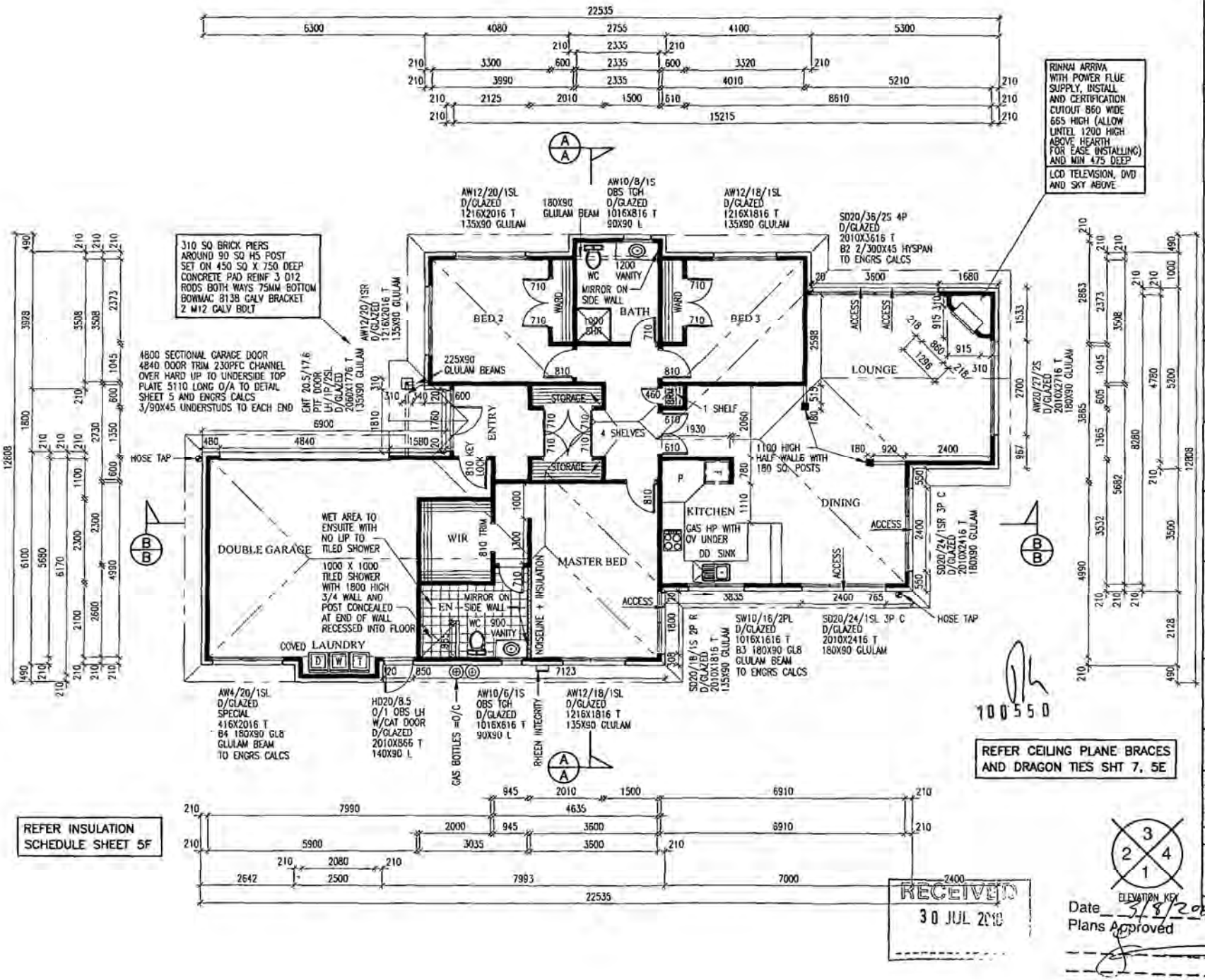
KP23 FLOOR PLAN
JEWEL & COLIN STERLING
JACK BOYD DRIVE
MANGAWHAI, KAIPARA
SCALE 1:100 ON A3 | SHEET 2 OF 9

Plumbing Laser Silverdale	**Address**	Jack Boyd Drive - Mangawhai	**DrawingTitle**	Underslab	**Drawn by**
	Builder	Ridgeway Construction	**Revision date**	29/07/2010	**Phone**
	Client	Sterling	**Status**	In Progress	**Email**
	Job number	KP23	**Revision number**	0	**Accepted**

As built
underfloor
inspection
satisfactory

BC 189945

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Date 3/8/2010
Plans Approved

platinumhomes NEW ZEALAND

SPECIAL

NOTES
1. 45MM TRIMMER STUDS TO INTERNAL DOORS & 25MM JAMBS AND ARCHITRAVES.
2. GRADE A & B SAFETY GLASS TO BE USED IN ACCORDANCE WITH NZSS 4223 & NZ BUILDING CODE.
3. ALL ASPECTS OF THIS PROJECT MUST FULLY COMPLY WITH NZS 3604 & ALL RELEVANT RELATED APPROVED DOCUMENTS AND PROVISIONS OF THE NZ BUILDING CODE WHETHER OR NOT DETAILED IN THESE PLANS.
4. GARAGE TO BE LINED AND PAINTED.
5. SEALED LINER SHOWER TRAY UNITS GIB AQUALINE AROUND.
6. TILED SHOWERS WITH APPROVED WATERPROOFING TO DETAIL SHEET 5I TILES TO BE COMPATIBLE WITH FIXING TO 10MM AQUALINE SHEET ON WALLS.

TIMBER GRADING

STUDS 90X45, H1.2 UNLESS SPECIFIED. ALL STRUCTURAL TIMBER TO BE MINIMUM MACHINE STRESS GRADE 8 TIMBER. H3.1 TREATED TO INTERNAL WET AREAS. ALL LINTELS TO BE MINIMUM MACHINE STRESS GRADE 8 TIMBER.

ZONES

WIND ZONE	HIGH (R2)
CORROSION ZONE	1
EARTHQUAKE ZONE	C
SNOW LOADING	D

WINDOW CODES

AW12/20/1SL — WINDOW TYPE AND SIZE
(2.40-0.96) — WINDOW AREA-OPENING AREA
1216X2016 T — TRIM SIZE FOR PRECUT
180X90 L — LINTEL SIZE

AREAS

FLOOR AREA HOUSE	157.29 SQ. METRES
DOUBLE GARAGE	40.96 SQ. METRES
TOTAL AREA	198.25 SQ. METRES
PERIMETER FRAME	70.93 METRES
SOFFIT/GABLE LENGTH	73.29 METRES
ROOF AREA	231.55 SQ. METRES

LEGAL DESCRIPTION

LOT NO	2
DP	347150
AREA	4000 SQ. METRES
STREET NO	XXX

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SALES KARYN	
DRAWN SHAUN	DATE 13/07/2010
AMENDED	28/7/2010
ENGINEER	AC 21280

KP23 FLOOR PLAN

JEWEL & COLIN STERLING
JACK BOYD DRIVE
MANGAWHAI, KAIPARA

SCALE 1:100 ON A3 | SHEET 2 OF 9

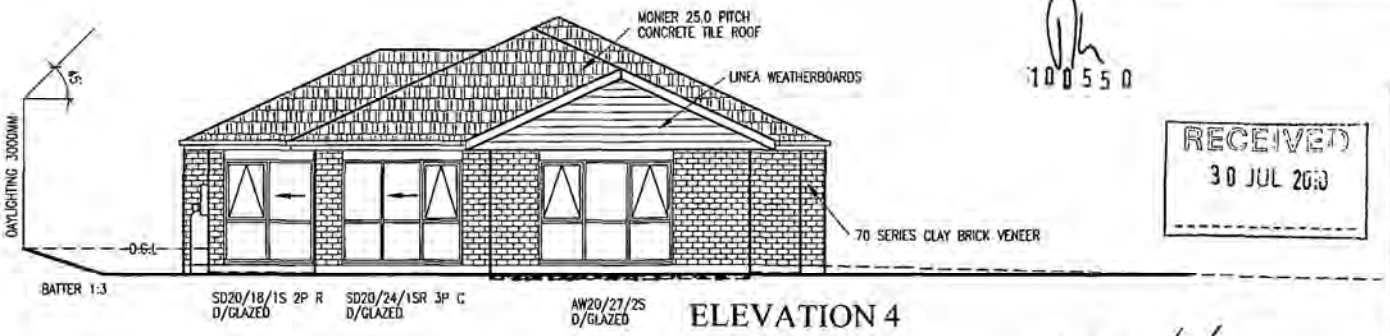
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ELEVATION 3

RISK FACTOR	LOW	MEDIUM	HIGH	VERY HIGH	SUBTOTALS
WIND ZONE (PER NZS 3604)	0	0	1	2	1
NUMBER OF STOREYS	0	1	2	4	0
ROOF/WALL INTERSECTION DESIGN	0	1	3	5	1
EAVES WIDTH	0	1	2	5	1
ENVELOPE COMPLEXITY	0	1	3	6	1
DECK DESIGN	0	2	4	6	0
				TOTAL RISK SCORE:	4

100550



ELEVATION 4

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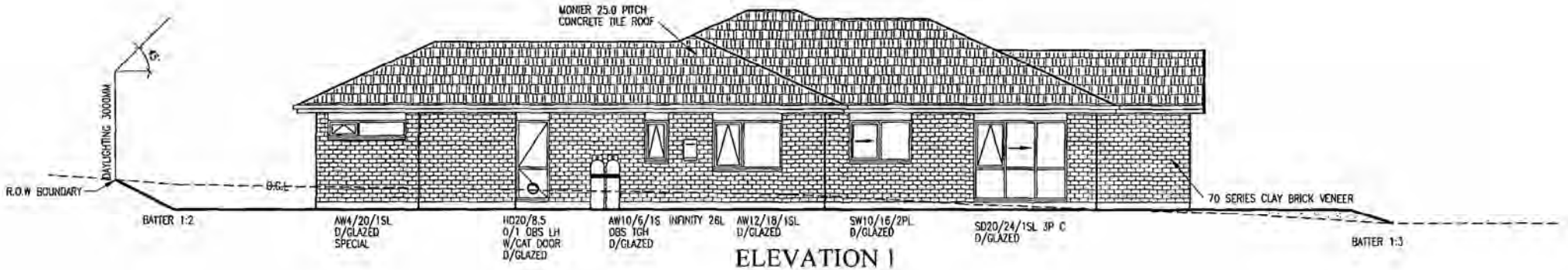
platinumhomes
NEW ZEALAND

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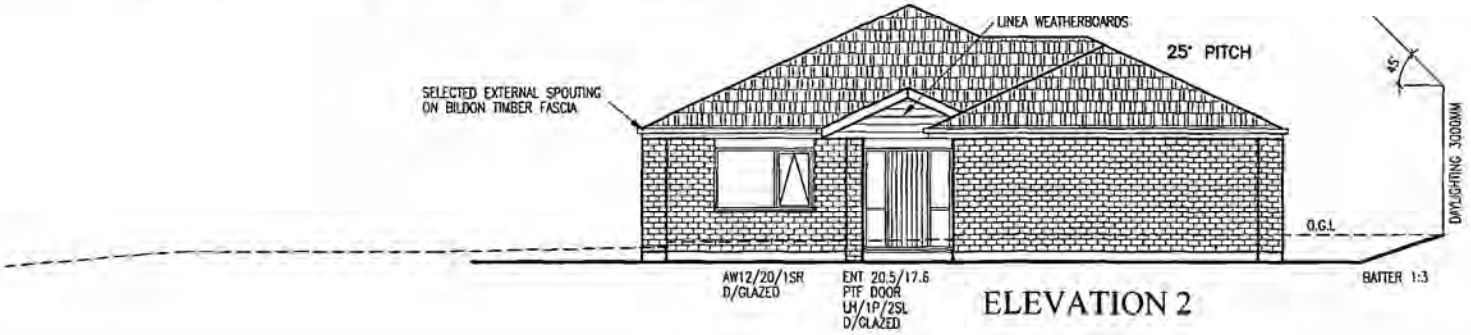
SALES KARYN	
DRAWN SHAUN	DATE 13/07/2010
AMENDED	28/7/2010
KP23	ELEVATIONS
JEWEL & COLIN STERLING JACK BOYD DRIVE MANGAWHAI, KAIPARA	
SCALE 1:100 ON A3	SHEET 3A OF 9

RECEIVED: 27 Jul 2011 SCANNED: 27 Jul 2011 BOX: 2 BATCH: 75638 DOC: KDCAANEU



ELEVATION 1

RISK FACTOR	LOW	MEDIUM	HIGH	VERY HIGH	SUBTOTALS
WIND ZONE (PER NZS 3604)	0	0	1	2	1
NUMBER OF STOREYS	0	1	2	4	0
ROOF/WALL INTERSECTION DESIGN	0	1	3	5	1
EAVES WIDTH	0	1	2	5	1
ENVELOPE COMPLEXITY	0	1	3	6	1
DECK DESIGN	0	2	4	6	0
				TOTAL RISK SCORE:	4



ELEVATION 2

RECEIVED
30 JUL 2010

Date 3/8/2010
Plans Approved

100550

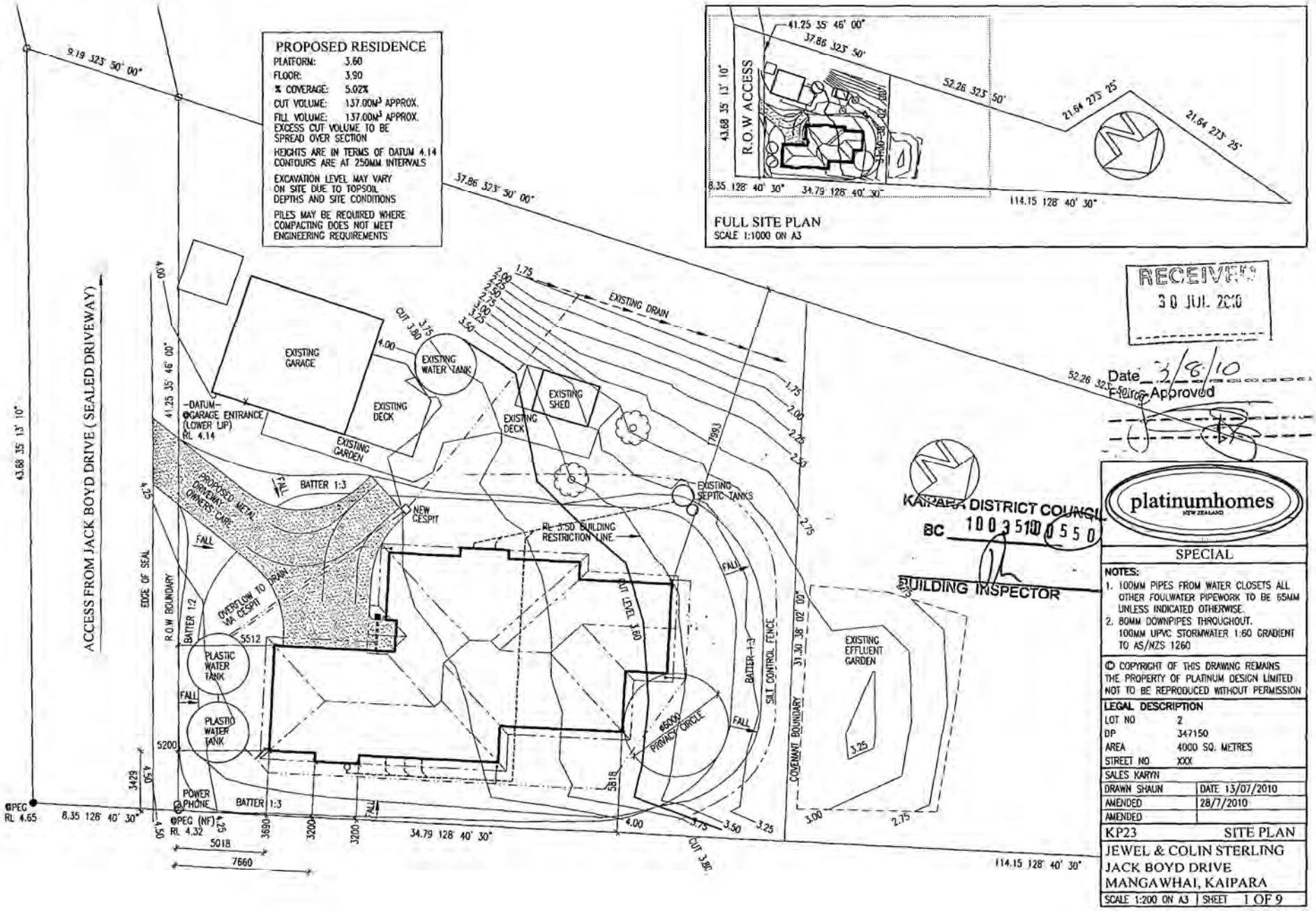
platinumhomes
NEW ZEALAND

SPECIAL

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SALES KARYN	
DRAWN SHAUN	DATE 13/07/2010
AMENDED	28/7/2010
KP23	ELEVATIONS
JEWEL & COLIN STERLING	
JACK BOYD DRIVE	
MANGAWHAI, KAIPARA	
SCALE 1:100 ON A3	SHEET 3 OF 9

RECEIVED: 27 Jul 2011 SCANNED: 27 Jul 2011 BOX: 2 BATCH: 75638 DOC: KDCAANEU



RECEIVED
30 JUL 2010
Date 3/8/10
Approved
KAIPARA DISTRICT COUNCIL
BC 10035100550
BUILDING INSPECTOR

platinumhomes
NEW ZEALAND

SPECIAL

NOTES:
1. 100MM PIPES FROM WATER CLOSETS ALL OTHER FOULWATER PIPEWORK TO BE 65MM UNLESS INDICATED OTHERWISE.
2. 80MM DOWNPIPES THROUGHOUT. 100MM UPVC STORMWATER 1:60 GRADIENT TO AS/NZS 1260

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LEGAL DESCRIPTION	
LOT NO	2
DP	347150
AREA	4000 SQ. METRES
STREET NO	XXX
SALES KARYN	
DRAWN SHAUN	DATE 13/07/2010
AMENDED	28/7/2010
AMENDED	

KP23 SITE PLAN

JEWEL & COLIN STERLING
JACK BOYD DRIVE
MANGAWHAI, KAIPARA

SCALE 1:200 ON A3 | SHEET 1 OF 9

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KAIPARA DISTRICT

KAIPARA DISTRICT COUNCIL

Private Utility Service As-Built Record

(Section 216, Building Act 2004)

RECEIVED
08 DEC 2010
KAIWAKA
Kaipara District Council

Part A Consent Details (to be completed in all cases)

Building Consent Number 100550

Applicants Name Sterling

Applicants Mailing Address .....

.....

Site Address Jack Boyd Dr Mangawhai

Part B As Built Services Information (to be completed in relation to service provided, ticking each box as appropriate)

Stormwater

Pipe Diameter		Pipe Material		Connection Type	
	80mm		uPVC		Public Utility Service Connection
/	100mm		Vitrified Clay		Soak Hole
	150mm		Ductile Iron		Stream
	225mm		Concrete		Drain
	Other ____ mm		Other ____		Other ____

Water Supply

Pipe Material - Cold

	uPVC
	Copper
	Polybutylene
	Other K2

Hot Water Cylinder

/	High Pressure 180 Litre
	Low Pressure ____ Litre

Meter Type

Make ____ Model ____

Pipe Material - Hot

	uPVC
	Copper
	Polybutylene
	Other K2

Diameter ____

Serial Number ____

Reading ____ m³

(Quote all black figures inclusive of zeros only)

Note Part B As Built Services Information Continued on last page

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KAIPARA DISTRICT

Wastewater - Pressure (Pump Make/Model)_____

Connection Diameter		Pipe Material		Connection Type	
	40mm		uPVC		Public Utility Service Connection
	50mm		Vitrified Clay		Septic Tank
	80mm		Concrete		Other _____
	Other_____mm		Other _____		

Wastewater - Gravity

Connection Diameter		Pipe Material		Connection Type	
	65mm		uPVC		Public Utility Service Connection
	80mm		Vitrified Clay		Soak Hole
/	100mm		Concrete		Stream
	Other_____mm		Other _____		Other _____

Wastewater - Disposal System Description

Septic Tank

Size: _____ litres

Type
- [ ] Ecotank
- [ ] Biocycle
- [ ] Other _____

Effluent Field
- Trench _____m
- [ ] Deep Soakhole
- Depth _____m
- Number of holes _____m
- [ ] Other _____

Sanitary Facilities

2	Toilet	Number_____	
	Bidet	Number _____	
	Urinal	Number _____	

Waste Disposal Unit
- [ ] No
- [ ] Yes Type _____

Certification

I Regan Cornelius being

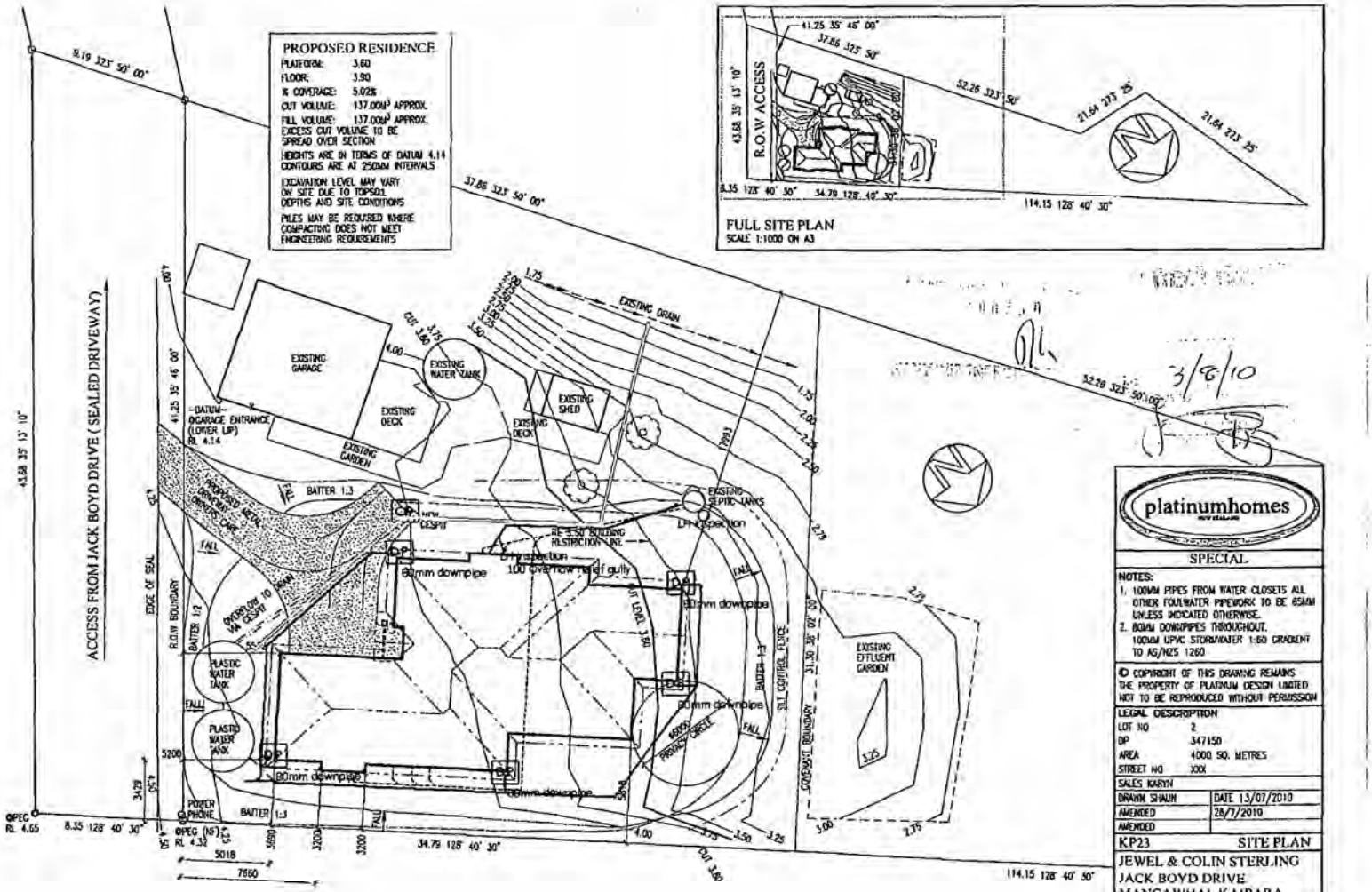
	Owner		Craftsman plumber	Registration Number _____
	Occupier		Registered drainlayer	Registration Number 13877

certify that this Private Utility Service As-Built Record is an accurate representation of the work carried out.

_____ 06/12/2010

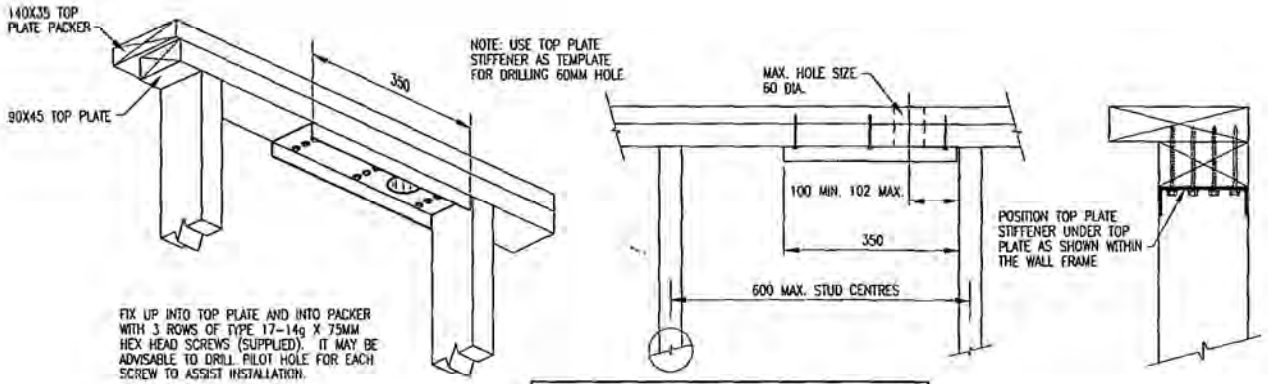
Signature Date

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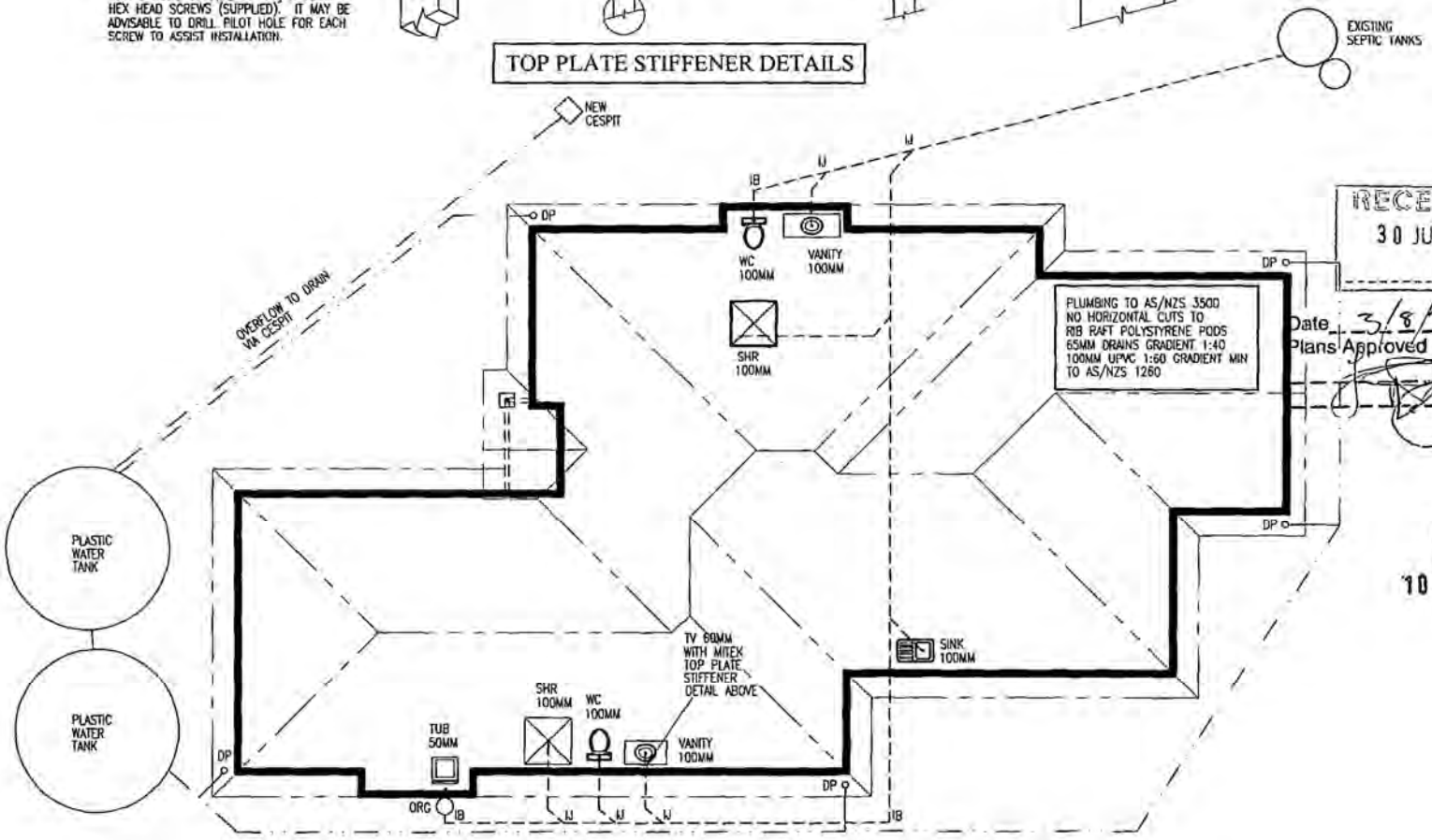
LASER PLUMBING Silverdale	**Address**	Lot 2 Jack Boyd Drive	**DrawingTitle**	Drainage As Built	**Drawn by** Regan Cornelious 13877
	Builder	Platinum Homes	**Revision date**	24/11/2010	**Phone** Michael Sherwood 18945
	Client	Sterling	**Status**	Completed	**Email**
	Job number	100550	**Revision number**	0	**Accepted**

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TOP PLATE STIFFENER DETAILS

NOTE
ALL FLOOR PENETRATIONS TO HAVE ADEQUATE FREEPLAY IN EVENT OF EARTHQUAKE
ALLOW MIN 115MM HOLE FOR 65MM PIPES
ALLOW MIN 150MM HOLE FOR 100MM PIPE
ALLOW 90MM FOR 40MM PIPE
HOLES TO BE FORMED BY POLYSTYRENE OR SLEEVE



RECEIVED
30 JUL 2010

Date 3/8/2010
Plans Approved

100550

platinumhomes
NEW ZEALAND

SPECIAL

NOTES:
1. 100MM PIPES FROM WATER CLOSETS ALL OTHER FOULWATER PIPEWORK TO BE 65MM UNLESS INDICATED OTHERWISE.
2. 80MM DOWNPIPES THROUGHOUT. 100MM UPVC STORMWATER 1:60 GRADIENT TO AS/NZS 1260

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LEGAL DESCRIPTION	
LOT NO	2
DP	347150
AREA	4000 SQ. METRES
STREET NO	XXX

SALES KARYN	
DRAWN SHAUN	DATE 13/07/2010
CHECKED	JOB No.

KP23 DRAINAGE PLAN

JEWEL & COLIN STERLING
JACK BOYD DRIVE
MANGAWHAI, KAIPARA

SCALE 1:100 ON A3 | SHEET 1A OF 9

RECEIVED: 27 Jul 2011 SCANNED: 27 Jul 2011 BOX: 2 BATCH: 75638 DOC: KDCAANEU

RECEIVED: 3 Nov 2009 SCANNED: 3 Nov 2009 BOX: 7 BATCH: 46112 DOC: KDCAAJIP

Monique C. Antonio-Pulman

From: Monique C. Antonio-Pulman
Sent: Thursday, 24 March 2005 2:53 p.m.
To: Duffill Watts - Consents
Subject: FW: 362a McCardle 23 Mar 05.doc

Hi Peter

Please find below John Hawley report on engineering works conditions in response to your report of 23 January 2005.

Please advise if this requires a cover letter?

thanks
Monique

-----Original Message-----
From: Dereck Wright [mailto:dereck@btcl.co.nz]
Sent: Wednesday, March 23, 2005 1:38 PM
To: Monique C. Antonio-Pulman
Subject: Fw: 362a McCardle 23 Mar 05.doc

---- Original Message ----
From: J G Hawley
To: Dereck Wright
Sent: Wednesday, March 23, 2005 1:13 PM
Subject: 362a McCardle 23 Mar 05.doc

JOHN HAWLEY CONSULTING LTD

John Hawley, MIPENZ, MA, PhD, BE, CPEng.

Geotechnical Reports - On-site Wastewater Systems - Producer Statements

4 Gordon Craig Place
Algies Bay
WARKWORTH

Tel: 09-425 6949
jghawley@xtra.co.nz
Fax: 09-425 6946

23rd March 2005

Job No 362a

RM 030218 Tools and Machinery

Mr Ray McCardle
Box 481
Drury
South Auckland

B T Consultants, Mangawhai
Attention Dereck Wright

Conditions of Consent to Subdivide, Jack Boyd Drive, Mangawhai Heads

We write in response to the letter from Duffill Watts & King dated 23 January 2005. See also our Producer Statement of last week which reads -

"To provide **Inspection** services in respect of the requirements of clause **B1** of the

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First Schedule to the Building Regulations 1992 and confirm that

(i) **the realignment of open drains has been carried out in accordance with recommendations made in our Geotechnical Report of 11th November 2003, and**

(ii) **the abandoned drain has been backfilled to the level of the surrounding ground with suitable materials well-compacted, and**

(iii) **the completed fill is suitable for dwelling foundations, and**

(iv) **the culvert crossing and the Right of Way serving Lots 2 to 7 have been formed to the standard required by KDC."**

In the "Conclusions of our Geotechnical Report of 11th November 2004 it was noted that -

"- the drain which presently cuts across Lots 2 and 3 should be realigned along the boundary of the right-of-way, and the existing channel filled in with compacted fine-grained (clayey) soils under the supervision of a registered engineer, and

- the seven sites are suitable for houses with foundations designed in accordance with NZS 3604 (1999) except that (i) finished floor levels should be at least 300mm above existing ground level, and (ii) foundations on Lots 2 and 3 should be subject to specific design including allowances for wherever a proposed house extends onto areas of filled drainage channel, ..."

In the Duffill Watts letter it is noted that Condition 2(g) of the Consent was not complied with. Condition 2(g) reads -

"Engineering calculations, drawings and specifications relating to the works referred to in Conditions 2 (c) to (f) above shall be prepared in accordance with Council's Draft Code of Practice for Land Subdivision and Development Year 2000 and submitted to Council for approval and approved before the construction of these works commences."

It is understood that B T Consultants provided some but not all of this information. This office did not receive a copy of the Consent but was asked to examine the earthworks during construction. I did so and approved some excavated materials for re-compaction and ruled out others. I also saw the compaction machinery the contractor had and discussed with him the importance of compacting in layers approximately 150mm thick.

No compaction specifications were drawn up prior to the work being done, but appropriate inspections and discussions during the work were.

In their letter of 23 January '05 Duffill Watts & King comment individually on Conditions 2 (c), 2 (d), 2 (e) and 2 (f).

Condition 2(c) - they note that *"drawings and calculations provided in relation to this condition are satisfactory and are recommended for approval"*.

Condition 2(d) - they note that *"no drawings or calculations have been provided in relation to this condition."*

The last part of the Condition requires that *"an appropriately qualified and experienced competent engineer... shall certify upon completion that the fill is suitable for building foundations"*. This has been complied with (see our Producer Statement - Construction quoted above). The only relevant "drawing" would be the plan showing the position of the open drain to be cleaned out and backfilled. The only specification required would read that (a) the soils used for backfilling were acceptable to the engineer and (b) that they were compacted appropriately, ie with the soils at an

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appropriate moisture content, using appropriate compaction machinery and compacted in thin layers with an appropriate number of passes of compactors. These points were checked by me in that some soils on the property were rejected and others approved for filling, and the compaction machinery approved and methods of compaction (moisture content of soils, nature of imported fill, thin layers, and sufficient passes) discussed with the contractor (Mr Tizard).

The objectives of Condition 2 (d) have therefore been achieved though in a different manner from that defined in Condition 2 (g).

Condition 2 (e) has drawn the comment that "*The drawings and calculations provided in relation to this condition are satisfactory and are recommended for approval.*

Condition 2 (f) has drawn the comment - "*The drawings provided in relation to this condition are generally satisfactory except that they don't detail any filling of the old watercourse*".

Some details of the filling of the old watercourse are set out above. The position of the work is shown on the subdivision plan. Details of cleaning out and filling of the watercourse were given by the undersigned during a site visit. Specifically
(a) all organic and soft clay material was to be excavated prior to filling. This had been done at the time of the site visit, and
(b) the excavated organic and wet clay materials were rejected as being unsuitable for use in filling, and
(c) a small quantity of other soil excavated during the formation of the right-of-way was approved for use in backfilling, and
(d) approval was given for small quantities of the clean uniform fine sands available from re-contouring of developments near Mangawhai Heads to be incorporated in the fill, provided it was not placed in such a way as to form an attractive seepage path for water from the realigned drain, and
(e) the compaction equipment to be used was approved, and
(f) the need for compaction to proceed as a succession of layers 150mm thick was agreed to, and,
(g) the importance of not compacting when the soils were dry of Optimum Moisture Content. For practical "field control" purposes this is taken to be the moisture content at which distortion of a small ball of soil in the hand leads to crumbling with no smearing. It is therefore close to the laboratory test for Plastic Limit, and OMC is generally close to PL.

It is therefore my view that the objectives of the Conditions of the Consent were achieved, albeit not in the manner set out in the Consent.

It is our recommendation that the aspects of the subdivision covered in para's 2 (d) to 2 (f) inclusive be regarded as having been achieved, and that the qualification set out in the Conclusions of our Geotechnical Report be adhered to, specifically that,

> (ii) foundations on Lots 2 and 3 should be subject to specific design including allowances for wherever a proposed house extends onto areas of filled drainage channel, ..."

In view of the satisfactory approach being taken by the contractor this is something of a "belt and braces" approach. However it is possible that in places the filled areas will be more rigid than the natural ground beside it, or vice versa. This could (for example) lead to bending stresses arising in concrete floor slabs. Such possibilities can be designed for as required by the type of house envisaged. For example an NZS 3604 concrete floor slab may not be adequate for a brick and tile house.

It is hoped that the above information will allow this subdivision to be finalised.

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J G Hawley
CPEng

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E-MAILED 11/3/08 - 10-CS...

COPY

Markir Drainage Ltd

REGISTERED DRAINLAYER

09 March 2008

Drainage Proposal for Mr C Sterling

Site: Lot 2 in block of Lot 10
Jack Boyd Drive
Mangawhai
DP180861

It is proposed to build a small utility shed with basic amenities i.e. toilet, shower & hand basin, with a view in the future to build a 3 bedroom house on this site.

As per the engineering reports for this area with the winter ground water being well above the required separation of 1.200m between water & effluent the site is suited to an aerated wastewater treatment System, in this case a Biocycle 7900 Series Aerated Wastewater Treatment System with the treated water being pumped to raised beds, a minimum of 0.400mm above the existing ground, these beds to be planted & mulched.

The siteing of the raised beds would be to the north side of the property to keep well clear of the existing drains on the south western side boundary.

Effluent Design: allow for 4 people x 140 L/day = 560 L/day
560 ÷ 4mm/m² per day soakage
= 140m raam dripline
There is adequate ground for reserve area to add to irrigation when future house is built.

The owners will enter into a 6(six) monthly Service & Maintenance Contract with Biocycle's Accredited Service Agent to ensure the system is operating correctly.

This proposal meets the engineering design for Biocycle & the requirements for NRC & KDC soil & water plans.

Signed

Mark Wharfe

510 Tara Road,
RD2,
Kaiwaka

Phone:09-431-4907
Mobile: 0274-778-678
E-mail: mark_kirsty@xtra.co.nz

Natural Hazards S44B(2)(a)

Drought

The Council has no known information about this natural hazard, including as exacerbated by climate change, that would affect the property. Please consult the Northland Regional Council Hazard attachment for further information, provided by the Northland Regional Council, in relation to this natural hazard.

Earthquake, Geothermal and Volcanic

Kaipara District Council commissioned ENGEO Limited to undertake an assessment of engineering geology and geotechnical hazards and their associated risk for development within certain growth areas of the Kaipara District. ENGEO Limited summarized its findings on these matters in a report to the Council dated 16th April 2019 and 17th June 2019 (**ENGEO Report**).

The Council is providing the ENGEO Report as it is information relating to natural hazards that is known to the Council.

The information contained in the ENGEO Report was current as at the date of the report and has been provided in good faith. The Kaipara District Council makes no representation, warranty or undertaking as to the accuracy, completeness, quality or fitness for any particular purpose of the information contained in the ENGEO Report.

The information contained in the ENGEO Report is provided on a regional/catchment basis and in most cases is not site specific. Any users of the information must obtain advice from suitably qualified practitioners if site specific information is required.

Users must also note that natural hazards outlined in the ENGEO Report do not consider any interventions that may modify the natural hazard risks to a specific site.

Mangawhai Technical Report

Scope of report	*This report presents a geotechnical assessment and hazard mapping for the Mangawhai Area*
Report Title:	*Geotechnical Assessment Mangawhai*
Report date:	*16.04.2019*
Entity/Person who prepared the report:	*Engeo Limited*
Entity/person who commissioned the report:	*Kaipara District Council*
Purpose of the report:	*The purpose of this geotechnical assessment is to provide the Kaipara District Council (KDC) with information on land stability and other geotechnical hazards that could constrain development of the area defined by KDC as 'Future Residential and Business Growth Area' and 'Greater Structure Plan Policy Area' of Mangawhai*
Where or how to access report	*Engeo Reports*

Kaipara District Technical Report

Scope of report	*This report presents a geotechnical assessment and hazard mapping for the Kaipara District*
Report Title:	*Geotechnical Assessment Kaipara District*
Report date:	*17.06.2019*
Entity/Person who prepared the report:	*Engeo Limited*
Entity/person who commissioned the report:	*Kaipara District Council*
Purpose of the report:	*The purpose of this geotechnical assessment is to provide the Kaipara District Council (KDC) with information on land stability and other geotechnical hazards that could constrain development of the area defined by KDC as 'Future Residential and Business Growth Area' and 'Greater Structure Plan Policy Area' of Kaipara District.*
Where or how to access report	*Engeo Reports*

Northland Regional Council may provide further data regarding this Natural Hazard. Please refer to the Northland Regional Council attachment for any applicable information.

Erosion and Landslide

Kaipara District Council commissioned ENGEO Limited to undertake an assessment of engineering geology and geotechnical hazards and their associated risk for development within certain growth areas of the Kaipara District. ENGEO Limited summarized its findings on these matters in a report to the Council dated 16th April 2019 and 17th June 2019 (ENGEO Report).

The Council is providing the ENGEO Report as it is information relating to natural hazards that is known to the Council.

The information contained in the ENGEO Report was current as at the date of the report and has been provided in good faith. The Kaipara District Council makes no representation, warranty or undertaking as to the accuracy, completeness, quality or fitness for any particular purpose of the information contained in the ENGEO Report.

The information contained in the ENGEO Report is provided on a regional/catchment basis and in most cases is not site specific. Any users of the information must obtain advice from suitably qualified practitioners if site specific information is required.

Users must also note that natural hazards outlined in the ENGEO Report do not consider any interventions that may modify the natural hazard risks to a specific site.

Natural Hazards

Mangawhai Technical Report

Scope of report	*This report presents a geotechnical assessment and hazard mapping for the Mangawhai Area*
Report Title:	*Geotechnical Assessment Mangawhai*
Report date:	*16.04.2019*
Entity/Person who prepared the report:	*Engeo Limited*
Entity/person who commissioned the report:	*Kaipara District Council*
Purpose of the report:	*The purpose of this geotechnical assessment is to provide the Kaipara District Council (KDC) with information on land stability and other geotechnical hazards that could constrain development of the area defined by KDC as 'Future Residential and Business Growth Area' and 'Greater Structure Plan Policy Area' of Mangawhai*
Where or how to access report	*Engeo Reports*

Kaipara District Technical Report

Scope of report	*This report presents a geotechnical assessment and hazard mapping for the Kaipara District*
Report Title:	*Geotechnical Assessment Kaipara District*
Report date:	*17.06.2019*
Entity/Person who prepared the report:	*Engeo Limited*
Entity/person who commissioned the report:	*Kaipara District Council*
Purpose of the report:	*The purpose of this geotechnical assessment is to provide the Kaipara District Council (KDC) with information on land stability and other geotechnical hazards that could constrain development of the area defined by KDC as 'Future Residential and Business Growth Area' and 'Greater Structure Plan Policy Area' of Kaipara District.*
Where or how to access report	*Engeo Reports*

Northland Regional Council may provide further data regarding this Natural Hazard. Please refer to the Northland Regional Council attachment for any applicable information.

Flooding

Kaipara District Council relies on flooding information provided by the Northland Regional Council. Please consult the Northland Regional Council Hazard attachment, for information provided by the Northland Regional Council, relating to this hazard.

Fire

Kaipara District Council has no known information about this natural hazard, including as exacerbated by climate change, that would affect the property.

Wind

Kaipara District Council has no known information about this natural hazard, including as exacerbated by climate change, that would affect the property.

S44B(2)(a) Natural Hazards

Dated 20 August 2026 v3.0

The information in this report has been prepared by the Northland Regional Council for the purposes of providing information to the Territorial Authorities in Northland in accordance with Part 6A of the Local Government Official Information and Meetings Act 1987.

The information contained in this report is current as at the date of the report and has been provided in good faith. Best efforts have been made to ensure the accuracy and completeness of the information however Northland Regional Council makes no representation, warranty or undertaking as to the accuracy, completeness, quality or fitness for any particular purpose. Where information is provided in draft form, that information may not have been peer reviewed or accepted by Northland Regional Council as correct.

The information is provided on a regional/catchment basis and in most cases is not site specific. Any users of the information must obtain advice from suitably qualified practitioners if site specific information is required.

Users must also note that natural hazards outlined in this report do not take into account any interventions that may modify the natural hazard risks to a specific site.

Flooding

Flooding occurs when rainfall exceeds the capacity of the river, land or urban stormwater systems to hold the water. In steep terrain or around rivers, floods can be fast-moving; in low-lying areas and wetlands, floods can cause ponding.

In coastal areas, storm surges can cause flooding affecting land.

Northland Regional Council has modelled the flood risk across Te Taitokerau Northland and maintains a monitoring and forecasting programme to predict flooding. However, the absence of flooding information contained in this report does not exclude the possibility of site flooding, including from local depressions or overland flow paths on nearby properties.

River flood maps

A river flood occurs when a river, lake or stream overflows its banks due to excessive rain. The duration and intensity (volume) of rainfall in the catchment area of the river determine the severity of a river flood. Other factors include soil water saturation due to previous rainfall, and the terrain surrounding the river system. In flatter areas, floodwater tends to rise more slowly and be shallower, and it often remains for days. In hilly or mountainous areas, floods can occur within minutes after a heavy rain, drain very quickly, and cause damage due to debris flow.

To determine the probability of river flooding, models consider past precipitation, forecasted precipitation, current river levels, and well as soil and terrain conditions. Flood risk will increase with climate change with the forecast increase in rainfall. Northland Regional Council's flood hazard models include predicted climate change impacts.

In 2019 – 2021 Northland Regional Council undertook regionwide flood modelling to model catchments not covered by the priority rivers programme. The flood extent shown on the maps are produced at a catchment scale and is not intended to depict specific flooding details for individual properties. We recommend obtaining site-specific engineering assessments to assess flood risk. The regionwide flood hazard maps are available on the Northland Regional Council Natural Hazards Viewer.

The regionwide flood hazard maps include the following flood hazard zones:

- *River Flood Hazards Zone – Regionwide models (10 year extent).* Flood extent for the most common scenario – a flood with a 10% chance of happening in any year.
- *River Flood Hazards Zone – Regionwide models (50 year extent).* The extent of a flood that has a 2% annual probability of happening.
- *River Flood Hazards Zone – Regionwide models (100 year extent CC).* The extent of a flood that has a 1% annual probability of happening, taking the effects of climate change into account.

Scope of report	*Hakaru Catchment (Catchment M08)*
Report Title:	*Design Modelling Hakaru Catchment (M08)*
Report date:	*May 2021*
Report prepared by:	*Water Technology*
Report commissioned by	*Northland Regional Council*
Purpose of the report:	*This report documents the calibration results and design modelling methodology for Hakaru Catchment (M08), noting that this catchment was calibrated to the December 2014 flood event.*
Where or how to access report	*River modelling technical reports*

Draft river flood reports

Northland Regional Council are continuing with their flood hazard modelling programme to improve the information about the potential for flooding in the region. The reports on these models are not currently published as they are going through peer review and quality checks, however they are available upon request from the Northland Regional Council.

The following reports are available

- Whangarei Catchment Upgrade and Options Model. Project objectives include providing an appropriate modelling capability for catchment management, asset management and flood risk management. The completed model as well as the Whangarei urban areas detailed level which is closely related to the drainage system management. The report was prepared April 2023 by EWaters and updated in 2025
- Waimā and Punakitere Catchment Flood Study. Designed to provide Northland Regional Council (NRC) with the necessary data and information to make informed decisions about catchment and flood management. The report was prepared in September 2024 by Water Technology for Northland Regional Council
- Report on the Northern Wairoa Rainfall, Tidal and Storm-Surge Model is designed to simulate rainfall-induced flooding, tidal influences, and storm surge effects for the Northern Wairoa catchment, with a focus on the Dargaville area. The model has been calibrated using multiple flood events at all river gauge locations within the catchment. The report was prepared in September 2025 by Submergent Limited for Northland Regional Council.
- Kerikeri-Waipapa Flood Model Build Upgrade Final Report. Reporting on the new flood across the Kerikeri-Waipapa region including the calibration against historical events. The report was prepared in February 2026 for Northland Regional Council.

Coastal inundation hazard maps

Coastal inundation (flooding) occurs when storm conditions like surge and large waves combine with high

tides to inundate coastal land and land near river mouths. Northland Regional Council has commissioned regionwide coastal flood modelling and detailed hydrodynamic models for some harbours. These coastal hazard models include predicted climate change impacts.

Coastal flood maps are available on the Northland Regional Council Natural Hazards Maps viewer.

The coastal flood hazard maps include the following flood hazard zones:

- Coastal Flood Hazard Zone 0. The extent of a coastal flood that has a 1% annual probability of happening in any year under sea level at 2020 height.
- Coastal Flood Hazard Zone 1. The extent of a coastal flood that has a 2% annual probability of happening in 2080 (estimated 0.6 m sea level rise).
- Coastal Flood Hazard Zone 2. The extent of a coastal flood that has a 1% annual probability of happening in 2130 (estimated 1.2 m sea level rise).
- Coastal Flood Hazard Zone 3. The extent of a coastal flood that has a 1% annual probability of happening in 2130 (estimated 1.66 m sea level rise). This is representative of a high-emissions scenario where more rapid rates of sea level rise occur due to unstable ice sheets.

Scope of report	*Regionwide, except Kaipara Harbour, Rangaunu Harbour, Whangārei Inner Harbour and Raupo Drainage Scheme*
Report Title:	*Coastal Flood Hazard Assessment for Northland Region 2019-2020*
Report date:	*March 2021*
Report prepared by:	*Tonkin & Taylor Ltd*
Report commissioned by	*Northland Regional Council*
Purpose of the report:	*This study has been undertaken for Northland Regional Council to assess areas potentially susceptible to coastal inundation for the Northland region. The assessment has been carried out in accordance with New Zealand Coastal Policy Statement.*
Where or how to access report	*Coastal Hazard Assessment Reports*

Surveyed and observed flood levels

Not applicable.

Flood susceptible lands

Not applicable.

Erosion and Landslide

Not applicable.

Coastal erosion

Not applicable

Tsunami

Tsunami are a series of waves, typically created by submarine or coastal earthquakes, landslides (including underwater landslides) and offshore submarine volcanic eruptions. Tsunami may travel hundreds of kilometres an hour and pass by unnoticed at sea, but slow down and grow as they move to shallow water, causing significant damage when they make landfall.

With funding from the Natural Hazards Commission Northland Civil Defence and Emergency Management have modelled the tsunami risk and created Tsunami Evacuation Zone and Safe Zone map

Technical Report for Tsunami Evacuation Zone and Safe Zone map

Scope of report	Regional
Report Title:	Tsunami Inundation Modelling for Evacuation Planning in Northland
Report date:	2024
Report prepared by:	Orca Consulting
Report commissioned by	Natural Hazards Commission
Purpose of the report:	The objective of this study was to produce tsunami inundation and evacuation zones for the Northland region that are compliant with guidelines set forth in the document 'Tsunami Evacuation Zones: Director's Guidelines for Civil Defence Emergency Management Groups' (MCDEM, 2016). To define these zones, numerical modelling was undertaken to determining the extents of the tsunami inundation zones for the Northland Region. The study used a Level 3/Level 4 modelling approach (as defined in MCDEM 2016) whereby a physics based numerical model was used to model the evolution of the tsunami from source through to inundation. The study used used multiple sources, both local and distant.
Where or how to access report	A copy is available upon request from Northland Regional Council

Drought

Drought in Te Taitokerau Northland is a complex hazard to define and detect, and its impacts vary from one area to the other.

Technical Report for Northland Drought Assessment

Scope of report	*Regional*
Report Title:	*Droughts in Northland: A Local and Regional Analysis*
Report date:	*2024*
Report prepared by:	*National Institute of Water and Atmosphere*
Report commissioned by	*Northland Regional Council*
Purpose of the report:	*Analysis of the development, occurrence and severity of droughts in Northland Region.*
Where or how to access report	*Envirolink website* Droughts in Northland: A local and regional analysis

In September 2024 the Ministry for the Environment and NIWA published national climate projections. Droughts are expected to become more frequent and more severe in Te Taitokerau Northland by 2090.

Volcanic, Geothermal and Earthquake

There are many processes associated with volcanic eruptions, and these can be hazardous when they interact with people and/or infrastructure. The type and intensity of volcanic process will vary from volcano to volcano. There are two areas of past local volcanic activity in Northland, at Puhipuhi-Whangārei and at Kaikohe-Bay of Islands. While climate change does not affect volcanic eruptions, it can affect the risk from volcanic hazards such as lahars (volcanic mudflows) because of the forecast changes in rainfall.

Earthquakes occur when stress that has built up along a fault – a break in the Earth's crust – is suddenly released. Earthquakes can cause ground shaking, fault rupture, permanent ground movement, subsidence or lateral spreading, liquefaction, landslides, rock falls and tsunami. Although climate change does not affect earthquakes, it can make some of the problems earthquakes cause, such as subsidence, liquefaction, and landslides, more likely or more severe. This is because climate change affects rainfall

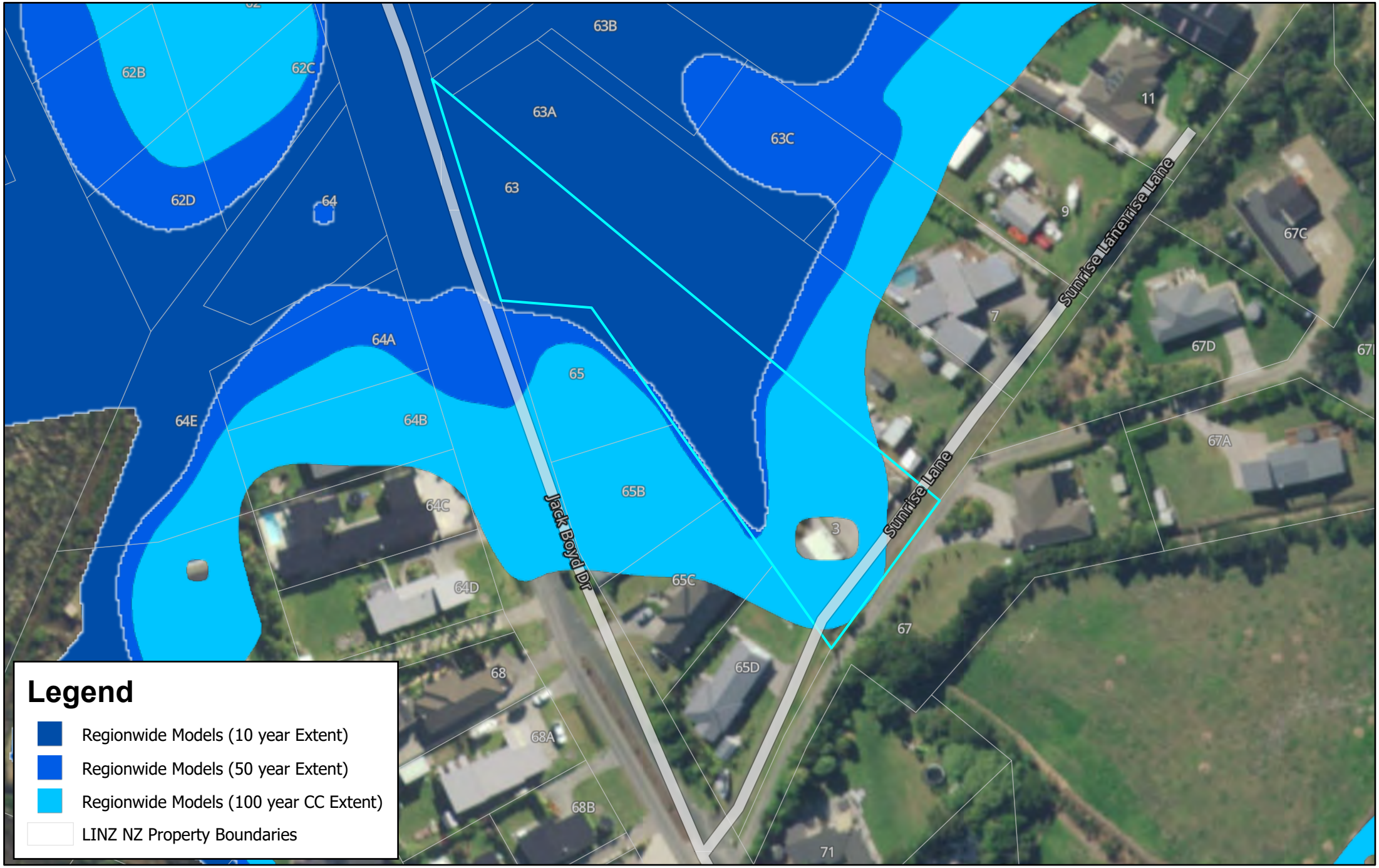
and groundwater, which play roles in these hazards.

While the earthquake risk in Northland is low, there have been earthquakes recorded in the region.

Northland Regional Council does not have a map of volcanic, geothermal or earthquake risk but did commission information on volcanic hazards as part of the *review of natural hazards information for Northland region.* This information relates to region-wide studies and may not reflect the on-site situation or natural hazard investigations and mitigation done on a site-specific property level.

Technical Report for earthquake information

Scope of report	*Regional*
Report Title:	*A review of natural hazards information for Northland region* *Section 2.0 Seismic Hazards*
Report date:	*2004*
Report prepared by:	*Institute of Geological & Nuclear Sciences Limited*
Report commissioned by	*Northland Regional Council and Whangarei District Council*
Purpose of the report:	*The aim of this report is to assemble and present a review of existing information on natural hazards, including earthquakes. The report identifies gaps and possible future work.* *Please note sections on flooding and erosion prone land have been superseded by more recent work and modelling.*



Northland REGIONAL COUNCIL

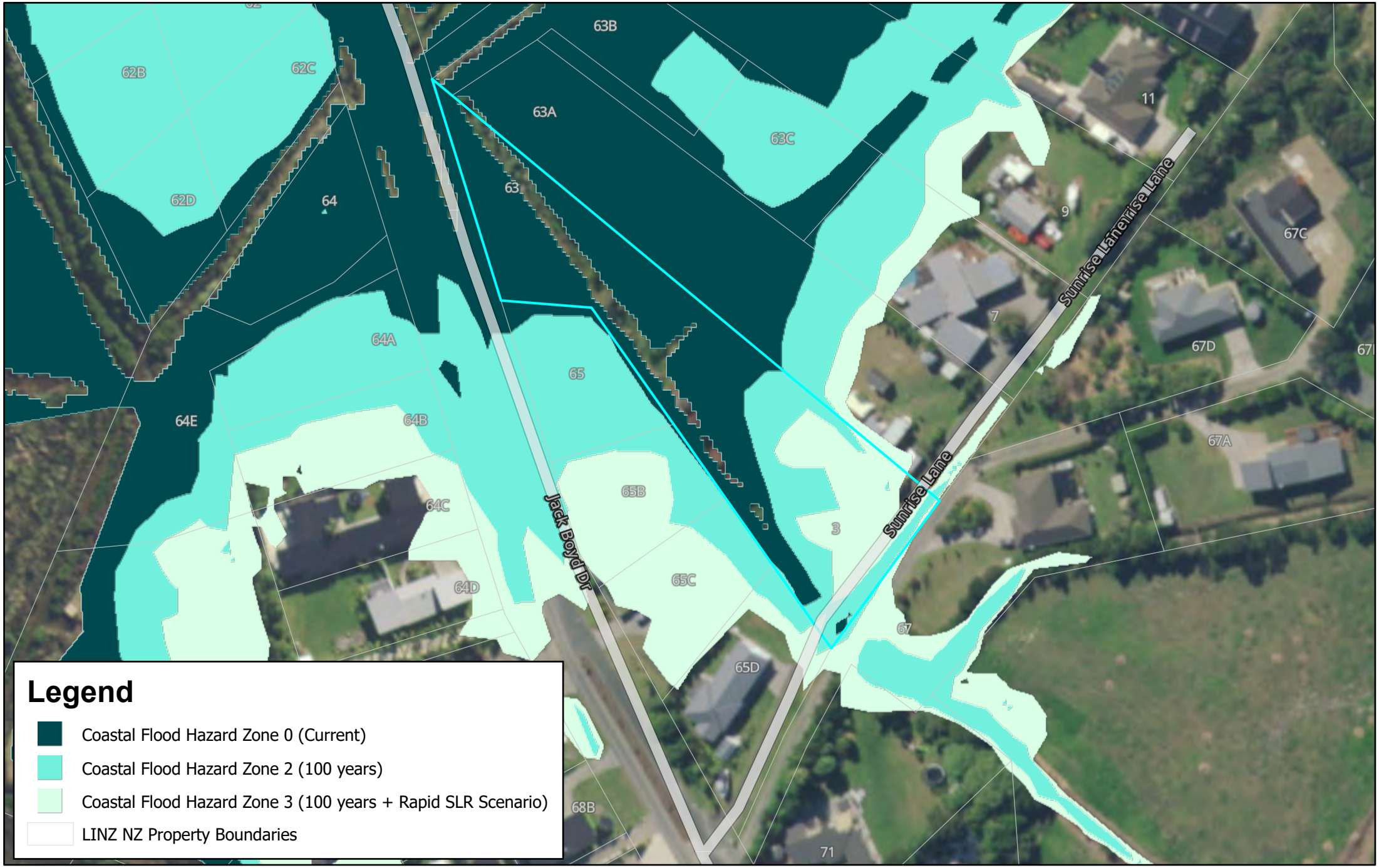
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October 30 2026



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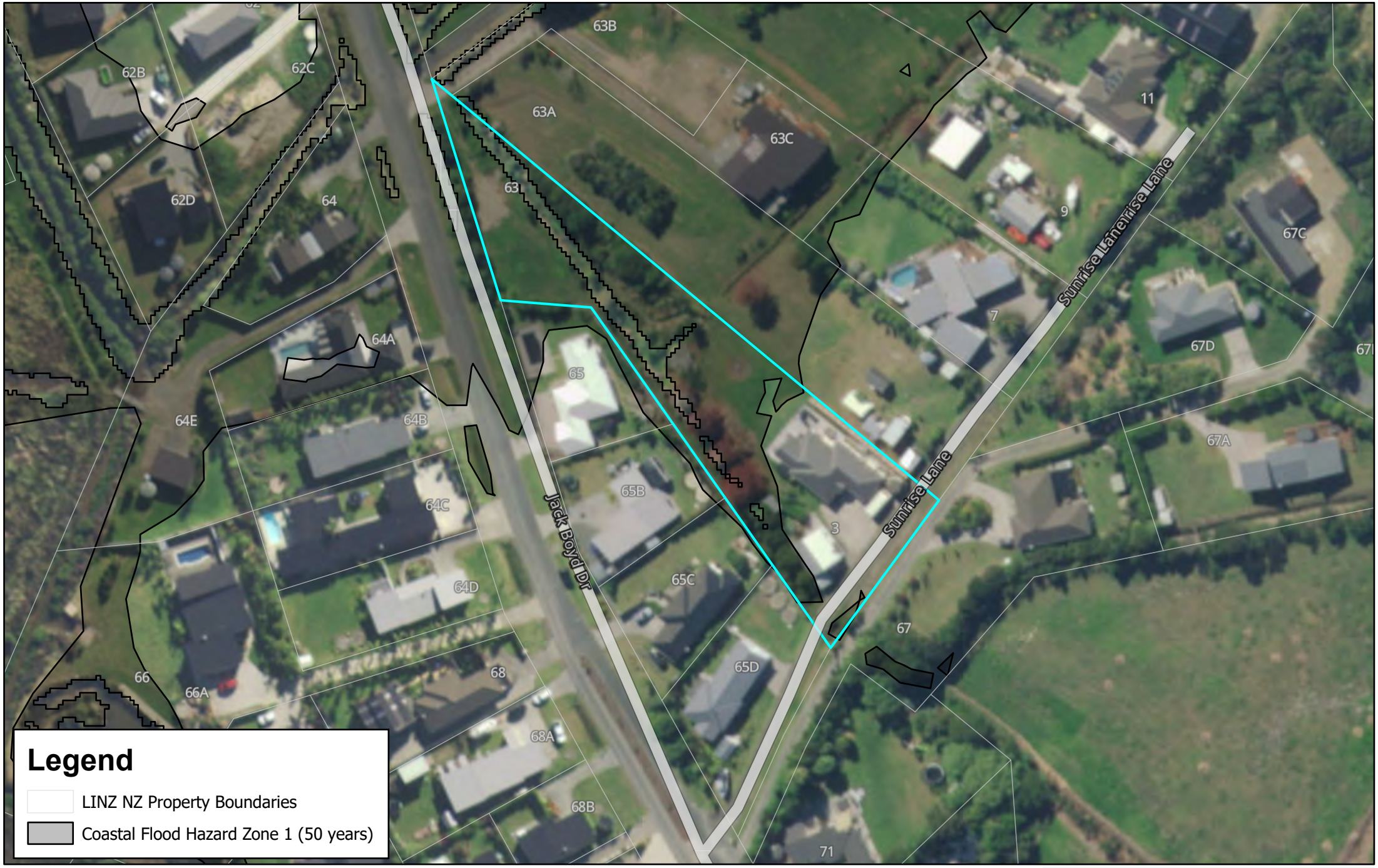
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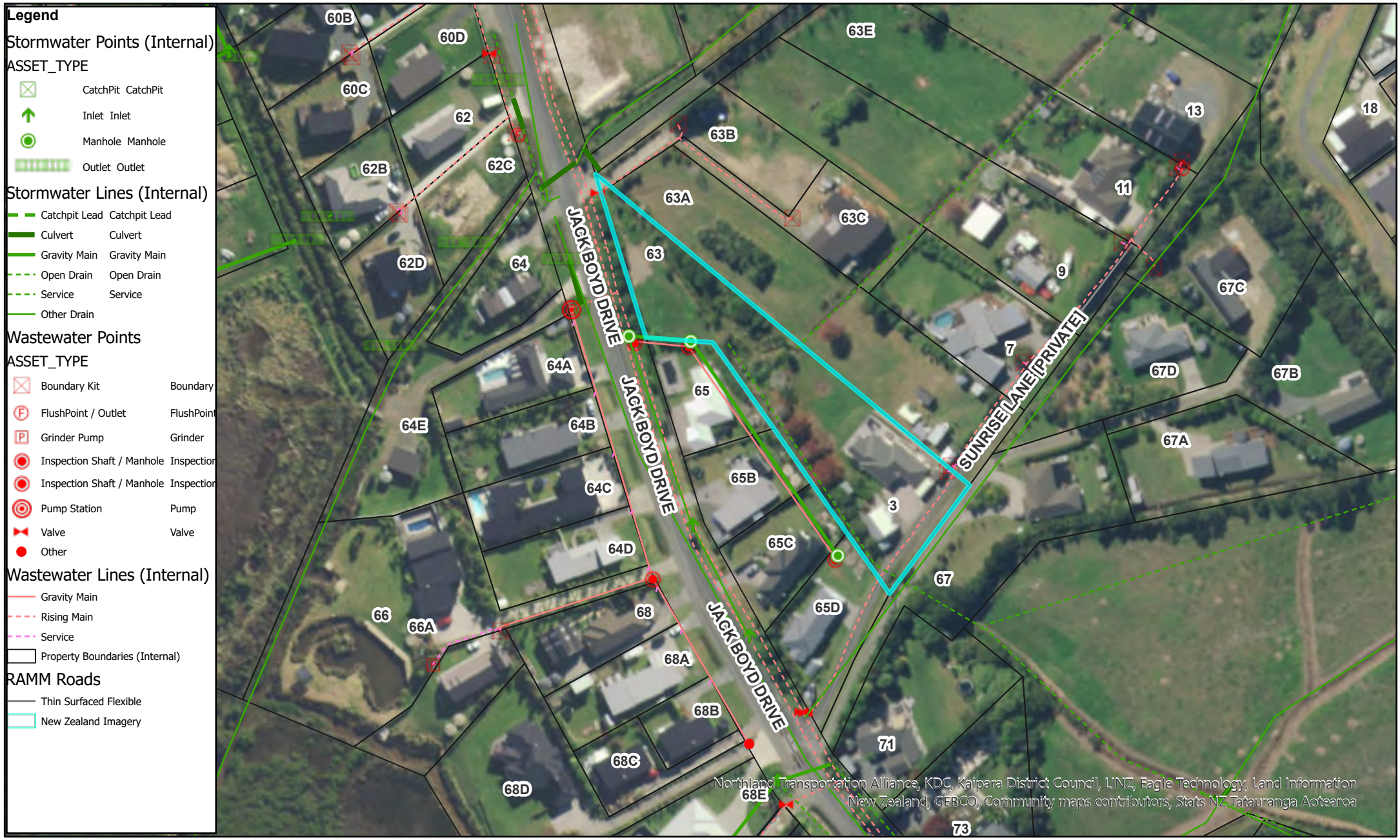
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October 30 2026

Print Date: 10/22/2026
Print Time: 11:18 AM

Asset Map - 0122011490

KAIPARA DISTRICT
Kaipara ki Oraanui • Two Oceans Two Harbours



Scale: 1:1,576
Original Sheet Size: A4

Projection: NZGD 2000 New Zealand Transverse Mercator
Bounds: 1741494.525593E 6004706.694634N
1741944.276661E 6004437.480554N

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Print Date: 10/22/2026
Print Time: 11:15 AM

Asset Map - 0122011490



Scale: 1:1,576
Original Sheet Size: A4

Projection: NZGD 2000 New Zealand Transverse Mercator
Bounds: 1741494.525593E 6004706.694634N
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Roads and driveways

District councils are responsible for local roads and Transit New Zealand is responsible for state highways. Private driveways are the responsibility of private landowners.

Check whether the access driveway from the public road is part of the property or crosses other land.

Make sure any right of way is recorded on the title.

Check that any right of way shown on paper matches up with the formed access.

Check the location of any dwelling in relation to other people's or shared driveways – vehicles using driveways can cause dust.

Will my green rural outlook change?

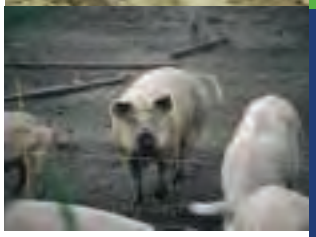
The rural landscape is constantly changing. Change is a necessary and inevitable part of living in the country -

- farming methods change
- new types of rural production will occur
- crops (including trees) will be harvested
- land may be subdivided
- new people and new ideas will come

The council's rules are not intended to preserve things as they are now but to manage the environmental effects of ongoing changes.

Ask the council about its rules for rural subdivision and the location of buildings on adjoining land.





Other things to check:

- Requirements for controlling serious weeds
- Responsibilities to control dogs and livestock
- The use of chemical sprays
- The location of emergency services (doctor, rural fire service)
- Power connection to the property



How can I find out about all of that?

Visit your district council – they will be able to answer many of your questions.

The district council can give you a Land Information Memorandum (a 'LIM') which describes important details about any property. There will usually be a small fee – but it is a small price to pay for accurate information.

You might also like to talk to the regional council.

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PO Box 10362, Wellington
Tel: (04) 917 7400, www.mfe.govt.nz

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Ministry for the Environment
Manatū Mō Te Taiao





Thinking about living in the country?

Some things to check

This brochure answers some of the frequently asked questions about living in the country

REAL ESTATE INSTITUTE OF NEW ZEALAND

NEW ZEALAND PLANNING INSTITUTE



it's paradise – right?

It can be but remember - the rural environment is where people live and work. That means it's both a beautiful landscape and a place of production.

Some production activities create effects that are noticeable on adjoining properties. Many of these effects are a necessary and legitimate part of rural production. Maybe not all day or all year – but sometimes, depending on the season, there might be:

Noise	Dogs barking, farm machinery operating, planting or harvesting activities, stock being moved, bird scaring devices, truck movements in the early or late hours, stock noise at weaning time, helicopters
Smell	Animal enclosures, silage, effluent disposal
Smoke	Stubble burn-off or other fires
Dust	Cultivation, planting and harvesting, vehicles on unsealed roads and driveways
Spray	Agrichemical spraying of crops and paddocks

Look around the rural neighbourhood and see what's there. Think about how established activities might affect you.

Ask around – find out what day-to-day life is like in that rural area in all seasons.

Spend some time there – check it out in good weather and bad weather days and all wind directions.

Can I do anything I want on my land?

It might pay to check. Usually you can – provided your activities don't cause adverse environmental effects.

Councils are responsible for managing the effects of activities and may have rules and bylaws controlling things like:

- house location and number of houses
- location of farm buildings and stock yards
- disposal of household sewage and stock effluent
- taking water from the ground or rivers
- discharges to ground and water
- burning of open fires
- distance of shelter belts and plantation forestry from boundaries
- noise
- removal of scrub or trees
- earthworks to build access tracks

There may be particular or additional controls in areas that have special landscape or ecological importance.

Ask the council for a copy of the rules applying to your property and rural neighbourhood.

Just as in town, it's important to get on with neighbours. The council can set basic guidelines or standards but, when it comes to managing minor matters, it's up to you and your neighbours.

Make sure you can get hold of your neighbours if anything happens on their property that might affect you.

Why not tell your neighbours about anything you plan to do that might affect them?





Water and sewerage

Most rural properties have to provide for their own water supply and sewage disposal.

This usually means rain water has to be collected in tanks or water has to be pumped from waterways or an underground bore. If water is already piped onto the property from elsewhere, find out where it comes from and check that there is an easement or permission that allows this to continue – even in summer dry periods.

Sewage disposal is often to a septic tank. Septic tanks need to be emptied periodically.

It may be that you will need to install a new water supply or sewage disposal system – especially if the property is bare land.

water supply and sewage disposal systems meet required standards and actually work.

Rural landowners are responsible for the ongoing maintenance of water supply and sewage disposal systems – you'll need to know how to maintain pumps and clear blocked drains.

